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**EXHIBIT F**

**COASTAL ZONE MANAGEMENT  
CONSISTENCY DETERMINATION**

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**COASTAL ZONE MANAGEMENT ACT CONSISTENCY DETERMINATION**  
**COLUMBIA RIVER NAVIGATION CHANNEL IMPROVEMENT STUDY**  
**OREGON AND WASHINGTON**

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**INTRODUCTION**

The proposed federal action applicable to this consistency determination is the deepening of the Columbia River federal navigation channel from its authorized depth of 40 feet to 43 feet. Specific actions to be addressed include the effects of dredging a deeper channel, modified flowlane disposal practices, and use of new ocean disposal sites of the mouth of the Columbia River. These proposed changes are based on recommendations contained in the *Columbia River Navigation Channel Improvement Study Feasibility Report and Environmental Impact Statement* (EIS). This determination of consistency with the Coastal Zone Management Program is based on review of applicable Oregon Statewide Planning Goals and Guidelines, Washington Coastal Zone Management Program and policies and standards of the Clatsop County (Oregon) Comprehensive Plan and Pacific and Wahkiakum County (Washington) Shoreline Management Programs.

**OREGON STATE-WIDE PLANNING GOALS AND GUIDELINES**

Goal 16 - Estuarine Resources. The Columbia River estuary is classified as a "Development Estuary." This classification allows for uses such as navigation development and dredged material disposal in development management units. Implementation of estuary plans is the responsibility of local jurisdictions. Proposed new actions affecting the estuary will be reviewed by the state and local agencies having coastal zone jurisdiction. Actions occurring outside the coastal zone, including channel deepening may have an effect on resources utilizing the Columbia River estuary such as marine mammals and anadromous fish. The EIS prepared for this action addresses direct, indirect and cumulative effects on these species and concludes that no significant impact would result from this action. See additional discussion regarding consistency with local plans.

Goal 19-Ocean Resources. This goal requires that agencies determine the impact of proposed projects or actions. Paragraph 2(g) of goal 19 specifically addresses dredged material disposal. It states that agencies shall "[p]rovide for suitable sites and practices for the open sea discharge of dredged materials which do not substantially interfere with or detract from the use of the continental shelf for fishing, navigation or recreation, or from the long-term protection of renewable resources." Decisions to take such an action, such as using an ocean disposal site, are to be preceded by "inventory information necessary to understand potential impacts and relationship of the proposed activity to the continental shelf and near shore ocean resources." In addition, there should be a contingency plan and emergency procedures to be followed in the event that the operation results in conditions that threaten to damage the environment.

Guidelines for ocean disposal of dredged material are specified by the U.S. Environmental Protection Agency (EPA) in 40 CFR Part 227 (Ocean Dumping Regulations). Specification of suitable dredged material is based on evaluation of the potential impacts. An evaluation of suitable ocean disposal sites, demonstrating compliance with parts 227 and 228, is included as Appendix H and in the Section 103 Evaluation in Exhibit D. The new site(s) will be selected upon completion of the EPA site designation process. Ocean disposal of dredged material with a 43-foot channel deepening project would include: 5 million cubic yards (mcy) initial material from the Columbia River federal channel; approximately 0.4 mcy average annual dredged material from maintenance of the Columbia River channel; and an average annual 4.5 mcy from maintenance from the mouth of the Columbia River entrance channel which is currently disposed at existing ocean sites. Compliance with Goal 19 has been demonstrated since the requirements and criteria contained in parts 227 and 228 are at least equivalent to those contained in the goal.

## WASHINGTON COASTAL ZONE MANAGEMENT PROGRAM

WAC 173-16-064, Ocean Management. Appendix H, the Section 103 Evaluation and other provisions of the proposed action demonstrate that the proposed ocean disposal is consistent with the criteria and guidelines contained in the state code. Subsection 11 of WAC 173-16-064 specifically addresses ocean disposal.

Subsection (a) provides: *“Storage, loading, transporting and disposal of materials shall be done in conformance with local, state and federal requirements for protection of the environment.”* The ocean disposal site designation process and all other aspects of the proposed ocean disposal will be conducted in conformance with all pertinent laws and regulations.

Subsection (b) provides: *“Ocean disposal shall be allowed only in sites that have been approved by the Washington Dept. of Ecology, the Washington Dept. of Natural Resources, the U.S. Environmental Protection Agency and the U. S. Army Corps of Engineers as appropriate.”* EPA is the appropriate agency for approving the proposed ocean disposal sites. Ocean disposal would only occur at EPA-designated or approved sites.

Subsection (c) provides: *“Ocean disposal sites should be located and designed to prevent, avoid and minimize adverse impacts on environmentally critical and sensitive habitats, coastal resources and uses, or losses of opportunity for mineral resource development.”* The site evaluation study in Appendix H applies the 5 general and 11 specific MPRSA site selection criteria which are based on minimizing or avoiding impacts to aquatic resources, aesthetics, and uses such as navigation, mining and commercial and recreational fishing. Impacts to sensitive or critical habitats which may exist in the vicinity of the sites will be minimized through disposal management practices, such as location and timing of disposal. Baseline and monitoring studies conducted for existing sites confirm that use of any new sites would not significantly impact these uses or resources. Additional

discussion of proposed ocean disposal sites is included in Appendix H and the Section 103 Evaluation in Exhibit D.

## **CLATSOP COUNTY COMPREHENSIVE PLAN**

### **Columbia River Estuary Land and Water Use Plan**

#### *Section P20, Estuary Shoreland and Aquatic Regional Policies*

P20.5, Dredging and Dredged Material Disposal. As described in the report documents and elsewhere in the consistency determination, the proposed action complies with applicable policies with the exception of proposed flowlane disposal at depths below 65 feet MLLW. See Standards, S4.232 below.

P20.8, Fish and Wildlife Habitat. The proposed action, as coordinated with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service, complies with this policy regarding protection of endangered or threatened species habitat and protecting nesting, roosting, feeding and resting areas used by resident and migratory bird populations. See Standards, S4.239. No major marshes, significant wildlife habitat, coastal headlands or exceptional aesthetic resources would be adversely affected by the proposed action.

P20.12, Mitigation. The proposed flowlane disposal at depths greater than 65 feet MLLW has been identified as an activity which may cause a loss of aquatic resources. Coordination with state and federal resource agencies resulted in an agreement to conduct sturgeon, smelt and benthic sampling to determine if significant numbers of these species occur in these areas. Any subsequent disposal would avoid or minimize impacts to significant resources so as to avoid the need for compensatory mitigation. See further discussion under *Columbia River Aquatic Use and Activity Standards*.

P20.19, Water Quality Maintenance. This policy does not address water quality effects from dredging and dredged material disposal activities. The proposed dredging and disposal actions, however, would not degrade estuarine water quality. See further discussion under standards Section 4.242.

P21.5, State and Federal Consistency. The proposed navigation channel deepening action is consistent to the maximum extent practicable with the regional policies, development standards and land and water use designations in the comprehensive plan. Flowlane disposal below 65 feet would, however, require plan amendment review for consistency.

#### *Section P30, Estuary Subarea Plans*

P30.3, Estuary Channels (deep water estuary from Columbia river miles 3.0 to 22.5). The navigation channel and adjacent flowlane area are designated Development, which allows for dredging and dredged material disposal.

P30.5, River Channels (Harrington Point to western end of Puget Island). The main navigation channel and adjacent flow lane disposal areas are designated "Development." *Section P40, Columbia River Estuary Dredged Material Management Plan*

P40.1, Purpose and Content. Describes the *Dredged Material Management Plan* prepared by CREST in 1979 and revised in 1986. The plan serves as a guide to dredging projects sponsors and regulatory agencies. The plan lists some possible disposal sites. The plan is incorporated by reference via Section P60, Appendices, to the County Comprehensive Plan and applicable plan policies have been fully incorporated into comprehensive plan policy 20.5, Clatsop County development standard S4.232 and other Clatsop County provisions addressed in this consistency determination. For the reasons discussed under these provisions, with the exception of the proposed flowlane disposal in the vicinity of Columbia river miles 27 to 42, the proposal is consistent with the existing dredged material disposal plan. The plan identifies flowlane disposal at depths up to a maximum of 65 feet. The proposed disposal would extend beyond that depth at some locations. A plan amendment would be required to identify flowlane disposal at these greater depths.

### **Columbia River Estuary Shoreland and Aquatic Zones**

Section 3.740, Aquatic Development Zone. In-water disposal sites within or adjacent to the navigation channel are within the Aquatic Development Zone, which permits dredged material disposal in conjunction with navigation at designated sites. See additional discussion of flowlane disposal modification under Columbia River Estuary Aquatic Use and Activity Standards and Columbia River Estuary Land and Water Use Plan.

Section 3.760, Aquatic Conservation Two Zone. No activities are planned to occur within this zone.

Section 5.125, Consistency Review Procedure for Federal Activities and Development Projects. This Coastal Zone Management Act consistency determination has been prepared for review by the States of Oregon and Washington.

Sections 5.810-5.840, Impact Assessment. Development activities that could potentially alter the estuarine ecosystem (i.e., dredged material disposal, riprap, fill, in-water structures, etc.) require an impact assessment. An EIS that discusses the effects of the proposed actions on the existing resources of the Columbia River has been prepared. The EIS fulfills the requirement of a separate impact assessment. The results of the EIS indicate that the proposed activities do not represent a potential degradation or reduction of significant fish and wildlife habitat and essential properties of the estuarine resource.

## **Columbia River Estuary Shoreland and Aquatic Use and Activity Standards**

S4.208, Estuarine Construction. Applies to in-water structures including pile dikes; 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.

Construction of pile dikes, proposed in the draft report, have been removed from the plan pending the results of further study.

The standards require that structural shoreline stabilization measures be coordinated with State and Federal agencies to minimize adverse effects on aquatic and shoreline resources and habitats. Comments were received from agencies in the draft EIS review. Concerns were raised regarding the potential for increased predation of juvenile salmonids by piscivorous birds. Pile dikes have been used as perches by these birds, particularly cormorants. The National Marine Fisheries Service has recommended further studies to evaluate the effects of pile dikes on salmonid predation. Based on this recommendation, further pile dike construction will be reconsidered pending the results of these studies.

S4.209, Deep-Water Navigation, Port and Industrial Development. The proposal is consistent with this standard for the reasons set forth in the discussion of S4.232, Dredging and Dredged Material Disposal, and in the EIS.

S4.218, Mitigation and Restoration. The proposal is consistent with this standard for the reasons discussed above under Clatsop County Comprehensive Plan Policy 20.12, Mitigation.

S4.230, Bankline and Streambed Alteration. The proposal is consistent with this standard. Stream surface area will be maintained, existing deepwater channels will be used, undesirable hydraulic conditions will not be created, and adverse effects on estuarine resources, if any will be minimized as discussed under Clatsop County Comprehensive Plan Policy P20.12 and Clatsop County Standard S4.232.

S4.232, Dredging and Dredged Material Disposal. Dredging is conducted for navigational purposes as allowed by the plan. Dredging, disposal site selection and the material to be disposed comply to the maximum extent practicable with appropriate sections of S4.232. The need for channel deepening is identified in Chapter 3 of the EIS, as well as receiving the support of the sponsoring lower Columbia River Port Districts. Timing of activities has been and will continue to be coordinated with state and federal resource agencies as well as commercial fishing groups.

Undesirable erosion, sedimentation, increased flood hazard and circulation changes are not expected based on the results of the salinity intrusion analysis conducted for this study. See

Appendix F. This analysis essentially concluded that even under the most conservative conditions, changes in flow patterns from a 3-foot channel deepening would be imperceptible.

Based on the conclusions described in Chapters 2 and 6 of the EIS, short-term dredging and disposal effects are expected to be minor within the estuary reach when compared to existing 40-foot channel dredging and disposal. Most of the work occurs in areas currently disturbed on an annual basis. Dredging and disposal would occur in deeper areas which are lower in benthic productivity. Some destabilization of near channel side slopes would occur for a year or so following initial deepening.

All relevant state and federal water quality standards will be met and sediments evaluated in accordance with the Regional Testing Manual. All Columbia River sediments from navigation channel dredging are suitable for unconfined in-water disposal.

Alternatives to reduce disposal in the estuary have been evaluated. Except for Rice Island no suitable upland disposal is available within the estuary. Ocean disposal is proposed in addition to estuarine flowlane disposal.

Disposal area capacity has been determined to be adequate for all initial dredging to 43 feet and at least 50 years of maintenance dredging. Most estuarine dredged material will eventually be placed at designated ocean disposal sites.

Flowlane disposal would occur primarily in areas at depths greater than 40 feet. Chapters 4, 5 and 6 of the EIS describe these areas and identify resources that may be present at these locations. Disposal is proposed for depths greater than 65 feet between Columbia river miles 27 to 42.

Disposal within this reach could change bottom elevations by up to 20 feet in some locations. Most of the material (about 2.5 mcy) disposed within this reach would be from construction of a deeper channel. Maintenance dredging material (estimated 12 mcy over 20 years) would not substantially increase over existing 40-foot channel maintenance quantities.

The actual change in bed elevations that would occur would depend on factors such as the total area used for disposal, the volumes disposed and the amount of material transported away from the sites. Bathymetric monitoring would occur prior to and following each disposal event at these locations.

Site specific biological data is lacking for depths greater than 65 feet. Resource agencies have expressed concern over potential impacts to juvenile and larval stage sturgeon, smelt larvae and benthic invertebrates. Biological sampling will be conducted to determine the extent of these resources. The sampling results would provide the necessary data for minimizing or avoiding impacts to significant resources.

The new ocean disposal site proposed for designation is beyond the limits of the Territorial Sea and is not within Clatsop County jurisdiction. Since this action would likely affect the resources of the states of Oregon and Washington, it would be applicable to Oregon Statewide Goal 19. Designation and use of that site is addressed in the EIS, Appendix H and the Section 103 Evaluation (Exhibit D) for the proposed use.

S4.235, Filling of Aquatic Areas and Non-Tidal Wetlands. The proposed action affected by this standard is "flowlane disposal" between Columbia river miles 27 and 42. Disposal at the proposed quantities and rates would raise bottom elevations by as much as 20 feet at some locations. Although this action is technically considered fill, it is not converting aquatic area into uplands as implied in this standard. Dredged material placed at these locations would continue to slowly move downstream as bedload material. As previously stated, biological sampling would be conducted to identify areas where significant resources can be avoided or impacts minimized.

S4.237, Riparian Vegetation Protection. No riparian vegetation would be disturbed by the proposed dredging or disposal work.

S4.239, Fish and Wildlife Habitat. The proposed action is being coordinated with state and federal resource agencies. Comments and recommendations from those agencies are being considered in the development of the plan. Measures to avoid or minimize impacts to aquatic resources, such as timing, in-water disposal site depths and dredging methods would be incorporated into the proposed action. As noted in our response to S4.232 and S4.235, biological sampling would be conducted to determine presence of significant resources in this area. The data would be used to identify the preferred mitigation measures of avoiding or minimizing impacts to significant resources.

S4.241, Significant Areas. No significant areas as defined by this standard would be affected by the proposed action.

S4.242, Water quality Maintenance. The potential adverse water quality effects have been addressed in the EIS prepared for this action. Dredging and disposal of Columbia River navigation channel sediments would not contribute to unacceptable levels of turbidity, dissolved oxygen, biochemical oxygen demand or contaminants. Salinity intrusion from deepening has been analyzed and determined to have no measurable change. The proposed action has no effect on water temperature changes. Sediment distribution has been analyzed and would not significantly change from present conditions.

## **OTHER REGIONAL PLANS**

### *Dredged Material Management Plan, 1986 (Columbia River Estuary Study Taskforce)*

The proposal's consistency with applicable provisions of the plan, as adopted by Clatsop, Pacific and Wahkiakum Counties is discussed under the specific county provisions.

*Pacific County, Washington, Section 25.05, Columbia River Estuary Policies, S25.05.03  
Habitat Policies; A, B, E*

Policies include preservation of fish-food production and resting areas, such as shallow submerged lands and wetlands; control of uses of adjacent shoreland; and protection of endangered wildlife species. The proposed action, as coordinated with federal agencies responsible for listing threatened and endangered species, is in accord with these policies.

S25.05.21, Dredged Material Disposal (DMD) Policies. A. Disposal on a vegetated site should occur on the smallest land area consistent with sound disposal methods; clearing land should occur in stages as needed; reuse of existing DMD sites is preferred to the creation of new sites. The proposed action utilizes existing DMD sites and avoids, when possible, sites with established vegetation not a result of revegetation efforts. However, no estuary sites within the jurisdiction of Pacific County are included in the proposed action.

S25.08.01, Permitted Development, Uses and Activities. Dredged material disposal is an allowed use where designated in Appendix 5, Section 2 of the Comprehensive Plan. These sites are from the 1986 CREST DMD Plan. The proposed action does not include disposing at any site within the jurisdiction of Pacific County. Dredge and disposal activities in Baker Bay are covered under a separate action/environmental assessment.

*Wahkiakum County, Washington, Shoreline Management Master Program*

Policies – Dredging. This policy refers to deepening of a navigation channel or use of bottom material for a landfill.

Standards – Dredge and Fill. Permitted Use Standards for Conservancy, Rural and Urban Environments.

Dredging: (1) Dredging in aquatic areas shall be permitted only for navigation or navigational access, and (2) dredging shall be the minimum necessary to accomplish the proposed use. The proposed action conforms to these applicable standards.

Fill: Fill in aquatic areas shall be permitted only in conjunction with a permitted or conditionally permitted water-dependent use for which there is a demonstrated public need and for which no feasible upland sites exist. The proposed action is water-dependent. There is, based on the economic analysis prepared for this action, a demonstrated public need for deepening and subsequent maintenance of the navigation channel. Rice Island is the only identified upland site within the Wahkiakum County estuarine reach.

Dredged Material Disposal (the Deposition of Dredged Material in Aquatic Areas or Shorelands): The Corps complies with the Permitted Use Standards for Conservancy, Rural and Urban Environments (1-9, as applicable) to the maximum extent practicable. With the exception of flowlane disposal below depths of 65 feet, disposal sites are in accord with the Dredged Material Disposal Plan; sediments are adequately characterized, timing is

coordinated with state and federal agencies; adverse short-term effects are minimized; relevant state and federal water quality standards are met, consideration is given to the need for disposal, alternative sites and methods of disposal; undesirable changes in circulation and adverse effects on wetlands and disposal near public water intakes are avoided; flow lane disposal generally occurs downstream of dredge sites and avoids flow conditions which would transport material upstream; beach nourishment is conducted so that erosion or deposition occurs downstream and shallow productive areas are not smothered.

## **IMPACT ASSESSMENT**

In addition to the impact assessments provided herein, the EIS along with the Ocean Disposal Site Evaluation Study (Appendix H) have been prepared in compliance with impact assessment procedures.

## **STATEMENT OF CONSISTENCY**

Based on the above evaluation, we have determined that the actions proposed in the *Columbia River Navigation Channel Improvement Study* are, with one exception, consistent with the enforceable policies of the approved coastal zone management programs of Oregon and Washington, including the enforceable policies as specified in the local planning documents for Clatsop County, Oregon, and Pacific and Wahkiakum Counties, Washington that are incorporated in the approved programs. Because flowlane disposal at depths greater than 65 feet is not consistent with the local provisions of the approved programs, a local plan amendment would be required to ensure consistency with the approved programs.

