

Department of State Lands
775 Summer Street, Suite 100
Salem, OR 97301-1279
☎ 503-986-5200

Permit No.:	<u>37712-RF Modified</u>
Permit Type:	<u>Removal/Fill</u>
Waterway:	<u>Coos Bay</u>
County:	<u>Coos</u>
Expiration Date:	<u>December 21, 2016</u>

OREGON INTERNATIONAL PORT OF COOS BAY

IS AUTHORIZED IN ACCORDANCE WITH ORS 196.800 TO 196.990 TO PERFORM THE OPERATIONS DESCRIBED IN THE ATTACHED COPY OF THE APPLICATION, SUBJECT TO THE SPECIAL CONDITIONS LISTED ON ATTACHMENT A AND TO THE FOLLOWING GENERAL CONDITIONS:

1. This permit does not authorize trespass on the lands of others. The permit holder shall obtain all necessary access permits or rights-of-way before entering lands owned by another.
2. This permit does not authorize any work that is not in compliance with local zoning or other local, state, or federal regulation pertaining to the operations authorized by this permit. The permit holder is responsible for obtaining the necessary approvals and permits before proceeding under this permit.
3. All work done under this permit must comply with Oregon Administrative Rules, Chapter 340; Standards of Quality for Public Waters of Oregon. Specific water quality provisions for this project are set forth on Attachment A.
4. Violations of the terms and conditions of this permit are subject to administrative and/or legal action, which may result in revocation of the permit or damages. The permit holder is responsible for the activities of all contractors or other operators involved in work done at the site or under this permit.
5. Employees of the Department of State Lands and all duly authorized representatives of the Director shall be permitted access to the project area at all reasonable times for the purpose of inspecting work performed under this permit.
6. Any permit holder who objects to the conditions of this permit may request a hearing from the Director, in writing, within twenty-one (21) calendar days of the date this permit was issued.
7. In issuing this permit, the Department of State Lands makes no representation regarding the quality or adequacy of the permitted project design, materials, construction, or maintenance, except to approve the project's design and materials, as set forth in the permit application, as satisfying the resource protection, scenic, safety, recreation, and public access requirements of ORS Chapters 196, 390, and related administrative rules.
8. Permittee shall defend and hold harmless the State of Oregon, and its officers, agents, and employees from any claim, suit, or action for property damage or personal injury or death arising out of the design, material, construction, or maintenance of the permitted improvements.
9. Authorization from the U.S. Army Corps of Engineers may also be required.

NOTICE: If removal is from state-owned submerged and submersible land, the applicant must comply with leasing and royalty provisions of ORS 274.530. If the project involves creation of new lands by filling on state-owned submerged or submersible lands, you must comply with ORS 274.905 to 274.940. This permit does not relieve the permittee of an obligation to secure appropriate leases from the Department of State Lands, to conduct activities on state-owned submerged or submersible lands. Failure to comply with these requirements may result in civil or criminal liability. For more information about these requirements, please contact the Department of State Lands, 503-986-5200.

Louise Solliday, Director
Oregon Department of State Lands


Authorized Signature

December 29, 2011
Date Issued

ATTACHMENT A

Permit Holder: Oregon International Port of Coos Bay

Project Name: Oregon Gateway Marine Terminal

Special Conditions for Removal/Fill Permit No. 37712-RF

READ AND BECOME FAMILIAR WITH CONDITIONS OF YOUR PERMIT.

The project site may be inspected by the Department of State Lands (DSL) as part of our monitoring program. DSL has the right to stop or modify the project at any time if you are not in compliance with these conditions. A copy of this permit shall be available at the work site whenever authorized operations are being conducted.

1. **Responsible Party:** By proceeding under this permit, Oregon International Port of Coos Bay agrees to comply with and fulfill all terms and conditions of this permit. Oregon International Port of Coos Bay is responsible for carrying out the terms and conditions of this permit unless the permit is officially transferred to another party as approved by DSL.
2. **Authorization to Conduct Removal and/or Fill:** The first phase of construction of the marine terminal is to be excavated in uplands, this includes the eastern berth, western berth, and tug berth, all of which will be constructed entirely in uplands and do not require authorization. This permit authorizes placing up to 8 concrete pilings (2 dolphins) and removing 1.75 million cubic yards of material to construct an access channel to the marine terminal in T25S R13W Section 8, Coos Bay, Coos County, placing dredge spoil in a less than 0.1 acre non-tidal wetland and constructing compensatory non-tidal wetland, mudflat and eelgrass mitigation, as described in the attached permit application, map and drawings. In the event information in the application conflicts with these permit conditions, the permit conditions prevail. No impacts are authorized to the Henderson Marsh wetlands as part of this project, these areas shall be protected as avoided wetlands.
3. **Work Period in Jurisdictional Areas:** Fill or removal activities below the highest measured tide line elevation of Coos Bay shall be conducted between October 1 and February 15, unless otherwise coordinated with Oregon Department of Fish and Wildlife and approved in writing by DSL.
4. **Method of Piling Placement:** Pilings must be placed by means of impact or vibratory methods or removed (to the extent regulated as material pursuant to OAR 141-085-0010(125)) by means of vibratory method only.
5. **Sound Reduction:** Sound reduction measures, such as vibration dampeners and bubble curtains, shall be used during piling installation.
6. **Creosote Prohibited:** There shall be no wood products treated with creosote or other leachable preservatives in the new structure.

7. **Authorization to Conduct Compensatory Mitigation:** This permit also authorizes removal and fill activities necessary to complete the required compensatory mitigation at the Port's freshwater mitigation site, the eelgrass mitigation site, and the Kentuck Golf Course intertidal mitigation sites.
8. **Changes to the Project or Inconsistent Requirements from Other Permits:** It is the permittee's responsibility to ensure that all state, federal and local permits are consistent and compatible with the final approved project plans and the project as executed. Any changes made in project design, implementation and/or operating conditions to comply with conditions imposed by other permits must be approved by DSL prior to implementation.
9. **DSL May Halt or Modify:** DSL retains the authority to temporarily halt or modify the project in case of unforeseen damage to natural resources.
10. **DSL May Modify Conditions Upon Permit Renewal:** DSL 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.

General Construction Conditions

11. **Water Quality Certification:** The Department of Environmental Quality (DEQ) may evaluate this project for a Clean Water Act Section 401 Water Quality Certification (WQC). If the evaluation results in issuance of a Section 401 WQC, that turbidity condition will govern any allowable turbidity exceedance and monitoring requirements.
12. **Erosion Control Methods:** The following erosion control measures (and others as appropriate) shall be installed prior to construction and maintained during and after construction as appropriate, to prevent erosion and minimize movement of soil into waters of this state.
 - a. All exposed soils shall be stabilized during and after construction in order to prevent erosion and sedimentation.
 - b. Filter bags, sediment fences, sediment traps or catch basins, leave strips or berms, or other measures shall be used to prevent movement of soil into waterways and wetlands.
 - c. To prevent erosion, use of compost berms, impervious materials or other equally effective methods, shall be used to protect soil stockpiled during rain events or when the stockpile site is not moved or reshaped for more than 48 hours.
 - d. Unless part of the authorized permanent fill, all construction access points through, and staging areas in, riparian and wetland areas shall use removable pads or mats to prevent soil compaction. However, in some wetland areas under dry summer conditions, this requirement may be waived upon approval by DSL. At project completion, disturbed areas with soil exposed by construction activities shall be stabilized by mulching and native vegetative plantings/seeding. Sterile grass may be used instead of native vegetation for temporary sediment control. If soils are to remain exposed more than seven days after completion of the permitted work, they shall be covered with erosion control pads, mats or similar erosion control devices until vegetative stabilization is installed.

- e. Where vegetation is used for erosion control on slopes steeper than 2:1, a tackified seed mulch shall be used so the seed does not wash away before germination and rooting.
- f. Dredged or other excavated material shall be placed on upland areas having stable slopes and shall be prevented from eroding back into waterways and wetlands.
- g. Erosion control measures shall be inspected and maintained as necessary to ensure their continued effectiveness until soils become stabilized.
- h. All erosion control structures shall be removed when the project is complete and soils are stabilized and vegetated.

13. **Hazardous, Toxic, and Waste Material Handling:** Petroleum products, chemicals, fresh cement, sandblasted material and chipped paint, wood treated with leachable preservatives or other deleterious waste materials shall not be allowed to enter waters of this state. Machinery refueling is to occur at least 150 feet from waters of this state and confined in a designated area to prevent spillage into waters of this state. Barges shall have containment system to effectively prevent petroleum products or other deleterious material from entering waters of this state. Project-related spills into waters of this state or onto land with a potential to enter waters of this state shall be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311.
14. **Federally Listed Endangered or Threatened Species:** When listed species are present, the authorization holder must comply with the Federal Endangered Species Act. If previously unknown listed species are encountered during construction, all construction activity shall immediately cease and the permit holder must contact DSL.
15. **Archaeological Resources:** If any archaeological resources and/or artifacts are encountered during construction, all construction activity shall immediately cease. The State Historic Preservation Office shall be contacted (phone: 503-986-0674).
16. **Hazards to Recreation, Navigation or Fishing:** The activity shall be timed so as not to interfere with or create a hazard to recreational or commercial navigation or fishing.
17. **Work Area Isolation:** The work area shall be isolated from the water during construction according to the Work Area Isolation Plan contained in the application. All structures and materials used to isolate the work area shall be removed immediately following construction and water flow returned to pre-construction conditions.
18. **Temporary Ground Disturbances:** All temporarily disturbed areas shall be returned to original ground contours at project completion, as proposed in the Site Restoration Plan in the application.
19. **Fish Passage Required:** The project shall meet Oregon Department of Fish and Wildlife requirements for fish passage.

Dredged Material Disposal (DMD) Site Conditions

- 20. **Jordan Cove Energy Project Stockpile Site:** Site is proposing to handle 0.5 million cubic yards of materials. No wetland impacts are authorized at this DMD site. The avoided wetlands on this DMD site shall be protected by silt fencing or other appropriate methods to prevent inadvertent impacts.
- 21. **Linerboard Stockpile Site:** Site is proposing to handle 1.8 million cubic yards of materials. No wetland impacts are authorized at this DMD site. The avoided wetlands on this DMD site shall be protected by silt fencing or other appropriate methods to prevent inadvertent impacts.
- 22. **Port Stockpile Site:** Site is proposing to handle 3.3 million cubic yards of materials, including 4700 cubic yards of fill in 0.1 acres of PEM wetland. On-Site mitigation is proposed creating 0.15 acres of wetland. No additional wetland impacts are authorized as part of this DMD site. The avoided wetlands on this DMD site shall be protected by silt fencing or other appropriate methods to prevent inadvertent impacts.

Compensatory Wetland Mitigation

The following conditions apply to the compensatory wetland mitigation actions proposed in the application Mitigation Plan dated December 2011.

The following conditions apply to the Freshwater Mitigation Acreage:

- 23. **Freshwater Mitigation Acreage and Type of Compensatory Mitigation:** Mitigation shall be conducted according to the acreages and methods described in the table below.

Acres	Cowardin/HGM Class	Method
Authorized Impacts		
0.1	Palustrine emergent Depressional/closed permanent (HGM)	
Required Mitigation		
0.15	Palustrine emergent Depressional/closed permanent (HGM)	creation

- 24. **Freshwater Mitigation Site Location:** Mitigation shall be conducted on-site. The center-point of the mitigation site is 43.4055, -124.2876. The current legal description is Township 25S, Range 13W, Section 18, Tax Lot 102 & 200 as shown on Figures 1 and 4 of the mitigation plan.
- 25. **Timing of Mitigation Site Grading:** Mitigation site grading shall be completed prior to or within the same construction season as the commencement of the wetland fill activity.
- 26. **Signs Required:** Signs shall be posted around the mitigation site perimeter stating that the area behind the sign is a protected wetland mitigation site.

27. **Long-term Maintenance Required (see OAR 141-085-0705(1)(j)):** Long-term site maintenance will be provided by Oregon International Port of Coos Bay unless or until transferred according to OAR 141-085-0585 (8). A long term management plan (i.e., beyond the initial performance monitoring period) acceptable to DSL shall be prepared and approved by DSL prior to the initiation of any work.

The following conditions apply to the Eelgrass Mitigation Acreage:

28. **Eelgrass Mitigation Acreage and Type of Compensatory Mitigation:** Mitigation shall be conducted according to the acreages and methods described in the table below.

Acres	Cowardin/HGM Class	Method
Authorized Impacts		
2.43	Estuarine unconsolidated shore Estuarine fringe embayment (HGM)	
Required Mitigation		
7.3	Estuarine unconsolidated shore Estuarine fringe embayment (HGM)	restoration

29. **Eelgrass Mitigation Site Location:** Mitigation shall be conducted off-site across the bay from the impacts. The center-point of the mitigation site is 43.4104, -124.2636. The current legal description is Township 25S, Range 13W, Section 08 as shown on Figures 1 and 2 of the mitigation plan.

30. **Timing of Mitigation Site Grading:** Mitigation site grading shall be completed prior to or within the same construction season as the commencement of the in-bay dredging activities.

31. **Work Period in Jurisdictional Areas:** Fill or removal activities below the highest measured tide line elevation of Coos Bay shall be conducted between October 1 and February 15, unless otherwise coordinated with Oregon Department of Fish and Wildlife and approved in writing by DSL.

32. **Signs Required:** Floating signs or buoys shall be posted around the mitigation site perimeter stating that the area behind the sign is a protected eelgrass mitigation site, no anchoring.

33. **Long-term Protection of the Eelgrass Mitigation Site - Conservation Easement:** The mitigation site shall be protected in perpetuity by conveying an approved Conservation Easement to a qualifying party pursuant to ORS Chapter 271. There shall be no wetland impacts until the approved Easement is recorded with Coos County. A copy of the recorded easement must be sent to the Department with the post-construction report. A long term management plan (i.e., beyond the initial performance monitoring period) acceptable to DSL shall be prepared and approved by DSL prior to the initiation of any work.

The following conditions apply to the Intertidal and Advance Mitigation Acreage:

34. Intertidal and Advance Mitigation Acreage and Type of Compensatory Mitigation:

Mitigation shall be conducted according to the acreages and methods described in the table below.

Acres	Cowardin/HGM Class	Method
Authorized Impacts		
10.47	Estuarine unconsolidated shore Estuarine fringe embayment (HGM)	
0.59	Palustrine emergent Flats (HGM)	
Required Mitigation		
33.18	Estuarine unconsolidated shore Estuarine fringe embayment (HGM)	enhancement
Advance Mitigation		
10.42	Estuarine unconsolidated shore Estuarine fringe embayment (HGM)	enhancement

35. Intertidal and Advance Mitigation Site Location: Mitigation shall be conducted off-site. The center-point of the mitigation site is 43.4235, -124.1836. The current legal description is Township 25S, Range 13W, Section 1D Tax Lot 400, and Section 12A Tax Lot 100 as shown on Figures 1 and 3 of the mitigation plan.

36. Timing of Mitigation Site Grading: Mitigation site grading shall be completed prior to or within the same construction season as the commencement of the in bay dredging activities.

37. Work Period in Jurisdictional Areas: Estuary fill or removal activities below the highest measured tide line elevation of Coos Bay shall be conducted between October 1 and February 15, unless otherwise coordinated with Oregon Department of Fish and Wildlife and approved in writing by DSL.

38. Work Period in Jurisdictional Areas: Fill or removal activities in Kentucky Slough and within the boundaries of the mitigation site shall be conducted between July 1 and September 15 prior to connection with the estuary, unless otherwise coordinated with Oregon Department of Fish and Wildlife and approved in writing by DSL.

39. Signs Required: Signs shall be posted around the mitigation site perimeter stating that the area behind the sign is a protected wetland mitigation site.

40. **Long-term Protection of the Mitigation Site (privately owned site) - Deed Restriction:** The mitigation site shall be protected in perpetuity by recording the Deed Restrictions approved by the Department. There shall be no wetland impacts until the approved Deed Restrictions are recorded with Coos County. A copy of the recorded instrument must be sent to the Department with the post-construction report. The deed restriction is in lieu of public ownership of the mitigation site. If the Port of Coos Bay provides proof of ownership prior to commencement of the project, a deed restriction is no longer required and a long term management plan will replace the deed restriction and provide administrative protection for the site, See Condition 41). A long term management plan (i.e., beyond the initial performance monitoring period) acceptable to DSL shall be prepared and approved by DSL prior to the initiation of any work.
41. **Publicly Owned Mitigation Sites - Administrative Protection:** For publicly owned mitigation sites, administrative protection shall be provided through an adopted management plan. The long term management plan shall provide appropriate protection of the mitigation site in perpetuity.
42. **Long-term Maintenance Required (see OAR 141-085-0705(1)(j)):** Long-term site maintenance will be provided by Oregon International Port of Coos Bay unless or until transferred according to OAR 141-085-0585 (8).
43. **Advance Mitigation Credits:** The Oregon International Port of Coos Bay proposes enhancing an additional 10.42 acres of estuarine high marsh habitat which could generate 3.47 acre-credits of advance mitigation credit. These credits may only be used for future impacts where the Port of Coos Bay or Veresen, Inc. (or any of its affiliates) are the applicant for a permit and may not be sold on the open market. Future applications proposing use of the advance mitigation credit must comply with all applicable DSL statutes and administrative rules relating to the removal-fill program at the time of application. Future applications should identify the specific area within the mitigation area that will be used to compensate for each permitted impact, and these areas should be clearly and permanently marked on the ground.

Monitoring and Reporting Requirements

44. **Post-Construction Report Required:** A post-construction report demonstrating as-built conditions and discussing any variation from the approved plan shall be provided to the Department within 90 days of mitigation site grading for each of the three mitigation projects. The post-construction report shall include:
- a. A scaled drawing, accurate to 1-foot elevation, showing the finished contours of the mitigation site.
 - b. A narrative that describes any deviation from the approved mitigation plan.
 - c. A copy of the recorded deed restriction or conservation easement.

- 45. Term of Monitoring; Annual Monitoring Reports Required:** The permittee shall monitor the mitigation sites to determine whether the mitigation site is meeting performance standards for a minimum period of 5 growing seasons after completion of all the initial plantings, except for the eelgrass mitigation area which will be monitored for ten years. Annual monitoring reports are required for each of the three mitigation projects. Reports should clearly separate information for advance mitigation areas that are unassigned as compensatory mitigation for any permit. Permits that authorize the use of advance mitigation credits prior to final determination of success by the Department will require additional monitoring and financial security under the future permit conditions. For advance mitigation credits proposed for use after the monitoring period has ended, future applications must provide a current year monitoring report to show that the proposed mitigation area continues to meet the performance standards established in this permit.
- 46. Annual Monitoring Report Due Date:** Annual monitoring reports are due by December 31 of each year for each of the three mitigation projects.
- 47. Extension of the Monitoring Period:** The monitoring period may be extended for any of the three mitigation projects, at the discretion of the Department, for failure to provide monitoring reports, failure of the mitigation site to meet performance standards for two consecutive years or when needed to evaluate re-planting or other corrective or remedial actions.
- 48. Release of Mitigation Obligation:** Mitigation monitoring is required until DSL has officially released the site from further monitoring.
- 49. Failure to Submit Monitoring Reports:** Failure to submit the required monitoring report by the due date may result in an extension of the monitoring period and/or enforcement action.
- 50. Contents of the Annual Monitoring Report:** The annual monitoring report shall include the following information:
- a. Completed Monitoring Report Cover Sheet, which includes permit number, permit holder name, monitoring date, report year, performance standards, and a determination of whether the site is meeting performance standards.
 - b. Impact and mitigation site location map(s).
 - c. A brief narrative that describes maintenance activities and recommendations to meet success criteria.
 - d. Mitigation site map showing permanent plot locations that correspond to the data collected and fixed photo-points.
 - e. Data collected to support the conclusions related to the status of the site relative to the performance standards listed in this permit (include summary/analysis in the report and raw data in the appendix).
 - f. Photos from fixed photo points (include in the appendix).
 - g. Other information necessary or required to document compliance with the performance standards listed in this permit.
 - h. A post-construction functional assessment by the end of the monitoring period.

51. **Corrective Action May be Required:** The Department retains the authority require corrective action in the event the performance standards are not accomplished at any time within the monitoring period.

Performance Standards

To be deemed successful, the freshwater mitigation area shall meet the following performance standards, as determined by DSL:

52. **Establishment of Permanent Monitoring Locations Required:** Permanent plot locations must be established during the first annual monitoring in sufficient number and locations to be representative of the site. The permanent plot locations must be clearly marked on the ground.
53. **Wetland Acreage Required:** The CWM site will have a minimum of 0.15 acres of palustrine emergent, depression/closed permanent (HGM) wetland as determined by a wetland delineation, as specified by the Department, during spring of a year when precipitation has been near normal, vegetation has been established, and irrigation has been removed for at least two years.
54. **Native Species Cover:** The cover of native species, as defined in the USDA Plants Database, in the herbaceous stratum is at least 60%.
55. **Invasive Species Cover:** The cover of invasive species is no more than 10%. A plant species should automatically be labeled as invasive if it appears on the current Oregon Department of Agriculture noxious weed list, plus known problem species including *Phalaris arundinacea*, *Mentha pulegium*, *Holcus lanatus*, *Anthoxanthum odoratum*, and the last crop plant if it is non-native. Non-native plants should be labeled as such if they are listed as non-native on the USDA Plants Database. Beginning in Year 2 of monitoring, DSL will consider a non-native plant species invasive if it comprises more than 15% cover in 10% or more of the sample plots in any habitat class, and increases in cover or frequency from the previous monitoring period. Plants that meet this definition will be considered invasive for all successive years of monitoring.
56. **Bare Substrate Cover:** Bare substrate represents no more than 20% cover.
57. **Species Diversity:** By Year 3 and thereafter, there are at least 6 different native species. To qualify, a species must have at least 5% average cover in the habitat class, and occur in at least 10% of the plots sampled.
58. **Prevalence Index:** Prevalence Index is <3.0.

To be deemed successful, the Eelgrass mitigation area shall meet the following performance standards, as determined by DSL:

59. **Establishment of Monitoring Locations Required:** Transect locations must be established during the first annual monitoring in sufficient number and locations to be representative of the site. The transect locations must be clearly marked on the maps and drawings used in the monitoring reports.
60. **Eelgrass Acreage and Density Required:** The CWM site will have established a minimum of 7.3 acres of eelgrass beds whereby a minimum of 2.43 of these acres will be medium to high density eelgrass beds and the remainder of the 7.3 acres within the re-contoured area would classify as low density eelgrass beds as documented by annual monitoring. Density classes are defined as follows: less than 10% cover equals an absence of eelgrass bed, low density equals approximately 10% to 39% cover, medium to high density equals approximately 40% or greater.
61. **Transplanting from Donor Sites:** Transplanting of native eelgrass plants from donor beds to the mitigation site is authorized under the following conditions: Plants may be collected from identified donor beds with medium to high density (>40% cover) of native eelgrass. A grid collection pattern will be used with >1 meter spacing between collection areas. No more than 10% of the area of each bed will be harvested, and harvest is limited to areas with medium to high density (>40% cover) native eelgrass. Monitoring the donor sites along established transects will be provided for a minimum of 3 years after collection and results included in annual reports. Eelgrass cover in donor sites will be at least 40% cover by the third year after harvest.
62. **Invasive Species Cover:** The cover of non-native eelgrass species (*Z. japonica*) shall be no more than 15% for the duration of the monitoring period.

To be deemed successful, the Intertidal and advanced mitigation area shall meet the following performance standards, as determined by DSL:

63. **Mudflat/Low Marsh Acreage Required:** Construct a new bridge in East Bay Drive to allow tidal exchange between Kentuck Inlet and the "back nine" of Kentuck Golf Course to reestablish tidal flow to approximately 33.18 acres (required mitigation). The bridge shall be constructed as designed and presented in the application. This action has the potential to enhance 10.42 acres that is proposed for advance mitigation. Advance mitigation areas are expected to consist of mudflat with the potential for high marsh along higher elevations.
64. **Channels:** Modified or newly constructed channels within the mitigation site will be meandering as much as possible to avoid fish entrapment. Success will be determined through review by an Oregon Department of Fish and Wildlife fish biologist.
65. **Establishment of Monitoring Locations Required (Vegetated Areas):** Transect locations must be established during the first annual monitoring in sufficient number and locations to be representative of the site. The transect locations must be clearly marked on the maps and drawings used in the monitoring reports.

66. **Invasive Species Cover:** The cover of invasive species in all mitigation areas is no more than 10%, except *Spartina* species which have a zero tolerance. A plant species should automatically be labeled as invasive if it appears on the current Oregon Department of Agriculture noxious weed list, plus known problem species including *Phalaris arundinacea*, *Mentha pulegium*, *Holcus lanatus*, *Anthoxanthum odoratum*, and the last crop plant if it is non-native. Non-native plants should be labeled as such if they are listed as non-native on the USDA Plants Database. Beginning in Year 2 of monitoring, DSL will consider a non-native plant species invasive if it comprises more than 15% cover in 10% or more of the sample plots in any habitat class, and increases in cover or frequency from the previous monitoring period. Plants that meet this definition will be considered invasive for all successive years of monitoring.
67. **Vegetation Habitat Mapping Required (Advance Mitigation):** Vegetation communities in the advance mitigation area will be mapped in annual reports. This map should distinguish mudflat (unvegetated), low marsh, and high marsh habitats.
68. **Special Vegetation Standards in High Marsh Habitats:** The density of woody vegetation in high marsh habitats is at least 1,600 native plants (shrubs) and/or stems (trees) per acre, OR the cover of is at least 50% by year 5 of monitoring. Native species volunteering on the site may be included, dead plants do not count. After the overstory has reached 50% cover, the cover of invasive species may exceed 10%, but may not exceed 30% cover.
69. **Construction Criteria:** Construct a new cross dike between the front and back nine, with a standard tidegate to drain the front nine to the back nine; construct the tidegate array through the Kentuck Slough dike allowing the majority of the flow from Kentuck Slough to enter the back nine. Success will be determined through review of the tidegate array by an Oregon Department of Fish and Wildlife fish biologist. The dike shall be constructed as proposed and the tidegates will function as designed or modifications will be required.
70. **Dike Maintenance/Repair Criteria:** Dike repair and maintenance of approximately 2,250 linear feet of existing dike between Kentuck Slough and Kentuck Golf Course. No additional wetland impacts are requested or authorized as part of the dike maintenance.

Modified: December 29, 2011



**US Army Corps
of Engineers (Portland District)**

Joint Permit Application Form

RECEIVED

DEC 16 2011



DEPARTMENT OF STATE LANDS
DATE STAMP

AGENCIES WILL ASSIGN NUMBERS

Corps Action ID Number

Oregon Department of State Lands No

SEND ONE SIGNED COPY OF YOUR APPLICATION TO EACH AGENCY

US Army Corps of Engineers:
District Engineer
ATTN: CENWP-OD-GPPO
Box 2946
Portland, OR 97208-2946
503-808-4373

AND

DSL - West of the Cascades:
State of Oregon
Department of State Lands
775 Summer Street, Suite 100
Salem, OR 97301-1279
503-986-5200

OR

DSL - East of the Cascades:
State of Oregon
Department of State Lands
1645 NE Forbes Road, Suite
112
Bend, Oregon 97701
541-388-6112

AND

Send DSL Application Fees to:
State of Oregon
Department of State Lands
PO Box 4395, Unit 18
Portland, OR 97208-4395
(Attach a copy of the first page of the application)

(1) APPLICANT INFORMATION

Applicant Name and Address	Oregon International Port of Coos Bay Attn: David Koch Chief Operating Officer PO BOX 1215 Coos Bay, OR 97420	Business Phone # Home Phone # Fax # Email	541.267.7678 541.269.1475
Authorized Agent Name and Address	Kim Geist David Evans and Assoc. 2100 SW River Parkway Portland, OR 97201	Business Phone # Home Phone # Fax # Email	503.223.6663 503.223.2701 ksp@deainc.com
Property Owner Name and Address	Below MLLW, site is owned by DSL 775 Summer Street NE Salem, OR 97301	Business Phone # Home Phone # Fax # Email	503.378.3805 503.378.4844

Check one
 Consultant
 Contractor

(2) PROJECT LOCATION

Street, Road or Other Descriptive Location		Legal Description (attach <i>tax lot map</i> *)			
South of Transpacific Parkway; West of Jordan Cove Road		Township	Range	Section	Quarter/Quarter
		25S	13W	8	NW
In or near (City or Town)	County	Tax Map #		Tax Lot # ²	
North Bend	Coos				
Wetland/Waterway (pick one)	River Mile (if known)	Latitude (in DD.DDDD format)		Longitude (in DD.DDDD format)	
Coos Bay	7.5	43.425346		124.16767	
Directions to the site	Highway 101 South to Transpacific Parkway				

¹ If applicant is not the property owner, permission to conduct the work must be attached.

² Attach a copy of all tax maps with the project area highlighted.

• *Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corps.*

(3) PROPOSED PROJECT INFORMATION

Type: Fill Excavation (removal) In-Water Structure Maintain/Repair an Existing Structure

Brief Description: Construct new multi-user slip, docks, and access channel.

Fill

Riprap Rock Gravel Organics Sand Silt Clay Other:

Wetlands	Permanent (cy)	Temporary (cy)						Total cubic yards for project (including outside OHW/wetlands)	5.6 million cy
	4700	0							
Waters below OHW	Permanent (cy)	Temporary (cy)						Total cubic yards for project (including outside OHW/wetlands)	
	0	0							
Impact Area in Acres		Dimensions (feet)							
0.10		L'	65	W'	65	H'	50		
Impact Area in Acres		Dimensions (feet)							
<1		L'	Varies	W'	Varies	H'	Varies		

Removal

Wetlands	Permanent (cy)	Temporary (cy)						Total cubic yards for project (including outside OHW/wetlands)	5.6 million cy
	0	0							
Waters below OHW	Permanent (cy)	Temporary (cy)						Total cubic yards for project (including outside OHW/wetlands)	
	1.75 million	0							
Impact Area in Acres		Dimensions (feet)							
31		L'	700	W'	00-2000	H'	Up to 48		

Total acres of construction related ground disturbance (If 1 acre or more a 1200-C permit may be required from DEQ)

Is the disposal area upland? Yes No Impervious surface created? 0<1 acre 0>1 acre?

Are you aware of any state or federally listed species on the project site?
 Are you aware of any Cultural/Historic Resources on the project site?
 Is the project site within a national Wild & Scenic River?
 Is the project site within a State Scenic State Scenic Waterway?*

Yes	No
X	
	X
	X
	X

If yes, please explain in the project description (in block 4)

Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corps.

(4) PROPOSED PROJECT PURPOSE AND DESCRIPTION

Purpose and Need:

Provide a description of the public, social, economic, or environmental benefits of the project along with any supporting formal actions of a public body (e.g. city or county government), as appropriate.*

Please see attached Purpose and Need Statement and Tab Q.

Project Description:

Please describe in detail the proposed removal and fill activities, including the following information:

- Volumes and acreages of all fill and removal activities in waterway or wetland separately
- Permanent and temporary impacts
- Types of materials (e.g., gravel, silt, clay, etc.)
- How the project will be accomplished (i.e., describe construction methods, equipment, site access)
- Describe any changes that the project may make to the hydraulic and hydrologic characteristics (e.g., general direction of stream and surface water flow, estimated winter and summer flow volumes.) of the waters of the state, and an explanation of measures taken to avoid or minimize any adverse effects of those changes.
- Is any of the work already complete? Yes No If yes, please describe the completed work.

In addition, for fish habitat or wetland restoration or enhancement activities, complete the information requested in supplemental Fish Habitat or Wetland Restoration and Enhancement form.

Project Drawings

State the number of project drawing sheets included with this application:

4 project drawings and 6 drawings illustrating delineated wetlands, proposed impacts, and mitigation. Drawings are also provided in the Compensatory Wetland Mitigation Plan (Tab B).

A complete application must include a location map, site plan, cross-section drawings and recent aerial photo as follows and as applicable to the project:

- **Location map** (must be legible with street names)
 - Site plan including;
 - Entire project site and activity areas
 - Existing and proposed contours
 - Location of ordinary high water, wetland boundaries or other jurisdictional boundaries
 - Identification of temporary and permanent impact areas within waterways or wetlands
 - Map scale or dimensions and north arrow
 - Location of staging areas
 - Location of construction access
 - Location of cross section(s), as applicable
 - Location of mitigation area, if applicable
- **Cross section drawing(s)** including;
 - Existing and proposed elevations
 - Identification of temporary and permanent impact areas within waterways or wetlands
 - Ordinary high water and/or wetland boundary or other jurisdictional boundaries
 - Map scale or dimensions
- Recent Aerial photo (1:200, or if not available for your site, the highest resolution available)

Will any construction debris, runoff, etc., enter a wetland or waterway? Yes No

If yes, describe the type of discharge and show the discharge location on the site plan.

The Oregon International Port of Coos Bay (Port) is proposing to excavate an access channel and slip adjacent to the Coos Bay Navigation Channel; the slip may be used by a tugboat dock, a bulk cargo terminal, and a liquid bulk terminal. The Port is seeking a Section 10 RHA and Section 404 CWA permit from the U.S. Army Corps of Engineers (Corps) and a Removal Fill permit from the Oregon Department of State Lands (DSL) to dredge and maintain the access channel, connect the new slip to the access channel, and maintain the slip. The slip and terminals would be constructed on an approximately 120-acre upland site, located along the bay side of the North Spit of Coos Bay, Oregon, at approximately Coos Bay Navigation Channel Mile 7.5. This site, along with land acquired from Roseburg Lumber, will create a site of adequate size to accommodate both the slip and the terminals.

The proposed project includes marine facilities located adjacent to the proposed slip. The proposed slip would be excavated and dredged from existing upland. Most construction of the new slip and marine facilities would be conducted behind a berm that would isolate the construction area from the Coos Bay estuary.

An access channel would also be created to connect the slip and the bay and provide access to the federally maintained Coos Bay Navigation Channel. The slip and access channel would be dredged to a depth of -45 feet (ft.) North American Vertical Datum of 1988 (NAVD 88), with a two-foot overdredge allowance. After construction of the slip and marine facilities, the berm would be removed to connect the new slip with the access channel. The only construction activities planned within water after berm removal would be some minor dredging, installation of up to eight pilings (two 4-pile dolphins) and completion of riprap and bulkhead wall in the area where the berm was removed. The amount of material proposed to be excavated and dredged to create the new multi-user slip and access channel is approximately 5.67 million cubic yards (MMCY). Approximately 1.75 MMCY will be removed below

- *Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corps.*

Mean Higher High Water (MHHW) within waters of the State. The material would be disposed of at three proposed locations: the adjacent Weyerhaeuser Linerboard Mill site (upland), the liquid bulk terminal site (upland), and the Port Site -- a 68-acre property approximately 1.5 miles south of the proposed slip. Future maintenance dredging would be required to maintain navigational depths for deep draft vessels that call at the new marine terminal. Material dredged for maintenance would likely be disposed of at the U.S. Environmental Protection Agency (EPA) designated offshore Site "F".

See attached Map of Wetlands, Impacts, and Mitigation Areas for locations of terminals, slip, access channel, potential disposal sites, and mitigation.

A Biological Evaluation (BE) and Biological Assessment (BA) have been prepared to address the Corps and DSL's request for additional information on effects of the proposed project on sensitive fish and invertebrate species and their habitats within the project action area. Also included in the BE/BA is an assessment of the project effects on Essential Fish Habitat as required under the Magnuson-Stevens Act (MSA). Refer to the BE/BA for more details regarding construction methods and species impacts.

To minimize impacts on fisheries, reduce the total period of estuary turbidity, and to extend the time available for construction, the work will be done in two separate phases. The first phase (called the freshwater phase) will include only upland excavation and construction not subject to regulation under Section 10/404 or the Oregon Removal-Fill Statute because the work will not be in a jurisdictional wetland, water of the United States, or water of the State of Oregon. The second phase (saltwater phase) of work will be performed in waters of the United States and waters of the State and is subject to the requirements of Section 10/404 and the Removal-Fill Statute. This phasing is intended to allow year-round work on Phase 1 without being in contact with or causing an impact to the waters of Coos Bay.

Phase 2 will be constructed between October 15 and February 15 (consistent with the ODFW in-water work guidelines) when fisheries considerations allow in-water work.

The basic concept is to excavate the majority of the proposed slip area (at least 3.75 MMCY) and construct most of the in-water structures while maintaining a natural physical barrier between the slip and Coos Bay. Old Jordan Cove Road (now abandoned as a result of completion of the Transpacific Parkway) runs along the Coos Bay shoreline and will be kept intact to form the crest of the berm during the entire freshwater phase construction effort.

Once the freshwater phase activities have been completed, the existing berm, which would be approximately 40 feet wide at its crest, will be removed. This will connect the slip to Coos Bay. The saltwater phase work will include excavation/dredging of the berm and access channel (up to 1.85 MMCY) and in-water construction for facilities that will occupy the area of the berm. In-water work will occur during the preferred ODFW times, October 15 to February 15.

Contractor staging will occur north of the slip location in uplands (Figure 2). Access to the project area will be via existing gravel and paved roads. For further construction methods during each phase of the project, refer to the joint BE/BA. Below is a summary of impacts to waters of the state and US of the various parts of the project.

Dredging and Disposal

The access channel will be approximately 2000 feet wide at its connection to the navigation channel, tapering to about 700 feet wide at the slip; slopes of the access channel will be approximately 2.5 horizontal: 1.0 vertical. Dredging the access channel between the slip and the existing navigation channel will eliminate approximately 12.9 acres of inter tidal area (10.47 acres of mud flat and 2.43 acres of eelgrass bed). The attached Estuarine Mitigation Plan has been developed to compensate for these impacts. Including additional deep water area (below -15 Mean Lower Low Water; MLLW), a total of 31 acres will be dredged. Dredging will be completed primarily by hydraulic dredge operating from upland and a barge. In-water work south of the berm will be limited to pile driving. Isolation of the dredging and pile driving areas within the bay is not proposed due to several factors: 1) sand particles will settle quickly and cause significant turbidity, 2) the conservation measures listed in Section 5 below will ensure DEQ turbidity standards are maintained, and 3) work will be done during the in-water work period. Disposal will occur at one of the sites shown on Figure 1.

Disposal will occur only in upland areas: the Weyerhaeuser Linerboard Mill site (1.8 MMCY), located approximately 1.5 miles east of the project site, and the liquid bulk terminal site (0.5 MMCY), located approximately 0.5 miles north of the project site - *except* for approximately 0.1 acres of freshwater wetland impact at the Port Site (3.3 MMCY). The disposal site at the liquid bulk terminal site will be permanent and will be stabilized with native vegetation. The Weyerhaeuser site fill will also be permanent; development is expected to occur on top of the dredged material in the future. The sand storage at the Port site will be temporary; sand will be barged from this site at a rate of approximately 500,000 cy per year. Dredged material is also suitable for open water disposal at Site F, located offshore. If ocean disposal is used, no more than 0.5 million cubic yards will be placed at Site F. Additional information on the disposal is attached as Excavated and Dredged material Management Plan.

At the Port sand storage site, the sand will be processed as follows prior to shipment off site to an end user:

A front-end loader will excavate stockpiled sand and load into the feed hopper. Sand will be removed from the feed hopper by means of a screw conveyor that will be attached to the discharge cone of the feed hopper. The screw conveyor will discharge on to a belt conveyor that will transport the sand and discharge it onto a vibrating screen. The vibrating screen will be fitted with screens having a size opening of 3/8 inch in order to capture all oversize tramp material (greater than 3/8" in size). All man-made material will be removed from the oversize stockpile by hand and placed into a roll-off for disposition in a licensed landfill. The remaining natural material in the oversize stockpile will be removed by front-end loader to a location on the Port Site and ultimately used in the restoration of the Port Site once the stockpiled sand has been removed. The material passing the vibratory screen (-3/8 inch material) will drop into the feed box of the sand screw.

The sand screw performs three basic functions. Because sand screws are a wet process they are washers. Flowing water carries off silt and lightweight deleterious material leaving rinsed sand behind. Second they function as classifiers. They are typically used to sort sand particles from 100 mesh to 200 mesh. Finally, the sand screw removes excess water from the sand prior to its discharge from the sand screw. The water removed in this way is recycled back into the process.

The sand screw will discharge Sand Product on to the second belt conveyor that will transport it to the barge for shipment. The low density floating fraction containing the organic fractions (seeds, grasses, woody material) will be removed from the sand screw wash box by the internal skimmers in the sand screw and discharged into an adjacent organic debris pile.

The front end loader will remove this organic debris and load into the roll-off that contains the man-made debris for disposition in a licensed landfill.

Slip and berth facility construction

As noted above and in the construction plans, the vast majority of the slip (3.75 MMCY of the 5.6 MMCY) will be excavated and berth facilities constructed while separated from the bay by a berm (Figures 11 and 14). Approximately 74.9 acres of upland area will be excavated for the slip. No impacts to wetlands or waters will occur during this time. A maximum of eight pilings will have to be installed following removal of the berm.

Maintenance Dredging - Slip and Access Channel

Dredging to maintain the depth of the slip and access is anticipated every two to four years. Up to 350,000 cubic yards of silt and sand will be dredged, and disposed of at Site F if it is suitable for unconfined in-water disposal. Prior to each maintenance-dredging cycle, the material will be sampled and analyzed, per the Dredged Material Evaluation Framework, to determine whether it can be disposed of in Site F. See attached Sedimentation Study for information on how maintenance dredging needs were determined.

Tug Facility

The tug facility will be located on the northern edge of the slip (figures 4 and 8). This dock structure will be approximately 400 feet long by 12 feet wide, and supported by thirty-three (33) 18-inch concrete or steel pilings.

Liquid Bulk Terminal

This proposed facility (figures 4 and 6) will create approximately 15 acres of impervious surface. The dock will be supported by a vertical bulkhead, which will be installed with an impact or vibratory pile driver operating from behind the berm in the dry. No more than eight piles will be driven following removal of the berm.

Since submittal of the application for this project in April 2008, there has been a change in the design of the liquid bulk dock, which is now proposed to be constructed behind a vertical bulkhead rather than as a pile-supported structure. The change in design from piling to bulkhead results in the following benefits:

- Only eight piling instead of over 40 piling will be installed in-water, reducing potential acoustic impacts to aquatic life.
- Duration of in-water construction will be reduced
- Less predator habitat would be created compared to a dock on piling
- Dredging quantities are reduced by almost 200,000 cubic yards
- The applicant will be able to better manage the water intake filtering system to protect fish.

Impervious Area and Hydraulic Characteristics

Impervious surfaces of the tug facilities will be less than one acre; the liquid bulk terminal site impervious area is approximately 15 acres. Storm water from all areas that may be exposed to hydrocarbons will be treated for oils, grease, and solids prior to discharge to the waters of Coos Bay. Because discharge is to an estuary, subject to ocean water levels, the relatively small quantity of storm water discharged will create no change in hydraulic characteristics anticipated from this runoff.

Hydrologic Changes

The dredged and excavated slopes for the Oregon Gateway Marine Terminal will be primarily constructed on a 2.5:1 horizontal: vertical grade. The slopes will be armored at a grade of approximately 1.75 horizontal: 1.0 vertical. The riprap anticipated for this construction will have interlock strengths capable of maintaining this angle of repose. The purpose of the armoring is to ensure the slopes remain stable and to minimize the frequency of needed maintenance dredging by preventing sand from filling in the slip.

Hydrologic analysis indicates that the slip, which will be essentially perpendicular to the navigation channel, will have current velocities within it on the order of 0.1 to 0.2 m/s (See attached Sediment Sampling and Analysis Report). Because of its orientation relative to the bay, and the low velocities within the slip, this excavation is not anticipated to affect overall circulation in the bay, or overall sediment accumulation and deposition patterns. There may be some deposition of sandy silt material from upstream areas, but as calculated in the hydrologic study, quantities are expected to be relatively small – about 88,000 to 175,000 cy per year, and will be removed by maintenance dredging every 2 to 4 years. Moreover, the bathymetry near the proposed terminal area and adjoining locations are relatively stable, as demonstrated by recent hydrosurveys.

Public Health and Safety

The project has been designed to not interfere with public health or safety. The landside area will be fenced and posted with signs to prevent general public access and public interaction with industrial activities. Further, landside access to port facilities will be manned or electronically controlled.

The safety criteria used for the project also ensure that it will not interfere with public health and safety. The project's location outside the airport flight path and below the railroad bridge (to reduce the possibility of allusions with the bridge) will prevent interference with public health and safety. Liquid Bulk Terminal safety zone requirements will not preclude the use of the western berth and terminal for use as a bulk cargo facility (see Amergent Techs letter dated April 5, 2011).

Estimated project start date:

Summer, 2014

Estimated project completion date:

Winter, 2017

(5) PROJECT IMPACTS AND ALTERNATIVES

Alternatives Analysis:

Describe alternative sites and project designs that were considered to avoid or minimize impacts to the waterway or wetland. (Include alternative design(s) with less impact and reasons why the alternative(s) were not chosen. Reference OAR 141-085-0565 (1) through (6) for more information).*

Please see attached Alternatives Analysis.

Measures to Minimize Impacts

Describe what measures you will use (before and after construction) to minimize impacts to the waterway or wetland. These may include but are not limited to the following:

- *For projects with ground disturbance include an erosion control plan or description of other best management practices (BMP's) as appropriate. (For more information on erosion control practices see DEQ's Oregon Sediment and Erosion Control Manual)*
For work in waterways where fish or flowing water are likely to be present, discuss how the work area will be isolated from the flowing water.
- *If native migratory fish are present (or were historically present) and you are installing, replacing or abandoning a culvert or other potential obstruction to fish passage, complete and attach a statement of how the Fish Passage Requirements, set by the Oregon Department of Fish and Wildlife will be met.*

- *Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corps.*

Timing of Dredging Activities

- All in-water work associated with the proposed project, including initial dredging of the access channel, dredging of the multi-user slip (after berm removal), will be conducted during the approved in-water work period for Coos Bay (October 1 to February 15) to minimize potential impacts to fish species through the avoidance of vulnerable salmonid life stages and peak migration periods (ODFW 2000a).
- Excavation and dredging of the multi-user slip would be isolated from Coos Bay by an earthen berm and would not be subject to the ODFW in-water work window. The berm would be removed during the approved in-water work period (October 1 to February 15) to minimize effects of turbidity on sensitive fish and invertebrate resources.

Upland slip excavation erosion control measures

- Excavation of most of the material from the slip will be completed behind an existing berm.
- Disposal of material from the slip will be in three upland areas: Weyerhaeuser Linerboard Mill site, the Liquid Bulk Terminal Site, and the Port Stockpile Site; disposal sites will be stabilized using a seed mix to minimize windblown sand from being deposited on roads, upland habitats, and waterways. Erosion control plans for these upland sites are attached (see Tab M).
- Wetlands to the west of the proposed slip will be fenced with construction fencing to prevent equipment from entering and erosion control fencing to prevent any soils from being deposited in the wetland (see Tab M, including updated wetland s map).

Dredging

- Dredging of the access channel and multi-user slip would be performed primarily with a hydraulic pipeline dredge to minimize turbidity.
- If mechanical dredging is required in the bay, a close-lipped clamshell bucket will be used that completely seals around its edges to minimize the potential for entrainment of listed fish species and minimize turbidity and contaminant releases to the water column. Dredging during the freshwater phase would not require use of a close-lipped clamshell dredge since the work area would be isolated from the bay.
- The clamshell bucket shall be lowered and raised slowly through the water column to reduce potential for entrainment of fish species and minimize turbidity increases.
- No material collected in the bucket shall be allowed to return to the waterway.
- Any large man-made debris removed with the dredged material shall be transported to an appropriate disposal site.
- Dredging and GPS software will be utilized to model the dredge prism and track previously dredged areas to ensure that dredging efficiency is maximized.
- Dewatering of dredge material shall only be performed at a disposal site that is found to be acceptable by the appropriate federal, state, and local regulatory agencies.
- A post-dredge bathymetry survey will be conducted to ensure that only the material that was identified to be dredged was removed to the proper, authorized depth.

Disposal

- The dredged material will be handled in a manner consistent with local, state, and federal regulations. No significant reduction in quality or quantity of riparian habitat at a disposal site will occur.
- No in-water disposal or rehandling activities will occur in Coos Bay.
- Dredged material will be settled and de-watered in appropriately sized cells isolated from the bay; straw bales will be placed around the discharge pipe to help control turbidity and prevent erosion. Elutriate water from the dredged material will be retained in the water holding basin for a period sufficient to allow settling of suspended sediments and a reduction in turbidity. Primary and secondary settling ponds will be used to maximize elutriate infiltration.
- If maintenance dredge material is transported via barge to Site F, a bin-barge with one or multiple cells, or flat-deck barge with watertight sideboards will be used to enclose the dredged material, including sediment and water. No material shall be allowed to leak from the bins or overtop the walls. The barge will be loaded so that enough of the freeboard remains to allow for safe movement of the barge and its material on its planned route to the approved disposal facility.
- During construction of the containment berms at the Weyerhaeuser Linerboard Mill site and liquid bulk terminal site, material will be transported by truck; caution will be exercised so that material does not leak out of the trucks, slosh over the tops, or be blown off during transport.

In-water dredging turbidity minimization measures

- The Contractor will develop a turbidity monitoring and management plan (TMMP) that describes measures to reduce turbidity impacts resulting from dredging activities.
- Water quality monitoring will be performed during active in-water work operations in lower Coos Bay to ensure compliance with federal and state water quality standards. The contractor will implement measures to reduce water quality impacts, as directed by the Construction Inspector.
- If field-testing confirms exceedances of water quality criteria, then in-water work will cease until corrective actions are taken. Work may resume once water quality standards have been satisfied, as specified in the appropriate federal and state permits, as amended.
- Testing of the sediments to be dredged will be conducted in accordance with the DMEF prior to each maintenance dredging event.

Acoustic Disturbances

- The eight piles installed after berm removal will be installed with a vibratory hammer, to the extent practicable, to reduce acoustic impacts to fish and wildlife species.
- When impact drivers are necessary, the smallest feasible or practical driver and the minimum force necessary will be used to complete the job. A diesel hammer or a hydraulic impact hammer will be used, when necessary, and the drop height will be set to the minimum necessary to drive the piling.
- Any pile driving after the berm is removed will be conducted inside a bubble curtain. The diffuser for the bubble curtain will be held off the bottom of the slip to reduce turbidity from upwelling currents developed from the rising bubbles.

Slip Design

- The slopes of the north and west side of the slip will include a 28-foot wide bench at approximately -2 feet MLLW. This will provide approximately 1.4 acres of shallow water area for anadromous fish and benthic species. Approximately 2.3 acres of intertidal and shallow subtidal area will be included along the north and west side slopes.
- The spaces within the riprap bench will be filled with clean sand, potentially dredged from the slip or access channel, or other suitable granular material.
- All piling will be concrete or steel piling; no treated timbers will be used.
- The slip was re-designed to avoid direct impacts to Henderson Marsh, located to the west. A previous design included 0.24 acres and 5,800 CY of impacts to Henderson Marsh.
- A 50-foot buffer will be maintained between the slip and the east edge of Henderson Marsh.

Riprap Installation

- The contractor will use the smallest size riprap necessary to complete the project, as approved by the engineering contractor.
- Riprap will be composed of clean rock material free of fine material.
- A 24-inch deep layer of sand will be placed on top of rock rip rap along the north shoreline of the slip (intertidal bench) to provide some habitat for benthic species and migrating fish.

• *Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corps.*

Spill Prevention and Design

- The contractor will follow BMPs for in-water installation of green concrete during construction of the concrete slabs, abutments, or other pier structures.
- All equipment used will be clean and inspected daily prior to use to ensure that the equipment has no fluid leaks. Should a leak develop during use, the leaking equipment shall be shut down and not used again until it has been adequately repaired. At no time will any fuels or oils be allowed to enter any water body.
- Floating spill containment booms and absorbent booms will be maintained on site during all phases of construction to facilitate the cleanup in the case of accidental spills. Containment booms will be installed in instances where there is a potential for release of petroleum or other toxic substances. Absorbent booms will be deployed within the containment boom if sheen is observed.
- A spill prevention, control, and containment plan will be prepared and implemented. Location of vehicles, equipment and fuel storage areas, and fuel containment measures, will be approved and monitored by a designated Port Environmental Inspector.

Mitigation

- Proposed conservation and mitigation actions that would be implemented as part of the project to compensate for the loss of eelgrass and unvegetated mudflat habitat are expected to more than offset the losses incurred during project construction. Mitigation details are provided in the attached Compensatory Wetland Mitigation Plan.
- The applicant proposes to construct compensatory mitigation for the approximately 0.1 acres of freshwater wetland impact on-site at the Port Site to meet DSL mitigation requirements.

Description of resources in project area

Ocean Estuary River Lake Stream Freshwater Wetland

Describe the existing physical and biological characteristics of the wetland/waterway site by area and type of resource (Use separate sheets and photos, if necessary).

For wetlands, include, as applicable:

- *Cowardin and Hydrogeomorphic(HGM) wetland class(s)**
- *Dominant plant species by layer (herb, shrub, tree)**
- Whether the wetland is freshwater or tidal
- *Assessment of the functional attributes of the wetland to be impacted**
- Identify any vernal pools, bogs, fens, mature forested wetland, seasonal mudflats, or native wet prairies in or near the project area.)

For waterways, include a description of, as applicable:

- *Channel and bank conditions**
- *Type and condition of riparian vegetation**
- *Channel morphology (i.e., structure and shape)**
- *Stream substrate**
- Fish and wildlife (type, abundance, period of use, significance of site)
- *General hydrological conditions (e.g. stream flow, seasonal fluctuations)**

See attached Map of Wetlands, Impacts, and Mitigation Areas for a complete map of delineated wetlands within the project vicinity.

Estuarine Wetlands

The project reach of Coos Bay consists of a relatively narrow intertidal and shallow subtidal bench that drops off abruptly where it meets the adjacent main navigation channel. The project will impact intertidal and shallow subtidal estuarine resources along this narrow bench. Impacts will occur to approximately 10.47 unvegetated sand/mudflat, and 2.43 acres of eelgrass bed. Eelgrass beds occur as linear beds along estimated elevation contours of +1.0 to -1.0 meters Mean Lower Low Water (MLLW). The majority of the eelgrass beds are of medium to high density (i.e. at least 40 percent cover). Unvegetated sand/mudflat occurs in the shallowest areas.

The HGM class of wetlands to be impacted by the project is "estuarine fringe", which extends down to a depth of 2 meters or approximately mean daily lower tide. No HGM class is provided for resources below the 2-meter depth. Cowardin classes of site resources include estuarine, intertidal, unconsolidated shore, regularly flooded (E2USN), and estuarine, subtidal, unconsolidated bottom, subtidal (E1UBL).

Nontidal (Freshwater) Wetlands

The nontidal wetlands (also referred to as freshwater wetlands) at the Port Site are palustrine emergent (PEM). The HGM classification is depressional.

Currents are swift along the shoreline resulting in scour erosion through project section of the bay. Aquatic vegetation is limited in this section of the bay; however, the shoreline down to roughly -15 feet MLLW has been noted as an important feeding area for coho and chinook salmon, and for herring, anchovy, smelt, English sole and other flat fish (ODFW 1979).

Essential Fish Habitat

Coos Bay is designated as Essential Fish Habitat (EFH) for salmon. After careful analysis of the life histories and EFH requirements for those species that could potentially be impacted by the proposed project, the BE/BA concludes that the potential direct, indirect, and cumulative effects of the proposed project actions are "likely to adversely affect", in the short term, identified EFH for several Coastal Pelagic Species (CPS), West Coast Groundfish, and Pacific Salmon. The implementation of proposed conservation and mitigation measures would minimize short-term impacts and help ensure that there are no adverse long-term impacts to EFH for these species. No significant long-term effects to EFH were identified or anticipated.

• *Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corps.*

Describe the existing navigation, fishing and recreational use of the waterway or wetland.*

Coos Bay is used for commercial shipping (primarily timber products). Recreational boating, fishing and clamming also occur in the bay and along its shores; however, the beach area at the slip location is not highly used compared to other areas for clamming. Commercial fishermen operate out of Coos Bay; commercial oyster farming also occurs in the bay.

The shoreline at the proposed site is industrial property and access to this area is limited for safety reasons.

Site Restoration/Rehabilitation

- For temporary disturbance of soils and/or vegetation in waterways, wetlands or riparian areas, please discuss how you will restore the site after construction including any monitoring, if necessary*

The Port Site for the interim sand storage stockpile will be temporarily disturbed to accommodate 3.3 MMCY of sand and a sorting area. This area will be stabilized by European beach grass, which is the best method of stabilizing sands to prevent the material from becoming windblown onto adjacent properties.

Mitigation

Describe the reasonably expected adverse effects of the development of this project and how the effects will be mitigated.*

- For permanent impact to wetlands, complete and attach a Compensatory Wetland Mitigation (CWM) Plan. (See OAR 141-085-0705 for plan requirements)*
- For permanent impact to waters other than wetlands, complete and attach a Compensatory Mitigation (CM) plan (See OAR 141-085-0765 for plan requirements)*
- For permanent impact to estuarine wetlands, you must submit a CWM plan.*

Mitigation for loss of aquatic habitat is addressed in the attached Compensatory Wetland Mitigation Plan. Approximately 74.9 acres will be excavated for slip construction. The existing shoreline at the mouth of the slip is approximately 718 feet long. Upland vegetation along the shoreline consists of weedy herbaceous species and some scrub forest dominated by second growth shore pine and salal. These upland communities do not provide riparian functions (i.e. thermoregulation/shading, aquatic food chain support, etc.) to the Coos Bay system because they are too far from the water. Therefore no riparian mitigation is proposed for impacts to these communities.

The project will impact approximately 10.47 acres of unvegetated mudflat, and 2.43 acres of eelgrass beds. Mitigation for eelgrass will attempt to create a minimum of 7.3 acres of new eelgrass bed in the lower Coos Bay estuary. Mitigation for sand/mudflat is proposed to be off site and in-kind, by restoring approximately 31.41 acres that were previously removed from the estuary by diking; restoration would likely include removing tide gate(s) and/or break dikes that turned previously estuarine wetland into freshwater wetlands. Mitigation for the approximately 0.1 acres of freshwater impact at the Port stockpile site for the interim sand storage stockpile will occur on site and in-kind.

Mitigation Location Information (Fill out only when mitigation is proposed or required)

- | | | |
|---|--|---|
| Proposed mitigation (Check all that apply): | <input type="checkbox"/> Onsite Mitigation | Type of mitigation: |
| | <input checked="" type="checkbox"/> Offsite Mitigation | <input checked="" type="checkbox"/> Wetland Mitigation |
| | <input type="checkbox"/> Mitigation Bank | <input checked="" type="checkbox"/> Mitigation for impacts to other waters |
| | <input type="checkbox"/> Payment to Provide | <input type="checkbox"/> Mitigation for impacts to navigation, fishing, or recreation |

Street, Road or Other Descriptive Location	Legal Description (attach tax lot map*)			
Coos Bay North Bend Airport (eelgrass) and Kentuck Sough Golf Course (intertidal flats)	Quarter/Quarter	Section	Township	Range
	SE/SE -- Section 8		25 South	13 West

In or near (City or Town)	County	Tax Map #	Tax Lot # ³
Coos Bay	Coos County	# 25-13-8	# 100
Wetland/Waterway (pick one)	River Mile (if known)	Latitude (in DD.DDDD format)	Longitude (in DD.DDDD format)
Coos Bay	Approximate RM 9.5	43.4101	-124.2642
Name of waterway/watershed/HUC		Name of mitigation bank (if applicable)	
Coos Bay estuary/Coos Bay watershed/HUC #17100304		NA	

³ Attach a copy of all tax maps with the project area highlighted.
 • Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corps.

(6) ADDITIONAL INFORMATION

Adjoining Property Owners and Their Address and Phone Numbers (*if more than 5, attach printed labels**)

- Roseburg Forest Products, PO Box 426, North Bend, OR 97459 Attn: Bob Rodgers (541) 756-4307
- Weyerhaeuser Corp., PO Box 9777-CH1L30, Federal Way WA, 98063-9777 (253) 924-3774
 - State of Oregon - Oregon Department of State Lands, 775 Summer Street NE, Salem, OR 97301 Attn: Louise Solliday (503) 378-3805
 - Bureau of Land Management, 333 S.W. 1st. Avenue, Portland, OR 97204 (503) 808-6002
 - US Army Corps of Engineers, PO Box 2946, Portland OR 97208 (503) 808- 4377

Has the proposed activity or any related activity received the attention of the Corps of Engineers or the Department of State Lands in the past, e.g., wetland delineation, violation, permit, lease request, etc.?

Yes No

If yes, what identification number(s) were assigned by the respective agencies:

Corps #	2007-855	State of Oregon #	06-0366
---------	----------	-------------------	---------

Has a wetland delineation been completed for this site? Yes No

If yes by whom? * SHN Consulting Engineers (Henderson Marsh Eastern Boundary; Port Site) & David Evans and Associates, Inc. (Linerboard Site; Kentuck Mitigation Site)

Has the wetland delineation been approved by DSL or the COE? Yes No

*If yes, attach a concurrence letter. **

**(7) CITY/COUNTY PLANNING DEPARTMENT AFFIDAVIT
(TO BE COMPLETED BY LOCAL PLANNING OFFICIAL) ***

I have reviewed the project outlined in this application and have determined that:

- This project is not regulated by the comprehensive plan and land use regulations.
- This project is consistent with the comprehensive plan and land use regulations. *See Below
- This project will be consistent with the comprehensive plan and land use regulations when the following local approval(s) are obtained.
- Conditional Use Approval
- Development Permit
- Other

This project is not consistent with the comprehensive plan. Consistency requires a

- Plan Amendment
- Zone Change
- Other

An application has has not been filed for local approvals checked above.

Local planning official name. (print)	Signature	Title	City / County	Date
Staci Leep	<i>[Signature]</i>	Planner	Coos	4/13/11

Comments:

The project was reviewed Conditional use approval by Coos County. On Sept 23, 2009, The County approved an amendment/ Rezone and Conditional use application to allow native restoration at the Kentucky Site (see attached).

(8) COASTAL ZONE CERTIFICATION *

If the proposed activity described in your permit application is within the Oregon coastal zone, the following certification is required before your application can be processed. A public notice will be issued with the certification statement, which will be forwarded to the Oregon Department of Land Conservation and Development for its concurrence or objection. For additional information on the Oregon Coastal Zone Management Program, contact the department at 635 Capitol Street NE, Suite 150, Salem, Oregon 97301 or call 503-373-0050.

CERTIFICATION STATEMENT

I certify that, to the best of my knowledge and belief, the proposed activity described in this application complies with the approved Oregon Coastal Zone Management Program and will be completed in a manner consistent with the program.

Print /Type Name	Title
Applicant Signature	Date

* Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corps.

7) CITY/COUNTY PLANNING DEPARTMENT AFFIDAVIT (to be completed by local planning official) *

I have reviewed the project outlined in this application and have determined that:

- This project is not regulated by the comprehensive plan and land use regulations.
- This project is consistent with the comprehensive plan and land use regulations. A conditional use permit has been approved by the county
- This project will be consistent with the comprehensive plan and land use regulations when the following local approval(s) are obtained.
 - Conditional Use Approval Development Permit Other
- This project is not consistent with the comprehensive plan. Consistency requires a
 - Plan Amendment Zone Change Other

An application has has not been filed for local approvals checked above.

PATTY EVEREDEN Patty Evenden Title DIRECTOR City/County Date 6-1-09
 Local planning official name (print) Signature Title City/County Date

Comments: The project has been approved by the City of Coos Bay (estuarine mitigation site) and Coos County (slip, access channel, disposal locations, and Isthmus Slough mitigation site). Conditional use permit for the Port Site is pending with Coos County.

8) COASTAL ZONE CERTIFICATION *

If the proposed activity described in your permit application is within the Oregon coastal zone, the following certification is required before your application can be processed. A public notice will be issued with the certification statement, which will be forwarded to the Oregon Department of Land Conservation and Development for its concurrence or objection. For additional information on the Oregon Coastal Zone Management Program, contact the department at 635 Capitol Street NE, Suite 150, Salem, Oregon 97301 or call 503-373-0050.

CERTIFICATION STATEMENT

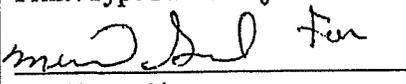
I certify that, to the best of my knowledge and belief, the proposed activity described in this application complies with the approved Oregon Coastal Zone Management Program and will be completed in a manner consistent with the program.

Jeffrey Bishop Executive Director
 Print / Type Name Title
[Signature] 6-1-2009
 Applicant Signature Date

9) SIGNATURES FOR JOINT APPLICATION

Application is hereby made for the activities described herein. I certify that I am familiar with the information contained in the application, and, to the best of my knowledge and belief, this information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. By signing this application I consent to allow Corps or Dept. of State Lands staff to enter into the above-described property to inspecting the project location and to determine compliance with an authorization, if granted. I hereby authorize the person identified in the authorized agent block below to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

I understand that the granting of other permits by local, county, state or federal agencies does not release me from the requirement of obtaining the permits requested before commencing the project. I understand that payment of the required state processing fee does not guarantee permit issuance. The fee for the state application must accompany the application for completeness. Amount enclosed \$1092 for review of 3 wetland delineations and \$50 for removal-fill permit. The Removal Fill permit fee is \$650; \$600 of which has already been submitted to the Department.

Jeffrey Bishop
 Print /Type Name

 Applicant Signature

Executive Director
 Title
6-1-2009
 Date

I certify that I may act as the duly authorized agent of the applicant.

Jeffrey Bishop
 Print /Type Name

 Authorized Agent Signature

Exec. Director
 Title
6-1-2009
 Date

Landowner signatures: For projects and /or mitigation work proposed on land not owned by the applicant, including state-owned submerged and submersible lands, please provide signatures below.

I certify that the applicant has my permission to conduct the project on my property.*

Louise Solliday
 Print /Type Name
Director, DSL
 Title

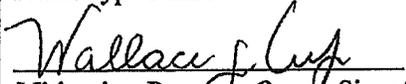
Property Owner Signature
 Date

I certify that the applicant has my permission to conduct the proposed mitigation on my property. I also understand this may involve long term protection and monitoring of the mitigation area.*

Louise Solliday
 Print /Type Name
Director, DSL
 Title

Mitigation Property Owner Signature Date

I certify that the applicant has my permission to conduct the proposed mitigation on my property. I also understand this may involve long term protection and monitoring of the mitigation area.*

Wallace Culp
 Print /Type Name

 Mitigation Property Owner Signature

Manager
 Title
5-28-09
 Date

(9) SIGNATURES FOR JOINT APPLICATION

An application is hereby made for the activities described herein. I certify that I am familiar with the information contained in the application, and, to the best of my knowledge and belief, this information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. By signing this application I consent to allow Corps or Dept. of State Lands staff to enter into the above-described property to inspect the project location and to determine compliance with an authorization, if granted. I hereby authorize the person identified in the authorized agent block below to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

I understand that the granting of other permits by local, county, state or federal agencies does not release me from the requirement of obtaining the permits requested before commencing the project. *I understand that payment of the required state processing fee does not guarantee permit issuance. The fee for the state application must accompany the application for completeness.*

Amount enclosed	Fee has been previously submitted.
-----------------	------------------------------------

Print /Type Name	Title	Print /Type Name	Title
Jeffrey T. Bishop	Executive Director		
Applicant Signature	Date	Authorized Agent Signature	Date
	2/18/2010		

Landowner signatures: For projects and/or mitigation work proposed on land not owned by the applicant, including state-owned submerged and submersible lands, please provide signatures below. A signature by the Department of State Lands for activities proposed on state-owned submerged/submersible lands only grants the applicant consent to apply for authorization to conduct removal/fill activities on such lands. This signature for activities on state-owned submerged and submersible lands grants no other authority, express or implied.

Print /Type Name	Title	Print /Type Name	Title
Jeffrey T. Bishop	Executive Director		
Property Owner Signature	Date	Mitigation Property Owner Signature	Date
	2/18/2010		

• *Italicized areas are not required by the Corps for a complete application, but may be necessary prior to final permit decision by the Corps.*

(9) SIGNATURES FOR JOINT APPLICATION

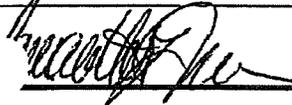
This application is hereby made for the activities described herein. I certify that I am familiar with the information contained in the application, and, to the best of my knowledge and belief, this information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. By signing this application I consent to allow Corps or Dept. of State Lands staff to enter into the above-described property to inspect the project location and to determine compliance with an authorization, if granted. I hereby authorize the person identified in the authorized agent block below to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

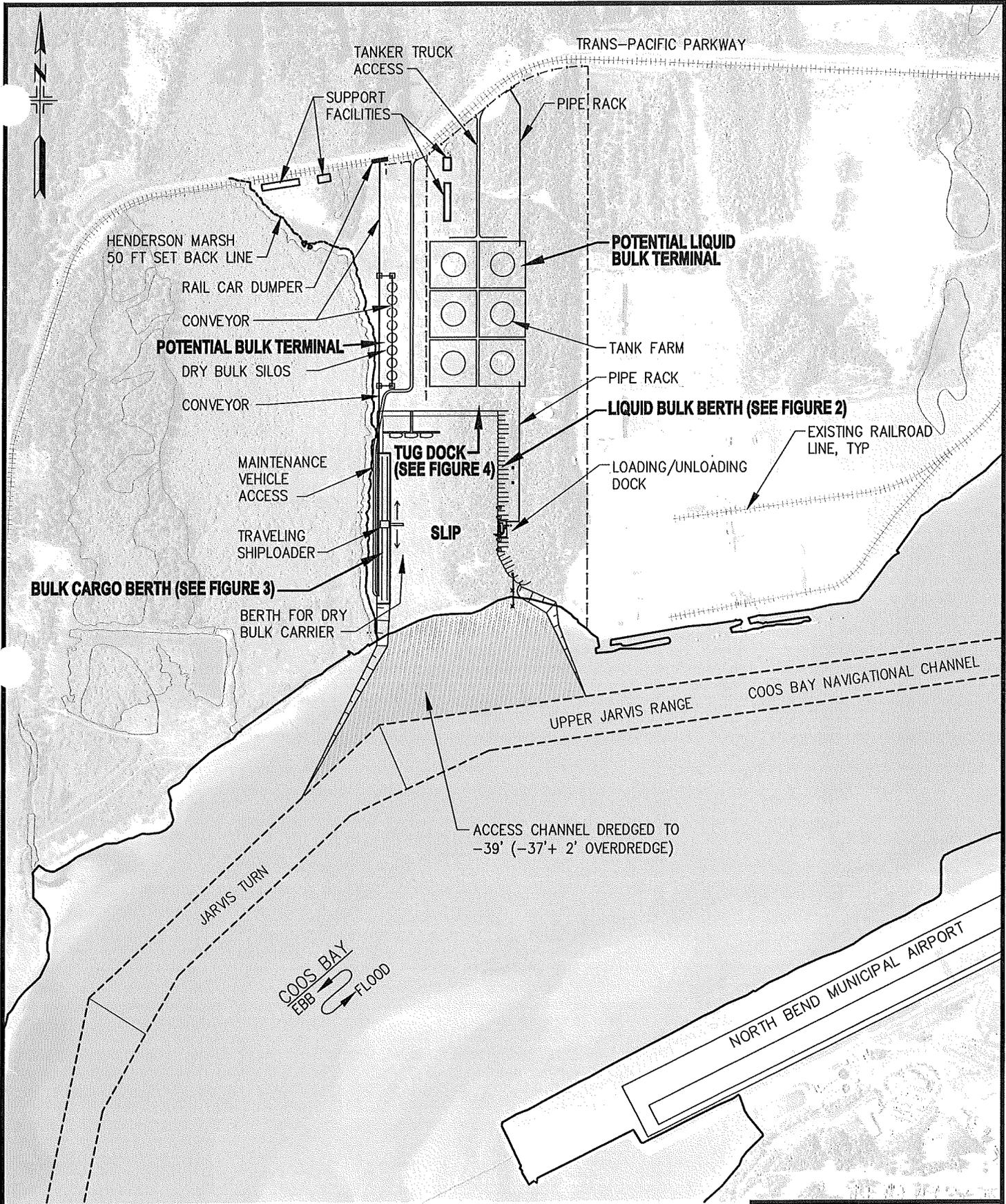
I understand that the granting of other permits by local, county, state or federal agencies does not release me from the requirement of obtaining the permits requested before commencing the project. *I understand that payment of the required state processing fee does not guarantee permit issuance. The fee for the state application must accompany the application for completeness.*

Amount enclosed \$

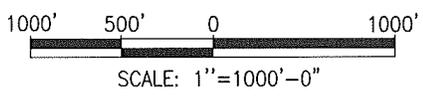
Print /Type Name	Title	Print /Type Name	Title
Applicant Signature	Date	Authorized Agent Signature	Date

Landowner signatures: For projects and/or mitigation work proposed on land not owned by the applicant, including state-owned submerged and submersible lands, please provide signatures below. A signature by the Department of State Lands for activities proposed on state-owned submerged/submersible lands only grants the applicant consent to apply for authorization to conduct removal/fill activities on such lands. This signature for activities on state-owned submerged and submersible lands grants no other authority, express or implied.

Print /Type Name	Title	Print /Type Name	Title
Samantha L. Turner	Real Estate Manager, Weyerhaeuser NR Company		
Property Owner Signature	Date	Mitigation Property Owner Signature	Date
	November 10, 2010		



REV	DESCRIPTION	DATE	APPVD
1	ADJUST DREDGING LIMITS	11-22-11	TM

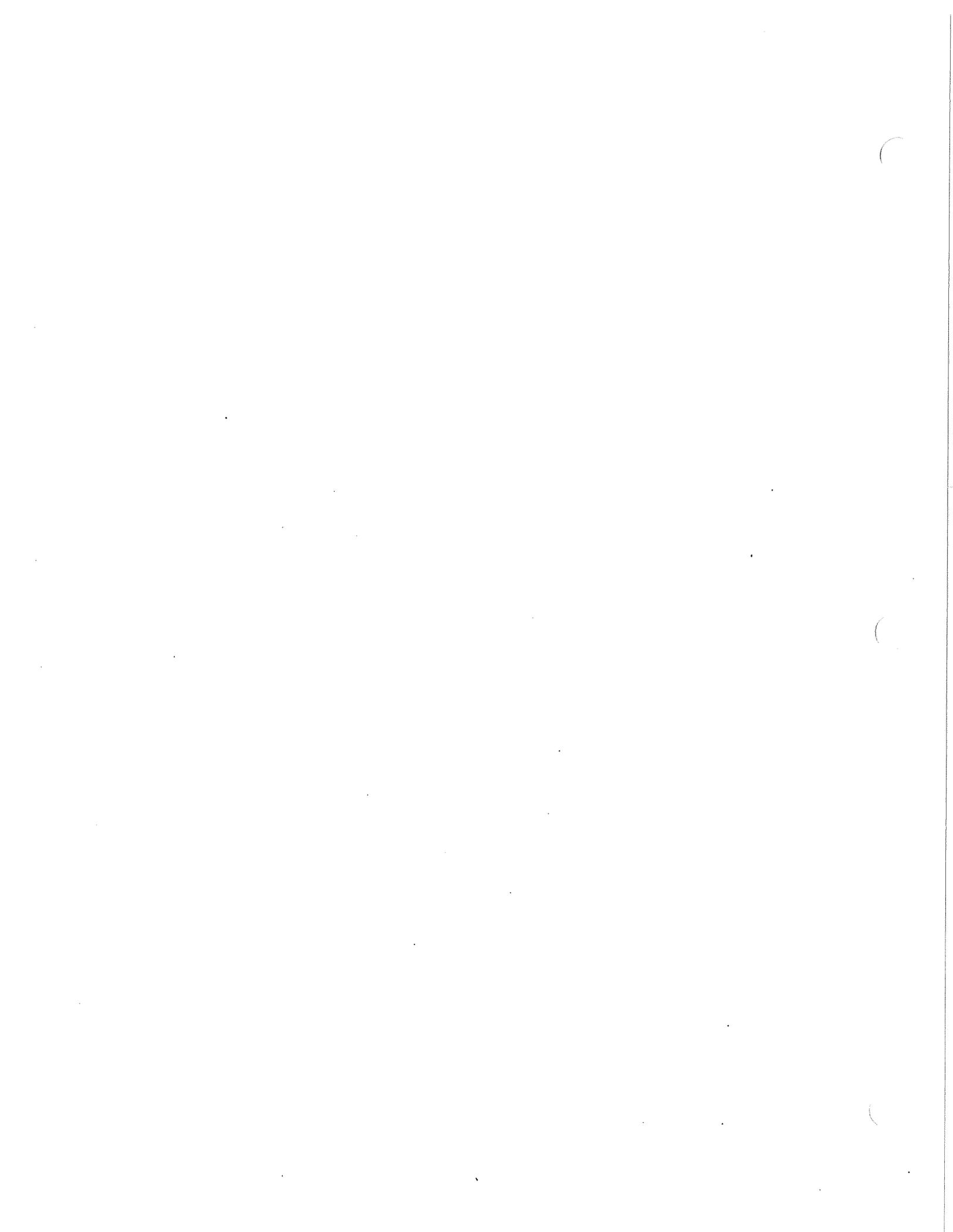


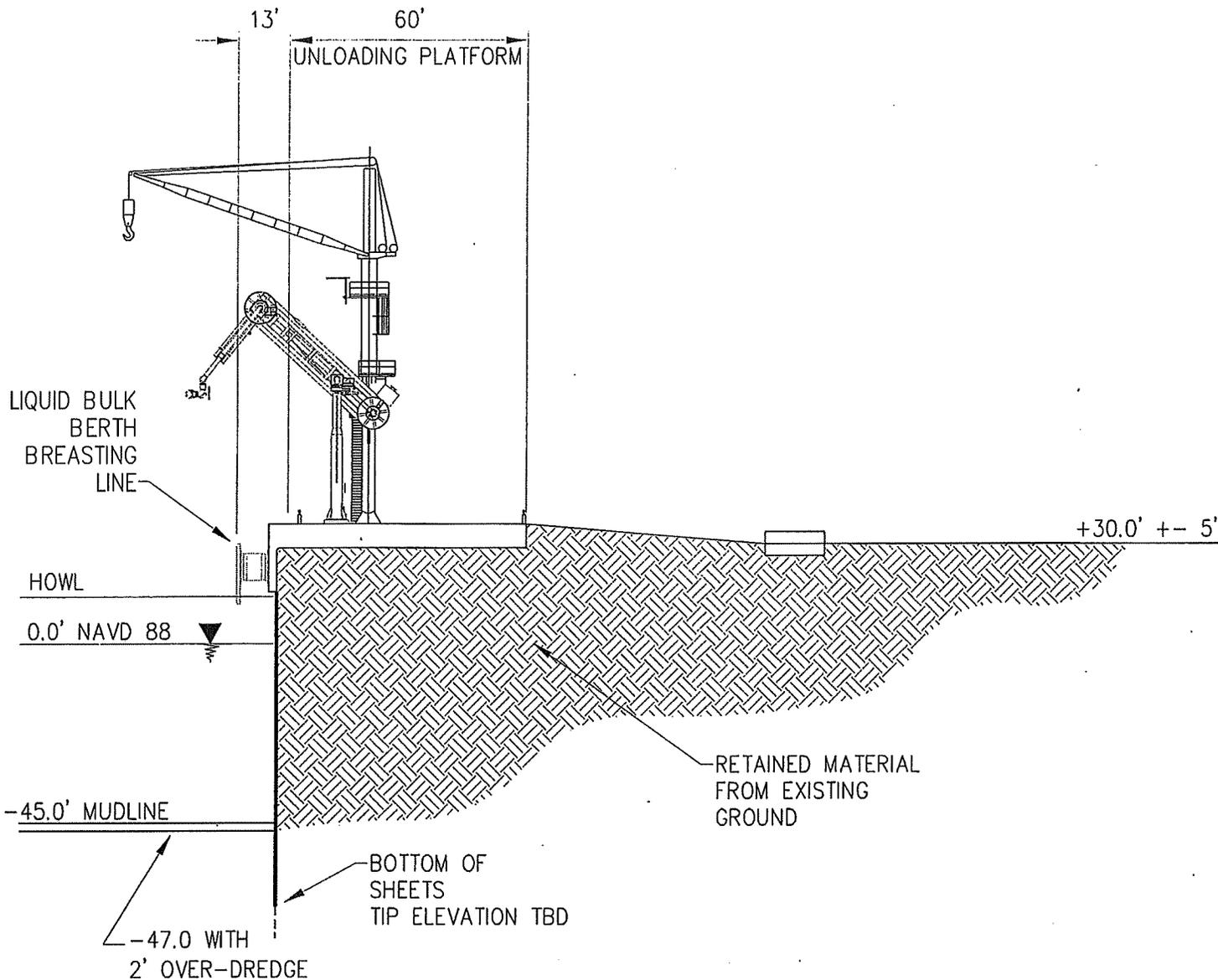
DRAWN BY:	CHECKED BY:
DESIGN ENG.	PROJ. MGR.
SCALE:	DATE:
1"=1000'	Nov 23, 11

moffatt & nichol

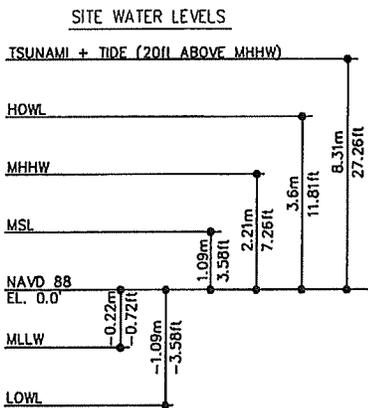
OREGON GATEWAY MARINE TERMINAL
 OREGON INT'L. PORT OF COOS BAY
 COOS BAY
 PROPOSED OGMT SITE: DUAL-USE SLIP

FIGURE NO: **FIGURE 1** SHEET NO: 2 OF 9 REV. NO: 1





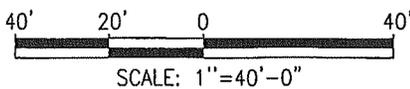
SECTION 1 @ LIQUID BULK BERTH



PRELIMINARY PILE TABLE		
PILE LOCATION	# OF PILES	SIZE OF PILES
2 MOORING DOLPHINS	8	60" PILE

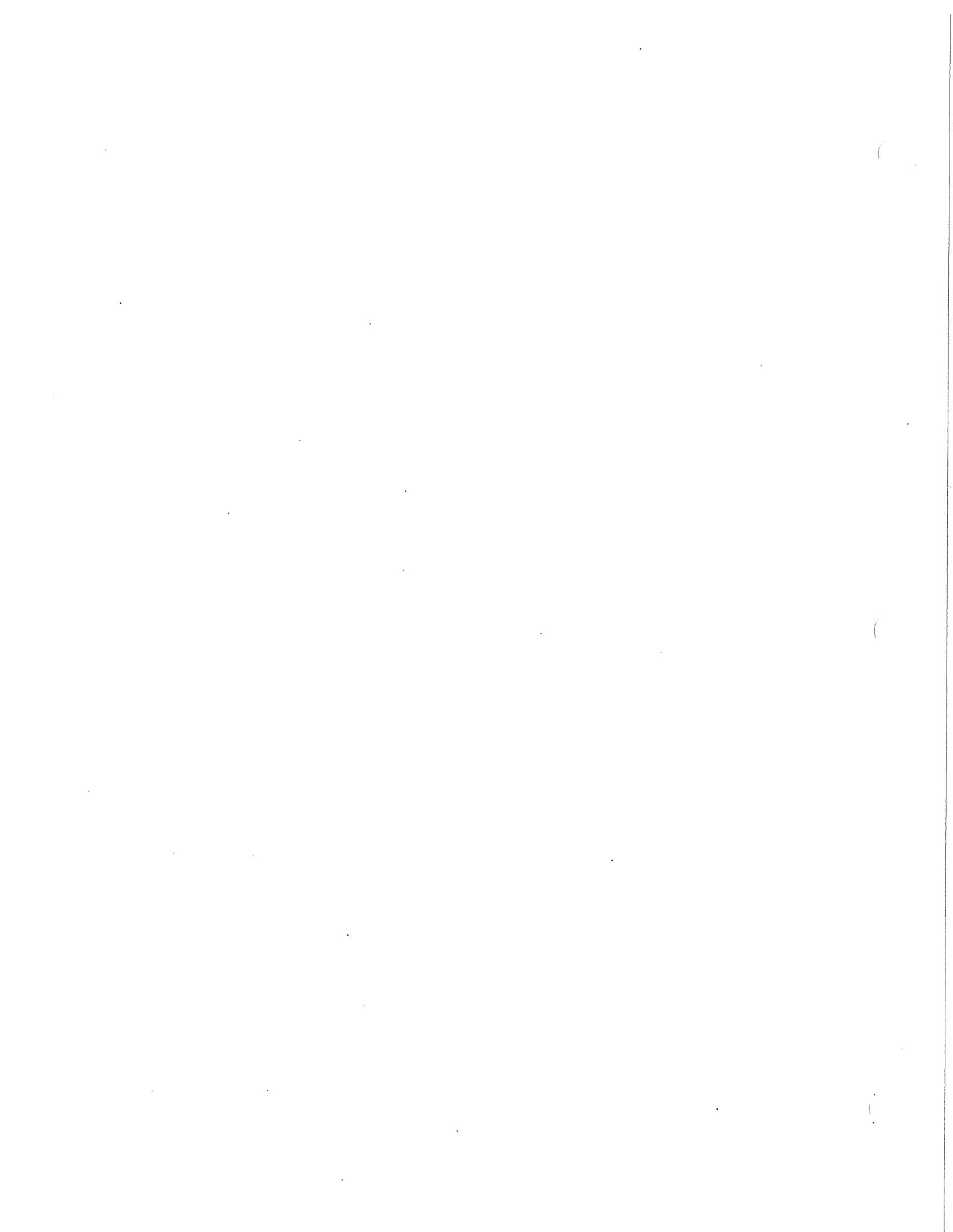
ALL ELEVATIONS IN NAVD88

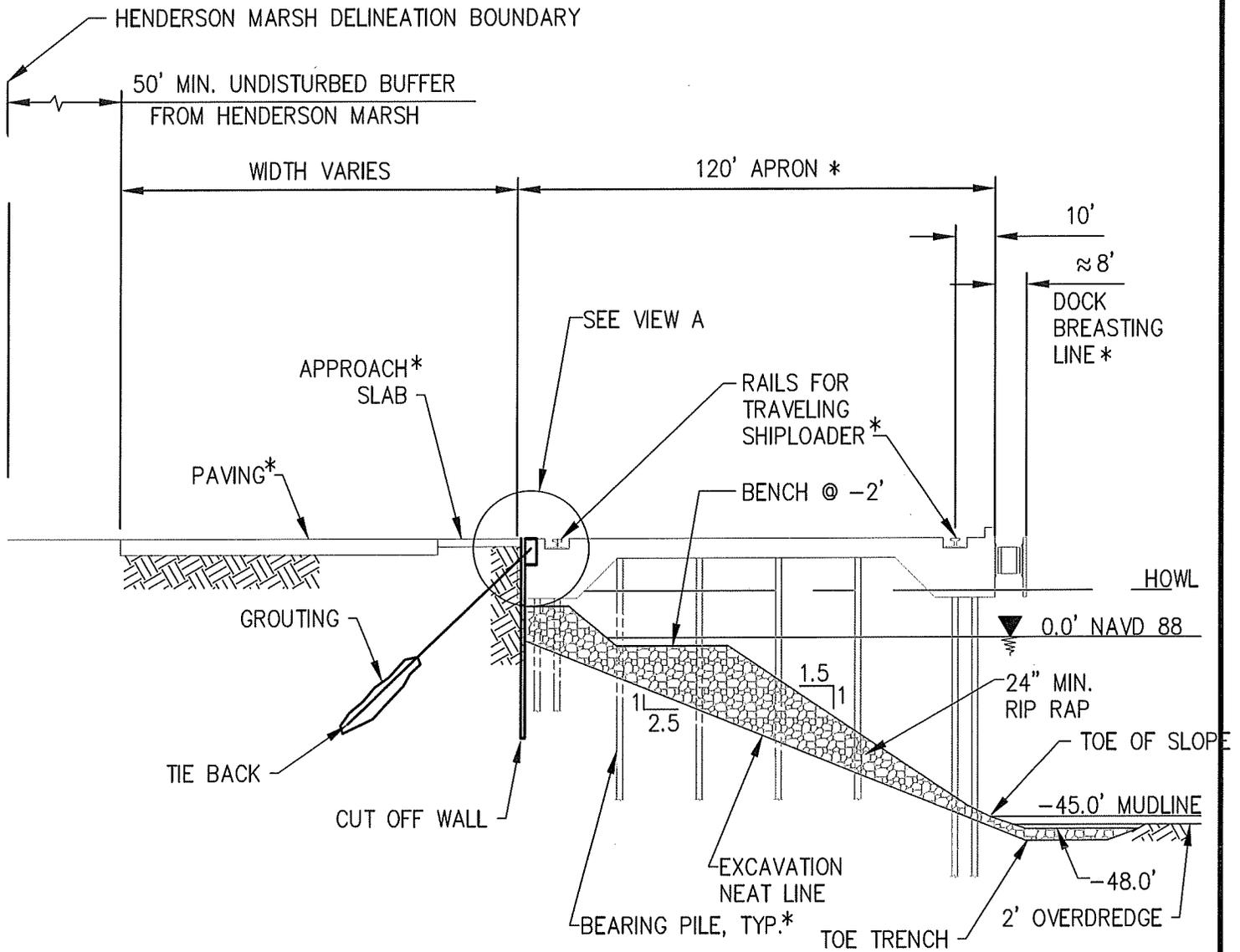
REV	REVISION DESCRIPTION	DATE	APPVD
4	FINAL REVIEW 404 PERMIT	10/16/08	RAE
3	DEFERRED DOCK CONSTRUCTION	4/14/08	ST
2	REVISED DREDGE & PLACEMENT	1/22/08	ST
1	REVISED SLIP	7/20/07	MW
0	PERMIT APPLICATION SET	1/15/07	MW
B	REISSUED FOR REVIEW	11/9/06	MW
A	INTERNAL REVIEW 404 PERMIT	10/11/06	MW



DRAWN BY: SLH	CHECKED BY:
DESIGN ENG.	PROJ. MGR.
SCALE: 1"=40'	DATE: Nov. 1, 2010

JORDAN COVE ENERGY PROJECT		
OREGON GATEWAY MARINE TERMINAL OREGON INT'L. PORT OF COOS BAY COOS BAY		
SECTION 1 @ LIQUID BULK BERTH		
FIGURE NO. FIGURE 2	SHEET NO. 5 OF 15	REV. NO. 4

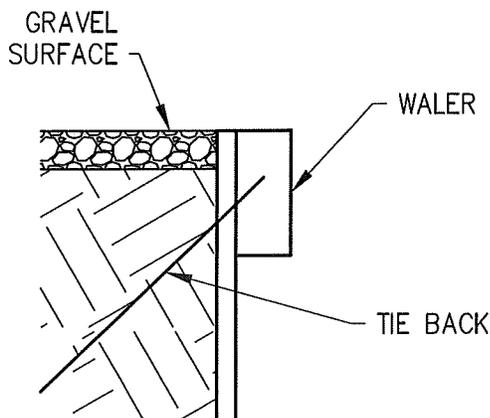




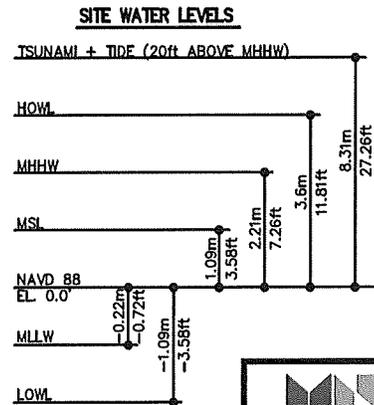
*NOTE: FUTURE DOCK

SECTION 2 @ WESTERN BERTH

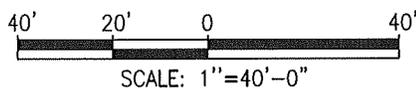
PILE TABLE *		
PILE LOCATION	# OF PILES	SIZE OF PILES
WESTERN DOCK	774	24"Ø OCTAGONAL PRESTRESSED PRECAST CONCRETE PILES



VIEW A
INITIAL CONSTRUCTION (NTS)



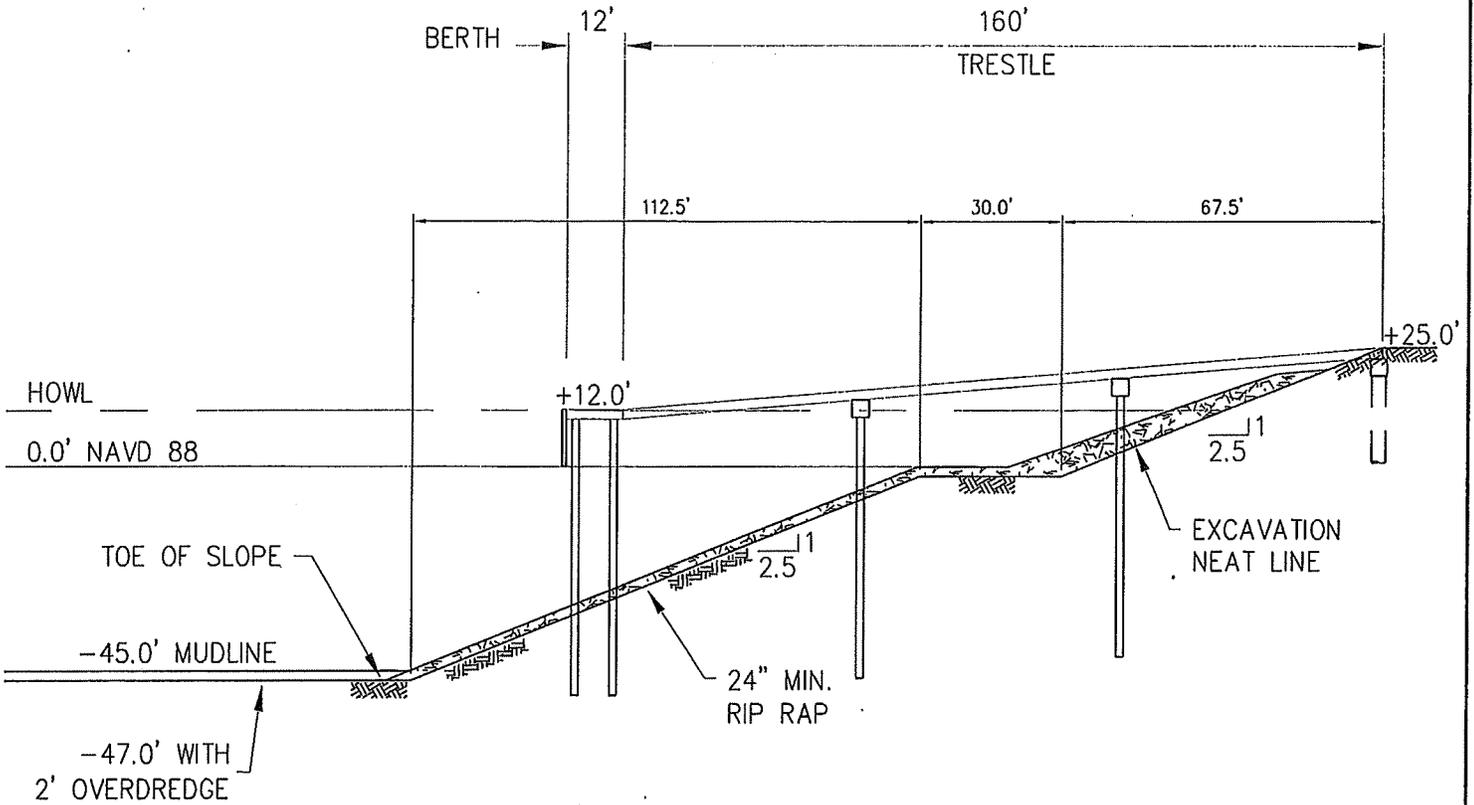
REV	REVISION DESCRIPTION	DATE	APPVD
5	DRY BULK WITH BENCH	11/30/11	ST
4	DRY BULK OPTION	10/18/11	ST
3	DEFERRED DOCK CONSTRUCTION	4/14/08	ST
2	REVISED DREDGE & PLACEMENT	1/22/08	ST
1	REVISED SLIP	7/20/07	MW
0	PERMIT APPLICATION SET	1/15/07	MW



DRAWN BY: SLH	CHECKED BY:
DESIGN ENG.	PROJ. MGR.
SCALE: 1"=40'	DATE:

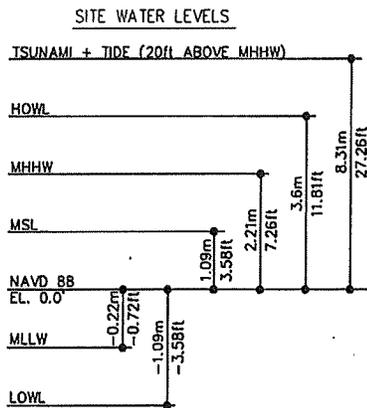
MOFFATT & NICHOL
 OREGON GATEWAY MARINE TERMINAL
 OREGON INT'L. PORT OF COOS BAY
 COOS BAY
 SECTION 2 @ CARGO BERTH
 FIGURE NO: **FIGURE 3** SHEET NO: 6 OF 14 REV. NO: 5





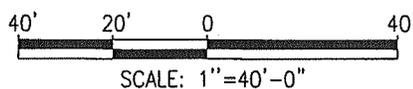
SECTION 3 @ TUG DOCK

PRELIMINARY PILE TABLE		
PILE LOCATION	# OF PILES	SIZE OF PILES
TUG DOCK	33	18" PILES



ALL ELEVATIONS IN NAVD88

REV	REVISION DESCRIPTION	DATE	APP'D
4	FINAL REVIEW 404 PERMIT	10/16/08	RAF
3	DEFERRED DOCK CONSTRUCTION	4/14/08	ST
2	REVISED DREDGE & PLACEMENT	1/22/08	ST
1	REVISED SLIP	7/20/07	MW
0	PERMIT APPLICATION SET	1/15/07	MW
B	REISSUED FOR REVIEW	11/9/06	MW
A	INTERNAL REVIEW 404 PERMIT	10/11/06	MW



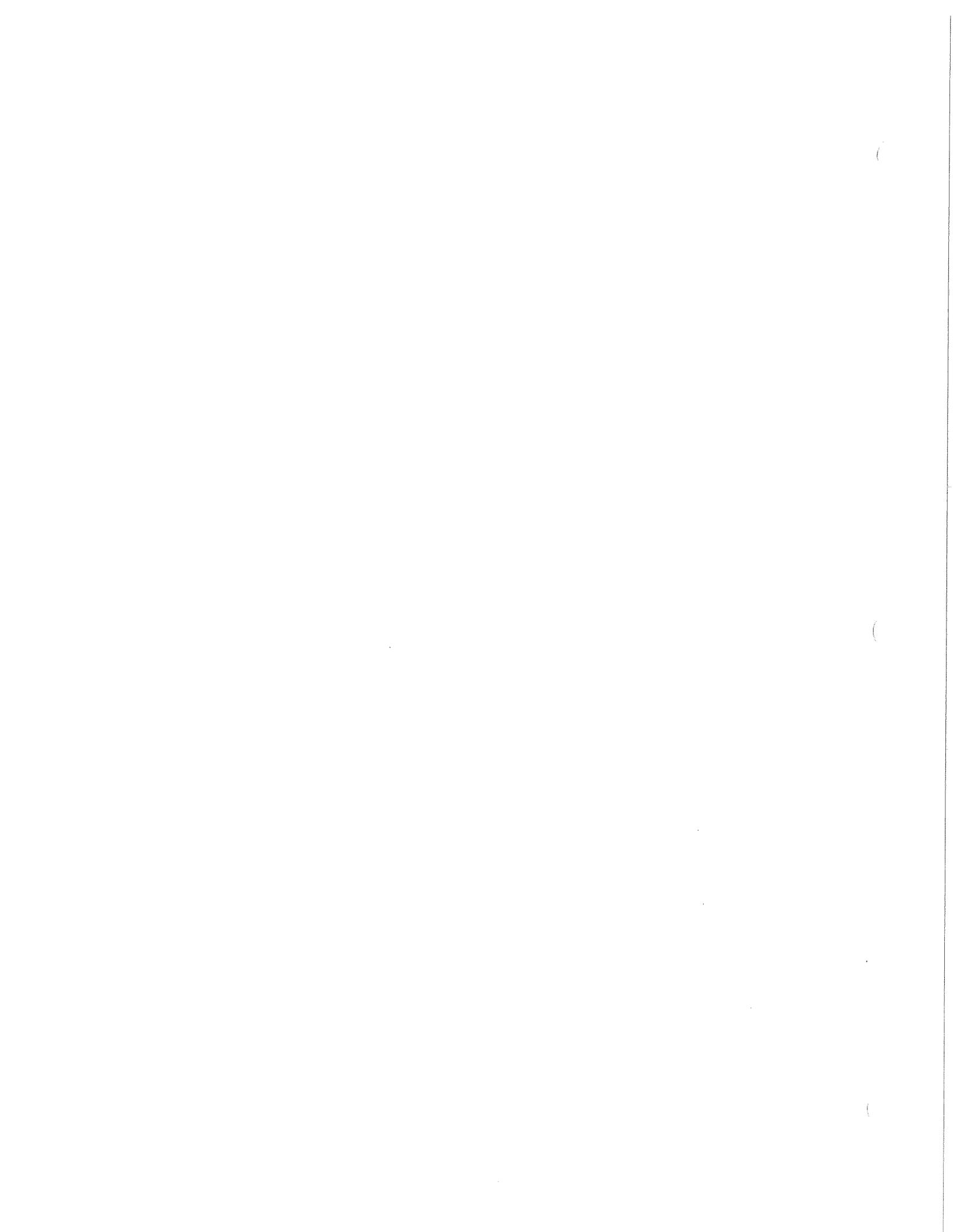
DRAWN BY: SLH	CHECKED BY:
DESIGN ENG.	PROJ. MGR.
SCALE: 1" = 40'	DATE: Nov. 1, 2010

JORDAN COVE ENERGY PROJECT

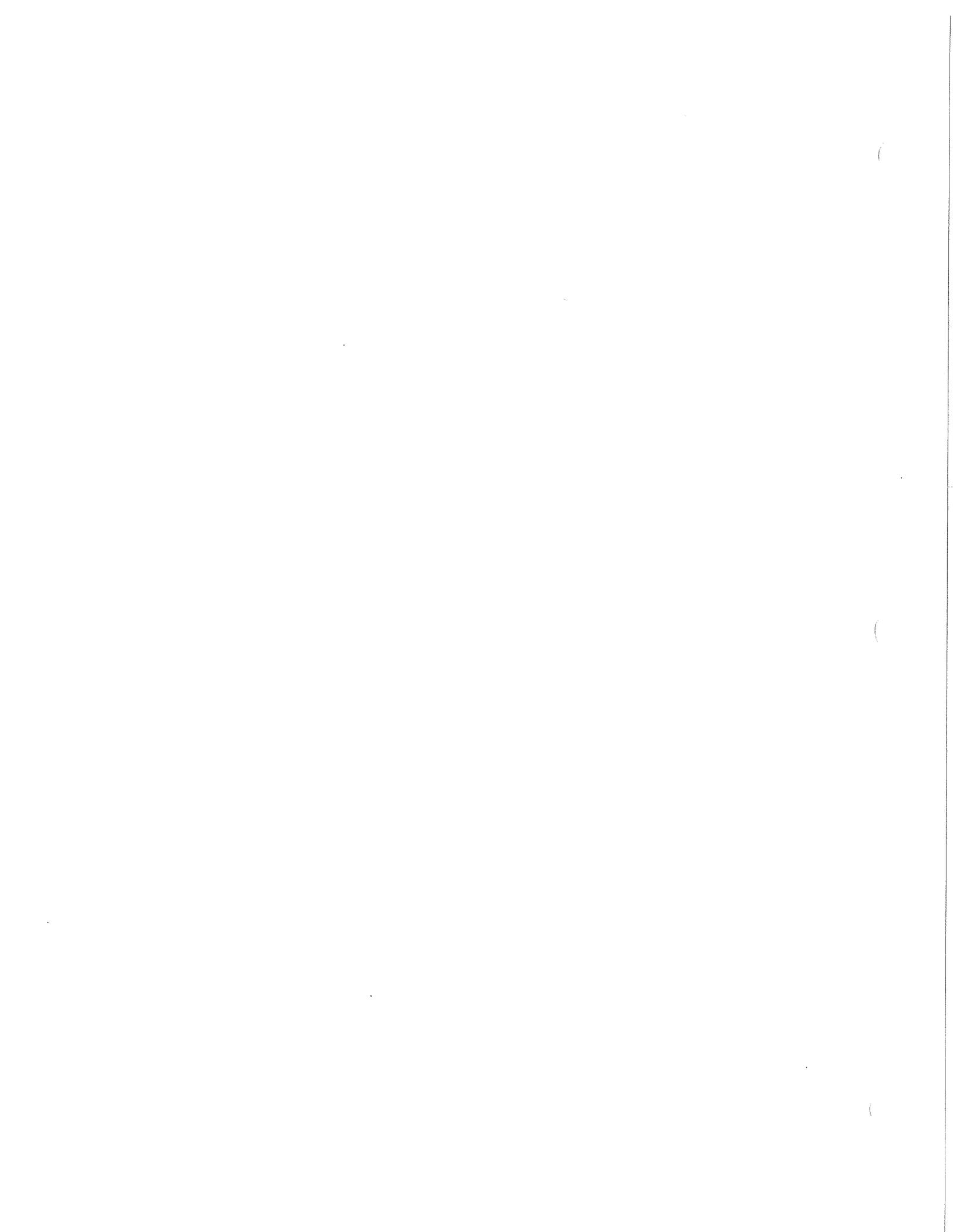
OREGON GATEWAY MARINE TERMINAL
OREGON INT'L. PORT OF COOS BAY
COOS BAY

SECTION 3 @ TUG DOCK

FIGURE NO: **FIGURE 4** | SHEET NO: 8 OF 15 | REV. NO: 4



2: Purpose & Need Statement



Purpose and Need

The Port's purpose in developing the new vessel slip and access channel is to create a multi-berth, multipurpose marine cargo facility in order to further its mission to "help build a diversified, healthy, stable regional economy through prudent management of its assets, by advocacy for infrastructure improvements and collaboration with other public and private entities." The Port has determined that concentrating water dependant industrial development on the North Spit of lower Coos Bay, below rivermile (RM) 9.2, is an essential element of its strategy for sustaining and reinvigorating maritime trade in the Coos Bay harbor.

The importance of and public need for development at the Port, specifically including development of slips for large oceangoing vessels, was recognized by the legislature when it adopted ORS 777.065 and declared that "the development of deepwater port facilities at ... Coos Bay... is declared to be a state economic goal of high priority." The Port was created specifically to promote development of facilities like the slip and access channel and is, itself, an expert on the demand for such facilities. Based on the clear demand for deepwater facilities for Panamax and larger vessels, the Port has determined that there is a need for the slip and the access channel and that by providing the slip and the access channel the Port will be promoting economic development. Because the Port is an expert in both port facilities and economic development, its determination of need should be relied upon by DSL. In fact, the Removal/Fill Statute specifically authorizes DSL to rely on the Port's determination of need and benefit. The statute provides that "when the applicant for a permit is a public body, [DSL] may accept and rely upon the public body's findings as to local public need and local public benefit." Public bodies are defined in ORS 174.109 (a definition referenced in the Removal/Fill Statute) as "state government bodies, local government bodies and special government bodies." The Port is a "special government body" under ORS 174.117 and, accordingly is a "public body" under the Removal/Fill Statute whose determination of public need and public benefit should be relied on.

The project is needed to further the Port's goal of building a diversified, healthy, stable regional economy. A report from ECONorthwest, dated May 2, 2011, (the "ECON Report") shows that the economy of the Coos Bay region is clearly not diversified, healthy, or stable and has been declining for decades along with the natural resource industries on which it once depended. As demonstrated by the ECON Report, there is a real and present need for economic development in Coos Bay and this project will help to meet that need. The construction of the slip alone would generate a net increase in Coos County of approximately \$26.3 million in labor earnings and 406 job-years of employment. Added to the earnings increase from construction of just one of the upland projects adjacent to the slip that the project will facilitate, the net increase in labor earnings increases to approximately \$250 million. The need for the project is emphasized by the fact that in Coos County, more people worked in 1978 than worked in 2010 (See ECON Report, p. 5). As a result, construction of the slip and access channel would achieve the project purpose of helping to "build a diversified, healthy, stable regional economy."

The benefits of the project, however, will go well beyond the construction impact. As demonstrated in the ECON Report, operation of the slip and the upland facilities will generate another \$20 million net increase in labor earnings each year. Obviously, to achieve that impact, the slip and access channel must facilitate development on the adjacent uplands and/or generate users of the dock facilities. One potential user, Jordan Cove Energy L.P., has spent millions of dollars in an effort to locate an LNG facility adjacent to the proposed project. Jordan Cove would clearly not have expended these resources if it did not intend to locate a facility in Coos Bay and use the slip and access channel. In addition, other shippers have expressed an intent to use the slip. For example, the Port has already received a letter of interest from

Roseburg Lumber pursuant to which Roseburg would use the eastern berth of the slip if Jordan Cove does not move forward. Although confidentiality agreements prevent their disclosure at this time, other shippers of bulk and breakbulk cargo have been in negotiations with the Port to use either the eastern berth if Jordan Cove does not proceed or the western berth if Jordan Cove does go forward. The interest of all of these shippers in using the slip clearly demonstrates the ability of the project to generate significant economic benefits.

A related factor that DSL must consider in determining whether to issue the permit is the economic cost to the public that will result if the proposed fill or removal is not accomplished. The economic cost to the public if the proposed removal and fill is not accomplished will be a massive loss of economic development. The proposed removal and fill will facilitate large industrial development projects that will, as demonstrated by the ECON Report, generate a significant amount of revenue for the residents of Coos County. Without the removal and fill, the slip will not be constructed and large-scale marine dependent development on the adjacent uplands will not occur. Although it is possible that some industrial development could occur on the adjacent uplands without the slip, that development would be much smaller because the large vessels that would import or export the quantity of cargo needed to support large industrial projects will only come to Coos Bay if the slip is developed.

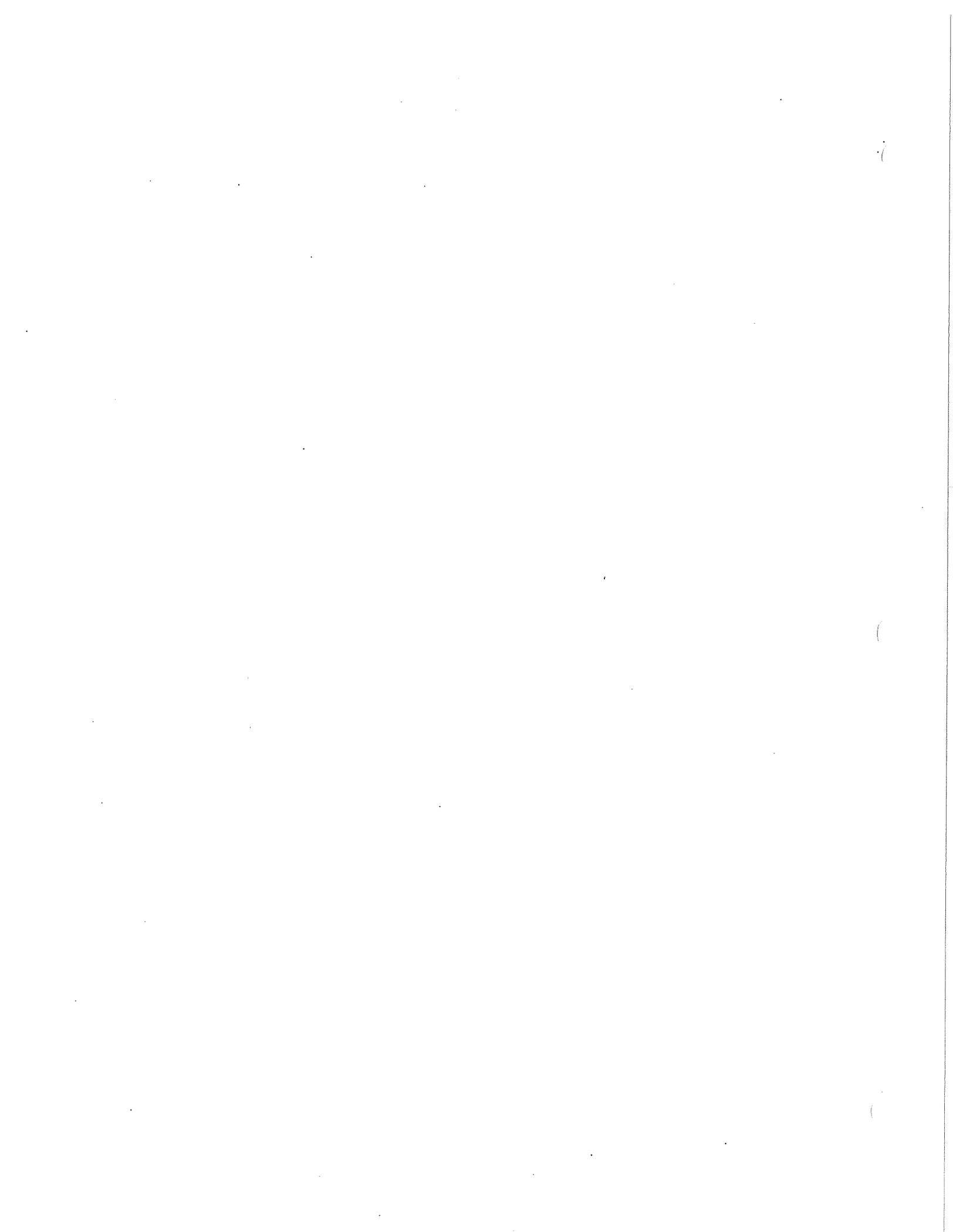
Within lower Coos Bay, only the North Spit contains large parcels designated in the Coos Bay Estuary Management Plan as being suitable for water dependent industrial development. Large parcels of properly zoned land are critical to the siting and development of a terminal capable of handling modern ocean-going vessels. The Port presently owns or controls over 1,100 acres of land on the North Spit, which represents the largest contiguous parcel of land zoned for water dependant usage in Coos County. Moreover, the Port invested \$4.4 million in 2005 to extend rail access to virtually all of the industrially zoned land on the North Spit with the construction of a 3.5 mile rail spur, further enhancing the competitive position of the Port to attract a broad array of terminal users. The new vessel slip and access channel are proposed to be constructed on the Port-controlled property. By building the vessel slip, the Port will be providing a benefit to the people of the Coos Bay region and the State of Oregon by helping to create jobs and by helping to increase Coos Bay's role as a center for international maritime commerce.

This location is necessary because (a) the swinging-span railroad bridge located at RM 9.2 creates an insurmountable physical barrier, preventing larger ocean-going vessels (primarily Panamax and larger) from transiting into upper Coos Bay and (b) the facilities downstream of the swinging-span railroad bridge are currently insufficient to accommodate those larger vessels. If the Port is to remain competitive in the ever evolving Pacific maritime commerce and trans-Pacific trade lanes, capacity to handle these larger vessels is imperative. The emerging fleet of vessels capable of hauling wood chips and manufactured forest products, the current primary cargoes moving through the harbor, is comprised of numerous vessels of a size that cannot call upon terminals located in upper Coos Bay. Given the trend towards larger vessels and the inevitable retirement of the smaller older vessels (Handysize and some Handymax), unless the Port develops the infrastructure necessary to handle the newer and larger vessels, commerce will erode further with the resultant negative economic consequences for the region. Even for those ocean-going vessels that can pass through the narrow restriction created by the swing-span railroad bridge, concentrating deep-draft oceangoing vessel traffic in lower Coos Bay reduces transit times to open water and reduces potential interference and conflicts with other waterway users. The vessel slip project will also mitigate congestion currently occurring at other west coast ports that cannot accommodate additional shippers. As an additional benefit, the access channel will improve navigational safety in Coos Bay, decreasing the potential for vessel traffic conflicts by creating a wide area near the channel.

Further, the Port has the ability to access and control development of significant parcels of developable property to the north and west of the proposed waterway in support of a multimodal, multi-use marine cargo facility through option agreements with current property owners. If the Jordan Cove LNG project was terminated, the Port can acquire the entire Oregon Gateway waterway and adjacent property for development as a multi-use facility to serve a variety of commodity movements. Additionally, the property owner to the east has indicated a high level of interest in the creation of additional cargo handling facilities at the proposed multi-user waterway and is willing to work with Port staff and others to fully develop and utilize the Oregon Gateway waterway.

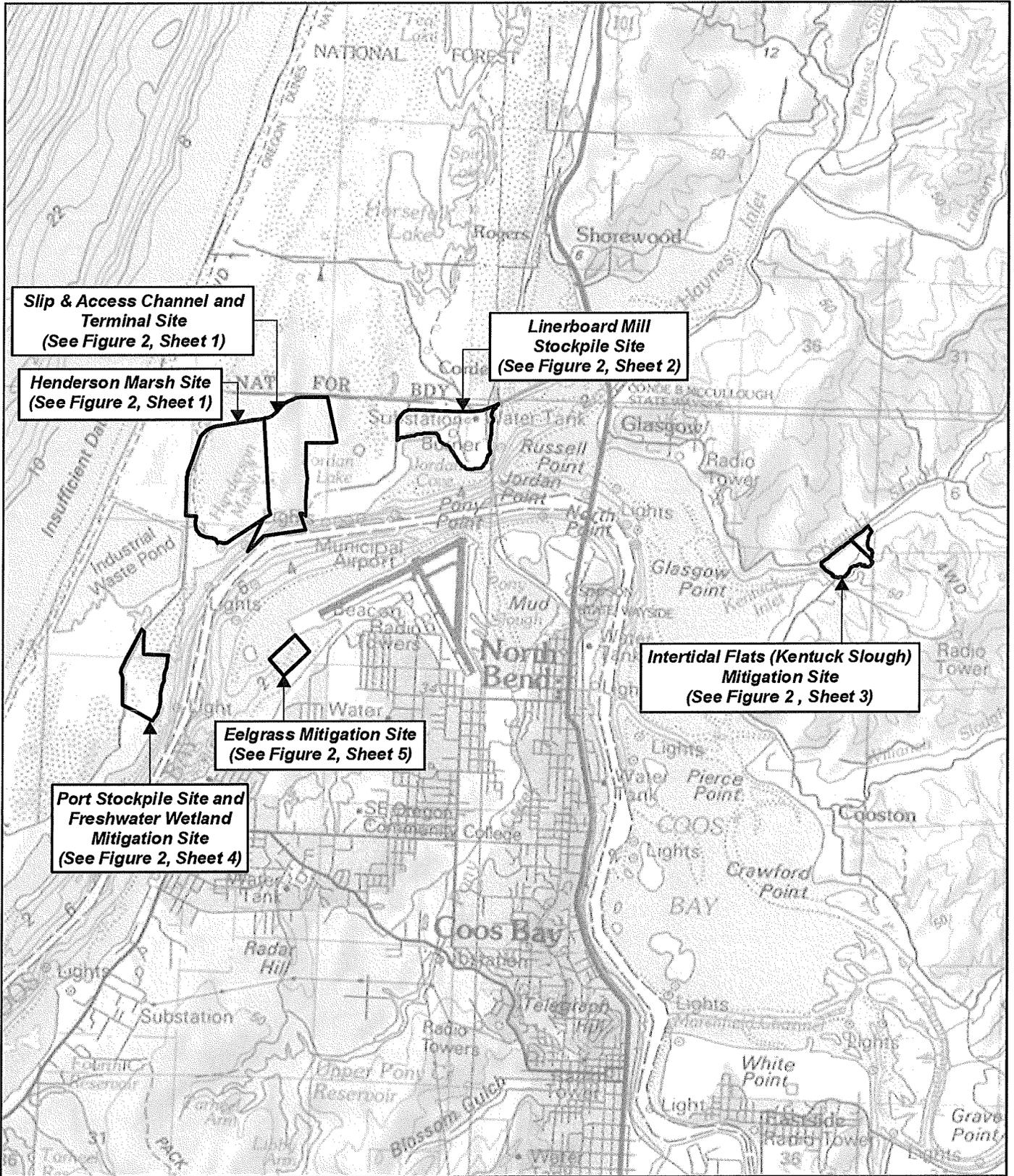
The need for the vessel slip is partially demonstrated by the fact that Jordan Cove Energy Project L.P. has already entered into agreements that give it the right to lease the eastern berth in the vessel slip. The vessels that Jordan Cove proposes to bring into the vessel slip are the type of larger ocean-going vessels that are typical of today's marine commerce and that are inappropriate to bring through the swinging-span railroad bridge. Jordan Cove Energy Project L.P. is proposing to use the slip for importation of liquefied natural gas in order to diversify natural gas supply sources and provide another point of entry to the US for imported gas.

Further, although the Port has identified Jordan Cove Energy Project L.P. as a potential user of the slip, if the Jordan Cove LNG project is not constructed, the Port will go forward with construction of the vessel slip and access channel and it will continue to market use of the vessel slip to other potential users. Market analyses conducted by the Port show increased opportunity for a variety of cargo to use the proposed slip and marine terminal, including liquid bulk commodities, dry bulk commodities, breakbulk commodities, and special projects cargo. *See* Memorandum from Oregon International Port of Coos Bay regarding Overview of Marine Industrial Development and Marine Cargo Opportunities, dated July 15 2011, attached hereto. Development of such a facility is consistent with cargo trends and forecasts, as determined by BST Associates in a memorandum dated July 15, 2011 and attached hereto. Further, the Port is also working with four different project developers interested in shipping industrial wood pellets from the western berth of the vessel slip. These firms are exploring the availability of woody biomass suitable for the manufacture of wood pellets, and are considering locating manufacturing facilities in proximity to the western berth of the facility. The Port also intends to develop a moorage for ship assist tugboats in the northern berth of the vessel slip. The tugs mooring in the vessel slip are intended to serve large ocean-going vessels. In addition, the Port is in discussions with several companies, including APM Terminals – N.A. (an affiliate of Maersk Lines) and three companies subject to non-disclosure and confidentiality obligations, regarding development and use of a marine terminal on the North Spit of lower Coos Bay. All of these users require a large terminal with a slip capable of loading large, deep draft bulk containers.



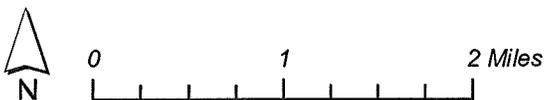
3: Map of Wetlands, Impacts, & Mitigation Areas

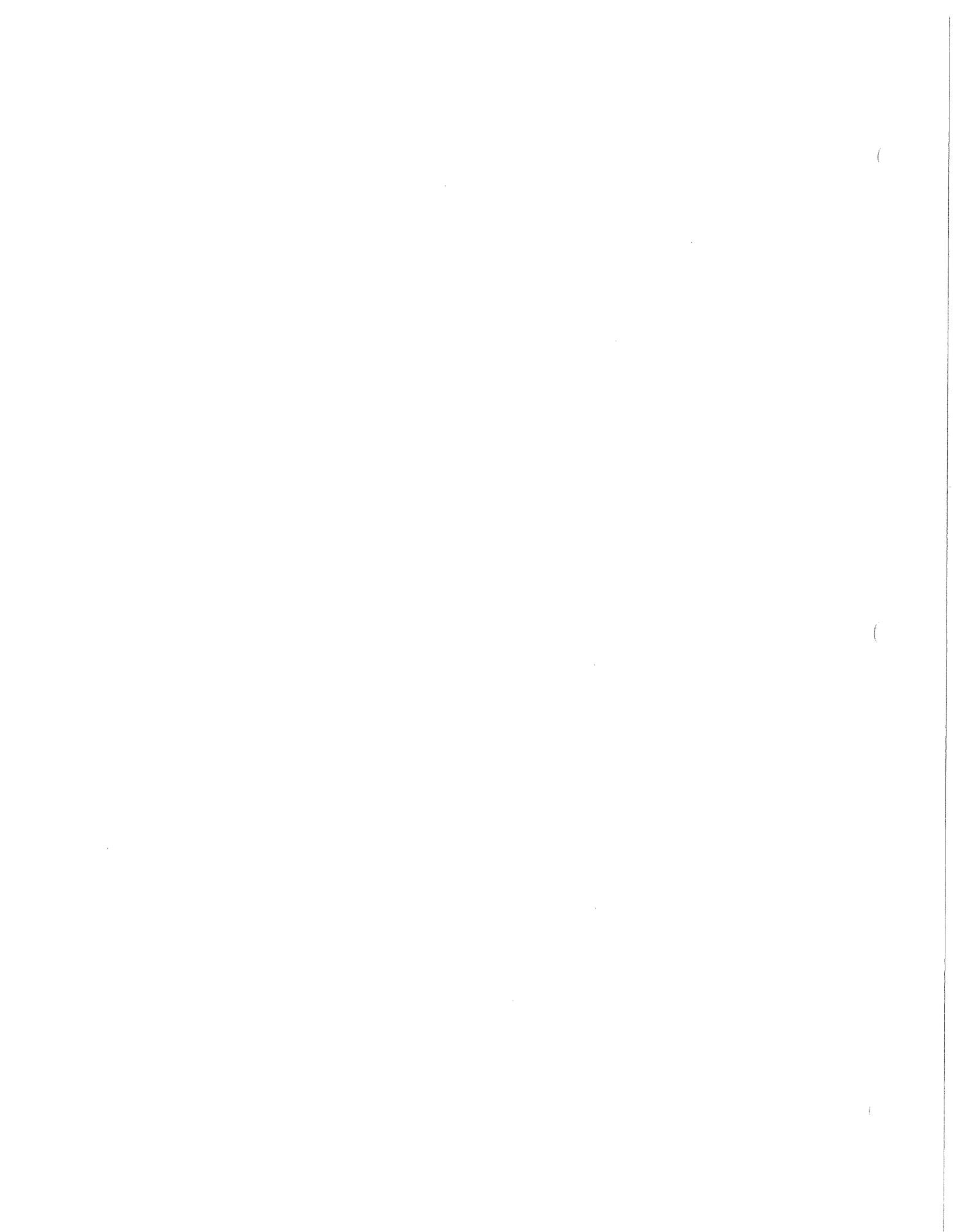


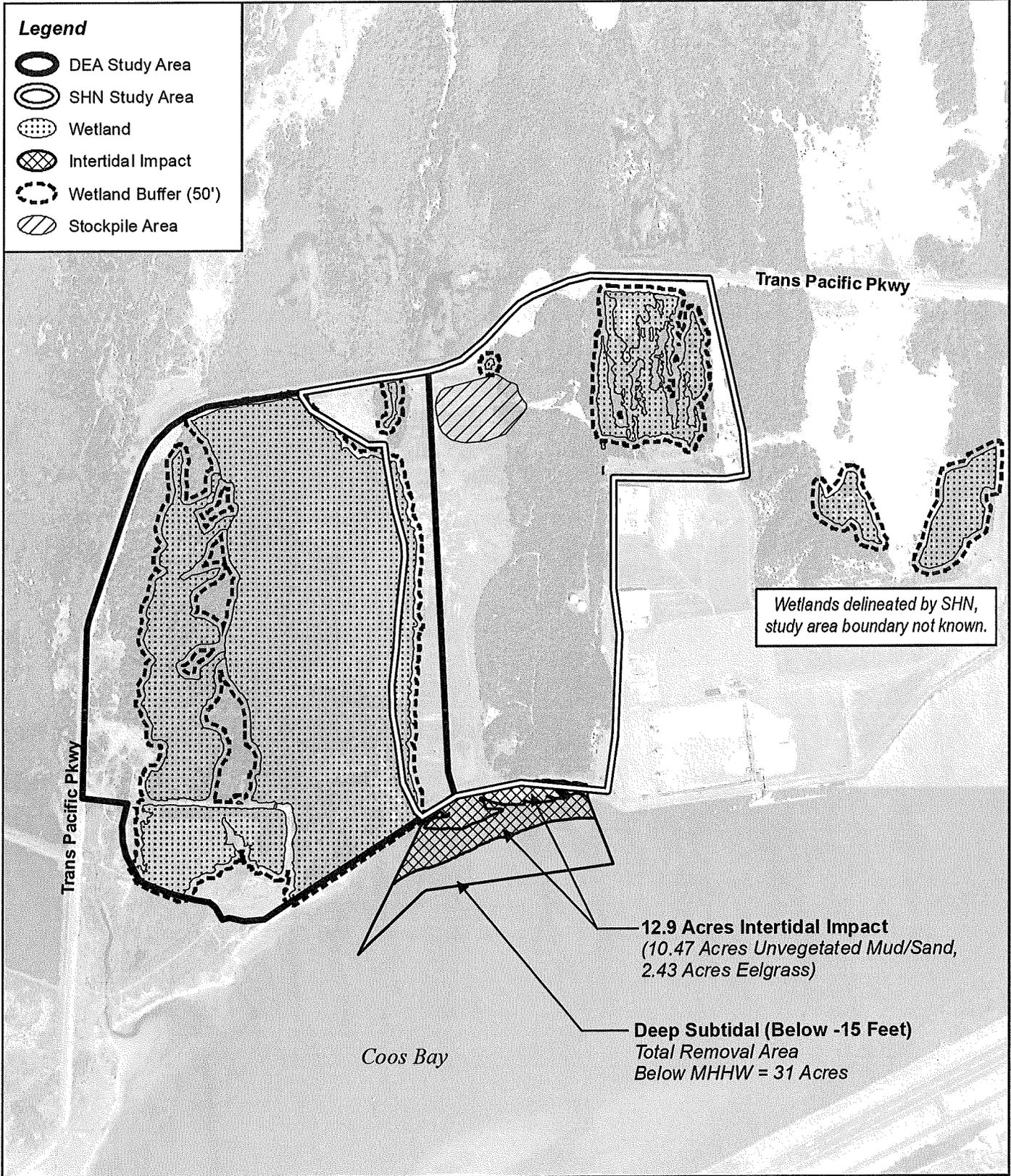


ESRI, ArcGIS Online, US Topographic Maps

Figure 1
Vicinity

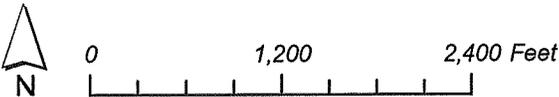


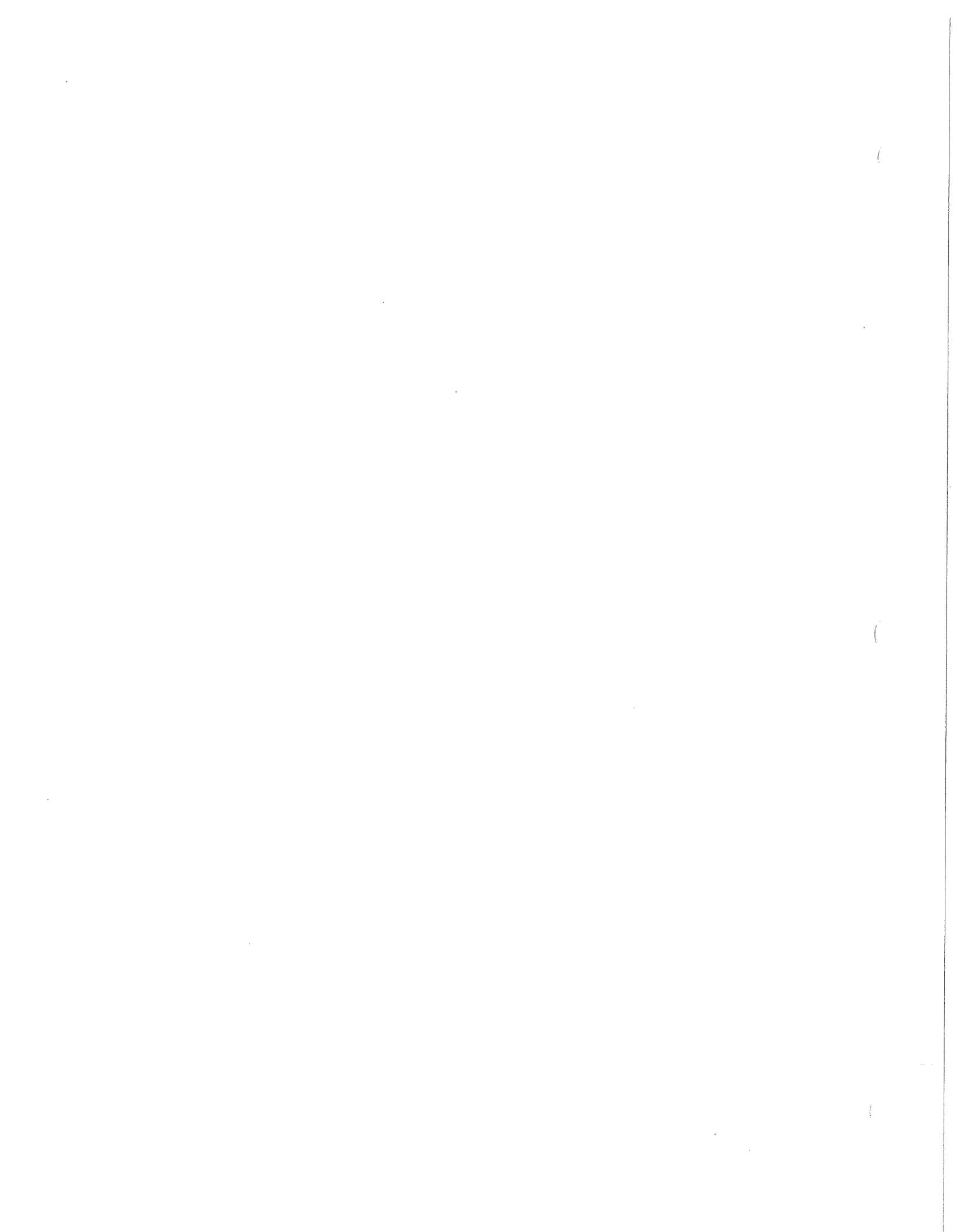


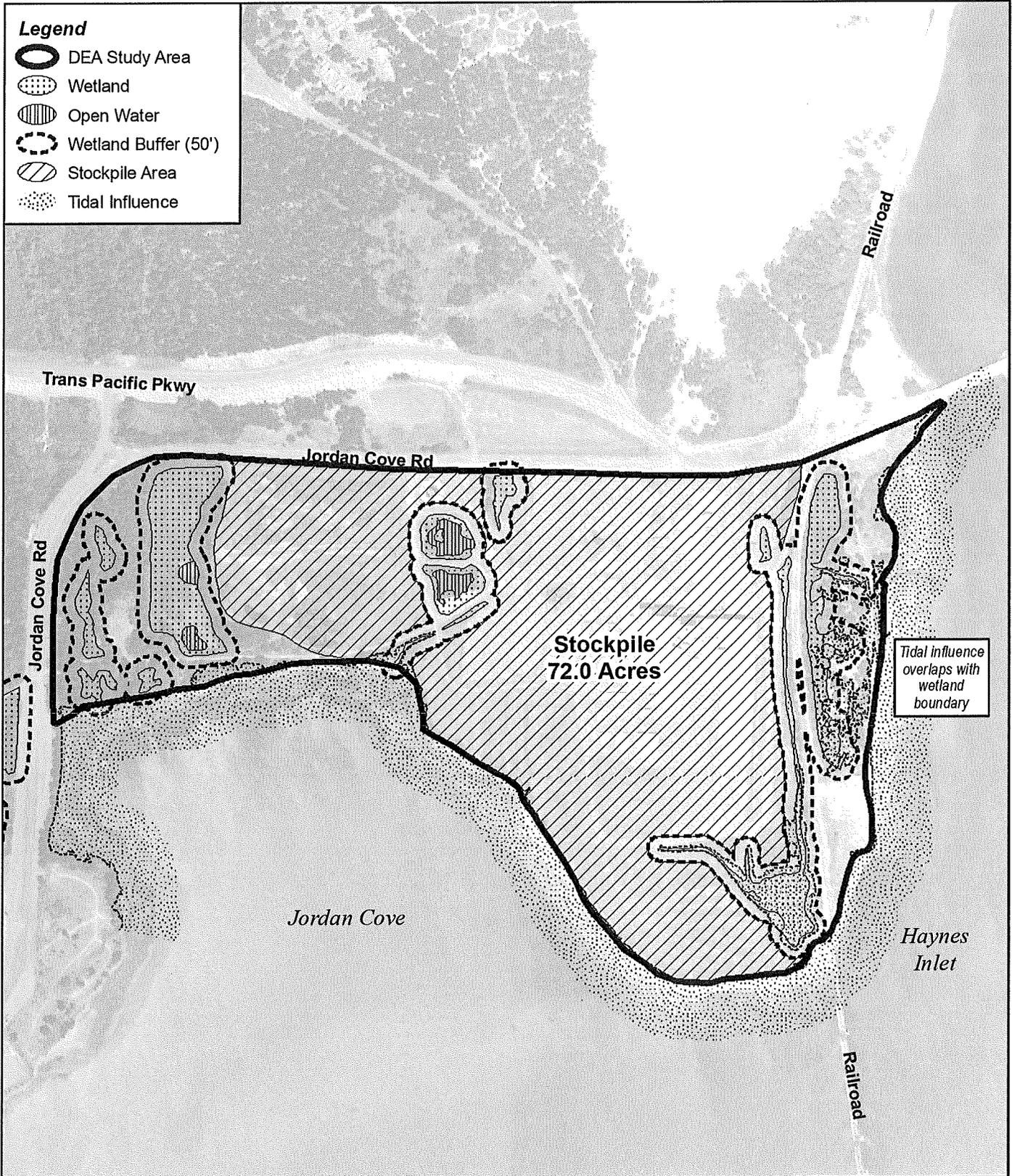


Aerial Photograph: Bureau of Land Management, Coos County, 2005

Figure 2, Sheet 1
Slip and Access Channel Impact Area

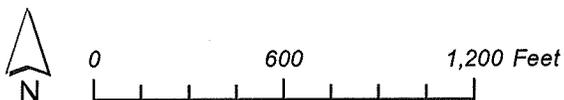




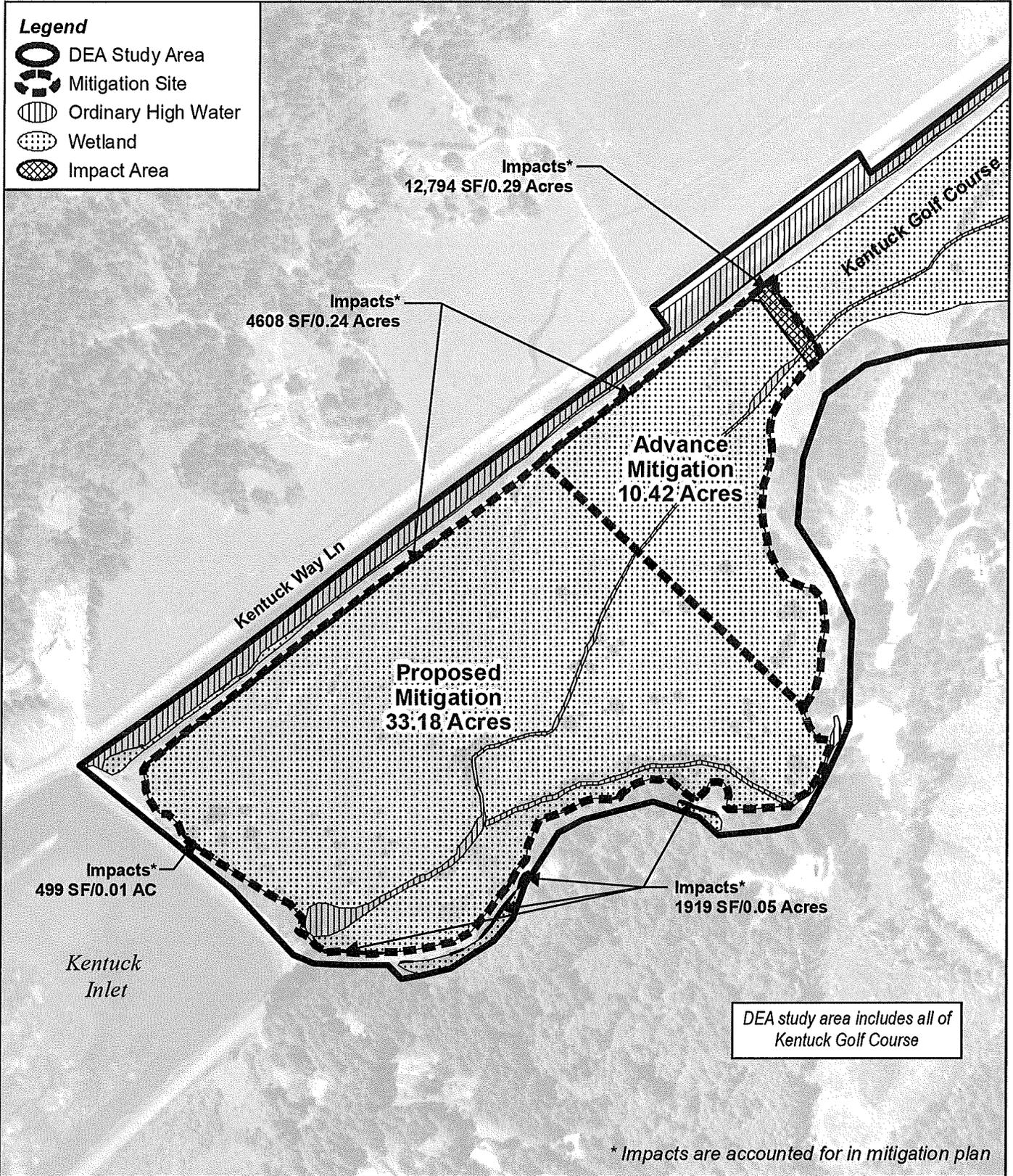


Aerial Photograph: Bureau of Land Management, Coos County, 2005

Figure 2, Sheet 2
Linerboard Mill Site, Stockpile Area

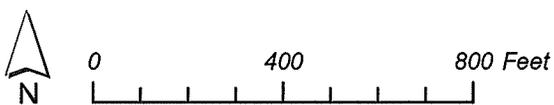


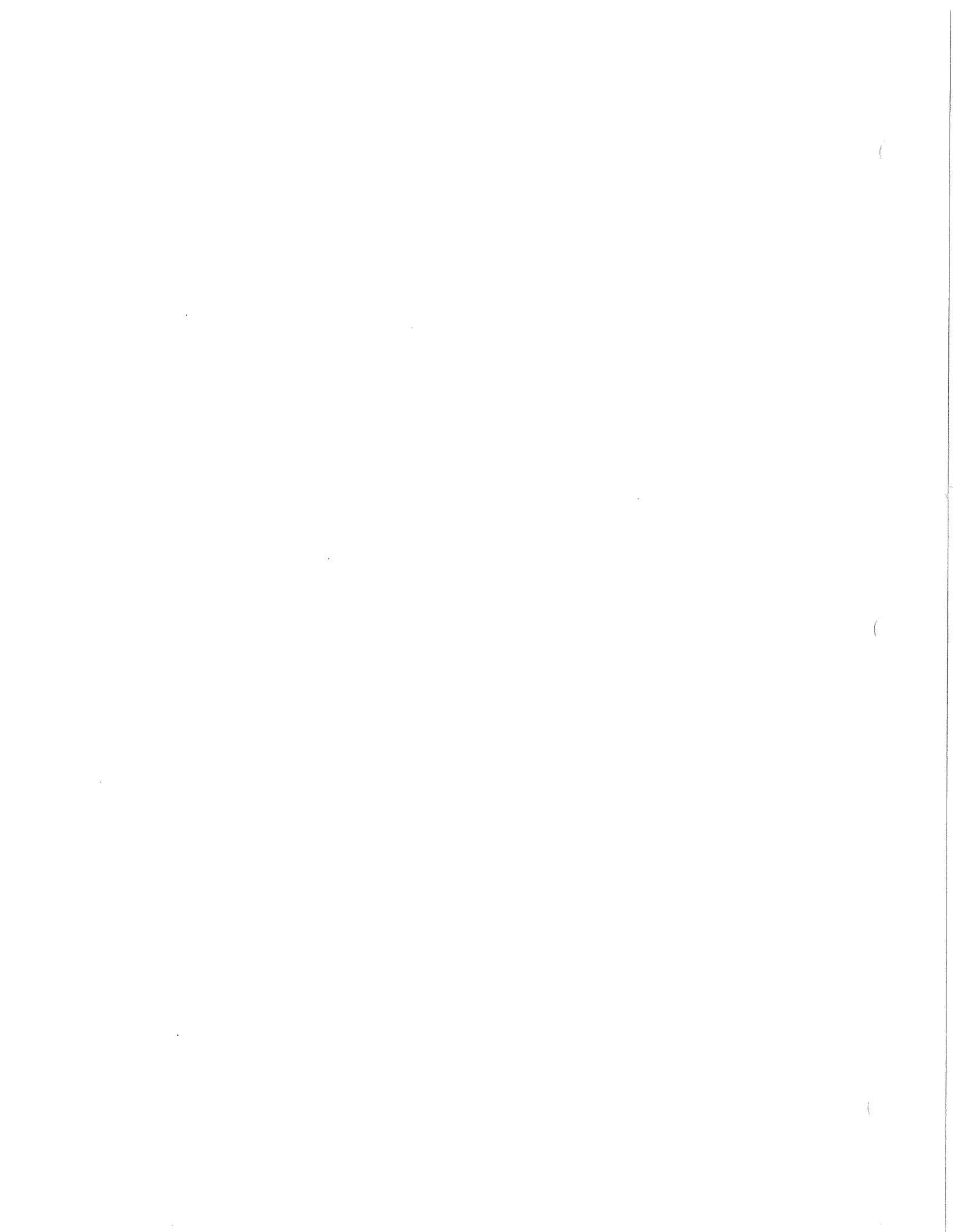


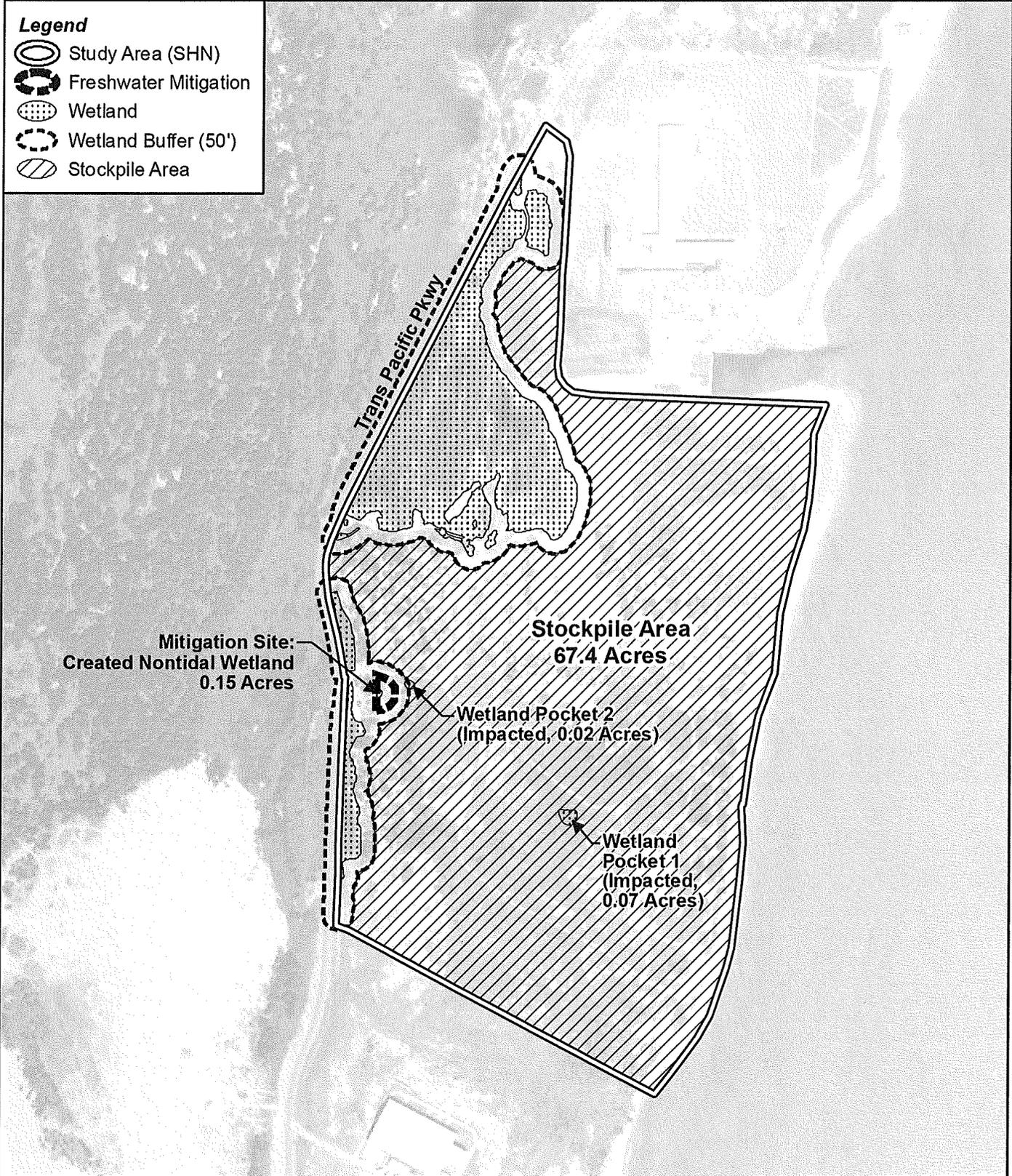


Aerial Photograph: Bureau of Land Management, Coos County, 2005

Figure 2, Sheet 3
Intertidal Flats (Kentuck Slough) Mitigation Site

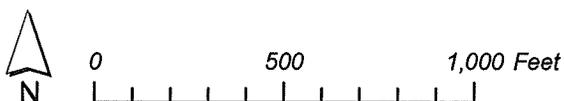






Aerial Photograph: Bureau of Land Management, Coos County, 2005

Figure 2, Sheet 4
Port Stockpile Site and Freshwater Wetland Mitigation Site





Legend

 Mitigation Site*

North Bend Municipal Airport

City of North Bend

* Estuary habitats extend beyond mitigation area.

Aerial Photograph: Bureau of Land Management, Coos County, 2005

Figure 2, Sheet 5
Eelgrass Mitigation Site Easement

