

ARTICLE 6. ENVIRONMENTAL AND RESOURCE PROTECTION

ARTICLE 6. ENVIRONMENTAL AND RESOURCE PROTECTION

SECTION 6.1000. SPECIAL SITE DEVELOPMENT FOR ENVIRONMENTAL PROTECTION

Special requirements for environmental protection are specified in Chapter 4 in this document. In addition, in all areas of the County, sewage systems shall be allowed in those areas outside the Urban Growth Boundary only to alleviate a health hazard or water pollution problem which has been identified by the Environmental Quality Commission and will be used only as a last resort.

- 1) Beach and dune areas: 5.4000 through 5.4090.
- 2) Shoreland and aquatic areas: 6.2000 through 6.3080.
- 3) Rock and mineral resource areas: 6.6800 to 6.6810.

SECTION 6.2000. ECOLA CREEK ESTUARY AND NECANICUM ESTUARY IMPACT ASSESSMENT AND RESOURCE CAPABILITY DETERMINATION

Section 6.2010. Purpose

The purpose of this section is to provide an assessment process for development alterations which could potentially alter the integrity of the estuarine ecosystem. Further, certain uses and activities proposed for particular management areas and zones will require an assessment of resource capability of the zone. The impact assessment procedure is intended to be a comprehensive presentation of the impacts expected from a particular development proposal. This procedure will provide the information necessary to judge the capability of the resource to accommodate the identified impacts without altering the integrity of the resource as it relates to the stated purpose of the particular management area or zone.

- 1) Impact Assessment Requirement. An Impact Assessment in accordance with the provisions of this section shall be required for the following uses and activities when proposed for estuarine aquatic areas:
 - (A) Filling or dredging
 - (B) In-water structures
 - (C) Riprap
 - (D) Water intake or withdrawal
 - (E) Pesticide application
 - (F) Effluent discharge
 - (G) Other activities which could affect the estuary's physical processes or biological resources

Further, an Impact Assessment shall be required:

- (A) When a use or activity requires a determination of consistency with resource capability.

Note that Federal Environmental Impact Statement or Environmental

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Assessments may substitute for this requirement if available at the time of permit review. The Community Development Director may require an impact assessment for uses not listed above when the Director believes the use may involve significant impacts.

Use of Impact Assessment.

- (A) Information contained in impact assessments shall be used in the evaluation of a use or activity during permit review procedure. The Impact Assessment shall be used to:
 - 1. identify potential development alterations of significant estuarine fish and wildlife habitats and disturbances of essential properties of the estuarine resource,
 - 2. determine whether potential impacts can be avoided and minimized, and
 - 3. to provide a factual base of information that will ensure that applicable standards in Section 6.2000 are met.
- (B) Where a use requires a Resource Capability Determination, information in the Impact Assessment will be used to determine consistency of proposed uses and activities with the resource capability and purpose of the affected management area or zone. Resource capability analysis shall be based on the requirements of the "Information to be Provided in the Impact Assessment" section.
- (C) Information to be Provided in the Impact Assessment. Information compiled in the Impact Assessment may be drawn from available data and analysis contained in: Ecola Estuary Inventory, Necanicum Estuary Inventory, environmental impact statements of environmental assessments prepared for previous projects in the vicinity of the present development proposal; or other published environmental and estuarine studies pertaining to the estuary. The Impact Assessment should apply available information to the following general areas of analysis. The County may waive inapplicable items for any particular use or project.
- (D) Aquatic life forms and habitat, including information on: habitat type and use (e.g. rearing, spawning, feeding/resting area, migration route), species present, seasonal abundance, sediment type and characteristics, vegetation present. Type of alteration, including information detailing the extent of alteration (e.g. area measurement, depths to which alteration will extend, volumes of materials removed and/or placed as fill), impacted species (including threatened or endangered species), life stages and life cycles affected with regard to timing of the proposed alteration, percent of total available habitat type subject to alteration.
- (E) Shoreland life forms and habitat, including information on: habitat type and use (e.g. feeding, resting or water areas, flyways), species present, seasonal abundance, soil types and characteristics, vegetation present.

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Type of alteration, including information detailing the extent of alteration (e.g. area measurement, extent of grading and excavation, removal of riparian vegetation), impacted species (including threatened or endangered species), life stages and cycles affected with regard to timing of the proposed alteration, percent of total available habitat type subjected to alteration.

- (F) Water quality, including information on: increases in sedimentation and turbidity, decreases in dissolved oxygen concentration, changes in biological and chemical oxygen demand, contaminated sediments, alteration of salinity regime, disruption of naturally occurring water temperatures, changes due to reduction, diversion or impoundment of water.
- (G) Hydraulic characteristics, including information on: changes in water circulation patterns, shoaling patterns, potential of erosion or accretion in adjacent areas, changes in the floodplain, decreases in flushing capacity or decreases in rate of water flow from reduction or diversion or impoundment of water sources.
- (H) Air quality, including information on: quantities of emissions of particulates, expected inorganic and organic airborne pollutants.
- (I) The impact of the proposed project on navigation and public access to shoreline and aquatic areas.
- (J) Demonstration that any proposed structures or devices are properly engineered.
- (K) Demonstration that the project's potential public benefits will equal or exceed expected adverse impacts.
- (L) Demonstration that non-water dependent uses will not preempt existing or future water-dependent utilization of the area.
- (M) Determination of the potential cumulative impact of the proposed development, including alteration of adjacent significant estuarine fish and wildlife habitat and disturbance of essential properties of the estuarine resources.
- (N) Determination of methods for accommodation of the proposed development alteration, based on items (A) through (J) above, in order to minimize preventable adverse impacts. Determination of need for mitigation.
- (O) Impact Assessment Findings. Resulting from the analysis of the information presented in the Impact Assessment, one of the following findings shall be concluded:
 - 1. The proposed uses and activities are in conformance with all Comprehensive Plan policies and standards and do not represent a potential degradation or reduction of significant fish and wildlife habitats and essential properties of the estuarine resource. Where an Impact Assessment is required for a resource capability determination, the proposed uses are consistent with the resource

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2. capability and purpose of the affected management area or zone. The proposed uses and activities are in conformance with all Comprehensive Plan policies and standards, but represent a potential degradation or reduction of significant fish and wildlife habitats and essential properties of the estuarine resource. The Impact Assessment is required for a resource capability determination, the adverse environmental impacts have been minimized to be consistent with the resource capability of the management area or zone. The proposed uses and activities may be accommodated and found to be consistent with resource capabilities and meet the purposes of the management.
3. The proposed uses and activities are not in conformance with all Comprehensive Plan policies and standards. The Impact Assessment and analysis indicate that unacceptable loss will result from the proposed development alteration. The proposed uses and activities represent irreversible changes and actions and unacceptable degradation or reduction of significant estuarine fish and wildlife habitats and essential properties of the estuarine resource will result; or, that the adverse consequences of the proposed uses and activities, while unpredictable and not precisely known, would result in irreversible trends or changes in estuarine resource properties and functions.
4. Available information is insufficient for predicting and evaluating potential impacts. More information is needed before the project can be approved.

Section 6.2020. Resource Capability Determination

- 1) Purpose. Certain uses and activities in Conservation and Natural aquatic management units are allowed only if determined to meet the resource capability and purpose of the zone in which the use or activity occurs. The purpose of this section is to establish procedures for making a resource capability determination.
- 2) Definition of Resource Capability. Resource capability is defined as the degree to which the natural resource can be physically, chemically, or biologically altered, or otherwise assimilate an external use and still function to achieve the purpose of the zone in which it is located.
- 3) Purpose of Different Estuarine Zones.
 - (A) Aquatic Conservation zone: The purpose of the Aquatic Conservation zone is to designate areas for long term uses of renewable resources that do not require major alteration of the estuary, except for the purpose of restoration. These areas shall be managed to conserve the natural resources and benefits. These shall include areas needed for maintenance and enhancement of biological productivity, recreational and aesthetic uses, and aquaculture. Included are tracts of significant habitat, and recreational shellfish beds. Areas which are partially altered and

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- adjacent to existing development of moderate intensity are also included.
- (B) Aquatic Natural zone: The purpose of the Aquatic Natural zone is to provide for preservation and protection of estuarine resources, including significant fish and wildlife habitats, essential properties of the estuary, such as dynamic geological processes, continued biological productivity, unique communities of organisms, maintenance of species diversity. Low intensity uses consistent with the protection of natural values are appropriate.
- (C) Resource Capability Procedure. In order to determine whether a use or activity is consistent with the resource capability and purpose of the zone for which the use or activity is proposed, the following procedure is required:
1. Identification of the zone and area in which the activity is proposed and the resources in the area;
 2. Identification of adverse impacts of the proposed use or activity on the resources identified in (A) above. This information is included in the Impact Assessment Section 6.2000.
 3. Determination of whether the resources can continue to achieve the purpose of the zone in which the use or activity is proposed.
- (D) Identification of Resources and Impacts. The applicant for a proposed use or activity in which a resource capability determination must be made shall submit the following:
1. Information on resources present in zone in which the use or activity is proposed;
 2. Impact assessment as specified in Section 6.2000, Impact Assessment Procedure. (Federal Environmental Impact Statements or Environmental Assessments may be substituted if available at the time of the permit request).

If in the course of review, additional information is required to satisfy the provisions of this ordinance, notification shall be made to the applicant outlining the additional information needed and the reason. Although the applicant shall be responsible for providing all necessary information, the Planning Division will assist the applicant in identifying inventory sources and information. Sources which can be used to identify resources included: Necanicum Estuary Inventory, environmental impact statements for project in same areas, or other published studies concerning the Necanicum Estuary. Identification of resources shall include both environmental (e.g. aquatic life and habitat present, benthic populations, migration routes) and social and economic factors (navigation channels, public access facilities).

- (E) Resource Capability Administrative Provisions. A resource capability determination for a use or activity identified in this ordinance as a Conditional Use shall be made in accordance with the Conditional Use

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procedure set forth in Section 2.4000. Public notice of development proposals which require determination of consistency with resource capabilities shall be sent to all affected parties. State and federal resource agencies with mandates and authorities for planning, permit issuance and resource decision-making, including the following, will be notified: Oregon Department of Fish and Wildlife, Oregon Division of State Lands, Oregon Department of Land Conservation and Development, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Environmental Protection Agency, U.S. Army Corps of Engineers.

Section 6.2030. Revocation of Permits

- 1) Any conditions placed upon a development permit by this ordinance, the Planning Director, the Hearings Officer, the Planning Commission and/or the Board of Commissioners shall be strictly followed. In the event that the permit holder, or his assignee, fails to comply with any such conditions the underlying development permit may be revoked or modified as set forth below.
- 2) When it comes to the attention of the Community Development Director that the permit holder, or his assignee, is not complying with any conditions of the permit, the Community Development Director shall undertake an investigation. If the Community Development Director determines that one or more conditions are not being met he shall cause a notice to be mailed to the permit holder or his assignee by regular mail advising him of the deficiency and requiring that the deficiency be remedied within fourteen (14) days from the date the notice is mailed or such longer period as the Community Development Director may deem appropriate.
- 3) Should the permit holder or his assignee fail to remedy the deficiency within the time period set by Section 6.2030(2) then the Community Development Director shall cause a notice to be mailed to the permit holder and/or his assignee advising him of his intent to revoke the development permit. Such notice shall provide that to avoid such action the permittee must request, in writing, a hearing before the Hearings Officer and then appear and show cause why his permit should not be revoked. Such a hearing request must be filed within fourteen (14) days of the date of the notice of intent to revoke. Upon appeal the Hearings Officer may uphold the permit should it determine that all conditions have been met or no longer need to be met; modify or add conditions to the permit; or revoke the permit. Appeals to the Hearings Officer shall be handled as a Type IIa proceeding. Should a permittee fail to file a timely request for hearing, then the Community Development Director shall send him a notice advising him that his development permit has been revoked and that any further action thereon would be in violation of Clatsop County Land and Water Development and Use Ordinance.
- 4) The provisions of Section 6.2030 shall apply to all development permits issued prior to the date of its enactment, as well as all development permits issued thereafter.

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SECTION 6.2040. ECOLA CREEK AND NECANICUM ESTUARINE STANDARDS

Section 6.2050. Aquaculture

- 1) Structures and activities associated with an aquaculture operation shall not unduly interfere with navigation.
- 2) Water diversion or other shoreline structures shall be located so as not to unduly interfere with public shoreline access. Public access to the facility shall be provided consistent with safety and security considerations.
- 3) Aquaculture facilities shall be constructed to blend in, and not detract from the aesthetic qualities of the area. In developed areas, views of upland owners shall be given consideration in facility design.
- 4) Water diversion structures or man-made spawning channels shall be constructed so as to maintain minimum required stream flows for aquatic life in the adjacent stream.
- 5) The potential impacts of introducing a new fish or shellfish species (or race within a species) shall be carefully evaluated so as to protect existing aquatic life in the stream and estuary.
- 6) Aquaculture facilities shall be located far enough away from sanitary sewer outfalls to the extent that there will be no potential health hazard.
- 7) Water discharged from the facility shall meet all federal and state water quality standards, and any conditions attached to a waste discharge permit.

Section 6.2060. Boat Ramp

- 1) Boat ramps requiring fill or dredging shall be evaluated under fill or dredging requirements. (Fill or removal of 50 cubic yards or less does not require permits from the U.S. Army Corps of Engineers or the Division of State Lands). Necessary permits will be obtained.
- 2) Boat ramps shall not be located in marsh areas or tideflats. Water depths shall be adequate so that dredging is not necessary.
- 3) Boat ramps shall be compatible with surrounding uses, such as natural areas or residential areas.

Section 6.2070. Dock/Moorage

- 1) Community docks or moorages shall be given higher priority than private individual docks or moorages.
- 2) Where a private individual dock is proposed, the applicant must provide evidence that alternative moorage sites, such as nearby marinas, community docks or mooring buoys are not available, are impracticable or will not satisfy the need.
- 3) Evidence shall be provided by the applicant that the size of the dock or moorage is the minimum necessary to fulfill the purpose.
- 4) Covered or enclosed moorage shall not be allowed except in connection with a commercial or industrial use where such shelter is necessary for repair and maintenance of vessels and associated equipment, such as fishing nets, etc.
- 5) Open pile piers or secured floats shall be used for dock construction. Fills in

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- aquatic areas to create a dock or moorage are not permitted.
- 6) Piers and floats shall extend no further out into the water than is needed to affect navigational access. Conflicts with other water surface uses such as fishing or recreational boating shall be minimized.
 - 7) Floats in tidally-influenced areas shall be located such that they do not rest on the bottom at low water.

Section 6.2080. Fill

- 1) Fill shall be permitted for active restoration, aquaculture, placement of communications facilities, water dependent recreation such as marinas, and flood control and erosion control structures.
- 2) Where fills are permitted, the fill shall be the minimum necessary to accomplish the proposed use.
- 3) Fill shall be permitted only after it is established through environmental impact assessment that negative impacts on the following factors will be minimized:
 - (A) Navigation.
 - (B) Productive estuarine habitat.
 - (C) Water circulation and sedimentation patterns.
 - (D) Water quality.
 - (E) Recreation activities.
- 4) Where existing public access is reduced, suitable public access as part of the development project shall be provided.
- 5) Aquatic areas shall not be used for sanitary landfills or the disposal of solid waste.
- 6) Fill in intertidal or tidal marsh areas shall not be permitted.
- 7) Fills in CONSERVATION Shorelands and Aquatic areas shall be allowed only if consistent with the resource capabilities of the area and the purpose of the CONSERVATION designation. Fills are not permitted in natural areas.
- 8) Fills shall be permitted only in areas where alteration has taken place in the past, such as the riprap bank of the Necanicum River in downtown Seaside.
- 9) The following uses and activities shall be permitted with the following findings of fact:
 - (A) Maintenance and protection of man-made structures (riprap or other shoreline protection) existing as of October 7, 1977.
 - (B) Active restoration if a public need is demonstrated.
 - (C) Aquaculture if:
 1. an estuarine location is required;
 2. a public need is demonstrated;
 3. no alternative upland locations exist for the portion of the use requiring fill, and
 4. adverse impacts are minimized as much as feasible.
 - (D) High intensity water-dependent recreation and minor navigational improvements if:
 1. The findings of (9)(C)1)-4) are made, and

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2. If consistent with the resource capabilities of the area and the purposes of the management unit, and
- (E) Flood and erosion control structures if:
 1. Required to protect a water-dependent use, as otherwise allowed in (9)(B)-(D);
 2. Land use management practices and non-structural solutions are inadequate to protect the use;
 3. There is no alternative upland locations for the portion of the use being protected;
 4. An estuarine location is required by the use;
 5. a public need is demonstrated; and
 6. Adverse impacts to include those on water currents, erosion and accretion patterns, are minimized as much as feasible.

Section 6.2090. Land Transportation Facilities

- 1) Land transportation facilities shall not be located in wetlands or aquatic areas except where bridge crossing on pilings are needed.
- 2) Highways, railroads and bridges should be designed and located to take advantage of the natural topography so as to cause minimum disruption of the shoreline area. Causeways across aquatic areas shall not be permitted.
- 3) The impacts of proposed rail or highway facilities on land use patterns and physical/visual access shall be evaluated.
- 4) Culverts shall be permitted only where bridges are not feasible, and shall be large enough to protect water quality, salinity regime and wildlife habitat.

Section 6.2100. Maintenance Dredging

- 1) Dredging shall not occur in marshes, tide flats or other productive subtidal areas as determined by the state and federal permit process.
- 2) Dredging shall be permitted in areas of the Necanicum River with lower productivity and only to the extent necessary to achieve minor navigational improvement.
- 3) Dredging shall be permitted for high intensity recreation purposes, including a moorage or small marina, where such use conforms with the above standards and the goals of this plan.
- 4) Dredging other than for aquaculture or restoration shall be limited to the main channel of the Necanicum River.

Section 6.2110. Marinas

- 1) The applicant shall provide evidence to show that existing marina facilities are inadequate to meet the demand and that existing facilities cannot feasibly be expanded.
- 2) Marina facilities shall be designed and constructed so as to minimize negative impacts on navigation, water quality, sedimentation rates and patterns, fish rearing or migration routes, important sediment-dwelling organisms, birds, other

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- wildlife, tidal marshes and other important vegetative habitat. An impact assessment shall normally be required.
- 3) Flushing and water circulation adequate to maintain ambient water quality shall be provided by design or artificial means. A calculated flushing time shall be presented as evidence that this standard has been met.
 - 4) The size of the proposed facility, particularly that portion occupying the water surface, shall be the minimum required to meet the need. In this regard, new facilities shall make maximum use of dry boat moorage on existing shoreland areas.
 - 5) Means for preventing contaminants from entering the water shall be provided. Equipment shall be available on-site for clean-up of accidental spills of contaminants. Sewage, storm drainage and fish wastes shall not be discharged directly into the water.
 - 6) Marina facilities should provide for maximum public access and recreation use, consistent with safety and security considerations. Walkways, seating, fishing areas and similar facilities should be provided.
 - 7) Covered or enclosed water moorage shall be minimized, except as needed for maintenance, repair or construction activities.
 - 8) Marina facilities shall be located only in areas of existing shoreline development on the Necanicum River where its location would not eliminate marsh areas, and where water depths are sufficient so that new dredging is not required.

Section 6.2120. Piling

- 1) Piling for a use permitted in the estuary shall be approved only after the applicant has established that adverse impacts on navigation, estuarine habitat and processes, water circulation and sedimentation patterns, water quality and recreation activities are minimized.
- 2) The piling will meet all state and federal engineering standards.
- 3) Piling shall be used in lieu of fill wherever the use is engineering feasible. The number of pilings shall be the minimum necessary to accomplish the proposed use.

Section 6.2130. Restoration/Resource Enhancement - Active

- 1) Conditional use application for active restoration/resource enhancement should be accompanied by an explanation of the purpose of the project and the resource(s) to be restored or enhanced. The project shall be allowed only if consistent with the resource capabilities and purpose of the designation of the area and the other adjacent uses.
- 2) Aquaculture shall be evaluated under those standards.

Section 6.2140. Necanicum Estuary Shoreline Stabilization

- 1) General Standards.
 - (A) Preferred Methods.

Proper management of existing stream side vegetation is the preferred

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method of stabilization followed by planting of vegetation. Where vegetative protection is inappropriate (because of the high erosion rate, the use of the site or other factors) structural means such as riprap may be used as a last resort.

In the placement of stabilization materials, factors to be considered include, but are not limited to: effects on birds and wildlife habitat, uses of lands and waters adjacent to the bank, effects on fishing areas, effects on aquatic habitat, relative effectiveness of the various structures, engineering feasibility, cost and erosion, flooding and sedimentation of adjacent areas.

- (B) Emergency repair to shoreline stabilization facilities is permitted, notwithstanding the other regulations in these standards subject to these standards imposed by the State of Oregon, Division of State Lands and the U.S. Army Corps of Engineers.
 - (C) Conditional use application for shoreline stabilization shall be based on a demonstration of need and consistency with the intent of the designation of the area and the resource capabilities of the area. Impacts shall be minimized.
- 2) Standards for Revegetation and Vegetation Management.
- (A) Plant species shall be selected to insure that they provide suitable stabilization and value for wildlife. Justification shall be presented as to the necessity and feasibility for use of a bank with a slope greater than 2:1 (horizontal to vertical). Trees, shrubs and grasses native to the area are generally preferred.
 - (B) The area to be revegetated should be protected from excessive livestock grazing or other activities that would hinder plant growth.
- 3) Standards for Riprap.
- (A) Good engineering and construction practices shall be used in the placement of riprap, with regard to slope, size, composition and quality of material, excavation of the toe trench, placement of gravel fill blanket and operation of equipment in the water. State and federal agency regulations should be consulted in this regard.
 - (B) Riprapped banks should be vegetated to improve bird and wildlife habitat, where feasible.
 - (C) Shoreline protection measures shall not restrict existing public access to public shorelines.
 - (D) Shoreline protection measures should be designed to minimize their impacts on the aesthetic qualities of the shoreline.
 - (E) Bankline protection is not in itself a way to increase land surface area. Where severe erosion has occurred, fill may be used to obtain the desired bank slope and restore the previous bank line. Any extension of the bankline into traditional aquatic areas shall be subject to the standards for

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- fill. Disruption of tidal marsh, tidal flat and productive subtidal areas shall not be permitted.
- (F) Construction of shoreline protection measures shall be coordinated with state and federal agencies and local interests to minimize the effects on aquatic resources and habitats. Relevant state and federal water quality standards shall be met. Stream channelization should be avoided.
 - (G) Use of fill material for shoreline protection shall be permitted for maintenance of man-made structures existing as of October 7, 1977.

Section 6.2150. Utilities

- 1) Overhead electrical or communications transmission lines shall be located so as not to unduly interfere with migratory bird flyways and significant habitat or residential waterfowl, birds of prey and other birds. In cases of serious conflict, utility facilities should be located underground.
- 2) Applicants for utility facility, including cable crossings, shall provide evidence as to why an aquatic site is needed, the alternative locations considered, and the relative impacts of each. Crossings shall avoid disrupting marsh areas wherever it is engineering feasible.
- 3) Utility facilities shall not be located on new fill land unless part of an otherwise approved project and no other alternative exists.
- 4) Above ground utility facilities shall be designed to have the least adverse effect on visual and other aesthetic characteristics of the area.
- 5) Effluents from point-source discharges shall meet all applicable state and federal water and air quality standards. Monitoring shall be carried out so as to determine the on-going effects on the estuarine environment.
- 6) After installation or maintenance is completed, banks shall be replanted with native species or otherwise protected against erosion. The pre-project bankline shall be maintained as closely as possible.
- 7) Storm water shall be directed into existing natural drainages wherever possible, and shall be dispersed into several locations so as to minimize the impact on the estuary. When adjacent to salt marshes and/or natural areas, special precautions shall be taken to insure contamination of the marsh by oil, sediment or other pollutants does not occur. This may be through use of holding ponds, weirs, dry wells, or other means.

Section 6.2160. Standards for Area Protection Conditions

When the imposition of discretionary standards is authorized to avoid detrimental impacts to the public, the standards should be designed to:

- 1) Designate the size, number, location and nature of vehicle access points.
- 2) Increase the amount of street dedication, roadway width or improvements within the street right-of-way.
- 3) Protect vegetation, water resource, wildlife habitat or another significant natural resource.

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SECTION 6.3000. COLUMBIA RIVER ESTUARY IMPACT ASSESSMENT AND RESOURCE CAPABILITY DETERMINATION

Section 6.3010. Impact Assessment

The purpose of this section is to provide an assessment process for development alterations which could potentially alter the estuarine ecosystem. Oregon Statewide Planning Goal 16, Estuarine Resources, requires that actions which would potentially alter the Columbia River estuarine ecosystem be preceded by an assessment of potential impacts. The Impact Assessment need not be lengthy and complex, but it should enable reviewers to gain a clear understanding of the impacts expected.

Section 6.3020. Impact Assessment Requirements

The following uses and activities, in addition to those so indicated in the aquatic zones, all require an Impact Assessment at the time a permit is reviewed:

- 1) Dredging
- 2) Aquatic area fill
- 3) In-water structures
- 4) Riprap
- 5) New in-water log storage areas
- 6) Application of pesticides and herbicides
- 7) Water intake or withdrawal
- 8) Effluent discharges
- 9) In-water dredged material disposal
- 10) Beach nourishment
- 11) Other uses or activities which could affect estuarine physical or biological resources
- 12) Uses or activities that require a Resource Capability Determination

Section 6.3030. Use of Impact Assessment

Information contained in an Impact Assessment shall be used during the evaluation of a use or activity's significant impacts on the estuarine ecosystem; in determining whether potential impacts can be avoided or minimized; and for providing a factual base of information needed to address applicable standards in Section 6.4000 through 6.4270.

Where a use or activity requires a Resource Capability Determination, information in the impact assessment can be used to satisfy the requirements of Section 6.3070.

Section 6.3040. Information to be Provided in the Impact Assessment

Information needed to complete the Impact Assessment should be obtained from sources other than the permit application (i.e. environmental impact statements, Columbia River Estuary Data Development Program data, other reports or data applicable to the Columbia River Estuary). An assessment of impacts of aquatic area pesticide and herbicide application may be provided by the Oregon Department of Agriculture and the Oregon Department of Environmental Quality. An assessment of the impacts of new point-source waste water discharges into the Columbia River Estuary may be provided through the National Pollution Discharge Elimination System (NPDES)

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permit program.

A complete Impact Assessment includes the following information:

- 1) Aquatic life forms and habitat, including information on both the extent of and impacts on: habitat type and use, species present (including threatened or endangered species), seasonal abundance, sediments, and vegetation.
- 2) Shoreland life forms and habitat, including information on both the extent of and impacts on: habitat type and use, species present (including threatened or endangered species), seasonal abundance, soil types and characteristics, and vegetation present.
- 3) Water quality, including information on: sedimentation and turbidity, dissolved oxygen, biochemical oxygen demand, contaminated sediments, salinity, water temperatures, and expected changes due to the proposed use or activity.
- 4) Hydraulic characteristics, including information on: water circulation, shoaling patterns, potential for erosion or accretion in adjacent areas, changes in flood levels, flushing capacity, and water flow rates.
- 5) Air quality, including information on quantities of particulates and expected airborne pollutants.
- 6) Public access to the estuary and shoreline, including information on: proximity to publicly-owned shorelands and public street ends; effect of public boat launches, marinas and docks; and impact on inventoried public access opportunities.
- 7) Navigation, including information on: distance from navigation channels, turning basins and anchorages; proximity to range markers.
- 8) Demonstration that proposed structures or devices are properly engineered.
- 9) Demonstration that the project's potential public benefits will equal or exceed expected adverse impacts.
- 10) Demonstration that non-water dependent uses will not preempt existing or future water- dependent utilization of the area.
- 11) Determination of methods for mitigation and accommodation of the proposed development, based on items (1) through (10) above, in order to avoid or minimize preventable adverse impacts.

Section 6.3050. Impact Assessment Conclusion

Based on the information and analysis in Section 6.3040, one of the following four conclusions shall be reached:

- 1) The proposed uses and activities do not represent a potential degradation or reduction of estuarine resource.
- 2) The proposed uses and activities represent a potential degradation or reduction of estuarine resources. The Impact Assessment identifies reasonable alterations or conditions that will eliminate or minimize to an acceptable level expected adverse impacts.
- 3) The proposed uses and activities will result in unacceptable losses. The proposed development represents irreversible changes and actions and unacceptable degradation or reduction of estuarine resource properties will

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result.

- 4) Available information is insufficient for predicting and evaluating potential impacts. More information is needed before the project can be approved.

Section 6.3060. Resource Capability Determination

Some uses and activities in Columbia River Estuary Natural and Conservation Aquatic zones are allowed only if determined to meet the resource capabilities of the area and if determined to be consistent with the purpose of the affected zone. Some uses and activities in Development Aquatic zones are allowed only if determined to be consistent with the purpose of the zone.

Section 6.3070. Resource Capability Procedure

A completed Resource Capability Determination consists of the following elements:

- 1) Identification of the affected area's zone, and its purpose.
- 2) Identification of the types and extent of estuarine resources present and expected adverse impacts. This information is included in the Impact Assessment, Section 6.3040.
- 3) A determination of whether the use or activity is consistent with the resource capabilities of the affected zone. A use or activity is consistent with the resource capabilities of the area when either:
 - (A) Impacts on estuarine resources are not significant; or
 - (B) Resources of the area will be able to assimilate the use and activity and their effects and continue to function in a manner which:
 1. In Aquatic Natural designations, protects significant fish and wildlife habitats, natural biological productivity, and values for scientific research and education; or
 2. In Aquatic Conservation designations, conserves long term use of renewable resources, natural biological productivity, recreation and aesthetic values and aquaculture.
 - (C) For temporary alterations, the Resource Capability Determination must also include:
 - (D) Determination that potential short term damage to estuary and shoreland resources is consistent with the resource capabilities of the area; and
 - (E) Determination that the area and affected resources can be restored to their original condition.

Section 6.3080. Determining Consistency with the Purpose of the Zone

Certain uses in Aquatic Development, Aquatic Conservation and Aquatic Natural zones may be permitted only if they are consistent with the purpose of the aquatic zone in which they occur. A Consistency Determination consists of the following elements:

- 1) Identification of the affected zone and its purpose.
- 2) Description of the proposed project's potential impact on the purposes of the affected zone.
Determination that the proposal is either:

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- (A) Consistent with the purpose of the affected zone;
- (B) Conditionally consistent with the purpose of the affected zone; or
- (C) Inconsistent with the purpose of the affected zone.

SECTION 6.4000. COLUMBIA RIVER ESTUARY SHORELAND AND AQUATIC USE AND ACTIVITY STANDARDS

Section 6.4010. Purpose

Columbia River Estuary shoreland and aquatic area standards are requirements which apply to development uses and activities proposed in one or more of the following management designations: Marine Industrial Shorelands Zone (MI); Conservation Shorelands Zone (CS); Natural Shorelands Zone (NS); Aquatic Development Zone (AD); Aquatic Conservation Two Zone (AC-2); Aquatic Conservation One Zone (AC-1); Aquatic Natural Zone (AN); and those areas included in the Shorelands Overlay District (/SO). These standards are intended to protect the unique economic, social, and environmental values of the Columbia River Estuary.

Section 6.4020. General Standard

Proposed uses and activities in the Columbia River Estuary shoreland and aquatic areas may only be approved when it is determined that such uses or activities are consistent with the purposes of the Columbia River Estuary management areas in which they are proposed and satisfy all applicable Comprehensive Plan policies and Columbia River Estuary Shoreland and Aquatic Activity and Use Standards. In addition, some uses and activities in the Columbia River Estuary which could potentially alter the estuarine ecosystem are also subject to an Impact Assessment and Resource Capability Determination.

Section 6.4030. General Development Zone Standards

The standards in this subsection apply to all development activities and uses in Columbia River Estuary shoreland and aquatic development zones, where appropriate.

- 1) Shoreland and aquatic area uses and activities that are not water-dependent shall not preclude or unduly conflict with existing, proposed or potential future water-dependent uses or activities on the site or in the vicinity.
- 2) Uses will be designed and located so as not to unduly interfere with adjacent uses (particularly adjacent historic structures). Appropriate landscaping, fencing, and/or other buffering techniques shall be used to protect the character of adjacent uses.
- 3) Waterfront access for the public, such as walkways, trails, waterfront seating or landscaped areas, shall be provided except when proven to be inconsistent with security and safety factors. Industrial and port facilities should designate public viewing points, for viewing waterfront and/or port operations in areas which would not interfere with operations. Provisions of public access shall not result in enlargement of development areas requiring dredge or fill activities or other alteration of estuarine resources.
- 4) Joint use of parking, moorage and other commercial support facility is

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encouraged where feasible and where consistent with local ordinance requirements.

- 5) In some locations maintenance, placement or replacement of riparian vegetation may be required to enhance visual attractiveness or assist in bank stabilization.

Section 6.4040. Agriculture and Forestry

Standards in this subsection are applicable to agricultural and forestry activities on Columbia River Estuary shorelands. Activities outside of the coastal shorelands boundary are not covered by this subsection. Certain activities associated with agriculture and forestry (i.e. log storage, dike maintenance and shipping facilities for agricultural and forest products, are covered under different subsections).

- 1) Tillage and drainage practices should minimize sedimentation and control surface water runoff of animal wastes and excess fertilizers, herbicides and pesticides. Agriculture chemicals shall be applied so as to minimize the amount that is lost to the aquatic environment.
- 2) A buffer strip of permanent vegetation shall be maintained between cultivated or pasture areas and an undiked body of water, so as to filter surface runoff and retard sedimentation.
- 3) Feed lots or other confinement lots for livestock shall be:
 - (A) Located at least 100 feet from streams or waterbodies;
 - (B) Away from hillsides leading directly to streams;
 - (C) Outside the 100 year floodplain;
 - (D) Located so as to protect groundwater supplies; and
 - (E) Designed such that runoff is controlled with diversion structures, settling ponds or other land management practices.
- 4) Forest practices and forest road building will comply with rules established under the Oregon Forest Practices Act, administered by the Oregon Department of Forestry.
- 5) On Development and Water-dependent Development Shorelands, agriculture uses shall be undeveloped and low intensity to reserve these areas for intensive residential, commercial or industrial use, as appropriate.
- 6) On Conservation Shorelands, agriculture uses shall be low intensity and consistent with maintenance of the forest resource and recreational values of these lands.

Section 6.4050. Airports

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

- 1) Airports and associated facilities shall be located away from migratory bird flyways and habitat used by resident waterfowl and other birds, in the interest of air safety and wildlife conservation.

Section 6.4060. Aquaculture and Fisheries

The standards in this subsection apply to all projects that could affect commercial or

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recreational fisheries or aquaculture in the Columbia River Estuary. This section is also applicable to the development of aquaculture facilities and to fisheries enhancement projects.

- 1) Water diversion structures or man-made spawning channels shall be designed and built to maintain minimum stream flows for aquatic life in affected streams.
- 2) Water discharged from aquaculture or hatchery facilities shall comply with state and federal water quality standards and any waste discharge permit conditions.
- 3) Aquaculture facilities shall be located far enough from sanitary sewer outfalls to avoid potential health hazards.
- 4) Aquaculture facilities shall be constructed to blend in with and not detract from the aesthetic qualities of the area. In developed areas, views from upland property shall be given consideration in facility design.
- 5) In-water construction activity in aquatic areas shall follow the recommendations of state and federal fisheries agencies with respect to project timing to avoid unnecessary impacts on migratory fish.
- 6) Commercial fish drifts shall be protected from conflicting in-water activity, including dredging, in-water dredged material disposal, and aquatic area mining and mineral extraction, by coordinating review of such activity with fishery regulatory agencies, fishing organizations, drift captains and drift right owners, and other interested parties.
- 7) Prior to approval of in-water activities with the potential for affecting commercial fishing activities, the project sponsor shall notify local drift captains, the Columbia River Fisherman's Protective Union and the Northwest Gillnetters Association and the state fishery agency.

Section 6.4070. Residential, Commercial and Industrial Development

The standards in this subsection are applicable to construction or expansion of residential, commercial or industrial facilities in shoreland and aquatic areas of the Columbia River Estuary. Within the context of this section, residential uses include single and multi-family structures, mobile homes, and floating residences (subject to an exception to Oregon Statewide Planning Goal 16). Duck shacks, recreational vehicles, hotels, motels and bed and breakfast facilities are not considered residential structures for purposes of this section. Commercial structures and uses include all retail or wholesale storage, service or sales facilities and uses, whether water- dependent, water-related, or non-dependent, non-related. Industrial uses and activities include facilities for fabrication, assembly, and processing, whether water-dependent, water-related, or non-dependent, non-related.

- 1) Sign placement shall not impair views of water areas. Signs shall be constructed against existing buildings whenever feasible. Off-premise outdoor advertising shall not be allowed in aquatic areas.
- 2) Off-street parking may be located over an aquatic area only if all of the following conditions are met:
 - (A) Parking will be on an existing pile-supported structure; and
 - (B) Suitable shoreland areas are not available; and

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- (C) The amount of aquatic area committed to parking is minimized; and
 - (D) The aquatic area is in an Aquatic Development zone; and
 - (E) Applicable off-street parking standards, Section 3.0050, are met.
- 3) Joint uses of parking, moorage and other commercial support facility is encouraged where feasible and where consistent with local ordinance requirements.
- 4) Uses on floating structures shall be located in areas protected from currents and wave action. The floats shall not rest on the bottom during low tidal cycles or low-flow periods.
- 5) Where groundwater is or may be used as a water supply, the groundwater table shall not be significantly lowered by drainage facilities, or be affected by salt water intrusion due to groundwater mining.
- 6) Fill in estuarine aquatic areas or in significant non-tidal wetlands in shoreland areas shall not be permitted for residential uses.
- 7) Piling or dolphin installation, structural shoreline stabilization, and other structures not involving dredge or fill, but which could alter the estuary may be allowed only if all of the following criteria are met:
- (A) If a need (i.e. a substantial public benefit) is demonstrated; and
 - (B) The proposed use does not unreasonably interfere with public trust right; and
 - (C) Feasible alternative upland locations do not exist; and
 - (D) Potential adverse impacts, as identified in the impact assessment, are minimized.
- 8) Residential, commercial or industrial development requiring new dredging or filling of aquatic areas may be permitted only if all of the following criteria are met:
- (A) The proposed use is required for navigation or other water-dependent use requiring an estuarine location, or if specifically allowed in the applicable aquatic zone; and
 - (B) If a need (i.e. a substantial public benefit) is demonstrated; and
 - (C) The proposed use does not unreasonably interfere with public trust rights; and
 - (D) Feasible alternative upland locations do not exist; and
 - (E) Potential adverse impacts, as identified in the impact assessment, are minimized.
- 9) Commercial or industrial developments with ship receiving facilities shall provide facilities for disposing of vessel solid wastes. Disposal of fish wastes associated with commercial or industrial development, shall comply with state and federal regulations.

Section 6.4080. Estuarine Construction

Piling and Dolphin Installation, Shoreline Stabilization, and Navigational Structures. The standards in this subsection apply to over-the-water and in-water structures such as docks, bulkheads, moorages, boat ramps, boat houses, jetties, pile dikes, breakwaters

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and other structures involving installation of piling or placement of riprap in Columbia River Estuary aquatic areas. This subsection not apply to structures located entirely on shorelands or uplands, but does apply to structures, such as boat ramps, that are in both aquatic and shoreland designations. Standards in this subsection also apply to excavation for creation of new water surface area.

- 1) When land use management practices and vegetative shoreline stabilization are shown to be infeasible (in terms of cost, effectiveness or other factors), structural means may be approved subject to applicable policies, standards and designation use restrictions.
- 2) Where structural shoreline stabilization is shown to be necessary because of the infeasibility of vegetative means, the choice among various structural means shall be made on a case by case basis. Factors to be considered include, but are not limited to:
 - (A) Hydraulic features;
 - (B) Shoreland habitat;
 - (C) Adjacent land and water uses;
 - (D) Aquatic habitat;
 - (E) Water quality;
 - (F) Engineering feasibility;
 - (G) Navigation;
 - (H) Impacts on public shoreline access.
- 3) Jetties, groins and breakwaters shall be constructed of clean, erosion-resistant materials from upland sources. In-stream gravels shall not be used, unless part of an approved mining project. Material size shall be appropriate for predicted wave, tide and current conditions.
- 4) Where a jetty, groin, breakwater or other in-water structure is proposed for erosion or flood control, the applicant shall demonstrate that non-structural solutions, such as land use management practices, or other structural solutions, such as riprap, will not adequately address the problem.
- 5) Piling or dolphin installation, structural shoreline stabilization, and other structures not involving a dredge or fill, but which could alter the estuary may be allowed only if the following criteria are met:
 - (A) If a need (i.e. a substantial public benefit) is demonstrated; and
 - (B) The proposed use does not unreasonably interfere with public trust rights; and
 - (C) Feasible alternative upland locations do not exist; and
 - (D) Potential adverse impacts, as identified in the impact assessment, are minimized.
- 6) Jetties, groins, breakwaters and piers requiring aquatic fill may be allowed only if all of the following criteria are met:
 - (A) The proposed use is required for navigation or other water-dependent use requiring an estuarine location, or if specifically allowed in the applicable aquatic zone; and
 - (B) If a need (i.e. a substantial public benefit) is demonstrated; and

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- (C) The proposed use does not unreasonably interfere with public trust rights; and
 - (D) Feasible alternative upland locations do not exist; and
 - (E) Potential adverse impacts, as identified in the impact assessment, are minimized.
- 7) Proposals for bulkheads may be approved only if it is demonstrated that sloped riprap will not adequately fulfill the project's objectives.
 - 8) Proposals for new bulkheads or for new riprap bankline slopes steeper than 1.5 to 1 (horizontal to vertical) must demonstrate that adequate shallow areas will be available for juvenile fish shelter, or that the area is not typically used for juvenile fish shelter.
 - 9) Plant species utilized for vegetative stabilization shall be selected on the basis of potential sediment containment and fish and wildlife habitat values. Trees, shrubs and grasses native to the region should be considered for vegetative stabilization; however, plant species and vegetation stabilization techniques approved by the Soil Conservation Service, the U.S. Army Corps of Engineers and other participating federal and state resource agencies are also appropriate. Stabilization of dike slopes must not include vegetation (particularly trees) which jeopardize the dike.
 - 10) Riprap bank protection must be appropriately designed with respect to slope, rock size, placement, underlying material and expected hydraulic conditions. Project design by a licensed engineer shall meet this requirement. Riprap projects designed by other individuals, such as experienced contractors, soil conservation service personnel or others, may meet this standard.
 - 11) New shoreline stabilization projects shall not restrict existing public access to public shorelines.
 - 12) Shoreline stabilization shall not be used to increase land surface area. Where an avulsion has occurred, fill may be used to restore the previous bankline, so long as the corrective action is initiated within one year of the date of the avulsion. Any other extension of the bankline into aquatic areas shall be subject to the policies and standards for fill.
 - 13) Structural shoreline stabilization measures shall be coordinated with state and federal agencies to minimize adverse effects on aquatic and shoreland resources and habitats.
 - 14) Bulkheads installed as a shoreland stabilization and protective measure shall be designed and constructed to minimize adverse physical effects (i.e. erosion, shoaling, reflection of wave energy or interferences with sediment transport in adjacent shoreline areas) resulting from their placement.
 - 15) Emergency maintenance, for the purpose of making repairs or for the purpose of preventing irreparable harm, injury or damage to persons, property or shoreline stabilization facilities is permitted, notwithstanding the other requirements in these standards, but subject to those regulations imposed by the Corps of Engineers and the Division of State Lands.
 - 16) Revegetated shoreline areas shall be protected from excessive livestock grazing

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- or other activities that would prevent development of effective stabilizing plant cover.
- 17) The size and shape of a dock or pier shall be the minimum required for the intended use.
 - 18) Proposals for new docks and piers may be approved only after consideration of alternatives such as mooring buoys, dryland storage, and boat ramps.
 - 19) Individual single-user docks and piers are discouraged in favor of community moorage facilities common to several users and interests.
 - 20) With regard to excavation of shorelands to create new estuarine aquatic surface area, the following provisions are applicable. The maximum feasible amount of the new water surface area shall be excavated as an upland site, behind protective berms. The new aquatic area shall be connected to adjacent water areas as the excavation is completed. Excavation in this manner shall not result in channelization of the waterway.
 - 21) Sediments and materials generated by the excavation to create new estuarine water surface area shall be deposited on land in an appropriate manner.
 - 22) Water quality degradation due to excavation to create new estuarine water surface area shall be minimized. Adverse effects on water circulation and exchange, increase in erosion and shoaling conditions, and introduction of contaminants to adjacent aquatic areas resulting from excavation of the area and presence of the new aquatic area will be minimized to the extent feasible.

Section 6.4090. Deep-Water Navigation, Port and Industrial Development

The standards in this subsection apply to port and industrial development occurring in and over Columbia River estuarine waters, and on adjacent shorelands. This section also applies to navigation projects related to deep-draft maritime activities, such as channel, anchorage and turning basin development or expansion.

- 1) New or expanded shoreland and aquatic area facilities for the storage of transmission of petroleum products must have on-site equipment for the containment of oil spills. a contingency plan for containment and clean-up of oil spills shall be provided.
- 2) New or expanded facilities for deep-water navigation, port or industrial development requiring aquatic area dredging or filling may be allowed only if all of the following criteria are met:
 - (A) The proposed use is required for navigation or other water-dependent use requiring an estuarine location, or if specifically allowed in the applicable aquatic zone; and
 - (B) If a need (i.e. a substantial public benefit) is demonstrated; and
 - (C) The proposed use does not unreasonably interfere with public trust rights; and
 - (D) Feasible alternative upland locations do not exist; and
 - (E) Potential adverse impacts, as identified in the impact assessment are minimized.
- 3) Deep-water navigation, port or industrial development requiring new piling or

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dolphin installation, construction of pile-supported structures, or other uses or activities which could alter the estuary may be permitted only if all of the following criteria are met:

- (A) A need (i.e. a substantial public benefit) is demonstrated; and
 - (B) The proposed use does not unreasonably interfere with public trust rights; and
 - (C) Feasible alternative upland locations do not exist; and
 - (D) Potential adverse impacts, as identified in the impact assessment are minimized.
- 4) Off-street parking may be located over an aquatic area only if all of the following conditions are met:
- (A) Parking will be on an existing pile-supported structure; and
 - (B) Suitable shoreland areas are not available; and
 - (C) The amount of aquatic area committed to parking is minimized; and
 - (D) The aquatic area is in an Aquatic Development zone; and
 - (E) Applicable off-street parking standards Section 3.0050 are met.
- 5) New or expanded ports or ship receiving facilities shall provide facilities for collecting, handling and disposing of vessel wastes.
- 6) Port or industrial development in or over estuarine aquatic areas involving the following activities shall be subject to an impact assessment.
- (A) Dredging.
 - (B) Aquatic area fill.
 - (C) In-water structures.
 - (D) Structural shoreline stabilization.
 - (E) New in-water log storage areas.
 - (F) Water in-take pipes.
 - (G) Effluent discharge.
 - (H) In-water dredged material disposal.
 - (I) Beach nourishment.
 - (J) Other activity which could adversely affect estuarine physical or biological resources.

Section 6.4100. Land Transportation Systems

Standards in this subsection are applicable to the maintenance and construction of railroads, roads and bridges in Columbia River Estuary shoreland and aquatic areas. Public, as well as private facilities are covered under this section. Forest roads, however, are excluded.

- 1) New or relocated land transportation routes shall be designed and sited so as to:
 - (A) Enhance areas in the Marine Industrial Shorelands zone when possible; and
 - (B) Direct urban expansion toward areas identified as being suitable for development; and
 - (C) Take maximum advantage of the natural topography and cause minimum shoreline disruption; and

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- (D) Preserve or improve public estuary access where existing or potential access sites are identified; and
 - (E) Avoid isolating high-intensity waterfront use areas of water-dependent development areas from water access.
- 2) Maintenance and repair of roads and railroads and maintenance and replacement of bridges shall be permitted regardless of the plan designation through which the road or railroad passes, provided:
 - (A) The same alignment is maintained; and
 - (B) The same width is maintained, except that necessary enlargements to meet current safety and engineering standards may be permitted; and
 - (C) The number of travel lanes is not increased.
 - 3) Fill-supported causeways or bridge approach fills across significant non-tidal wetlands in shoreland areas shall not be permitted; bridge abutments may, however, be approved.
 - 4) Removal of riparian vegetation along transportation rights-of-way may be permitted in order to maintain clear vision.

Section 6.4100. Log Storage

This subsection includes standards for the establishment of new, and the expansion of existing, log storage and sorting areas in Columbia River Estuary aquatic and shoreland areas.

- 1) New aquatic log storage areas shall be located such that logs will not go aground during tidal changes or during low flow periods.
- 2) Proposals for reestablishment of previously used aquatic log storage areas must meet standards applied to new log storage areas, unless such areas have been abandoned for fewer than 36 months.
- 3) New aquatic log storage areas shall not be located in areas which would conflict with active development fish drifts or with other commercial or recreational fishing activities.
- 4) New aquatic log storage areas shall be located where water quality degradation will be minimal and where good flushing conditions prevail.
- 5) Unpaved shoreland log yards underlaid by permeable soils shall have at least four feet of separation between the yard surface and the winter water table.
- 6) Log storage and sorting facilities in Marine Industrial Shorelands, shall not preclude or conflict with existing or possible future water-dependent uses at the site or in the vicinity, unless the log storage or sorting facility is itself an essential part of a water-dependent facility.

Section 6.4120. Shallow Draft Ports and Marinas

The standards in this subsection apply to development of new marinas and improvements to existing marinas in aquatic areas of the Columbia River Estuary. Also covered are adjacent shoreland support facilities that are in conjunction with or incidental to the marina. Included under this section's coverage are both public and private marinas for either recreational, charter or commercial shallow draft vessels.

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- 1) New marinas may be approved only when existing marinas are inadequate with respect to location, support services or size; or cannot expand to meet area moorage needs.
- 2) New marinas shall be located in or adjacent to areas of extensive boat usage, and in areas capable of providing necessary support services (including street access, upland parking, water, electricity and waste disposal).
- 3) The feasibility of upland boat storage shall be evaluated concurrent with proposals for new or expanded marina facilities.
- 4) Marina development and expansion may require some filling and dredging of presently undeveloped areas. Significant aquatic and shorelands resources shall be protected from preventable adverse impacts in the design, construction, and maintenance of marina facilities.
- 5) Marina development requiring filling or dredging in estuarine aquatic areas may be permitted only if all of the following criteria are met:
 - (A) If required for navigation or for other water-dependent uses requiring an estuarine location, or if specifically allowed under the applicable aquatic zone; and
 - (B) If a need (i.e. a substantial public benefit) is demonstrated; and
 - (C) The proposed dredging or filling does not unreasonably interfere with public trust rights; and
 - (D) Feasible upland alternative sites do not exist; and
 - (E) Adverse impacts, as identified in the impact assessment are minimized.
- 6) New, expanded or renovated marinas shall be designed to assure adequate water circulation and flushing.
- 7) New or expanded marinas shall provide facilities for collecting, handling and disposing of vessel wastes.
- 8) Disposal of fish wastes shall comply with federal and state regulations.
- 9) Covered moorages may be permitted in marinas subject to the following requirements:
 - (A) Information is provided on existing water quality and habitat conditions in the aquatic area proposed for the covered moorage; and
 - (B) Data on existing aquatic vegetation, and an analysis of the proposed covered moorages' impact on aquatic vegetation are provided; and
 - (C) Information is provided on light penetration, both with and without the proposed covered moorage; and
 - (D) No more than 20% of the marina's aquatic surface is occupied by the covered moorage.
- 10) New or expanded marina fuel docks shall maintain on-site equipment for the containment of spilled fuel. A contingency plan for containment and cleanup of accidental spills shall be provided.
- 11) Floating docks in marinas shall be located such that they do not rest on the bottom during low tides.
- 12) New individual docks outside of marinas may only be built when it is shown that existing marinas cannot reasonably accommodate the proposed use. Factors to

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be considered in this determination include, but are not limited to:

- (A) distance between proposed dock and nearest marina;
 - (B) availability and cost of moorage space in marinas;
 - (C) area where the boat will be used; and
 - (D) presence of other individual docks in the area.
- 13) The size and shape of docks and piers in marinas shall be limited to that required for the intended use.
- 14) Alternatives to new docks and piers, such as mooring buoys, dry land storage and launching ramps, shall be investigated and considered before new docks are permitted in a marina.
- 15) Off-street parking may be located over an aquatic area only if all of the following conditions are met:
- (A) Parking will be on an existing pile-supported structure; and
 - (B) Suitable shoreland areas are not available; and
 - (C) The amount of aquatic area committed to parking is minimized; and
 - (D) The aquatic area is in an Aquatic Development zone; and
 - (E) Applicable off-street parking standards, Section 3.0050, are met.

Section 6.4130. Mining and Mineral Extraction

Standards in this subsection are applicable to the extraction of sand, gravel, petroleum products and other minerals from both submerged lands under Columbia River Estuary aquatic areas and from shoreland areas. These standards are also applicable to outer continental shelf mineral development support facilities built in the estuary.

- 1) Aquatic area mining and mineral extraction shall only occur in aquatic areas deeper than ten (10) feet below MLLW, where estuarine resource values are low, and when no feasible upland sources exist.
- 2) Proposed mining and mineral extraction activities with potential impacts on estuary shoreland and aquatic areas shall provide the local government with a copy of a proposed or approved surface mining plan.
- 3) Project sponsors proposing estuarine shoreland or aquatic area mining or mineral extraction shall demonstrate that the activity is sited, designed and operated to minimize adverse impacts on the following:
 - (A) Significant fish and wildlife habitat; and
 - (B) Hydraulic characteristics; and
 - (C) Water quality.
- 4) Petroleum extraction and drilling operations shall not be allowed in estuarine aquatic areas. Petroleum may, however, be extracted from beneath estuarine aquatic areas using equipment located on shorelands or uplands. Petroleum exploration activities, with the exception of exploratory drilling, may be permitted in estuarine aquatic areas and in estuarine shoreland areas.
- 5) Unless part of an approved fill project, spoils and other material removed from aquatic areas shall be subject to Dredging and Dredged Material Disposal Standards in Section 6.4200.

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Section 6.4140. Recreation and Tourism

Standards in this subsection are applicable to recreational and tourist-oriented facilities in Columbia River Estuary shoreland and aquatic areas.

- 1) Off-street parking may be located over an aquatic area only if all of the following conditions are met:
 - (A) Parking will be on an existing pile-supported structure; and
 - (B) Suitable shoreland areas are not available; and
 - (C) The amount of aquatic area committed to parking is minimized; and
 - (D) The aquatic area is in an Aquatic Development zone; and
 - (E) Applicable off-street parking standards, Section 3.0050, are met.
- 2) New or expanded recreation developments shall be designed to minimize adverse effects on surface and groundwater quality. Adverse effects of storm run-off from parking lots shall be minimized.
- 3) New or expanded recreational developments shall be designed and located so as not to unduly interfere with adjacent land uses.
- 4) Structures developed for use as a duck shack may be permitted subject to the following requirements:
 - (A) They may be used to store recreational equipment for hunting waterfowl;
 - (B) They will have a holding tank so sewage is not disposed of directly into the river;
 - (C) The duck shack will not exceed 500 square feet if constructed on a float, or 750 square feet if constructed on a pier; and
 - (D) An individual may not occupy the structure for more than fifteen (15) days of any consecutive thirty (30) day period.

Section 6.4150. Mitigation and Restoration

Standards in this subsection are applicable to estuarine restoration and mitigation projects in Columbia River Estuary aquatic areas and adjacent shorelands.

- 1) Any fill activities that are permitted in estuarine aquatic areas or dredging activities in intertidal and shallow to medium depth estuarine subtidal areas shall be mitigated through project design and/or compensatory mitigation (creation, restoration or enhancement of another area) to ensure that the integrity of the estuary ecosystem is maintained. The Comprehensive Plan shall designate and protect specific sites for mitigation which generally correspond to the types and quantity of aquatic area proposed for dredging or filling.
- 2) Mitigation for fill in the aquatic areas or dredging in intertidal and shallow to medium depth subtidal areas shall be implemented, to the extent feasible, through the following mitigation actions:

Project Design Mitigation Actions

 - (A) Avoiding the impact altogether by not taking a certain action or parts of an action;
 - (B) Minimizing impacts by limiting the degree or magnitude of action and its implementation;
 - (C) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment (this would include removing wetland fills, rehabilitation of a

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resource use and/or extraction site when its economic life is terminated, etc.);

- (D) Reducing or eliminating the impact over time by preservation and maintenance operations;

Compensatory Mitigation Actions

- (E) 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.

Any combination of the above actions may be required to implement mitigation requirements. The compensatory mitigation actions listed in part (e) shall only be considered when, after consideration of impact avoidance, reduction or rectification, there are still unavoidable impacts.

- 4) If compensatory mitigation actions are required, the U.S. Fish and Wildlife Service shall be asked to make a Resource Category determination for the site proposed for development. The classification shall be listed on the permit application and review notice. If the area subject to impact is in a Resource Category 2 or lower (4 =lowest), the following sequence of mitigation options shall be considered:
 - (A) In-Kind/On-Site
 - (B) In-Kind/Off-Site
 - (C) Out-of-Kind/On-Site
 - (D) Out-of-Kind/Off-Site

Generally, the requirements for considering each option before moving on to the next shall be stricter for higher Resource Categories.

The following list summarizes the mitigation goal for each resource category:

- (A) Resource Category 1: Habitat to be impacted is of high value for evaluation species and is unique and irreplaceable on a national basis or in the Columbia River Estuary area.
Mitigation goal: No loss of existing habitat value.
- (B) Resource Category 2: Habitat to be impacted is of high value for evaluation species and is relatively scarce or becoming scarce on a national basis or in the Columbia River Estuary area.
Mitigation goal: No net loss of in-kind habitat value.
- (C) Resource Category 3: Habitat to be impacted is of high to medium value for evaluation species and is relatively abundant on a national basis and in the Columbia River Estuary area.
Mitigation goal: No net loss of habitat value while minimizing loss of in-kind habitat value.
- (D) Resource Category 4: Habitat to be impacted is of medium to low value for evaluation species.
Mitigation goal: Minimize loss of habitat value.

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- 4) Permit applicants shall submit a mitigation plan for each project proposal that requires mitigation. The mitigation plan shall define specific goals and objectives of the proposed mitigation action. The plan shall also address where applicable, performance specifications that include but are not necessarily limited to the following:
- (A) starting date;
 - (B) completion date;
 - (C) grade specifications.
 - (D) area and elevation specifications;
 - (E) channel specifications;
 - (F) buffers;
 - (G) vegetation plantings;
 - (H) monitoring;
 - (I) contingency plan (outline of potential remedial work and specific remedial contingency actions);
 - (J) accountability requirements (e.g. bonding or any mechanism that serves as a bond).

Goals, objectives and performance specifications shall be defined for both project design and compensatory mitigation. These components of the plan shall be developed in cooperation with relevant state and federal resource and regulatory agencies.

- 5) Each mitigation action shall be reviewed against its goal, objectives, and performance specifications.
- 6) All compensatory mitigation site plans shall include a contingency plan. The contingency plan shall include corrective measures to be taken in the event of suboptimal project performance (based on project goals and objectives). a list of remedial follow-up action strategies shall be specified in the contingency plan. These remedial strategies shall specifically address the goals, objectives and performance specifications of the mitigation site plan.
- 7) Post-mitigation monitoring for project design mitigation, when relevant, and compensatory mitigation shall be required over a 2-5 year time period, depending on the size and complexity of the mitigation project. Local governments, in coordination with state and federal resource agencies, shall design and implement the monitoring. Monitoring requirements may be waived as follows:
- (A) a waiver of the 2-5 year monitoring requirements shall be granted if, at any time during the 2-5 year period, the project is judged successful; or
 - (B) If a mitigation project fails to satisfy the original goals and objectives after the designated time period, and the developer has met all the site design and contingency plan requirements, then the developer is not responsible for remedial action. However monitoring may still be required up to a predetermined time period to help agencies determine workable strategies for future mitigation efforts.
- 8) All mitigation actions shall begin prior to or concurrent with the associated development action.

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- 9) For estuarine wetlands, once a compensatory mitigation action is required, the habitat types displayed in OAR 141-85-254 shall provide the basis for comparing development activities and possible mitigation areas. The mitigation trade method described in OAR 141-85-256 shall be used to determine acreage and credit requirements for mitigation sites.
- 10) For non-tidal wetlands, once a compensatory mitigation action is required, habitat trade requirements shall be determined in coordination with appropriate state and federal agencies. Mitigation requirements shall be made on a case by case basis using determinations made by these agencies.
- 11) Removal and fill actions potentially exempt from estuarine mitigation requirements include:
 - (A) Removal or fill of less than 50 cubic yards of material;
 - (B) Filling for repair and maintenance of existing functional dikes where there is negligible physical or biological damage to tidal marsh or intertidal area;
 - (C) Riprap to allow protection of existing bank line with clean, durable erosion resistant material provided that the need for riprap protection is demonstrated and that this need cannot be met with natural vegetation, and no appreciable increase in upland occurs;
 - (D) Filling for repair and maintenance of existing roads where there is negligible physical or biological damage to tidal marsh or intertidal areas;
 - (E) Dredging for authorized navigational channels, jetty or navigational aid installation, repair or maintenance contract with the Army Corps of Engineers;
 - (F) Any proposed alteration that would have negligible adverse physical or biological impact on estuarine resources.
 - (G) Dredging or filling required as part of an estuarine resource creation, restoration, or enhancement project agreed to by local, state, and federal agencies; and
 - (H) Beach nourishment, subject to Dredging and Dredged Material Disposal Standards, Section 6.4200.

Any waiver of mitigation shall be coordinated with state and federal agencies.

- 12) Activities that do not require mitigation even though they involve intertidal removal include:
 - (A) Maintenance dredging - dredging a channel basin, or other facility which has been dredged before and is currently in use or operation or has been in use or operation sometime during the past five years, provided that the dredging does not deepen the facility beyond its previously authorized or approved depth plus customary over- dredging; and
 - (B) Aggregate mining - provided the site has historically been used for aggregate removal on a periodic basis.
- 13) Actions not considered as mitigation include:
 - (A) As a general rule, conversion of an existing wetland type to another

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- wetland type as mitigation for impacts on another wetland shall not be allowed. However, diked non-tidal wetlands with low wildlife value can be discounted and restored to tidal influence as mitigation for impacts in diked non-tidal wetlands. Also, enhancement of an existing wetland can be considered mitigation for impacts in another wetland;
- (B) Transfer of ownership of existing wetlands to public ownership;
 - (C) Dedication of existing wetlands for natural uses;
 - (D) Provision of funds for research; or
 - (E) Monetary compensation for lost wetlands except where monies are used to purchase mitigation credits at a mitigation bank.
- 14) The following criteria shall be considered when selecting and including potential mitigation sites in the Mitigation and Restoration Plan for the Columbia River Estuary (not in order of priority):
- (A) Proximity to potential development sites;
 - (B) Opportunity to create to restore habitat conditions and other values similar to those at the impacted sites or historically and presently scarce habitat types;
 - (C) Character of potential sites (e.g. low habitat value and no conflicting uses);
 - (D) Potential for protection through zoning; and
 - (E) Amount of new dike requirements, if any.
- 15) A plan amendment shall be required to remove any mitigation site from the mitigation plan. For a Priority 1 mitigation site the plan amendment shall require a demonstration that there is no longer a need for the site or that a suitable alternative mitigation site has been designated and protected. a Priority 2, Level 3 site shall be partially or totally removed from the mitigation plan if the landowner proposed a development that would preclude all or part of its use for mitigation and, if 30 days after the permit application has been circulated, a negotiated agreement to sell the land or certain land ownership rights for mitigation use, has not been made. The negotiation shall be between the landowner and any interested buyer. The site shall not be removed from the plan until the development is completed. a Priority 2, Level 4 or Priority 3 site shall be partially or totally removed from the mitigation plan if the landowner chooses to develop part or all of the site to a degree that would preclude its availability for mitigation use.
- 16) Clatsop County shall make the determination of whether a development will preclude all or some of the potential use of the site for mitigation purposes.
- 17) After a mitigation action takes place, Clatsop County shall amend its plan and change the designation to reflect its aquatic character.
- 18) The developer implementing a mitigation action shall be responsible for all costs associated with the mitigation project unless an alternative agreement for cost responsibility is negotiated between the landowner and the developer.
- 19) Shorelands in the Marine Industrial Shorelands zone can only be used for mitigation subject to a finding that the use of the site for mitigation will not preclude or conflict with water-dependent uses.

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- 20) Significant Goal 17 resource areas (major marshes, significant wildlife habitat, and exceptional aesthetic resources) can only be used for mitigation subject to a finding that the use of the site for mitigation will be consistent with protection of natural values.
- 21) For mitigation sites on Exclusive Farm Use land, construction of new farm related structures valued at \$5,000 or less shall be exempt from mitigation overlay district protection.
- 22) Shorelands in the Marine Industrial Shorelands zone can only be used for restoration subject to a finding that the use of the site for restoration will not preclude or conflict with water-dependent uses.
- 23) Priority 2, Level 3 and 4 mitigation sites shall be designated as mitigation sites until they are proposed for restoration outside of the context of mitigation. At this time restoration shall be considered an allowed use subject to the 30-day freeze restrictions presented in mitigation standard 17. Restoration shall only be allowed at Priority 2 sites subject to a finding that the site is no longer required for mitigation.
- 24) Priority 3, Level 4 mitigation sites shall be designated as mitigation sites until they are specified for restoration outside of the context of mitigation. At this time, restoration shall be considered an allowed use. Restoration shall only be allowed at Priority 3 sites subject to a finding that the site is no longer required for mitigation.
- 25) Significant Goal 17 resource areas (major marshes, significant wildlife habitat, and exceptional aesthetic resources) can only be used for restoration subject to a finding that the use of the site for restoration will be consistent with protection of its natural values.

Section 6.4160. Solid Waste Disposal

Standards in this subsection are applicable to disposal of solid waste in the Columbia River Estuary aquatic and shoreland zones:

- 1) Solid waste disposal on shorelands shall be allowed only when an alternative upland location is demonstrated to be infeasible. Solid waste deposited in a shoreland disposal site shall be strictly confined to the site with the stipulation that all leachates be controlled by impermeable dike structures with appropriate treatment and outfall facilities. Disposal shall comply with state and federal waste disposal requirements.
- 2) Solid waste material shall not be deposited in aquatic areas.
- 3) Aesthetic impacts of shoreland solid waste disposal sites shall be minimized by screening the site with natural or planted vegetation.

Section 6.4170. Utility

Standards in this subsection are applicable to utility structures and uses in the Columbia River Estuary aquatic and shoreland zones.

- 1) Electrical or communication transmission lines shall be located underground, unless burial is demonstrated as economically infeasible. Routes for major

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overhead electrical and communication transmission lines shall be chosen which minimize interference with migratory bird flyways and significant habitat of waterfowl, birds of prey and other birds.

- 2) Utilities shall not be located on new land unless part of an otherwise approved development fill project and no other alternative is feasible.
- 3) Above-ground utilities shall be designed to have the least adverse effect on visual and other aesthetic characteristics of the area. Interference with public uses and public access to the estuary shall be minimized.
- 4) After installation or maintenance of existing utility structures is completed, disturbed stream banks and aquatic and riparian vegetation shall be stabilized and restored.

Section 6.4180. Bankline and Streambed Alteration

Standards in this subsection are applicable to an alteration of a stream bank or streambed in the Columbia River Estuary, either within or outside of its normal high water boundary.

- 1) Alterations to stream banks or streambeds shall:
 - (A) Maintain stream surface area where feasible; and
 - (B) Make maximum use of natural or existing deepwater channels; and
 - (C) Avoid creation of undesirable hydraulic conditions; and
 - (D) Minimize impacts on estuarine aquatic and shoreland resources.
- 2) Excavation activities in stream bankline areas resulting in expansion of existing aquatic area shall comply with standards regulating excavation of shorelands for the creation of new water surface area in Estuarine Construction, Section 6.4080.

Section 6.4190. Diking

The standards in this subsection apply to the construction, maintenance and repair of flood control dikes in Columbia River Estuary shoreland and aquatic areas. The standards do not apply to dredged material containment dikes.

- 1) Dike maintenance and repair may be allowed under any of the following circumstances:
 - (A) Dikes which have been inadvertently breached may be repaired, subject to state and federal permit requirements, if the repair is commenced within 36 months of the breach, regardless of whether the property has reverted to estuarine habitat.
 - (B) Existing serviceable dikes (including those that allow some seasonal inundation) may be repaired.
 - (C) Dikes which have been inadvertently breached may be repaired, subject to state and federal permit requirements, if the property has not reverted to estuarine habitat (as determined by U.S. Army Corps of Engineers and the Oregon Division of State Lands).

Dike repair projects that do not fit under (A), (B), or (C) above; that is projects where the property has reverted and more than 36 months have

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- elapsed; must be reviewed as new dikes.
- 2) Dike maintenance and repair are distinguished from new dike construction. To qualify as maintenance and repair, changes in the location, size, configuration, orientation and alignment of the dike must be limited to the minimum amount necessary to retain or restore its operation or function or to meet current engineering standards. Filling aquatic areas for dike maintenance may be allowed only if it can be clearly demonstrated that there are no feasible engineering alternatives which would avoid the use of aquatic area fill.
 - 3) The outside dike face shall be suitably protected from erosion during construction and maintenance operations. Shoreline stabilization standards shall be met.
 - 4) New dikes in aquatic areas may be permitted either;
 - (A) As part of an approved fill project; or
 - (B) As a temporary flood protection measure needed to promote public safety and welfare, subject to applicable U.S. Army Corps of Engineers, and Oregon Division of State Lands rules; or
 - (C) Subject to an exception to Statewide Planning Goal 16.
 - 5) Dredging of subtidal estuarine areas as a source of fill material for dike maintenance, in all aquatic area designation, may be allowed upon the applicant's demonstration that:
 - (A) Alternative methods of accomplishing dike maintenance are infeasible (i.e. dikes proposed for receiving dredged material are remote from upland sources of fill material and that land-based heavy equipment access to the dike area is not possible);
 - (B) Dredging in all cases will be limited to that necessary to maintain the dikes. Dredging as a source of fill material for dike maintenance does not include enlarging or changing the bottom contour of natural aquatic areas for navigation of any other aquatic area use;
 - (C) Dredging will not disturb or excavate emergent vegetation, intertidal flats, or other adjacent intertidal estuarine resources;
 - (D) Dredging as a source of fill material for dike maintenance will, in all cases, take place in subtidal aquatic areas, and shall be limited to the deepest subtidal aquatic area accessible to float-mounted dredging equipment. In narrow tributary areas of the estuary, dredging shall be limited to the deepest subtidal areas nearest the centerline of the waterway. In reaches of the estuary exceeding 200 feet in width, dredging shall be limited to subtidal areas greater than 80 feet in distance from the waterward toe of the dikes. The intent of this standard is to protect the dike structures from sloughing, maintain existing berms and shoal water immediately adjacent to dikes, and limit dredge excavations to subtidal areas below the level of effective light penetration.
 - (E) Dredging will not be confined to localized areas of river bottom. All excavations as a source of fill material shall be linearly dispersed along the entire dike maintenance area. Dredging shall not alter the existing contour of the river bottom such that deep trenches and pockets capable

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- of stranding or impeding estuarine life forms will be created.
- (F) Dredging operations shall be consistent with state and federal resource agency conditions, the requirements of local governments, and concerns of private interests, to ensure that project timing and dredging conditions protect estuarine resources (e.g. fish runs, spawning activity, benthic productivity, wildlife habitat, etc.).

Section 6.4200. Dredging and Dredged Material Disposal

Standards in this subsection are applicable to all Columbia River Estuary estuarine dredging operations and to both estuarine shoreland and aquatic dredged material disposal.

- 1) Dredging in estuarine aquatic areas, subject to dredging and dredged material disposal policies and standards, shall be allowed only:
 - (A) If specifically allowed by the applicable aquatic zone and required for one or more of the following uses and activities:
 1. Navigation or navigational access;
 2. An approved water-dependent use of aquatic areas or adjacent shorelands that requires an estuarine location;
 3. An approved restoration project;
 4. Mining or mineral extraction;
 5. Excavation necessary for approved bridge crossing support structures, or pipeline, cable, or utility crossing;
 6. Obtaining fill material for dike maintenance where an exception to Oregon Statewide Planning Goal 16 has been approved;
 7. Maintenance and installation of tidegates and in existing functional dikes tidegate drainage channels;
 8. Aquaculture facilities;
 9. Temporary alterations; and
 10. Incidental dredging for harvest of benthic species or removable in-water structures such as stakes or racks.
 - (A) If a need (i.e. a substantial public benefit) is demonstrated; and
 - (B) If the use or alteration does not unreasonably interfere with public trust rights; and
 - (C) If no feasible alternative upland locations exist; and
 - (D) If adverse impacts, as identified in the impact assessments, are minimized.
- 2) When dredging is permitted, the dredging shall be the minimum necessary to accomplish the proposed use.
- 3) Undesirable erosion, sedimentation, increased flood hazard, and other changes in circulation shall be avoided at the dredging and disposal site and in adjacent areas.
- 4) The timing of dredging and dredged material disposal operations shall be coordinated with state and federal resource agencies, local governments, and private interests to protect estuarine aquatic and shoreland resources, minimize

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interference with commercial and recreational fishing, including snag removal from development drifts, and insure proper flushing of sediment and other materials introduced into the water by the project.

- 5) Bottom sediments in the dredging area shall be characterized by the applicant in accordance with U.S. Environmental Protection Agency, and Oregon Department of Environmental Quality standards. Information that may be required includes, but is not limited to, sediment grain size distribution, organic content, oil and grease, selected heavy metals, pesticides and other organic compounds, and benthic biological studies.

The types of sediment tests required will depend on dredging and disposal techniques, sediment grain size, available data on the sediments at the dredging site, and proximity to contaminant sources. Generally, projects involving in-water disposal of fine sediments will require a higher level of sediment testing than projects involving disposal of coarse sediments. Projects involving upland disposal may be exempted from the testing requirement, depending on the nature of the sediments and the amount of existing sediment data available.

Unavailable burdens on the permit applicant shall be minimized by considering the economic cost of performing the sediment evaluation, the utility of the data to be provided, and the nature and magnitude of any potential environmental effect.

- 6) Adverse short term effects of dredging and aquatic area disposal such as increased turbidity, release of organic and inorganic materials or toxic substances, depletion of dissolved oxygen, disruption of the food chain, loss of benthic productivity, and disturbance of fish runs and important localized biological communities shall be minimized.
- 7) Impacts on areas adjacent to the dredging site such as destabilization of fine textured sediments, erosion, siltation and other undesirable changes in circulation patterns shall be minimized.
- 8) The effects of both initial and subsequent maintenance dredging, as well as dredging equipment marshaling and staging, shall be considered prior to approval of new projects or expansion of existing projects. Projects will not be approved unless disposal sites with adequate capacity to meet initial excavation dredging and at least five years of expected maintenance dredging requirements are available.
- 9) Dredging for maintenance of existing tidegate drainage channels and drainage ways is limited to the amount necessary to maintain and restore flow capacity essential for the function (the drainage service provided by the tidegate) of tidegates and to allow drainage and protection of agricultural and developed areas. Tidegate maintenance dredging does not include enlarging or extending the dimensions of, or changing the bottom elevations of, the affected tidegate drainage channel or drainage way as it existed prior to the accumulation of sediments.
- 10) Dredging of subtidal estuarine areas as a source of fill material for dike

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maintenance, in all aquatic area designation, may be allowed upon the applicant's demonstration that:

- (A) Alternative methods of accomplishing dike maintenance are infeasible (i.e. dikes proposed for receiving dredged material are remote from upland sources of fill material and that land based heavy equipment access to the dike area is not possible);
 - (B) Dredging in all cases will be limited to that necessary to maintain the dikes. Dredging as a source of fill material for dike maintenance does not include enlarging or changing the bottom contour of natural aquatic areas for navigation of any other aquatic area use;
 - (C) Dredging will not disturb or excavate emergent vegetation, intertidal flats, or other adjacent intertidal estuarine resources;
 - (D) Dredging as a source of fill material for dike maintenance will, in all cases, take place in subtidal aquatic areas, and shall be limited to the deepest subtidal aquatic area accessible to float-mounted dredging equipment. In narrow tributary areas of the estuary, dredging shall be limited to the deepest subtidal areas nearest the centerline of the waterway. In reaches of the estuary exceeding 200 feet in width, dredging shall be limited to subtidal areas greater than 89 feet in distance from the waterward toe of the dikes. The intent of this standard is to protect the dike structures from sloughing, maintain existing berms and shoal water immediately adjacent to dikes, and limit dredge excavations to subtidal areas below the level of effective light penetration.
 - (E) Dredging will not be confined to localized areas of river bottom. All excavations as a source of fill material shall be linearly dispersed along the entire dike maintenance area. Dredging shall not alter the existing contour of the river bottom such that deep trenches and pockets capable of stranding or impeding estuarine life forms will be created.
 - (F) Dredging operations shall be consistent with state and federal resource agency conditions, the requirements of local governments, and concerns of private interests, to ensure that project timing and dredging conditions protect estuarine resources (e.g. fish runs, spawning activity, benthic productivity, wildlife habitat, etc.).
- 11) Dredging for mining and mineral extraction, including sand extraction, shall only be allowed in areas deeper than 10 feet below MLLW where the project sponsor demonstrates that mining and mineral extraction in aquatic areas is necessary because no feasible upland sites exist and that the project will not significantly impact estuarine resources. The estuary bottom at the project site shall be sloped so that sediments from areas shallower than 10 feet below MLLW and other areas not included in the project do not slough into the dredged area. Dredging as part of an approved dredging project which also provided fill for an approved fill project shall not be subject to this standard.
- 12) When proposing dredging for sand extraction, the project sponsor shall first consider obtaining the material from a shoaled area within a federally authorized

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navigation channel that is currently shallower than its authorized depth. Said dredging shall be coordinated with the U.S. Army Corps of Engineers. The dredging depth shall not exceed the authorized channel depth plus any over-dredging that the Corps would normally perform while maintaining the site.

Dredged Material Disposal Standards

- 13) Dredged material disposal shall occur only at designated sites or at new sites which meet the requirements of the Dredged Material Disposal Site Selection Policies.
- 14) Proposals for in-water disposal of dredged materials, including flowlane disposal, beach nourishment, estuarine open-water disposal, ocean disposal, and agitation dredging, shall:
 - (A) Demonstrate the need for the proposed action and that there are no feasible alternative disposal sites or methods that entail less damaging environmental impacts; and
 - (B) Demonstrate that the dredged sediments meet state and federal sediment testing requirements and water quality standards (see Dredging Standard 5); and
 - (C) Not be permitted in the vicinity of a public water intake.
- 15) Proposals for in-water estuary disposal shall be coordinated with commercial fishing interests, including, but not limited to: development drift captains at the dredging and disposal site, the Columbia River Fisherman's Protective Union, Northwest Gillnetters Association, and the State fishery agencies. In-water disposal actions shall avoid development drifts whenever feasible. When it is not feasible to avoid development drifts, impacts shall be minimized in coordination with fisheries interests through:
 - (A) Disposal timing,
 - (B) Gear placement,
 - (C) Choice of disposal area within the drift, and
 - (D) Disposal techniques to avoid snag placement.
- 16) Flowlane disposal, estuarine open water disposal and agitation dredging shall be monitored to assure that estuarine sedimentation is consistent with the resource capabilities and purposes of affected natural and conservation designations. The monitoring program shall be established prior to undertaking disposal. The program shall be designed to both characterize baseline conditions prior to disposal and monitor the effects of the disposal. The primary goals of the monitoring are to determine if the disposal is resulting in measurable adverse impacts and to establish methods to minimize impacts. Monitoring shall include, at a minimum, physical measurements such as bathymetric changes and may include biological monitoring. Specific monitoring requirements shall be based on, at a minimum, sediment grain size at the dredging and disposal site, presence of contaminants, proximity to sensitive habitats and knowledge of resources and physical characteristics of the disposal site.

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- 17) Flowlane disposal shall be in Aquatic Development areas identified as low in benthic productivity and use of these areas shall not have adverse hydraulic effects. Use of flowlane disposal areas in the estuary shall be allowed only when no feasible alternative land or ocean disposal sites with less damaging environmental impacts can be identified and the biological and physical impacts of flowlane disposal are demonstrated to be insignificant. The feasibility and desirability of alternative sites shall take into account, at a minimum:
- (A) Operational constraints such as distance to the alternative sites;
 - (B) Sediment characteristics at the dredging site;
 - (C) Timing of the operation;
 - (D) Environmental Protection Agency constraints on the use of designated ocean disposal sites;
 - (E) The desirability of reserving some upland sites for potentially contaminated material only.

Long term use of a flowlane disposal area may only be allowed if monitoring confirms that the impacts are not significant. Flowlane disposal is contingent upon demonstration that:

- (F) Significant adverse effects due to changes in biological and physical estuarine properties will not result; and
 - (G) Flowlane disposal areas shall be shown able to transport downstream without excessive shoaling, interference with recreational and commercial fishing operations, including the removal of snags from development drifts, undesirable hydraulic effects, or adverse effects on estuarine resources (fish runs, spawning activity, benthic productivity, wildlife habitat, etc.).
- 18) Ocean disposal shall be conducted such that:
- (A) The amount of material deposited at a site is compatible with benthic productivity, other marine resources, and other uses of the area;
 - (B) Interference with sport and commercial fishing is minimized;
 - (C) Disposal is strictly confined to the sites designated by the U.S. Environmental Protection Agency; and
 - (D) The disposal site does not shoal excessively and create dangerous wave and swell conditions.
- 19) Beach nourishment shall only be conducted at sites identified in the Dredged Material Management Plan. New sites may be added to the Plan by amendment after an exception to Oregon Statewide Planning Goal 16 for the site has been approved. Beach nourishment shall be conducted such that:
- (A) The beach is not widened beyond its historical profile. The historical profile shall be defined as the widest beach profile that existed prior to June 1986.
 - (B) The material placed on the beach consists of sand of equal or greater grain size than the sand existing on the beach.
 - (C) Placement and subsequent erosion of the materials does not adversely impact tidal marshes or productive intertidal and shallow subtidal areas.

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- (D) Efforts are made to maintain a stable beach profile.
- (E) Dredged material is graded at a uniform slope and contoured to minimize juvenile fish stranding and hazards to beach users.

Use of beach nourishment sites shall be allowed only when no feasible land or ocean sites with less damaging environmental impacts can be identified. The feasibility and desirability of alternative sites shall take into account, at a minimum:

- (A) Operational constraints such as distance to the alternative sites;
 - (B) Sediment characteristics at the dredging site;
 - (C) Timing of the operation;
 - (D) Environmental Protection Agency constraints on the use of designated ocean disposal sites;
 - (E) The desirability of reserving some upland sites for potentially contaminated material only.
- 20) Except as noted below, land disposal and site preparation shall be conducted such that:
- (A) Surface runoff from disposal sites is controlled to protect water quality and prevent sedimentation of adjacent water bodies, wetlands, and drainage ways. Disposal runoff water must enter the receiving waterway through a controlled outfall at a location with adequate circulation and flushing characteristics. Underground springs and aquifers must be identified and protected;
 - (B) Dikes are constructed according to accepted engineering standards and are adequate to support and contain the maximum potential height and volume of dredged materials at the site, and form a sufficiently large containment area to encourage proper ponding and to prevent the return of dredged materials into the waterway or estuary. Containment ponds and outfall weirs shall be designed to maintain adequate standing water at all times to further encourage settling of dredged materials. The dikes shall be constructed within the boundaries of the disposal site and shall be constructed of material obtained from within the site or other approved source. Clean dredged material placed on land disposal sites located directly adjacent to designated beach nourishment sites may be allowed to flow directly into the waterway without conforming to (A) and (B) of this Section, provided that all policies and standards for in-water disposal and beach nourishment are met and the dredged materials are not allowed to enter wetlands or the waterway in areas other than the designated beach nourishment site.
- 21) Land disposal sites which are not intended for dredged material disposal or development use within a two-year period following disposal shall be revegetated as soon as site and weather conditions allow, unless habitat management plans agreed upon by resource management agencies specify that open sand areas should remain at the site. The project sponsor shall notify the City and state and

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federal permitting and resource management agencies when disposal is completed and shall coordinate revegetation with these agencies. The notification shall be sent to at least the following agencies: the local jurisdiction, U.S. Army Corps of Engineers, Soil Conservation Service, Division of State Lands, Oregon Department of Fish and Wildlife. Revegetation of a disposal site does not preclude future use of the sites for dredged material disposal.

The disposal site design shall be reviewed to determine if wetlands or other habitats will form on the site during the period between disposal actions. The disposal permit may be conditioned to allow future disposal actions to fill the created wetlands or habitats.

- 22) The final height and slope after each use of a land dredged material disposal site shall be such that:
 - (A) The site does not enlarge itself by sloughing and erosion into adjacent areas;
 - (B) Loss of materials from the site during storms and freshets is minimized; and
 - (C) Interference with the view from nearby residences, scenic points, and parks does not occur.

Section 6.4210. Filling of Aquatic Areas and Non-Tidal Wetlands

This subsection applies to the placement of fill material in tidal wetlands and waters of the Columbia River Estuary. These standards also apply to fill in non-tidal wetlands in shoreland designations that are identified as "significant" wetlands under Statewide Planning Goal 17.

- 1) Fill in estuarine aquatic areas may be permitted only if all of the following criteria are met:
 - (A) If required for navigation or for other water-dependent uses requiring an estuarine location, or if specifically allowed under the applicable aquatic zone; and
 - (B) If a need (i.e. a substantial public benefit) is demonstrated; and
 - (C) The proposed fill does not unreasonably interfere with public trust rights; and
 - (D) Feasible alternative upland locations do not exist; and
 - (E) Adverse impacts, as identified in the impact assessment, are minimized.
- 2) A fill shall cover no more than the minimum necessary to accomplish the proposed use.
- 3) Aquatic area fills using either dredged material or other easily erodible material shall be surrounded by appropriately stabilized dikes.
- 4) Aquatic areas shall not be used for disposal of solid waste.
- 5) Projects involving fill may be approved only if the following alternatives are examined and found to be infeasible:
 - (A) Construct some or all of the project on piling;
 - (B) Conduct some or all of the proposed activity on existing upland;

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- (C) Approve the project at a feasible alternative site where adverse impacts are less significant.

Section 6.4220. Riparian Vegetation Protection

The standards in this subsection apply to any development use and activity affecting vegetation adjacent to and bordering Columbia River estuarine aquatic areas.

- 1) Riparian vegetation resources are described in the County's Comprehensive Plan and identified on Columbia River Estuary Resource Base Maps. These resources shall be maintained through the use of protective setbacks, except where direct water access is required for water-dependent and water-related uses. Development shall be setback 50 feet from all identified significant wetland and biological habitat and from the shoreline.

Pasture land, land managed for agricultural crops, landscaped area or unvegetated areas which do not function as riparian vegetation may, in particular locations, be included as part of the 50-foot protection buffer. Upon request, the County may undertake a site investigation to establish the extent of riparian vegetation requiring protection in a particular location.

- 2) Temporary removal of riparian vegetation due to construction or landscaping may be permitted subject to revegetation plan approved by the County specifying: (a) temporary stabilization measures and (b) methods and timing of restoration of riparian vegetation. Native plant species should be considered for revegetation; however, plant species and revegetation techniques approved by the Soil Conservation Service, the US Army Corps of Engineers, and other participating federal and state agencies are appropriate.

Section 6.4230. Fish and Wildlife Habitat

This subsection applies to uses and activities with potential adverse impacts on fish or wildlife habitat in Columbia River Estuary aquatic and shoreland areas.

- 1) Projects affecting endangered, threatened or sensitive species habitat, as identified by the US Fish and Wildlife Service or Oregon Department of Fish and Wildlife, shall be designed to minimize potential adverse impacts. This shall be accomplished by one or more of the following:
 - (A) Soliciting and incorporating agency recommendations into local permit reviews;
 - (B) Dedicating and setting aside undeveloped on-site areas for habitat;
 - (C) Providing on or off-site compensation for lost or degraded habitat;
 - (D) Retaining key habitat features (for example: roosting trees, riparian vegetation, feeding areas).
- 2) In-water construction activity in aquatic areas shall follow the recommendation of state and federal fisheries agencies with respect to project timing to avoid unnecessary impacts on migratory fish.
- 3) Uses and activities with the potential for adversely affecting fish and wildlife habitat may be approved only if the following impact mitigation actions are

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incorporated into the permit where feasible. These impact mitigation actions are listed from highest to lowest priority:

- (A) Avoiding the impact altogether by not taking a certain action or parts of an action;
 - (B) Minimizing impacts by limiting the degree or magnitude of an action and its implementation;
 - (C) Rectifying the impact by repairing, rehabilitating, restoring the affected environment (this may include removing wetland fills, rehabilitation of a resource use and/or extraction site when its economic life is terminated, etc.);
 - (D) Reducing or eliminating the impact over time by preservation and maintenance operations.
- 4) Projects involving subtidal or intertidal aquatic area fill or intertidal aquatic dredging with the potential for adversely affecting aquatic habitat must provide compensatory mitigation, consistent with Mitigation and Restoration Standards (subsection 6.4150).

Section 6.4240. Public Access to the Estuary and its Shoreline

Standards in this subsection apply to all uses and activities in Columbia River Estuary shoreland and aquatic areas which directly or indirectly affect public access. "Public access" is used broadly here to include director physical access to estuary aquatic areas (boat ramps, for example), aesthetic access (viewing opportunities, for example), and other facilities that provide some degree of public access to shorelands and aquatic areas.

- 1) Projects to improve public access shall be designed to assure that adjacent privately owned shoreland is protected from public encroachment.
- 2) Clatsop County will implement its Public Access Plan.
- 3) Clatsop County shall review under the provisions of ORS 271.300-271.360, proposals for the sale, exchange or transfer of public ownership which provides public access to estuarine waters.

Section 6.4250. Significant Areas

The standards in this subsection are intended to protect certain Columbia River shoreland and aquatic resources with estuary-wide significance. Significant shoreland and aquatic resources are identified as such in the Estuarine Resources and Coastal Shoreland Elements of the Comprehensive Plan. Significant aquatic resources are found in Natural Aquatic areas. This section applies only to activities and uses that potentially affect significant shoreland or aquatic resources. Other resources without estuary-wide significance are not covered by this section. Only those resources identified as significant under Statewide Planning Goal 17 are covered by these standards.

- 1) Temporary removal of riparian vegetation may be permitted in conjunction with a water-dependent use where direct access to the water is required for construction or for a temporary use. Riparian vegetation removed for these

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- reasons must be replaced upon project completion. Permanent removal of riparian vegetation may be approved for a water-dependent project.
- 2) Permanent removal of riparian vegetation may be permitted along transportation rights-of-way for purposes of maintaining clear vision. Riparian vegetation that threatens the stability of flood control dikes may be removed.
 - 3) Public access to significant scenic areas shall be provided in a manner consistent with the preservation of the scenic area and other significant resources.
 - 4) Tidedegated sloughs and drainage ditches identified as having significant aquatic habitat value, significant riparian vegetation, or other significant shoreland resource value may be maintained with respect to depth, but their bankline location and configuration may not be altered, unless part of an approved fill or shoreline stabilization project.
 - 5) Riparian vegetation may be removed as necessary for approved mitigation, restoration or creation projects.
 - 6) Timber may be harvested in the AN zone and adjacent riparian areas under the following conditions:
 - (A) Any timber harvesting operations must be carried out in accordance with a harvest plan approved by the Oregon Department of Forestry; and
 - (B) Selection of trees for harvest shall be done with consideration of retaining natural values.

Section 6.4260. Water Quality Maintenance

The standards in this subsection are intended to help protect and enhance the quality of water in the Columbia River Estuary. Impacts on water quality in aquatic areas and in tidedegated sloughs in shoreland areas are covered.

- 1) New and expanded marinas shall provide facilities for collecting, handling and depositing of all vessel wastes.
- 2) Thermal effluents shall be cooled before they are returned to the estuary.
- 3) The potential adverse impacts on water quality from dredging, fill, in-water dredged material disposal, in-water log storage, water intake or withdrawal, and slip or marina development will be assessed during permit review. Parameters to be addressed include:
 - (A) Turbidity
 - (B) Dissolved oxygen
 - (C) Biochemical oxygen demand
 - (D) Contaminated sediments
 - (E) Salinity
 - (F) Water temperature
 - (G) Flushing
- 4) New or expanded marine fuel docks must provide on-site equipment for the containment of spilled fuels. A contingency plan for containment and clean-up of accidental spills shall be required.
- 5) New point-source waste water discharges into the Columbia River will be

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controlled through the National Pollution Discharge Elimination System (NPDES) permit program.

- 6) Estuarine aquatic area pesticide and herbicide application will be controlled by the Department of Environmental Quality and by the Department of Agriculture.

Section 6.4270. Water-Dependent and Water-Related Use Criteria

Shoreland and Aquatic zones must differentiate between water-dependent uses, water-related uses and other uses when establishing procedures and requirements for proposed uses. The level of development must be compatible with the purpose and characteristics of the shorelands and adjacent waters.

- 1) A use is water-dependent when it can only be accomplished on, in, or adjacent to water, or direct water access is required for any of the following:
 - (A) Waterborne transportation (such as navigation; moorage, fueling and servicing of ships or boats; terminal and transfer facilities; fish or other material receiving and shipping), or;
 - (B) Recreation (active recreation such as swimming, boating and fishing or passive recreation such as viewing and walking), or;
 - (C) a source of water (e.g. energy production, cooling of industrial equipment or wastewater, other industrial processes, aquaculture operations), or;
 - (D) Marine research or education (such as observation, sampling, recording information, conducting field experiments and teaching).
- 2) A use is water-related when it:
 - (A) Provides goods and/or services that are directly associated with water-dependent uses, supplying materials to, or using products of water-dependent commercial and industrial uses; or offering services directly tied to the functions of water-dependent; and
 - (B) If not located adjacent to water, would experience a public loss of quality in the goods and services offered (evaluation of public loss of quality in the goods and services offered (evaluation of public loss of quality will involve subjective consideration of economic, social and environmental value).

SECTION 6.5000. PROTECTION OF RIPARIAN VEGETATION

Section 6.5010. Purpose and Areas Included

Riparian vegetation is important for maintaining water temperature and quality, providing bank stabilization, thus minimizing erosion, providing habitat for the feeding, breeding, and nesting of aquatic and terrestrial wildlife species, and protecting and buffering the aquatic ecosystem from human disturbances. This section establishes standards to protect riparian vegetation on lands not subject to the requirements of the Oregon Forest Practices Act.

Areas of riparian vegetation are identified as follows:

- 1) Estuarine and Coastal Shoreland rivers and sloughs: a riparian vegetation zone of 50 feet wide shall be maintained except where shown on the County's estuarine resource base maps.

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- 2) Lakes, reservoirs, and river segments outside of Estuarine or Coastal Shoreland areas: a riparian vegetation zone 50 feet wide shall be maintained. Where emergent wetland vegetation exists adjacent to a lake, reservoir, or river, the 50 feet shall be measured from the landward extent of the emergent wetland area. If a shrub or forested wetland area exists adjacent to the lake, reservoir or river, the zone of riparian vegetation shall be the entire area of the shrub or forested wetland.

Measurements are taken horizontally and perpendicular from the line of non-aquatic vegetation. Where no aquatic vegetation is present, the measurement shall occur in estuarine and coastal shoreland areas from the mean higher high water line and from the ordinary high water line in non-estuarine areas.

Section 6.5020. Development Standards

- 1) All development, as defined by LWDUO section 1.0500, shall be located outside of the zone of riparian vegetation areas defined in 6.5000 above, unless direct water access is required in conjunction with a water dependent or water-related use or as otherwise provided by this Ordinance.
- 2) Because the zone of riparian vegetation is a uniform width, it may in particular locations include pasture land, land managed for agricultural crops, landscaped area or unvegetated areas which do not function as riparian vegetation. Upon request, the County may undertake a site investigation to establish the extent of riparian vegetation requiring protection in a particular location.
- 3) Exemptions from (1) and (2) above and from the applicable setback requirement for the front or rear yard that is opposite the riparian area may be granted without a variance for uses on:
 - (A) Lots located in areas identified in the Comprehensive Plan's Goal 2 exception element as "built and committed" and which existed as of the date of adoption of this ordinance, and single family residential "lots of record" as defined and used in Chapter 884 Oregon Laws 1981 as amended, where the lot depth resulting from the riparian setback and the opposite front/rear yard setback is less than 45 feet.
 - (B) Other lots in identified "built and committed" areas and other "lot of record" where the combination of setbacks required by this section result in a buildable lot depth of less than 45 feet.

Exemptions from the riparian setback shall be the minimum necessary to accommodate the proposed use after the yard opposite the riparian area has been reduced to a width of no less than ten feet.
- 4) Vegetation within the riparian setback shall be maintained with the following exceptions:
 - (A) The removal of dead, diseased or dying trees that pose an erosion or safety hazard.
 - (B) Vegetation removal necessary to direct water access to the Columbia

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- River Estuary for an approved water dependent or water-related use that meets the criteria in Section 6.4270.
- (C) Removal of vegetation necessary for the placement of structural shoreline stabilization.
- 5) The requirements of this section shall not apply to actions covered by the Oregon Forest Practices Act.

SECTION 6.6000. AGRICULTURAL AND TIMBERS STANDARDS WITHIN A GOAL 5 WETLAND

Section 6.6010. Standards for Low Intensity, Non-Structural Agricultural Uses within a Goal 5 Wetland

- 1) No man-made forms of drainage to be employed.
- 2) A 50-foot strip of natural vegetation shall be left along any year round standing or running water area.
- 3) The number of animals to be grazed on a parcel and the times of year they will be on the parcel shall be set out in the permit. The applicant must show that the area has the carrying capacity for the number of animals proposed without major modifications to the parcel and without significantly affecting the integrity of the wetland area.

Section 6.6020. Standards for Selective Harvesting of Timber Within a Goal 5 Wetland

- 1) Any harvesting of timber shall be according to a plan approved with the Conditional Use Permit.
- 2) Selection of trees to harvest shall be done with consideration of retaining wetland values.
- 3) Exemptions from (1) and (2) above and from the applicable setback requirement for the front or rear yard that is opposite the riparian area may be granted without a variance for uses on:
 - (A) Lots located in areas identified in the Comprehensive Plan's Goal 2 exception element as "built and committed" and which existed as of the date of adoption of this ordinance, and single family residential "lots of record" as defined and used in Chapter 884 Oregon Laws 1981 as amended, where the lot depth resulting from the riparian setback and the opposite front/rear yard setback is less than 45 feet.
 - (B) Other lots in identified "built and committed" areas and other "lots of record" where the combination of setbacks required by this section result in a buildable lot depth of less than 45 feet.

Exemptions from the riparian setback shall be the minimum necessary to accommodate the proposed use after the yard opposite the riparian area has been reduced to a width of no less than ten feet.

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SECTION 6.7000. DEVELOPMENT OF HISTORIC AND/OR ARCHEOLOGICAL SITES

Section 6.7010. Development of Historic and/or Archeological Sites

- 1) No development shall be allowed on land which has been identified as a historical- archeological site without review and approval by the Director and appropriate agencies. Development adjacent to lands identified as historical- archeological sites shall be subject to the Director's review and shall not adversely impact the adjacent historical- archeological site.
- 2) The County shall work with the local Historical Advisory Committee and other organizations to identify and protect important local historical and archeological sites. Compatible uses and designs of uses should be encouraged for property adjacent to important historical or archeological sites.
- 3) Clatsop County shall protect significant historical resources by:
 - (A) encouraging those programs that make preservation economically possible;
 - (B) implementing measures for preservation when possible;
 - (C) recognizing such areas in public and private land use determinations subject to County review.

Section 6.7020. Historic Site Protection

The following regulations apply to historic structures and sites identified in the Comprehensive Plan as having potential conflicting uses (Tillamook Rock Lighthouse, the Morrison House, the Clatsop Plains Memorial Church, and the Westport Log Tunnel).

- 1) The Community Development Director shall review, under Type II procedure, all building permit applications that propose the following changes to a historic building: exterior alterations (except painting), additions to the building, and construction of auxiliary buildings.
- 2) The Community Development Director shall review under a Type II procedure, all proposed activities that may alter the character of historic sites.
- 3) The Community Development Director shall notify the Clatsop County Historical Society and the State Historic Preservation Office of the proposed alterations. Comments received on the compatibility of a proposed alteration with the maintenance of a historic building or site's character shall be considered by the Community Development Director in making his determination.
- 4) The Community Development Director shall consider the following criteria in conducting this review:
 - (A) Compatibility of the proposed alteration with the site's historical character
 - (B) Use of exterior material and details that are consistent with the building's historic character
 - (C) The maintenance of the building's predominant architectural features.
- 5) The Community Development Director shall review under a Type II procedure all demolition permits for historic buildings.
- 6) The Community Development Director shall notify the Clatsop County Historical

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- Society and the State Historical Preservation Office of the proposed demolition.
- 7) The Community Development Director shall consider the following criteria in conducting his review of a demolition permit:
 - (A) The state of repair of the building
 - (B) The feasibility of restoring or moving the building
 - (C) The interest of public or private individuals or groups in the structure
 - 8) The Community Development Director may approve the issuance of a demolition permit, or may deny an application based on adequate findings of fact that the demolition would be detrimental to the County's historical heritage. In order to obtain additional information, the Community Development Director may suspend the application for a demolition permit for a period not to exceed 120 days. During this period, the Community Development Director shall attempt to determine if public or private acquisition and restoration is feasible, or other alternatives are possible which could be carried out to prevent demolition of the structure. If, during this period a feasible alternative is found, the Community Development Director may extend the suspension of the application for a period not to exceed one year. If no significant activities are undertaken during the one-year period toward the acquisition of the structure, the suspension shall expire and the demolition permit shall be issued by the Building Official, subject to other pertinent requirements.

Section 6.7030. Archeological Site Protection

- 1) The Community Development Director and Building Official shall review building permits, excavation permits or other land use actions that may affect known archeological sites. If it is determined that a proposed building permit, excavation permit or other land use action may affect the integrity of an archeological site, the Community Development Director shall consult with the State Historic Preservation Office on appropriate measures to preserve or protect the site and its contents. No permit shall be issued until either the State Historic Preservation Office determines that the proposed activity will not adversely affect the archeological site, or the State Historic Preservation Office has developed a program for the preservation or excavation of the site.
- 2) Indian cairns, graves and other significant archeological resources uncovered during construction or excavation shall be preserved intact until a plan for their excavation or reinterment has been developed by the State Historic Preservation Office.

SECTION 6.8000. ROCK AND MINERAL RESOURCE USE

Section 6.8010. Purpose. Development Standards - Extraction Area

A development plan shall be submitted to the County Community Development Department for any activity allowed as a conditional use. The development plan shall provide the necessary documents, permits, and maps to demonstrate compliance with the following standards and requirements:

- 1) Screening and Fencing.

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- (A) An earthen berm and buffer of existing or planted trees or vegetation shall be maintained to fully screen the view of any mineral and aggregate activity and all related equipment from any public road, public park, or residence within 1000 feet. Where screening is shown to be impractical because of topography or other physical characteristics of the site, the screening requirements may be waived by the Community Development Director.
 - (B) Sight obscuring fencing or approved barrier type shrubs shall be required to eliminate any safety hazards that use of the site may create. Fencing, if required, shall be sight obscuring and a minimum of six (6) feet high.
- 2) Access.
- (A) All private access roads from mineral and aggregate sites to public roads shall be paved or graveled. If graveled, the access road shall be graded and maintained as needed to minimize dust.
 - (B) Improvement or fees in lieu of improvements of public roads, County roads and state highways may be required when the Community Development Director or hearings body, in consultation with the appropriate road authority, determines that the increased traffic on the roads resulting from the surface mining activity will damage the sufficiently to warrant off-site improvement. If the fee in lieu of improvements is required, the amount of the fee shall reflect the applicant's pro-rata share of the actual total cost of the capital expenditure of the road construction or reconstruction project necessitated by and benefiting the surface mining operation. Discounts for taxes and fees already paid for such improvements, such as road taxes for vehicles and for property already dedicated or improved, shall be applied.
 - (C) Any internal road at a mineral and aggregate site within 250 feet of a Sensitive Use shall be paved or graveled, and shall be maintained at all times to reduce noise and dust in accordance with County or DEQ standards specified in the ESEE analysis.
 - (D) An effective vehicular barrier or gate shall be required at all access points to the site.
- 3) Hours of Operation.
- (A) Blasting shall be restricted to the hours of 8:00 a.m. to 5:00 p.m. Monday through Friday. No blasting shall occur on Saturdays, Sundays, or any recognized legal holiday.
 - (B) Mineral and aggregate extraction, drilling, processing and equipment operation located within 1000 feet of a Sensitive Use is restricted to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. Saturday. All other sites are limited to operating hours of 7:00 a.m. to 10:00 p.m. Monday through Saturday. No operation shall occur on Sundays or recognized legal holidays.
 - (C) An increase in operating time limits shall be granted for all activities except blasting if:

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1. There are no Sensitive Uses within 1000 feet of the mining site; or if
 2. There are Sensitive Uses within 1000 feet, the increased activity will not exceed noise standards established by the County or DEQ; and
 3. The operator shall notify the owners and occupants of all Sensitive Uses within 1000 feet by first class mail which is mailed at least 96 hours prior to the date and approximate time of the activity for which the operator receives an exception.
- (D) The operating time limits may be waived in the case of an emergency as determined by the County governing body.
4. Environmental Standards.
 - (A) DEQ Standards. Mineral and aggregate extraction, processing and other operations shall conform to all applicable environmental standards of the County and State. Any crusher, asphalt, concrete, ready-mix or other machinery shall submit an approved DEQ permit(s) at the time of development plan application.
 - (B) DOGAMI Standards. Mineral and aggregate extraction, processing, other operations and site reclamation shall conform to the requirements of the Department of Geology and Mineral Industries (DOGAMI).
 - (C) Permits Required. Mining shall not commence until all applicable State and Federal permits, if any, are provided to the County.
 - 5) Equipment Removal. All surface mining equipment, machinery, vehicles, buildings, man-made debris and other material related to the mineral and aggregate activity shall be removed from the site within 30 days of completion of all mining, processing and reclamation, except for structures which are permitted uses in the underlying zone.
 - 6) Performance Agreement.
 - (A) The operator of a mineral and aggregate site shall provide the County with annual notification of DOGAMI permits.
 - (B) Mineral and aggregate operations shall be insured for \$500,000.00 against liability and tort arising from production activities or operations incidental thereto conducted or carried on by virtue of any law, ordinance or condition, and such insurance shall be kept in full force and effect during the period of such operations. A prepaid policy of such insurance which is effective for a period of one year shall be deposited with the County prior to commencing any mineral and aggregate operations. The owner or operator shall annually provide the County with evidence that the policy has been renewed.
 - 7) Significant Resource Area Protection. Conflicts between inventoried mineral and aggregate resource sites and significant fish and wildlife habitat, riparian areas and wetlands, and ecologically and scientifically significant natural areas and scenic areas protected by the Clatsop Plains Community Plan or other provision of the County Comprehensive Plan, shall be addressed in the application and findings for the conditional use.

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- 8) Site Reclamation. a reclamation plan shall be submitted concurrently with the development plan required in Section 5.4645. The reclamation plan shall include a schedule showing the planned order and sequence of reclamation, shall assure that the site will be restored or rehabilitated for the land uses anticipated after the quarry operation, and shall meet DOGAMI requirements.
- 9) Water Management.
 - (A) Surface water shall be managed in a manner which meets all applicable DEQ, DOGAMI, and ODFW water quality standards. Approval may be conditioned upon meeting such standards by a specified date. Discharge across public roads shall be prohibited. Existing natural drainages on the site shall not be changed in a manner which substantially interferes with drainage patterns on adjoining property, or which drains waste materials or waste water onto adjoining property or perennial streams. Where the mineral and aggregate operation abuts a lake, river, or perennial stream, all existing vegetation within 100 feet of the mean high water mark shall be retained unless otherwise authorized in accordance with the ESEE analysis and the development plan.
 - (B) All water required for the mineral and aggregate operation, including dust control, landscaping and processing of material, shall be legally available and appropriated for such use. The applicant shall provide written documentation of water rights from the State Department of Water Resources and/or local water district prior to any site operation.
- 10) Floodplain. Any quarry operation located wholly or in part in a Special Flood Hazard Area as shown on the Federal Insurance Rate Map (FIRM) shall receive approval in accordance with Section 5.1000 of this Ordinance prior to any site operation.