

IN THE BOARD OF COUNTY COMMISSIONERS, LANE COUNTY, OREGON

Ordinance No. PA 1334

IN THE MATTER OF CO-ADOPTING AMENDMENTS TO THE FLORENCE REALIZATION 2020 COMPREHENSIVE PLAN COASTAL GOALS AND LANE COUNTY ZONING MAPS, AS APPLICABLE WITHIN THE URBAN GROWTH BOUNDARY OUTSIDE FLORENCE CITY LIMITS, AND ADOPTING SAVINGS AND SEVERABILITY CLAUSES (File No. 509-PA16-05276, Florence Periodic Review Work Task No. 6)

WHEREAS, the Board of County Commissioners of Lane County, through enactment of Ordinance No. 859 and subsequent amendments in Ordinance Nos. 875, PA 1078, PA 1089, PA 1150 and PA 1214 has adopted policies and provisions of the 1988 Florence Comprehensive Plan; and

WHEREAS, land within the Urban Growth Boundary of the Florence Comprehensive Plan but outside the City limits is within the political jurisdiction of Lane County, and is subject to County-adopted application of City Plan designations and Plan policies; and

WHEREAS, the Board of County Commissioners of Lane County, through enactment of Ordinance PA 1214 co-adopted Florence Periodic Review Work Task No. 1, Urban Growth Boundary, on October 27, 2004; and

WHEREAS, on July 11, 2008, the Board of County Commissioners of Lane County, through enactment of Ordinance PA 1246 adopted the current Official Lane County Coastal Zoning Maps; and

WHEREAS, to complete Periodic Review Work Tasks 2, 3, 4, 5, 7, and 8, the City of Florence adopted the Florence Realization 2020 Comprehensive Plan (a revised comprehensive plan), a revised Comprehensive Plan Map, and new or updated refinement plans for water, wastewater, transportation, and stormwater through adoption of City of Florence Ordinance No. 6, Series 2008 on March 24, 2008 and City of Florence Ordinance No. 18, Series 2009 on December 21, 2009; and

WHEREAS, on December 1, 2010, the Board of County Commissioners of Lane County, through enactment of Ordinance PA1249 co-adopted the Florence Realization 2020 Comprehensive Plan and amendments to Ordinance No. 6, Series 2008 (except for Chapter 14 Policy 1) and new and updated refinement plans and an updated Comprehensive Plan Map, and adopted a revised Chapter 14 Policy 1 via Ordinance No. PA 1289 on August 14, 2012; and

WHEREAS, on August 6, 2013, the City of Florence City Council and the Lane County Board of Commissioners co-adopted the revised comprehensive plan, through

the enactment of City of Florence Ordinance No. 5, Series 2012 and Lane County Ordinance No. PA 1299; and

WHEREAS, on September 28, 2009, the City of Florence adopted City of Florence Ordinance No. 10, Series 2009, to complete Periodic Review Work Task 6: Coastal Element, and bring the Florence Realization 2020 Comprehensive Plan into compliance with Statewide Planning Goals 16 (Estuarine Resources), 17 (Coastal Shorelands), and 18 (Beaches and Dunes); and

WHEREAS, the City of Florence has requested Lane County action in co-adopting the amendments to finalize the City's Periodic Review, specifically Task 6; The City of Florence has included in the request to amend the Lane County Official Coastal Zoning Maps 17-12 and 18-12 for the Interim Urbanizing Area, to be consistent with the Florence Realization 2020 Comprehensive Plan; and

WHEREAS, the Lane County Planning Commission conducted a public hearing on October 18, 2016, in Florence and recommended approval of the proposed amendments; and

WHEREAS, evidence exists in the record indicating that the proposal meets the requirements for plan amendments in Lane Code Chapter 12 and other applicable state and local laws; and

WHEREAS, the Board of County Commissioners of Lane County, has conducted a public hearing and is now ready to take action.

NOW, THEREFORE, the Board of County Commissioners of Lane County Ordains as follows:

Section 1. That the text and map amendments to the Florence Realization 2020 Comprehensive Plan, as shown in Exhibit A, are adopted including:

- a. Completely revised Comprehensive Plan Chapters 16, 17, and 18; new definitions and text amendments to the introduction section; and text amendments to Chapters 5 and 7.
- b. New Comprehensive Plan Map 17-1: Estuary and Coastal Shorelands Management Units (Chapter 17).
- c. New Comprehensive Plan Map 18-1: Coastal Beaches and Dunes (Chapter 18).
- d. Updated Map 7-C: Natural Resources Conservation Service Soils Map (Appendix 7).
- e. Oregon Coastal Zone Management Association Report: Beaches and Dunes Handbook for the Oregon Coast (to be adopted as part of Appendix 18) with an amended Phase I Site Investigation Report Form.

[Applicable pages are attached; a full copy is available at: www.ci.florence.or.us/planning/plans-and-studies-beaches-and-dunes-handbook]

Section 2. That the Lane County Coastal Resources Management Plan (CRMP), as applicable to the Florence Interim Urbanizing Area, is repealed.

Section 3. That the Official Lane County Coastal Zoning Maps 17-12 and 18-12 are amended as depicted in Exhibit B attached and incorporated herein. These amended coastal zoning maps mirror the new Florence Realization 2020 Comprehensive Plan Maps 17-1 (Estuary and Coastal Shorelands Management Units) and 18-1 (Coastal Beaches and Dunes).

Section 4. That the prior designations repealed by this Ordinance remain in full force and effect to authorize prosecution of persons in violation thereof prior to the effective date of this Ordinance.

Section 5. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion constitutes a separate, distinct and independent provision, and such holding does not affect the validity of the remaining portions hereof.

FURTHER, although not part of this Ordinance, the Board of County Commissioners adopts the Findings of Fact and Conclusions of Law as set forth in Exhibit "C" attached, in support of this decision.

ENACTED this 10th day of January, 2016.



Pat Farr, Chair
Lane County Board of Commissioners



Recording Secretary for this Meeting of the Board

APPROVED AS TO FORM

Date 1-10-17 Lane County



OFFICE OF LEGAL COUNSEL

**ORDINANCE NO. PA 1334
Exhibit A**

**Amendments to the Florence Realization 2020 Comprehensive Plan
Florence Periodic Review Work Task 6: Coastal Goals**

Throughout Comprehensive Plan: amend to replace “Sites Especially Suited for Water Dependent Uses” with “Water Dependent Sites.” This is to reflect the changes in State law that revised this terminology.

Amend Table of Contents by relocating moving Definitions to the end of the section. Only the amended portions are shown below.

Table of Contents

**Part I: Goals, Objectives, Policies,
Recommendations and Background**

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Amend Appendix 7 by adopting an updated “Map C: Natural Resources Conservation Service Soils Map in the Florence UGB.”

Amend Coordination with Agencies section of Introduction as follows.

Introduction

Coordination with Agencies

It is the intent of the City of Florence to:

1. Coordinate land use planning actions with affected public agencies and jurisdictions.
2. Work with affected local, County, State and Federal agencies when the Comprehensive Plan is revised and when actions are carried out under the Plan.
3. Assure that the growth and development occurring under actions of those agencies are consistent with the Florence Comprehensive Plan.
4. Cooperate with Lane County on changes to the City’s Urban Growth Boundary and to the greater Area of Interest Boundary, and on amendments to the Lane County Coastal Resources Management Plan (CRMP) and Dredged Materials Disposal Plan, and the Lane County Coastal Resource Inventory (co-adopted by

the City), and on management of activities on the unincorporated lands within those boundaries. The Coastal Resources Inventory was adopted by Lane County in 1980 and it has not been updated since adoption. The City strongly supports efforts by the State to conduct a systematic update of all coastal resources inventories in the State. In addition, the City will continue to seek grant funds to update the coastal resources inventory within the Florence UGB. In the interim, this Plan provides a process for incrementally updating the inventories as new inventory information becomes available through the permitting process.

Chapters 16, 17, and 18 of this Comprehensive Plan were updated in 2009 to comply with Statewide Planning Goals 16, 17, and 18. To the extent there are differences between the text of the Coastal Resources Inventory, or the CRMP, and this Plan, this Plan shall be relied upon as the more up-to-date source.

The City will participate in regional efforts to address surrounding such issues as telecommunications, transportation, coastal resources issues, energy, economic development, provision of services, and any other issues which are of benefit to the City as well as the region.

Move section "Definitions" to end of Introduction and add an introductory sentence as follows.

Definitions

The following terms, as used in this Comprehensive Plan, are defined as stated below.

GOALS. Goals are general statements of intent. They describe the kind of community and environment desired by the City. Generally a goal reflects an ideal that will not change or be invalidated as a result of future developments. In many cases, a stated goal may seem unachievable, but is intended to indicate a direction for continuing effort rather than a point to be reached.

OBJECTIVES. Objectives are specific ends or targets which would aid in achieving the Goals. Objectives also describe more specific directions in which the City wishes to progress.

POLICIES. Policies are the positions the City will take in order to reach the Goals. Policies are more specific and are subject to interpretation by the Planning Commission and City Council. They are intended to be used on a day-to-day basis and deal with particular aspects or ramifications of the broad goal stated for each category.

RECOMMENDATIONS. Recommendations are particular actions that should be initiated and implemented to assist in achieving the goals and policies set forth.

SHALL. Shall is used in laws, regulations and directives to express what is mandatory.

SHOULD. Should is used to express what is probable or expected."

Add the following text to the end of the "Definitions" section.

The following definitions apply to terms used in this Comprehensive Plan and Florence

City Code, Titles 10 and 11. These definitions are consistent with respective definitions contained in Statewide Planning Goals.

ACCRETION. The build-up of land along a beach or shore by the deposition of waterborne or airborne sand, sediment, or other material

ADVERSELY AFFECT. Something that is unfavorable in its impact on another individual or on the land.

AGRICULTURAL LAND. See definition in Goal 3, "Agricultural Lands."

ALTER THE ESTUARY. Actions which would potentially alter the estuarine ecosystem include dredging, fill, in-water structures, riprap, log storage, application of pesticides and herbicides, water intake or withdrawal and effluent discharge, flow-lane disposal of dredged material, and other activities which could affect the estuary's physical processes or biological resources.

ALTERATION. Any human-caused change in the environment, including physical, topographic, hydraulic, biological, or other similar environmental changes, or changes which affect water quality.

ALTERED SHORELINES. Includes shorelines with bulkheads, seawalls, riprap, or other physical structures, but do not include earthen, vegetated dikes.

ANADROMOUS. Referring to fish, such as salmon, which hatch in fresh water, migrate to ocean waters to grow and mature, and return to fresh waters to spawn.

ARCHAEOLOGICAL RESOURCES. Those districts, sites, buildings, structures, and artifacts which possess material evidence of human life and culture of the prehistoric and historic past. (See Historical Resources definition.)

AREAS MANAGED FOR WATER DEPENDENT ACTIVITIES. The Federal Navigation Channel, the north jetty, and the estuary where it is adjacent to Water Dependent Sites.

AVULSION. A tearing away or separation by the force of water. Land which is separated from uplands or adjacent properties by the action of a stream or river cutting through the land to form a new stream bed.

BASE ZONING DISTRICT: The zoning district applied to individual properties as depicted on the City of Florence Zoning Map. The base zoning district may underlie an Overlay Zoning District, as described in the definition for Overlay District. "Single-family Residential" is an example of a base zoning district.

BEACH. Gently sloping areas of loose material (e.g., sand, gravel, and cobbles) that extend landward from the low-water line to a point where there is a definite change in the material type or landform, or to the line of vegetation.

BENTHIC. Living in the water column just above, on, or within the bottom sediments in water bodies.

BRIDGE CROSSINGS. The portion of a bridge spanning a waterway not including supporting structures or fill located in the waterway or adjacent wetlands.

BRIDGE CROSSING SUPPORT STRUCTURES. Piers, piling, and similar structures necessary to support a bridge span but not including fill for causeways or approaches.

BUFFER ZONE. A physical setback from a sensitive area used to protect the water quality, the aquatic and riparian wildlife communities, and the habitat value within the sensitive area. The buffer starts at the edge of the defined channel (bank full stage) for streams/rivers, delineated wetland boundary, delineated spring boundary, or average high water for lakes.

BULKHEAD: A structure or partition to retain or prevent sliding of the land. A secondary purpose is to protect the upland against damage from wave action.

CARRYING CAPACITY. Level of use which can be accommodated and continued without irreversible impairment of natural resources productivity, the ecosystem and the quality of air, land, and water resources.

CITIZEN. Any individual within the planning area; any public or private entity or association within the planning area, including corporations, governmental and private agencies, associations, firms, partnerships, joint stock companies and any group of citizens.

CITIZEN ADVISORY COMMITTEE (CAC). A group of citizens organized to help develop and maintain a comprehensive plan and its land use regulations. Local governments usually establish one such group for each neighborhood in a city or each district in a county. CACs may also be known as neighborhood planning organizations, area advisory committees, or other local terms. CACs convey their advice and concerns on planning issues to the planning commission or governing body. CACs also convey information from local officials to neighborhood and district residents.

CITIZEN INVOLVEMENT PROGRAM (CIP). A program established by a city or county to ensure the extensive, ongoing involvement of local citizens in planning. Such programs are required by Goal 1, "Citizen Involvement," and contain or address the six components described in that goal.

COASTAL LAKES. Lakes in the coastal zone that are bordered by a dune formation or that have a direct hydrologic surface or subsurface connection with saltwater.

COASTAL SHORELANDS. Those areas immediately adjacent to the ocean, all estuaries and associated wetlands, and all coastal lakes.

COASTAL STREAM. Any stream within the coastal zone.

COASTAL WATERS. Territorial ocean waters of the continental shelf; estuaries; and coastal lakes.

COASTAL ZONE. The area lying between the Washington border on the north to the California border on the south, bounded on the west by the extent of the state's jurisdiction, and in the east by the crest of the coastal mountain range, with the exception of: (a) The Umpqua River basin, where the coastal zone shall extend to Scottsburg; (b) The Rogue River basin, where the coastal zone shall

extend to Agness; (c) The Columbia River basin, where the coastal zone shall extend to the downstream end of Puget Island. (Formerly ORS 191.110)

COMMITTEE FOR CITIZEN INVOLVEMENT (CCI). A local group appointed by a governing body for these purposes: assisting the governing body with the development of a program that promotes and enhances citizen involvement in land use planning; assisting in the implementation of the citizen involvement program; and evaluating the process being used for citizen involvement. A CCI differs from a citizen advisory committee (CAC) in that the former advises the local government only on matters pertaining to citizen involvement and Goal 1. A CAC, on the other hand, may deal with a broad range of planning and land use issues. Each city or county has only one CCI, whereas there may be several CACs.

CONSERVE. To manage in a manner which avoids wasteful or destructive uses and provides for future availability.

CONSERVATION. The act of conserving the environment.

CONTINENTAL SHELF. The area seaward from the ocean shore to the distance when the ocean depth is 200 meters, or where the ocean floor slopes more steeply to the deep ocean floor. The area beyond the state's jurisdiction is the outer Continental Shelf.

CUTBANKS: River terraces possessing steep slopes and subject to erosion and sloughing. Very active erosion usually occurs where the active flow of the main channel is directed toward the bank.

DEFLATION PLAIN. The broad interdune area which is wind-scoured to the level of the summer water table.

DEVELOP. To bring about growth or availability; to construct or alter a structure, to conduct a mining operation, to make a physical change in the use or appearance of land, to divide land into parcels, or to create or terminate rights to access.

DEVELOPMENT. The act, process or result of developing.

DIVERSITY. The variety of natural, environmental, economic, and social resources, values, benefits, and activities.

DOCK. A deck, whether floating or on pilings, that serves as a landing place, recreational facility, etc.

DOLPHIN. A cluster of piles.

DRAINAGEWAY. The bed and banks of a waterway used to discharge surface waters from a given area. It also includes adjacent areas necessary to preserve and maintain the drainage channel.

DUNE. A hill or ridge of sand built up by the wind along sandy coasts.

DUNE, ACTIVE. A dune that migrates, grows and diminishes from the effect of wind and supply of sand. Active dunes include all open sand dunes, active hummocks, and active foredunes.

DUNE, CONDITIONALLY STABLE. A dune presently in a stable condition, but vulnerable to becoming active due to fragile vegetative cover.

DUNE, OLDER STABILIZED. A dune that is stable from wind erosion, and that has significant soil development and that may include diverse forest cover. They include older foredunes.

DUNE, OPEN SAND. A collective term for active, un-vegetated dune landforms.

DUNE, RECENTLY STABILIZED. A dune with sufficient vegetation to be stabilized from wind erosion, but with little, if any, development of soil or cohesion of the sand under the vegetation. Recently stabilized dunes include conditionally stable foredunes, conditionally stable dunes, dune complexes, and younger stabilized dunes.

DUNES, YOUNGER STABILIZED. A wind-stable dune with weakly developed soils and vegetation.

DUNE COMPLEX. Various patterns of small dunes with partially stabilized intervening areas.

ECOSYSTEM. The living and non-living components of the environment which interact or function together, including plant and animal organisms, the physical environment, and the energy systems in which they exist. All the components of an ecosystem are inter-related.

ENCOURAGE. Stimulate; give help to; foster.

ENHANCEMENT: An action which results in a long-term improvement of existing functional characteristics and processes that is not the results of a creation or restoration action.

ESTUARY. The portion of the Siuslaw River that is 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. The Siuslaw River's estuary extends upstream to the head of tidewater.

ESTUARINE ENHANCEMENT. An action which results in a long-term improvement of existing estuarine functional characteristics and processes that is not the result of a creation or restoration action.

ESTUARINE IMPACT ASSESSMENT. An evaluation of uses or activities which are major in nature and which could potentially alter the integrity of the estuarine ecosystem. The Estuarine Impact Assessment is required for Special Use Permits and Conditional Use Permits in the Natural Estuary and Conservation Estuary Zoning Districts, in place of a Resource Capabilities Assessment, when an Environmental Impact statement (EIS) is required through the Corps of Engineers Section 10/404 permit process.

FILL. For the purposes of this Comprehensive Plan and implementing ordinances, the definition of fill shall be the definition used in the Statewide Planning Goals: The placement by man of sand, sediment, or other material, usually in

submerged lands or wetlands, to create new uplands or raise the elevation of land.¹

FLOODFRINGE. The area of the floodplain lying outside of the floodway, but subject to periodic inundation from flooding.

FLOODPLAIN. The area adjoining a stream, tidal estuary or coast that is subject to regional flooding.

FLOOD, REGIONAL (100-YEAR). A standard statistical calculation used by engineers to determine the probability of severe flooding. It represents the largest flood which has a one-percent chance of occurring in any one year in an area as a result of periods of higher-than-normal rainfall or streamflows, extremely high tides, high winds, rapid snowmelt, natural stream blockages, tsunamis, or combinations thereof.

FLOODWAY. The normal stream channel and that adjoining area of the natural floodplain needed to convey the waters of a regional flood while causing less than one foot increase in upstream flood elevations.

FOREDUNE, ACTIVE. An unstable barrier ridge of sand paralleling the beach and subject to wind erosion, water erosion, and growth from new sand deposits. Active foredunes may include areas with beach grass, and occur in sand spits and at river mouths as well as elsewhere.

FOREDUNE, CONDITIONALLY STABLE. An active foredune that has ceased growing in height and that has become conditionally stable with regard to wind erosion.

FOREDUNE, OLDER. A conditionally stable foredune that has become wind stabilized by diverse vegetation and soil development.

FOREST LANDS. See definition of commercial forest lands and uses in the Oregon Forest Practices Act and the Forest Lands Goal.

GEOLOGIC. Relating to the occurrence and properties of earth. Geologic hazards include faults, land and mudslides, and earthquakes.

GROIN. A small structure extending from a shore to protect a beach against erosion or to trap shifting sands.

GROUNDWATER. Water in the zone of saturation beneath the surface of the earth.

HARDPAN: A layer of hard soil usually formed by clay particles cemented by iron oxide or calcium carbonate.

HEADLANDS. Bluffs, promontories or points of high shoreland jutting out into the

¹ Note that the Army Corps of Engineers' (ACOE) and the Department of State Lands' (DSL) definitions of fill are different from this Statewide Planning Goals definition and the definitions of this federal and other state agency have been interpreted to include pilings and riprap in the estuary.

ocean, generally sloping abruptly into the water. Oregon headlands are generally identified in the report on Visual Resource Analysis of the Oregon Coastal Zone, OCCDC, 1974.

HISTORICAL RESOURCES. Those districts, sites, buildings, structures, and artifacts which have a relationship to events or conditions of the human past. (See Archaeological Resources definition.)

HUMMOCK, ACTIVE. Partially vegetated (usually with beach grass), circular, and elevated mounds of sand which are actively growing in size.

HYDRAULIC. Related to the movement or pressure of water. Hydraulic hazards are those associated with erosion or sedimentation caused by the action of water flowing in a river or streambed, or oceanic currents and waves.

HYDRAULIC PROCESSES. Actions resulting from the effect of moving water or water pressure on the bed, banks, and shorelands of water bodies (oceans, estuaries, streams, lakes, and rivers).

HYDROGRAPHY. The study, description and mapping of oceans, estuaries, rivers and lakes.

HYDROLOGIC. Relating to the occurrence and properties of water. Hydrologic hazards include flooding (the rise of water) as well as hydraulic hazards associated with the movement of water.

IMPACT. The consequences of a course of action; effect of a goal, guideline, plan or decision.

INSURE. Guarantee; make sure or certain something will happen.

INTEGRITY. The quality or state of being complete and functionally unimpaired; the wholeness or entirety of a body or system, including its parts, materials, and processes. The integrity of an ecosystem emphasizes the interrelatedness of all parts and the unity of its whole.

INTERDUNE AREA. Low-lying areas between higher sand landforms and which are generally under water during part of the year. (See also Deflation Plain.)

INTERTIDAL. Between the levels of mean lower low tide (MLLT) and mean higher high tide (MHHT).

JETTY. A structure extending seaward from the mouth of a river designed to stabilize the rivermouth by preventing the build up of material at the river's mouth, and to direct or confine the stream or tidal flow.

KEY FACILITIES. Basic facilities that are primarily planned for by local government but which also may be provided by private enterprise and are essential to the support of more intensive development, including public schools, transportation, water supply, sewage and solid waste disposal.

LCDC. The Land Conservation and Development Commission of the State of Oregon. The members appointed by the Governor and confirmed by the Oregon Senate in accordance with the requirements of ORS 197.030.

LITTORAL DRIFT. The material moved, such as sand or gravel, in the littoral (shallow water nearshore) zone under the influence of waves and currents.

MAIN CHANNEL. That part of a waterway which extends upstream from the entrance channel into the estuary proper (also called "inner channel"). All or segments of the main channel may be maintained by dredging. The main channel does not include auxiliary channels or waterways.

MAINTAIN. Support, keep, and continue in an existing state or condition without decline.

MANAGEMENT UNIT. A discrete geographic area, defined by biophysical characteristics and features, within which particular uses and activities are promoted, encouraged, protected, or enhanced, and others are discouraged, restricted, or prohibited.

MINING. All or any part of the process of mining by the removal of overburden and the extraction of natural mineral deposits thereby exposed by any method including open-pit mining operations, auger mining operations, processing, surface impacts of underground mining, production of surface mining refuse and the construction of adjacent or off-site borrow pits except those constructed for use as access roads. The term does not include excavations of sand, gravel, clay, rock or other similar materials conducted by a landowner or tenant on the landowner's or tenant's property for the primary purpose of reconstruction or maintenance of access roads and excavation or grading operations conducted in the process of farming or cemetery operations, onsite road construction or other onsite construction or non-surface impacts of underground mines.

MINOR NAVIGATIONAL IMPROVEMENTS. Alterations necessary to provide water access to existing or permitted uses in Conservation Management units, including dredging for access channels and for maintaining existing navigation but excluding fill and in-water navigational structures other than floating breakwaters or similar permeable wave barriers.

MITIGATION. The creation, restoration, or enhancement of an estuarine area to maintain the functional characteristics and processes of the estuary, such as its natural biological productivity, habitats, and species diversity, unique features and water quality.

NATURAL AREAS. Includes land and water that has substantially retained its natural character, which is an important habitat for plant, animal, or marine life. Such areas are not necessarily completely natural or undisturbed, but can be significant for the study of natural, historical, scientific, or paleontological features, or for the appreciation of natural features.

NATURAL HAZARDS. Natural events that are known to result in death or endanger the works of man, such as stream flooding, ocean flooding, groundwater, erosion and deposition, landslides, earthquakes, weak foundation soils and other hazards unique to local or regional areas.

NATURAL RESOURCES. Air, land and water and the elements thereof which are valued for their existing and potential usefulness to humans.

NON-STRUCTURAL EROSION CONTROL SOLUTIONS. Alternatives to erosion control structures, including, but not limited to, a combination of soils, sands, gravels and stone in conjunction with biodegradable protective materials and live plant materials.

OCCDC. Oregon Coastal Conservation and Development Commission created by ORS 191; existed from 1971 to 1975. Its work is continued by LCDC.

OCEAN FLOODING. The flooding of lowland areas by salt water owing to tidal action, storm surge, or tsunamis (seismic sea waves). Land forms subject to ocean flooding include beaches, marshes, coastal lowlands, and low-lying interdune areas. Areas of ocean flooding are mapped by the Federal Emergency Management Agency (FEMA). Ocean flooding includes areas of velocity flooding and associated shallow marine flooding. Ocean flooding is more specifically defined in the individual Chapters of this Plan as it pertains to the policies and objectives in the respective chapters.

OVERLAY ZONING DISTRICT. A zoning district that applies to property in addition to a "Base Zoning District." In Title 10 of the Florence City Code, "Natural Resources Conservation Overlay District" is an example of an overlay zoning district and "Single-family Residential" is an example of a base zoning district.

PIER. A structure, usually of open construction, extending out into the water from the shore, to serve as a landing place, recreational facility, etc., rather than to afford coastal protection.

PILE. A long, heavy timber or section of concrete or metal to be driven or jetted into the earth or seabed to serve as a support or protection.

PILING. A group of piles.

PLANNING AREA. The air, land and water resources within the Florence UGB.

POLLUTION. The introduction of contaminants into an environment that causes instability, disorder, harm or discomfort to the ecosystem, i.e., physical systems or living organisms.

PRESERVE. To save from change or loss and reserve for a special purpose.

PROGRAM. Proposed or desired plan or course of proceedings and action.

PROTECT. Save or shield from loss, destruction, or injury or for future intended use.

PROVIDE. Prepare, plan for, and supply what is needed.

PUBLIC FACILITIES AND SERVICES. Projects, activities and facilities which the City of Florence determines to be necessary for the public health, safety and welfare.

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.

QUALITY. The degree of excellence or relative goodness.

RECREATION. Any experience voluntarily engaged in largely during leisure (discretionary time) from which the individual derives satisfaction.

Coastal Recreation occurs in offshore ocean waters, estuaries, and streams, along beaches and bluffs, and in adjacent shorelands. It includes a variety of activities, from swimming, scuba diving, boating, fishing, hunting, and use of dune buggies, shell collecting, painting, wildlife observation, and sightseeing, to coastal resorts and water-oriented restaurants.

Low-Intensity Recreation does not require developed facilities and can be accommodated without change to the area or resource. For example, boating, hunting, hiking, wildlife photography, and beach or shore activities can be low-intensity recreation.

High-Intensity Recreation uses specially built facilities, or occurs in such density or form that it requires or results in a modification of the area or resource. Campgrounds, golf courses, public beaches, and marinas are examples of high-intensity recreation.

RESOURCE CAPABILITIES ASSESSMENT. An assessment used to determine if a use or activity is consistent with the resource capabilities of an area. The assessment is required for Special Use Permits and Conditional Use Permits in the Natural Estuary and Conservation Estuary Zoning Districts, except where an Estuarine Impact Assessment is required instead. In the Natural Estuary District, a use or activity is consistent with the resource capabilities when the resources of the area are able to assimilate the use or activity and its effects and continue to function in a manner to protect significant wildlife habitats, natural biological productivity, and values for scientific research and education. In the Conservation Estuary District, a use or activity is consistent with the resource capabilities when the resources of the area are able to assimilate the use or activity and its effects and continue to function in a manner which conserves long-term renewable resources, natural biologic productivity, recreational and aesthetic values and aquaculture.

RESTORE. Revitalizing, returning, or replacing original attributes and amenities, such as natural biological productivity, aesthetic and cultural resources, which have been diminished or lost by past alterations, activities, or catastrophic events. For the purposes of Goal 16, estuarine restoration means to revitalize or reestablish functional characteristics and processes of the estuary diminished or lost by past alterations, activities, or catastrophic events. A restored area must be a shallow subtidal or an intertidal or tidal marsh area after alteration work is performed, and may not have been a functioning part of the estuarine system when alteration work began. The following are more specific definitions of active and passive restoration:

Active Restoration involves the use of specific positive remedial actions, such as removing fills, installing water treatment facilities, planting vegetation, or rebuilding deteriorated urban waterfront areas.

Passive Restoration is the use of natural processes, sequences, and timing which occurs after the removal or reduction of adverse stresses without other specific positive remedial action.

RIPARIAN. Of, pertaining to, or situated on the edge of the bank of a river or other body of water.

RIPRAP. A layer, facing, or protective mound of stones randomly placed to prevent erosion, scour or sloughing of a structure or embankment; also, the stone so used. In local usage, the similar use of other hard material, such as concrete rubble, is also frequently included as riprap.

RURAL LAND. Land outside the Florence urban growth boundary.

SALT MARSH. A tidal wetland supporting salt-tolerant vegetation.

SEAWALL. A structure separating land and water areas, primarily designed to prevent erosion and other damage due to wave action. See also BULKHEAD.

SEDENTARY. Attached firmly to the bottom, generally incapable of movement.

SEDIMENT. Any particulate matter that can be transported by fluid flow and which eventually is deposited. Sediments are most often transported by water (fluvial processes), transported by wind (aeolian processes), and glaciers. Beach sands and river channel deposits are examples of fluvial transport and deposition, though sediment also often settles out of slow-moving or standing water in lakes and oceans. Sand dunes are examples of aeolian transport and deposition.

SEDIMENTATION. The process of forming sediment in liquid: the process by which particles in suspension in a liquid form sediment.

SHALLOW DRAFT DEVELOPMENT ESTUARY. An estuary designation by the Oregon Estuary Classification System for estuaries that are managed for navigation and other public needs with jetties and a main channel maintained by dredging at 22 feet or less. The Siuslaw River Estuary has been assigned this classification.

SHOAL. A sandbank or reef creating shallow water, especially where it forms a hazard to shipping. A shoal or sandbar (also called sandbank) is a somewhat linear landform within or extending into a body of water, typically composed of sand, silt, or small pebbles. A bar is characteristically long and narrow (linear) and develops where a stream or ocean current promotes deposition of granular material, resulting in localized shallowing (shoaling) of the water.

SHOALING. A decrease in water depth, especially near a shoreline.

SHORELINE. The boundary line between a body of water and the land, measured on tidal waters at mean higher high water, and on non-tidal waterways at the ordinary high-water mark.

SIGNIFICANT HABITAT AREAS. A land or water area where sustaining the natural resource characteristics is important or essential to the production and maintenance of aquatic life or wildlife populations.

SOCIAL CONSEQUENCES. The tangible and intangible effects upon people and their relationships with the community in which they live resulting from a particular action or decision.

SPECIAL USE PERMIT. The administrative approval of a use or activity based on criteria and standards set forth in the Florence City Code (as differentiated from a Conditional Use Permit, which requires public hearings and Planning Commission approval).

STRUCTURE. Anything constructed, installed, or portable, the use of which requires a location on the ground, either above or below water.

SUBSTRATE. The medium upon which an organism lives and grows. The surface of the land or bottom of a water body.

SUBTIDAL. Below the level of mean lower low tide (MLLT).

TEMPORARY ESTUARY ALTERATION. Dredging, filling, or another estuarine alteration occurring over a specified short period of time which is needed to facilitate a use allowed by the Florence Comprehensive Plan. Temporary alterations may not be for more than three years and the affected area must be restored to its previous condition. Temporary alterations include: (1) alterations necessary for federally authorized navigation projects (e.g., access to dredged material disposal sites by barge or pipeline and staging areas or dredging for jetting maintenance), (2) alterations to establish mitigation sites, alterations for bridge construction or repair and for drilling or other exploratory operations, and (3) minor structures (such as blinds) necessary for research and educational observation.

TERRITORIAL SEA. The ocean and seafloor area from mean low water seaward three nautical miles.

TIDAL MARSH. Wetlands from lower high water (LHW) inland to the line of non-aquatic vegetation.

TRADITIONAL CULTURAL PROPERTY. A place which is culturally significant because of its association with cultural practices or beliefs of a living community that are rooted in that community's history and that are important in maintaining the continuing cultural identity of the community.

URBAN LAND. When used in this Comprehensive Plan, the term "urban land" means "land within the Florence city limits."

URBANIZABLE LAND. When used in this Comprehensive Plan, the term "urbanizable land" means "land within the Florence urban growth boundary and outside city limits."

WATER DEPENDENT SITES. Sites designated in the Florence Comprehensive Plan and zoned to provide for navigation and other identified needs for public, commercial, and industrial water-dependent uses, consistent with the level of development or alteration allowed by the Shallow Draft Development Oregon Estuary Classification. Two sites in the Florence UGB have been designated Water Dependent: the site zoned Marine along the estuary near the west edge of the UGB and the site zoned Waterfront Marine near Old Town.

WATER-DEPENDENT USE. A use or activity which can be carried out only on, in, or adjacent to water areas because the use requires access to the water body for water-borne transportation, recreation, energy production, or source of water,

where:

- "Access" means physical contact with or use of the water;
- "Requires" means the use either by its intrinsic nature (e.g., fishing navigation, boat moorage) or at the current level of technology cannot exist without water access;
- "Water-borne transportation" means use of water access:
 - (1) Which are themselves transportation (e.g., navigation);
 - (2) Which require the receipt of shipment of goods by water; or
 - (3) Which are necessary to support water-borne transportation (e.g., moorage fueling, servicing of watercraft, ships boats, etc. terminal and transfer facilities;
- "Recreation" means water access for fishing, swimming, boating, etc. Recreation uses are water dependent only if use of the water is an integral part of the activity.
- "Energy production" means uses which need quantities of water to produce energy directly (e.g. hydroelectric facilities, ocean thermal energy conversion);
- "Source of water" means facilities for the appropriation of quantities of water for cooling, processing or other integral functions.

Typical examples of "water dependent uses" include the following:

- (1) "Industrial" - e.g., manufacturing to include boat building and repair; water-borne transportation, terminals, and support; energy production which needs quantities of water to produce energy directly; water intake structures for facilities needing quantities of water for cooling, processing, or more integral functions.
- (2) "Commercial," e.g., commercial fishing marinas and support; fish processing and sales; boat sales, rentals, and supplies.
- (3) "Recreational," e.g., recreational marinas, boat ramps and support.
- (4) Aquaculture.
- (5) Certain scientific and educational activities which, by their nature, require access to coastal waters - estuarine research activities and equipment mooring and support.

Examples of uses that are not "water dependent uses" include restaurants, hotels, motels, bed and breakfasts, residences, parking lots not associated with water dependent uses; and boardwalks.

WATER ORIENTED. A use whose attraction to the public is enhanced by a view of or access to coastal waters.

WATER-RELATED. Uses which are not directly dependent upon access to a water body, but which provide goods or services that are directly associated with water-dependent land or waterway use, and which, if not located adjacent to water, would result in a public loss of quality in the goods or services offered. Except as necessary for water-dependent or water-related uses or facilities, residences, parking lots, spoil and dump sites, roads and highways, restaurants, businesses, factories, and trailer parks are not generally considered dependent on or related to water location needs.

WETLANDS. Land areas where water is the dominant factor determining the nature of soil development and the types of plant and animal communities living at

the soil surface. Wetland soils retain sufficient moisture to support aquatic or semi-aquatic plant life. In marine and estuarine areas, wetlands are bounded at the lower extreme by extreme low water; in freshwater areas, by a depth of six feet. The areas below wetlands are submerged lands."

Amend Chapter 5 by relocating the section on Beaches and Dunes to Chapter 18. In relocating the Beaches and Dunes section, Policies 1 and 2 and Recommendation #4 are deleted as they are addressed by the new Policy 2 in Chapter 18. Only the amended sections of this Chapter are shown below.

Chapter 5 Open Spaces and Scenic, Historic, and Natural Resources

Florence's 20-year plan focuses on existing natural resources and their protection, which Oregon law now requires. This plan presents inventories of those selected resources, an understanding of each resource's environmental role in defining Florence's future, the identification of ways in which to protect those resources and to develop a local implementation program.

This chapter provides policy direction for the following specific resources:

- Wetlands
- Riparian Areas
- Groundwater Resources
- ~~Beaches and Dunes~~
- Rare, Threatened, Endangered, and Sensitive Species
- Native Vegetation
- Mineral and Aggregate Resources
- Scenic Resources and Visual Quality
- Historic Resources

Goal

To conserve natural resources such as wetlands, riparian areas, groundwater supplies, ~~beaches and dunes~~, air and water, and fish and wildlife habitat in recognition of their important environmental, social, cultural, historic and economic value to the Florence area and the central Oregon Coast.

Amend Chapter 7 by moving references to variance from river setback requirements for consistency with policies in Chapter 17. Only the amended sections of this Chapter are shown below.

Chapter 7 Development Hazards and Constraints

Background

Coastal Erosion

The unique geology of the Florence area contributes to coastal erosion. Florence is located on a deep sand deposit in a sandstone basin. The sand layer contains a large aquifer which flows south and west through the sands to the Siuslaw River. A significant amount of the groundwater flow, particularly in high rainfall years, occurs at the junction of the sand and sandstone layers. As water exits along this sandstone layer at the base of sand banks, it carries sand away, causing upper sand layers to slough in significant amounts. Due to the steepness of these slopes and the normal erosion caused by wind and rains, it is difficult to establish and maintain vegetation on these slopes.

Since 1980, the City has required a 50 foot setback from the top of the bank of the Siuslaw River. ~~Variations to the 50-foot setback can be requested with an engineering study. If granted, a set of conditions is attached which prohibit removal of vegetation, direct storm drainage away from the bank, restrict physical access and provide for special construction measures adjacent to the setback.~~

Amend Chapter 14 by adding the following policy.

Chapter 14: Urbanization

Policies

4. The City shall not include active dunes in the UGB through any future UGB expansions.

Amend Chapter 16. The entire Chapter 16 is replaced with the version presented below.

Chapter 16: Siuslaw River Estuarine Resources

Goals

1. To recognize and protect the unique environmental, economic, cultural, and social values of the Siuslaw Estuary and associated wetlands.
2. To protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, cultural, and social values, diversity and benefits of the Siuslaw Estuary.

3. To provide for appropriate uses with as much diversity as is consistent with the “Shallow Draft Development” Oregon Estuary Classification, and taking into account the biological, economic, recreational, cultural, and aesthetic benefits of the estuary.

Objectives

1. To improve management of the estuarine resources and conserve and enhance the natural and cultural resource values of the estuary.
2. To increase understanding of, and ultimately to balance, the natural and economic values of the estuary.
3. To reconcile conflicting estuarine uses.
4. To classify the estuary into economic or water use management units in order to maintain diverse resources, values, uses and benefits.
5. To provide opportunities for use of the estuary for transportation, consistent with its classification as a Shallow Draft Development Estuary.

Policies

1. The *Lane County Coastal Resource Inventory* (Appendix 16) and amendments shall serve as the definitive document for inventory data related to Goal 16 Estuarine Resources, except as the inventory is updated through processes prescribed in this Comprehensive Plan and the Florence City Code. This Comprehensive Plan is consistent with CRMP policies related to the Siuslaw River Estuary within the Florence UGB.
2. Estuary inventory information within the UGB identified after adoption of the *Lane County Coastal Resource Inventory, October 1978*, that is found, through a land use, development, state or federal permit process, or the Site Investigation Report Process, to be inconsistent with the applicable management unit (MU) designation, shall be addressed in the following manner:
 - a. The jurisdiction within which the site is located shall study the site according to the requirements in the Statewide Planning Goal 16; and
 - b. Upon the completion of the study, the affected jurisdiction, in cooperation with the other jurisdiction (City or County) and relevant state and federal agencies, shall determine whether the identified site should be reclassified to a different MU designation, and, if yes, shall:
 - 1) identify the appropriate MU for the site;
 - 2) initiate the process for City adoption of an amendment to the Comprehensive Plan, and, if outside City limits, to the CRMP; and
 - 3) notify all affected property owners and interested parties in accordance with requirements of the applicable Code.
3. This Plan and the implementing Code shall provide for appropriate uses, including preservation, with as much diversity as is consistent with the Siuslaw Estuary’s classification as a Shallow Draft Development Estuary by the Oregon Estuary Classification, as well as with the biological, economic, recreational, and aesthetic benefits of the estuary.

4. This Plan shall protect the estuarine ecosystem, including its natural biological productivity, habitat, diversity, unique features and water quality.
5. Actions which could potentially alter the estuarine ecosystem shall be preceded by a clear presentation of the impacts of the proposed alteration. Such activities include dredging, fill, in-water structures, riprap, log storage, application of pesticides and herbicides, water intake or withdrawal and effluent discharge, flow-lane disposal of dredged material, and other activities which could affect the estuary's physical processes or biological resources. The assessment shall include information on the following:
 - a. the type and extent of alterations expected;
 - b. the type of resource(s) affected;
 - c. the expected extent of impacts of the proposed alteration on water quality and other physical characteristics of the estuary, living resources, recreation and aesthetic use, navigation and other allowed uses of the estuary; and
 - d. the methods which could be employed to avoid or minimize adverse impacts.
6. This Plan recognizes the authorities of state, federal, and tribal programs to maintain water quality and minimize human-induced sedimentation in the estuary. Actions to implement the policies in this Chapter shall be coordinated with the appropriate state, federal, and tribal agencies responsible to implement these programs, as they apply within the Florence UGB: Siuslaw Soil and Water Conservation District; the non-point source discharge water quality program administered by the Oregon Department of Environmental Quality (DEQ); the Fill and Removal Permit Program administered by the Department of State Lands, the National Marine Fisheries Service, and the Army Corps of Engineers; and the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians.
7. Restoration is appropriate in areas where activities have adversely affected some aspect of the estuarine system, and where it would contribute to a greater achievement of Statewide Planning Goal 16. Appropriate sites include areas of heavy erosion or sedimentation, degraded fish and wildlife habitat, anadromous fish spawning and rearing areas, abandoned diked estuarine marsh areas, and areas where water quality restricts the use of estuarine waters for fish and shellfish harvest and production, or for human recreation.
8. The City supports the construction of a marina at the North Jetty, contingent on the Port meeting the requirements of state and federal agencies and the criteria required for major dredging. When these plans are sufficiently developed, the City recognizes that an exception to Goal 16 must be taken. Should the marina be developed, support facilities and related commercial facilities shall be limited to provision of fuel, minor boat repairs, bait and tackle, off-loading of commercial catch, and other uses essential and directly related to the functioning of the moorage.
9. Adequate dredged material disposal sites shall be identified and protected in order to ensure continued navigation in the estuary.
10. Federal, state, and tribal water quality standards shall be considered during all phases of dredged material disposal activity.

11. Removal and fill activities shall, where possible, avoid impacts to archaeological resources. Unavoidable impacts to tribal archaeological resources shall be mitigated in consultation with the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw Indians. Mitigation may include data recovery (archaeological excavation), capping, or other appropriate methods of preserving the archaeological value of the site.
12. When dredge or fill activities are permitted in intertidal or tidal marsh areas, their effect shall be mitigated by creation, restoration or enhancement of another area to ensure that the integrity of the estuarine ecosystem is maintained. This Comprehensive Plan shall designate specific sites for mitigation which generally correspond to the types and quantity of intertidal area proposed for dredging or filling, or make findings demonstrating that it is not possible to do so. These mitigation sites shall be protected through application of the Dredged Materials/Mitigation Sites Overlay District in Florence City Code, inside city limits, and in Lane Code, outside city limits. Mitigation activities may include the use of mitigation banks, consistent with relevant policies in this Plan and the Florence City Code.
13. In addition to the goals, policies, and recommendations in this Chapter, provisions in Chapter 7, Development Hazards and Constraints, and Florence City Code Title 10, Chapter 7: Special Development Standards shall also apply as they relate to river cutbanks and erosion along the estuary.
14. The Management Units (MUs) Natural Estuary, Conservation Estuary, and Development Estuary, as described in this Chapter of the Comprehensive Plan, shall apply to the estuary within the Florence UGB as shown in "Map 17-1: Estuary and Coastal Shoreland Management Units in the Florence UGB."

Implementation requirements in Lane Code Chapter 10 Zoning Districts shall apply to these MUs within the Florence UGB, outside city limits; and Florence City Code Title 10, Chapter 19, shall apply within Florence city limits.

15. The general priorities (from highest to lowest) for management and use of the estuarine resources, as implemented through the Management Unit designation and permissible use requirements shall be:
 - a. Uses which maintain the integrity of the estuarine ecosystem
 - b. Water-dependent uses requiring estuarine location, as consistent with the Shallow Draft Development Estuary classification
 - c. Water-related uses which do not degrade or reduce the natural estuarine resources and values
 - d. Non-dependent, nonrelated uses which do not alter, reduce, or degrade estuarine resources and values.
16. In **Natural Estuary Management Units**, the following additional policies shall apply:
 - a. Permitted uses shall be limited to the following, provided that no such use shall involve dredge or fill:
 - 1) Undeveloped low-intensity water-dependent recreation
 - 2) Research and educational observations
 - 3) Navigational aids, such as beacons and buoys

- 4) Protection of habitat, nutrient, fish, wildlife and aesthetic resources;
 - 5) Passive restoration measures;
 - 6) Maintenance of existing riprap for protection of uses existing as of October 7, 1977, unique natural resources, historical and archaeological values; and public facilities. The riprap must be currently serviceable and previously installed in accordance with all local, state, and federal regulations and permits; and such maintenance shall not increase the size, extent, or scope of the riprap or otherwise alter the estuary.
 - 7) Bridge crossings.
- b. Where demonstrated to be consistent with the resource capabilities of the Natural Estuary MU and the purposes of this management unit, the following uses are allowed, subject to the criteria in c and the requirements in d, below:
- 1) Aquaculture which does not involve dredge or fill or other estuarine alteration other than incidental dredging for harvest of benthic species or removable in-water structures such as stakes or racks.
 - 2) Communication facilities.
 - 3) Active restoration of fish and wildlife habitat or water quality and estuarine management.
 - 4) Boat ramps for public use where no dredging or fill for navigational access is needed
 - 5) Pipelines, cables and utility crossings, including incidental dredging necessary for their installation.
 - 6) Temporary alterations, subject to the following additional criteria: the alteration shall support a use expressly allowed in this MU in this Comprehensive Plan as defined in the Definitions in the Introduction to this Comprehensive Plan; it shall be for a specified short period of time, not to exceed three years; and the area and affected resources shall be restored to their original condition.
 - 7) Short-term fills for temporary alterations provided the estuarine areas impacted shall be restored following removal of the fill. All other fills, regardless of volume, are prohibited in this MU.
 - 8) Bridge crossing support structures and dredging necessary for their installation; and dredging necessary for on-site maintenance of existing functional tidegates and associated drainage channels.
 - 9) Installation and expansion of riprap for protection of uses existing as of October 7, 1977, unique natural resources, historical and archaeological values; and public facilities.
- c. A use or activity is consistent with the resource capabilities of Natural Estuary MUs when either the impacts of the use on estuarine species, habitats, biological productivity and water quality are not significant or that the resources of the area are able to assimilate the use and activity and their effects and continue to function in a manner to protect significant wildlife habitats, natural biological productivity, and values for scientific research and education.
- d. Dredging and fill and other activities which could potentially alter the estuary are prohibited in this MU except as required to support a use specified in b. When allowed in b, these activities shall meet all of the following criteria:

- 1) no feasible alternative upland locations exist;
- 2) the activity minimizes impacts on water quality and other physical characteristics of the estuary, living resources, recreation and aesthetic use, and other uses of the estuary allowed in a and b above;
- 3) Land use management practices and non-structural solutions to problems of erosion and flooding shall be preferred to structural solutions. Where shown to be necessary, riprap; and fill, whether located in the waterways or on shorelands above ordinary high water mark, shall be designed to minimize adverse impacts on water currents, erosion, and accretion patterns.
- 4) dredge or fill activities, as otherwise approved, must be mitigated, if found to be subject to the mitigation requirement in state law, by creation, restoration or enhancement of an estuarine area to maintain the functional characteristics and processes of the estuary such as its natural biological productivity, habitats and species diversity, unique features and water quality; and
- 5) all federal and state permit requirements, including mitigation requirements, are met as a condition of approval.

17. In **Conservation Estuary Management Units**, the following additional policies shall apply:

- a. Permitted uses shall be limited to the following, provided that no such use shall involve dredge or fill:
 1. All uses permitted in the Natural Estuary MU Policy a.
 2. Maintenance of existing riprap which is currently serviceable and was previously installed in accordance with all local, state, and federal regulations and permits. Such maintenance shall not increase the size, extent, or scope of the riprap, or otherwise alter the estuary.
 3. Maintenance and repair of existing, functional, public and private docks and piers, provided that the activity: does not require dredging or fill of the estuary; minimizes adverse impacts on estuarine resources; and does not alter the size, shape, or design of the existing dock or pier, or otherwise alter the estuary.
- b. Where demonstrated to be consistent with the resource capabilities of the Conservation Estuary MU and the purposes of this MU, the following uses are allowed, subject to the criteria in c and applicable requirements in d, and e, below:
 - 1) All uses permitted in Natural Estuary MU Policy b, that require consistency with resource capabilities and purposes of the MU.
 - 2) Water-dependent uses requiring occupation of water surface area by means other than dredge or fill.
 - 3) High-intensity water-dependent recreation, including boat ramps, marinas and new dredging for boat ramps and marinas.
 - 4) Minor navigational improvements.
 - 5) Aquaculture requiring dredge or fill or other alteration of the estuary.
 - 6) Temporary alterations, subject to the following additional criteria:

the alteration shall support a use expressly allowed in this MU in this Comprehensive Plan, as defined in the Definitions in the Introduction to this Comprehensive Plan; it shall be for a specified short period of time, not to exceed three years; and the area and affected resources shall be restored to their original condition.

- 7) Short-term fills for temporary alterations provided the estuarine areas impacted shall be restored following removal of the fill. All other fills, regardless of volume, are prohibited in this MU.
 - 8) Riprap may be installed or expanded provided the riprap shall be necessary to protect an existing or permitted use.
 - 9) Active restoration for purposes other than those listed above, subject to the requirements in d.
- c. A use or activity is consistent with the resource capabilities of Conservation Estuary MUs when either the impacts of the use on estuarine species, habitats, biological productivity and water quality are not significant or that the resources of the area are able to assimilate the use and activity and their effects and continue to function in a manner which conserves long-term renewable resources, natural biological productivity, recreational and aesthetic values and aquaculture.
- d. Dredging and fill and other activities which could potentially alter the estuary are prohibited in this MU except as required to support a use specified in b. When allowed in b, these activities shall meet all of the following criteria:
- 1) no feasible alternative upland locations exist;
 - 2) the activity minimizes impacts on water quality and other physical characteristics of the estuary, living resources, recreation and aesthetic use, and other uses of the estuary allowed in a and b above;
 - 3) Land use management practices and non-structural solutions to problems of erosion and flooding shall be preferred to structural solutions. Where shown to be necessary, riprap; and fill, whether located in the waterways or on shorelands above ordinary high water mark, shall be designed to minimize adverse impacts on water currents, erosion, and accretion patterns.
 - 4) dredge or fill activities, as otherwise approved, must be mitigated, if found to be subject to the mitigation requirement in state law, by creation, restoration or enhancement of an estuarine area to maintain the functional characteristics and processes of the estuary such as its natural biological productivity, habitats and species diversity, unique features and water quality; and
 - 5) all federal and state permit requirements, including mitigation requirements, are met as a condition of approval.
- e. The proliferation of individual single-purpose docks and piers shall be discouraged in Conservation Estuary MUs by encouraging community facilities common to several uses and interests. The size and shape of a dock or pier shall be limited to that required for the intended use. Alternatives to docks and piers, such as mooring buoys, dryland storage, and launching ramps shall be investigated and considered.

18. In **Development Estuary Management Units**, the following additional policies shall apply:

- a. Permitted activities in the estuary throughout Development Estuary MUs are as follows, provided that these specific activities do not involve dredge or fill:
 - 1) Maintenance of existing riprap and other erosion control structures which are currently serviceable and previously installed in accordance with all local, state, and federal regulations and permits. Such maintenance shall not increase the size, extent, or scope of the structure or otherwise alter the estuary.
 - 2) Maintenance and repair of existing, functional, public and private docks and piers, provided that the activity: does not require dredging or fill of the estuary; minimizes adverse impacts on estuarine resources; and does not alter the size, shape, or design of the existing dock or pier or otherwise alter the estuary.

- b. Permitted uses in the estuary in Areas Managed for Water Dependent Activities, shall be limited to the following, subject to the applicable criteria below:
 - 1) Navigation and dredging and fill necessary to support navigation, consistent with the criteria in d.
 - 2) Maintenance dredging and maintenance of the north jetty are permitted where they have been established as appropriate in the Florence Comprehensive Plan for specific Management Units. Maintenance dredging must also meet the following additional criteria: 1) the footprint of the area to be dredged shall be the same as the area that has been dredged in the past; and 2) the dredging shall be approved by all applicable federal and state permitting agencies. For example, maintenance dredging of the Federal Navigation Channel, as authorized in the Siuslaw River Dredge Material Disposal Plan, is automatically approved and need not go through a local permit process for each individual project.
 - 3) Water-dependent commercial and industrial uses, and dredging and fill necessary to support these uses, subject to the applicable requirements in f and either d or e (if dredging or fill is involved, the requirements in d apply; if the use will otherwise alter the estuary, the requirements in e apply). Examples of water-dependent commercial and industrial uses include, but are not limited to, the following (for additional water-dependent commercial and industrial uses, see the Definition of this term in Chapter I):
 - a) Docks and piers to support water-dependent industrial and commercial uses.
 - b) Flood and erosion control structures such as jetties, bulkheads, seawalls, and groin construction, may be installed and maintained, and riprap may be installed and expanded; provided all such uses are needed to protect water-dependent commercial and industrial uses
 - c) Flow-lane disposal of dredged material, where consistent with the Dredged Materials Disposal Plan, and monitored to assure that estuarine sedimentation is consistent with the

- resource capabilities and purposes of affected Natural and Conservation MUs
- d) Water storage areas where needed for products used in or resulting from industry, commerce, and recreation
 - e) Marinas
 - f) Temporary alterations, subject to the following additional criteria: the alteration shall support a use expressly allowed in this MU in this Comprehensive Plan as defined in the Definitions in the Introduction to this Comprehensive Plan; it shall be for a specified short period of time, not to exceed three years; and the area and affected resources shall be restored to their original condition
 - g) Short-term fills for temporary alterations provided the estuarine areas impacted shall be restored following removal of the fill.
- c. Permitted uses or activities in Development Estuary areas outside of Areas Managed for Water-dependent Activities, shall be limited to the following, provided the proposed use must not be detrimental to natural characteristics or values in the adjacent estuary, and subject to the specific criteria below, and the applicable requirements in f and either d or e (if dredging or fill is required, the requirements in d apply; if the use will otherwise alter the estuary, the requirements in e apply):
- 1) Dredge or fill, as needed for navigation or to support uses specifically allowed in this Comprehensive Plan policy
 - 2) Flood and erosion control structures such as jetties, bulkheads, seawalls, and groin construction, may be installed and maintained, and riprap may be installed and expanded; provided all such uses are needed to protect existing uses or uses specifically allowed in this Comprehensive Plan policy
 - 3) Navigation and water-dependent commercial enterprises and activities, including docks and piers to support an existing use or a use specifically allowed in this Comprehensive Plan policy.
 - 4) Water transport channels where dredging may be necessary.
 - 5) Flow-lane disposal of dredged material, where consistent with the Dredged Materials Disposal Plan, and monitored to assure that estuarine sedimentation is consistent with the resource capabilities and purposes of affected Natural and Conservation MUs.
 - 6) Water storage areas where needed for products used in or resulting from industry, commerce, and recreation
 - 7) Marinas.
 - 8) Temporary alterations, subject to the following additional criteria: the alteration shall support a use expressly allowed in this MU in this Comprehensive Plan as defined in the Definitions in the Introduction to this Comprehensive Plan; it shall be for a specified short period of time, not to exceed three years; and the area and affected resources shall be restored to their original condition.
 - 9) Short-term fills for temporary alterations provided the estuarine areas impacted shall be restored following removal of the fill.
 - 10) Water-related uses; non-water-dependent uses, non-water-related uses not requiring dredge or fill; and activities identified in Natural and Conservation MUs may also be allowed where consistent with the purposes of this MU and adjacent shorelands designated Water

Dependent (or designated for waterfront redevelopment). In designating areas for these uses, local governments shall consider the potential for using upland sites to reduce or limit the commitment of the estuarine surface area for surface uses.

- d. Dredging projects, other than maintenance dredging as permitted in b, above, and any project which requires fill in the estuary, shall be allowed only if the project or activity complies with all of the following criteria:
- 1) The dredging or fill is expressly permitted in sections b or c, above;
 - 2) A substantial public benefit is demonstrated and the activity does not unreasonably interfere with public trust rights;
 - 3) No alternative upland locations are feasible;
 - 4) Adverse impacts on water quality and other physical characteristics of the estuary, living resources, recreation and aesthetic use, navigation and other existing and potential uses of the estuary allowed in b and c, above are minimized;
 - 5) Land use management practices and non-structural solutions to problems of erosion and flooding shall be preferred to structural solutions. Where shown to be necessary, water and erosion control structures, such as riprap, jetties, bulkheads, seawalls, and similar protective structures; and fill, whether located in the waterways or on shorelands above the ordinary high water mark, shall be designed to minimize adverse impacts on water currents, erosion, and accretion patterns.
 - 6) Dredge or fill activities, as otherwise approved, must be mitigated, if found to be subject to the mitigation requirement in state law, by creation, restoration or enhancement of an estuarine area to maintain the functional characteristics and processes of the estuary such as its natural biological productivity, habitats and species diversity, unique features and water quality.
 - 7) All federal and state permit requirements, including mitigation requirements, are met as a condition of approval.
- e. Activities or uses which could potentially alter the estuary that do not involve dredge or fill shall only be allowed in Development Estuary MUs when the use or activity complies with all of the following criteria:
- 1) the activity or use is expressly permitted in sections b or c, above;
 - 2) no alternative upland locations are feasible;
 - 3) the activity minimizes impacts on water quality and other physical characteristics of the estuary, living resources, recreation and aesthetic use, and other uses of the estuary allowed in b and c above;
 - 4) Land use management practices and non-structural solutions to problems of erosion and flooding shall be preferred to structural solutions. Where shown to be necessary, water and erosion control structures, such as riprap, jetties, bulkheads, seawalls, and similar protective structures, shall be designed to minimize adverse impacts on water currents, erosion, and accretion patterns.
- f. The proliferation of individual single-purpose docks and piers shall be discouraged in Development Estuary MUs by encouraging community facilities common to several uses and interests. The size and shape of a dock or pier shall be limited to that required for the intended use. Alternatives to

docks and piers, such as mooring buoys, dryland storage, and launching ramps shall be investigated and considered.

Recommendations

1. Timing of dredging activities should comply with Oregon Department of Fish and Wildlife In-Water-Work-Window recommendations as well as conditions identified in Oregon Department of State Lands, U.S. Army Corps of Engineers, and National Marine Fisheries Service regulatory documents.
2. Basic biological research and mapping of the biological and physical characteristics of the Siuslaw should be continued in order to have a better understanding of the productivity of the river.
3. Estuary sedimentation originating from nonpoint sources such as urban runoff, road building, and streambank erosion should be identified and controlled.
4. Restoration projects which serve to revitalize, return or replace previously existing attributes of the estuary should be encouraged. Particular emphasis should be given to projects that revitalize aquatic habitat, including the lowering of dredge spoil islands, marsh creation, shoreland vegetation planting for erosion control, and dredging to re-establish former depths and flushing patterns.
5. Where a traditional cultural property is thought to exist within the estuary, the community seeking recognition of the property should provide evidence to the City of how that area is important in maintaining the continuing culture of the community. Upon recognizing the traditional cultural property, the City shall work with the affected community to protect the cultural value of the site.
6. The City should pursue grant funding to perform a comprehensive update of the Coastal Resources Inventory inside the Florence UGB.

Estuary Management Units (MU)

Consistent with Goal 16 requirements, the designation of the Siuslaw River as a Shallow Draft Development Estuary, and Management Unit designations in the *Lane County Coastal Resources Management Plan*, estuarine areas are designated in this Plan as Natural Estuary, Conservation Estuary, or Development Estuary Management Units. Estuary Zoning Districts are applied to portions of the estuary within the Florence UGB as depicted on "Map 17-1: Estuary and Coastal Shorelands Management Units in the Florence UGB" in Chapter 17 of this Comprehensive Plan. Within city limits, estuary zoning districts are depicted on the City of Florence Zoning Map.

Some of the MUs in the CRMP extend outside of the Florence UGB, but this Comprehensive Plan only applies to those areas within the UGB. For example, some of the Estuary MUs are described as "bank to bank," but this Comprehensive Plan only applies to those areas as they extend from the City shorelands to the Federal Navigation Channel which defines the UGB in this area.

Natural Estuary Management Unit (MU) Designation

The purpose of the Natural Estuary Management Unit is to assure the protection of significant fish and wildlife habitats, the continued biological productivity within the estuary,

provide for educational and scientific needs and to maintain a level of diversity essential to provide for a long-term, dynamic ecosystem which can withstand a variety of pressures. All major tracts of saltmarsh, tideflats and eelgrass and algae beds will be found in this MU, as they are the areas of primary biological productivity without which the health of the entire estuary could not be maintained. Uses within the "Natural Estuary" MU shall be of a low-intensity, undeveloped nature stressing minimal human impact.

The Natural Estuary MU applies within the Florence UGB to Management Units C and G on Map 17-1.

Management Unit C is generally located along the east side of the river from river mile 1.2 to Cannery Hill, excluding the area that falls between the inner north jetty and the shoreland (area C-1, estuary at Shelter Cove) which has been re-designated to Conservation Estuary MU. The west boundary of the management unit is the Federal Navigation Channel of the Siuslaw River.

Rationale is:

- a. Fish rearing (particularly fall Chinook juveniles) and spawning
- b. Seal haulout at upriver portion
- c. Clam beds with species found only at this salinity level (i.e., paddock, gaper, cockle, and littleneck)
- d. Seagrass and algae beds predominantly in Piddock Bay area
- e. Area of high quality biological habitat with unique consolidated substrate
- f. Low-intensity recreational potential

The salinity range near the mouth of the river is higher than the remainder of the estuary since the Siuslaw has a strong riverine influence. This factor causes the organisms found here to be much different than those in the remainder of the estuary. Seals are known to use the Cannery Hill area as a haulout and oceanic fishes can be found feeding here. The same substrate is of high value for fish rearing, including fall Chinook juveniles. The recreational and economic importance of this area extends beyond the limits of the MU because of this fish rearing capacity. The abundance of clams is also of high recreational value.

Management Unit G is the tide flats at the mouth of the North Fork of the Siuslaw, both north and south of the Highway 126 Bridge.

Rationale is:

- a. Extensive seagrass beds
- b. Benthic fauna, such as softshell and macoma clams and shrimp
- c. Major tract of tidal marsh and productive tideflats
- d. Shorebird use
- e. Low intensity recreational importance

The extensive eelgrass beds, aside from being extremely important for nutrient exchange, provide an excellent habitat for many organisms, both by direct attachment and as a result of its stabilizing effect on the substrate. One benefit of this biologically rich condition is excellent fish habitat. Furthermore, the tidal flats, because of their close proximity to the population center, are one of the most heavily used sites for recreational clam digging. A recorded tribal archaeological site is located in this Management Unit, providing evidence of tribal utilization of this habitat and confirming the long-term productivity of this habitat. When this management unit designation was assigned in 1978, the Siuslaw had approximately 750 acres of tidelands, about 20 percent of the river's total estuarine habi-

tat. Only the Salmon and Chetco River estuaries have smaller percentages of tidelands. Because of the unique value of these lands for nutrient productivity and biological habitat, combined with the scarcity of tideland in the Siuslaw, the importance of a natural designation on this area is apparent.

Conservation Estuary Management Unit (MU) Designation

The purpose of the Conservation Management Unit is preservation of long-term use of renewable resources which would not cause major alteration to the estuary. Primary objectives of this MU are to provide for recreational and aesthetic uses of the estuarine resources as well as maintenance and restoration of biological productivity. The majority of the Siuslaw River estuary is included in this MU to reflect the predominately rural, sparsely developed nature of this estuary. Although certain commercial and recreational uses may be consistent with the resource capabilities and purpose of this MU, each proposal will be evaluated on its potential for maintenance and enhancement of biological productivity.

The Conservation Estuary MU applies within the Florence UGB to Management Units B, C1, O, and P on Map 17-1.

Management Unit B refers to the two cove areas landward of the north jetty at river mile 1.

Rationale is:

- a. Sand substrate
- b. Minor clam beds
- c. Existing scuba diving park
- d. Site protected from adverse weather and sea conditions
- e. Shorebird use

The Port of Siuslaw has plans to develop a harbor of refuge in the upriver cove when the jetties are extended and/or repaired. The site will provide good shelter with reconstruction of the jetty and has the additional advantage of proximity to the river mouth. An exception to Goal 16 must be approved by the Oregon Land Conservation and Development Commission for this to occur.

Management Unit C-1, as amended, is the portion of the estuary between the inner north jetty and the shoreland (estuary at Shelter Cove Subdivision).

Rationale is:

- a. Unstable substrate conditions
- b. Low abundance of benthic macroinvertebrate organisms
- c. Adjacent to biologically productive portion of estuary

This MU designation was assigned through CRMP amendments in 1996. These amendments state: "significant erosion of the adjacent bank has accelerated deposition of sand in this portion of the estuary, covering the siltstone outcropping with a thick layer of sand. This change in ecological conditions has resulted in relatively poor biological habitat and nominal levels of unique biota. The sensitivity of the more productive adjacent estuary is buffered by the moderate designation of this estuary management unit."

Management Unit O is the estuary from the jetty to the Highway 101 bridge, bank to bank, although only the portion to the Federal Navigation Channel is within the

UGB, excluding MUs B, C, E, and F.

Rationale is:

- a. Groin tideflats
- b. Old Rock Dock
- c. Recreational use
- d. Fish rearing and feeding

This portion of the estuary extends from bank to bank outside of other MUs, and is ocean dominated, with high salinity levels. This makes it an important area for marine species that either are reared here or use this as feeding grounds. This is also an important site for benthic (bottom-dwelling) organisms which prefer a sand environment. The old Rock Dock site is located adjacent to the South Jetty. Many agencies and local personnel are concerned with rebuilding this recreational structure.

Management Unit P is the estuary from Highway 101 bridge east to the UGB, bank to bank, excluding areas covered by MUs F and G.

Rationale is:

- a. Smaller tracts of tideflats and marshes
- b. Fishing and boating
- c. Private and commercial docks

This portion of the estuary extends from bank to bank outside of other MUs, although only the portion to the center of the estuary is within the UGB. This heavily used portion of the estuary is important for recreational and economic needs of the area. It is biologically important, also, both in its own right and by virtue of its proximity to several Natural areas of the estuary. Proposed uses should be carefully evaluated based on the limited surface area of the estuary and the fragility of the ecosystem.

Development Estuary Management Unit (MU) Designation

The Development Estuary Management Unit provides for navigational, public, commercial and industrial water-dependent needs. The dredged navigation channel and the jetties are designated Development Estuary MU essentially responding to the existing situation. The primary purpose of the Development Estuary MU (DE) is to provide for navigational needs and public, commercial and industrial water-dependent uses which require an estuarine location. Uses which are not water dependent which do not damage the overall integrity of estuarine resources and values should be considered, provided they do not conflict with the primary purpose of the MU.

Historical development activities have produced adverse effects on the Siuslaw Estuary. Sedimentation resulting from past logging practices has contributed to sedimentation of the dredge channel and necessitated larger amounts of dredging; and contributed to the turbidity of the water. Bank and streambed erosion can result when flow is constricted through the emplacement of bridge supports. In addition, industrial or residential development can cause further chemical and biological changes in the estuary.

The Development Estuary MU applies within the Florence UGB to Management Units A, E, F, and R on Map 17-1.

Management Unit A is the north and south jetties, although only the north jetty is

within the UGB.

Rationale is: a. developed jetties; b. essential for navigation over bar. This MU encompasses only the jetties and not any tidal flats which may develop behind them.

The nature of a jetty is one of development, as it is so closely tied to the economics of the City of Florence and the estuary. Maintenance of the jetties, and their possible future extension, are envisioned in this MU.

Management Unit E is approximately from river mile 2 to a line one quarter mile down river from the northern boundary of Section 27.

Rationale is:

- a. River channel close to shore
- b. Truck access on adjacent shoreland
- c. Land available for water-dependent, water-related uses on adjacent shoreland
- d. The two resource areas identified in the Coastal Inventory (salt marsh and clam bed) have been found to be of minor significance. No other significant biological areas are listed for this management unit in the Inventory (pages III-59 and 63).

Two resource areas are identified in the Lane County Coastal Inventory: a narrow strip of low salt marsh along the southern portion of the management unit with a Piddock and Gaper clam bed at the northern boundary. Both of these areas were included within the development designation in 1978. The salt marsh is a strip less than 10 feet wide; it is a rock shelf which drops off vertically to deep water. The hard rock surface supports a population of plant and animal life. There is a clam bed shown in the inventory in deep water. Often small isolated populations such as these are essential for repopulation of larger more productive locations when a catastrophic event occurs (such as disease or gross changes to the physical environment) which eliminate the more productive areas. It is the outlier populations that give resiliency to the large population. This management unit was one of 10 locations in the estuary where local fisheries' specialists have taken seine and trawl samples. The Coastal Inventory lists fourteen species found in the seine sampling. At that time, these species were not unique to this area, but rather were generally found in either the lower portion of the estuary or the estuary as a whole.

Management Unit F is east and west of the Highway 101 Bridge.

Rationale is:

- a. Area includes Bay Bridge Marina and Port of Siuslaw Holiday Marina;
- b. Shorelands are developed in urban uses;
- c. In 1978, this Management Unit contained no significant biological areas as listed in the Lane County Coastal Resources Inventory (pages III, 58-63).

The following subunits have been designated:

Management Unit F1 (Bay Bridge Marina), from the eastern boundary of MU #2 to the western boundary of Tax Lot 7900, T18R12WS34-12, near Kingwood Street. The channel is nearer the opposite shore in this unit. Existing development consists of a private marina which requires dredg-

ing. At the time of the 1978 inventory, there was a small area of tidal marsh, a small mud clam bed and a small area of eelgrass near the Ivy Street pump station. The substrate is primarily sand. Moorage facilities for recreational boats were considered appropriate in this area. Commercial or industrial uses were not considered appropriate, due to the proximity to residential development.

Management Unit F.2 (Old Town and Port of Siuslaw), from the eastern boundary of Unit #1 to the Munsel Creek outlet. The channel and turning basin follow this shoreline for most of its length. Development in this area includes the Highway 101 Bridge, permits for utility cable crossings, the city dock at the end of Laurel Street, piers, turning basin, Port of Siuslaw moorage facilities and dock, a boat ramp, marina and a spoils stockpiling site. The substrate is primarily sand in the main part of the river and mixed sand and mud in the tideflat area. No significant areas of wetlands occur in the area although a small amount of salt marsh is found near the bridge. The channel follows the shoreline for most of this MU and is considered appropriate for development. Sediment in this area has consistently been tested "clean" and suitable for in-water disposal. Subject to the approval of federal and state agencies, maintenance dredging is appropriate in this MU to maintain the existing navigation channel and marina but maintenance dredging is not appropriate outside these areas in this MU or in the tide flats.

Management Unit R is the Federal Navigation Channel. The rationale for this designation is that the river is essential for navigation needs. The Siuslaw River to Mapleton contains a federally-authorized channel. The Siuslaw River is typical of coastal waterways which have historically been used as transportation routes. The continued use of these facilities is dependent on maintenance of the navigational channel. LCDC has designated the Siuslaw a "shallow draft" estuary, defined as having channels of 22 feet or less. The River's shallow nature and high rate of natural sedimentation, augmented by runoff associated with timber harvest activity, cause sedimentation and shoaling to be a continuing major problem for existing and future navigational users. Maintenance dredging is appropriate in the Federal Navigation Channel, subject to the approval of federal and state agencies.

Background

The Siuslaw River estuary, designated a Shallow Draft Development Estuary under the Oregon Estuary Classification System, is managed for navigation and other public needs with jetties and a main channel maintained by dredging at 22 feet or less. The geomorphology of the area is that of a Drowned River Mouth Estuary. The estuary's broad floodplain, numerous wetlands, and tidal islands, lead to the dunes along the coastal plain at Florence. Here the land is characterized by barren sand dunes interspersed with pine woodlands and deflation plain lakes and wetlands. Since the decline of the forest industry, most of the revenue generated in the area is from tourism, recreation, and commercial fishing. Local community members, both tribal and nontribal, engage in subsistence fishing for marine and stream resources. Tribal community members also engage in gathering activities for traditional cultural purposes. The abundant natural resources of the estuary have been integral to the culture of communities living along the estuary from the earliest time of the Siuslaw Tribe and continuing with the present community of Florence and recreational visitors to the area.

Historically the Siuslaw estuary was about 2970 acres in size (Brophy 2005). About 67% of the estuary (2000 acres) has undergone major alterations that block or greatly reduce tidal flows, such as dikes, tidegates, and restrictive culverts (Brophy 2005). In addition the Siuslaw estuary was historically rich in tidal swamps (shrub and forested wetlands), with about 70% of the wetlands within the tidal zone being tidal swamp. 97% of these swamps are now gone, mostly converted to agriculture. Out of the original 2970 acres of wetland only about 818 remain unaltered (Brophy 2005).

Habitat types found in the Siuslaw estuary include eelgrass beds, intertidal sand and mud flats and subtidal habitats, emergent marsh, scrub-shrub, and forested wetlands. The watershed supports spawning runs of fall Chinook, chum, winter steelhead, coho, and sea-run cutthroat; and receives significant waterfowl use. The estuary also supports shellfish resources, including clams, crab, mussels, and shrimp. The South Jetty wetlands adjacent to the lower river are one of the two most important wintering areas for tundra swans on the Oregon coast. The estuary has been designated an Important Bird Area by the National Audubon Society.

Historically, the Siuslaw Basin was one of the most abundant anadromous fish producers in the Pacific Northwest. Once the Oregon Coast's largest Coho-producing system next to the Columbia, the Siuslaw River is estimated to be at 1% of historic coho salmon production levels.² The lower Siuslaw River watershed health is degraded and a significant amount of restoration action is needed to improve watershed conditions (Oregon Watershed Enhancement Board, 2007). The watershed is limited by all factors in aquatic/instream areas, tideland, riparian, freshwater wetlands, and upland areas. The Siuslaw River is classified as Water Quality Limited under the Clean Water Act and is included on the state's 303(d) list of Impaired Waterbodies by the Oregon Department of Environmental Quality. The River is failing in all these parameters: Dissolved Oxygen, Fecal Coliform, Habitat Modification, and Temperature, and potentially Alkalinity. Beneficial Uses impaired by these listed parameters include resident fish and aquatic life; salmonid fish spawning and rearing; anadromous fish passage; trout rearing and migration; and shellfish growing.

In 1976, the State adopted four coastal goals in addition to the original 15 statewide land use goals. The new goals contained specific requirements for coastal planning, resulting in the compilation of the *Lane County Coastal Resource Inventory* and the preparation and adoption of a *Lane County Coastal Resources Management Plan (CRMP)*, adopted in June 1980, and subsequently amended. This Plan, included in Appendix 16, provides detailed guidance for implementation of Statewide Planning Goal 16, Estuarine Resources.

The CRMP was adopted by Lane County in 1980 and the inventory on which it is based has not been updated since adoption. The City strongly supports efforts by the State to conduct a systematic update of all coastal resources inventories in the State. In addition, the City will continue to seek grant funds to update the coastal resources inventory within the Florence UGB. In the interim, this Plan provides a process for incrementally updating the inventories as new inventory information becomes available through the permitting process. This chapter of this Comprehensive Plan was updated in 2009 to comply with Statewide Planning Goal 16. This Plan continues to be consistent with the CRMP for compliance with Statewide Goal 16.

² Early cannery records indicate that the Siuslaw was second only to the Columbia River in numbers of coho. The average coho numbers from 1889-1896 were 209,000 fish. This compares to an average of just over 3,000 in the years 1990-1995 (Oregon State University, Natural Resources Digital Library).

Wilbur Island is available for some types of mitigation. Mitigation is required for any impacts to the estuary and mitigation must take the form of like-for-like, i.e., mitigation sites must match original sites in terms of type, resource values, functions and characteristics. Development activities should be planned to avoid impacts to sensitive habitats such as wetlands and riparian areas. Mitigation opportunities in this area are extremely limited and becoming more scarce over time. System-wide solutions are needed and will be pursued by the City through long range planning efforts.

Amend Chapter 17. The entire chapter is replaced with the version presented below.

Chapter 17

Coastal Shorelands: Ocean, Estuary, and Lake Shorelands

Goals

1. To conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources, cultural resources, and recreation and aesthetics.
2. To reduce the hazard to human life and property, the adverse effects on water quality, and the adverse effects on fish and wildlife habitat, resulting from the use and enjoyment of Florence's coastal shorelands.

Objectives

1. To improve management of the shorelands bordering the estuary, the ocean, and Coastal Lakes by classifying these shorelands into management units and establishing policies and priorities for uses within these areas.
2. To conserve and enhance the natural resource, cultural resource, and recreational values of these shorelands.

Policies

1. The *Lane County Coastal Resource Inventory* and amendments shall serve as the definitive document for inventory data related to Goal 17, Coastal Shorelands, except as the inventory is updated through processes prescribed in this Comprehensive Plan and the Florence City Code. This Comprehensive Plan shall be the definitive document for policies related to Coastal Shorelands in the Florence UGB.
2. Coastal Shorelands inventory information inside the UGB identified after adoption of the *Lane County Coastal Resource Inventory, October 1978*, that is found, through a land use, development, state or federal permit process, or the Site Investigation Report Process, to be inconsistent with the applicable Management Unit (MU) designation, shall be addressed in the following manner:

- a. The jurisdiction within which the site is located shall study the site according to the requirements in the Statewide Planning Goal 17; and
 - b. Upon the completion of the study, the affected jurisdiction, in cooperation with the other jurisdiction (City or County) and relevant state and federal agencies, shall determine whether the identified site should be reclassified to a different MU designation, and, if yes, shall:
 - 1) identify the appropriate MU for the site;
 - 2) initiate the process for City adoption of an amendment to the Comprehensive Plan, and, if outside City limits, to the CRMP; and
 - 3) notify all affected property owners and interested parties in accordance with requirements of the applicable Code.
3. This Plan, implementing actions, and permit reviews shall include consideration of the critical relationships between Coastal Shorelands and resources of coastal waters, and of the geologic and hydrologic hazards associated with Coastal Shorelands.
 4. In addition to the goals, policies, and recommendations in this Chapter, provisions in Chapter 7, Special Development Standards shall also be considered as they relate to special development conditions. Where conflicts exist, the policies in this Chapter 17 shall prevail.
 5. The management of Coastal Shorelands shall be compatible with the characteristics of the adjacent coastal waters. The policies in this Chapter are in addition to the policies in Chapter 16, Siuslaw River Estuary; and where conflicts exist, the policies and provisions of Chapter 16 shall prevail.
 6. Land use management practices and non-structural solutions to problems of erosion and flooding shall be preferred to structural solutions. Where shown to be necessary, water and erosion control structures, such as riprap, jetties, bulkheads, seawalls, and similar protective structures; and fill, whether located in the waterways or on shorelands above ordinary high water mark, shall be designed to minimize adverse impacts on water currents, erosion, and accretion patterns.
 7. The City, together with Lane County, state, tribal, and federal agencies, shall, within the limits of their authorities, maintain the diverse environmental, economic, cultural, and social values of Coastal Shorelands and water quality in coastal waters. Within those limits, they shall also minimize human-induced sedimentation in estuaries, near shore ocean waters, and coastal lakes.
 8. This Plan, implementing actions, and permit reviews shall include consideration of the strong relationships between Coastal Shorelands and traditional tribal land use patterns which have been heavily dependent on the resources of coastal and estuarine waters, and shall conserve archaeological resources. Actions shall avoid, where possible, impacts to archaeological resources. Unavoidable impacts to tribal archaeological resources shall be mitigated in consultation with the Confederated Tribes of the Coos, Lower Umpqua and Siuslaw Indians. Mitigation may include data recovery (archaeological excavation), capping, or other appropriate methods of preserving the archaeological value of the site.
 9. Florence Code provisions adopted to protect shoreland sites designated Water Dependent shall comply with the requirements of OAR 660-037-0080 which state that local land use regulations may:
 - a. Allow only water-dependent uses.

- b. Allow nonwater-dependent uses that are in conjunction with and incidental and subordinate to water-dependent uses on the site.
 - 1) Such nonwater-dependent uses shall be constructed at the same time as or after the water-dependent use of the site is established, and must be carried out together with the water-dependent use.
 - 2) The ratio of the square footage of ground-level indoor floor space plus outdoor acreage distributed between the nonwater-dependent uses and the water-dependent uses at the site shall not exceed one to three (nonwater-dependent to water-dependent).
 - 3) Such nonwater-dependent uses shall not interfere with the conduct of the water-dependent use.
 - c. Allow temporary non-water-dependent uses that involve minimal capital investment and no permanent structures. The intent of allowing such uses is to avoid posing a significant economic obstacle to attracting water-dependent uses. Tools for implementing this approach include "vacate" clauses in leases on public lands, as well as requiring "vacate" clauses for land use approvals involving leasing of private lands.
10. Existing visual and physical access points in the UGB shall be retained (see Table 17.1). The City, in coordination with the Parks and Recreation Division, shall develop and implement a program to provide increased public access to Coastal Shorelands. Existing public ownerships, rights of way, and similar public easements in Coastal Shorelands which provide access to or along coastal water shall be retained or replaced if sold, exchanged or transferred. Rights of way may be vacated to permit redevelopment of shoreland areas provided public access across the affected site is retained.
11. Coastal Shorelands in the Florence UGB shall be all lands contiguous with the ocean, the Siuslaw Estuary, and four lake areas: Munsel Lake, Heceta Junction Lake, South Heceta Junction Seasonal lakes, and North Jetty Lake. The following Management Unit designations, as described in this Chapter of the Comprehensive Plan, shall apply to Shorelands within the Florence UGB: Shoreland Dredged Material Disposal Sites, Natural Resources Conservation, Mixed Development, Residential Development, and Prime Wildlife Area. Application of these MUs to specific areas is shown on "Map 17-1: Estuary and Coastal Shoreland Management Units in the Florence UGB," in this chapter of this Comprehensive Plan.

Implementation requirements in Lane Code Chapter 10 Overlay Zoning Districts shall apply to these MUs within the Florence UGB, outside city limits, and Florence City Code Title 10, Chapter 19, shall apply within Florence city limits.

12. General priorities for the overall use of Coastal Shorelands (from highest to lowest) shall be to:
- 1. Promote uses which maintain the integrity of estuaries and coastal waters;
 - 2. Provide for water-dependent uses;
 - 3. Provide for water-related uses;
 - 4. Provide for nondependent, nonrelated uses which retain flexibility of future use and do not prematurely or inalterably commit shorelands to more intensive uses;
 - 5. Provide for development, including nondependent nonrelated uses, in urban areas compatible with existing or committed uses;

6. Permit nondependent, nonrelated uses which cause a permanent or long-term change in the features of coastal shorelands only upon a demonstration of public need.

13. In Shoreland Dredged Material Disposal Site Management Units, the following additional policies shall apply:

- a. For Shorelands in the Shoreland Dredged Material Disposal Site MU within the Florence UGB, implementation requirements in Lane Code Chapter 10 Overlay Zoning Districts shall apply outside city limits, and the Dredged Material/Mitigation Overlay Zoning District in Florence City Code Title 10 Chapter 19 shall apply inside city limits.
- b. In order to protect the navigability of the river, sites (with the exception of designated "stockpile" sites) included in the adopted *Siuslaw River Dredged Material Disposal Plan* shall be retained for that use until such time as the filling capacity has been reached or the site is removed from the adopted, revised *Siuslaw River Dredged Material Disposal Plan*. However, sites that have reached their filling capacity which can be reconfigured to accept more material shall continue to be retained. A determination that fill capacity has been reached shall be based upon the recommendation of the Army Corps of Engineers and other interested agencies and persons.

The re-classification of any applicable dredge material disposal site protection overlay zoning shall require positive findings by the City or the County (if outside city limits) that one or both of these conditions are met, following public hearing. Following removal of the overlay zone, the permitted uses on the site will be the same as those allowed in the underlying zoning district. Rezoning of the underlying zoning district may be considered at the same time as removal of the overlay zoning, in accordance with this Plan and the Florence City Code and Lane County Code.

- c.. Sites designated for "stockpile" use, where the spoils will be hauled away and the site used again for spoils, shall be retained and designated as a disposal site until such time as an appropriate alternative for disposal is designated and the "stockpile" site is deleted in the adopted, revised *Siuslaw River Dredged Material Disposal Plan*.
- d. Temporary use of dredged material disposal sites shall be permitted, providing no permanent facilities or structures are constructed or no man-made alterations take place which would prevent the use of the land as a disposal site, and the use is consistent with other policies contained in this Plan and the Florence City Code and Lane County Code.
- e. Dredge spoil disposal shall provide adequate run-off protection and maintenance of a riparian strip along the water.

14. In Natural Resources Conservation Management Units, the following additional policies shall apply:

- a. For Shorelands in the Natural Resources Conservation MU within the Florence UGB, implementation requirements in Lane Code Chapter 10 Overlay Zoning Districts shall apply outside city limits, and the Natural Re-

source Conservation Overlay Zoning District in Florence City Code Title 10 Chapter 19 shall apply inside city limits.

- b. Uses shall fall within and respect Priorities 1-5 of the Priority Statement (Policy 12).
 - c. Filling in Coastal Lakes adjacent to this MU shall only be allowed in very rare instances and after a complete study of potential physical or biological impacts on the Lake. The cumulative effects of all such fills shall be considered. Positive benefits must outweigh negative effects.
 - d. Land divisions outside city limits within the Florence UGB shall not be allowed prior to annexation to the city. Land divisions within city limits in this MU shall be approved only with affirmative findings that the land division and subsequent use are consistent with shoreland values as identified by on site evaluation.
 - e. For any approved development on coastal lake or estuarine shoreland in this MU, a minimum 50' horizontal buffer zone is required from the estuary or lake. (Setback requirements on ocean shorelands in this MU will vary depending on the rate of erosion in the area and will be determined by site review, with a 100 foot minimum.)
 - f. Only developments and activities which do not pose a threat to life or property from land instability, erosion or other natural hazard shall be allowed.
15. In Mixed Development Management Units, the following additional policies shall apply:
- a. For Shorelands in the Mixed Development MU within the Florence UGB, implementation requirements in Lane Code Chapter 10 Overlay Zoning Districts shall apply outside city limits, and the Mixed Development Overlay Zoning District in Florence City Code Title 10 Chapter 19 shall apply inside city limits.
 - b. Uses shall respect the priorities set out in the General Priority statement (Policy 12).
 - c. Native riparian vegetation should be maintained or encouraged to provide erosion control, bank stabilization, aesthetic quality and to maintain water quality and temperature, except where maintenance of vegetation would preclude use of the site for a water-dependent use and removal will not be detrimental to erosion control, bank stabilization or water quality.
 - d. Land divisions outside city limits within the Florence UGB shall not be allowed prior to annexation to the city. Land divisions within city limits in this MU shall be approved only with affirmative findings that the land division and subsequent use are consistent with shoreland values as identified by on site evaluation.
16. In Residential Development Management Units, the following additional policies shall apply:

- a. For Shorelands in the Residential Development MU within the Florence UGB, implementation requirements in Lane Code Chapter 10 Overlay Zoning Districts shall apply outside city limits, and the Shoreland Residential Overlay Zoning District in Florence City Code Title 10 Chapter 19 shall apply inside city limits.
 - b. Uses shall fall within and respect Priorities 1 and 4 of the General Priority Statement (Policy 12).
 - c. Filling in coastal lakes adjacent to this MU shall be allowed only in very rare instances and after a complete study of potential physical or biological impacts on the lake. The cumulative effects of all such fills shall be considered. Positive benefits must outweigh negative effects.
 - d. Land divisions outside city limits within the Florence UGB shall not be allowed prior to annexation to the city. Land divisions within city limits in this MU shall be approved only with affirmative findings that the land division and subsequent use are consistent with shoreland values as identified by on site evaluation.
 - e. For any approved development on coastal lake or estuarine shoreland in this MU, a minimum 50' horizontal buffer zone is required from the estuary or lake. Where vegetation is not presently existing, it should be encouraged to be replanted. (Setback requirements on ocean shorelands in this MU will vary depending on the rate of erosion in the area and will be determined by Phase II Site Investigation Report, with a 100' minimum).
17. In Prime Wildlife Management Units, the following additional policies shall apply:
- a. For Shorelands in the Prime Wildlife MU within the Florence UGB, implementation requirements in Lane Code Chapter 10 Overlay Zoning Districts shall apply outside city limits, and the Prime Wildlife Overlay Zoning District in Florence City Code Title 10 Chapter 19 shall apply inside city limits.
 - b. Uses shall fall within Priority 1 of the General Priority Statement (Policy 12). No use shall be permitted within a Prime Wildlife Shorelands MU unless that use is determined to be consistent with protection of natural values identified in the description of the MU.
 - c. For any approved development in this MU, a minimum 100' horizontal buffer zone from the coastal lakes is required.
 - d. Outside of the buffer zone, development shall not result in the clearance of native vegetation in excess of that which is necessary for the actual structure's required access and fire safety requirements. Areas of excessive vegetation removal shall be replanted as soon as possible.
 - e. State Fish and Wildlife Biologists shall have a 14-day "review and comment" period to evaluate the impact of any development on critical habitats and to make suggestions concerning ways to avoid or mitigate identified adverse impacts.
 - f. Filling in of freshwater marshes or coastal lakes adjacent to this MU is

prohibited.

- g. Development on lots less than five acres in size shall be prohibited. Where lots less than five acres existed on July 24, 1980, development may occur if in conformance with the requirements of the base zoning district and this management unit.
- h. No dredge spoils deposition shall be allowed in the Prime Wildlife management unit.

Recommendations

1. Dredged material disposal sites should be constructed to allow for proper detention of surface water runoff, to allow settling of turbid water and to provide dikes for controlling the rate of runoff.
2. Revegetation of filled disposal sites should occur as soon as is practicable in order to retard wind erosion and to restore wildlife habitat value to the sites. The Port of Siuslaw or Corps of Engineers should be responsible for revegetation projects.
3. In selecting ocean sites for the disposal of dredged sediments, sites that allow for the nourishment of eroding beaches should be preferred when disposal in those areas will not contribute to littoral drift into the area of the Siuslaw River navigation channel.
4. Upland areas which might be appropriate for additional, convenient dryland storage of commercial or sport fishing boats should be encouraged in order to minimize the amount of water storage area and water dependent shoreland area used for this purpose in the future.
5. Where a traditional cultural property is thought to exist within the shorelands, the community seeking recognition of those properties should provide evidence to the City of how that area is important in maintaining the continuing culture of the community. Upon recognizing the traditional cultural property, the City shall work with the affected community to protect the cultural value of the site. Actions should avoid, where possible, impacts to traditional cultural properties.
6. Florence should encourage Lane County to continue to provide and protect dredge disposal sites for the entire estuary to ensure continued navigation in the estuary.
7. The City should pursue grant funding to perform a comprehensive update of the Coastal Resources Inventory inside the Florence UGB.

Coastal Shorelands Management Units and Water Dependent Sites

The *CRMP* classifies shorelands into Management Units (MU) and designates Water Dependent Sites.

The Shoreland Management Unit designations that apply within the Florence UGB are: Shoreland Dredged Material Disposal; Natural Resources Conservation; Residential Development; Mixed Development; and Prime Wildlife Area, as described below. Appli-

cation of these MUs to specific areas is shown on Map 17-1: Estuary and Coastal Shoreland Management Units in the Florence UGB, in this Comprehensive Plan Chapter.

In addition, this Comprehensive Plan identifies and designates sites that are Water Dependent. These sites, described below, are so designated for compliance with Statewide Planning Goal 17, Coastal Shorelands, and OAR Chapter 660 Division 37.

Shoreland Dredged Material Disposal Sites

Estuarine shorelands have been identified by the Siuslaw Dredged Material Disposal Task Force which are suitable for the disposal of materials removed from the Siuslaw River primarily to accommodate channel dredging. These sites are shown on the *Siuslaw River Dredged Material Disposal Plan Map* at the end of this Chapter of this Comprehensive Plan and more specifically depicted on Map 17-1. This management unit shall be implemented in the UGB through the provisions in the Dredge Material/Mitigation Site District (/DMS) in Florence City Code Chapter 19 within city limits and through the Dredge Material/Mitigation Site Combining District in Lane Code Chapter 10 outside city limits.

Throughout the Comprehensive Plan, change the name of “Especially Suited for Water-dependent Uses” to “Water Dependent sites.”

“Water Dependent” Sites

The Florence urbanizable area shorelands were inventoried to determine areas to designate for water-dependent uses. Two sites in the Florence UGB are designated Water Dependent sites. These are lands zoned Marine owned by Lane County located south of the Port’s 40 acre Limited Industrial site, and a Water Dependent site zoned Water-front-Marine owned by the Port of Siuslaw and private owners located east of the area designated Downtown in the Comprehensive Plan Map. These lands are intended for development of water-dependent industrial, recreational and commercial uses and associated water related uses.

Two zoning districts implement the provisions of this section of the Comprehensive Plan: Marine District (FCC 10-18) and Waterfront/Marine District (FCC 10-24). These zoning districts ensure protection of these areas for water dependent uses.

In accordance with Goal 17, Coastal Shorelands, Administrative Rule 660 Division 37, these water-dependent shorelands continue to meet all of the following minimum locational and suitability criteria:

- (a) The shoreland sites are within an urban or urbanizable area.
- (b) The designated water dependent uses are compatible with adjacent uses or will be so rendered through measures to reduce adverse impacts.
- (c) The sites comply with all applicable Statewide Planning Goals. The sites were acknowledged to comply with Statewide Planning Goals without needing a Goal 2 exception and there have been no changes to the size or shape of the sites or the uses or activities allowed or authorized at the sites.

- (d) The sites possess land-based transportation and public utility services appropriate for the designated uses, including availability of public sewers, public water lines, and adequate power supply.
- (e) The sites have adequate land for storage, parking that is adequate for the designated uses.
- (f) The sites are capable, of providing the designated water-dependent uses with access to the adjacent coastal water body.
- (g) The adjacent coastal waters provide adequately sized navigational channels for commercial fishing and recreational boating.

Natural Resources Conservation Management Unit Designation

This designation, when applied to lands within the Florence UGB is provided to allow for human activities consistent with long-term use of natural resources in harmony with natural systems of the coastal shorelands and waters. This designation is meant to ensure that all changes occur with recognition of, and respect for, those natural systems. Activities that conserve or enhance resources are encouraged, as well as recreation and public access to the coastal waters.

This Plan designation shall be implemented through the Natural Resources Conservation Overlay District in Lane Code Chapter 10, for the area outside city limits; and through the Natural Resource Conservation Overlay District in Florence City Code Title 10, Chapter 19, for the area inside city limits. This city Overlay District will be applied to property in this MU when annexed to the city.

The Natural Resources Conservation Management Unit (MU) designation applies within the Florence UGB to the following areas shown on Map 17-1: the area north of the North Jetty (MU #50); along the estuary in southeast Florence (MU #5); along the North Fork (MU #6); Munsel Lake Shorelands MU #4; and Heceta Junction Lake Shorelands.

Management Unit #50 consists of property owned by the U.S. Army Corps of Engineers, Harbor Vista County Park, and State-owned property that extends north from the north jetty and includes the deflation plain.

Rationale is:

- a. Fore-dune in various stages of development throughout;
- b. Deflation plain and partially- to well-vegetated hummock dunes;
- c. Minor and major erosion has occurred along shore front;
- d. Recent localized zones of accretion;
- e. Evidence of some on-going shore front erosion;
- f. Potential for continued and renewed shore front erosion following jetty extension;
- g. Includes a County park and state-owned parking area;
- h. Significant public use of lowland portions for access to beach and jetty;
- i. Low area back from beach is a valuable aesthetic resource.
- j. Historical cranberry bog.

The lowland adjacent to the beach appears to have been accreted after construction of the North Jetty, based on surveys made from 1883 to 1909. The majority of the North Jetty lowland area has probably developed through accretion since the jetty was constructed. Previous to that time, the Siuslaw River emptied north

through this area to the ocean. An active foredune, deflation plain, hummock dunes, and a small lake (North Jetty Lake) occur here. Much of this area is inappropriate for development due to flooding and erosion hazards. The parcel of land in this MU which continues north of the lowland triangle consists primarily of foredune in various stages of stability from moderately well vegetated to largely eroded. The foredune in this area is subject to the same erosion/accretion cycles seen elsewhere along the Oregon coast. Furthermore, should the Siuslaw jetties be extended in the future, some accretion may be expected to occur adjacent to the jetty with accompanying erosion further north.

Dredge soil sites #1, #2 and #3, as indicated in the *Siuslaw River Dredged Material Disposal Plan* (1978), are approved for this unit. As these soils are primarily clean sand, no apparent conflict exists. Re-vegetation would return the site to its present condition. A staging area would be located here in the event of construction or expansion of the north jetty. Activities which occur in this area should provide for public access to the ocean and jetty as well as be visually in harmony with natural features of the site.

Based on the data in the 1978 Inventory, the developed and committed portions of Heceta Beach were not included in a shorelands designation due to the facts that: 1) this area is already committed to residential development and is within the Florence UGB; 2) the area was found to contain no identified significant wildlife habitat, is not a headland or a wetland area and contains no riparian vegetation; 3) although the area along shore is subject to some hydraulic action of the coastal water body, Goal 18 and the /BD District have requirements to protect vegetation and to prohibit development on active foredunes; 4) a review of the shoreland and beaches and dunes implementing ordinances and policies shows the /BD District to adequately protect the area and to be the most restrictive; and 5) therefore, the application of both shorelands and beaches and dunes designations to this area is administratively unnecessary and result only in duplicative regulations.

Management Unit #5 is a 50-foot wide strip of land measured from the mean high tide line, starting at the northern boundary of MU #4 and extending to the UGB, including any adjacent lands within the 100-year floodplain.

Rationale is:

- a. Steeply rising bank limits estuarine influence;
- b. Adjacent tideflats limit accessibility to river channel;
- c. Expansive tideflats limit erosion danger;
- d. Adjacent to a biologically productive part of the estuary – marshes at the confluence of North Fork and Main Stem;

This management unit is intended to protect the riparian vegetation and provide a buffer for the adjacent natural estuarine Management Unit. Hazard of flooding or bank erosion is limited by the steeply rising banks and the wide expanse of tideflats adjacent. The adjacent properties east of Munsel Creek have developed street access and are provided with city services; city setbacks and parking requirements will limit the extent of development on the south side of Highway 126.

Management Unit #6 is between the North Fork of the Siuslaw River and North Fork Road.

Rationale is:

- a. Adjacent to a biologically productive part of the estuary – North Fork marshes.

This MU is adjacent to large salt marsh expanses. Natural occurring sedimentation along the North Fork is greater than the Main Stem, due to the larger alluvial plains which the river meanders through. This natural sedimentation should be disturbed as little as possible as structural controls in one location often increase the erosion problem elsewhere. To assist in bank stabilization, existing riparian bands should be maintained, or encouraged where not existing.

Munsel Lake Shorelands Management Unit #4 is on south side of Munsel Lake.

Rationale is:

- a. Steep slopes;
- b. Riparian vegetation;
- c. Wildlife value.

Great care should be taken to ensure that no degradation of water quality in Munsel Lake. At the minimum, an erosion control plan shall be required on any development within this MU.

Heceta Junction Lake Shorelands extent is measured by a band measured horizontally from the high water line of the lake 100 feet in width but extending only to Heceta Beach Road on the southwest.

Rationale is:

- a. Significant biological areas;
- b. Recently stabilized dunes;
- c. Occasionally Wet Interdune area.

The Coastal Resource Inventory designates this as a key wildlife area and as it is developed, care must be taken to protect wildlife habitat.

Residential Development Management Unit Designation

This designation, within the city limits of Florence, recognizes that there are certain shoreline areas which have been committed to residential use by their development patterns over many years. The underlying assumption of this MU is that the residential character should remain undisturbed. Preservation and enhancement of riparian vegetation is a necessity along the estuary and coastal lakes, regardless of any development. Within the UGB, this Plan designation shall be implemented through Lane Code Chapter 10, outside city limits, and, through the Shoreland Residential Overlay District inside city limits. The Residential Development MU designation applies within the Florence UGB to MU #1, #3 and to Munsel Lake Shoreland MU #1 on Map 17-1.

Management Unit #1 is the area 1,000 feet from the estuary shoreline, extending from the Management Unit 50 (the North Jetty area), south between the shoreline and Rhododendron Drive to Management Unit 2 (Marine Manor and Port Property). It includes Shelter Cove, Sea Watch, and the Coast Guard Station. This MU extends 500 feet from the shoreline along the terrace, because this encompasses the area prone to landslides.

Rationale is:

- a. Low area back from beach is a valuable aesthetic resource;

- b. Terrace subject to landsliding;
- c. Adjacent to biologically important part of the estuary for clams, fish rearing and seal haulouts; and
- d. Established residential use.

Management Unit #3 is the area from the southern boundary of Management Unit #2 to Kingwood Street including Wildwinds, Greentrees, and other residential development.

Rationale is:

- a. Navigation channel is not close to shore;
- b. High banks and lack of road access limit water-dependent use;
- c. Established residential use.

This MU is defined through a description of two subunits, below.

Management Unit 3.1 (Wild Winds and Greentrees): This area includes all of the land west of Rhododendron Drive from the southern boundary of MU #2 to the Florence sewage facilities. This MU is in private ownership except for: Port of Siuslaw ownership of a strip of land bordering the southern part of this MU (Dredged Material Disposal Site #14) part of which is in the intertidal area; a lot in Lane County ownership and the area surrounding the sewage plant which is owned by the City. This MU is developed residentially with extensive existing riprap. Wildwinds includes private access to the river for its residents. Greentrees (a mobile home PUD) extends along the river and includes private access to the river for residents from both sides of Rhododendron Drive. Residential development is scattered in the area between Greentrees and city's sewage facilities.

Since residential development already exists along most of this MU, any high-intensity, water dependent recreational development such as a small boat moorage or public boat ramp, should be compatible with the adjoining residential development. Buffers may be required to separate residential zoning from recreational uses. Parking areas could be a limiting factor for any public moorage facility and would probably need to be located on the east side of Rhododendron Drive. Building setbacks from the river will be required in this MU due to the erosion of the river bank and must be reviewed carefully.

This management unit is established primarily to protect riparian vegetation and to provide protection from flooding or erosion hazard.

Management Unit 3.2 (Bay Bridge): The inland extent of the area includes that area south of the following boundary: starting at Rhododendron Drive east to the point where Greenwood Street would cross Rhododendron Drive (east boundary of city property); then south to First Street; and east along First Street to the western edge of the Ivy Street pump station; then southwest to Bay Street; then southeast to Kingwood Street. This MU is mostly developed in residential uses, including Bay Bridge Condominiums. Public access is available at Kingwood, Juniper, and Ivy Streets. Some of the rights-of-way in this area have not been developed. The terrain is low and accessible to the river. Water and sewer services are available. Although the estuary adjacent to this unit is designated De-

velopment and there is an existing marina that is not in operation at present, the shoreland area is already committed to residential use. Commercial water-dependent and water-related uses will be permitted but it is expected that the area will remain primarily residential.

Munsel Lake Management Unit #1 is west of Munsel Lake extending 500 feet from the shoreline.

Rationale is existing residential character.

Although residentially developed, these small lots have never been platted as a subdivision. The area has slight value for wildlife at this time due to the destruction of riparian vegetation as a result of residential development. The re-growth of native vegetation is encouraged and would not detract from the residential use.

Mixed Development Management Unit Designation

This designation recognizes the value of commercial and industrial activities to the area. Existing mixed uses are located in this MU where appropriate, including existing residential uses in close proximity to commercial or industrial uses.

The very limited nature of available appropriate land for any public, commercial, or industrial activity of a water-dependent nature places a great burden on the governing body to responsibly allocate any available lands for these uses. The long-term economic health of the area should dominate short-term personal gain.

An example of a mixed development area is the Waterfront/Marine District in Old Town, adopted as part of the Coastal Resources Management Plan in 1991. During this same time period and into the 1990s, there was extensive development of shorelands within Florence, some of which have developed severe bank erosion problems including potential for the loss of dwellings. This designation is implemented by the Mixed Development Overlay District in Florence City Code Chapter 19, inside city limits.

The Mixed Development Management Unit within the Florence UGB applies to Management Units #2 and #4 on Map 17-1.

Management Unit #2 is the site of a residential subdivision (Marine Manor) and an additional 80+ acres east of Rhododendron Drive owned by Lane County and the Port of Siuslaw. This unit has approximately one-half mile of river frontage.

Rationale is:

- a. Navigation channel close to shore;
- b. Rhododendron Drive provides truck access;
- c. Available land east of Rhododendron Drive for support facilities and water-related facilities;
- d. Protected water area adjacent (Development Estuary).

This MU is defined through a description of two subunits, below.

Management Unit 2.1 (West side of Rhododendron Drive): This area is developed with Marine Manor, a residential development with a boat ramp. The northern portion of Marine Manor is protected with a seawall. The Port of Siuslaw owns a parcel just south of Marine Manor. The

southern portion of this unit is owned by the City and has extensive riprap to protect Rhododendron Drive from erosion.

Management Unit 2.2 (East side of Rhododendron Drive): The north 40 acre property is owned by the Port of Siuslaw and is deemed by the State of Oregon to be “shovel ready” for development.³

The southern 40 acres owned by Lane County are partially developed with a transfer site and the Humane Society. The County site is the location of Dredge Material Disposal Site #12. The area includes open sand areas, conditionally stable sand areas, hummocks and a natural drainageway at the north. Future development in this area shall be limited to water-related marine uses. Adequate dune stabilization measures should be taken before further development occurs. Buffering should be required for uses which are not compatible with adjoining residential areas. Setbacks should also be required for drainageway. Height limitations will be imposed in the airport clear and transitional zone.

Management Unit #4 is the developed shoreline of Old Town Florence and the Port from Kingwood Street to the North Fork tideflats, including the Highway 101 Bridge, the Port of Siuslaw Marina, and Dredge Spoils Site #19.

Rationale is:

- a. Existing urban residential and commercial development within the City of Florence;
- b. Existing marina development;
- c. Existing water-dependent, water-related uses;
- d. Dredge spoils site.

The following sub-units have been designated by the City:

Management Unit 4.1 (Old Town): This unit is part of the historic “Old Town” waterfront area. It extends from Kingwood Street to Nopal Street and includes the area south of Bay Street. Existing ownership and uses are the City’s mini-park at the end of Laurel Street and the pump station at Maple Street.

Riprap has been placed along most of this area to halt erosion. This area contains the Kyle Building which received Bicentennial funds for restoration. There are additional buildings and sites in this area which date back to the early beginnings of the city. The old ferry slip was located at the site of the mini-park. The Old Mapleton Railroad Station has been relocated to Bay Street and restored. Water-dependent and water-related uses and the types of uses allowed in the base zone are appropriate for this MU. Maintaining the existing bay front character should be recognized in development. Public, pedestrian and visual access should be provided to the extent possible when development takes place. Due to the proximity

³ “Shovel Ready” means that a project: meets the normal eligibility requirements under the existing Federal highway, transit, or other grant program; has completed all necessary design work and right-of-way acquisition; and has completed all environmental reviews; is on the State plan (“State Transportation Improvement Program”); and is ready to be put out to bid, and contracts can be awarded and work underway within 90 days of enactment.

of known archaeological sites, there is a relatively high probability that there are currently unidentified archaeological sites in this Management Unit.

Management Unit 4.2 (Port of Siuslaw): This area extends from Nopal Street to dredge spoils site #19. The northern boundary follows First Street to Harbor Street, where it intersects with the Port of Siuslaw property. This area will probably continue to be the primary commercial and industrial marine-related center on the bay.

At least fifty percent of Unit 4.2 must be protected for water-dependent and water-related uses.⁴ Access, terrain, proximity to deep water, compatibility with historical and existing uses, and ownership patterns would support this reasoning. About one-third of this unit is already developed into water-dependent/related uses. It is vital to the future economy of the Florence area that an adequate portion of this area be reserved for the widest possible range of high intensity recreation, commercial and industrial water-dependent uses.

Due to the proximity of the Management Unit to the North Fork shoals, the main turning basin and the lack of suitable dredged sites near those shoals, a dredged material disposal "stockpile" site has been designated (DMDP site #19) in this unit. The location of that site is critical. Improvements such as those to the jetty which would allow more year-round, all weather bar crossing is expected to increase the demand for marine-related uses and the needs of the fishing industry. This area has the highest potential for receiving stations and processing facilities, marinas/moorages, boat repair and servicing, cold storage, canneries, or possible aquaculture release/recapture facility at Munsel Creek. Uses for this area must be flexible and in keeping with the Port of Siuslaw goals. One recorded tribal archaeological site is located in this management unit and another tribal archaeological site is located in the nearby Natural Estuary Management Unit G. There is a high probability that there are additional archaeological resources in this Management Unit.

Prime Wildlife Area Management Unit Designation

Prime Wildlife Shorelands Management Unit designation shall apply to areas in the Florence UGB as depicted on Map 17-1: North Jetty Lake and Heceta Junction Seasonal Lakes Shorelands. Prime Wildlife Area includes areas of unique biological assemblages, habitats for the preservation of rare or endangered species and the maintenance of a diversity of wildlife species. These include areas of significant riparian vegetation and freshwater wetlands as identified in the Lane County Coastal Resource Inventory. Species which inhabit these wildlife habitats have special requirements which should be considered to the greatest extent feasible in determining how the land is to be used. This designation is implemented through Prime Wildlife Overlay Zone in Florence City Code Title 10 Chapter 19, within Florence city limits; and in Lane Code Chapter 10, outside city limits.

North Jetty Lake Shorelands extent is a band measured horizontally from the high water line of the lake 500 feet in width on the north, west and south

⁴ CRMP amendment by Lane County in 1996.

shoreland areas but extending to the western boundary of the platted area of 18-12-9 on the east which corresponds to the ridge of a stabilized dune.

Rationale is:

- a. Resting area for waterfowl;
- b. Frequent wildlife use including beaver, otter, mink, and muskrat;
- c. Extensive freshwater bog area;
- d. Tule bog at north end;
- e. Recently stabilized dunes with dense shoreland vegetation;
- f. Old Siuslaw River channel;
- g. Traditional low intensity recreational use.

The nature of the surrounding shorelands (wet deflation plain to large extent) renders this land unsuitable for development. The traditional low-intensity recreational use of the area, and the value as wildlife habitat, make this land a valuable natural asset within the Florence UGB.

Heceta Junction Seasonal Lakes Shorelands. This management unit includes the area covered by seasonal standing water identified on Natural Resources Conservation Service maps or, if available, photogrammetric maps and a fifty foot strip of surrounding vegetation.

Rationale is:

- a) Area is subject to considerable standing water in winter months;
- b) Brush thickets, blueberry bushes, snags, and seasonal water provide natural habitat.

This area is identified in the Lane County Coastal Resource Inventory as an area of brush thickets, blueberry bushes, and snags. According to the Soil Conservation Service, this is an area which floods during the winter. The majority of this management unit is on public land and is contained within a large open area. The northern portion is private property. In addition to the natural values present, the lack of adequate drainage in the area would pose problems for development. Any fill or other alteration of drainage patterns could cause flooding on adjacent properties.

Background

Coastal Shorelands are a significant natural area that provides critical habitat for endangered and threatened fish and animal species, contains sensitive plant species, and provides valuable habitat for sensitive species (U.S. Natural Resources Conservation Service; Oregon Natural Heritage Program). Under the federal Endangered Species Act, the brown pelican is listed as endangered; the bald eagle, western snowy plover, marbled murrelet, Aleutian Canada Goose, northern spotted owl, Nelson's checker mallow, Oregon silverspot butterfly and Oregon Coast coho salmon are listed as threatened; and the estuary is proposed critical habitat for the threatened Southern District Population Segment of green sturgeon. The purple martin is listed as critical, and American marten as vulnerable, by Oregon. There has been at least one winter count of more than 1,000 shorebirds. Twelve plant species in the area are listed as threatened, endangered, or possibly extirpated from Oregon. Large animals include black bear, black-tailed deer, and mountain lion. In all, about 23 species of fish, almost 200 species of birds, and 40 species of marine mammals use the estuary and the surrounding wetlands, lakes, riparian and upland areas.

Coastal Shorelands have been the center of human activity from the earliest settlements of the Siuslaw Tribe up through the present community of Florence. With access to both inland resources and to coastal and estuarine resources, shorelands hold the highest concentrations of archaeological, cultural, historical, recreational, aesthetic, and economic resources.

Statewide Planning Goal 17, Coastal Shorelands, adopted in 1976, contains specific requirements for Coastal Shorelands planning. Goal 17 identifies the “planning area” for Coastal Shorelands to include all lands west of the Oregon Coast Highway and all lands within an area defined by a line measured horizontally 1000 feet from the shoreline of the estuary and 500 feet from the shoreline of coastal lakes. At the time that the existing inventory of Coastal Shorelands is updated in the future, the extent of shorelands must be consistent with the specific requirements of Statewide Planning Goal 17.

These requirements are implemented through policies in this Plan, the Florence City Code, the Lane County Code, the *Lane County Coastal Resource Inventory*, *Lane County Coastal Resources Management Plan (CRMP)*, and the *Siuslaw River Dredged Material Disposal Plan*. The latter Plan, also adopted in 1980, provides for disposal sites and policies for managing disposal of dredged materials from channel maintenance activities. Both plans are included in Appendix 16 of this Plan. The CRMP was adopted by Lane County in 1980 and the inventory on which it is based has not been updated since adoption. The City strongly supports efforts by the State to conduct a systematic update of all coastal resources inventories in the State. In addition, the City will continue to seek grant funds to update the coastal resources inventory within the Florence UGB. In the interim, this Plan provides a process for incrementally updating the inventories as new inventory information becomes available through the permitting process.

This Chapter of this Comprehensive Plan was updated in 2009 to comply with Statewide Planning Goal 17. To the extent there are differences between the CRMP and this Plan, this Plan shall be relied upon as the more up-to-date source. This Plan continues to be consistent with the CRMP policies and management unit site boundaries.

Table 17.1: Beach and River Access Points Within Florence UGB

| Access Points Within City Limits | |
|--|--|
| Location | Present Use |
| 1. Harbor Street south of 1 st Street | Public boat landing |
| 2. Nopal Street south of Bay Street | Port’s docks: access to commercial fishing boat marina |
| 3. Maple Street south of Bay Street | View access (public restrooms) |
| 4. Old Town Park | Municipal park, viewing dock |
| 5. Veteran’s Park | View access |
| 6. Juniper Street south of Bay Street | View access (undeveloped) |
| 7. Ivy Street south of Bay | View access (undeveloped) |
| 8. 8 th Street west of Rhododendron | View access (undeveloped) |
| 9. 11 th Street west of Rhododendron | View access (undeveloped) |
| 10. Meares Street (South of Driftwood Shores) | Public beach access, scenic view |
| 11. Spruce Street south of Highway 126 | View access (undeveloped) |

12. Tamarack Street south of Highway 126 View access (undeveloped)

Access Points Within the UGB Currently Outside City Limits:

- A. Harbor Vista Park (West of Rhododendron Street) Access to river, scenic view
- B. North Jetty Access to river and ocean beach
- C. Heceta Park (north of Driftwood Shores) Access to ocean beach

Amend Chapter 18. The entire Chapter 18 is replaced with the version presented below, much of which came from Chapter 5.

Chapter 18

Coastal Beaches and Dunes

Goals

1. To conserve, protect, where appropriate develop, and where appropriate restore the resources and benefits of coastal beach and dune areas.
2. To reduce the hazard to human life and property from natural or human-induced actions associated with coastal beach and dune areas.
3. To better understand the functions of dunes and patterns of dune movement in order to incorporate that knowledge into land use decisions.

Objectives

1. To improve management of the beach and dune areas by classifying these areas into management units and establishing policies and implementation measures for managing these areas consistent with the natural limitations.
2. To work with federal agencies to resolve issues relative to dune destabilization and its effects on pre-existing developments.
3. To provide opportunities for the public to view and to understand the importance of dunal ecology and structure in the overall natural history of the Florence area.
4. To prepare for the eventual annexation of coastal areas within the UGB where municipal sanitary sewer service will better protect the environment..
5. To prepare for the City's responsibility after annexation, to review development proposals consistent with the requirements of State Land Use Goal 18.

Policies

1. The *Lane County Coastal Resource Inventory* and amendments shall serve as the definitive document for inventory data related to Goal 18, Beaches and Dunes, except as the inventory is updated through processes prescribed in this Comprehensive Plan and the Florence City Code. This Comprehensive Plan shall be the definitive document for policies related to Beaches and Dunes in the Florence UGB.
2. Coastal Beaches and Dunes within the Florence UGB subject to Statewide Planning Goal 18, Beaches and Dunes, shall include beaches, active dune forms, recently stabilized dune forms, older stabilized dune forms and interdune forms. Within the Florence UGB, these areas are identified as follows.
 - a. Within the Florence UGB, specific beach and dune areas are identified on the following Comprehensive Plan maps:

- 1) Map 18-1, Coastal Beaches and Dunes that depicts the area of beach, foredune, and interdune forms; and
 - 2) Map B, Appendix 7, City of Florence Hazards Map that illustrates foredunes, deflation plain, and active dune advancing edge.
- b. Map 18-1 depicts beaches, active foredunes, and other foredunes which are conditionally stable and which are subject to ocean undercutting or wave overtopping, and interdune areas (deflation plains) that are subject to ocean flooding. The Code provisions in City Code Chapter 19, Beaches and Dunes Overlay District, apply to these areas within the Florence City limits and shall be applied as properties are annexed to the City and shown on the Florence Coastal Overlay Zoning Map.
 - c. The Code provisions in Florence City Code Chapter 7 shall apply to all dune forms within the city limits, including those not shown on Map 18-1.
 - d. Properties outside the city limits, within the Florence UGB, depicted on the Lane County Beaches and Dunes Overlay Zone Map, Lane County Code, Chapter 10 are subject to the policies in this Chapter of the Florence Comprehensive Plan.
3. Uses allowed in Beaches and Dunes areas shall be based on the capabilities and limitations of beach and dune areas to sustain different levels of use or development and the need to protect areas of critical environmental concern, areas having scenic, scientific, cultural, or biological importance, and significant wildlife habitat as identified through application of Statewide Planning Goals 5, Natural Resources, and 17, Coastal Shorelands.
 4. Decisions on plans, ordinances, and permit reviews in beach and dune areas, other than older stabilized dunes, shall be based on at least the following specific findings:
 - a. The type of use proposed and the adverse effects it might have on the site and adjacent areas;
 - b. Temporary and permanent stabilization programs and the planned maintenance of new and existing vegetation;
 - c. Methods for protecting the surrounding area from any adverse effects of the development; and
 - d. Hazards to life, public and private property, and the natural environment which may be caused by the proposed use.
 5. The City shall not include active dunes in the UGB through any future UGB expansions.
 6. Residential, commercial, and industrial development shall be prohibited on beaches, active foredunes, on other foredunes which are conditionally stable and which are subject to ocean undercutting or wave overtopping, and on interdune areas (deflation plains) that are subject to ocean flooding. Other development in these areas shall be permitted only if the findings required in Policy #4 are adopted and it is demonstrated that the proposed development is:
 - a. adequately protected from any geologic hazards, wind erosion, undercutting, ocean flooding and storm waves; or is of minimal value; and

- b. designed to minimize adverse environmental effects.
7. The City, through implementing Code, shall minimize erosion that is caused by: the destruction of desirable vegetation, including inadvertent destruction by moisture loss or root damage; the exposure of stable and conditionally stable areas to erosion; and construction of shore structures which modify current or wave patterns leading to beach erosion.
 8. Plans, implementing actions, and permit reviews shall protect the groundwater from drawdown which would lead to loss of stabilizing vegetation, loss of water quality, or intrusion of salt water into water supplies. Building permits for single family dwellings outside the city limits and the Heceta Water District are not exempt from this requirement unless appropriate findings are provided at the time of subdivision approval.
 9. This Plan, implementing actions, and permit reviews shall protect archaeological resources.
 10. Permits for beachfront protective structures shall be issued only where development existed on January 1, 1977. "Development" in this context refers to houses, commercial and industrial buildings and vacant subdivision lots which are physically improved through construction of streets and provision of utilities to the lot and includes areas where a Statewide Planning Goal 18 exception to the requirement in Policy #6, above, has been approved. The criteria for review of all shore and beachfront protective structures shall provide that:
 - a. Visual impacts are minimized
 - b. Necessary access to the beach is maintained
 - c. Negative impacts on adjacent property are minimized
 - d. Long-term or recurring costs to the public are avoided.
 11. Dunal resources shall be protected while at the same time development in urban areas is protected from sand encroachment. (*Moved from Chapter 6.*)
 12. Sand removal shall be prohibited in the foredune area of the beach except that foredunes may be breached only to replenish sand supply in interdune areas, or, on a temporary basis in an emergency (e.g., fire control, cleaning up oil spills, draining farm lands, and alleviating flood hazards), and only if the breaching and restoration after breaching is consistent with sound principles of conservation.
 13. A Site Investigation Report shall be required for any proposed development, improvement, or land division on any active dune, beach, foredune, or interdune areas as shown on the Hazard Map and Map 18-1. The Site Investigation Report shall determine that the site is adequately stabilized and that the stabilization effort will not contribute to sand movement into other areas and thereby create adverse conditions. The degree of analysis required shall be appropriate to the risk presented by the site and the proposed project.
 14. Due to the sandy soils and the fragile nature of the vegetative covering, care shall be taken during any proposed construction in beaches and dune areas to minimize the amount of grading, excavation, removal of trees and other vegetation in order to insure the stability of the soils. All open sand area (pre-existing or newly created) shall be planted or stabilized as soon as practicable after construction is completed. Using accepted re-vegetation techniques, sand areas

shall be returned to their previous level of stability, to at least a conditionally stable level, following completion of construction. For large parcels or tracts, stabilization of the entire area may not be necessary as determined after consideration of a Site Investigation Report.

15. During extended construction periods, temporary sand stabilization measures shall be employed to minimize sand movement and erosion caused by the removal of groundcover and soil.
16. In dune areas not indicated on Map 18-1, Coastal Beaches and Dunes, the City shall allow stabilization of dunes in those cases where stabilization is necessary to protect land uses approved under applicable City codes and which are in conformance with those approvals. (*Moved from Chapter 5.*) Grading and vegetation removal shall be kept to the minimum necessary for the placement of structures and accessways. Removal of vegetation from stabilized sand areas, where the consequent shifting sands will encroach upon and adversely affect other properties, shall be restricted and regulated by Code to mitigate impacts.
17. Sand removal or stabilization shall be encouraged in those areas where advancing dunes pose a hazard to developed or improved land or are threatening the destruction of significant areas of vegetation, drainage, or surface water. Sand removal responsibilities and roles shall be determined in an agreement between adjacent property owners. (*Moved from Recommendation #8 and modified.*)
18. In any stabilization of dunal areas, the use of noxious weeds shall be prohibited. Noxious weeds are defined in the Lane County Public Works "Noxious and Invasive Weed Management List."
19. The City shall work to maintain existing beach access points, and will discourage beach access at points that will cause severe damage to dunal resources.
20. The City shall support maintenance of open dunes characteristic of the Florence area where these dunes do not impact residential and commercial development.
21. In addition to the goals, policies, and recommendations in this Chapter, provisions in Chapter 7, Special Development Standards shall also be considered as they relate to dunes.

Recommendations

1. The open dune west of the Highway 101 bridge should not be stabilized, in order that its aesthetic value is retained.
2. Driftwood deposits should not be removed in any large quantity from the ocean beach fronting the foredune. The presence of the driftlogs provides a stabilizing effect on the foredunes.
3. The encroachment of sand, either by wind, water, or other agent, onto developed lands is a hazard and persons who contribute to same should be cited under public nuisance procedures.
4. The City should continue to work with federal agencies and private landowners to solve problems with blowing sand from destabilized sand dunes.

5. The City should work with the state and with landowners and businesses to accomplish health hazard annexations as those become necessary.
6. The City should provide for educational opportunities for the public to learn about and understand dunal ecology.
7. Where a traditional cultural property is thought to exist, the community seeking recognition of those properties should provide evidence to the City of how that area is important in maintaining the continuing culture of the community. Upon recognizing the traditional cultural property, the City shall work with the affected community to protect the cultural value of the site, to the extent possible.

Background

Florence's ocean beaches are limited to the far northwest corner of the UGB, north of the North Jetty. This readily accessible beach area may fall within City limits during the planning period. The majority of this area is intensively developed with vacation homes and cabins on small lots. In this area, domestic water is provided by Heceta Water District and on site septic systems provide waste disposal. With the completion of the Florence Wastewater Treatment Plant and extension of municipal wastewater service out to Driftwood Shores, the connection to City wastewater is now available.

Lane County manages this area within the Florence UGB prior to annexation to the City. The County uses a Beaches and Dunes Overlay District to review development proposals. This District is part of the implementation of the Coastal Resources Management Plan. The City, has adopted an implementing overlay zoning district that will apply to these areas with development prohibitions at the time of annexation. .

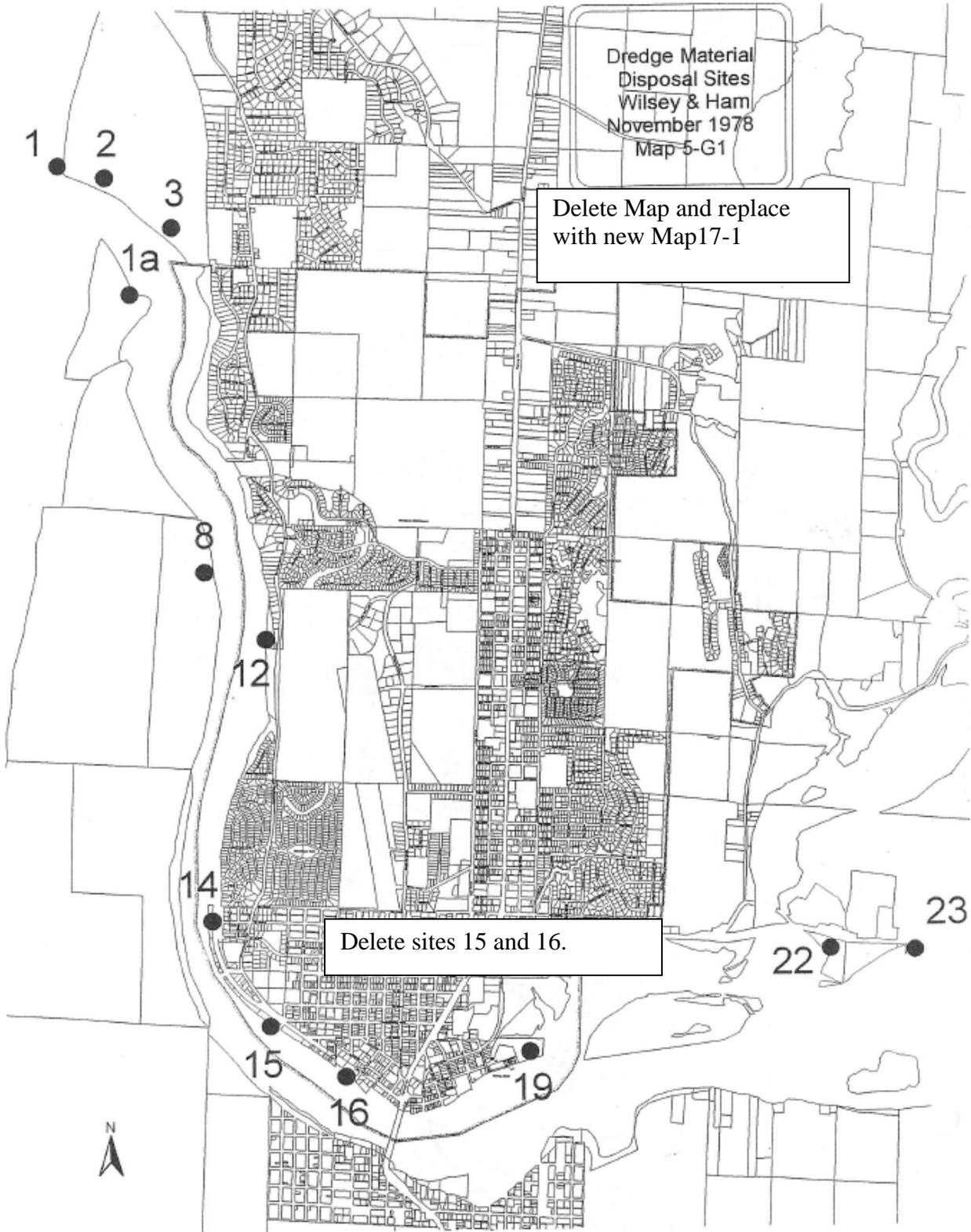
Numerous other beach access points exist to the south within minutes of Florence on State and federally owned coastal shorelines. The Oregon Dunes National Recreation Area is known internationally, and attracts visitors from all over the world. It is also the site of studies and projects exploring ways to best manage this resource in keeping with its natural history and heritage, while still encouraging the public to use and enjoy the resource.

Florence is developed upon sand dunes, and although most have naturally stabilized or stabilized as a result of man-induced actions, a few sizable open dunes still advance and shift due to heavy onshore winds in both the summer and winter.

Conflicts are beginning to occur as the result of the recent federal policy to destabilize dune areas in federal ownership by removing nonnative plant materials such as European beachgrass. Developments on abutting private lands that were constructed during the time when the policy was to stabilize dunes are now being impacted by blowing sand as vegetation is removed. This issue affects the City directly as the potential owner of a parcel west of Highway 101 near Munsel Lake Road presently owned by the US Bureau of Land Management. In August, 1998, BLM issued a Notice of Realty Action which determined that the 40 acre parcel was approved for conveyance to the City of Florence without monetary consideration to be managed for open space and recreation.

The attached Findings of No Significant Impact on the City's Recreation and Public Purposes Patent Application OR 54174 approves the City's application with conditions prohibiting vegetative dune stabilization and limiting development actions.

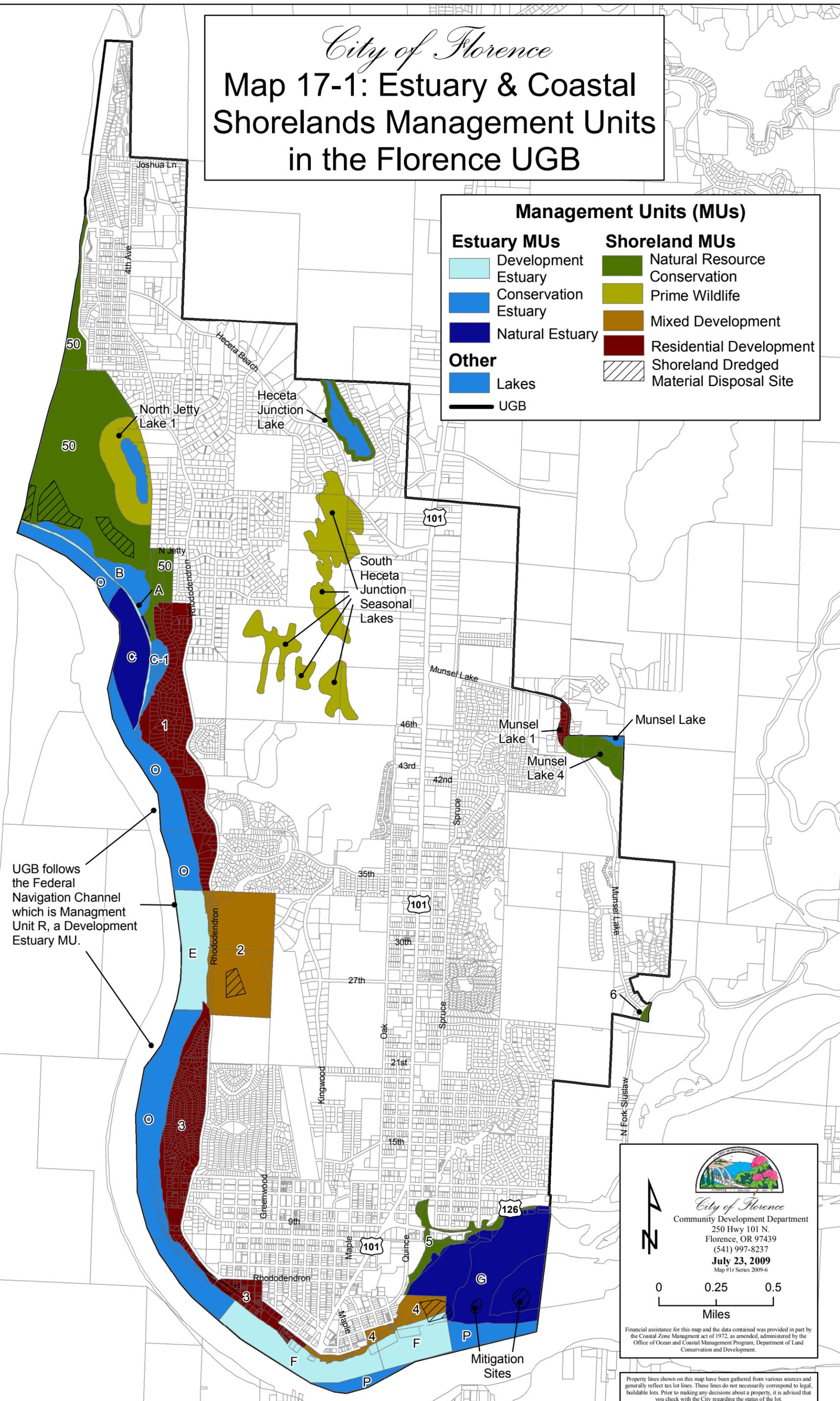
The City has determined that the conditions within the Findings approval are not acceptable as written, but supports further negotiations for City ownership of this resource.



City of Florence

Map 17-1: Estuary & Coastal Shorelands Management Units in the Florence UGB

| Management Units (MUs) | |
|------------------------|--|
| Estuary MUs | Shoreland MUs |
| Development Estuary | Natural Resource Conservation |
| Conservation Estuary | Prime Wildlife |
| Natural Estuary | Mixed Development |
| Other | Residential Development |
| Lakes | Shoreland Dredged Material Disposal Site |
| UGB | |





City of Florence
 Community Development Department
 250 Hwy 101 N.
 Florence, OR 97439
 (541) 997-8237
July 23, 2009
 Map #1r Series 2009-6



0 0.25 0.5
 Miles

Financial assistance for this map and the data contained was provided in part by the Coastal Zone Management act of 1972, as amended, administered by the Office of Ocean and Coastal Management Program, Department of Land Conservation and Development.

Property lines shown on this map have been gathered from various sources and generally reflect tax lot lines. These lines do not necessarily correspond to legal, buildable lots. Prior to making any decisions about a property, it is advised that you check with the City regarding the status of the lot.

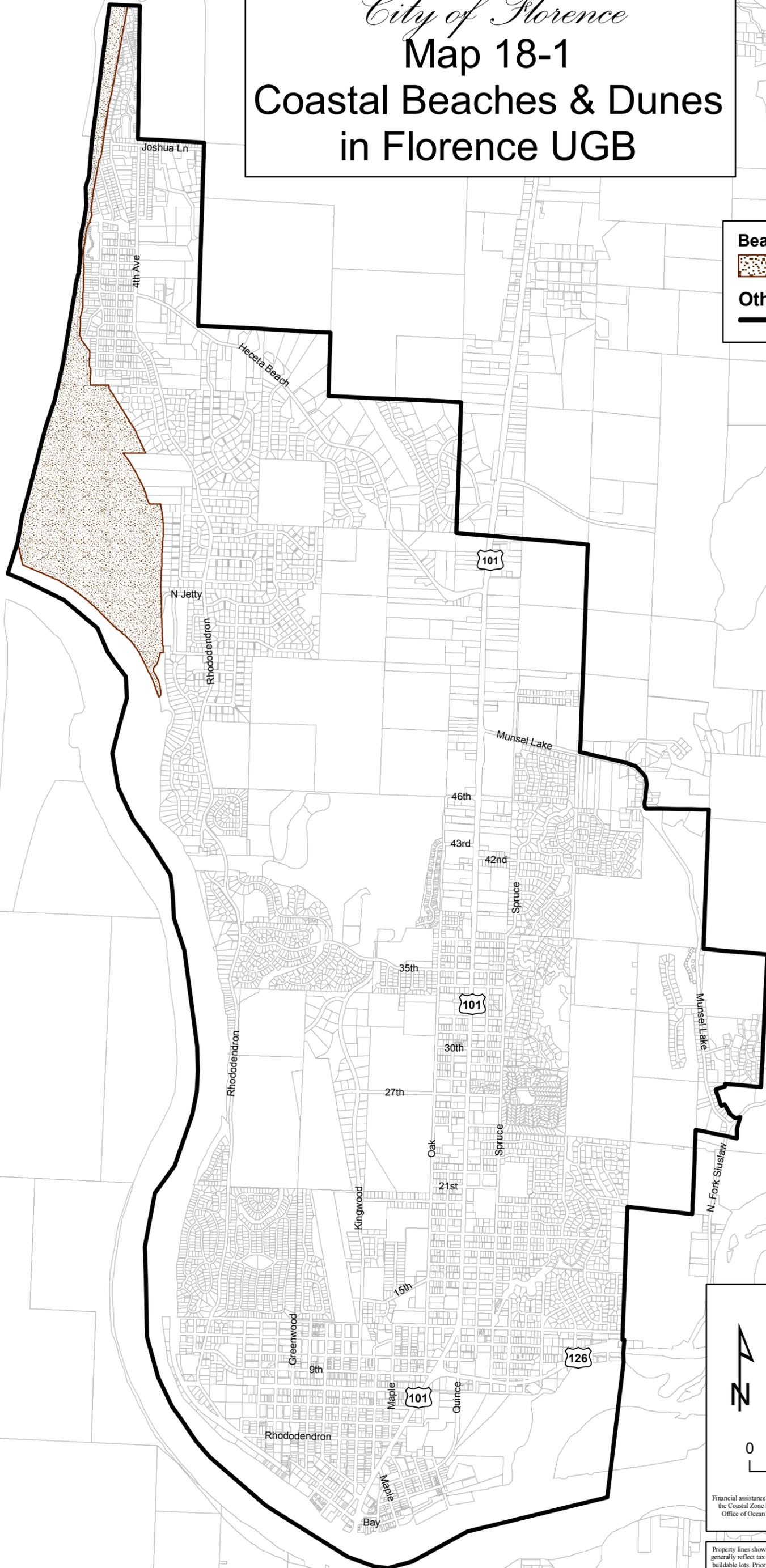
City of Florence
Map 18-1
Coastal Beaches & Dunes
in Florence UGB

Beaches & Dunes

 Beaches & Dunes

Other

 UGB




City of Florence
 Community Development Department
 250 Hwy 101 N.
 Florence, OR 97439
 (541) 997-8237
July 23, 2009
 Map #4 Series 2009-6

0 0.25 0.5
 Miles

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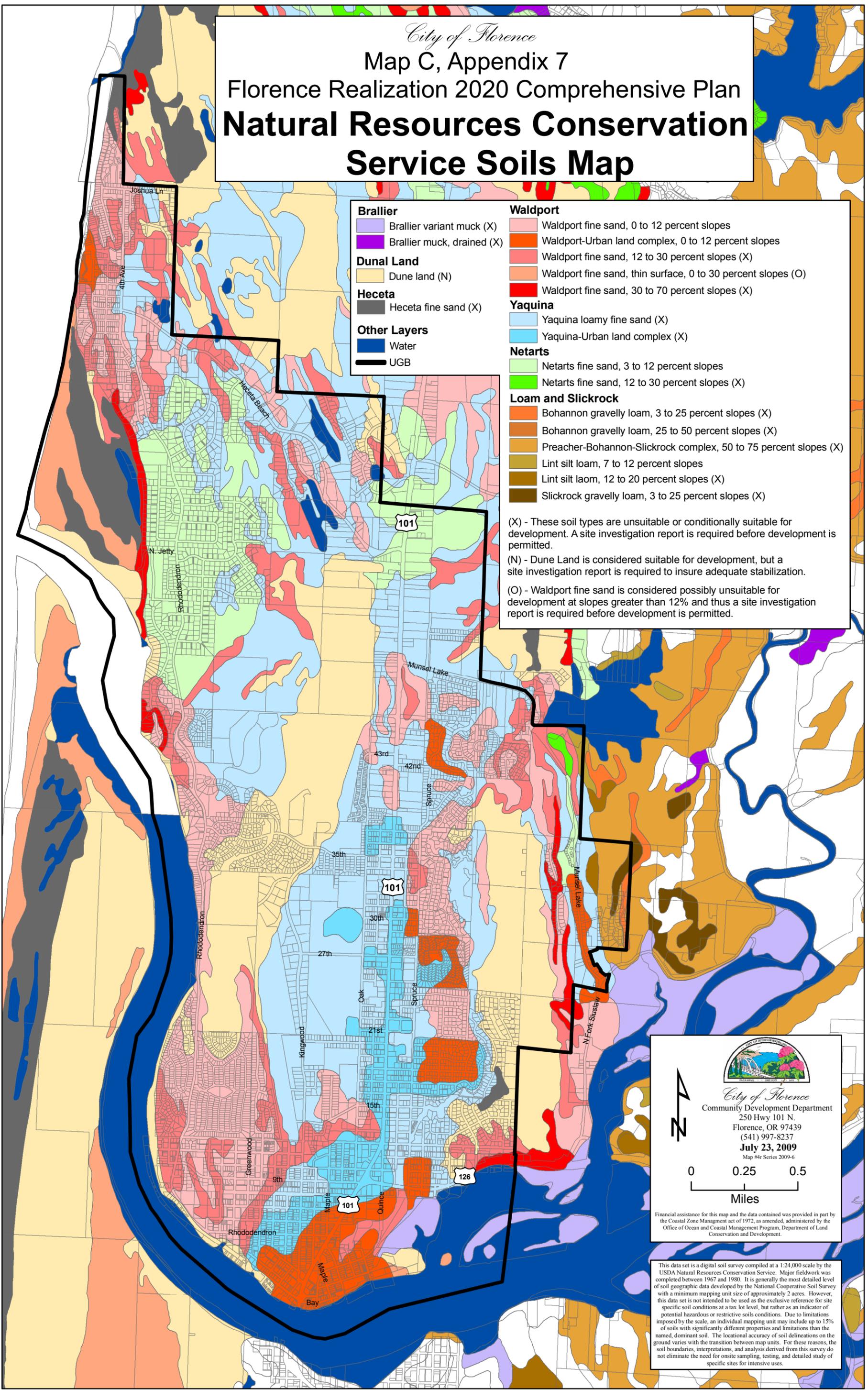
City of Florence
Map C, Appendix 7
Florence Realization 2020 Comprehensive Plan
Natural Resources Conservation
Service Soils Map

- | | |
|--|--|
| <p>Brallier</p> <ul style="list-style-type: none"> Brallier variant muck (X) Brallier muck, drained (X) <p>Dunal Land</p> <ul style="list-style-type: none"> Dune land (N) <p>Heceta</p> <ul style="list-style-type: none"> Heceta fine sand (X) <p>Other Layers</p> <ul style="list-style-type: none"> Water UGB | <p>Waldport</p> <ul style="list-style-type: none"> Waldport fine sand, 0 to 12 percent slopes Waldport-Urban land complex, 0 to 12 percent slopes Waldport fine sand, 12 to 30 percent slopes (X) Waldport fine sand, thin surface, 0 to 30 percent slopes (O) Waldport fine sand, 30 to 70 percent slopes (X) <p>Yaquina</p> <ul style="list-style-type: none"> Yaquina loamy fine sand (X) Yaquina-Urban land complex (X) <p>Netarts</p> <ul style="list-style-type: none"> Netarts fine sand, 3 to 12 percent slopes Netarts fine sand, 12 to 30 percent slopes (X) <p>Loam and Slickrock</p> <ul style="list-style-type: none"> Bohannon gravelly loam, 3 to 25 percent slopes (X) Bohannon gravelly loam, 25 to 50 percent slopes (X) Preacher-Bohannon-Slickrock complex, 50 to 75 percent slopes (X) Lint silt loam, 7 to 12 percent slopes Lint silt loam, 12 to 20 percent slopes (X) Slickrock gravelly loam, 3 to 25 percent slopes (X) |
|--|--|

(X) - These soil types are unsuitable or conditionally suitable for development. A site investigation report is required before development is permitted.

(N) - Dune Land is considered suitable for development, but a site investigation report is required to insure adequate stabilization.

(O) - Waldport fine sand is considered possibly unsuitable for development at slopes greater than 12% and thus a site investigation report is required before development is permitted.





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0 0.25 0.5
 Miles

Financial assistance for this map and the data contained was provided in part by the Coastal Zone Management act of 1972, as amended, administered by the Office of Ocean and Coastal Management Program, Department of Land Conservation and Development.

This data set is a digital soil survey compiled at a 1:24,000 scale by the USDA Natural Resources Conservation Service. Major fieldwork was completed between 1967 and 1980. It is generally the most detailed level of soil geographic data developed by the National Cooperative Soil Survey with a minimum mapping unit size of approximately 2 acres. However, this data set is not intended to be used as the exclusive reference for site specific soil conditions at a tax lot level, but rather as an indicator of potential hazardous or restrictive soils conditions. Due to limitations imposed by the scale, an individual mapping unit may include up to 15% of soils with significantly different properties and limitations than the named, dominant soil. The locational accuracy of soil delineations on the ground varies with the transition between map units. For these reasons, the soil boundaries, interpretations, and analysis derived from this survey do not eliminate the need for onsite sampling, testing, and detailed study of specific sites for intensive uses.

This report was prepared as part of a larger document addressing various beach and dune planning and management considerations and techniques. Other segments of the document and additional materials are:

I. BACKGROUND ON BEACH AND DUNE PLANNING:

Background of the Study

An Introduction to Beach and Dune Physical and Biological Processes

Beach and Dune Planning and Management on the Oregon Coast: A Summary of the State-of-the-Arts

II. BEACH AND DUNE IDENTIFICATION:

A System of Classifying and Identifying Oregon's Coastal Beaches and Dunes

III. PHYSICAL AND BIOLOGICAL CONSIDERATIONS:

Physical Processes and Geologic Hazards on the Oregon Coast

Critical Species and Habitats of Oregon's Coastal Beaches and Dunes

IV. MANAGEMENT CONSIDERATIONS:

Dune Groundwater Planning and Management Considerations for the Oregon Coast

Off-road Vehicle Planning and Management on the Oregon Coast

Sand Removal Planning and Management Considerations for the Oregon Coast

Oregon's Coastal Beaches and Dunes: Uses, Impacts and Management Considerations

Dune Stabilization and Restoration: Methods and Criteria

V. IMPLEMENTATION TECHNIQUES:

Beach and Dune Implementation Techniques: Findings-of-Fact

Beach and Dune Implementation Techniques: Site Investigation Reports

*Beach and Dune Implementation Techniques: Model Ordinances**

VI. ANNOTATED BIBLIOGRAPHY:

Beach and Dune Planning and Management: An Annotated Bibliography

VII. EDUCATIONAL MATERIALS:

Slide show: Managing Oregon's Beaches and Dunes

Brochure: Planning and Managing Oregon's Coastal Beaches and Dunes

*Prepared under separate contract between Oregon Department of Land Conservation and Development and the Bureau of Governmental Research, Eugene.

Cover illustration by Arlys Bernard, Newport, Oregon.

BEACH AND DUNE IMPLEMENTATION TECHNIQUES:
SITE INVESTIGATION REPORTS

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June, 1979.

Funding for this study was provided by the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, under Section 306 of the Coastal Zone Management Act through the Oregon Department of Land Conservation and Development.

PREFACE

The following report presents the results of an in-depth analysis of site investigation reports as a tool for use by local jurisdictions in evaluating proposals for beach and dune areas. This report was prepared under the auspices of the Oregon Coastal Zone Management Association and constitutes one element of an overall analysis of planning for, and managing, coastal beaches and dunes as required by Oregon's Beaches and Dunes Goal.

This report was prepared by Wilbur E. Ternyik, Wave Beachgrass Nursery, Florence, Oregon, with assistance from OCZMA's Beaches and Dunes Study Team composed of Carl Lindberg, Project Director, Christianna Crook, Research Associate, Arlys Bernard, Project Secretary, and Kathy Fitzpatrick, Project Administrator.

In addition, valuable review and comments were made on portions of this product by the Beaches and Dunes Steering Committee composed of:

R. A. Corthell, U.S. Soil Conservation Service
Steve Stevens, U.S. Army Corps of Engineers
Sam Allison, Oregon Department of Water Resources
Peter Bond and John Phillips, Oregon Department of Transportation,
Parks and Recreation Division
Bob Cortright, Oregon Department of Land Conservation and Development
Jim Lauman, Oregon Department of Fish and Wildlife
Jim Stenbridge, Oregon Department of Soil and Water Conservation
Steve Felkins, Port of Coos Bay
Rainmar Bartl, Clatsop-Tillamook Intergovernmental Council
Gary Darnielle, Lane Council of Governments
Kathleen Mecone, Coos-Curry Council of Governments
Marilyn Adkins, City of Florence Planning Department
Phil Bredesen, Lane County Planning Department
Steve Goeckritz, Tillamook County Planning Department
Oscar Granger, Lincoln County Planning Department
Curt Schneider, Clatsop County Planning Department

OCZMA extends special appreciation to Dick Benner, Project Attorney for 1,000 Friends of Oregon, Dr. Jim Stenbridge, Coastal Specialist, Oregon Soil and Water Conservation Commission, and Marilyn Adkins and Carl Jennings, Planners for the City of Florence, for their timely and thorough review of this material. Their comments were instrumental in producing a product which OCZMA hopes will be useful and beneficial to coastal jurisdictions.

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I. THE SITE INVESTIGATION

Suggested within the Guidelines of the Beaches and Dunes Goal as one possible method that local governments might use to direct beach and dune development is the "site investigation report" (LCDC, 1977):

"Local governments should adopt strict controls for carrying out the Implementation Requirements of [the Beaches and Dunes Goal...including] requirement of a site investigation report financed by the developer."

For the purpose of this report, the site investigation report is intended to provide a systematic process for developer and jurisdiction review of the following types of information:

- (1) the identification of possible negative impacts caused by geologic hazard accentuated by or impacting the proposed development, adjoining property, and overall dune sheet;
- (2) to suggest solutions or remedies to identified problems to overcome geological hazard or to accommodate other environmental considerations; and
- (3) to identify consistency or conflict with local, state and federal regulations, including the Oregon Beaches and Dunes Goal and other statewide planning goals, and the local comprehensive plan.

In this regard, the site investigation report would serve to provide planning staffs and decision-makers with all the pertinent information necessary in any deliberation concerning beach and dune areas to arrive at a decision based on findings-of-fact.

The purpose of the site investigation report in beach and dune areas is to provide information on geologic hazards and environmental constraints which may affect or be affected by the proposed development, in addition to identifying pertinent regulations affecting the development proposals. Because Oregon's Beaches and Dunes Goal suggests that local governments require SIRs to assist in "evaluating beach and dune plans and actions," additional information pertaining to impacts of the proposed development, over and above potential geologic constraints, is noted within the following material. However, the primary objective of the Beaches and Dunes Goal and the SIR is to ensure development that is compatible with the beach and dune landforms. In this regard, benefits to be derived from a project, whether social, economic, environmental, recreational, or otherwise, should not solely be used to determine the appropriateness of a proposal that is clearly inconsistent with identified hazards. However, cities and counties may find such information to be useful in evaluating other aspects of the proposed development once it is determined to be compatible with the landform. For this reason, and to ensure compliance with existing regulations, the material presented herein has been developed in a fashion that comprehensively evaluates development proposals in an effort to assist both the developer and the local decision-maker. In short, the SIR is intended to provide a systematic analysis of proposed uses in beach and dune areas that are "consistent with their ecological, recreational, aesthetic, water resource,

and economic values, and consistent with the natural limitations of beaches, dunes and dune vegetation for development" (LCDC, 1977).

In order to maintain sound management of Oregon's coastal beach, dune and cliff areas and still provide for acceptable development, data must be collected to allow for wise decision-making. Even more important is the accuracy of the data due to possible later legal challenges to decisions made. Great care should be taken to ensure that the evidence developed and used for "findings-of-fact" will stand up in court and reflect a true method of implementing the Oregon Land Conservation and Development Commission's state-wide planning goals and local land use regulations affecting uses in coastal beach, dune and cliff areas. Because of the report's use in developing findings-of-fact that may be tested in court, the jurisdiction should give clear direction on all necessary information needed.

It is recommended that the Site Investigation Report (SIR) contain two phases. The first would be a simple "yes" or "no" development proposal handout checklist available from local planning offices. If significant hazards are identified as a result of the Phase 1 SIR, or if there are possible compliance problems with state or local land use regulations, then a Phase 2 SIR would be required.

Although the use of the short form Phase 1 SIR should quickly eliminate a large share of proposals from full site investigations, careful review of the Phase 1 SIR would be required of the local planning staff in order to determine if a Phase 2 investigation should be required. Official planning commission action should determine if the full site investigation report is required (or such authority could be delegated to the planning staff).

Once the determination is made that there is sufficient reason to require a Phase 2 SIR, the development proposal will be subjected to intense scrutiny. The applicant should be notified by certified mail of the need to conduct a Phase 2 SIR and what his/her responsibilities will be. Additionally, it is important that the applicant be informed of the various roles and responsibilities of the agencies involved.

For the purpose of the site investigation report, major and minor impacts are not distinguished by size, but rather by their cumulative impacts on coastal landforms and/or hazard potential. The smallest project can have a major impact, whereas a large project can have a minor impact depending on location and associated design modifications.

Finally, due to the dynamic nature of Oregon's coastal beach and dune systems, the interdependencies of the system, and the intent of the Beaches and Dunes Goal, it is necessary that public agency (federal, state and local) development proposals within the beach and dune area be required to follow the site investigation report procedure with local units of government as identified herein. If this is not done, management of Oregon's coastal beaches and dunes will be uncoordinated and haphazard, without regard for the integrity of the dune system or the regulations which mandate balanced management of these unique systems.

While the format and emphasis of any particular site investigation report will vary with location and situation, it is recommended that the site investigation report generally include the following types of information:

- I. Purpose of the Site Investigation Report
- II. Scope of the Investigation including methods and commissioning party
- III. Site Data and Identification including project description and location
- IV. Site Investigation Report
 - A. State and Local Zoning Regulations
 - B. Identified Set-back Lines
 - C. Identified Hazardous Conditions
 - D. Existing Site Vegetation
 - E. Fish and Wildlife Habitat
 - F. Floodplain Elevation
 - G. Historical and Archaeological Sites
 - H. Condition of Adjacent Areas
 - I. Development Impacts
 - J. Proposed Design
 - K. LCDC Coastal Goal Requirements
- V. Graphic Portrayal of Data
- VI. Conclusions
- VII. Recommendations
- VIII. Other information including literature referenced, copies of approved permits, etc.

While not specific to beaches and dunes, the City of San Jose, California has developed guidelines for geologic and engineering geology reports that provide an example of the format and contents of a site investigation report (Nelson, 1976).

II. BEACHES AND DUNES SITE INVESTIGATION - PHASE I
INITIAL PROPOSED DEVELOPMENT APPLICATION CHECKLIST¹

LOCATION:

- | | | |
|-----|----|---|
| YES | NO | 1. <u>LOCAL ZONING REGULATIONS</u> |
| — | — | Does the proposed development site plan conform to City, or County Zoning Regulations regarding setback lines and other code provisions? (Contact the City or County Engineer for details.) |
| YES | NO | 2. <u>COMPREHENSIVE PLAN SETBACK LINE OR DESIGNATION</u> |
| — | — | a. Has a Coastal Construction Setback Line (CCSBL) been adopted for this County or City? (Inquire from the County or City Engineer.) |
| — | — | b. If a CCSBL has been adopted for this County or City is the proposed site seaward of the CCSBL? |
| — | — | c. If the proposed site is seaward of the adopted CCSBL, has application for a variance or exception been made to the Planning Commission having jurisdiction? |

¹If answer to any of the above is Yes then full details of location, extent, type, and possible remedies will be required.

YES NO
____ ____

3. IDENTIFIED HAZARDOUS CONDITIONS

a. Has any portion of the property been identified as being affected by any potential or existing geological hazard? (Contact County or City Planning Departments for information published by the State Department of Geology and Mineral Industries, U.S. Department of Agriculture-Soil Conservation Service, U.S. Geological Survey, U.S. Army Corps of Engineers and other government agencies).

____ ____
____ ____
____ ____
____ ____
____ ____

b. Are any of the following identified hazards present?

- 1. Active foredune
- 2. Water erosion
- 3. Flooding
- 4. Wind erosion
- 5. Landslide or sluff activity

c. Are there records of these hazards ever being present on the site?

YES NO
____ ____

4. EXISTING SITE VEGETATION

a. Does the vegetation on the site, afford adequate protection against soil erosion from wind and surface water runoff?

____ ____

b. Does the condition of vegetation present constitute a possible fire hazard or contributing factor to slide potential?

(If answer is Yes, full details and possible remedies will be required.)

YES NO
____ ____

5. FISH AND WILDLIFE HABITAT

a. Does the site contain any identified rare or endangered species or unique habitat (feeding, nesting or resting)?

____ ____

b. Will any significant habitat be adversely affected by the development? (Contact State Fish and Wildlife, County and City Planning Staffs for inventory data.)

YES NO
____ ____

6. HISTORICAL AND ARCHAEOLOGICAL SITES

Are there any identified historical or archaeological sites within the area proposed for development? (Contact local planning office.)

YES NO
____ ____

7. FLOOD PLAIN ELEVATION

a. If the elevation of the 100 year flood plain or storm tide has been determined, does it exceed the existing ground elevation at the proposed building site? (Contact the Federal Insurance Administration, City or County Planning Departments for information on 100 year flood plain information. Existing site elevations can be identified by local registered surveyor.)

YES NO

___ ___

b. If elevation of the proposed development is subject to flooding during the 100 year flood or storm tide, will the lowest habitable floor be raised above the top of the highest predicted storm-wave cresting on the 100 year flood or storm tide?

YES NO

___ ___
___ ___
___ ___
___ ___
___ ___
___ ___

8. CONDITION OF ADJOINING AND NEARBY AREAS

Are any of the following natural hazards present on adjoining or nearby properties that would pose a threat to this site?

- a. Open dunes
- b. Active foredunes
- c. Storm runoff erosion
- d. Wave undercutting or wave overtopping
- e. Slide areas
- f. Combustible vegetative cover

(Contact County and City Planning staffs for local hazard information.)

YES NO

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9. DEVELOPMENT IMPACTS

- a. Will there be adverse off-site impacts as a result of this development?
- b. Identify possible problem type
 - 1. Increased wind exposure
 - 2. Open sand movement
 - 3. Vegetative destruction
 - 4. Increased water erosion (storm runoff, driftwood removal, reduction of foredune, etc.)
 - 5. Increased slide potential
 - 6. Affect on aquifer
- c. Has landform capability (density, slope failure, ground-water, vegetation, etc.) been a consideration in preparing the development proposal?
- d. Will there be social and economic benefits from the proposed development?
- e. Identified benefits
 - 1. New jobs
 - 2. Increased tax base
 - 3. Improved fish and wildlife habitat

YES NO

- 4. Public access
- 5. Housing needs
- 6. Recreation potential
- 7. Dune stabilization (protection of other features)
- 8. Other _____

YES NO

10. PROPOSED DESIGN

- a. Has a site map been submitted showing in detail exact location of proposed structures?
- b. Have detailed plans showing structure foundations been submitted?
- c. Have detailed plans and specifications for the placement of protective structures been submitted if need is indicated?
- d. Has a plan for interim stabilization, permanent revegetation and continuing vegetative maintenance been submitted?
- e. Is the area currently being used by the following?
 - 1. off-road vehicles
 - 2. motorcycles
 - 3. horses
- f. Has a plan been developed to control or prohibit the uses of off-road vehicles, motorcycles, and horses?

YES NO

11. LCDC COASTAL GOAL REQUIREMENTS

- a. Have you read the LCDC Goals affecting the site? (Contact LCDC, City or County office for copies of Goals.)
- b. Have you identified any possible conflicts between the proposed development and the Goals or acknowledged comprehensive plan? (If so, list them and contact local planning staff for possible resolution.)
- c. Have all federal and state agency consistency requirements been met? (Contact local planning office.)
- d. Has applicant or investigator determined that the development proposal is compatible with the LCDC Beaches and Dunes Goal and other appropriate statewide land use planning laws?

III. BEACHES AND DUNES SITE INVESTIGATION - PHASE 2
DEVELOPMENT APPLICATION CHECKLIST

The following are suggested inclusions of a full site investigation report, with an explanation of the importance of the material requested noted in italics.

A. State and Local Zoning Regulations

1. Submit letter from city or county planning staff and/or engineer certifying that the proposed development site plan conforms with applicable city or county zoning regulations or plan designations.
2. Same letter must indicate approval of conformance with any special code provisions.
3. If an exception to a statewide planning goal or a variance has been previously approved for the particular locale, substantiate accordingly.

B. Identified Set Back Line or Designations

1. Identify on plot plan the 100-year floodplain line.
2. Identify on plot plan all established set back lines.

C. Identified Hazardous Conditions

1. Map to approximate scale all identified areas of wind erosion, water erosion, and slide activity.
2. Provide written details on extent of hazard as follows:
 - a. Wind Erosion
 - (1) Size and slope of active sand area.
Size and slope of open sand areas indicate required stabilization methods, development location, and probable length of time elapse between initial stabilization and development construction.
 - (2) Delineate areas of sand loss or accretion.
Areas of sand loss or accretion indicate probable continued erosion. Their size and location indicate probable rate of erosion. Location and wind exposure will dictate appropriate stabilization methods required.

- (3) Identify off-site source of sand and probable movement patterns and rate of movement.
Off and on site wind data is used to determine continued sand movement problems and their extent.
- (4) Indicate wind exposure and estimated fetch length.
Wind exposure is all important in determining possible problems with existing wind erosion or possible new erosion potential caused by development activities. Road and path location are in some cases determined by wind exposure at the site. Temporary stabilization of open areas must be immediate if they are located in northwest wind exposures in the summer or southwest wind exposures in the fall and winter. The fetch length is all important in weighing probable wind erosion relative to average wind velocity. Normally the shorter the fetch length, the less problem with wind erosion.
- (5) Indicate height of water table in relation to ground surface.
Water table height is important to plant species selection and stabilization method selection.
- (6) Identify plant species present and general location.
Plant identification is used to evaluate status of dune movement and indicate seasonal water table influence.

b. Water Erosion

- (1) Size and slope of areas affected.
Size and degree of slope are indicators of rate of erosion and wave energy present. (The steeper cut banks indicate severe erosion needing corrective action. If height of cut bank is twenty feet or more in sand, then special setbacks should be considered if corrective measures cannot be taken.
- (2) Delineate areas of material loss or deposit.
Areas of loss or deposit indicate possible future problems from water erosion. Careful study of those areas will also indicate possible rate and extent of future erosion. This information will then dictate proper corrective measures to be taken.
- (3) Identify off site conditions contributing to past or continuing water erosion problems.
Off site conditions causing continuing water erosion might be related to drainage, adjoining structures, jetties, groins, riprap, construction activities, vegetation removal, driftwood deposit or removal, etc. Assessment must be made to determine if on site corrective measures will be sufficient to protect the site.
- (4) Submit photographic or other evidence of type of erosion (i.e., wave, current, storm runoff, etc.)
Clearly identified photos of areas of water erosion should allow for a determination of type and severity of water erosion on the site. All photos should be dated. To ensure current conditions, up to date photos taken within the past thirty days should be submitted along with any historic photo record.

- (5) Indicate width and slope of beach from mean low water to beach line.
The width and slope of a beach influences the wave energy delivered to the beachfront site. This information is essential for proper design specifications in placement of riprap.
- (6) Identify all water present causing erosion (i.e., ocean, rivers, lakes, seasonal flooding, etc.)
Photos of wave run-in during severe storms would be valuable, especially if taken at high tide. All potential significant water areas need to be identified so that water management plans can be developed to minimize problems.
- (7) Produce evidence, if possible, of past erosion rates and give investigator's prediction of future erosion rates.
All areas that are currently "conditionally stable" foredunes have past histories of active water erosion. Historical aerial photographs with scale and date will provide evidence of past erosion rates and cycles.
- (8) Indicate areas of vegetative cover on front of foredune area.
Vegetative cover limited to the upper slopes of foredune areas often indicates previous erosion that has been restored at the base of the slope by windblown sand. Caution must be taken in such cases as active foredune or unstable open dune areas might be present. Also, look for sloughing, including leaning vegetation, usually associated with slides.
- (9) Provide complete location mapping and actual work specifications for all corrective measures proposed to alleviate future water erosion problems. Furnish detailed cost estimates and post performance bonds in that amount with the local jurisdiction.
Location, time schedule, and work specifications allow for determination of probable success and provide legal documentation for ensuring compliance. Specifications should be compared with U.S. Corps of Engineers suggestions for similar work. Cost estimates should be compared with similar type work performed within the last years to ensure that funds are adequate to complete the job. The performance bond should be adequate to allow the local unit of government to perform all work not completed by the developer. Failure to do this might lead to damage lawsuits against the local jurisdiction filed by on or off site tenants or owners.

c. Slide Areas

- (1) Identify areas affected by slide or sloughing on site plan and furnish dated photographs and/or other evidence showing all such activity.
Identification of slide activity areas can be used to identify areas safe for development. Photographs can be used to help identify slide type and level of threat.

- (2) Identify type of slide: rotation block, rockfall or soil creep and nature of the instability.
Type of slide indicates degree of hazard and course of corrective action needed.
- (3) Identify area of occurrence such as foredune, sea cliff or interior dunes.
Location of slide activity in dune sheet helps to identify causes and assists in selection of course of corrective action.
- (4) Describe width, height, and degree of slope. Include types of soil and underlying bedrock.
Width, height and slope of slide help in establishing on-site construction setback line. Type of soil and underlying bedrock helps to determine projected future movement rates.
- (5) Describe location and measurements of cracks, drainage patterns, driftwood deposits, bedrock outcrops, wave undercutting, or other major features.
Descriptions of visible cracks, drainage patterns, driftwood deposits, etc. are all indicators used in determining historical movement and predicting future movement.
- (6) Describe probable cause and investigator's prediction of future slide activity.
Description of cause of slide activity allows for quick decision on possible corrective action.

D. Existing Site Vegetation

1. Map all major areas of vegetation and provide lists of dominant species in each area.
Dominant species indicate stage of plant succession and indicate wet or dry conditions.
2. Provide investigator's assessment of age, condition, and stability of all vegetated areas.
Information on age and condition of species will indicate probability of continued survival. In some cases, vegetation may indicate that the area is returning to an open dune area unless carefully managed.
3. Identify on site plan any removal or modification of vegetative cover.
Identification of areas of vegetative removal or modification is necessary to determine probable success of stabilization or restoration efforts.
4. Give brief description of vegetative cover on adjoining lands.
It is necessary to determine the possible impacts of development on adjoining lands. Cutting of pine forest on adjoining lands might increase wind erosion and storm run-off damage. Unmanaged beach grass or gorse stands on adjoining lands can pose serious threats to development. Vegetation fire break plans using fire retardant species is one possible solution.

5. Identify and describe areas where vegetative cover poses a fire hazard. List species and condition. Propose solution to fire hazard problem. Furnish dated photographs of such areas.

Lee slopes of foredunes or high dunes with older stands of European beachgrass (Ammophila arenaria) pose extreme fire hazards throughout Oregon coastal dunes. The south coast has heavy stands of gorse (Ulex europaeus) that is a significant fire hazard.

E. Fish and Wildlife Habitat

1. Describe and identify any rare or endangered species or unique habitats present on the site.

Rare and endangered species and unique habitat protection is a priority requirement of Oregon's Coastal Management Program. Federal and state permits depend on resolving problems encountered by development in such areas.

2. Describe any adverse impacts on significant habitat to be caused by the proposed development.

Other habitat, if it is mapped as significant in Oregon by the Oregon Department of Fish and Wildlife, should be addressed and may cause similar permit approval problems if not addressed.

3. If adverse impacts are anticipated, describe plans for minimizing such impacts.

It is important to anticipate all potential problems and suggest solutions.

4. Describe possible benefits to adjoining habitats to be realized as a result of the project.

Negative impacts, such as loss of open sand, might be offset by stabilization of open dunes that are inundating wetlands, lakes, woodlands, estuarine habitats, etc.

F. Floodplain Elevation

1. Identify on site plan 100 year floodplain or storm tide line. Give elevation of same.

Information will assist in determining if applicant must meet HUD Floodplain Insurance Program requirements.

2. Identify on site plan the State of Oregon Beach Zone line.

Any work west or seaward of the established Oregon Beach Zone Line must receive prior approval from the State of Oregon. Protective structures such as riprap or seawalls that are identified as being located seaward of the Oregon Beach Zone Line must have proof of written approval.

3. Give evidence that elevation of the lowest habitable floor will be raised above the top of the highest predicted storm wave or 100 year floodplain. Registered surveyor or engineer signed report will suffice.

This information is needed to ensure HUD building requirements are met (the object being to minimize unnecessary risk to life and property).

G. Historical and Archaeological Sites

1. Describe and locate on site plan any identified historical or archaeological sites.
2. Describe any protection measures that may be needed to protect the site(s).

The requirement to protect historic areas for future generations is a requirement of the LCDC "Open Spaces, Scenic and Historic Areas, and Natural Resources" Goal (LCDC, 1977). Unless an exception is taken or the local comprehensive plan designates otherwise, historical and archaeological areas should be protected.

H. Condition of Adjoining Areas

a. Open Dunes

- (1) Give location of open dunes in relationship to the development site.

Open dunes located adjacent to the site may pose insurmountable problems to the proposed development project.

- (2) Indicate approximate size (acres), maximum elevation, direction of movement, and predicted rate of movement of adjoining open dune areas.

The location and size will indicate the probable time a problem might occur. In some cases the adjoining dune might bury the development (from one to twenty years). The estimated rate of movement allows for determination of needed stabilization and when it should occur.

- (3) Indicate ownership of adjoining dunes and proposed future management, if known.

Ownership and proposed future management of adjoining dune areas is necessary to verify that corrective action, if needed, will indeed take place. Without this assurance, a development permit should not be allowed.

- (4) Indicate investigator's assessment of probable threat to development site. Furnish aerial photographs if possible.

Some person, in this case the investigator, must make a value judgement based on the information gathered as to the potential long or short term threat posed by adjoining areas. Aerial photos assist the reviewer in his judgement of the investigators conclusions.

b. Active Foredunes

- (1) Describe size (height and width) of active foredunes on adjoining areas.
Height and width of active foredunes on adjoining areas indicates possible continuing accretion or erosion. This allows for predicted impact on the development area. Stabilizing areas within the development site may not alone alleviate the threat posed by adjoining property.
- (2) Describe any threat they pose to development site.
Will the identified water or wind erosion on adjoining foredunes spread to the development site? Could wave overtopping on adjoining foredunes pose flood threat to structures on adjoining site? Will wind blown sand move from adjoining active foredune areas and bury the development?
- (3) Describe any plans for cooperative measures to alleviate problems.
Corrective actions must be coordinated in order to avoid adverse impacts. Riprap on adjoining active foredunes might cause increased erosion and slope failure on development site, or vice versa. Corrective measures must be consistent if desired protection is to be achieved.

c. Storm Run-off Erosion

- (1) Describe any known storm run-off or flood velocity hazards on adjoining property that might adversely affect the site. Examples might be stream, river, denuded watershed, etc.
These identified problems could lead to wash outs, gullies, slope failures, structure undermining, etc.
- (2) Describe any plans for cooperative measures to alleviate problems.
Proof of cooperative efforts to alleviate serious problems identified above should be required.

d. Wave Undercutting or Wave Overtopping

- (1) Describe extent of recent or historic undercutting, length of area and height of cut.
Length and height of current or historic wave undercutting will indicate measures that must be taken to correct the problem before development is allowed. Height of cut is useful in determining proper setback recommendation.
- (2) Describe area of wave overtopping and furnish photographs or other evidence.
Look for water flattened vegetation, new driftwood deposit and erosion channels on back side of foredune. Be careful of using old driftwood deposits as a gauge. Remember driftwood deposits were present on all Oregon Beaches and deflation plain areas before the recent formation of most foredunes by European beachgrass. Wave overtopping evidence is distinctly different to the trained eye. It is recommended that great care be taken in evaluating this potential danger!

- (3) Describe historic stability of beaches in the general area.
Look for any slow or sudden changes in beach erosion and identify causes if possible. It is possible that a man-made action caused a short term severe erosion problem. It is also possible that historic erosion cycles are evident and the proposed development will have predictable problems.
- (4) Furnish investigator's assessment of possible threat to the site.
The investigator's opinion is all important in determining if the level of hazard can be overcome.

I. Development Impacts

1. Report should include the investigator's assessment of the site's overall capability and suggest maximum use level that will not cause weight slope failure, vegetation problems from too high a density of human population, damage to aquifer, etc.

This is a judgement of extreme importance because the cumulative effect of minor impacts could result in a total dune project failure.

2. Describe any projected off site adverse impacts on adjoining or nearby properties as a result of the development.

Anticipated off site adverse impacts should be identified before construction in order to avoid hard feelings and possible law suits. For example, say that Area A is stabilized and developed, thus cutting off the sand supply to Area B. This results in sand loss and what was a buildable elevation is now deflation plain. Another example might be that stabilization efforts in Area A were not timed properly, so Area B received fifteen feet of sand deposit in one southwest storm and all windows were sandblasted and paint was removed.

3. Identify and list all benefits of the project:

- (a) new jobs created (temporary construction and permanent);
- (b) increased tax base or assessed valuation of completed project;
- (c) Describe any newly created or restored habitat resulting from development; and
- (d) Describe any improvement to public access provided by the project.

(Information needed to evaluate social economic gains as required by the Oregon Economy of the State Goal (#9) and coordination with possible area recreation plan.)

4. Evaluate the impact of the proposed development on seasonal surface water and drainage flow patterns and the potential impact of flooding problems resulting from the development. If the development proposes to lower the groundwater in the deflation plain, plans must accommodate problems associated with changes in the landform. The SIR should address groundwater considerations including high water table, ponding, saltwater intrusion, drawdown on sand spits, and pollution potential.

Failure to address various groundwater considerations could result in hazard to the development and/or adjoining area. It is important to plan appropriately for projected changes to the groundwater condition proposed by the project. For example, drainage of the deflation plain necessitates that the plan accommodate upland situations resulting from a change in the vegetation community (marsh to upland habitat).

J. Proposed Design

1. Furnish a site plan map using scale required by local planning office. Show in detail exact location and size of all proposed structures. Scale drawing of front, back and side views are required as well.

Scale of required plans should be consistent for ease of review. Man-made structures, roads, paths, buildings, utilities, and drainage systems should be included on site plan. Artists conception of back, front and side views are useful in making determination of development's impact on aesthetic values.

2. Submit detailed plans and specifications for structure foundation and identify materials to be used.

Due to extreme variability in dune and cliff foundation strength, foundations must be adequate to support the structure.

3. Furnish detailed plans and specifications for the placement of all protective structures proposed.

Protective structures are in many cases the very foundation of the continued existence of the landform on which the development takes place.

4. Provide complete location mapping and actual work specifications for all initial, temporary, or maintenance stabilization plans proposed.

Location, time schedule, and work specifications allow for determination of probable success and provide legal documentation for ensuring compliance.

5. Furnish detailed cost estimates and post performance bond in that amount with local jurisdiction to accomplish stabilization or restoration proposed.

Cost estimates should be checked against comparable type work performed within the last year. Performance bond should be adequate to allow local unit of government to perform all needed stabilization or restoration in case of developer default.

6. Identify legal responsibilities for long range vegetation maintenance programs.

Dune vegetation at best is a fragile cover requiring substantial maintenance. Who will have responsibility to maintain vegetation once it is established (e.g., developer or purchaser)? Will local government be obligated if both the developer and purchaser fail to maintain vegetation? This point needs to be clarified within the application for development, and should be legal and binding.

7. Describe any benefits realized from dune stabilization or restoration measures proposed.

Dune stabilization may improve wildlife habitat, or afford protection to other features such as lakes, rivers, harbors, wetlands, or highways. The Oregon coast experiences extreme seasonal wind and wave energy. Work performed must follow specifications approved or disasters will follow.

8. Furnish copies of necessary shorefront protection permits or completed permit applications.

Pilings, fills, removals, and/or riprap usually require permits from the Oregon Division of State Lands, the U.S. Army Corps of Engineers and/or other agencies.

9. Furnish detailed plans and specifications for interim stabilization, permanent re-vegetation, and vegetative maintenance as proposed.

While stabilization work is fairly simple, the complex nature of Oregon's beaches and dunes demands precise methods for many different situations. Only proven specifications should be used. The developer should name in advance the firm proposed to do the work and furnish his record of experience. Careful field checking of major proposals will be necessary in order to determine if special problems exist.

10. Furnish detailed plan for off-road vehicle and pedestrian management.

Off-road vehicles, motorcycles, and horses constitute the largest threat to vegetative cover. Plans should detail access road or path location and type of material used in construction. Motorcycles should be prohibited in all areas except older stabilized dunes. Horses should not be allowed in deflation plains or conditionally stable dunes. Off-road vehicles should be assigned to carefully selected open sand areas.

11. Furnish detailed plan for required reclamation of areas disturbed for sand removal, road construction, logging, etc.

Due to the sensitive nature of dune areas some consideration should be given to reclamation. In some instances, this is required by state law.

K. LCDC Coastal Goal Requirements

1. Identify potential conflicts with Coastal Goals or LCDC-acknowledged comprehensive plan, and Oregon's Coastal Management Program.

2. Identify efforts made in development design to resolve or minimize identified conflicts.

Each applicant should be familiar with the Coastal Goals and other statewide planning goals, and be encouraged to read the goals before initiation of the site investigation report. First hand knowledge of the content of the goals should help alleviate many problems for all concerned. The applicant's written record of efforts made to resolve identified conflicts will speed up the review process and will afford the decision-making body insight into the method used in preparing the SIR.

IV. A PROCEDURE FOR IMPLEMENTING BEACH AND DUNE PLANNING REQUIREMENTS

The following procedures should be observed in applying for, reviewing and approving or disapproving a proposal for an activity within an identified beach or dune area (see Figure 1).

1. Applicant prepares and submits a Phase 1 site investigation report to the local planning agency.

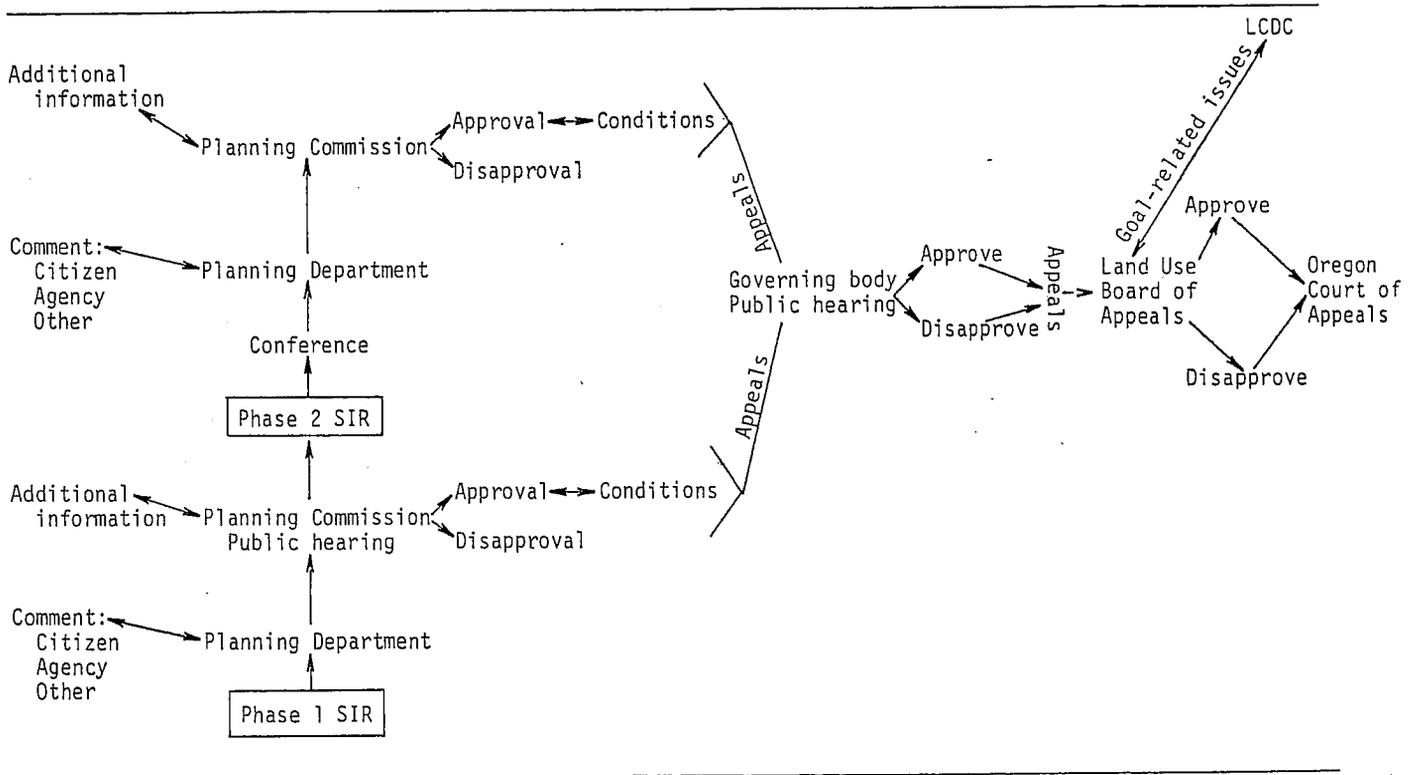


Figure 1. Procedural flowchart.

2. Planning staff distributes copies of the SIR to affected governmental units and agencies, citizen involvement committees, and other interested parties, giving them a specific length of time (at least three weeks) to review and respond to the development proposal.
3. Following the staff's review of the proposal and related comments, the proposal is submitted to the Planning Commission for consideration and public hearing. Staff recommends that SIR is adequate and decision should be based on SIR as submitted, or staff recommends that SIR appears inadequate and that further information is appropriate or that a Phase 2 SIR should be undertaken.
4. The Planning Commission reviews the application at a public hearing and develops findings-of-fact based on at least the following requirements of the Beaches and Dunes Goal, weighing Beach and Dune Goal requirements with other planning goals or comprehensive plan requirements:
 - (1) the type of use proposed and the adverse impacts it might have on the site and adjacent areas;
 - (2) temporary and permanent stabilization programs and the planned maintenance of new and existing vegetation;
 - (3) methods for protecting the surrounding area from any adverse effects of the development; and,
 - (4) hazards to life, public and private property, and the natural environments which may be caused by the proposed use.
5. The Planning Commission either approves the proposal based on the Phase 1 SIR, requires the applicant to provide further information within the Phase 1 SIR, or requires the applicant to prepare a Phase 2 SIR.
6. If the applicant is asked to prepare a Phase 2 SIR, at the applicant's request, an informational conference between the applicant and planning staff should be arranged. The purpose of such an informational conference is to make the applicant aware of available inventory material and other information relative to the site, to explain the purposes and requirements of the Phase 2 SIR, and to discuss the critical issues involved with the proposed activity in relation to the local plan or statewide planning goals.
7. The process would be repeated for the Phase 2 SIR, as with the Phase 1 SIR, (e.g., SIR sent out for review, staff recommendation formulated, Planning Commission conducts public hearing and arrives at a decision based on findings-of-fact).
8. If the proposal is approved, the Planning Commission may attach conditions consistent with local zoning ordinances if it finds that such conditions are necessary to carry out the purposes and policies of the Beaches and Dunes Goal or local comprehensive plan relating to beach and dune areas.

9. All permits issued pertaining to an approved proposal should be issued only in accordance with the approved final proposal. Major changes to the approved final proposal should be considered as a new application. Minor changes in the approved final proposal may be approved by the staff provided that such changes do not in any way raise a question as to whether the project is still compatible with the Beaches and Dunes Goal, other statewide planning goals, or the local comprehensive plan.
10. The decision made by the Planning Commission for the Phase 1 SIR or Phase 2 SIR is appealable to the City Council or County Board of Commissioners.
11. The decision of the governing body (county or city) can be appealed to the Land Use Board of Appeals and thence to the Oregon Court of Appeals.

V. ROLES AND RESPONSIBILITIES IN THE PREPARATION AND REVIEW OF SITE INVESTIGATION REPORTS

There are four basic avenues by which the site investigation report may be prepared. One alternative is that used in the State of Minnesota whereby local governments file an environmental assessment worksheet (EAW) with the Minnesota Environmental Quality Council which is subject to agency and interested party review. The other alternatives are similar to those utilized within the State of California pursuant to the California Environmental Quality Act of 1970. They are: (1) the jurisdiction's staff conduct and evaluate an environmental impact report; (2) the developer pays for the EIR, but the EIR is prepared under contract with the local jurisdiction; and (3) the developer contracts and pays for the EIR. Within California, EIRs must be prepared for all projects having a "significant" environmental impact. The California Resources Agency has prepared guidelines addressing the contents of the EIR, but the method used to produce an EIR is left up to local discretion. According to Norman Hill, Assistant Secretary for Resources, all three of the alternatives are widely used throughout the state.

While the environmental impact report approach utilized in California is for environmental impact of development proposals within the entire State of California, the approaches suggested in obtaining needed information for findings-of-fact are applicable to the approaches Oregon coastal jurisdictions may wish to pursue in obtaining information pertinent to the Beaches and Dunes Goal. Table 1 lists the pros and cons of the various approaches based on the applicability of the approach to Oregon's Coastal Management Program within the context of the Beaches and Dunes Goal.

Table 1. Pros and cons of various approaches in the preparation and review of site investigation/environmental impact reports

| Approach | Pros | Cons |
|---|---|---|
| 1. central office of State conducts assessment | --control over investigation --consistency in evaluations | --not consistent with Oregon's Coastal Management Program of planning and implementing plans at the local level --sporadic review of proposals; not a comprehensive approach |
| 2. jurisdiction's staff prepares assessment and conducts evaluation; jurisdiction may charge developer to recoup cost | --gives jurisdiction control over document, time and effort expended --allows for the compilation of data useable for other assessments; --cost is generally lower than hiring private consultant | --appears as a larger budget item on local budgets (despite collection of fees to offset cost) --necessitates larger staff --requires constant work load and thus is generally unsuitable for smaller jurisdictions |
| 3. developer pays cost of assessment; jurisdiction oversees investigation and evaluation | --allows for non-constant work load, thus is suitable for smaller jurisdictions --does not require expansion of staff --allows jurisdiction's interjection of local views | --contract administration selection process --extra administrative steps --jurisdiction may experience problems with quality of the product --in many instances, developer hires own consultant anyway |
| 4. developer responsible for preparation of assessment; jurisdiction responsible for evaluation | --easiest method for local government to administer --no added cost to jurisdiction | --difficult to control quality of product --product may be slanted to project developer's perspective |

Within the State of Oregon, the fourth alternative is the approach that is presently accepted and used, and for this reason, the following is a breakdown of the various responsibilities of affected parties utilizing this approach.

A. Applicants Responsibility

1. Preparation of Site Investigation Report.
2. Selection of any investigators with demonstrated field experience needed to complete report outline requirements.
3. Determine if investigator(s) are properly qualified.
4. Furnish all maps, photographs, soil tests and development specifications required to meet Goal or plan requirements
5. Appear on request at Planning Commission meeting to answer questions about content of Site Investigation Report.
6. All costs of the evaluation. (depending on local established policy)

7. Prepare modifications the Planning Commission deems necessary to make the proposed development compatible with the LCDC Beaches and Dunes Goal, other statewide planning goals and local requirements.
8. File any appeal if applicant disagrees with the decision of the Planning Commission. (Appeals may be filed with appropriate city council or county commission.)
9. File further appeal to the Land Use Board of Appeals or through the judicial system.

B. Planning Staff and Commission Responsibility

1. Furnish detailed outline of all information that will be needed in the site investigation report before a decision can be considered.
2. Identify number of days that staff will need for evaluation.
3. Immediate notification of possible delay and reasons why.
4. All costs of evaluation. (Depending on local established policy.)
5. Provide applicant with list, if known, of qualified investigators. Meet with applicant for informational conference as appropriate.
6. Verification of purported factual data contained in report.
7. Render objective decision approving or denying the development proposal based on findings-of-fact developed from the SIR.
8. Verify compliance with the Beaches and Dunes Goal element of the local comprehensive plan, or the Beaches and Dunes Goal if the local plan is not yet acknowledged.
9. Provide opportunity for citizen comment consistent with local program for citizen's involvement.

C. Citizen's Input

1. Review and comment on SIRs as circulated for review.
2. Submit oral or written testimony to planning commission, governing body, the Land Use Appeals Board or judicial body as appropriate.

As called for in the LCDC Citizen's Involvement Goal (#1), opportunities for citizen review and input before the decision to grant the development permit is essential. Published notice of all meetings where major or controversial projects will be discussed should contain project name. All information pertinent to the project should be available at the planning office for citizen review. Comments, written or verbal, should be made a part of the record of the project review.

D. Local City Council or County Commission Responsibility

1. Review all material used by the planning commission in arriving at findings-of-fact on which they based their decision if appeal is made.
2. Generate other findings-of-fact that would justify modifying or overturning the planning commission decision.
3. Provide opportunity for citizen comment consistent with local program for citizen's involvement.
4. Ultimate legal responsibility for implementing the intent of the LCDC Goals and local comprehensive plan.

E. Land Use Appeals Board

1. Review on appeal any purported violation of the Beaches and Dunes Goal or other Goals in the local comprehensive plan or the Goal itself if plan is not in compliance.
2. Seek comment and recommendation from the Oregon Land Conservation and Development Commission on any Goal policy issue.
3. Render a decision based on their own findings-of-fact.

VI. EVALUATION OF SITE INVESTIGATION REPORTS

It is not reasonable to assume that coastal planning staffs will have the time or expertise to fairly evaluate the Phase II site investigation reports. In such cases, outside consultation may be mandatory. In view of this, it might be appropriate to have such evaluations performed by an inter-disciplinary team of experts available to all coastal jurisdictions. Conversely, a pre-approved list of such experts could be made available to coastal jurisdictions, with the jurisdiction hiring a reviewer on an on-call basis. Finally, a permanent coastal implementation team could assist coastal jurisdictions. Such an approach has been suggested through the pooling of any implementation funds received from the federal Office of Coastal Zone Management (Bartl, 1978; Vian, 1979). Whatever the approach, it should be clearly spelled out in contractual agreements that any reviewer may be called upon to appear in court to substantiate conclusions.

Likewise, it is not reasonable to assume that coastal jurisdictions can afford the financial burden of reviewing the Phase II SIRs. An interdisciplinary team of experts could be made available to jurisdictions with assistance from the State of Oregon; a permanent coastal implementation team would likely qualify for federal Coastal Zone Management assistance. If jurisdictions are faced with reviewing Phase II SIRs, they may elect to

consult with outside experts with the financial burden placed on the applicant. If the cost of such an evaluation is to be paid by the applicant, he should be notified in advance.

The following evaluation criteria and process are presented to assist the local jurisdiction in evaluating site investigation reports:

Evaluation Criteria

Before a building or use is established within an area identified as under the provisions of the LCDC Coastal Beaches and Dunes Goals, the petitioner must demonstrate that the development will meet the following criteria:

1. The operating characteristics and intensity of land use shall be compatible with and shall not adversely affect the site or adjacent land uses.
2. The site planning and design shall be as attractive as the nature of the use and setting will allow.
3. The development shall not adversely affect access to or land partitioning of abutting properties.
4. The development shall include temporary and permanent stabilization programs, and the planned maintenance of new and existing vegetation.
5. The development shall not subject hazards to life, public or private property or the remaining natural environment.
6. The development shall be consistent with the Management Objectives of the particular dune type.
7. The development shall be compatible with the general purpose and intent of the governing comprehensive plan.

Determination of Appropriate Use or Uses

It is suggested that the governing body consider the following format when arriving at a decision of appropriate use.

1. Staff report on project:
 - a. General proposal statement.
 - b. Site investigation report on determination of dune type.
 - c. Recommendation on how the project relates to each of the Evaluation Criteria.

2. The governing body shall make a finding-of-fact and approve or deny the proposal by:
 - a. Evaluating the recommendations of staff and accepting or rejecting the staff appraisals (rejected appraisals should be replaced by appraisals acceptable to the governing body).
 - b. Evaluating the proposal statement by the applicant.
 - c. Consideration of public testimony.
3. Motion shall be made to approve or deny the proposal requested by stating the findings of the governing body after consideration of 2 a., b., and c.

VII. QUALIFICATIONS FOR CONSULTANTS OR INVESTIGATORS

Information in the site investigation report provided by the consultant will probably be the evidence used by the local planning commission to arrive at findings-of-fact. In the event of a legal challenge to these findings-of-fact, the consultant may be called upon as an expert witness in court proceedings.

There is no cut-and-dry method of determining expertise. The following are factors that indicate degree of expertise which the developer and jurisdiction may find useful:

1. college degree(s)
2. publications on the subject
3. membership in related national or international professional dune management groups
4. proof of consultation or information exchange with other recognized experts
5. proof of past actual in-field dune management or evaluation work. This should include a complete list of projects worked on, the part the consultant played, and the nature of the project.

Due to the complex nature of coastal landforms and dune management problems, several fields of expertise may be needed and may include any of the following:

1. geologist
2. oceanographer
3. hydrologist
4. botanist/agronomist
5. biologist
6. engineer
7. lawyer
8. stabilization specialist

It is doubtful that any one person will be knowledgeable in all fields of dune management. Bear in mind that in a court situation, the opposing attorney has the right to challenge the qualifications of any expert witness. If the judge sustains his objection, the witness cannot testify.

The applicant has a legal right to hire a consultant of his choice; it is the applicant's responsibility to assess the qualifications of the consultant. In some instances, local government might assist the developer by providing a suggested list of names of firms or individuals. However, local government cannot legally force the hiring of a particular firm or individual.

VIII. PERFORMANCE STANDARDS

The Beaches and Dunes Goal suggests that "local government should adopt strict controls for carrying out the Implementation Requirement of this (Beaches and Dunes) goal. The controls could include... posting of performance bonds to assure that adverse effects can be corrected;" (LCDC, 1977).

Assuming that the site investigation report has been found complete and satisfactory, there is one other tool needed to ensure implementation. All major and minor development projects should require the posting of a performance bond before the development permit is issued. The dollar amount of the bond should equal the amount estimated to carry out the intended restoration or protective measures noted within the SIR.

All phases of actual construction should be closely monitored by the local jurisdiction. Any departure from the proposed development plan should be approved in writing and signed by both parties with opportunity availed for review and comment by the appropriate agencies, jurisdictions and citizens.

In the case of vegetation restoration or stabilization, the performance bond should not be released until one growing season following the planting activities to provide an opportunity to assess the effectiveness of the stabilization effort.

IX. THE DISCLOSURE STATEMENT

Once the local comprehensive land use plans are acknowledged by LCDC, they are considered to embody the requirements of the various statewide planning goals, including the provisions of the Beaches and Dunes Goal where appropriate. The Beaches and Dunes Goal very clearly sets forth criteria whereby local jurisdictions will "conserve... the resources and benefits of coastal beach and dune areas (while) reducing the hazard to human life and property from natural or man-induced actions associated with these areas" (LCDC, 1977).

In this context, the local land use plan plays a determining role in the reduction of hazardous situations and ensuring safe living conditions. Because of this, local jurisdictions may find themselves in the position of being legally responsible for catastrophes which occur in areas of known hazard if it was the local governing body's decision which allowed or provided for habitation of the area.

In areas of known geologic hazard where development is allowed to take place or continue (vested rights, design modification minimizes threat, etc.), it is strongly recommended that local jurisdictions require signing of a disclosure statement in view of possible future legal dilemmas. It is further recommended that such a disclosure statement become an official portion of the deed for a particular parcel of land.

Following preparation and review of the Phase 1 or Phase 2 SIR, the local jurisdiction should maintain the authority (within zoning ordinances) to require that all property sold within the area of discussion be accompanied by a signed disclosure statement at the time of sale. The disclosure statement would note that the buyer recognizes that the potential for hazard exists at the site, and that although protective measures may be taken (pursuant to the approved project design) there is still some degree of risk involved. Such a disclosure statement would be required of developers or real estate personnel when acquiring or selling property, and of purchasers.

In areas where development has taken place prior to acknowledgement of local comprehensive plans, it is suggested that local jurisdictions enact zoning ordinances giving them authority to require similar disclosure statements prior to issuance of a building permit. Such statements should note that the building permit is issued because of vested rights in the property, and in no way implies that the jurisdiction has evaluated or considered the potential of the area to accommodate the proposed activity in light of hazardous conditions. Alternatively, a jurisdiction may require submission of a registered professional engineer's, registered professional geologist's or specially certified engineering geologist's certification as to the safety of the project, as is the case in Lincoln County, which forms the basis for decision-making (Granger, 1979).

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Township 18 South, Range 10 West



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Section Legend

Ordinance No. PA 1334
Exhibit B

Coastal Overlay Zoning

- CE - Conservation
- DE - Development
- MD - Mixed Development
- NE - Natural
- NRC - Natural Resource Conservation
- PW - Prime Wildlife Area
- RD - Residential Development
- SN - Significant Natural Area

- Beaches & Dunes
- Dredged Material Deposit Sites
- Diked High Salt Marsh
- Mitigation Site
- Navigation Channel

- UGB
- Parcels

- City Limits

- Roads

- Surface Water

- Sections

| Revision | Ordinance or Order Number | Date Effective | Planning Action Number | Revision Description |
|----------|---------------------------|----------------|------------------------|----------------------|
| 1 | ORD.PA1246 | July 11, 2008 | NA | Map Adopted |
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PROPOSED

LAND MANAGEMENT DIVISION

Official Lane County
Coastal Zoning Map



Township 18 South, Range 10 West



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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
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Section Legend

Coastal Overlay Zoning

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- Beaches & Dunes
- Dredged Material Deposit Sites
- Diked High Salt Marsh
- Mitigation Site
- Navigation Channel

UGB

- Parcels

City Limits

- Roads

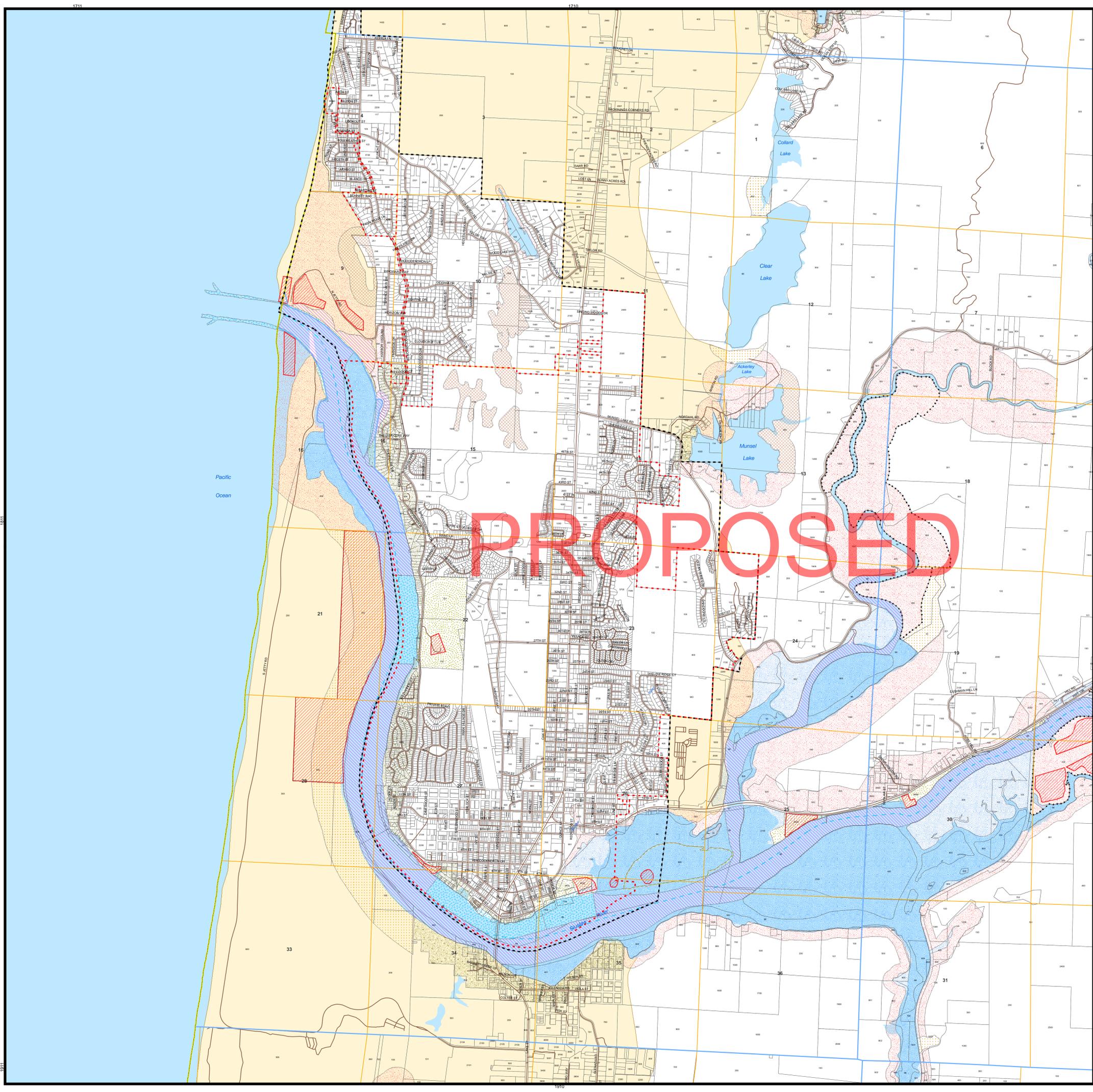
Sections

- Surface Water

| ORIGINAL ADOPTING ORDINANCE NUMBER: | | ORD.PA1246 | | |
|-------------------------------------|---------------------------|----------------|------------------------|----------------------|
| Revision | Ordinance or Order Number | Date Effective | Planning Action Number | Revision Description |
| 1 | ORD.PA1246 | July 11, 2008 | NA | Map Adopted |
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PROPOSED

Official Lane County Coastal Zoning Map



ORDINANCE NO. PA 1334
EXHIBIT C
Findings of Fact for Coastal Goal Amendments

I. PROPOSAL DESCRIPTION

1. Proposal

Objectives

This request is for Lane County to co-adopt amendments to the Florence Realization 2020 Comprehensive Plan adopted by the City of Florence on September 28, 2009 in Ordinance 10 Series 2009, the Coastal Goal amendments. In addition, the request is for Lane County to adopt amendments to the Lane Code to implement the policies adopted in the Florence Realization 2020 Comprehensive Plan. These amendments are proposed in order to meet the following objectives:

1. Complete Florence's Periodic Review Work Task 6a - coordination with Lane County;
2. Bring the Comprehensive Plan policies implemented by Lane County within the Florence Urban Growth Boundary (UGB) into compliance with Statewide Planning Goals 16, 17, and 18 (Coastal Goals)
3. Bring consistency to the policies applied by Lane County and Florence within Florence's UGB; and
4. Make Lane Code consistent with the Florence Realization 2020 Comprehensive Plan, as amended.

Amendments

The following two specific categories of amendments are proposed and are described in detail in Section III, Proposal Summary, below:

Ordinance No. PA 1334 Exhibit A: Florence Comprehensive Plan Amendments

- a. Completely revised Comprehensive Plan Chapters 16, 17 and 18; new Definitions and text amendments to Introduction; and text amendments to Chapters 5 and 7
- b. New Comprehensive Plan Map 17-1: Estuary and Coastal Shorelands Management Units (Chapter 17)
- c. New Comprehensive Plan Map 18-1: Coastal Beaches and Dunes (Chapter 18)
- d. Updated Map 7-C: Natural Resources Conservation Service Soils Map (Appendix 7)

- e. Oregon Coastal Zone Management Association Report: *Beaches and Dunes Handbook for the Oregon Coast* (to be adopted as part of Appendix 18) with an amended Phase I Site Investigation Report Form

Ordinance No. PA 1334 Exhibit B: Official Lane County Coastal Zoning Maps 17-12 and 18-12

- a. Revised County Zoning Maps showing revised estuary zones and revised coastal combining zones within the Florence UGB.

Ordinance No. 16-11 Exhibit A: Lane Code Amendments

- a. New and revised definitions in Lane Code 10.020,
- b. Completely revised Lane Code 10.225-10.270.

2. Comprehensive Plan Designations Involved in Amendments And Management Units (MUs) (see Maps 17-1 and 18-1):

Estuary Designations:

- Natural Estuary MU
- Conservation Estuary MU
- Development Estuary MU – located only within city limits

Shorelands Designations:

- Natural Resources Conservation MU
- Prime Wildlife MU
- Mixed Development MU – located only within city limits
- Residential Development MU
- Shoreland Dredged Materials Disposal Site MU

Coastal Beaches and Dunes

3. Zoning Classifications Involved in Amendments:

Estuary Zones

- Natural Estuary (NE-FCP)
- Conservation Estuary (CE-FCP)

Coastal Combining Zones

- Prime Wildlife (/PW-FCP)
- Natural Resources Conservation (/NRC-FCP)
- Shoreland Residential (/RD-FCP)
- Dredged Material/Mitigation (/DMS-FCP)

Beaches and Dunes Overlay Zone (/BD-FCP)

II. NARRATIVE

This project to complete the City of Florence’s Periodic Review Work Task 6: Coastal Goals Update (the last remaining work task in the City’s Periodic Review Work Program) began in June 2008. The process involved six meetings with the “Coastal Goals Project Team,” including staff from federal, state, tribal, and local agencies including Lane County.

The primary purpose of the amendments is to bring the Comprehensive Plan and Lane Code that applies within the Florence UGB into compliance with Statewide Planning Goals 16, 17, and 18. The City took “interim steps” to implement the provisions of Statewide Planning Goals 16, 17, and 18. In 1980, the City adopted Code amendments and, in 2002, the City adopted Comprehensive Plan Chapters 16, 17, and 18 and co-adopted the *Lane County Coastal Resources Management Plan (CRMP)* and *Dredged Materials Disposal Plan* by reference. Over this time period, no thorough evaluation of the Comprehensive Plan policies or the Code occurred. For this reason, policies in Comprehensive Plan Chapters 16, 17, and 18, the CRMP, and relevant sections of the Code were inconsistent, internally conflicted, and, in some cases, not applicable to conditions in the Florence urban growth boundary (UGB).

III. PROPOSAL SUMMARY

This proposal is for legislative amendments to the Florence Realization 2020 Comprehensive Plan (Comprehensive Plan) and Lane Code (Code).

At the outset of the project, the intent was that the vast majority of the proposed Comprehensive Plan text changes and maps in Exhibit A would be housekeeping in nature; that is, they would bring currently adopted law and policies in State law, the County- and City-adopted *Lane County Coastal Resources Management Plan (CRMP)*, and the Comprehensive Plan into one, internally consistent document: the Comprehensive Plan, primarily Chapters 16, 17 and 18.

The process evolved to the point where the entire set of City policy provisions implementing the State Goals was re-written and reformatted. As a result, the new text in Exhibit A is proposed to replace existing text in the Comprehensive Plan. Similarly, sections in Lane Code are being replaced with new sections that are consistent with the rewritten policies in the Comprehensive Plan.

The proposed changes to the adopted Comprehensive Plan and Code are described below by the following types of amendments:

- New and Revised Definitions
- Statewide Planning Goal Consistency
- Use of the Most Current Available Data
- Comprehensive Plan – Lane Code Consistency
- Incorporation of new policies and code provisions based on a review of State law and Lane County Coastal Resources Management Plan (CRMP) Policies and Management Units (MUs)

- **New and Revised Definitions**

Definitions are provided for both the Comprehensive Plan and the Code. Where available, these terms are derived from the Statewide Planning Goals in State law and/or the Lane County Coastal Resources Management Plan (CRMP). In this way, the County can ensure that its actions are consistent with the legal framework for planning in the State. Other definitions are derived from scientific reference books and dictionaries. The effect will be to ensure that the policies and code are implemented consistently and objectively.

- **Statewide Planning Goal Consistency**

In addition to inserting State legal definitions into the Comprehensive Plan, this proposal inserted State law from the following Statewide Planning Goals:

- Goal 16: Estuarine Resources
- Goal 17: Coastal Shorelands
- Goal 18: Beaches and Dunes

Coastal communities commonly insert the exact text in State law in Statewide Planning Goals 16, 17, and 18 into comprehensive plans because these Goals contain exceptionally detailed policy direction and prescribed land use and water use requirements. The Comprehensive Plan policies, in turn, provide direction for the proposed specific requirements in Code. The effect of inserting this State law into the Comprehensive Plan will be to ensure that County decisions based on these policies and prescriptions will be legally defensible. Having the policies in the Comprehensive Plan will provide a convenient reference and will ensure that the policies are addressed in Code development.

- **Use of the Most Current Available Data**

Statewide Planning Goal 2 requires that planning inventories be based on the most current data available; and Statewide Planning Goals 16, 17, and 18 require adoption of inventories of estuary, coastal shoreland, and beaches and dunes resources. These inventories are contained in the 1978 *Lane County Coastal Resource Inventory*, adopted by Lane County and co-adopted by the City. This Inventory has not been updated since adoption. The proposed changes to the Comprehensive Plan and Code were reviewed by an inter-agency team of local, state, and federal agencies; and, although this does not amount to a full-scale update of the Inventory, it does provide more current information than what is contained in the 1978 Inventory. In response to a request from the inter-agency team of local, state, and federal agencies, Comprehensive Plan policy proposed in Exhibit A prescribes a process for incremental update of the Inventory, in addition to a recommendation to pursue a comprehensive update of the Inventory.

- **Streamlined Administrative Processes and Internal Consistency of the Comprehensive Plan and City Code**

Without the proposed amendments, Comprehensive Plan policy pertaining to the three resource categories are scattered among several Comprehensive Plan chapters. The proposal consolidates policies and requirements so that there is a clear connection between the policies and requirements and their purpose and intent. The effect will be improved understanding for the rationale for the policies and requirements and improved ease of administration.

- **Comprehensive Plan – Code Consistency**

Amendments to Lane Code were drafted to make it consistent with the Comprehensive Plan policy. The effect will be consistent implementation of adopted policy by both the City and the County.

- **Incorporation of new policies and code provisions based on a review of State law and Lane County Coastal Resources Management Plan (CRMP) Policies and Management Units (MUs)**

The proposal reflects a comprehensive evaluation of all relevant State, County and City policy and regulatory framework and re-constructs it so that it is appropriate for conditions within the Florence UGB; and places this framework within the Comprehensive Plan and Code in a manner that can be easily understood and administered.

As discussed above in the Narrative, the City had previously co-adopted the *Lane County Coastal Resources Management Plan (CRMP)* and *Dredged Materials Disposal Plan (DMDP)* by reference.

For Goal 16, Estuarine Resources and for dredged materials disposal, the proposal in Exhibit A is consistent with the CRMP and the Dredged Materials Disposal Plan: the proposal incorporates all relevant CRMP policies into the Comprehensive Plan and the MU boundaries for Estuary MUs are the same as those in the CRMP.

For Goals 17 and 18, the proposal incorporates CRMP policies into the Comprehensive Plan only to the extent they were deemed appropriate for the UGB and applicable to current local conditions; and, although the Management Unit types were retained, some amendments to the current CRMP MU boundaries, policies, and titles were changed. For this reason, the proposal is not consistent with the CRMP for Goals 17 and 18, and the Florence Comprehensive Plan, rather than the CRMP will be the guiding policy document within the UGB for these two Goals.

The following summary discusses consistency of the proposal with the CRMP.

Management Units

A key aspect of this proposal is to appropriately designate “Management Units” (MUs) in the Florence UGB (see Map 17-1). “Management Units” are defined in Statewide Planning Goal 16, Estuarine Resources, as follows:

“Diverse resources, values, and benefits shall be maintained by classifying the estuary into distinct water use management units. When classifying estuarine areas into management units, the following shall be considered in addition to the inventories: adjacent upland characteristics and existing land uses; compatibility with adjacent uses; energy costs and benefits; and the extent to which the limited water surface area of the estuary shall be committed to different surface uses.”

The following discussion of the MUs as they apply within the Florence UGB summarizes the proposal by Comprehensive Plan Chapter and discusses consistency with the CRMP, for Estuary MUs, and explains the rationale behind the proposed changes to these MU policies and/or boundaries. See also, “Comparison of Management Unit Extents Within the Florence UGB,” attached.

Estuary MUs (Comprehensive Plan Chapter 16)

Please reference:

- *Exhibit A, Comprehensive Plan Chapter 16: Siuslaw River Estuarine Resources; and Map 17-1: Estuary and Coastal Shorelands Management Units*
- *Exhibit B: County Zoning Maps*

Goal 16 requires the following estuary management units to be established: Natural, Conservation, and Development. These three MUs are designated in the CRMP and the proposal is to incorporate these designations into the Florence Comprehensive Plan. The proposed Estuary classifications and extents of the MUs are the same¹ as those in the CRMP and the proposed policies are consistent with the CRMP. At the same time, CRMP policy that is not relevant to the Florence UGB is not incorporated into the Comprehensive Plan or Code (e.g., log storage and grazing in the Natural Estuary MU); and some policies in the CRMP are presented in more detail in the Comprehensive Plan, as discussed below, and amended to implement currently adopted State Planning Goals.

Estuary Policies and Code Provisions

Key changes from existing Code and/or Policy are as follows.

¹ One map correction is proposed for MU C1 (estuary at Shelter Cove subdivision). This MU was amended in 2006 and upheld by the Land Use Board of Appeals. The revised designation does not show on the County GIS maps. See attached document: *Comparison of Management Unit Extents Within the Florence UGB*.

- The proposal reformatted the Comprehensive Plan so that general provisions are included as well as MU- specific provisions; and criteria applicable to a list of activities is stated once and referenced instead of repeated.
 - Policy changes are reflected in proposed Code changes.
 - In the proposal, provisions that pertain to the estuary itself, i.e. activities that take place in or directly adjacent to the estuary, are included in Estuary Comprehensive Plan policy and Code; and these provisions are cross-referenced in the Coastal Shoreland policies and Combining Zones; and estuary provisions supersede shoreland provisions. In this way, the intent of the State law is carried out while conflicts between the two sets of provisions are eliminated.
 - As per State law, dredge and fill and other alterations of the estuary are generally prohibited in Natural Estuary and Conservation Estuary Districts, with some exceptions; while these activities are allowed in Development Estuary Districts, consistent with specified criteria.
 - The proposed Development Estuary no longer requires a Resource Capabilities Assessment or Impact Assessment.
 - In the proposal, maintenance activities are permitted outright, as specified.
 - In the proposed Development Estuary (DE), a distinction is made between “Areas Managed for Water Dependent Activities” and other portions of this MU or Zoning District. In this way, the policies are now consistent with State Goal 16; and the Development Estuary MU is consistent with the adjacent shoreland provisions in the Mixed Development MU.
- **Comprehensive Plan:** Policies 1-2 define the policy structure of the Comprehensive Plan, the CRMP, and the Inventory. Policy 13 cross-references policies in Chapter 7; Policies 14 and 15 set out the Management Units and priorities from Goal 16; Policy 16 cites state law pertaining to Natural Estuary MUs; Policy 17 cites state law pertaining to Conservation Estuary MUs; and Policy 18 cites state law pertaining to Development Estuary MUs. In each of these three policies, provisions are included that provide specificity related to activities, (such as docks and piers; riprap and other erosion control structures; maintenance dredging; and maintenance of the jetty), because these topics are of particular interest and concern to the Florence community, particularly in response to public testimony.

A Background section is proposed that describes the current condition of the estuary and relevant issues that, together, provide the factual basis and rationale for the policies and recommendations.

- **Code:** The proposed Code changes implement the policies above, as specifically described below. The key difference between the proposed Code and existing Code is that the proposed Code more accurately reflects State legal requirements.

Natural Estuary (NE-FCP)

- **Code:** In keeping with State law, only the uses specified in Goal 16 for this Estuary Zone are permitted outright, or with Special Use or Conditional Use approval. The Code provisions do allow for maintenance activities where they will not alter the estuary.
- **CRMP:** The following CRMP Natural Estuary MU policies are not included in the proposed Comprehensive Plan and Code amendments or they are included in modified form, for reasons stated:
 - Log storage as an allowed use... *(This policy was not included in the Comprehensive Plan because no log storage is applicable or allowed within the Florence UGB)*
 - Low intensity grazing on high salt marshes as an allowed use... *(This policy was not included in the Comprehensive Plan because no grazing is applicable or allowed on high salt marshes within the Florence UGB)*
 - “Commercial clamming and fishing shall only be allowed to the extent that the productivity of the resource is not endangered. The Oregon Department of Fish and Wildlife shall be the proper consulting agency in this regard.” *(This policy was not included in the Comprehensive Plan because the City and County have no role in regulating these activities.)*
 - “Provided they comply with Goal 16 and Lane Code 16 provisions concerning the protection of the resourceuses involving the maintenance and/or installation of public facilities (bridge crossing, tidegates, temporary alterations and other similar uses identified in the Goal) are appropriate within this MU.” *(The proposal in Exhibit A cites the exact language in Goal 16.)*

Conservation Estuary (CE)

- **Code:** In keeping with State law, only the uses specified in Goal 16 for this Estuary District are permitted outright, or with Special Use or Conditional Use approval. The Code provisions allow for maintenance activities where they will not alter the estuary.
- **CRMP:** The following CRMP Conservation Estuary policies are not included in the proposed Comprehensive Plan and Code amendments or they are included in modified form, for reasons stated:
 - Log storage... *(This policy was not included in the Comprehensive Plan because no log storage is applicable or allowed within the Florence UGB)*
 - Single-family, single-purpose piers are discouraged...*(Reflected in Comprehensive Plan Policy which quotes State law.)*

- Filling, dredging, and other activities which degrade natural estuarine values will be allowed only if...*(reworded in Exhibit A to reflect meaning in State law as per DLCD direction)*

Development Estuary (DE)

All of the Development Estuary MU's are located within city limits and therefore will not be implemented by Lane County.

Coastal Shoreland MUs

Please reference:

- *Exhibit A: Comprehensive Plan Chapter 17: Coastal Shorelands; and Map 17-1: Estuary and Coastal Shorelands Management Units*
- *Exhibit B: Lane County Zoning Maps*

Statewide Planning Goal 17, Coastal Shorelands, does not require management unit designations. However, the CRMP took the management unit (MU) approach and designated shorelands within the Florence UGB into the following MUs: Natural Resources Conservation, Residential Development, Mixed Development, and Prime Wildlife Area. The proposed MUs are generally the same as those in the CRMP, although some of the MU boundaries are proposed to be adjusted to be in line with existing development patterns and resource values.

These adjusted boundaries are discussed in detail in the attached document: *Comparison of Management Unit Extents Within the Florence UGB*. The designations in Map 17-1 in Exhibit A and the Combining Zones in the Coastal Overlay Zoning Maps in Exhibit B implement these revised MUs and designations.

Coastal Shorelands Policies and Code Provisions

Key changes from existing Code and/or Policy are as follows.

- The proposal reformats the Comprehensive Plan so that general provisions are included as well as MU-specific provisions; and criteria applicable to a list of activities is stated once and referenced instead of repeated.
- Policy changes are reflected in proposed Code changes.
- In the proposal, provisions that pertain to the estuary itself; i.e. activities that take place in or directly adjacent to the estuary, are included in Estuary Comprehensive Plan policy and Code; and these provisions are cross-referenced in the Coastal Shoreland policies and Combining Zones; and estuary provisions supersede shoreland provisions. In this way, the intent of the State law is carried out while conflicts between the two sets of provisions are eliminated.
- The proposal eliminates the existing "Significant Natural Area" MU because there are no areas with this designation in the Florence UGB.
- The proposed MUs are generally the same as those in the CRMP, although some of the MU boundaries are proposed to be adjusted to be in line with existing development patterns and resource values. These adjusted boundaries

are discussed in detail in the attached document: *Comparison of Management Unit Extents Within the Florence UGB*. The proposed Comprehensive Plan contains generally the same policy provisions as the CRMP for the MUs, except as set out below.

General Shorelands Policies and Code Provisions

- **Comprehensive Plan:** Policies 1-2 define the policy structure of the Comprehensive Plan, the CRMP, and the Inventory.
- **Code:** Proposal dedicates chapter 10.240 for administrative provisions.
- **CRMP:** All CRMP policies are specific to type of estuary designation.

Residential Development and Natural Resources Conservation MUs

The MUs as currently set out in the CRMP do not match the land use characteristics or development patterns in the UGB. MU 1 is changed from Natural Resource Conservation to Residential Development to match the existing land use and the northern boundary adjusted slightly to match the existing development pattern.

- **Comprehensive Plan:** The policies are the same as those in the CRMP, except that the city's adopted policies do not allow land divisions within the UGB prior to annexation. This proposed change is would make this section of the Plan consistent with the Comprehensive Plan policy in Chapter 14, Urbanization, already adopted by Lane County, Ordinance PA 1249.
- **Code:** The proposed Code specifies criteria in State law for fill, and docks and piers in lakes; and it provides for a 50 foot vegetated buffer from the lakes in addition to the required yard setbacks of 10 feet.

Mixed Development MU

All Mixed Development MUs are within the city limits. Therefore, Lane County is not responsible for adopting or implementing policies or code for these MUs.

Prime Wildlife Area MU

The Prime Wildlife Area applies to the North Jetty Lake and Heceta Junction Seasonal Lake Shorelands. The most significant change in the city's adopted policy is the increase in the setback from these two lakes, from 50 feet to 100 feet, and stricter requirements related to native vegetation and structures within this setback area.

Shoreland Dredged Materials Disposal Site MU

The Exhibits incorporate CRMP policies, with amendments to improve readability and clarity and those requested by the Port of Siuslaw.

Water Dependent Sites

The proposal is consistent with State law and the CRMP related to Water Dependents Sites. No changes to Comprehensive Plan policy are proposed for these sites.

Beaches and Dunes Combining Zone

The Coastal Beaches and Dunes Map shows the area of the UGB for which compliance with Goal 18: Beaches and Dunes is required. The area included within the proposed Beaches and Dunes Combining Zone is greatly reduced in size from the existing Beaches and Dunes Combining Zone. This approach removes the requirement for County staff to conduct a Site Investigation for much of the area within the Florence UGB.

New LC 10.261 - Special Development Standards is proposed to apply to sites within this Combining Zone and to sites with particular soil characteristics as shown on the "Soils Map" in Florence Comprehensive Plan Appendix 7. A Phase I Site Investigation Report is required to examine the site. Development Standards are then applied to potential problem areas to eliminate the danger to health, safety, and property; and to protect areas of critical environmental concern, significant fish and wildlife habitat, or areas having scenic, scientific, cultural or biological importance. A Phase II Site Investigation Report may be required to demonstrate that harmful effects can be mitigated or eliminated.

IV. NOTICE

The first public hearing before the Lane County Planning Commission was held on October 18, 2016.

Notice of the proposed Florence Comprehensive Plan amendments, Lane Code text amendments, and Map Amendments was sent to the Department of Land Conservation and Development on September 13, 2016, 35 days prior to the first (Planning Commission) evidentiary hearing as required by State law. The hearing will be published in the Siuslaw News on November 23, 2016, as required by State law and Lane Code.

Owners of property affected by the proposed Zoning Map and text changes were mailed a Measure 56 notification of the hearings on September 27, 2016 in accordance with State law.

Notice will also be mailed to the parties of record, who participated with the Planning Commission process.

V. APPLICABLE CRITERIA

1. Lane County Rural Comprehensive Plan – Part 1, Section D

2. **Florence Realization 2020 Comprehensive Plan**
Plan Adoption, Amendments, Review and Implementation.
3. **Oregon Revised Statutes:** ORS 197.175; ORS 197.628; ORS 227.186.
4. **Statewide Land Use Planning Goals and Related Administrative Rules:** Goal 1, Citizen Involvement; Goal 2, Land Use; Goal 7, Areas Subject to Natural Hazards; Goal 10, Housing; Goal 16, Estuarine Resources; Goal 17, Coastal Shorelands and OAR 660 Division 37; Goal 18, Beaches and Dunes.
5. **Lane Code 12.050, 10.315-05, 10.315-20, and 10.015**

VI. FINDINGS

Applicable criteria are shown in bold and findings are in plain text below.

1. **LANE COUNTY RURAL COMPREHENSIVE PLAN**

PART 1: INTRODUCTORY MATERIAL

D. CITIES, COMMUNITIES AND RURAL LANDS

Cities

While the Policies in this document are directed at Lane County government, it is clearly recognized that the County has a responsibility to, and must coordinate efforts closely with, the incorporated cities within its boundaries. Statewide planning law requires that each incorporated city develop and adopt its own land use plan which must itself comply with LCDC Goals. The plan must contain essentially the same elements as the County General Plan, which an additional element of an identified Urban Growth Boundary (required by Goal 14). Future urban growth for each city is to take place within that Boundary.

Through this method, the County becomes responsible for administering the provisions of city plans within the city UGBs but outside of the corporate city limits. “Joint Agreements for Planning Coordination” drawn up between the County and each city lay the framework for cooperative action in the effort. Policies concerning Goal 14 in this document further indicate County posture toward city plans. County adoption of city plans – or amendments thereto – ensures that conflicts between city plans and County Plan do not readily occur.

A Lane County staff member from Land Management, Stephanie Schulz, was included on the Intergovernmental Staff Team formed to coordinate

with City staff in preparing amendments to the Florence Realization 2020 Comprehensive Plan. The Staff Team met on June 23, 2008; August 21, 2008; March 26, 2009; and April 29, 2009 to review the proposed Comprehensive Plan and City Code amendments. County staff either attended the meetings by phone or in person, and/or provided input before and/or after the meetings. In addition there were three conference call meetings with the staff team and numerous emails and phone conferences one-on-one with county staff. County staff also submitted comments on the various drafts throughout the City's adoption process.

The County is co-adopting the Comprehensive Plan amendments adopted by the City of Florence, thereby eliminating conflicts between the City Plan and the County Plan related to the Coastal Goals. The County's actions are thus consistent with the Lane County Rural Comprehensive Plan.

2. REALIZATION 2020 FLORENCE COMPREHENSIVE PLAN

Introduction: Plan Adoption, Amendments, Review and Implementation

A review of the Plan shall be conducted by the City when Notice of Periodic Review is received from DLCD (Department of Land Conservation and Development). The Citizen Advisory Committee and the Planning Commission shall provide the framework for Plan Review subject to the specific requirements of the Periodic Review Work Tasks Agreement between the City and DLCD. The City Council may recommend amendments and upgrades as part of the Plan Review process.

The proposal is consistent with this Comprehensive Plan text because:

- The proposal was initiated in response to the City of Florence 1995 Periodic Review Order from DLCD; and
- The Citizen Advisory Committee and the Planning Commission provided the framework for Plan Review subject to the specific requirements of the Periodic Review Work Tasks Agreement between the City and DLCD.

3. OREGON REVISED STATUTES

ORS 227.186 NOTICE TO PROPERTY OWNERS OF HEARING ON CERTAIN ZONE CHANGE

- **form of notice**
- **exceptions**
- **reimbursement of cost**
(3) Except as provided in subsection (6) of this section, at least 20 days but not more than 40 days before the date of the

first hearing on an ordinance that proposes to amend an existing comprehensive plan or any element thereof, or to adopt a new comprehensive plan, a city shall cause a written individual notice of a land use change to be mailed to each owner whose property would have to be rezoned in order to comply with the amended or new comprehensive plan if the ordinance becomes effective.

The proposal is consistent with ORS 227.186 because Lane County was mailed notice to the affected property owners on September 27, 2016, 21 days prior to the first public hearing.

ORS 197.628 PERIODIC REVIEW

- **policy**
- **conditions that indicate need for periodic review.**

(1) It is the policy of the State of Oregon to require the periodic review of comprehensive plans and land use regulations in order to respond to changes in local, regional and state conditions to ensure that the plans and regulations remain in compliance with the statewide planning goals pursuant to ORS 197.230 (Considerations), and to also ensure that the plans and regulations make adequate provision for economic development, needed housing, transportation, public facilities and services and urbanization.

The proposal is consistent with this ORS provision because the Oregon Department of Land Conservation and Development has approved the City of Florence Periodic Review Work Program and the proposed amendments are for compliance with Work Task 6 of that Work Program.

ORS 197.175: CITIES' AND COUNTIES' PLANNING RESPONSIBILITIES

- **rules on incorporations**
- **compliance with goals**

(2) Pursuant to ORS chapters 195, 196 and 197, each city and county in this state shall:

(a) Prepare, adopt, amend and revise comprehensive plans in compliance with goals approved by the commission;

The proposal is consistent with ORS 197.175 (2)(a) because this staff report contains findings to conclude that the proposed comprehensive plan revisions are in compliance with the goals approved by the commission. Statewide Planning Goals 1, 2, 7, 10, 16, 17, and 18 apply to this proposal. A finding of "Not Applicable to this Proposal" is incorporated into these findings for all other Statewide Planning Goals not specifically cited below.

(b) Enact land use regulations to implement their comprehensive plans;

The proposal is consistent with ORS 197.175 (2)(b) because it includes amendments to Lane Code to implement the amendments to the Florence Comprehensive Plan outside the city limits.

4. STATEWIDE PLANNING GOALS

Goal 1: Citizen Involvement [OAR 660-015-0000(1)]

3. Citizen Influence -- To provide the opportunity for citizens to be involved in all phases of the planning process.

Citizens shall have the opportunity to be involved in the phases of the planning process as set forth and defined in the goals and guidelines for Land Use Planning, including Preparation of Plans and Implementation Measures, Plan Content, Plan Adoption, Minor Changes and Major Revisions in the Plan, and Implementation Measures.

The proposal is consistent with Statewide Planning Goal 1 because the Florence Planning Commission held five work sessions on the proposed amendments. Each of these work sessions was a public meeting that was advertised through an e-mail distribution list, posted at city hall, and agenda packets available on the city's website. Furthermore, the proposal was advertised in the Siuslaw News on May 30 and September 23, 2009; notice was mailed on May 8, 2009 to owners of all affected properties and on August 11, 2009 to all those who participated in the first public hearing; and citizens were given the opportunity to comment on the proposal in writing or in person at a public hearing before the Florence Planning Commission and the City Council.

The Florence Planning Commission and City Council held a joint public hearing on June 9, 2009, and heard public testimony; the record was left open for an additional seven days; the Planning Commission met on July 28, deliberated, and recommended approval of Ordinance No. 10, Series 2009; and the City Council held a second public hearing on September 28, 2009, deliberated on the proposed amendments, and adopted Ordinance No. 10, Series 2009, adopting the amendments in Exhibits A and B.

The County mailed notice of the public hearing to all properties owners within the Florence Urban Growth Boundary outside of City Limits. A notice of the public hearing was published in the local newspaper, the Siuslaw News. The Lane County Planning Commission held one public hearing in Florence during the evening, to encourage public participation.

Goal 2: Land Use [OAR 660-015-0000(2)]

Part 1 - Planning

All land-use plans and implementation ordinances shall be adopted by the governing body after public hearing and shall be reviewed and, as needed, revised on a periodic cycle to take into account changing public policies and circumstances, in accord with a schedule set forth in the plan. Opportunities shall be provided for review and comment by citizens and affected governmental units during preparation, review and revision of plans and implementation ordinances.

The proposal is consistent with Goal 2 because the proposed revisions to the Florence Comprehensive Plan and Florence City Code have been adopted by the Florence City Council after public hearing and shall be reviewed and, as needed, revised on a periodic cycle to take into account changing public policies and circumstances, in accord with the City's adopted Periodic Review Work Program. Opportunities were provided for review and comment by citizens and affected governmental units during preparation, review and revision of the proposal.

Lane County must comply with the same public process before the proposed revisions will be recognized in the urbanizing area, outside of city limits within the urban growth boundary.

Goal 7: Areas Subject To Natural Hazards [OAR 660-015-0000(7)]

A. Natural Hazard Planning.

- 1. Local governments shall adopt comprehensive plans (inventories, policies and implementing measures) to reduce risk to people and property from natural hazards.**
- 2. Natural hazards for purposes of this goal are: floods (coastal and riverine), landslides, earthquakes and related hazards, tsunamis, coastal erosion, and wildfires. Local governments may identify and plan for other natural hazards.**

The proposal is consistent with Goal 7 because it adopts improved maps, using GIS, and clarifies and reformats policies and code procedures that will ensure consistent, clear, and objective implementation of Goal 7.

Goal 10: Housing [OAR 660-015-0000(10)]

To provide for the housing needs of citizens of the state. Buildable lands for residential use shall be inventoried and plans shall encourage the availability of adequate numbers of needed housing units at price ranges and rent levels which are commensurate with the financial capabilities of Oregon households and allow for flexibility of housing location, type and density.

The amendments are consistent with Goal 10 because the amendments satisfy Periodic Review requirements to update the Coastal Element of the Comprehensive Plan to be consistent with State law and do not affect the amount of buildable residential land in the UGB. The amendments adjust Management Unit (and respective zoning overlay) boundaries to be consistent with the underlying use. The development potential of private properties affected by these changes is not affected. An additional 50 feet of setback is required in Prime Wildlife Areas adjacent to Coastal Lakes and in areas adjacent to the ocean. In the first case, the additional setback will not affect development potential because there is a five acre minimum lot size in these areas; and in the second case, it will not affect development potential because all private lands in this category have already been developed and/or divided.

For these reasons, the Plan continues to encourage the availability of adequate numbers of needed housing and the proposal is consistent with Goal 10.

Goal 16: Estuarine Resources [OAR 660-015-0010(1)]

**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 were appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries.**

The proposal is consistent with Goal 16 because it incorporates all of the State requirements in Goal 16 into Comprehensive Plan policies and implementing Code; is consistent with the *Lane County Coastal Resources Management Plan*; and adopts improved GIS maps to more accurately depict estuary management units.

Goal 17: Coastal Shorelands [OAR 660-015-0010(2)] and OAR 660 Division 37

**To conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of 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, the adverse effects upon water quality and fish and wildlife habitat, resulting from the use and enjoyment of Oregon's coastal shorelands.**

The proposal is consistent with Goal 17 because it incorporates all of the State requirements in Goal 17 into Comprehensive Plan policies and im-

plementing Code and adopts improved GIS maps to more accurately depict shoreland management units.

Goal 18: Beaches and Dunes [OAR 660-015-0010(3)]

To conserve, protect, where appropriate develop, and where appropriate restore the resources and benefits of coastal beach and dune areas; and

To reduce the hazard to human life and property from natural or man-induced actions associated with these areas.

The proposal is consistent with Goal 18 because it incorporates into the Comprehensive Plan the provisions of Goal 18; it adopts improved GIS maps based on updated NRCS Soils Map to more accurately map the different beaches and dunes areas.

5. LANE CODE

COMPREHENSIVE PLAN

12.050 Method of Adoption and Amendment.

(1) The adoption of the comprehensive plan or amendment to such plan shall be by an ordinance.

(2) The Board may amend or supplement the comprehensive plan upon a finding of:

(a) an error in the plan; or

(b) changed circumstances affecting or pertaining to the plan; or

(c) a change in public policy, or

(d) a change in public need based on a reevaluation of factors affecting the plan; provided the amendment or supplement does not impair the purpose of the plan as established by LC 12.005 above.

The proposal is consistent with Lane Code in that the Board of County Commissioners will adopt the amendments by Ordinance PA 1334.

The Comprehensive Plan amendments are necessary to comply with state law and to resolve conflicts between adopted Comprehensive Plan policies and Lane County's Coastal Resources Management Plan. Furthermore, the amendments ensure that the Plan is applicable to conditions within the Florence UGB.

Lane Code 10.315 PROCEDURES FOR ZONING, REZONING AND AMENDMENTS TO REQUIREMENTS

LC 10.315-05 Purpose.

As the Comprehensive Plan for Lane County is implemented, changes in District and other requirements of this chapter will be required.

Such amendments shall be made in accordance with the procedures of this section.

Florence is completing periodic review to update their Comprehensive Plan for application within the long term planning horizon extending to the year 2020. The proposed amendments to Lane Code Chapter 10 are found to support the policy amendments to the Coastal Goal of the Florence Comprehensive Plan.

LC 10.315-20 Criteria.

Zonings, rezonings and changes in the requirements of this chapter shall be enacted to achieve the general purpose of this chapter and shall not be contrary to the public interest.

LC 10.015 Purpose.

The purpose of this chapter is to provide procedures for dividing the unincorporated portions of Lane County into districts and to provide requirements pertaining to such districts in accordance with a comprehensive plan, and is adopted to protect and promote the public health, safety, and welfare, and to promote the implementation of the Comprehensive Plan for Lane County. Such procedures and requirements are intended to achieve the following objectives:

- (1) To encourage the most appropriate use of land and resources throughout the County.**
- (2) To facilitate the adequate and efficient provision of transportation, water, sewerage, schools, parks, and other public requirements.**
- (3) To avoid undue concentration of population.**
- (4) To secure safety from fire, panic, flood, and other dangers.**
- (5) To prevent the overcrowding of land.**
- (6) To provide adequate light and air.**
- (7) To lessen congestion in the streets, roads, and highways.**
- (8) To provide an environment of character in harmony with existing and proposed neighboring use of land.**
- (9) To preserve and enhance the quality of Lane County's environment**

The general purpose of Lane Code Chapter 10 requires consideration of changes that could be considered to promote implementation of revised and updated Comprehensive Plans in Lane County. The appropriate use of land and resources in the Florence community is updated through periodic review. The proposed amendments are necessary to comply with state law and to resolve conflicts between the Florence Comprehensive Plan and Lane County's Coastal Resource Management Plan.

The proposed changes to the estuary zones and the coastal combining zones are not contrary to the general public. The proposed changes con-

centrate regulations for the safety of structures, infrastructure, and citizens depending on the soil type and slope for each lot or parcel.

VII. CONCLUSION

The proposal to amend the Florence Comprehensive Plan and Lane Code is consistent with applicable criteria in the Lane County Rural Comprehensive Plan, Florence Realization 2020 Comprehensive Plan, Oregon Revised Statutes, Statewide Planning Goals and Administrative Rules, and Lane Code Chapters 10 and 12.

Comparison of Management Unit Extents Within the Florence UGB

The following management units have either been modified by Florence, and/or there were discrepancies between the extent as shown in the CRMP and the Lane County GIS.

Management Unit C-1, as amended, is the portion of the estuary between the inner north jetty and the shoreland (estuary at Shelter Cove Subdivision).

Lane County has not updated its GIS to reflect the change in MU designation to Conservation Estuary per the Shelter Cove decision. Florence has shown this change.

Management Unit E, is shown as extending from the shoreline to the navigation channel along the Mixed Development MU 2.

Florence has shown this MU extending west to the navigation channel, consistent with the CRMP paper map. The county's GIS does not show it extending all the way to the navigation channel.

Management Unit P in the CRMP extends from the Highway 101 bridge east to the UGB excluding MU F and G, consistent with the text of the CRMP.

Lane County's GIS does not show MU P extending west to the Highway 101 bridge. It appears that a mistake was made when creating the digital version of that MU. Florence's map matches the text.

Management Unit #50 consists of property owned by the U.S. Army Corps of Engineers, Harbor Vista County Park, and State-owned property that extends north from the north jetty and includes the deflation plain.

Florence has redefined MU 50 from what was shown in the CRMP to include the portion of MU 1 that lies south of MU 50. We did that because we redesignated the southern portion of MU 1 (as shown in CRMP) to Residential Development. The northern portion of MU 1 (as shown in the CRMP) still made sense to be Natural Resource Conservation. Therefore, we extended the boundary of MU 50 to include the portion of MU 1 that would not be changed to Residential Development. MU 50 now extends to Harbor Vista Street and includes the Corps of Engineers' property on the landward side of the north jetty.

Management Unit #1 is the area 1,000 feet from the estuary shoreline, extending from the Management Unit 50 (the North Jetty area), south between the shoreline and Rhododendron Drive to Management Unit 2 (Marine Manor and Port Property). It includes Shelter Cove, Sea Watch, and the Coast Guard Station. This MU extends 500 feet from the shoreline along the terrace, because this encompasses the area prone to landslides.

When MU 1 was originally created, the northern portion was undeveloped and in fact still outside the city limits. Over the years, there has been a fair amount of residential development up through Shelter Cove. It thus makes sense to change the designation of those areas to Residential Development and to limit the extent of this new designation to those developed areas. The northernmost portion of the original MU 1 is in public ownership (Corps, County Park, and State Lands) and should therefore remain as Natural Resource Conservation and thus is now included in MU 50 as explained above.

Management Unit #2 is the site of a residential subdivision (Marine Manor) and an additional 80+ acres east of Rhododendron Drive owned by Lane County and the Port of Siuslaw. This unit has approximately one-half mile of river frontage.

It appears that when Lane County converted the paper maps to GIS, a mistake was made in leaving out the County-owned property that is the site of the Transfer Station (former landfill) and a Dredged Material Disposal Site. The written description in the CRMP clearly refer to MU 2 as including a solid waste landfill (p. 29 of CRMP) and including 80 acres (p. 47 of CRMP). The map also shows the north and south limits of MU 2 lining up with the north and south limits of the Development Estuary (Maps 2 and 3 in CRMP). Florence is presenting the extent of MU 2 as it had been originally presented in the CRMP, but not as it is now presented by Lane County in its GIS.

Management Unit #3 is the area from the southern boundary of Management Unit #2 to Kingwood Street including Wildwinds, Greentrees, and other residential development.

It appears that when Lane County converted the paper maps to GIS, the boundary line was drawn incorrectly. At the north end of MU 3.1, the boundary should be at the north of Wildwinds, but should not include the city's property along Rhododendron Drive. According to the written description (p. 49 of CRMP), the boundary of MU 3.2 extended along Rhododendron Drive to the point where Greenwood Street would cross Rhododendron Drive at which point it would extend south to Bay Street and then over to Kingwood Street. Florence decided to designate the area in a slightly different manner. We drew that unit to include the city's wastewater treatment facility, to extend down 1st Street stopping short of the Ivy Street pump station, and then following Bay Street to Kingwood. The rationale for this boundary was to include the shoreland development, but not the inland blocks as shown on the county's GIS.

Management Unit #4 is the developed shoreline of Old Town Florence and the Port from Kingwood Street to the North Fork tideflats, including the Highway 101 Bridge, the Port of Siuslaw Marina, and Dredge Spoils Site #19.

It appears that when Lane County converted the paper maps to GIS, the boundary line was drawn incorrectly. MU 4.1 as described in the written text includes the block between Maple and Nopal Street and Bay Street and 1st Street. Florence decided to match the county's GIS that excludes that block from the MU.

Management Unit #5 is a 50-foot wide strip of land measured from the mean high tide line, starting at the northern boundary of MU #4 and extending to the UGB, including any adjacent lands within the 100-year floodplain.

It appears that when Lane County converted the paper maps to GIS, it only included a 50-foot wide strip of land but did not include lands within the 100-year floodplain as described in the written text (p. 51 of CRMP) or as shown on the paper maps (Map 3). Florence has included the 100-year floodplain as well as the 50-foot wide strip of land as measured from the mean high tide line.

Heceta Junction Seasonal Lakes Shorelands. This management unit includes the area covered by seasonal standing water identified on U.S. Soil and Water Conservation Service maps or, if available, photogrammetric maps and a fifty foot strip of surrounding vegetation.

It is difficult to identify the extent of these lakes. The paper maps in the CRMP (Map 17) show these seasonal lakes extending further south than Lane County's GIS. We have modified the MU to more closely match those paper maps and the Local Wetland Inventory. However, there should probably be some sort of site analysis to determine the extent at the time of development.