

## FINDINGS FOR OREGON INTERNATIONAL PORT OF COOS BAY PERMIT APPLICATION

**DSL Application No.:** 37712-RF  
**Port:** Oregon International Port of Coos Bay  
**Location:** North Bend, Coos County  
**Date:** December 21, 2011

### Scope of the Department's Authority

The Department of State Lands' (the Department or DSL) decision concerning this permit application is governed by Oregon's Removal-Fill Law (ORS 196.800-.990) and the Department's administrative rules implementing that statute (OAR chapter 141, division 85). It is important to keep in mind that the Department's authority under these laws is limited to regulating removal and fill of material within "waters of the state." Under these laws, the Department has no authority over activities on upland (land outside waters of the state) except as that authority may relate to requiring protective buffers, erosion control and other measures to minimize impacts to adjacent waters of the state, and has no authority to determine whether a particular project (other than the portion that involves removal/fill within waters of the state) is good for the State of Oregon. The Department's permitting authority is designed to ensure the protection, conservation and best use of Oregon's "water resources<sup>1</sup>." The Department has no authority to evaluate the business decision that underlies a proposed development project.

### Project Summary and Environmental Setting

The project is located in the Coos Bay estuary. The Oregon International Port of Coos Bay ("Port" or "Coos Bay") is proposing to excavate an access channel and slip adjacent to the Coos Bay Navigation Channel at the Oregon Gateway Marine Terminal (OGMT) site along the bay side of the North Spit of Coos Bay, at approximately Coos Bay Navigation Channel Mile 7.5. The slip is proposed to be excavated in uplands. This upland construction will occur behind a berm to separate it from the Coos Bay estuary and will not impact waters or wetlands; after construction is complete, the berm will be removed to connect the slip to the access channel. The removal-fill activity authorized in this permit is excavating the access channel, placing dredge spoil in a small non-tidal wetland and constructing compensatory non-tidal wetland, mudflat and eelgrass mitigation. The construction of the access channel will cause 12.9 acres of intertidal impact (10.47 acres of mudflat and 2.43 acres of eelgrass bed). The Port considered and documented in the application four alternative sites, including OGMT, Henderson Marsh, Port Industrial Site and Paper Mill Site and several alternative designs for the proposed project. The Port will dredge and maintain the access channel, connect the new slip to the access channel, and maintain the slip. Data that the Department has on file indicates that approximately one half of the Coos Bay estuary is comprised of submersible lands (between High Water and Mean Low Water) and one half of the estuary is submerged land (below Mean Lower Low Water). The total acreage estimate for the estuary is approximately 12,300 acres at high tide. Approximately 90% of the historic salt marshes in Coos Bay have been diked or filled. According to the *Jordan Cove Energy and Pacific Connector Gas Pipeline Project—Final Environmental Impact Statement* (May 2009), there are approximately 1,500 acres of eelgrass in the estuary; most of the eelgrass is above the railroad bridge. The drainage basin for the estuary is 605 square miles with tidal influence extending 34 miles up the fork of the Coos River, its primary tributary.

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<sup>1</sup> "'Water resources' includes not only water itself but also aquatic life and habitats therein and all other natural resources in and under the waters of this state." ORS 196.800(13).

The amount of material proposed to be excavated and dredged from waters of the state will be approximately 1.75 million cubic yards (MMCY). Dredging the access channel will impact approximately 31 acres of Coos Bay, including 12.9 acres of intertidal area (10.47 acres of mud flat and 2.43 acres of eelgrass bed). The remaining 18.10 acres of impact is subtidal. Disposal of dredge spoils will impact approximately 0.1 acres of non-tidal wetland. The total impacts (31 acres) to waters of the state from the proposed project amount to approximately 0.1% of the total estuary size (12,300 acres).

Compensatory mitigation<sup>2</sup> for the conversion of the 10.47 acres of mudflat to subtidal habitat is proposed to be off-site and in-kind, by restoring to tidal influence approximately 31.41 of former estuary at the Kentucky Slough mitigation site (3:1 ratio for enhancement). To mitigate the loss of approximately 2.43 acres of eelgrass, the Port proposes to create approximately 7.3 acres of new eelgrass habitat due south of the west end of the Coos Bay-North Bend Airport runway (3:1 ratio). The proposed eelgrass mitigation site is state land owned and managed by DSL and separate proprietary authorizations will be required. Compensatory wetland mitigation of 0.15 acres (1.5:1 ratio for creation) is proposed at the Port Stockpile Site to be on-site and in-kind for the 0.1 acres of impact to non-tidal wetlands.

The Port's stated purpose is to develop a multi-berth, multi-purpose shipping facility able to accommodate large ocean-going vessels of the Panamax class or larger. Panamax ships are vessels designed to fit in the Panama Canal's locks--hence the name, denoting that they both maximize the freight transported through the canal, and that they are the biggest ships able to pass through the canal. Post-Panamax or over-Panamax denotes ships larger than Panamax that do not fit in the canal, such as supertankers and the largest modern container ships. According to a document in the record prepared by BST Associates (7/14/2011) at page 4, a Panamax vessel can be handled at Coos Bay using tidal assistance but this can only occur in the Lower Bay. Therefore, additional deepening of the Coos Bay Navigational Channel under the Port's proposed WRDA Section 203/204 Channel Deeping Project is not required for the multi-berth project to be viable.

The excavation of the access channel is the removal-fill activity in waters of the state that is being authorized by the Department. The "multi-berth" aspect of the proposal includes an eastern berth, western berth and a tug berth. The two dolphins associated with the eastern berth is the only piece of the project impacting waters of the state. No removal-fill activity is proposed to construct the western berth or the tug berth. The western berth could be used to support a bulk terminal, and the berth would be constructed completely in the dry (Memorandum from Kim Geist, DEA to Bill Ryan, DSL dated 12/5/2011 at page 5).

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<sup>2</sup> ORS 196.830(2) provides that DSL must require "estuarine resource replacement" as a condition of any permit for filling or removal of material from an intertidal or tidal marsh area of an estuary. Subsection (1) defines "estuarine resource replacement" as "the creation, restoration or enhancement of an estuarine area to maintain the functional characteristics and processes of the estuary, such as its natural biological productivity, habitats and species diversity, unique features and water quality." The project proposed by the Port involves fill/removal in both estuarine areas and freshwater wetlands. Thus, for convenience, this document uses the term "compensatory mitigation" when referring to both compensatory wetland mitigation and estuarine resource replacement. The basic legal requirements for these are essentially the same. However, because ORS 196.830 does impose certain additional considerations concerning estuarine resource replacement, this document also notes how DSL considered those additional factors regarding mitigation for impacts to the estuary.

## History of the Application

This application was received by the Department on November 15, 2010. The Department put the application out for 30-day public and agency review on December 13, 2010. In response to the numerous requests for more time to comment, the Department extended the review period from December 13, 2010 to February 12, 2011, resulting in a total public and agency review period of 60 days. About 2,600 public and agency comments were received related to this application. To the extent that those comments related to applicable criteria under the Removal-Fill Law, they were considered by the Department and provided in substance to the Port for the Port's response. The Port responded in a letter to the Department from David Evans and Associates to the Department dated May 9, 2011. From May 9, 2011 to the date of the final agency decision, December 21, 2011, the Department engaged in considerable dialogue with the Port concerning legal, factual and policy issues raised by public and agency comments and by the Department staff analysis. Several times, the Department asked the Port to supply additional information to address particular concerns. The Port provided the Department with packets of additional information on May 9, 2011, July 15, 2011, November 1, 2011, and December 5, 12 and 15, 2011. The following findings draw upon all information in the record, whether from public or agency comments, submissions by the Port or analysis and investigations by the DSL staff.

## Findings

The Removal-Fill Law (Oregon Revised Statutes 196.800-.990) and the Department's removal-fill rules (Oregon Administrative Rules chapter 141, division 85) require the Department to do these things when processing an application for a removal-fill permit:

- First, consider certain issues;
- Then, make certain determinations.

The following findings briefly summarize the Department's considerations and determinations.

## Considerations

1. The public need for the proposed fill or removal and the social, economic or other public benefits likely to result from the proposed fill or removal. ORS 196.825(2)(a); OAR 141-085-0565(4)(a).

Part of the policy behind this consideration is to avoid issuance of permits for speculative projects, which can result in unnecessary impacts to water resources (e.g., where an estuary is impacted to build a slip but the slip is never used by ships). The Port has demonstrated that there is a public need for the proposed removal and fill as part of construction of a multi-berth, multi-purpose marine cargo facility, and that the public will derive significant economic benefits from the particular project that this proposed removal and fill would facilitate. Granting the permit application is consistent with ORS 777.065, in which the Oregon Legislature declared:

*The Legislative Assembly recognizes that assistance and encouragement of enhanced world trade opportunities are an important function of the state, and that development of new and expanded overseas markets for commodities exported from the ports of this state has great potential for diversifying and improving the economic base of the state. Therefore ...development of deepwater port facilities at...Coos Bay... is declared to be a state economic goal*

*of high priority. All agencies of the State of Oregon are directed to assist in promptly achieving the creation of such facilities by processing applications for necessary permits in an expeditious manner and by assisting the ports involved with available financial assistance or services when necessary.*

The record supports the following facts:

- A new vessel slip is needed to create a multi-berth, multipurpose marine cargo facility for Panamax and larger vessels in the area to sustain and reinvigorate maritime trade in the Coos Bay Harbor.
- The slip is needed because a swinging-span railroad bridge located upstream creates a physical barrier. In fact, the navigational clearances of both the railroad bridge and US Highway 101 bridge (C. B. McCullough Bridge) are insufficient to allow the larger ocean-going vessels to transit into upper Coos Bay. The facilities downstream of the bridge are insufficient to accommodate these larger vessels.
- Accommodation of larger vessels is essential to the Port's ability to remain competitive in Pacific maritime commerce and is an essential part of the Port's strategy to build a healthy regional economy. Vessel sizes are increasing in all marine trades.
- The Port has lined up the Jordan Cove Energy Project as the current proposed user of the eastern berth. Since the Jordan Cove application was submitted, additional candidates have expressed interest in the eastern berth and upland property, including Roseburg Forest Products (see Letter of Interest from Roseburg Forest Products submitted to the Department on May 9, 2011). Further, there is additional correspondence in the record from Fort Chicago Holdings LLC that confirms the owner of the subject property and adjacent upland terminal property has both the interest and incentive to proceed with a non-LNG marine terminal development at this location.
- The Port has established the need for the proposed multi-berth, multipurpose marine cargo facility. Even if the Jordan Cove Liquefied Natural Gas (LNG) terminal project never materializes, the record indicates that the Port will still construct the multi-berth, multipurpose marine cargo facility. In issuing this permit to the Port for a multi-berth, multipurpose marine cargo facility, the Department is not making a finding regarding need for or public benefit from a terminal facility that would import or export LNG. The record supports the conclusion that market opportunity exists for containers, breakbulk cargoes (e.g., metal products, forest products, and project cargoes), logs, automobiles, liquid bulks, grain, and dry bulks. Ports in the Pacific Northwest region have experienced sustained growth of cargo volumes.

ORS 196.825(2)(a) provides in relevant part that "When the applicant for a permit is a public body, the director may accept and rely upon the public body's finding as to local public need and local public benefit."

To summarize: The Port has supplied sufficient information to demonstrate that this project is not speculative, and that issuing a permit is not likely to result in a "speculative removal or fill" in waters of the state.

2. The economic cost to the public if the proposed fill or removal is not accomplished. ORS 196.825(2)(b); OAR 141-085-0565(4)(b).

The record indicates that there will be economic costs to the public if the proposed removal and fill is not accomplished, which would result in the project not being built. According to

information submitted by the Port of Coos Bay, the estimated jobs and economic impacts from the slip construction include 76 direct and 196 indirect jobs, and \$26.2 million in associated payroll earnings over 18 months. Additional impacts over time could amount to more than one thousand construction and permanent jobs, and wages nearing \$300 million. If the project is not built, and these significant economic benefits are not realized, it would have a detrimental effect on the public, especially the local economy of Coos County.

3. The availability of alternatives to the project for which the fill or removal is proposed. ORS 196.825(2)(c); OAR 141-085-0565(4)(c).

Alternative designs and construction methods for the project were evaluated, and the record supports the finding that the selected design and construction methods constitute the practicable alternative with the least impact to the water resources of the State.

Documentation submitted by the Port supports the following facts:

- The Port applied a number of design criteria in order to accommodate the proposed uses. In order to accommodate the size of cargo vessels anticipated to use the facility, the slip must be accessible from the navigation channel and must be at least -45 feet NAVD88. The slip must also be 1460 by 682 feet to accommodate the target vessel class and provide for safe and efficient maneuvering.
- Federal safety requirements dictate design considerations for managing hazardous materials such as bulk solid hazardous materials; bulk liquid hazardous materials carried in barges, bulk liquid, liquefied gas, or compressed gas hazardous materials carried by ship, incompatible chemicals where multiple chemicals may be carried together in parcel tankers or on container ships. The US Coast Guard also identifies hazardous marine cargoes through regulation. The site must be out of the Coos Bay North Bend Airport 13.31 runway glide path, and the vessels must be located in a position where they are not vulnerable to collision from inbound deep draft vessels.
- The proposed site also serves larger vessels equally well when carrying non-hazardous materials. According to the applicant, for tug-assisted operations, which are normal in Coos Bay and would be necessary at the OGMT site, there is no substantive difference between the turning requirements for a large LNG vessel and other cargo vessels of similar size. At present, the only turning basin in Coos Bay is in the Upper Bay, above the railroad bridge, and is inaccessible for larger vessels. Shallow draft vessels are able to navigate in the lower Bay at high tide. However, in order for the Port to attract larger and deeper draft vessels, a wide dredged area (i.e., the proposed access channel) must be provided for them to turn. For this reason, proposed slip and access channel design is independent of the type of cargo carried by the vessels because the slip and access channel would accommodate vessels carrying a wide variety of cargo.
- The Port considered a design alternative that involved a large docking facility located entirely within Coos Bay, but rejected that alternative because it does not meet the necessary safety criteria and would require additional dredging in the Bay. The Port also considered a design alternative that involved a slip located partly in Coos Bay and partly in uplands, and rejected this alternative for similar reasons. The partial slip would also subject docking vessels to tidally induced currents, making berthing and de-berthing maneuvers more difficult.
- The selected design alternative, a single large slip located entirely within the current uplands will accommodate three berths (the "multi-berth" aspect of the proposal includes an eastern berth, western berth and a tug berth). The alternative satisfies all safety criteria and has the least impact to the State's water resources. As previously explained under "Project Summary and Environmental Setting," the slip and access channel are among the developments in waters of the state that require

a removal-fill permit from DSL (the others being impacts to wetlands from dredge spoil disposal and constructing the mitigation sites). A berm will be used to separate the upland project area from the bay. Therefore, constructing the eastern, western and tugboat berths will not impact waters of the state. The single slip design will be out of the runway path and will ensure that the vessels are docked in a position where they are not vulnerable to ship-to-ship collisions. The selected design alternative also minimizes dredging within Coos Bay because a single access channel and slip construction will involve almost no dredging within the Bay. In addition, the construction impacts from the dredging will be subject to regulation by the Oregon Department of Environmental Quality.

- Constructing a slip for vessels, as opposed to mooring vessels along the bay front, minimizes environmental impacts to submerged and submersible lands. A channel-side berth would involve dredging twice as large an area in Coos Bay than the slip (see Moffatt & Nichol Memorandum (Dec. 5, 2011) at pp. 7-8, 11). The slip also increases navigational safety by ensuring further separation between moored vessels and the navigation channel. Prioritizing this safety criterion also reduces the potential impacts to waters of the State by minimizing the likelihood of vessel collisions and collisions (i.e., striking of a moving vessel against a stationary vessel that is at anchor, aground, etc. or fixed object such as piers, wharves, etc.) which could result in spillage and other harm to sensitive marine ecosystems.
  - The project minimizes impacts by narrowing the width of the slip to the maximum extent practicable while still achieving the project purposes (see David Evans & Assocs. Memorandum (May 9, 2011), at p. 4; Revised Joint Permit Application (July 15, 2011), Tab A, Description of Alternative Project Sites and Designs, at pp. 6, 8, 10; David Evans & Assocs. Memorandum (Dec. 5, 2011), at pp. 9, 11; Moffatt & Nichol Memorandum (Dec. 5, 2011), at Table 2, p. 11). This also has the effect of reducing upland impacts.
  - The project minimizing dredging to the extent practicable. The access channel is the minimum width necessary for the type of vessels slated to use the slip to travel from the slip to the navigation channel and safely maneuver in the access channel (see David Evans & Assocs. Memorandum (May 9, 2011), at pp. 4-5).
4. The availability of alternative sites for the proposed fill or removal. ORS 196.825(2)(d); OAR 141-085-0565(4)(d).

The Port considered and documented in its submittal materials (see Exhibit 1 below) five alternative sites and several alternative designs for the proposed project (see Application, Attachment 2; Revised Joint Permit Application (July 15, 2011), Tab A, Description of Alternative Project Sites and Designs, at pp. pp. 5-11; David Evans & Assocs. Memorandum (Dec. 5, 2011), at pp. 8-14; Moffatt & Nichol Memorandum (Dec. 5, 2011), at pp. 5-11). Documentation regarding the selected and alternative project sites and designs demonstrates that the selected site and design constitute the practicable alternative with the least adverse effect to water resources of the state. The proposed project will have the following impacts on water resources: 31 acres of dredging in Coos Bay, resulting in the conversion of 12.9 acres of intertidal habitat to subtidal habitat and less than .1 acre of impact to non-tidal wetland. The remaining 18.10 acres of impact is to subtidal and deepwater impact. The Department generally does not require compensatory mitigation for subtidal and deepwater impact. The Department is only requiring compensatory mitigation for the 12.9 acres of intertidal and eelgrass impact and the less than .1 acre of non-tidal wetland impact. There appear to be no practicable alternatives that would accomplish the project purpose while resulting in fewer adverse impacts to water resources.

The application and supporting documentation demonstrate that there were no reasonably available alternative sites that would have lesser impacts to the State's water resources. The safety criteria for a shipping terminal result in certain site constraints: (1) the local vicinity must be sparsely populated; (2) there must be no transit navigation restrictions such as bridges, power lines, high levels of ship traffic, swift currents, or shoaling; (3) there must be minimal vessel transit distance; (4) the site must be outside the Coos Bay North Bend Airport 13.31 runway glide path; and (5) vessels must be positioned so that they are less vulnerable to *allision* (i.e., striking of a moving vessel against a stationary vessel that is at anchor, aground, etc. or fixed object such as piers, wharves, etc.) from in-bound deep draft vessels. Positioning vessels within an off-channel slip prevents allision from in-bound deep draft vessels. Furthermore, the Federal Energy Regulatory Commission (FERC) and the US Coast Guard (USCG) require that LNG carriers not be berthed adjacent to the navigation channel to avoid the possibility of allision with other vessels. The terminal also requires sufficient upland facilities adjacent to the slip in order to handle the cargo offloaded from the vessels. This upland site must be at least 150 acres for the liquid bulk terminal and 25 acres for an additional bulk terminal

The Port evaluated four sites, including the preferred alternative. The ownership of the alternative sites is as follows: OGMT (Fort Chicago Holdings II U.S. LLC); Henderson Marsh (Weyerhaeuser Company subject to the Port's option); Port Industrial Park Site (Port); and Paper Mill Site (Weyerhaeuser Company). For each potential alternative site, the Port evaluated potential impacts from two different designs, a terminal with two berths along the shoreline and in the Coos Bay channel (channel side berths) and a slip and access channel with a terminal and two berths (a dual-use slip). For each design alternative, all of the alternative sites evaluated would involve considerably greater impacts either to wetlands or the Bay (or both) (see Moffatt & Nichol Memorandum (Dec. 5, 2011), at Table 2, p 11). Exhibit 1 summarizes comparisons of these alternatives (details are available in the materials supplied by the Port and included in the record):

**Exhibit 1: Comparison of Alternatives**

Alternative	Location	Configuration	Technically & Commercially Feasible?	Bay Dredging & Fill Impacts (acres)	Wetland Impacts (acres)	Total Impacts in Waters of the State (Acres)
1 (Preferred)	Proposed (OGMT <sup>3</sup> ) Site	Dual-Use Slip	Yes	31 <sup>4</sup>	<1 acre	31 +/-
2	Proposed (OGMT) Site	Channel-Side	Yes	71	0	71
3	Henderson Marsh Site	Dual-Use Slip	Yes	28	45	73
4	Henderson Marsh Site	Channel-Side	Yes	63	19	82
5	Port Industrial Park Site	Dual-Use Slip	No	Not Computed	Not Computed	Not Computed
6	Port Industrial Park Site	Channel-Side	Yes	76	<1 acre	76 +/-
7	Paper Mill Site	Dual-Use Slip	Marginal	47	<1	47 +/-
8	Paper Mill Site	Channel-side	Marginal	80	0	80

Based upon its evaluation of alternatives, the Port determined that a dual-use slip at the OGMT site is the preferred alternative. The evidence demonstrates that a dual-use slip at OGMT Site has the fewest impacts to water resources (approximately 31 acres of Bay dredging and fill impacts and less than 1 acre of wetland impacts) of any of the sites considered. The Port reasonably rejected the channel side berth configuration at the OGMT site because it would involve dredging twice as large an area in Coos Bay than the slip in addition to failing to meet certain safety and engineering criteria. Specifically, channel side berths would involve dredging approximately 67 acres for channel side berths, as opposed to 31 acres for a dual-use slip and would involve a total of 71 acres of aquatic impacts due to additional fill required behind the bulkhead (see Moffatt & Nichol Memorandum (Dec. 5, 2011), at pp. 7-8, 11).

The OGMT site is of sufficient size, with an adjacent upland area of over 175 acres, and is over 1.1 mile from the nearest residence. No additional dredging of the navigation channel would be required for development of this site, and the site would minimize turbidity in Coos Bay during construction and maintenance because the sediments in that area are typically courser (see Joint Permit Application (Nov. 15, 2010), Attachment 2, at Section 2; Revised Joint Permit Application (July 15, 2011), Tab L (Moffatt & Nichol Report on Turbidity Due to

<sup>3</sup> OGMT means the Oregon Gateway Marine Terminal

<sup>4</sup> The 31 acre total is for the access channel and includes 12.9 acres of mudflat and eelgrass impact. The remaining 18.2 acre portion of the 31 acres is subtidal impact. The Department is only requiring compensatory mitigation for the 12.9 acres of mudflat and eelgrass impact and the <1 acre of non-tidal wetland impact. Dredging in deepwater is not likely to cause adverse impacts (effects) if Best Management Practices (BMPs) are followed (as required by DSL); it simply creates deeper water.

Dredging), at p. 26). Reduced dredging and lower turbidity will result in fewer impacts to water resources.

The Port also evaluated the North Bay Marine Industrial Park (also referred to as the Port Industrial Park), located downstream of the above mentioned bridges, and reasonably rejected this site for several reasons. First, a portion of the site is unavailable because it is leased, and the remainder of the site is not large enough to accommodate a dual-use slip with sufficient adjacent upland area for offloading cargo. Second, although the site could feasibly accommodate channel side berths, that alternative would have greater overall impacts to water resources than the preferred alternative (76 acres of Bay dredging, as compared to 31 acres for the preferred alternative). Finally, with regard to the potential use by LNG carriers, the Federal Energy Regulatory Commission and US Coast Guard require that LNG carriers not be berthed adjacent to the navigation channel to avoid the possibility of allision with other vessels.

The Weyerhaeuser Paper Mill Site (also known as the Linerboard Site) was evaluated and rejected as only marginally feasible because it is too close to the railroad bridge, the upland site is too small, and it would impact environmentally sensitive areas of Jordan Cove that are designated as Natural Aquatic in the Coos County Comprehensive Plan. Further, the Paper Mill Site would involve greater overall impacts to water resources than the preferred alternative, whether configured as a dual-use slip (47 acres of Bay dredging) or as channel side berths (77 acres of Bay dredging and 3 acres of in-water fill).

The Port evaluated the Roseburg Forest Products Co. site and determined that the site was not reasonably available because the portion of the site not currently used by the owner is too small to accommodate the slip and upland uses. Finally, the Henderson Marsh Site was evaluated and rejected because it would involve considerably more impacts to water resources in either potential configuration than the proposed alternative. A dual-use slip at Henderson Marsh would involve 28 acres of Bay dredging and 45 acres of wetland impacts, while channel side berths would involve 63 acres of Bay dredging and 19 acres of wetland impacts.

5. Whether the proposed fill or removal conforms to sound policies of conservation and would not interfere with public health or safety. ORS 196.825(2)(e); OAR 141-085-0565(4)(e).

The application and accompanying documentation show consideration of practicable alternatives and designs to minimize adverse effects to water resources. The proposed removal and fill incorporates appropriate protection of water resources and conservation measures for such resources, and proposes compensatory mitigation for unavoidable impacts. The project uses the design with the least impact to water resources that reasonably meets the project purpose. The project conforms to sound policies of conservation and has been designed so it does not interfere with public health or safety.

The safety criteria used for the project also ensure that it will not interfere with public health and safety. For example, the project is located outside the airport flight path and below the railroad bridge and the Highway 101 bridge to reduce the possibility of allisions with the bridge. Further, the project incorporates mitigation proposals that are consistent with the Removal-Fill Law.

6. Whether the proposed fill or removal is in conformance with existing public uses of the waters and with uses designated for adjacent land in an acknowledged comprehensive plan and land use regulation. ORS 196.825(2)(e); OAR 141-085-0565(4)(f).

The proposed removal and fill conforms with existing public uses of waters and to uses designated for adjacent lands. The project's potential effect on existing uses of the waters proposed for impact is minimal. The project will be created largely out of upland. The access channel has been designed to minimize interference with existing uses of waters in Coos Bay. Constructing the facility in a slip that is excavated from upland removes the ship at berth from existing navigable areas of the Bay, which decreases the impact on current and future recreation and commercial navigation uses of the Coos Bay Channel. Existing navigation, recreational or commercial, may continue in accordance with Coast Guard regulations and protocol.

The removal and fill is consistent with, and has no adverse impact on, the uses of the adjacent lands. The slip and adjacent upland activities will be isolated from adjacent upland with fencing, and existing and potential future industrial or other authorized activities on those lands will not be hindered. The local comprehensive plan and associated land use regulations designate adjacent lands for industrial uses or water dependent industrial uses. The proposed project would be in conformance with those uses of adjacent lands.

7. Whether the proposed removal and fill are compatible with the acknowledged comprehensive plan and land use regulations for the area where the proposed fill or removal is to take place or can be conditioned on a future local approval to meet this criterion. ORS 196.825(2)(f); OAR 141-085-0565(4)(g).

The project is compatible with the comprehensive plan and land use regulations. A conditional use permit has been approved by the county. The project has been approved by the City of Coos Bay (for the estuarine mitigation site) and Coos County (for the slip, access channel, disposal locations, and Isthmus Slough mitigation site). Local land use consistency is addressed by Land Use Compatibility Statements prepared by the County. The Land Use Compatibility Statement was prepared on April 14, 2011 by Staci Leep, Planner, Coos County.

The project is located in areas that are currently zoned for industrial uses or designated as available for water dependent industrial uses under the Coos Bay Estuary Management Plan.

8. Whether the proposed fill or removal is for stream bank protection. ORS 196.825(2)(h); OAR 141-085-0565(4)(h).

A small portion of the proposed fill is for streambank protection. The outer upstream corner of the slip, which is a small fraction of the entire project removal-fill quantities, will be riprapped to prevent erosion. This streambank protection element of the project would conform to requirements of the Removal-Fill Law and reflect best practices under the current state of the art.

9. Whether the Port has provided all practicable mitigation to reduce the adverse effects of the proposed fill or removal in the manner set forth in ORS 196.800 (ORS 196.825(2)(i); OAR 141-085-0565(4)(j)) and provided suitable estuarine resource replacement as set forth in ORS 196.830 (ORS 196.830(2) and (3)).

As required by statute and rule, the Port first attempted to design the project so as to avoid adverse impacts to water resources. Once all practicable avoidance had been accomplished, the Port next attempted to minimize any unavoidable impacts to water resources. After exhausting opportunities to minimize impacts, the Port considered rectifying unavoidable impacts by repairing, rehabilitating or restoring the affected environment. Next, the Port considered reducing or eliminating remaining impacts over time by preservation and maintenance operations during the life of the action by monitoring and taking appropriate corrective measures.

Finally, as to any unavoidable impacts that remained, the Port considered how to compensate for their effect by creating, restoring, enhancing or preserving substitute functions and values for the waters of this state (see Revised Joint Permit Application (July 15, 2011) Tab B). In these ways, the Port has provided all practicable mitigation to reduce adverse effects of the removal and fill on waters of the State.

The Port's consultants, David Evans and Associates, Inc. prepared the Oregon Gateway Marine Terminal Compensatory Wetland Mitigation Plan (October 2010 and revised in December 2011). Compensatory mitigation for the conversion of the 10.57 acres of mudflat to subtidal habitat is proposed to be off-site and in-kind, by restoring to tidal influence approximately 31.41 of former intertidal flat estuary habitat at the Kentuck Slough mitigation site (3:1 ratio for enhancement). To mitigate for approximately 2.43 acres of eelgrass impacts, the Port proposes to create approximately 7.3 acres of new eelgrass habitat due south of the west end of the Coos Bay-North Bend Airport runway (3:1 ratio upfront helps to ensure that the final ratio of 1:5:1 will be achieved).

Research performed Dr. Steve Rumrill with the South Slough National Estuary Research Reserve found that a successful establishment rate of no more than 40-60% can be expected for eelgrass. The proposed eelgrass mitigation site is owned and managed by the Department and separate proprietary authorizations will be required. Compensatory wetland mitigation of 0.15 acres (1.5:1 ratio for creation) is proposed at the Port Stockpile Site to be on-site and in-kind for the <0.1 acres of impact to non-tidal wetland. The ongoing success of the mitigation will be further ensured through the conditions of approval regarding success criteria, ongoing maintenance, and long-term management of the mitigation site (see Revised Joint Permit Application (July 15, 2011), Tab B; Memorandum from Sean Sullivan regarding the Department's Comments on CWM Plan (Dec. 5, 2011), at pp. 3-6).

The mitigation plan addressed the principle objectives for compensatory and tidal waters mitigation set forth at OAR 141-085-0680 (2). Functional assessments were performed by applying general ecological principals and sound science, also known as "Best Professional Judgment" or BPJ because there is currently no Department-approved or recommend functional assessment method for un-vegetated estuarine flats (mudflats) or eelgrass. The mitigation sites chosen are in close proximity to the impact sites thereby replacing local functions and values and each mitigation site is designed to be self-sustaining. The Port appropriately considered alternative mitigation sites and selected the sites most ecologically suitable for the proposed mitigation. The proposed mitigation also minimizes temporal loss, because the mitigation work will be conducted during the same time as project construction.

For the eelgrass site, the lost functions of the impact site are fish migration, rearing and feeding; cover for juvenile fish; primary production and food chain support; and waterfowl, shorebird, and invertebrate habitat. The existing functions at the mitigation site are similar

but lower because of a lack of eelgrass. Once the proposed mitigation is implemented, the functions on the eelgrass mitigation site will be the same as the impact site.

For the intertidal flats site, the lost functions of the impact site are fish migration, rearing and feeding; primary production and food chain support; waterfowl, shorebird, and invertebrate habitat. The functions of the existing mitigation site are limited fish migration, rearing and feeding; limited support of native plant communities; limited waterfowl habitat; and native amphibian support. Once the proposed mitigation is implemented, the functions of the intertidal mitigation site will be the same as the impact site, and the mitigation will also result in an important brackish water transition zone for out-migrating anadromous fish.

For the freshwater site, the lost functions of the impact site include very limited wildlife function, such as song bird and amphibian habitat; use as a fresh water source for mammals; and low species diversity native plant community support. The existing mitigation site is currently upland, although the adjacent wetland area provides similar functions as the impact site. Once mitigation is implemented, the functions of the freshwater palustrine emergent mitigation site will be the same as at the impact site, albeit with a higher level of function due to the increased size of the wetland and increased plant diversity.

10. As to those portions of the project that would involve removal/fill within intertidal or tidal marsh areas, the Department has also considered these factors that relate to estuarine resource replacement:

- a. The identified adverse impacts (on the estuary) of the proposed removal/fill. ORS 196.830(3)(a).

As noted above, the Department has identified and considered all reasonably expected adverse impacts of the proposed removal/fill within intertidal and tidal marsh areas.

- b. The availability of areas in which estuarine resource replacement activities could be performed. ORS 196.830(3)(b).

As noted above concerning mitigation, the Department has considered areas which could be used for compensatory mitigation (estuarine resource replacement) and concluded that the proposed areas meet all necessary requirements.

- c. The provisions of land use plans for the area adjacent to or surrounding the area of the proposed removal-fill. ORs 196,830(3)(c).

As noted above concerning land use consistency, the Department has considered the provisions of land use plans for adjacent and surrounding lands.

- d. The recommendations of any interested or affected state or local agencies. ORS 196.830(3)(d).

In reviewing the Port's proposals for compensatory mitigation (estuarine resource replacement), the Department consulted with the Oregon Department of Fish and Wildlife and other resource agencies, including the US Fish and Wildlife Service and the National Marine Fisheries Service.

- e. The extent of compensating activity inherent in the proposed activity. ORS 196.830(3)(e).

The selected slip alternative will be largely be constructed out of upland and converted to subtidal and deep water habitat. This upland part of the project is not regulated by the Department. However, the effect of this conversion of upland to subtidal deepwater habitat will be to create new estuarine waters of the state.

## Determinations

1. Does the project have independent utility<sup>5</sup>? OAR 141-085-0510(69).

Yes, the project has independent utility, which means the project “accomplishes its intended purposes without the need for additional phases or other projects requiring removal-fill activities.” The project is to construct a multi-berth, multipurpose deepwater marine cargo facility. Development of such a facility at Coos Bay is a state economic goal of high priority. (ORS 777.065). None of the proposed three berths will require additional removal-fill permits for their development, particularly since they are largely constructed out of uplands. Jordan Cove’s use of the facility, as currently proposed, would not need additional removal-fill permits, although to the extent its specific project is modified in a manner that required additional or materially different removal-fill activities at the site than those submitted by the Port in this application, the Port or Jordan Cove would need to apply for a new permit for such changes. Moreover, evidence in the record indicates that the Port’s project will move forward regardless of whether Jordan Cove proceeds with its project. Also, deepening (WRDA Section 203/204 Channel Deeping Project) of the Coos Bay Navigational Channel is not required for the multi-berth project to be viable. According to a document in the record prepared by BST Associates (7/14/2011) at page 4, a Panamax vessel can be handled at Coos Bay using tidal assistance but this can only occur in the Lower Bay. To summarize: evidence in the record indicates that the Port’s project has independent utility and will move forward regardless of whether Jordan Cove proceeds with its project.

2. Is the project consistent with the protection, conservation, and best uses of the water resources of this State?

Yes. The water resources of the State that would be affected by this proposed project are the waters of Coos Bay, submerged and submersible lands beneath the bay, and the plants, fish and wildlife associated with the bay, as well as non-tidal wetlands and the plants and wildlife associated with those wetlands. The application documents consideration of both practicable and non-practicable alternatives and designs to minimize adverse effects to water resources, and to mitigate for those adverse effects that are unavoidable. As previously stated under Considerations Part (4), the Port considered and documented in the application four alternative sites and several alternative designs for the proposed project. The record demonstrates that the selected project site and design is the practicable alternative with the least adverse effect to water resources and that it is consistent with the best uses of the waters of the state. The other practicable alternatives that are technically and commercially feasible that would accomplish the project purpose would result in greater impacts to water resources. The proposed project would result in a combined total of 31 acres of waterway impacts (Bay and wetland). Referring to Exhibit 1, Alternatives 2-4 would result in combined impact totals of 71, 73 and 82 acres respectively, and Alternatives 6-8

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<sup>5</sup> The policy purpose behind the “independent utility” requirement is to avoid issuing permits on a piecemeal basis, which prevents comprehensive review of all impacts to water resources.

would result in combined impact totals of 76, 47 and 80 acres respectively. Alternative 5 is not considered to be a viable option and Alternatives 7 and 8 are considered to be only marginally viable.

3. Does the project unreasonably interfere with the preservation of the State's waters for navigation, fishery, or public recreation?

No. Currently, the portion of Coos Bay that would be affected by the proposed project is used by the public for navigation (both smaller recreational boats and larger commercial ships), a recreational fishery for Coho and Chinook salmon, crabbing and recreation boating. The proposed project would temporarily exclude the public from these recreational and commercial uses in the project area during construction. The proposed project would also result in the permanent interference with recreational crabbing after the project is constructed because subtidal and intertidal habitat areas would be converted to deep water. The Department has determined that this level of interference is not unreasonable. The record demonstrates that the project will in fact facilitate navigation (by increasing the opportunities for larger commercial vessels to use Port facilities) and has been designed to minimize impacts on fishing and public recreation. As a result, the net effect on these public uses will be only mildly adverse. As set forth previously under Considerations Part (2), evidence in the record supports the finding that the project has the potential to create hundreds of jobs in Coos County which is economically depressed. The project is also likely to facilitate upland projects that have the potential for a net increase of millions of dollars in labor earnings. Given the other public benefits expected to result from the project the low level of interference with public use of the waters is permissible under the Removal-Fill Law.

## Conclusion

The Department has decided to issue a permit to the Port for the proposed multi-berth multipurpose marine cargo slip project, subject to conditions as specified in the permit document. Those conditions itemize how much fill and removal is authorized by this permit and imposes construction conditions, including turbidity standards, timing of in-water work, waterway isolation, dredge material disposal sites, prohibition of unauthorized filling, and protection measures for avoided wetlands. The Department also retains authority for the Department to temporarily halt or modify the project in case of unforeseen damage to natural resources and the Department retains the authority to modify conditions upon renewal, as appropriate, pursuant to the applicable rules in effect at the time of the request for renewal or to protect waters of this state.

The eelgrass mitigation site (intertidal/subtidal) conditions require as-built construction plans, planting plans, monitoring reports and long term protection. The Kentuck Mitigation Site (intertidal habitat) will require monitoring reports, tracking for advanced mitigation and long term protection. The non-tidal wetland mitigation site requirements include as-built plans and monitoring. All the mitigation sites will require either a long term protection plan (if publicly owned) or a deed restriction if privately owned. The Department believes that the permit, as conditioned, meets all requirements of statute and rule.

Louise Solliday, Director  
Oregon Department of State Lands

  
Signature

December 21, 2011  
Decision Date

Appeal rights: As per ORS 196.835, any person aggrieved or adversely affected by this decision may file a written request for hearing with the Department within 21 days after the date of this decision. If the Director of the Department finds that the person making the written request has a legally protected interest which is adversely affected by the grant of this permit, the director will set the matter for hearing within 30 days after receipt of the request. The hearing would be conducted as a contested case hearing before an administrative law judge.