EXHIBIT K
LAND USE
OAR 345-021-0010(1)(K)

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APPENDICES

1.0 ELECTION FOR COUNCIL LAND USE DETERMINATION

1.1 INTRODUCTION

The South Dunes Power Plant ("SDPP") will be located on a former Weyerhaeuser linerboard site, closed in 2003 and since demolished. The SDPP will produce a nominal 420 megawatts ("MW") of electrical power, and process steam for gas conditioning, prior to delivery to the Jordan Cove Liquefied Natural Gas ("LNG") facility and may include distribution of power for public sale. Access to the SDPP will be from US-101 then west on the Trans Pacific Parkway, two miles north of the City of North Bend. The site elevation will be built up out of the tsunami inundation zone using material dredged from the approved Oregon International Port of Coos Bay's marine terminal and slip. Exhibit B, **Figure B-1, Sheets 1 and 2** provides an overview of the SDPP east and west of Jordan Cove Road, respectively. The Applicant for the project is Jordan Cove Energy Project, L.P.

The term "Site Boundary" means the proposed location of the SDPP which includes an area of approximately 137.86 acres.[1] The term "Facility" means the actual SDPP and the supporting or related facilities.[2] **Figure K-1** outlines the area of the Site Boundary (in dark blue) and depicts zoning within a one-mile radius of the Site Boundary. **Figure K-2** provides an overlay of the Site Boundary on a zoning district map and shows arbitrary numbers assigned to areas within the Site Boundary for discussion purposes.

1.2 COMPLIANCE WITH EFSC STANDARDS & PROCEDURES FOR COUNCIL LAND USE DETERMINATION

OAR 345-021-0010(1)(k) *Information about the proposed facility's compliance with the statewide planning goals adopted by the Land Conservation and Development Commission, providing evidence to support a finding by the Council as required by OAR 345-022-0030. The applicant shall state whether the applicant elects to address the Council's land use standard by obtaining local land use approvals under ORS 469.504(1)(a) or by obtaining a Council determination under ORS 469.504(1)(b). An applicant may elect different processes for an energy facility and a related or supporting facility but may not otherwise combine the two processes. Once the applicant has made an election, the applicant may not amend the application to make a different election. In this subsection, "affected local government" means a local government that has land use jurisdiction over any part of the proposed site of the facility.*

Findings: The Applicant elects to address the Energy Facility Siting Council ("EFSC" or "Council") land use standard by obtaining a Council determination under ORS 469.504(1)(b). The Council appointed the Coos County Board of Commissioners, the governing body of Coos County, to serve as a Special Advisory Group ("SAG") to the Council on February 3, 2012 under ORS 469.480

[1] ORS 469.300(25) defines "Site" as the proposed location of an energy facility and related or supporting facilities. As used herein the term "Site Boundary" is synonymous with "Site" and is used as defined in ORS 469.300(25).
[2] ORS 469.300(14) defines "Facility" as an energy facility together with any related or supporting facilities. As used herein the term "Facility" is used as defined in OAR 469.300(14).

OAR 345-021-0010(1)(k)(A) *Include a map showing the comprehensive plan designations and land use zones in the analysis area.*

Findings: The Facility's Project Order[3] states that the land use "analysis area" includes land within the Facility and within one (1.0) mile of the Facility. **Figure K-1** shows the land use zones within the Facility and adjacent lands within the analysis area. These land use zones are consistent with the underlying Comprehensive Plan designations in Coos County, Oregon because Coos County has an integrated land use zoning and comprehensive plan map.

1.3 ZONING CRITERIA ANALYSIS – HIERARCHY OF LOCAL PLAN & CODE REGULATIONS

The goals and policies of the Coos County Comprehensive Plan ("CCCP") are only relevant review criteria when expressly referenced by the Coos County Zoning and Land Development Ordinance ("LDO"). Otherwise, the goals and policies of the CCCP are not applicable review criteria.

1.4 SUMMARY OF REQUESTED CONDITIONAL USE PERMITS & APPROVALS

OAR 345-021-0010(1)(k)(C) *If the applicant elects to obtain a Council determination on land use:*
(i) Identify the affected local government(s).

Findings: The Site Boundary includes only land within Coos County, Oregon and outside any city. Therefore, the affected local government is Coos County, Oregon.

(ii) Identify the applicable substantive criteria from the affected local government's acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and that are in effect on the date the application is submitted and describe how the proposed facility complies with those criteria.

Findings: The applicable substantive criteria from the CCCP and the LDO are set forth in the attached SAG Memoranda dated February 7, 2014 and July 17, 2014 as Appendix K-6 and Appendix K-7, respectively. As recommended by the SAG, review of the proposed Facility will be through the County's administrative conditional use ("ACU") procedures and criteria.[4] As

[3] Amended October 14, 2013.
[4] The SAG advises that the County uses its ACU procedures to make compliance determinations for uses designated as permitted, but which require further compliance review. For example, uses identified as permitted outright (P) in the Balance of County still require additional compliance determinations under the LDO regarding the additional requirements of LDO Section 4.2.100 and the supplemental provisions of Chapter III. Further, in the CBEMP compliance determinations are still needed for uses identified as permitted subject to general conditions (P-G), with the general conditions serving as the applicable review criteria identified in the related site-specific CBEMP zoning districts. Moreover, LDO Section 5.0.400A provides that applications for more than one land use decision on the same property may be submitted together for concurrent review. If the applications involve different review processes, such as presented in Exhibit K seeking administrative conditional uses and lesser compliance determinations, then they will be heard or decided under the higher review procedure, for example, this combined application for administrative conditional use and lesser compliance determinations will be heard and decided under the higher administrative conditional use (ACU) review procedures.

discussed below, the Facility complies with the Coos County administrative conditional use procedures and criteria of LDO Section 5.2.100(B), Section 5.2.400 and Section 5.2.500. As advised by the SAG, the additional criteria in the Balance of County zones, including the IND zone, are established in Section 4.2.100 and the supplemental provisions of Chapter III. Further, the additional criteria in the CBEMP zoning districts, including zoning districts 7-D, 6-DA, 6-WD and 8-WD, are established in each of the related site-specific zoning district matrices. Each zoning district lists the general and/or specific conditions which apply to the requested use or activities. Table K-1 provides a list of the requested permit or approval and the applicable review criteria.

Table K-1. Requested Land Use Approvals and Permits

Permit or Approval	Applicability	Relevant Criteria
A) Industrial (IND) Zone		
• Administrative Conditional Use (ACU) for Compliance Determinations with Applicable Provisions of LDO & CCCP	ACU for compliance determinations to allow power plant use in IND zone in Area 1, Area 1-A & Area 1-B, as required by LDO Section 4.2.100 and the supplemental provisions of Chapter III (prior to issuance of a zoning verification letter under LDO Section 3.1.200, discussed below). Applies to all Facilities in the IND zone.	LDO Sec. 4.2.100 LDO Sec. 4.2.600 LDO Table 4.2e LDO Art. 4.6 - Overlay zones LDO Art.4.7 - Special Considerations LDO Chap. V - Administration (ACU Extensions) LDO Art. 4.4 - Development Standards LDO Chap. III -Supplemental Provisions LDO Chap. VII (Street & Road Standards)
• ACU to allow Development in Dune Areas with "Limited Development Suitability"	ACU to allow development of the transmission corridor and the accessory road and utility corridor in IND zone that have been identified as dune areas with "Limited Development Suitability."	LDO Phenomenon 4. Beaches and Dunes
• ACU for Compliance Determination for Accessory Substation	ACU for compliance determination to allow the substation as an accessory use to primary use, the SDPP.	LDO Secs. 3.1.300(A), (B), (F) LDO Secs. 3.2.150(1), (2)
• Zoning Verification Letter	Coos County has no building official. Coos County issues a zoning compliance letter to the state building official following the compliance determinations described above, that relevant zoning has been complied with and that a building permit may be issued. Applies to all Facilities in the IND zone.	LDO Sec. 3.1.200
B) Coos Bay Estuary Management Plan (CBEMP)		
1) East of Jordan Cove Road		

Permit or Approval	Applicability	Relevant Criteria
• ACU to Allow Power Plant Use & Fill	ACU to allow power plant use in 7-D zoning areas east of Jordan Cove Road as Industrial & Port Facilities use; and to allow temporary fill in the 7-D zone in Area 1-B to allow construction of a bridge over wetlands.	CBEMP Zoning District 7-D
• ACU to allow Development in Special Flood Hazard Areas	The LDO requires an ACU approval to allow development in "Special Flood Hazard Areas." The ACU requires review of Policy #27, which triggers review of LDO Section 4.6.230.	CBEMP Zoning District 7-D CBEMP Policy #27 LDO Sec. 4.6.230
• ACU to allow Development in Dune Areas with "Limited Development Suitability"	ACU to allow development in 7-D areas that have been identified as dune areas with "Limited Development Suitability."	CBEMP Zoning District 7-D CBEMP Policy #30
• ACU for Land Transportation Facility in 8-WD	ACU to allow a public road connection to TransPacific Parkway.	CBEMP Zoning District 8-WD
2) West of Jordan Cove Road		
• ACU for compliance determination for Accessory Road and Utility Corridor.	ACU for compliance determination for the accessory road and utilty corridor. The applicable criteria are the accessory use criteria from the LDO Article 3.	CBEMP Zoning District 6-WD LDO Article 3
• Administrative Conditional Use to Allow New and Maintenance Dredging	ACU to allow new and maintenance dredging in Area 1-E in zoning district 6-DA to dredge the "access triangle" to provide access to the barge berth.	CBEMP Zoning District 6-DA
• Administrative Conditional Use to Allow Construction, Fill and Shoreline Stabilization for the barge berth	ACU to allow construction, temporary and permanent fill, and shoreline stabilization in Area 1-E in zoning district 6-DA to construct the barge berth.	CBEMP Zoning District 6-DA
• Zoning Verification Letter	Coos County has no building official. Coos County issues a zoning compliance letter to the state building official following the compliance determinations described above, that relevant zoning has been complied with and that a building permit may be issued. Applies to all Facilities in the CBEMP.	LDO Sec. 3.1.200

The applicable substantive criteria for these approvals and permits depicted on Table K-1 are contained in the LDO provisions cited above in response to OAR 345-021-0010(1)(k)(C) above. This includes the relevant provisions of the LDO and related provisions of the CBEMP and CCCP.

2.0 REQUESTED ADMINISTRATIVE CONDITIONAL USE (ACU) PERMITS

As discussed above, the SAG has advised that the determination of compliance with all Coos County land use regulations applicable to the Facility will be accomplished through the administrative conditional use provisions of the LDO set out below.

Section 5.2.100 - Conditional Uses

B. Administrative Conditional Uses (ACU). An Administrative Conditional use is a use or activity with similar compatibility or special conservation problems. An application for an administrative conditional use requires review by the Planning Director to insure compliance with approval criteria.

Findings: Exhibit K contains requests for administrative conditional uses. The SAG has identified the applicable administrative conditional use review criteria for the Facility, as discussed in the findings under LDO Section 5.2.500 below.

Section 5.2.400. Process for Conditional Uses. *A conditional use may be initiated by filing an application with the Planning Department using forms prescribed by the Department.*

Upon receipt of a complete application, the Planning Department may take action on a conditional use request by issuing an administrative decision or scheduling a public hearing as determined by the applicable zoning.

The Planning Director, may at his or her discretion, refer any administrative conditional use to the Hearings Body. If such a referral is made the process for review and decision shall be the same as a conditional use otherwise reviewed by the Hearings Body.

The SAG advises that the administrative conditional use procedures shall apply to the additional compliance determinations required by the LDO for permitted uses. The specific criteria are set out in the findings in the next section.

Section 5.2.500. Criteria for Approval of Applications. *An application for a conditional use or an administrative conditional use shall be approved only if it is found to comply with this Article and the applicable review standards and special development conditions set forth in Tables 4.2-a through 4.2-f, and Table 4.3-a and any other applicable requirements of this Ordinance.*

As further discussed in more detail in Section K.2.1 below, the SAG advises that the applicable administrative conditional use criteria are different for uses in the Balance of County then in the CBEMP. The review standards and special development conditions referenced in Tables 4.2a-4.2f are applicable criteria to the Balance of County zoning districts, including the IND zone, but not to CBEMP zoning districts. Likewise, LDO Section 4.2.100 which applies additional regulations as ACU criteria to permitted uses in the Balance of County, does not apply to CBEMP zoning districts. CBEMP zoning districts include the applicable review criteria for administrative conditional uses and are set forth as the management objectives and the special and general conditions in the respective site-specific zoning districts set out in the CBEMP. Finally, Table 4.3a relates only to areas within the CBEMP.

The requested administrative conditional use permits and approvals for the Facility and the Site Boundary are identified in the following sections by reference to components and related zoning districts(s) shown on **Figure K-2**, also summarized below by areas east and west of Jordan Cove Road.

2.1 ACU FOR COMPLIANCE DETERMINATION FOR POWER PLANT AND DEVELOPMENT IN DUNE AREAS IN IND ZONE

Table 4.2e, a partial copy of which is depicted below, clearly establishes that the South Dunes Power Plant, characterized under the LDO as a "Utility facility: Generation of power for public sale" is permitted (P) in the IND zone, not subject to any of the applicable special conditions listed in Table 4.2e. However, as described in footnote number one, above and further below, all permitted uses in the IND zone are subject to review of the additional regulations that may be applicable under LDO Section 4.2.100 and Chapter III, as determined through the LDO's administrative conditional use procedures discussed above.

The SDPP is listed as a permitted primary use in the IND zone, namely a "Utility facility: Generation of power for public sale" (utility facility), and the transmission corridor, utility corridor, barge berth, haul road, substation, parking areas, and related facilities are accessory uses to the primary SDPP use. Although permitted, permitted uses are nonetheless subject to compliance with review of the additional regulations that may be applicable to allowed uses listed in Table 4.2 under LDO Section 4.2.100, and the supplemental provisions of Chapter III, as discussed below. The following analysis applies to the power plant (Area 1) and the portions of the transmission corridor (Area 1-A) and road and utility corridor (Area 1-B) east of Jordan Cove Road situated in the IND zone.

2.1.1 Section 4.2.100 - Criteria for Permitted Uses in IND Zone

As discussed above, permitted uses in the Balance of County zoning districts, including the IND zone, may still require compliance determinations with any expressly identified applicable special conditions identified in Table 4.2e and with any of the additional regulations that may also apply under LDO Section 4.2.100. As also determined by the SAG, the applicable criteria for the administrative conditional use review for the Facility in the IND zone are those standards identified in Section 4.2.100 and Chapter III of the LDO set out below.

The uses and activities allowed within the individual zoning districts prescribed in Section 4.1.100, together with those uses that may be conditionally allowed or which are prohibited, are set forth in Tables 4.2a through 4.2g.

The zoning use tables stipulate where and under what specific circumstances development may occur. In addition to any applicable special conditions or findings prescribed in Section 4.2.900, the following may also limit and regulate uses and activities in Tables 4.2a through 4.2g:

1. *Article 4.6, "Overlay Zones"*
2. *Article 4.7, "Special Considerations"*
3. *Chapter V, "Administrative" (Procedural requirements)*
4. *Article 4.4, "General Development Standards"*

Findings: The Applicant is requesting a compliance determination from the Council with respect to any applicable additional regulations or supplemental provisions needed for the issuance of a zoning verification letter for the Facility. As stated above, the use is described as a Utility facility: Generation of power for public sale, a permitted use in the IND zone, as described in LDO Section 4.2.600, Table 4.2-e with no applicable special development conditions under LDO Section 4.2.900. There are other sections that also apply to all uses in the zones listed in Table 4.2. In addition to any applicable special condition found in Table 4.2-e, LDO Section 4.2.100 requires uses in the IND zone to be reviewed for compliance with any applicable regulations under Article 4.6, Overlay Zones; Article 4.7, Special Considerations; Chapter V, Administration (Article 5.0 Administration & Section 5.0.700 Expiration and Extension of Conditional Uses); and Article 4.4, General Development Standards, which requires compliance with Chapter X. Please note that Section 4.2.100 imposes additional regulations only if found applicable on review.

The following sections provide evidence of compliance with each applicable standard under Section 4.2.100:

2.1.1.1 Section 4.2.900 – Table 4.2e Review Standards and Special Development Conditions for the IND Zone

The review standards and special development conditions referenced in Tables 4.2-a through 4.2-g are set forth in this section.

P The use or activity is permitted outright.

Table 4.2e Review Standards and Special Development Conditions for the IND Zone	
Commercial-Industrial Use	*Zone District*
	IND
Utility Facility:	
Generation of power for public sale	*P*

Findings: As shown above in the portion of Table 4.2e applicable to commercial industrial zoning districts, the proposed utility facility use is permitted outright and none of the review standards or special development conditions of this section apply. This criterion is satisfied.

2.1.1.2 Article 4.4 – General Development Standards

Table 4.4-c establishes the property development standards for commercial-industrial zones through the information disclosed in the table and the related footnotes.

Findings: The Facility and Site Boundary complies with all property development standards, including: street frontage, lot width, set-back standards,

building height, and off-street parking. No other standards apply to this request for Council approval. All of the above criteria are satisfied.

Section 4.4.600. General Standards for Commercial-Industrial Zoning Districts. *The general standards set forth in Tables 4.4-c shall apply to the zoning districts and uses addressed in Table 4.2-e.*

Findings: The Facility complies with the applicable general standards set forth in Table 4.4-c (Development Standards) as an use addressed in Table 4.2-e (Utility Facility: Generation of power for public sale in the IND zone). The required property development standards are: street frontage, lot width, set-back standards, building height (Footnote #3), and off-street parking (Footnote #7).

The Applicant is compliant with the 20' minimum street frontage and 20' minimum lot width because the Facility will have well over 20' of street frontage and the lot width will be well over 20'.

The Facility does not abut a residential or controlled development, thus the set-back standards do not apply. Footnote #3 is not an applicable requirement to the Facility because Footnote #3 only applies to sites abutting a residential or controlled development zone.

Footnote #7 requires compliance with offstreet parking and loading requirements per Chapter X. The Applicant is compliant with the offstreet parking standards in Chapter X as demonstrated in Section K.2.1.1.3.

For the aforementioned reasons, the Applicant is compliant with the property development standards set forth in Table 4.4-c in the IND zone.

Section 4.4.630. Conformance Requirement. *All Structures and uses within the Airport Operations District shall conform to the requirements of Federal Aviation Agency Regulation FAR-77 or its successor, and to other Federal and State laws as supplemented by Coos County ordinances regulating structure height, lights, glare producing surfaces, radio interference, smoke, steam or dust, and other hazards to flight, air navigation or public health, safety and welfare.*

Findings: The Airport Operation (AO) is a zoning district defined in the LDO. As advised by the SAG and confirmed by the CCCP Plan Zone Map, none of the project components are located inside of the AO Zone. Therefore, this criterion does not apply.

2.1.1.3 Chapter X Offstreet Parking, Section 10.1.300 – Parking Area Design[5]

Section 10.1.300 of Chapter X provides the only site planning for parking and pedestrian facilities. The Applicant has been working with the Roadmaster and in

[5] Required to be addressed by Table 4.4-c, Footnote #7

response to preliminary feedback from the Roadmaster has designed the parking plan to eliminate conflicts between pedestrians and vehicles.

Ingress and Egress. In any zoning district, driveways or access ways providing ingress and egress for private parking areas or garages, public parking areas or garages and parking spaces shall be permitted, together with any appropriate traffic control devices in any required yard or setback area.

Findings: The Parking and Landscaping Plan, **Figure K-3**, depicts the areas of ingress and egress to the public and private parking areas, with appropriate traffic control devices in the form of striping and signage. The proposed internal circulation and access has been reviewed and tentatively approved by the Roadmaster. This criterion is satisfied.

Minimum Standards for Parking. All public or private parking areas and parking spaces shall be designed and laid out to conform to the minimum standards as specified in the Parking Table and Diagram. All parking lot designs shall be reviewed and approved by the County Roadmaster.

Findings: Section 10.1.300 sets forth the required number of parking spaces for the proposed use. For industrial use, one space per employee and one (1) bicycle parking space is required for storage warehouse, manufacturing establishments or trucking freight terminals, the use category most similar to the proposed use. As set forth above, it is anticipated that a total of 6 employees will be on site per shift, plus 15 full time maintenance workers at the SDPP, with the proposed Parking and Landscaping Plan, as **Figure K-3**, proposing 291 accessory parking space, more than the required number under this section. Further, the Parking and Landscaping Plan proposes 2 bicycle parking spaces, in excess of the required number. This criterion is satisfied.

Service Drive. Groups of three or more parking spaces, except those in conjunction with single-family or two-family dwelling structures on a single lot, shall be served by a service drive so that no backward movement, or other maneuvering of a vehicle within a public right-of-way, other than an alley, will be required. Service drives shall be designed and constructed to facilitate the flow of traffic, provide maximum safety for ingress and egress and maximum safety of pedestrians.

Findings: The Parking and Landscaping Plan, **Figure K-3**, indicates each parking lot will be provided with a service drive to allow ingress and egress for vehicles and pedestrian walkways to authorized access locations. Parking provided without service drives are internal to the Site Boundary and are not subject to the criterion. This criterion is satisfied.

Lighting. Any lights provided to illuminate any public or private parking area shall be so arranged as to reflect the light away from any abutting or adjacent residential district or use.

Findings: The Site Boundary does not abut or is not adjacent to a residential district or use. This criterion does not apply.

Landscaping. For every 10 required parking spaces, 16 square feet of landscaping will be required. Each 16 square foot area should include, one tree and three one-gallon shrubs or living ground cover.

Findings: The Parking and Landscaping Plan, **Figure K-3**, shows the area of proposed landscaping for 466 square feet. The square footage of landscaping is in excess of the amount of landscaping required (16 square feet of landscaping for every 10 required parking spaces). This criterion is satisfied.

2.1.1.4 Article 4.7 – Special Considerations

The following section will review the IND portions of the Site Boundary for a compliance determination for the proposed power plant (utility facility) use in the IND zone.[6]

The purpose of this Article is to prescribe special regulations for the use and development of land situation within resource or hazard areas identified on the Special Considerations Maps for Volume I (Balance of County).

Findings: The IND zone is in the Balance of County. The areas of special consideration in the Balance of County for the IND zoned areas within the Site Boundary are discussed below.

Section 4.7.105 - Prescribed Regulations: *Development in areas identified on the Special Considerations Map shall be limited by the regulations prescribed by the "Special Regulatory Considerations" set forth in Tables 4.7a, b, and c. Table 4.7a shall apply to the Balance of County. Table 4.7b shall apply to those lands within the Coquille River Coastal Shoreland Boundary. Table 4.7c shall apply to the Coos Bay Estuary Coastal Shoreland Boundary.*

Findings: The following sections of **Exhibit K** will discuss the regulations prescribed by Table 4.7a for the portions of the Site Boundary located in the IND zone in the Balance of the County.

Section 4.7.115 - Relation to Plan Inventory: *The Special Considerations Map is not a substitute for the detailed spatial information presented on the CCCP and CBEMP inventory maps. The Special Considerations Map is merely an index*

[6] As indicated in the Inventory of Prior Approvals on the Mill Site in **Appendix K-1**, the IND zoned portions of the Site Boundary were approved by the County in the Prior Decisions for the activity of fill.

guide designed as a zoning counter implementation tool that indicates when special policy considerations apply in general area, thereby requiring inspection of the detailed plan inventory maps. The Special Considerations Map must and shall at all times accurately reflect the detail presented on the inventory maps (but at a more general scale).

Findings: The SAG advises that the Special Considerations Map no longer exists and that the SAG relies on the detailed plan inventory maps. The following sections of this narrative show how the Facility complies with the areas of special consideration applicable to the IND zoning within the Site Boundary using the County's CCCP/inventory maps, by reference to each of the Phenomenon contained in Table 4.7a. Table 4.7a directs the reader to the appropriate page number and policy.

Table 4.7a. See **Figure K-4.1 – Mineral & Aggregate**

Phenomenon	Special Regulatory Considerations Summary	Appendix	
		Page	Strategy No.
1. Mineral & Aggregate	1a. Preserve these in their original character until mined.	1-12	1
	b. Agriculture & forestry uses are acceptable per zone and use district requirements.	1-12	1
	c. Allow new conflicting uses within 500 ft. subject to ESEE findings through the conditional use process.	1-12	1
	d. Non-exploratory mining operations are conditional uses, where allowed.	1-13	2

1. **Mineral & Aggregate Appendix I, Pages 12-13, Strategy Nos. 1 & 2:**

Plan Implementation Strategies

1. Coos County shall manage its identified mineral and aggregate resources (except black sand prospects) in their original character until mined, except where conflicting uses are identified during implementation of the Plan, and such uses are justified based on consideration of the economic, social, environmental and energy consequences of the conflicting uses, or where existing uses have been grandfathered.

Conflicting uses include dwellings and any other structures within 500 feet of the resource site. Where no conflicts are identified, agriculture, forest or similar open space zoning shall be used to implement this strategy.

When a conflicting use is proposed at a given site, the decision about allowing development of the proposed use or the development or protection of the aggregate resource shall be made through a conditional use process where findings are developed which address the economic, environmental, social and energy consequences of allowing the proposed conflicting use, development of the aggregate resource, or both at the site. The following guidelines must be considered as part of the conditional use process:

Economic consequences:	*payroll, jobs, taxes, economic opportunity costs associated with developing or not developing each conflicting use, and other pertinent factors.*
Environmental consequences:	*the impacts on air, land and water quality, and on adjacent farm and forest resources associated with developing each conflicting use, and other pertinent factors.*
Social consequences:	*the effect of the proposed uses on public service delivery, the general compatibility of the proposed uses with surrounding cultural land uses, and other pertinent factors.*
Energy consequences:	*the location of the proposed resource development site in relationship to market areas, and other pertinent factors.*

The decision to allow one or both of the conflicting uses shall be supported by findings which demonstrate that the decision will foster maximum public gain. Reasonable conditions may be imposed on any authorized development to ensure compatibility. Such conditions may include screening, setbacks and similar measures.

2. Coos County shall regulate new recovery operations by designating such activities as conditional uses in appropriate zones, except where permitted outright in forest zones, to ensure compatibility with adjacent uses.

Site restoration shall conform to the requirements of ORS 517.750 to 517.900, "Reclamation of Mining Lands".

This strategy recognizes that project review by the Hearings Body is necessary to minimize the adverse impacts that are typically associated with mining operations, and which often make such recovery activities incompatible with adjacent uses.

Findings: There are no identified mineral or aggregate resources within the IND zoned area in the Site Boundary, except the designation of a portion of the area as a coal basin. However, under the provisions of Strategy 1, the coal basin is described as commercially unviable and,

accordingly, not designated as a Goal 5 recourse. See the Mineral & Aggregate inventory map, **Figure K-4.1**. Non-exploratory mining operations are not being proposed. The request for Council approval is consistent with Phenomenon 1 regarding mineral and aggregate resources. The above strategies are satisfied.

Table 4.7a. See **Figure K-4.2 – Water Resources**

PHENOMENON	SPECIAL REGULATORY CONSIDERATIONS SUMMARY	APPENDIX	
		Page	Strategy No.
2. Water Resources	2a. Prohibits new residential and commercial developments in rural areas other than committed areas when evidence or irreversible degradation by new withdrawal or septic tanks has been submitted.	1-21	1

2. Water Resources – Appendix I, Page 21, Strategy No. 1:

Plan Implementation Strategies

1. Coos County shall not permit further new residential and commercial development in rural areas where the Oregon State Water Resources Department (OSWRD), the Oregon State Environmental Quality commission (EQC), or the Oregon State Health Division (OSHD) has submitted compelling evidence to Coos County that water resources within that area would be irreversibly degraded by new consumptive withdrawal or by additional septic tank or other waste discharges.

Implementation measures in such areas may include a moratorium on construction permits for new residences or new commercial uses in the identified area. If an adequate solution to resolve the problem cannot be reached, such as extension of public water to the area in conformance with this plan, the County shall initiate a process to redesignate any undeveloped land within the area to a resource designation, and shall reallocate any other plan designations on such undeveloped land to other rural areas of the County on an acreage-by-acreage basis.

This strategy is based on the recognition that: (1) prediction of the maximum appropriate level of development requires detailed technical studies of each rural watershed; (2) that such information is not currently available; and (3) that reallocation of non-resource plan designations such as Rural Residential to other rural areas as an appropriate and efficient method of meeting development needs where the state agencies charged with monitoring water quality have submitted compelling evidence that irreversible water resource degradation will occur in specific rural areas.

Findings: There are no identified water resources on the IND zoned area within the Site Boundary to protect, except that the western portion of the area shows the proximate extent of dunes aquifers in that location. See the water resources inventory map, **Figure K-4.2**. The

request for Council approval for a power plant does not propose any residential or commercial development. The request is consistent with Phenomenon 2 regarding Water Resources. This strategy is satisfied.

Table 4.7a See **Figure K-4.3 - Historical/Archeological Sites & Structures**

PHENOMENON	SPECIAL REGULATORY CONSIDERATIONS SUMMARY	APPENDIX	
		Page	Strategy No.
3. Historical/ Archeological Sites & Structures	3a. Manage these for their original resource value.	1-19	1
	b. Develop proposals in identified archaeological areas must have a "sign-off" by qualified person(s).	1-20 1-19	3 2
	c. Historical structures and sites can only be expanded, enlarged or modified if Coos County finds the proposal to be consistent with the original historical character of the structure or site.		

3. Historical/Archeological Sites & Structures – Appendix I, Pages 19-20, Strategy Nos. 1, 2 & 3:

Plan Implementation Strategies

1. Coos County shall manage its historical, cultural and archaeological areas, sites, structures and objects so as to preserve their original resource value.

This strategy recognizes that preservation of significant historical, cultural and archaeological resources is necessary to sustain the County's cultural heritage.

Findings: This strategy is a legislative directive to the County to adopt protective regulations and does not apply directly to site specific zoning approval requests such as this.

2. Coos County shall permit the expansion, enlargement or other modification of identified historical structures or sites provided that such expansion, enlargement or other modification is consistent with the original historical character of the structure or site;

This strategy shall be implemented by requiring Planning Director review of site and architectural plans to ensure that the proposed project is consistent with the original historical character of the site and structure.

This strategy recognizes that enlargement, expansion or modification of historical structures is not inconsistent with Coos County's historic preservation goal, provided the County finds that the proposed changes are consistent based on site and architectural standards. Further, this

strategy recognizes (1) that the site and architectural modification may be necessary to preserve, protect or enhance the original historical character of the structure, and (2) that the historical value of many of the county's identified historical structures is often marginal and incidental to the structure's current use as private property.

Findings: No expansions, enlargements or other modifications of identified historical structures or sites is proposed by this request for Council approval. This strategy is satisfied.

3. Coos County shall continue to refrain from wide-spread dissemination site-specific inventory information concerning identified archaeological sites. Rather, Coos County shall manage development in these areas so as to preserve their value as archaeological resources.

This strategy shall be implemented by requiring development proposals to be accompanied by documentation that the proposed project would not adversely impact the historical and archaeological values of the project's site. "Sufficient documentation" shall be a letter from a qualified archaeologist/historian and/or a duly authorized representative of a local Indian tribe(s). The Coos County Planning Department shall develop and maintain a list of qualified archaeologists and historians. In cases where adverse impacts have been identified, then development shall only proceed if appropriate measures are taken to preserve the archaeological value of the site. "Appropriate measures" are deemed to be those, which do not compromise the integrity of remains, such as: (1) paving over the sites; (2) incorporating cluster-type housing design to avoid the sensitive areas; or (3) contracting with a qualified archaeologist to remove and re-inter the cultural remains or burial(s) at the developer's expense. If an archaeological site is encountered in the process of development, which previously had been unknown to exist, then, these three appropriate measures shall still apply. Land development activities found to violate the intent of this strategy shall be subject to penalties prescribed by ORS 97.745 (Source: Coos Bay Plan).

This strategy is based on the recognition that preservation of such archaeologically sensitive areas is not only a community's social responsibility but is also a legal responsibility pursuant to Goal #5 and ORS 97.745. It also recognizes that historical and archaeological sites are non-renewable, cultural resources (Source: Coos Bay Plan).

Findings: The IND zoned area within the Site Boundary does not contain an area of archeological concern. However, the related inventory map for the Balance of the County, which does not contain a site specific inventory, refers to the entire section in which the Site Boundary is located as an area of archaeological concern. See **Exhibit S**. Accordingly, a condition of approval relative to areas of archeological concern may be needed with respect to this request for Council approval. See the Historical/Archeological Sites & Structures inventory map, **Figure K-4.3**. The request for Council approval is consistent with Phenomenon 3 regarding Historical/Archeological Sites & Structures. This strategy is satisfied.

Table 4.7a See **Figure K-4.4 - Beaches & Dunes**

PHENOMENON	SPECIAL REGULATORY CONSIDERATIONS SUMMARY	APPENDIX	
		Page	Strategy No.
4. Beaches & Dunes	4a. Permit development within "limited development suitability" only upon establishment of findings. Requires Administrative Conditional Use. b. Prohibits residential, commercial, or industrial development within areas "unsuitable for development". Permit other developments only upon establishment of findings. Requires Administrative Conditional Use. c. Cooperation with agencies to regulate: destruction of vegetation, erosion shore structures and other developments, requires Administrative Conditional Use and agency comments.	1-23 1-24 1-25	2 3 4

4. Beaches & Dunes – Appendix I, Pages 23-25, Strategy Nos. 2, 3 & 4:

Plan Implementation Strategies

2. Coos County shall permit development within areas designated as "Beach and Dune Areas with Limited Development Suitability" on the Special Considerations Map only upon the establishment of findings that consider at least:

a. the type of use proposed and the adverse effects it might have on the site and adjacent areas;

b. the need for temporary and permanent stabilization programs and the planned maintenance of new and existing vegetation;

c. the need for methods for protecting the surrounding area from any adverse effects of the development; and

d. hazards to life, public and private property, and the natural environment which may be caused by the proposed use.

Further Coos County shall cooperate with affected local, state and federal agencies to protect the groundwater from drawdown, which would lead to loss of stabilizing vegetation, loss of water quality, or intrusion of saltwater into water supplies.

Implementation shall occur through an Administrative Conditional Use process, which shall include submission of a site investigation report by the developer that addresses the five considerations above.

This policy recognizes that:

a. The Special Considerations Map Category of "Beach and Dune Areas with Limited Development Suitability" includes all dune forms except older stabilized dunes, active foredunes, conditionally stable foredunes that are subject to ocean undercutting or wave overtopping, and interdune areas (deflation plains) subject to ocean flooding.

b. The measures prescribed in this policy are specifically required by Statewide Planning Goal #18 for the above-referenced dune forms; and that this strategy recognizes that potential mitigation sites must be protected from pre-emptory uses.

Findings: Two areas within the IND zoned area of the Site Boundary are shown as being located within "Beach and Dune Areas with Limited Development Suitability." See **Appendix K-3**. The two areas are: (1) the western end of transmission corridor (Area 1-A) and (2) portions of the accessory road and utility corridor that extend across a Wet Deflation Plain (WDP). As explained in **Appendix K-3**, the land form mapped as a Beaches and Dune Special Consideration Area, including the interdune areas ("Wet Deflation Plains") identified within the project boundary, are located above the base flood elevation and not subject to ocean flooding. Thus, the area is an area with "Limited Development Suitability."

As detailed in Appendix K-3: (1) development in these areas will have no long-term impacts and the short-term impacts will be mitigated for, (2) geotechnical engineers will provide soil stabilization, (3) there project will have minimal potential to generate adverse effects on surrounding areas, (4) the proposed corridors will not cause hazards to life, property, or the natural environment, and (5) the proposed corridors will not draw the groundwater table down and will not increase the potential for saltwater intrusion.

The Applicant requests administrative conditional use approval for development in these dune areas identified as "Beach and Dune Areas with Limited Development Suitability." The request for Council approval is consistent with Phenomenon 4 regarding Beaches & Dune areas. This strategy is satisfied.

3. Coos County shall prohibit residential development and commercial and industrial buildings within areas designated as "Beach and Dune Areas Unsuitable for Development" on the Special considerations Map.

Further, Coos County shall permit other developments in these areas only:

a. When specific findings have been made that consider at least:

i. the type of use proposed and the adverse effects it might have on the site and adjacent areas

ii. the need for temporary and permanent stabilization programs and the planned maintenance of new and existing vegetation,

iii. the need for methods for protecting the surrounding area from any adverse effects of the development, and

iv. hazards to life, public and private property, and the natural environment, which may be caused by the proposed use, and

b. When it is demonstrated that the proposed development:

i. is adequately protected from any geologic hazards, wind erosion, undercutting, ocean flooding and storm waves; or is of minimal value; and

ii. is designed to minimize adverse environmental effects, and

c. When specific findings have been made, where breaching of foredunes is contemplated that: (1) the breaching and restoration is consistent with sound principles of conservation, and either (2) the breaching is necessary to replenish sand supply in interdune areas, or (3) the breaching is done on a temporary basis in an emergency (e.g., fire control, cleaning up oil spills, draining farm lands, and alleviating flood hazards).

Further, Coos County shall cooperate with affected local, state and federal agencies to protect the groundwater from drawdown which would lead to loss of stabilizing vegetation, loss of water quality, or intrusion of saltwater into water supplies.

This policy shall be implemented through: (1) review of the Special Considerations Map when development is proposed in these areas, and (2) an Administrative conditional use process where findings are developed based upon a site investigation report submitted by the developer which addresses the considerations set forth above.

This policy recognizes that:

a. The Special Considerations Map category of "Beach and dune Areas Unsuitable for Development" includes the following dune forms:

i. active foredunes

ii other foredunes which are conditionally stable and that are subject to ocean undercutting or wave overtopping, and

iii. interdune areas (deflation plains) that are subject to ocean flooding,

b. the measures prescribed in this policy are specifically required by Statewide Planning Goal #18 for the above referenced dune forms, and that

c. it is important to ensure that development in sensitive beach and dune areas is compatible with or can be made compatible with, the fragile and hazardous conditions common to such areas.

Findings: No use is proposed in Beaches and Dune areas unsuitable for development on the County's inventory map. See **Figure K-4.4**. This strategy is satisfied.

4. Coos County shall cooperate with state and federal agencies in regulating the following actions in the beach and dune areas described in subparagraph (iii) of Policy #1: (1) destruction of desirable vegetation (including inadvertent destruction by moisture loss or root damage), (2) the exposure of stable and conditionally stable areas to erosion, (3) construction of shore structures which modify current air wave patterns leading to beach erosion, and (4) any other development actions with potential adverse impacts.

This strategy shall be implemented through the processes described in Policies #2 and #3 above and through review and comment by the county on state and federal permits in beach and dune areas.

This strategy recognizes that regulation of these actions is necessary to minimize potential erosion.

Findings: The Applicant will coordinate with state and federal agencies with respect to placement of fill within the IND zoned area within the Site Boundary regarding state and federal wetlands and erosion control permits. The request for Council approval is consistent with Phenomenon 4 regarding Beaches & Dune areas. This strategy is satisfied.

Table 4.7a See **Figure K-4.5 - Non-Estuarine Shoreland Boundary**

PHENOMENON	SPECIAL REGULATORY CONSIDERATIONS SUMMARY	APPENDIX	
		Page	**Strategy No.**
5. Non-Estuarine Shoreland Boundary	5a. Protection of major marshes (wetlands), habitats, headlands, aesthetics, historical and archaeological sites.	1-25	5
	b. Specifies allowed uses within C.S.B.	1-26	7
	c. Permits subdivision, major and minor partitions only upon findings.	1-27	8
	d. Maintain, restore or enhance riparian vegetation as consistent with water dependent uses. Requires Administrative Conditional Use.	1-28	11

5. Non-Estuarine Shoreland Boundary - Appendix 1, Strategy Nos. 5, 7, 8 & 11:

5. Coos County shall provide special protection to major marshes, significant wildlife habitat, coastal headlands, exceptional aesthetic resources, and historic and archaeological sites located within the coastal Shorelands boundary of the ocean, coastal lakes and minor estuaries. Coos County shall consider: (a) "major marshes" to include certain extensive marshes

associated with dune lakes in the Oregon Dunes National Recreation Area and wetlands associated with New River as identified in the Inventory text and maps, and on the Special Considerations Map; (b) "significant wildlife habitat" to include "sensitive big-game range", Snowy Plover nesting areas, Bald Eagle, and Osprey nesting areas, Salmonid spawning and rearing areas, and wetlands; (c) "coastal headlands" to include Yoakum Point, Gregory Point, Shore Acres, Cape Arago south to Three-Mile Creek, Five Mile Point, and Coquille Point; (d) "exceptional aesthetic resources" to include the coastal headlands identified above, and other areas identified in the Coastal Shorelands Inventory; and (e) "historical, cultural and archaeological sites" to include those identified in the Historical, Cultural and Archaeological Sites Inventory and Assessment.

This strategy shall be implemented through plan designations and ordinance measures that limit uses in these special areas to those uses that are consistent with protection of natural values, such as propagation and selective harvesting of forest products, grazing, harvesting wild crops, and low intensity water-dependent recreation.

This strategy recognizes that special protective consideration must be given to key resources in coastal shorelands over and above the protection afforded such resources elsewhere in this plan.

Findings: No use is proposed in the following areas:

(a) No use is proposed in any "major marshes". This substrategy is satisfied.

(b) No use is proposed in any areas of "significant wildlife habitat". This substrategy is strategy.

(c) No use is being proposed in any "coastal headlands". This substrategy is satisfied.

(d) No use is proposed in areas of "exceptional aesthetic resources". This substrategy is satisfied.

(e) Tribes have been consulted with during the archeological surveys for Exhibit S. Conditions for notifying Tribes in case of any inadvertent finding of remains are covered in Exhibit S. This criterion is satisfied.

7. Coos County shall manage its rural areas within the "Coastal Shorelands Boundary" of the ocean, coastal lakes and minor estuaries through implementing ordinance measures that allow the following uses:

a. farm uses as provided in ORS 215;

b. propagation and harvesting of forest products consistent with the Oregon Forest Practices Act.

c. private and public water dependent recreation developments;

d. aquaculture;

e. water-dependent commercial and industrial uses and water-related uses only upon finding by the Board of Commissioners that such uses satisfy a need, which cannot otherwise be accommodated on shorelands in urban and urbanizable areas;

f. single family residences on existing lots, parcels, or units of land when compatible with the objectives and implementation standards of the Coastal Shorelands goal, and as otherwise permitted by the underlying zone;

g. any other uses, provided that the Board of Commissioners determines that such uses: (1) satisfy a need which cannot be accommodated at other upland locations or in urban or urbanizable areas; (2) are compatible with the objectives of Statewide Planning Goal #17 to protect riparian vegetation and wildlife habitat; and (3) the "other" use complies with the implementation standard of the underlying zone designation.

In addition, the above uses shall only be permitted upon a finding that such uses do not otherwise conflict with the resource preservation and protection policies established elsewhere in this plan.

This strategy recognizes: (1) that Coos County's rural shorelands are a valuable resource and accordingly merit special consideration; and (2) that Statewide Planning Goal #17 places strict limitations on land divisions within coastal shorelands.

Findings: The IND zoned area within the Site Boundary is not within the coastal shorelands boundary. See the coastal shorelands boundary map, **Figure K-4.5**. This strategy is satisfied.

8. Coos County shall permit subdivisions and partitions within the "Coastal Shorelands Boundary" of the ocean, coastal lakes or minor estuaries in rural areas only upon finding by the governing body: (1) that such land divisions will not conflict with agriculture and forest policies and ordinance provisions of the Coos County Comprehensive Plan and would be compatible with the objectives of Statewide Planning Goal #17 to protect riparian vegetation and wildlife and either; (2) that the new land divisions fulfill a need that cannot otherwise be accommodated in other uplands or in urban and urbanizable areas; or,(3) that the new land divisions are in a documented area, "committed" area; or, (4) that the new land divisions have been justified through a goal exception.

This strategy shall be implemented through provisions in ordinance measures that require the above findings to be made prior to the approval of the preliminary plat of a subdivision or partition.

This strategy recognizes that Coos County's rural shorelands are a valuable resource and accordingly merit special consideration under Statewide Planning Goal #17.

Findings: No subdivisions or partitions are proposed by this request for Council approval. This strategy is satisfied.

11. Coos County shall maintain riparian vegetation within the shorelands of the ocean, coastal lakes, and minor estuaries, and when appropriate, restore or enhance it, as consistent with water-dependent uses.

Timber harvest, if permitted in the zoning ordinance, shall be regulated by the Oregon Forest Practices Act.

Where the County's Comprehensive Plan identifies riparian vegetation on lands in the coastal shorelands subject to forest operations governed by the FPA, the Act and Forest Practices Rules administered by the Department of Forestry will be used in such a manner as to maintain, and where appropriate, restore and enhance riparian vegetation.

This strategy shall be implemented by County review of and comment on state permit applications for waterfront development.

This strategy is based on the recognition that prohibiting excessive removal of vegetative cover is necessary to stabilize the shoreline and, for coastal lakes and minor estuaries, to maintain water quality and temperature necessary for the maintenance of fish habitat.

Findings: The IND zoned area within the Site Boundary is outside of the coastal shorelands and contains no coastal lakes or minor estuaries. See **Figure K-4.5**. The application is consistent with Phenomenon 5 regarding the Non-Estuarine Shoreland Boundary. This strategy is inapplicable to this request for Council approval.

Table 4.7a See **Figure K-4.6 - Significant Wildlife Habitat I ORD 85-08-011L)**

PHENOMENON	SPECIAL REGULATORY CONSIDERATIONS SUMMARY	APPENDIX	
		Page	Strategy No.
6. Significant Wildlife Habitat I ORD 85-08-011L)	6a. Conserve riparian vegetation adjacent to salmonid spawning and rearing areas; density restriction in Big Game Range.	1-14	1
	b. Protect “wet meadows” for agricultural use	1-18	4
	c. Manage riparian vegetation and nonagricultural wetland areas so as to preserve their significant habitat value, and to protect their hydrologic and water quality benefits.	1-17	2
	d. Restrict conflicting uses on “5c” bird sites except as permitted with EESE balancing. 300 ft. setback from Bald Eagle nests.	1-14	1a

6. Significant Wildlife Habitat 1 ORD 85-08-011L) – Appendix I, Pages 14-18, Strategy Nos. 1, 1a, 2 & 4:

Plan Implementation Strategies

1. Coos County shall consider as "5c" Goal #5 resources (pursuant to OAR 660-16-000) the following:

- *"Sensitive Big-game Range"*
- *Bird Habitat Sites (listed in the following table)*

Salmonid Spawning and Rearing Areas

Uses and activities deemed compatible with the objective of providing adequate protection for these resources are all uses and activities allowed, or conditionally allowed by the Zoning and Land Development Ordinance, except that special care must be taken when developing property adjacent to salmonid spawning and rearing areas so as to avoid to the greatest practical extent the unnecessary destruction of riparian vegetation that may exist along streambanks. The Oregon Forest Practices Act is deemed adequate protection against adverse impacts from timber management practices.

This policy shall be implemented by:

a. County reliance on the Oregon Forest Practices Act to ensure adequate protection of "significant fish and wildlife habitat" against possible adverse impacts from timber management practices; and

b. The Zoning and Land Development Ordinance shall provide for an adequate riparian vegetation protection setback, recognizing that "virtually all acknowledged counties have adopted a 50 foot or greater standard" (DLCD report on Coos County, November 28, 1984); and

c. Use of the "Special Considerations Map" to identify (by reference to the detail inventory map) salmonid spawning and rearing areas subject to special riparian vegetation protection; and

d. Stipulating on County Zoning Clearance Letters that removal of riparian vegetation in salmonid spawning and rearing areas shall be permitted only pursuant to the provisions of this policy.

e. Coos County shall adopt an appropriate structural setback along wetlands, streams, lakes and rivers as identified on the Coastal Shoreland and Fish and Wildlife Habitat inventory maps.

The Oregon Department of Fish and Wildlife and the Department of Forestry are working in conjunction with the requirements of this Plan and, are deemed adequate protection against adverse impacts from timber management practices.

Findings: This request for Council approval does not propose any uses or activities in sensitive big-game, bird habitat or salmonid spawning or rearing areas. See the significant wildlife habitat inventory map, **Figure K-4.6**, attached. This strategy is satisfied.

2. Coos County shall manage its riparian vegetation and identified non-agricultural wetland areas so as to preserve their significant habitat value, as well as to protect their hydrologic and water quality benefits. Where such wetlands are identified as suitable for conversion to agricultural use, the economic, social, environmental and energy consequences shall be determined, and programs developed to retain wildlife values, as compatible with agricultural use. This strategy is subordinate to Strategy #4, below.

This strategy does not apply to forest management actions, which are regulated by the Forest Practices Act.

This strategy recognizes that protection of riparian vegetation and other wetland areas is essential to preserve the following qualities deriving from these areas:

natural flood control flow stabilization of streams and rivers	*environmental diversity habitat for fish and wildlife, including fish and wildlife of economic concern*
reduction of sedimentation	*recreational opportunities*
improved water quality	*recharge of aquifers*

Findings: The IND zoned area within the Site Boundary contains no identified non-agricultural wetland area or related riparian vegetation that will be impacted. See **Figure K-4.6**. This strategy is satisfied.

4. Coos County shall protect for agricultural purposes those land areas currently in agricultural use but defined as "wet meadow" wetland areas by the U.S. Fish and Wildlife Service, and also cranberry bogs, associated sumps and other artificial water bodies.

Implementation shall occur through the placement of the plan designation "Agriculture" on such areas.

This strategy recognizes:

a. That agriculture is an important sector of the local economy;

b. That some of the more productive lands in Coos County's limited supply of suitable agricultural lands are such seasonally flooded areas;

c. That designation of these areas for agricultural use is necessary to ensure the continuation of the existing commercial agricultural enterprise; and

d. That the present system of agricultural use in these areas represents a long-standing successful resolution of assumed conflicts between agricultural use and habitat preservation

use, because the land is used agriculturally during months when the land is dry and therefore not suitable as wetland habitat, and provides habitat area for migratory wildfowl during the months when the land is flooded and therefore not suitable for most agricultural uses.

Findings: The IND zoned area within the Site Boundary contains no agricultural lands or agricultural uses or "wet meadow" wetland areas. See **Figure K-4.6**. The Site Boundary was previously used as an industrial site. The request for Council approval is consistent with Phenomenon 6 regarding Significant Wildlife Habitat. This strategy is satisfied.

Table 4.7a See **Figure K-4.7 - Natural Hazards**

PHENOMENON	SPECIAL REGULATORY CONSIDERATIONS SUMMARY	APPENDIX	
		Page	Strategy No.
7. Natural Hazards	7a. Comply with floodplain overlay zone set forth in this Ordinance.	1-29	1
	b. Support structural protection measures for bankline stabilization projects requiring state and federal permits when the applicant establishes that non-structure measures either are not feasible or inadequate to provide the necessary degree of protection.	1-29	5
	c. Issue zoning clearance letters in known areas potentially subjected to mass movement, including earth flow, slump topography, rockfall and debris flow pursuant to the provisions of natural hazards Strategy #6 in the Comp Plan.*	1-30	6
	*Requires Administrative Conditional Use		

7. Natural Hazards – Appendix I, Pages 29-30, Strategy Nos. 1, 5 & 6:

Plan Implementation Strategies

1. Coos County shall regulate development in known areas potentially subject to natural disasters and hazards, so as to minimize possible risks to life and property. Coos County considers natural disasters and hazards to include stream and ocean flooding, wind hazards, wind erosion and deposition, • critical streambank erosion, mass movement (earthflow and slump topography), earthquakes and weak foundation soils.

This strategy shall be implemented by enacting special protective measures through zoning and other implementing devices, designed to minimize risks to like and property.

This strategy recognizes that it is Coos County's responsibility: (1) to inform its citizens of potential risks associated with development in known hazard areas; and (2) to provide appropriate safeguards to minimize such potential risks.

Findings: This strategy is a legislative directive to the County to enact special protective measures consistent with this strategy and does not apply to site-specific requests for zoning approval such as this one. The IND portion of the Site Boundary is outside of the floodplain. See the natural hazards inventory map, **Figure K-4.7**, attached. This strategy is inapplicable to this request for Council approval. Please note that the County's inventory map of natural hazards indicates a "wind hazard" on or near a portion of the Facility. This strategy clearly states that Coos County shall regulate development in known areas subject to natural hazards by enacting special protective measures through zoning and implementing devices. It does not appear that Coos County has enacted any special protective measures regarding "wind hazards". Furthermore, the Site Boundary has been developed and used for heavy industrial use for decades and is not subject to wind erosion. This strategy is satisfied.

5. Coos County shall promote protection of valued property from risks associated with critical streambank and ocean front erosion through necessary erosion-control stabilization measures, preferring nonstructural solutions where practical.

Coos County shall implement this strategy by making "Consistency Statements" required for State and Federal permits (necessary for structural streambank protection measures) that support structural protection measures when the applicant establishes that nonstructure measures either are not feasible or inadequate to provide the necessary degree of protection.

This strategy recognizes the risks and loss of property from unabated critical streambank erosion, and also, that state and federal agencies regulate structural solutions.

Findings: The IND zoned area within the Site Boundary is outside the estuary and proposes no bank stabilization requiring state or federal permits. See **Figure K-4.7**. This strategy is satisfied.

6. Coos County shall permit the construction of new dwellings in known areas potentially subject to mass movement (earth flow/slump topography/rock fall/debris flow) only:

a. if dwellings are otherwise allowed by this comprehensive plan; and

b. after the property owner or developer files with the Planning Department a report certified by a qualified geologist or civil engineer stipulating:

i. his/her professional qualifications to perform foundation engineering and soils analysis; and

ii. that a dwelling can or cannot be safely constructed at the proposed site, and whether any special structural or siting measures should be imposed to safeguard the proposed building from unreasonable risk of damage to life or property.

This strategy recognizes the county is responsible for identifying potential hazard areas, informing its citizens of risks associated with development in known hazard areas, and establishing a process involving expert opinion so as to provide appropriate safeguards against loss of life or property.

Implementation shall occur through an administrative conditional use process, which shall include submission of a site investigation report by the developer that addresses the considerations above.

Findings: This request for Council approval does not propose the construction of new dwellings. The request is consistent with Phenomenon 7 regarding Natural Hazards. Accordingly, this strategy is satisfied.

Table 4.7a See **Figures K-4.8, K-4.8.1, K-4.8.2 & K-4.8.3**

PHENOMENON	SPECIAL REGULATORY CONSIDERATIONS SUMMARY	APPENDIX	
		Page	Strategy No.
8. Airport Surfaces	8a. Comply with Airport Surfaces Overlay Zone set forth in this Ordinance.	1-40	11

8. Airport Surfaces – Appendix I, Page 40, Strategy No. 11:

Plan Implementation Strategies

11. Coos County shall cooperate with the Oregon State Aeronautics Division and the Federal Aviation Administration by developing an Airport Surfaces Overlay Zoning District to prevent the creation or establishment of hazards to air navigation. The Overlay Zoning district shall apply to the Bandon, Lakeside and Powers State Airports and shall encompass the primary surface, approach surface, transitional surfaces, horizontal surface and conical surface as identified in Volume VI, Airport Compatibility Guidelines as formulated by the Oregon Department of Transportation - Aeronautics Division, dated 1981.

Findings: This strategy is a legislative directive to the County to adopt an airport surfaces overlay zoning district, which the County has done. No IND zoned portion of the Site Boundary will be within the zoning district's airport surface overlay zone. See **Figures K-4.8** (Airport Surfaces Map), **K-4.8.1** (Bandon Airport), **K-4.8.2** (Powers Airport) & **K-4.8.3** (Lakeside Airport). This strategy does not apply.

Article 4.6 – Overlay Zones

Overlay zones may be super-imposed over the primary zoning district and either add further requirements or replace certain requirements of the underlying zoning district. The requirements of an overlay zone are fully described in the text of the overlay zone designations.

Findings: As discussed in greater detail in the following responses in this section, no IND zoned portion of the Site Boundary is subject to the floodplain (FP) and, as just discussed above, no IND zoned portion of the Site Boundary is subject to the airport surface (AS) overlay zones. This criterion is satisfied.

Section 4.6.230 Procedural Requirements for Development within Special Flood Hazard Areas. *The following procedure and application requirements shall pertain to the following types of development:*

1. *Structures. Prior to issuance of a zoning clearance letter (verification letter) pursuant to Section 3 .1.200, a proposal for construction of a new structure or substantial improvement of an existing structure within a Special Flood Hazard Area shall be submitted with an "APPLICATION FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREAS."*

Findings: The IND zoned portion within the Site Boundary is not within the special flood hazard area, therefore this criterion is inapplicable.

4. *Other Development. "Other development" includes mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of a special flood hazard, but does not include such uses as normal agricultural operations, fill less than 12 cubic yards, fences, road and driveway maintenance, landscaping, gardening and similar uses which are excluded from definition because it is the County's determination that such uses are not of the type and magnitude to affect potential water surface elevations or increase the level of insurable damages.*

   Review and authorization of a floodplain application must be obtained from the Coos County Planning Department before "other development" may occur. Such authorization by the Planning Department shall not be issued unless it is established, based on a licensed engineer's certification that the "other development" shall not:

   a. *result in any increase in flood levels during the occurrence of the base flood discharge if the development will occur within a designated floodway; or,*

   b. *result in a cumulative increase of more than one foot during the occurrence of the base flood discharge if the development will occur within a designated flood plain outside of a designated floodway.*

Findings: The IND zoned portion within the Site Boundary is not within the special flood hazard area, thus this criterion is inapplicable.

Section 4.6.235 Sites within Special Flood Hazard Areas.

1. *If a proposed building site is in a special flood hazard area, all new construction and substantial improvements (including placement of prefabricated buildings and mobile homes), otherwise permitted by this Ordinance, shall:*

   a. *be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (Reference FEMA "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques);*

b. be constructed with materials and utility equipment resistant to flood damage;

c. be constructed by methods and practices that minimize flood damage; and

d. electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

Findings: The IND zoned portion within the Site Boundary is not within the special flood hazard area, thus this criterion is inapplicable.

3. All new construction and substantial improvements of any commercial, industrial or other non-residential structure shall either have the lowest floor, including basement, elevated one foot above the base flood elevation; or together with attendant utility and sanitary facilities, shall:

a. be flood proofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;

b. have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

c. be certified by a registered professional engineer or architect that the standards of this subsection are satisfied; and

d. meet the same standards for space below the lowest floor as described in Section 4.6.235(2) if the structure is elevated but not flood proofed.

e. electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

Findings: The IND zoned area within the Site Boundary is not within the special flood hazard area, therefore this criterion is inapplicable.

Section 4.6.300 Purpose: *The purpose of the Airport Surface Floating zone is to protect public health, safety and welfare. It is recognized that obstructions to aviation have potential for endangering the lives and property of users of selected airports, and property of occupancy of land in the airport's vicinity; an obstruction may affect future instrument approach minimums; and obstructions may reduce the area available for the landing, take-off and maneuvering of aircraft, thus tending to destroy or impair the utility of the airport and the public investment therein.*

Findings: As discussed in the next response, no IND zoned portion within the Site Boundary is within any of the Airport Surface Floating zones. See **Figure K-4.8**. This criterion is satisfied.

Section 4.6.305 Designation of Airport Surfaces: *Those lands lying beneath the approach surfaces, transition surfaces, horizontal surfaces and conical surfaces as they apply to the "Bandon, Lakeside and Powers Airports Approach and Clear Zone Inventory Map" shall be subject to the requirements of this floating zone.*

Findings: No IND zoned portion within the Site Boundary lies beneath the approach surfaces, transition surfaces, horizontal surfaces or conical surfaces as they apply to the designated "Bandon, Lakeside and Powers Airports Approach and Clear Zone Inventory Map". See **Figures K-4.8**, **K-4.8.1** (Bandon), **K-4.8.2** (Powers) and **K-4.8.3** (Lakeside). This criterion is satisfied.

Section 4.6.310 Airport Sub-Zones: *Sub-zones are hereby established and defined as follows:*

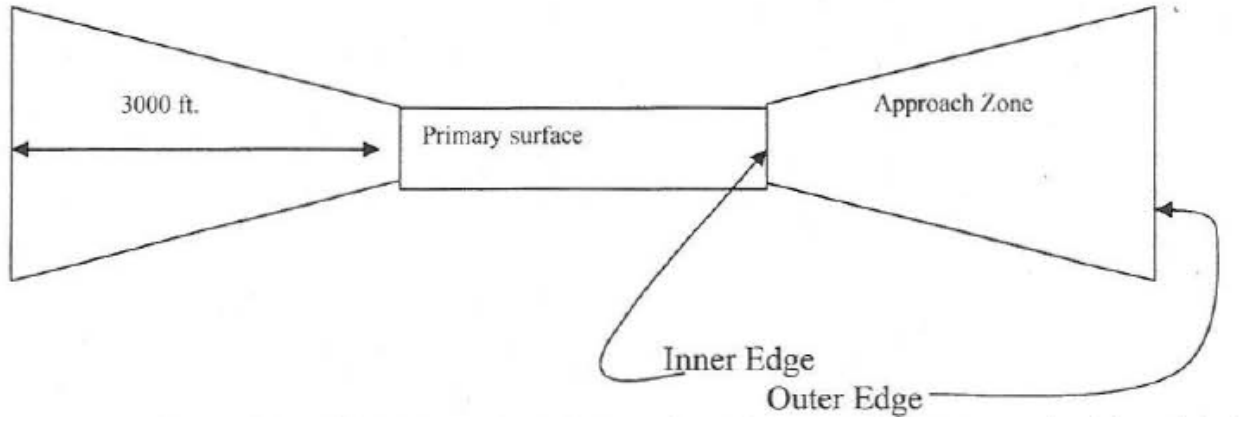
1. *Approach zone- The inner edge of the approach zone coincides with the primary surface of the runway:*

   Bandon = 500 ft. wide
   Lakeside = 50 ft. wide
   Powers = 100 ft. wide

   The approach zone expands outward uniformly to a width of:

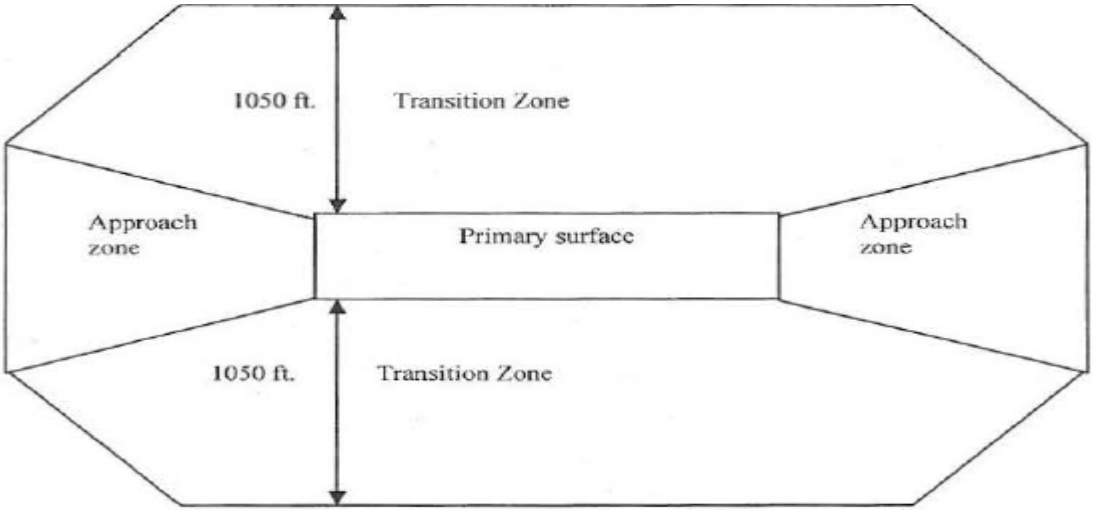
   Bandon = 1400 ft. wide
   Lakeside = 900 ft. wide
   Powers = 900 ft. wide

   at a horizontal distance of 3000 feet for all airports from the primary surface. Its centerline is the continuation of the runway centerline.



Findings: No IND zoned area within the Site Boundary is within the approach zone for the designated Bandon, Lakeside, and Powers Airports. See **Figure K-4.8**. This criterion is satisfied.

2. Transition Zone - The inner edge of the transition zone coincides with the outer edges of the primary surface and approach zone. The outer edge of the transition zone parallels the primary surface and is I 050 feet wide tapering to the end of the approach zone.



Findings: No IND zoned area within the Site Boundary is within the transition zone of any of the regulated airport surfaces. This criterion is satisfied.

3. Horizontal Conical Zone - The horizontal conical zone is established by swinging arcs of 9,000 feet radii from the center of each end of the primary surface of each runway and connecting the adjacent arcs by drawing lines tangent to those arcs. The horizontal conical zone does not include the approach and transitional zones.

No IND zoned area within the Site Boundary is within the Horizontal Conical zone of any of the regulated airport surfaces. This criterion is satisfied.

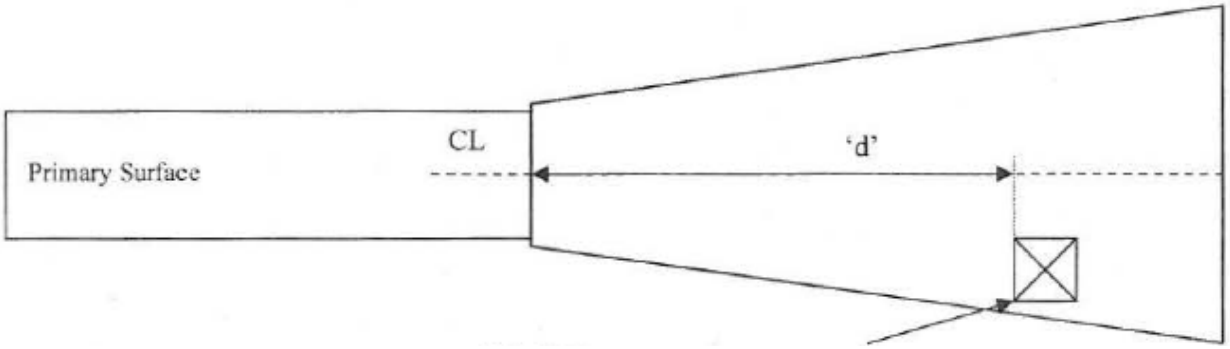
4. Primary Surface Zone - The primary surface zone overlays the runway surface:

Bandon = 500 ft. wide
Lakeside = 50 ft. wide
Powers = 100 ft. wide

Findings: No IND zoned area within the Site Boundary is within the Primary Surface zone overlays of the runway surfaces for the regulated airport surfaces. This criterion is satisfied.

Section 4.6.315 Airport Surfaces Height Limitations: *Notwithstanding other provisions of this Ordinance, no structure shall be created or altered to a height in excess of the applicable height limits herein established. Such applicable height limitations are hereby established:*

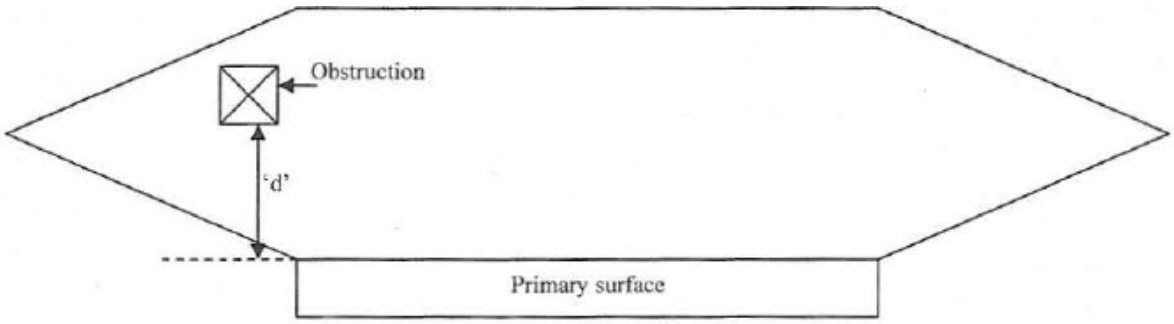
l. Approach zone - The maximum height allowed shall be 5% of the distance from the primary surface as measured along the centerline to a point, perpendicular to the obstruction, and shall not exceed 35 ft.



'd' = distance from primary surfaces allowable height = (0.05) x ('d'); and not to exceed 35 ft.

Findings: No IND zoned area within the Site Boundary is within any of the regulated Approach zones and, accordingly, the maximum allowable height limitation does not apply. This criterion is satisfied.

2. Transition Zone - The maximum height allowed shall be 14% of the distance as measured perpendicular to the outer edge of the primary surface (or an extension of the outer edge) but shall not exceed 35 feet.



'd' = distance from the primary surface outer edge allowable height = (0.14) x ('d') and not to exceed 35 feet.

Findings: No IND zoned area within the Site Boundary is within any of the regulated Transition zones and, accordingly, the maximum allowable height limitation does not apply. This criterion is satisfied.

3. Horizontal Conical Zone - Maximum allowable height= 35 feet.

Findings: IND zoned area within the Site Boundary is within any of the regulated Horizontal Conical zones and, accordingly, the maximum allowable height limitation does not apply. This criterion is satisfied.

4. Primary Surface - Maximum allowable building height = 0 (zero) feet for structures or other improvements. Siting of structures or improvements other than navigational aides permitted by State Aeronautics is prohibited.

Findings: No IND-zoned area within the Site Boundary is within the Primary Surface areas and therefore the maximum allowable building height does not apply. This criterion is satisfied.

Section 4.6.320 Permitted Uses: *Except as restricted by Section 4.6.330, in a District in which the / AS zone is combined, those uses permitted by the underlying district are permitted outright in the A/S FLOATING ZONE.*

Findings: No IND zoned area within the Site Boundary is within the AS Floating zone. See **Figure K-4.8**. This criterion is satisfied.

Section 4.6.325 Conditional Uses: *Except as restricted by Section 4.6.330, in a District with which the / AS is combined, those uses subject to the provisions of ARTICLE 5.2 (Conditional Uses) may be permitted in the A/S FLOATING ZONE.*

Findings: No IND zoned area within the Site Boundary is within the A/S Floating zone. This criterion is satisfied.

Section 4.6.330 Use Restrictions: *Notwithstanding any other provision of this Ordinance, no use may be made of land or water within any zone established by this Ordinance in such a manner as to create electrical interference with navigational signals or radio communication between the airport and aircraft, make it difficult for pilots to distinguish between airport light and other, result in glare in the eyes of pilots using the airport, impair visibility in the vicinity of the airport, create bird strike hazards, or otherwise in any way endanger or interfere with the landing, takeoff, or maneuvering of aircraft intending to use the airport.*

Findings: Section 4.6.330 does not apply to this request for Council approval because the Airport Surface Floating zone (AS) does not cover the IND zoned area within the Site Boundary. As explained in Sections 4.6.305 and 4.6.310, this Ordinance only applies regulations to those lands lying beneath the airport surfaces as they apply to the Bandon, Lakeside and Powers airports. This is further substantiated in Section 4.6.300 as the stated purpose of the AS zone recognizes that obstructions to aviation have potential for endangering the lives and properties of users of **selected airports** (emphasis added). As read in conjunction with Section 4.6.320 regarding permitted uses and Section 4.6.325 regarding conditional uses, the use restrictions of Section 4.6.330 only apply to any zone established by the Ordinance to which the AS zone has been applied. As stated above, the AS floating zone is not combined with and laid over the Site Boundary's IND zoning; therefore, the use restrictions of Section 4.6.330 do not apply to this request for Council approval.

Section 4.6.335 Clarification of Grandfather Uses and Rights:

1. In addition to Article 3.4, the regulations prescribed by this zone shall not be construed to require the removal, lowering, or other change or alteration of any structure not conforming

to the regulations as of the effective date of this Ordinance, or otherwise interfere with the continuance of the Grandfathered Use. Nothing contained herein shall require any change in the construction, alteration, or intended use of any structure, the construction or alteration of which was begun prior to the effective date of this Ordinance, and is diligently prosecuted.

However, no permit shall be granted that would allow the establishment or creation of an obstruction or permit a Grandfathered Use or structure to become a greater hazard to air navigation than it was on the effective date of this Ordinance or any amendments thereto or than it is when the application for a permit is made.

Findings: There are no grandfathered structures within the IND zoned area within the Site Boundary. This criterion does not apply.

2. Marking and Lighting - Notwithstanding the preceding provision of this Section, the owner of any existing Grandfathered structure or tree is hereby required to permit the installation, operation, and maintenance thereon of such markers and lights as shall be deemed necessary by the Airport Owner to indicate to the operators of aircraft in the vicinity of the airport the presence of such airport obstruction. Such markers and lights shall be installed, operated, and maintained at the expense of the Airport Owner.

Findings: There are no grandfathered structures on the IND zoned area within the Site Boundary. This criterion does not apply.

Section 4.6.340 Variances: *Variances may be granted where consistent with the procedural and substantive requirements of Article 5.3.*

Findings: No variance is requested or required. This criterion does not apply.

Section 4.6.345 - Conformance Requirement. *All structures and uses within the Airport Operations District shall conform to the requirements of Federal Aviation Agency Regulation FAR-77 or its successor, and to other Federal and State laws as supplemented by Coos County Ordinances regulating structure height, steam or dust, and other hazards to flight, air navigation or public health, safety and welfare.*

Findings: According to the SAG, no IND zoned area within the Site Boundary is within the County's Airport Operations (AO) districts. However, the Facility complies with all applicable FAA regulations and demonstrated by FAA's No Hazard Determinations, attached to **Exhibit E**, **Appendix E-7**.

Section 4.6.335 Clarification of Grandfather Uses and Rights:

1. In addition to Article 3.4, the regulations prescribed by this zone shall not be construed to require the removal, lowering, or other change or alteration of any structure not conforming to the regulations as of the effective date of this Ordinance, or otherwise interfere with the continuance of the Grandfathered Use. Nothing contained herein shall require any change in the

construction, alteration, or intended use of any structure, the construction or alteration of which was begun prior to the effective date of this Ordinance, and is diligently prosecuted.

However, no permit shall be granted that would allow the establishment or creation of an obstruction or permit a Grandfathered Use or structure to become a greater hazard to air navigation than it was on the effective date of this Ordinance or any amendments thereto or than it is when the application for a permit is made.

Findings: There are no grandfathered structures on the 7-D portions within the Site Boundary. This criterion does not apply.

2. Marking and Lighting - Notwithstanding the preceding provision of this Section, the owner of any existing Grandfathered structure or tree is hereby required to permit the installation, operation, and maintenance thereon of such markers and lights as shall be deemed necessary by the Airport Owner to indicate to the operators of aircraft in the vicinity of the airport the presence of such airport obstruction. Such markers and lights shall be installed, operated, and maintained at the expense of the Airport Owner.

Findings: There are no grandfathered structures on the 7-D portions of the Site Boundary. This criterion does not apply.

Section 4.6.340 Variances: *Variances may be granted where consistent with the procedural and substantive requirements of Article 5.3.*

Findings: No variance is requested or required. This criterion does not apply.

Section 4.6.345 - Conformance Requirement. *All structures and uses within the Airport Operations District shall conform to the requirements of Federal Aviation Agency Regulation FAR-77 or its successor, and to other Federal and State laws as supplemented by Coos County Ordinances regulating structure height, steam or dust, and other hazards to flight, air navigation or public health, safety and welfare.*

Findings: According to the SAG, no 7-D zoned area within the Site Boundary is within any of the County's Airport Operations (AO) districts.

2.2 ACU FOR COMPLIANCE DETERMINATION FOR SUBSTATION IN IND ZONE

The Applicant requests a compliance determination that the relocated substation is accessory to the primary use, the SDPP, in the industrial zone. The criteria specific to accessory uses and structures in the industrial zone are LDO Sections 3.1.300(A), (B), (F), 3.2.150(1), (2). These criteria are address in this exhibit in Section 2.7 “Supplemental Provisions of LDO Chapter III.”

2.3 REQUEST ACU IN 7-D ZONE

Please note that most of the 7-D portions of the Facility were previously approved by the County for fill in prior land use approvals to make the Facility ready for development (the Prior Decisions). See **Appendix K-1**. This section seeks administrative conditional use approval to place temporary fill in areas of Area 1-B not approved for the activity of fill in the Prior Decisions, for authorization for development in special flood hazard areas, and for administrative conditional approval to use the 7-D portions of the area east of Jordan Cove Road for the proposed power plant and for accessory components of the power plant. As discussed above, the transmission corridor (identified in Figure K-2 as Area 1-A) and the road and utility corridor (identified in Figure K 2 as Area 1-B) are accessory corridors to the proposed power plant.

2.3.1 ACU for Temporary Fill, Development in Special Flood Hazard Areas and Development in Dune Areas with "Limited Development Suitability" in 7-D Zone

This section addresses the 7-D zoning district's management objective and use and activities matrix for applicable approval criteria for the activity of temporary fill. The area proposed for temporary fill is depicted in **Figures K-2.1** and **K-7**.

Zoning District 7 - Development (7-D) Approval Criteria:

Chapter 4, Section 4.5.285 — Management Objective for 7-D.

This shoreland district, which borders a natural aquatic area, shall be managed for industrial use. Continuation of and expansion of existing non-water-dependent/non-water-related industrial uses shall be allowed provided that this use does not adversely impact Natural Aquatic District #7. In addition, development shall not conflict with state and Federal requirements for the wetlands location in the northwest portion of this district.

Findings: Temporary fill is proposed in the area depicted in **Figure K-7** to be used as a temporary bridge to construct a permanent bridge over the existing freshwater wetland. The temporary fill meets the management objective because it allows the accessory road and utility corridor for the power plant to traverse the freshwater wetland without permanent impact in order to develop the power plant use, which is characterized as an Industrial & Port Facilities use (including energy production). The proposed use of the 7-D portions of the area east of Jordan Cove Road for Industrial & Port Facilities (includes energy production) uses is consistent with the management objective of zoning district 7-D. Specifically, the use of the area for an Industrial & Port Facilities use is consistent with the management objective to manage the zoning district for industrial use, and for the continued and expanded use of the area for non-water dependent/non-water related industrial uses.

Chapter 4, Section 4.5.286 — Uses, Activities and Special Conditions.

Zoning district 7-D sets forth the uses and activities which are permitted, which may be permitted as conditional use, or which are prohibited in this zoning district. Zoning district 7-D

also sets forth special conditions which may restrict certain uses or activities, or modify the manner in which certain uses or activities may occur. Reference to "policy numbers" refers to Plan Policies set forth in the Coos Bay Estuary Management Plan.

Activity (5) - Fill.

Findings: The activity of fill is permitted in zoning district 7-D, subject to an administrative conditional use review, with the special and general conditions serving as the applicable review criteria.

GENERAL CONDITIONS.

The following General Conditions apply to all uses and activities in 7-D:

Condition 1. Uses in this district are only permitted as stated in Policy #14 "General Policy on Uses within Rural Coastal Shorelands." Except as permitted outright, or where findings are made in this Plan, uses are only allowed subject to the findings in this policy.

Findings: The Application proposes an activity, not a use. Accordingly, Policy #14 is not applicable to the proposed activity of fill.

Condition 2. Inventoried resources requiring mandatory protection in this unit are subject to Policies #17 and #18.

Findings: The proposed activity of fill is consistent with CBEMP Policies #17 and #18 as demonstrated in the responses to the policies, as provided in relevant part, immediately below.

#17 Protection of "Major Marshes" and "Significant Wildlife Habitat" in Coastal Shorelands

Local governments shall protect from development major marshes and significant wildlife habitat, coastal headlands, and exceptional aesthetic resources located within the Coos Bay Coastal Shorelands Boundary, except where exceptions allow otherwise.

Findings: The Shoreland Values Inventory Map indicates that there is a freshwater wetland (significant wildlife habitat) in the northwest corner of the Site Boundary and an archeological site in the southeast corner. See **Figures K-8.2 - K-8.4**. The proposed road and utility corridor (Area 1-B) will span over it. See **Figure K-2.1**. The proposed temporary fill is needed to create a temporary bridge necessary to construct the permanent private bridge structure. The proposed fill is necessary to construct the permanent bridge to avoid permanent impacts to the freshwater wetland in the northwest corner in Area 1-B. This criterion is satisfied.

#18 Protection of Historical, Cultural and Archaeological Sites

Local government shall provide protection to historical, cultural and archaeological sites and shall continue to refrain from widespread dissemination of site specific information about identified archaeological sites. […]

Findings: As noted above, the Shoreland Values Inventory Map identifies an archeological site in the southeast corner of 7-D, which will not be impacted by the activity of temporary fill in Area 1-B. The archeological site will not be impacted by fill for the bridge because the bridge is west of the archeological site. As shown on Figure K-2, Area 1-B is west of the archeological site marked on **Figures K-8.2 - K-8.4.** The Facility is being managed under Oregon's confidential SHPO, Section 106 process. This criterion is satisfied.

Condition 3. All permitted uses and activities shall be consistent with Policy #23 requiring protection of riparian vegetation.

#23 Riparian Vegetation and Streambank Protection

I. Local government shall strive to maintain riparian vegetation within the shorelands of the estuary and, when appropriate, restore or enhance it, as consistent with water dependent uses. Local government shall also encourage use of tax incentives to encourage maintenance of riparian vegetation, pursuant to ORS 308.792 - 308.803.

Appropriate provisions for riparian vegetation are set forth in the CCZLDO Section 4.5.180 (OR 92 05009PL).

II. Local government shall encourage streambank stabilization for the purpose of controlling streambank erosion along the estuary, subject to other policies concerning structural and nonstructural stabilization measures.

This strategy shall be implemented by Oregon Department of Transportation (ODOT) and local government where erosion threatens roads. Otherwise, individual landowners in cooperation with the Oregon International Port of Coos Bay, and Coos Soil and Water Conservation District, Watershed Councils, Division of State Lands and Oregon Department of Fish & Wildlife shall be responsible for bank protection.

This strategy recognizes that the banks of the estuary, particularly the Coos and Millicoma Rivers are susceptible to erosion and have threatened valuable farm land, roads and other structures.

Findings: The local government strives to maintain riparian vegetation by following the appropriate provisions for riparian vegetation set forth in CCZLDO Section 4.5.180. In part, Section 4.5.180 states:

Riparian vegetation within 50 feet of a estuarine wetland, stream, lake or river, as identified on the Coastal Shoreland and Fish and Wildlife habitat inventory maps, shall be maintained except that…

Impacts to riparian vegetation are consistent with the provisions of LDO Section 4.5.180 because there are no estuarine wetlands, streams, lakes or rivers identified on the Coastal Shoreland and

Fish & Wildlife habitat inventory maps within the Site Boundary. See **Figures K-8.2 - K-9.6**.[7][8][9] There is one identified freshwater wetland; however there are no identified *estuarine* wetlands. For clarification purposes, on **Figure K-8.3** there is an archeological site labeled, 9(CS-26), however this is an archeological site and not an estuarine wetland. Coos County has two Fish and Wildlife habitat inventory maps, which are attached as **Figure K-9.4 - K-9.6**. Neither Fish and Wildlife habitat inventory map depicts inventoried estuarine wetlands.

With respect to part II of Policy #23, encouraging streambank stabilization, there are no streambanks within the Site Boundary; therefore part II is not applicable.

Condition 4. All permitted uses shall be consistent with the respective flood regulations of local governments, as required in Policy #27.

Findings: The southeast portion of Area 1 lies within in the floodplain and is subject to the requirements of Policy #27, and includes Area 5 previously approved for fill in the Prior Approvals. The Applicant will comply with all applicable flood regulations regarding the activity of temporary fill in Area 1-B. See attached letter from Steve Donovan of SHN regarding compliance with applicable LDO Section 4.6.230, Procedural Requirements for Development Within Special Flood Hazard Areas, **Appendix K-2**.

#27 Floodplain Protection within Coastal Shorelands

The respective flood regulations of local government set forth requirements for uses and activities in identified flood areas; these shall be recognized as implementing ordinances of this Plan.

This strategy recognizes the potential for property damage that could result from flooding of the estuary.

Findings: Fill will be placed in the floodplain located in the southern area of the 7-D zoned portion of the Site in order to establish the accessory road and corridor use in Area 1-B. As set forth in the November 21, 2013 evidentiary letter of Steve Donovan of SHN, **Appendix K-2**, this will have no measurable effect on the flood elevation because it would only raise the base flood less than 0.01 feet. The Applicant requests a floodplain certification from the Council.

Section 4.6.230 Procedural Requirements for Development within Special Flood Hazard Areas. The following procedure and application requirements shall pertain to the following types of development:

[7] There are dots on the Fish and Wildlife Habitat Inventory Map II Figure K-9.4 which are not identified in the legend. The dots are a remnant from the base map which was used to create the inventory map.
[8] Section 4.5.180 references the Coastal Shoreland inventory map. To determine the presence and type of wetland, one first reviews the Coastal Shoreland Boundary Inventory Map (CBEMP Table of Contents #35 **Figure K-9.1**) to determine if there is a wetland. Second, one reviews the Shoreland Values Requiring Mandatory Protection (CBEMP Table of Contents #15 **Figure K-9.1**) to determine the type of wetland.
[9] The Coastal Shoreland Boundary Inventory Map was revised based upon an administrative boundary interpretation (County File No. ABI-12-01). The interpretation clarified where the coastal shoreland boundary is and the distinction between the industrial and estuary zoning.

4. Other Development. "Other development" includes mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of a special flood hazard, but does not include such uses as normal agricultural operations, fill less than 12 cubic yards, fences, road and driveway maintenance, landscaping, gardening and similar uses which are excluded from definition because it is the County's determination that such uses are not of the type and magnitude to affect potential water surface elevations or increase the level of insurable damages.

Review and authorization of a floodplain application must be obtained from the Coos County Planning department before "other development" may occur. Such authorization by the Planning Department shall not be issued unless it is established, based on a licensed engineer's certification that the "other development" shall not:

a. result in any increase in flood levels during the occurrence of the base flood discharge if the development will occur within a designated floodway; or,

b. result in a cumulative increase of more than one foot during the occurrence of the base flood discharge if the development will occur within a designated flood plain outside of a designated floodway.

The Applicant is requests administrative conditional use approval for development in special flood hazard areas. As stated in Policy #27, the floodplain regulations are the implementing ordinance of the Plan, they are found in LDO Article 4.6. LDO Section 4.6.230 (copied above) sets forth the procedural requirements for development within special flood hazard areas. As required by Section 4.6.230 the Applicant hereby requests an "Application for Development in Special Flood Hazard Areas." **Appendix K-2** is a letter from a licensed engineer that the "other development" will not result in any increase in flood levels. As explained in the letter, no floodway has been designated for the portion of the estuary adjacent to the project area because it is controlled by tidal influence. In addition, the development will not result in a cumulative increase of more than one foot during the occurrence of the base flood discharge; in fact there will be no measurable effect on the flood elevation because it would only raise the base flood less than 0.01 feet. Thus, the Council can grant authorization for development in special flood hazard areas.

Condition 5. All permitted uses in dune areas shall be consistent with the requirements of Policy #30.

Findings: The proposed temporary fill use is consistent with CBEMP Policy #30 as demonstrated in the responses to the policy, as provided in relevant part, immediately below.

#30 Restricting Actions in Beach and Dune Areas with "Limited Development Suitability" and Special Consideration for Sensitive Beach and Dune Resources (moved from Policy #31)

I. Coos County shall permit development within areas designated as "Beach and Dune Areas with Limited Development Suitability" on the Coos Bay Estuary Special Considerations Map only upon the establishment of findings that shall include at least: […]

Findings: See **Appendix K-3** from SHN regarding findings of consistency with the approval criteria of Policy #30. SHN's findings confirm that the dune forms in Area 1-B are of limited suitability for development and that the proposed activity of temporary fill is compliant with the applicable criteria of CBEMP Policy #30. Policy #30 requires implementation through an administrative conditional use process, which includes submission of a site investigation report by the developer that addresses the five considerations in Policy 30. The Applicant has provided the site investigation report and it addresses the five considerations in Appendix K-3. For these reasons the Council may grant the ACU to permit development in the dune areas with "Limited Development Suitability."

Condition 6. In rural areas (outside of UGBs) utilities, public facilities and services shall only be provided subject to Policies #49, #50, and #51.

Findings: The proposed temporary fill activity is consistent with CBEMP Policies #49, #50 and #51 as demonstrated in the responses to the policies, as provided in relevant part, immediately below.

#49 *Rural Residential Public Services*

Findings: No rural residential uses are proposed. This policy does not apply.

#50 *Rural Public Services*

Findings: No rural public services are proposed. This policy does not apply.

#51 *Public Services Extension*

Findings: No public service extensions are proposed. This policy does not apply. Please see **Exhibit U** for provisions relating to utilities and **Exhibit O** for North Bend Water Board's water rights certificates as the Applicant will be relying on water supplied by the North Bend Water Board.

SPECIAL CONDITIONS (USES).

Findings: The activity of temporary fill is subject to special condition Number 5 regarding the wetland in the southeast portion of zoning district 7-D. The proposed temporary fill activity in Area 1-B will not impact the wetland in the southeast portion of the district. This condition does not apply.

CONCLUSION.

The proposed temporary fill activity, development in special flood hazard areas, and development of dunes with limited development suitability in 7-D satisfies the applicable management objective and general conditions.

2.3.2 ACU for Power Plant Use in 7-D Zone

The Applicant is requesting approval for the use of a power plant in the 7-D Zone. The other 7-D areas east of Jordan Cove Road that are not included within the proposed accessory corridors are areas previously approved for fill which will become part of the Facility after they are filled to match the grade in the adjacent IND zone. The first area is in the mid-section of the area east of Jordan Cove Road, just east of the terminus of the proposed road and utility corridor identified as Area 1-B in Figure K-2. The other 7-D area is also along the southern edge, but to the far east, situated below the location of the Mill Site. Both of these 7-D areas were referred to as Fill Area 5 ("Other 7-D Fill Areas") in the Planning Director's decision dated October 4, 2012 in ACU-12-16/ACU-12-17/ACU-12-18. See Attachment C to Appendix K-1. These 7-D portions of the Facility, previously referred to as Fill Area 5, are also the subject of this request for Council approval of an administrative conditional use to use the fill areas for the purpose of the power plant and for accessory corridors to the power plant.

Use (A)(6)-Industrial & Port Facilities Use.

Findings: The Industrial & Port Facilities use is permitted in zoning district 7-D, subject only to general conditions (P-G).

GENERAL CONDITIONS.

The following General Conditions apply to uses and activities in 7-D.

Condition 1. Uses in this district are only permitted as stated in Policy #14 "General Policy on Uses within Rural Coastal Shorelands." Except as permitted outright, or where findings are made in this Plan, uses are only allowed subject to the findings in this policy.

Findings: The proposed accessory uses are consistent with Policy #14 as demonstrated in the response to the policy, as provided in relevant part below.

#14 General Policy on Uses within Rural Coastal Shorelands

I. Coos County shall manage its rural areas within the "Coos Bay Coastal Shorelands Boundary" by allowing only the following uses in rural shoreland areas, as prescribed in the management units of this Plan, except for areas where mandatory protection is prescribed by LCDC Goal #17 and CBEMP Policies #17 and #18:

a. Farm uses as provided in ORS 215.203;

b. Propagation and harvesting of forest products;

c. Private and public water dependent recreation developments;

d. Aquaculture;

e. Water dependent commercial and industrial uses, water related uses, and other uses only upon a finding by the Board of Commissioners or its designee that such uses satisfy a need which cannot be accommodated on uplands or shorelands in urban and urbanizable areas or in rural areas built upon or irrevocably committed to non- resource use.

f. Single-family residences on lots, parcels, or units of land existing on January 1, 1977, when it is established that:

1. *The dwelling is in conjunction with a permitted farm or forest use, or*
2. *The dwelling is in a documented "committed" area, or*
3. *The dwelling has been justified through a goal exception; and*
4. *Such uses do not conflict with the resource preservation and protection polities established elsewhere in this Plan;*

g. Any other uses, including non-farm uses and non-forest uses, provided that the Board of Commissioners or its designee determines that such uses satisfy a need which cannot be accommodated at other upland locations or in urban or urbanizable areas. In addition, the above uses shall only be permitted upon a finding that such uses do not otherwise conflict with the resource preservation and protection policies established elsewhere in this Plan.

This strategy recognizes (1) that Coos County's rural shorelands are a valuable resource and accordingly merit special consideration, and (2) that LCDC Goal #17 places strict limitations on land divisions within coastal shorelands. This strategy further recognizes that rural uses "a through g" above are allowed because of need and consistency findings documented in the "factual base" that supports this Plan.

Findings: The proposed power plant use would be characterized as "other uses" under the language of subsection e. in Policy #14 above because the SDPP is not one of the uses listed in a - d. The SDPP is not located in urban or urbanizable areas as it is outside the UGB and is not in a rural area built upon or irrevocably committed to non-resource use as identified in the Coos County Comprehensive Plan at Volume II - Coos Bay Estuary Management Plan, Part 3.3 - Statewide Goal Exceptions.

The SDPP satisfies a need which cannot be accommodated on uplands or shorelands in urban and urbanizable (that is, within the Urban Growth Boundary [UGB]) or in rural areas built upon or irrevocably committed to non-resource use because the SDPP is an integral part of the proposed LNG terminal which cannot be accommodated within the UGB for the following reasons:

- The LNG terminal cannot be accommodated within the UGB because the LNG terminal must be located on the North Spit due to the need for vessels to pick up the LNG for exportation and for barges to deliver components for construction. See FERC Resource

Report 10 Alternatives Analysis, **Appendix J-2, Tab A.6** and the Overland Transportation Study, **Appendix K-8**.

- As reported in FERC Resource Report 10, an additional power plant is required to provide reliable power to the locationally dependent LNG facility. Construction of a power plant in the proposed location rather than elsewhere eliminates installation of a longer transmission line (perhaps hundreds of miles in length rather than the 1-mile transmission line between the LNG facility and the SDPP discussed in Exhibit B) and promotes sharing safety and operations staff between the power plant and LNG facility. Resource Report 10 is attached as **Appendix J-2, Tab A.6**.

- Placement of the SDPP adjacent to the LNG facility allows the SDPP to act as a co-generation facility through efficient use of steam produced by the SDPP for the natural gas conditioning phase (removal of water, hydrogen sulfide, carbon dioxide, helium, and other contaminants from the natural gas that could cause difficulty during the liquefaction process). A more distant power plant could provide the power, but would be unable to satisfy this need, since transmission of high-temperature steam from a more distant source would be less practicable. Without a source to treat the natural gas, a replacement source would be required.

- The proposed location redevelops an industrial-zoned site, a brownfield site that formerly held a fiberboard mill. Use of a more distant location may require the need to obtain and develop a new greenfield site.

- Natural gas for the LNG facility will be provided by the Pacific Gas Connector Pipeline (PGCP) to be built as part of the JCEP. As discussed more fully in Exhibit Y, the SDPP would be fueled exclusively by natural gas from two sources. The boil-off and flash gas from the LNG facility would provide 96% percent, with the remainder from the PGCP. The SDPP will require approximately 3.6 million standard cubic feet of natural gas per hour. Placement of the SDPP adjacent to the LNG facility fosters immediate access to the LNG boil-off and flash gas. Construction of the SDPP reduces or eliminates the need to flare the boil-off gas or to construct a second natural gas pipeline to connect the LNG facility to either a local consumer of the gas or a more remote power plant. The location is shown on Exhibit B, Figure B-1, Sheet 1, labeled “PCGP Gas Metering Area.”

- Placement of the SDPP adjacent to the LNG facility allows the SDPP to act as a co-generation facility through efficient use of steam produced by the SDPP for the natural gas conditioning phase (removal of water, hydrogen sulfide, carbon dioxide, helium, and other contaminants from the natural gas that could cause difficulty during the liquefaction process). A more distant power plant could provide the power, but would be unable to satisfy this need, since transmission of high-temperature steam from a more distant source would be less practicable. Without a source to treat the natural gas, a replacement source would be required.

- The only location available for the accessory corridors for the SDPP is the area adjacent to the proposed power plant as the accessory corridors contain components which need to connect to the SDPP, such as the boil of gas line and the transmission lines.

Furthermore, the final sentence of Policy #14 states that: "This strategy further recognizes that rural uses "a through g", above, are allowed because of need and consistency findings documented in the "factual base" that supports this Plan. The inventories and factual base portions of the Coos County Comprehensive Plan (CCP) at Volume II, Part 2, Section 5.8.2 and Section 5.8.3 generally concluded that large vacant acreages of industrial lands with deep-draft channel frontages are in short supply. The background report and findings further conclude that the North Spit is the only site available with sufficient size and necessary water-dependent characteristics suitable for future land needs for import and transshipment, with related processing facilities for energy resources.

The SDPP is an accessory component of JCEP's LNG Facility Project (consisting of the LNG terminal, LNG shipping berth, fire station, gas processing facility and SDPP, with related accessory road and utility corridors). The SDPP is necessary to support the development and operation of the LNG Facility Project. In addition, the Management Objective of zoning district 7 D recites at CCZLDO Section 4.5.285 that "This shoreland district, which borders a natural aquatic area, should be managed for industrial use." Continuation of and expansion of existing non-water-dependent/non-water-related industrial uses shall be allowed provided that this use does not adversely impact Natural Aquatic District #7.

For the aforementioned reasons and based upon evidence in the record, the Council may find that the SDPP satisfies a need which cannot be accommodated within the UGB and is in a rural area irrevocably committed to non-resource use.

Condition 2. Inventoried resources requiring mandatory protection in this unit are subject to Policies #17 and #18.

Findings: The proposed power plant use is consistent with CBEMP Policies #17 and #18 as demonstrated in the responses to the policies, as provided in relevant part, immediately below.

#17 Protection of "Major Marshes" and "Significant Wildlife Habitat" in Coastal Shorelands

Local governments shall protect from development major marshes and significant wildlife habitat, coastal headlands, and exceptional aesthetic resources located within the Coos Bay Coastal Shorelands Boundary, except where exceptions allow otherwise.

I. Local government shall protect:

a. "Major marshes" to include areas identified in the Goal #17, "Linkage Matrix", and the Shoreland Values Inventory map; and[…]

Findings: The Shoreland Values Inventory Map indicates that there is a freshwater wetland in Area 1-A and an archeological site in the southeast corner. See **Figures K-8.2 - K-8.4**. The

proposed transmission line corridor in Area 1-A will span and avoid impacting this freshwater wetland and the proposed road and utility corridor (Area 1-B) will also utilize a private bridge to span and avoid impact to the freshwater wetland. See **Figure K-2.1**. Neither the accessory corridors nor the SDPP will impact the archeological site. This criterion is satisfied.

#18 Protection of Historical, Cultural and Archaeological Sites

Local government shall provide protection to historical, cultural and archaeological sites and shall continue to refrain from widespread dissemination of site specific information about identified archaeological sites. […]

Findings: As noted above, the Shoreland Values map identifies an archeological site in the southeast corner of 7-D, which will not be impacted by the use of Area 1-A as an accessory transmission line corridor, Area 1-B as an accessory road and utility corridor, or Area 1 as a power plant. The Facility is being managed under Oregon's confidential SHPO, Section 106 process. This criterion is satisfied.

Condition 3. All permitted uses and activities shall be consistent with Policy #23 requiring protection of riparian vegetation.

#23 Riparian Vegetation and Streambank Protection

I. Local government shall strive to maintain riparian vegetation within the shorelands of the estuary and, when appropriate, restore or enhance it, as consistent with water dependent uses. Local government shall also encourage use of tax incentives to encourage maintenance of riparian vegetation, pursuant to ORS 308.792 308.803.

Appropriate provisions for riparian vegetation are set forth in the CCZLDO Section 4.5.180 (OR 92 05009PL).

II. Local government shall encourage streambank stabilization for the purpose of controlling streambank erosion along the estuary, subject to other policies concerning structural and nonstructural stabilization measures. […]

Findings: The local government strives to maintain riparian vegetation by following the appropriate provisions for riparian vegetation set forth in CCZLDO Section 4.5.180. In part, Section 4.5.180 states:

Riparian vegetation within 50 feet of a estuarine wetland, stream, lake or river, as identified on the Coastal Shoreland and Fish and Wildlife habitat inventory maps, shall be maintained except that…

Impacts to riparian vegetation are consistent with the provisions of LDO Section 4.5.180 because there are no estuarine wetlands, streams, lakes or rivers identified on the Coastal Shoreland and Fish & Wildlife habitat inventory maps within the Site Boundary. See **Figures K-8.2 - K-9.6**.[10]

[10] For additional information regarding the maps see footnotes 7, 8, and 9.

There is one identified freshwater wetland; however there are no identified *estuarine* wetlands. For clarification purposes, on **Figure K-8.3** there is an archeological site labeled, 9(CS-26), however this is an archeological site and not an estuarine wetland. Coos County has two Fish and Wildlife habitat inventory maps, which are attached as **Figure K-9.4 - K-9.6**. Neither Fish and Wildlife habitat inventory map depicts inventoried estuarine wetlands.

With respect to part II of Policy #23, encouraging streambank stabilization, there are no streambanks within the Site Boundary; therefore part II is not applicable.

Condition 4. All permitted uses shall be consistent with the respective flood regulations of local governments, as required in Policy #27.

Findings: The southeast area of the Site Boundary lies within in the floodplain and is subject to the requirements of Policy #27, and includes Area 5 previously approved for fill in the Prior Approvals. As established above, the Applicant will comply with all applicable flood regulations. See attached letter from Steve Donovan of SHN regarding compliance with applicable LDO Section 4.6.230, Procedural Requirements for Development Within Special Flood Hazard Areas, **Appendix K-2**.

#27 Floodplain Protection within Coastal Shorelands

The respective flood regulations of local government set forth requirements for uses and activities in identified flood areas; these shall be recognized as implementing ordinances of this Plan.

This strategy recognizes the potential for property damage that could result from flooding of the estuary.

Findings: Some amount of fill will be placed in the floodplain located in the southern area of the 7-D zoned portion of the Site Boundary in order to establish the accessory road and corridor use in Area 1-B and the power plant use in Area 1. As set forth in the November 21, 2013 evidentiary letter of Steve Donovan of SHN, **Appendix K-2**, this will have no measurable effect on the flood elevation. This will have no measurable effect on the flood elevation as it would raise the base flood less than 0.01 feet. The Applicant requests a floodplain certification from the Council.

Condition 5. All permitted uses in dune areas shall be consistent with the requirements of Policy #30.

Findings: The proposed power plant use is consistent with CBEMP Policy #30 as demonstrated in the responses to the policy, as provided in relevant part, immediately below.

#30 Restricting Actions in Beach and Dune Areas with "Limited Development Suitability" and Special Consideration for Sensitive Beach and Dune Resources (moved from Policy #31)

I. Coos County shall permit development within areas designated as "Beach and Dune Areas with Limited Development Suitability" on the Coos Bay Estuary Special Considerations Map only upon the establishment of findings that shall include at least: […]

Findings: See **Appendix K-3** from SHN regarding findings of consistency with the approval criteria of Policy #30. The figure attached to SHN's investigation report also discloses that Area 1 for the power plant is outside of an area of dune formations and, accordingly, is consistent with Policy #30. SHN's findings confirm that the dune forms in Area 1-A and Area 1-B are of limited suitability for development and, further, that the proposed use of the areas for power plant uses satisfies the applicable criteria of Policy #30.

Policy #30 requires implementation through an administrative conditional use process, which includes submission of a site investigation report by the developer that addresses the five considerations in Policy 30. The Applicant has provided the site investigation report and it addresses the five considerations in Appendix K-3. For these reasons the Council may grant the ACU to permit development in the dune areas with "Limited Development Suitability."

Condition 6. In rural areas (outside of UGBs) utilities, public facilities and services shall only be provided subject to Policies #49, #50, and #51.

Findings: The proposed power plant use is consistent with CBEMP Policies #49, #50 and #51 as demonstrated in the responses to the policies, as provided in relevant part, immediately below.

#49 *Rural Residential Public Services*

Findings: No rural residential uses are proposed. This policy does not apply.

#50 *Rural Public Services*

Findings: No rural public services are proposed. This policy does not apply.

#51 *Public Services Extension*

Findings: No public service extensions are proposed. This policy does not apply.

CONCLUSION.

The proposed power plant use in 7-D satisfies the applicable management objective and general conditions.

2.4 REQUEST ACU IN 8-WD ZONE

This section seeks administrative conditional use approval to authorize a land transportation facility in zoning district 8-WD which consists of improvements to rebuild and realign an existing public road connection to TransPacific Parkway. Land transportation facilities are defined in the CCZLDO as "bridges and associated structures, highways and railroads." Land transportation facilities are permitted in the 8-WD zoning district, subject to general conditions

(P-G). The proposed land transportation facility is consistent with the management objective of zoning district 8-WD, together with the applicable general conditions identified in CCZLDO section 4.5.371 (Uses, Activities and Special Conditions), as set forth below.

2.4.1 ACU for Land Transportation Facility in 8-WD Zone

This section addresses the 8-WD zoning district's management objective and use and activities matrix for applicable approval criteria for the proposed land transportation facility, a permitted use in the 8-WD zone, subject to general conditions (P-G). The area proposed for the land transportation facility is depicted in **Figure K-2**.

Zoning District 8 - Water-Development Shorelands (8-WD) Approval Criteria:

Chapter 4, Section 4.5.370 - Management Objective for 8-WD.

This shoreland district shall be managed to allow the continuation of and expansion of aquaculture, along with development of a boat ramp and limited tie-up facilities, to permit public access to the Estuary.

Findings: The proposal for a realigned public street intersection with TransPacific Parkway is not inconsistent with the management objective for zoning district 8-WD.

Chapter 4, Section 4.5.371 - Uses, Activities and Special Conditions.

Table 8-WD sets forth the uses and activities which are permitted, which may be permitted as conditional uses, or which are prohibited in this zoning district. Table 8-WD also sets forth special conditions which may restrict certain uses or activities, or modify the manner in which certain uses or activities may occur. Reference to "policy numbers" refers to Plan Policies set forth in the Coos Bay Estuary Management Plan.

Findings: The proposed land transportation facility use is allowed in zoning district 8-WD subject only to general conditions and no special conditions which may restrict the use.

Activity 7. Land Transportation facilities

Findings: The Land transportation facilities use is permitted in zoning district 8-WD, subject to general conditions serving as the applicable review criteria.

GENERAL CONDITIONS.

The following General Conditions apply to all uses and activities in 8-WD:

Condition 1. Inventoried resources requiring mandatory protection in this district are subject to Policies #17 and #18.

Findings: The related findings for compliance with Policies #17 and #18 are set forth below:

#17 Protection of "Major Marshes" and "Significant Wildlife Habitat" in Coastal Shorelands

Local governments shall protect from development major marshes and significant wildlife habitat, coastal headlands, and exceptional aesthetic resources located within the Coos Bay Coastal Shorelands Boundary, except where exceptions allow otherwise.

Findings: The proposal is only to rebuild and realign an existing public road connection to TransPacific Parkway in an area where there are no major marshes, significant wildlife habitats, coastal headlands or exceptional aesthetic resources as identified by the SAG on the County's resource inventory map. This policy is satisfied.

#18 Protection of Historical, Cultural and Archaeological Sites

Local government shall provide protection to historical, cultural and archaeological sites and shall continue to refrain from widespread dissemination of site specific information about identified archaeological sites. […]

Findings: ODOE staff will issue notice to the Tribes consistent with this policy. This policy is satisfied.

Condition 2. All permitted uses and activities shall be consistent with Policy #23 requiring protection of riparian vegetation.

Findings: The relevant findings are set out below:

#23 Riparian Vegetation and Streambank Protection

I. Local government shall strive to maintain riparian vegetation within the shorelands of the estuary and, when appropriate, restore or enhance it, as consistent with water dependent uses. Local government shall also encourage use of tax incentives to encourage maintenance of riparian vegetation, pursuant to ORS 308.792 - 308.803.

Appropriate provisions for riparian vegetation are set forth in the CCZLDO Section 4.5.180 (OR 92 05009PL).

II. Local government shall encourage streambank stabilization for the purpose of controlling streambank erosion along the estuary, subject to other policies concerning structural and nonstructural stabilization measures.

This strategy shall be implemented by Oregon Department of Transportation (ODOT) and local government where erosion threatens roads. Otherwise, individual landowners in cooperation with the Oregon International Port of Coos Bay, and Coos Soil and Water Conservation District, Watershed Councils, Division of State Lands and Oregon Department of Fish & Wildlife shall be responsible for bank protection.

This strategy recognizes that the banks of the estuary, particularly the Coos and Millicoma Rivers are susceptible to erosion and have threatened valuable farm land, roads and other structures.

Findings: Impacts to riparian vegetation are consistent with the provisions of CCZLDO Section 4.5.180 because, as represented by the SAG, there are no estuarine wetlands, streams, lakes or rivers identified on the Coastal Shoreland and Fish & Wildlife habitat inventory maps within the Site Boundary, including the area of zoning district 8-WD proposed for a land transportation facility. See **Figures K-8.2** and **K-9.6**.

Riparian vegetation within 50 feet of a estuarine wetland, stream, lake or river, as identified on the Coastal Shoreland and Fish and Wildlife habitat inventory maps, shall be maintained except that…

Findings: As stated above, there are no areas of riparian vegetation within 50 feet of the described water-bodies that will be affected by the proposal to rebuild and realign the existing public street connection to TransPacific Parkway.

Condition 3. All permitted uses shall be consistent with the respective flood regulations of local governments, as required in Policy #27.

Findings: The area of the proposed land transportation facility is outside any of the County's identified floodplains. This criteria does not apply.

#27 Floodplain Protection within Coastal Shorelands

The respective flood regulations of local government set forth requirements for uses and activities in identified flood areas; these shall be recognized as implementing ordinances of this Plan.

This strategy recognizes the potential for property damage that could result from flooding of the estuary.

Findings: The area of the proposed public road within zoning district 8-WD is outside of the Coastal Shoreland. Accordingly, this policy does not apply.

Condition 4. Uses in this district are only permitted as stated in Policy #14, "General Policy on Uses within Rural Coastal Shorelands". Except as permitted outright, or where findings are made in this Plan, uses are only allowed subject to the findings in this policy.

Findings: The proposal to rebuild and realign the existing public street connection to TransPacific Parkway complies with Policy #14 as follows:

#14 General Policy on Uses within Rural Coastal Shorelands

I. Coos County shall manage its rural areas within the "Coos Bay Coastal Shorelands Boundary" by allowing only the following uses in rural shoreland areas, as prescribed in the management units of this Plan, except for areas where mandatory protection is prescribed by LCDC Goal #17 and CBEMP Policies #17 and #18:

a. Farm uses as provided in ORS 215.203;

b. Propagation and harvesting of forest products;

c. Private and public water-dependent recreation developments;

d. Aquaculture;

e. Water-dependent commercial and industrial uses, water-related uses, and other uses only upon a finding by the Board of Commissioners or its designee that such uses satisfy a need which cannot be accommodated on uplands or shorelands in urban and urbanizable areas or in rural areas built upon or irrevocably committed to non-resource use.

f. Single-family residences on lots, parcels, or units of land existing on January 1, 1977, when it is established that:

1. The dwelling is in conjunction with a permitted farm or forest use, or

2. The dwelling is in a documented "committed" area, or

3. The dwelling has been justified through a goal exception; and

4. Such uses do not conflict with the resource preservation and protection policies established elsewhere in this Plan;

g. Any other uses, including non-farm uses and non-forest uses, provided that the Board of Commissioners or its designee determines that such uses satisfy a need which cannot be accommodated at other upland locations or in urban or urbanizable areas. In addition, the above uses shall only be permitted upon a finding that such uses do not otherwise conflict with the resource preservation and protection policies established elsewhere in this Plan.

This strategy recognizes (1) that Coos County's rural shorelands are a valuable resource and accordingly merit special consideration, and (2) that LCDC Goal #17 places strict limitations on land divisions within coastal shorelands. This strategy further recognizes that rural uses "a through "g" above, are allowed because of need and consistency findings documented in the "factual base" that supports this Plan.

Findings: As explained in the earlier Policy #14 response, both the SDPP and the LNG terminal are location specific and cannot be accommodated in the UGB or on irrevocably committed land as identified in the Coos County Comprehensive Plan (CCCP). The land transportation facility provides necessary vehicular access to both the SDPP and the LNG terminal which are locationally specific to the North Spit. See FERC Resource Report 10 Alternatives Analysis, **Appendix J-2, Tab A.6** and the Overland Transportation Study, **Appendix K-8**.

The proposed public transportation facility use satisfies a need that cannot be accommodated on uplands or shorelands in urban and urbanizable areas or in other rural areas built upon or irrevocably committed to non-resource use as identified in the CCCP. The point of access to the SDPP has been coordinated with the Coos County Roadmaster as the safest point of access to the SDPP from TransPacific Parkway, given the location of other approaches on the facility and its

geometry. As stated above, the majority of the area for the proposed land transportation facility is already developed as a public road and remains within the public right-of-way. Accordingly, the area is already committed to land transportation facilities use and rebuilding and realigning the existing dedicated right-of-way dictates that this area is the only area available to satisfy the need.

Condition 5. In rural areas (outside of UGBs) utilities, public facilities, and services shall only be provided subject to Policies #49, #50, and #51.

Findings: The relevant findings are set out below:

#49 *Rural Residential Public Services*

Findings: No rural residential uses are proposed. This policy does not apply.

#50 *Rural Public Services*

Findings: No rural public services are proposed. This policy does not apply.

#51 *Public Services Extension*

Findings: No public service extensions are proposed. This policy does not apply.

2.5 REQUEST ACU FOR COMPLIANCE DETERMINATION FOR ACCESSORY ROAD AND UTILITY CORRIDOR IN 6-WD ZONE

2.5.1 Accessory Road & Utility Corridor (Area 1-C)

The Applicant requests administrative conditional use approval of Area 1-C as an accessory road and utility corridor. The road and utility corridor are accessory to the primary LNG terminal use in the 6-WD zone.[11] The road and utility corridor are accessory to the LNG terminal because they provide access to LNG terminal, including facilities such as: the emergency response center and the gasification plant east of Jordan Cove Road. The LNG terminal is characterized as a water-dependent Port and Industrial facility allowed in 6-WD. An Industrial and Port facility is defined as: "public or private use of land or structures for manufacturing, processing, port development, and energy generating facilities. Industrial and Port Facilities include large commercial and industrial docks." LDO Section 2.1.200.

The road and utility corridor are also accessory to a second primary use, the SDPP. The SDPP is characterized as a Utility Facility: Generation of Power for public sale in the industrial zone and as demonstrated above, is a permitted use in the industrial zone.

[11] Area 1-C is situated within the boundaries of JCEP's approved LNG facility and is also an accessory road and utility corridor to the LNG terminal.

The Applicant has demonstrated compliance with all accessory use criteria in Section 2.7 of this exhibit. Because the accessory road and utilty corridor complies with the accessory criteria in LDO Article 3, Council can authorize the use of the road and utility corridor as an accessory use.

2.5.2 Haul Road (Area 1-D)

The purpose of this section is to clarify that the Haul Road has been addressed and that no land use approvals are needed from Council. **Figure K-2** depicts the proposed Haul Road west of Jordan Cove Road in Area 1-D. As stated above, the SAG advises that the private accessory Haul Road needs no land use approval from Coos County in that it is a private road used for temporary construction activities and not a public land transportation facility which would require land use approval. The Applicant requests that this be acknowledged and made a part of the record.

2.6 REQUEST ACU FOR COMPLIANCE DETERMINATIONS IN 6-DA ZONE

2.6.1 ACU for Dredging and Industrial & Port facilities use in Zoning District 6-DA for the Access Triangle

a. Proposed Dredging Activity.

Findings: The proposed activity is new and maintenance dredging. The proposed use is an Industrial & Port facilities, that is, the construction of the barge berth as an Industrial & Port facility use. The Applicant is requesting administrative conditional use approval from Council to dredge 1.36 acres, hereinafter the Access Triangle, in order to provide access to the barge berth which is accessory to the SDPP. The barge berth is necessary because no other alternative exists via road or rail facilities to deliver the over-sized components to the Facility.

The barge berth is located immediately east of the entrance to the Port's approved slip and is perpendicular to the shoreline. Barges or HandiMax vessels that have an overall length ranging from 492 feet to 656 feet require dredging of the access waterway in order to obtain access to the eastern end of the barge berth. The requested dredging is labeled as the Access Triangle and is located immediately south of the barge berth. See **Figure K-6** and Area 1-E on **Figure K-2**.

b. Project Description.

Findings: The barge berth will be used during construction to transport large modules to construct the Facility via the temporary heavy equipment haul road in Area 1-D shown on **Figure K-2**.

Hydraulic pipeline dredging will be the primary dredging method utilized for the Access Triangle. The dredged material (a slurry of water and sand) will be transported via the hydraulic dredge pipeline entirely on existing pavement and riprap on Roseburg Forest Products property and deposited within the Site Boundary. Dredging will be performed during the in-water work window (October 1 to February 15 as established by ODFW),

unless otherwise modified by the appropriate regulatory agencies. Dredging will be conducted in a manner that minimizes impacts to natural resources in Coos Bay.

Hydrographic surveys will be conducted to monitor and identify specific locations where sediments have accumulated. Future maintenance dredging will be conducted using the methods described, and will also be performed during the in-water work window, unless otherwise modified by the appropriate regulatory agencies.

c. Applicable Approval Criteria.

Findings: New and maintenance dredging is allowed in zoning district 6-DA as an administrative conditional use, subject to special and general conditions (ACU-S,G). CCZLDO 4.5.281.B.2. The CCZLDO contains all criteria applicable to this proposal and implements the CBEMP.

Chapter 4, Section 4.5.280 — Management Objective:

This aquatic district shall be managed to provide water access for the industrial uses in the adjacent uplands.

Findings: The Access Triangle implements the management objective for District 6-DA: to provide water access for the industrial uses in the adjacent uplands. The Access Triangle will provide access to the barge berth which provides a place for barges and HandiMax vessels to dock while the barges deliver equipment to construct the SDPP, which is an industrial use in the adjacent upland. Because the proposed conditional use, new and maintenance dredging, specifically implements the management objective, approval of the conditional use is consistent with the management objective.

Chapter 4, Section 4.5.281 — Uses, Activities and Special Conditions.

Activity (B)(2)(a)&(b) — Dredging, New and Maintenance.

Use (A)(4) - Industrial & Port facilities.

Findings: Dredging, both new and maintenance, and Industrial & Port facilities are reviewed as an Administrative Conditional Use subject to Special and General Conditions (ACU-S,G). The Applicant is proposing both new and maintenance dredging, and Industrial & Port facilities use to construct a barge berth and requests conditional use approval for new and maintenance dredging and Industrial & Port facilities use to construct a barge berth.

General Conditions

1. Inventoried resources requiring mandatory protection in this unit are subject to Policies #17 and #18.

Findings: The proposed activity of new and maintenance dredging is consistent with CBEMP Policies #17 and #18 as demonstrated in the findings to the policies below.

#17 Protection of "Major Marshes" and "Significant Wildlife Habitat" in Coastal Shorelands

Local governments shall protect from development major marshes and significant wildlife habitat, coastal headlands, and exceptional aesthetic resources located within the Coos Bay Coastal Shorelands Boundary, except where exceptions allow otherwise.

Findings: The Applicant consulted with County Planning Staff and determined that there are no identified major marshes, significant wildlife habitats, coastal headlands or exceptional aesthetic resources in the proposed Access Triangle; therefore, this policy does not apply.[12] The Staff reviewed the County's "Linkage Matrix" in making this determination.[13] See **Figure K-8.1**.

#18 Protection of Historical, Cultural and Archaeological Sites

Local government shall provide protection to historical, cultural and archaeological sites and shall continue to refrain from widespread dissemination of site specific information about identified archaeological sites. […]

Findings: The Applicant commissioned a Cultural Resources Survey in October, 2006 by Scott Byram of Byram Archeological Consulting. In addition, the Applicant has undertaken Native American consultation with the Confederated Tribes of Coos, Lower Umpqua and Siuslaw, the Coquille Indian Tribe, and the Confederated Tribes of Siletz Indians. Both verbal and written responses were received. Dr. Byram has been in regular communication with these tribes since 2005, including providing copies of his Cultural Resources Survey for the barge berth and the Unanticipated Discovery Plan. Following the submittal of this application, Coos County will notify the Tribes, in writing, of the proposed development by providing the Tribes with a copy of the proposed plans for the Access Triangle showing the area proposed for dredging in conformance with the provisions of Policy #18.

Special Conditions (Activities).

Industrial & Port facilities. Water-dependent uses are allowed. If the use is water-related or non-dependent/non-related and does not require fill, findings must be made that the use is consistent with the resource capabilities and purposes of the management unit. Fill is not permitted for non-water-dependent uses.

Findings: This condition only applies to the Industrial & Port facilities use and not to the activity of dredging. The barge berth is a water-dependent use because barges require water in order to float and travel. The barge berth must be adjacent to the water in order for barges to dock at the barge berth. Because the barge berth is a water-dependent use, the barge berth is consistent with this condition.

Dredging, New and Maintenance. These activities are only allowed subject to finding that adverse impacts have been minimized (see Policy #5) and to Policy #8 requiring mitigation.

[12] Jill Rolfe, Coos County Planning Director, Personal Communication, May 20, 2014.
[13] The "Linkage Matrix" is a chart that informs the reader as to whether there is an identified resource in that zone.

Findings: The proposed dredging activity is consistent with CBEMP Policies #5 and #8 as demonstrated in the responses to the policies below.

#5 Estuarine Fill and Removal

I. Local government shall support dredge and/or fill only if such activities are allowed in the respective management unit, and:

Findings: The activity of new and maintenance dredging is allowed as an administrative conditional use in the 6-DA management unit per CCZLDO Section 4.5.281. The Applicant is compliant with this criterion.

a. The activity is required for navigation or other water-dependent use that requires an estuarine location or, in the case of fill for non-water-dependent uses, is needed for a public use and would satisfy a public need that outweighs harm to navigation, fishing, and recreation, as per ORS 541.625(4) and an exception has been taken in this Plan to allow such fill.

Findings: The requested conditional use approval for dredging the Access Triangle is required for navigation from the existing Coos Bay Deep-Draft Navigation Channel (DDNC/DA) to fully access the barge berth without vessels running aground. The dredging for the barge berth is needed to accommodate the barge berth as a water-dependent use that requires an estuarine location.

b. A need (i.e., a substantial public benefit) is demonstrated and the use or alteration does not unreasonably interfere with public trust rights;

Findings: The Applicant's purpose in dredging the Access Triangle is to allow full access to the barge berth. The Applicant requires components to be delivered via barge because they are too large to be transported via road or rail. The components will be used to construct the SDPP. For components which could be shipped with a permit from the Oregon Department of Transportation, the public benefit to shipping via barge is reduced congestion and increased safety on the local roads and Highways 101, 126, 38, and 42. The public will also benefit from family wage jobs during construction and operation of the SDPP.

The barges and HandiMax vessels are necessary to deliver components to the SDPP during and after construction due to the limitations of the road and rail networks that serve Coos Bay. The modules are too large to fit on trucks or in railcars. The conclusions of the Overland Transportation Study conducted by logistics firm Omega Morgan for the Jordan Cove construction contracting team of Kiewit-Black & Veatch (KBV) concluded that: "All of the major large equipment and modules must be brought to the site via ocean transit and offloaded at the barge dock." **Appendix K-8**. The largest modules will originate from Asian ship yards that will need to be transported via HandiMax size vessels that have an overall length ranging from 492 feet to 656 feet. Construction of a smaller berth would preclude the use of HandiMax vessels and the ability to deliver the large modules to the Facility.

The large equipment components initially delivered either by barge or HandiMax vessel will need to be maintained and possibly replaced over the useful life of the project. The size of cargo is limited by size restrictions in transporting by rail or highway. Access by water is the only feasible delivery method to move the damaged or irreparable components and to deliver new or refurbished large components to the Facility.

With respect to public trust rights, dredging the Access Triangle will not unreasonably interfere with fishing, navigation or commerce (the traditional Public Trust rights) or environmental protection, aesthetics or recreation (additional rights presently considered under the Public Trust doctrine). Although dredging the Access Triangle will affect approximately 1.36 acres, the area along the shoreline is short (approximately 140 feet) and is not generally used for such activities, nor does the private property above the shoreline provide public access where the barge berth is proposed. The public will benefit from dredging this area by:

- enhancing commerce by delivering components and creating jobs to construct a power plant,
- providing safe mooring access for barges and reducing land needed for construction by preventing barges from constructing additional berths in Coos Bay, and enhancing the safety and efficiency of local roads and highways; dredging allows barges (rather than oversized semi-trucks) to deliver large components.

Because dredging and constructing a barge berth provides a public benefit, dredging and constructing a barge berth does not unreasonably interfere with the public trust rights. The Applicant is compliant with this criterion.

c. No feasible alternative upland locations exist; and

Findings: No feasible alternative upland locations exist. The purpose of the Access Triangle is for barges and vessels to access the barge berth which is water-dependent and therefore requires a water location.

d. Adverse impacts are minimized.

Findings: The Access Triangle footprint and excavation was designed to be the minimum size needed to accommodate the size of the barges and HandiMax vessels. Dredging the 1.36 acre Access Triangle will allow use of the Port's access waterway as a barge berth and avoid the need to build a separate barge berth. Adverse impacts have been minimized by:

- timing dredging to avoid impacts to sensitive fish and invertebrate resources,
- timing dredging to occur at the same time as dredging as for the Port’s 37712-RF permit to minimize total dredging time,
- using the same techniques, access, and staging as used for the Port’s 37712-RF permit, conducting dredging pursuant to conservative best management practices (BMP) to prevent water quality impacts.

e. Effects may be mitigated by creation, restoration, or enhancement of another area to ensure that the integrity of the estuarine ecosystem is maintained.

Findings: As described in the response to CBEMP Policy #8, the mitigation offered in association with the dredging will more than ensure that the integrity of the estuarine ecosystem is maintained. See the Findings to CBEMP Policy #8 and the letter regarding mitigation from David Evans and Associates **Appendix K-5**.

f. The activity is consistent with the objectives of the Estuarine Resources Goal and with other requirements of state and federal law, specifically the conditions in ORS 541.615[14] and Section 404 of the Federal Water Pollution Control Act (P.L. 92-500).

Findings: Because new and maintenance dredging is consistent with the acknowledged County Comprehensive Plan, including the CBEMP, it is also consistent with the Statewide Planning Goals, including Goal 16 Estuarine Resources.

The activity is consistent with the requirements of state and federal law, including the requirements of the Department of State Lands (DSL) and the United States Army Corps of Engineers (USACE) regulatory programs, which include Section 404 of the Federal Water Pollution Control Act.

The Applicant has submitted an application to the USACE for a Section 404 Permit which includes dredging the Access Triangle. The Applicant has demonstrated compliance with Section 404 in the application and, as of May 2014, is working toward a completeness determination from USACE, which allows the application to be publicly reviewed. The Section 404 application is attached as **Exhibit J, Appendix J-3**.

Compliance with DSL and the USACE regulatory programs will be ensured by conditioning approval on demonstrating compliance with these regulatory programs by obtaining a DSL Removal-Fill Permit for the SDPP and a USACE Section 404 Permit. The primary criteria used by DSL and the USACE include:

- demonstration of public need,
- protection of public trust right,
- impact minimization and avoidance,
- analysis of alternatives,
- evaluation of public interest, and

[14] ORS 541.615 was renumbered to ORS 196.810 Permit required to remove material from bed or bank of waters in 1989. Generally it is the intent of zoning ordinances to give effect to the most current citation, therefore the Applicant has provided an analysis under the ORS 196.810 which requires a permit from the Department of State Lands prior to removing or filling beds or banks of any waters of the state.

mitigation of unavoidable impacts to aquatic resources. (See 33 CFR 320 et seq., ORS 196.800 et seq., and OAR 141-085 et seq., which are included in this application by this reference).

The Applicant has prepared a Compensatory Wetland Mitigation ("CWM") Plan to address impacts associated with the Facility in compliance with DSL, USACE and local requirements. See **Exhibit J, Appendix J-2, Tab B**.

Unavoidable impacts to the aquatic resources from dredging the Access Triangle will affect a total of 1.36 acres of intertidal, algae/mudflats/sand, deep subtidal, shallow subtidal, and eelgrass beds. The impacts will be mitigated by providing estuarine wetland mitigation at the Kentuck Mitigation Site and the Eelgrass mitigation site. See letter from David Evans and Associates **Appendix K-5** and the CWM Plan **Exhibit J, Appendix J-2, Tab B**. For the eelgrass site, the lost functions of the impact site are: fish migration, rearing and feeding, cover for juvenile fish, primary production and food chain support, and waterfowl, shorebird, and invertebrate habitat. The estuarine wetland mitigation will occur at a ratio of 3:1, which will more than offset the impacts thereby satisfying state and federal laws.

As demonstrated in the DSL Fill-Removal Permit application and the Section 404 Permit application, the proposed dredging satisfies the strict purpose and need, alternatives, impact avoidance and minimization, public interest, County, DSL, and USACE regulations. The Applicant is compliant with CBEMP Policy #5.

#8 Estuarine Mitigation Requirements

Local government recognizes that mitigation shall be required when estuarine dredge or fill activities are permitted in inter-tidal or tidal marsh areas. The effects shall be mitigated by creation, restoration, or enhancement of another area to ensure that the integrity of the estuarine ecosystem is maintained as required by ORS 196.830 (renumbered in 1989). However, mitigation shall not be required for projects which the Department of State Lands determined met the criteria of ORS 196.830(3). […]

This strategy shall be implemented through procedures established by the Division of State Lands, and as consistent with ORS 196.830 and other mitigation/restoration policies set forth in this Plan.

This strategy recognizes the authority of the Director of the Division of State Lands in administering the statutes regarding mitigation.

Findings: The Compensatory Wetland Mitigation ("CWM") Plan demonstrates the Applicant's response to the County estuarine mitigation requirements and the mitigation requirement administered by DSL and the USACE. See **Exhibit J, Appendix J-2 Tab B.**

Dredging the Access Triangle will adversely affect 0.08 acres of intertidal, 0.22 acres of sand, mudflat and algal beds, 0.24 acres of shallow subtidal, 0.63 acres of deep subtidal, and about 0.18 acres of eelgrass beds. As explained by JCEP's biologist at David Evans and Associates in

Appendix K-5, these effects will be mitigated by the creation of the Kentuck and Eelgrass mitigation sites to ensure that the integrity of the estuarine ecosystem is maintained. Mitigation for the impacts, with the exception of deep subtidal habitats, will be a part of the CWM Plan. Mitigation for deep subtidal habitat impacts are not proposed since construction of the slip and access channel will result in a net gain of deep subtidal habitat.

Impacts to the above habitats, excluding eelgrass and deep subtidal, will be mitigated at the Kentuck Mitigation Site at a 3:1 ratio. Mitigation at the Kentuck Site will consist of restoration of salt marsh and mudflat habitats. Impacts to eelgrass will also be mitigated at a 3:1 ratio (0.18 acres of impact = 0.54 acres of mitigation).

Compliance with DSL's administrative rules for estuarine mitigation pursuant to ORS 196.830 and other mitigation requirements imposed by DSL and the USACE through the permits issued in response to the DSL Fill-Removal application and the Section 404 application will satisfy Policy #8. Compliance will be ensured through conditioning the Council's approvals on compliance with DSL and the USACE regulatory requirements.

Because the Applicant will adequately mitigate the effects of dredging, Council can find that the Applicant is compliant with CBEMP Policy #8.

2.6.2 ACU for Construction, Fill & Shoreline Stabilization in 6-DA Zone for the Barge Berth

Zoning District 6 – Development Aquatic (6-DA).

a. Proposed Activities.

Findings: The proposed activity is temporary and permanent fill using vegetation, bulkheads and riprap as shoreline stabilization to construct the accessory barge berth. The Applicant is requesting approval for an administrative conditional use from the Council to fill approximately 1.69 acres in the 6-DA zone to construct a barge berth.

It is necessary to construct the barge berth to allow for docking of barges that are transporting new or replacement components to the SDPP or damaged or irreparable components from the SDPP. These project components are very oversized and thus cannot be transported via road or rail facilities. As noted above, the conclusions of the Overland Transportation Study conducted by logistics firm Omega Morgan for the Jordan Cove construction contracting team of Kiewit-Black & Veatch (KBV) concluded that: "All of the major large equipment and modules must be brought to the site via ocean transit and offloaded at the barge dock."

Further, the Applicant must construct a new berth for these barges because site operations will preclude the use of other marine landing areas either within the slip or at other marine facilities located on the North Spit. As described in **Appendix J-2, Section 2.2.2.1.1**, the location of the barge berth is constrained by three primary functional requirements. The constraints are:

1. The WNW corner of the barge berth is fixed by the location of the southernmost mooring bollard (dolphin), which is used to secure ships in high winds.
2. There must be sufficient shore side surface area available to allow cranes and Scheuerle trailers to position as necessary to handle the unloading of components onto the trailers.
3. Spatial separation is required for the Scheuerle trailers to travel from 20 feet MSL (elevation of barge berth) to 46 MSL (elevation of SDPP) as they can only climb a gradient of 2-3 degrees.

The area of temporary fill is identified as green hatching and permanent fill is identified as the bold pink outline of the barge berth. The scalloped edges on the barge berth represents the riprap and bulkhead (which will be constructed from Open Cell sheet pile) used for shoreline stabilization. See **Figure K-6** and Area 1-E on **Figure K-2**.

b. Project Description.

Findings: The barge berth will be used during construction of the Facility to allow for docking of barges that are transporting large components and project materials via the heavy equipment haul road that cannot feasibly be transported via public roads or rail.

Material used to backfill the area behind the Open Cell sheet pile and riprap will be obtained from an existing dune immediately north of the barge berth. Material will be pushed from the land towards the bay during the in-water work window. During the in-water work window, temporary fill material will be placed outside of the permanent barge berth structure. The material will provide the contractor an area from which to drive the Open Cell sheet pile and place the riprap and avoid the need to construct a work platform.

The temporary fill will act as a sound buffer to eliminate acoustic disturbance to fish species during pile driving, thus allowing for pile driving to occur outside of the in-water work window. A turbidity curtain will be placed around the temporary fill of the barge berth throughout the duration of pile driving.[15] Based on the detailed turbidity analysis and the conclusions regarding the nature of the material that would be used as fill for the barge berth, slope armoring around the additional temporary fill will not be required. See **Exhibit J, Appendix J-2, Tab F**. Because slope armoring is not required, a turbidity curtain is the only containment measure that will be applied to the barge berth. For the above reasons, the procedure to fill the barge berth has been designed to minimize impacts to natural resources in Coos Bay.

c. Applicable Approval Criteria.

Findings: Temporary and permanent fill and shoreline stabilization is allowed in CBEMP management unit 6-DA as an administrative conditional use, subject to special

[15] A turbidity curtain is a floating barrier designed to contain and control the dispersion of silt in a water body during construction.

and general conditions (ACU-S, G). The CCZLDO contains all criteria applicable to this proposal and implements the CBEMP.

Chapter 4, Section 4.5.280 — Management Objective:

This aquatic district shall be managed to provide water access for the industrial uses in the adjacent uplands.

Findings: Fill and shoreline stabilization for the barge berth is consistent with the management objective because the barge berth allows barges which require water access to deliver components necessary for the construction of an industrial use, the SDPP, in the adjacent upland. Fill and shoreline stabilization of the barge berth implements the management objective for the 6-DA zone, thus the Applicant is compliant with the management objective.

Chapter 4, Section 4.5.281 — Uses, Activities and Special Conditions.

Activity (B)(2)(a)&(b) — Dredging, New and Maintenance.

Findings: Fill and shoreline stabilization are reviewed as an Administrative Conditional Use subject to Special and General Conditions (ACU-S,G). The Applicant is proposing fill and shoreline stabilization, and requests conditional use approval for fill and shoreline stabilization.

General Conditions

1. Inventoried resources requiring mandatory protection in this unit are subject to Policies #17 and #18.

Findings: The proposed activities of fill and shoreline stabilization (vegetative, riprap and bulkheads) are consistent with CBEMP Policies #17 and #18 as demonstrated in the findings to the policies below.

#17 Protection of "Major Marshes" and "Significant Wildlife Habitat" in Coastal Shorelands

Local governments shall protect from development major marshes and significant wildlife habitat, coastal headlands, and exceptional aesthetic resources located within the Coos Bay Coastal Shorelands Boundary, except where exceptions allow otherwise. […]

Findings: The Applicant both reviewed the County's "Linkage Matrix" and consulted with County Planning Staff and determined that there are no identified major marshes, significant wildlife habitats, coastal headlands or exceptional aesthetic resources in the proposed fill area for the barge berth, therefore this policy does not apply.[16] The Staff reviewed the County's "Linkage Matrix" in making this determination. See **Figure K-8.1**.

[16] Jill Rolfe, Coos County Planning Director, Personal Communication, May 20, 2014.

#18 Protection of Historical, Cultural and Archaeological Sites

Local government shall provide protection to historical, cultural and archaeological sites and shall continue to refrain from widespread dissemination of site specific information about identified archaeological sites. […]

Findings: The Applicant commissioned a Cultural Resources Survey in October, 2006 by Scott Byram of Byram Archeological Consulting and the Applicant has undertaken Native American consultation with the Confederated Tribes of Coos, Lower Umpqua and Siuslaw, the Coquille Indian Tribe, and the Confederated Tribes of Siletz Indians. Both verbal and written responses were received. In addition, following the submittal of this application, Coos County will notify such tribes, in writing, of the proposed development by providing the tribes with a copy of the plans for the Access Triangle showing the area proposed for dredging in conformance with the provisions of Policy #18.

Special Conditions (Activities).

4. (Fill) Fill is permitted subject to the findings required by Policy #9, "Solutions to Erosion and Flooding Problems".

Findings: The proposed fill and shoreline stabilization activity is consistent with CBEMP Policy #9 as demonstrated in response to CBEMP Policy #9 below.

7b., 7c., (Shoreline Stabilization, Riprap & Bulkheads) These activities are permitted subject to the general findings required by Policy #9, "Solutions to Erosion and Flooding Problems", preferring non-structural to structural solutions, and to the specific findings for riprap. Riprap may be allowed to a very limited extent where necessary for erosion control to protect: (A) uses existing as of 10-7-77; (B) unique natural resource and historical and archeological values; or, (C) public facilities.

In addition, bulkheads are only allowed subject to finding that adverse impacts have been minimized (see Policy #5);and to Policy #8 requiring mitigation.

Findings: The proposed riprap and bulkhead shoreline stabilization activities are consistent with CBEMP Policies #5 and #8 as demonstrated in responses below.[17] Riprap is allowed where necessary for erosion control to protect public facilities. The CCZLDO Section 2.1.200 defines "Public Facilities and Services" as: "Projects, activities and facilities determined to be necessary for the public health, safety and welfare." In this case, riprap is necessary for erosion control to protect public facilities for two reasons. First, riprap will protect Coos Bay, a public facility, by preventing ships' propeller wash from eroding the shoreline and increasing deposits in Coos Bay.

Second, riprap will protect public roads by allowing for development of the berth, which will receive and ship oversized components via barge to the Facility, thereby reducing the amount of oversized vehicles on the public roads. The riprap is strategically limited to the locations that are

[17] Please note that Policies #5 and #8 apply only to bulkheads pursuant to Special Condition 7c.

most susceptible to propeller wash from tugboats and barges, including: the east side of the barge berth up to the point of Roseburg Lumber's existing riprap, across the face of the barge berth and to the west end of the barge berth.

The only portion of this policy applicable to the fill activity is the requirement to address CBEMP Policy #9. The Applicant has addressed this policy below.

#5 Estuarine Fill and Removal

I. Local government shall support dredge and/or fill only if such activities are allowed in the respective management unit, and:

Findings: Policy #5 applies to the activities of fill and bulkhead shoreline stabilization. The activities of fill and bulkhead shoreline stabilization are allowed as an administrative conditional use in the 6-DA management unit pursuant to CCZLDO Section 4.5.281. The Applicant is compliant with this criterion.

a. The activity is required for navigation or other water-dependent use that requires an estuarine location or, in the case of fill for non-water-dependent uses, is needed for a public use and would satisfy a public need that outweighs harm to navigation, fishing, and recreation, as per ORS 541.625(4) and an exception has been taken in this Plan to allow such fill.

Findings: The activities of fill and bulkhead shoreline stabilization are required to construct the barge berth, which is a water-dependent use that requires an estuarine location. For example, as explained above, placement of fill material will provide the contractor an area from which to drive the Open Cell sheet pile without constructing a work platform. Further, the Open Cell sheet pile bulkhead will stabilize the walls of the barge berth to ensure that the material which forms the barge berth stays in place. Because proposed fill and shoreline stabilization are required for a water-dependent use (the barge berth) that requires an estuarine location the proposed activities are compliant with this criterion.

b. A need (i.e., a substantial public benefit) is demonstrated and the use or alteration does not unreasonably interfere with public trust rights;

Findings: Fill and shoreline stabilization are needed to facilitate development of the barge berth and to ensure that material used to construct the barge berth is stabilized and remains in place. Above, the Applicant demonstrated that development of the barge berth would provide several substantial public benefits, including facilitating development and operation of the SDPP; removing project components from local and state roads, thus reducing congestion and increasing safety; and increasing family wage jobs during construction and operation of the project (see Exhibit U). Further, development of the barge berth will not unreasonably interfere with public trust rights because the area of the berth is small and not generally utilized for the activities included within the public trust rights. (See Exhibit T, Section 3.0 explaining that there will be no restricted areas adjacent to the barge berth and that no permanent structures will be located on state owned land.) Further, the property above the barge berth does not currently

provide public access to the water. Therefore, because the stabilization will facilitate a water-dependent use that offers substantial public benefits without unreasonably interfering with public trust rights, those activities are consistent with this aspect of CBEMP Policy #5.

The activities themselves are consistent with this policy for two reasons. First, fill and shoreline stabilization ensure that materials used to construct the barge berth are stabilized and remain in place. The Open Cell sheet pile bulkheads are needed in order protect the barge berth from wind, waves, tides, and currents which will erode the barge berth if it is not stabilized with bulkheads.

In addition, bulkheads are needed to provide a secure moorage for barges. While moored, natural forces such as winds and tides will exert pressure on the barges. The barge berth must be stabilized in order to provide a secure location to dock while loading and unloading. Preventing the barge berth from disintegrating provides a substantial public benefit in the form of preventing a barge from breaking loose and causing damage to property in Coos Bay.

Second, with respect to public trust rights, fill and shoreline stabilization will not unreasonably interfere with fishing, navigation, commerce, aesthetics, or recreation (the public trust rights). Bulkheads will stabilize the shoreline, which will protect resources protected by the public trust doctrine such as: fishing, navigation, commerce, aesthetics, and recreation. Stabilizing the shoreline will protect these resources by preventing shoreline erosion and sedimentation in Coos Bay.

c. No feasible alternative upland locations exist; and

Findings: No feasible alternative upland locations exist. The purpose of the fill and Open Cell sheet pile bulkheads is to stabilize the barge berth. The barge berth is water-dependent and therefore requires a water location.

d. Adverse impacts are minimized.

Findings: Engaging in fill and construction of the Open Cell sheet pile bulkheads is designed to minimize adverse impacts caused by construction. The Applicant has designed the fill and shoreline stabilization activities to minimize adverse impacts. Impacts have been minimized by: (1) designing the footprint of the barge berth, and thus the amount of bulkhead needed, to occupy the smallest possible area and (2) by pushing temporary fill beyond the edge of the Open Cell sheet pile bulkheads during construction.

The temporary fill will act as a sound buffer thereby eliminating acoustic disturbance. The temporary fill also provides the contractor an area from which to drive the Open Cell sheet pile bulkheads, which avoids the need to construct a work platform. Also, a turbidity curtain will be used outside of the temporary fill which will contain silt and debris thereby minimizing adverse impacts to water quality. For the foregoing reasons, the Applicant has designed the shoreline stabilization to minimize adverse impacts and the Council can find that the proposal is consistent with this aspect of this policy.

e. Effects may be mitigated by creation, restoration, or enhancement of another area to ensure that the integrity of the estuarine ecosystem is maintained.

Findings: As described in the response to CBEMP Policy # 8, the mitigation offered in association with the fill and shoreline stabilization will more than ensure that the integrity of the estuarine ecosystem is maintained. See CBEMP Policy # 8 Response, and **Appendix K-5**.

f. The activity is consistent with the objectives of the Estuarine Resources Goal and with other requirements of state and federal law, specifically the conditions in ORS 541.615[18] and Section 404 of the Federal Water Pollution Control Act (P.L. 92-500).

Findings: The proposed fill and shoreline stabilization activities are consistent with the above objectives for the following reasons. First, they are consistent with the County Comprehensive Plan (as demonstrated in Exhibit K in response to the CCZLDO criteria), including the CBEMP. The County Comprehensive Plan has been acknowledged as being in compliance with the Statewide Planning Goals. Therefore, the proposed fill and shoreline stabilization are necessarily also consistent with the Statewide Planning Goals, including Goal 16 Estuarine Resources.

Fill and shoreline stabilization are also consistent with the requirements of state and federal law, including the requirements of the DSL and the USACE regulatory programs, which include Section 404 of the Federal Water Pollution Control Act.

The Applicant has submitted an application to the USACE for a Section 404 Permit which includes temporary and permanent fill and shoreline stabilization for the barge berth. The Applicant has demonstrated compliance with Section 404 in the application and, as of the date of the application, is working toward a completeness determination from USACE, which allows the application to go to public review. The Section 404 application is attached as **Exhibit J, Appendix J-3**, the barge berth is specifically addressed in **Section 2.2.2.1 of Appendix J-3**.

Compliance with DSL and the USACE regulatory programs will be ensured by conditioning approval on demonstrating compliance with these regulatory programs by obtaining a DSL Removal-Fill Permit for the SDPP and a USACE Section 404 Permit. The primary criteria used by DSL and the USACE include:

- demonstration of public need,
- protection of public trust right,
- impact minimization and avoidance,
- analysis of alternatives,
- evaluation of public interest, and

[18] ORS 541.615 was renumbered to ORS 196.810 ("Permit required to remove material from bed or bank of waters") in 1989. The County has not updated the CCZLDO to reflect this change. Generally it is the intent of zoning ordinances to give effect to the most current citation; therefore, the Applicant has provided an analysis under the ORS 196.810 which requires a permit from the Department of State Lands prior to removing or filling beds or banks of any waters of the state.

mitigation of unavoidable impacts to aquatic resources. (See 33 CFR 320 et seq., ORS 196.800 et seq., and OAR 141-085 et seq., incorporated by reference).

The Applicant has prepared a Compensatory Wetland Mitigation ("CWM") Plan to address impacts associated with the Facility in compliance with DSL, USACE and local requirements. See **Exhibit J, Appendix J-2, Tab B**.

Unavoidable impacts to the aquatic resources from fill and shoreline stabilization of the barge berth will affect a total of 1.69 acres of intertidal, algae/mudflats/sand, shallow subtidal, and below Highest Measured Tide (HMT) (elevation 10.26'). The impacts will be mitigated by providing estuarine wetland mitigation at the Kentuck and Eelgrass mitigation sites. See letter from David Evans and Associates **Appendix K-5**. The estuarine wetland mitigation will more than offset, at a 3:1 ratio, the wetland impacts thereby satisfying state and federal laws.

As demonstrated in the DSL Fill-Removal Permit application and the Section 404 Permit application, the proposed fill and shoreline stabilization satisfies the strict purpose and need, alternatives, impact avoidance and minimization, public interest, County, DSL, and USACE regulations. For the aforementioned reasons the fill and shoreline stabilization is consistent with CBEMP Policy #5.

#8 Estuarine Mitigation Requirements

Local government recognizes that mitigation shall be required when estuarine dredge or fill activities are permitted in inter-tidal or tidal marsh areas. The effects shall be mitigated by creation, restoration, or enhancement of another area to ensure that the integrity of the estuarine ecosystem is maintained as required by ORS 196.830 (renumbered in 1989). However, mitigation shall not be required for projects which the Department of State Lands determined met the criteria of ORS 196.830(3). […]

This strategy shall be implemented through procedures established by the Division of State Lands, and as consistent with ORS 196.830 and other mitigation/restoration policies set forth in this Plan.

This strategy recognizes the authority of the Director of the Division of State Lands in administering the statutes regarding mitigation.

Findings: The Applicant has prepared a Compensatory Wetland Mitigation ("CWM") Plan which demonstrates the Applicant's response to the County estuarine mitigation requirements and the mitigation requirement administered by DSL and the USACE. See **Exhibit J, Appendix J-2 Tab B.**

The unavoidable impacts to the aquatic resources include 1.17 acres of intertidal, 0.36 acres of algae, mudflats, and sand, 0.074 acres of shallow sub-tidal, and 0.09 acres below HMT. As explained by JCEP's biologist and environmental specialist at David Evans and Associates in **Appendix K-5**, these impacts will be mitigated by the creation of the Kentuck and Eelgrass mitigation sites to ensure that the integrity of the estuarine ecosystem is maintained. Mitigation

for the impacts, with the exception of deep subtidal habitats, is a part of the CWM Plan. Mitigation for deep subtidal habitat impacts are not proposed since construction of the slip and access channel will result in a net gain of deep subtidal habitat.

Impacts to the above habitats, excluding deep subtidal, will be mitigated at the Kentuck Mitigation Site at a 3:1 ratio. Mitigation at the Kentuck Site will consist of restoration of salt marsh and mudflat habitats.

Compliance with DSL's administrative rules for estuarine mitigation pursuant to ORS 196.830 and other mitigation requirements imposed by DSL and the USACE through the permits issued in response to the DSL Fill-Removal application and the Section 404 application ensures compliance with CBEMP Policy #8. Accordingly, the Council should condition the ACU approvals on obtaining required DSL and USACE permits.

Because the Applicant will adequately mitigate the effects of fill and shoreline stabilization for the barge berth, Council can find that the Applicant is compliant with CBEMP Policy #8.

#9 Solutions to Erosion and Flooding Problems

Local government shall prefer nonstructural solutions to problems of erosion and flooding to structural solutions. Where shown to be necessary, water and erosion control structures such as jetties, bulkheads, seawalls and similar protective structures and fill whether located in the waterways or on shorelands above ordinary high water mark shall be designed to minimize adverse impacts on water currents, erosion and accretion patterns.

Findings: As detailed above, shoreline stabilization is necessary so that natural forces do not degrade the barge berth. Further, the proposed shoreline stabilization has been designed to minimize adverse impacts on water currents, erosion and accretion patterns by avoiding the need for a construction platform eliminating acoustic disturbance and utilizing a turbidity curtain to contain any sediment. Additionally, the design of the barge berth itself minimizes the extent of required shoreline stabilization because the berth is the smallest practicable size.

I. Further, where listed as an "allowable" activity within the respective management units, riprap may be allowed in Development Management Units upon findings that:

a. Land use management practices and nonstructural solutions are inadequate; and

b. Adverse impacts on water currents, erosion and accretion patterns are minimized; and

c. It is consistent with the Development management unit requirements of the Estuarine Resources Goal.

Findings: For the aforementioned reasons, land use management practices and nonstructural solutions are inadequate. These reasons include needing to stabilize the filled material which comprises the barge berth and providing a secure place for barges to moor while loading and

unloading. Adverse impacts have been minimized by designing the smallest barge berth possible and using riprap only where necessary. As stated above, riprap is consistent with the development management unit requirements of the Estuarine Resources Goal and is listed as an "allowable" activity within the 6-DA zone, therefore the proposed riprap is compliant with the above criteria.

II. Further, where listed as an "allowable" activity within respective management units, riprap shall only be allowed in Conservation Aquatic (CA) units upon findings that:

a. Land use management practices and nonstructural solutions are inadequate; and

b. Adverse impacts on water currents, erosion and accretion patterns are minimized; and

c. It is consistent with the Development management unit requirements of the Estuarine Resources Goal.

Findings: This section is not applicable because the Applicant is requesting riprap in a Water-Dependent Development Shorelands Unit, not a Conservation Aquatic unit.

III. Further, where listed as an "allowable" activity within respective management units, riprap shall only be allowed in Natural Aquatic (NA) units upon findings that:

a. There is a need to protect from erosion: uses existing as of October 7, 1977, unique natural resources and historic archaeological values, or public facilities;

b. Land use management practices and nonstructural solutions are inadequate;

c. It is consistent with the natural management unit as set forth in this Plan and required by Goal #16; and

d. Adverse impacts on water currents, erosion and accretion patterns and estuarine organisms and their habitat are minimized.

Findings: This section is not applicable because the Applicant is requesting riprap in a Water-Dependent Development Shorelands Unit, not a Natural Aquatic unit.

Implementation of this strategy shall occur through local review of and comment on state and federal permit applications for such projects.

This strategy is based on the recognition that nonstructural solutions are often more cost-effective as corrective measures, but that carefully designed structural solutions are occasionally necessary. The strategy also recognizes LCDC Goal #16 and #17 requirements and the Oregon Administrative Rule classifying Oregon estuaries (OAR 660-17-000 as amended June, 1981).

Findings: This strategy, CBEMP Policy #9, is being implemented through review by the SAG in coordination with the Council and Staff. Open Cell sheet pile bulkheads and riprap are also

included in the DSL Fill-Removal Permit application, which will be reviewed by and commented on by the DSL in coordination with the Council and Staff.

As demonstrated above, the Open Cell sheet pile bulkhead and riprap have been demonstrated to be necessary in order to stabilize the barge berth and protect it from natural forces. Furthermore, as described above construction of the bulkhead and riprap have been carefully designed to minimize adverse impacts.

2.7 REQUEST ACU FOR COMPLIANCE DETERMINATIONS WITH SUPPLEMENTAL PROVISIONS OF LDO CHAPTER III

The supplemental provisions of Chapter III apply to all uses in all zones.

i. Article 3.1 - Structures

Section 3.1.100 Purpose: *In order to provide adequate light, air, and privacy, and in order to promote the general safety and welfare, the following general conditions and development standards shall apply to all buildings and structures unless otherwise specified in this Ordinance.*

Findings: The proposed power plant, together with all accessory uses and structures, will comply with all general conditions and development standards specified in this Ordinance that are relevant to the Project. This criterion is satisfied.

Section 3.1.150. Building Permit Issuance. *Coos County recognizes the State of Oregon Building Codes Agency as the official building permit issuing and enforcing authority, responsible for receiving applications and examining the plans and specifications for proposed construction. A building permit shall not be issued unless such plans and specifications comply with this Ordinance.*

Findings: The Applicant will comply with the relevant provisions of this Ordinance prior to requesting a building permit. This criterion is satisfied.

Section 3.1.200. Verification Letter Required for Building Permit. *To obtain a building permit, the applicant shall first request and receive a zoning verification letter from the Coos County Planning Department. This verification letter is valid for one year from the date it is issued. [OR 96-06-007PL 9/4/96]*

Findings: Based upon showing compliance with all applicable criteria of the LDO and the CCCP identified by the SAG, the Applicant requests that the Council approve the issuance zoning verification letter by Coos County, subject to any applicable conditions of approval imposed by the Council.

Section 3.1.300. Accessory Structures. *Structures customarily accessory to a lawfully established principle use shall be allowed as set forth below:*

A. An accessory structure may be located on the same lot, parcel or tract under the same ownership as the lot, parcel or tract that contains the principle use.

Findings: All accessory structures will be located on tracts under the same ownership as the tracts that contain the principal use. This criterion is satisfied.

B. Any attached or detached accessory structure shall maintain the same setbacks established by the zoning district for the principle use. [OR91-05-006PL 7/10/91]

Findings: The only setback standard in the IND zone is a 5-foot required setback on any side or rear abutting a residential or controlled development zone only. The Site Boundary does not abut a residential or controlled development zone, therefore there are no setback standards that apply.

C. Accessory Structures within Recreation, Exclusive Farm Use, Forest and other natural resource zoning districts.

Findings: The Site Boundary is not within a Recreation, Exclusive Farm Use or Forest or other natural resource zoning district. This criterion does not apply.

D. Accessory structures within Rural-residential and Rural-Center zoning districts.

Findings: The Site Boundary is not within a Rural-residential or Rural-Center zoning district. This criterion does not apply.

E. Accessory structures within Urban Residential and Airport Operations zoning districts.

Findings: The Site Boundary is not within the Urban Residential or any Airport Operations zoning district. This criterion does not apply.

F. Accessory structures within Industrial and Commercial and Controlled Development zoning districts.

1. Where the principle use of the land is not residential, then Garages, warehouses and other accessory structures shall be allowed on lots and parcels located within industrial, commercial and controlled development zoning districts, subject to any specific requirements of the zone in which they are to be established.

Findings: The principal use of the land is not residential. Accordingly, all accessory structures are located within the Industrial zoning district. This criterion does not apply.

3. If the garage or other accessory structure is proposed for a lot or parcel located within a UGB, and the principle use of the land is residential, and said proposed structure exceeds 1,200 square feet in base floor area, then said structure may be permitted only if:

a. a dwelling exists on the subject property or is being established concurrently with the proposed accessory structure, and

b. an administrative conditional use application is approved after finding that the proposed structure meets the definition of "accessory structure" set forth at Section 2.1.200. [OR-96-04-007PL 9/4/96]

Findings: The Site Boundary is not located within a UGB. This criterion does not apply.

***Section 3.1.400. Lot Coverage**. All buildings designed or erected and existing buildings which may be reconstructed, altered, moved, or enlarged shall not exceed the maximum lot coverage regulations of the district in which the buildings are to be located.*

Findings: The IND zone does not have a maximum lot coverage regulation. See LDO Table 4.4-c. This criterion does not apply.

***Section 3.1.450.** Dwelling Unit or Building Density. The dwelling unit or building density regulations as set forth in the districts shall apply. Occupancy shall not be increased in any manner except in conformity with these regulations.*

Findings: The IND zone does not have a building density regulation. See LDO Table 4.4-c. No dwelling units are proposed with this request for Council approval. This criterion does not apply.

Section 3.1.500. Structure Height.

1. Buildings and structures shall not exceed the height limitations as specified for the zone in which they are located.

2. Spires, towers, domes, steeples, flag poles, antennae, chimneys, solar collectors, smokestacks, ventilators or other similar objects may be erected above the prescribed height limitations, provided no usable floor space above the height limits is thereby added. Such overheight object shall not be used for advertising of any kind.

Findings: According to Footnote 3 to LDO Table 4.4-c, the IND zone has no applicable maximum building height. The Site Boundary does not abut a residential or controlled development zone. This criterion does not apply.

Section 3.1.550. Unoccupied Buildings.

Findings: There are no unoccupied buildings in the Site Boundary. This criterion does not apply.

***Section 3.1.600. Limitation On Use Of Manufactured Dwellings For Commercial Purposes**.*

Findings: No manufactured dwellings are proposed. This criterion does not apply.

Section 3.1.700. Residential Care Home/Facility.

Findings: The application does not involve residential care facilities. This criterion does not apply.

ii. Article 3.2 - Uses.

Section 3.2.100. Special Temporary Uses.

Findings: No special temporary uses are proposed. This criterion does not apply.

Section 3.2.125. Recreational Vehicles as Dwellings.

Findings: No recreational vehicles are being proposed for dwellings. This criterion does not apply.

Section 3.2.150. Accessory Uses. *Uses customarily accessory to the lawfully established principal use shall be allowed in all cases unless specifically prohibited or restricted.*

1. An accessory use may be located on the same lot, parcel or tract or on a contiguous lot, parcel or tract under the same ownership as the lot, parcel or tract that contains the principal use.

2. An accessory use may be located on a lot parcel or tract that is not contiguous to the lot, parcel, or tract that contains the principal use provided:

a. The noncontiguous lot, parcel or tract (or portion thereof) is located not more than 100' from the lot parcel or tract on which the principal use is located;

b. The use complies with the definition of "Accessory Structure or Use" pursuant to this Ordinance;

c. The noncontiguous lot, parcel or tract is in the "same ownership" as the lot, parcel or tract on which the principal use is located;

d. The accessory use shall only be allowed subject to an administrative conditional use and findings that establish that the use is compatible with surrounding uses or may be made compatible through the imposition of conditions.
[OR 91-05-006PL 7/10/91]

Findings: As stated above, the SDPP will have an accessory road and utility corridor, along which the accessory transmission corridor with power lines and poles which will interconnect the SDPP with the LNG facility. All accessory uses and structures will be located on contiguous tracts of land under the same ownership. See **Figure F-1**. The major project components and accessory uses and structures are set forth in **Exhibit B**. This criterion is satisfied.

Section 3.2.700. Process for Tribe(s) Review and Response of Proposed Development within Acknowledged Archaeological Sites. *Properties which have been determined to have an*

"archaeological site" location must comply with the following steps prior to issuance of a "Zoning compliance Letter" for building and/or septic permits.

1. The County Planning Department shall make initial contact with the Tribe(s) for determination of an archaeological site(s). The following information shall be provided by the property owner/agent:

a. plot plan showing exact location of excavation, clearing, and development, and where the access to the property is located; and

b. township, range, section and tax lot(s) numbers; and

c. specific directions to the property.

2. The Planning Department will forward the above information including a request for response to the appropriate tribe(s).

3. The Tribe(s) will review the proposal and respond in writing within 30 days to the Planning Department with a copy to the property owner/agent.

4. It is the responsibility of the property owner/agent to contact the Planning Department in order to proceed in obtaining a "Zoning Compliance Letter" (ZCL) or to obtain further instruction on other issues pertaining to their request.[OR-00-05-014PL]

Findings: As discussed above, the Tribes have been fully consulted with during the archeological surveys for Exhibit S. Conditions for notifying Tribes in case of any inadvertent finding of remains are covered in Exhibit S. This criterion is satisfied.

iii. Article 3.3 - Lots/Yards

Section 3.3.100. Lot Standards. *Except as provided in (4) below no buildings or structures shall be located on a lot, parcel or tract unless the lot, parcel or tract conforms with the requirements of the district in which it is located.*

Findings: The Facility conforms with all applicable lot standards identified in LDO Table 4.4-c. Table 4.4-c references the Footnotes which apply to each of the listed zoning districts in the Table. As described below, only Footnotes 3 and 7 are applicable to this request for Council approval. The remainder of this section will address the applicable Footnotes, with related findings by corresponding Footnote number:

FOOTNOTES:

3. No requirement, except those sites abutting a residential or controlled development zone shall have a max height of 35 feet plus one (1) additional foot in height for each foot of setback exceeding 5 feet (ie., if the setback is 10, the maximum building height would be 40 feet).

Findings: The Site Boundary does not abut a residential or controlled development zone, so the maximum height standard does not apply. This criterion is satisfied.

7. Offstreet parking and loading requirements per Chapter X apply.

Findings: Demonstration of compliance with the offstreet parking and loading requirements per Chapter X are in Section K.2.1.1.3 above. The Applicant has demonstrated compliance with the Ingress and Egress, the Minimum Standards for Parking, the Service Drive, the Lighting, and the Landscaping requirements of Chapter X. This criterion is satisfied.

Section 3.3.200. Yard Regulations. *All parcels of land shall provide yards as specifically required in each district.*

Findings: The Site Boundary is consistent with all applicable yard regulations identified on LDO Table 4.4-c. Specifically, the IND zone has no yard standards for the front, side or rear yards. Table 4.4-c requires 20 feet for minimum street frontage and minimum lot width. The Site Boundary has more than 20 feet of street frontage and more than 20 feet of lot width. This criterion is satisfied.

Section 3.3.300. Fences, Hedges, and Walls. *This section provides for the regulation of the height and location offences, hedges, and walls and safeguards the public welfare. Nothing in this section shall be deemed to set aside or reduce the requirements established for security fencing by either local, state, or federal law, or by safety requirements of any officially recognized public agency.*

Findings: All proposed fences, hedges and walls will conform with the applicable standards. This criterion is satisfied.

Section 3.3.400. Vision Clearance Triangle. *The following regulations shall apply to all intersections of streets and roads within all districts in order to provide adequate visibility for vehicular traffic. There shall be no visual obstructions over thirty-six (36) inches in height within the clear vision area established herein.*

Findings: The Roadmaster previously submitted comments to the SAG approving the Applicant's proposed internal parking and circulation areas, as well as the proposed Facility access on Trans Pacific Parkway as compliant with the vision clearance triangle. This criterion is satisfied.

Section 3.3.500. Maintenance of Minimum Requirements.

2. Outside Urban Growth Boundary: No lot area, yard, offstreet parking and loading area or other open space which is required by this ordinance for one use shall be used as the required lot area, yard or other open space for another use. This does not include utility easements, private road access easements or septic drainfields; but does include all public road and street right-of-ways.

Findings: The Site Boundary is outside the County's urban growth boundary. The Facility and Site Boundary will conform with applicable lot, yard, parking and loading requirements and the Facility will not utilize any space required for those purposes for another use. This criterion is satisfied.

2.8 REQUEST COMPLIANCE DETERMINATIONS UNDER CHAP. VII (ACCESS)

Section 7.1.550 Access Management

Section 1. Intent and Purpose

The intent of this ordinance is to manage access to land development while preserving the flow of traffic in terms of safety, capacity, functional classification, and level of service.

Findings: The Parking and Landscaping Plan, **Figure K-3**, depicts the information needed to satisfy the requirements of Section 7.1.550. This criterion is satisfied.

Section 2. Applicability

This ordinance shall apply to all arterials and collectors within the county and to all p0roperties that abut these roadways.

Findings: Figure K-3 responds to the applicable requirements of Chapter VII. This criterion is satisfied.

Section 6. Access Connection and Driveway Design

Driveway approaches must be designed and located to provide an exiting vehicle with an unobstructed view. Construction of driveways along acceleration or deceleration lanes and tapers shall be avoided due to the potential for vehicular weaving conflicts.

Findings: The SAG advises that the Coos County Roadmaster applied LDO Section 7.1.550, Sections 6 & 13 (below) to approve the Facility access and circulation shown on **Figure K-3**. This criterion is satisfied.

Section 13. Review Procedures for Access Management

1. Applicants shall submit a preliminary parking/traffic plan for review by the planning department. At a minimum, the site plan shall show:

a. Location of existing and proposed access point(s) on both sides of the road where applicable;

b. Distances to neighboring constructed access points, median openings (where applicable), traffic signals (where applicable), intersections, and other transportation features on both sides of the property;

c. Number and direction of lanes to be constructed on the driveway plus striping plans;

d. All planned transportation features (such as sidewalks, bikeways, auxiliary lanes, signals, etc.);

e. Parking and internal circulation plans including walkways and bikeways, in UGBs and unincorporated communities;

f. A detailed description of any requested variance and the reason the variance is requested.

Findings: The SAG advises that the Coos County Roadmaster applied this section to approve the Parking and Landscaping Plan submitted by the Applicant in **Figure K-3**. This criterion is satisfied.

2.9 REQUEST FOR ZONING VERIFICATION LETTER UNDER LDO 3.1.200

Based upon the above sections showing compliance with all applicable criteria of the LDO and CCCP identified and recommended by the SAG, the Applicant requests that the Council approve the issuance of a zoning verification letter by Coos County, subject to any applicable conditions of approval imposed by the Council.

3.0 NO DIRECTLY APPLICABLE RULES, STATUTES, AND GOALS

OAR 345-021-0010(1)(k)(C) *If the applicant elects to obtain a Council determination on land use:*

(iii) Identify all Land Conservation and Development Commission administrative rules, statewide planning goals and land use statutes directly applicable to the facility under ORS 197.646(3) and describe how the proposed facility complies with those rules, goals, and statutes.

Findings: The Oregon land use system requires that a local government implement statewide planning goals, administrative rules, and statutes through a local comprehensive plan. A local comprehensive plan must be consistent with the statewide planning goals. The State reviews the plan for consistency with statewide planning goals, and if the State determines that the plan is consistent, the plan is then deemed to be "acknowledged." State law requires that the local government adopt zoning and land-division ordinances (that is, development codes that put the acknowledged comprehensive plans into effect). Periodically, a local government must update its acknowledged comprehensive plan to account for new administrative rules or statutes adopted in furtherance of statewide planning goals. Given the system of acknowledgement and periodic review, a local government's comprehensive plan and zoning ordinance account for all statewide planning goals and most statutes and administrative rules governing land use (unless adopted since the last periodic review).

This Exhibit demonstrates the Facility's compliance with the applicable documents for the Coos County. These documents were submitted to the Oregon Department of Land Conservation and Development (DLCD) for acknowledgement. The DLCD did not respond or appeal the updates so they are considered to be "acknowledged." The current versions of the applicable codes and plans fully implement Oregon's land use statutes, statewide planning goals, and administrative rules that are applicable to the Facility. Accordingly, there are no administrative rules, statewide planning goals, or land use statutes directly applicable to the Facility.

(iv) If the proposed facility might not comply with all applicable substantive criteria, identify the applicable statewide planning goals and describe how the proposed facility complies with those goals.

Findings: The Facility complies with all applicable substantive criteria. Therefore, this provision is not applicable.

4.0 NO STATE-WIDE PLANNING GOAL EXCEPTION

(v) If the proposed facility might not comply with all applicable substantive criteria or applicable statewide planning goals, describe why an exception to any applicable statewide planning goal is justified, providing evidence to support all findings by the Council required under ORS 469.504(2).

Findings: The Facility complies with all of the substantive criteria contained in the LDO and related CCCP policies. Therefore, the Facility complies with all applicable statewide planning goals and no exception is required.

5.0 NO FEDERAL LAND MANAGEMENT PLANS

OAR 345-021-0010(1)(k)(D) *If the proposed Site Boundary will be located on federal land:*

i. Identify the applicable land management plans adopted by the federal agency with jurisdiction over the federal land.

ii. Explain any differences between state or local land use requirements and federal land management requirements.

iii. Describe how the proposed Facility complies with the applicable federal land management plan.

iv. Describe any federal land use approvals required for the proposed facility and the status of application for each required federal land use approval.

v. Provide an estimate of time for issuance of federal land use approvals.

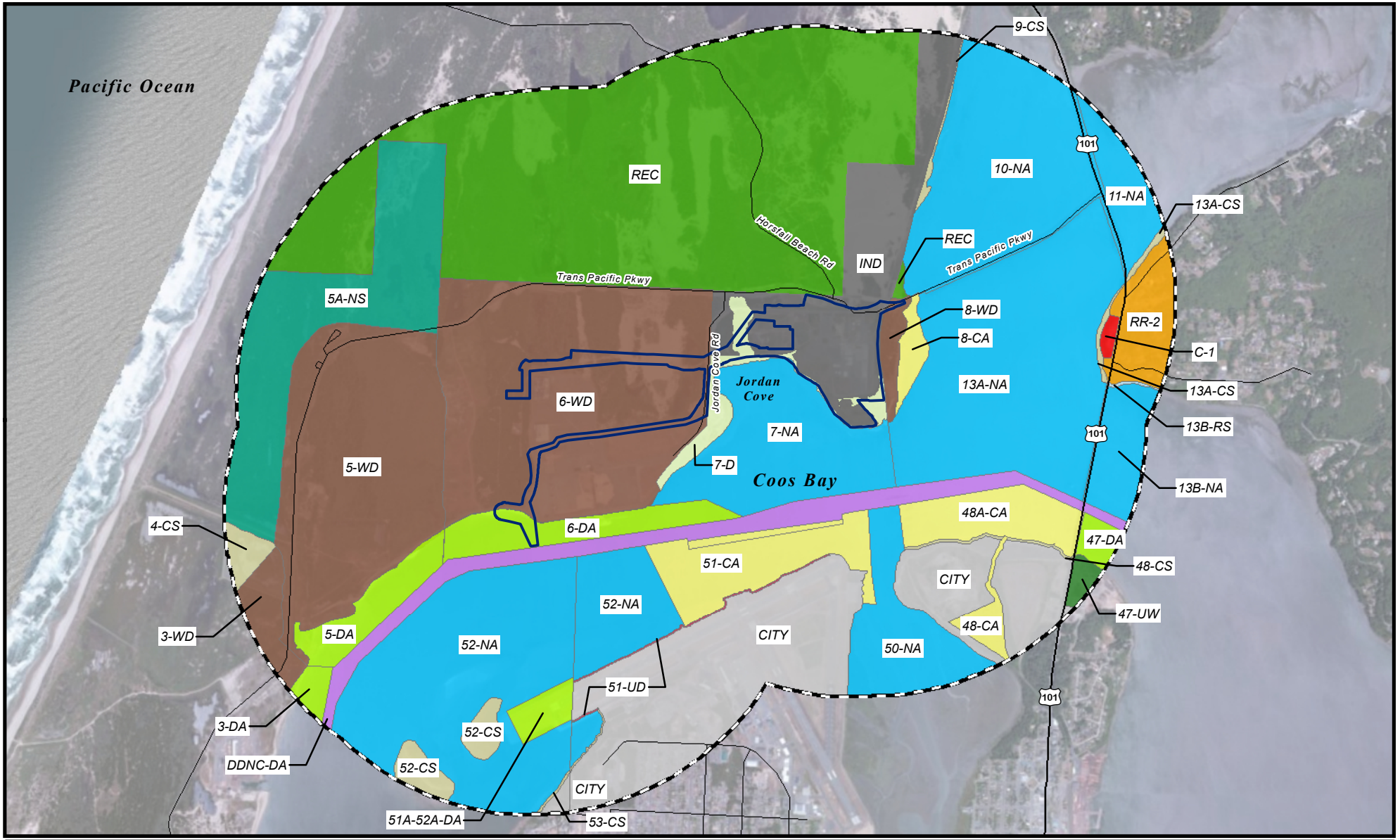
vi. If federal law or the land management plan conflicts with any applicable state or local land use requirements, explain the differences in the conflicting requirements, state whether the applicant requests Council waiver of the land use standard described under paragraph (B) or (C) of this subsection and explain the basis for a waiver.

Findings: The Site Boundary is not located on federal land. Therefore, these provisions are not applicable.

6.0 SUMMARY

The information provided in this Exhibit demonstrates the Facility and Site Boundary compliance with all applicable substantive criteria. Therefore, the Council may find that the Facility and Site Boundary complies with statewide planning goals under OAR 345-022-0030(2)(b)(A) and subsequently the land use standard set forth in OAR 345-022-0030.

Figure K-1. Zoning Map – One Mile Radius



N

0 0.25 0.5 Miles

1 in = 0.5 miles

EFSC Site Boundary
Analysis Area (1 mile buffer from EFSC Site Boundary)
Highway/Road

Data Source: Coos County Comprehensive Plan, Coos County Zoning and Land Development Ordinance, and the Coos Bay Estuary Management Plan (CBEMP)

Upland Management Units
- Commercial (C)
- Industrial (IND)
- Urban Development (UD)
- City Limits (CITY)
- Rural Residential (RR)
- Recreation (REC)

Shoreland Management Units
- Conservation Shorelands (CS)
- Development Shorelands (D)
- Natural Shorelands (NS)
- Rural Shoreland (RS)
- Urban Water-Dependent Shorelands (UW)
- Water Dependent Shorelands (WD)

Aquatic Management Units
- Natural Aquatic (NA)
- Development Aquatic (DA)
- Conservation Aquatic (CA)
- Deep Navigational Channel (DDNC)

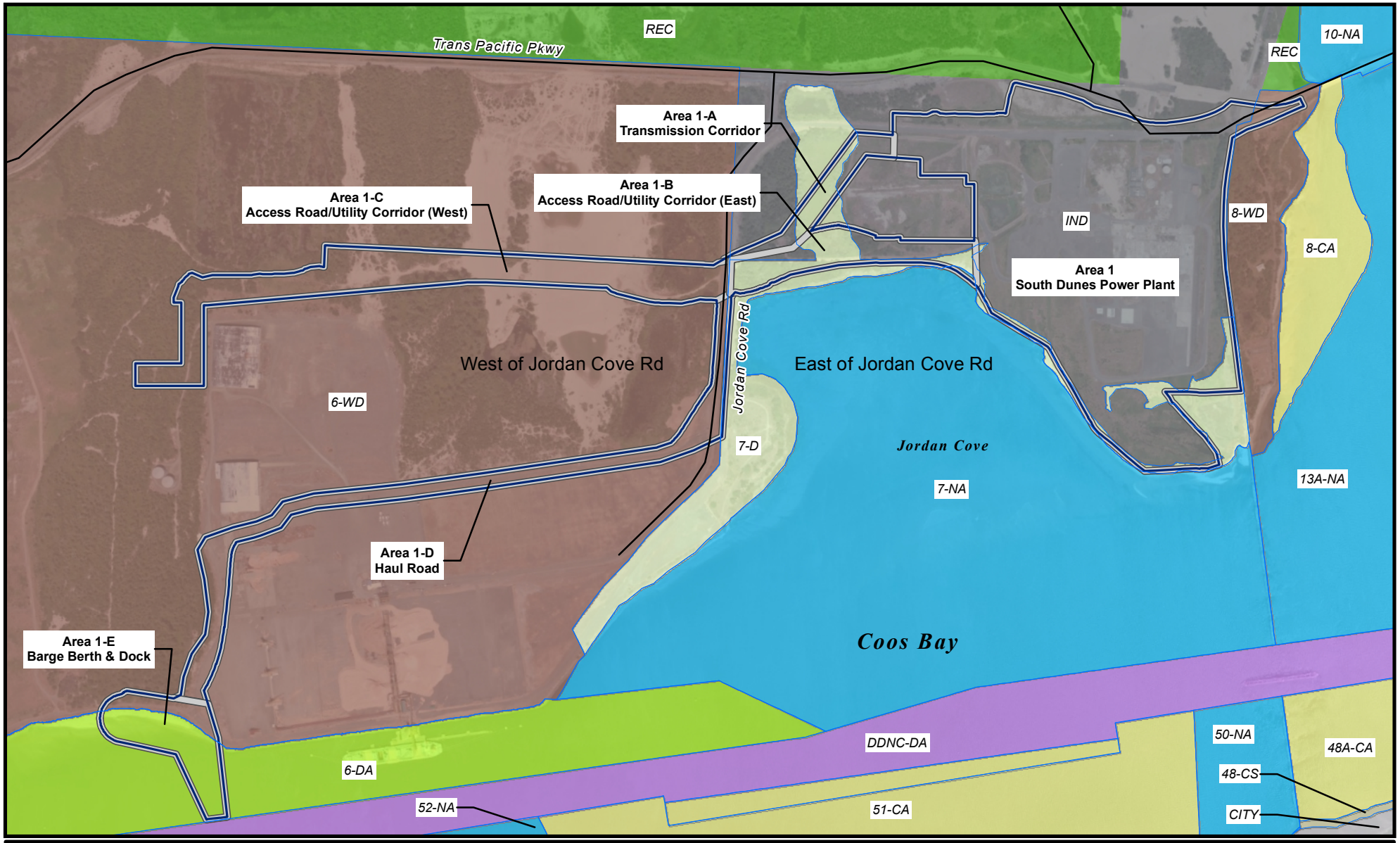
South Dunes Power Plant Project

EFSC Application

EXHIBIT K
Figure K-1
Facility Land Use/Zoning
One-Mile Radius

Date: 9/22/2014
Reviewed By MW
Designed By SAST

Figure K-2. Zoning Map by Area



South Dunes Power Plant Project

EFSC Application

EXHIBIT K
Figure K-2
Facility Zoning Analysis by Area

Date: 9/22/2014
Reviewed By MW
Designed By SAST

Figure K-2.1. Approved 7-D Fill Areas

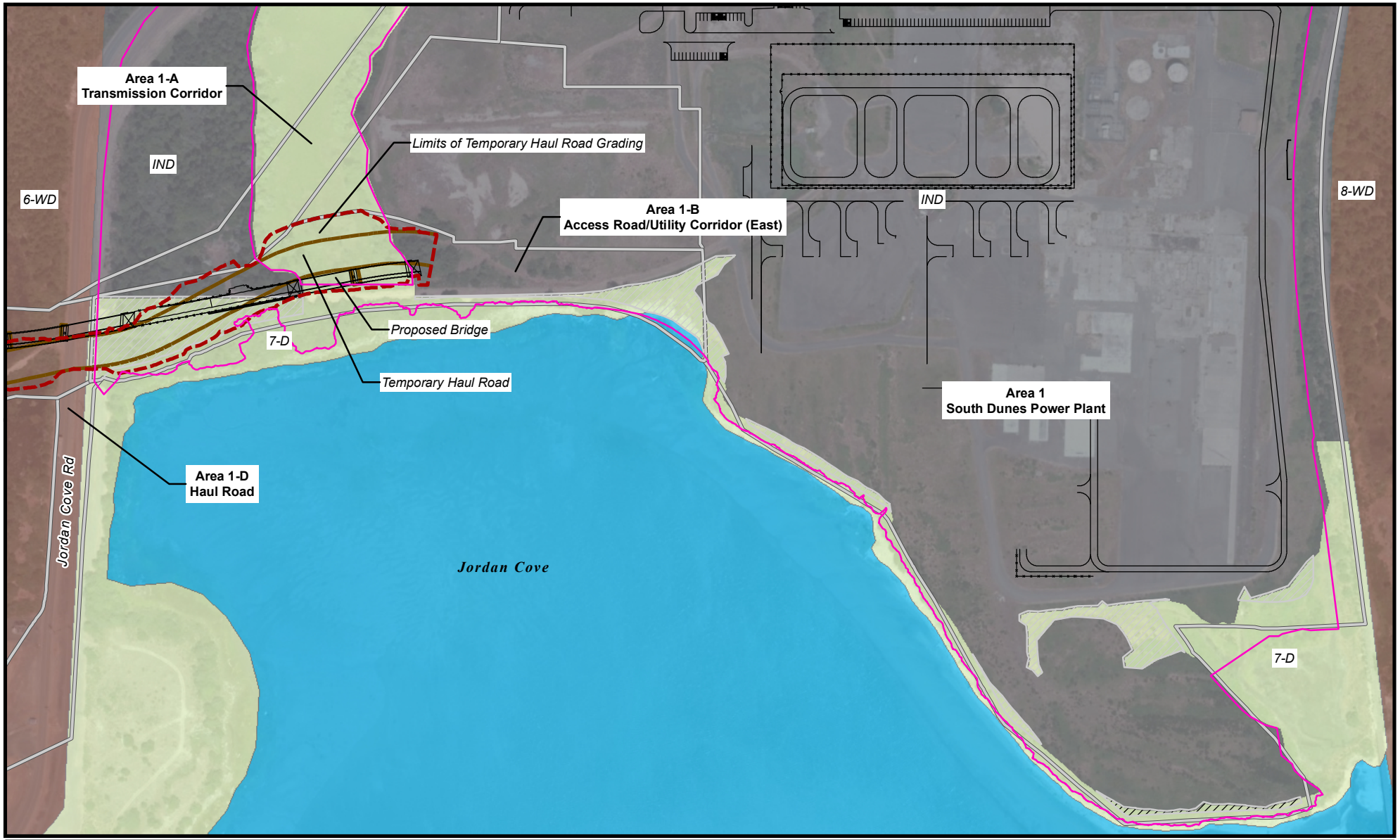
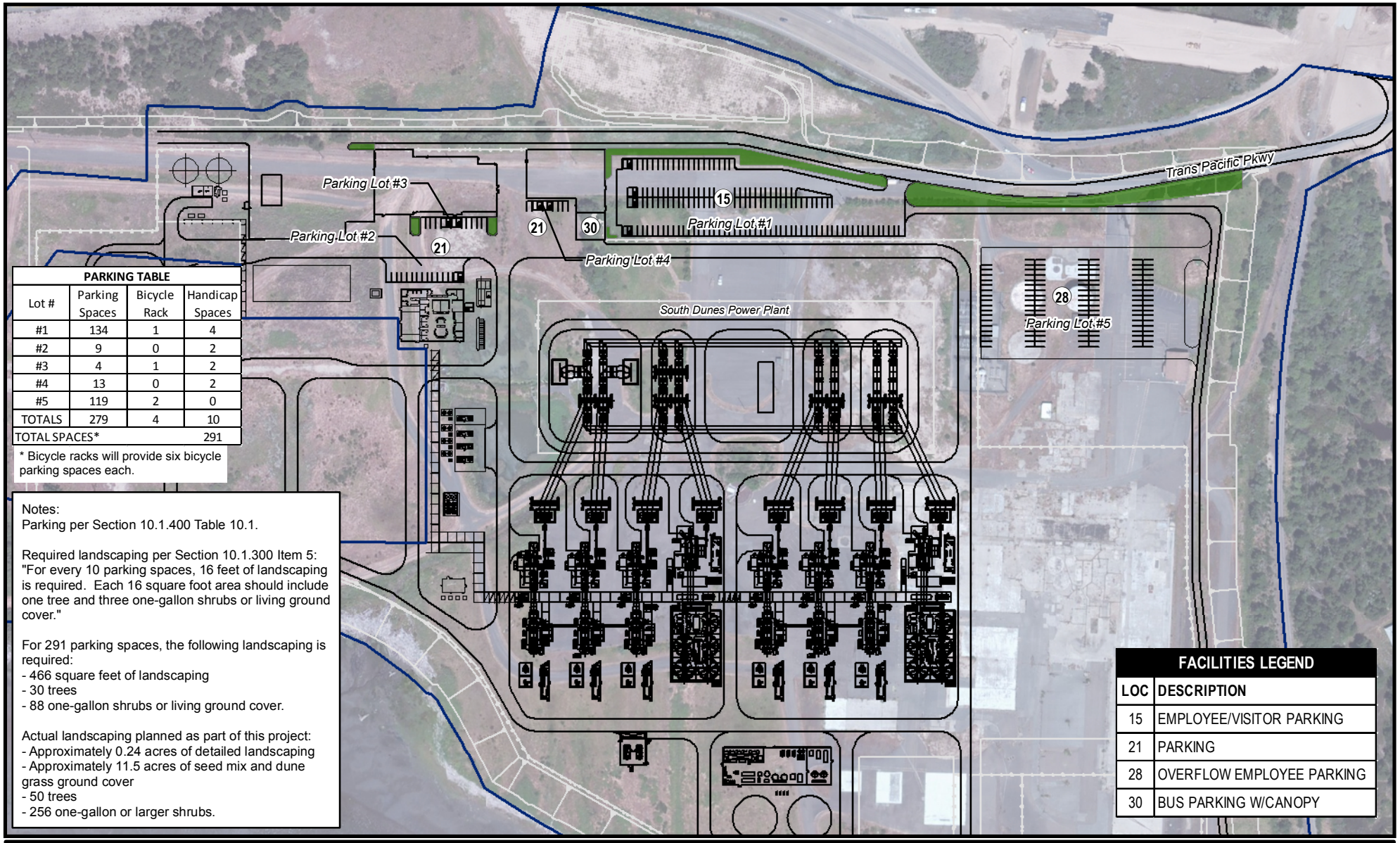

Area 1-A
Transmission Corridor
Limits of Temporary Haul Road Grading
IND
6-WD
Area 1-B
Access Road/Utility Corridor (East)
IND
8-WD
Proposed Bridge
7-D
Temporary Haul Road
Area 1
South Dunes Power Plant
Area 1-D
Haul Road
Jordan Cove Rd
Jordan Cove
7-D
0
200
400
Feet
1 inch = 400 feet
N
Facility Zoning by Area
Coos County Approved Fill Area Boundary
Approved 7-D Fill Areas
Edge of Temporary Haul Road
Limits of Temporary Haul Road Grading
Proposed Bridge Design
Upland Management Units
Industrial (IND)
Shoreland Management Units
Development Shorelands (D)
Water Dependent Shorelands (WD)
Aquatic Management Units
Natural Aquatic (NA)
Data Sources: Coos County Comprehensive Plan, Coos County Zoning and Land Development Ordinance, and the Coos Bay Estuary Management Plan (CBEMP), DEA
South Dunes Power Plant Project
EFSC Application
EXHIBIT K
Figure K-2.1
Approved 7-D Fill Areas
Date: 9/22/2014
Reviewed By MW
Designed By SAST

Figure K-3. Parking and Landscaping Plan



PARKING TABLE			
Lot #	Parking Spaces	Bicycle Rack	Handicap Spaces
#1	134	1	4
#2	9	0	2
#3	4	1	2
#4	13	0	2
#5	119	2	0
TOTALS	279	4	10
TOTAL SPACES*			291

* Bicycle racks will provide six bicycle parking spaces each.

Notes:
Parking per Section 10.1.400 Table 10.1.

Required landscaping per Section 10.1.300 Item 5: "For every 10 parking spaces, 16 feet of landscaping is required. Each 16 square foot area should include one tree and three one-gallon shrubs or living ground cover."

For 291 parking spaces, the following landscaping is required:
- 466 square feet of landscaping
- 30 trees
- 88 one-gallon shrubs or living ground cover.

Actual landscaping planned as part of this project:
- Approximately 0.24 acres of detailed landscaping
- Approximately 11.5 acres of seed mix and dune grass ground cover
- 50 trees
- 256 one-gallon or larger shrubs.

FACILITIES LEGEND	
LOC	DESCRIPTION
15	EMPLOYEE/VISITOR PARKING
21	PARKING
28	OVERFLOW EMPLOYEE PARKING
30	BUS PARKING W/CANOPY

N

0 150 300 Feet

1 inch = 300 feet

EFSC Site Boundary
Planned Landscaping

South Dunes Power Plant Project

EFSC Application

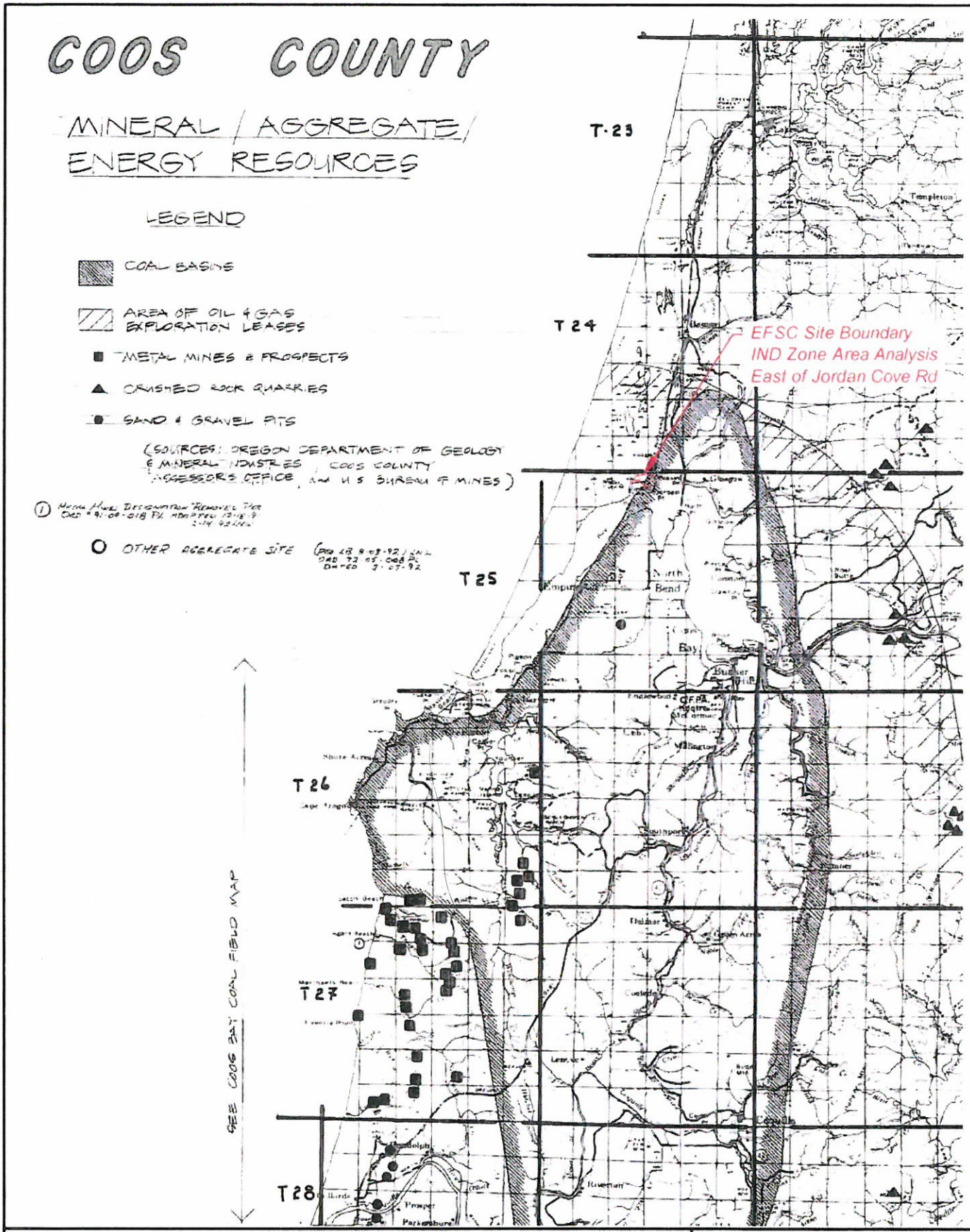
EXHIBIT K
Figure K-3
Parking and Landscaping Plan

Date: 9/22/2014
Reviewed By MW
Designed By SAST

Figure K-4.1. Table 4.7a Special Considerations Phenomenon 1-Mineral & Aggregate

COOS COUNTY

MINERAL / AGGREGATE / ENERGY RESOURCES



LEGEND

- COAL BASINS
- AREA OF OIL & GAS EXPLORATION LEASES
- METAL MINES & PROSPECTS
- CRUSHED ROCK QUARRIES
- SAND & GRAVEL PITS

(SOURCES: OREGON DEPARTMENT OF GEOLOGY & MINERAL INDUSTRIES, COOS COUNTY ASSESSORS OFFICE, AND U.S. BUREAU OF MINES)

(1) Metta Mine Designation Removed Per Ord #91-08-018 PL adopted 12-18-91 Eff 92 days

O OTHER AGGREGATE SITE (Ord 48 & 03-92-) Ord 92 05 068 PL Dated 3-07-92

Not to Scale

Data Source: Coos County Zoning and Land Development Ordinance (CCZLDO) Article 4.7

South Dunes Power Plant Project

EFSC Application

EXHIBIT K
Figure K-4.1
Table 4.7a - Special Considerations
Phenomenon 1- Mineral & Aggregate

Date: 11/15/2013
Reviewed By: SD
Designed By: MW

Figure K-4.2. Table 4.7a Special Considerations Phenomenon 2-Water Resources

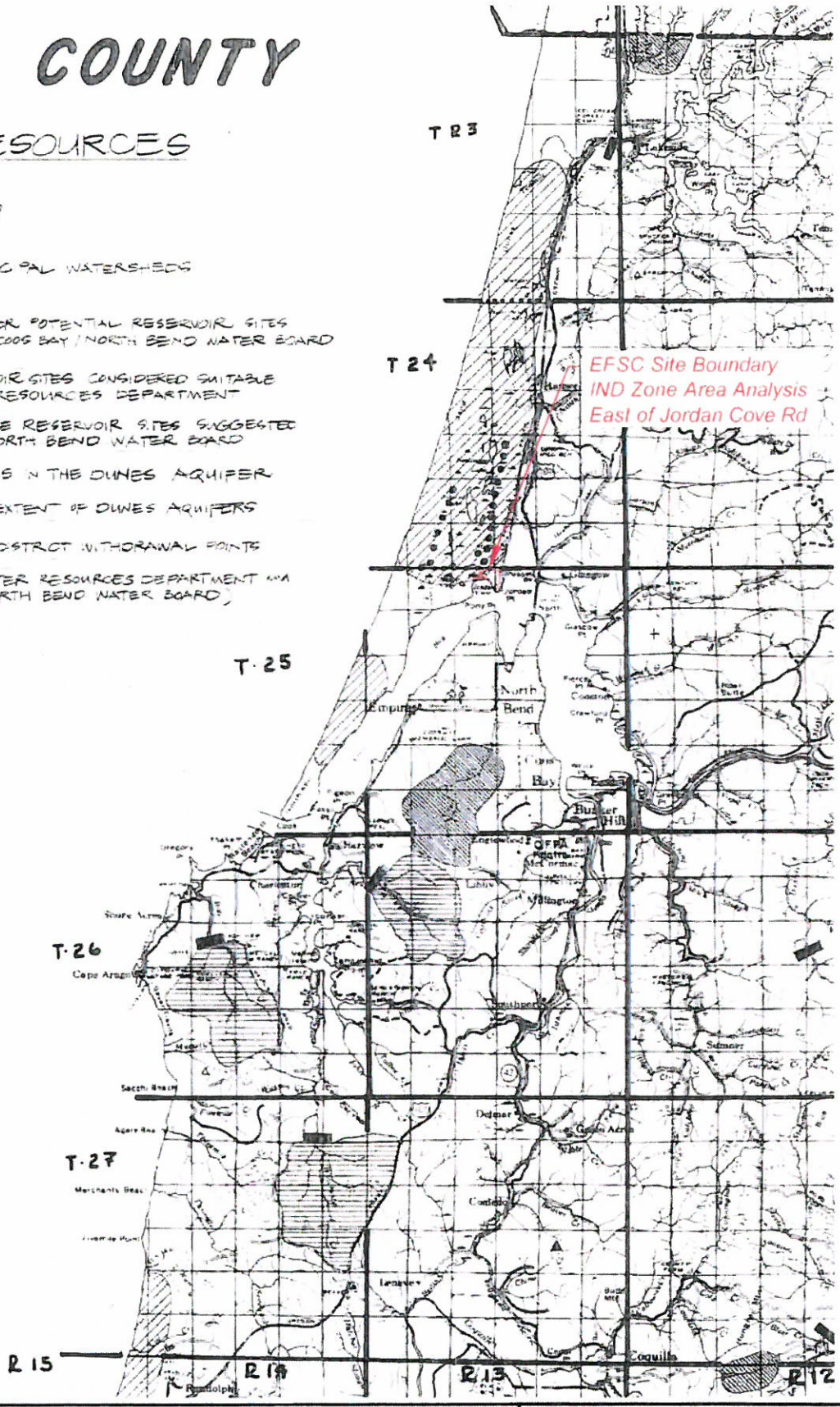
COOS COUNTY

WATER RESOURCES

LEGEND

- EXISTING MUNICIPAL WATERSHEDS
- WATERSHEDS FOR POTENTIAL RESERVOIR SITES PROPOSED BY COOS BAY / NORTH BEND WATER BOARD
- DAM & RESERVOIR SITES CONSIDERED SUITABLE BY THE WATER RESOURCES DEPARTMENT
- POSSIBLE FUTURE RESERVOIR SITES SUGGESTED BY COOS BAY / NORTH BEND WATER BOARD
- EXISTING WELLS IN THE DUNES AQUIFER
- APPROXIMATE EXTENT OF DUNES AQUIFERS
- EXISTING WATER DISTRICT WITHDRAWAL POINTS

SOURCES: WATER RESOURCES DEPARTMENT AND COOS BAY / NORTH BEND WATER BOARD



Not to Scale

Data Source: Coos County Zoning and Land Development Ordinance (CCZ-LDO), Article 4.7

South Dunes Power Plant Project

EFSC Application

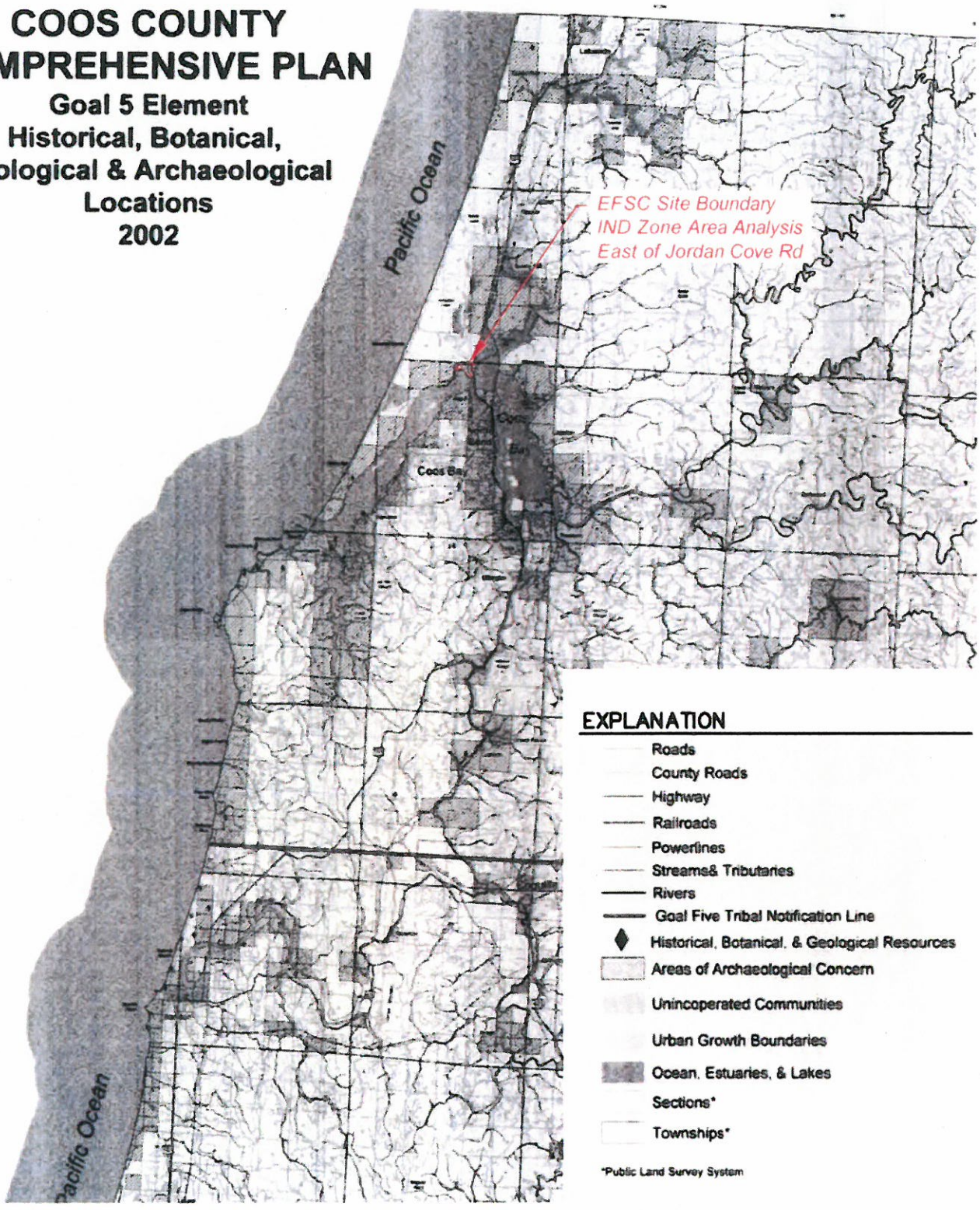
EXHIBIT K
Figure K-4.2
Table 4.7a - Special Considerations
Phenomenon 2- Water Resources

Date: 11/15/2013
Reviewed By: SD
Designed By: MW

Figure K-4.3. Table 4.7a Special Considerations Phenomenon 3-Historical/Archeological Sites

COOS COUNTY COMPREHENSIVE PLAN

Goal 5 Element
Historical, Botanical, Geological & Archaeological Locations
2002



Not to Scale

Data Source: Coos County Zoning and Land Development Ordinance (CCZ-LDO) Article 4.7

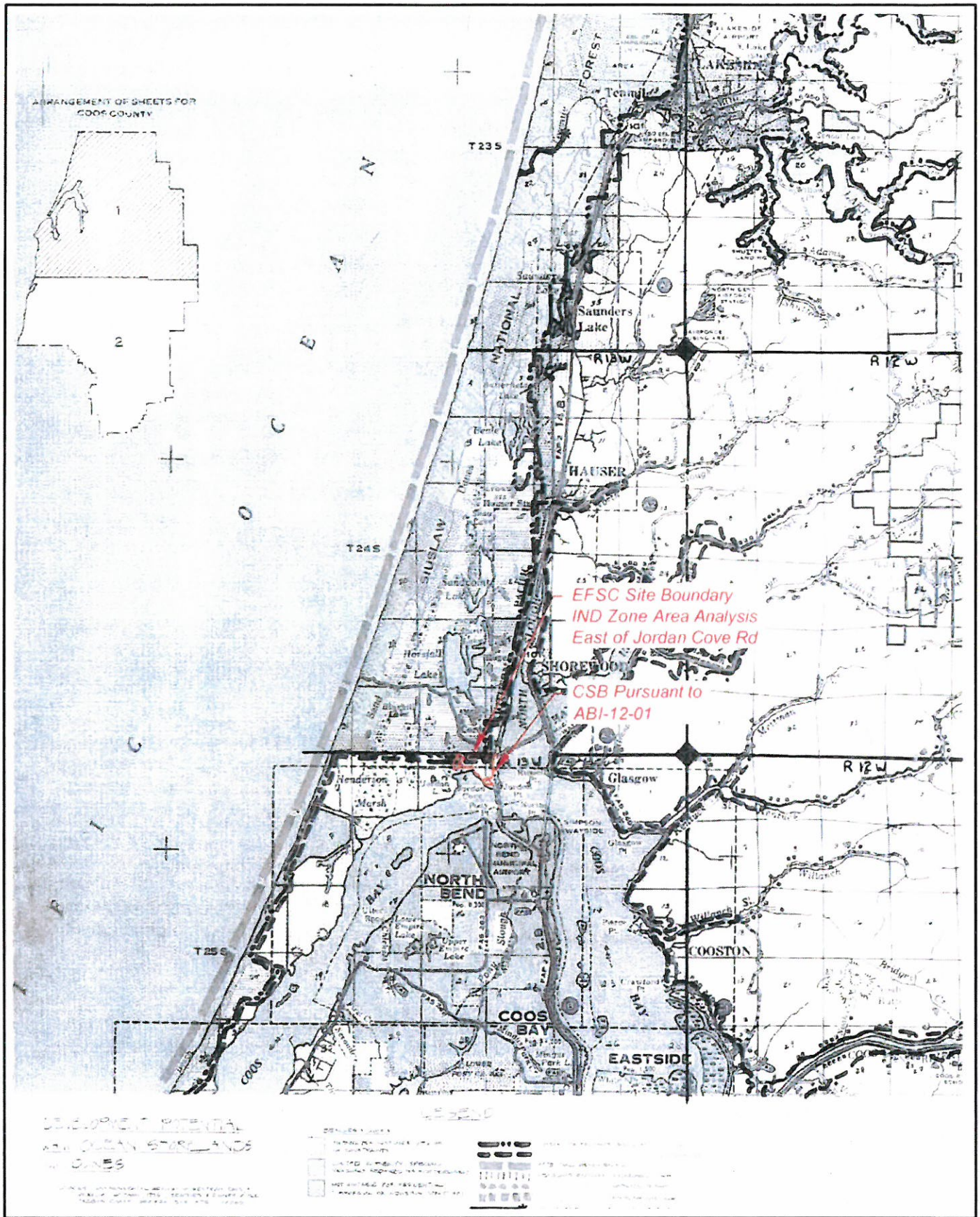
South Dunes Power Plant Project

EFSC Application

EXHIBIT K
Figure K-4.3
Table 4.7a - Special Considerations
Phenomenon 3- Historical/Archeological Sites

Date: 11/15/2013
Reviewed By: SD
Designed By: MW

Figure K-4.4. Table 4.7a Special Considerations Phenomenon 4-Beaches and Dunes



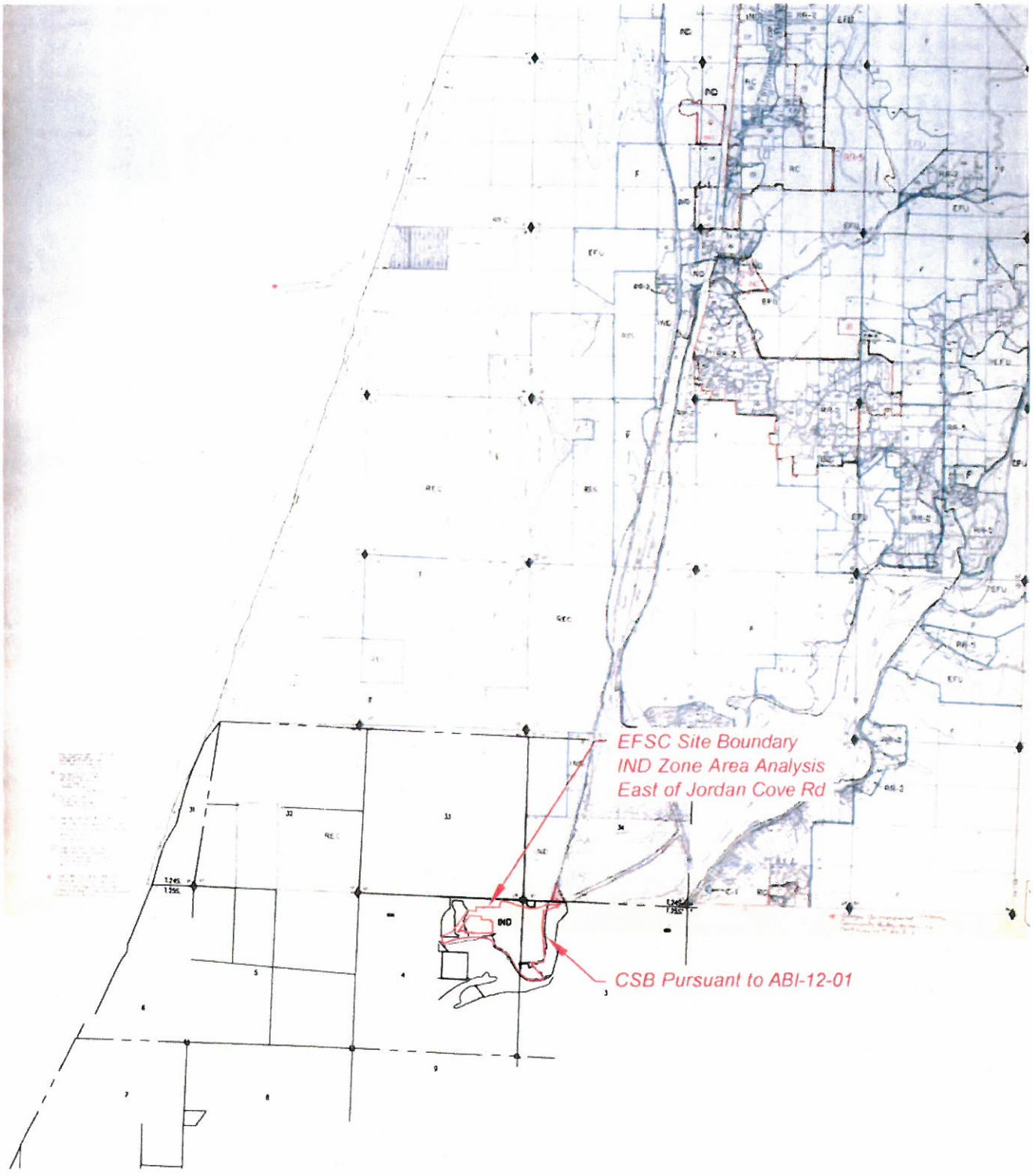
Not to Scale

CSB and 7D Boundary Pursuant to ABI-12-01

Data Source: Coos County Zoning and Land Development Ordinance (CCZLDO) Article 4.7

South Dunes Power Plant Project	
EFSC Application	
EXHIBIT K Figure K-4.4 Table 4.7a - Special Considerations Phenomenon 4- Beaches and Dunes	Date: 11/15/2013 Reviewed By: SD Designed By: MW

Figure K-4.5. Table 4.7a Special Considerations Phenomenon 5-Non-Estuarine Shoreland Bdy



Not to Scale

CSB and 7-D Boundary Pursuant to ABI-12-01

Data Source: Coos County Zoning and Land Development Ordinance (CCZ-LDO) Article 4.7

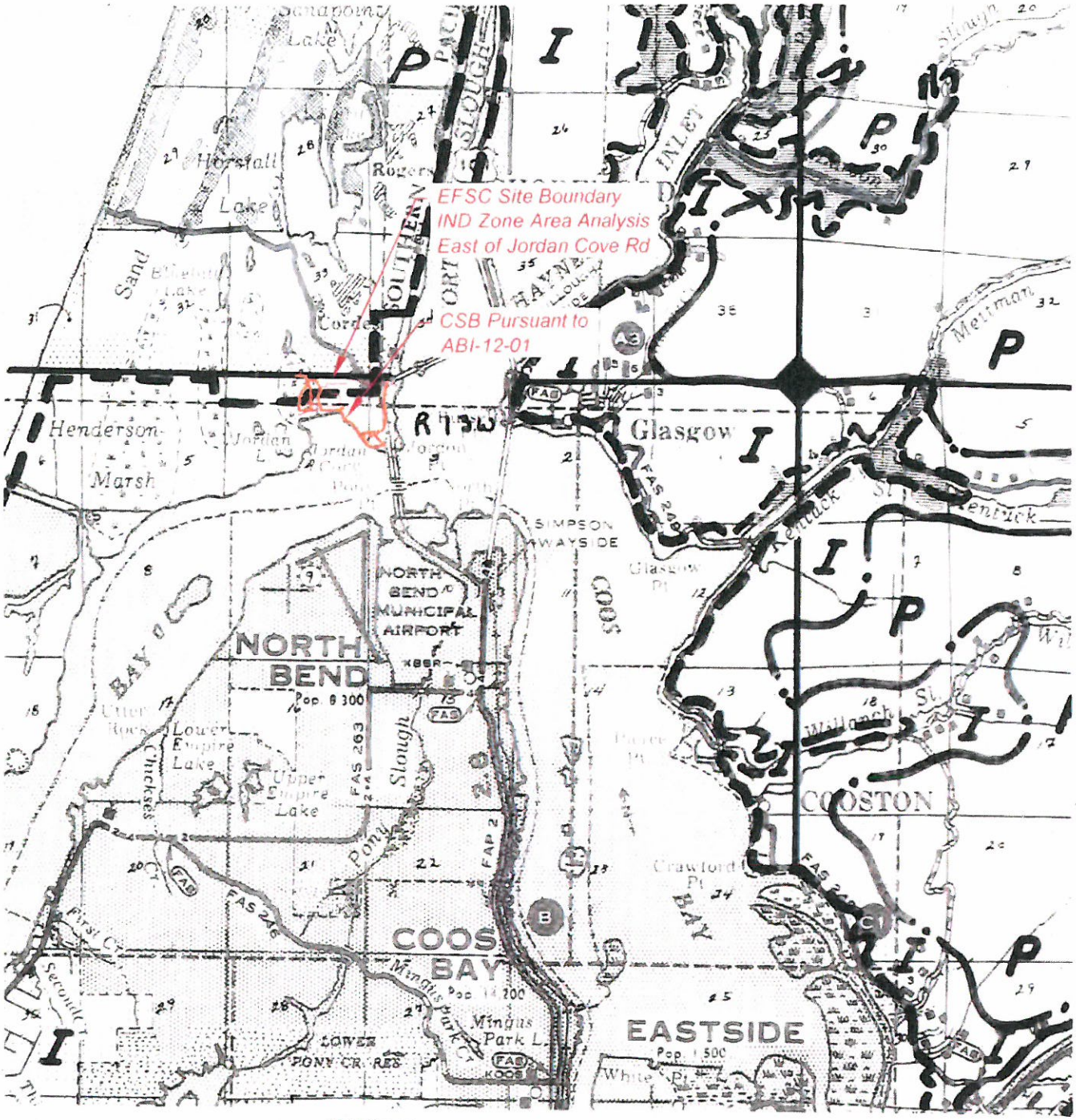
South Dunes Power Plant Project

EFSC Application

EXHIBIT K
Figure K-4.5
Table 4.7a - Special Considerations
Phenomenon 5-Non-Estuarine Shoreland Bdy

Date: 11/15/2013
Reviewed By: SD
Designed By: MW

Figure K-4.6. Table 4.7a Special Considerations Phenomenon 6-Significant Wildlife Habitat



Not to Scale

CSB and 7D Boundary Pursuant to ABI-12-01

Data Source: Coos County Zoning and Land Development Ordinance (CCZ-LDO) Article 4.7

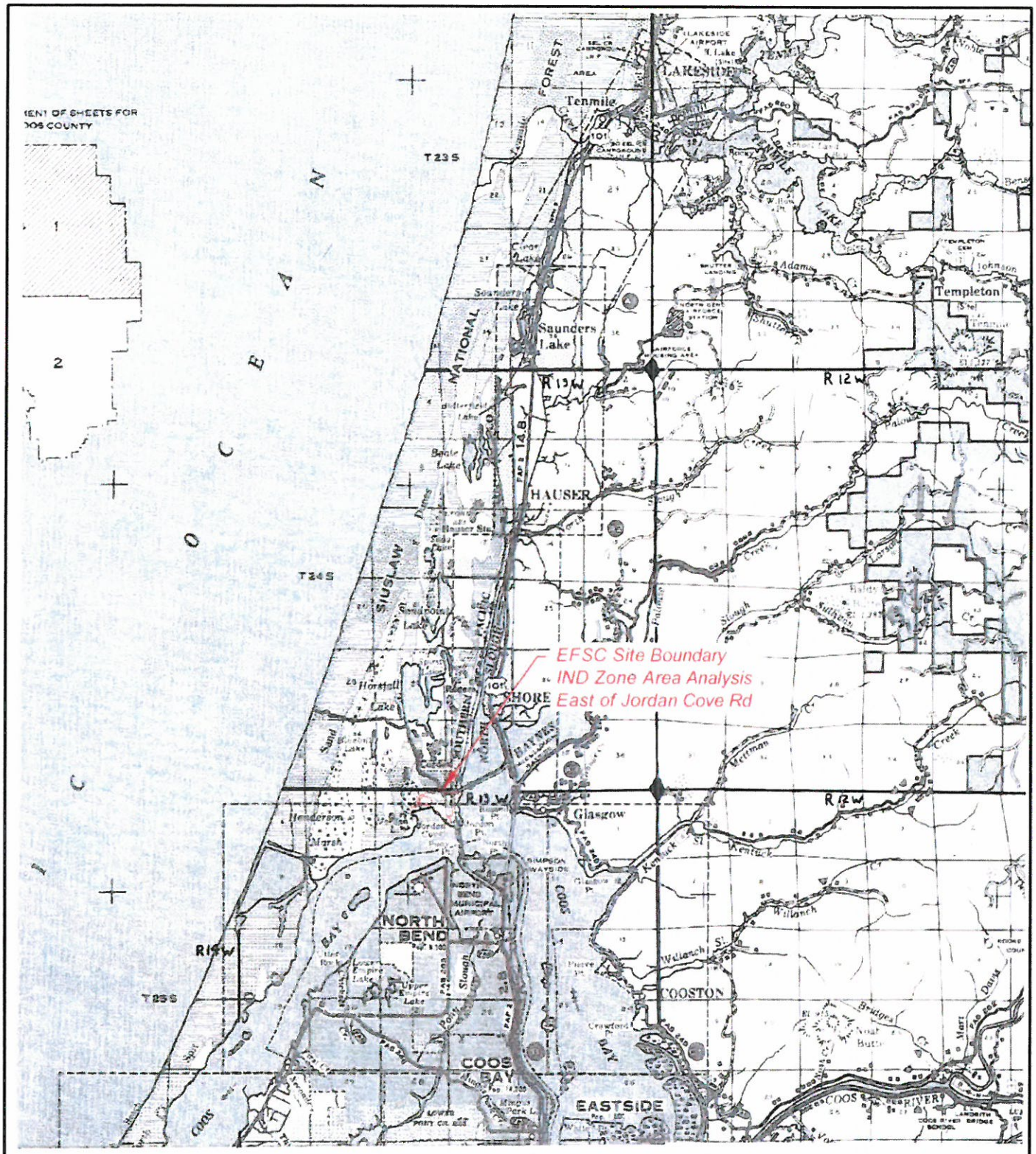
South Dunes Power Plant Project

EFSC Application

EXHIBIT K
Figure K-4.6
Table 4.7a - Special Considerations
Phenomenon 6- Significant Wildlife Habitat

Date: 11/15/2013
Reviewed By: SD
Designed By: MW

Figure K-4.7. Table 4.7a Special Considerations Phenomenon 7-Natural Hazards



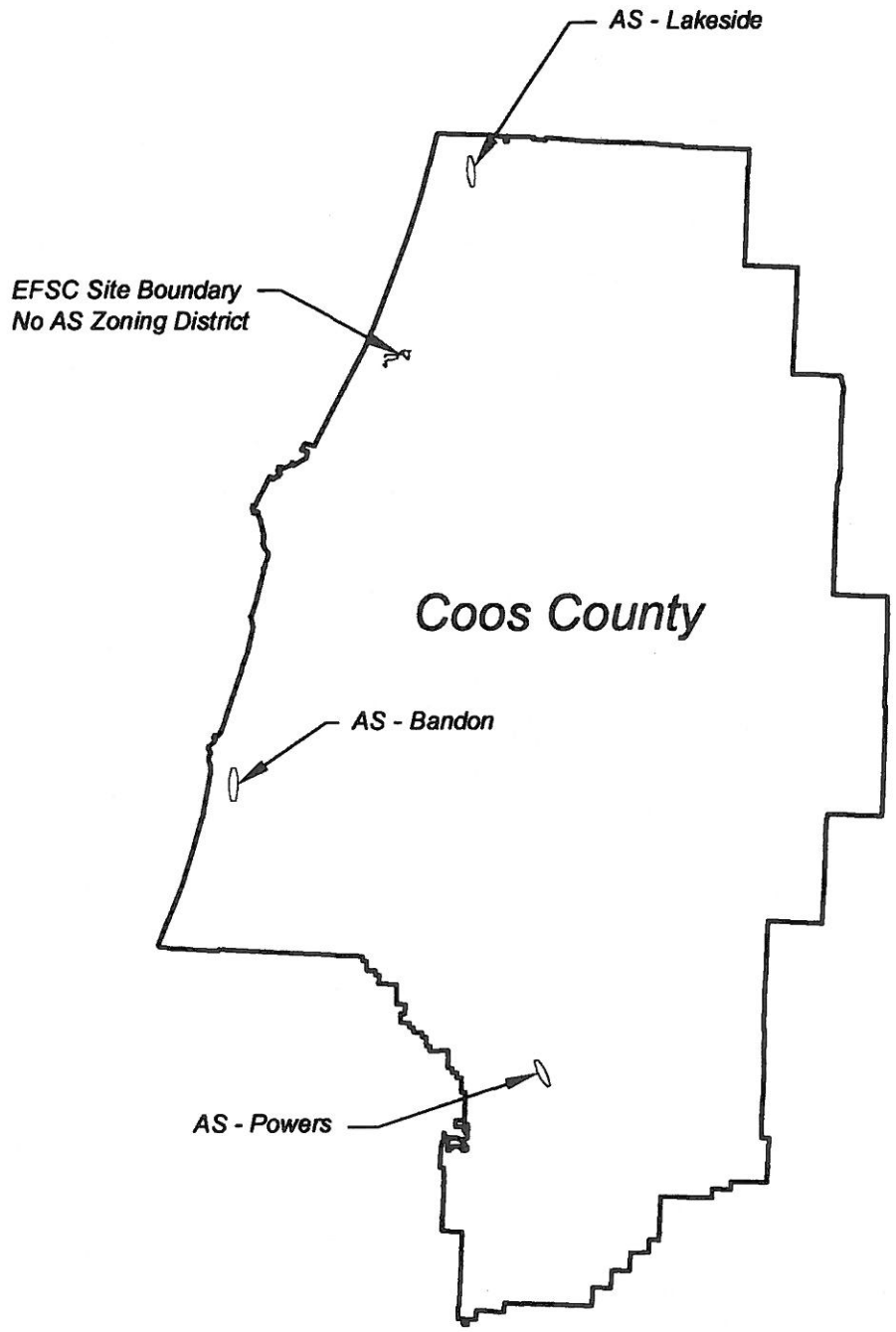
NATURAL HAZARDS
COOS COUNTY

Not to Scale

Data Source: Coos County Zoning and Land Development Ordinance (CCZ-LDO) Article 4.7

South Dunes Power Plant Project	
EFSC Application	
EXHIBIT K Figure K-4.7 Table 4.7a - Special Considerations Phenomenon 7 - Natural Hazards	Date: 11/15/2013 Reviewed By: SD Designed By: MW

Figure K-4.8. Table 4.7a Special Considerations Phenomenon 8-Airport Services



0 5 10 Miles

1 in = 10 miles

EFSC Site Boundary

Airport Surface (AS)

Data Source: Coos County Zoning and Land Development Ordinance (Article 4.6.310 Airport Sub-Zones and Article 4.7 Special Considerations) and Coos County Comprehensive Plan Volume 1 Balance of County

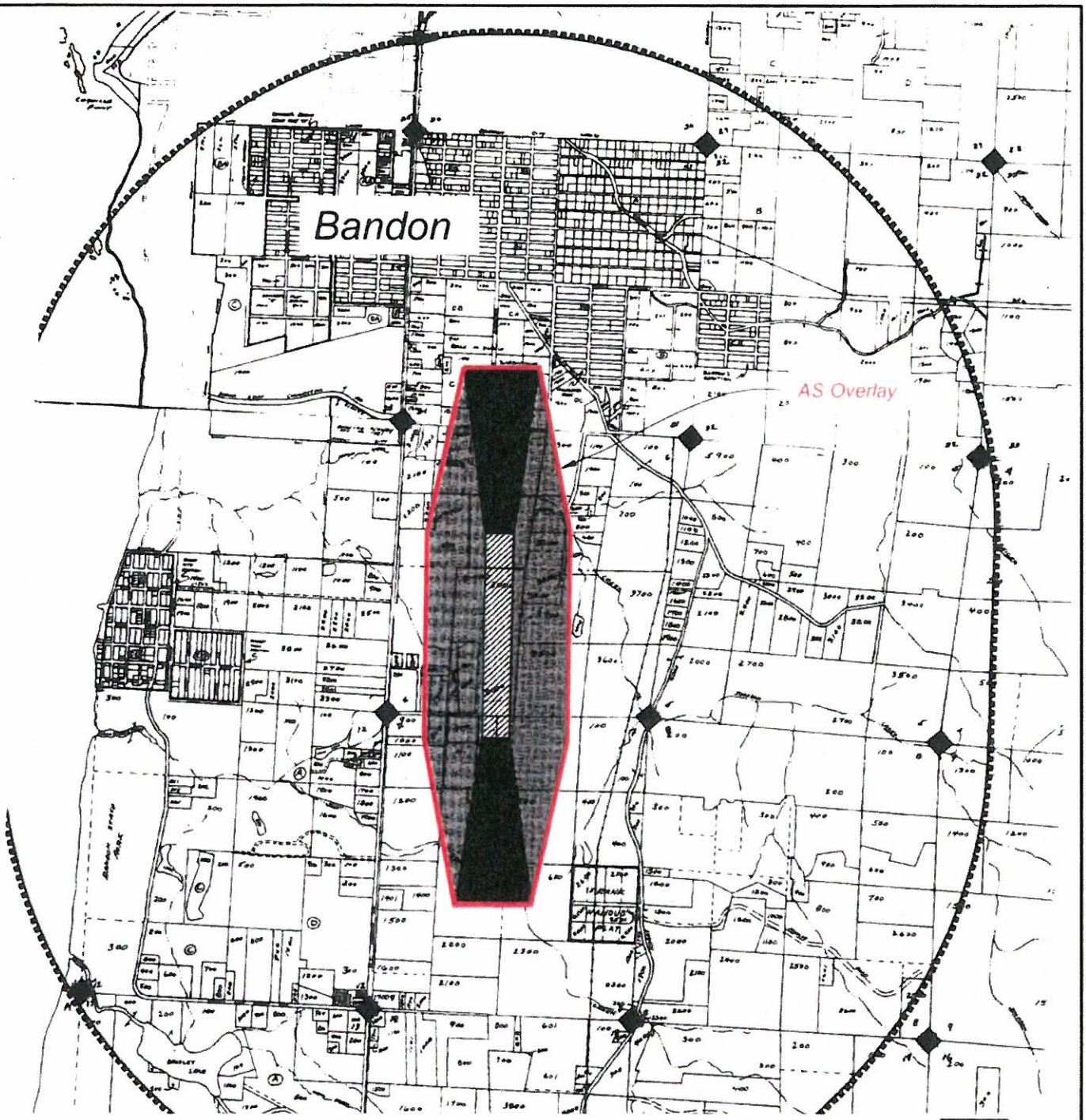
South Dunes Power Plant Project

EFSC Application

EXHIBIT K
Figure K-4.8
Table 4.7a - Special Considerations
Phenomenon 8- Airport Surfaces

Date: 11/15/2013
Reviewed By SD
Designed By MW

Figure K-4.8.1. Table 4.7a Special Considerations Phenomenon 8-Airport Services



0 0.25 0.5 Miles

1 in = 0.5 miles

Airport Surface (AS)

Data Source: Coos County Zoning and Land Development Ordinance (Article 4.6.310 Airport Sub-Zones and Article 4.7 Special Considerations) and Coos County Comprehensive Plan Volume 1 Balance of County

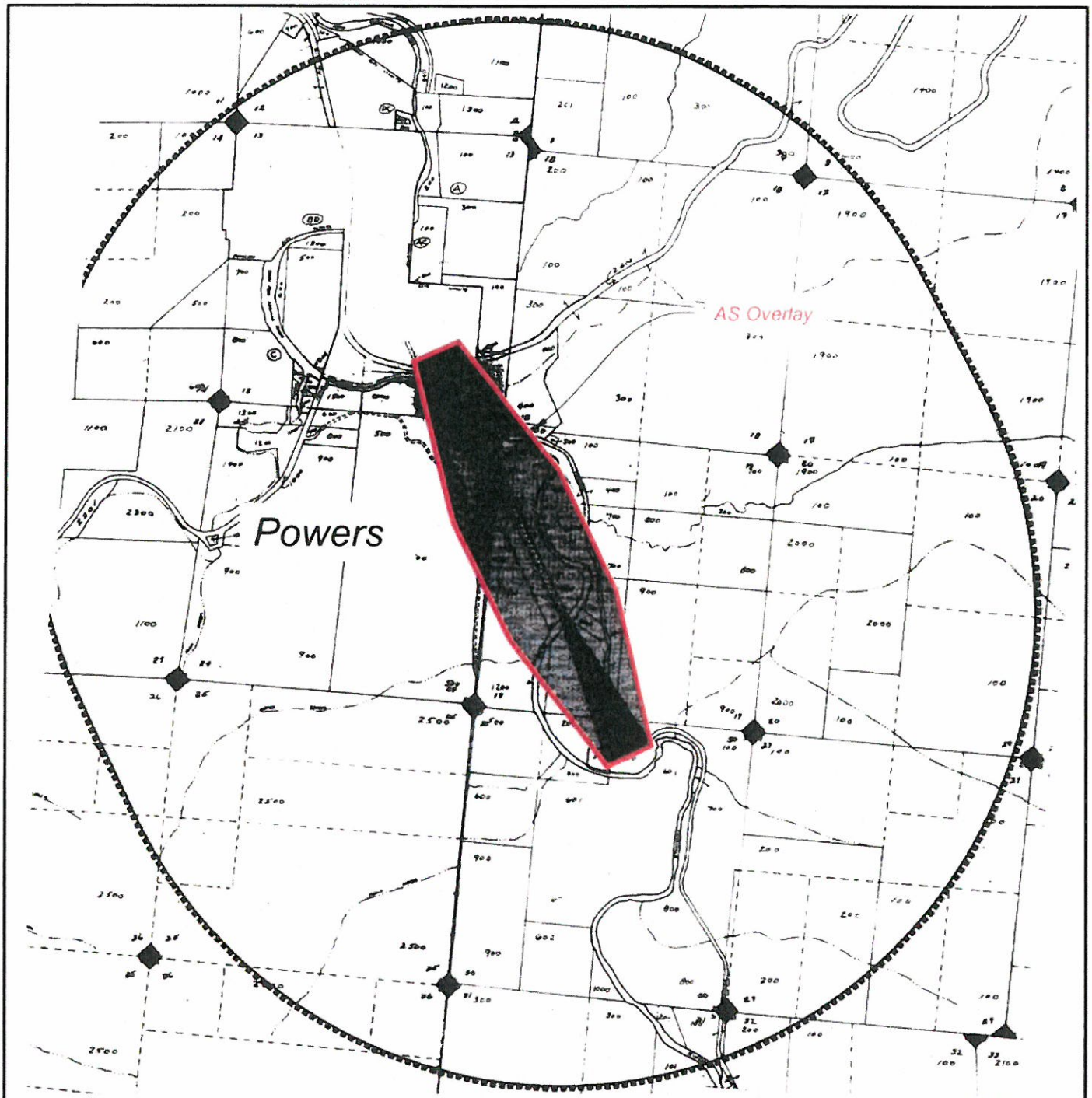
South Dunes Power Plant Project

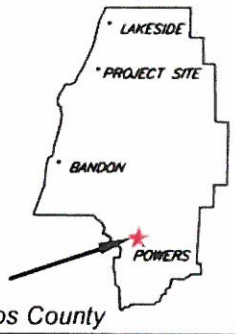
EFSC Application

EXHIBIT K
Figure K-4.8.1
Table 4.7a - Special Considerations
Phenomenon 8- Airport Surfaces

Date: 11/15/2013
Reviewed By: SD
Designed By: MW

Figure K-4.8.2. Table 4.7a Special Considerations Phenomenon 8-Airport Services





Coos County

0 0.25 0.5 Miles

1 in = 0.5 miles

Airport Surface (AS)

Data Source: Coos County Zoning and Land Development Ordinance (Article 4.6.310 Airport Sub-Zones and Article 4.7 Special Considerations) and Coos County Comprehensive Plan Volume 1 Balance of County

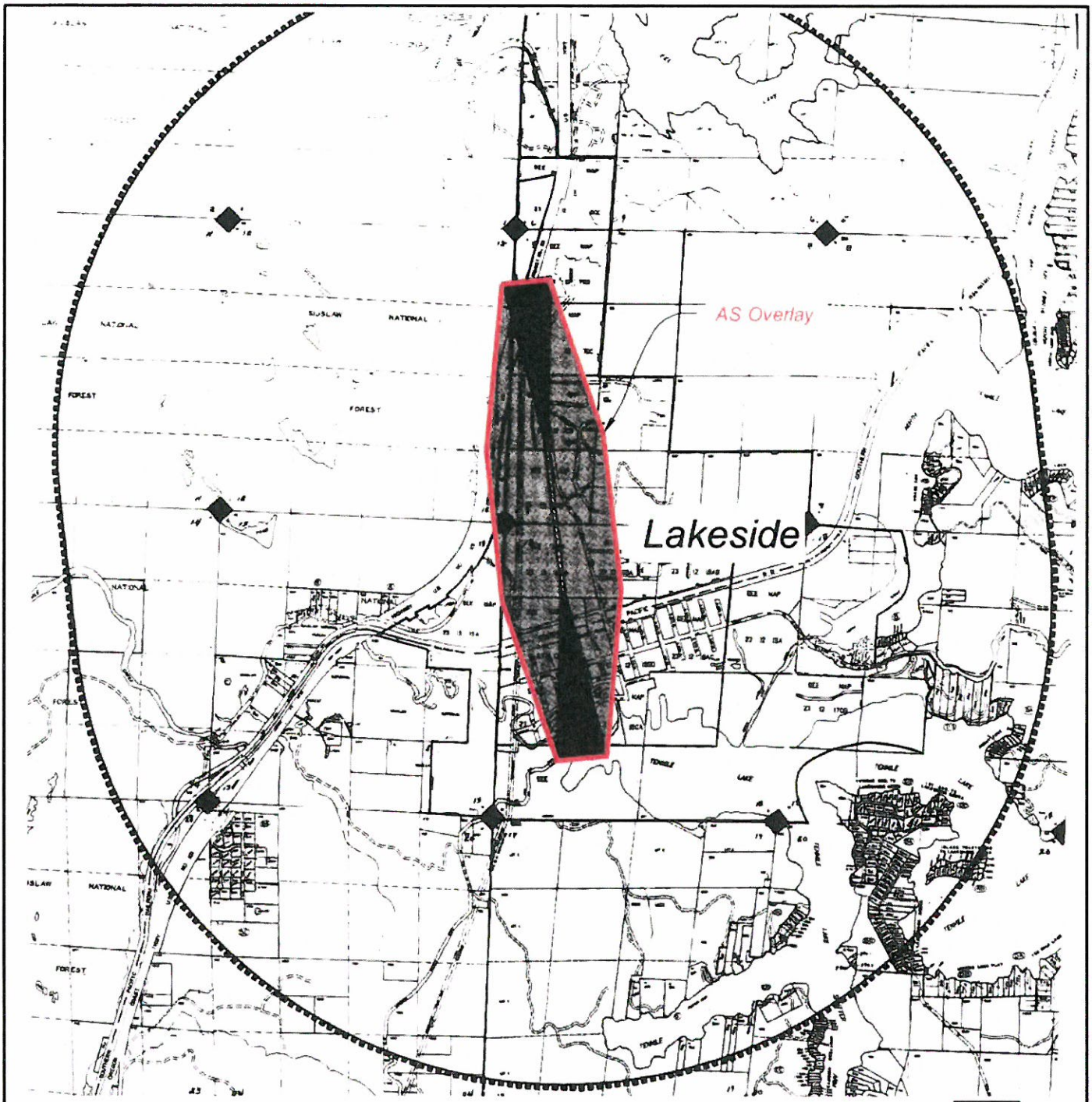
South Dunes Power Plant Project

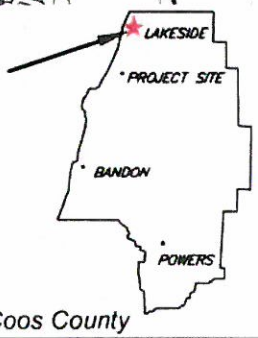
EFSC Application

EXHIBIT K
Figure K-4.8.2
Table 4.7a Special Considerations
Phenomenon 8- Airport Surfaces

Date: 11/15/2013
Reviewed By: SD
Designed By: MW

Figure K-4.8.3. Table 4.7a Special Considerations Phenomenon 8-Airport Services





Coos County

0 0.25 0.5 Miles

1 in = 0.5 miles

Airport Surface (AS)

Data Source: Coos County Zoning and Land Development Ordinance (Article 4.6.310 Airport Sub-Zones and Article 4.7 Special Considerations) and Coos County Comprehensive Plan Volume 1 Balance of County

South Dunes Power Plant Project

EFSC Application

EXHIBIT K
Figure K-4.8.3
Table 4.7a - Special Considerations
Phenomenon 8- Airport Surfaces

Date: 11/15/2013
Reviewed By: SD
Designed By: MW

Figure K-5. Existing Public Access

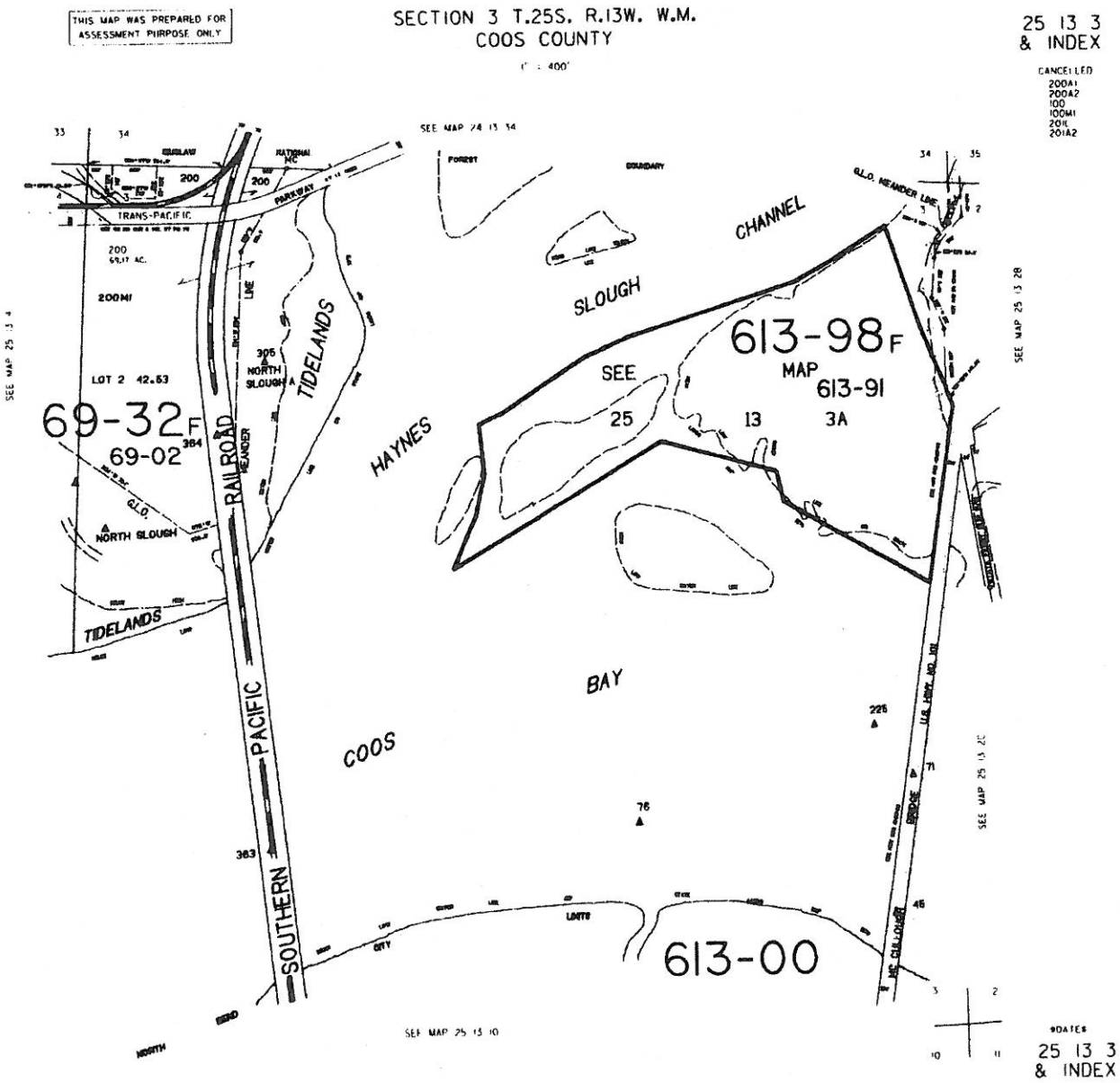
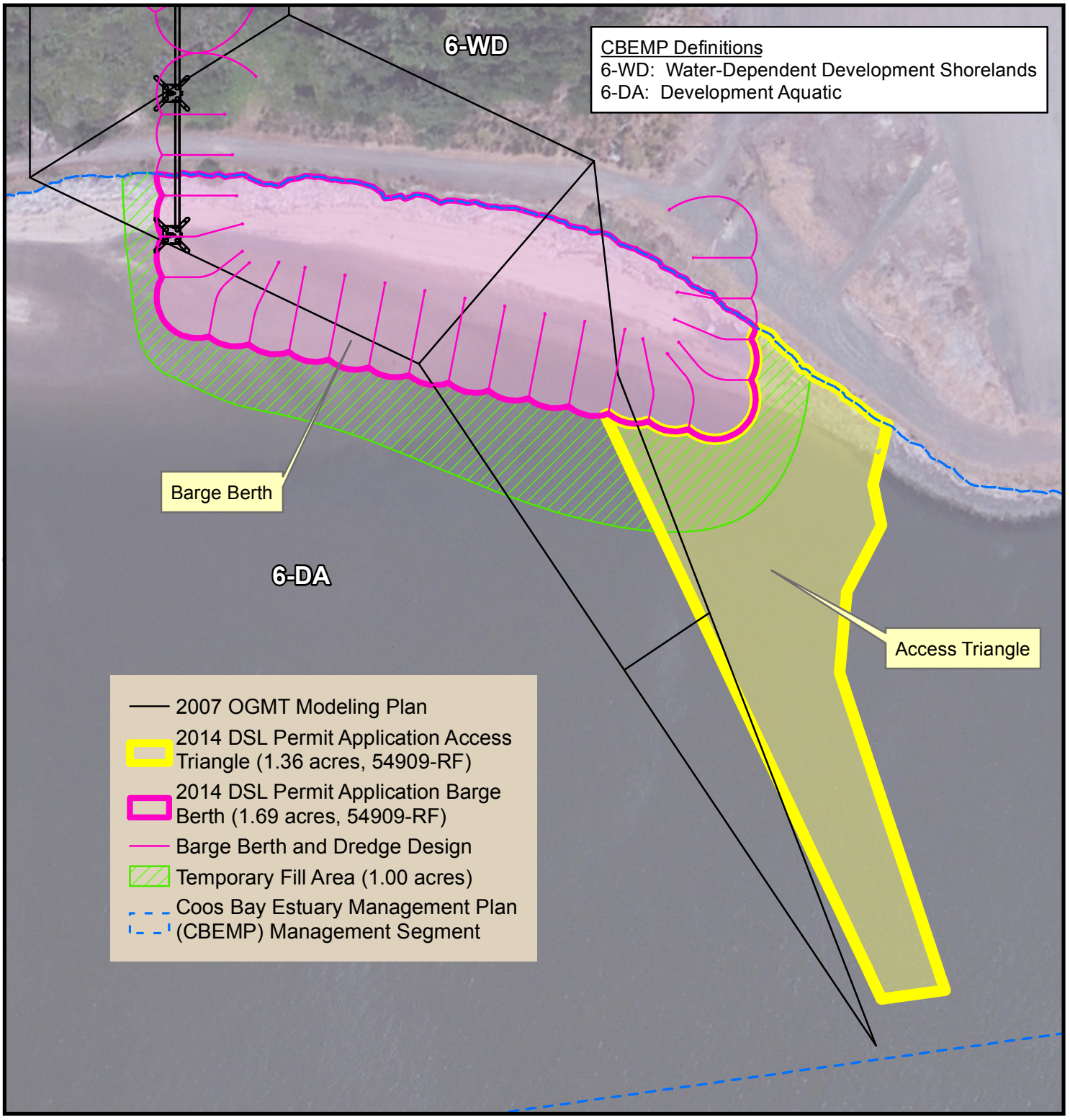


Figure K-5
Existing Public Access

Figure K-6. Barge Berth and Access Triangle Components



N

0 60 120 Feet

1 inch = 120 feet

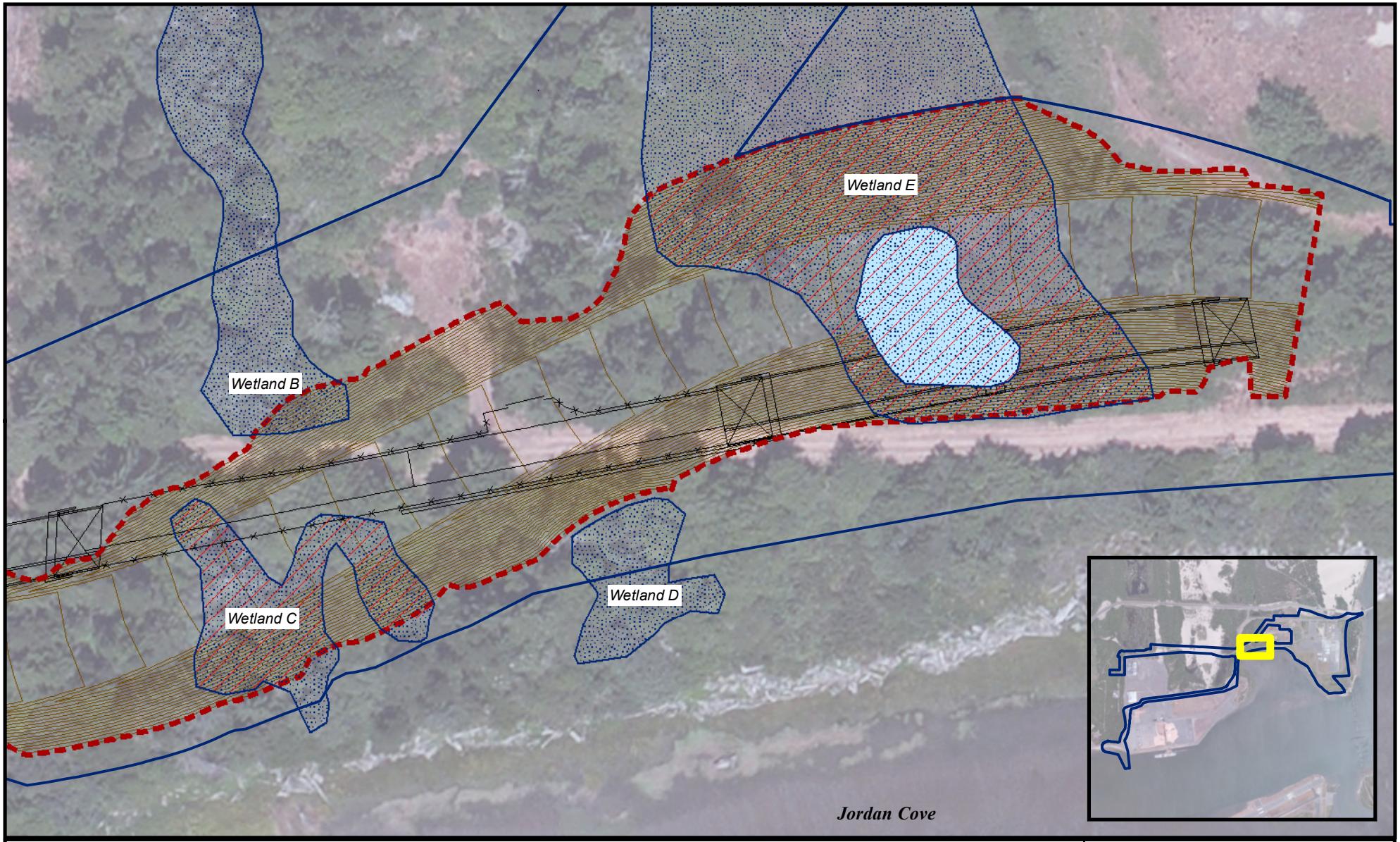
South Dunes Power Plant Project

EFSC Application

EXHIBIT K
Figure K-6
Barge Berth and Access Triangle Components

Date: 9/11/2014
Reviewed By MM
Designed By SAST

Figure K-7. Temporary Fill for Utility Corridor in Wetland E



N

0 45 90 Feet

1 inch = 90 feet

EFSC Site Boundary
Delineated Wetland
Open Water
Permanent Jurisdictional Wetland Impact
Proposed Bridge Design
Limits of Temporary Haul Road Grading
Temporary Contour (2' Interval)

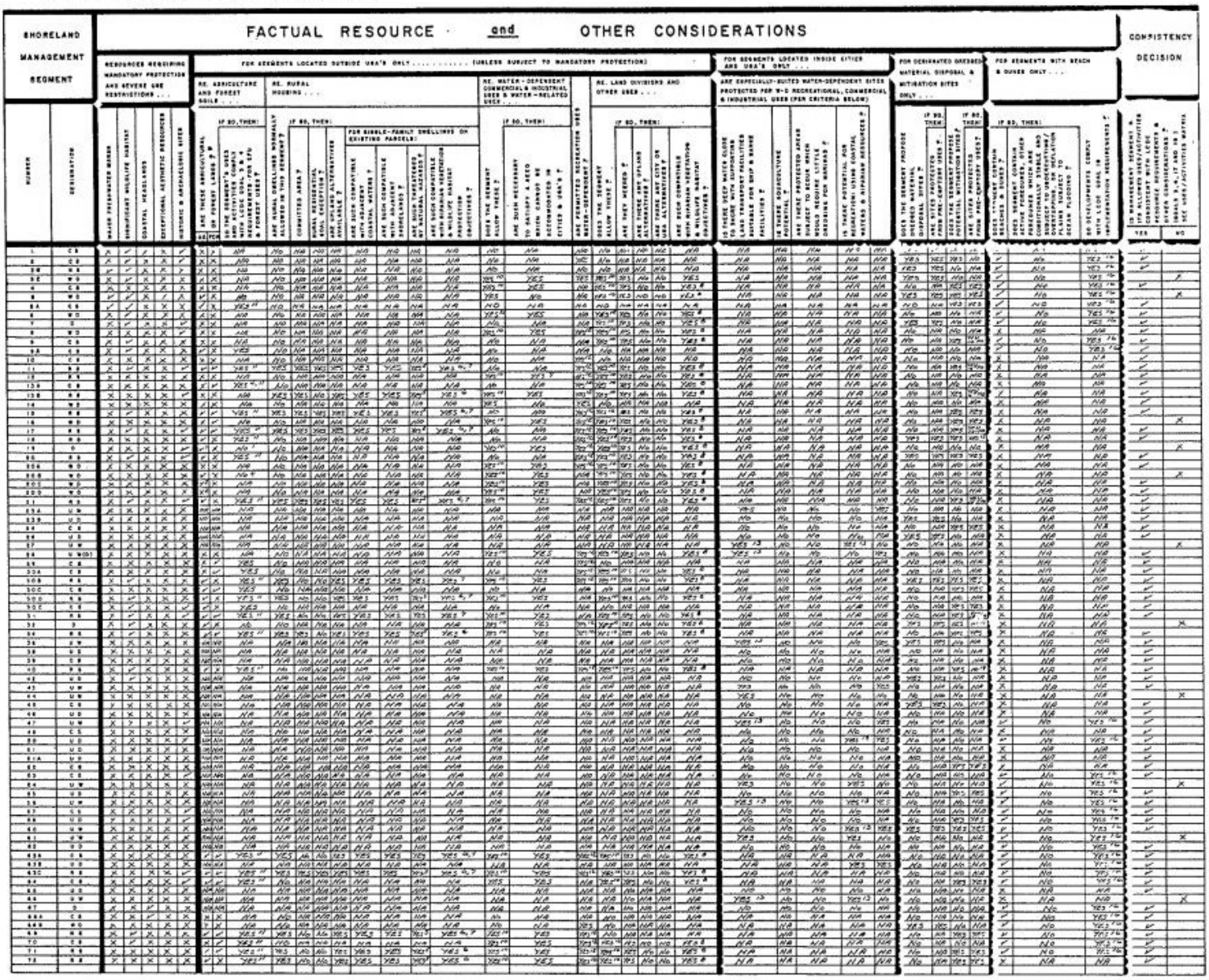
South Dunes Power Plant Project

EFSC Application

EXHIBIT K
Figure K-7
Temporary Fill for Utility Corridor in Wetland E

Date: 9/22/2014
Reviewed By MM
Designed By SAST

Figure K-8.1. Linkage Matrix



FOOTNOTES:

1. Christianson Ranch now covered with dredge spoils - but exception required to Goal #3 for non-agricultural uses.
2. Soils covered by wood debris. Site committed to industrial use.
4. In part, already committed to non-agricultural or non-forest uses.
5. Flood hazard in parts of segment only. Policy #27, "Floodplain protection with Coastal Shorelands" applies to all uses. (See "General Conditions" for each segment.)
6. Dwellings must comply with Policy #23, protecting riparian vegetation. (See "General Conditions" for each segment.)
7. Dwellings must comply with Policy #17, protecting "major marshes" and "significant wildlife habitat." (See "General Conditions" for each segment.)
8. All uses must comply with Policy 17 and Policy 23. (See "General Conditions" for each segment.)
9. This segment is already committed to boat ramp and boat works.
10. These uses are only permitted subject to Policy 14: "General Policy on uses with Rural Coastal Shorelands". Goal requirements are satisfied by making necessary findings. (See "General Conditions" for each segment.
11. All uses on Agricultural/Forest Lands are subject to Policies #22 and #34, restricting uses to those allowed in Goals #3 and #4.
12. Except that water-related and non-water dependent/related recreational uses may be allowed, subject to Policy #14.
13. Only part of the segment meets this criterion.
14. See Policy #22 - 'Low' priority mitigation sites are not given special protection.
15. However, DMD is higher priority than mitigation. (See Policies #20 and #22.)
16. All uses are subject to Policy 51. (See "General Conditions" for each segment.)

LEGEND:

FACTUAL RESOURCE INFORMATION

√+ FEATURE PRESENT IN THIS SEGMENT

X- FEATURE ABSENT FROM THIS SEGMENT

South Dunes Power Plant Project

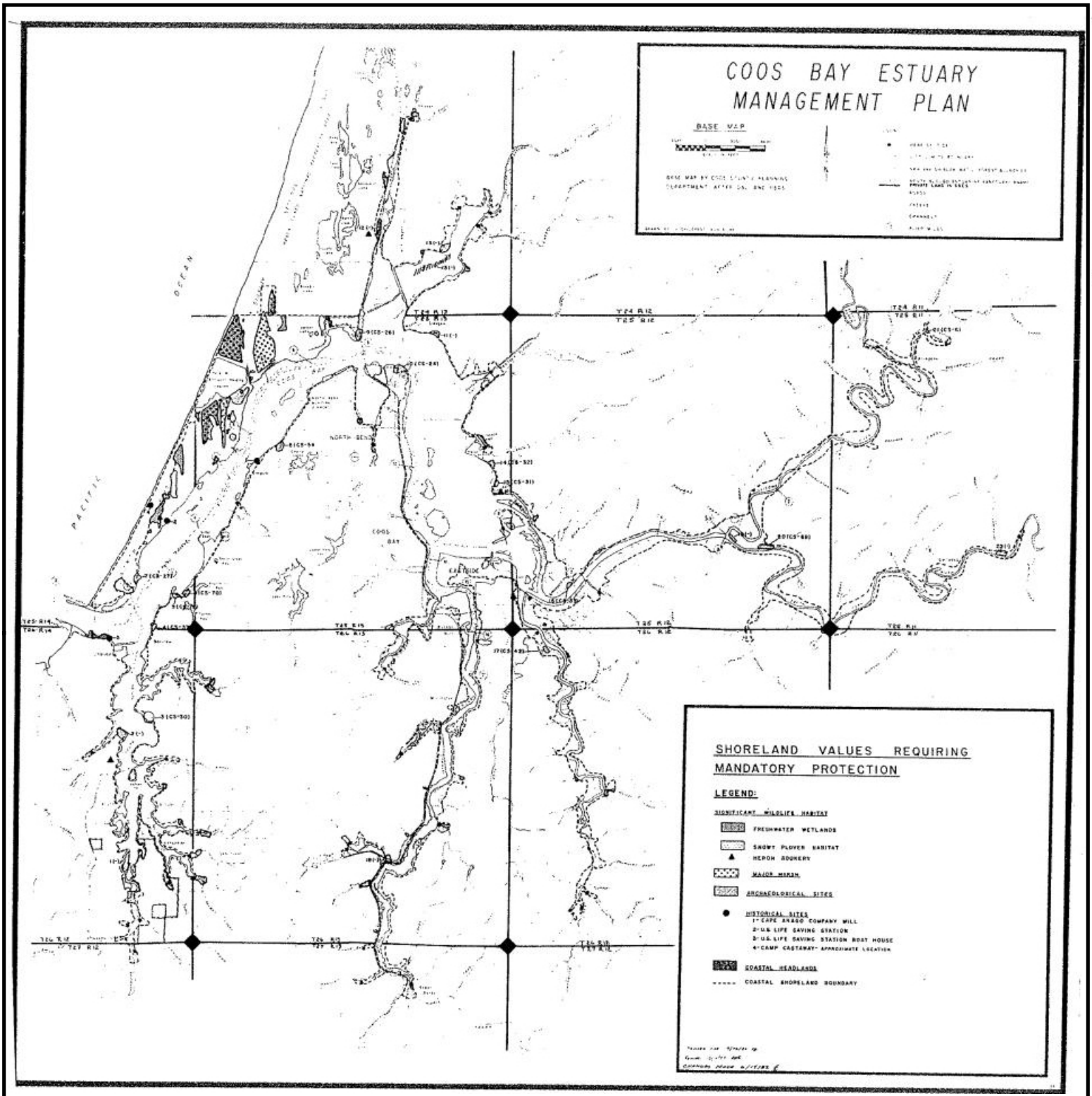
EFSC Application

EXHIBIT K
Figure K-8.1
Linkage Matrix

Date: 9/23/2014
Reviewed By MM
Designed By SAST

\\Pdx1\project\JOCEP0000004\0600\INFO\GIS\arcmap\Permits\EFSC Permit Application\Exhibit K - Land Use\Exhibit K-8.1 Linkage Matrix.mxd

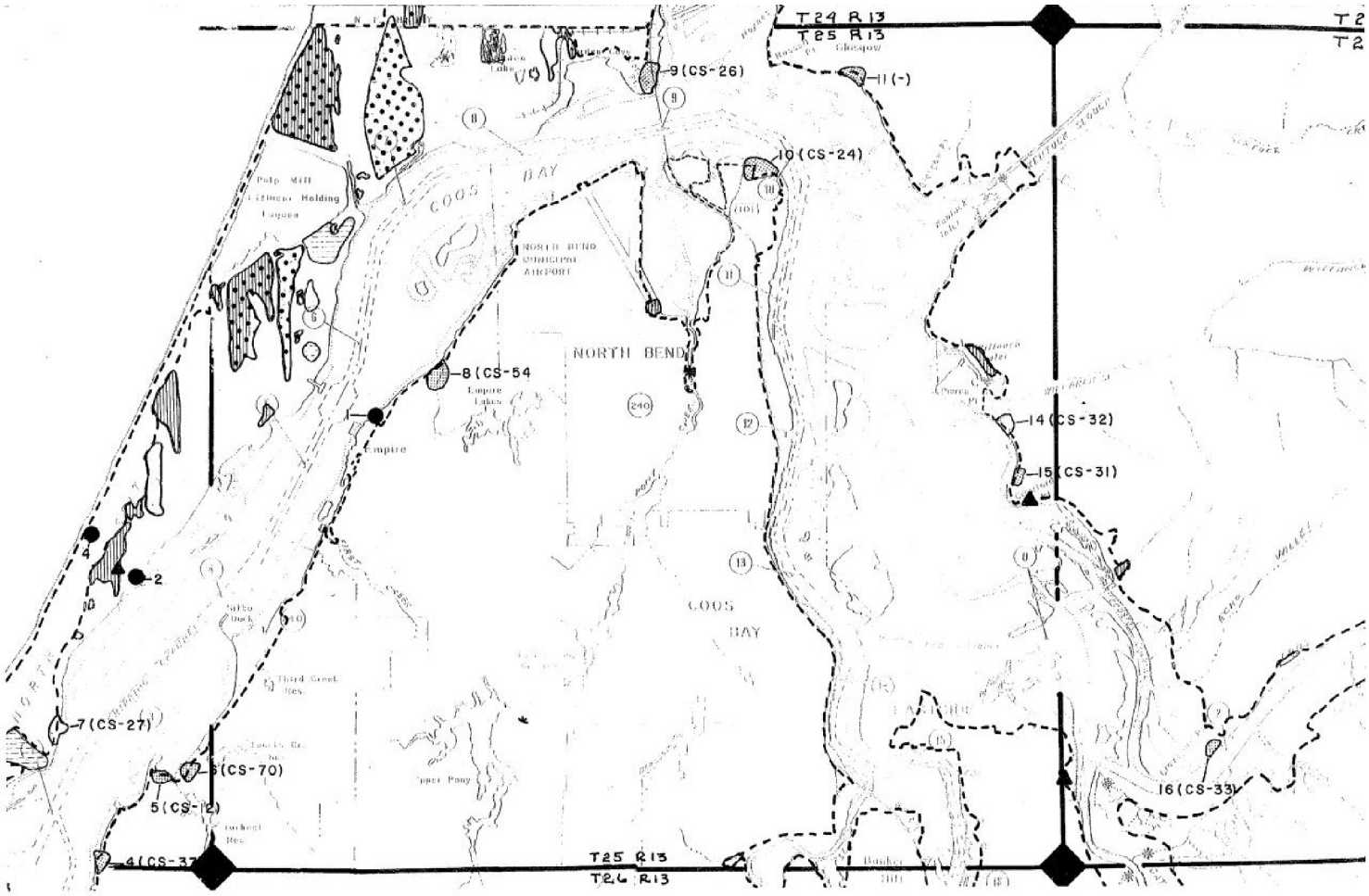
Figure K-8.2. Shoreland Values Inventory Map



South Dunes Power Plant Project	
EFSC Application	
EXHIBIT K **Figure K-8.2** **Shoreland Values Inventory Map**	Date: 9/23/2014 Reviewed By MM Designed By SAST

\\Pdxfs1\project\JJCEP00000004\0600\INFO\GIS\arcmap\Permits\EFSC Permit Application\Exhibit K - Land Use\Exhibit K-8.2 Shoreland Values Inventory Map.mxd

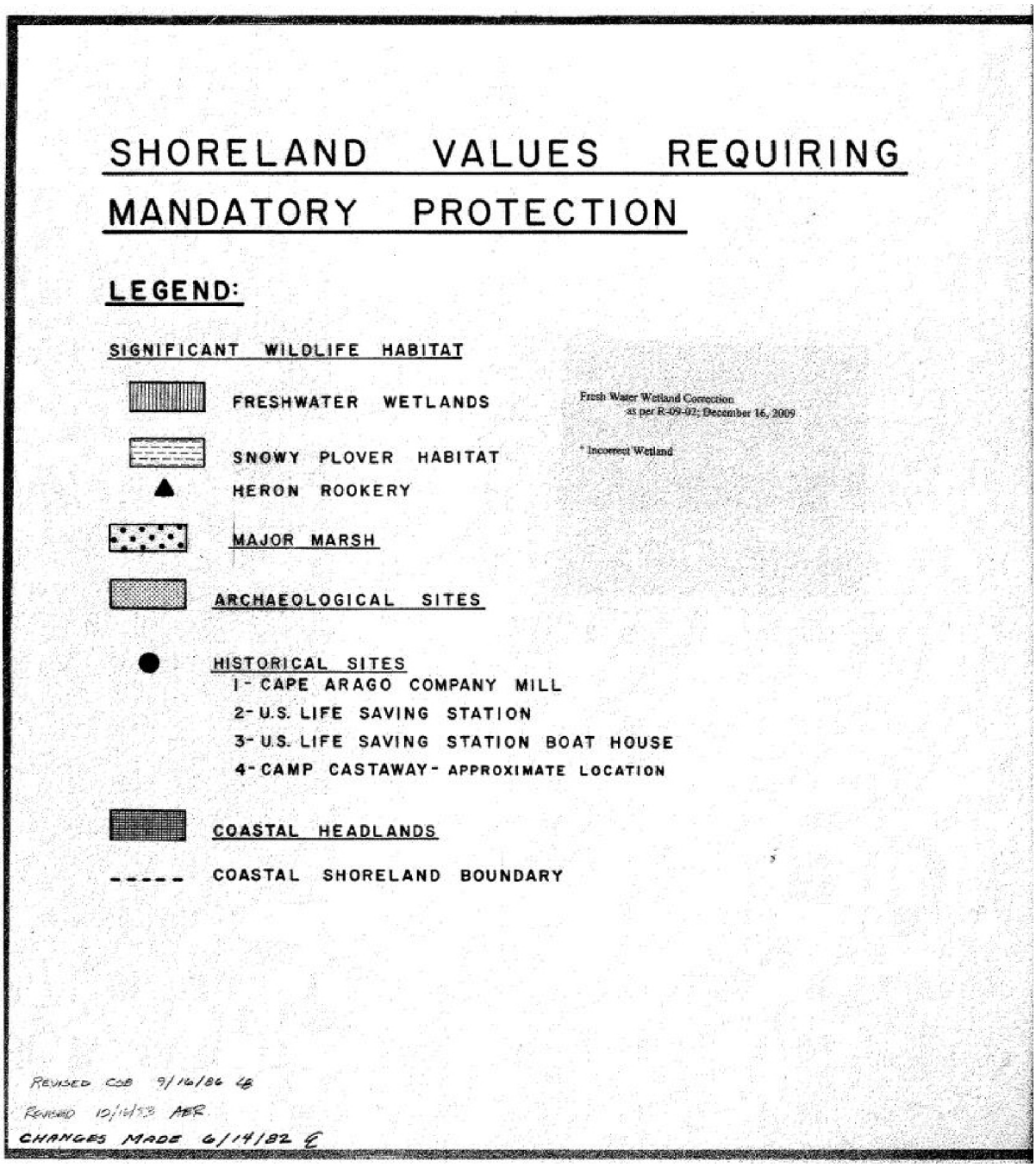
Figure K-8.3. Shoreland Values Inventory Map - Enlarged



South Dunes Power Plant Project	
EFSC Application	
EXHIBIT K **Figure K-8.3** **Shoreland Values Inventory Map (Enlarged)**	Date: 9/23/2014 Reviewed By MM Designed By SAST

\\Pdx1\Project\PDCEP00000004\0600\INFO\GIS\arcmap\Permits\EFSC Permit Application\Exhibit K - Land Use\Exhibit K-8.3 Shoreland Values Inventory Map Enlarged.mxd

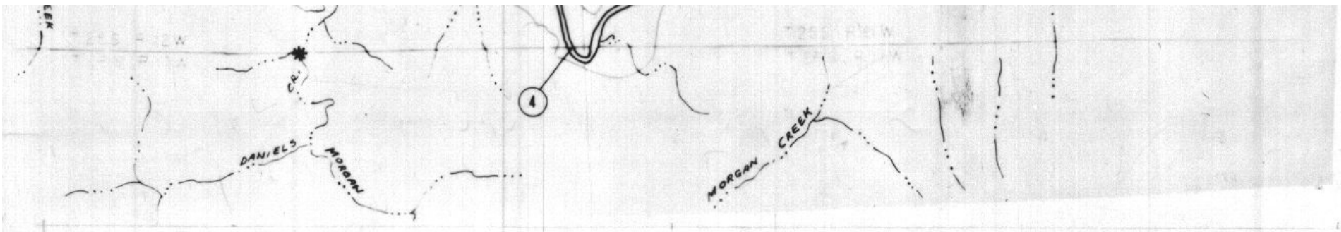
Figure K-8.4. Shoreland Values Inventory Map – Legend Enlarged



South Dunes Power Plant Project	
EFSC Application	
EXHIBIT K Figure K-8.4 Shoreland Values Inventory Map (Legend Enlarged)	Date: 9/23/2014 Reviewed By MM Designed By SAST

\\Pdxfs1\project\JJCEP00000004\0600\INFO\GIS\arcmap\Permits\EFSC Permit Application\Exhibit K - Land Use\Exhibit K-8.4 Shoreland Values Inventory Map Legend Enlarged.mxd

Figure K-9.1. Coos Bay Estuary Management Plan (CBEMP) Maps – Table of Contents

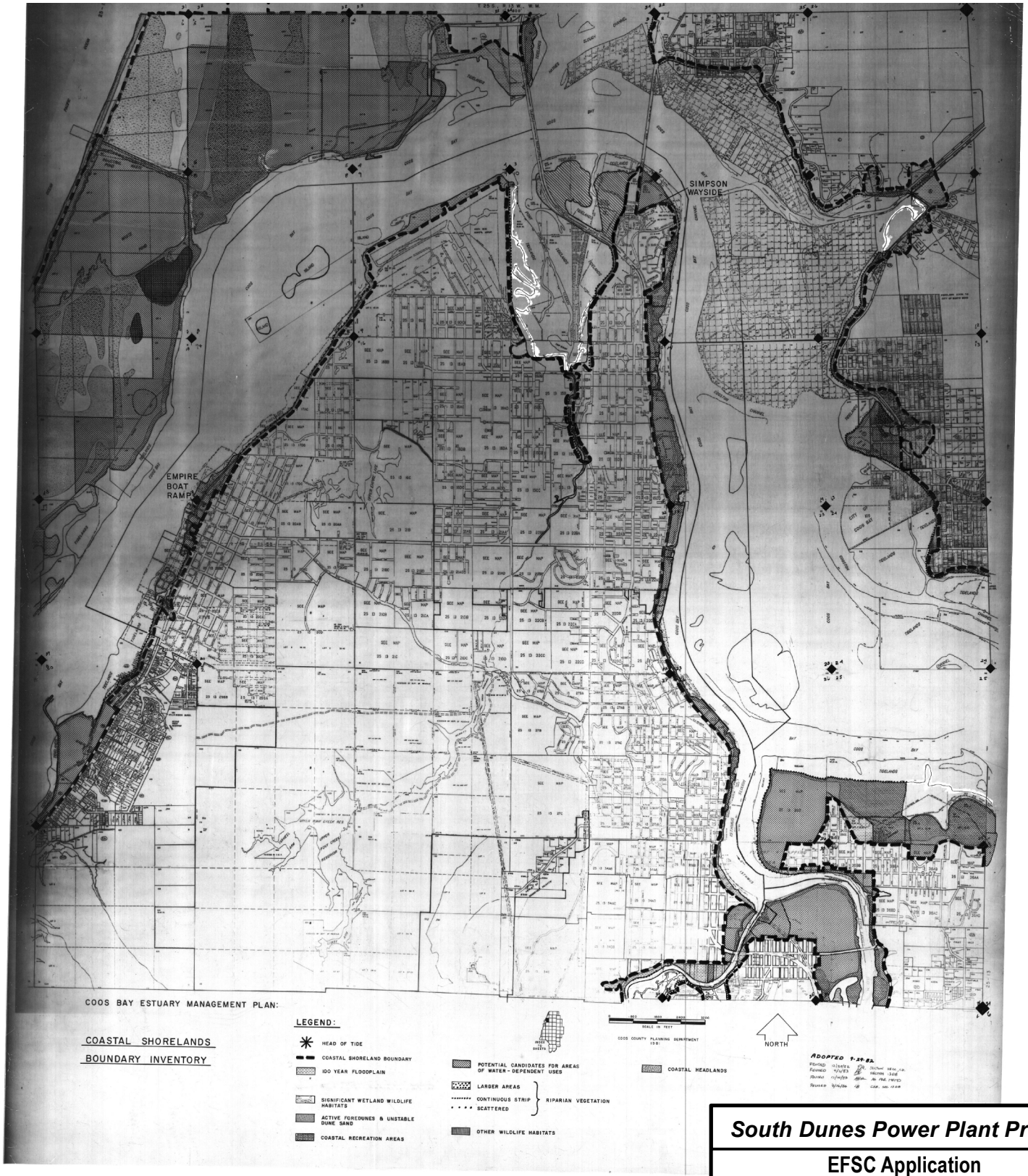


CONTENTS

NOTE: ALL MAPS ARE AT 1"=3000' SCALE UNLESS SHOWN OTHERWISE.

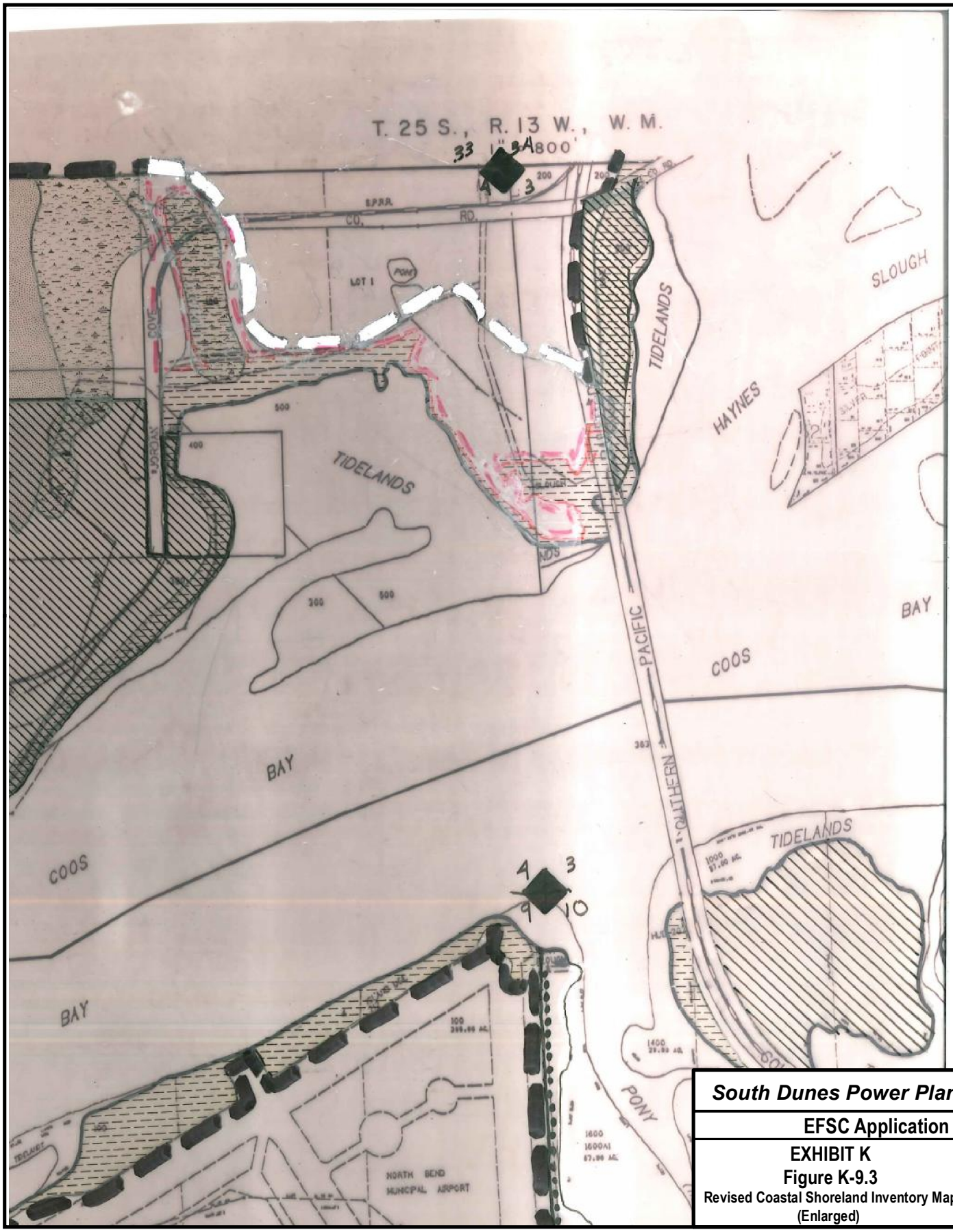
South Dunes Power Plant Project	
EFSC Application	
EXHIBIT K **Figure K-9.1** **Coos Bay Estuary Management Plan (CBEMP) Maps - Table of Contents**	Date: 9/26/2014 Reviewed By MM Designed By SAST

Figure K-9.2. Coastal Shoreland Boundary Inventory Map



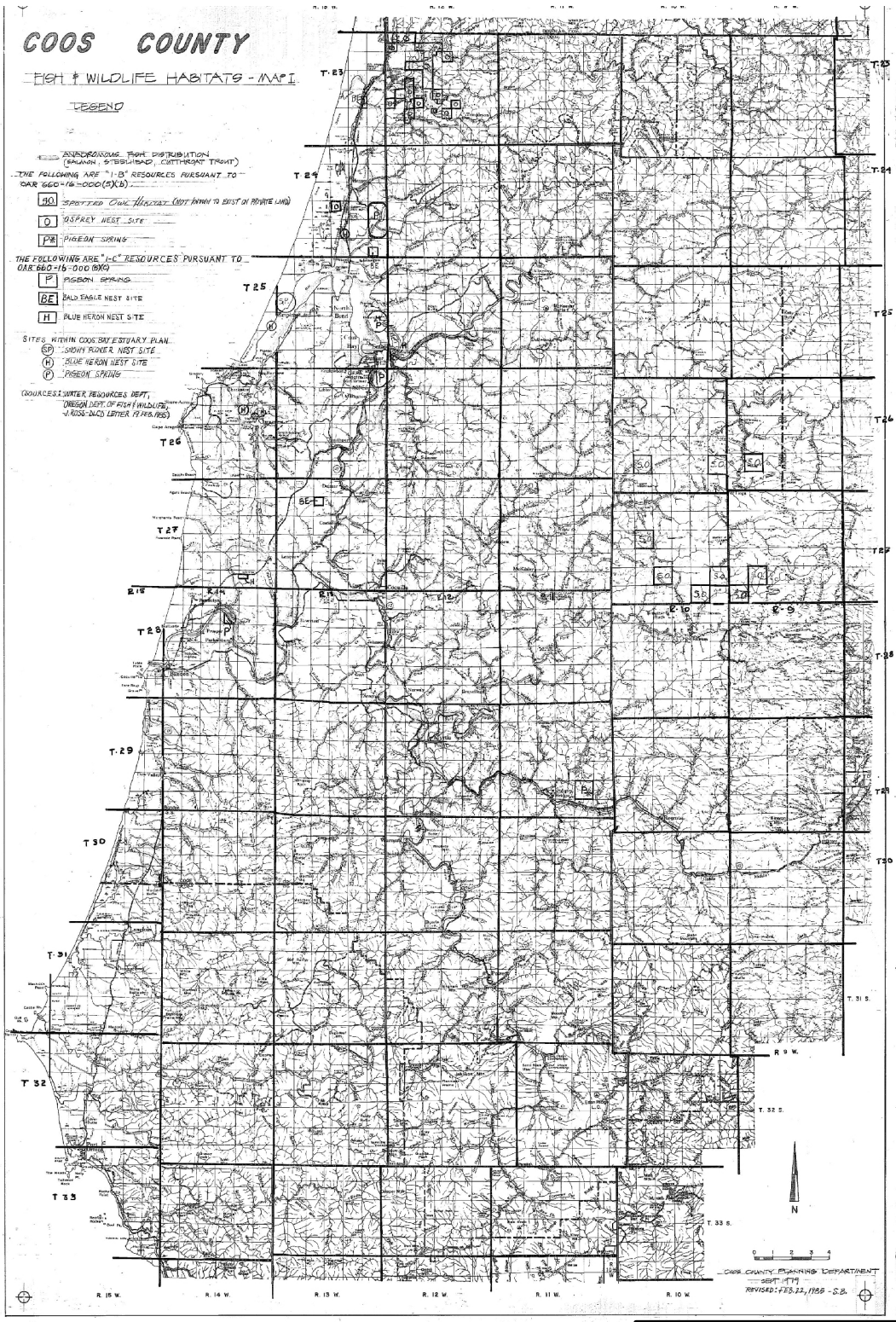
South Dunes Power Plant Project	
EFSC Application	
EXHIBIT K **Figure K-9.2** **Coastal Shoreland Boundary Inventory Map**	Date: 9/26/2014 Reviewed By MM Designed By SAST

Figure K-9.3. Revised Coastal Shoreland Inventory Map - Enlarged



South Dunes Power Plant Project	
EFSC Application	
EXHIBIT K **Figure K-9.3** **Revised Coastal Shoreland Inventory Map (Enlarged)**	Date: 9/26/2014 Reviewed By MM Designed By SAST

Figure K-9.4. Fish and Wildlife Habitat Inventory Map I



South Dunes Power Plant Project	
EFSC Application	
EXHIBIT K **Figure K-9.4** **Fish and Wildlife Habitat Inventory Map I**	Date: 9/26/2014 Reviewed By MM Designed By SAST

Figure K-9.5. Fish and Wildlife Habitat Inventory Map I - Enlarged

COOS COUNTY

FISH & WILDLIFE HABITATS - MAP I

LEGEND

ANADROMOUS FISH DISTRIBUTION
(SALMON, STEELHEAD, CUTTHROAT TROUT)

THE FOLLOWING ARE "1-B" RESOURCES PURSUANT TO OAR 660-16-000(5)(b).

- SO. SPOTTED OWL HABITAT (NOT KNOWN TO EXIST ON PRIVATE LAND)
- O OSPREY NEST SITE
- P* PIGEON SPRING

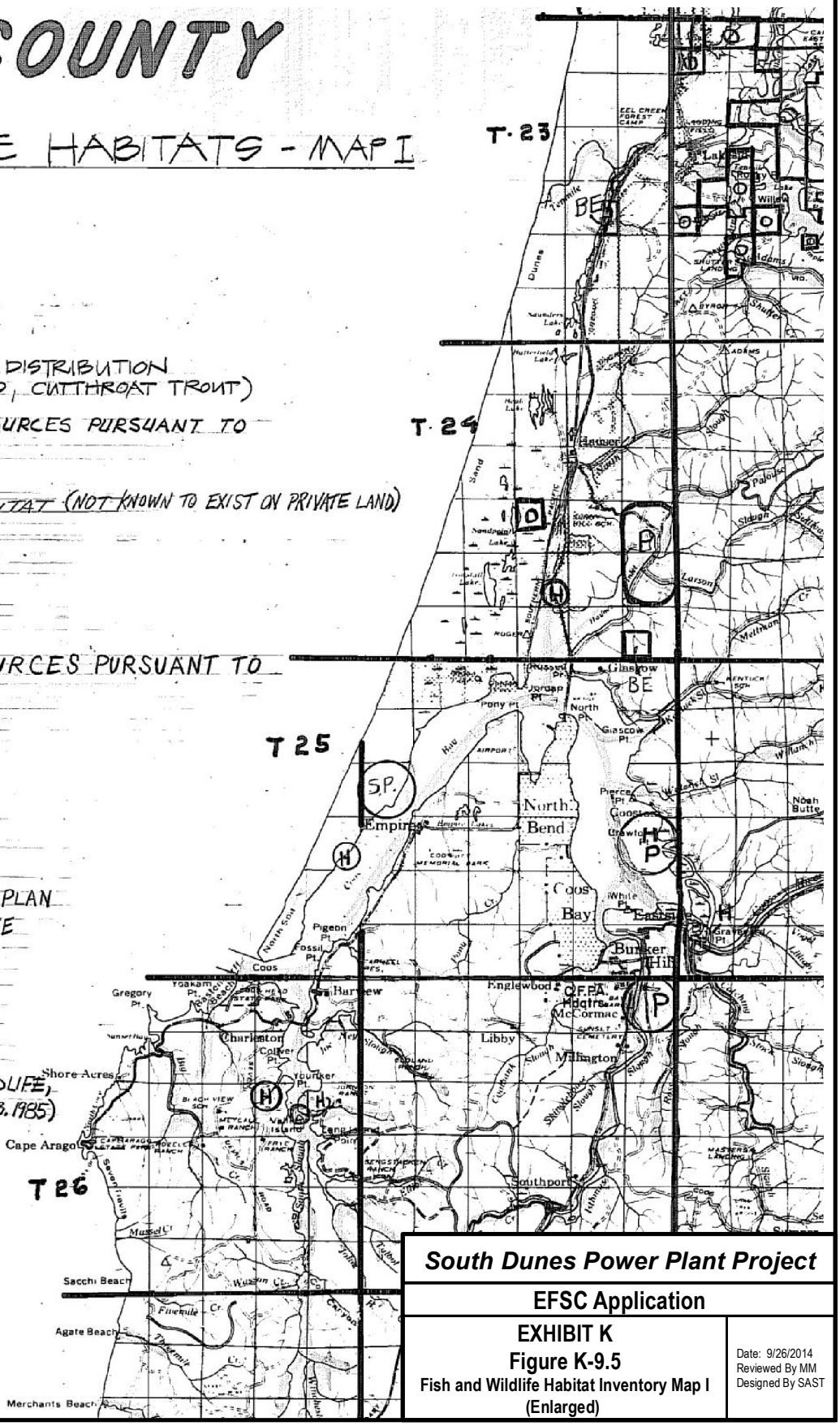
THE FOLLOWING ARE "1-C" RESOURCES PURSUANT TO OAR 660-16-000(5)(c)

- P PIGEON SPRING
- BE BALD EAGLE NEST SITE
- H BLUE HERON NEST SITE

SITES WITHIN COOS BAY ESTUARY PLAN

- (SP) SNOWY PLOVER NEST SITE
- (H) BLUE HERON NEST SITE
- (P) PIGEON SPRING

(SOURCES: WATER RESOURCES DEPT, OREGON DEPT. OF FISH & WILDLIFE, J. ROSS-DLCD LETTER 19 FEB. 1985)



South Dunes Power Plant Project

EFSC Application

EXHIBIT K
Figure K-9.5
Fish and Wildlife Habitat Inventory Map I (Enlarged)

Date: 9/26/2014
Reviewed By MM
Designed By SAST

Figure K-9.6. Fish and Wildlife Habitat Inventory Map II

South Dunes Power Plant Project	
EFSC Application	
EXHIBIT K **Figure K-9.6** **Fish and Wildlife Habitat Inventory Map II**	Date: 9/26/2014 Reviewed By MM Designed By SAST

APPENDIX K-1

Inventory of Prior Fill Approvals on Mill Site

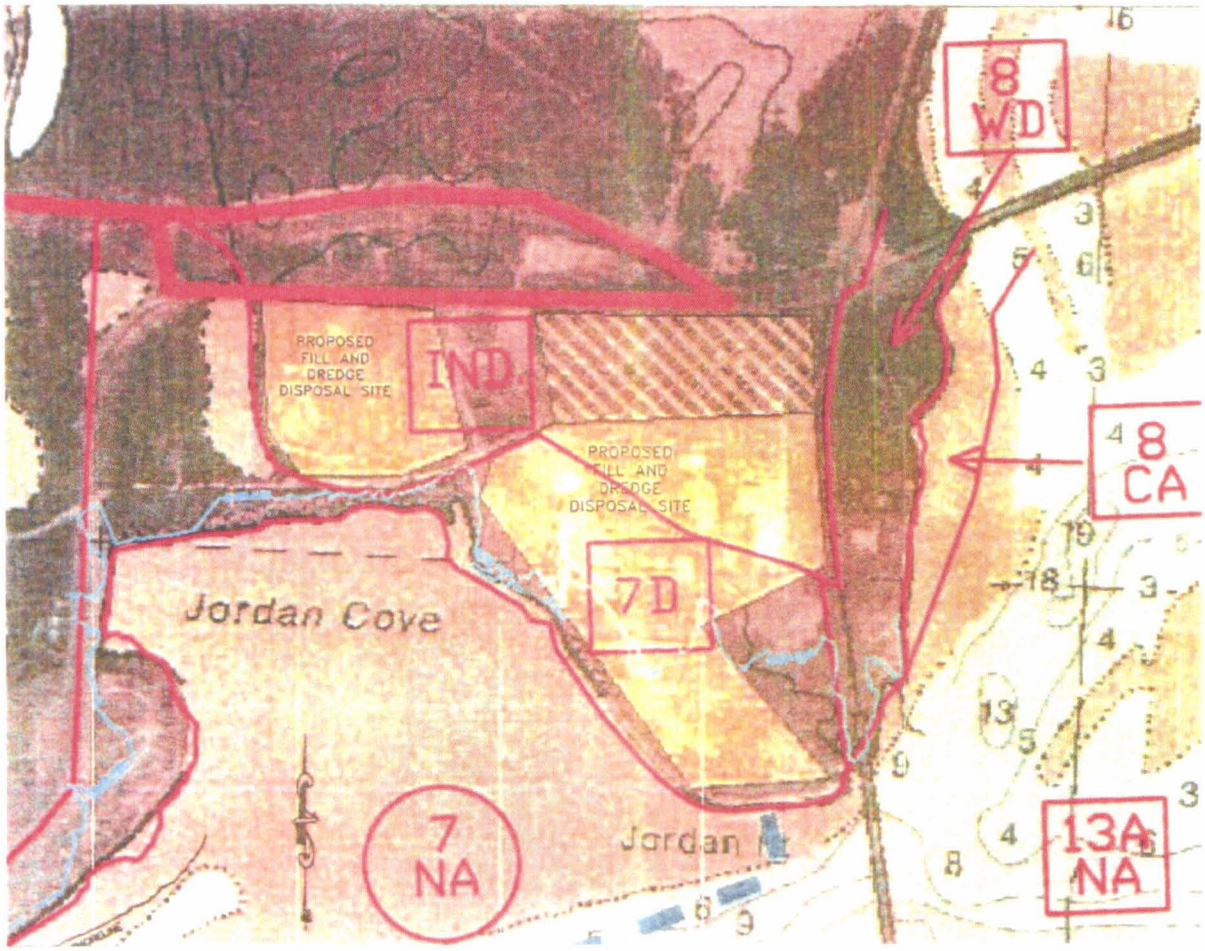
EXHIBIT K-1

Inventory of Prior Approvals

1. Application of Oregon International Port of Coos Bay, Coos County Planning Department File No: #HBCU-07-03; Coos County Order No. 07-12-309PL. The Port applied for and obtained County hearings body conditional use approval to allow the activity of fill in portions of zoning district 7-D and portions of the IND zone on the Weyerhaeuser Liner Board site as a receiving site for the deposition of a portion of the excavated and dredged material to be derived from the excavation of the Port's slip and access waterway, with the areas of approved fill depicted on FIGURE 5 attached to the application, a copy of which is attached hereto. The decision found that the proposed fill in the 7-D portion of the site was subject to several of the phenomena listed in Table 4.7c, special regulatory considerations, and that the applicable phenomenon regarding that portion of the site were archeological resources, "major marshes", floodplains, beaches and dunes, and mitigation sites. See pages 33-40 of the Final Decision and Order 07-12-309PL. The approval resulted in a condition number 4 requiring the applicant to coordinate with the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians by providing notice 72 hours prior to ground-disturbing activity, and a condition number 5 requiring the applicant to establish a 50 foot setback from any jurisdictional wetlands located within in management segment 7-D, together with other conditions. A copy of Figure 5 showing the areas of approved fill is attached as **Attachment A**.

2. An Administrative Boundary Interpretation (County File No. ABI-12-01) that was approved on March 22, 2012. The Planning Director made an interpretation to correct the location of the Coastal Shoreline Boundary (CSB), the northern boundary of the 7-D zone (common boundary of 7-D zone and the Industrial zone) and the location of the 100-year floodplain. The proposal was found to be consistent with the factors of Statewide Planning Goal 17 for the CSB. The applicant provided accurate detail data that identified where the 100-year floodplain boundary was actually located on the property. Evidence relied on for this approval included aerial photographs, U. S. Fish and Wildlife Service National Wetland Inventory, FEMA Maps, Planning Department records, and the applicant's submitted evidence. The adopted IND zoning district boundary is found at **Attachment B**.

3. Planning Director's Decision revised 10-04-12 (County File Nos. ACU-12-16/ ACU-12-17/ACU-12-18) approving the application request for conditional uses for fill in the Beach and Dune Areas With Limited Development Suitability located in the Industrial (IND) zone; and conditional use for fill and vegetative shorelines stabilization in the Coos Bay Estuary Management Plan (CBEMP) zoning designation 7-Development Shorelands (7-D). The decision approved the activity of fill to make the Site ready for development in the reconfigured IND zone, with findings of inapplicability or consistency with the phenomenon contained in Table 4.2a regarding identified areas of special consideration. The approval resulted in the following conditions of approval: (1) at least 90 days prior to the issuance of a zoning compliance (verification) for building and/or septic permits under LDO 3.1.200, the County Planning Department shall make initial contact with the Tribe(s) regarding the determination of whether any archaeological sites exist within the area proposed for development, consistent with the provisions of LDO 3.2.700; (2) if any of the proposed development will result in removal of riparian vegetation from riparian corridors protected by Section 4.5.180, it will be minimal and only for the purposes allowed by Section 4.5.180(1); (3) the applicant will comply with applicable state and federal regulations regarding impacts to jurisdictional wetlands; and (4) a flood certification shall be completed and submitted for review prior to any fill within the flood hazard area of the 7-D zoning. Figure 2 to the prior application, which shows the areas of proposed fill and previously approved fill, is attached as **Attachment C**.



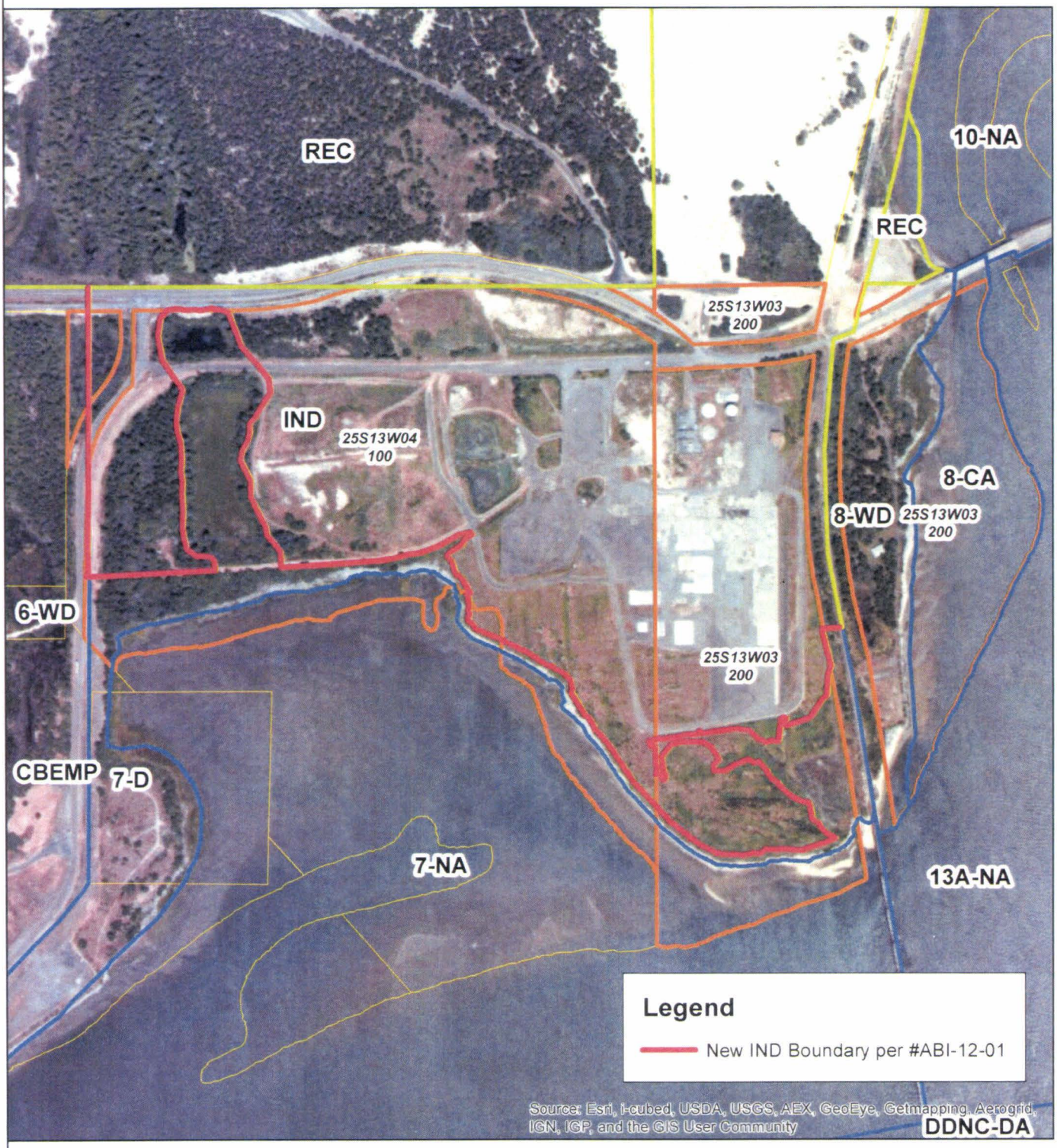
Liner Board Site

Attachment A

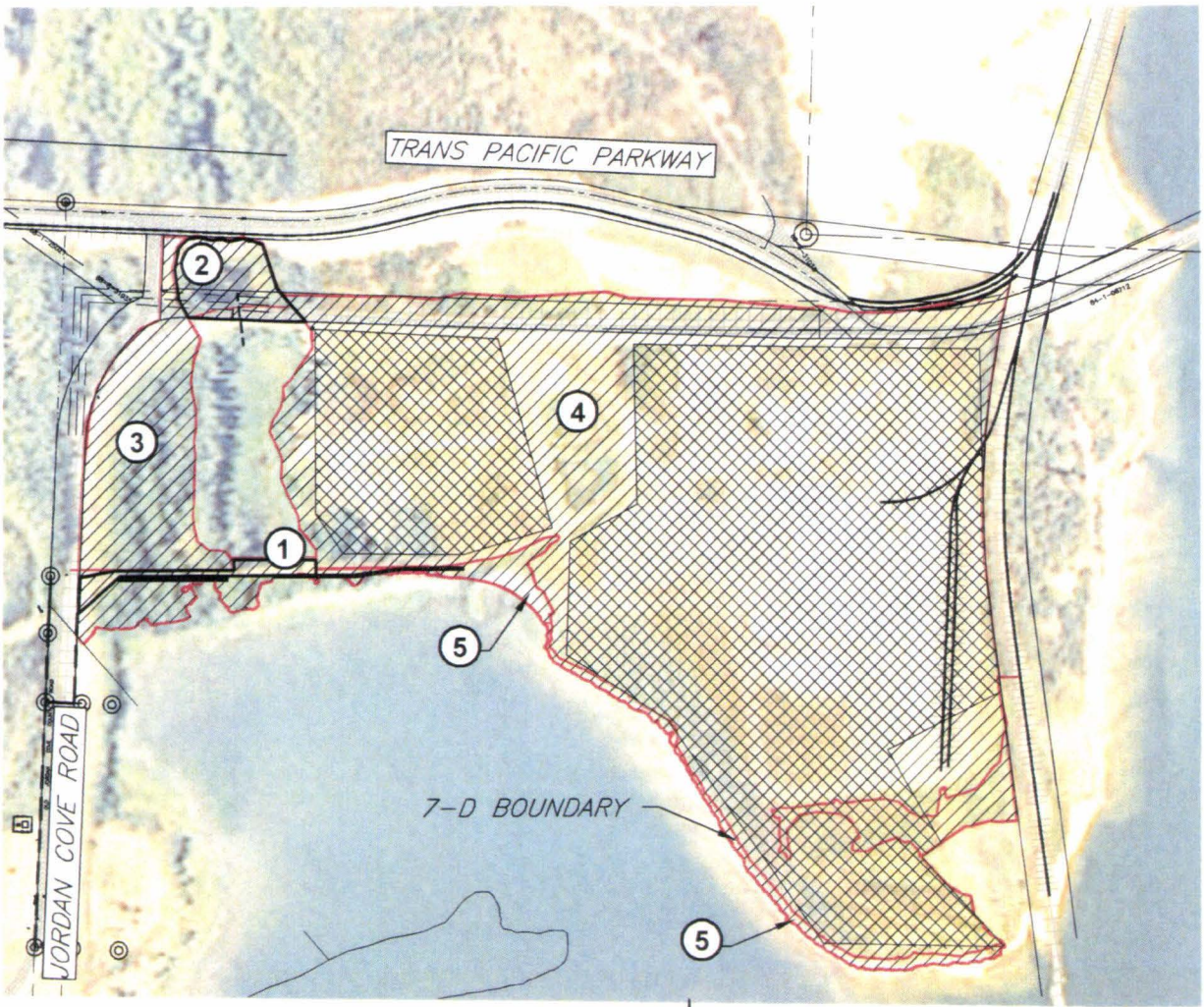
COOS COUNTY PLANNING DEPARTMENT

Mailing Address: 250 N. Baxter, Coos County Courthouse, Coquille, Oregon 97423
Physical Address: 225 N. Adams, Coquille Oregon
Phone: (541) 396-7770
Fax: (541) 396-1022/TDD (800) 735-2900

County File #ABI-12-01



Attachment B - New IND Boundary



SITE PLAN

1"=600'

N

EXPLANATION

- APPROVED FILL AREA
- PROPOSED FILL AREA
- 1 SOUTHWEST 7D AREA
- 2 NORTHWEST 7D AREA
- 3 WEST IND AREA
- 4 OTHER IND FILL AREAS
- 5 OTHER 7D FILL AREAS
- PROJECT AREA
- 7-D BOUNDARY
- AREAS OF VEGETATIVE SHORELINE STABILIZATION

SHN Consulting Engineers & Geologists, Inc.	South Dunes Power Plant Coos County, Oregon	Exhibit 1 SHN 611048
	February 2013 | 611048-FIG1-4	Attachment C

EXHIBIT K-1.1

CONSULTING ENGINEERS & GEOLOGISTS, INC.
275 Market Avenue• Coos Bay, Oregon 97420-2228 • Phone: 541/266-9890 • FAX: 541/266-9496•shninfo@shn-engr.com

Reference: 611048.122

August 7, 2012

Mr. Mark Whitlow
Perkins Coie, LLP
1120 N.W. Couch Street, Tenth Floor
Portland, OR 97209-4128

Subject: Weyerhaeuser Mill Site Development Analysis: Suitability of Proposed Fill Areas Relative to Beach and Dune Provisions of the Coos County Comprehensive Plan

Mr. Whitlow:

This letter report presents SHN's assessment of development suitability for five areas of proposed fill placement related to improvements at the Weyerhaeuser Mill Site. Three of the five proposed fill areas are in zoning district 7-D and on adjacent IND lands within dune areas identified as "Beaches and Dunes with a Limited Suitability for Development" on the Special Considerations Map. The IND lands discussed herein are considered "Balance of County" lands in the Coos County Comprehensive Plan (CCCP), and are subject to the requirements outlined in Section 5.10 (Strategy 2) of Appendix 1, Volume I of the CCCP. Areas within district 7-D are covered within the Coos Bay Estuary Management Plan (CBEMP), and are subject to Policy #30 within Appendix 3, Volume II. The intent of this letter is to document the absence of potential impacts to Beaches and Dunes from the proposed placement of fill at the following locations:

1. An east-west utility corridor/road extending eastward from Jordan Cove Road toward Jordan Point. The area is within district 7-D, and is shown on the Special Considerations Map as extending from a Wet Deflation Plain into an area not identified as a Beach and Dune Special Consideration Area;
2. An area in the northwest corner of the Mill Site (primarily in district 7-D), near the intersection of Jordan Cove Road and the Trans-Pacific Parkway. As indicated on the CBEMP Special Considerations Map, the affected area extends eastward from the edge of a Wet Deflation Plain and a small area of Conditionally Stable Open Dune Sand; most of the realignment occurs on land not identified as a Beach and Dune Special Consideration Area;
3. An area along Jordan Cove Road, on IND lands. This area is entirely within the Wet Deflation Plain shown on the Special Considerations Map;
4. Areas of the Mill Site zoned IND not previously approved for fill and not identified as a Beach and Dune Special Consideration Area; and
5. Areas of the Mill Site in the 7-D zone not previously approved for fill and not identified as a Beach and Dune Special Consideration Area.

The analysis described herein is required under the regulatory guidelines presented in CBEMP Policy #30 of Appendix 3, Volume II and CCCP Section 5.10 (Strategy 2) of Appendix 1, Volume I, both within the Coos County Zoning and Land Development Ordinance (CCZLDO). Specifically,

the subject areas are shown as "Beach and Dune Areas with Limited Development Suitability" on the Coos Bay Estuary Management Plan Special Considerations Map. As stated in the Ordinance, all dune forms except older stabilized dunes, active foredunes, conditionally stabilized foredunes that are subject to ocean undercutting or wave overtopping, and interdune areas (deflation plains) subject to ocean flooding, are considered "Beach and Dune areas with Limited Development Suitability." For the reasons discussed below, the dune forms in areas #1, #2, and #3 are included in the category of Beach and Dune Areas with Limited Development Suitability, and are subject to the requirements of Policy #30 and Section 5.10. Policy #30 and Section 5.10 are essentially identical, dictating the establishment of findings relative to a list of minimum requirements (Policy #30 has five requirements; Section 5.10 has four, all of which are included in Policy #30). This report is not intended to address whether a use is appropriate with regard to any adverse effects associated with the development, public health and safety, or hazards to the natural environment to the extent that it does not relate to geotechnical issues.

Proposed Fill Areas

The boundaries of the Weyerhaeuser Mill Site (Site) are shown in Figure 1 as the "Project Area." Areas proposed for placement of fill subject to Policy 30 and Section 5.10 are shown on Figure 1 as "Proposed Fill Areas #1, #2, and #3." (Proposed fill areas #4 and #5 are not subject to Policy 50 or Section 5.10.) The details regarding these proposed fill areas are discussed below.

CBEMP Policy #30/CCCP Section 5.10 (Strategy 2)

As described above and in the proposed Findings for the current administrative use application, dunes at the Site are of Limited Suitability for Development and are subject to the requirement of CBEMP Policy #30 and CCCP Section 5.10 (Strategy 2) because the criteria for each includes open dunes and interdune areas not subject to ocean flooding. Although there are minor differences in specific wording, the two policies are generally the same. Of the five criteria outlined below, which all appear in Policy #30, only criteria "e" is not included in Section 5.10 (Strategy 2).

- **Restricting Actions in Beach and Dune Areas with "Limited Development Suitability" and Special Consideration for Sensitive Beach and Dune Resources**

1. Coos County shall permit development within areas designated as "Beach and Dune Areas with Limited Development Suitability" on the Coos Bay Estuary Special Considerations Map only upon the establishment of findings that shall include at least:
   a. The type of use proposed and the adverse effects it might have on the site and adjacent areas;
   b. Temporary and permanent stabilization programs and the planned maintenance of new and existing vegetation;
   c. Methods for protecting the surrounding area from any adverse effects of the development;
   d. Hazards to life, public and private property, and the natural environment which may be caused by the proposed use; and

e. Whether drawdown of groundwater would lead to loss of stabilizing vegetation, loss of water quality, or intrusion of saltwater into water supplies.

The discussion that follows provides assessment of the five criteria within Policy #30 (only the first four criteria apply to IND lands covered by CCCP Section 5.10).

1. Proposed Fill Activity and Potential Adverse Effects

The proposed areas of additional fill are:

a. **Fill Area 1.** This fill area will include land in the 7-D zone extending from an overpass of Jordan Cove Road to the east toward Jordan Point ("Proposed Fill Area #1" on Figure 1). The proposed fill area encompasses the existing utility corridor, along a narrow strip of land between an existing pond (to be retained) and the shore of Jordan Cove. As such, the fill area is spatially confined and fill slopes will not be able to extend outward at stable, free-standing configurations. Adjacent space will be required to extend the fill embankments beyond the road segment and geotechnical methods will be required to stabilize the shoreline to maintain the narrow fill footprint. The western end of the proposed alignment is within a Wet Deflation Plain (not subject to flooding); the eastern end extends beyond the area of special dune consideration (Figure 2). Proposed fill embankments and shoreline stabilization measures will not encroach into 7-NA (Natural Aquatic) zoning areas but will extend into Proposed Fill Area # 5 along the shore of Jordan Cove (Figure 1).

b. **Fill Area 2.** This fill area is in the northwest corner of the Mill site and as "Proposed Fill Area #2" on Figure 1. The fill includes an area of 7-D zone and a small area in IND zone. Per the CBEMP Special Considerations map, the affected area extends eastward from the edge of a Wet Deflation Plain ("interdune form") and a small area of Conditionally Stable Open Dune Sand; most of the fill occurs on land not identified as a Beach and Dune Special Consideration Area (Figure 2). The proposed fill crosses an existing pond (the interdune area identified on the Special Consideration Map) and a younger forested dune (outside the areas shown as Dunes with Limited Development suitability on the Special Considerations Map). The proposed fill will include a portion of the pond and lowering (cutting) of the adjacent forested dune.

c. **Fill Area 3.** The area between Jordan Cove Road and the pond encompassed in IND zone is proposed for fill. This area is shown on Figure 1 as "Proposed Fill Area #3". The area is entirely within a Wet Deflation Plain as indicated on the Special Considerations Map (Figure 2).

d. **Fill Area 4.** The IND zone of the Weyerhaeuser Mill Site will be filled to match the fill approved under previous Coos County land use actions. The area is shown on Figure 1 as "Proposed Fill Area #4" and includes areas not previously addressed by prior land use actions. Proposed Fill Area #4 does not include Beaches and Dune Forms shown on the Special Considerations Map and will not require Policy # 30 or Section 5.10 analysis.

e. **Mill Site 7-D Areas .** The northern edge of the 7-D zone will be filled adjacent to the IND zone. The area is shown on Figure 1 as "Proposed Fill Area #5" and includes areas not previously addressed by prior land use actions concerning fill on the Mill Site. The fill area does not include Beaches and Dune Forms shown on the Special Considerations Map and therefore, will not be subject to Policy # 30 or Section 5.10 analysis.

Discussion. Placement of fill in the proposed areas will require clearing and grubbing of existing vegetation and long-term stabilization of embankment slopes. Native soils are suitable for re-use as fill, and it is anticipated that spoils generated during excavation in high areas will be relocated and used as fill where grade is to be raised. As dune sand and other soils in the area have high erosion potential, short-term impacts related to migration of soil from the site during construction will be mitigated through development and implementation of comprehensive erosion control plans (NPDES 1200 C permit). Design-level configuration of embankment side slopes will be dictated by the recommendations of the project Geotechnical Engineer (GRI), and are anticipated to be a maximum of 2:1 (horizontal:vertical) with appropriate stabilization. Natural vegetation will be retained surrounding the modification areas, and impacts during construction will be minimized so that lasting off-site effects are reduced to the extent feasible.

The Special Consideration Beach and Dune Areas proposed for the placement of fill are outside the limits of potential flooding as indicated on the latest FEMA flood maps. Areas of ocean flooding are mapped by the Federal Emergency Management Authority (FEMA), therefore the interdune areas ("Wet Deflation Plains") proposed for fill are not subject to ocean flooding, and are considered areas with "Limited Development Suitability".

Finding. Existing site conditions are well-suited for the proposed fill, and the ability to re-use on-site spoils as engineered fill reduces the overall impact of the project. The proposed areas of fill are each, in and of themselves, benign features that will have no lasting impacts beyond the spatial impacts within their immediate footprints. There does not appear to be potential for impacts to surrounding areas. With the incorporation of federal and state requirements for erosion control and protection of sensitive habitats, it is concluded that the proposed fill is consistent with the general conditions as outlined in the CBEMP and are not associated with adverse impacts as related to Special Consideration Beach and Dune areas.

2. **Temporary and Permanent Stabilization and Maintenance of Vegetation**

Discussion. Native or reworked dune sand is a loose, cohesionless granular material that is highly susceptible to erosion by both wind and water. Short-term erosion control during construction and long-term stabilization of embankments will be a required element of the project. The project will require a 1200-C erosion control permit issued by the Department of Environmental Quality (DEQ). As such, the project will be subject to both State and Federal requirements relative to the short - and long-term stabilization of erosion-susceptible soils and

maintenance of vegetation. Permit requirements include monitoring and performance criteria that remain in effect until permanent stabilization has been achieved.

Stabilization of soils in the area is feasible, and has been achieved by a variety of means at numerous sites in the vicinity. Proposed stabilization methods for this project include: development of structures and hardscape (paving, for example), rock or other structural armoring methods (where subject to erosion by water), and vegetative stabilization. Vegetative stabilization has been the most common method of dune stabilization in the past, and is likely to be the primary method associated with the proposed improvements. It is anticipated that vegetative stabilization will be achieved utilizing native species suited for the unique site conditions (drought and salt tolerant).

Finding. The proposed project is subject to both State and Federal guidelines that require development and implementation of erosion control plans and long-term monitoring of stabilization methods. The lead agency that will issue permits related to erosion control is the Oregon DEQ. Stabilization will be a critical element of the project, but can be achieved through a variety of proven methods. Geotechnical parameters that will define stabilization methods will be defined in the project geotechnical report.

3. **Methods for Protecting the Surrounding Areas from Adverse Effects**

Discussion. Once the proposed earthwork has been completed for the project, the modifications are inert, benign facilities that have minimal potential to generate adverse effects on surrounding areas. Potential erosion of cohesionless soils underlying the elevated facilities will be mitigated through stabilization and erosion control, as described above, which will minimize potential for off-site sedimentation. Where the proposed access road borders sensitive wetland habitat or aquatic shorelines, the fill footprint will be minimized to avoid encroachment using geotechnical methods to stabilize the shoreline. Native vegetation on surrounding areas will not be disturbed during construction, and will be retained in all cases. Vegetation introduced for stabilization of soil embankments will be native, to reduce potential impacts to existing plant populations.

Finding. The proposed project is associated with minimal potential to generate adverse effects to surrounding areas. Control of erosion will eliminate the primary potential impact, which is delivery of sediment to nearby sensitive habitats. Careful construction methods that minimize impacts to adjacent vegetated areas and use of native species compatible with local plant populations will largely eliminate potential off-site impacts.

4. **Hazards to Life, Public and Private Property, and the Natural Environment**

Discussion. Development of the proposed improvements will involve earthwork and construction using typical equipment, native materials, and standard work methods. Standards of practice, regulatory oversight, and occupational hazard reduction programs

dictate the level of workmanship, ensure worker safety, and minimize the risk of release of hazardous materials to the environment.

Exposure to natural hazards is characterized by State and Federal agency hazard maps. The risk related to these hazards is mitigated through regulations intended to minimize exposure to dangerous conditions. The primary natural hazards at the project site are related to strong earthquake shaking and tsunami inundation. Project design and construction will incorporate seismic and geotechnical parameters in order to reduce the potential impacts related to large earthquakes. Tsunami effects can be reduced if exposed portions of the project are adequately armored to resist scour.

Finding. Once constructed, the proposed improvements will be a stable at-grade railroad, a fire station on an elevated fill pad, and an elevated roadway that will not pose hazards to life, public and private property, or the natural environment. The proposed improvements can be protected from natural hazards with standard engineering practices and implementation of protective measures (armoring, for example).

5. **Whether Drawdown of Groundwater Would Lead to Loss of Stabilizing Vegetation, Loss of Water Quality, or Intrusion of Saltwater into Water Supplies**

Discussion. As benign above-ground earthwork projects, the proposed fill will not have impacts to the groundwater table, and therefore will not result in the loss of vegetation or the degradation of regional water quality. The project will not increase the potential for saltwater intrusion that may affect domestic water supplies.

Finding. The proposed fill will not draw the groundwater table down and will not increase the potential for saltwater intrusion.

Based on the assessment described herein, we conclude that the proposed fill is a suitable activity for the Limited Development Suitability dune areas, consistent with the guidelines in the CBEMP and CCCP.

We trust this report assists you in addressing the Coos County Policy #30 and Section 5.10 requirements for the aforementioned properties and proposed areas of fill. Should you have any questions or comments, feel free to give me a call at 541-266-9890.

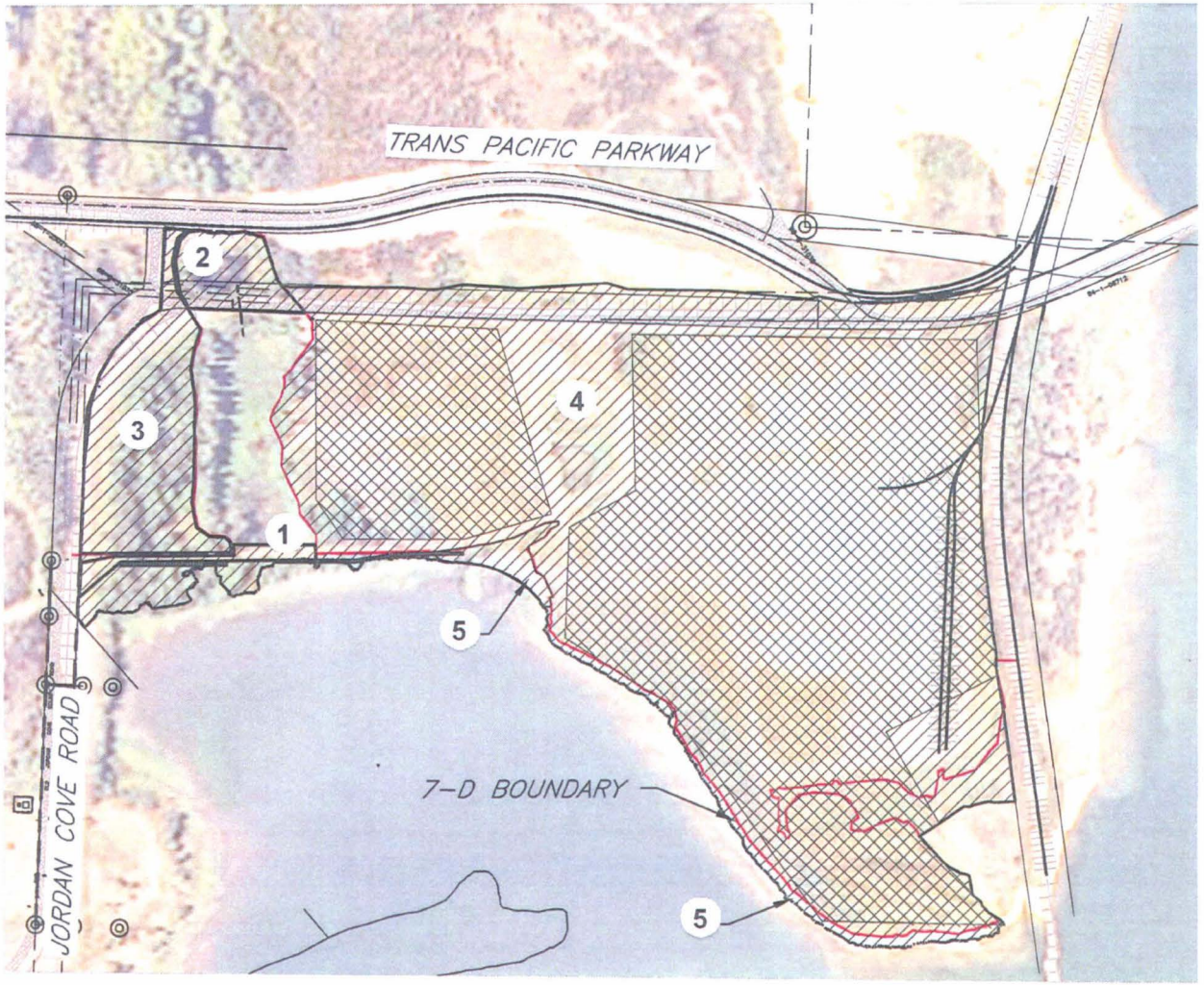
Regards,
SHN Consulting Engineers & Geologists, Inc.

Steven K. Donovan, P.E.
Regional Manager

SKD:dkl

Attachment A

Figures



LEGEND

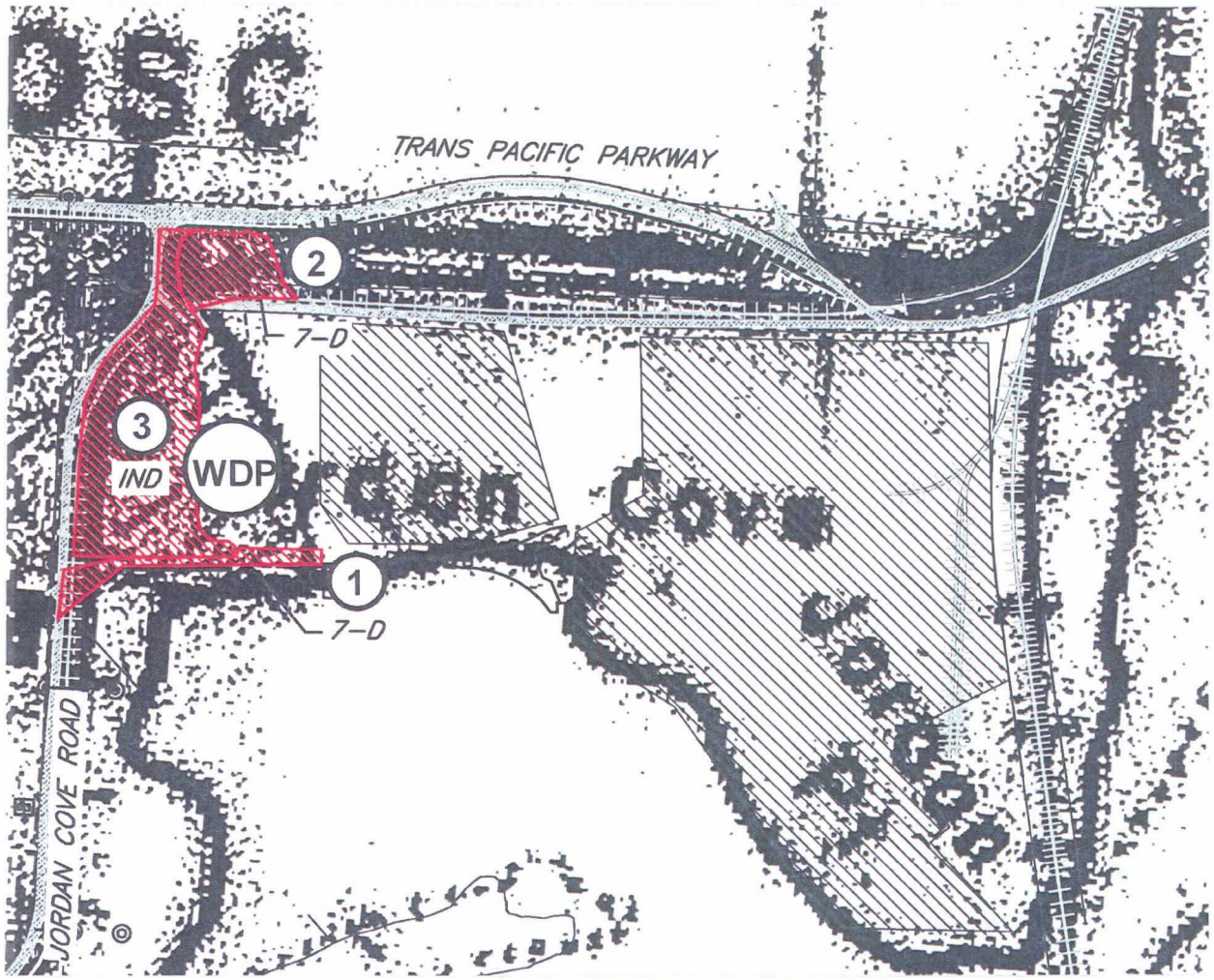
- APPROVED FILL AREA
- PROPOSED FILL AREA
- (1) SOUTHWEST 7D AREA
- (2) NORTHWEST 7D AREA
- (3) WEST IND AREA
- (4) OTHER IND FILL AREAS
- (5) OTHER 7D FILL AREAS
- PROJECT AREA
- 7-D BOUNDARY
- AREAS OF VEGETATIVE SHORELINE STABILIZATION

SITE PLAN

1"=600'

SHN Consulting Engineers & Geologists, Inc.

Jordan Cove Energy Weyerhaueser Mill Site Coos County, Oregon		Vegetative Shoreline Stabilization SHN 611048.122
October 2012	611048-FIG1-4	Figure 1



LEGEND

- PROPOSED FILL AREA
- (1) SOUTHWEST 7D AREA
- (2) NORTHWEST 7D AREA
- (3) WEST IND AREA
- PROJECT AREA
- WDP= WET DEFLATION PLAIN

NOTE: FILL AREAS (4) AND (5) OUTSIDE THE BEACHES AND DUNES SPECIAL CONSIDERATION AREA

BEACH AND DUNE IMAGE FROM COOS COUNTY PLAN MAP – BEACHES AND DUNES DEVELOPMENT POTENTIAL AND BALANCE OF COUNTY – DEVELOPMENT POTENTIAL WITHIN COASTAL SHORELANDS AND DUNES.
USDA SOIL CONSERVATION SERVICE MARCH 1975: REV 1986

SITE PLAN

1"=600'

N

SHN Consulting Engineers & Geologists, Inc.

Jordan Cove Energy Weyehaueser Mill Site Coos County, Oregon		Dune Identification Map SHN 611048.122
September 2012	611048-FIG1-4	Figure 2

APPENDIX K-2

SHN Letter - Floodplain dated November 21, 2013

EXHIBIT K-2

CONSULTING ENGINEERS & GEOLOGISTS, INC.
275 Market Avenue• Coos Bay, Oregon 97420-2228 • Phone: 541/266-9890 • FAX: 541/266-9496•shninfo@shn-engr.com

Reference: 611048.143

November 21, 2013

Mr. Mark Whitlow
Perkins Coie, LLP
1120 N.W. Couch Street, Tenth Floor
Portland, OR 97209-4128

Subject: South Dunes Power Plant Site Development: Analysis and Certification of Impacts of Fill on the Flood Hazard of Coos Bay at River Mile 8.5 to River Mile 9.2

Mr. Whitlow:

This letter report presents SHN's analysis and certification of the impacts of fill on lands identified in Coos County's floodplain overlay zone (FP). The SDPP project proposes fill within a Special Flood Hazard Area of Coos Bay at River Mile (RM) 8.5 to RM 9.2 (Firm Panel 41011C0186D). As shown in the attached Figure, portions of the fill associated with the South Dunes Power Plant will be placed within the FP zone, an area designated by Coos County Code Section 4.6.205 as a Special Flood Hazard Area (SFHA). According to Coos County floodplain regulations in LDO Section 4.6.230(4), development within the SFHA cannot increase the base flood elevation by more than 1-foot (or create an increase in the flood hazard). The Base Flood Elevation (BFE) for the SFHA for this portion of Coos Bay has been established by the Federal Emergency Management Agency (FEMA) at elevation 12.0 (NAVD 88).

Coos County's Floodplain zoning purposes to balance the benefits from floodplain development against the resulting increase in flood hazards and/or flood damage. A designated regulatory floodway is often prescribed by local agencies to assist in managing development within areas subject to flooding. Under this concept, the area of the established flood elevation is divided into a floodway and a fringe. The floodway defines the portion of the stream or river channel plus adjacent floodplain areas that are reserved to provide sufficient hydraulic capacity to convey a flood at a known elevation. Generally, the floodway must be managed to be free of restrictions so that the 1-percent-annual-chance flood (100 year flood) can be conveyed without substantial and damaging increases in flood heights or an increase in water velocity. Minimum Federal standards and Coos County FP policy limit the increase in the flood elevation to 1.0 foot, provided that hazardous velocities are not produced.

FEMA has established the BFE for the Coos Bay Estuary; however, no floodway has been designated for the portion of estuary adjacent to the project area. The September 25, 2009, FEMA Flood Insurance Study for Coos County Oregon and Incorporated Areas states: "...the floodway concept is not applicable in areas where flooding is controlled by tidal influences." The proposed fill areas are located in the lower bay where the BFE is controlled by tidal influence. Provided the fill does not reduce the hydraulic capacity of the estuary (i.e. restrict the ebb and flow of bay water), the fill should have no affect on the base flood elevation.

In order to determine the possible impacts of the project on the flood level, cross sectional areas of the estuary within the vicinity of the project and immediately upstream and downstream were evaluated. Approximately 1,800 feet downstream of the project area, the river channel narrows to form a limiting cross section where the ebb and flow of the bay is constricted by the natural confines of the estuary channel and narrow tide lands. The total width of the channel associated with the BFE in this area is approximately 2,400 feet. Another river channel constriction is located immediately upstream of the project area at Jordan point. The BFE channel width at this point is approximately 2,600 ft. The proposed fill areas occur between these two points of flow constriction in a wider cross sectional portion of the estuary. Because the proposed fill does not reduce the controlling cross sectional areas of the channel, the velocity during the ebb and flow of bay waters will remain unchanged and the fill will have no affect on the base flood elevation or the flood hazard.

Considering the expansive volume of intertidal and runoff storage existing in the Coos Bay Estuary, the overall impacts associated with the small amounts of proposed fill in the existing fringe areas are insignificant and will have no affect on the BFE nor result in an increase in flood hazards. The area of the bay between the two channel constrictions is approximately 674 acres (area between RM 8.5 and RM 9.2 including Pony Slough). The total amount of fill placed within this portion of the bay is estimated at 5,200 cubic yards (3.2 acre-feet). Ignoring tidal influences and the flow through the upper and lower controlling cross sectional areas of the bay; the fill will displace a volume of water equivalent to an increase in the height of water above the BFE of 0.005 feet (less than 1/16th of an inch). The impact of the proposed fill on the storage volume for this portion of the bay is therefore inconsequential.

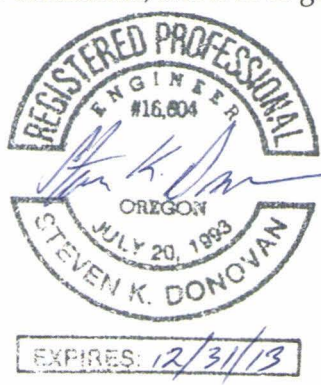
The base flood elevation between Coos Bay RM 8.5 and RM 9.2 is controlled by tidal influence; consequently, a floodway has not been designated. The placement of fill along the fringe of Coos Bay will have no affect on the BFE nor will the fill cause an increase in the velocity of water or increase flood hazards. We conclude that the proposed fill for the SDPP will have no affect on the special flood hazard area for this portion of Coos Bay, result in any increase in flood levels during the occurrence of the base flood discharge; or, result in a cumulative increase of more than one foot during the occurrence of the base flood discharge

We trust this report assists you in addressing the SDPP impacts of fill on the base flood elevation and special flood hazard area. Should you have any questions or comments, feel free to give me a call at 541-266-9890.

Regards,
SHN Consulting Engineers & Geologists, Inc.

Steven K. Donovan, P.E.
Regional Manager

SKD:dkl



Attachment A

Figures

N

0 150 300 feet

1 in = 300 feet

EFSC Site Boundary

Base Flood Elevation (BFE,12')

Project area encroaching on Base Flood Elevation

South Dunes Power Plant Project

EFSC Application

EXHIBIT K
Figure 1
Base Flood Elevation

Date: 11/15/2013
Reviewed By SD
Designed By MW

APPENDIX K-3

SHN Letter - Beaches & Dunes dated December 19, 2013

EXHIBIT K-3

CONSULTING ENGINEERS & GEOLOGISTS, INC.
275 Market Avenue• Coos Bay, Oregon 97420-2228 • Phone: 541/266-9890 • FAX: 541/266-9496•shninfo@shn-engr.com

Reference: 611048.143

December 19, 2013

Mr. Mark Whitlow
Perkins Coie, LLP
1120 N.W. Couch Street, Tenth Floor
Portland, OR 97209-4128

Subject: South Dunes Power Plant Site Development Policy #30 Analysis: Suitability of Area 1, Area 1-A, and Area 1-B Relative to Beach and Dune Provisions of the Coos County Comprehensive Plan

Dear Mr. Whitlow:

This letter report presents a supplement to SHN's prior August 7, 2012 assessment of development suitability of land identified by Coos County as "Beaches & Dunes with a Limited Suitability for Development" for certain areas of land formerly known as the Weyerhaeuser Mill Site. That land is now proposed for development by the Jordan Cove Energy Project, L.P. (JCEP) as the South Dunes Power Plant (SDPP), with accessory transmission line corridor and accessory road and utility corridor. This letter will reference SHN's prior August 7, 2012 assessment letter and its related exhibits, copies of which are attached.

The prior letter assessed areas of land for suitability to place fill to make those areas ready for development. The purpose of this letter is twofold: (1) assess those same areas for suitability to develop them for a power plant/port facility industrial and related use; and (2) assess a small, new area not covered by the prior letter for suitability for *both* the placement of fill and the proposed power plant use. Please note that there is no appreciable difference in the reviews needed under the County's rules for development of beaches and dunes to authorize the placement of fill, as opposed to the reviews needed to use those same areas for an allowed use in the same zone.

As in the prior letter, this letter will address land in the Coos Bay Estuary Management Plan (CBEMP) Zoning District 7-D but, to a lesser extent, land in the adjacent IND zone. As indicated in the prior letter, the IND land is considered "Balance of County" in the Coos County Comprehensive Plan (CCCP), and is subject to the requirements outlined in Section 5.10 (Strategy 2) of Appendix 1, Volume I of the CCCP. Areas within district 7-D are covered within the CBEMP, and are subject to Policy #30 within Appendix 3, Volume II.

This letter report presents SHN's site investigation report for the suitability of development for three areas of the proposed SDPP. The three areas shown in the attached Figure are the SDPP site (Area 1) and accessory corridors to the SDPP which include a transmission corridor (Area 1-A) and a roadway and utility corridor east of Jordan Cove Road (Area 1-B). These corridors include lands located in Zoning District 7-D with dune forms identified in Coos County's Special Considerations Map as "Beaches and Dunes with a Limited Suitability for Development". Industrial and Port Facility use is permitted within the 7-D zone subject to General Conditions that include consistency with CBEMP Policy #30 requirements for special dune areas. The intent of this letter is to prepare a

site investigation report that documents the absence of potential impacts to Beaches and Dunes from the proposed industrial and port facility activities at the following locations:

Area -1 The area of the former Weyerhaeuser Mill Site in the IND zone. There are no dune formations in this area. The remainder of the report will only address the other two areas discussed below.

Area -1-A An east-southwest transmission corridor west of the SDPP site that is zoned IND except for the portion of the corridor that crosses a wetland located in Zoning District 7-D. The western end of the corridor in IND zoning is included in the Coos County detailed inventory map as an area of Beach and Dune Special Consideration Areas while the eastern end is not. As indicated on the CBEMP Special Considerations Map, the portion that crosses the 7-D zoning also extends across a Wet Deflation Plain (WDP) on land identified as a Beach and Dune Special Consideration Area;

Area -1-B An east-west roadway/utility corridor extending eastward from Jordan Cove Road toward Jordan Point. The area affected includes portions of land with IND zoning and 7-D zoning that extends across a Wet Deflation Plain (WDP) on land identified as a Beach and Dune Special Consideration Area. The eastern side of the utility corridor in IND zoning is not located in an area of Special Consideration for Beaches and Dunes with limited development suitability.

The analysis described herein is required under the regulatory guidelines presented in CBEMP Policy #30 of Appendix 3, Volume II and CCCP Section 5.10 (Strategy 2). Both Policies are essentially identical except where the Polcy # 30 addresses land in the CBEMP and Section 5.10 addresses land in the balance of county. Specifically, the subject areas are shown as "Beach and Dune Areas with Limited Development Suitability" on the Coos Bay Estuary Management Plan Special Considerations Map. As stated in Policy #30 and Section 5.10, all dune forms except older stabilized dunes, active foredunes, conditionally stabilized foredunes that are subject to ocean undercutting or wave overtopping, and interdune areas (deflation plains) subject to ocean flooding, are considered "Beach and Dune areas with Limited Development Suitability." For the reasons discussed below, the dune forms in Area 1-A and Area 1-B are included in the category of Beach and Dune Areas with Limited Development Suitability, and are subject to the requirements of Policy #30 and Section 5.10 which dictate the establishment of findings relative to a list of minimum requirements. Policy # 30 has five requirements while Section 5.10 has four, all of which are included in Policy # 30. This report is not intended to address whether a use is appropriate with regard to any adverse effects associated with the development, public health and safety, or hazards to the natural environment to the extent that it does not relate to the geotechnical issues considered by Policy 30.

CBEMP Policy #30/CCCP Section 5.10 (Strategy 2)

As shown in the attached Figure, Area 1-A and Area 1-B include portions of land identified in the Coos County Beaches and Dunes Special Considerations Area. Based on historical photos of the

area, an interdune feature existed along this portion of the old "Weyerhaeuser" property. During the past half century the area has been modified by development of roadways and industrial activity. Only remnant features of the historic interdune complex remain. These remnants include a wet deflation plain now divided by the Jordan Cove Road, Trans Pacific Highway, and two existing Mill Site utility corridors.

Based on topographical data (LiDAR and GPS survey) Area 1-A and Area 1-B are outside the limits of ocean flooding as indicated by the Federal Emergency Management Agency (FEMA) flood maps. Areas subject to ocean flooding are mapped using the base flood elevation established by FEMA for the Jordan Cove area of Coos Bay. The land form mapped as a Beaches and Dune Special Consideration Area, including the interdune areas ("Wet Deflation Plains") identified within the project boundary, are located above the base flood elevation and not subject to ocean flooding. The area is therefore, subject to CBEMP Policy #30 (and CCP Section 5.10) as an area with "Limited Development Suitability". This area includes dune forms that are not older stabilized dunes, active foredunes, or Wet Deflation Plain dune forms subject to ocean flooding. Each policy provides criteria for development in such interdune areas by "recognizing that development in sensitive beach and dune areas is compatible with or can be made compatible with the fragile and hazardous conditions common to beach and dune areas". Although there are minor differences in specific wording, the two policies are generally the same. Of the five criteria outlined below, which all appear in Policy #30, only criteria "e" is not included in Section 5.10 (Strategy 2). The five criteria are outlined below.

- ***Restricting Actions in Beach and Dune Areas with "Limited Development Suitability" and Special Consideration for Sensitive Beach and Dune Resources***

  1. *Coos County shall permit development within areas designated as "Beach and Dune Areas with Limited Development Suitability" on the Coos Bay Estuary Special Considerations Map only upon the establishment of findings that shall include at least:*
     a. *The type of use proposed and the adverse effects it might have on the site and adjacent areas;*
     b. *Temporary and permanent stabilization programs and the planned maintenance of new and existing vegetation;*
     c. *Methods for protecting the surrounding area from any adverse effects of the development;*
     d. *Hazards to life, public and private property, and the natural environment which may be caused by the proposed use; and*
     e. *Whether drawdown of groundwater would lead to loss of stabilizing vegetation, loss of water quality, or intrusion of saltwater into water supplies.*

The discussion that follows provides assessment of the five criteria within Policy #30.

1. Proposed use and potential adverse effects on the site and adjacent areas:

The proposed areas for industrial and port facility uses include:

Area 1-A - A transmission corridor west of the SDPP that extends from the IND zone across the 7-D zone where the corridor crosses a freshwater wetland (Wetland E) before merging with the roadway and utility corridor (Area 1-B). The affected area extends westward from the edge of a WDP ("interdune form") identified as the boundary of the Beach and Dune Special Consideration Area. The proposed transmission corridor spans the existing wetland with necessary support structures (poles) located in adjacent areas including neighboring IND land and the roadway and utility corridor.

Area 1-B - A roadway and utility corridor west of the SDPP that crosses 7-D zoning from an overpass of Jordan Cove Road east, toward Jordan Point. The proposed roadway and utility corridor replaces the existing Weyerhaeuser utility corridor which runs along a narrow strip of land between Wetland E (to be temporarily impacted) and the shore of Jordan Cove (to be avoided). As such, the roadway and utility corridor is spatially confined requiring fill in Wetland E for a temporary road for haul vehicles and construction of a permanent bridge to span the existing narrow corridor and avoid impacts to the shore of Jordan Cove. Industrial and Port Facility activities in Area 1-B include fill, embankment stabilization, abutments (for bridge support), power poles, transmission lines, utilities, road fill, road surfacing, wetland restoration, and a utility bridge. The western end of the proposed alignment is within a Wet Deflation Plain (not subject to ocean flooding); the eastern end extends beyond the area of special dune consideration (Figure 1) into IND zone.

Discussion. Industrial and Port Facility activities in Area 1-A will include installation and maintenance of overhead transmission lines. Power poles will be located in adjacent IND areas and in the roadway and utility corridor. All work, including placement of the power lines will occur outside or above Wetland E. Impacts to vegetation, wetlands, or surrounding natural areas are not anticipated along the location of the transmission corridor within or adjacent to the Area of Special Consideration.

Industrial and Port Facility activities in Area 1-B will have short-term impacts to natural vegetation and wetlands; however, impacts will be temporary and have no long-term effects on Beaches and Dune Areas with Limited Development Suitability. The roadway and utility corridor will require clearing and grubbing of existing vegetation (not previously removed by fill). Fill will be placed in Wetland E for construction of a temporary roadway for haul vehicles and to provide a work area for construction of a permanent bridge crossing of Wetland E. Upon completion of the haul road and permanent bridge crossing, fill soils will be removed and Wetland E restored. Use of a permanent bridge in Area 1-B avoids impacts to adjacent beach and dune areas and the bridge allows restoration of Wetland E. Fill placed in Wetland E,

mitigation of the wetland impacts, and restoration of the wetland will be performed in accordance with state and federal requirements.

Project areas will be staked, lined with silt fencing, and sensitive areas flagged to minimize encroachment outside the project area. Finished slopes on any disturbed vegetated areas will be graded to match surrounding dune forms and planted with native dune species. Impacts within the special consideration area will be temporary and restoration activities will provide a stable landform for the roadway and utility corridor with no lasting effects to adjacent beach and dune areas.

Construction activities, roadway, and bridge facilities will incorporate collection, treatment, and disposal of stormwater in accordance with the Project's Storm Water Management Plan. Drainage systems will be designed and operated to avoid concentrating runoff and creating erosive conditions. Best management practices will be employed during and after construction to prevent pollution and control erosion. Drainage systems within the roadway and utility corridor will utilize subsurface disposal through the sand fill where practical. Natural vegetation will be retained surrounding the modification areas and new slopes will be vegetated with native plants to enhance filtration of stormwater before runoff enters the receiving waters.

Finding. The proposed Industrial and Port Facility use for the transmission and roadway and utility corridor are consistent with past practices on the old Mill Site where the area was previously used as a utility corridor. The proposed transmission corridor is a benign feature that will have no lasting impacts beyond the spatial impact of reserving a corridor for overhead power transmission lines. The roadway and utility corridor will have temporary but no long-term impacts to the Special Consideration Beach and Dune Areas. Short term impacts are associated with fill in Wetland E for the construction of the roadway and utility corridor. These impacts will be mitigated according to state and federal requirements. Once the bridge is complete, the fill within Wetland E will be removed and the wetland restored also pursuant to state and federal guidelines. The bridge will be constructed to avoid impacts to adjacent Special Consideration Areas Unsuitable for Development. Fill slopes will be graded to match surrounding dune topography and vegetation reestablished with native dune species.

With the incorporation of a bridge to avoid impacts to sensitive areas of Jordan Cove and federal and state requirements for erosion control, wetland mitigation, and restoration of the wetland area, it is concluded that the proposed use is consistent with the general conditions as outlined in the CBEMP and are not associated with adverse impacts to Special Consideration Beach and Dune Areas or adjacent areas.

2. Temporary and Permanent Stabilization and Maintenance of Vegetation

Discussion. Native sandy soils excavated from other areas of the project will be used as fill for the roadway and utility corridor. Native or reworked dune sand is a loose, cohesionless granular material that is highly susceptible to erosion by both wind and water. Short-term

impacts related to migration of soil from the site during construction will be mitigated through the development and implementation of comprehensive erosion control plan and NPDES 1200 C permit issued by the Department of Environmental Quality (DEQ). As such, the project will be subject to both State and Federal requirements relative to the short - and long-term stabilization of erosion-susceptible soils and maintenance of vegetation. Permit requirements should include monitoring and performance criteria should remain in effect until permanent stabilization has been achieved.

Design-level configuration of embankment side slopes for the bridge abutments and the temporary road crossing for Wetland E will be dictated by the recommendations of the project Engineer (Black & Veatch); however, fill slopes are anticipated to be a maximum of 2H:1V (horizontal:vertical), incorporate appropriate slope stabilization, and be revegetated prior to project completion. Bridge abutments will be armored with rip rap in areas where vegetation cannot be established. Fill within Wetland E will be removed upon completion of the utility bridge.

Stabilization of soils in the area is feasible, and has been achieved by a variety of means at numerous sites in the vicinity. Proposed stabilization methods for this project include: development of structures and hardscape (paving, for example), rock or other structural armoring methods (where subject to erosion by water), fabrics, geotextile grids and cells, and vegetative stabilization. Vegetative stabilization has been the most common method of dune stabilization in the past, and is likely to be the primary method associated with the proposed improvements. It is anticipated that vegetative stabilization will be achieved utilizing native species suited for the unique site conditions (drought and salt tolerant). A revegetation plan will be prepared for the project and include short and long term maintenance programs.

Finding. The proposed Industrial and Port Facility transmission and roadway and utility corridors are subject to State guidelines that require development and implementation of erosion control plans and long-term monitoring of stabilization methods. The lead agency that will issue permits related to erosion control is the Oregon DEQ. Stabilization will be a critical element of the project, but can be achieved through a variety of proven methods. Geotechnical parameters that will define stabilization methods will be defined by the project engineer.

3. Methods for Protecting the Surrounding Areas from Adverse Effects

Discussion. Once the proposed corridors have been completed, the activity will have minimal potential to generate adverse effects on surrounding areas. Potential erosion of cohesionless soils will be mitigated through stabilization and erosion control, as described above, which will minimize potential for off-site sedimentation. Where the proposed fill borders sensitive wetland habitat or aquatic shorelines, the corridor footprint will be minimized to avoid permanent encroachment. Fill for construction of the haul road in Wetland E (Area 1-B) will be vegetated and subject to storm water pollution control prevention as outlined in the site 1200C permit. Haul road fill will be removed and the wetland restored after the bridge has been constructed. The bridge has been incorporated into the roadway and utility corridor to avoid

impacts to surrounding areas. Geotechnical methods will be used to stabilize the abutments, and install the bridge across the restored fresh water wetlands. Impacts to native vegetation on surrounding areas will be minimized during construction, and will be avoided in all cases. Vegetation introduced for stabilization of soil embankments will be native, to reduce the potential impacts to existing plant populations.

Finding. The proposed Industrial and Port Facility corridors have only minimal potential to generate adverse effects to surrounding areas. Construction of a bridge is the primary means to eliminate potential impacts to nearby sensitive Beach and Dune Areas. Careful construction methods that minimize impacts to adjacent vegetated areas and use of native species compatible with local plant populations will largely eliminate potential off-site impacts. Stormwater collected from hardened surfaces will be treated and disposed of using oil water separators, infiltration through the sandy fill soils, and/or biofiltration through vegetated swales. Impacts to Wetland E will be mitigated in accordance with state and federal requirements. The fill placed in Wetland E will be removed and the wetland restored after the bridge is constructed and the haul road is removed from service.

4. Hazards to Life, Public and Private Property, and the Natural Environment

Discussion. The proposed corridors will involve routine earthwork and construction using typical equipment and standard work methods, which will not cause hazards to life, property, or the natural environment.

Finding. The proposed Industrial and Port Facility corridors will be constructed in a manner that will be stable and that will not pose hazards to life, public and private property, or the natural environment. The proposed improvements can be protected from natural hazards with standard engineering practices and implementation of protective measures (armoring, paving, vegetation for example).

5. Whether Drawdown of Groundwater Would Lead to Loss of Stabilizing Vegetation, Loss of Water Quality, or Intrusion of Saltwater into Water Supplies

Discussion. As with most above-ground civil works projects, the proposed corridors will not have impacts to the groundwater table, and therefore will not result in the loss of vegetation or the degradation of regional water quality. The project will not increase the potential for saltwater intrusion that may affect domestic water supplies.

Finding. The proposed Industrial and Port Facility use will not draw the groundwater table down and will not increase the potential for saltwater intrusion.

Based on the assessment described herein, we conclude that the proposed transmission and roadway and utility corridors are suitable activities for the Limited Development Suitability dune areas, consistent with the guidelines in the CBEMP and CCCP.

We trust this report assists you in addressing the Coos County Policy #30 and Section 5.10 requirements for the aforementioned areas. Should you have any questions or comments, feel free to give me a call at 541-266-9890.

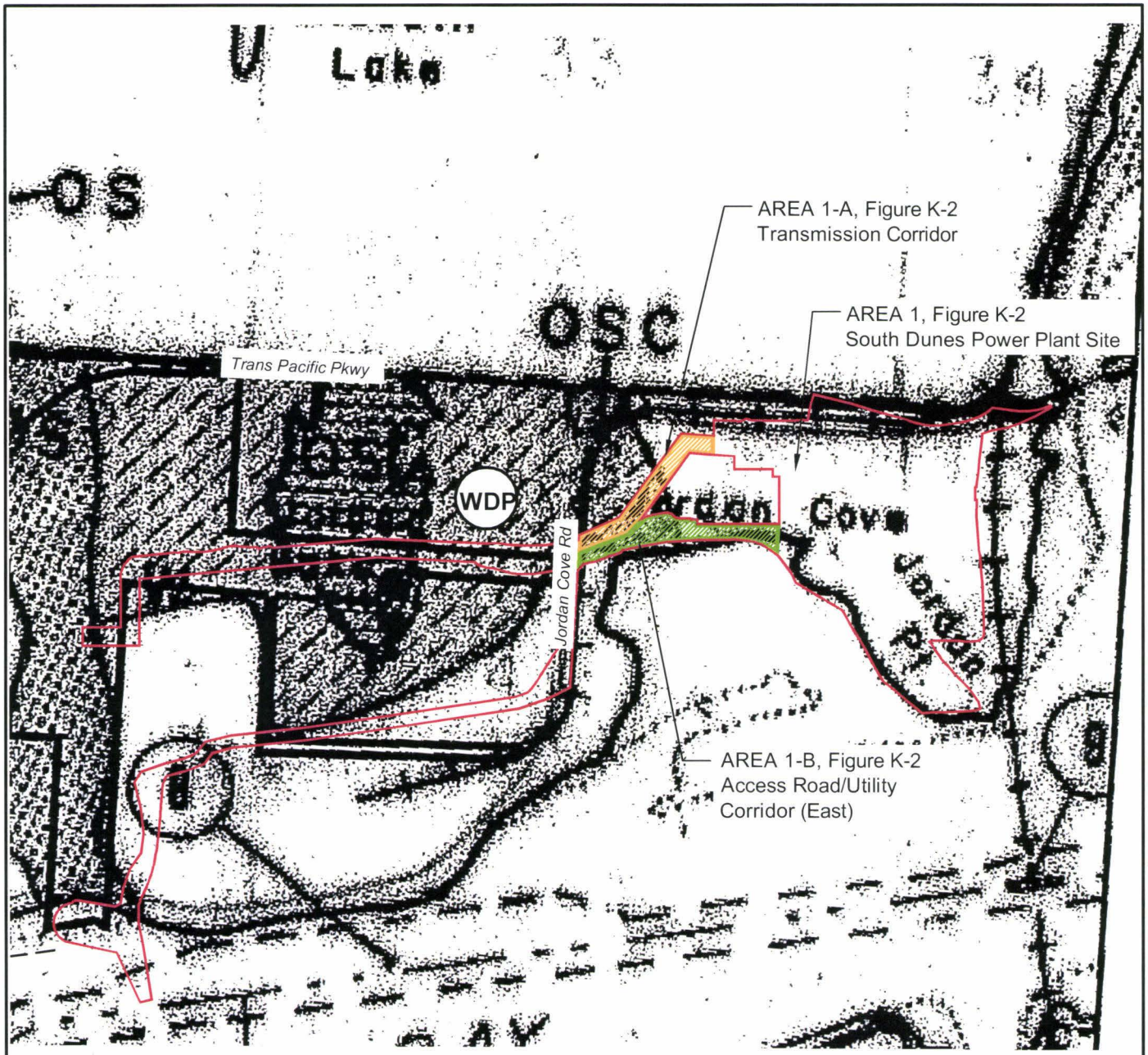
Regards,
SHN Consulting Engineers & Geologists, Inc.

Steven K. Donovan, P.E.
Regional Manager

SKD:dkl

Attachment A

Figures



ACTIVE DUNES

OS - OPEN DUNE SAND

RECENTLY STABILIZED DUNES

DS - YOUNGER STABILIZED DUNES
FD - RECENTLY STABILIZED FOREDUNES
OSC - OPEN DUNE SAND CONDITIONALLY STABLE

OOS - OLDER STABILIZED DUNES

INTERDUNE FORMS

W - WET INTERDUNE
WDP - WET DEFLATION PLAIN

BEACH

..... DUNE MOVEMENT THREATENING OR STABLE DUNE BEING ERODED

Beaches and Dune image from Coos County Plan Map - Beaches and Dunes Development Potential and Balance of County - Development Potential within Coastal Shorelands and Dunes.
USDA Soil Conservation Service March 1975: rev 1986

0 1,200 Feet
1 inch = 1,200 feet

Project Area
Area 1-A: Transmission Corridor
Area 1-B: Access Road/Utility Corrdior (east)

WDP= Wet Deflation Plain

South Dunes Power Plant Project

EFSC Application

EXHIBIT K
Figure 1
Beaches and Dunes

Date: 11/25/2013
Reviewed By SD
Designed By MW

APPENDIX K-4

Coos County Compliance Determination Request Form

EXHIBIT K-4

Request for Compliance Determination

Official Use Only
FEE: _____
Receipt No. _____
Check No. /Cash _____
Date _____
Received By _____

Contact Information

Name	
Street Address	
City ST ZIP Code	
Home Phone	
Work Phone	
E-Mail Address	

Requesting Party

☐ Property Owner ☐ Agent for property owner ☐ Possible purchase

☐ Realtor ☐ Builder or contractor ☐ Property Dispute

☐ Complainant ☐ Personal Inquiry

Purpose of Request

☐ General Information ☐ Possible Complaint ☐ Request for Zoning Compliance Letter

☐ Proposed development ☐ Other: _____

Property Information: identification portion must be filled out or your request will not be processed

Township _____ Range _____ Section _____Tax Lot _____
Township _____ Range _____ Section _____Tax Lot _____
Tax Account _____ Lot Size _____ Zoning District _____
Property Address: _____
Property Owner (if known):_____

Type Existing Development

___ Single Family Residential
___ Manufactured Home or ___Stick Built
___ Multi-Family Residential
___ Accessory Structure
___ Commercial
___ Industrial
___ AG Building
___ None
___ Other _____
___ Unknown

☐ Proposed Development

___ New Construction or Development. Mark type of New Construction or Development below:

___ Dwelling
___ Septic
___ Industrial
___ Other
___ Mobile/Manufactured Home
___ Accessory Structure
___ Commercial
___ Ag Building

___ Alteration or modification to existing structure or use

___ Other
___ Addition
___ Remodel/alteration to structure
___ Change of Use and type: _____

Detailed Request Information

Access: For proposed development

Describe how access is provided to the subject property. Is it directly off of a public road or street or is there a private access easement?

Plot Plan: For proposed development

Please attach a plot plan identifying all existing and proposed development with setbacks to property lines. Staff has example plot plans to help guide you with this request.

Agreement and Signature

I hereby certify that to the best of my knowledge, the foregoing statements and information on the plot plan is true and accurate. I understand that any zoning compliance letter issued based on this information does not relieve me of my obligation to obtain all other necessary permits. I further understand there is a fee associated with this review and I am responsible for this fee.

Name (printed)

Signature

Date

Official Use Only ☐ Response is attached

STAFF RESPONSE DATE: STAFF NAME:

☐ Zoning Compliance Required ☐ Additional Information Needed to complete request

☐ Application Required ☐ Alleged Violation

☐ Other Agency review may be required ☐ Your request is beyond the scope of land use review

☐ Pursuant to information available the property appears to comply with all County land use laws as of this date this inquiry was made.

Staff Signature and Title:

APPENDIX K-5

DEA Letter - Dredge and Fill for Barge Berth and Access Triangle dated May 8, 2014

DAVID EVANS
AND ASSOCIATES INC.

September 18, 2014

Energy Facility Siting Council Staff
Oregon Department of Energy
625 Marion Street N.E.
Salem, OR 97301

Re: South Dunes Power Plant Application
Conditional Use Request to Dredge the Access Triangle and Fill the Barge Berth

Dear Department of Energy Staff:

I am a biologist and environmental specialist currently employed in that capacity at David Evans and Associates, Inc. (DEA). I have a Bachelor of Science degree in biology and have worked as a biologist in the State of Oregon for the past 13 years. For more than 35 years, DEA has provided multi-discipline consulting services. Our firm of over 700 employees has experience in regulatory permitting and alternatives analysis for a wide range of projects. Our experience in Oregon provides expertise with respect to the requirements of the Oregon Department of State Lands (DSL) and the United States Army Corps of Engineers (USACE) Portland District regulatory programs, including analysis of minimization, impacts and mitigation of dredging in estuarine areas. I have worked on the DSL and USACE permitting requirements with other technical experts at DEA including wetland scientists, registered bridge and roadway engineers, and professionals in drafting and geographic information systems (GIS).

This letter is written in support of the South Dunes Power Plant application filed by Jordan Cove Energy Project, L.P. (Applicant), for an administrative conditional use to dredge and fill the areas known as the Access Triangle and Barge Berth. Specifically, this letter will provide evidence regarding the Applicant's ability to satisfy the land use compatibility requirements of the Coos County Code Policies 5, 8, and 9 which include compliance with DSL and USACE regulatory programs. For example, the County's administrative conditional use criteria for estuarine cut and fill (Policy #5) and mitigation (Policy #8) are essentially the same as the state and federal permitting criteria for the DSL and USACE permits that the Applicant will obtain for the project.

The primary environmental criteria used by the DSL and USACE in evaluating impact alternatives to resources include: avoidance, minimization, and mitigation for unavoidable impacts to aquatic resources.

The large equipment components initially delivered either by barge or HandiMax vessel to the South Dunes Power Plant (SDPP) will need to be maintained and possibly replaced over the useful life of the SDPP. Access by water remains the only feasible delivery method to move the damaged or irreparable components off of the site and to deliver new or refurbished large

components to the site because rail and highway transportation limits the size of cargo that can be transported. A barge berth provides the only location for these components to be delivered once the SDPP is constructed and placed in operation since equipment congestion on the site precludes the use of other marine landing areas either within the slip or at other marine facilities located on the North Spit. In order to obtain full access to the eastern most portion of the barge berth, additional dredging of the access waterway is required that extends beyond the area previously approved by Coos County.

The additional area to be approved for dredge includes a portion of the access waterway east of the area already approved, this portion of the access waterway is identified as the Access Triangle. The additional area below Highest Measured Tide (HMT) to be dredged for the Access Triangle is 1.36 acres.

Permanent fill will be placed below HMT for the Barge Berth and that area will be 1.69 acres. Temporary fill will be placed beyond the permanent fill and that area will be 1.00 acre. Mitigation is not planned for the temporary fill because neither the DSL nor USACE require mitigation for temporary impacts.

The impacts of the access waterway, including the Access Triangle, have been minimized and avoided by using the smallest area possible to accommodate cargo vessels. See the DSL SDPP Permit Application Section 2.2.2.1.1.

Unavoidable impacts to the aquatic resources include the following:

1. Access Triangle impacts (1.36 acres) due to dredging:
    a. Intertidal – 0.08 acres
    b. Algae/mudflats/sand – 0.22 acres
    c. Shallow Subtidal – 0.24 acres
    d. Deep Subtidal – 0.63 acres
    e. Developed below HMT (el. 10.26’) – 0.013 acres
    f. Eelgrass – 0.18 acres

2. Barge Berth impacts (1.69 acres) due to fill:
    a. Intertidal – 1.17 acres
    b. Algae/mudflats/sand – 0.36 acres
    c. Shallow Subtidal– 0.074 acres
    d. Developed below HMT (el. 10.26’) – 0.09 acres

Mitigation for the above impacts, with the exception of deep subtidal habitats, will be included as part of a comprehensive mitigation plan covering all wetland and estuarine resource impacts associated with the SDPP, the Jordan Cove Energy Project, and the previously approved (by DSL and the County) Slip and Access Channel. Mitigation for deep subtidal habitat impacts are not proposed since construction of the slip and access channel will result in a net gain of this habitat type. The impacts listed above will be mitigated by providing estuarine wetland mitigation at the Kentuck and Eelgrass mitigation sites, as described below.

Impacts to the above habitat types, excluding eelgrass and deep subtidal, will be mitigated at the Kentuck Mitigation Site at a three to one ratio (2.247 acres of impact = 6.741 acres of mitigation). Mitigation at Kentuck will consist of restoration of salt marsh and mudflat habitats. Impacts to eelgrass habitat will be mitigated at a three to one ratio (0.18 acres of impact = 0.54 acres of mitigation). The total acreage of eelgrass impacts within the slip and access channel plus the Access Triangle and Barge Berth will be 2.56 acres, which will result in 7.68 acres of eelgrass mitigation. The 0.54 acres of eelgrass mitigation associated with the Barge Berth and Access Triangle will more than adequately be compensated for by the overall 7.68 acres of mitigation at the Eelgrass mitigation site. The detailed mitigation plan is included as Appendix B of the DSL Permit Application (54908 and 54909) which is attached as Exhibit J, Appendix J-2 of the Applicant's site certificate application.

Thank you for the opportunity to provide evidence in support of the request for an administrative conditional use to dredge the Access Triangle and fill the Barge Berth. I am available to provide additional information upon request. Please submit this letter into the record in support of Applicant's site certificate application for the South Dunes Power Plant.

Sincerely,

DAVID EVANS AND ASSOCIATES, INC.

Loren P. Stucker
Biologist and Environmental Specialist

APPENDIX K-6

SAG Memorandum dated February 7, 2014

EXHIBIT K-6

MEMORANDUM

TO: Chris Green, Energy Facility Siting Analyst
Oregon Department of Energy

FROM: Coos County Board of Commissioners, Special Advisory Group (SAG)

DATE: February 7, 2014

RE: Special Advisory Group (SAG) Comments on the Preliminary Application for Site Certificate for the South Dunes Power Plant (SDPP)

The SAG has instructed the Coos County Planning Director to review the preliminary application and make comments on the completeness of the application. The SAG has reviewed the comments and concurs. This memorandum is submitted by the SAG.

Additional Special Advisory Group Comments Requested

The following are responses to the additional information asked for by DOJ:

1. The substantive Criteria have been listed out and were based on the preliminary application components. Coos County adopted an amendment to remove the site plan review criteria (Article 5.6); therefore, that no longer applies.
2. There are no administrative rules and/or planning goals that would apply directly as a result of the local government's rules. Coos County does not have a building or on-site septic program. Comments have been made to that effect when reviewing the application.
3. The Coos County Zoning and Land Development Ordinance can be found on-line at http://www.co.coos.or.us/Departments/Planning.aspx. The SAG has provided paper copies for ODE.

The list is based on the applicant's proposal. However, there may be components that are outside of the scope of review. If that is determined then the SAG request is an opportunity to amend the criteria.

Coos County Zoning and Land Development Ordinance (LDO)

LDO – Chapter III – Supplemental Provisions (applies to all zoning)

- § 3.1.300 Accessory Structures
- § 3.1.500 Structure Height
- § 3.2.150 Accessory Uses
- § 3.2.700 Tribe(s) review and response of Proposed Development within Acknowledged Archaeological Sites.
- § 3.3.400 Vision Clearance Triangle
- § 3.3.500 Maintenance of Minimum Requirements (2) Outside of the Urban Growth Boundary.

LDO – Chapter IV – Zoning (Balance of County Zoning Requirements)

- § 4.2.600, Table 4.2e Commercial-Industrial Zoning Districts – Utility Facility Generation of Power is permitted subject to § 4.2.100 Additional Regulation for All Allowed Uses which leads you to the following sections:
    - Article 4.6 Overlay Zones
        - § 4.6.205 – Designation of Flood Areas (This will be updated on March 17, 2014)
        - § 4.6.225 – Flood Elevation Data
        - § 4.6.230 – Procedural Requirements for Development within Special Flood Hazard Areas.
        - § 4.6.235 – Sites within Special Flood Hazard Areas.
    - Article 4.7 Special Considerations

- Table 4.7a
  - Appendix I, Strategy No. 3 (pg 20) – Historical/Archeological Sites & Structures
  - Appendix I, Strategy No. 2 (pg 23) – Beaches & Dunes limited suitability
  - Appendix I, Strategy No. 1, 5 & 6 (pgs 29-30) – Natural Hazards
- Article 4.4 General Development Standards
  - Table 4.4-c Property Development Standards Commercial-Industrial Zones
    - Chapter X Off-street Parking
      - § 10.1.300 Parking Areas Design

LDO – Chapter IV – Zoning (Coos Bay Estuary Management Plan)

- § 4.5. Estuary
  - 6-Water Dependent Shorelands (6-WD)
    - § 4.5.276 Uses, Activities and Special Conditions
      - 4.5.276(A)(6) Industrial & Port Facilities – Requires general conditions and applicable special conditions to be addressed. Policies 14, 16, 17, 18, 23, 27 & 30 (polices 49, 50 & 51 are not applicable) in Appendix 3-CBEMP need to be addressed.
      - 4.5.276(B)(6)(b & c) – Requires general conditions and applicable special conditions to be addressed. Policies 9, 14, 17, 18, 23, 27 & 30 in Appendix 3- CBEMP need to be addressed.
  - 6-Development Aquatic (6-DA)
    - § 4.5.281 Uses, Activities and Special Conditions
      - 4.5.281(A)(4) Industrial Port Facilities Requires general conditions and applicable special conditions to be addressed. Policies 17 & 18 in Appendix 3- CBEMP need to be addressed.
      - 4.5.281(B)(7)(b & c) Policies 5, 8, 9, 17 & 18 in Appendix 3- CBEMP need to be addressed.
  - 7-Development Shorelands (7-DA)
    - § 4.5.286 Uses, Activities and Special Conditions
      - 4.5.286(A)(6) Industrial & Port Facilities - Permitted subject to Conditions which require policies 14, 17, 18, 23, 27 and 30 (polices 49, 50 & 51 are not applicable) located in Appendix 3-CBEMP to be addressed.

4. There have been no interpretations that would apply to the substantive criteria made.

This memorandum is being submitted by the Coos County Board of Commissioners as the SAG. If you have any questions please contact Jill Rolfe, Planning Director at 541-396-7770.

John Sweet	Melissa Cribbins	Robert "Bob" Main
Commissioner	Chair	Vice Chair

Attachments: Comments on the Preliminary Application
Copy of the substantive criteria identified

APPENDIX K-7

SAG Memorandum dated July 17, 2014

MEMORANDUM

TO: Andrea Goodwin, Energy Facility Siting Analyst
Oregon Department of Energy

FROM: Coos County Board of Commissioners, Special Advisory Group (SAG)

DATE: July 17, 2014

RE: Special Advisory Group (SAG) Comments on the Revised Application for Site Certificate for the South Dunes Power Plant (SDPP)

The SAG has instructed the Coos County Planning Director to review the revised preliminary application and make comments on the completeness of Exhibit K. The SAG has reviewed the comments and concurs. This memorandum is submitted by the SAG.

After extensive review of the revised document the SAG has determined that the applicant's revised narrative has addressed all of the applicable criteria, as identified in this memo. The applicant has examined all of the criteria and explained why portions of the criteria are inapplicable to this request. The SAG has only identified the applicable criteria but acknowledges that the applicant's approach is appropriate to explain why certain criteria do not apply. Exhibit K seems to be complete and ready for review by the Council.

Additional Special Advisory Group Comments Requested

The following are responses to the additional information asked for by DOJ:

1. The substantive Criteria have been listed out are based on the revised application components.
2. There are no administrative rules and/or planning goals that would apply directly as a result of the local government's rules. Coos County does not have a building or on-site septic program and relies on the State Agencies to review building codes and sanitation issues.
3. The Coos County Zoning and Land Development Ordinance can be found on-line at http://www.co.coos.or.us/Departments/Planning.aspx. The SAG has provided paper copies for ODE.

The list is based on the applicant's revised proposal.
Coos County Zoning and Land Development Ordinance (LDO)

LDO – Chapter III – Supplemental Provisions (applies to all zoning). Chapter III are supplemental standards that may apply to all uses. The applicant has addressed each supplemental provision by making findings to the applicability of the criteria and if the criteria were found to be applicable it is addressed in detail.

The supplemental provisions also explain that Coos County does not have a building official and relies on Oregon State Building Codes for all building type permits. The County will issue a Zoning Compliance Letter[1] to inform Building Codes that the County process has been completed and the applicant may move forward to obtain permits. Again, Staff has only listed out the relevant criteria but the applicant has addressed all portions of Chapter III explaining why certain portions that are not listed below do not apply to the South Dunes Power Plant.

- § 3.1.300 Accessory Structures- This applies to all accessory structures associated with the SDPP.
- § 3.1.500 Structure Height – This applies to all structures; however, there is no height limitations set out in any of the development standards for IND or CBEMP.
- § 3.2.150 Accessory Uses – This applies to all of the accessory uses associated with the SDPP.
- § 3.2.700 Tribe(s) review and response of Proposed Development within Acknowledged

[1] Also referred to as a Zoning Clearance Letter or Verification Letter

Archaeological Sites. The site is within an identified acknowledged archaeological area.

- § 3.3.400 Vision Clearance Triangle – The vision triangle applies to the ingress and egress of the facility.
- § 3.3.500 Maintenance of Minimum Requirements (2) Outside of the Urban Growth Boundary. This provision is used to calculate density and is applied when an applicant is proposed a land division. The applicant's are not proposing any type of land division at this time.

LDO – Chapter IV – Section 4.2 Zoning. The applicant has request a Utility Facility in the Industrial Zone.

- Article 4.2 Uses § 4.2.600, Table 4.2e Commercial-Industrial Zoning Districts – Utility Facility Generation of Power is permitted subject to § 4.2.100 subject to additional regulation for all allowed uses which requires the following articles, sections and tables to be addressed as listed in the order listed by § 4.2.100:
  - Article 4.6 Overlay Zones (The proposed development in the IND is not within the floodplain)
    - § 4.6.205 – Designation of Flood Areas (This was updated on March 17, 2014). The IND portion of the project is not within the floodplain. This will only apply to the estuary zoning.
    - § 4.6.225 – Flood Elevation Data the IND portion of the project is not within the floodplain. This will only apply to the estuary zoning.
    - § 4.6.230 – Procedural Requirements for Development within Special Flood Hazard Areas. The IND portion of the project is not within the floodplain. This will only apply to the estuary zoning.
    - § 4.6.235 – Sites within Special Flood Hazard Areas. The IND portion of the project is not within the floodplain. This will only apply to the estuary zoning.
    - § 4.6.300 Purpose [Airport Surface (AS) Floating Zone] the proposal is not within a county inventoried Airport Surface Floating Zone. The applicant goes into detail in this section to explain why the AS overlay does not apply.
    - § 4.6.345 Conformance Requirement. This only applies to Airport Operation Zones and the project site does not contain this type of zoning. The zoning is Industrial and Coos Bay Estuary Management Plan. The applicant has addressed this in detail and the SAG agrees.
  - Article 4.7 Special Considerations – This article only applies to the IND the estuary zoning has incorporated special considerations in the applicable polices.
    - § 4.7.105 Prescribed Regulations
    - § 4.7.115 Relation to Plan Inventory
    - Table 4.7a Special Consideration – only applies to the Balance of County Zoning of Industrial. The Coos Bay Estuary Management Plan zoning incorporates special considerations in polices listed in zoning matrices (SAG has only listed the applicable phenomenon. The application addressed the entire table in detail to explain why certain phenomenon does not apply).
      - Table 4.7a(3) Historical/Archeological Sites & Structures
        - Appendix I, Strategy No. 3 (pg 20) – Historical/Archeological Sites & Structures
      - Table 4.7a(4)(a) Beaches & Dunes
        - Appendix I, Strategy No. 2 (pg 23) – Beaches & Dunes limited suitability
      - Table 4.7a(7) Natural Hazards
        - Appendix I, Strategy No. 1, 5 & 6 (pgs 29-30) – Natural Hazards
  - Chapter V, Administration (Procedural Requirements) - is a county review process for conditional uses, appeals, variances, rezones, and application process but does not contain any substantive criteria that would apply to the EFSC review process.
  - Article 4.4 General Development Standards
    - Table 4.4-c Property Development Standards Commercial-Industrial Zones
      - Chapter X Off-street Parking – The County Roadmaster has determined that this proposal meets the standards of Chapter VII and X.

- § 10.1.300 Parking Areas Design – The Roadmaster found that the project meet the parking areas design.

LDO – Chapter IV – Zoning (Coos Bay Estuary Management Plan)

- § 4.5. Estuary –
  - 6-Water Dependent Shorelands (6-WD) the SAG agrees with the applicant's statements made concerning the haul road, Accessory Road and Utility Corridor.
  - 6-Development Aquatic (6-DA) – In the 6-DA the applicant is requesting to create a barge berth for shipping of large material that cannot be transported by any other means. This activity requires new and maintenance dredging, stabilization and temporary fill.
    - § 4.5.281 Uses, Activities and Special Conditions
      - § 4.5.281(B)(2)(a) New Dredging and (b) Maintenance Dredging of existing facility requires Administrative Condition Use to address General and Special Conditions. The applicable Polices are 17, 18, 5 & 8 in Appendix 3- CBEMP.
      - 4.5.281(B)(4) Fill requires Administrative Condition Use to address General and Special Conditions. The applicable Polices are 17, 18 and 9 in Appendix 3- CBEMP.
      - 4.5.281(B)(7) Shoreline Stabilization (c) Bulkheads must address Policies 5, 8, 9, 17 & 18 in Appendix 3- CBEMP.
  - 7-Development Shorelands (7-D) – The application is requesting to allow for temporary fill to allow construction of a bridge over the wetland.
    - § 4.5.286 Uses, Activities and Special Conditions
      - 4.5.286(B)(5) Fill – Requires an Administrative Conditional Use application addressing policies 14, 17, 18, 23, 27 and 30 (polices 49, 50 & 51 are not applicable). This activity must address number five (5) under Special Conditions Activities which states "the wetland in the southeast portion of this district can be filled for a development project contingent upon satisfaction of the prescribed mitigation described in Shoreland District #5". The applicant is not requesting to fill the wetland; therefore, this special condition does not apply to this request. All identified polices can be found in Appendix 3 – CBEMP.
  - 8-Water Dependent (8-WD) has been included by the applicant because there is an existing un-vacated roadway that they will be utilizing. This does not require any land use permits.

LDO -Chapter VII

- § 7.1.550 Sections 6 and 13 – The Roadmaster has determined compliance with these sections. See attached memo.

4. There have been no interpretations that would apply to the substantive criteria made.

This memorandum is being submitted by the Coos County Board of Commissioners as the SAG. If you have any questions please contact Jill Rolfe, Planning Director at 541-396-7770.

John Sweet Commissioner	Melissa Cribbins Chair	absent Robert "Bob" Main Vice Chair

Attachments: Memo from the Roadmaster
Copy of the substantive criteria identified

APPENDIX K-8

Overland Transportation Study

EQUIPMENT TRANSPORTATION STUDY

Jordan Cove Energy Project

LIQUEFACTION FACILITY

LNG Site – S. Dunes- Power Generation

B&V PROJECT NO. 142488

REVISION 1

January 7, 2014

EQUIPMENT TRANSPORTATION STUDY

Introduction:

As part of the modularization study and subsequent review for the movement of large equipment to the Jordon Cove site, a high level Transportation Review was conducted to evaluate the extent of items that would have to be transported to the site via the Barge Dock (barge deliveries via ship/barge) vs. the ability to bring in large equipment via "overland" on the existing roadways or Rail.

This transportation study is not intended to provide restrictions from a specific fabrication location in the U.S. to the site nor across the US, but to identify the restrictions that are local within the region from the Major Freeway (Highway 5) to the site.

Overview

The Coos Bay Area has the Pacific Ocean to the West, and the Coast Mountain range to the East which makes overland transport to the site challenging.

All highway routes (3 possible routes) to the site are limited to travel via 2 lane, narrow and winding roads with various restrictions for tunnels and limited weight bridges which limit height and width to approximately 14 feet or slightly larger with additional studies. In addition, all routes to the site travel through many small towns which further pose restrictions. (see detailed route information below)

The transportation via rail to the site is more restrictive for height and width due to the tunnels and bridges, but rail can allow for heavier loads to the site. There is an existing rail line that goes to the site and a spur into the Roseburg property that can be utilized for the offloading of materials and equipment with coordination with Roseburg Forest Products. The main line (Operated by Union Pacific (UP) has fewer restrictions than the local rail operator CBR which operates the rail line from Eugene to Coos Bay. Both are included in the attached Rail Transport Review.

Large Equipment Sizes and Transit:

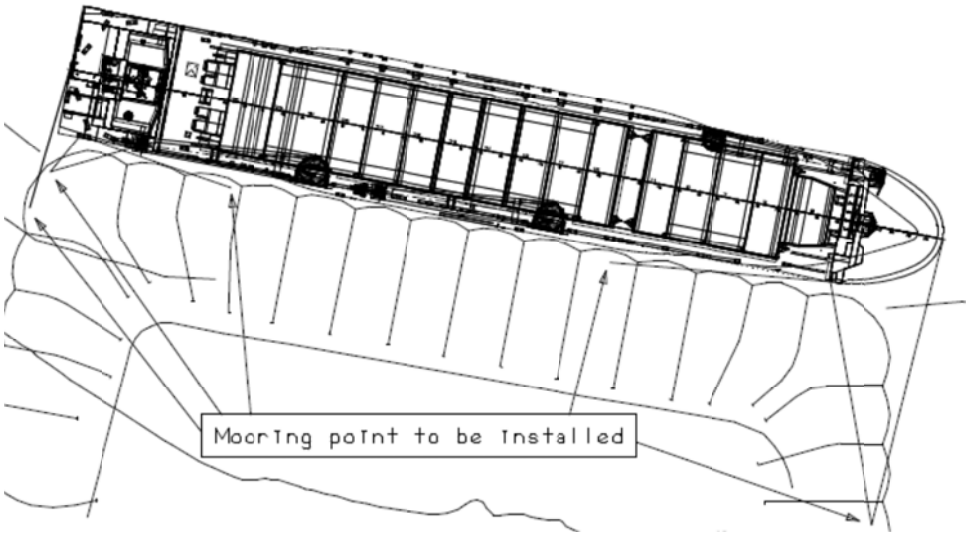
The major pieces of equipment on the project are very large (see attached major equipment items) and along with the modules (equipment and pipe rack modules) and the electrical powerhouses will be too large to be shipped via either truck or rail to the site and will be brought to the site via ship or barge and offloaded on the site barge dock. These items will be further reviewed during the procurement process for final shipment methods.

The equipment and pipe rack modules will be shipped and off-loaded via the barge dock since all of the modules have been designed to maximize the module sizes.

The large drums, towers, dehydration vessels and the cold boxes are too large to be shipped via road to the site. For items that are manufactured overseas as the HRSG's and ACC's, these could be off-loaded at an interim U.S. major port and possibly shipped overland, but it may be more advantageous to bring these items to the site via barge if the ship is not able to off-load at the barge dock.

The site barge dock is being designed to accommodate large break bulk ships (with self- loading and unloading cranes) as well as barges to off-load equipment at the site. The barge dock will be designed for roll-on and roll-off barge capabilities. Depending on the manufacturer and location of the fabrication of the equipment and modules, both ship and barge transportation to the site would be expected. For items that are manufactured overseas as the HRSG's and ACC's, there is also the possibility for large ocean- going ships to off-load at an interim dock in Stockton, CA or Portland, OR on

to barges and then shipped to the site. The transport via ship directly to the site barge dock is less expensive unless the transit distance is very short.



Depending on the equipment sizes, there is also the possibility for off-loading at the interim port on to trucks and then transported to the site. These specific transit evaluations will be reviewed on an individual equipment basis with the manufacturers.

Route Study;

The Major power block equipment of GTG, STG, HRSG, ACC and Step-up Transformers have the possibility to be shipped via truck or rail, but each will require detailed transportation reviews by the vendors during the procurement process. Again, since the majority of this power Block equipment will be manufactured overseas, they will come to the U.S. via ship. See attached listing.

To evaluate the limitation of the shipment of major pieces of equipment via truck and rail, a route survey was contracted via Omega Morgan (OM), a major transportation logistics company using the Power Block major equipment as the sizing basis. These items of equipment are routinely designed to be able to be transported to the various Power plant construction sites via truck or trains. However, due to the difficult logistics to the Coos Bay site, this will be a challenge. The STG will pose the most significant challenge due to its weight and size.

In this regard, OM was requested to evaluate:

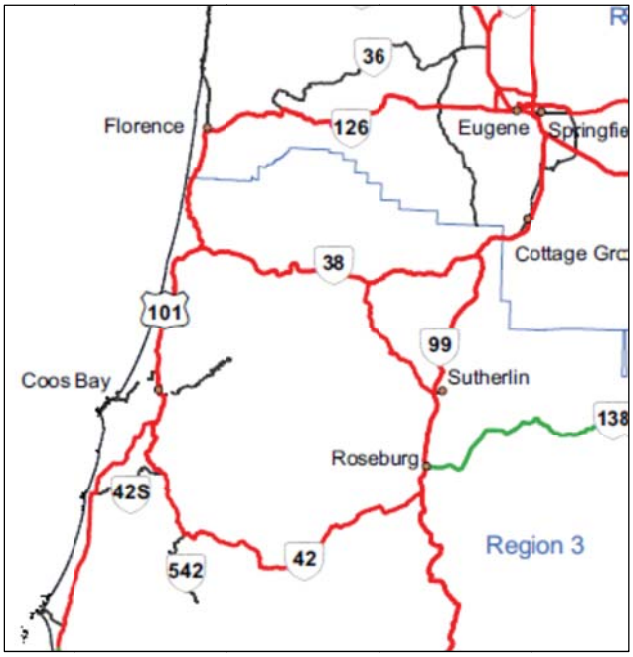
1. transporting the large steam Turbine Generator (SG) from Highway 5 to the site via truck
2. transporting the HRSG sections from Stockton, CA to the site via rail assuming the HRSG sections would be fabricated overseas and brought to a major port and then off-loaded and transported over land to the site via rail. (for the sake of this survey, the off-loading port was assumed as Stockton, CA.)

See Attached Omega Morgan Survey Report which has been summarized below.

Limitations:

As noted below, all routes to the site are limited to travel via 2 lane, narrow and winding roads with various restrictions for tunnels and limited bridges. The 3 major routes to the site from the major 4 lane highway (I-5) vary from 86 miles to 120 miles depending on the route. These routes are:

a) via highway OR 126 from Eugene to Highway 101 to the Site
b) From Highway OR 38 from Eugene to Highway 101 to the site
c) and the southerly route via, highway OR 42 from Roseburg on Highway 5 to highway 101 through Coos Bay.

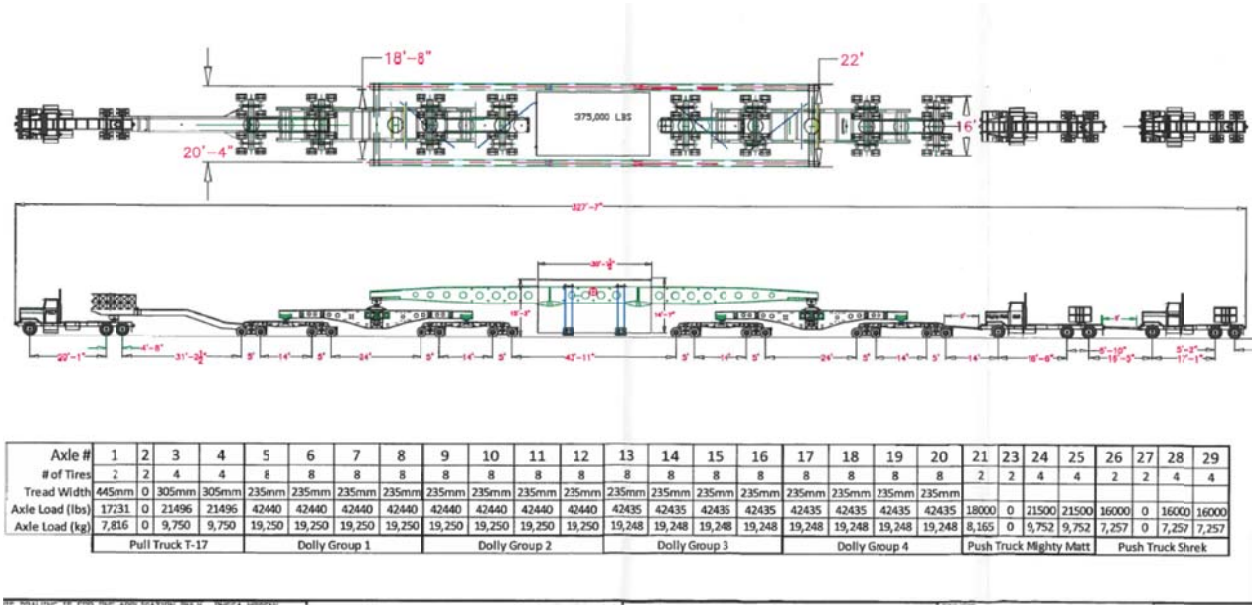


In addition, all routes to the site travel through numerous small towns along each route with overhead limitations that must be considered.

With the assumption that most fabrication shops in the U.S. have good access to the major highways and can transport the loads via interstates highways to Oregon, the Interstates will allow larger and heavier loads than will be allowed by the two lane narrow roads going to the Coos Bay site with the route restrictions noted below. See Attachment 1 for Oregon Highway routes to Coos Bay.

Trucking: Overall, the legal overland transport envelope is limited to 14'06" H (overall) x 14' wide and 105,500 gross weight (at or under 75') unless applying for a super-load permit. However, the super-load permit may not make a significant improvement to cargo size/weight, given the existing route restrictions with the local tunnels and bridges. However, permitted loads over non-restricted highways to the site could be permitted for sizes of 16 ft. high and 16 ft. wide with weights in the 270,000 lbs. with the required number of multiple axles. See attachment 2 Oregon Roadway Restrictions.

The Omega Morgan route survey was able to confirm that, with some creative transportation trucks and carriers, (see attached), that the Steam turbine generator (SG) which was approximately 14 ft. high x 17.7 ft. wide x 30 ft. long and weighing 374,000 lbs. could be transported via truck to the site via OR highway 42. The SG movement included multi-axle carriers, trucks and a special low height carrier to keep the total height during transit at the lowest possible. Not easy, but could be done.



Axle #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	23	24	25	26	27	28	29
# of Tires	2	2	4	4	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	2	2	4	4	2	2	4	4
Tread Width	445mm	0	305mm	305mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm								
Axle Load (lbs)	17131	0	21496	21496	42440	42440	42440	42440	42440	42440	42440	42440	42435	42435	42435	42435	42435	42435	42435	42435	18000	0	21500	21500	16000	0	16000	16000
Axle Load (kg)	7,816	0	9,750	9,750	19,250	19,250	19,250	19,250	19,250	19,250	19,250	19,250	19,248	19,248	19,248	19,248	19,248	19,248	19,248	19,248	8,165	0	9,752	9,752	7,257	0	7,257	7,257
	Pull Truck T-17				Dolly Group 1				Dolly Group 2				Dolly Group 3				Dolly Group 4				Push Truck Mighty Matt				Push Truck Shrek			

Omega Morgan also confirmed that they could move the HRSG pieces via truck to the site also. The truck movements had fewer restrictions for height and width than the rail transit.

Rail: Rail transport is much more restrictive for width and height than the truck shipments, but the rail can allow additional weights. To better evaluate the actual rail restriction, the rail lines were requested to evaluate the limitation and restriction to move the HRSG sections to the site assuming offloading in a port and rail traffic to the site.

Based on this survey and due the tunnel restrictions, the survey indicated that to have a maximum height of 17.5 ft. ATR (above top rail) but the load must be restricted to only 8'7" wide. (note, the rail cars are 4"-3" tall). Therefore the "load" height including cribbing must be less than 13'-6". To achieve a width of 11'-2", the height must be less than 15'-4" ATR or load must be less than 12'-1" including cribbing. These rail restrictions prevented the major HRSG sections to be transported via rail to the site, but the rail survey did provide the various envelopes of equipment sizes that could come via rail.

Details of the rail survey can be found in the attachments.

Conclusions and Observation;

1. Large and heavy loads are going to be a challenge to be transported to the site via truck or rail. Transportation via ship or barge to the site barge dock offers more flexibility in size of the equipment or modules that can be utilized for the project.
2. All of the major large equipment and modules must be brought to the site via ocean transit and offloaded on the barge dock.
3. Detailed discussions must occur with the freight forwarding shipping companies to ensure compatibility of the ships, their cranes and the ability to off-load at the site barge dock.
4. Transportation via truck offers the ability to move larger equipment than rail, but both have challenges for large heavy equipment.
5. There is an existing rail spur to the site via Roseburg Forest Products which runs into the construction laydown area. This can be used with advance notice to Roseburg.
6. The rail line could be used to bring in pipe or other large quantity of bulk materials. The logistics and timing for bringing in via truck or rail would have to be evaluated on a specific item

basis. However, based on the equipment sizes (height/width) for the project, the rail transportation did not seem viable for any of the major equipment.

7. All three (3) truck routes to the site are via narrow 2 lane roads with limitations due to bridges and tunnels and travel through numerous small towns.
8. Highway OR-42 offers the least restrictions from bridges and tunnels but requires the loads to travel through Coos Bay and North Bend going to the site on special transport carriers.
9. Although the attached route survey showed that the large Steam Turbine and the HRSG sections could be transported to the site via road, this would not be the preferred route due to the specialized trucks and carriers required and the difficulty in the transport. These large items would be brought to the site via the barge berth. This is especially important since these items will be manufactured overseas and brought to the U.S. via ocean transit. Although there are only 2 Steam Turbines, there sixty six (66) Large HRSG section to transport to the site.
10. It is expected that most normal shipments of materials whether structural steel, piping spools, small equipment, etc. will be shipped to the site via truck. There will be a significant amount of truck traffic, however, this truck traffic may not be an issue since the local towns and traffic would accustomed to the significant number of trucks routinely hauling logs and chips on these roads to the ports.

Attachment 1

Oregon Highway Truck Routes to Coos Bay

Attachment 1

Oregon Truck Routes:

The Jordon Cove site is located by Coos bay which provides ready access for ships and barges, but shipping many components fabricated in the US via barge can be very expensive compared to shipment via truck or rail.

The project site is located along highway 101 approximately 1 mile from North Bend/Coos Bay Oregon. Highway 101 is a 2 lane well developed highway running along the Oregon coast.

Rail access is also available as shown in the following diagram.

The Coos Bay Area has the Pacific Ocean to the West, and the Coast Mountain range to the East which makes overland transport to the site challenging, at best. The nearest major 4 lane highway is Highway 5 which runs North and South between California and Oregon and up into Washington State. Coos bay is connected to Highway 5 via a number of 2 lane highways:

1. via highways OR #38 from south of Eugene, Oregon on highway 5 to Reedsport on Highway 101
2. Highway OR # 42 which connects to Highway 5 south of Roseburg,

3. Oregon and highway OR 126 from Eugene connecting to OR 101 at Florence, OR.

(All are 2 lane naarrow paved highways with many curves and bridges.)

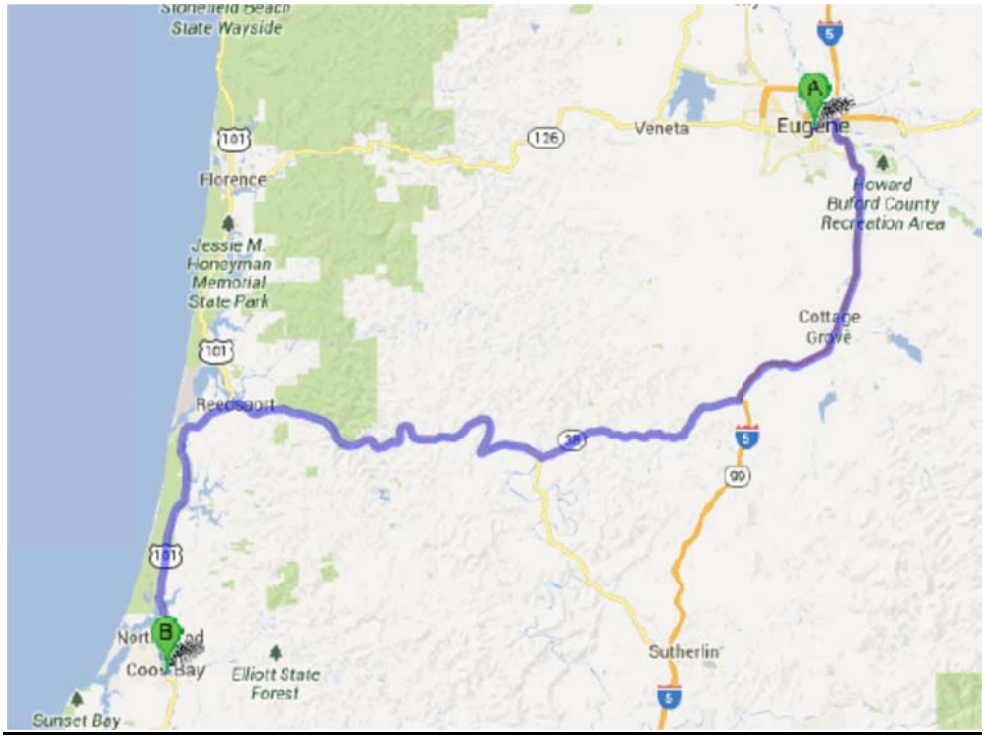
Coos Bay is approximately 223 miles or 4 hours from Portland and 120 miles or 2.5 hours from Eugene Oregon. The major airports are in Eugene and Portland, however the regional airport has routine flights to Portland and San Francisco and other areas

All routes in Oregon from Highway 5 to the site have restrictions whether bridges, tunnels or narrow roads. The roads routinely carry semi-trailor trucks and are used extensively in the hauling of timber and logs.

As noted in the attached Omega Morgan route Survey, any large loads would need to come to the site via route 42 and then to Highway 101 and thru Coos Bay and North Bend and across the Coos River to the site.

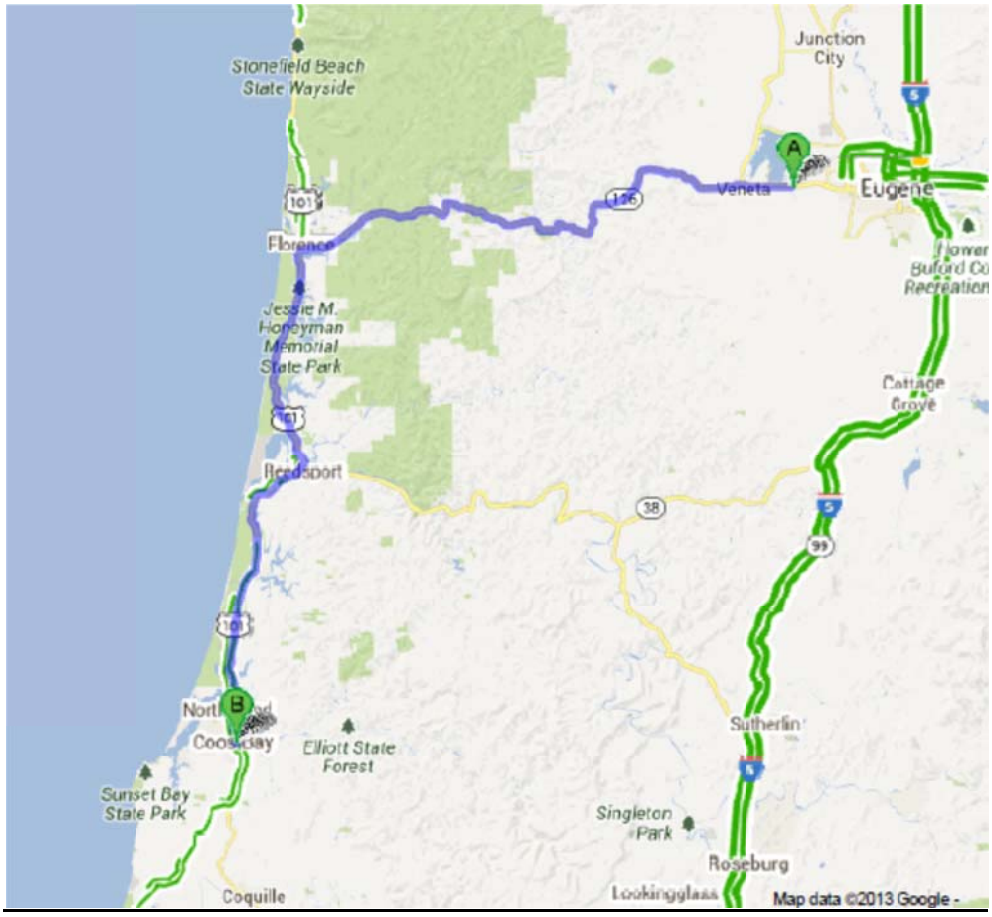
Highway ORE 38 from Eugene

Restrictions include Elk Creek Tunnel (vertical clearance of 16' high with width of 16 feet wide and must straddle the middle of the road) and Scottsburg River Bridge (16' high clearance) from highway 5 to Coos Bay. Travel thru small towns and Reedsport on 2 lane winding road.



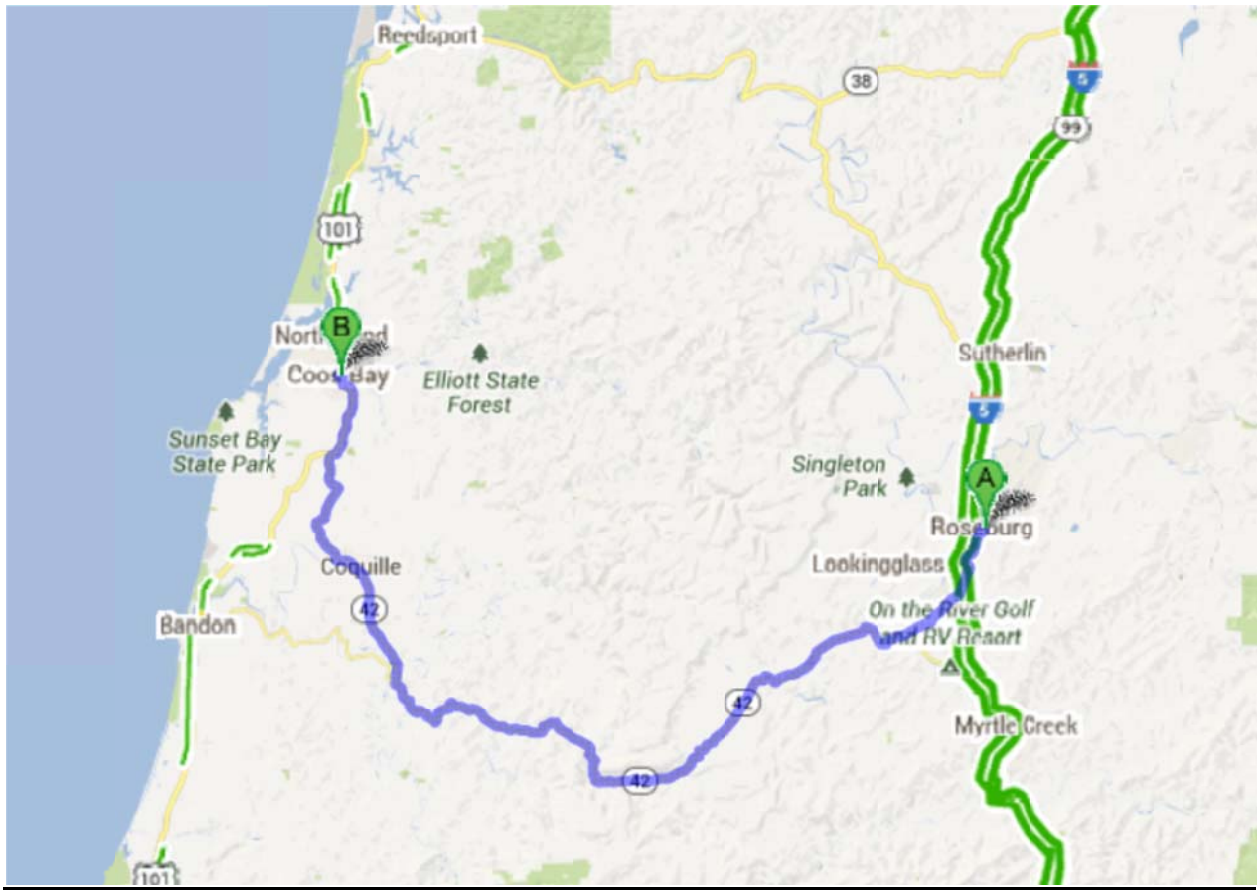
Eugene to Coos Bay via Hwy ORE 126

Restrictions include Knowles Creek Tunnel (vertical clearance of 15 ft), Siuslaw river Bridge (weight restricted to 105,000 lbs) and Umpqua River Bridge at Reedsport. Connection from highway 5 to 126 via beltway 569 in Eugene. Many small towns and narrow winding 2 lane road.



Highway ORE 42 from Highway 5 to Coos Bay

No identified major bridge or tunnel obstructions. Route thru numerous small towns on 2 lane winding road. All large loads must go thru Coos Bay and North Bend and over the Coos Bay Bridge.



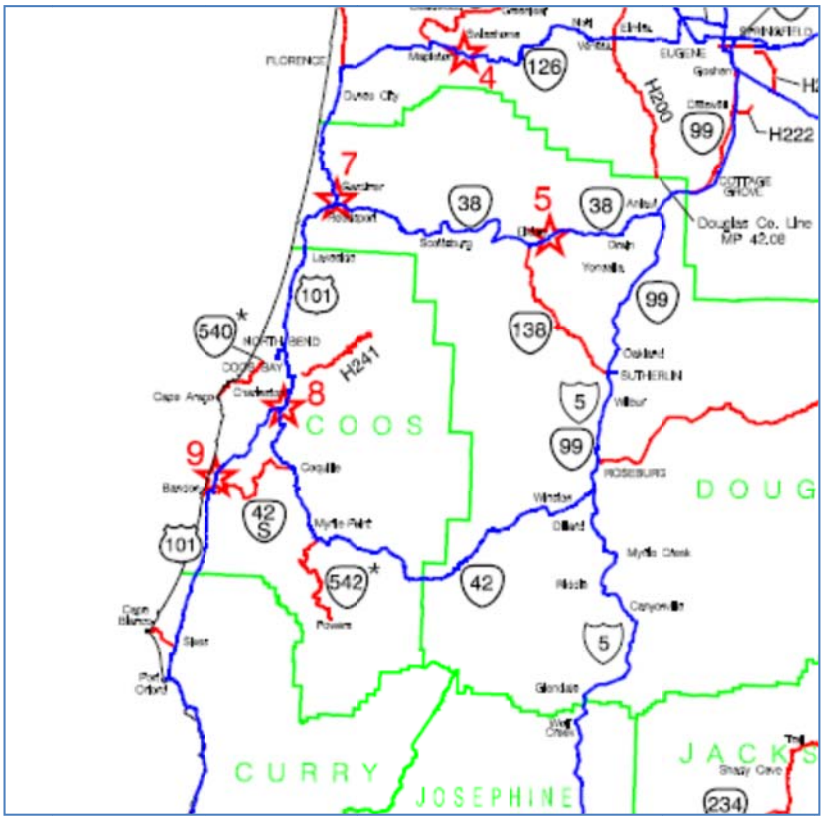
Attachment 2

Oregon Highway Major Route Restrictions

Attachment 2

Oregon Major Route Restrictions

The following are the major highway restrictions in the area as noted by the Oregon highway Department.



Restriction		Highway	Travel	Requirement
4	Knowles Creek (Peterson) Tunnel	OR 126 MP 19.68	Both Westbound and east bound	All loads over 14’-00” and greater than 12’ in width must stop traffic and straddle centerline
5	Elk Creek Tunnel	Or 38, MP 39.73	Both Westbound and east bound	All loads over 12’-00” and greater than 10’ in width must stop traffic and straddle centerline
7	Umpqua river Bridge	US 101 MP 211.11	Both Northbound and Southbound	All loads over 14’-00” and greater than 10’ in width must stop traffic and straddle centerline
8	OR 42 Over-crossing	US 101 MP 244.31	Northbound only	All loads over 14’-02” high must exit at MP 244.93 to OR 42 and re-enter US 101 north. *(Note, this is really not a significant restriciton as loads can easily traverse the small section of highway 42 and join Highway 101 further down the*

				road. When coming from OR 42, there is no detour.)
9	Coquilie river Bridge	US 101 MP 259.65	Both Northbound and Southbound	All loads over 14'-00" and greater than 10' in width must stop traffic and straddle centerline. *(Bridge normally not relevent to the 3 major routes to the site.)*
Not shown	Siuslaw River Bridge	US 101 at Florence	North and South bound on Bridge	Weight restricted Bridge. See attached restricted bridge notice.

 # 4 Knowles Creek Tunnel/ Ralph A.
Petersen Tunnel, No. 7139
MP 19.54-19.81
Florence-Eugene Hwy (ORE 126)
Mapleton vic., Lane County.
Owned by State of Oregon
Built 1958 1430' long 15'high, 26'wide Concrete Less than 50 years old

Siuslaw River Bridge (Highway 101) at Florence
Route 126 via 101 to Coos Bay
Weight Restricted Bridge – approx 105,000 lbs load limit

 # 5 Elk Creek (Hancock Mt.) Tunnel,
No. 3437
MP 39.73-39.93
Umpqua Hwy. (0RE 38)
Elkton vic., Douglas County.
Owned by State of Oregon.
Built 1932 1080'long, overall tunnel is 24 ft wide (clearance is (16' high with 16' wide load)
Concrete lining. Associated with Oregon Railway Co. and construction of Umpqua Highway

Scottsburg Highway ORE 38 Bridge
Vertical clearance 17 ft, but probably only allow 16 ft approx. Not load restricted bridge.

 # 7 Umpqua river Bridge, US 101 MP at ReedsPort
Note, Highway 38 route bypasses the Bridge, but still travels through the town of Reedsport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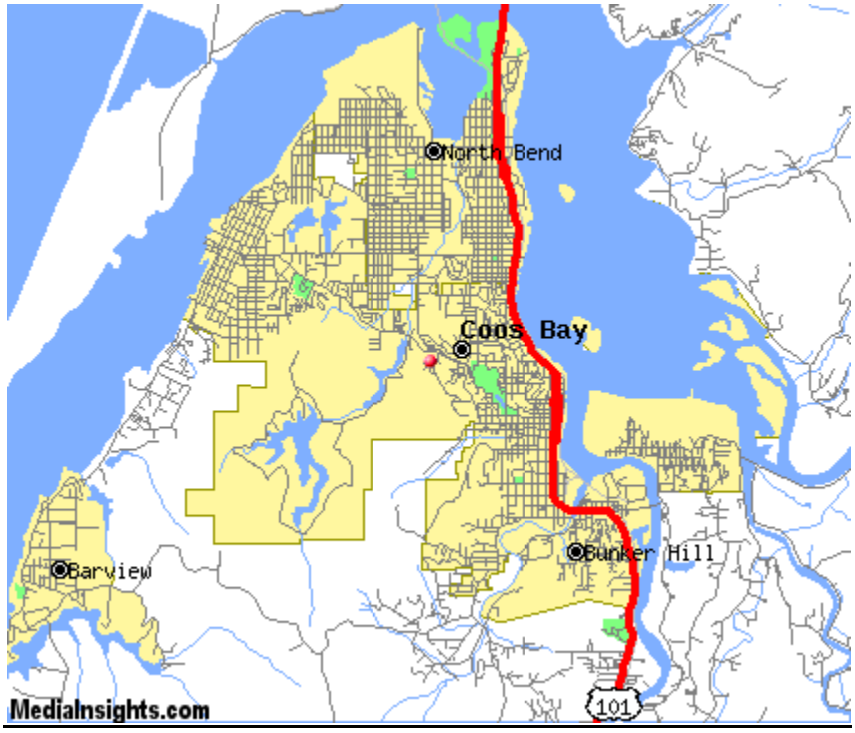
Coos Bay Bridge

Connects North Bend and Coos Bay to the JCEP site from the South via Highway 101
16'-11" vertical Clearance on bridge. Clearances through town must be evaluated.

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 # 9 Coquilie river Bridge, (Highway 101)
US 101 at Brandon, Oregon, South of Coos Bay on Highway 101.
Connects via spur highway 42. 17 ft vertical clearance. Not relevant to the major 3 routes to the site.

Attachment 3
Major Equipment Sizes

1. LNG Site Major Equipmment

2. Power Plant Major Equipment and Sketches

Jordon Cove Major Equipment Shipping Dimensions and Weights
LNG and Gas Conditioning Equipment

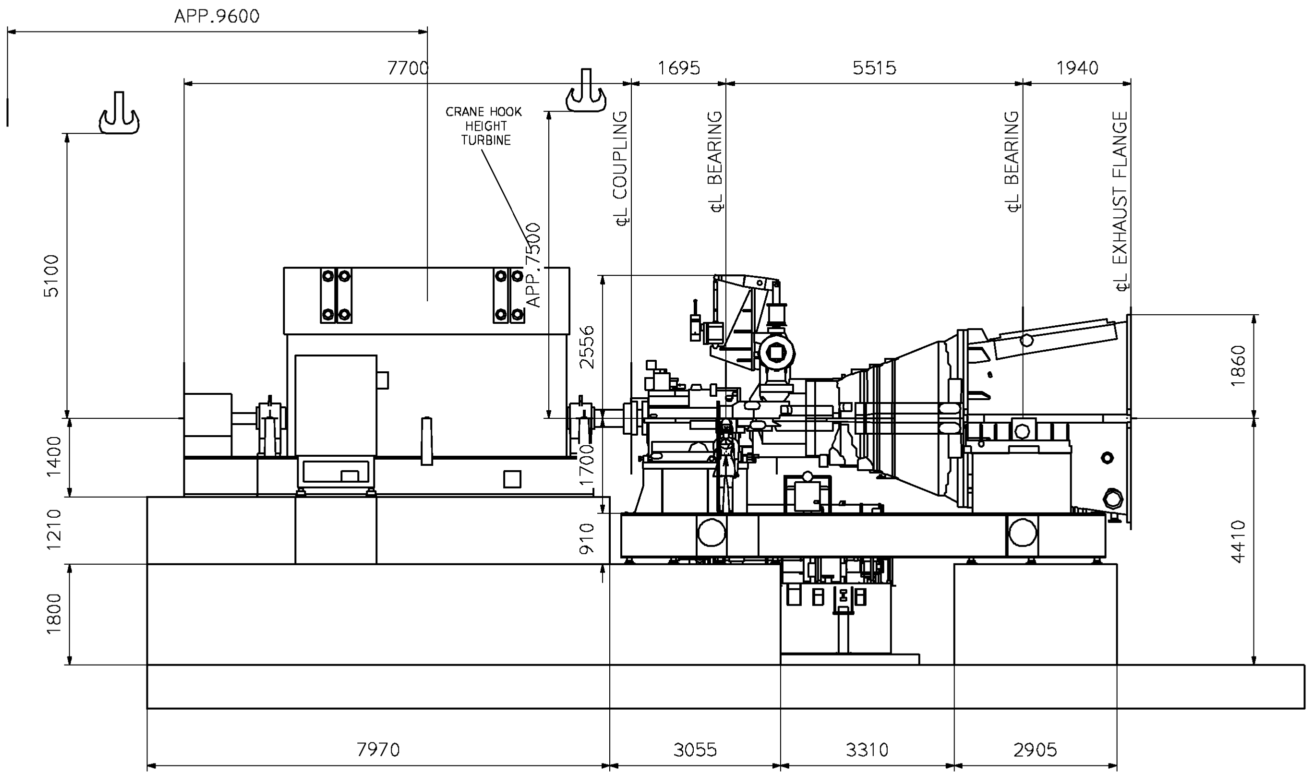
Revision B, June 14, 2013

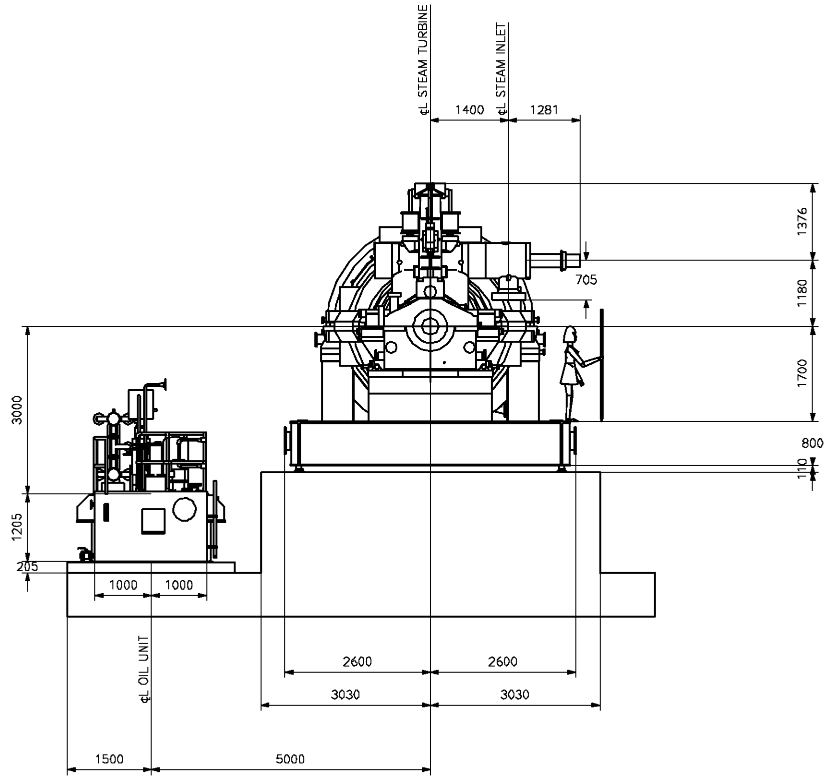
S.No.	Tag No.	Tag Description	Quantity	Length (ft)	Width (ft)	Height (ft)	Weight (lbs) Each	Notes/Reference
Items that Must be shipped via barge to the site								
16	30-V-0101	Refrigerant Suction Drum	4	47'-0"	24'-0"	24'-0"	387,300	Size and weight restricted
	30-C-0101	Refrigerent Compressor Skid	4	39'-5"	15'-0"	18'-10"	485,750	too heavy for road and too wide for rail. Size seems too large
2	60-C-0001A/B/C	BOG Compressor	3	53'-0"	16'-0"	23'-0"	160,000	need to check size
18	30-V-0103	Refrigerant Discharge Drum	4	45'-10"	16'-0"	18'-4"	332,900	Size and weight restricted
3	30-E-0101	Refrigerant Exchanger	4	44'-0"	33'-0"	20'-0"	500,000	Size and weight restricted
19	10-T-0101	Amine Contactor	2	81'-0"	16'-0"	16'-0"	600,000	Size and weight restricted
Items that can be shipped via Roadway								
8	20-E-0101	Regeneration Gas Cooler	2 x 2 Bays each of this size	38'-0"	12'-0"	12'-0"	116,000 Total for 2 Bays	
9	30-E-0102	Refrigerant Compressor Interstage Cooler	4 x 15 Bays each of this size	40'-0"	14'-0"	9'-0"	798,000 Total for 15 Bays	
10	30-E-0103	Refrigerant Condenser	4 x 11 Bays each of this size	42'-0"	14'-0"	9'-0"	627,600 Total for 11 Bays	
11	60-E-0001A/B/C	BOG Compressor Interstage Cooler	3	20'-0"	10'-0"	8'-0"	17,000 Total	
13	70-E-0001	Amine Flash Gas Compressor Interstage Cooler	1	12'-0"	2'-0"	9'-0"	12,000	
14	70-E-0002	Amine Flash Gas Compressor Discharge Cooler	1	12'-0"	2'-0"	9'-0"	12,000	
4	10-E-0105A/B	Amine Reboiler	2 Shells each of this size	24'-0"	8'-0"	8'-0"	116,000 Total	
15	40-A-0001A/B/C/D	LNG Loading Arms (ABCD)	4	100'-0"	6'-0"	6'-0"	60,000	
5	10-E-0103	Stripper Reflux Condenser	2 x 3 Bays each of this size	20'-0"	10'-0"	10'-0"	64,000 Total for 3 Bays	
6	10-E-0104	Amine Cooler	2 x 4 Bays each of this size	32'-0"	12'-0"	10'-0"	148,000 Total for 4 Bays	
	30-C-0101	Lube Oil Console (refrig compr)	4	40'-5"	11'-5"	5'-6"	38,000	Dresser Rand Quote
7	10-E-0007	Condensate Cooler	2 Bays each of this size	22'-0"	14'-0"	10'-0"	65,000 Total for 2 Bays	
12	60-E-0002A/B/C	BOG Compressor Discharge Cooler	3	20'-0"	14'-0"	9'-0"	24,000 Total	
Items that will be a challenge to ship via truck								
17	30-V-0102	Refrigerant Interstage Drum	4	44'-8"	16'-0"	17'-10"	194,500	Size restricted
	30-C-0101	Refrigerent compressor Motor	4	27'-6"	9'-10"	15'-10"	289,599	need fab location. Might be truck or rail
20	10-T-0102	Amine Stripper	2	84'-0"	13'-0"	13'-0"	85,000	length is potentially an issue on narrow roads thru towns
21	20-V-0102 A/B/C	Dehydrators	6	40'-0"	16'-0"	16'-0"	276,000	Combination of weight and size will be an issue

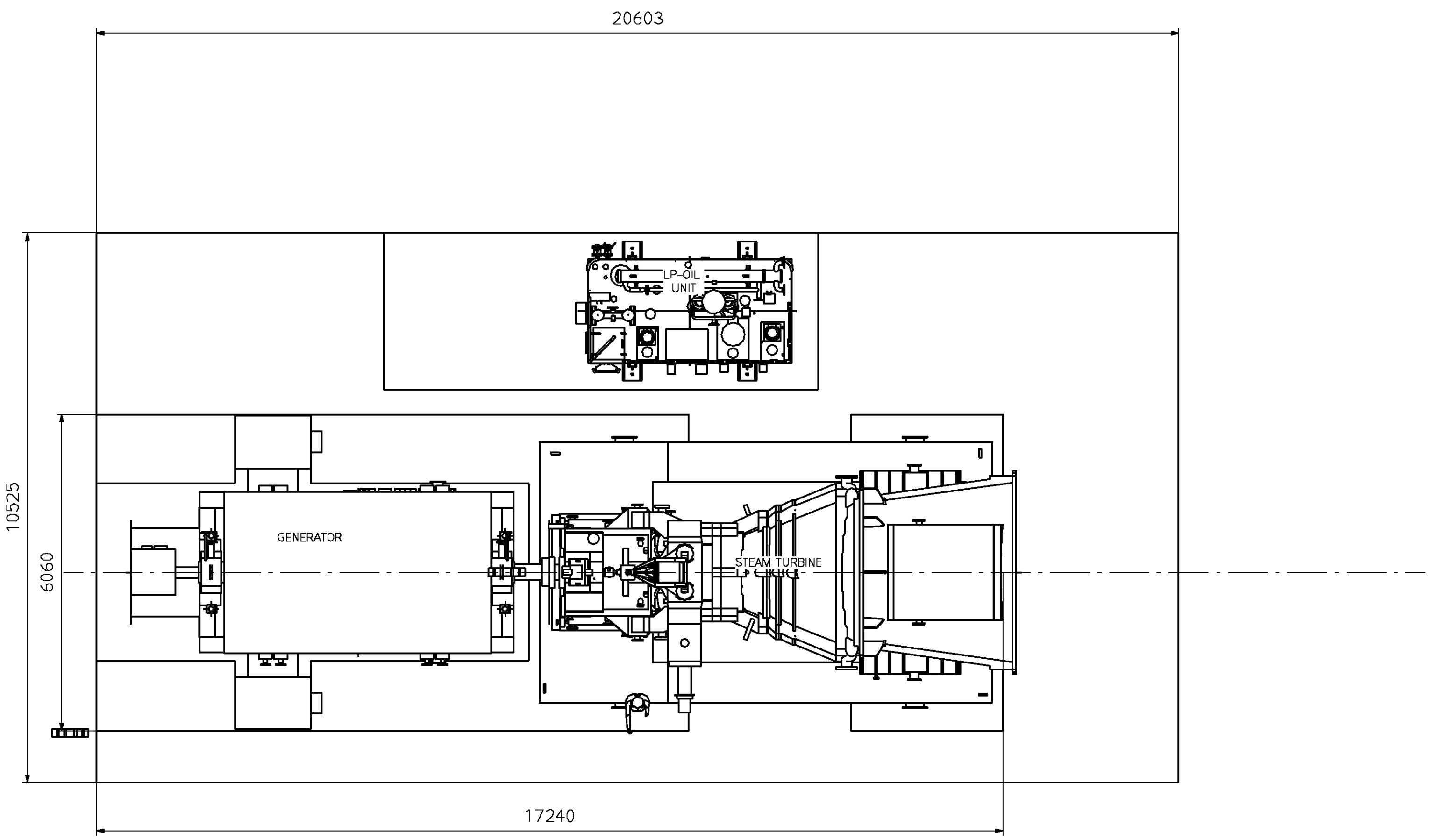
Major Component Shipping Dimensions Summary
Power Equipment

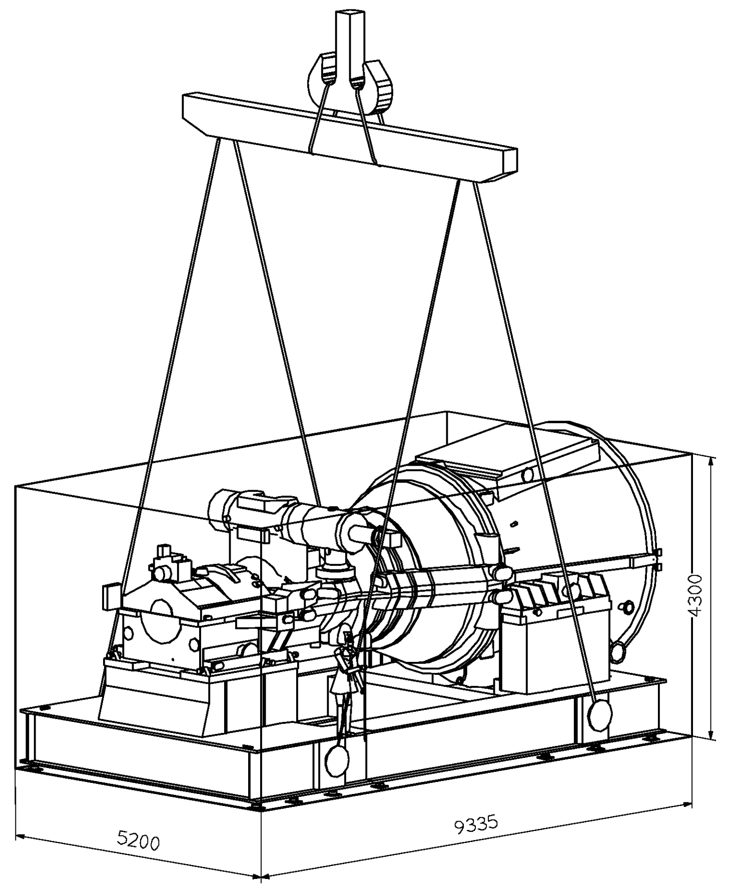
	Qty.	Length (ft)	Width (ft)	Height (ft)	Weight (lb)	Typical Shipping Method	Anticipated Origin
CTG							
Turbine Base	6	28.9	13.5	14.4	104,200	Truck/Rail	US
LM6000 Generator Base	6	35.7	13.5	14.4	123,000	Truck/Rail	US
Brush Generator	6	22.7	11.4	9.2	169,756	Truck/Rail	Overseas
Gearbox	6	9.7	5.4	8.2	32,271	Truck/Rail	US
VBV Silencer	6	8.2	5.7	14.2	25,000	Truck/Rail	US
Roof Skid Transition	6	38.7	13.2	12.0	96,000	Truck/Rail	US
Plenum	6	32.8	12.2	12.4	34,000	Truck/Rail	US
Auxiliary Skid	6	14.4	14.0	17.8	46,000	Truck/Rail	US
Generator Skid	6	16.7	10.9	10.1	28,800	Truck/Rail	US
STG							
ST Package	2	30.5	17.7	14.1	374,850	Truck/Rail	Overseas
Generator	2	25.3	13.1	14.1	183,015	Truck/Rail	Overseas
LP Oil Unit	2	11.2	9.8	10.5	22,050	Truck/Rail	Overseas
HRSG							
4100 Duct	6	21.0	12.0	14.0	16,000	Truck/Rail	US or Overseas
4200 Duct	6	33.0	12.0	14.0	26,000	Truck/Rail	US or Overseas
4300 Duct	6	45.0	10.0	14.0	30,000	Truck/Rail	US or Overseas
3100 Module	6	47.0	12.0	14.0	93,000	Truck/Rail	US or Overseas
4400 Duct	6	54.0	11.0	14.0	39,000	Truck/Rail	US or Overseas
4500 Duct	6	59.0	10.0	14.0	41,000	Truck/Rail	US or Overseas
3200 Module	6	60.0	10.0	14.0	160,000	Truck/Rail	US or Overseas
SCR Duct	6	60.0	12.0	14.0	65,000	Truck/Rail	US or Overseas
3300 Module	6	60.0	12.0	14.0	233,000	Truck/Rail	US or Overseas
3400 Module	6	60.0	11.0	14.0	175,000	Truck/Rail	US or Overseas
3500 Module	6	60.0	11.0	14.0	199,000	Truck/Rail	US or Overseas
HRSG Stack							
Section 1 without Base Ring or Breach	6	10.1	10.1	59.5		Truck/Rail	US or Overseas
Section 1 with Base Ring	6	11.3	11.3	59.5	40,000	Truck/Rail	US or Overseas
Section 1 with Breach, no Base Ring	6	10.1	10.9	59.5		Truck/Rail	US or Overseas
Section 2	6	10.1	10.1	59.5	30,000	Truck/Rail	US or Overseas
GSU							
1. Gas Turbine Step-up Transformer	6	20.1	10.2	13.3	170,000	Truck/Rail	Overseas
2. Steam Turbine Step-up Transformer	2	20.1	10.2	13.3	170,000	Truck/Rail	Overseas
Auxiliary Power Enclosures							
CTG PCM	6	25.0	13.0	13.8	28,750	Truck/Rail	US
STG APE	2	25.0	13.0	14.0	68,540	Truck/Rail	US
HRSG APE	6	59.6	15.7	14.0	68,540	Truck/Rail	US
ACC APE	2	36.0	15.0	14.0	41,400	Truck/Rail	US

SPACE FOR HORIZONTAL REMOVE ROTOR









TRANSPORT DIMENSIONS TURBINE PACKAGE:

LENGTH: 9300mm
WIDTH: 5400mm
HEIGHT: 4300mm
TRANSPORT WEIGHT: APP.165,0t
SEMIPACK FCA GLZ: YES
SEMI PACK FCA DRS: NO

FOR INFORMATION ONLY!

SIEMENS Turbinenwerk Görlitz	Type	Weight [t] appr.
Turbine	SST-600	135
Upper section	K63/2,8ax	52,0
Gear box	no	-
Base frame	G2	37,0
Package	G2	170,0
Generator	SGen6-100A-2P	83,0
Condenser	-	-
LP Oil unit	OVAS-6,3	10,0
HP-OIL UNIIT	-	-

PLEASE NOTE:
THIS DOCUMENT IS OFFER STATUS FOR INFORMATION ONLY!
CONCEPT AND DIMENSIONS SHOWN IN THIS DOCUMENT
CAN NOT BE USED AS BINDING INFORMATION TO CREATE
PLANNING DOCUMENTS E.G. MACHINE HOUSE DRAWINGS!

	Datum / Date	Name / Name
erstellt / drawn	2008-05-08	LORENZ
bearbeitet / coord.	2008-05-08	LORENZ
geprüft / checked	2008-05-08	DOEHRING
CAD	PDMS 11 6	
Abtlg. / Dept.	PG I2421	

Maßstab / Scale: 1:XX
Specifications: PG I-Norm 801 256 98

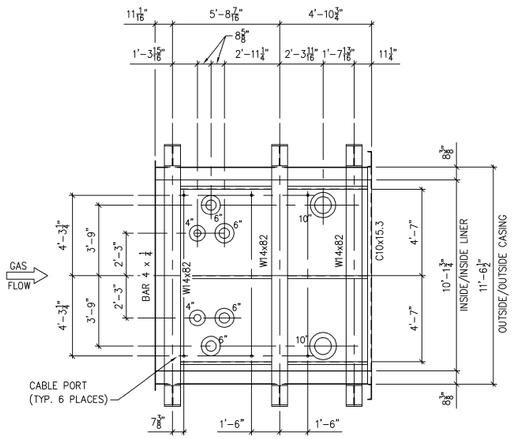
Benennung / Title:

Aufstellungsplan
layout drawing

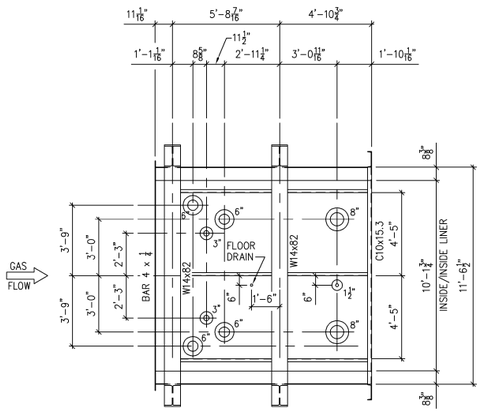
SIEMENS
Power Generation
Oil & Gas and Industrial Applications

Format: A0 — Sach-Nr./Unterlagen-Nr. Item Number/Document Number: 0-2015-A2191-2 — Blatt/Sheet: 1 - — Index/Revision: -

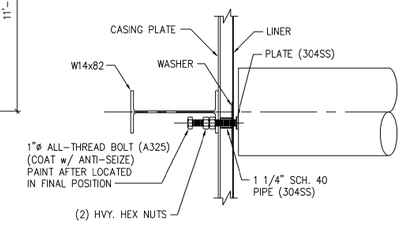
drawing name: 0-2015-A2191-2 — A2191 — Frederick County — SST-600



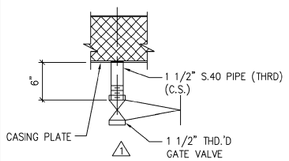
VIEW "A–A"
ROOF PLAN



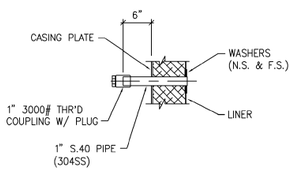
VIEW "B–B"
FLOOR SECTION
(UNIT No. 1 AS SHOWN)
(UNIT No. 2 OPPOSITE HAND)



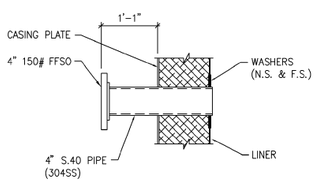
JACKING SCREW DETAIL
LOCATED @ END of EACH UPPER & LOWER HEADER
(DOWNWALL ONLY)



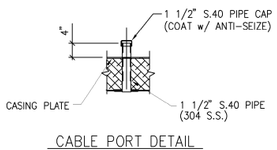
FLOOR DRAIN DETAIL



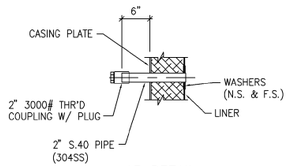
TE/PT/PDT DETAIL



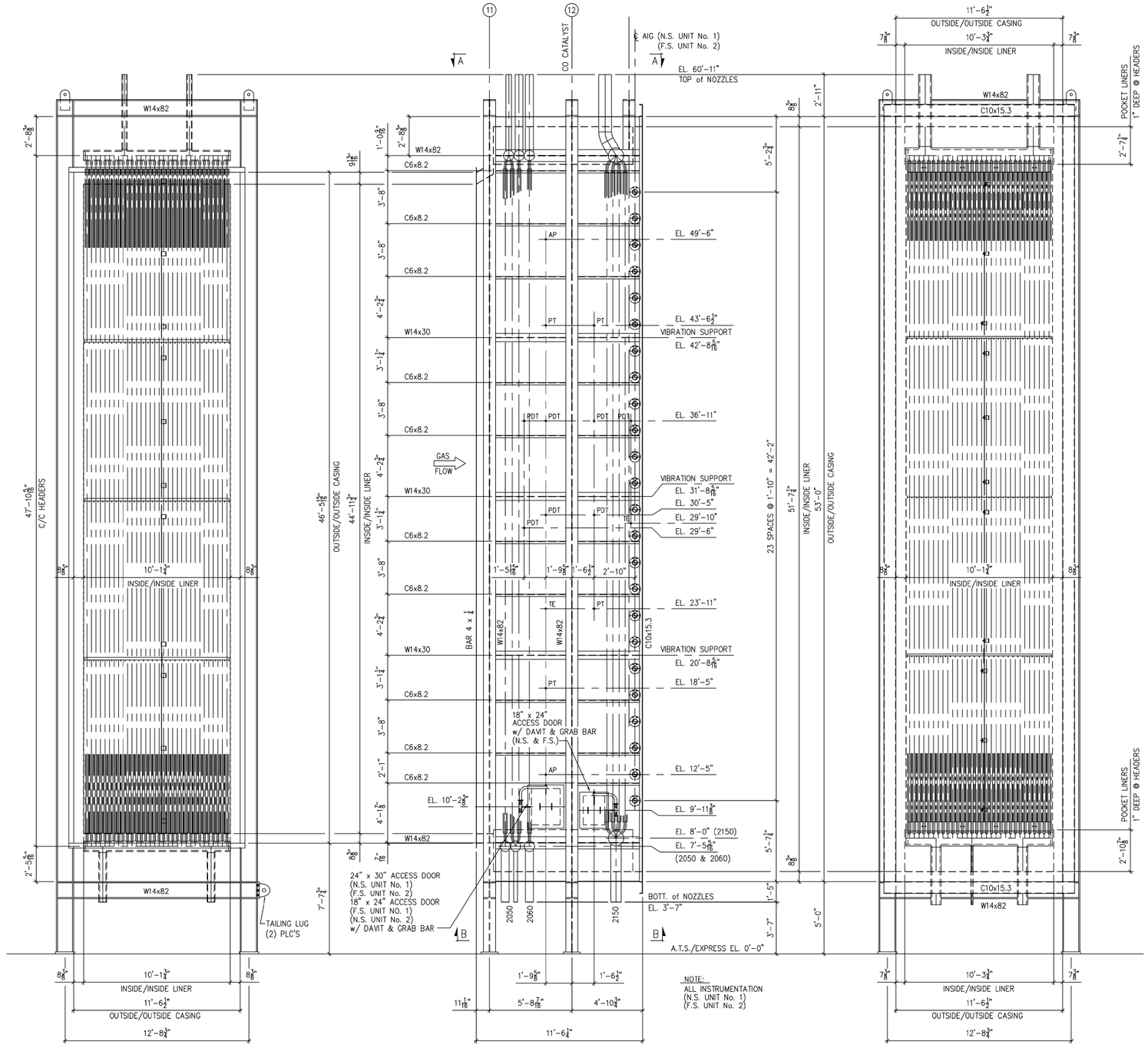
AIG CONNECTION DETAIL



CABLE PORT DETAIL



AP DETAIL



ELEVATION LOOKING DOWNSTREAM

3100 MODULE SIDE ELEVATION

ELEVATION LOOKING UPSTREAM

NO	DATE	BY	CHK'D	APP'D	DESCRIPTION
1	4-3-03	JLM	RSA	JPM	ADDED VALVE TO FLOOR DRAIN, DPT TO PDT
0	3-12-03	JLM	RSA	JPM	ISSUED FOR CONSTRUCTION

REVISIONS

DWG NO	DESCRIPTION

REFERENCE DRAWINGS

ATS Express LLC

SILICON VALLEY POWER / PICO PROJECT

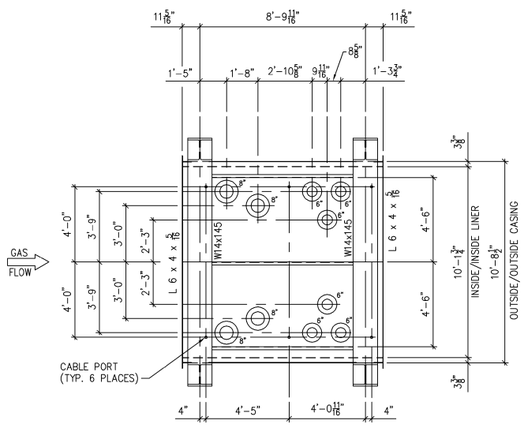
DRAWN	JLM
DATE	2-13-02
SCALE	1/4"=1'-0"
CHK'D	RSA

3100 MODULE ARRANGEMENT

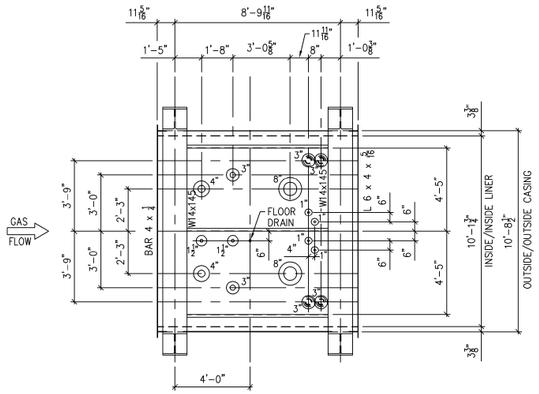
JOB NO	DRAWING NO	REV
0295	3100	1

LAST PLOT on 6/18/2003 at 11:30:59 AM by JimMedlock File: P:\CAD\0295\3000\2953100_1.DWG

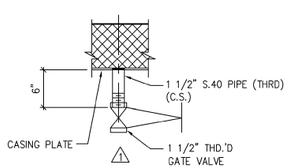
P133202.62.3405.05-C0004 0001 St:NE 07/07/03 MM-00084



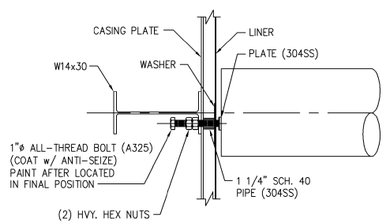
VIEW "A–A"
ROOF PLAN
(UNIT No. 1 AS SHOWN)
(UNIT No. 2 OPPOSITE HAND)



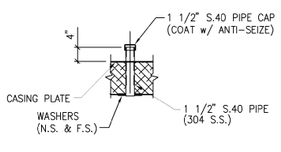
VIEW "B–B"
FLOOR SECTION
(UNIT No. 1 AS SHOWN)
(UNIT No. 2 OPPOSITE HAND)



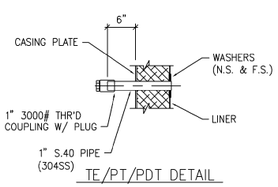
FLOOR DRAIN DETAIL



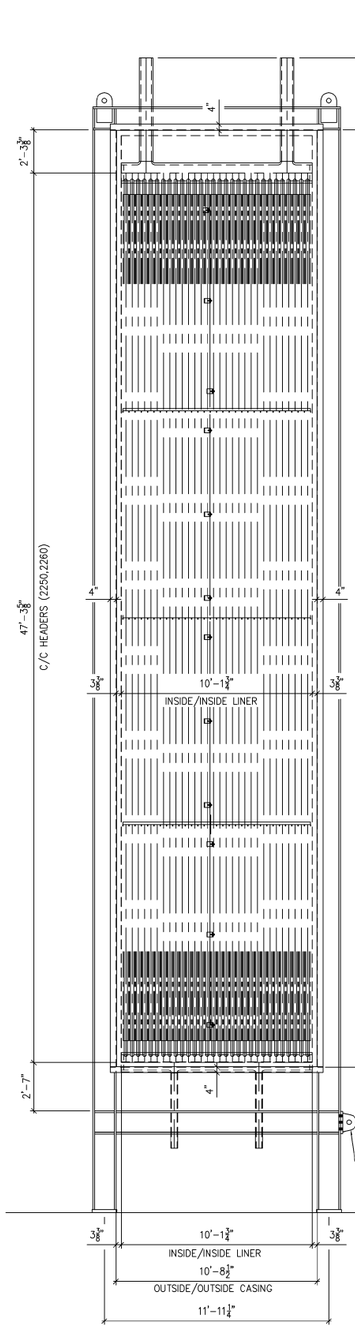
JACKING SCREW DETAIL
LOCATED @ END of EACH UPPER & LOWER HEADER
(DOWNWALL ONLY)



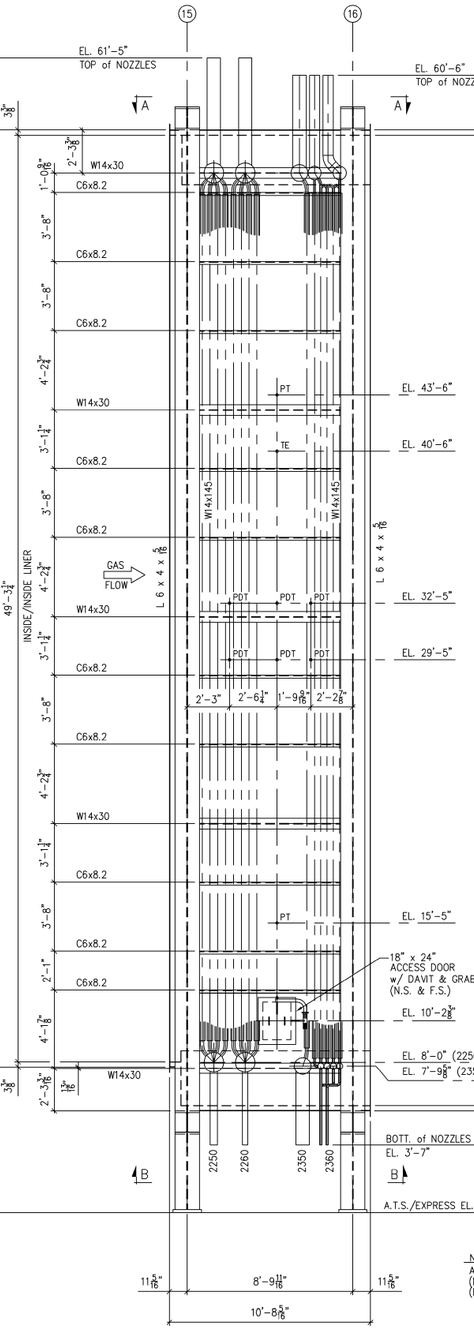
CABLE PORT DETAIL



TE/PT/PDT DETAIL

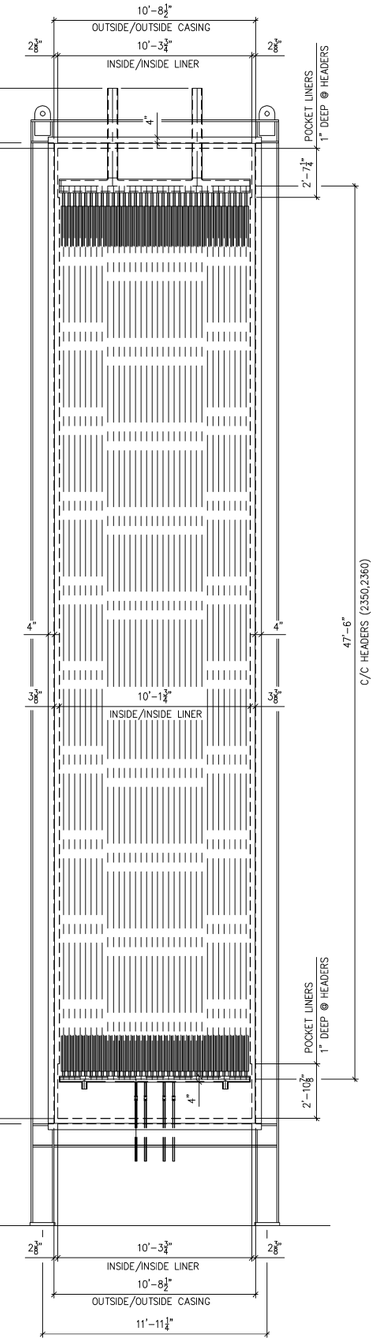


ELEVATION LOOKING DOWNSTREAM



3200 MODULE
SIDE ELEVATION

NOTE:
ALL INSTRUMENTATION
(N.S. UNIT No. 1)
(F.S. UNIT No. 2)



ELEVATION LOOKING UPSTREAM

NO	DATE	BY	CHK'D	APP'D	DESCRIPTION
1	4-3-03	JLM	RSA	JCM	ADDED VALVE TO FLOOR DRAIN, DPT TO PDT
0	2-27-03	JLM	RSA	JCM	ISSUED FOR CONSTRUCTION

REVISIONS

DWG NO	DESCRIPTION

REFERENCE DRAWINGS

ATS Express LLC

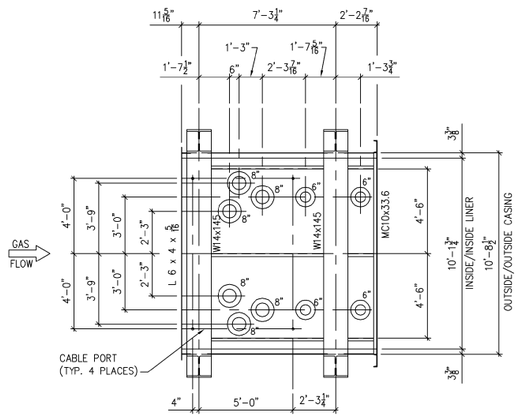
SILICON VALLEY POWER / PICO PROJECT

DRAWN	JLM
DATE	2-27-03
SCALE	1/4"=1'-0"
CHK'D	RSA/BEb

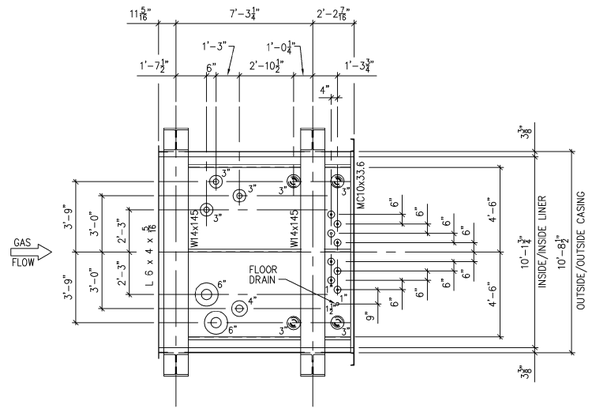
3200 MODULE ARRANGEMENT

JOB NO	DRAWING NO	REV
0295	3200	1

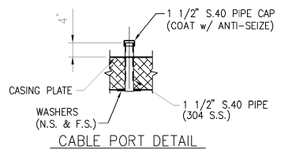
LAST PLOT on 6/18/2003 at 11:31:33 AM by JimMedlock File: P:\CAD\0295\3000\2953200_1.DWG



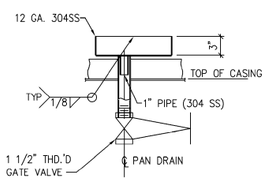
VIEW "A-A"
ROOF PLAN
(UNIT No. 1 AS SHOWN)
(UNIT No. 2 OPPOSITE HAND)



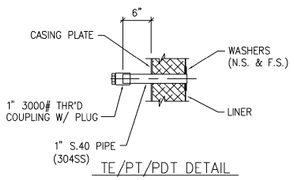
VIEW "B-B"
FLOOR SECTION
(UNIT No. 1 AS SHOWN)
(UNIT No. 2 OPPOSITE HAND)



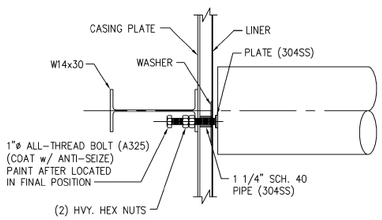
CABLE PORT DETAIL



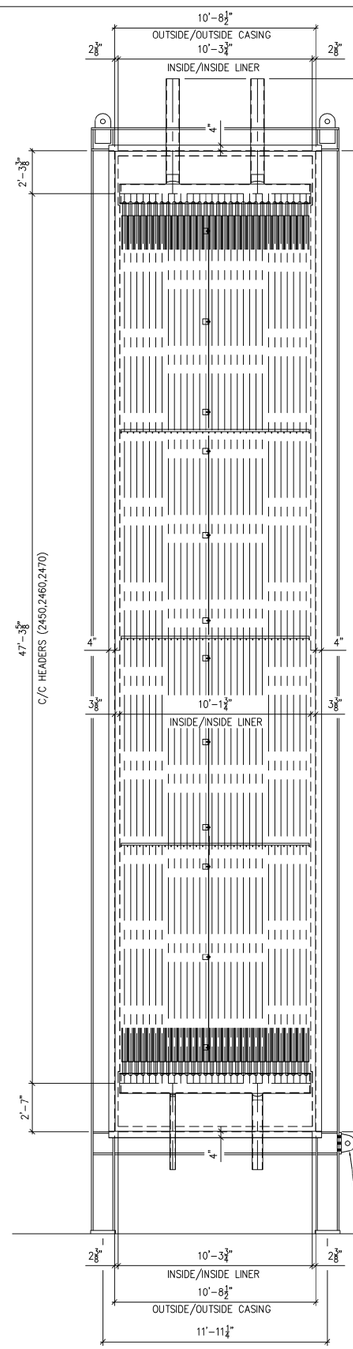
FLOOR DRAIN/DRIP PAN DETAIL



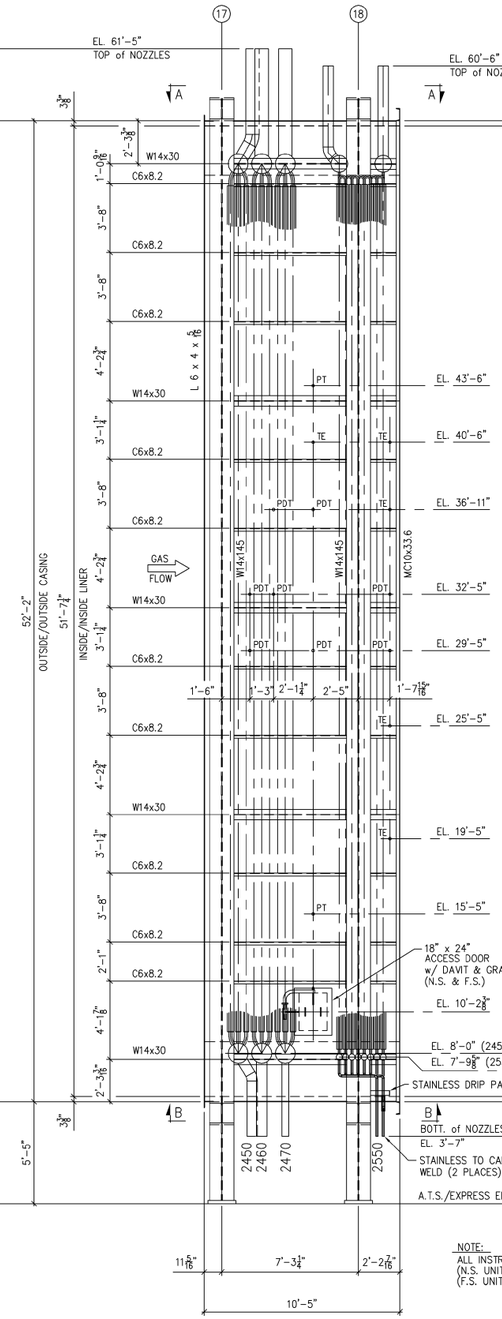
TE/PT/PDT DETAIL



JACKING SCREW DETAIL
LOCATED @ END of EACH UPPER & LOWER HEADER
(DOWNWALL ONLY)

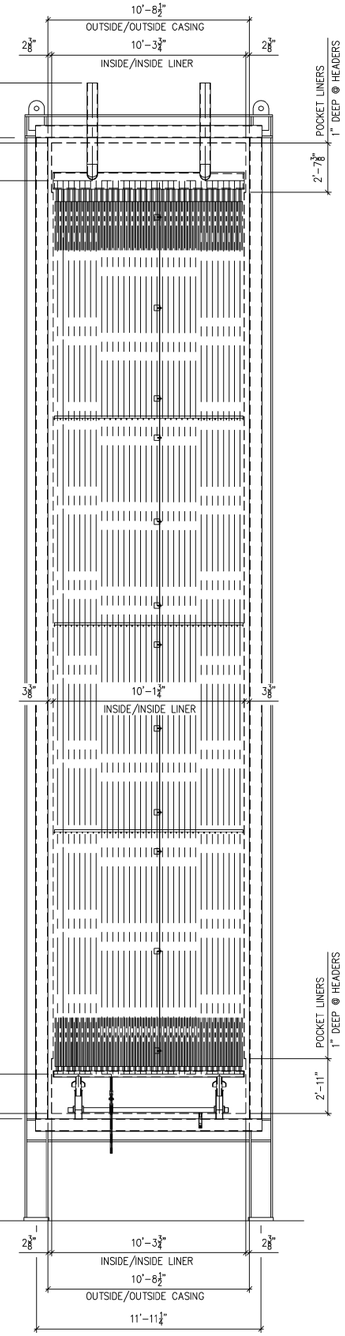


ELEVATION LOOKING DOWNSTREAM



3300 MODULE
SIDE ELEVATION

NOTE:
ALL INSTRUMENTATION
(N.S. UNIT No. 1)
(F.S. UNIT No. 2)



ELEVATION LOOKING UPSTREAM

NO	DATE	BY	CHK'D	APP'D	DESCRIPTION
1	4-3-03	JLM	BEb	JPM	ADDED VALVE TO FLOOR DRAIN
0	3-12-03	JLM	BEb	JPM	ISSUED FOR CONSTRUCTION

REVISIONS

DWG NO	DESCRIPTION

REFERENCE DRAWINGS

ATS Express LLC

SILICON VALLEY POWER / PICO PROJECT

DRAWN	JLM
DATE	2-27-03
SCALE	1/4"-1'-0"
CHK'D	BEb

3300 MODULE ARRANGEMENT

JOB NO	DRAWING NO	REV
0295	3300	1

LAST PLOT on 6/18/2003 at 11:32:07 AM by JimMedlock File: P:\CAD\0295\3000\2953300_1.DWG

Attachment 4

Omega Morgan Rail/Truck Survey

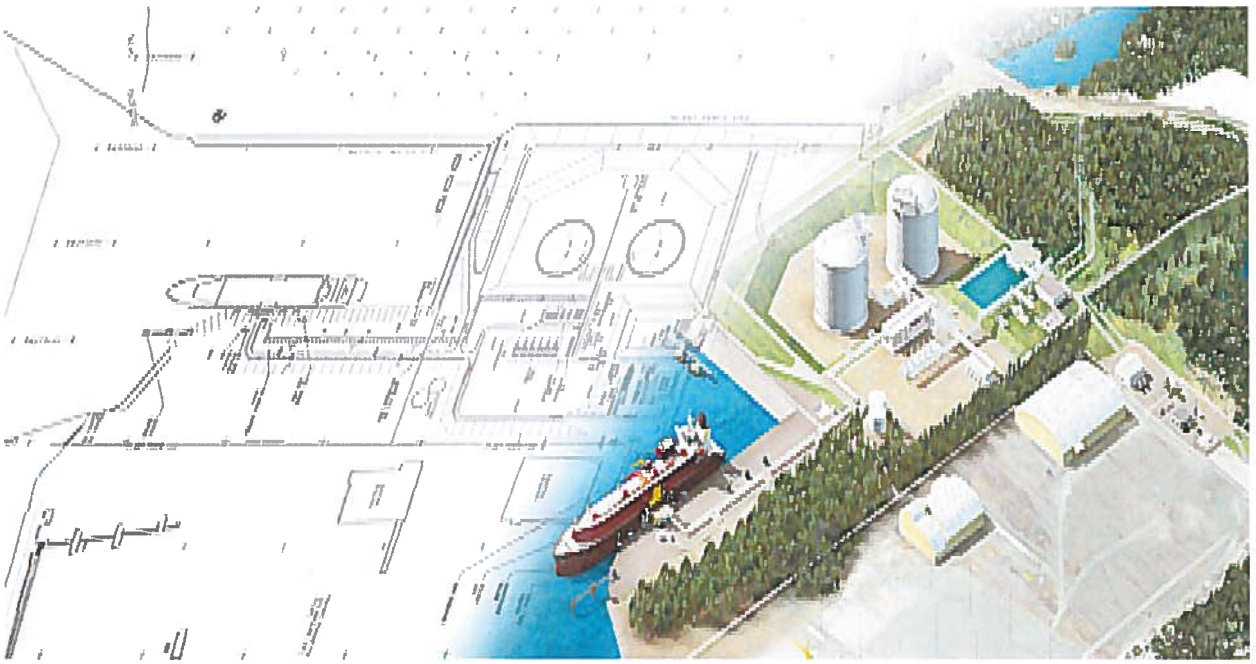
A. Highway 42 Route Survey

"Movement of the Steam Turbine from Eugene to Coos Bay"

B. Rail Survey

"Restrictions and Ability for Movement of the HRSG Sections from Stockton, CA to Coos Bay, OR"

BLACK & VEATCH



JORDAN COVE ENERGY PROJECT

ROUTE/RAIL SURVEY

TABLE OF CONTENTS

I) ROUTE SURVEY

PREFERRED ROUTE

HIGHWAY 42, TO HIGHWAY 101, TO JORDAN COVE

OMEGA MORGAN

23810 NW Huffman Street, Hillsboro, OR 97124 / omegamorgan.com / (503) 647-7474 / (800) 442-8141 / Fax: (503) 647-7422

JORDAN COVE ENERGY PROJECT: Routing detail

-Interstate 5, southbound to exit 119

-Exit 119 to route Hwy 42, west bound

-Hwy 42 west bound to Hwy 101 North bound

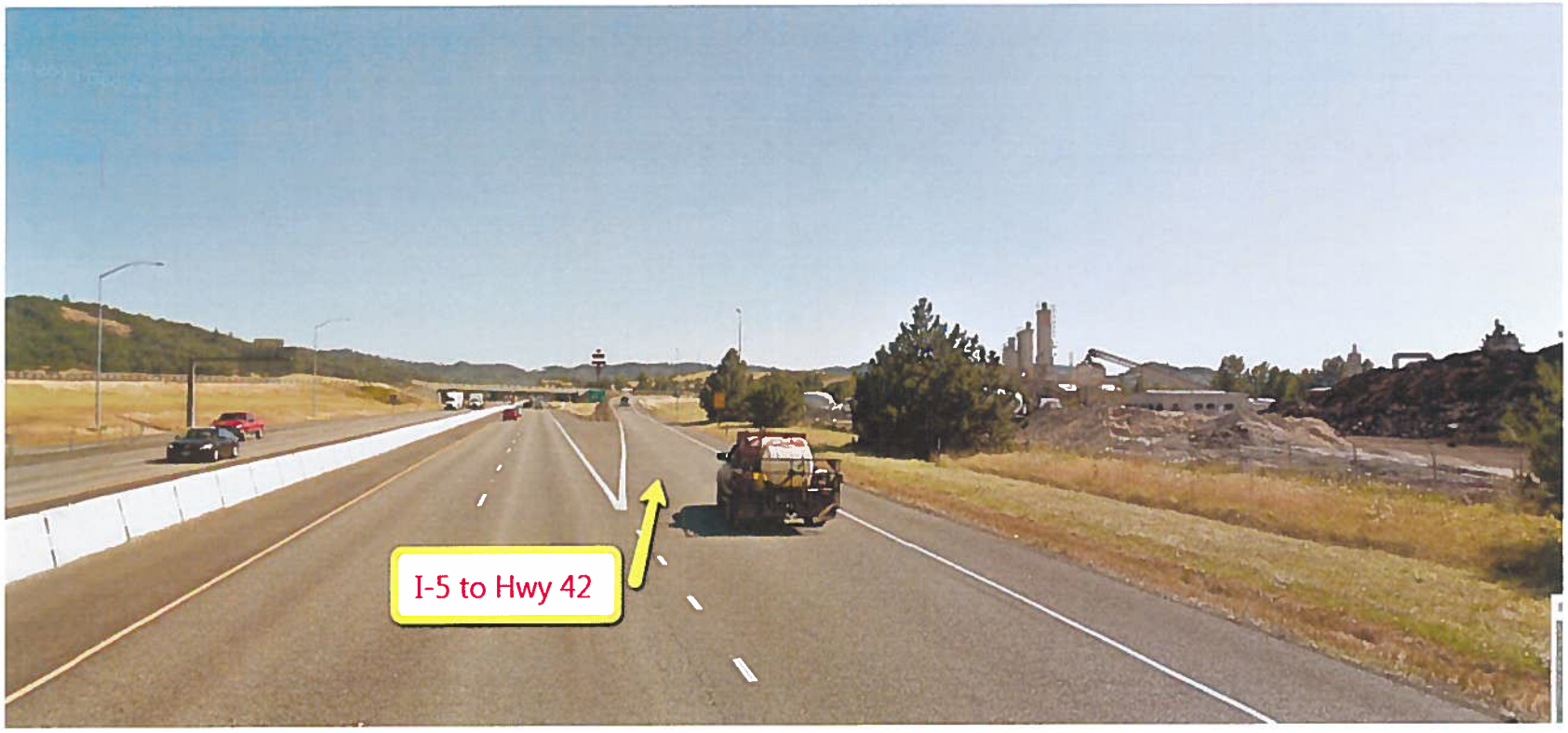
-Hwy 101 north bound to Jordan Cove Road.

-Jordan Cove Road to South Power Plant site

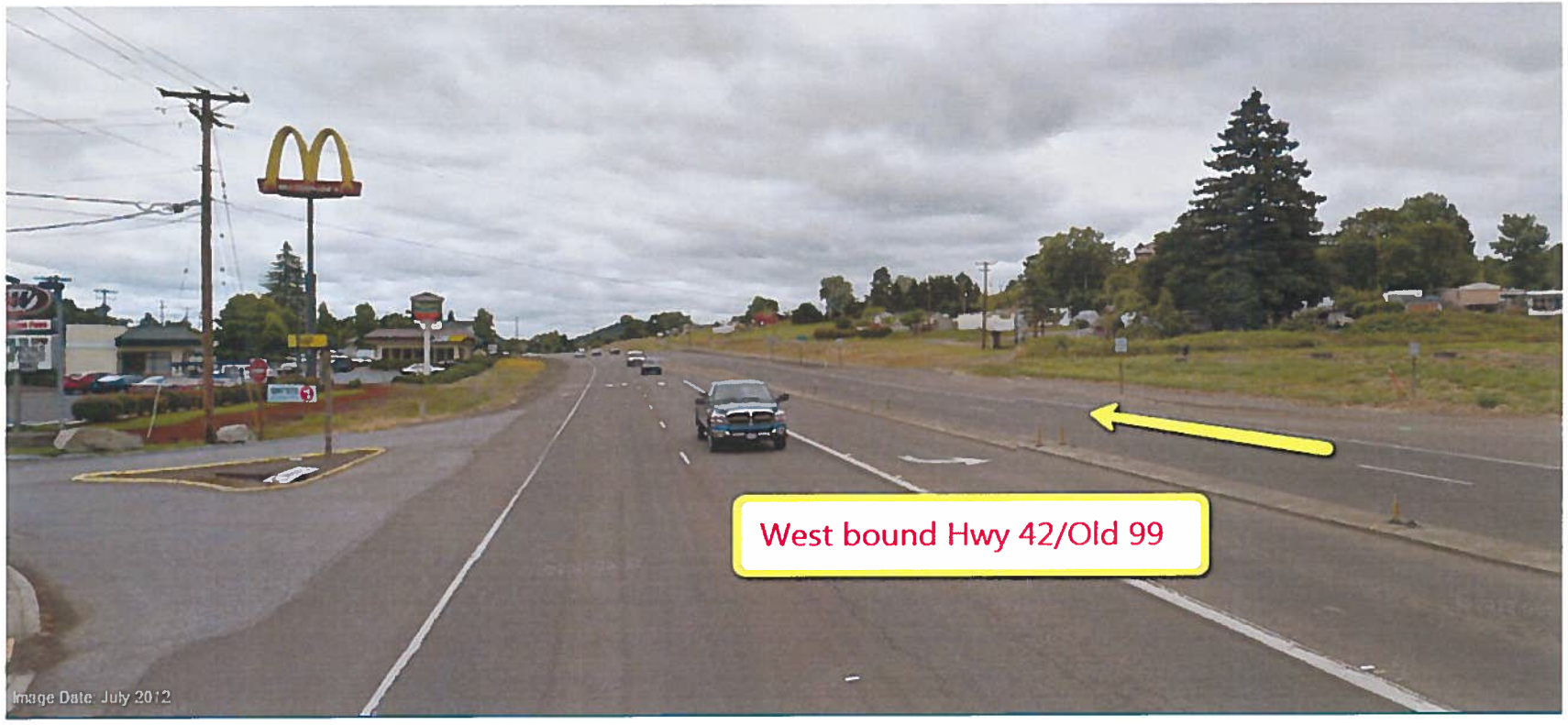
Oregon, United States, North America


Jordan Cove
Bass
Ruby
Smith
Gunter
Brenham
North Fork
Sulphur Springs
Franz
East Gardiner
Reedsport
Green Acres
38
Umpqua River Lifeboat Station
Winchester Bay
Murphys Camp
Scottsburg
Elkton
Lakeside
101
Templeton
Ash
Kellogg
Hauser
Shorewood
Glasgow
Allegany
North Bend
Cooston
Millwood
Empire
Coos Bay
Englewood
Eastside
Dellwood
Charleston
Libby
Millington
OREGON
Cleveland
Maxwell
Sumner
Callahan
Riversdale
Delmar
Tioga
Coaledo
Green Acres
Fairview
Melrose
Leneve
Coquille
McKinley
Lookingglass
Randolph
Cedar Point
COOS
Sitkum
Bullards
Dora
Reston
Parkersburg
Bandon
Winterville
Arago
Tenmile
Dillard
Gravelford
Olalla
Myrtle Point
Twomile
Laurel Grove
Estabrook
Bridge
Remote
Camas Valley
Fourmile
Warner
Broadbent
Okietown
Gaylord
Bancroft
Langlois
Byerle
Byers
Lakeport
Denmark
Triangle
Powers
Peck
Union Creek
Dads Creek
Rural
Eckely
Cow Creek
101
CURRY
Dothan
Sixes
Plum Trees
Siskiyou National Forest

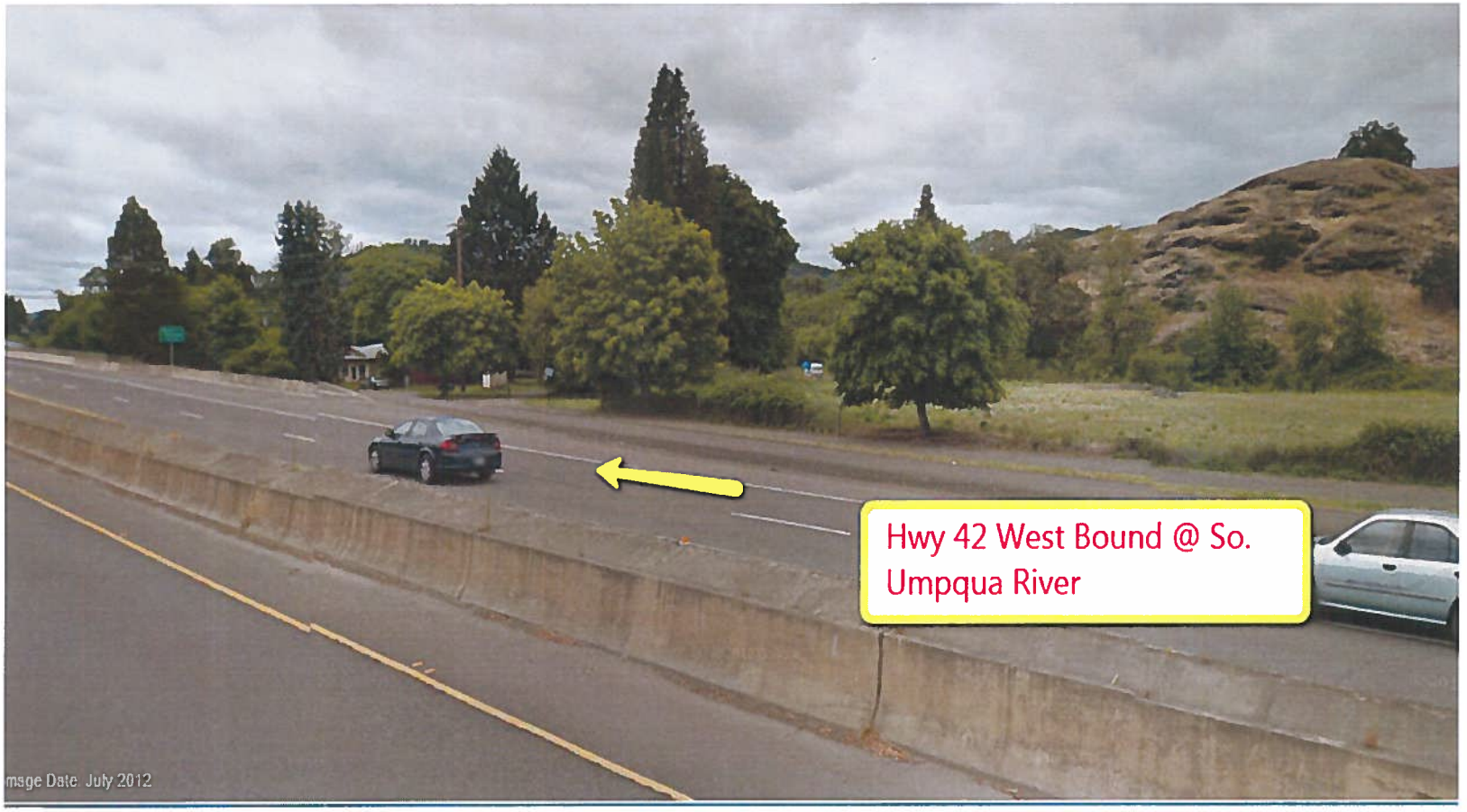
MILES	DESCRIPTION
0.0	Transition from Interstate 5 to Hwy 42: Approximately 25' wide with 5'shoulders on West side, 2' shoulders on East side.



MILES	DESCRIPTION
1.9	Hwy 42/Roberts Creek Road. 4 lane divided Hwy with center turning lane. Approximate shoulder 5'on South Side, curb on North side.

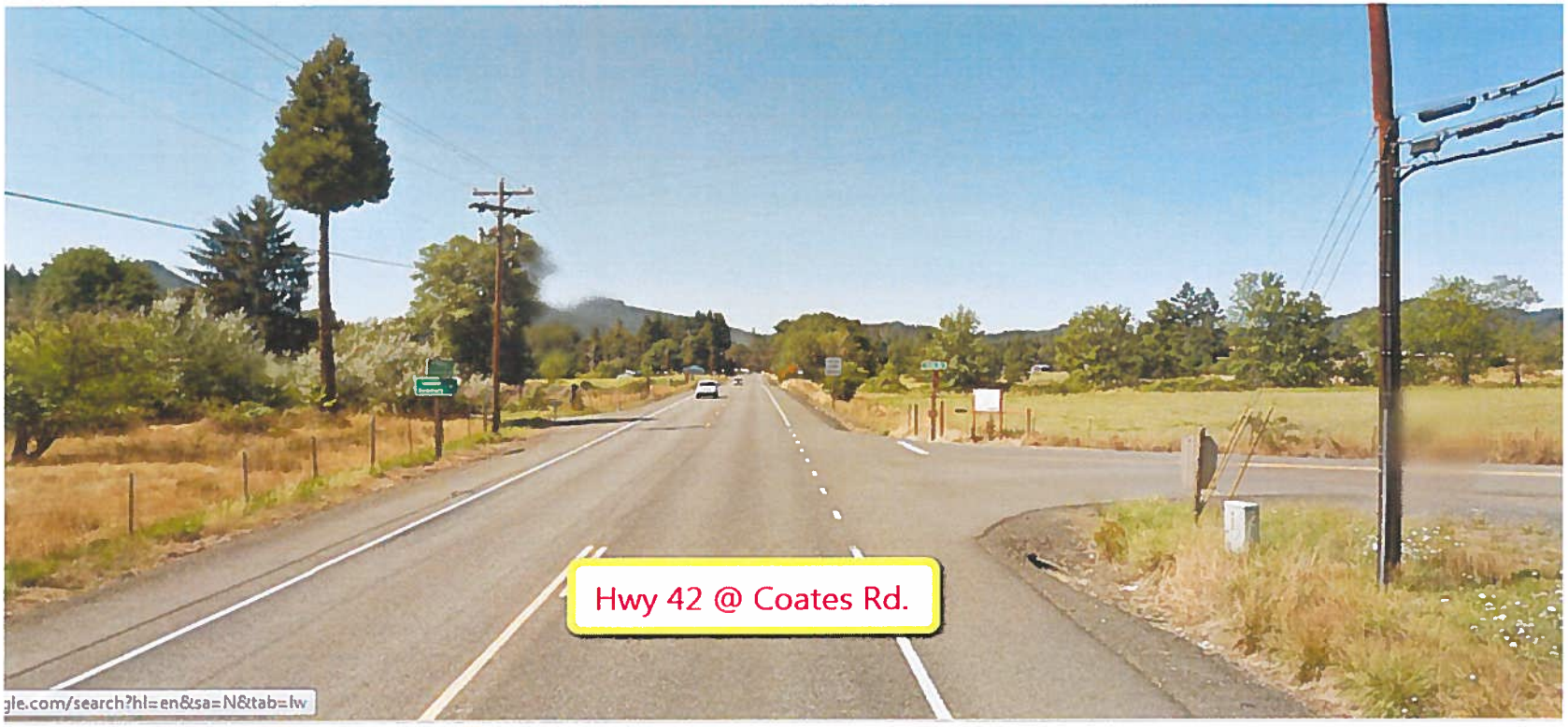


MILES	DESCRIPTION
2.24	Highway 42 at South Umpqua River: Divided Hwy, two lanes w/4' shoulders on South side.

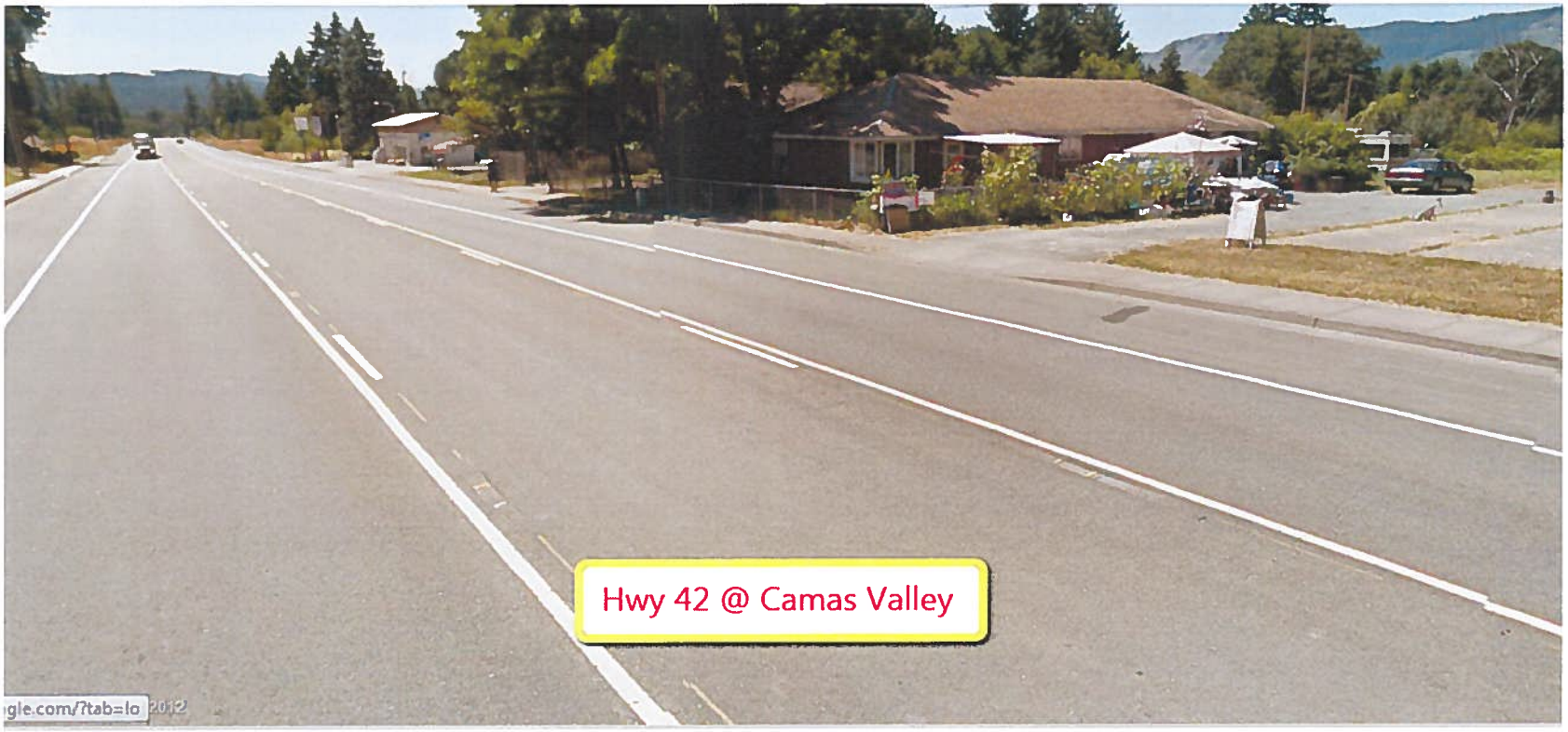


MILES	DESCRIPTION
3.4	Hwy 42/Douglas Blvd.: Control traffic at intersection, transition to right.

MILES	DESCRIPTION
12.7	Hwy 42 at Coates Road: Two lanes, paved asphalt, 5' shoulders on both sides, no overhead utilites



MILES	DESCRIPTION
20.7	Hwy 42 @ Camas Valley: Two Lanes w/center turning lane. 8' shoulders. Potential traffice relief area.

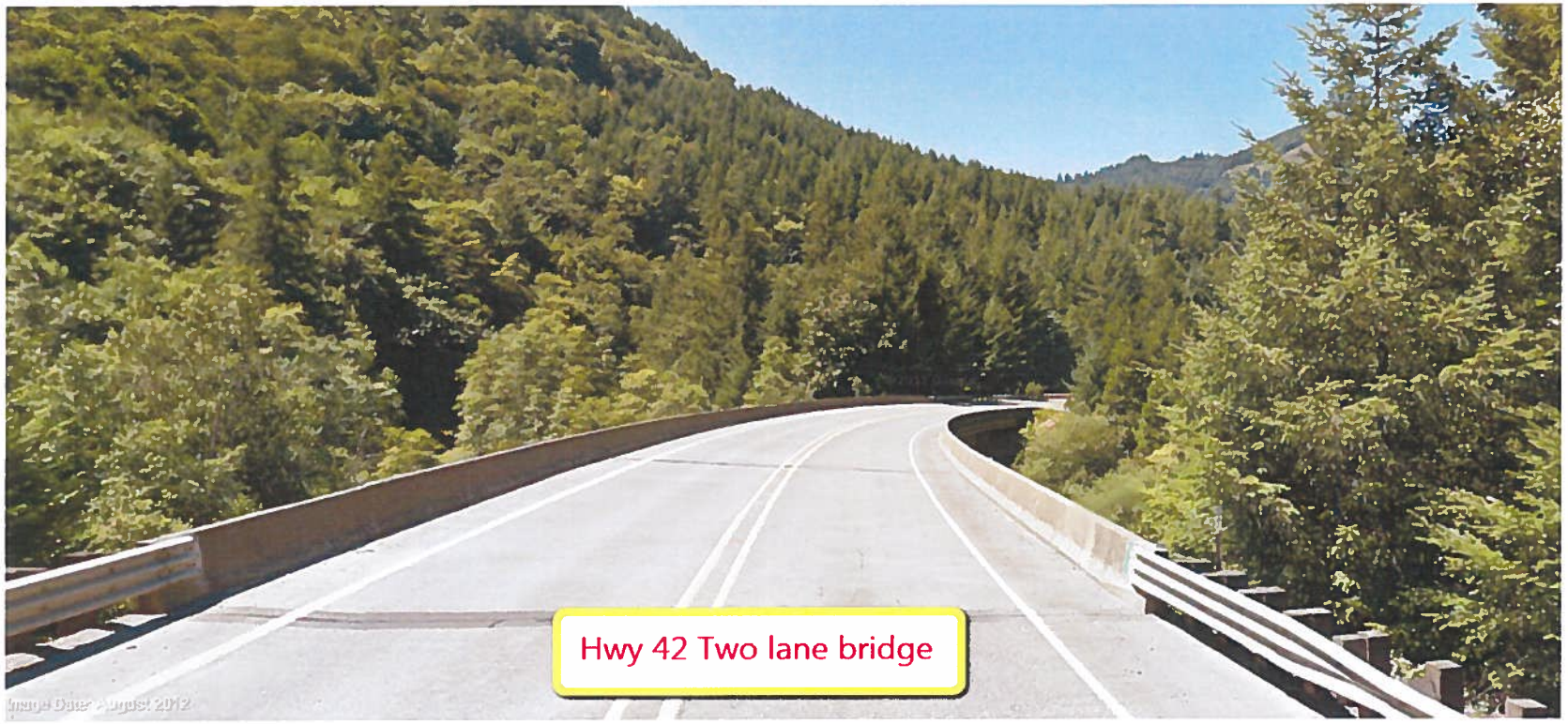


MILES DESCRIPTION

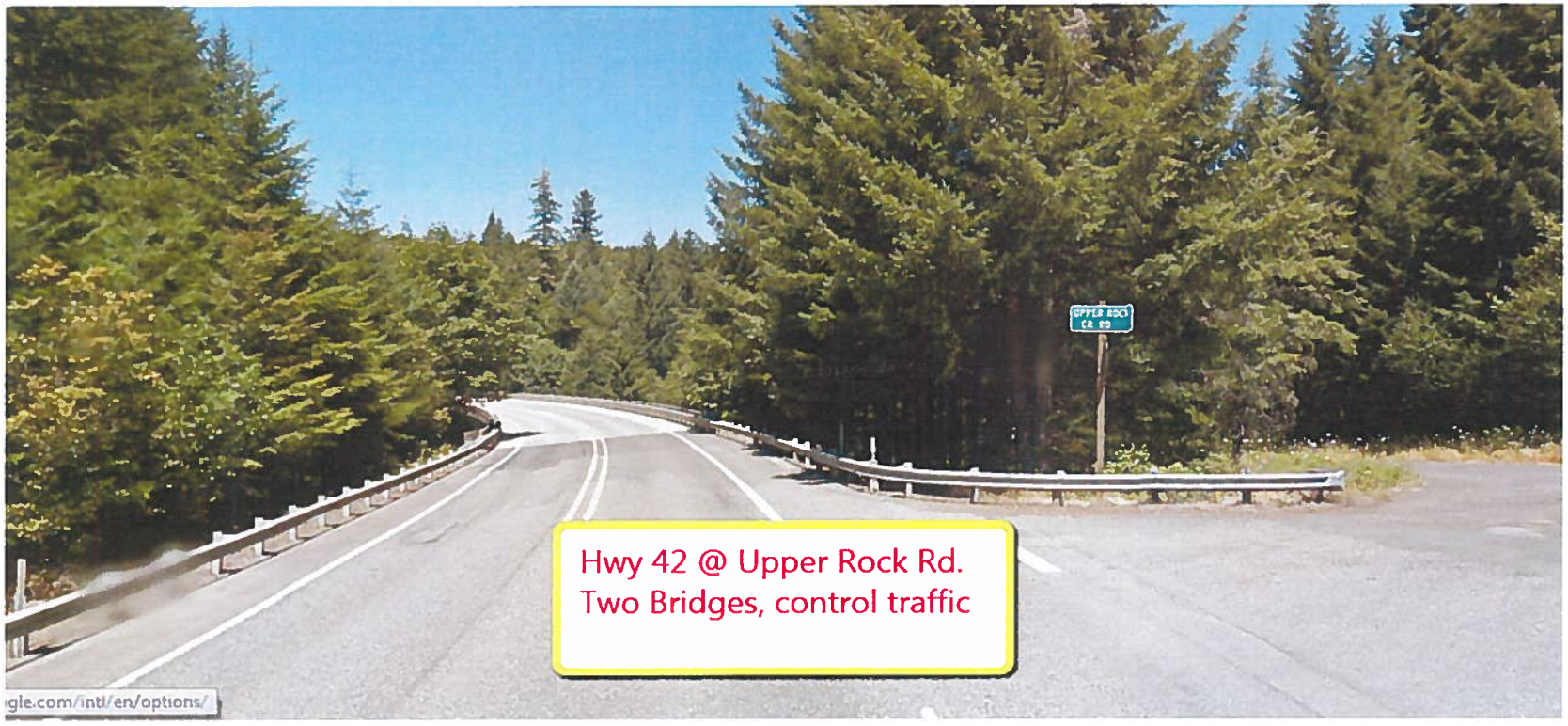
22.9 Hwy 42/Coquille River Crossing #1: Three lanes w/6' shoulders, on North side, control traffic during crossing

MILES	DESCRIPTION
23.3	Hwy 42/Coquille River Crossing #2: Two lanes w/6' shoulders, on North side, control traffic during crossing

MILES	DESCRIPTION
27.5	Hwy 42/Coquille River Crossing #3: Two lanes w approx. 3' on both sides, control traffic during crossing

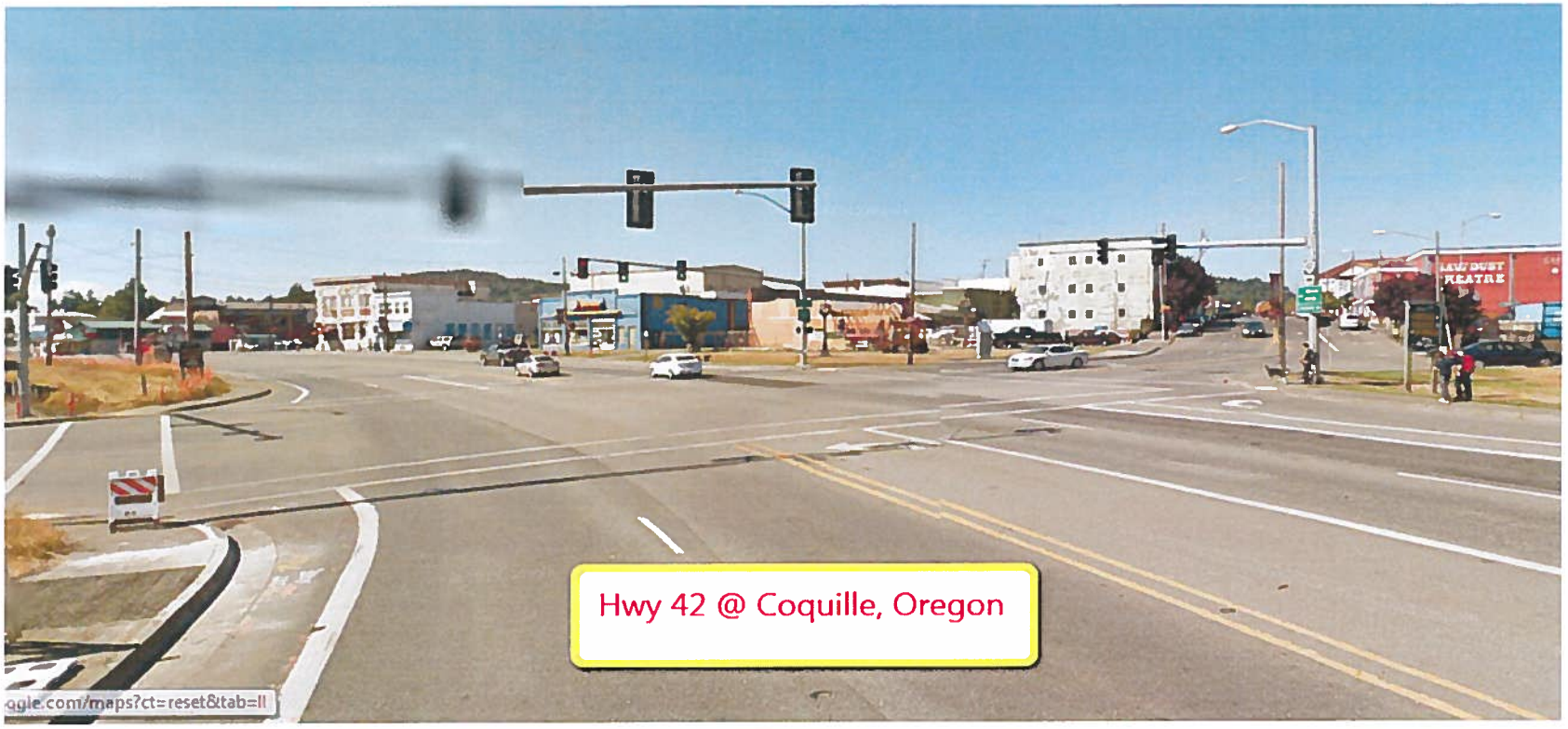


MILES	DESCRIPTION
34.9	Hwy 42/Coquille River Crossing #4: Two lanes w/approximate 4' shoulders, on both sides, control traffic during crossing

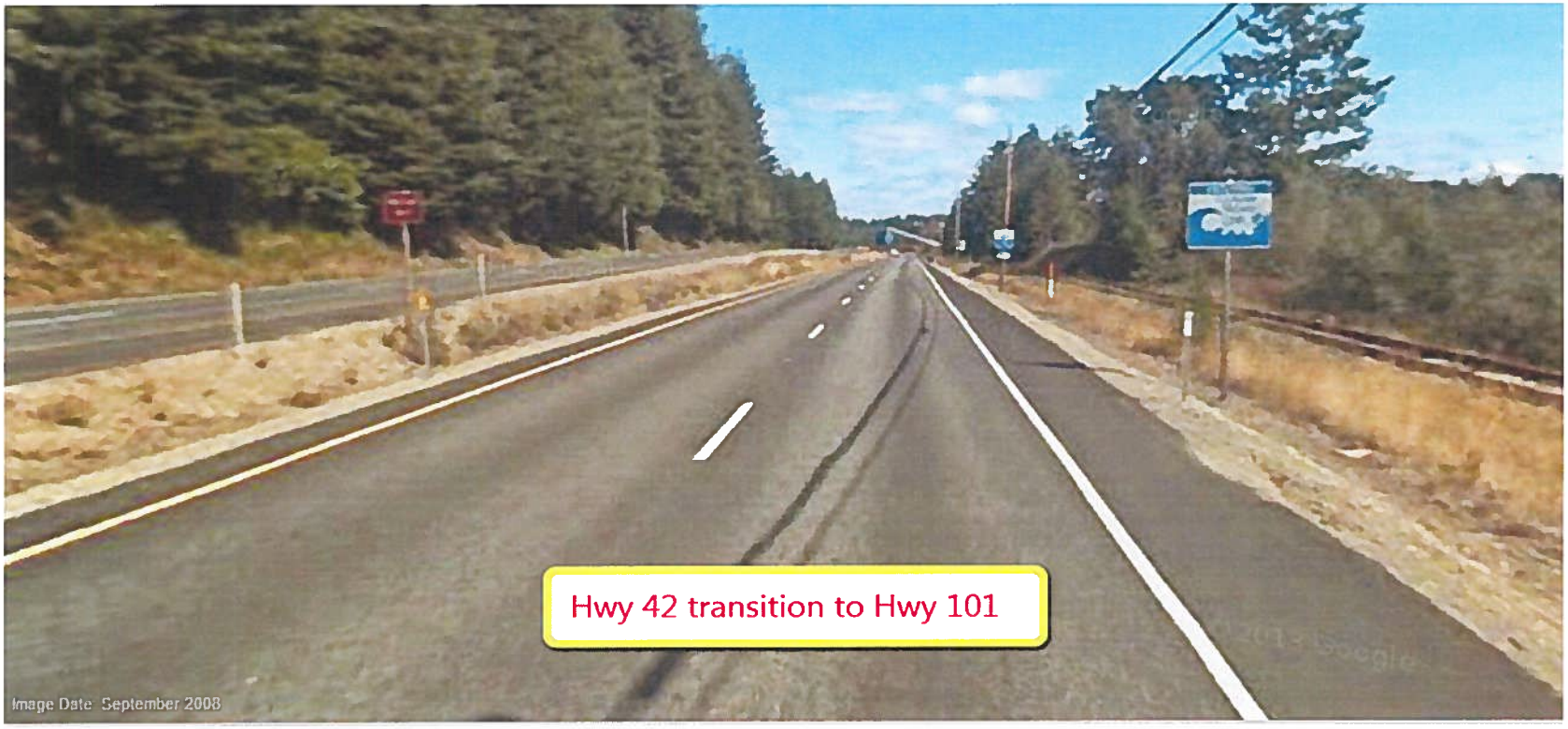


MILES	DESCRIPTION
53.2	Hwy 42/Myrtle Point, Oregon: 4 lanes, potential traffic relief area. No shoulders/sidewalks

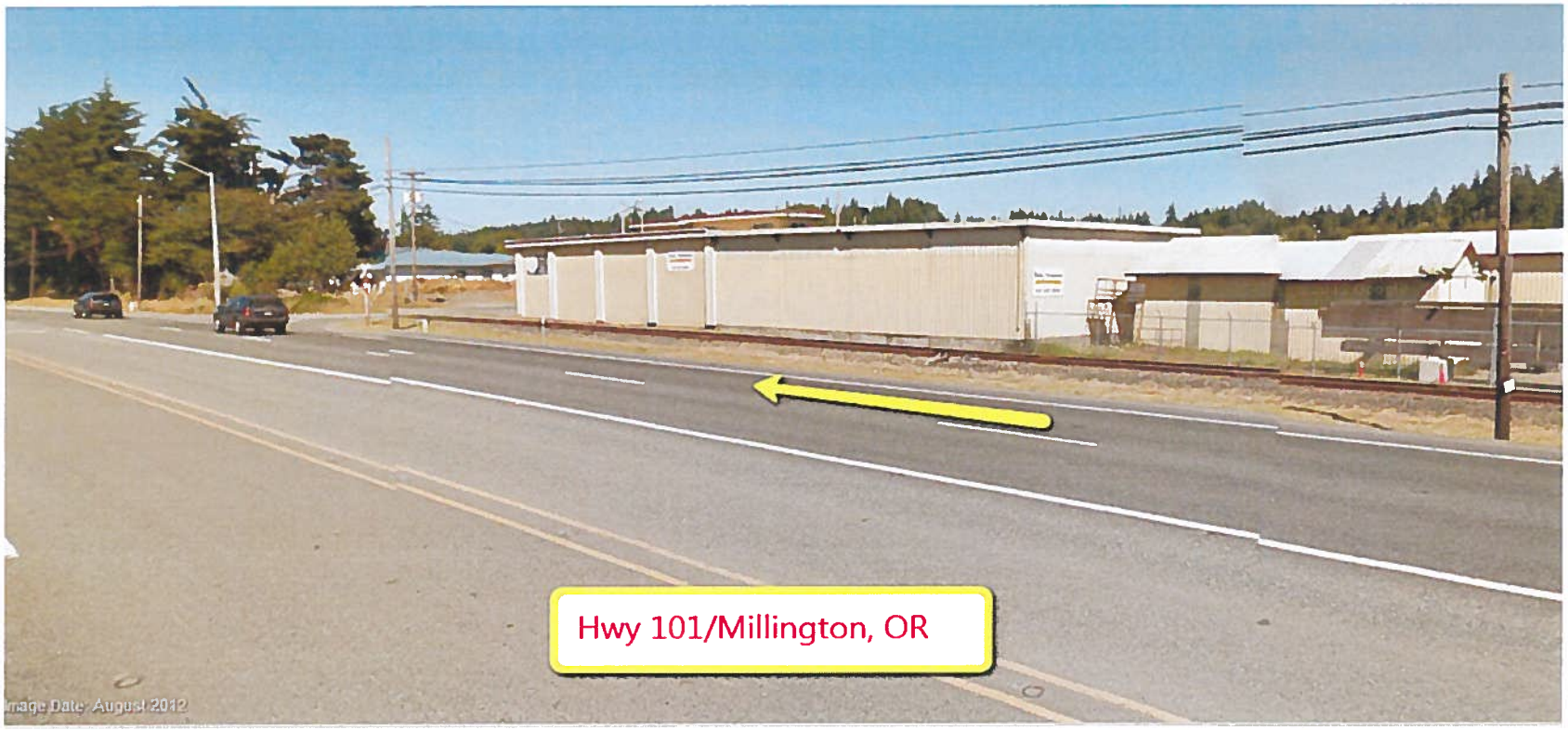
MILES	DESCRIPTION
61.7	Hwy 42/Coquille, Oregon: 4 lanes w/ center turning lane. Potential traffic relief area.



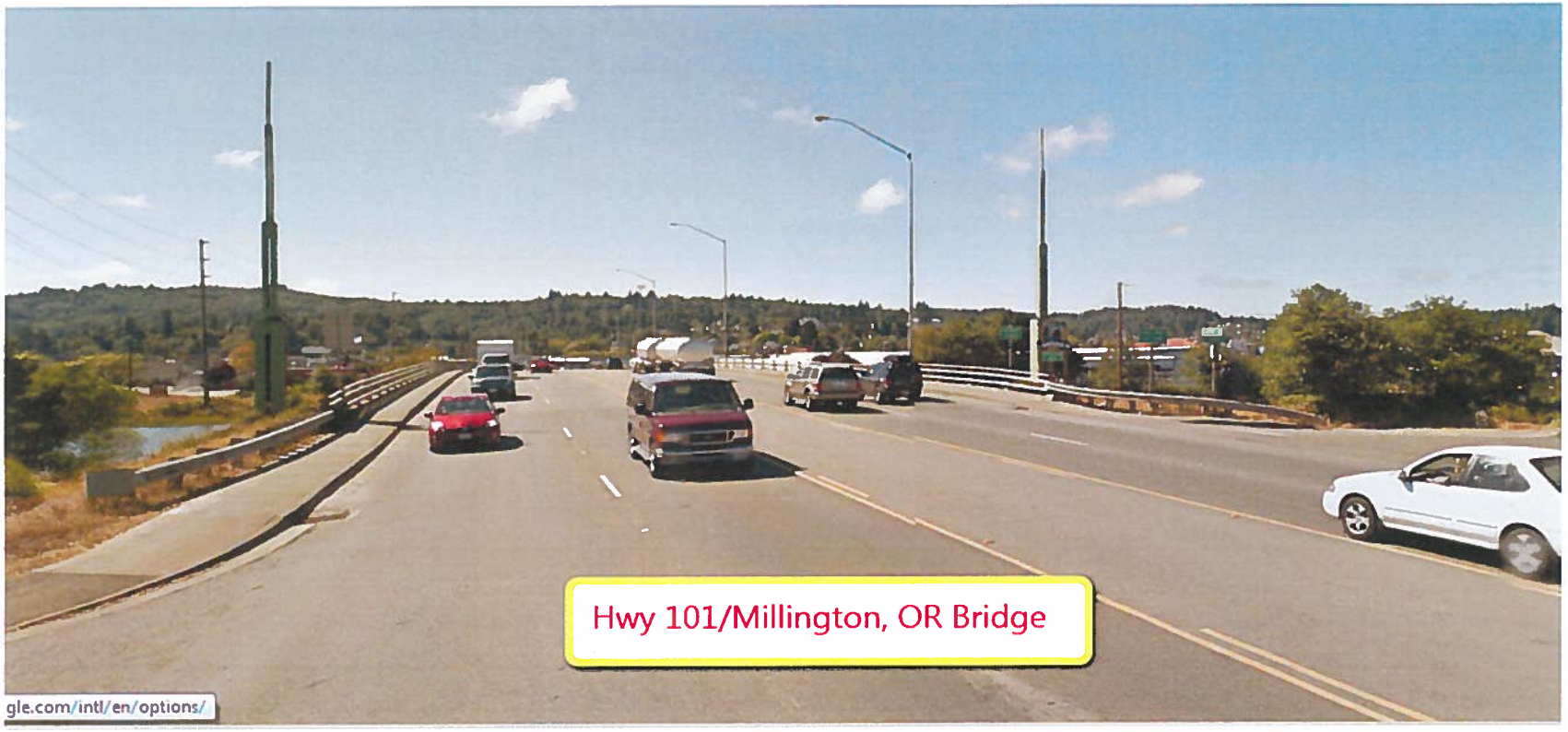
MILES	DESCRIPTION
72.0	Hwy 42 transition onto Hwy 101: Divided highway, two lanes Northbound. 5' shoulders on East side, 2' shoulders on West side.



MILES	DESCRIPTION
76.0	Hwy 101/Millington, Oregon: 4 lanes w/center turn lane. Approximate 5' shoulders on both sides. Potential traffic relief area.

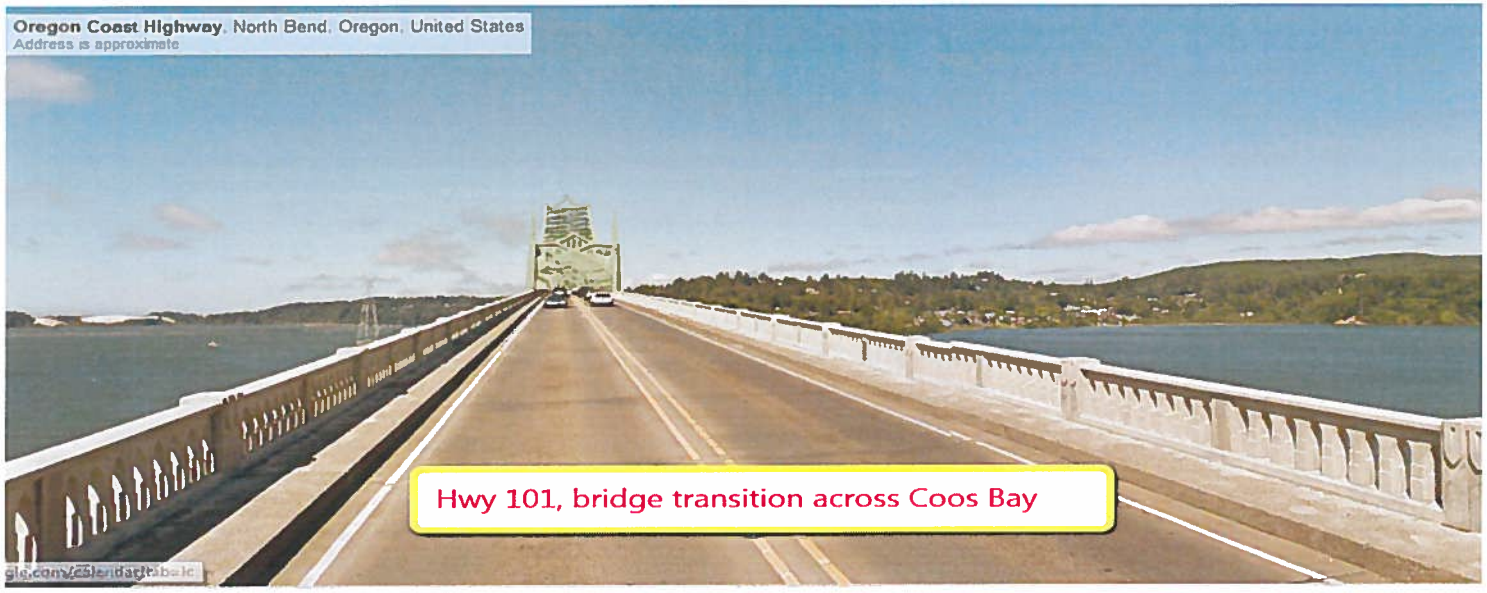


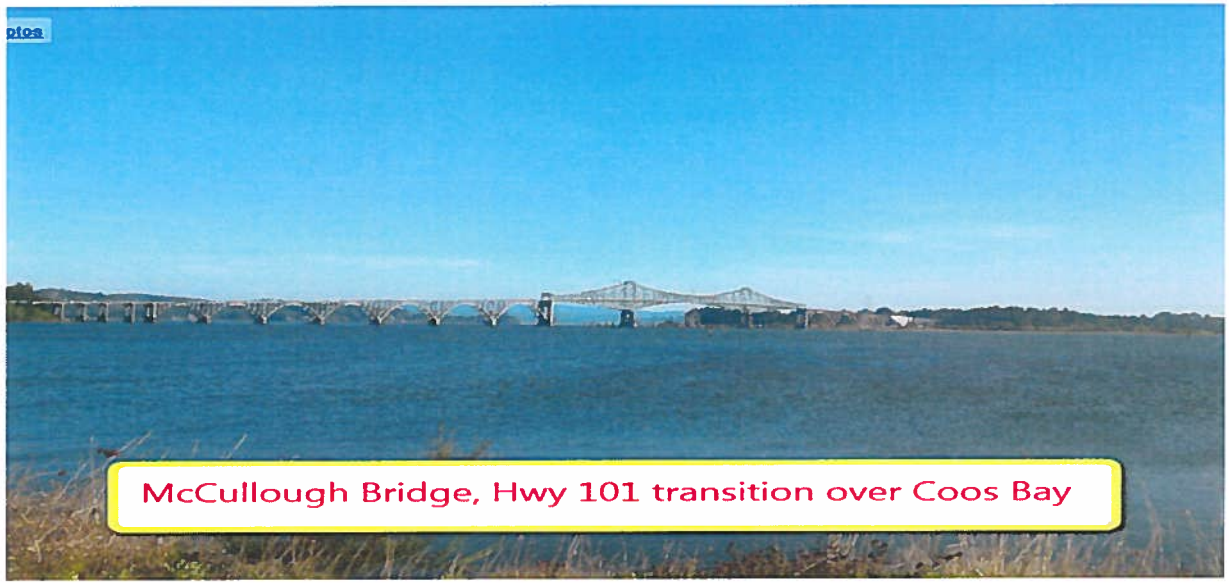
MILES	DESCRIPTION
77.8	Hwy 101/Millington, Oregon: Bridge crossing. 4 lanes with center emergency lane. No shoulders control North bound traffic during crossing.



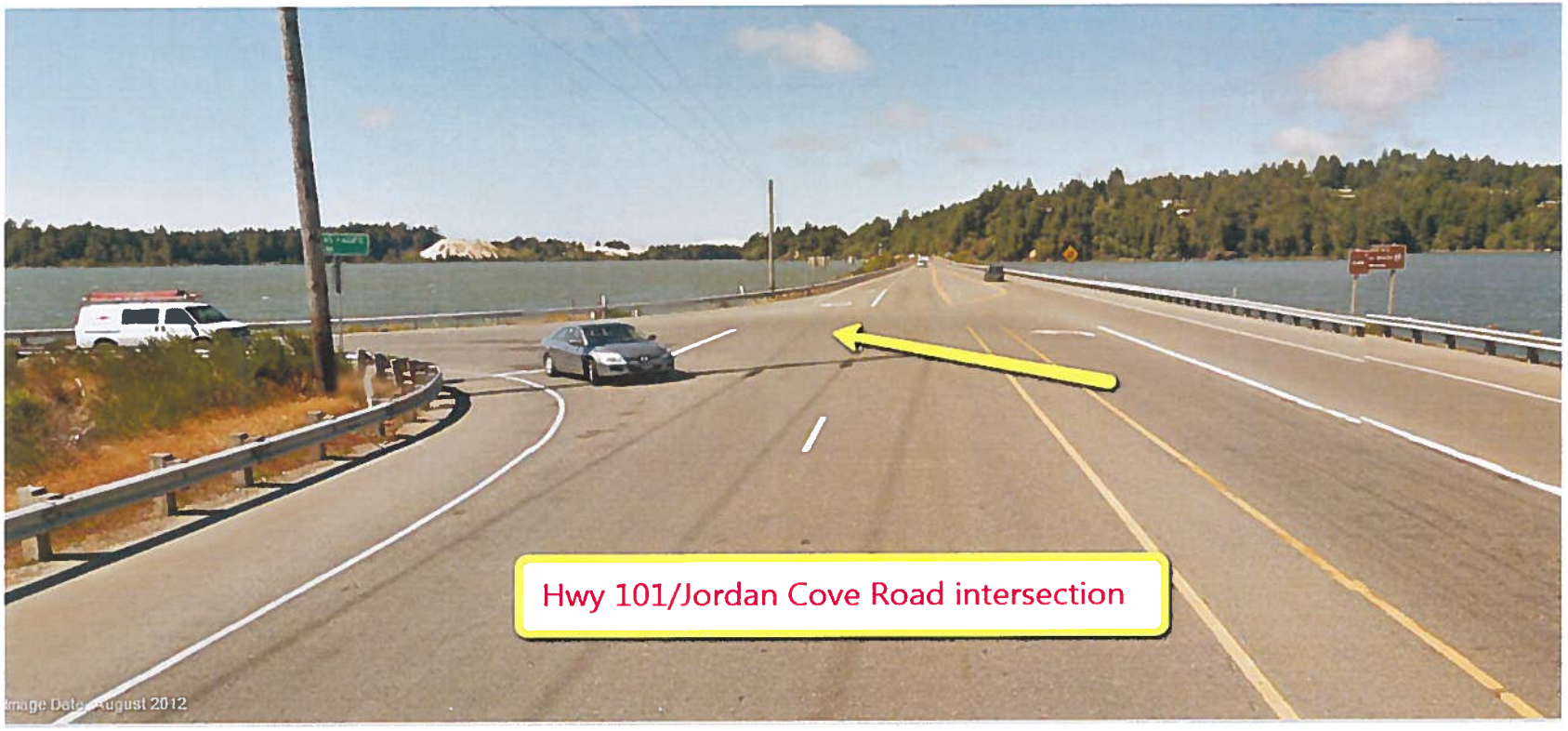
MILES **DESCRIPTION**

83.1 Hwy 101/McCullough Bridge: Bridge transitions over Coos Bay. Two lanes w/1' shoulders on both sides. Control traffic during bridge crossing.



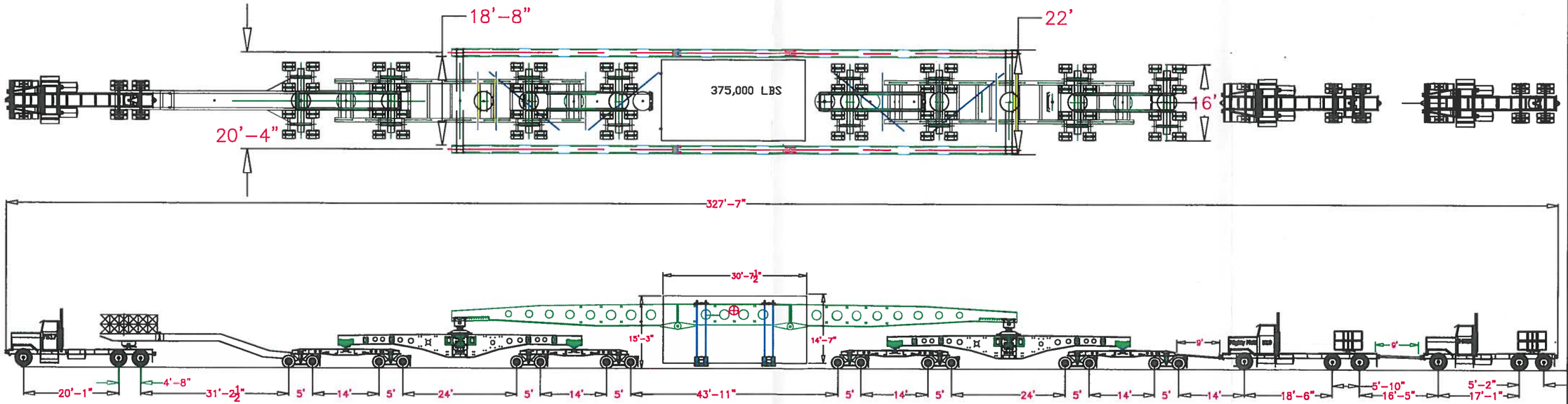


MILES	DESCRIPTION
84.3	Hwy 101/Jordan Cove Rd.: Route transition West onto Jordan Cove Road which consists of two lanes and shoulders on either side of the road varying from 1'to 3'. Control South bound traffic during transition onto Jordan Cove Rd. and control traffic during transition into site.



MILES	DESCRIPTION
85.8	Transition into power plant area via Jordan Cove Road.

II) TRANSPORT DRAWINGS



Axle #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	23	24	25	26	27	28	29
# of Tires	2	2	4	4	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	2	2	4	4	2	2	4	4
Tread Width	445mm	0	305mm	305mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm	235mm								
Axle Load (lbs)	17231	0	21496	21496	42440	42440	42440	42440	42440	42440	42440	42440	42435	42435	42435	42435	42435	42435	42435	42435	18000	0	21500	21500	16000	0	16000	16000
Axle Load (kg)	7,816	0	9,750	9,750	19,250	19,250	19,250	19,250	19,250	19,250	19,250	19,250	19,248	19,248	19,248	19,248	19,248	19,248	19,248	19,248	8,165	0	9,752	9,752	7,257	0	7,257	7,257
	Pull Truck T-17				Dolly Group 1				Dolly Group 2				Dolly Group 3				Dolly Group 4				Push Truck Mighty Matt				Push Truck Shrek			

THIS DRAWING IS FOR ONE APPLICATION ONLY. OMEGA MORGAN WILL NOT BE LIABLE IN ANY WAY WHAT SO EVER IF THIS DRAWING IS USED IN ANY WAY OTHER THAN ITS ORIGINAL INTENT.

UNLESS OTHERWISE SHOWN, ALL DIMENSIONS ARE IN FT. AND IN. (DIMENSIONS IN BRACKETS ARE IN mm) AND TOLERANCES ARE: X"=+1/8" X.0"=+0.1" X.00"=+0.02" X.000"=+0.005"

OMEGA MORGAN
Phone: (503) 708–0928 Fax: (503) 647–7422
23810 NW Huffman Street, Hillsboro, Or. 97124

OMEGA MORGAN
STRENGTH AND TRUST

CLIENT: BLACK & VEATCH

TITLE: Steam Generator Transport

PROJECT MANAGER: Grea Arquit

DATE: 8/6/13

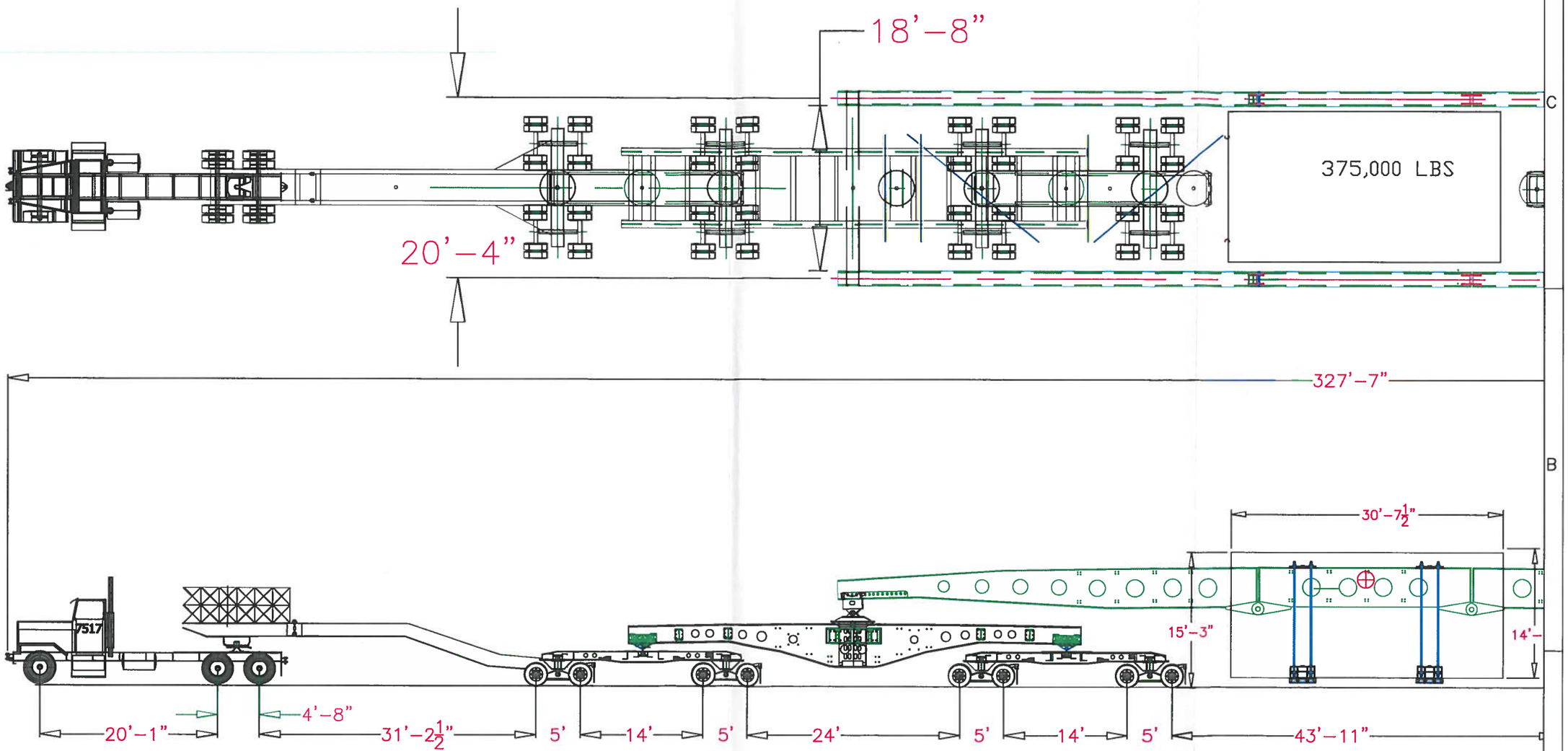
DRAWN BY: DT

CHECKED BY: X

DWG.NO. OM 0

SHT. 1 OF 4

REV. B



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23810 NW Huffman Street, Hillsboro, Or. 97124
OMEGA MORGAN
STRENGTH AND TRUST

CLIENT: BLACK & VEATCH

TITLE: Steam Generator Transport

PROJECT MANAGER: Greg Arquit

DATE: 8/6/13

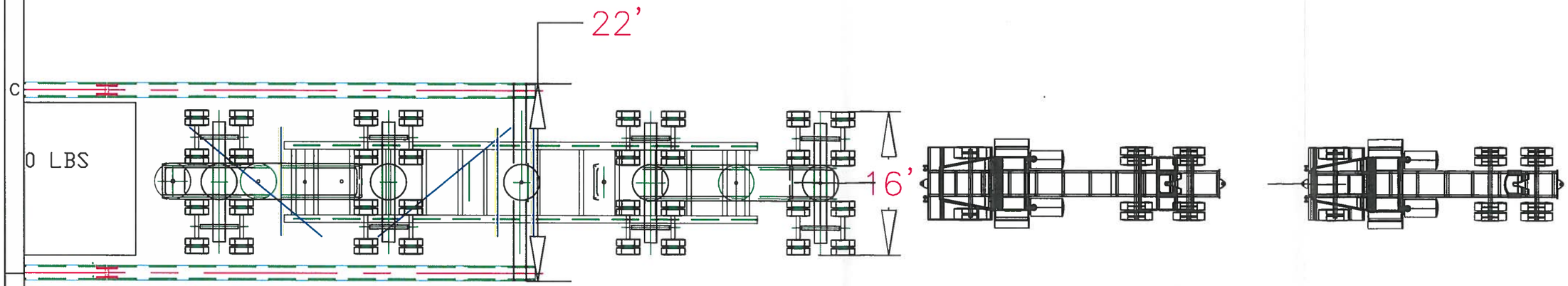
DRAWN BY: DT

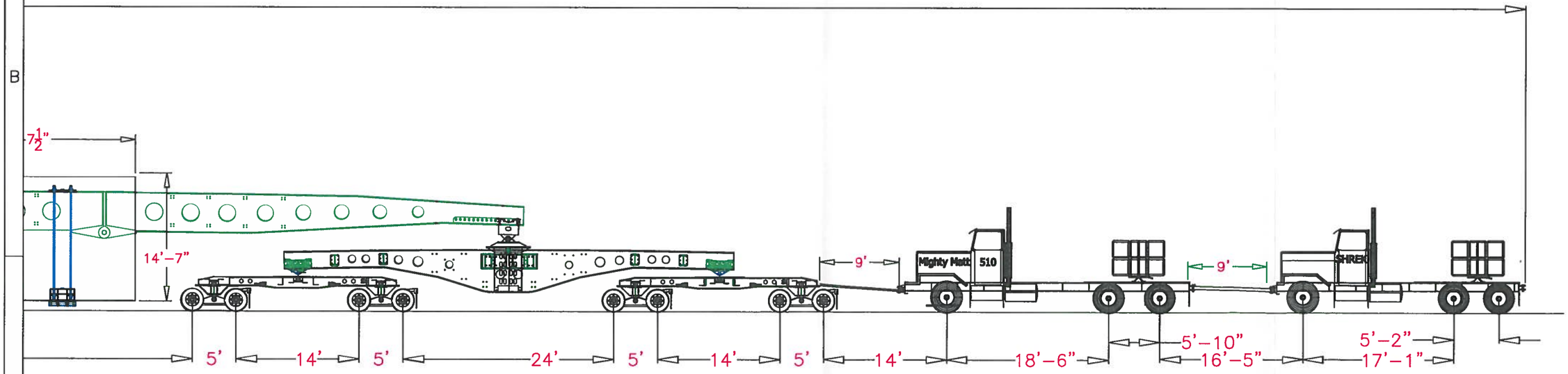
CHECKED BY: X

DWG.NO. OM1274–100

SHT. 2 OF 4

REV. B





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23810 NW Huffman Street, Hillsboro, Or. 97124

OMEGA MORGAN
STRENGTH AND TRUST

CLIENT: BLACK & VEATCH

TITLE: Steam Generator Transport

PROJECT MANAGER: Greg Arquit

DATE: 8/6/13

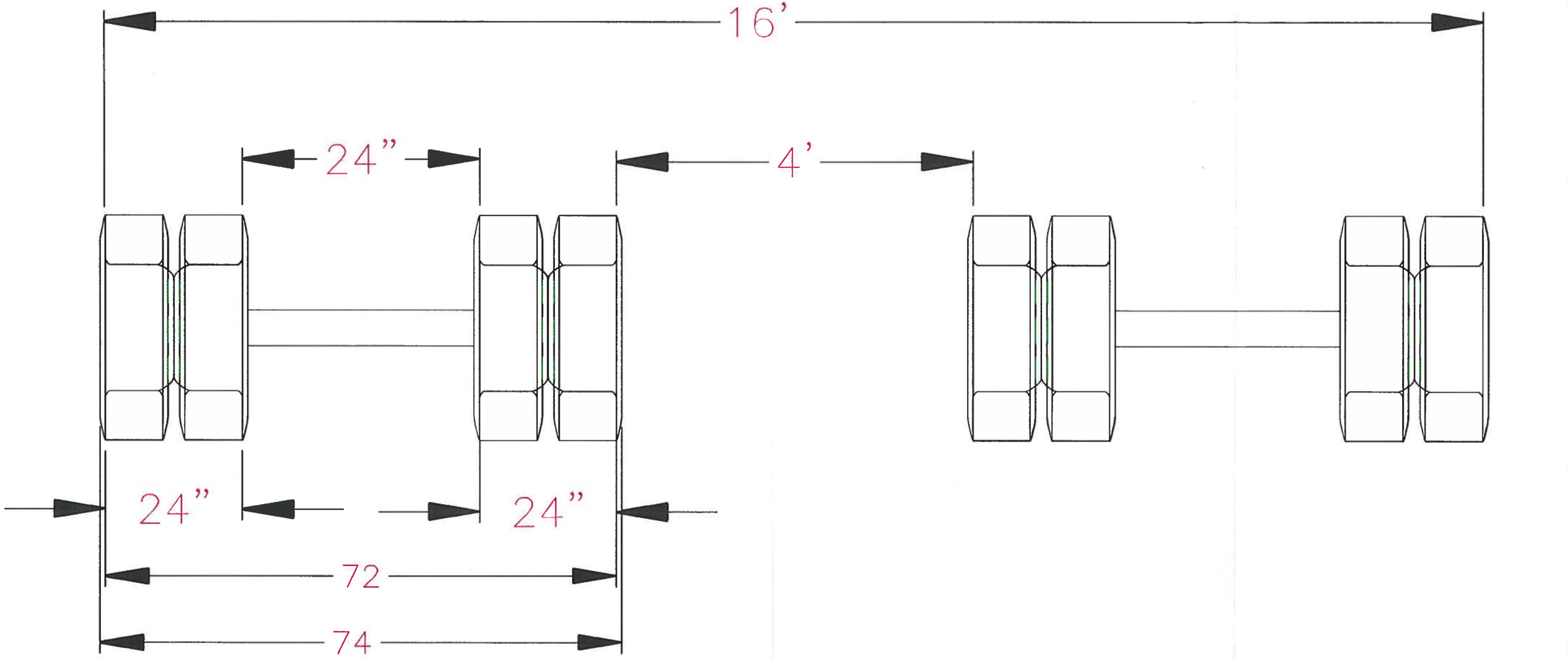
DRAWN BY: DT

CHECKED BY: XXX

DWG.NO. OM1274–100

SHT. 3 OF 4

REV. B



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X"=+1/8" X.0"=+0.1" X.00"=+0.02" X.000"=+0.005"

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23810 NW Huffman Street, Hillsboro, Or. 97124

OMEGA MORGAN
STRENGTH AND TRUST

CLIENT: BLACK & VEATCH

TITLE: Steam Generator Transport

PROJECT MANAGER: Greg Arquit			DATE: 8/6/13
DRAWN BY: DT	CHECKED BY: XXX		
DWG.NO. OM1274-100	SHT. 4	OF 4	REV. B

III) O.D.O.T PERMIT SUBMITTAL

OMEGA MORGAN

1222 46th Avenue East, Fife, Washington 98424 / omegamorgan.com

DATE: August 13, 2013

ATTENTION: Superloads @ 503-378-2873

COMPANY: ODOT

REGARDING: Route request

COMMENTS: Good afternoon, Please process the attached route request and drawings for the movement of two steam turbines into a new project. The project is in Jordan Cove. We would like an answer as soon as possible to confirm with our customer. Thank you,

PAGES INCLUDING COVER: 4

FROM: **Chris Charniak** PERMIT SPECIALIST
Cell: (206) 730-4394 Phone: (253) 852-7500 Fax: (423) 531-0496
chris.charniak@omegamorgan.com | omegamorgan.com

OREGON DEPARTMENT OF TRANSPORTATION
MOTOR CARRIER TRANSPORTATION DIVISION
OVER-DIMENSION PERMIT UNIT
550 CAPITOL ST NE
SALEM OR 97301-2530
PHONE: (503) 373-0000
FAX: (503) 378-2873

ROUTE REQUEST (NON-DIVISIBLE)

Route Requests are NOT permits, and are intended to provide the motor carrier with information, specifically if a permit could be issued at the dimensions and route requested, and the provisions of the permit. Route Requests must be submitted in writing, and the applicant shall allow a minimum of 10 business days for processing. Requests for changes to size or weight require a new request. The carrier may be required to submit a traffic control plan, especially for travel over two-lane highways. Due to road construction or other restrictions, the route, the time frame or the permit conditions may be changed by the Department or Road Authority. The carrier may be required to submit a diagram with axle and load configuration. A separate application must be submitted for a permit to move an oversize load. If Route Request is approved, please provide Route Request log number with permit application.

SECTION 1 - CARRIER AND VEHICLE INFORMATION

CARRIER NAME	MCTD ACCOUNT NUMBER	CONTACT PHONE NUMBER	HOSTFAX / FAX NUMBER
Morgan Machinery	050278	206-730-4394	4080
CONTACT NAME		TODAY'S DATE	MOVE REQUEST DATE
Chris Charniak		8-13-13	8-20-13
MAILING ADDRESS		REQUEST SUBMITTED BY	
23810 NW Huffman ST		☒ CARRIER ☐ PERMIT SERVICE	
CITY STATE ZIP			
Hillsboro, OR 97124			

SECTION 2 - PROPOSED ROUTE

STARTING LOCATION (I.E. ADDRESS, INTERSECTION, BORDER LOCATION)	ENDING LOCATION (I.E. ADDRESS, INTERSECTION, BORDER LOCATION)
OR/WA border I-205	Jordan Cove rd, Coos Bay

ROUTE

205 to 5 to 42 to 101 to Jordan Cove rd to site.

AXLES 3 THRU 18 ARE 8 TIRE AND 16'-0" WIDE

SECTION 3 - NON-DIVISIBLE LOAD DIMENSIONS

COMMODITY	LOAD LENGTH	LOAD WIDTH	TRAVEL HEIGHT	OVERALL LENGTH
Steam turbine	35-0	22-0	16-0	335-0

FRONT OVERHANG	REAR OVERHANG	NUMBER OF AXLES	AXLE WIDTH	GROSS WEIGHT	WEIGHT TABLE	TRAILER LENGTH	TRAILER WIDTH
		25	16-0	848226		119-4	22-0

DESCRIPTION OF VEHICLE(S) (IE: 4-J2-S2-B2 or TRUCK TRACTOR SEMITRAILER)

3,j2,j2,d4,d4,d4,3,3

☒ FIXED ☐ STRETCH ☐ EXPANDED

LIST DIMENSIONS BETWEEN AXLES IN THE SPACE BELOW (IN FEET AND INCHES)

1 20' 2" 2 4' 8" 3 31' 1" 4 5' 0" 5 14' 0" 6 5' 0" 7 24' 0" 8 5' 0" 9 14' 0" 10 5' 0" 11 44' 0" 12 5' 0" 13 14' 0" 14 5' 0" 15

AXLE WEIGHTS

17231,42995,84880,84880,84880,84880,84870,84870,84870,84870,18000,43000,16000,32000

UNLADEN TRAVEL REQUESTED? INCLUDE STARTING AND ENDING LOCATION, ROUTE, ETC.

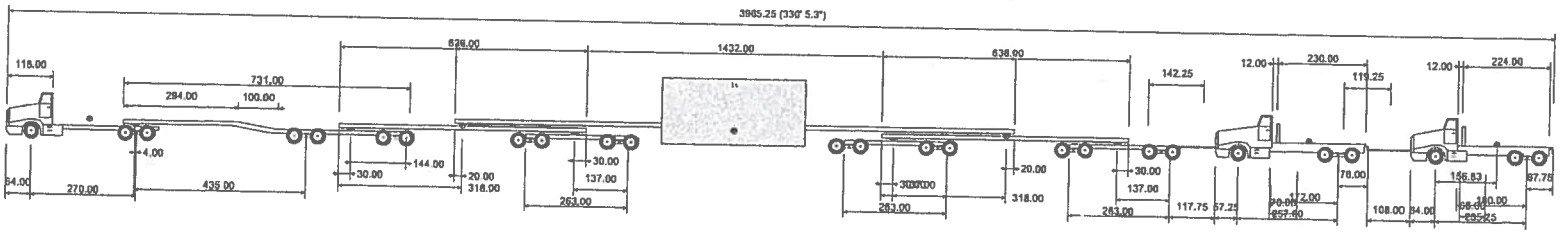
15-16 (24-0),16-17 (5-0),17-18 (44-0),18-19 (5-0),19-20 (14-0),20-21 (18-6), 21-22 (5-10),22-23 (18-5), 23-24(17-0), 24-25(5-1)

TRAILER LENGTH	TRAILER WIDTH
# OF AXLES	OVERALL LENGTH
GROSS WEIGHT	

CAN YOU MAINTAIN HIGHWAY SPEED? ☐ YES ☒ NO IF NO, WHAT SPEED? 25

All lengths in inches and weights in pounds

Primus of Lead Spot software



(Total =3866)

242	58	373	60	168	60	288	60	168	60	528	60	168	60	288	60	168	60	168	222	70	213	204.5	61.5
T-17		498 Jeep			498 Front			498 DOLI250 TON GI			498 DOLLY		498 Rear d			498 DOLLY			MIGHTY MAT			Shrink		

Axle Loads:	#1 (lb)	#2 (lb)	#3 (lb)	#4 (lb)	#5 (lb)	#6 (lb)	#7 (lb)	#8 (lb)	#9 (lb)	#10 (lb)	#11 (lb)	#12 (lb)	#13 (lb)	#14 (lb)	Total (lb)
Tare:	17231	42995	34875	34875	34875	34875	34875	34875	34875	34875	16000	43000	16000	32000	448226
Axle overweight:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Payload:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total:	17231	42995	50005	50005	50005	50005	48995	48995	49995	48995	0	0	0	0	0
Deployable limit:	-	48000	84880	84880	84880	84880	84870	84870	84870	84870	16000	43000	16000	32000	400000
Legal limit:	-	-	86000	86000	86000	86000	86000	86000	86000	86000	16000	43000	16000	32000	848226
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Unit:	1 (Tractor)	2 (Jeep)	3 (Axle 3)	4 (Spreader)	5 (Bridge)	6 (Spreader)	7 (Axle 7)	8 (Axle)	9 (Trailer)	10 (Trailer)	Vehicle
Tare weight (lb):	37800	48326	24000	40000	103000	40000	24000	24000	61000	48000	448226
Axle overweight (lb):	0	0	0	0	0	0	0	0	0	0	0
Payload (lb):	0	0	0	0	400000	0	0	0	0	0	0
Total (lb):	37800	48326	24000	40000	503000	40000	24000	24000	61000	48000	400000
Over all C.G. height (in):	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	848226

Title:

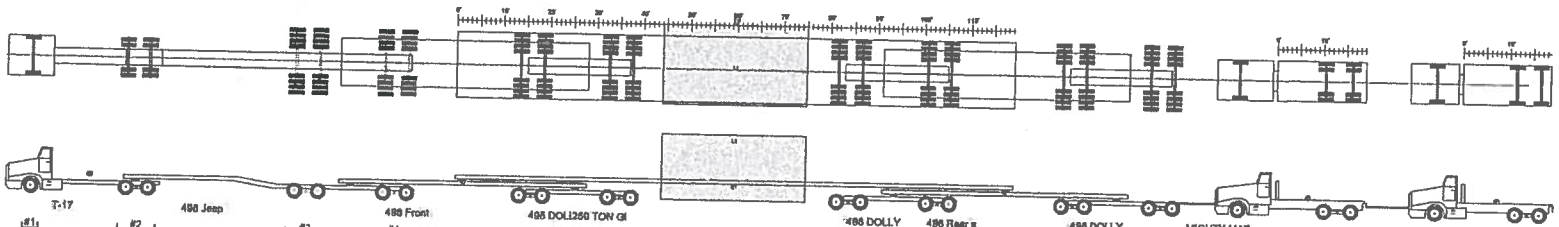
Company:

Date:

By:

All lengths in inches and weights in pounds

Printout of Load Xpert software



Axle Loads:	#1 (lb)	#2 (lb)	#3 (lb)	#4 (lb)	#5 (lb)	#6 (lb)	#7 (lb)	#8 (lb)	#9 (lb)	#10 (lb)	#11 (lb)	#12 (lb)	#13 (lb)	#14 (lb)	Total (lb)
Tare:	17231	42995	34875	34875	34875	34875	34875	34875	34875	34875	18000	43000	18000	32000	448226
Axle weights:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Payload:	0	-0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total:	17231	42995	50005	50005	50005	50005	49995	49995	49995	49995	0	0	0	0	0
Permissible:	-	48000	64880	64880	64880	64880	64870	64870	64870	64870	18000	43000	18000	32000	448226
Overweight:	-	-	88000	88000	88000	88000	88000	88000	88000	88000	18000	46000	-	-	-

Payload (all Loads together)		Unit 5 (Printed)
Payload weight:	lbs	400000
Payload C.G. position * :	ins	715.92
Position where loading starts * :	ins	530.00

* measured for chassis from back of cab, for other Units from front end of Body.
⊕ = Overall center of gravity

Title:

Company:

Date:

By:

HP Officejet Pro 8600 N911n Series

Fax Log for
Omega Morgan
423-5310496
Aug 13 2013 3:28PM

Last Transaction

Date	Time	Type	Station ID	Duration	Pages	Result
				Digital Fax		
Aug 13	3:26PM	Fax Sent	15033782873	2:35 N/A	4	OK

Morgan Machinery Log#12051 Route request.

District 2B: We would require 2 Front and 3 Rear with one in each lane taken (2) and the 3rd behind them with a slow moving vehicle ahead sign board. Nighttime travel through district 2B. They should pull off at the wide spot near MP 6.09 and after the Stafford Road SB on ramp to I-205 near MP 3.16 to allow traffic to pass that is backing up behind them.

District 3: would concur with 2B mostly, but would like to add a fourth in the rear (the fourth being about a mile back), as well as having all rear pilots equipped with 3-line VMS boards. Travel from 10pm to 4am only.

District 4 &5: would concur with 2B and 3, but would like to add a fourth in the rear (the fourth being about a mile back), as well as having all rear pilots equipped with 3-line VMS boards. Travel from 10pm to 4am only.

District 7: This move requires the Carrier to develop and submit a traffic control plan for approval.
On portions Highway 42 and Highway 101, the load will require full closure each direction to traffic during passage and on I-5 require taking both lanes. In District 7, on I-5 and within the four lane sections of Highway 42 and Highway 101 the traffic control plan will need to detail locations were the load can pull off to allow traffic to clear. Regarding two lane sections of Highway 42 and Highway 101, the traffic control plan needs to detail the application of the traffic control devices set up, the locations & length of each set up and the locations where the load can pull over in order to allow traffic to clear. Along with that we are looking at a night time move on I-5 and a Saturday/ Sunday move on Highway 101 and Highway 42.

IV) SPECIALIZED RAIL TRANSPORT, CLEARANCE SUBMITTAL

Dimensional Clearance Request Form

DIMENSIONAL CLEARANCE REQUEST FORM

https%3A%2F%2Fc01.my.uprr.com%2Fdim%2Fsecure%2Findex.cfm
Page Received From Server On: August 13, 2013 03:01 PM CT

Enter infomation below to submit a request for movement of equipment that exceeds standard height, width, length, or weight limitations.

Please complete all fields denoted with this symbol (➔):

➔**Proposed ShipDate:** 08/13/2014

Party Requesting Clearance Information:

➔Name:	Chris Johnson
➔Company:	Specialized Rail Transport
➔Address:	2315 McCarty Street
➔City:	Houston ➔State: TX
➔Zip Code:	77029
➔Telephone:	918-254-0195
Fax:	918-254-0195
E-mail:	chris.johnson@srt.cc
Requester File #:	SRT 00691

➔ (•) Original Proposal ( ) Revision to Original Proposal Carrier file #:

Load and Origin Shipper Information, if different from Requesting Party:

➔Company:	Specialized Rail Transport
Address:	Port of Stockton
➔City:	Stockton ➔State: CA
➔Origin Track Type :	Private Track
➔Origin Zone/Track/Spot :	N/A
Rigger Company Name:	N/A
Rigger Contact Name:	N/A
Rigger Telephone:	N/A

Consignee and Destination:

➔Company:	SRT c/o Roseburg Forest Products
Address:	Jordan Point Road
➔City:	North Bend ➔State: OR
➔Destination Track Type :	Private Track
➔Destination Zone/Track/Spot :	unknown
Requested Rail Route:	UP
Rigger Company Name:	N/A
Rigger Contact Name:	N/A

Rigger Telephone: N/A

Commodity and Dimensions:

Commodity (vessel/earth mover/kiln/transformer/etc.):	HRSG Units	Value :	unknown
STCC #:	3443325	Estimated Loads:	6
Shape (cylindrical/rectangular/oval/etc.):	rectangular		
Net weight (in lbs):	360,000		

Overall Length:	feet 65	inches 0	**Base Length:**	feet 65	inches 0		
Overall Width:	feet 12	inches 0	**Overall Height:**	feet 13	inches 1		
Center of Gravity: (•)	**or**	Combined Center of Gravity: ( )	80"				

Please Enter Dimensions Top to Bottom of Load:

One of the two following options must be selected:

( ) I am providing "On the ground" dimensions of the load.

(•) I am providing "On the flatcar" dimensions of the load.

Please provide all following dimensions measured from the top of the load to the bottom of load which is consistent with generally held convention and process recognized by rail clearance engineers:

Height (Top):			**Width at Height:**		
1st Height:	feet 17 inches 5		**1st Width:**	feet 12	inches 0
2nd Height:	feet 8 inches 8		**2nd Width:**	feet 12	inches 0
3rd Height:	feet 4 inches 2		**3rd Width:**	feet 12	inches 0
4th Height:	feet 4 inches 1		**4th Width:**	feet 10	inches 0
5th Height:	feet	inches	**5th Width:**	feet	inches
6th Height:	feet	inches	**6th Width:**	feet	inches
7th Height:	feet	inches	**7th Width:**	feet	inches
8th Height:	feet	inches	**8th Width:**	feet	inches
9th Height:	feet	inches	**9th Width:**	feet	inches
10th Height:	feet	inches	**10th Width:**	feet	inches
11th Height:	feet	inches	**11th Width:**	feet	inches
12th Height:	feet	inches	**12th Width:**	feet	inches
13th Height:	feet	inches	**13th Width:**	feet	inches
14th Height:	feet	inches	**14th Width:**	feet	inches
15th Height:	feet	inches	**15th Width:**	feet	inches
16th Height:	feet	inches	**16th Width:**	feet	inches
17th Height:	feet	inches	**17th Width:**	feet	inches
18th Height:	feet	inches	**18th Width:**	feet	inches
19th Height:	feet	inches	**19th Width:**	feet	inches
20th Height:	feet	inches	**20th Width:**	feet	inches

Load Type:

(•) Single Load ( ) Single End Overhang Load
( ) Bolster Load ( ) Double End Overhang Load ( ) Schnable

Car Number or Series:

If you know what specific car or car series you're using, please indicate the initial & number:

	Car Number	Outside Length	Truck Center	Car Capacity	Loading Area	Axles
1.	KRL 70843	86'-4"	55'-6"	460,000#	70'-0"	8
2.						
3.						

For Overhang Loads Only

Overhang Length: feet _____ inches _____
Overhang Length: feet _____ inches _____

Dimensions beyond Truck Centers

	Height		Width	
	Feet	Inches	Feet	Inches
1.				
2.				
3.				
4.				
5.				
6.				

For Bolster Loads Only

Spacing:	feet		inches	
Distance to Outside Trucks:	feet		inches	
Distance to Inside Trucks:	feet		inches	
Pivot Point:	feet		inches	

Note:

Please e-mail a photo of your plan and end view by linking an attachment.
We can accept jpegs, gifs, or pdf file attachments.
If you are using Internet Explorer, please ensure that you have version 4.0 or later to send images.

File 1: _____ Browse...
File 2: _____ Browse...
File 3: _____ Browse...

Special Requirements and Comments:

If proposed dimensions won't clear, please advise maximum allowables.

Submit Reset

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MAIN LINE RAILROAD RESPONSE: (From Port of Stockton, CA to approx. Eugene, OR)

Greg,

Good Morning. We have received the UP's maximum allowable dimensions on the Stockton, CA to North Bend, OR clearance request. They have requested clearances from the connecting railroads, the CCT at Port Stockton, and the CBR from Eugene, OR to destination.

The UP's dimensions are less than we requested, please see the listing of requested vs. maximums below.

Requested	UP Maximum
12'-0"W @ 17'-5" ATR	10'-0"W @ 17'-5" ATR
12'-0"W @ 17'-0" ATR	10'-6"W @ 17'-0" ATR
12'-0"W @ 16'-6" ATR	10'-8"W @ 16'-6" ATR
12'-0"W @ 16'-0" ATR	11'-6"W @ 16'-0" ATR
12'-0"W @ 15'-6" ATR	11'-10"W @ 15'-6" ATR
12'-0"W @ 15'-4" ATR	12'-0"W @ 15'-4" ATR
12'-0"W @ 4'-2" ATR	12'-0"W @ 4'-2" ATR
10'-0"W @ 4'-1" ATR	10'-0"W @ 4'-1" ATR

As we had discussed, the requested dimensions were based on the effective width of the units with no counterweights, and with the 10"H tailing lugs removed.

Based on the above, the 3300 modules would fit within the window with no counterweights.

The 3200 modules would be~1-5/16" too wide at 16'-7" ATR to fit in the window with counterweights.

The 3100 modules, even with counterweights, would be out of the profile from ~15'-8" ATR to 17'-2" ATR.

Please note that these are the UP's maximum allowable dimensions, and that the connecting roads may have further dimensional restrictions. We will keep you updated as we receive more information.

Thanks,

Chris Johnson, SRT

OMEGA MORGAN

23810 NW Huffman Street, Hillsboro, OR 97124 / omegamorgan.com / (503) 647-7474 / (800) 442-8141 / Fax: (503) 647-7422

SHORTLINE RAIL ROAD RESPONSE (From approx. Eugene, Oregon to site)

Greg,

We have received the final clearance response from the UP and the connecting roads. The maximum allowable dimensions from Eugene, OR to North Bend/Coos Bay, OR on the CBR railroad are quite restrictive, much more so than the UP maximums we received last week. This is likely due to bridges and tunnels in the route. Net weight of 360,000# was approved for movement.

Please see the comparison below of requested and maximum allowable dimensions on this route.

Requested Allowables	CCT/UP/CBR Maximum
12'-0"W @ 17'-5" ATR	8'-7"W @ 17'-5" ATR
12'-0"W @ 17'-0" ATR	9'-3"W @ 17'-0" ATR
12'-0"W @ 16'-6" ATR	9'-10"W @ 16'-6" ATR
12'-0"W @ 16'-0" ATR	10'-1"W @ 16'-0" ATR
12'-0"W @ 15'-6" ATR	10'-10"W @ 15'-6" ATR
12'-0"W @ 15'-4" ATR	11'-2"W @ 15'-4" ATR
12'-0"W @ 4'-2" ATR	12'-0"W @ 4'-2" ATR
10'-0"W @ 4'-1" ATR	10'-0"W @ 4'-1" ATR

Perhaps we are early enough in this project that the units could be re-designed to fit within the above maximums.

Let me know if you have questions, or need any further information on the above.

Thanks,

Chris Johnson
SRT

Major Component Shipping Dimensions Summary

	Qty.	Length (ft)	Width (ft)	Height (ft)	Weight (lb)	Typical Shipping Method	Anticipated Origin	Notes/Reference
GG								
Turbine Base	6	28.9	13.5	14.4	104,200	Truck/Rail	US	LM6000 PG - PH Grey Book
LM6000 Generator Base	6	35.7	13.5	14.4	123,000	Truck/Rail	US	LM6000 PG - PH Grey Book
Brush Generator	6	22.7	11.4	9.2	169,756	Truck/Rail	Overseas	LM6000 PG - PH Grey Book
Gearbox	6	9.7	5.4	8.2	32,271	Truck/Rail	US	LM6000 PG - PH Grey Book
VBV Silencer	6	8.2	5.7	14.2	25,000	Truck/Rail	US	LM6000 PG - PH Grey Book
Roof Skid Transition	6	38.7	13.2	12.0	96,000	Truck/Rail	US	LM6000 PG - PH Grey Book
Plenum	6	32.8	12.2	12.4	34,000	Truck/Rail	US	LM6000 PG - PH Grey Book
Auxiliary Skid	6	14.4	14.0	17.8	46,000	Truck/Rail	US	LM6000 PG - PH Grey Book
Generator Skid	6	16.7	10.9	10.1	28,800	Truck/Rail	US	LM6000 PG - PH Grey Book
STG								
ST Package	2	30.5	17.7	14.1	374,850	Truck/Rail	Overseas	Siemens Layout Dwg. of SST600 NK63
Generator	2	25.3	13.1	14.1	183,015	Truck/Rail	Overseas	Siemens Layout Dwg. of SST600 NK64
LP Oil Unit	2	11.2	9.8	10.5	22,050	Truck/Rail	Overseas	Siemens Layout Dwg. of SST600 NK65
HRSG								
4100 Duct	6	21.0	12.0	14.0	16,000	Truck/Rail	US or Overseas	Email from Rachel Shatuck of EIT
4200 Duct	6	33.0	12.0	14.0	26,000	Truck/Rail	US or Overseas	Email from Rachel Shatuck of EIT
4300 Duct	6	45.0	10.0	14.0	30,000	Truck/Rail	US or Overseas	Email from Rachel Shatuck of EIT
3100 Module	6	47.0	12.0	14.0	93,000	Truck/Rail	US or Overseas	Email from Rachel Shatuck of EIT
4400 Duct	6	54.0	11.0	14.0	39,000	Truck/Rail	US or Overseas	Email from Rachel Shatuck of EIT
4500 Duct	6	59.0	10.0	14.0	41,000	Truck/Rail	US or Overseas	Email from Rachel Shatuck of EIT
3200 Module	6	60.0	10.0	14.0	160,000	Truck/Rail	US or Overseas	Email from Rachel Shatuck of EIT
SCR Duct	6	60.0	12.0	14.0	65,000	Truck/Rail	US or Overseas	Email from Rachel Shatuck of EIT
3300 Module	6	60.0	12.0	14.0	233,000	Truck/Rail	US or Overseas	Email from Rachel Shatuck of EIT
3400 Module	6	60.0	11.0	14.0	175,000	Truck/Rail	US or Overseas	Email from Rachel Shatuck of EIT
3500 Module	6	60.0	11.0	14.0	199,000	Truck/Rail	US or Overseas	Email from Rachel Shatuck of EIT
HRSG Stack								
Section 1 without Base Ring or Breac	6	10.1	10.1	59.5		Truck/Rail	US or Overseas	TRC Email, estimated wgt from PICO
Section 1 with Base Ring	6	11.3	11.3	59.5	40,000	Truck/Rail	US or Overseas	SVP PICO
Section 1 with Breach, no Base Rin	6	10.1	10.9	59.5		Truck/Rail	US or Overseas	SVP PICO
Section 2	6	10.1	10.1	59.5	30,000	Truck/Rail	US or Overseas	TRC Email, estimated wgt from PICO
GSU								
1. Gas Turbine Step-up Transformer	6	20.1	10.2	13.3	170,000	Truck/Rail	Overseas	PEACE Output, BH Airport
2. Steam Turbine Step-up Transform	2	20.1	10.2	13.3	170,000	Truck/Rail	Overseas	PEACE Output, BH Airport
Auxiliary Power Enclosures								
CTG PCM	6	25.0	13.0	13.8	28,750	Truck/Rail	US	Estimated from prior jobs
STG APE	2	25.0	13.0	14.0	68,540	Truck/Rail	US	Estimated from prior jobs
HRSG APE	6	59.6	15.7	14.0	68,540	Truck/Rail	US	Estimated from prior jobs
ACC APE	2	36.0	15.0	14.0	41,400	Truck/Rail	US	Estimated from prior jobs

V) SUMMARY

SUMMARY:

RAIL:

Specialized Rail Transport (SRT) evaluated rail clearances from the Port of Stockton, California to the Jordan Cover Energy Project in Coos Bay, Oregon. This survey was comprised of two elements. A) Main line clearance from Port of Stockton, California to Eugene, Oregon. B) Short line railroad from Eugene, Oregon to site at Coos Bay, Oregon.

Main Line:

Clearance request from SRT was a composite dimension to account for larger HRSG modules and also some HRSG modules with an offset center of gravity. Restrictions were prevalent in the Main Line, pursuant to the initial clearance request. Said restrictions were itemized from Union Pacific in red and conveyed to Omega Morgan by SRT. (Findings highlighted in red and included in route survey).

Short Line:

Clearance request from UP also encompassed the response from the Short line railroads and mirrored the Main Line request. However, it is apparent that the rail clearance is further encumbered by dimensional restrictions from the Eugene, Oregon area to the site. (Findings highlighted in red and included in route survey).

Determination:

Regardless of whether travel on rail is from the South to North, or from North to South, clearance from the Eugene, Oregon area toward the Jordan Cove Energy Project (West) becomes increasingly restrictive. Specifically, on the short line RR at 16'ATR (increasing HRSG height by 2' to accommodate a depressed center rail car deck elevation) we are allowed 10'1". This leaves us approximately ½ inch on either side of the HRSG 4300 and 4500 modules. It is our opinion that rail will only be feasible if modifications are made to the HRSG modules, which minimize overall width.

OVER THE ROAD:

Currently, we have a verbal indication from the Oregon Department of Transportation that the heaviest component (ST package) can be transported from the Oregon/Washington border to the

Coos Bays site. Said verbal approval is predicated on utilizing a custom suspension beam trailer with transport dollies that will accommodate pavement and bridge loadings. While the route survey has been completed, the verbal indication is predicated on performing a transportation study that encompasses requirements within District 7.
The verbal indication for the ST package is a significant indicator because it validates that the majority of components can be transported over the road (This is contingent on verifying CTG auxiliary skid and the HRSG stack equipment dimensions).

Determination:

A formal approval is predicated on an ODOT response; however, we don't see any obstacles that would preclude us from obtaining permits for the majority of the equipment once we validate the transportation plan.

EXHIBIT L
PROTECTED AREAS
OAR 345-021-0010(1)(L)

CONTENTS

TABLE

FIGURES

1.0 INTRODUCTION

Jordan Cove Energy Project, L.P. (the "Applicant") proposes to construct the South Dunes Power Plant (SDPP) on an industrial parcel located on the North Spit of Coos Bay in Coos County, Oregon. Exhibit L addresses potential impacts the SDPP will have on Protected Areas within the designated analysis area. This Exhibit responds to the provisions of OAR 345-021-0010(1)(l), which requires the submission of:

OAR 345-021-0010(1)(l). *Information about the proposed facility's impacts on protected areas, providing evidence to support a finding by the Council as required by OAR 345-022-0040.*

In order to assess the potential effects of the SDPP on identified Protected Areas, the Applicant has conducted an analysis on the area defined as extending 20 miles from the SDPP site boundary. Within the analysis area, the Applicant identified Protected Areas, as defined under Oregon Administrative Rule (OAR) 345-022-0040(1)(a)-(p). **Figure L-1** illustrates the site boundary, analysis area, and identified Protected Areas. As shown on Figure L-1, the proposed site for the generation equipment and related or supporting facilities falls outside of the designated Protected Areas. According to the OAR, the Energy Facility Siting Council ("Council") must find that "taking into account mitigation, the design, construction, and operation of the Facility are not likely to result in significant adverse impact to the areas listed [in OAR 345-022-0040(1)(a)-(p)]" before issuing a site certificate.

The results of this analysis are presented in accordance with OAR 345-021-0010(1)(l), and the results provide evidence to support a finding by the Council as required by OAR 345-022-0040.

2.0 LIST OF PROTECTED AREAS

OAR 345-021-0010(1)(l)(A). *A list of the protected areas within the analysis area showing the distance and direction from the proposed facility and the basis for protection by reference to a specific subsection under OAR 345-022-0040(1).*

Table L-1 lists each identified Protected Area, the approximate distance from, and general direction to the proposed SDPP.

Table L-1. Protected Areas within Analysis Area and Approximate Minimum Distance from the SDPP

Protected Area *	Distance and direction from SDPP (distances are approximate)	Treatment in this Exhibit
OAR 345-022-0040(1)(d) National and State Wildlife Refuges		
Oregon Islands National Wildlife Refuge (NWR) (the closest part of the Oregon Islands NWR to the SDPP is Gregory Point Rocks)	7.5 miles southwest (Gregory Point Rocks)	Considered for this Exhibit
Bandon Marsh NWR	20 miles southwest	
OAR 345-022-0040(1)(f) National and State Fish Hatcheries		
Noble Creek Salmon-Trout Enhancement Program (STEP) Acclimation & Spawning Facility	11 miles southeast	Considered for this Exhibit
Morgan Creek STEP Acclimation & Spawning Facility	17 miles east	
OAR 345-022-0040(1)(g) National Recreation and Scenic Areas		
Oregon Dunes National Recreation Area	1 mile north	Discussed in this Exhibit
OAR 345-022-0040(1)(h) State Parks and Waysides		
Oregon Shore State Recreation Area	1.5 mile west	Discussed in this Exhibit
Conde B. McCullough State Recreation Site	1 mile northeast	Discussed in this Exhibit
Yoakam Point State Natural Area (State Park)	8 miles southwest	Considered for this Exhibit
Shore Acres State Park	10 miles southwest	
Sunset Bay State Park	10 miles southwest	
Tenmile Creek Research Natural Area (State Park)	10 miles northeast	
Cape Arago State Park	12 miles southwest	
William M. Tugman State Park	13 miles northeast	
Umpqua State Scenic Corridor	15 miles northeast	
Umpqua Lighthouse State Park	15 miles northeast	
Seven Devils State Recreation Site	15 miles southwest	
Bullards Beach State Park	18 miles southwest	
Golden and Silver Falls State Natural Areas (State Park)	20 miles northeast	Discussed in this Exhibit
OAR 345-022-0040(1)(j) State Estuarine Sanctuaries		
South Slough National Estuary Research Reserve	6 miles south	Considered for this Exhibit

Davis Slough State Natural Area	10 miles southeast	
Protected Area *	**Distance and direction from SDPP (distances are approximate)**	**Treatment in this Exhibit**
OAR 345-022-0040(1)(o) Bureau of Land Management Areas of Critical Environmental Concern, Outstanding Natural Areas, and Research Natural Areas		
North Spit Area of Critical Environmental Concern (ACEC)	2.5 miles southwest	Considered for this Exhibit
North Fork, Coquille River ACEC	20 miles southeast	
Cape Arago Marine Research Reserve**	12 miles southwest	See note

* Under OAR 345-022-0040(1), there are no areas meeting criteria (a) through (c), (e), (i), (k) through (n), and (p) within the 20 mile Analysis Area.
** The Cape Arago Marine Research Reserve is under consideration for funding and study, but is not currently a designated research and marine reserve.

3.0 MAP OF SOUTH DUNES POWER PLANT IN RELATION TO PROTECTED AREAS

OAR 345-021-0010(1)(l)(B). *A map showing the location of the proposed facility in relation to the protected areas listed in OAR 345-022-0040 located within the analysis area.*

As discussed above, the analysis area for this Exhibit includes the area within the SDPP site boundary and the area within a 20-mile offset from the site boundary. In accordance with OAR 345-021-0010(l)(B), the SDPP site boundary, the general location of the facility, the analysis area boundary, and the identified Protected Areas within the analysis area are shown on **Figures L-1 and L-2**.

3.1 POTENTIAL IMPACTS

In summary, 22 Protected Areas were identified within the 20-mile analysis area. Of these, Conde B. McCullough State Recreation Site and Oregon Dunes National Recreation Area are located closest to the SDPP; each is about one mile away, to the east and north, respectively. In addition, the Oregon Shore State Recreation Area and the North Spit ACEC are located within three miles of the SDPP.

Other Protected Areas identified in OAR 345-022-0040(1), are located at a great enough distance (beyond five miles) that it is reasonable to anticipate that they will not be adversely impacted by noise, water use, or wastewater disposal resulting from a natural gas power plant, as evidenced by the following:

- As described in Exhibit X, acoustical analyses demonstrate that steady state operational noise from the SDPP, at a distance of about three miles from the plant and beyond, would not exceed 40 dBA, about the sound level found in a library[1], and construction noise will be lower on average than operational noise. See Exhibit X for additional detail. Because sound decreases proportional to the square of the distance, sound levels five miles from the SDPP would be significantly lower than even these low levels. That is, operating sounds would be low enough or absent that they would not adversely impact Protected Areas beyond five miles away.
- As shown in Exhibit O, the Coos Bay North Bend Water Board has sufficient resources to meet the needs of the SDPP and many other new users. Its Upper Pony Creek Reservoir, the main source of water for the North Spit, is located 4 ½ miles from the SDPP site and is not near any protected area.
- As detailed in Exhibit V, structures and systems for wastewater and storm water disposal include the collection and treatment of selected wastewater streams, biofilters, and the storm water infiltration pond. Process wastewaters and contaminated secondary containment waters will be collected, treated (neutralization or oil-water separation) and send to the industrial wastewater pipeline that runs from the SDPP site, through the

[1] http://www.sengpielaudio.com/TableOfSoundPressureLevels.htm

Oregon International Port of Coos Bay's (the "Port") property, and to the Port's ocean outfall facility. The water is then discharged through the Port's ocean outfall facility. Furthermore, the Applicant maintains a National Pollutant Discharge Elimination System (NPDES) industrial wastewater permit that will be modified to regulate this waste disposal and the Applicant will continue to abide by the NPDES permit standards. Because the Applicant has water treatment plans, the NPDES permit, and the Port has adequate capacity to handle wastewater disposal (see Exhibit V, Appendix V-1), wastewater disposal from the SDPP will not adversely impact identified protected areas.

For detailed discussions of these topics, refer to Exhibits X, O, and V, respectively. Potential impacts to identified Protected Areas resulting from noise, traffic, water use, wastewater disposal, visual impacts from the SDPP structures and plumes, and visual impacts from air emissions are described below.

OAR 345-021-0010 (1)(l)(C). *A description of significant potential impacts of the proposed facility, if any, on the protected areas including, but not limited to, potential impacts such as:*

(i) Noise resulting from facility construction or operation;

As described in Exhibit X of this Application, OAR 340-035-0035(5)(g) exempts sounds that originate on construction sites from meeting the rules in OAR 340-035-0035(1). Nonetheless, the Applicant acknowledges that noise associated with SDPP construction will be intermittent and faintly audible at areas near the site depending on prevailing weather conditions (i.e., presence of precipitation, wind speed and direction, for instance), specific construction activities, and the location of the receptor within a given Protected Area.

As also described in Exhibit X of this Application, an acoustical model of the operating SDPP facility was created. The results indicate that the predicted, steady-state sound levels resulting from SDPP operation are as shown in Figure X-2 with sound level contours in 5-dBA increments. See Exhibit X for more detailed discussion. As shown on Figure X-2, the sound levels at the border of the Oregon Dunes NRA, one mile north of the SDPP,[2] are expected to be between 35 and 40 dBA. At the Conde B. McCullough State Recreation Site[3], one mile northeast of the SDPP, sound levels are expected to be 45 dBA at the maximum. At the BLM ACEC on the North Spit, sound levels from the SDPP are predicted to be below 40 dBA, and below 35 dBA at the Oregon Shore State Recreation Area. These noise levels are comparable to rural residential areas according to the U. S. Environmental Protection Agency.[4] At those relatively quiet sound levels and considering the heavy off-road vehicle use in the NRA (which are permitted to create noise up 78 dBA at 50 feet[5]), the Highway 101 traffic near McCullough State Recreation Site, and ocean and wind sound at the Oregon Shore State Recreation Area, it is unlikely that the noise levels from operation of SDPP would be disruptive within protected areas,

[2] Although some maps show a more southerly boundary of the NRA, the actual southern boundary is approximately one mile north of the SDPP. *Oregon Dunes NRA Management Plan*, July 1994, p. II-7.
[3] The Conde B. McCullough State Recreation Site is a narrow strip of steep, vegetated bank between North Bay Road and the waters of Haynes Inlet. There are no recreation facilities except for one picnic table at the far eastern end of the site, approximately two miles from the SDPP site.
[4] Protective Noise Levels. Condensed Version of EPA Levels Document. EPA 550/9-79-100. 1978. Environmental Protection Agency, Washington, D.C.
[5] OAR 340-035-0030, Table 4. The maximum sound level for all Off-Road Recreational Vehicles (ORVs) is 78 dBA at 50 feet while moving and 95-97 dBA at 20 feet while stationary.

even though they may be audible when other noises cannot be heard. No other identified Protected Area is expected to receive operational noise above 40 dBA, as discussed above. In conclusion, noise resulting from the operation of the SDPP would not adversely impact Protected Areas.

The noise analysis indicated that steady state construction noise would be below that of the modeled noise from operation of SDPP, and the resulting impacts to users of those areas would be proportionately less. The most prevalent sound source during construction is anticipated to be internal combustion engines. The amount of noise will depend upon the types of equipment in use, the number of each type used simultaneously, the level of use (full load versus idle) and the distance between the sound source and the receptor. Further details on construction noise are provided in Exhibit X. Temporary and intermittent noise, such as steam blows will contribute to louder than average noise levels during construction. An estimated five or six steam blows will be conducted over a two to three week period for each power block. This results in only 20 - 36 total steam blows during construction. Due to the construction schedule, the power blocks will be subjected to steam blows about four to eight months apart. Every effort will be made to limit steam blows to daytime operations, and each blow will generally last less than 10 to 15 minutes. Silencers will be installed to reduce noise levels resulting from steam blows. When silenced, steam blow typically results in sound levels at 50 feet away that are no greater than 100 dBA.

Therefore, though it is possible that construction noise would be heard under certain conditions at the BLM Area of Critical Environmental Concern (ACEC) on the North Spit, the 2.5 mile distance from the construction site would attenuate the noise significantly. Multiple sand dune formations are located between the SDPP and the ACEC lands, effectively shielding noise away from the western portions of the North Spit. Sound travel patterns moving away from the facility are shown on Application Figure X-2. Construction sound might be heard in the NRA but would be attenuated somewhat by distance (at least one mile from the site) and topography, because sand dunes stand between the construction site and the closest portion of the NRA. Similarly, noise from construction of SDPP at the Conde B. McCullough State Recreation Site may be audible under certain climatic conditions, but it is unlikely to reach a range where it is perceived as disturbing, particularly in consideration of the intrusion of noise from Highway 101 at the west end of the site, and the lack of recreation facilities at the site.

Noise from construction would mostly come from motorized heavy equipment, pile driving, machines for activities like concrete finishing, and assembly of metal components, which would be intermittent.

The work schedule for the construction phase is five 10-hour shifts (10-hour craft shifts, five days per week), Monday through Friday, excluding holidays. To maintain the construction schedule, work shifts may be extended to two 10-hour shifts daily, six days per week, with the potential to go to a 24/7 schedule. To support the 10-hour shift schedule, activities such as planning, obtaining work permits, logistical and equipment readiness will begin and end each shift up to two hours before and after the crews. Such support activities will require truck and transport vehicles (busses, pick-ups, cars, tractors and trailers, forklifts, etc.), access and area lighting, generators, and maintenance. Pre- and post-shift activities will also include starting of

construction equipment for equipment warm-ups, off-shift fueling and maintenance of equipment, and access maintenance (e.g., snow removal and dust control).

Craft overtime at night and on the weekends is required for tasks such as finishing concrete, rough setting of permanent plant equipment to allow release of suspended loads, or completion of uninterruptible tasks (e.g., testing procedures and pre- and post-weld heat treatments). Equipment maintenance may also be performed at night. During maintenance, equipment will generally be at idle rather than operated at its maximum sound output level. None of these specific activities is expected to exceed the typical standard state for construction noise and, therefore, adverse impacts to protected areas resulting from construction noise would not occur.

(ii) Increased traffic resulting from facility construction or operation;

A description of traffic resulting from construction and operation of the Facility is included in Exhibit U.

Access to the SDPP site will be from the TransPacific Parkway via Oregon Coast Highway (US 101). The TransPacific Parkway also provides access to the north shore of Coos Bay and the North Spit ACEC. The intersection of the TransPacific Parkway and US 101 (approximately one mile east of the site) is not currently signalized. As discussed in Exhibit U, Appendix U-2, the increase in traffic demands would have no significant impacts to traffic on US 101 as a result of construction or operations from the SDPP facility. Affected intersections along both TransPacific Parkway and US 101 are expected to meet all jurisdictional standards both during construction and operation of the SDPP facility. Therefore, no adverse impacts from traffic would be expected to Protected Areas that are accessed from US-101, such as Conde B. McCullough State Recreation Site.

During construction, facility-related traffic would consist of material deliveries arriving on site and construction workers. It is anticipated that construction of the SDPP would last approximately 36 months, and employ up to 500 workers maximum (across multiple shifts) during the peak of construction. Because of the number of workers required and the lack of available parking areas near the SDPP site, workers will predominantly be transported to the site by approximately 13 buses or other transit vehicle, alleviating a large influx of vehicle traffic at shift changes. Buses would arrive from the south along US 101.

As described in Exhibit U, one potential impact to traffic safety was recognized resulting from construction of SDPP at TransPacific Parkway where it intersects with US 101. Specifically, the increase in expected vehicle trips heading eastbound along TransPacific Parkway are expected to result in an increase in queue lengths approaching US 101. An increase in queue lengths corresponds to an increase in vehicle delay. As delays increase typical drivers will begin to accept smaller gaps in traffic which can result in an increase in crashes. To mitigate this potential safety concern, it is proposed that TransPacific Parkway be widened to include separate lanes for vehicles turning left (northbound) and right (southbound) onto US 101. As a result of this improvement, visitors leaving Protected Areas accessed via TransPacific Parkway (i.e., BLM North Spit lands, Horsfall Road at Oregon Dunes NRA) will experience a safer, more convenient transition as they head east on TransPacific Parkway and then onto US 101. Visitors

traveling to Protected Areas via TransPacific Parkway would be unaffected by the lane widening as traffic flow would be maintained as it is currently. For these reasons, no adverse impacts to Protected Areas resulting from construction traffic at TransPacific Parkway are expected, and in fact, road improvements would benefit visitors as they left Protected Areas along the North Spit.

Details regarding the voluntary lane widening improvement are as follows. The widening project will symmetrically widen TransPacific Parkway (TPP) for approximately 500 feet approaching US101 to allow for dedicated left and right-turn lanes from TransPacific Parkway to US101. The intent of this project is improve the safety of all vehicles traveling through the intersection. The scheduled construction duration for the TPP/US101 intersection is August 2015 thru March 5, 2016. General ground improvement activities independent of the SDPP will be underway during this time frame, and the TransPacific Parkway at US101 intersection construction is scheduled to be completed prior to construction of the SDPP. Oregon Department of Transportation (ODOT) Region 3 representatives have received conceptual plans for the proposed intersection improvements and initial discussions have been initiated with ODOT and Coos County Road Department regarding the intersection improvement project. A jurisdictional development agreement (JDA) and District 7 maintenance agreement with ODOT for proposed improvements located within ODOT right-of-way is required. The JDA and maintenance agreement are currently in draft form. A JDA with Coos County is also required for the proposed improvements located within Coos County right-of-way. Portions of the proposed retaining walls for the improvement project will be installed below Highest Measured Tide (HMT). Descriptions of these activities are included in the permit applications to the Oregon Department of State Lands and the US Army Corps of Engineers (USACE) attached as Exhibit J, Appendices J-2 and J-3.

In consideration of these efforts to limit traffic, the improvements proposed at TransPacific Parkway, and the finding of no impacts to traffic along US 101, no significant impacts to Protected Areas resulting from traffic during construction of the SDPP are expected.

Regular SDPP operations are expected to require about 45 full-time employees daily while the construction of the SDPP is expected to require about 500 workers daily at the peak of construction in the summer of 2018. The impacts associated with construction far outweigh the impacts associated with regular plant operations (i.e. the number of operations employees are less than two-tenths of the construction employees), and because there are no mitigations required for the impacts associated with construction, there will be no mitigations nor adverse impacts to traffic on US 101 or the TransPacific Parkway during the operations phase. It should be noted that the traffic impact analysis, Appendix U-4, went beyond the 45 operation employees directly supporting the SDPP and included an analysis of 90 operational employees. The additional 45 employees represent employees supporting other nearby industrial facilities such as the gasification and LNG terminal, which are not directly related to the operation of the SDPP.

Other identified Protected Areas, such as the State Parks located south of Coos Bay, among others, are located at a great enough distance from the US 101/TransPacific Parkway intersection as to be unaffected by construction or operational traffic flows related to the SDPP. Therefore, increased traffic resulting from SDPP construction or operations will not result in significant impacts to Protected Areas.

(iii) Water use during facility construction or operation;

As discussed in Exhibit O of this Application, the SDPP site would obtain water for construction and operation from the Coos Bay North Bend Water Board municipal system, which has the available capacity to provide the SDPP requirements. Construction related water use would include dust control, which would reduce dust creation from leaving the site. Operational water use would include normal domestic supply for operating staff, steam cycle makeup water, and injection water for nitrogen oxide (NOx) control. Because the facility would utilize existing water capacity for its construction and operations, there would be no adverse impacts on Protected Areas from water use.

(iv) Wastewater disposal resulting from facility construction or operation;

As discussed in Exhibit V, construction stormwater runoff will be managed according to the requirements of the ODEQ National Pollutant Discharge Elimination System (NPDES) 1200-C Permit requirement. In accordance with the requirements of that permit, best management practices (BMPs) will be employed throughout the construction period to prevent soil erosion or sediment-laden waters from leaving the construction site. In addition, an erosion control inspector, likely a contractor, will be identified as responsible to ensure that BMPs are installed and maintained in working order when erosion could potentially occur, and to adjust BMPs as needed as site conditions warrant.

During operations, stormwater that does not have the potential to contact industrial chemical or hydrocarbons will be managed to meet the requirements of the ODEQ approved Stormwater Management Plan. Other stormwater generated on-site that has the potential to contact hydrocarbons or industrial chemicals will be characterized for treatment and managed according to the proposed modifications of the existing NPDES Waste Discharge Permit (Permit 101499), as approved and managed by ODEQ. Process wastewater and domestic sewage generated at the SDPP also will be characterized and managed under the proposed modifications of Permit 101499.

All wastewaters and stormwater will be managed under ODEQ approved permits and plans in compliance with state and federal regulations to prevent potential significant impacts to receiving waters. No discharged wastewater or stormwater will come in contact with any of the Protected Areas. Therefore, no significant impacts to identified Protected Areas are anticipated from construction and operation of the SDPP.

(v) Visual impacts of facility structures or plumes, if any;

Potential visual impacts to identified significant scenic resources, which also include several Protected Areas are discussed in detail in Exhibit R of this Application.

The Applicant proposes to dispose of heat from each power block using air-cooled condensers (ACCs) rather than an evaporative cooling tower. This method of cooling with ACCs does not produce a condensed water vapor plume; there will be no cooling towers or associated water vapor plumes.

Although the SDPP will not have a cooling tower which produces the bulk of plumes which are generally associated with power plants, the SDPP's combustion turbines with Heat Recovery Steam Generators (HRSGs) will produce water vapor and under certain climatic conditions the water vapor will appear as a wispy translucent plume. An unavoidable exhaust byproduct of the combustion turbine electric generating process is the generation of water vapor.

With each pound of natural gas fired, over two pounds of water vapor are formed. Since the exhaust gas contains appreciably more water vapor than the ambient air, the vapor in the exhaust plume could condense and become visible under certain atmospheric conditions. A visible plume formed under such conditions is called a mixed vapor plume. When hot, humid exhaust gas is vented to a cooler humid atmosphere, the combination may be at or above the saturation level and a visible plume forms. This is similar to seeing one's breath on a cold morning. The atmospheric conditions under which a condensed combustion vapor plume would form are during cooler ambient temperatures, high relative humidity levels, and light winds.

A condensed vapor plume is generally indicated to be visible if it occurs during conditions which would allow it to be viewed by the general public. This definition normally excludes plumes being formed at night and during periods of inclement weather (rain, snow, or fog) that would obscure visibility. Such plumes, if formed, are often detached from the exhaust stack, and will form at some height above the stack outlet. The plumes are elevated above the ground, generally no more than about twice the stack height, and are typically wispy in nature and fairly rapidly dissipate and evaporate. Since condensed vapor plumes are always elevated they do not impact the ground level. The downwind distance for a condensed vapor plume is very dependent on the ambient relative humidity, such that if the relative humidity is approaching 100%, the condensed plume may be a hundred to several hundred feet downwind.

Given the factors described above, it is possible that a vapor plume would be infrequently and briefly visible, depending greatly on varying weather conditions and time of day. In general, plumes will be most likely to form and be seen early in the morning or during the night, and very rarely during the evening. More specifically, and based on plume studies performed for similar combined cycle generating facilities, condensed combustion vapor plumes will form for as many as 25% of the hours during a year, with 10% occurring during the early morning (dawn to mid-morning) with scant few occurring during the early evening (later afternoon to dusk); the remaining 15% occurring during the night.[6] That is, for the remaining 75% of hours during the year, no visible vapor plume will form. In Coos Bay, visible vapor plumes from the proposed SDPP occasionally may be observed at dawn but will dissipate and disappear once the sun rises and wind speed increases. Such plumes would be wispy and translucent in character. The most plausible locations the plume could be visible from include the waters of Coos Bay, and potentially from limited portions of the Oregon Dunes National Recreation Area. Due to the limited time that plumes would occur (only 25% of the hours during a year, with 10% occurring during early morning visible hours) and with the wispy translucent nature of the plume, the plumes would not significantly impact Protected Areas.

[6] Theodore Main, Principal Meteorologist and Condensed Combustion Plume Specialist, TRC Environmental Corporation.

In order to evaluate potential adverse impacts to scenic views from within identified Protected Areas, a computer-based line-of-sight model was created using geographic information systems (GIS). This Zone of Visual Influence (ZVI) model combined a digital elevation model (DEM), a 3D model of proposed SDPP features, including the tallest features--the gas combustion exhaust stacks and the transmission line poles--as well as the boundaries of the identified Protected Areas. Refer to Exhibit R for a detailed description of the methodology for creating the ZVI. A similar analysis was conducted for resources identified for Exhibit R, and the resulting map is included there; however, because the analysis area for Exhibit L exceeded that established for Exhibit R, reaching 20-miles beyond the SDPP site boundary, a second ZVI was created specifically to assess the potential patterns of visibility relative to identified Protected Areas specific to this Exhibit. The results of the ZVI analysis for Protected Areas are mapped on **Figure L-3**.

As discussed in Exhibit R, the ZVI computer modeling does have important limitations which make for conservative results. The model determines line-of-sight under 'bare-earth' conditions, and is therefore highly conservative. It does not consider vegetation cover or structures which may block or screen views, and it does not consider variable weather conditions such as rain, fog, or humidity, which may also limit viewing distances. While the ZVI is useful in eliminating locations where no visibility of the proposed facility would occur due to topography, and general patterns of visibility can be gleaned from its results, in a forested and developed environment such as Coos Bay, false positive results are highly likely, and therefore greater analysis is typically required.

The most prominent visible features of the proposed SDPP would be the 165-foot Heat Recovery Steam Generator (HRSG) exhaust stacks, two 121-foot high air-cooled condensers, and 163-foot tall transmission towers to the LNG facility.[7] There will be other buildings and elements installed as part of the SDPP, as described in Exhibit B, but their visual prominence will be lesser compared to the exhaust stacks and condensers, as seen from the distance of any Protected Area.

Based on the computer modeling analysis, the Facility would not be visible from the following identified Protected Areas:

- Umpqua State Scenic Corridor
- Seven Devils State Recreation Site
- Morgan Creek STEP Acclimation & Spawning Facility
- Noble Creek Salmon-Trout Enhancement Program (STEP) Acclimation & Spawning Facility
- Bullards Beach State Park
- Bandon Marsh National Wildlife Refuge
- Golden and Silver Falls State Natural Areas

[7] All figures are elevations above sea level.

- North Fork Coquille River (BLM-ACEC)

Because the facility would not be visible from these Protected Areas, there would be no visual impact to them.

The computer modeling analysis, based on elevation of the structures relative to the DEM, indicated that a portion of facility features could potentially be visible from the following identified Protected Areas:

- Oregon Dunes National Recreation Area/Siuslaw National Forest
- Oregon Islands National Wildlife Refuge, Gregory Point Rocks
- Oregon Shore State Recreation Area
- North Spit Area of Critical Environmental Concern (BLM-ACEC)
- Davis Slough State Natural Area
- Conde B. McCullough State Recreation Site
- Yoakam Point State Natural Area
- Shore Acres State Park
- Tenmile Creek Research Natural Area
- Sunset Bay State Park
- Cape Arago State Park
- William M. Tugman State Park
- Umpqua Light House State Park

However, many of these results were likely false positives due to the limitations of the ZVI analysis discussed previously. The specific limitation is that the ZVI analysis does not consider the screening role that vegetation and structures provide between viewing location and the SDPP, given that many of the areas listed above are covered in dense conifer forest. Because of this, further investigation, including aerial photo interpretation, was conducted to assess specific likelihood of visibility for the Protected Areas listed above. An aerial photo map is included in this Application in Exhibit R, as Figure R-4.

For the additional investigation and analysis, a line of sight was established between each of the Protected Areas identified by the ZVI as potentially having views of the SDPP. Taking into consideration density and maturity of impeding vegetation, the available opportunities for views and dominant viewing direction of a given Protected Area (e.g., typical views from beach front parks were assumed to be oriented west, toward the ocean), the distance between the viewing location and the SDPP site, assessments were made using best professional judgment as to the potential for the facility to be seen from the Protected Areas identified by the ZVI. Upon this assessment, it was determined to be extremely unlikely that eight of the more distant Protected Areas would have obtrusive views of the SDPP features, due to the presence and visual

obstruction of the conifer forest covering the distance between the Protected Areas and the SDPP. These include Umpqua Lighthouse State Park (minimum viewing distance 16.1 miles), William M. Tugman State Park (minimum viewing distance 13.1 miles), Tenmile Creek RNA (minimum viewing distance 12.4 miles), Davis Slough State Natural Area (minimum viewing distance 10.2 miles), Cape Arago State Park (minimum viewing distance 12.4 miles), Shore Areas State Park (minimum viewing distance 10.9 miles), Sunset Bay State Park (minimum viewing distance 8.8 miles), and Yoakam Point State Natural Area (minimum viewing distance 8.7 miles).[8]

Views would also be blocked by dune formations and vegetation from Oregon Islands National Wildlife Refuge and Oregon Shore State Recreation Area. Field observations confirmed that the foredune and beach vegetation blocks views from these two areas. Furthermore, any portion of the features of the SDPP analyzed for this assessment that could possibly be seen from a Protected Area (such as the tip of a transmission pole or exhaust stack), however unlikely, would be seen at such a distance that most casual observers would find the object indiscernible. This is because objects of such slender physical dimensions seen from 8 to 10 miles or more would be so small in the view that they would be visually absorbed into the overall vista and unable to visually dominate or overwhelm the view. Based on the aerial photo interpretation and best professional judgment, and without evidence to suggest that these features could be seen or visually dominate and interfere with scenic views from the identified Protected Areas, it is reasonable to conclude that these features of the SDPP would not represent an adverse visual impact to these Protected Areas.

Through aerial photo interpretation and field observation, the remaining Protected Areas were determined to potentially have views of the facility:

- Conde B. McCullough State Recreation Site
- BLM Area of Critical Environmental Concern (ACEC)
- Oregon Dunes NRA/Siuslaw National Forest

Field investigations, as described in Exhibit R, involved visiting the relevant sites, documenting existing viewing conditions in the direction of the facility, establishing vantage points from which the facility may be visible, and collecting digital photos. Using select photos taken during field work, photo simulations depicting the proposed facility were created as part of the analysis for Exhibit R. Existing site photos and photo simulations created to assess potential visual impacts from specific resources are provided in Exhibit R, Appendix R-6.

When coupled with the computer modeling, those analyses indicate that portions of the SDPP could be visible from parts of the McCullough State Recreation Site and the BLM ACEC. However, during field investigations it was observed that their distance from the facility, 1 and 2.5 miles respectively, will attenuate the facility being a dominant feature from those views. That is, the facility would be visible, but visually absorbed by the surrounding landscape. Tall

[8] Minimum viewing distance means the closest distance from the SDPP to the Protected Area. It is likely that if one is within a Protected Area they are bound to be at a greater distance than the minimum viewing distance listed.

sand dunes, some of which are vegetated, would be seen behind the visible features of the SDPP, when viewed from both McCullough State Recreation Site and the BLM ACEC lands, providing additional visual absorption, because they prevent the taller features of the SDPP from being seen silhouetted against the sky (i.e., when silhouetted against the sky by rising above the horizon, an object is more distinguishable and prominently visible).

In addition, screening from foreground mixed vegetation along the shores of Coos Bay and covering much of the North Spit would block views of the facility from many locations within McCullough State Recreation Site and the BLM ACEC. When present, climatic conditions such as fog, rain or haze caused by humidity would also limit visibility of the SDPP features from these areas. According to weather data collected at the Southwest Oregon Regional Airport in North Bend, Coos Bay receives over 160 days of measurable precipitation (>0.01") each year, or about 45% of days a year. Furthermore, based on the land management plan document review conducted for Exhibit R for visual resources, McCullough State Recreation Site is not currently managed for visual quality, and visual management for BLM lands on the North Spit does allow for modifications of views. For these reasons, adverse visual impacts would not result to McCullough State Recreation Site or BLM ACEC lands.

While the computer modeling did indicate that SDPP features would be visible from high-point locations within the Oregon Dunes NRA/Siuslaw National Forest, field investigations revealed that views of the facility would frequently be screened by large sand dunes and foreground forest cover. Although it remains possible that portions of SDPP structures, such as the top of a transmission pole or an exhaust stack, would be seen from within the Oregon Dunes NRA, their narrow diameter would prevent them from dominating or overwhelming a scenic view, particularly when seen from two or more miles distant and screened by vegetation or sand dunes. Where they could be seen, the majority of visitors to the Oregon Dunes would not notice the structures as they hike, horseback ride or ride an ORV. For these reasons, the SDPP would not result in significant visual impacts to the Oregon Dunes NRA.

(vi) Visual impacts from air emissions resulting from facility construction or operation, including, but not limited to, impacts on Class 1 Areas as described in OAR 340-204-0050.

Through preparation and review of the JCEP Prevention of Significant Deterioration (PSD) Air Permit Application, the Federal Land Manager for the Class I areas within 200 kilometers (km)/120 miles of the SDPP (no Class I areas within 100 km) confirmed in January 2013 that a Class I air-quality-related values analysis is not required. Initial Class I screening results are well below the Class I increments for all pollutants and averaging times.

As further described in the Air Permit Application, a Level 1 screening analysis using the VISCREEN model was conducted to assess the project's potential air emissions impacts on regional visibility. The screening procedure uses the emissions of nitrous oxide (NO_2), particulate matter (PM)/PM_{10}, and sulfates (H_2SO_4) within a 40-km/25-mile range of the site. The model considers plume/sky contrast, plume/terrain contrast, and sky/terrain contrast. Model results indicate the facility will not impact visibility in the surrounding area.

Best management practices will be used during construction to mitigate potential erosion and dust impacts. Such impacts would be limited to the site and the immediate site area. Best management practices to reduce airborne dust will include spraying water, covering surfaces with sheeting or mulch, street cleaning in the site area, and temporary or permanent stabilization measures. For these reasons, no impacts to Protected Areas would occur resulting from air emissions.

In conclusion, in consideration of noise, traffic, water use, wastewater, visual quality, and air emissions, for the aforementioned reasons, the SDPP facility will not result in significant adverse impacts to any identified Protected Areas.

Figure L-1. OAR Protected Areas

* The Oregon Islands National Wildlife Refuge encompasses all of the rocks and islands of the coastal shore above the line of mean hide tide.

** The Ocean Shore State Recreation Area encompasses all of the sandy portions of the ocean shore along the Oregon coast. The ocean shore includes the land lying between extreme low tide to either the statutory vegetation line or established line of upland vegetation, whichever is furthest inland.

GARDINER
EAST GARDINER
REEDSPORT
101
Umpqua River
WINCHESTER BAY
Umpqua Lighthouse State Park
Umpqua State Scenic Corridor
William M. Tugman State Park
Tenmile Creek RNA
Pacific Ocean
LAKESIDE
Tenmile Lake
Oregon Dunes National Recreation Area
101
Oregon Islands National Wildlife Refuge*
HAUSER
Oregon Shore State Recreation Area
Horsfall Lake
Haynes Inlet
Conde B. McCullough State Recreation Site
Golden and Silver Falls State Natural Area
GLASGOW
Project Location
ALLEGANY
NORTH BEND
Lower Coos Bay
North Spit ACEC
COOSTON
Upper Coos Bay
Cape Arago Marine Research Reserve
101
Coos River
Yoakam Point State Natural Site
COOS BAY
DELLWOOD
EASTSIDE
BARVIEW
BUNKER HILL
CHARLESTON
South Slough
South Slough National Estuarine Research Reserve
MILLINGTON
Morgan Creek STEP Acclimation and Spawning Facility
Ross Slough
Sunset Bay State Park
Davis Slough State Natural Area
North Fork Coquille River ACEC
Shore Acres State Park
Isthmus Slough
SUMNER
Cape Arago State Park
GREEN ACRES
DELMAR
Noble Creek STEP Acclimation and Spawning Facility
TIOGA
COALEDO
Seven Devils State Recreation Site
42
FAIRVIEW
Bullards Beach State Park
Coquille River
101
MCKINLEY
COQUILLE
BULLARDS
Coquille River
RIVERTON
DORA
JOHNSON
SITKUM
BANDON
Bandon Marsh National Wildlife Refuge

Data Sources: BLM, DNR, National Estuarine Research Reserve System, ODFW Marine Resources Program, Oregon Geospatial Enterprise Office (GEO), Oregon Dunes NRA, OPRD, USFWS, DEA

N

0 1.5 3 Miles

1 inch = 3 miles

- EFSC Site Boundary
- Analysis Area (20 mile buffer from EFSC Site Boundary)
- National Recreation Area
- National Wildlife Refuge
- National Estuarine Research Reserve
- Area of Critical Environmental Concern
- Research Natural Area
- Marine Research Reserve
- State Natural Area
- State Natural Site
- State Park
- State Scenic Corridor
- State Recreation Site

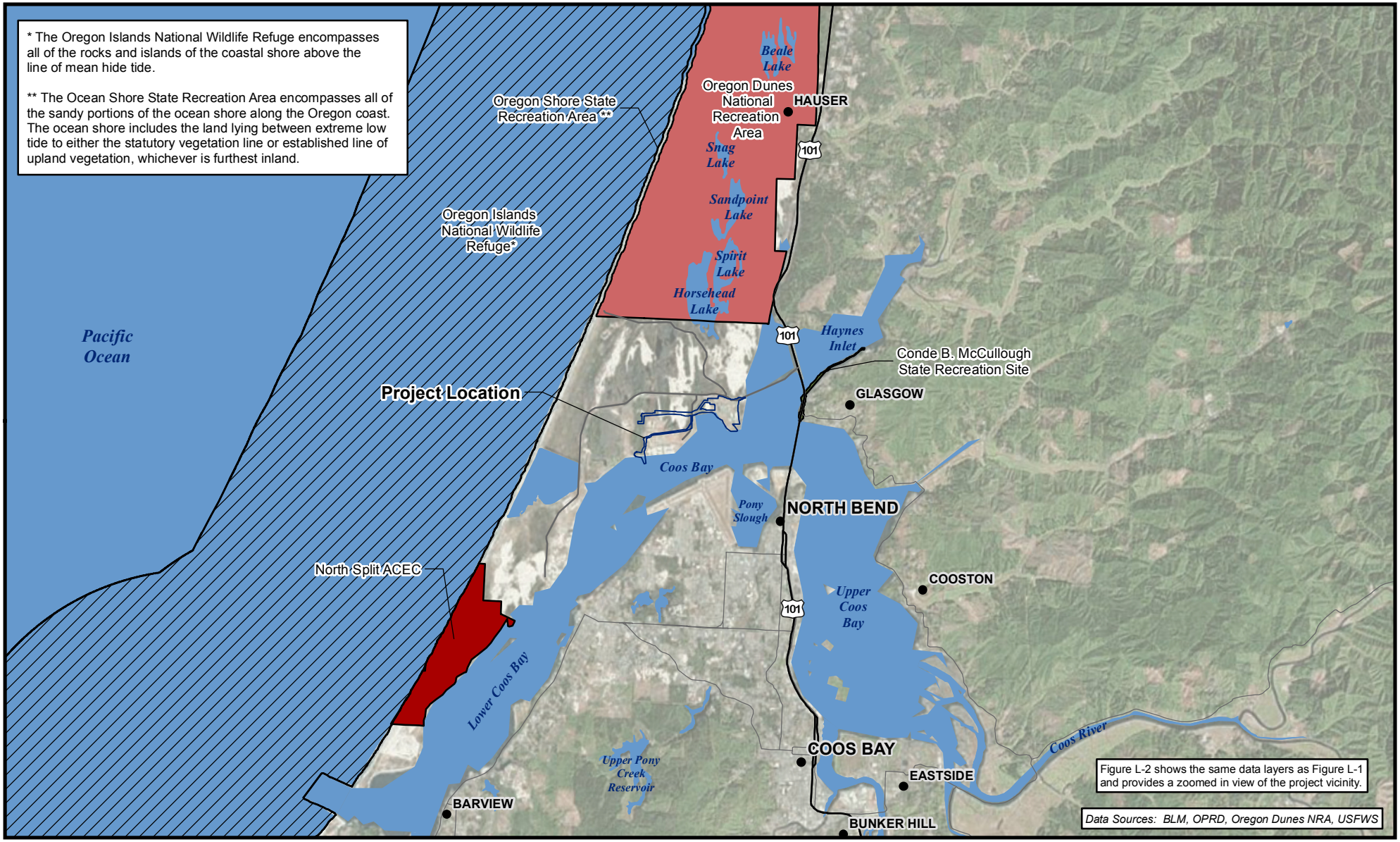
South Dunes Power Plant Project

EFSC Application

EXHIBIT L
Figure L-1
OAR Protected Areas

Date: 9/22/2014
Reviewed By BR
Designed By SAST

Figure L-2. OAR Protected Areas: Detail



South Dunes Power Plant Project

EFSC Application

EXHIBIT L
Figure L-2
OAR Protected Areas: Detail

Date: 9/22/2014
Reviewed By BR
Designed By SAST

Figure L-3. OAR Protected Areas ZVI Analysis

This figure shows the results of a visibility or viewshed analysis. Using data from a digital elevation model (DEM), it determines whether a line-of-sight is present from anywhere on land within the analysis area and proposed facility features. Facility features were analyzed based on the following finished elevations (taken at the top of the feature): 20 Power Poles (up to 163 feet), 6 Gas Combustion Exhaust Stacks (165 feet), and 2 Air-cooled Condensors (121 feet).

GARDINER
EAST GARDINER
REEDSPORT
101
Umpqua River
WINCHESTER BAY
Umpqua State Scenic Corridor
Umpqua Lighthouse State Park
William M. Tugman State Park
Tenmile Creek RNA
Oregon Shore State Recreation Area
Oregon Dunes National Recreation Area
LAKESIDE
Tenmile Lake
101
Pacific Ocean
Oregon Islands National Wildlife Refuge
HAUSER
Golden and Silver Falls State Natural Area
Horsfall Lake
Haynes Inlet
Project Location
Conde B. McCullough State Recreation Site
GLASGOW
ALLEGANY
NORTH BEND
Lower Coos Bay
North Spit ACEC
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CHARLESTON
South Slough
South Slough National Estuarine Research Reserve
MILLINGTON
Morgan Creek STEP Acclimation and Spawning Facility
Ross Slough
Sunset Bay State Park
Davis Slough State Natural Area
Shore Acres State Park
Isthmus Slough
North Fork Coquille River ACEC
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Cape Arago State Park
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Noble Creek STEP Acclimation and Spawning Facility
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COALEDO
Seven Devils State Recreation Site
42
FAIRVIEW
Bullards Beach State Park
Coquille River
MCKINLEY
101
COQUILLE
BULLARDS
Coquille River
RIVERTON
DORA
JOHNSON
SITKUM
BANDON
Bandon Marsh National Wildlife Refuge

Data Sources: BLM, DNR, National Estuarine Research Reserve System, ODFW Marine Resources Program, Oregon Geospatial Enterprise Office (GEO), Oregon Dunes NRA, OPRD, USFWS, DEA

N

0 1.5 3 Miles

1 inch = 3 miles

EFSC Site Boundary

Analysis Area (20 mile buffer from EFSC Site Boundary)

Protected Area

STEP Hatchery

Features Visible

1 to 5

5 to 10

>10

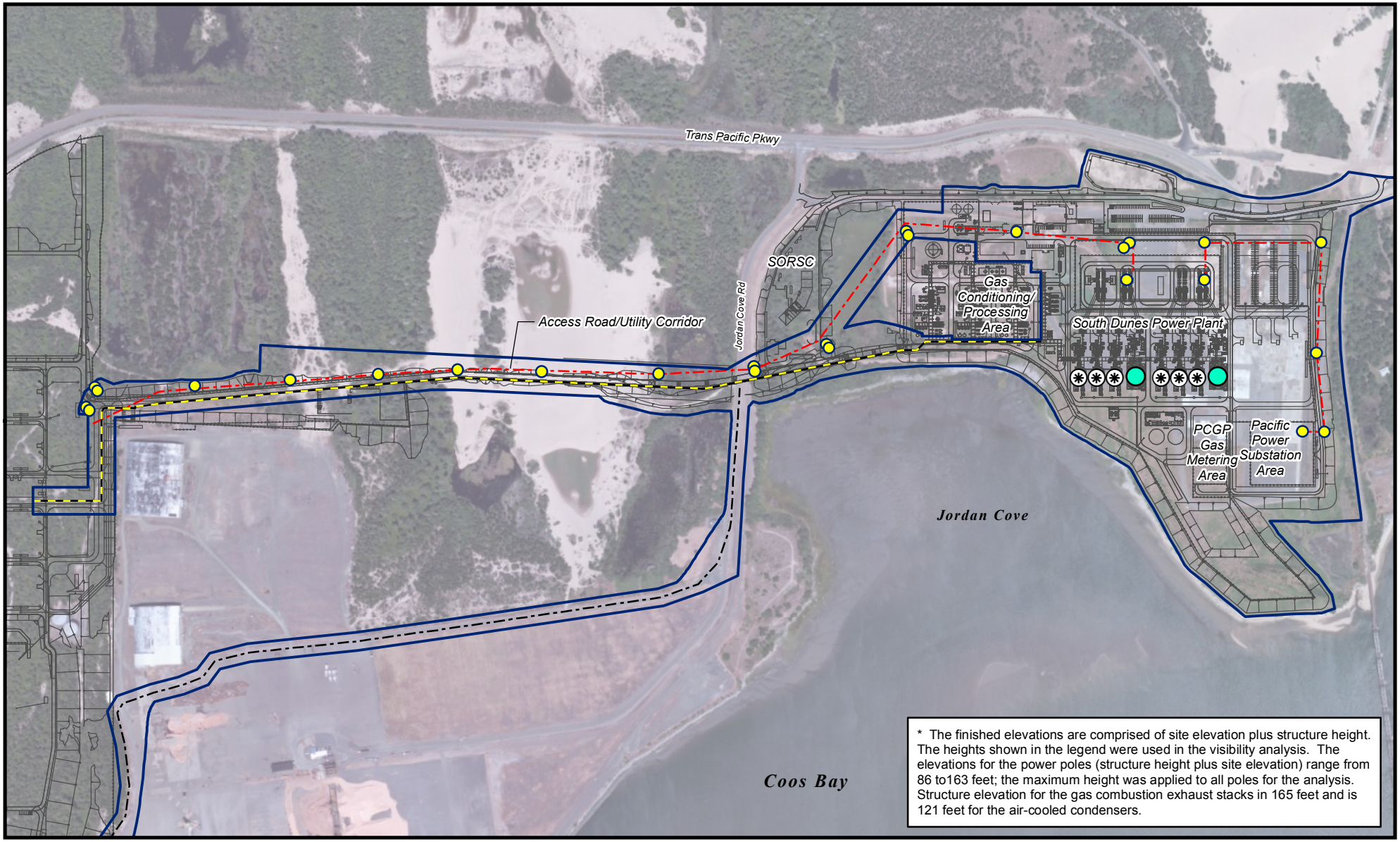
South Dunes Power Plant Project

EFSC Application

EXHIBIT L
Figure L-3
OAR Protected Areas:
ZVI Analysis

Date: 9/22/2014
Reviewed By BR
Designed By SAST

Figure L-4. Visibility Analysis Feature Locations



N

0 375 750 Feet

1 inch = 750 feet

- EFSC Site Boundary
- Transmission Power Pole (163 feet)*
- Gas Combustion Exhaust Stack (165 feet)*
- Air-cooled Condenser (121 feet)*
- Heavy Equipment Truck Haul Road Centerline
- Gas Pipeline
- Overhead Power Transmission Line (115kV)

South Dunes Power Plant Project

EFSC Application

EXHIBIT L
Figure L-4
Visibility Analysis Feature Locations

Date: 9/18/2014
Reviewed By BR
Designed By SAST

EXHIBIT M
FINANCIAL CAPABILITY
OAR 345-021-0010(1)(M)

CONTENTS

APPENDICES

1.0 INTRODUCTION

OAR 345-021-0010(1)(m). *Information about the applicant's financial capability, providing evidence to support a finding by the Council as required by OAR 345-022-0050(2). Nothing in this subsection shall require the disclosure of information or records protected from public disclosure by any provision of state or federal law.*

Under Oregon Administrative Rules (OAR) 345-022-0050(2), the Energy Facility Siting Council (EFSC) must find that the Applicant has a reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory to the EFSC to restore the site to a useful, non-hazardous condition. This exhibit contains the relevant information.

2.0 OPINION OF LEGAL COUNSEL

OAR 345-021-0010(1)(m)(A). *An opinion or opinions from legal counsel stating that, to counsel's best knowledge, the applicant has the legal authority to construct and operate the facility without violating its bond indenture provisions, articles of incorporation, common stock covenants, or similar agreements.*

Appendix M-1 is an opinion from Veresen/Jordan Cove Energy Project (JCEP) legal counsel conforming to the requirements of paragraph (A).

3.0 TYPE AND AMOUNT OF FINANCIAL INSTRUMENT

OAR 345-021-0010(1)(m)(B). *The type and amount of the applicant's proposed bond or letter of credit to meet the requirements of OAR 345-022-0050.*

JCEP hereby commits to submit, prior to the commencement of facility construction, to the State of Oregon, through EFSC, a bond or letter of credit in a form satisfactory to EFSC, in an amount required by EFSC of approximately $20 million, which security shall ensure that sufficient funds will be available to adequately retire the facility and restore the site to a useful, nonhazardous condition.

4.0 EVIDENCE OF REASONABLE LIKELIHOOD OF OBTAINING SECURITY

OAR 345-021-0010(1)(m)(C). *Evidence that the applicant has a reasonable likelihood of obtaining the proposed bond or letter of credit in the amount proposed in paragraph (B), before beginning construction of the facility.*

Appendix M-2 is a letter from the Union Bank, stating the bank's willingness to furnish or arrange a letter of credit.

Proposed finding:

According to provided documents, there is a reasonable likelihood that the applicant will obtain a bond or letter of credit in a form and amount satisfactory to the EFSC to restore the site to a useful, non-hazardous condition.

APPENDIX M-1

Legal Opinion on Authority to Construct

Perkins Coie

1120 N.W. Couch Street, Tenth Floor
Portland, OR 97209-4128
PHONE: 503.727.2000
FAX: 503.727.2222
www.perkinscoie.com

April 17, 2014

Energy Facility Siting Council Staff
Oregon Department of Energy
625 Marion Street, N.E.
Salem, OR 97301

Re: Application of Jordan Cove Energy Project L.P.

Dear Council Staff:

We have acted as counsel to Jordan Cove Energy Project L.P. South Dunes Power Plant, a Delaware limited partnership, (the "Applicant"), in connection with the application to the Oregon Energy Facility Siting Council to which this opinion is appended (the "Application"). In the Application, the Applicant proposes to develop, construct, and operate a thermal combustion gas plant in Coos County, Oregon, with a generating capacity of approximately 420-megawatts (the "Project").

A. Documents and Matters Examined

In connection with this opinion letter, we have examined originals or copies of such documents, records, certificates of public officials and certificates of officers and representatives of the Applicant as we have considered necessary to provide a basis for the opinions expressed herein, including the following:

A-1 the Applicant's certificate of limited partnership;

A-2 the Applicant's limited partnership agreement; and

A-3 the Application.

The documents listed in A-1 through A-3 are collectively referred to herein as the "Documents."

As to matters of fact material to the opinions expressed herein, we have relied on (a) information in public authority documents (and all opinions based on public authority documents are as of the date of such public authority documents and not as of the date of this opinion letter), (b) information provided in certificates of officers/representatives of the Applicant and (c) the representations and warranties of the Applicant in the Documents. We have not independently verified the facts so relied on.

B. Assumptions

We have relied, without investigation, on the following assumptions:

B-1 Original documents reviewed by us are authentic, copies of original documents reviewed by us conform to the originals and all signatures on executed documents are genuine.

B-2 All individuals have sufficient legal capacity to perform their functions with respect to the Documents and the Project.

B-3 Applicant does not engage in a business that is a regulated type of business, including, without limitation, banking, insurance or a public utility.

B-4 The Applicant is a limited partnership validly existing under Delaware law and (a) has the entity power to execute and deliver the Documents and to complete the Project, (b) has taken all entity action necessary to authorize the execution and delivery of the Documents and completion of the Project and (c) has duly executed and delivered the Documents.

B-5 Applicant has fee title to the real property or the right to construct and operate the Project on the real property.

Whenever a statement herein is qualified by the phrase "to our knowledge," or by any other phrase of similar import, or where it is noted that nothing has been brought to our attention, it means that the opinion or confirmation stated is based solely upon the conscious awareness of such information by (a) the attorney who signs this opinion letter on behalf of Perkins Coie LLP , (b) any attorney at Perkins Coie LLP who has been actively involved in negotiating or preparing the Documents or preparing this opinion letter, and (c) solely as to information relevant to a particular opinion issue or confirmation regarding a particular factual matter (e.g., pending or threatened legal proceedings), any attorney at Perkins Coie LLP who is primarily responsible for providing the response concerning that particular opinion issue or confirmation. We have not undertaken, nor were we obligated or expected to undertake, an independent investigation to determine the accuracy of the facts or other information as to which our knowledge is sought, and any limited inquiry undertaken by us during the preparation of this opinion letter should not be regarded as such an investigation. No inference as to our knowledge of any matters bearing on the accuracy of any such statement should be drawn from the fact of our representation of the Applicant.

C. Opinions

Based on the foregoing and subject to the qualifications and exclusions stated below, we express the following opinions:

C-1 To our knowledge, the Applicant's construction and operation of the Project would not:

(a) violate the Applicant's certificate of limited partnership or partnership agreement; or

(b) breach or result in a default under any indenture, contract or other arranging binding on the Applicant.

D. Qualifications; Exclusions

D-1 We express no opinion as to the following matters, or the effect, if any, that they may have on the opinions expressed herein:

(a) federal securities laws and regulations, state "blue sky" laws and regulations, and laws and regulations relating to commodity (and other) futures and indices and other similar instruments;

(b) federal and state laws and regulations dealing with (i) antitrust and unfair competition; (ii) environmental matters; (iii) land use and subdivisions; (iv) tax; (v) patents, copyrights, trademarks and intellectual property; (vi) racketeering; (vii) health and safety; (viii) labor and employment; (ix) national and local emergencies; (x) possible judicial deference to acts of sovereign states; (xi) criminal and civil forfeiture; and (xii) statutes of general application to the extent they provide for criminal prosecution (e.g., mail fraud and wire fraud statutes);

(c) Federal Reserve Board margin regulations;

(d) compliance with fiduciary duty requirements;

(e) the statutes and ordinances, the administrative decisions, and the rules and regulations of counties, cities, towns, municipalities and special political subdivisions (whether created or enabled through legislative action at the federal, state or regional level), and judicial decisions to the extent that they deal with any of the foregoing;

(f) fraudulent transfer and fraudulent conveyance laws;

(g) pension and employee benefit laws and regulations;

(h) the Applicant's title to or the condition of title of any property; and

(i) the creation, attachment, perfection, priority or enforcement of liens or encumbrances, except to the extent expressly noted to the contrary in this opinion letter.

D-2 With respect to our opinion in C-1(b), we express no opinion as to any violation of a Material Agreement not readily ascertainable from the face of the Material Agreement or arising from any cross-default provision insofar as it relates to a default under an agreement that is not a Material Agreement or arising under a covenant of a financial or numerical nature or requiring computation or provisions therein relating to the occurrence of an "material adverse event" or words of similar import. Further, we express no opinion as to the assignability by operation of law or otherwise of any contract or intellectual property license that (a) either (i) contains a provision granting rights that are by their express terms nonassignable or nontransferable, or (ii) contains a provision prohibiting or restricting the assignment or transfer of such agreement or rights or obligations thereunder without the prior consent of the other party to such agreement, but (b) does not specify whether a merger, transfer by operation of law, change of control or sale of substantially all assets constitutes such an assignment or transfer.

For purposes of expressing the opinions herein, (a) we have examined the laws of the state of Oregon and, to the extent applicable, the Delaware Limited Liability Company Act, (b) we have assumed that those laws govern the construction, interpretation and enforcement of the Documents, whether or not any of the Documents includes a choice-of-law provision stipulating the application of the laws of some other jurisdiction and (c) our opinions are limited to such laws. We have not reviewed, nor are our opinions in any way predicated on an examination of, the laws of any other jurisdiction, and we expressly disclaim responsibility for advising you as to the effect, if any, that the laws of any other jurisdiction may have on the opinions set forth herein.

The opinions expressed herein (a) are limited to matters expressly stated herein, and no other opinions may be implied or inferred, including that we have performed any actions in order to provide the legal opinions and statements contained herein other than as expressly set forth, and (b) are as of the date hereof (except as otherwise noted above). We disclaim any undertaking or obligation to update these opinions for events and circumstances occurring after

the date hereof (including changes in law or facts, or as to facts relating to prior events that are subsequently brought to our attention), or to consider its applicability or correctness as to persons or entities other than the addressees.

This opinion letter is being rendered only to you and is solely for your benefit in connection with the Project. This opinion letter may not be used or relied on for any other purpose or by any other person or entity without our prior written consent.

Very truly yours,

Perkins Coie LLP

By: _____
Mark D. Whitlow, Partner

APPENDIX M-2

Financial Assurance Letter from Union Bank

UnionBank

November 21, 2014

Mr. Chris Green
Oregon Department of Energy
625 Marion Street, NE
Salem, OR 97301

Re: Jordan Cove Energy Project L.P.
South Dunes Power Plant

Dear Mr. Green:

MUFG Union Bank, N.A. ("Union Bank") understands that our valued client Jordan Cove Energy Project L.P. ("JCEP") is in the process of submitting an application for a permit to construct a 420-megawatt power generating facility for its site in Coos Bay. It is also our understanding a surety bond or letter of credit in a form approved by the Oregon Energy Facility Siting Council in the approximate amount of $20,378,000 will be required to guarantee certain decommissioning obligations. In that regard, a letter has been requested from us confirming our willingness to issue a letter of credit to guarantee JCEP's decommissioning obligations.

Under our existing credit relationship with its parent Veresen Inc., we have arranged other letter of credit facilities for JCEP on its project. Veresen Inc. and JCEP have the financial capacity and wherewithal to secure additional letters of credit from Union Bank.

Any final commitment to provide a letter of credit is subject to any required approvals within Union Bank as well as a review by Union Bank of the required form of letter of credit, underlying decommissioning agreement and other standard information at the time the letter of credit is requested. Arrangements for any letter of credit is a matter between JCEP and Union Bank, and we assume no liability to you, or any other third parties, if for any reason the letter of credit is not executed and provided.

Should you have any questions, or require additional information, please do not hesitate to let us know.

Sincerely,

MUFG Union Bank, N.A.

Matt Schwann
Director

cc: Robert L. Braddock, Jordan Cove Energy Project, L.P.

Canada Branch
440 2nd Avenue SW, Suite 730
Calgary, Alberta
Canada T2P 5E9

Tel. 403 233 4800
Fax 403 264 2770

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EXHIBIT N
NEED FOR THE FACILITY
OAR 345-021-0010(1)(N)

CONTENTS

1.0 INTRODUCTION

OAR 345-021-0010(1)(n). *If the proposed facility is a non-generating facility for which the applicant must demonstrate need under OAR 345-023-0005, information about the need for the facility, providing evidence to support a finding by the Council as required by OAR 345-023-0005.*

Rule **OAR 345-021-0010(1)(n)** has been determined not applicable.

EXHIBIT O
WATER USE
OAR 345-021-0010(1)(O)

CONTENTS

TABLES

FIGURES

APPENDICES

1.0 INTRODUCTION

OAR 345-021-0010(1)(o). *Information about anticipated water use during construction and operation of the proposed facility.*

This exhibit provides information regarding water use, the source of water, and the avenues of water loss and output from the South Dunes Power Plant (SDPP). The sole water source for construction and operation of the SDPP will be municipal supply from the Coos Bay North Bend Water Board (CBNBWB or Water Board). The CBNBWB maintains the municipal water supply systems for the City of Coos Bay and North Bend. This system includes water rights for surface and groundwater diversions and appropriations as well as storage rights.

2.0 WATER USES AND SOURCES

OAR 345-021-0010(1)(o)(A). *A description of the use of water during construction and operation of the proposed facility.*

2.1 CONSTRUCTION

Water uses during construction are presented in Table O-1. During construction, water would be used for dust control, washing equipment and vehicles, washing concrete trucks after delivery of concrete loads, fire suppression during construction, and water supply for flushes, testing and commissioning. The Applicant estimates the total construction water use will be approximately 32 million gallons during the planned 39-month construction period. The peak water use would be in the later phases of construction to support equipment testing and commissioning. Municipal water would also be used for items such as ice machines, coolers, and sinks for construction facilities to support construction personnel. Water from CBNBWB may be trucked in until the municipal connection is operational, and bottled drinking water will likely be available in the construction trailers.

Table O-1. Estimated Construction Water Use

Activity	Estimated Usage Rate (gpm)	Estimated Total Water Usage (gal)	Water Source/System
Dust Suppression	400	1,140,000	Service
Site Civil Construction	400	6,000,000	Service
Underground Piping Hydrostatic Testing	400	750,000	Service
Water Storage Tank Hydrostatic Testing	900	2,250,000	Service
Above Ground Piping and Equipment Flushing and Hydrostatic Testing	400	5,400,000	Service
System Flushing	900	850,000	Service
Chemical Cleaning and Steam Blows	400	4,500,000	Demineralized
Demineralized water need between first fire and commercial operation			
Heat Recovery Steam Generator (HRSG) Makeup	36	2,073,600	Demineralized
Combustion turbine (CT) nitrous oxide (NOx) Injection	305	8,784,000	Demineralized
Duct Firing	12	172,800	Demineralized

2.2 OPERATION

The primary uses of water during SDPP operation would be steam generation and NOx control injection water, both demineralized water uses. The municipal water will be demineralized by an onsite water treatment plant. Potable water, service water, and fire water supply are relatively

minor uses. Figures O-1 and O-2 included at the end of this Exhibit O provide the water mass balances for daily maximum and daily average use cases, respectively. The estimated maximum daily use rates in the water balance are considered the worst-case condition for the purposes of Exhibit O, unless otherwise defined. The gallons per minute flow rates presented on the water mass balances can be easily converted to gallons per day rates by multiplying the gpm value by 60 (minutes per hour), then multiplying that hourly value (gallons per hour) by 24 (hours per day).

Operational water use for the SDPP is significantly less than traditional thermal generating stations. The SDPP uses a closed looped air-cooled for operations. The air cooled system also does not experience the wide variations of water use due to changes in outside ambient temperature and humidity that occur in water cooled evaporation based systems. Because the cooling system is a closed-loop dry cooling technology, weather conditions have less impact on the water use than the does the number of combustion turbines that are on-line at any given time. It is for this reason that average and worst case (maximum) water use conditions are based on the number of combustion turbines in operation and not on variations in ambient weather conditions.

Average annual conditions are the average annual temperature and humidity for the site based on the nearest recording weather station, the Southwest Oregon Regional Airport. As used in Exhibit O, the maximum use case for water use is both power blocks (6 combustion turbines [CTs]) running with duct firing on. The average use case is two CTs running in Block 1 with duct firing, and all 3 CTs running in Block 2 without duct firing. Using average day conditions provide the best estimate of the total water usage as this operating configuration will be the preferred operating. Estimated operational water use is summarized in Table O-2.

Average daily operational use is estimated at 806,400 gpd; maximum daily use at 1.03 million gpd (716 gpm). The estimate for potable and sanitary systems use, approximately 4,300 gpd, is based on a 24-hour daily staff of 45 full time equivalents spread over three shifts per day.

Table O-2. Anticipated Water Use

Use	Average Use Condition (gpm)	Maximum Use/Worst Case Condition (gpm)
Potable and Sanitary Systems	**2**	**2**
Miscellaneous Drains and HRSG Quench	**65**	**79**
Demineralized Water Systems:	**493**	**635**
*CT NOx Injection**	*305*	*390*
*Steam Cycle Makeup**	*36*	*51*
*Demineralized Water to LNG Process**	*6*	*6*
Totals	**560**	**716**

* All water is from CBNBWB. These uses are subset uses after demineralization. The quantity of demineralized water in the Average Use and Maximum Use columns does not add up to 493 and 635, respectively, due to the process of demineralizing water and disposal of concentrates.

Construction uses will be mainly for equipment or system flushing, chemical cleaning, steam blows, and dust control. Normal operational uses will be potable/service water, combustion

turbine (CT) power augmentation system supply, mono-nitrogen oxides (NOx) emissions control (injection) system supply, steam source for Liquefied Natural Gas process use, and supply for steam cycle makeup; an occasional use will be combustion turbine compressor cleaning. Steam system condenser cooling, typically a large water use system, will instead use air-cooled condensers, which will substantially minimize plant water use. Tables O-1 and 2 present each significant use during construction and operation of the SDPP.

OAR 345-021-0010(1)(o)(B). *A description of each source of water and the applicant's estimate of the amount of water the facility will need during construction and during operation from each source under annual average and worst-case conditions.*

The CBNBWB is the sole source of water for the SDPP during construction and operation. The CBNBWB system has two water treatment plants with a total water treatment plant capacity of 13 million gallons per day (MGD). CBNBWB also can supply up to 4 MGD of untreated raw water for industrial use in addition to the treated water supply. The *CBNBWB Annual Report Fiscal Year 2012-2013* (Appendix O-3) stated an average daily demand and peak demand on the CBNBWB municipal system in 2013 were 3.68 and 6.02 MGD respectively. The municipal supply from the CBNBWB will serve the SDPP through a new onsite connection to an existing 12 inch main. The applicant's estimate of the amount of water the facility will need during the construction and during the operation from CBNBWB under the annual average and the worst-case conditions are presented in Table O-3. Construction estimates are based on the total water use divided by a 39-month construction schedule to establish a monthly estimate. The monthly estimate was them multiplied by 12 months to estimate the annual amount of use.

Table O-3. Estimated Water Demand for Construction and Operations

Source of Water	Use	Annual Average (Million Gallons per Year)	Worst-Case Condition (Million Gallons per Year)
CBNBWB	Construction	10.5	21.5
CBNBWB	Operations	294.4	376.3

Supplementary evidence to support the availability of water from CBNBWB and that the construction and operation of the SDPP are not likely to result in a significant adverse impact to CBNBWB's ability to provide water supply are contained in Appendices O-1, O-2, O-3 and O-4 as follows:

- Appendix O-1 contains a letter from the CBNBWB confirming the provider's ability to serve the water demands of the SDPP.
- Appendix O-2 contains a compilation of water rights held by the CBNBWB.
- Appendix O-3 CBNBWB Annual Report Fiscal Year 2012-2013
- Appendix O-4 contains a letter from SHN Engineers and Geologists that outlines the proposed water service areas required by the overall project. Service Area C is specific to the SDPP and other facilities outside the EFSC process.

3.0 WATER LOSSES

OAR 345-021-0010(1)(o)(C). *A description of each avenue of water loss or output from the facility site for the uses described in (A), the applicant's estimate of the amount of water in each avenue under annual average and worst-case conditions and the final disposition of all wastewater.*

3.1 CONSTRUCTION

During construction water use is essentially equivalent to water loss as no water is output from the facility for construction activities. Testing and commissioning activities will discharge water to the waste water system. To minimize losses during construction, the Applicant will emphasize water conservation measures such as leak detection and repair, recovery, reuse and recycling. Conservation opportunities will exist for reuse of some of the flushing and hydrostatic testing waters for additional flushes or testing, or for dust control. Table O-4 presents the Applicant's estimate of the amount of water loss or output from the facility for the uses described in OAR 345-021-0010(1)(o)(A) for construction. The annual rate of water loss is based on a 39-month construction schedule. The worst-case scenario is based on an increase of 25-percent to account for an exceptionally dry summer that would require an increase in dust suppression and site civil construction use and all the uses for testing and commissioning activities that would occur in the last year of the construction schedule.

Table O-4. Estimated Construction Water Loss

Activity	Annual Average Water Loss (Millions of Gallons)	Worst-Case Annual Water Loss (Millions of Gallons per Year)
Dust Suppression	0.35	0.44
Site Civil Construction	1.85	2.31
Underground Piping Hydrostatic Testing*		0.46
Water Storage Tank Hydrostatic Testing*		0.69
Above Ground Piping and Equipment Flushing and Hydrostatic Testing*		1.66
System Flushing*		.26
Chemical Cleaning and Steam Blows*		1.38
HRSG Makeup*		2.01
CT NOx Injection*		8.78
Duct Firing*		.17
Totals	**2.2**	**18.16**

* These are testing and commissioning activities. The water losses are anticipated to occur within the space of the last year of construction commissioning. Worst case scenario assumed to include elevated dust suppression and site civil construction to occur along with all testing and commissioning activities.

3.2 OPERATION

Permanent water losses at the SDPP would occur primarily as non-recoverable losses from combustion turbine NOx injection and steam cycle makeup; secondary losses would occur from discharge from the onsite sanitary waste water treatment plant. Wastewater output are attributed to oil/water separator effluent, water treatment, and HRSG blowdown, which are collected and sent to the industrial wastewater pipeline for disposal.[1] Exhibit V provides additional information regarding process water handling. Reuse or recycling of many of the operational wastewater streams is not cost-effective or appropriate without additional treatment. However, reuse of the condensate stream provided by the LNG plant is a substantial reuse of a potential wastewater, minimizing the need for steam cycle makeup water. Table O-5 provides the anticipated water losses at the SDPP during average and maximum operating conditions.

Table O-5 indicates water losses in gallons per minute (gpm). The term "intermittent" is used in Table O-5 to indicate that combustion turbine (CT) washing and regeneration of the condensate polisher are not produced continuously, so the consumption rate of water would range from 0 gpm to a greater production rate for the duration of each process.

Each CT would be washed 1- 2 times per year (a total of 6 to 12 washes). Wastewaters will be captured in the CT washwater holding tank, tested, and transported offsite for disposal. The volume of washwater would be in the range of 1,000 to 1,500 gallons per wash, so from 12,000 to 18,000 gallons per year is estimated.

The quantity of wastewater from condensate polisher is estimated at 4,000 gallons per regeneration. Two regenerations each month (one per power block) are anticipated, so the quantity of wastewater is estimated to be 8,000 gallons per month. Wastewater produced during this process is included in the estimated quantities shown in Table O-2.

Table O-5. Estimated Operations Water Losses

Source of Loss	Average Condition (gpm)	Maximum Condition (gpm)
Sanitary Waste Water Treatment System	2	2
HRSG Blowdown	59	83
RO Rejects	122	157
Plant/Equipment Drains	30	30
Filter Backwash	24	31
Steam Cycle Vent	12	17
NOx Injection	305	390
Exported Demineralized Water	6	6
CT Wash Waters	Intermittent	Intermittent
Condensate Polisher Wastes	Intermittent	Intermittent
Totals	**560**	**716**

[1] Wastewater is managed through the introduction of water into the industrial wastewater pipeline that runs from the SDPP site, through the Oregon International Port of Coos Bay's (the "Port") property, and the Port's ocean outfall facility. The water is then discharged from the Port's ocean outfall facility.

3.3 DISPOSITION OF WASTEWATER

Wastewaters will be disposed in accordance with applicable regulations. Non-hazardous wastewaters will be discharged through the industrial wastewater pipeline that discharges to an ocean outfall under an existing NPDES permit. The NPDES permit will be modified meet ODEQ requirements.

Wastewaters that are determined to be hazardous or non-hazardous but are otherwise not suitable for pipeline discharge include any wastewaters generated that are not permitted for discharge under the current or to be modified NPDES permit. The majority of these wastewaters will be the result of on-line and off-line turbine compressor cleaning of materials that build up on the turbine blades. The residual from this maintenance procedure will contain detergents and elevated salt content, concentrations of Total Dissolved Solids (TDS) above the normal operational limits of the NPDES permit that the Applicant anticipates to be outside the permit limits allowed of TDS concentration ranges for discharge as a normal wastewater under the modified NPDES permit.

During the commissioning of the HRSGs (the last year of construction), approximately 300,000 gallons of wastewater may be generated during the chemical cleaning of the HRSGs. This wastewater is typically produced over a period of roughly 4-5 months. Approximately 50,000 gallons would be produced and shipped for disposal by week two of chemical cleaning, with a similar volume produced approximately two weeks later. The remaining quantity of wastewater would begin production 5 to 7 weeks following the second shipment, with 50,000 gallon "batches" produced approximately every two weeks until the HRSG cleaning is complete. Since the goal is to clean the HRSGs before initial testing, the "quality" of the wastewater may change as the cleaning progresses. Testing may determine that not all batches are hazardous, so a portion of the wastewaters produced during cleaning may be suitable for discharge through the industrial wastewater pipeline. Assuming all water produced is not suitable for discharge through the industrial wastewater pipeline, approximately 6 to 8 shipments would be needed for each batch of wastewater produced during cleaning of the HRSGs.

During operations, each combustion turbine (CT) would be washed 1-2 times per year (a total of 6 to 12 washes at the SDPP). Wastewater from each cleaning will be captured in the CT washwater holding tank and transported offsite for disposal due to the presence of detergents, salts and oils in the water. The volume of washwater would be in the range of 1,000 to 1,500 gallons per wash, resulting in approximately 6,000 to 18,000 gallons per year. Depending upon the schedule, this volume of washwater could require less than 6 shipments annually.

Wastewaters that are not suitable for pipeline discharge will be collected as a separate waste stream and contained in on-site tanks designed for this operation or appropriate truck mounted tanks. The waste water will be characterized for transportation and disposal options. Depending on the final characterization of the wastewater's chemical properties these volumes will be sent offsite for treatment, storage, and or disposal. Both the City of Coos Bay and the City of North Bend maintain approved wastewater treatment plants that could accept this wastewater. In addition, PPV Inc., a wastewater treatment facility in Portland, Oregon, has more than adequate

capacity to accept JCEP's anticipated wastewater. A written confirmation statement is provided in Appendix O-5, which confirms PPV Inc.'s ability to receive wastewater from the SDPP.

.

4.0 WATER MASS BALANCES

OAR 345-021-0010(1)(o)(D). *For thermal power plants, a water balance diagram, including the source of cooling water and the estimated consumptive use of cooling water during operation, based on annual average conditions.*

Figures O-1 and O-2, included at the end of this Exhibit O, provide the water mass balances for daily maximum and average use cases, respectively. The SDPP does not use an open evaporation based water cooled system. The SDPP uses a closed loop air cooled system that does not have consumptive use of cooling water. The dry, air-cooled, condenser cooling will not require a continuous supply of cooling water. During periodic maintenance water in the system may be drained and replaced. This amount of water loss is captured in the overall discharge rate to the waste water collection sump in Figures O-1 and O-2.

5.0 SECONDARY USE PERMITS

OAR 345-021-0010(1)(o)(E). *If the proposed facility would not need a groundwater permit, a surface water permit or a water right transfer, an explanation of why no such permit or transfer is required for the construction and operation of the proposed facility*

The Applicant will purchase water from the CBNBWB for all construction and operational uses. The CBNBWB has the authority to supply water under its existing water rights. No other water sources are necessary; a Limited License is not required.

As a supplement to Exhibit O, Appendix O-1 contains a letter from the CBNBWB confirming the available capacity for the SDPP. Appendix O-2 contains a compilation of the water rights held by the CBNBWB, and Appendix O-3 contains the CBNBWB Annual Report for Fiscal Year 2012-2013, which reports the current capabilities of the CBNBWB to produce treated and untreated water.

OAR 345-021-0010(1)(o)(F). *If the proposed facility would need a groundwater permit, a surface water permit or a water right transfer, information to support a determination by the Council that the Water Resources Department should issue the permit or transfer of a water use, including information in the form required by the Water Resources Department under OAR Chapter 690, Divisions 310 and 380.*

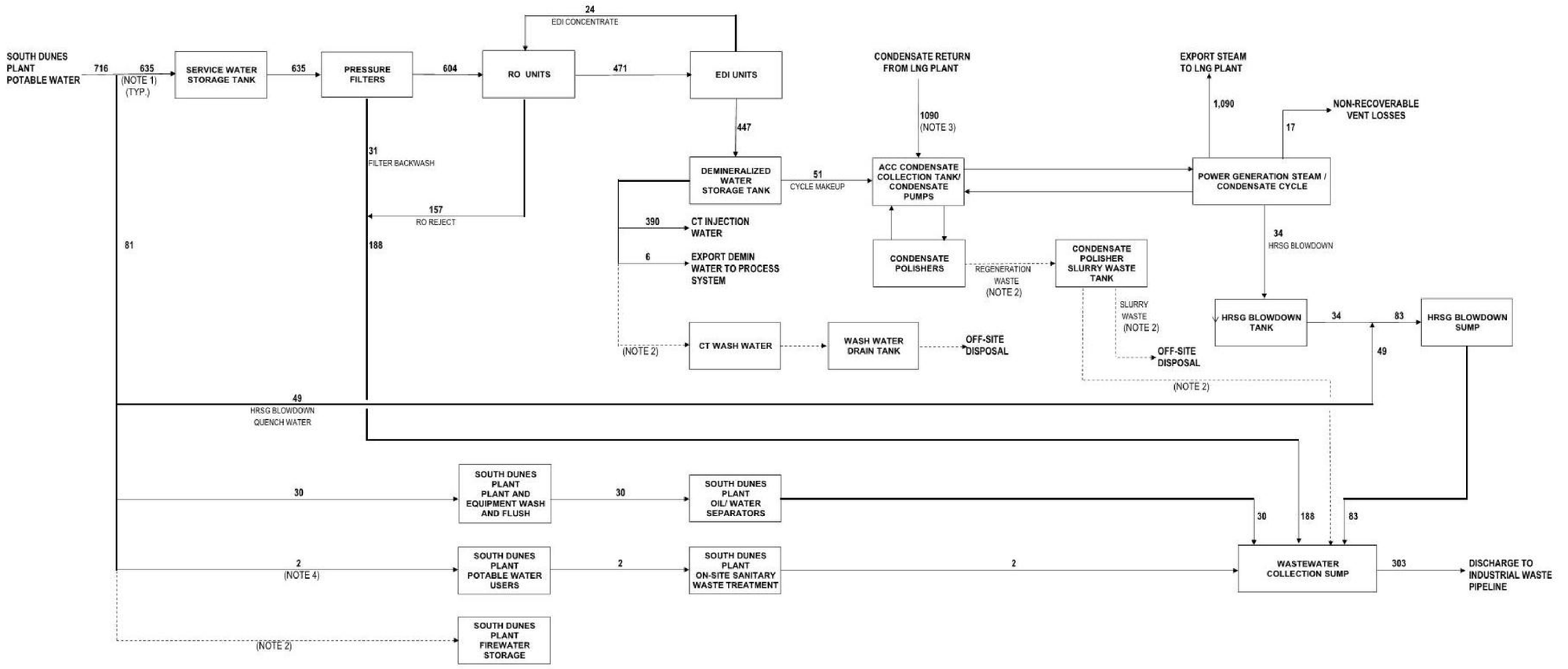
The proposed facility, SDPP, does not need a groundwater permit, a surface water permit, or a water right transfer for construction or operation of the facility. No determination is required by Oregon Water Resources Department or the Oregon Energy Facility Siting Council. The SDPP facility will purchase all water from the CBNBWB for all construction and operational uses. A water use permit or transfer is not requested.

6.0 MITIGATION

OAR 345-021-0010(1)(o)(G). *A description of proposed actions to mitigate the adverse impacts of water use on affected resources.*

As detailed in Exhibit Z, the Applicant proposes to dispose of heat from each power block using air-cooled condensers (ACCs) rather than a wet evaporative cooling tower which is traditionally used in power plants. While more costly, the ACC has two primary benefits over a traditional wet evaporative cooling tower: water is conserved and a steam plume is not created. Due in part to the use of a ACC, no adverse impacts to local resources are anticipated from SDPP water use during construction or operation; therefore no mitigation measures are proposed or necessary.

Figure O-1. Water Mass Balance Maximum Daily Use



NOTE:
1. Flows shown are daily average flow rates in gallons per minute (gpm).
2. Dashed lines represent intermittent flows.
3. Assume process condensate return from LNG plant has no leakage.
4. For 45 personnel over 3 shifts per day on South Dunes site.

COMBUSTION TURBINE FUEL/ MODEL NO.	NATURAL GAS/ LM 6000 PG SPRINT		BLOCK 1	BLOCK 2
NET PLANT OUTPUT (MW)	433	HEAT BALANCE CASE	10	10
TURBINE CONFIGURATION (CT X ST)	2 BLOCKS OF 3 X 1	CT ON OPERATION	3	3
AMBIENT TEMP (F) / RH(%)	55 / 60%	DUCT FIRING	On	On
CYCLE MAKEUP RATE	2%	NET PLANT OUTPUT (MW)	216.6	216.6
CONDENSER TYPE	AIR COOLED CONDENSER	EXPORT STEAM (LB/HR)	272,600	272,600

BLACK & VEATCH

Eng: SN | Dwg: SN
Check: MCP | Date: 5/21/2014

JORDAN COVE ENERGY PROJECT, LP.
COOS BAY, OREGON

WATER MASS BALANCE
DAILY AVERAGE WATER USE
AVERAGE DAY - 433 MW

Project	Drawing Number	Rev
142488	WMB 1A - 433 MW	H

BLOCK 1 3 X 1 Average Day Fired
BLOCK 2 3 X 1 Average Day Fired

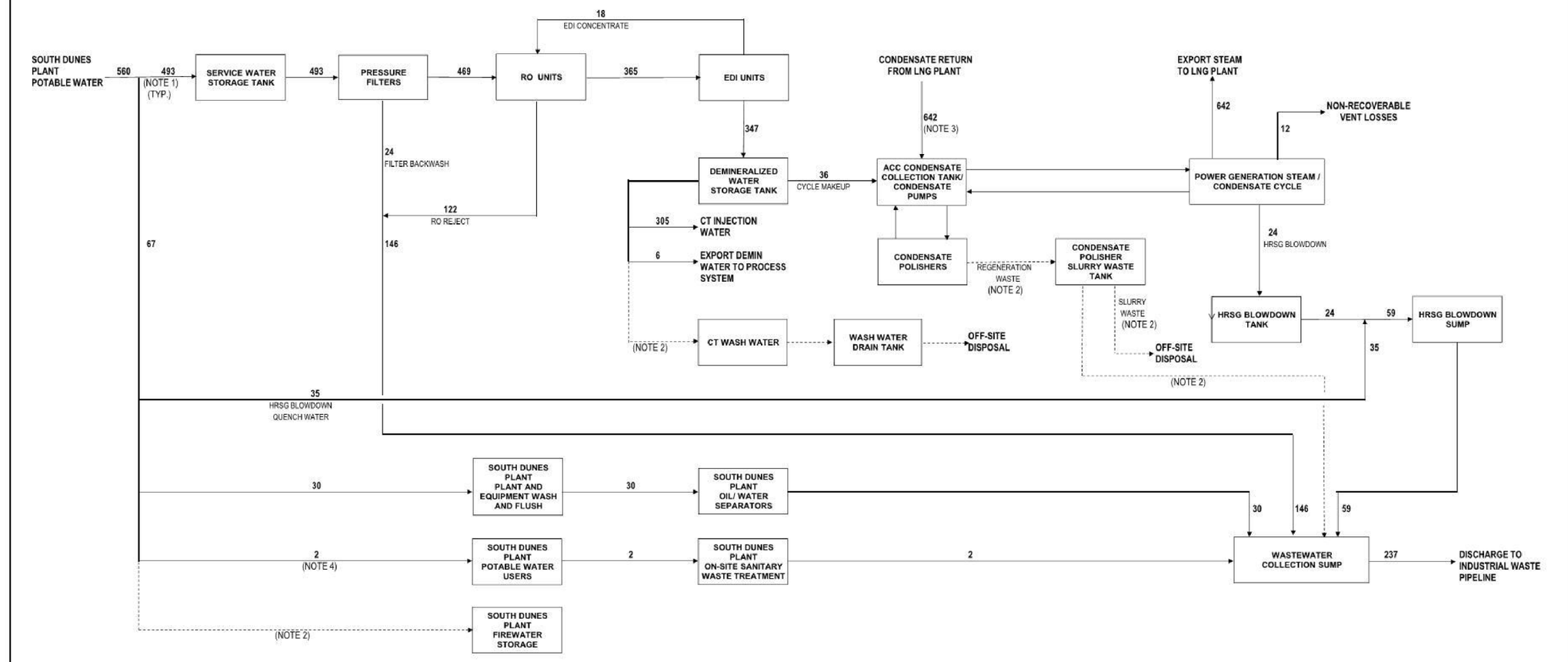
South Dunes Power Plant Project

EFSC Application

EXHIBIT O
Figure O-1
Daily Maximum Water Use

Date: 5/29/2014
Reviewed By BL
Designed By SAST

Figure O-2. Water Mass Balance Average Daily Use



NOTE:
1. Flows shown are daily average flow rates in gallons per minute (gpm).
2. Dashed lines represent intermittent flows.
3. Assume process condensate return from LNG plant has no leakage.
4. For 45 personnel over 3 shifts per day on South Dunes site.

			BLOCK 1	BLOCK 2
COMBUSTION TURBINE FUEL/ MODEL NO.	NATURAL GAS/ LM 6000 PG SPRINT			
NET PLANT OUTPUT (MW)	310	HEAT BALANCE CASE	4	1
TURBINE CONFIGURATION (CT X ST)	2 BLOCKS OF 3 X 1	CT ON OPERATION	2	3
AMBIENT TEMP (F) / RH(%)	55 / 60%	DUCT FIRING	On	Off
CYCLE MAKEUP RATE	2%	NET PLANT OUTPUT (MW)	137.9	172.1
CONDENSER TYPE	AIR COOLED CONDENSER	EXPORT STEAM (LB/HR)	160,540	160,540

BLACK & VEATCH

Eng: SN | Dwg: SN
Check: MCP | Date: 5/21/2014

JORDAN COVE ENERGY PROJECT, L.P.
COOS BAY, OREGON
WATER MASS BALANCE
DAILY AVERAGE WATER USE
AVERAGE DAY

Project	Drawing Number	Rev
142488	WMB 1B	H

BLOCK 1 — 2 X 1 Average Day Fired
BLOCK 2 — 3 X 1 Average Day Unfired

South Dunes Power Plant Project

EFSC Application

EXHIBIT O
Figure O-2
Daily Average Water Use

Date: 5/29/2014
Reviewed By BL
Designed By SAST

APPENDIX O-1

Letter from the Coos Bay North Bend Water Board

COOS BAY • NORTH BEND
WATER BOARD

2305 Ocean Boulevard
P.O. Box 539, Coos Bay, Oregon 97420-0108
Telephone: (541) 267-3128 Fax: (541) 269-5370

Rob K. Schab, General Manager

September 5, 2013

Robert L. Braddock, Vice President-Project Manager
Jordan Cove Energy Project L.P.
125 Central Avenue, Suite 380
Coos Bay, OR 97420

Dear Mr. Braddock:

We are in receipt of SHN Consulting Engineers & Geologists, Inc. letter dated June 20, 2013 outlining water supply requirements for the Jordan Cove Energy Project. The project is proposing the Water Board provide six water services at three locations along Trans Pacific Lane for the South Dunes Power Plant as well as the LNG Export Terminal. This letter is to provide you information on the availability of water, supply rate, and residual pressure from the Water Board distribution system.

The locations marked A, B, and C on your map are appropriate for the water services requested. We presently provide Jordan Cove Energy with approximately 0.5 mgd of raw water through an existing service/meter near location C to maintain wastewater flows through the ocean outfall. We understand Jordan Cove Energy wants to continue to purchase raw water to maintain the outfall. Discussion and statements of water availability per location are outlined below.

Service A

We can provide one raw water service and one potable water service as requested. We understand the raw water service would be for temporary use, needed for filling a firewater pond (4 MG) and two tanks (28 MG each), only for the construction duration of the project. We have three wells with an associated transmission main available for this supply. These wells primarily function as supply wells for a water treatment plant on Trans Pacific Lane we generally use only for emergencies. It is a 1.0 mgd plant on standby readiness for short notice production. Understanding that any emergency situation would have priority over construction use by Jordan Cove Energy, we can provide raw water to fill the tanks at the sustained rate of 700 gpm. We can provide an additional 300 gpm, for a total of 1,000 gpm, with improvements to one of the wells as well as the replacement of 3,700 feet of transmission main with a larger main. We understand the temporary service would be retired at the end of the project construction.

We understand the potable water service would be a permanent service needed to periodically fill the firewater pond. We can provide potable water for this use at the requested rate of 450 gpm. This service could also be used to supplement the raw water service above for filling the firewater pond and tanks during construction.

Service B

We can provide two permanent potable water services as requested. We understand one service would be for Roseburg Forest Products' fire suppression system, and the second service would be for RFP domestic use at a nominal rate. We can provide 1,200 gpm at 40 psi residual for fire suppression.

Service C

We can provide two potable water services and one raw water service as requested. All services would be for permanent use. We understand one potable water service would supply the Southwest Oregon Safety Center for domestic use at a nominal rate, and the second potable water service would provide the South Dunes Power Plant with 717 gpm with at least 40 psi residual.

If necessary, a new raw water service would supplement the potable demand. We also understand a new raw water service at this location would replace the existing service/meter and maintain wastewater flows through the ocean outfall. The residual pressure at the existing service/meter typically fluctuates between 25 and 45 psi. Jordan Cove Energy would need to boost/regulate the raw water supply beyond the meter to maintain reliable and consistent residual pressure.

In summary, the Water Board can provide the water supply needs of Jordan Cove Energy as outlined above. Please note that the potable supply at locations A, B, and C can be improved significantly with upsizing the distribution main in Trans Pacific Lane with a larger main. The existing main consists of about 24,000 feet of 12-inch diameter pipe of various types.

Further, it is important to recognize that the Water Board completed a major water supply project in 2001 with the construction of a new dam on Upper Pony Creek Reservoir, effectively tripling the surface water supply and meeting the needs of the community through 2050 and beyond. We also completed an expansion of the Pony Creek Water Treatment Plant earlier this year with production capacity now at 12 mgd. Our current average day demand is 4 mgd. The community's water supply and production needs, and Jordan Cove Energy's water availability needs, are comfortably accounted for. Please let me know how we may further accommodate your project.

Sincerely,

Ron A. Hoffine, P.E.
Operations Director

APPENDIX O-2

Coos Bay North Bend Water Board Water Rights

STATE OF OREGON

COUNTY OF COOS

CERTIFICATE OF WATER RIGHT

This Is to Certify, *That* COOS BAY - NORTH BEND WATER BOARD

of PO Box 539, Coos Bay , *State of* Oregon 97420 , *has made proof to the satisfaction of the Water Resources Director, of a right to the use of the waters of* Fourth Creek and Tarheel Creek

a tributary of Coos Bay *for the purpose of* municipal

under Permit No. 41801 *and that said right to the use of said waters has been perfected in accordance with the laws of Oregon; that the priority of the right hereby confirmed dates from* February 25, 1977

that the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually beneficially used for said purposes, and shall not exceed 3.10 cubic feet per second, being 1.55 cfs from Fourth Creek and 1.55 cfs from Tarheel Creek

or its equivalent in case of rotation, measured at the point of diversion from the stream. The point of diversion is located in the NE 1/4 NE 1/4, SE 1/4 NE 1/4, Section 36, T25S, R14W, WM; Fourth Creek - 1000 feet South and 110 feet West, Tarheel Creek - 2305 feet South and 860 feet West both from NE Corner, Section 36.

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, shall be limited to ---------- *of one cubic foot per second per acre,*

and shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use under the right hereby confirmed, and to which such right is appurtenant, is as follows:

SEE NEXT PAGE

Section 31
Township 23 South, Range 12 West, WM

Section 25
Section 26
E 1/2
E 1/2 NW 1/4
SW 1/4 NW 1/4
SW 1/4
Section 27
SE 1/4 NE 1/4
E 1/2 SE 1/4
Section 33
Section 34
Section 35
Section 36
Township 23 South, Range 13 West, WM

Section 9
Section 16
Section 17
Section 19
Section 20
W 1/2
Section 21
Section 30
Section 31
Township 24 South, Range 11 West, WM

Section 6
Section 7
Section 8
Section 9
Section 16 through Section 36
Township 24 South, Range 12 West, WM

Section 1
Section 2
Section 3
E 1/2
SE 1/4 SW 1/4
Section 4
E 1/2
E 1/2 NW 1/4
SW 1/4
Section 9
Section 10
Section 11
Section 12
Section 13
Section 14
Section 15
Section 16
E 1/2 SE 1/4
Section 17
E 1/2
Section 20
Section 21 through Section 28
E 1/2
E 1/2 NW 1/4
SW 1/4
Section 29
E 1/2 E 1/2
SW 1/4 SE 1/4
Section 31
Section 32
Section 33
N 1/2 NE 1/4
NW 1/4
W 1/2 SW 1/4
Section 34
S 1/2 NE 1/4
N 1/2 NW 1/4
S 1/2
Section 35
Section 36
Township 24 South, Range 13 West, WM
Section 2
Section 3
Section 4
Section 5
Section 6
Section 7
Section 8
Section 9
Section 10
Section 11
Section 14
Section 15
Section 16
Section 17
Section 18
Section 19
Section 20
Section 21
Section 22
Section 23
Section 26
Section 27
Section 28
Section 29
E 1/2
NE 1/4 NW 1/4
SW 1/4 SW 1/4
Section 30
Section 31
Section 32
Township 25 South, Range 12 West, WM

Section 1
N 1/2
E 1/2 SE 1/4
Section 2
E 1/2 NE 1/4
W 1/2 NW 1/4
NW 1/4 SW 1/4
SW 1/4 SE 1/4
Section 3
N 1/2 NE 1/4
SE 1/4 NE 1/4
NW 1/4
N 1/2 SW 1/4
SW 1/4 SW 1/4
Section 5
E 1/2
E 1/2 SW 1/4
Section 6
Section 7
NW 1/4 NE 1/4
NW 1/4
NW 1/4 SW 1/4
SE 1/4 SE 1/4
Section 8
E 1/2
E 1/2 NW 1/4
SW 1/4
Section 9
E 1/2
NW 1/4 NW 1/4
SW 1/4
Section 10

NE 1/4 NE 1/4
W 1/2 NW 1/4
W 1/2 SW 1/4
Section 11
E 1/2
N 1/2 NW 1/4
SE 1/4 NW 1/4
E 1/2 SW 1/4
SW 1/4 SW 1/4
Section 12
E 1/2
NW 1/4
N 1/2 SW 1/4
SE 1/4 SW 1/4
Section 13
W 1/2 SW 1/4
Section 14
Section 15
Section 16
E 1/2
SW 1/4
Section 17
Section 18
E 1/2 NE 1/4
NW 1/4 NW 1/4
SE 1/4
Section 19
Section 20
Section 21
Section 22
NW 1/4 NW 1/4
SW 1/4 SW 1/4
Section 23
NW 1/4
NE 1/4 SE 1/4
Section 24
S 1/2 SW 1/4
SE 1/4
Section 25
W 1/2 NW 1/4
SE 1/4 NW 1/4
S 1/2
Section 26
Section 27
Section 28
Section 29
E 1/2
E 1/2 NW 1/4
SW 1/4 NW 1/4
SW 1/4
Section 30
Section 31
Section 32
Section 33
Section 34
Section 35
Section 36

Township 25 South, Range 13 West, WM

E 1/2 SE 1/4
Section 12
E 1/2
SE 1/4 SW 1/4
Section 13
SE 1/4 SE 1/4
Section 23
NE 1/4
N 1/2 SE 1/4
SW 1/4 SE 1/4
W 1/2
Section 24
N 1/2 NW 1/4
SW 1/4 NW 1/4
Section 25
E 1/2 NE 1/4
SW 1/4 NE 1/4
SE 1/4 SW 1/4
SE 1/4
Section 26
SW 1/4 SE 1/4
Section 34
NE 1/4
E 1/2 NW 1/4
SW 1/4 NW 1/4
N 1/2 SW 1/4
NW 1/4 SE 1/4
Section 35
NE 1/4
SE 1/4 NW 1/4
S 1/2
Section 36

Township 25 South, Range 14 West, WM

W 1/3

Township 26 South, Range 12 West, WM

All

Township 26 South, Range 13 West, WM

Section 1
SW 1/4 NE 1/4
W 1/2
N 1/2 SE 1/4
SW 1/4 SE 1/4
Section 2
E 1/2
SE 1/4 NW 1/4
SW 1/4
Section 3
SW 1/4 NW 1/4
NW 1/4 SW 1/4
S 1/2 SW 1/4
SE 1/4
Section 4
NE 1/4 NE 1/4
S 1/2 NE 1/4
E 1/2 SW 1/4
SE 1/4
Section 8
Section 9
Section 10
NE 1/4
W 1/2
N 1/2 SE 1/4
SW 1/4 SE 1/4
Section 11
Section 12
Section 13
NE 1/4
W 1/2
N 1/2 SE 1/4
SW 1/4 SE 1/4
Section 14
Section 15
Section 16
Section 17
E 1/2 SE 1/4
Section 18
NE 1/4
Section 19
Section 20
Section 21

Section 22
Section 23
Section 24
Section 25
Section 26
Section 27
Section 28
E 1/2
E 1/2 W 1/2
Section 29
E 1/2
E 1/2 NW 1/4
Section 32
Section 33
Section 34
Section 35
Section 36
Township 26 South, Range 14 West, WM

Section 5
Section 6
Township 27 South, Range 12 West, WM

Section 1
Section 2
Section 3
Section 4
Section 5
Section 6
Township 27 South, Range 13 West, WM

Section 1
Section 2
Section 3
Section 4
E 1/2
E 1/2 SW 1/4
Section 5
Township 27 South, Range 14 West, WM

The right to the use of the water for the purposes aforesaid is restricted to the lands or place of use herein described. and is subject to minimum flows established by the Water Resources Commission with an effective date prior to this right.

WITNESS the signature of the Water Resources Director, affixed this date. December 12, 1985

/s/ William H. Young
Water Resources Director

Recorded in State Record of Water Right Certificates, Volume 43 *, page* 53521

0897D

STATE OF OREGON

COUNTY OF COOS

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

COOS BAY-NORTH BEND WATER BOARD
P.O. BOX 539
COOS BAY, OREGON 97420

confirms the right to use the waters of WELL NO. 55 in the NORTH INLET BASIN for MAINTAINING SPIRIT LAKE WATER LEVEL FOR RECREATION.

This right was perfected under Permit G-10838. The date of priority is SEPTEMBER 27, 1977. The amount of water to which this right is entitled is limited to an amount actually beneficially used and shall not exceed 44 GALLONS PER MINUTE, or its equivalent in case of rotation, measured at the point of diversion from the source.

The well is located as follows:

NW 1/4 NW 1/4, SECTION 27, T 24 S, R 13 W, W.M.; SOUTH 82 DEGREES WEST, 4490 FEET FROM THE NORTHEAST CORNER OF SECTION 27.

This right shall be limited to appropriation of water only to the extent that it does not impair or substantially interfere with prior surface water rights as well as prior ground water rights of others.

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use to which this right is appurtenant is as follows:

NE 1/4 NE 1/4
SE 1/4 NE 1/4
SECTION 28
TOWNSHIP 24 SOUTH, RANGE 13 WEST, W.M.

The right to use water for the above purpose is restricted to beneficial use on the lands or place of use described.

WITNESS the signature of the Water Resources Director, affixed AUGUST 19, 1997.

/S/ Richard D. Bailey

Martha O. Pagel

Recorded in State Record of Water Right Certificates numbered 74902.

G-8467.LMS

STATE OF OREGON

COUNTY OF COOS

ORDER APPROVING AN ADDITIONAL POINT OF APPROPRIATION

Pursuant to ORS 540.510 to 540.530, after notice was given and no objections were filed, and finding that no injury to existing water rights would result, this order approves, as conditioned or limited herein, TRANSFER 9345 submitted by

COOS BAY-NORTH BEND WATER BOARD
PO BOX 539
COOS BAY, OREGON 97420.

The right to be modified, as evidenced by Certificate 74901, was perfected under Permit G-10837 with a date of priority of SEPTEMBER 27, 1997. The right allows the use of WELL NO. 58 IN THE NORTH INLET BASIN FOR MAINTAINING SAND POINT LAKE WATER LEVEL FOR RECREATION. The amount of water to which his right is entitled is limited to an amount actually beneficially used and shall not exceed 44 GALLONS PER MINUTE, if available at the authorized point of diversion: SE¼ NW¼, SECTION 22, T 24 S, R 13 W, W.M.; NORTH 84 DEGREES WEST, 3600 FEET FROM THE EAST QUARTER CORNER OF SECTION 22, or its equivalent in case of rotation, measured at the point of diversion from the source.

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2).

Pursuant to ORS 536.075 and OAR 137-004-080 and OAR 690-01-005 you may either petition for judicial review or petition the Director for reconsideration of this order.

The right shall be limited to appropriation of water only to the extent that it does not impair or substantially interfere with prior surface water rights as well as prior ground water rights of others.

The use shall conform to any reasonable rotation system ordered by the proper state officer.

The authorized place of use is located as follows:

NE¼ NE¼
SE¼ NE¼
NE¼ SE¼

SECTION 21
NW¼ NW¼
SW¼ NW¼
NW¼ SW¼
SECTION 22
TOWNSHIP 24 SOUTH, RANGE 13 WEST. W.M

The right to use the water for the above purpose is restricted to beneficial use on the lands or place of use described.

The applicant proposes an additional point of diversion to:

SE¼ SW¼, SECTION 15, T 24 S, R 13 W, W.M.; NORTH 80 DEGREES 38 FEET EAST, 2,400 FEET BEARING FROM NW CORNER SECTION 22.

THIS CHANGE TO AN EXISTING WATER RIGHT MAY BE MADE PROVIDED THE FOLLOWING CONDITIONS ARE MET BY THE WATER USER:

1. The proposed change shall be completed on or before October 1, 2004.

2. The quantity of water diverted at the new point of appropriation, together with that diverted at the old point of appropriation, shall not exceed the quantity of water lawfully available at the original point of diversion.

3. When required by the Department, the water user shall install and maintain a headgate, an in-line flow meter, weir, or other suitable device for measuring and recording the quantity of water diverted. The type and plans of the headgate and measuring device must be approved by the Department prior to beginning construction and shall be installed under the general supervision of the Department.

4. Water shall be acquired from the same aquifer as the original point of appropriation.

Certificate 74901 is canceled. When satisfactory proof of the completed change is received, a new certificate confirming this water right will be issued.

WITNESS the signature of the Water Resources Director, affixed JUL 2 4 2003.

for Paul R. Cleary, Director

STATE OF OREGON
COUNTY OF COOS
PERMIT TO APPROPRIATE THE PUBLIC WATERS

COOS BAY * NORTH BEND WATER BOARD
2305 OCEAN BOULEVARD
P.O. BOX 539
COOS BAY, OR 97420-0108

is issued this permit to use the waters of UPPER PONY CREEK RESERVOIR, constructed under Reservoir Permit R-1064 and expanded under Reservoir Permits R-8518 and R-12870, a tributary of PONY CREEK, for HYDROELECTRIC PRODUCTION of 2.8 THEORETICAL HORSEPOWER.

This permit is issued under application S-86389 (Power Claim - PC 886). The date of priority is NOVEMBER 2, 2004. The amount of water to be diverted is 0.45 CUBIC FEET PER SECOND (cfs). The project will divert water through a screened pipeline 3 inches in diameter and 10 feet long. The project will use a pelton wheel and 55 feet of gross head to develop 2.8 theoretical horsepower of energy to be stored in a battery to operate a remote video monitoring system.

The point of diversion is located at Upper Pony Creek Spillway - SW ¼ SW ¼, SECTION 28, TOWNSHIP 25 SOUTH, RANGE 13 WEST, W.M.

The authorized place of use is

SW ¼ SW ¼
SECTION 28,
TOWNSHIP 25 SOUTH, RANGE 13 WEST, W.M.

Appeal Rights
This is a final order in other than contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080 you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied.

This statement of judicial review rights does not create a right to judicial review of this order, if judicial review is otherwise precluded by law.

The use of water is limited to the amount that the generation facilities can utilize efficiently, and shall not exceed the specifications noted in this permit.

The use of water under this permit is inferior in right and subsequent in time to any future appropriation of water upstream for beneficial consumptive uses. Water use for hydroelectric purposes as specified in this permit may be made on a year-round basis, when water is available.

PERMIT CONDITIONS

Upon a review of the application and input received from state and federal agencies and private citizens, OWRD finds that the Project, with the conditions set forth below, will not violate the standards expressed in Oregon Administrative Rules (OAR) 690-051-0160 through –0270, and is consistent with the public interest. No other application has been filed in competition with this application. The Project is well adapted to the development and utilization of the waterpower involved.

The use of water is subject to the following express conditions:

1. The permittee shall comply with all statutes and rules applicable to the Project.

2. The permittee shall be exempt from annual fees under *OAR 690-051-0400(5)) and ORS 543.710.* The permittee shall submit an annual claim statement as provided in ORS 543.720

3. Upon a decision to terminate the hydroelectric use for more than five years, the permittee shall comply with any decommissioning statutes and rules in effect at that time. On termination of the permit, the right to use water shall revert to the public.

4. The permittee shall install, maintain, and operate fish screening to prevent fish from entering the proposed diversion. The permittee may submit evidence that the Oregon Department of Fish and Wildlife (ODFW) has determined screens are not necessary. The required screens are to be in place, functional, and approved by ODFW before diversion of any water.

5. The permittee shall construct and build the project according to the maps, plans and specifications filed with and approved by the Department, and within the time fixed by the permit or by any lawful extension thereof. The project map will be incorporated into the permit. No substantial change to the project shall be made unless approved by the Director and incorporated into this permit by amendment or special order.

6. The permittee will maintain the Project, and each part thereof, in good order and repair and in efficient operation, for the development and transmission of electricity to its reasonable capacity; shall make all necessary renewals and replacements as required; and

shall maintain and operate the Project, and all parts thereof, conformably to the rules of the Department not inconsistent with Oregon Revised Statutes (ORS) 543.010 to 543.610.

7. The permittee shall complete construction of the Project within two years of the date the permit is issued.

8. No voluntary transfer of this permit or of any property acquired, constructed or operated pursuant to the permit issued under ORS 537.289 shall be made to any nonmunicipal entity so as to result in a loss of ownership of the permit by a municipal corporation or district. The holder of this permit must remain qualified as a municipal applicant under ORS 537.285 and 537.287. If the municipal corporation or district proposes to generate hydroelectric power jointly with a nonmunicipal entity, any proposed changes in the agreement between the municipal corporation and the nonmunicipal entity must be reviewed by the Department to determine whether the permittee remains qualified as a municipal applicant. If the department determines that a permittee no longer qualifies as a municipal applicant, the department shall notify the permittee and any nonmunicipal entity that the parties have 90 days to amend their joint relationship to continue qualifying as a municipal corporation or district. If the permittee fails, after receiving notice under ORS 537.289(2), to amend the joint agreement so the permittee continues to qualify as a municipal applicant, or if the permittee has assigned ownership of the permit to an entity other than a municipal corporation or district, the Department shall initiate proceedings to cancel the permit.

9. The Project must meet the water quality standards stated in OAR Chapter 340, Division 41. To protect from any significant future temperature-related adverse impacts to aquatic organisms, any future modifications of vegetation surrounding Project waters should be carefully evaluated. The permittee shall consult with ODEQ prior to undertaking any activity that directly or indirectly results in removal of vegetation adjacent to Project waterways. Waterways include, but are not necessarily limited to bypass reaches, siltation/forebay ponds, open-channel diversions, and above ground pipes.

10. Notwithstanding any specific conditions established by this permit, the permittee must comply with all water quality standards adopted by the Environmental Quality Commission pursuant to state and federal law, ORS 468B.048 and Section 303 of the Clean Water Act.

11. The Project shall be designed to minimize visual, aesthetic, and noise impacts.

12. Although there are no known cultural sites within the Project area, if any cultural material is discovered during Project construction, all activities should stop and an archaeologist contacted to assess the discovery. It is a Class B misdemeanor to impact an archaeological site (ORS 358.905-955) and a Class C felony to impact Indian Burials

(ORS 97-740-990).

13. The permittee shall allow the OWRD Director and authorized agents and employees of the Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, and Oregon Water Resources Department free and unrestricted access in, through, and across the Project in the performance of their official duties, and shall allow free access to all reports, accounts, records, and other data relating to said Project.

14. The permittee shall be liable for all damages occasioned to the persons or property of others by the construction, operation, or maintenance of the Project facilities, and in no event will the State of Oregon be liable therefore.

15. Issuance of this permit does not absolve the permittee from compliance with the requirements and enforcement of the requirements under other applicable local, state, and federal laws. The permittee is made aware that permits may be required from the United State Army Corps of Engineers under Section 404 of the Clean Water Act, or from the Division of State Lands for removal and fill of material.

Within one year after complete application of water to the proposed use, the permittee shall submit a claim of beneficial use, which includes a map and report, prepared by a Certified Water Rights Examiner (CWRE).

WITNESS the signature of the Water Resources Director,

Affixed November 2, 2005.

Dwight Ford for
Phillip C. Ward, Director

STATE OF OREGON

COUNTY OF COOS

ORDER APPROVING A CHANGE IN POINT OF APPROPRIATION

Pursuant to ORS 537.211, after notice was given and no objections were filed, and finding that no injury to existing water rights would result, this order approves, as conditioned or limited herein, PERMIT AMENDMENT T-7815 submitted by

COOS BAY-NORTH BEND WATER BOARD
P.O. BOX 539
COOS BAY, OREGON 97420.

The permit to be modified is Permit G-10132 with a date of priority of MARCH 11, 1983. The permit allows the use of ONE WELL for MUNICIPAL USE. The amount of water to which this permit is entitled is limited to an amount actually beneficially used and shall not exceed 1.6 cubic feet per second, if available at the original well; NE¼ NE¼, SECTION 24, T 25 S, R 14 W, W.M.; 300 FEET SOUTH AND 1300 FEET WEST FROM THE NE CORNER OF SECTION 24, or its equivalent in case of rotation, measured at the well.

The use shall conform to any reasonable rotation system ordered by the proper state officer.

NOTICE: Under the provisions of OAR 137-004-0080, the applicant may petition for reconsideration of this order. The petition shall set forth specific grounds for reconsideration. The petition for reconsideration must be filed within 60 days after the date this order is served.

The authorized place of use is as follows:

SECTION 31
TOWNSHIP 23 SOUTH,
RANGE 12 WEST, W.M.

SECTION 25
SECTION 26
SECTION 27
SECTION 33
SECTION 34
SECTION 35
SECTION 36
TOWNSHIP 23 SOUTH,
RANGE 13 WEST, W.M.

SECTION 9
SECTION 16
SECTION 17
SECTION 19
SECTION 20
W½
SECTION 21
SECTION 30
SECTION 31
TOWNSHIP 24 SOUTH,
RANGE 11 WEST, W.M.

SECTION 6
SECTION 7
SECTION 8
SECTION 9
SECTION 16
SECTION 17
SECTION 18
SECTION 19
SECTION 20
SECTION 21
SECTION 22
SECTION 23
SECTION 24
SECTION 25
SECTION 26
SECTION 27
SECTION 28
SECTION 29
SECTION 30
SECTION 31
SECTION 32
SECTION 33
SECTION 34
SECTION 35
SECTION 36
TOWNSHIP 24 SOUTH,
RANGE 12 WEST, W.M.

ALL SECTIONS
TOWNSHIP 24 SOUTH,
RANGE 13 WEST, W.M.

SECTION 2
SECTION 3
SECTION 4
SECTION 5
SECTION 6
SECTION 7
SECTION 8
SECTION 9
SECTION 10
SECTION 11
SECTION 14
SECTION 15
SECTION 16
SECTION 17
SECTION 18
SECTION 19
SECTION 20
SECTION 21
SECTION 22
SECTION 23
SECTION 26
SECTION 27
SECTION 28
SECTION 29
SECTION 30
SECTION 31
SECTION 32
TOWNSHIP 25 SOUTH,
RANGE 12 WEST, W.M.

ALL SECTIONS
TOWNSHIP 25 SOUTH,
RANGE 13 WEST, W.M.

ALL SECTIONS
TOWNSHIP 25 SOUTH,
RANGE 14 WEST, W.M.

SECTION 5
SECTION 6
SECTION 7
SECTION 8
SECTION 17
SECTION 18
SECTION 19
SECTION 20
SECTION 29
SECTION 30
SECTION 31
SECTION 32
TOWNSHIP 26 SOUTH,
RANGE 12 WEST, W.M.

ALL SECTIONS
TOWNSHIP 26 SOUTH,
RANGE 13 WEST, W.M.

ALL SECTIONS
TOWNSHIP 26 SOUTH,
RANGE 14 WEST, W.M.

SECTION 5
SECTION 6
TOWNSHIP 27 SOUTH,
RANGE 12 WEST, W.M.

SECTION 1
SECTION 2
SECTION 3
SECTION 4
SECTION 5
SECTION 6
TOWNSHIP 27 SOUTH,
RANGE 13 WEST, W.M.

SECTION 1
SECTION 2
SECTION 3
SECTION 4
SECTION 5
TOWNSHIP 27 SOUTH, RANGE 14 WEST, W.M.

The right to use water for the above purpose is restricted to beneficial use on the lands or place of use described.

The applicant proposes to change the point of appropriation so that water under this permit may be appropriated from any one, or any combination, of the following wells:

WELL 1 - NW¼ NE¼, SECTION 23, T 23 S, R 13 W, W.M.; SOUTH 70 DEGREES EAST 3180 FEET FROM THE NW CORNER OF SECTION 23.

WELL 2 - SE¼ NW¼, SECTION 23, T 23 S, R 13 W, W.M.; SOUTH 60 DEGREES EAST 2620 FEET FROM THE NW CORNER OF SECTION 23.

WELL 3 - SE¼ NW¼, SECTION 23, T 23 S, R 13 W, W.M.; SOUTH 43 DEGREES EAST 2420 FEET FROM THE NW CORNER OF SECTION 23.

WELL 4 - SE¼ NW¼, SECTION 23, T 23 S, R 13 W, W.M.; SOUTH 30 DEGREES EAST 2870 FEET FROM THE NW CORNER OF SECTION 23.

WELL 5 - NW¼ SW¼, SECTION 23, T 23 S, R 13 W, W.M.; NORTH 35 DEGREES WEST 2570 FEET FROM THE S¼ CORNER OF SECTION 23.

WELL 6 - NW¼ SW¼, SECTION 23, T 23 S, R 13 W, W.M.; NORTH 52 DEGREES WEST 2390 FEET FROM THE S¼ CORNER OF SECTION 23.

WELL 7 - SW¼ SW¼, SECTION 23, T 23 S, R 13 W, W.M.; NORTH 71 DEGREES WEST 2320 FEET FROM THE S¼ CORNER OF SECTION 23.

WELL 8 - SW¼ SW¼, SECTION 23, T 23 S, R 13 W, W.M.; NORTH 72 DEGREES EAST 120 FEET FROM THE SW CORNER OF SECTION 23.

WELL 9 - NE¼ NE¼, SECTION 27, T 23 S, R 13 W, W.M.; SOUTH 3 DEGREES WEST 690 FEET FROM THE SW CORNER OF SECTION 23.

WELL 10 - SE¼ NE¼, SECTION 27, T 23 S, R 13 W, W.M.;
NORTH 14 DEGREES WEST 1250 FEET FROM THE E¼ CORNER OF SECTION 27.

WELL 11 - SE¼ NE¼, SECTION 27, T 23 S, R 13 W, W.M.;
NORTH 48 DEGREES WEST 820 FEET FROM THE E¼ CORNER OF SECTION 27.

WELL 12 - NE¼ SE¼, SECTION 27, T 23 S, R 13 W, W.M.;
SOUTH 78 DEGREES WEST 880 FEET FROM THE E¼ CORNER OF SECTION 27.

WELL 13 - NE¼ SE¼, SECTION 27, T 23 S, R 13 W, W.M.;
NORTH 32 DEGREES WEST 2040 FEET FROM THE SE CORNER OF SECTION 27.

WELL 14 - SE¼ SE¼, SECTION 27, T 23 S, R 13 W, W.M.;
NORTH 50 DEGREES WEST 1650 FEET FROM THE SE CORNER OF SECTION 27.

WELL 15 - SW¼ SE¼, SECTION 27, T 23 S, R 13 W, W.M.;
NORTH 78 DEGREES WEST 1480 FEET FROM THE SE CORNER OF SECTION 27.

WELL 16 - NW¼ NE¼, SECTION 34, T 23 S, R 13 W, W.M.;
SOUTH 75 DEGREES WEST 1660 FEET FROM THE SE CORNER OF SECTION 27.

WELL 17 - NW¼ NE¼, SECTION 34, T 23 S, R 13 W, W.M.;
SOUTH 56 DEGREES WEST 2100 FEET FROM THE SE CORNER OF SECTION 27.

WELL 18 - SW¼ NE¼, SECTION 34, T 23 S, R 13 W, W.M.;
NORTH 68 DEGREES WEST 1930 FEET FROM THE E¼ CORNER OF SECTION 34.

WELL 19 - SW¼ NE¼, SECTION 34, T 23 S, R 13 W, W.M.;
NORTH 89 DEGREES WEST 2050 FEET FROM THE E¼ CORNER OF SECTION 34.

WELL 20 - NW¼ SE¼, SECTION 34, T 23 S, R 13 W, W.M.;
SOUTH 74 DEGREES WEST 2400 FEET FROM THE E¼ CORNER OF SECTION 34.

WELL 21 - SW¼ SE¼, SECTION 34, T 23 S, R 13 W, W.M.;
SOUTH 61 DEGREES WEST 2930 FEET FROM THE E¼ CORNER OF SECTION 34.

WELL 22 - SE¼ SW¼, SECTION 34, T 23 S, R 13 W, W.M.;
NORTH 26 DEGREES WEST 550 FEET FROM THE N¼ CORNER OF SECTION 3,
T 24 S, R 13 W, W.M.

WELL 23 - NE¼ NW¼, SECTION 3, T 24 S, R 13 W, W.M.;
SOUTH 63 DEGREES WEST 530 FEET FROM THE N¼ CORNER OF SECTION 3.

WELL 24 - NE¼ NW¼, SECTION 3, T 24 S, R 13 W, W.M.;
SOUTH 37 DEGREES WEST 1200 FEET FROM THE N¼ CORNER OF SECTION 3.

WELL 25 - SE¼ NW¼, SECTION 3, T 24 S, R 13 W, W.M.;
SOUTH 45 DEGREES EAST 2380 FEET FROM THE NW CORNER OF SECTION 3.

WELL 26 - SE¼ NW¼, SECTION 3, T 24 S, R 13 W, W.M.;
SOUTH 35 DEGREES EAST 2970 FEET FROM THE NW CORNER OF SECTION 3.

WELL 27 - NE¼ SW¼, SECTION 3, T 24 S, R 13 W, W.M.;
NORTH 34 DEGREES EAST 2140 FEET FROM THE SW CORNER OF SECTION 3.

WELL 28 - SW¼ SW¼, SECTION 3, T 24 S, R 13 W, W.M.;
NORTH 50 DEGREES EAST 1510 FEET FROM THE SW CORNER OF SECTION 3.

WELL 29 - SW¼ SW¼, SECTION 3, T 24 S, R 13 W, W.M.;
NORTH 78 DEGREES EAST 1060 FEET FROM THE SW CORNER OF SECTION 3.

WELL 30 - NW¼ NW¼, SECTION 10, T 24 S, R 13 W, W.M.;
SOUTH 61 DEGREES EAST 1000 FEET FROM THE SW CORNER OF SECTION 3.

WELL 31 - NW¼ NW¼, SECTION 10, T 24 S, R 13 W, W.M.;
SOUTH 29 DEGREES EAST 1390 FEET FROM THE SW CORNER OF SECTION 3.

WELL 32 - SW¼ NW¼, SECTION 10, T 24 S, R 13 W, W.M.;
NORTH 26 DEGREES EAST 790 FEET FROM THE W¼ CORNER OF SECTION 10.

WELL 33 - SW¼ NW¼, SECTION 10, T 24 S, R 13 W, W.M.;
NORTH 85 DEGREES EAST 160 FEET FROM THE W¼ CORNER OF SECTION 10.

WELL 34 - NW¼ SW¼, SECTION 10, T 24 S, R 13 W, W.M.;
SOUTH 5 DEGREES EAST 720 FEET FROM THE W¼ CORNER OF SECTION 10.

WELL 35 - SE¼ SE¼, SECTION 9, T 24 S, R 13 W, W.M.;
NORTH 29 DEGREES WEST 650 FEET FROM THE SE CORNER OF SECTION 9.

WELL 36 - SE¼ NE¼, SECTION 16, T 24 S, R 13 W, W.M.;
NORTH 22 DEGREES WEST 1310 FEET FROM THE E¼ CORNER OF SECTION 16.

WELL 37 - NE¼ SE¼, SECTION 16, T 24 S, R 13 W, W.M.;
SOUTH 37 DEGREES WEST 970 FEET FROM THE E¼ CORNER OF SECTION 16.

WELL 38 - NW¼ NE¼, SECTION 21, T 24 S, R 13 W, W.M.;
SOUTH 89 DEGREES WEST 1590 FEET FROM THE NE CORNER OF SECTION 21.

WELL 39 - SW¼ NE¼, SECTION 21, T 24 S, R 13 W, W.M.;
NORTH 71 DEGREES EAST 2830 FEET FROM THE W¼ CORNER OF SECTION 21.

WELL 40 - NE¼ SW¼, SECTION 21, T 24 S, R 13 W, W.M.;
SOUTH 65 DEGREES EAST 2420 FEET FROM THE W¼ CORNER OF SECTION 21.

WELL 41 - NE¼ NW¼, SECTION 28, T 24 S, R 13 W, W.M.;
SOUTH 78 DEGREES EAST 1690 FEET FROM THE NW CORNER OF SECTION 28.

WELL 42 - SW¼ NW¼, SECTION 28, T 24 S, R 13 W, W.M.;
NORTH 42 DEGREES EAST 580 FEET FROM THE W¼ CORNER OF SECTION 28.

WELL 43 - SE¼ SE¼, SECTION 29, T 24 S, R 13 W, W.M.;
NORTH 26 DEGREES WEST 1200 FEET FROM THE NE CORNER OF SECTION 32.

WELL 44 - NW¼ NE¼, SECTION 32, T 24 S, R 13 W, W.M.;
SOUTH 68 DEGREES WEST 1600 FEET FROM THE NE CORNER OF SECTION 32.

WELL 45 - SW¼ NE¼, SECTION 32, T 24 S, R 13 W, W.M.;
NORTH 84 DEGREES WEST 2380 FEET FROM THE E¼ CORNER OF SECTION 32.

WELL 46 - SW¼ SE¼, SECTION 32, T 24 S, R 13 W, W.M.;
SOUTH 56 DEGREES WEST 2920 FEET FROM THE E¼ CORNER OF SECTION 32.

WELL 47 - SW¼ NE¼, SECTION 33, T 24 S, R 13 W, W.M.;
NORTH 89 DEGREES WEST 2590 FEET FROM THE E¼ CORNER OF SECTION 33.

WELL 48 - NW¼ SE¼, SECTION 33, T 24 S, R 13 W, W.M.;
SOUTH 71 DEGREES WEST 2130 FEET FROM THE E¼ CORNER OF SECTION 33.

WELL 49 - SW¼ NE¼, SECTION 33, T 24 S, R 13 W, W.M.;
NORTH 84 DEGREES WEST 1600 FEET FROM THE E¼ CORNER OF SECTION 33.

WELL 50 - SE¼ NE¼, SECTION 33, T 24 S, R 13 W, W.M.;
NORTH 41 DEGREES WEST 1670 FEET FROM THE E¼ CORNER OF SECTION 33.

WELL 51 - NE¼ NE¼, SECTION 33, T 24 S, R 13 W, W.M.;
SOUTH 72 DEGREES WEST 780 FEET FROM THE NE CORNER OF SECTION 33.

WELL 52 - SE¼ SE¼, SECTION 28, T 24 S, R 13 W, W.M.;
NORTH 29 DEGREES WEST 1070 FEET FROM THE NE CORNER OF SECTION 33.

WELL 53 - NE¼ SE¼, SECTION 28, T 24 S, R 13 W, W.M.;
SOUTH 23 DEGREES WEST 400 FEET FROM THE E¼ CORNER OF SECTION 28.

WELL 54 - SW¼ NW¼, SECTION 27, T 24 S, R 13 W, W.M.;
NORTH 35 DEGREES EAST 810 FEET FROM THE E¼ CORNER OF SECTION 28.

WELL 55 - NW¼ NW¼, SECTION 27, T 24 S, R 13 W, W.M.;
SOUTH 82 DEGREES WEST 4490 FEET FROM THE NE CORNER OF SECTION 27.

WELL 56 - SW¼ SW¼, SECTION 22, T 24 S, R 13 W, W.M.;
NORTH 83 DEGREES WEST 4240 FEET FROM THE NE CORNER OF SECTION 27.

WELL 57 - NE¼ SW¼, SECTION 22, T 24 S, R 13 W, W.M.;
SOUTH 76 DEGREES WEST 3700 FEET FROM THE E¼ CORNER OF SECTION 22.

WELL 58 - SE¼ NW¼, SECTION 22, T 24 S, R 13 W, W.M.;
NORTH 84 DEGREES WEST 3600 FEET FROM THE E¼ CORNER OF SECTION 22.

WELL 59 - NE¼ NW¼, SECTION 22, T 24 S, R 13 W, W.M.;
SOUTH 65 DEGREES EAST 2330 FEET FROM THE NW CORNER OF SECTION 22.

WELL 60 - SE¼ SW¼, SECTION 15, T 24 S, R 13 W, W.M.;
NORTH 86 DEGREES EAST 2230 FEET FROM THE NW CORNER OF SECTION 22.

WELL 61 - SW¼ SE¼, SECTION 15, T 24 S, R 13 W, W.M.;
SOUTH 24 DEGREES EAST 1452 FEET FROM THE C¼ CORNER OF SECTION 15.

WELL 62 - NE¼ SE¼, SECTION 15, T 24 S, R 13 W, W.M.; SOUTH 85 DEGREES WEST 2420 FEET FROM THE E¼ CORNER OF SECTION 15.

WELL 63 - SW¼ NE¼, SECTION 15, T 24 S, R 13 W, W.M.; NORTH 65 DEGREES WEST 2170 FEET FROM THE E¼ CORNER OF SECTION 15.

WELL 64 - NW¼ NE¼, SECTION 15, T 24 S, R 13 W, W.M.; SOUTH 70 DEGREES WEST 1700 FEET FROM THE NE CORNER OF SECTION 15.

THIS CHANGE TO AN EXISTING WATER PERMIT MAY BE MADE PROVIDED THE FOLLOWING CONDITIONS ARE MET BY THE WATER USER:

1. The quantity of water diverted at the new points of appropriation (wells), together with that diverted at the old point of appropriation, shall not exceed the quantity of water lawfully available at the original point of appropriation.

2. Water shall be acquired from the same aquifer as the original point of appropriation.

3. All other terms and conditions of the permit remain the same.

Permit G-10132, in the name of COOS BAY-NORTH BEND WATER BOARD is amended as described herein.

WITNESS the signature of the Water Resources Director, affixed JUL 20 1999.

Martha O. Pagel, Director

STATE OF OREGON

COUNTY OF COOS

ORDER APPROVING A CHANGE IN POINT OF APPROPRIATION

Pursuant to ORS 537.211, after notice was given and no objections were filed, and finding that no injury to existing water rights would result, this order approves, as conditioned or limited herein, PERMIT AMENDMENT T-8161 submitted by

COOS BAY - NORTH BEND WATER BOARD
2305 OCEAN BOULEVARD
COOS BAY, OREGON 97420.

The permit to be modified is Permit G-1389 with a date of priority of JANUARY 3, 1956. The permit allows the use of 64 WELLS, in the NORTH SLOUGH AND TENMILE CREEK BASINS, for INDUSTRIAL USES, INCLUDING THE MANUFACTURE OF PULP AND PAPER. The amount of water to which this permit is entitled is limited to an amount actually beneficially used and shall not exceed 46.0 cubic feet per second, if available at the original wells; SE¼ SW¼, SECTION 15, T 24 S, R 13 W, W.M.; WELL 61 - 2820 FEET SOUTH 62 DEGREES EAST FROM THE W¼ CORNER OF SECTION 15, WITH 63 OTHER WELL AS DESCRIBED IN PERMIT G-1389, or its equivalent in case of rotation, measured at the well.

The use shall conform to any reasonable rotation system ordered by the proper state officer.

The authorized place of use is as follows:

SECTIONS 18, 19, 30, AND 31

TOWNSHIP 23 SOUTH, RANGE 12 WEST, W.M.

SECTIONS 13, 14, 15, 22, 23, 24, AND 25
SECTIONS 26, 27, 33, 34, 35, AND 36

TOWNSHIP 23 SOUTH, RANGE 13 WEST, W.M.

SECTIONS 6, 7, 18, 19, 30, AND 31

TOWNSHIP 24 SOUTH, RANGE 12 WEST, W.M.

SECTIONS 1, 2, 3, 4, 9, 10, 11, 12, AND 13
SECTIONS 14, 15, 16, 17, AND 20 THROUGH 36

TOWNSHIP 24 SOUTH, RANGE 13 WEST, W.M.

SECTIONS 6, 7, 18, 19, 30, AND 31

TOWNSHIP 25 SOUTH, RANGE 12 WEST, W.M.

ALL SECTIONS

TOWNSHIP 25 SOUTH, RANGE 13 WEST, W.M.

SECTIONS 12, 13, 23, 24, 25, AND 26

TOWNSHIP 25 SOUTH, RANGE 14 WEST, W.M.

SECTION 6

TOWNSHIP 26 SOUTH, RANGE 12 WEST, W.M.

SECTIONS 1 THROUGH 6

TOWNSHIP 26 SOUTH, RANGE 13 WEST, W.M.

SECTIONS 1, 2, 3, AND 4

TOWNSHIP 26 SOUTH, RANGE 14 WEST, W.M.

The right to use water for the above purpose is restricted to beneficial use on the lands or place of use described.

The applicant proposes to change the point of appropriation of WELL 61 to:

SW¼ SE¼, SECTION 15, T 24 S, R 13 W, W.M.; 1452 FEET SOUTH 24 DEGREES EAST FROM THE C¼ CORNER OF SECTION 15.

THIS CHANGE TO AN EXISTING WATER PERMIT MAY BE MADE PROVIDED THE FOLLOWING CONDITIONS ARE MET BY THE WATER USER:

1. The quantity of water diverted at the new point of appropriation (well), together with that diverted at the other points of appropriation, shall not exceed the quantity of water lawfully available at the original points of appropriation.

2. When required by the Department, the water user shall install and maintain a headgate, an in-line flow meter, weir, or other suitable device for measuring and recording the quantity of water diverted. The type and plans of the headgate and measuring device must be approved by the Department prior to beginning construction and shall be installed under the general supervision of the Department.

3. Water shall be acquired from the same aquifer as the original points of appropriation.

4. All other terms and conditions of the permit remain the same.

Permit G-1389, in the name of COOS BAY - NORTH BEND WATER BOARD is amended as described herein.

WITNESS the signature of the Water Resources Director, affixed APR 27 1999.

For Martha O. Pagel, Director

Under the provisions of OAR 137-004-0080, the applicant may petition for reconsideration of this order. The petition shall set forth specific grounds for reconsideration. The petition for reconsideration must be filled within 60 days after the date this order is served.

STATE OF OREGON

COUNTY OF COOS

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

COOS BAY NORTH BEND WATER BOARD
PO BOX 539
COOS BAY, OREGON 97420 (541)267-3128

The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: S-70256

SOURCE OF WATER: TENMILE CREEK, A TRIBUTARY OF PACIFIC OCEAN

PURPOSE OR USE: MUNICIPAL USE

MAXIMUM RATE/VOLUME ALLOWED: 23.2 CUBIC FEET PER SECOND

PERIOD OF USE: NOVEMBER 1 THROUGH MARCH 31

DATE OF PRIORITY: MARCH 23, 1990

POINT OF DIVERSION LOCATION: SW 1/4 SW 1/4, SECTION 13, T23S, R13W, W.M.; 1200 FEET NORTH AND 70 FEET EAST FROM SW CORNER, SECTION 13

THE PLACE OF USE IS LOCATED AS FOLLOWS:

WITHIN THE SERVICE AREA OF THE CITIES OF COOS BAY AND NORTH BEND

Measurement, recording and reporting conditions:

A. Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water use information,

including the place and nature of use of water under the permit.

B. The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The permittee shall install, maintain, and operate fish screening to prevent fish from entering the proposed diversion. The required screens are to be in place, functional, and approved by ODFW before diversion of any water.

The permittee shall not construct, operate or maintain any dam or artificial obstruction to fish passage in the channel of the subject stream without providing a fishway to ensure adequate upstream and downstream passage for fish. The applicant is hereby directed to contact an Oregon Department of Fish and Wildlife Fish Passage Coordinator, Portland, Oregon, before beginning construction of any in-channel obstruction.

The applicant shall obtain legal access to all lands not owned by the applicant associated with the points of diversion and the delivery system before diversion of any water.

During the period of authorized use, water may be appropriated only at times when the mouth of Tenmile Creek is sufficiently open (sand berm breached), and channel depth is sufficient, to allow satisfactory fish passage to Tenmile Lake. The Oregon Department of Fish and Wildlife (ODF&W) must concur in both the determination that the mouth of Tenmile Creek is sufficiently open (sand berm breached) and the determination that channel depth is sufficient to allow fish passage before Coos Bay North Bend Water Board (CBNB) may appropriate water under the permit. When CBNB believes the mouth of Tenmile Creek is sufficiently open to allow satisfactory fish passage, CBNB will provide written communication to ODF&W with a dated photograph showing the conditions at the mouth of Tenmile Creek. The written communication and photograph may be communicated electronically. In addition, CBNB will make its best efforts to ensure that an ODF&W represenative has an opportunity to view in person the conditions at the mouth of Tenmile Creek. "Best efforts" is defined as cooperation and assistance by the CBNB, at staff level, to obtain ODF&W access to the mouth of Tenmile Creek through telephone

calls, e-mail communication or other communication, but does not include any requirement that CBNB take any formal action in the form of written correspondence or legal action to obtain ODF&W access to the mouth of Tenmile Creek. When ODF&W does not have its own means of transportation reasonably available to gain access to the mouth of Tenmile Creek, 'best efforts' requires CBNB to provide an ODF&W representative with reasonable means of transportation to gain access to the mouth of Tenmile Creek.

Water shall only be diverted under this permit when at least 75.0 cubic feet per second is flowing past the point of diversion. In order to determine when this flow is exceeded, the permittee shall, under supervision of the watermaster:

Install and maintain a standard recording gaging station on Tenmile Creek downstream of the U.S. Highway 101 brigde; and

Install, rate and maintain a staff gage on Eel Creek.

The use of up to 23.2 CFS may be made, during the period of use, when the amount of water withdrawn from Tenmile Creek is 10 percent or less of the total flow measured at the gaging station located downstream from the U.S. Highway 101 bridge.

Within three years of permit issuance, the permittee shall submit a water management and conservation plan, addressing use under this permit, consistent with OAR Chapter 690, Division 86.

Other Permits and Water Rights:

Permittee holds certificate 53521 for Tarheel/Fourth Creek and permit 19855 for Winchester Creek. Prior to diverting water under application S-70256, Permit 53710, the permit 19855 shall be canceled. Prior to diverting water under application S-70256, Permit 53710, certificate 53521 shall be canceled or transferred instream or to another user.

STANDARD CONDITIONS

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water allowed herein may be made only at times when sufficient water is available to satisfy all prior rights, including prior rights for maintaining instream flows.

The Director finds that the proposed use(s) of water described by this permit, as conditioned, will not impair or be detrimental to the public interest.

Completion of construction and complete application of the water to the use shall be made on or before October 1, 2010. If the water is not completely applied before this date, and the water user wishes to continue development under the permit, the water user must submit an application for extension of time, which may be approved based upon the merit of the application.

Within one year after complete application of water to the proposed use, the water user shall submit a claim of beneficial use, which includes a map and report, prepared by a Certified Water Rights Examiner (CWRE).

This permit supersedes Permit S-53710, which is of no further force or effect.

Issued October 4th, 2006

Phillip C. Ward, Director
Water Resources Department

STATE OF OREGON
WATER RESOURCES DEPARTMENT

SURFACE WATER REGISTRATION STATEMENT
PRE-1909 VESTED WATER RIGHT CLAIM

1. Name of Registrant: Coos Bay-North Bend Water Board
   Mailing Address: P. O. Box 539, Coos Bay, OR 97420
   Telephone No: (503) 267-3128

2. Source of water: Upper Pony Creek
   Tributary to: N/A

3. Purpose(s) for which water is used: municipal
   (Irrigation, Stockwater, Domestic, Hydroelectric power, Industrial, Etc.)
   If irrigation, total number of acres irrigated: N/A

4. Priority Date
   a) Date of first use: Prior to 1909
   b) Date water use development first initiated: Prior to 1909
   c) Name of party who initiated development: will be submitted at a later date

5. Amount of water claimed: 10 cfs, in CFS or GPM
   (Water put to beneficial use)

6. Location of place of use:
   28, 29, 32, 33 Sections, Township 25 ~~N~~/S, Range 13 ~~E~~/W.
   4, 5 Sections, Township 26 ~~N~~/S, Range 13 ~~E~~/W.
   (Attach additional pages if necessary)

7. Usual period of use: 01 / 01 to 12 / 31
   month day month day

8. Remarks: Supporting documentation for this statement will follow at a later date. See letter dated December 28, 1992, accompanying this statement.

9. Total fees submitted with claim: $650.00

Notarized Statement Signed by Claimant.

STATE OF OREGON)
: ss
County of COOS)

I, RON A. HOFFINE, having been duly sworn, depose and say that I, and being the claimant of the existing surface water right described herein, have read the contents of this claim and to the best of my knowledge all of the matters stated herein are true and correct.

Ron A Hoffine
Signature of Claimant

Signed and attested before me this 28th day of Dec., 19 92

Diane Romines
DIANE ROMINES
NOTARY PUBLIC — OREGON
MY COMMISSION EXPIRES 5-8-94

NOTARY PUBLIC for the State of Oregon
My commission expires: _____

THIS FORM MUST BE ACCOMPANIED BY A MAP PREPARED BY A CERTIFIED WATER RIGHT EXAMINER (CWRE).

Certified Water Right Examiner

Name: _____ CWRE#: _____

Address: _____

Telephone: _____

STATE OF OREGON

COUNTY OF COOS

CERTIFICATE OF WATER RIGHT

THIS CERTIFICATE ISSUED TO

COOS BAY NORTH BEND WATER BOARD
PO BOX 539 2305 OCEAN BLVD
COOS BAY OR 97420

confirms the right to store water perfected under the terms of Permit R-10888. The amount of water used to which this right is entitled is limited to the amount used beneficially, and shall not exceed the amount specified, or its equivalent in the case of rotation, measured at the point of diversion from the source. The specific limits and conditions of the use are listed below.

APPLICATION NUMBER: R-68794

SOURCE: PONY CREEK

STORAGE FACILITY: PONY CREEK RESERVOIR (MERRITT LAKE)

PURPOSE or USE: MUNICIPAL USES

MAXIMUM STORAGE VOLUME: 383.0 ACRE FEET (AF) ANNUALLY DURING THE NONIRRIGATION SEASON OR WHEN EXCESS WATER IS OTHERWISE AVAILABLE.

DATE OF PRIORITY: JULY 21, 1986, FOR STORAGE OF 340.0 AF AND DECEMBER 29, 1987, FOR 43.0 AF

DAM LOCATION:

Twp	Rng	Mer	Sec	Q-Q	GLot	DLC	Survey Coordinates
25 S	13 W	WM	28	NE NE			

The area submerged by this reservoir is as follows:

AREA SUBMERGED							
Twp	Rng	Mer	Sec	Q-Q	GLot	DLC	Acres
25 S	13 W	WM	28	NE NE			
25 S	13 W	WM	28	NW NE			
25 S	13 W	WM	28	SW NE			
25 S	13 W	WM	28	SE NE			
25 S	13 W	WM	28	NE SW			
25 S	13 W	WM	28	NW SW			
25 S	13 W	WM	28	SW SW			
25 S	13 W	WM	28	SE SW			
25 S	13 W	WM	28	NW SE			

NOTICE OF RIGHT TO PETITION FOR RECONSIDERATION OR JUDICIAL REVIEW

This is an order in other than a contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60-day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-0080, you may either petition for judicial review or petition the Director for reconsideration of this order. A petition for reconsideration may be granted or denied by the Director, and if no action is taken within 60 days following the date the petition was filed, the petition shall be deemed denied. In addition, under ORS 537.260 any person with an application, permit or water right certificate subsequent in priority may jointly or severally contest the issuance of the certificate at any time before it has issued, and after the time has expired for the completion of the appropriation under the permit, or within three months after issuance of the certificate.

1. The structure shall be constructed, operated and maintained in accordance with the approved plans and specifications and with the design intent.

2. The outlet gate shall be cycled at least once each year in order to assure smooth operation.

3. The embankment and spillway channel shall be kept clear of trees and brush.

4. The embankment shall be kept free of burrowing animals.

5. The use of water allowed herein may be made only at times when sufficient water is available to satisfy all prior rights, including prior rights for maintaining instream flows.

WITNESS the signature of the Water Resources Director, affixed SEP 2 1 2007.

Phillip C. Ward, Director
Water Resources Department

 Recorded in State Record of Water Right Certificates numbered 83502.

STATE OF OREGON

COUNTY OF COOS

ORDER APPROVING AN ADDITIONAL POINT OF APPROPRIATION

Pursuant to ORS 537.705, after notice was given and no objections were filed, and finding that no injury to existing water rights would result, this order approves, as conditioned or limited herein, TRANSFER 9456 submitted by

COOS BAY-NORTH BEND WATER BOARD
P.O. BOX 539
COOS BAY, OREGON 97420.

The right to be modified, as evidenced by Certificate 74903, was perfected under Permit G-10839 with a date of priority of SEPTEMBER 27, 1977. The right allows the use of WELL NO. 42, in the NORTH INLET BASIN, for MAINTAINING HORSFALL LAKE WATER LEVEL FOR RECREATION. The amount of water to which this right is entitled is limited to an amount actually beneficially used and shall not exceed 74.0 GALLONS PER MINUTE, or its equivalent in case of rotation, measured at the well; SW¼ NW¼, SECTION 28, T 24 S, R 13 W, W.M.; NORTH 42° EAST, 580 FEET FROM THE WEST QUARTER CORNER OF SECTION 28.

The right shall be limited to appropriation of water only to the extent that it does not impair or substantially interfere with prior surface water rights as well as prior ground water rights of others.

The use shall conform to any reasonable rotation system ordered by the proper state officer.

The authorized place of use is as follows:

NW¼ NE¼
SW¼ NE¼
NE¼ NW¼
SE¼ NW¼
NE¼ SW¼
NW¼ SE¼
SECTION 28
TOWNSHIP 24 SOUTH, RANGE 13 WEST, W.M.

This is a final order in other than contested case. This order is subject to judicial review under ORS 183.484. Any petition for judicial review must be filed within the 60 day time period specified by ORS 183.484(2). Pursuant to ORS 536.075 and OAR 137-004-080 and OAR 690-01-005 you may either petition for judicial review or petition the Director for reconsideration of this order.

The right to use water for the above purpose is restricted to beneficial use on the lands or place of use described.

The applicant proposes an additional point of appropriation located as follows:

SW¼ NE¼, SECTION 32, T 24 S, R 13 W, W.M.;2,380 FEET NORTH 24° WEST BEARING FROM E¼ CORNER SECTION 32.

THIS CHANGE TO AN EXISTING WATER RIGHT MAY BE MADE PROVIDED THE FOLLOWING CONDITIONS ARE MET BY THE WATER USER:

1. The proposed change shall be completed on or before October 1, 2007.

2. The quantity of water diverted at the new point of appropriation (new well), together with the quantity diverted at the old point of appropriation, shall not exceed the quantity of water lawfully available at the original point of diversion.

3. Prior to appropriating water from the new point of appropriation (new well) the water user shall install and maintain a headgate, an in-line flow meter or other suitable device for measuring and recording the quantity of water diverted. The type and plans of the headgate and measuring device must be approved by the Department prior to beginning construction and shall be installed under the general supervision of the Department.

4. Water shall be acquired from the same surface water source as the original point of appropriation.

Certificate 74903 is canceled. When satisfactory proof of the completed change is received, a new certificate confirming this water right will be issued.

Dated at Salem, Oregon this 3rd day of December, 2004.

For Phillip C. Ward
Director

Mailing date: DEC 2 2 2004

State of Oregon
Water Resources Department
158 12th Street NE, Salem, OR 97310
(503)378-8455 • (800)624-3199
www.wrd.state.or.us

Application for Water Right
Transfer

T-8528

Please type or print in dark ink. If your application is found to be incomplete or inaccurate, we will return it to you. If any requested information does not apply to your application, insert "n/a." Please read and refer to the instructions when completing your application. Thank you.

APPLICATION FOR:

Please check one

☐ Water Right Transfer ☐ Temporary Transfer ☒ Permit Amendment
☐ Historic Point of Diversion Change ☐ Government Action Point of Diversion

1. APPLICANT INFORMATION

Name: Oregon Department of Fish and Wildlife
First Last

Address: P.O. Box 5430

Charleston Oregon 97420
City State Zip

Phone: (541) 888-5515
Home Work Other

*Fax: (541) 888-6860 *E-Mail address: Michael.e.gray@state.or.us

**Optional information*

2. TYPE OF CHANGE

☐ Use ☒ Place of Use ☐ Point of Diversion ☐ Point of Appropriation

Reason for change: Water to be stored in the enlarged Upper Pony Creek Reservoir as described in the attached Memorandum of Understanding

Is the land within an irrigation or other water district? ☐ Yes ☒ No

If yes, include district name: _____

For Department Use

App. No._____ Permit No._____ Date_____

T-8528

3. CURRENT WATER RIGHT INFORMATION

Name on Permit, Certificate, or Decree: Coos Bay - North Bend Water Board

Decree: _____
[☒ Not applicable]

Permit Number: R - 2252 [☐ Not applicable]

Certificate Number: _____ [☒ Not applicable]

Priority Date: May 12, 1959

Authorized Use: Municipal

Source of Water: Joe Ney Slough

County: Coos

Are there other sources listed on the water right? ☐ Yes ☒ No

Location of Authorized Point of Diversion or Point of Appropriation:

Coordinates (from recognized survey corner)	1/4 1/4 Section	Section	Township	Range
SEE SUPPLEMENTAL SHEET				

Location of Authorized Place of Use:

Township	Range	Section	Government Lot or DIC	1/4 1/4 Section	Tax Lot Number	Acres (if appropriate)
SEE SUPPLEMENTAL SHEET						

Are there other lands described in the water right? ☐ Yes ☒ No

Are there other water rights or permits associated with this land? ☒ Yes ☐ No
If yes, include a copy of all rights or permits.

Description of general delivery system *(ditch measurements, pump size, number of sprinklers, etc.)*:

Water currently stored behind earthen reservoir on Joe Ney Slough. Water will be pumped via pipeline to the Upper Pony Creek Reservoir.

System capacity (in cfs): not available at this time

4. PROPOSED CHANGES TO THE WATER RIGHT T-8528

☐ **Change in Use:**

Proposed use: _____

☐ **Change in Point of Diversion or Point of Appropriation:**

☐ Change

Old point of diversion or point of appropriation will not be used for this portion of the water right.

☐ Additional

Both old and new points of diversion or points of appropriation will be used for this portion of the water right.

Location of Proposed Point of Diversion or Point of Appropriation

Coordinates (from recognized survey corner)	1/4 1/4 Section	Section	Township	Range

☐ **Change in Place of Use:**

Location of Proposed Place of Use

Township	Range	Section	Government Lot or DIC	1/4 1/4 Section	Tax Lot Number	Acres (if appropriate)
SEE SUPPLEMENTAL SHEET						
NOTE: THIS APPLICATION IS FOR THE TRANSFER OF 835 ACRE FEET OF STORED WATER FROM JOE NEY TO PONY CREEK.						

Remarks: This application is to fullfill the conditions described in the attached Memorandum of Understanding.

NOTE: Permit R - 2252 was issued to store up to 2,500 acre feet of water. Up to 835 acre feet of water will be stored in the Upper Pony Creek Reservoir from Joe Ney Slough upon approval of this permit amendment.

T-8528

5. LAND OWNERSHIP

Use/Place of Use

Answer only if for change in **Use** or **Place of Use.**

Are the lands free of encumbrances? ☒ Yes ☐ No

If no, name of encumbrance holder: _____

If no, application must include written permission for the transfer from the encumbrance holder.

Landowners

This section does not apply to water delivery entities authorized to act on behalf of their members, making permit amendment requests, or requests for changes in point of diversion or point of appropriation only.

Answer only if applicant is **not** the landowner.

Landowners: Coos Bay - North Bend Water Board
(List all landowners shown on deed.)

Address(es): 2305 Ocean Blvd. P. O. Box 539

Coos Bay (City) Oregon (State) 97420 (Zip)

Application must include notarized statements from all landowners shown on deed giving permission for the transfer. Use an extra sheet if necessary.

Receiving Landowner

Answer only if the receiving landowner is **not** the original landowner or the applicant.

Name: _____

Address: _____

_____
City State Zip

☐ The Department's records should be changed to show this landowner is responsible for completion of the changes. All notices and correspondence should be sent to this landowner.

☐ Applicant will remain responsible for completion of changes. Notices and correspondence should continue to be sent to applicant.

6. EXHIBITS

T-8528

Application may be rejected if all appropriate exhibits are not enclosed.

Land Use Information Form:

☒ Enclosed

☐ Not needed: (must meet the following four requirements)

1. In EFU zone or irrigation district.
2. Change in place of use only.
3. No structural changes needed, including diversion works, delivery facilities, other structures.
4. Irrigation only.

☐ List all affected governments (city, county, state, tribal, federal):

Coos Bay and North Bend through the Coos Bay - North Bend Water Board

Map:

☒ Water Right Transfer: *Must be prepared by a Certified Water Right Examiner.*

☐ All others: *Need not be prepared by a Certified Water Right Examiner.*

Deed:

☐ Must accompany all applications, except permit amendment requests.

Evidence of use within last five years, or not subject to forfeiture:

☒ Best evidence is an affidavit from a knowledgeable person describing the water use. Statements saying water was delivered or assessments/fees were paid are insufficient. Evidence must show actual use of the water for the authorized purpose, in the authorized place of use.

Water Well Reports:

☐ If application is for a change in point of appropriation or change from surface water to ground water, attach copies of all water well reports. If reports are not available, describe construction details including well depth, static water level, and information necessary to establish the ground water body developed or proposed to be developed.

Fees:

☒ Amount enclosed $200.00

See instruction book for fee schedule.

7. SIGNATURE

I (we) swear that I (we) have read the above application and the statements made are true and accurate.

applicant signature	name (print)	date
Michael E. Gray	MICHAEL E. GRAY	2/2/2000

applicant signature	name (print)	date

Before you submit your application be sure you have:

- Answered each question completely.
- Attached a legible map which includes township, range, section, quarter/quarter and tax lot number.
- Included the necessary exhibits.
- Included a check payable to the Oregon Water Resources Department for the appropriate amount.

Oregon Department of Fish and Wildlife
Permit Amendment Supplemental Sheet

T-8528

Location of Authorized Point of Diversion:

Coordinates (as noted on Permit)	¼ ¼	Section	Township	Range
SE corner of the SW¼SW¼ of Section 6 and the NE corner of the NW¼NW¼ of Section 7	SW¼SW¼ NW¼NW¼	6 7	26 S	13 W

Item 3: Location of Authorized Place of Use:

Township	Range	Section	¼ ¼	Tax Lot	Use
26 S	13 W	6	SW¼SW¼	500	Storage
		6	SE¼SW¼	500	"
		7	NW¼NW¼	200	"
			NE¼NW¼	200	"
			SE¼NW¼	200	"
			NW¼NE¼	200	"

Item 4: Location of Proposed Place of Use:

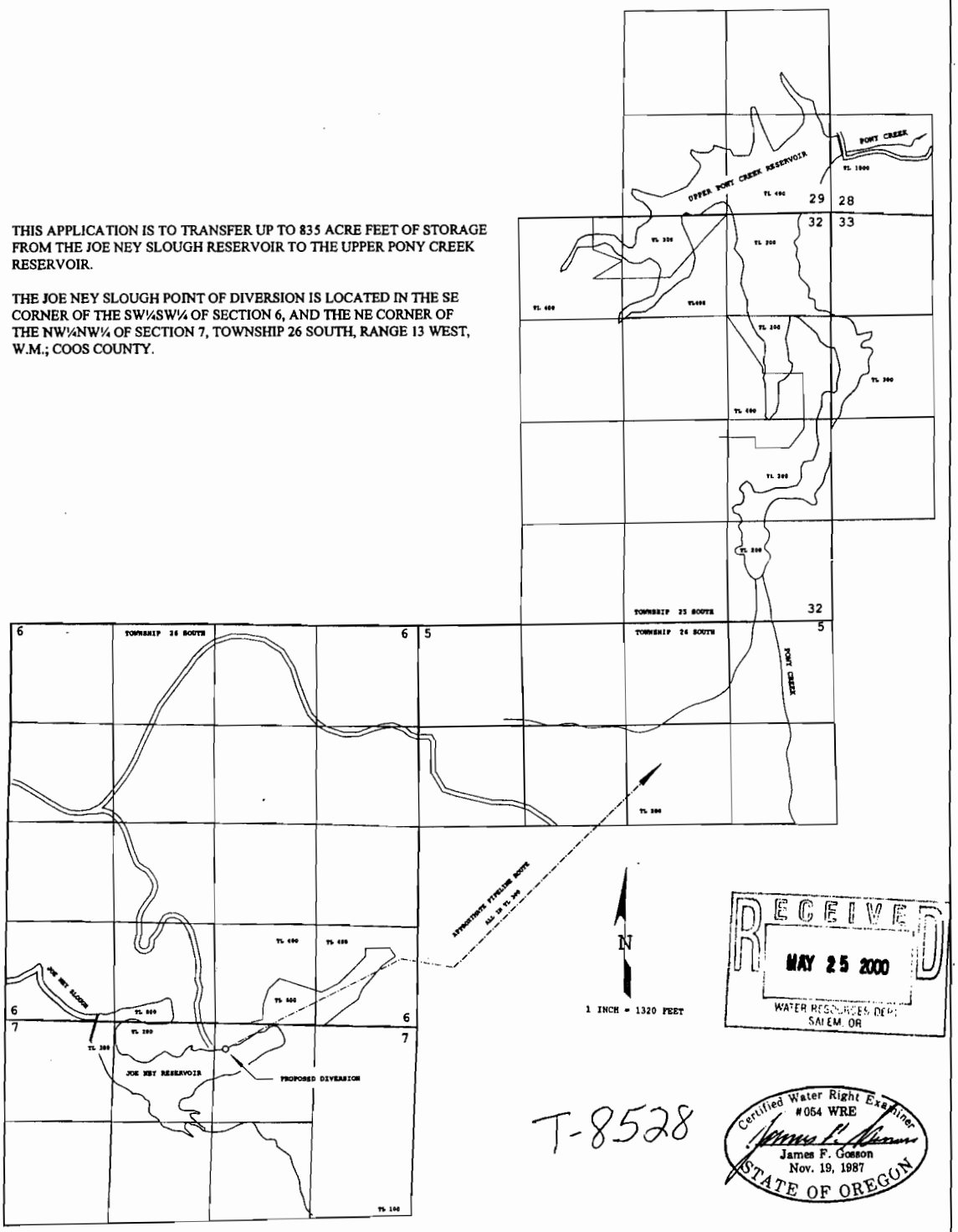
Township	Range	Section	¼ ¼	Tax Lot	Use
25 South	13 West	28	SW¼SW¼	1000	Storage
		29	NE¼SE¼	400	"
			SE¼SE¼	400	"
			SW¼SE¼	400	"
		32	NE¼NE¼	200	"
			NW¼NE¼	300 & 400	"
			SW¼NE¼	400	"
			SE¼NE¼	200 & 400	"
			NE¼NW¼	300 & 400	"
			SE¼NW¼	400	"
			NE¼SE¼	200	"
			SE¼SE¼	200 & 300	"
		33	SW¼NW¼	300	"

APPLICATION FOR A PERMIT AMENDMENT
IN THE NAME OF
THE OREGON DEPARTMENT OF FISH AND WILDLIFE

APPLICATION R-33088 **PERMIT R-2252**

THIS APPLICATION IS TO TRANSFER UP TO 835 ACRE FEET OF STORAGE FROM THE JOE NEY SLOUGH RESERVOIR TO THE UPPER PONY CREEK RESERVOIR.

THE JOE NEY SLOUGH POINT OF DIVERSION IS LOCATED IN THE SE CORNER OF THE SW¼SW¼ OF SECTION 6, AND THE NE CORNER OF THE NW¼NW¼ OF SECTION 7, TOWNSHIP 26 SOUTH, RANGE 13 WEST, W.M.; COOS COUNTY.



RECEIVED
MAY 25 2000
WATER RESOURCES DEPT
SALEM, OR

T-8528

Certified Water Right Examiner
#054 WRE
James F. Gosson
Nov. 19, 1987
STATE OF OREGON

THE PURPOSE OF THIS MAP IS TO IDENTIFY THE LOCATION OF THE WATER RIGHT. IT IS NOT INTENDED TO PROVIDE INFORMATION RELATIVE TO THE LOCATION OF PROPERTY OWNERSHIP BOUNDARY LINES.

STATE OF OREGON

COOS COUNTY

PERMIT TO APPROPRIATE THE PUBLIC WATERS

This is to certify that I have examined APPLICATION R-61527 and do hereby grant the same SUBJECT TO EXISTING RIGHTS AND THE FOLLOWING LIMITATIONS AND CONDITIONS:

This permit is issued to Coos Bay-North Bend Water Board of PO Box 539, Coos Bay, Oregon 97420, phone 267-3128, for the enlargement of the Upper Pony Creek Reservoir and storage of water from Pony Creek to be appropriated under Application 63237, Permit 47095, for municipal water supply.

The dam shall be constructed under the supervision of a registered professional engineer.

The dam will be LOCATED in the: SW 1/4 SW 1/4 of Section 28, Township 25 South, Range 13 West, WM, in the County of Coos.

The maximum height will be 45.0 feet above the streambed or ground surface at the centerline. The top width will be 15.0 feet, slope of upstream face 3:1, slope of downstream face 2:1, and height of dam above water line when full 6.0 feet.

The area submerged by the reservoir, when full, will be 131.0 acres, and the maximum depth of water will be 39.0 feet.

The location and dimensions of the spillway are: Over flashboards. The bottom width will be 30.0 feet. The top width will be 30.0 feet. The distance between the crest of the dam and the crest of the spillway will be 6.0 feet.

The location and dimension of the outlet or bypass, and control works are: 36-inch extra strength culvert pipe at base of dam.

The structure is in the channel.

The dam will be earthfill and flashboard construction.

During the winter storm season the flashboards shall not be higher than elevation 79.1 feet MSL to allow for adequate spillway capacity to carry storms through the dam. The winter storm season for this purpose shall begin October 1 and end on March 1.

During that portion of the year other than the winter storm season, the flashboards shall not be higher than elevation 82.1 MSL.

The right hereunder shall be limited to the storage of 465.0 acre-feet.

The PRIORITY DATE of this permit is April 13, 1981.

Actual construction work shall begin on or before November 23, 1983 and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 1984.

WITNESS my hand this 23rd day of November, 1982.

This permit, when issued, is for the beneficial use of water. By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan. It is possible that the land use you propose may not be allowed if it is not in keeping with the goals and the acknowledged plan. Your city or county planning agency can advise you about the land-use plan in your area.

/s/ JAMES E. SEXSON

ATER RESOURCES DIRECTOR

APPLICATION R-61527

PERMIT R 8518

STATE OF OREGON

COUNTY OF COOS

PERMIT TO CONSTRUCT A RESERVOIR AND STORE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

COOS BAY-NORTH BEND WATER BOARD
P.O. BOX 539
COOS BAY, OREGON 97420

PHONE: (541) 267-3128

The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: R-80301

SOURCE OF WATER: PONY CREEK, A TRIBUTARY OF PONY SLOUGH

STORAGE FACILITY: UPPER PONY RESERVOIR, CONSTRUCTED UNDER PERMITS R-1064 AND R-8518

PURPOSE OR USE OF THE STORED WATER: TO BE APPROPRIATED UNDER PERMIT 53671 FOR MUNICIPAL USE

MAXIMUM VOLUME: 4,100.0 ACRE-FEET EACH YEAR

PERIOD OF ALLOWED USE: YEAR ROUND

DATE OF PRIORITY: MAY 11, 1995

The area submerged by the reservoir, when full, will be 273.0 acres and the maximum depth of water will be 60.0 feet. The maximum height of the dam shall not exceed 77.0 feet.

DAM LOCATION: SW 1/4 SW 1/4, SECTION 28, T25S, R13W, W.M.; 970 FEET NORTH AND 440 FEET EAST FROM SW CORNER, SECTION 28

THE AREA TO BE SUBMERGED BY THE RESERVOIR IS LOCATED AS FOLLOWS:

NW 1/4 SW 1/4
SW 1/4 SW 1/4
SECTION 28
NE 1/4 SE 1/4
SW 1/4 SE 1/4
SE 1/4 SE 1/4
SE 1/4 SW 1/4
SECTION 29

NE 1/4 NE 1/4
NW 1/4 NE 1/4
SW 1/4 NE 1/4
SE 1/4 NE 1/4
NE 1/4 NW 1/4
NW 1/4 NW 1/4
SE 1/4 NW 1/4
NE 1/4 SE 1/4
NW 1/4 SE 1/4
SW 1/4 SE 1/4
SE 1/4 SE 1/4
SECTION 32
NW 1/4 NW 1/4
SW 1/4 NW 1/4
NW 1/4 SW 1/4
SW 1/4 SW 1/4
SECTION 33
TOWNSHIP 25 SOUTH, RANGE 13 WEST, W.M.
NE 1/4 NE 1/4
NW 1/4 NE 1/4
SW 1/4 NE 1/4
SE 1/4 NE 1/4
SECTION 5
TOWNSHIP 26 SOUTH, RANGE 13 WEST, W.M.

In order for water to be stored under this permit there must be a valid Memorandum of Understanding between the permittee and Oregon Department of Fish and Wildlife (ODFW) waiving the fish passage requirements for the Upper Pony Creek Reservoir Expansion Project. A copy of the MOU shall be kept on file with the Department of Water Resources.

The permittee, ODFW and other appropriate natural resource agencies shall jointly develop, complete and implement a mitigation management and monitoring plan (the "Plan"). The Plan shall include management and monitoring of uplands, fish passage, stream and reservoir habitat and inflow of water from other sources. The Plan shall conform to the objectives and habitat mitigation measures outlined in the Preferred Alternative in the Final Environmental Impact Statement (FEIS) for Coos Bay-North Bend Water Board Water Supply Expansion Project (March 1999, Vol. I and II; US Army Corps of Engineers Action ID: 94-010) and the conditions of this water right. The Plan may be modified from time to time at the initiation of the permittee, ODFW or any other agency that participated in developing the initial Plan. Any modifications shall be incorporated into the Plan and are contingent upon approval of the permittee, ODFW and any other agency that participated in developing the initial Plan.

The permittee, ODFW and other participating natural resource agencies shall work diligently to finalize a draft Plan within three months of issuance of the final order approving application R-80301. A final Plan shall be completed and agreed to prior to storing water in Upper Pony Creek Reservoir under this permit.

If disagreements arise over development of the Plan, compliance with the Plan, or the need for modification to the Plan, the disputing parties (meaning the permittee, ODFW and any other natural resource agencies participating in the process) shall enter into alternative dispute resolution and, within two months, attempt to resolve the disagreement prior to notifying the Water Resources Department (WRD) of water right compliance issues. Water right compliance issues may be raised to WRD without dispute resolution only if immediate and irreparable harm to a species or habitat is about to occur as a result of alleged non-compliance with these water right conditions. The WRD shall make the final decisions on any disagreements under this paragraph unresolved by alternative dispute resolution.

Preceding shutoff, pumping of water from Joe Ney Slough Reservoir into the Upper Pony Creek Reservoir shall be reduced in incremental steps over a period of two weeks during the period of use. The goal of this condition is to minimize stranding of fish attracted to the inflow from Joe Ney Reservoir to Upper Pony Creek Reservoir.

During reservoir construction and filling, no clearing of vegetation, with minimal exceptions approved by ODFW, shall occur within the 100 foot upland mitigation habitat above the 106-foot elevation level in the Upper Pony Creek Reservoir watershed.

Culverts shall be constructed at road crossings at Tarheel Arm, Upper Pony Tributary 2, Libby Arm, and Upper Pony Tributary 3 . The permittee shall consult with ODFW on design of culvert crossings. Culverts shall be at or near zero gradients for fish passage.

Effective and adequate fish passage up and downstream past berms and the culverts described above shall be maintained by the permittee monitoring fish passage at the berms on a weekly basis and at the culverts on a yearly basis. Adequate fish passage shall be monitored by the permittee at the culverts each May. Monitoring will include visual observance of cutthroat trout upstream of the culverted structures. Monitoring data will include the number of observed fish and approximate length. Determinations of fish use will be made by investigating a minimum of six pools or a distance of 300 feet. Culverts shall be adjusted as necessary to ensure effective and adequate fish passage is maintained. ODFW shall be notified when culvert adjustment appears necessary or has been conducted. The applicant shall keep the monitoring records on file.

WRD and ODFW shall have access to Upper Pony Creek Reservoir and watershed as needed to monitor the conditions of this permit. WRD and ODFW shall secure prior approval from the permittee before entering the above mentioned property and such approval shall not be unreasonably withheld.

A minimum 100-foot upland buffer around created wetlands in the reservoir arms shall be established within one year of permit issuance. An additional 25 acres or an additional 200 foot average upland buffer, whichever is smaller, shall be incorporated as a variable width buffer beyond the minimum 100-foot upland buffer. The particular acres shall be agreed to by the permittee and ODFW.

Upon completion of beneficial use under this permit, the permittee's survey and claim of beneficial use report shall specifically address the items listed above.

Dam Safety Conditions:

The outlet gate shall be cycled at least once each year and shall be fully operational at all times.

Routine maintenance of the dam and all appurtenant structures shall be performed as determined necessary by the Water Resources Dam Safety program for the timely removal of trees, brush and debris, and to repair slumps, areas of erosion, or defective equipment.

The constructed works shall conform to the approved plans and specifications on file with the Oregon Water Resources Dam Safety program. Any significant change in the approved design prior to or during construction shall be documented by the project engineer in a letter to Dam Safety. All construction shall be performed under the supervision of a registered professional engineer licensed in Oregon.

No embankment fill shall be placed until preparation of the foundation and excavation of the core trench has been completed and examined in entirety by the engineer of record, or by the Water Resources Dam Safety Engineer, or both.

No water shall be stored until the Water Resources Department receives written certification from the engineer of record that construction has been completed in accordance with the approved plans and specifications. If final construction deviates from the approved design a quality set of reproducible asbuilt drawings, including a revised reservoir capacity graph or table, must accompany the engineer's written certification of completion.

No water shall be stored until the Water Resources Department has approved an Emergency Action Plan for the dam. The Emergency Action Plan shall be updated on an annual basis.

Neither the completed dam nor any appurtenant structure shall be enlarged, modified, or otherwise altered without the prior written approval of the Water Resources Dam Safety program. Except for routine repair and maintenance, plans and specifications prepared by an Oregon licensed professional engineer are required for any significant modification or alteration of the dam or any appurtenant structure.

Measurement, recording and reporting conditions:

A. Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water use information, including the place and nature of use of water under the permit.

B. The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The permittee shall install, maintain and operate fish screening devices as required by the Oregon Department of Fish and Wildlife to prevent fish from entering the proposed diversion.

Use under this permit is limited to the reservoir area. This permit does not provide for the appropriation of water for maintaining the water level or maintaining a suitable fresh water condition.

Within three years of permit issuance, the permittee shall submit a water management and conservation plan consistent with OAR Chapter 690, Division 86. The Director may approve an extension of this time line to complete the required water management and conservation plan.

STANDARD CONDITIONS

The storage of water allowed herein is subject to the installation and maintenance of a fully functional conduit/gate assembly having a minimum diameter of 8 inches.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water allowed herein may be made only at times when sufficient water is available to satisfy all prior rights, including prior rights for maintaining instream flows.

The Director finds that the proposed use(s) of water described by this permit, as conditioned, will not impair or be detrimental to the public interest.

This permit is issued to correctly identify the dam location. Permit R-12822, dated April 7, 2000, is superseded by this instrument and is of no further force or effect.

The reservoir shall be filled and complete application of the stored water to the use shall be made on or before October 1, 2010. Within one year after complete application of water to the proposed use, the permittee shall submit a claim of beneficial use, which includes a map and report, prepared by a Certified Water Rights Examiner (CWRE).

Issued June 20, 2000

Dwight Stevel for

Water Resources Department
Director

Permit—12C—1-49

Permit No. 18955

ASSIGNED. See Misc. Rec., Vol. By Resolution 65-3 Page

* APPLICATION FOR PERMIT ASSIGNED. See Misc. Rec., Vol. 6 Page 1086

To Appropriate the Public Waters of the State of Oregon

I, CITY OF EMPIRE
(Name of applicant)

of Coos County, Empire Oregon,
(Mailing address)

State of OREGON, *do hereby make application for a permit to appropriate the following described public waters of the State of Oregon, SUBJECT TO EXISTING RIGHTS:*

If the applicant is a corporation, give date and place of incorporation .....

1. *The source of the proposed appropriation is* Winchester Creek
(Name of stream)
, *a tributary of* South Slough

2. *The amount of water which the applicant intends to apply to beneficial use is* ..... *cubic feet per second.* 8 Cu. Per. Sec.
(If water is to be used from more than one source, give quantity from each)

**3. *The use to which the water is to be applied is* Domestic & Fire Protection
(Irrigation, power, mining, manufacturing, domestic supplies, etc.)
City Water supply.

4. *The point of diversion is located* 39.58 *ft.* South (N. or S.) *and* 4,084 *ft.* East (E. or W.) *from the corner of* Sec's 2, 3, 10, & 11
(Section or subdivision)
or S89 27' E a distance of 4,084.3 feet from above corner

(If preferable, give distance and bearing to section corner)

(If there is more than one point of diversion, each must be described. Use separate sheet if necessary)

being within the $NW\frac{1}{4}$ $NE\frac{1}{4}$ $NE\frac{1}{4}$ (Give smallest legal subdivision) *of Sec.* 11, *Tp.* 27S (N. or S.),
R. 14 W (E. or W.), *W. M., in the county of* Coos County.

5. *The* Pipe Line (Main ditch, canal or pipe line) *to be* 9.65 (Miles or feet)
in length, terminating in the $SE\frac{1}{4}$ $SE\frac{1}{4}$ (Smallest legal subdivision) *of Sec.* 19, *Tp.* 25S (N. or S.),
R. 13W (E. or W.), *W. M., the proposed location being shown throughout on the accompanying map.*

DESCRIPTION OF WORKS

Diversion Works—

6. *(a) Height of dam* 20 *feet, length on top* 250 *feet, length at bottom* 180 *feet; material to be used and character of construction* earth fill with concrete
(Loose rock, concrete, masonry, rock and brush, timber crib, etc., wasteway over or around dam)
spillway over top of dam

(b) Description of headgate 12" pipe
(Timber, concrete, etc., number and size of openings)

(c) If water is to be pumped give general description 8" pump powered by 160 H. P.
(Size and type of pump)
Diesel motor to lift water 150 feet
(Size and type of engine or motor to be used, total head water is to be lifted, etc.)

* A different form of application is provided where storage works are contemplated.

** Application for permits to appropriate water for the generation of electricity, with the exception of municipalities, must be made to the Hydroelectric Commission. Either of the above forms may be secured, without cost, together with instructions by addressing the State Engineer, Salem, Oregon.

18955

Canal System or Pipe Line—

7. *(a) Give dimensions at each point of canal where materially changed in size, stating miles from headgate. At headgate: width on top (at water line)* ..... *feet; width on bottom* ..... *feet; depth of water* ..... *feet; grade* ..... *feet fall per one thousand feet.*

(b) At ..... *miles from headgate: width on top (at water line)* ..... *feet; width on bottom* ..... *feet; depth of water* ..... *feet; grade* ..... *feet fall per one thousand feet.*

(c) Length of pipe, 51000 *ft.; size at intake,* 12" *in.; size at* 200 *ft. from intake* at pump 8" *in.; size at place of use* 8" *in.; difference in elevation between intake and place of use,* 50 *ft. Is grade uniform?* No *Estimated capacity,* 8 sec. ft *sec. ft.*

8. *Location of area to be irrigated, or place of use* .....

Township	Range	Section	Forty-acre Tract	Number Acres To Be Irrigated
25 S	13 W	8	Lot 1 and tide lands	
"	"	16	$S\frac{1}{2}$ $SE\frac{1}{4}$ and part $N\frac{1}{2}$ $SE\frac{1}{4}$	
"	"	17	Lots 1, 2, 3, 4 and 5, $SE\frac{1}{4}$ $NE\frac{1}{4}$ and tide lands.	
"	"	20	Lots 2 and 3 and tide lands	
"	"	19	Lot 3 and tide lands	
"	"	21	$NW\frac{1}{4}$ and part $NW\frac{1}{4}$ $SW\frac{1}{4}$	
"	"	29	Lot 1 and $NW\frac{1}{4}$ $NE\frac{1}{4}$	
W. H. Harris D.L.C. No. 37 in Sections 17 and 20, Tp 25 S. Rg 13 W				
A. N. Foley D.L.C. No. 38 in Section 19 and 20, Tp. 25 S., Rg. 13 W.				
Perry B. Marple D.L.C. No. 29 in Sections 19, 20 and 29, same Tp				
Part of E. J. Foley D.L.C. No. 40 in Sections 19 same Tp				
Additional lands to south may be taken in later.				

(If more space required, attach separate sheet)

(a) Character of soil .....

(b) Kind of crops raised .....

Power or Mining Purposes—

9. *(a) Total amount of power to be developed* ..... *theoretical horsepower.*

(b) Quantity of water to be used for power ..... *sec. ft.*

(c) Total fall to be utilized ..... *feet.* (Head)

(d) The nature of the works by means of which the power is to be developed .....

.....

(e) Such works to be located in ..... (Legal Subdivision) *of Sec.* ....., *Tp.* ..... (No. N. or S.), *R.* ..... (No. E. or W.), *W. M.*

(f) Is water to be returned to any stream? ..... (Yes or No)

(g) If so, name stream and locate point of return .....

....., *Sec.* ....., *Tp.* ..... (No. N. or S.), *R.* ..... (No. E. or W.), *W. M.*

(h) The use to which power is to be applied is .....

.....

(i) The nature of the mines to be served .....

.....

Municipal or Domestic Supply—

10. (a) To supply the city of EMPIRE

COOS (Name of) County, having a present population of 14,000

and an estimated population of 18,000 in 1955

(b) If for domestic use state number of families to be supplied

(Answer questions 11, 12, 13, and 14 in all cases)

11. Estimated cost of proposed works, $ 900,000

12. Construction work will begin on or before July 1951

13. Construction work will be completed on or before July 1955

14. The water will be completely applied to the proposed use on or before Aug. 1955

(Sgd) Ada Holden
(Signature of applicant)

City Recorder

Remarks: questions concerning the size of pipe, pumping stations, Dam etc. will be forwarded to you at a later date. This survey is a preliminary one, and no effort was made to collect information of a spcific nature. Only to the extent of the "point of deversion."

It is the plan of the city to take in the surrounding area, such as Charleston so that the cost of the project will be allotted over a wider scope.

STATE OF OREGON,
County of Marion, } ss.

This is to certify that I have examined the foregoing application, together with the accompanying maps and data, and return the same for completion

In order to retain its priority, this application must be returned to the State Engineer, with corrections on or before October 6, 1949

WITNESS my hand this 6th *day of* September, 1949

CHAS. E. STRICKLIN
STATE ENGINEER

By
Ed K. Humphrey, Assistant

vc

Application No. 24058

Permit No. 18955

PERMIT

TO APPROPRIATE THE PUBLIC WATERS OF THE STATE OF OREGON

Division No. ..... *District No.* .....

This instrument was first received in the office of the State Engineer at Salem, Oregon, on the 26 *day of* Aug., 19 49, *at* 8:00 *o'clock* A. *M.*

Returned to applicant:

.....

Corrected application received:

.....

Approved:

March 15, 1950

Recorded in book No. 46 *of Permits on page* 18955

CHAS. E. STRICKLIN
STATE ENGINEER

Drainage Basin No. 17 *Page* 10 D

Fees Paid $34.00

PERMIT

STATE OF OREGON,
County of Marion, } *ss.*

This is to certify that I have examined the foregoing application and do hereby grant the same, SUBJECT TO EXISTING RIGHTS and the following limitations and conditions:

The right herein granted is limited to the amount of water which can be applied to beneficial use and shall not exceed 8.0 *cubic feet per second measured at the point of diversion from the stream, or its equivalent in case of rotation with other water users, from* Winchester Creek

The use to which this water is to be applied is municipal

If for irrigation, this appropriation shall be limited to - - - - - *of one cubic foot per second*

and shall be subject to such reasonable rotation system as may be ordered by the proper state officer.

The priority date of this permit is August 26, 1949

Actual construction work shall begin on or before March 15, 1951 Extended to Mar 15 1952 *and shall thereafter be prosecuted with reasonable diligence and be completed on or before* October 1, 1952 ~~Extended to Oct. 1, 1955~~ Extended to Oct. 1, 1965

Complete application of the water to the proposed use shall be made on or before October 1, 1953 ~~Extended to Oct. 1, 1954~~ Extended to Oct. 1, 1966

WITNESS my hand this 15th *day of* March, 1950.

CHAS. E. STRICKLIN
STATE ENGINEER

Permits for power development are subject to the payment of annual fees as provided in sections 1 and 2, chapter 74, Oregon Laws 1933.

State Printing Dept. 28175

B,C Ext. 10-1-97

ABC Extended to October 1, 1992

ABC Extended 10-1-87

Extended to Mar 15 1960

To Appropriate the Public Waters of the State of Oregon

I, The City of Coos Bay and the City of North Bend, Municipal Corporations of the State of Oregon by and through the Coos Bay-North Bend Water Board, County of Coos
(Name of applicant)

of 264 South Broadway, Coos Bay,
(Mailing address)

State of Oregon, do hereby make application for a permit to appropriate the following described public waters of the State of Oregon, SUBJECT TO EXISTING RIGHTS:

If the applicant is a corporation, give date and place of incorporation See Remarks

1. The source of the proposed appropriation is Joe Ney Slough
(Name of stream)
and reservoir, a tributary of

2. The amount of water which the applicant intends to apply to beneficial use is 8
cubic feet per second.
(If water is to be used from more than one source, give quantity from each)

**3. The use to which the water is to be applied is Municipal
(Irrigation, power, mining, manufacturing, domestic supplies, etc.)

4. The point of diversion is located 923 ft. N (N. or S.) and 2284 ft. E (E. or W.) from the N¼ corner of Section 7, Tp. 26 S., R 13 W.W.M. Bearing N 66° 55' E, a distance of 2482.2 ft. from the above described ¼ corner.
(Section or subdivision)
A 2" Iron Pipe, driven in the ground at the dam site is located 304.1 feet south and 928.6 feet east of the N.W. corner of Section 7, Township 26 South, Range 13 West of Willamette Meridian.

(If preferable, give distance and bearing to section corner)

(If there is more than one point of diversion, each must be described. Use separate sheet if necessary)

being within the SE¼ of the SE¼ (Give smallest legal subdivision) of Sec. 6, Tp. 26 S (N. or S.),
R. 13 W (E. or W.), W. M., in the county of Coos.

5. The pump discharge line (Main ditch, canal or pipe line) to be 3000 feet+ (Miles or feet)
in length, terminating in the SW¼ of the NW¼ (Smallest legal subdivision) of Sec. 5, Tp. 26 S (N. or S.),
R. 13 W (E. or W.), W. M., the proposed location being shown throughout on the accompanying map.

DESCRIPTION OF WORKS

Diversion Works—

6. (a) Height of dam 35 feet, length on top 700 feet, length at bottom 500 feet; material to be used and character of construction sandstone and clay with core wall of sheet piling below ground water and concrete core above ground water to a height above high tide.
(Loose rock, concrete, masonry, rock and brush, timber crib, etc., wasteway over or around dam)

(b) Description of headgate Screened pump intake at upper end of storage, concrete pump house with pump well opening directly into reservoir.
(Timber, concrete, etc., number and size of openings)

(c) If water is to be pumped give general description Two single stage centrifugal pumps and provision for a third each with a capacity of 1500 GPM against a total head of 250 feet. Each pump powered by a 125 HP electric motor with reservation that a 125 HP diesel may be used for emergency.
(Size and type of pump)
(Size and type of engine or motor to be used, total head water is to be lifted, etc.)

*A different form of application is provided where storage works are contemplated.

**Application for permits to appropriate water for the generation of electricity, with the exception of municipalities, must be made to the Hydroelectric Commission. Either of the above forms may be secured, without cost, together with instructions by addressing the State Engineer, Salem, Oregon.

26223

Canal System or Pipe Line—

7. (a) Give dimensions at each point of canal where materially changed in size, stating miles from headgate. At headgate: width on top (at water line) ..... feet; width on bottom ..... feet; depth of water ..... feet; grade ..... feet fall per one thousand feet.

(b) At ..... miles from headgate: width on top (at water line) ..... feet; width on bottom ..... feet; depth of water ..... feet; grade ..... feet fall per one thousand feet.

(c) Length of pipe, 3000 ft.; size at intake, 18" in.; size at discharge 3000' ft. from intake 18" in.; size at place of use ..... in.; difference in elevation between intake and place of use, 225' ft. Is grade uniform? No Estimated capacity, 8 sec. ft.

8. Location of area to be irrigated, or place of use .....

Township North or South	Range E. or W. of Willamette Meridian	Section	Forty-acre Tract	Number Acres To Be Irrigated

(If more space required, attach separate sheet)

(a) Character of soil .....

(b) Kind of crops raised .....

Power or Mining Purposes—

9. (a) Total amount of power to be developed ..... theoretical horsepower.

(b) Quantity of water to be used for power ..... sec. ft.

(c) Total fall to be utilized ..... (Head) feet.

(d) The nature of the works by means of which the power is to be developed .....

.....

(e) Such works to be located in ..... (Legal subdivision) of Sec. ....., Tp. ..... (No. N. or S.), R. ..... (No. E. or W.), W. M.

(f) Is water to be returned to any stream? ..... (Yes or No)

(g) If so, name stream and locate point of return .....

....., Sec. ....., Tp. ..... (No. N. or S.), R. ..... (No. E. or W.), W. M.

ITEM 14 APPLICATION NO. 23096

Location of Service Area

26223

Township	Range	Section	Tract
24 S	13W	8	SE¼ [illegible] SW¼
		9	SE¼ " " NW¼ SW¼ " " NE¼ All " " SW¼ All " " SE¼
		10	NW¼ " " [illegible] SW¼ " " NE¼ S½ " " NW¼ All " " SE¼ SE¼ " " SW¼
		14	NW¼ " " SW¼ SW¼ " " SW¼
		15	All
		16	All
		17	S½ NE¼
		18	All
		21	[illegible] SW¼ [illegible]
		22	[illegible]
		28	SW¼ [illegible] SW¼
		29	NW¼ SW¼ S½ [illegible] SW¼ " " SE¼
		30	NE¼ SE¼ [illegible] [illegible] NW¼ NE¼ " " SW¼ [illegible] [illegible] [illegible]
		31	All [illegible] SW¼
		32	NE¼ SE¼

ITEM #2 - Cont.

APPLICATION NO. 23996

Location of Service Area

26223

Township	Range	Section	Tract
35 S	13W	35	All
		36	$NW\frac{1}{4}$ $NE\frac{1}{4}$ $NW\frac{1}{4}$ of the $SW\frac{1}{4}$ $SW\frac{1}{4}$ " " $SW\frac{1}{4}$
35S	14W	36	$NE\frac{1}{4}$ $NW\frac{1}{4}$ $SW\frac{1}{4}$ $NW\frac{1}{4}$ of the $SE\frac{1}{4}$
36S	13W	2	$NE\frac{1}{4}$ of the $SE\frac{1}{4}$ $SE\frac{1}{4}$ " " $NE\frac{1}{4}$
		3	$SE\frac{1}{4}$ " " $NW\frac{1}{4}$ All " " $NE\frac{1}{4}$ All " " $SE\frac{1}{4}$ $S\frac{1}{2}$ " " $SW\frac{1}{4}$ $SW\frac{1}{4}$ " " $SW\frac{1}{4}$
		4	$S\frac{1}{2}$ " " $SE\frac{1}{4}$ $S\frac{1}{2}$ " " $S\frac{1}{2}$
		9	$E\frac{1}{2}$ " " $NE\frac{1}{4}$ $S\frac{1}{2}$ " " $NE\frac{1}{4}$
		10	All " " $NE\frac{1}{4}$ $NW\frac{1}{4}$ " " $NE\frac{1}{4}$ $NE\frac{1}{4}$ " " $NW\frac{1}{4}$
[illegible]	[illegible]	1 11 11 2 3	All [illegible]

(Name of)

and an estimated population of 30,500 *in* 1970

(b) If for domestic use state number of families to be supplied .....

(Answer questions 11, 12, 13, and 14 in all cases)

11. *Estimated cost of proposed works, $* 375,000.00

12. *Construction work will begin on or before* May 13, 1961

13. *Construction work will be completed on or before* May 13, 1965

14. *The water will be completely applied to the proposed use on or before* May 13, 1965

CITIES OF COOS BAY AND NORTH BEND, BY AND THROUGH THE COOS BAY-NORTH BEND WATER BOARD,

Chairman (Signature of applicant)

Remarks:

City of Coos Bay, a municipal corporation of the State of Oregon, incorporated December 8, 1874; City of North Bend, a municipal corporation of the State of Oregon, incorporated July 7, 1903. The joining operation of the water distribution system of the respective cities under the Coos Bay-North Bend Water Board was adopted by charter amendment on the 14th day of March, 1947.

STATE OF OREGON,
County of Marion, } *ss.*

This is to certify that I have examined the foregoing application, together with the accompanying maps and data, and return the same for .....

In order to retain its priority, this application must be returned to the State Engineer, with corrections on or before ....., *19*.....

WITNESS my hand this ..... *day of* ....., *19*.....

STATE ENGINEER

By .....

ASSISTANT

PERMIT

STATE OF OREGON, }
County of Marion, } ss.

This is to certify that I have examined the foregoing application and do hereby grant the same, SUBJECT TO EXISTING RIGHTS and the following limitations and conditions:

The right herein granted is limited to the amount of water which can be applied to beneficial use and shall not exceed 8.0 cubic feet per second measured at the point of diversion from the stream, or its equivalent in case of rotation with other water users, from Joe Ney Slough and reservoir to be constructed under application No. R-33088, permit No. R-2252

The use to which this water is to be applied is municipal.

If for irrigation, this appropriation shall be limited to — of one cubic foot per second or its equivalent for each acre irrigated

and shall be subject to such reasonable rotation system as may be ordered by the proper state officer.

The priority date of this permit is July 30, 1959

Actual construction work shall begin on or before August 20, 1960 and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 1961

Complete application of the water to the proposed use shall be made on or before October 1, 1962

WITNESS my hand this 20th day of August, 1959

Lewis A. Stanley
STATE ENGINEER

Application No. 33089
Permit No. 26223

PERMIT
TO APPROPRIATE THE PUBLIC WATERS OF THE STATE OF OREGON

This instrument was first received in the office of the State Engineer at Salem, Oregon, on the 30th day of July, at 8:00 o'clock A. M.

Returned to applicant:

August 20, 1959

Recorded in book No. 71 of permits on page 26223

LEWIS A. STANLEY
STATE ENGINEER

Basin No. 17 page 10F

State Printing 98137

STATE OF OREGON

COOS COUNTY

PERMIT TO APPROPRIATE THE PUBLIC WATERS

This is to certify that I have examined APPLICATION 63237 and do hereby grant the same SUBJECT TO EXISTING RIGHTS INCLUDING THE APPROPRIATE MINIMUM FLOW POLICIES ESTABLISHED BY THE WATER POLICY REVIEW BOARD and the following limitations and conditions:

This permit is issued to Coos Bay-North Bend Water Board of PO Box 539, Coos Bay, Oregon 97420, phone 267-3128, for the use of the waters of Upper Pony Creek Reservoir constructed under Permit R-1064 and to be enlarged under Application R-61527, Permit R-8518, for the PURPOSE of municipal use; that the PRIORITY OF THE RIGHT dates from February 2, 1982, and is limited to the amount of water which can be applied to beneficial use and shall not exceed 465.0 acre-feet stored water only.

The POINT OF DIVERSION is to be LOCATED: 880 feet North and 200 feet East from the Southwest Corner of Section 28, being within the SW 1/4 SW 1/4 of Section 28, Township 25 South, Range 13 West, WM, in the County of Coos.

A description of the PLACE OF USE under the permit, and to which such right is appurtenant, is as follows:

Township 23 South	Range 12 West, WM	Section 31	All	Municipal Use
	Range 13 West, WM	Section 25	All	
		Section 26	All	
		Section 27	All	
		Section 33	All	
		Section 34	All	
		Section 35	All	
		Section 36	All	
Township 24 South	Range 11 West, WM	Section 9	All	
		Section 16	All	
		Section 17	All	
		Section 19	All	
		Section 20	All	
		Section 21	W 1/2	
		Section 30	All	
		Section 31	All	
	Range 12 West, WM	Section 6	All	
		Section 7	All	
		Section 8	All	
		Section 9	All	
		Section 16	All	
		Section 17	All	
		Section 18	All	
		Section 19	All	
		Section 20	All	
		Section 21	All	
		Section 22	All	
		Section 23	All	

Township 24 South	Range 12 West, WM	Section 24	All	Municipal Use
		Section 25	All	
		Section 26	All	
		Section 27	All	
		Section 28	All	
		Section 29	All	
		Section 30	All	
		Section 31	All	
		Section 32	All	
		Section 33	All	
		Section 34	All	
		Section 35	All	
		Section 36	All	
	Range 13 West, WM	All Sections		
Township 25 South	Range 12 West, WM	All Sections except Sections 1, 12, 13, 24, 25, 33, 34, 35 and 36		
	Range 13 West, WM	All Sections		
	Range 14 West, WM	All Sections		
Township 26 South	Range 12 West, WM	Section 5		
		Section 6		
		Section 7		
		Section 8		
		Section 17		
		Section 18		
		Section 19		
		Section 20		
		Section 29		
		Section 30		
		Section 31		
		Section 32		
	Range 13 West, WM	All Sections		
	Range 14 West, WM	All Sections		
Township 27 South	Range 12 West, WM	Section 5		
		Section 6		
	Range 13 West, WM	Section 1		
		Section 2		
		Section 3		
		Section 4		
		Section 5		
		Section 6		

Township 27 South	Range 14 West, WM	Section 1 Section 2 Section 3 Section 4 Section 5	Municipal Use

Actual construction work shall begin on or before November 23, 1983 and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 1984.

Complete application of the water to the proposed use shall be made on or before October 1, 1985.

WITNESS my hand this 23rd day of November, 1982.

/s/ JAMES E. SEXSON
WATER RESOURCES DIRECTOR

APPLICATION 63237

PERMIT 47095

690-10-PS

STATE OF OREGON

County of COOS

PERMIT TO APPROPRIATE THE PUBLIC WATERS

This is to certify that I have examined APPLICATION 68795 and do hereby grant the same SUBJECT TO EXISTING RIGHTS INCLUDING THE APPROPRIATE MINIMUM FLOW POLICIES ESTABLISHED BY THE WATER POLICY REVIEW BOARD and the following limitations and conditions:

This permit is issued to Coos Bay-North Bend Water Board, of PO Box 539, Coos Bay, Oregon 97420, phone 267-3128, for the use of the waters of Pony Creek and Lower Pony Creek Reservoir (Merritt Lake) to be constructed under Application R-68794, Permit R-10888 * for the PURPOSE of municipal water supply

that the PRIORITY OF THE RIGHT dates from July 21, 1986

and is limited to the amount of water which can be applied to beneficial use and shall not exceed 18.0 cubic feet per second

The POINT OF DIVERSION is to be LOCATED: 500 feet South and 900 feet West from the Northeast Corner of Section 28, being within the NE 1/4 NE 1/4 of Section 28, Township 25 South, Range 13 West, WM, in the County of Coos.

A description of the PLACE OF USE under the permit, and to which such right is appurtenant, is as follows:

* tributaries of Coos River

SEE NEXT PAGE

Township 23 South, Range 12 West, WM	Section 31	Municipal Water Supply
Township 23 South, Range 13 West, WM	Sections 25 through 27, 33 through 36	
Township 24 South, Range 11 West, WM	Sections 9, 16, 17, 19, 20, W 1/2 21, 30, 31	
Township 24 South, Range 12 West, WM	Sections 6 through 9, 16 through 36	
Township 24 South, Range 13 West, WM	all sections	
Township 25 South, Range 12 West, WM	all sections except 1, 12, 13, 24, 25, 33 through 36	
Township 25 South, Range 13 West, WM	all sections	
Township 25 South, Range 14 West, WM	all sections	
Township 26 South, Range 12 West, WM	Sections 5 through 8, 17 through 20, 29 through 32	
Township 26 South, Range 13 West, WM	all sections	
Township 26 South, Range 14 West, WM	all sections	
Township 27 South, Range 12 West, WM	Sections 5, 6	
Township 27 South, Range 13 West, WM	Sections 1 through 6	
Township 27 South, Range 14 West, WM	Sections 1 through 5	

Actual construction work shall begin on or before January 6, 1989 , and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 19 89 , 10-1-94, 10-1-99

Complete application of the water to the proposed use shall be made on or before October 1, 19 90 , 10-1-94, 10-1-99

Witness my hand this 6th day of January , 19 88 .

/s/ WILLIAM H. YOUNG

WATER RESOURCES DIRECTOR

This permit, when issued, is for the beneficial use of water. By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan. It is possible that the land use you propose may not be allowed if it is not in keeping with the goals and the acknowledged plan. Your city or county planning agency can advise you about the land-use plan in your area.

APPLICATION 68795

PERMIT 50155

STATE OF OREGON

COUNTY OF COOS

PERMIT TO APPROPRIATE THE PUBLIC WATERS

THIS PERMIT IS HEREBY ISSUED TO

COOS BAY-NORTH BEND WATER BOARD
P.O. BOX 539 PHONE: (503) 267-3128
COOS BAY, OREGON 97420

The specific limits and conditions of the use are listed below.

APPLICATION FILE NUMBER: S-80302

SOURCE OF WATER: UPPER PONY CREEK RESERVOIR, CONSTRUCTED UNDER PERMITS R-1064 AND R-8518 AND TO BE ENLARGED UNDER PERMIT R-12822, TRIBUTARY TO PONY CREEK

PURPOSE OR USE: MUNICIPAL USE

MAXIMUM RATE/VOLUME ALLOWED: 4,100.0 ACRE-FEET PER YEAR

PERIOD OF USE: YEAR ROUND

DATE OF PRIORITY: MAY 11, 1995

POINT OF DIVERSION LOCATION: NE 1/4 NE 1/4, SW 1/4 SW 1/4, SECTION 28, T25S, ~~R13E~~ R13W (LKS 11/1/00), W.M.; MERRIT LAKE POD: 500 FEET SOUTH AND 900 FEET WEST FROM NE CORNER, SECTION 28; UPPER PONY DAM POD - 970 FEET NORTH AND 440 FEET EAST FROM SW CORNER, SECTION 28

THE PLACE OF USE IS LOCATED AS FOLLOWS:

WITHIN THE SERVICE AREA OF THE COOS BAY NORTH BEND WATER BOARD

In order for water to be diverted under this permit there must be a valid Memorandum of Understanding between the permittee and ODFW waiving the fish passage requirements for the Upper Pony Creek Reservoir Expansion Project under Application R-80301. A copy of the MOU shall be kept on file with the Department of Water Resources.

In order for water to be diverted under this permit the permittee must be in substantial compliance with the conditions set out in the final order and permit for reservoir Application R-80301.

Measurement, recording and reporting conditions:

A. Before water use may begin under this permit, the permittee shall install a meter or other suitable measuring device as approved by the Director. The permittee shall maintain the meter or measuring device in good working order, shall keep a complete record of the amount of water used each month and shall submit a report which includes the recorded water use measurements to the Department annually or more frequently as may be required by the Director. Further, the Director may require the permittee to report general water use information, including the place and nature of use of water under the permit.

B. The permittee shall allow the watermaster access to the meter or measuring device; provided however, where the meter or measuring device is located within a private structure, the watermaster shall request access upon reasonable notice.

The permittee shall install, maintain, and operate fish screening devices as required by the Oregon Department of Fish and Wildlife to prevent fish from entering the proposed diversion.

If the riparian area is disturbed in the process of developing a point of diversion, the permittee shall be responsible for restoration and enhancement of such riparian area.

Within three years of permit issuance, the permittee shall submit a water management and conservation plan consistent with OAR Chapter 690, Division 86. The Director may approve an extension of this time line to complete the required water management and conservation plan.

In the event of a request for a change in point of appropriation, an additional point of appropriation or alteration of the appropriation facility associated with this authorized diversion, the quantity of water allowed herein, together with any other right, shall not exceed the capacity of the facility at the time of perfection of this right.

STANDARD CONDITIONS

The use shall conform to such reasonable rotation system as may be ordered by the proper state officer.

Failure to comply with any of the provisions of this permit may result in action including, but not limited to, restrictions on the use, civil penalties, or cancellation of the permit.

This permit is for the beneficial use of water without waste. The water user is advised that new regulations may require the use of best practical technologies or conservation practices to achieve this end.

By law, the land use associated with this water use must be in compliance with statewide land-use goals and any local acknowledged land-use plan.

The use of water allowed herein may be made only at times when sufficient water is available to satisfy all prior rights, including prior rights for maintaining instream flows.

The Director finds that the proposed use(s) of water described by this permit, as conditioned, will not impair or be detrimental to the public interest.

This permit is issued to correctly identify the coordinates to the point of diversion on Upper Pony Dam. Permit 53671, dated April 7, 2000, is superseded by this instrument and is of no further force or effect.

Complete application of water to the use shall be made on or before October 1, 2004. Within one year after complete application of water to the proposed use, the permittee shall submit a claim of beneficial use, which includes a map and report, prepared by a Certified Water Rights Examiner (CWRE).

Issued June 20, 2000

Dwight Ford for

Water Resources Department
Director

Reservoir—1M—10-60 State Printing 31303

STATE OF OREGON

COUNTY OF COOS

CERTIFICATE OF WATER RIGHT

This Is to Certify, *That* COOS BAY-NORTH BEND WATER BOARD

of 264 South Broadway, Coos Bay *, State of* Oregon *, has made proof to the satisfaction of the STATE ENGINEER of Oregon, of a right to store the waters of* Pony Creek, tributary of Pony Slough (Coos Bay) appropriated under Application No. 24923, Permit No. 19689

for the purposes of municipal use

under Reservoir Permit No. R-1064 *of the State Engineer, and that said right to store said waters has been perfected in accordance with the laws of Oregon; that the priority of the right hereby confirmed dates from* June 26, 1950

that the amount of water entitled to be stored each year under such right, for the purposes aforesaid, shall not exceed 1685.0 acre feet

The reservoir is located in

$W\frac{1}{2}$ $SW\frac{1}{4}$
Section 28
$SE\frac{1}{4}$ $SE\frac{1}{4}$
$SW\frac{1}{4}$ $SE\frac{1}{4}$
Section 29
$N\frac{1}{2}$ $NE\frac{1}{4}$
$SE\frac{1}{4}$ $NE\frac{1}{4}$
$E\frac{1}{2}$ $SW\frac{1}{4}$
Section 32
$W\frac{1}{2}$ $NW\frac{1}{4}$
$NW\frac{1}{4}$ $SW\frac{1}{4}$
Section 33
T. 25 S., R. 13 W., W. M.

WITNESS the signature of the State Engineer, affixed this date. September 27, 1965

CHRIS L. WHEELER
State Engineer

Recorded in State Record of Water Right Certificates, Volume 24 *, page* 32415

STATE OF OREGON

COUNTY OF COOS

CERTIFICATE OF WATER RIGHT

This Is to Certify, That COOS BAY-NORTH BEND WATER BOARD

of 266 S. Broadway, Coos Bay, State of Oregon, has made proof to the satisfaction of the STATE ENGINEER of Oregon, of a right to the use of the waters of Pony Creek and reservoir constructed under Application No. R-24922, Permit No. R-1064

a tributary of Pony Slough and Coos Bay for the purpose of municipal

under Permit No. 19689 of the State Engineer, and that said right to the use of said waters has been perfected in accordance with the laws of Oregon; that the priority of the right hereby confirmed dates from August 11, 1950

that the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually beneficially used for said purposes, and shall not exceed 10.0 cubic feet per second

or its equivalent in case of rotation, measured at the point of diversion from the stream. The point of diversion is located in the $NW\frac{1}{4}$ $SW\frac{1}{4}$ and $SW\frac{1}{4}$ $SW\frac{1}{4}$, Section 28, T. 25 S., R. 13 W., W. M.

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, shall be limited to - - - - - - - - of one cubic foot per second per acre,

and shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use under the right hereby confirmed, and to which such right is appurtenant, is as follows:

$SE\frac{1}{4}$ $SE\frac{1}{4}$
Section 8
$SE\frac{1}{4}$ $NW\frac{1}{4}$
$SW\frac{1}{4}$ $NE\frac{1}{4}$
$S\frac{1}{2}$
Section 9
$NE\frac{1}{4}$ $NE\frac{1}{4}$
$SW\frac{1}{4}$ $NE\frac{1}{4}$
$SE\frac{1}{4}$ $NE\frac{1}{4}$
ALL $SE\frac{1}{4}$
$SE\frac{1}{4}$ $SW\frac{1}{4}$
Section 10
$W\frac{1}{2}$ $SW\frac{1}{4}$
Section 14
ALL
Section 15
$E\frac{1}{2}$
$N\frac{1}{2}$ $NW\frac{1}{4}$
Section 16
$NE\frac{1}{4}$ $NE\frac{1}{4}$
Section 17
$NE\frac{1}{4}$
Section 21
$N\frac{1}{2}$
$SE\frac{1}{4}$
Section 22
$SW\frac{1}{4}$ $SW\frac{1}{4}$
Section 23
$SW\frac{1}{4}$ $SW\frac{1}{4}$
Section 25
$W\frac{1}{2}$
$S\frac{1}{2}$ $SE\frac{1}{4}$
Section 26
$E\frac{1}{2}$
$N\frac{1}{2}$ $NW\frac{1}{4}$
$SE\frac{1}{4}$ $NW\frac{1}{4}$
Section 27
$E\frac{1}{2}$
Section 34
ALL
Section 35
$N\frac{1}{2}$
$W\frac{1}{2}$ $SW\frac{1}{4}$
Section 36

T. 25 S., R. 13 W., W. M.
$E\frac{1}{2}$ $NE\frac{1}{4}$
Section 2
$SE\frac{1}{4}$ $NW\frac{1}{4}$
ALL $E\frac{1}{2}$
$S\frac{1}{2}$ $SW\frac{1}{4}$
Section 3
$S\frac{1}{2}$ $SE\frac{1}{4}$
Section 4
$E\frac{1}{2}$ $NE\frac{1}{2}$
Section 9
$NW\frac{1}{4}$
$N\frac{1}{2}$ $NE\frac{1}{4}$
Section 10
T. 26 S., R. 13 W., W. M.

The right to the use of the water for the purposes aforesaid is restricted to the lands or place of use herein described.

WITNESS the signature of the State Engineer, affixed this date. September 27, 1965

CHRIS L. WHEELER
State Engineer

Recorded in State Record of Water Right Certificates, Volume 24, page 32416

APPENDIX O-3

Coos Bay North Bend Annual Report 2012-2013

ANNUAL REPORT

FISCAL YEAR 2012-2013

2305 OCEAN BOULEVARD
P. O. BOX 539
COOS BAY, OREGON 97420

COOS BAY • NORTH BEND
WATER BOARD

OFFICE: (541)267-3128
FAX: (541)269-5370
www.cbnbh2o.com

Left to right standing: Mr. J. Gregory Solarz, Chair
Mr. Richard Vigue, Member
Ms. Melissa Cribbins, Secretary
Charles J. Sharps, Ph.D., Vice-Chair

Coos Bay-North Bend Water BOARD OF DIRECTORS' MESSAGE

"Providing a Reliable, and Quality Service For the Present and Future Needs of Our Communities"

Thank you for reviewing the 2012-2013 Coos Bay-North Bend Water Board's Annual Report. You will find information related to your utility's projects, finances, and water quality as well as an overview of the operations of the Coos Bay-North Bend Water Board and the services it provides. Additional information about your utility can be found on our website: www.cbnbh2o.com

No doubt you are aware that America's infrastructure of roads, sewers, bridges, and water systems are at capacity and/or are wearing out. Fortunately, with our staff and General Manager's guidance and leadership, the Board has been able to anticipate potential shortfalls in our water system and has planned and scheduled Water Board operations, weeks, months and years ahead of time.

As members of your Water Board, we encourage your comments and suggestions. Please contact staff at the Water Board or ask to be connected to one of us at (541)267-3128. We respect your opinions and advice in operating your utility. For a closer look at your facilities, consider attending a board meeting or arranging for a tour.

BOARD OF DIRECTORS

_____
J. Gregory Solarz, Chair

_____
Charles J. Sharps, Ph.D., Vice-Chair

_____
Melissa Cribbins, Secretary

_____
Richard Vigue, Member

Water Utility Infrastructure Inventory

Water Treatment Plants

Pony Creek Filtration Plant—12 MGD*
North Spit Treatment Plant—1 MGD*

Surface Water Storage

- Upper Pony Creek Dam and Reservoir
  6,230 AC-FT
- Merritt Lake Dam and Reservoir
  385 AC-FT
- Joe Ney Dike, Reservoir and Pump Station
  275 AC-FT

Dunes Aquifer System

18 Wells
12 Miles of Pipe
25 Test Wells (Piezometers)
2 Booster Pumps
3 Monitoring Wells

Distribution System

12,782 Water Services
258 Miles of Pipe
1,219 Hydrants
5,380 Control and Hydrant Valves

*MGD = Million Gallons per Day
AC-FT= Acre Feet (325,830 gallons)

Pump Station Name	Associated Storage Facility
6th and I Street	10th & I Street Reservoir
10th and E Street	14th & F Street Reservoir
10th and Ingersol	Ingersol Reservoir
13th Court	Isthmus Heights Reservoir
14th and Nutwood Avenue	High Level Reservoir
Brights Mill	Brights Mill Reservoir
California Street	Libby Reservoir
Crestview	High Level Reservoir
Everest Avenue	Everest Reservoir
Flanagan Street	Bay Park Reservoir
Glasgow	Glasgow Reservoir
Glasgow Heights	Glasgow Reservoir
Hauser	Hauser Reservoir
High Level	High Level Reservoir
Market Street	Clearwell
Millington	Millington Reservoir
Minnesota Street	Clearwell
Newmark and Ash	Radar Reservoir
Newmark and Tremont	Union Avenue Reservoir
Oregon Street	Libby Reservoir
Pennsylvania Avenue	Libby Reservoir
Pigeon Point	Charleston Reservoir
Seven Devils	Charleston Reservoir
Shinglehouse Slough Road	Brights Mill Reservoir
Shorewood	Shorewood Reservoir
Sierra Avenue	Everest Reservoir
Telegraph Hill	High Level Reservoir
Terramar	Terramar Reservoir
Union Avenue High Level	High Level Reservoir
Wisconsin Avenue	Charleston Reservoir
Woodlawn High Level	High Level Reservoir

Projects and Equipment Included in Fiscal Year 2012-13 Budget

No.	Project Listing	Estimated Cost
1	Install 8" PVC on Koosbay Boulevard from Nutwood to 10th, 1,100', Retire 1,100' 6" CI - FY12	$ 99,000
2	Install 16" PVC on N. 10th from 8th Terrace north to Date Street, 1,100', Retire 1,100' 14" CI – FY12 (Includes AC Repair from 2010 Main Break – FY12	203,000
3	Install 6" PVC on 17th Street from Kingwood north, 418' 2" GI	30,000
4	Install 2" on Chester from Tower north, Retire 208' 2" GI	10,000
5	Install 2" on Barham Terrace from Ocean east, 300', Retire 272' 2" GI	22,000
6	Install 2" on 2nd Court from 2nd to 4th Street, on Fir from 4th Street east and on 3rd Street from Fir north, total length 900', Retire 1,011 2" GI	45,000
7	Install 2" on State from Sheridan east 235', Retire 235' 2" GI	12,000
8	Install 2" on Cedar from North 10th west 530', Retire 530' 2" GI	22,000
9	Install 8" PVC on Madrona from Virginia to Maine, 1,635', Retire 1,635' 6" CI	184,000
10	Install 8" on Sheridan from Ohio to Commercial, 1,410', Retire 1,410' 6" CI	163,000
11	Install 8" PVC on Anderson from 4th to Broadway, 775', Retire 775' 6" CI	114,000
12	South Empire Boulevard replace 100' 2" GI and modify 23 services	11,300
13	Interior and Exterior Painting of Bay Park Reservoir	47,500
14	Ingersoll Reservoir Easement and Security Fence, 400' – FY12	29,500
15	Hauser Reservoir Roof FY12	70,500
16	Upgrade Terramar Pump Station Piping and Pump – FY12	33,500
17	California Street Water System Planning and Consultant Design – FY12	45,000
18	California Street Water System Planning and Consultant Design	20,000
19	Telemetry Units at Terramar Pump Station and Reservoir – FY12	19,000
20	Telemetry Units at California Pump Station	19,000
21	Chlorine and Ammonia System Automatic Closure Valves	50,000
22	6th and I Street Flow Meter Installation	11,700
23	Meter Replacements	20,600
24	Well Meter Replacement – Dunes	4,000
25	Distribution System Asbuilting and Mapping	35,000
26	Reroof Service Center South Equipment Shed Building	45,000
27	Paint Service Center Main Building – Phase 1	25,750
28	Lighting and Ceiling Tile Project for Upper Floor of Service Center	36,500
29	Repave and Repaint Service Center Drive and Parking Lots	140,000
30	Security Fencing for Upper Service Center Lot – Note: Price reduced by $10,000 to Reflect Insurance Grant	43,600
31	Reroof Treatment Plant Building	72,000
	Total Project Costs	**$1,683,450**

Projects and Equipment Included in Fiscal Year 2012-13 Budget
Continued

No.	Equipment Listing	Estimated Cost
1	Crew Truck 4WD (No. 21)	$ 50,600
2	Pickup 2WD (No. 49).	19,800
3	2 C. Y. Dump Truck (No. 44).	39,600
4	Valve Maintenance Trailer	45,100
5	Meter Reading Autogun	1,400
6	Air Tester – Sniffer (Service Truck)	700
7	Computer for Customer Service	1,200
8	Computer and Printer for Administration	2,500
9	2-inch Tapping Machine	2,500
10	Bobcat 337 Brushing Head Attachment	8,000
11	Finance Software Springbrook – FY12	29,500
	Total Equipment Costs	**$200,900**
	Total Estimated Capital Expenditures	**$ 1,884,350**

Frequently Asked Questions and Utility Statistics
Fiscal Year 2012-2013

Q: How many customers does the Water Board serve?

A: As of June 30, 2013, our customer total is 12,782, which includes 9,922 customers inside the city limits of Coos Bay and North Bend and 2,860 customers outside the city limits. The total population served by the Water Board is approximately 34,500 within a service area of approximately 100 square miles.

Q: How much per month does the average residential customer spend for water?

A: The rates are different for customers inside the city limits than customers outside the city limits. The average monthly residential bill inside the city limits is $24.33 and outside the city limits is $34.01. The average residential customer uses 4,308 gallons of water monthly.

Q: What does it take to get the water from the treatment plant to the customer's tap?

A: More infrastructure than most people might imagine! When the water leaves the treatment plant, it goes into the distribution system which consists of 258 miles of various sizes of pipeline, approximately 5,380 control and hydrant valves within those pipelines, and approximately 1,219 fire hydrants. It takes 31 pump stations within the distribution system to get the water to customers at adequate pressure, plus 19 storage reservoirs located throughout the system.

Q: Where does the water come from that's treated by Pony Creek Water Treatment Plant?

A: There are two surface water reservoirs upstream of the treatment plant, Upper Pony Creek and Merritt Reservoirs. The larger, Upper Pony Creek Reservoir, can hold 2 billion gallons of water; and Merritt Reservoir can hold 125 million gallons.

There is a third surface water storage area at Joe Ney Slough which can store 90 million gallons. Water is pumped from Joe Ney through a pipeline into the Upper Pony Creek Reservoir.

Q: How much water is produced in a year for customers?

A: The total amount of water produced for customers this fiscal year was 1,346 million gallons of treated water and 150 million gallons of untreated water. The average daily demand for treated water was 3.68 million gallons and 0.417 million gallons for untreated water. The demand peaked at 6.02 million gallons per day for treated and 0.551 million gallons per day for untreated water in fiscal year 2012-13.

Q: How many water treatment plants are there?

A: There are two. The main treatment plant, Pony Creek Water Treatment Plant, is located on Ocean Boulevard, Coos Bay and has a production capacity of 12 million gallons per day (MGD). The North Spit Water Treatment Plant, located on TransPacific Lane, North Bend, treats water from the dunes well system and has a capacity of 1 MGD. If an emergency arises, the North Spit Plant supplements the Pony Creek Plant to meet the needs of Water Board customers.

Q: How many wells are in the dunes?

A: There are 18 production wells in the dunes which can produce up to 4 million gallons per day of untreated water.

Coos Bay-North Bend Water Board
Statement of Net Position as of June 30, 2013

Assets:		
Current Assets:		
Cash and Cash Equivalents	$ 5,636,996	
Accounts Receivable - Water (Net)	372,675	
Accounts Receivable - Sewer	302,842	
Accounts Receivable - Other	25,332	
Inventory	491,478	
Prepaid Expenses	20,281	
Other Work in Progress	27,865	
Total Current Assets		$ 6,877,469
Restricted Cash Assets		31,184
Utility Plant:		
Utility Plant (Net of Accumulated Depreciation)	$61,762,070	
Construction in Progress	228,858	
Total Utility Plant		61,990,928
Total Assets:		$68,899,581
Liabilities and Net Assets:		
Current Liabilities:		
Accounts Payable	$ 355,480	
Accrued Salaries, Payroll Taxes and Insurance	84,679	
Accrued Interest on Long-term Debt	37,688	
Accrued Vacation	140,570	
Accrued Other Expenses	17,439	
Current Portion of Long-term Debt	895,775	
Sewer Service Collections Payable to Cities	493,320	
Sewer Service Receivables Payable to Cities	302,842	
Total Current Liabilities		$ 2,327,793
Liabilities Payable from Restricted Assets		31,184
Long-Term Liabilities:		
Bonds Payable (Net of Current Portion)	$17,612,538	
Total Long-Term Liabilities		17,612,538
Total Liabilities:		19,971,515
Net Assets:		
Investment in Capital Assets, Net of Related Debt	$43,482,615	
Restricted Net Assets	-0-	
Unrestricted	5,445,451	
Total Net Assets		$48,928,066

2013 WATER QUALITY STATISTICS

One of the most important focuses of the Water Board is to provide high quality drinking water to our customers. Thousands of tests are performed annually as part of our quality control program and to insure compliance with state and federal regulations. The following results are reflective of 2013 reporting requirements.

Abbreviations and units used in trace concentration measurements issued by the Oregon Health Authority:

Waiver = non-vulnerability to contaminant
NTU = nephelometric turbidity unit
mg/L = milligrams per liter
pCi/L = picocuries per liter
MCL = maximum contaminant level
MFL = million fibers per liter (EPA)
ug/L = micrograms per liter
ND = not detected
CU = color units
< = less than
> = greater than
AL = action level
P/A = presence/absence

PARAMETER	UNIT	MCL	RESULTS
Turbidity	NTU	0.3	0.06
MICROBIOLOGICAL			
Coliform	P/A	5% positive	482 - Absent 1 - Present
INORGANICS			
Antimony	mg/L	0.006	ND @ 0.0002
Arsenic	mg/L	0.01	ND @ 0.001
Asbestos	MFL	7.0	ND
Barium	mg/L	2.0	ND @ 0.05
Beryllium	mg/L	0.004	ND @ 0.0001
Cadmium	mg/L	0.005	ND @ 0.0001
Chromium	mg/L	0.1	ND @ 0.005
Cyanide	mg/L	0.2	ND @ 0.003
Fluoride	mg/L	2 – 4	1.03
Lead	mg/L	0.015-AL	• 0.0041
Mercury	mg/L	0.002	ND @ 0.0002
Nickel	mg/L	0.1	ND @ 0.0005
Total Nitrate (as N)	mg/L	10.0	0.35
Nitrate + Nitrite (as N)	mg/L	10.0	0.37
Nitrite (as N)	mg/L	1.0	ND @ 0.05
Selenium	mg/L	0.05	0.0005820
Sodium (advisory)	mg/L	20	7.69
Thallium	mg/L	0.002	ND @ .0005
SYNTHETIC ORGANIC CHEMICALS			
2, 4-D	mg/L	0.07	ND @ 0.0002
2,4,5-TP (Silvex)	mg/L	0.05	ND @ 0.0004
Adipates	mg/L	0.4	ND @ 0.001
Alachlor	mg/L	0.002	ND @ 0.0004
Atrazine	mg/L	0.003	ND @ 0.0002
Benzoapyrene	mg/L	0.0002	ND @ 0.00004
BHC-gamma (Lindane)	mg/L	0.0002	ND @ 0.00002
Carbofuran	mg/L	0.04	ND @ 0.001
Chlordane	mg/L	0.002	ND @ 0.0004
Dalapon	mg/L	0.2	ND @ 0.002
Dibromochloropropane	mg/L	0.0002	ND @ 0.00002
Dinoseb	mg/L	0.007	ND @ 0.0004
Dioxin	mg/L	0.00000003	Waiver
Diquat	mg/L	0.02	ND @ 0.0004
Endothall	mg/L	0.1	ND @ 0.01
Endrin	mg/L	0.002	ND @ 0.00002
Ethylene Dibromide	mg/L	0.00005	ND @ 0.00001
Glyphosate	mg/L	0.7	ND @ 0.01
Heptachlor Epoxide	mg/L	0.0002	ND @ 0.00002
Heptachlor	mg/L	0.0004	ND @ 0.00004
Hexachlorobenzene	mg/L	0.001	ND @ 0.0001
Hexachlorocyclopentadiene	mg/L	0.05	ND @ 0.0002

•90th percentile for Lead and Copper

PARAMETERS	UNIT	MCL	RESULTS
SYNTHETIC ORGANIC CHEMICALS cont'd.			
Methoxychlor	mg/L	0.04	ND @ 0.00002
Pentachlorophenol	mg/L	0.001	ND @ 0.00008
Phthalates	mg/L	0.006	ND @ 0.0013
Picloram	mg/L	0.5	ND @ 0.0002
Polychlorinated Biphenyls	mg/L	0.0005	ND @ 0.0002
Simazine	mg/L	0.004	ND @ 0.0001
Toxaphene	mg/L	0.003	ND @ 0.001
Vydate (Oxamyl)	mg/L	0.2	ND @ 0.002
VOLATILE ORGANIC CHEMICALS*			
Trihalomethanes **	mg/L	0.08	0.031
Halo Acetic Acids ***	mg/L	0.06	0.012
1,1,1,2-Tetrachloroethane *	mg/L		ND @ 0.0005
1,1,1-Trichloroethane	mg/L	0.2	ND @ 0.0005
1,1,2,2-Tetrachloroethane *	mg/L		ND @ 0.0005
1,1,2-Trichloroethane	mg/L	0.005	ND @ 0.0005
1,1-Dichloroethane *	mg/L		ND @ 0.0005
1,1-Dichloroethylene	mg/L	0.007	ND @ 0.0005
1,1-Dichloropropene *	mg/L		ND @ 0.0005
1,2,3-Trichloropropane *	mg/L		ND @ 0.0005
1,2,4-Trichlorobenzene	mg/L	0.07	ND @ 0.0005
1,2-Dichloroethane	mg/L	0.005	ND @ 0.0005
1,2-Dichloropropane	mg/L	0.005	ND @ 0.0005
1,3-Dichloropropane *	mg/L		ND @ 0.0005
1,3-Dichloropropene *	mg/L		ND @ 0.0005
2,2-Dichloropropane *	mg/L		ND @ 0.0005
Benzene	mg/L	0.005	ND @ 0.0005
Bromobenzene *	mg/L		ND @ 0.0005
Bromodichloro-methane	mg/L		0.0070
Bromoform	mg/L		ND @ 0.0005
Bromomethane *	mg/L		ND @ 0.0005
Carbon Tetrachloride	mg/L	0.005	ND @ 0.0005
Chloroethane *	mg/L		ND @ 0.0005
Chloroform	mg/L		0.0090
Chloromethane *	mg/L		ND @ 0.0005
cis-1,2 Dichloroethylene	mg/L	0.07	ND @ 0.0005
Dibromochloro-methane	mg/L		0.0033
Dibromomethane	mg/L		ND @ 0.0005
Dichloromethane	mg/L	0.005	ND @ 0.0005
Ethylbenzene	mg/L	0.7	ND @ 0.0005
m-Dichlorobenzene *	mg/L		ND @ 0.0005
Methyl tert-butyl ether *	mg/L		ND @ 0.0005
Monochlorobenzene	mg/L	0.1	ND @ 0.0005
o-Chlorotoluene *	mg/L		ND @ 0.0005
o-Dichlorobenzene	mg/L	0.6	ND @ 0.0005
p-Chlorotoluene *	mg/L		ND @ 0.0005
p-Dichlorobenzene	mg/L	0.075	ND @ 0.0005
Styrene	mg/L	0.1	ND @ 0.0005
Tetrachloroethylene	mg/L	0.005	ND @ 0.0005
Toluene	mg/L	1.0	ND @ 0.0005
trans-1,2-Dichloroethylene	mg/L	0.1	ND @ 0.0005
Trichloroethylene	mg/L	0.005	ND @ 0.0005
Vinyl Chloride	mg/L	0.002	ND @ 0.0005
Xylenes (total)	mg/L	10.0	ND @ 0.0005
RADIONUCLIDES-NATURAL ORIGIN			
Gross Alpha	pCi/L	15	ND
Combined Radium 226/228	pCi/L	5	0.5
Combined Uranium	ug/L	30	ND @ 1.0
SECONDARY CONTAMINANT			
Color	CU	15	4
pH		6.5-8.5	8.3
Hardness	mg/L	250.0	17
Copper	mg/L	1.3-AL	• 0.042
Iron	mg/L	0.3	0.03
Manganese	mg/L	0.05	0.02

* Blanks under MCL represent unregulated volatile organic chemicals

** Trihalomethanes include: Bromodichloromethane, Bromoform, Chloroform, Dibromochloromethane

*** Halo Acetic Acids include: Dibromoacetic acid, Dichloroacetic acid, Monobromoacetic acid, Monochloroacetic acid, Trichloroacetic acid

Utility Mission Statement:

"Providing a Reliable, and Quality Service For the Present and Future Needs of our Communities"

VISIT OUR WEBSITE AT
www.cbnbh2o.com
OR CONTACT US BY E-MAIL

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Utility Financial Management and Accounting

karen_parker@cbnbh2o.com
Administrative Assistant
Personnel

APPENDIX O-4

Letter Regarding North Spit Water System Level of Service

CONSULTING ENGINEERS & GEOLOGISTS, INC.
275 Market Avenue• Coos Bay, Oregon 97420-2228 • Phone: 541/266-9890 • FAX: 541/266-9496•shninfo@shn-engr.com

Reference: 611048.124

June 20, 2013

Mr. Ron Hoffine, PE
Coos Bay North Bend Water Board
PO Box 539
Coos Bay, OR 97420

Subject: North Spit Water System Level of Service
Jordan Cove Energy Project

Dear Mr. Hoffine:

Attached please find correspondence from Black and Veatch (BV) regarding water supply requirements for the Jordan Cove Energy Project (JCEP) on the north spit. The project is proposing to have six water supply services at three locations along the Trans Pacific Parkway during construction. Five of these services will be utilized during the operation of the facility. Two of these operational services are related to fire suppression systems. The service at the South Dunes Power Plant (SDPP), has certain service level requirements and it is desirable to obtain confirmation from the Water Board about the supply rate and pressure, as soon as possible.

It is our understanding that the Water Board operates a 12-inch potable water supply line that runs the length of the Trans Pacific Parkway from the Bay Crossing to the McCullough Bridge. Two well fields and supply piping also provide raw water to areas along the Trans Pacific Parkway. The attached maps from SHN and BV identify the three service locations, A, B, and C, also along the Parkway. Usage at each location is summarized below.

Service A would include one raw and one potable water supply tap. Usage would occur primarily during construction, as described below:

> The raw water supply would be utilized as a supplemental source during the filling of the firewater pond (4 MG) and filling and testing of the LNG tanks (28 MG). Upon completion of construction, the raw water service would be removed.
>
> Filling and testing the LNG tanks will require an additional 24 MG per tank (using the 4 MG in the firewater pond). Filling of the tanks would need to be sustained at the highest rate possible, over the shortest period possible. JCEP would like to know the sustained flow rate that could be provided from both the well and potable water system to meet this supply requirement. Within 30 days of testing the first tank, the second tank would need to be tested requiring a second 24 MG usage cycle at the same maximum sustained flow rate.
>
> After construction, the potable water tap would remain and be used to periodically fill the firewater pond. The rate of fill for the firewater pond is uncertain; however, for planning purposes you could assume 450 gpm to deliver 0.5 MG per day.

Service B would include two potable water supply taps. Usage would include charging the Roseburg Forest Products (RFP) fire suppression system and supplying the LNG facility with potable usage for workers. The RFP tap would provide infrequent, but essential fire flow service as needed. Worker usage at the LNG facility has not been determined; however for planning purposes, you could assume 1 to 6 gpm.

Service C would include two potable water supply taps and possibly one raw water supply tap if needed to supplement potable supplies.

> One potable water tap would supply the Southwest Oregon Safety Center (SORSC). Flow requirements and usage at the SORSC have not been determined but could require up to 1 to 3 gpm for workers.
>
> Usage and pressure levels required for the SDPP service is now well understood. The potable water supply to the SDPP must be able to supply 717 gpm (1.0 MG per day) with a minimum supply pressure of 40 psi. If necessary, the raw water supply could supplement the potable source to satisfy this demand.

Understanding the availability of the supply rate and pressure at the SDPP is currently an important item for consideration in the design process. We are requesting feedback from the Water Board as soon as possible so that BV has time to evaluate any revisions to the onsite water system required for the service levels stated here-in.

Should you have any questions, or comments, please contact Felicia Knox or me at 541-266-9890. Thank you again for your prompt attention to this matter.

Sincerely,

SHN Consulting Engineers & Geologists, Inc.

Steven K. Donovan, PE
Principal Engineer

SKD:dkl

Attachments: Attachment A Water Service Locations
Attachment B Water Usage Requirements (Black & Veatch)

Attachment A

Water Service Locations

\\Coosbaysvr1\projects\2011\611048-Project-Management\124-CBNBWaterline\Dwgs\WATER & INDUSTRIAL PIPELINES , SAVED: 6/20/2013 9:09 AM FKNOX, PLOTTED: 6/20/2013 9:14 AM , FELICIA KNOX

EXPLANATION

- (N) WATER
- (N) RAW WATER
- (N) INDUSTRIAL WASTEWATER PIPELINE (IWP)
- TEMPORARY CONSTRUCTION IMPACT AREA
- PROPERTY LINE
- RIGHT-OF-WAY

N

1"=2000'

0 2000

Consulting Engineers & Geologists, Inc.

Jordan Cove Energy Project IWP and Water Alignments North Spit, Coos County, Oregon		Water Service Locations SHN 611048
June 2013	611048-IWP-WATER-PIPELINES	Figure 1

Attachment B

Water Usage Requirements (Black & Veatch)

BLACK & VEATCH
Building a world of difference.

BLACK & VEATCH CORPORATION
11401 LAMAR AVENUE
OVERLAND PARK, KANSAS USA

29 May 2013

JORDAN COVE ENERGY PROJECT, L.P. **B&V Project: 142488.1580**

Subject: Water Usage Requirements:

The following are the current water usage requirements that JCEP can utilize to discuss with the CBNBWB to ensure they can provide the water requirements for the project during construction, initial operation and normal operations.

S. Dunes and Normal Water usage:

The major water usage is in the power plant as noted below. The power plant water usages included typical continuous water usage on the entire South Dunes site. Some users, such as potable water and equipment wash down, have been rolled to an equivalent continuous usage.

The EFSC maximum use water mass balance yields 1.03 Mgpd, and is based on the power plant operating at an output of 420 MW (both 3x1 power blocks at 100% output). This operating scenario was provided for the EFSC permit to ensure the power plant wouldn't be output or emission permit limited.

During normal operation considering the Jordan Cove design power system loads and **5** operating combustion turbines, South Dunes requires 807,840 gpd.

During normal operation considering the Jordan Cove design power system loads and **6** operating combustion turbines, South Dunes requires 925,920 gpd. This would be a safe number to request for South Dunes power plant usage, and the plant may operate using 6 combustion turbines until an acceptable rate of turbine trips has been achieved.

See attached water balances for more detail.

Construction and Initial operations:

Water will be needed during construction for the concrete batch plant, normal cleaning and wash down as well as some hydrotesting. Most of the major lines will be pneumatic tested.

The maximum rate will actually be during startup as we are filling our tanks and firewater system. It is much higher than the 700 gpm (1 MM gpd) mentioned above.

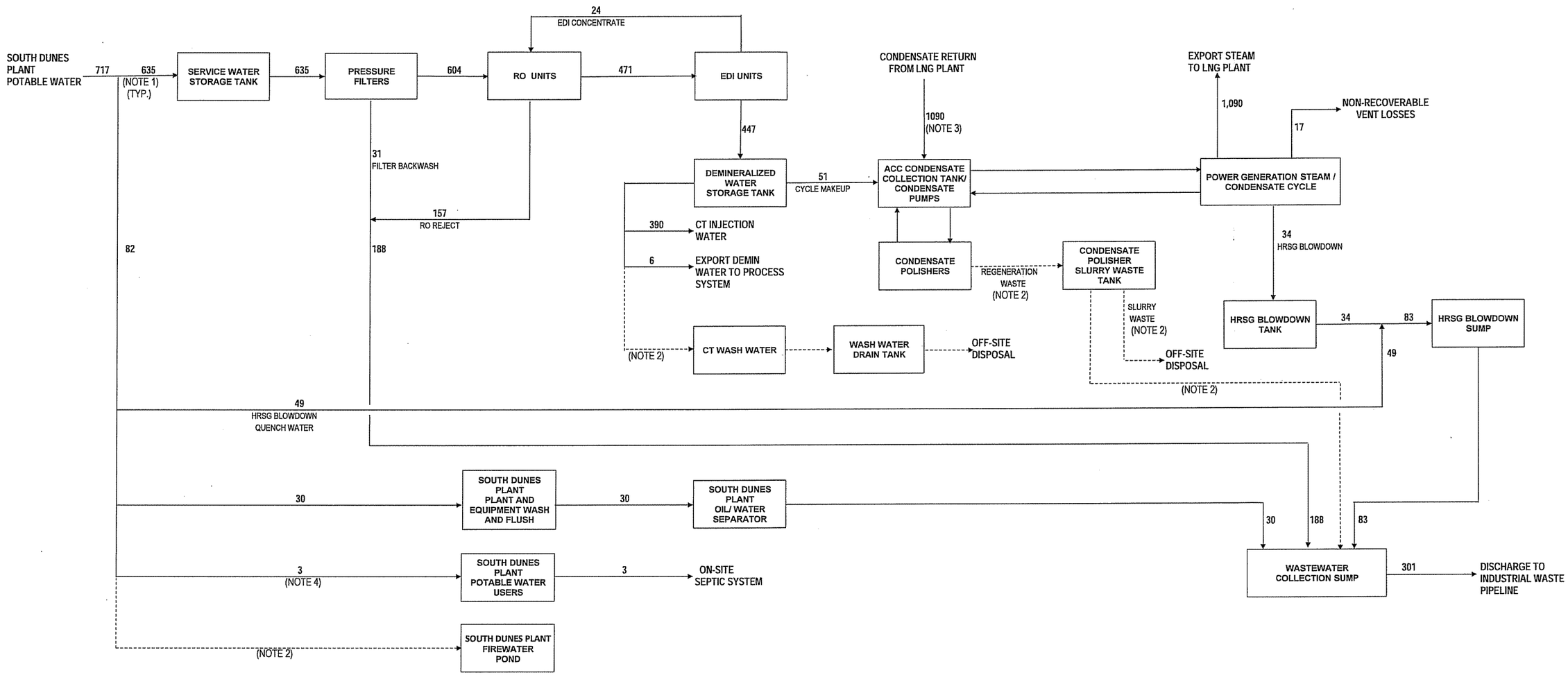
Firewater Ponds: 2.65 MM gal each

Firewater Tanks: 0.6 MM gal each

Raw water Tank: 2 MM gal

So during startup, we will need about 8.5 MM gallons to fill our equipment, plus some other smaller volumes to flush. We would probably want a number around 3000-4000 gpm so we could fill these services in a couple days.

For LNG tank hydrotest, RR13 states 10 days to fill the 28 MM gallons required for each tank. This equates to 2000 gpm.



NOTE:
1. Flows shown are daily average flow rates in gallons per minute (gpm).
2. Dashed lines represent intermittent flows.
3. Assume process condensate return from LNG plant has no leakage.
4. For 30 personnel per shift / 3shifts per day on South Dunes site.

			BLOCK 1	BLOCK 2
COMBUSTION TURBINE FUEL	NATURAL GAS			
NET PLANT OUTPUT (MW)	433	HEAT BALANCE CASE	10	10
TURBINE CONFIGURATION (CT X ST)	2 BLOCKS OF 3 X 1	CT ON OPERATION	3	3
AMBIENT TEMP (F) / RH(%)	55 / 60%	DUCT FIRING	On	On
CYCLE MAKEUP RATE	2%	NET PLANT OUTPUT (MW)	216.6	216.6
CONDENSER TYPE	AIR COOLED CONDENSER	EXPORT STEAM (LB/HR)	272,600	272,600

BLACK & VEATCH

Eng: SN Dwg: SN
Check: MCP Date: 11/12/2012

JORDAN COVE ENERGY PROJECT, LP.
COOS BAY, OREGON

WATER MASS BALANCE
DAILY AVERAGE WATER USE
AVERAGE DAY

Project	Drawing Number	Rev
142488	WMB 1A	E

BLOCK 1 3 X 1 Average Day Fired
BLOCK 2 3 X 1 Average Day Fired

PLANT

TRANS-PACIFIC PARKWAY

A

B

C

LNG PLANT
LIQUEFACTION, STORAGE AND MARINE FACILITIES
(SEE NOTE 1)

SOUTH DUNES PLANT
POWER PLANT AND GAS CONDITIONING
(SEE NOTE 2)

NON-JURISDICTIONAL

NON-JURISDICTIONAL

PACIFIC POWER SUBSTATION

JORDAN COVE

EXISTING BUILDING

EXISTING BUILDING

ROSEBURG LBR. ROAD

EXISTING TRACKS

PLANT FENCE LINE

APPROX. MEAN SHORELINE

EXIST. DOCK

HENDERSON MARSH

APPROX. MEAN SHORELINE

COOS BAY

JARVIS RANGE

300' 150' 0 300' 600'

1"=350'

NOTES:

1. FOR GENERAL ARRANGEMENT OF LNG LIQUEFACTION/EXPORT SITE, SEE DRAWING 142488-0000-G2001.
2. FOR GENERAL ARRANGEMENT OF SOUTH DUNES POWER PLANT/GAS TREATING SITE, SEE DRAWING 142488-0000-G2002.

NOT TO BE USED FOR CONSTRUCTION

THE DISTRIBUTION AND USE OF THE NATIVE FORMAT CAD FILE OF THIS DRAWING IS UNCONTROLLED. THE USER SHALL VERIFY TRACEABILITY OF THIS DRAWING TO THE LATEST CONTROLLED VERSION.

MAY 02 2013

NO	DATE	REVISIONS AND RECORD OF ISSUE	DRN	DES	CHK	PDE	APP
3	03/MAY/13	ISSUED FOR FINAL FERC FILING	ECB	RGG	–	EAH	DEW
2	19/APR/13	ISSUED FOR FINAL FERC FILING	ECB	RGG	–	EAH	DEW
1	29/OCT/12	ISSUED FOR FERC FILING	ECB	RGG	–	EAH	DEW
0	28/SEP/12	ISSUED FOR FERC FILING	ECB	RGG	–	EAH	DEW

BLACK & VEATCH CORPORATION

ENGINEER	EAH	DRAWN	ECB
CHECKED	–	DATE	28/SEP/12

JORDAN COVE ENERGY PROJECT, L.P.
COOS BAY, OREGON

PLOT PLAN

PROJECT	DRAWING NUMBER	REV
142488-0000-FG2000		3
CODE		
AREA		

BUC35366 D1 ACAD 18.0s (LMS Tech)
A1ASL015 1=1
05/01/13 10:53:05

APPENDIX O-5

Service Provider Letter from PPV, Inc. Regarding Wastewater

November 28, 2014

Jennifer Mills

Farallon Consulting

Portland, OR.

Jennifer thank you for your interest in utilizing PPV Inc. for your treatment and disposal needs, in regards to the projected volumes of SDPP water of 300,000 gallons over a 11 to 12 week period with an average of 50,000 gallons every other week PPV Inc. would have no issue with taking these volumes in.

Prior to acceptance of the material a Material Profile Sheet must be filled out and current analytical attached to ensure the material is acceptable per our permit with the City of Portland. PPV Inc. could very easily accept a minimum of 100,000 gallons per day if in fact you had that amount of material to transport on a daily basis.

If needed PPV Inc. has Vacuum Tankers to assist in the movement of material which we can give you pricing on if you so wish, just let us know. Once the material is reviewed per the analytical and profile procedure we can give you actual treatment and disposal pricing for the material.

If you have any further questions or concerns please feel free to give me a call.

Thank you,

Ron L. Bascue

PPV INC. / Bravo Environmental

Portland, OR / Seattle, WA

Office 503-261-9800 Cell 503-680-9756