Oregon
Kate Brown, Governor

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February 19, 2020

Mike Koski
Jordan Cove Energy Project, LP
Pacific Connector Gas Pipeline, LP
Email: mkoski@pembina.com

Project:	*Jordan Cove Energy Project/Pacific Connector Gas Pipeline*
	US Army Corps Federal Permit No.: NWP-2017-41
	FERC Docket Nos: CP17-495-000 and CP17-494-000
Applicants:	Jordan Cove Energy Project, LP and Pacific Connector Gas Pipeline, LP
Location:	Coos Bay, Oregon and Pipeline Route within Coastal Zone
Re:	**Federal Consistency Determination**

Dear Mr. Koski:

The Oregon Department of Land Conservation and Development (DLCD) has completed its review of the Joint Coastal Zone Management Act Certifications that Jordan Cove Energy Project and Pacific Connector Gas Pipeline (JCEP) submitted on April 12, 2019. JCEP certifies that the proposed project complies with, and will be conducted in a manner consistent with, the Oregon Coastal Management Program (OCMP). Pursuant to the section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA), its regulation at 15 CFR § 930.63, and having fully considered the project information and public comments submitted, DLCD **objects** to your consistency certification on the basis that it has not established consistency with specific enforceable policies of the OCMP and that it is not supported by adequate information.

JCEP has applied for two major federal permits/licenses needed for the proposed project: the section 404 of the Clean Water Act/section 10 of the Rivers and Harbors Act permits managed by the US Army Corps of Engineers (Corps or USACE) and the Natural Gas Act section 3 Authorization and section 7 Certificate of Public Convenience and Necessity managed by the Federal Energy Regulatory Commission (FERC). The activity that JCEP proposes is to site, construct, and operate a natural gas liquefaction and liquefied natural gas (LNG) export facility on the bay side of the North Spit of Coos Bay, Oregon. To supply the LNG Export Terminal with natural gas, JCEP is proposing to construct and operate a new, approximately 229-mile-long natural gas transmission pipeline and compressor station from interconnections with the existing Ruby Pipeline LLC and Gas Transmission Northwest LLC systems to the LNG Export Terminal. After careful review of the proposed project, in conjunction with receiving extensive public comment, and coordination with coastal partners, **DLCD has determined that the coastal adverse effects from the project will be significant and undermine the vision set forth by the OCMP and its enforceable policies**. Coastal effects analyses show that the project will negatively impact Oregon's coastal scenic and aesthetic resources, a variety of endangered and threatened species, critical

habitat and ecosystem services, fisheries resources, commercial and recreational fishing and boating, and commercial shipping and transportation, among other sectors critical to the state. The degree and extent of these impacts are described further later in this document.

CZMA section 307(c)(3)(A) requires DLCD to notify the federal agencies concerned that the state objects to the certification "at the earliest practicable time." As a result of this objection, **neither FERC nor the Corps can grant a license or permit for this project** unless the U.S. Secretary of Commerce overrides this objection on appeal pursuant to 15 CFR part 930, subpart H.

EXECUTIVE SUMMARY

DLCD is Oregon's designated coastal management agency statutorily responsible for reviewing the required certification of consistency with the OCMP pursuant to CZMA section 307(c)(3)(A). An applicant for any federally-permitted project must obtain a CZMA consistency concurrence for the federal permit or license to be granted in Oregon's coastal zone.

Only DLCD, as the lead state agency authorized by NOAA as part of OCMP, can determine whether a federal action is consistent with the enforceable policies of the OCMP. OAR 660-035-0020; 15 CFR § 930.6. 15 CFR § 930.6 specifically provides that "the State agency shall be responsible for securing necessary review and comment from other State, regional, or local government agencies, and, where applicable, the public. Thereafter, only the State agency is authorized to comment officially on or concur with or object to a federal * * *consistency certification [.]"

DLCD administrative rules provide that issued state permits or authorizations are the only acceptable evidence demonstrating consistency with the enforceable policies that the permit or authorization covers (OAR 660-035-0050). DLCD rules provide that "For activities located within the state's jurisdiction that require state or local permits or authorizations, the issued permit or authorization is the only acceptable evidence demonstrating consistency with the enforceable policies that the permit or authorization covers." NOAA has approved these rules as enforceable policies of the OCMP.

JCEP has not established consistency with all enforceable policies identified by DLCD and JCEP. As DLCD explained nearly two years ago by letter, "DLCD will not concur that a proposed project is consistent with the OCMP until the applicant has obtained the necessary approvals … for the project per OAR 660-035-0050(4)."[1]

On the basis of the current record, the JCEP **has not established that the project is consistent** with the following enforceable policies and underlying standards within them:

1. ORS chapter 196 - Removal-Fill ***(Permit Application Withdrawn)***
2. ORS chapter 274 - Submersible and Submerged ***(Authorization Applications Withdrawn)***
3. ORS chapter 468B - Water Quality ***(Permit Application Denied)***

[1] Patty Snow, DLCD Coastal Program Manager, Letter to Meagan Masten, Pembina Pipeline Corporation, at 2 (Oct. 27, 2017), FERC Accession No. 20171030-5070.

4. ORS chapter 469 - Energy; Conservation Programs; Energy Facilities Public Health and Safety ***(Insufficient Information to Establish Consistency)***
5. ORS chapter 496 - Wildlife Administration ***(Insufficient Information to Establish Consistency)***
6. ORS chapter 509 - General Protective Regulations (Fish Passage) ***(Insufficient Information to Establish Consistency)***
7. Statewide Planning Goal 6 – Air, Water, and Land Resources ***(Permit Application Denied/Withdrawn)***

Where a copy of a state application is provided to establish compliance with an enforceable policy and that state application has either been denied or withdrawn, the consistency certification has not established compliance with an enforceable policy. 15 CFR § 930.6(c); OAR 660-035-0050. For non-state permits and authorizations, DLCD conducts an independent review of the materials submitted by the applicant to demonstrate consistency, along with consulting the relevant state agency or local jurisdiction. For enforceable policies overseen by networked state agency partners, DLCD requests a letter of recommendation from the respective agency that formally recommends whether or not DLCD should consider a project consistent with the associated enforceable policies, with an emphasis on how the project is inconsistent and the associated coastal effects from the project.

DLCD conducted a coastal effects analysis for the JCEP. Coastal effects are any reasonably foreseeable effect on any coastal use or resource resulting from a federal agency activity or federal license or permit activity. Effects include both direct effects and indirect effects that are later in time or farther removed in distance but are still reasonably foreseeable. As part of the analysis, DLCD determined coastal effects on natural resources, recreation and access, cultural resources, aesthetic resources, and economic resources. DLCD objects to JCEP's certification that the project is consistent with the OCMP and its enforceable policies, because DLCD finds that the coastal adverse effects from JCEP are significant, and JCEP has not established consistency with the enforceable policies of the OCMP.

JCEP has not proposed alternatives to this project that would enable the project to be fully consistent with the OCMP. While DLCD is open to alternatives that would make the project fully consistent with the enforceable policies of the OCMP, additional analysis would be needed to determine whether or not alternatives would be sufficient to meet enforceable policy standards. At this time, JCEP has not established that the proposed activity is consistent with the enforceable policies of the OCMP.

Under the regulations implementing the CZMA, a state may object on alternative bases. A permissible basis is an objection that the applicant has failed, following a written request, to supply information necessary for the state to determine consistency. DLCD objects under 15 CFR § 930.63(c) because Jordan Cove has failed to provide "information necessary* * * to determine consistency."[2] As DLCD and other agencies have repeatedly observed, the applicant has failed to provide information regarding proposals to mitigate numerous impacts or whether and how such mitigation might work. DLCD further

[2] See also 15 CFR § 930.63(a) ("A state agency may assert alternative bases for its objection.")

objects on the additional alternative basis that the applicant has not provided information sufficient to determine whether less harmful alternatives are available.

Based on the foregoing, the proposed project has not established consistency with the seven enforceable policies and underlying standards of the federally approved OCMP. DLCD objects to JCEP's consistency certification. As a result of this objection, the FERC and the Corps cannot grant any license or permit for this project unless this objection is overridden on appeal by the U.S. Secretary of Commerce.

BACKGROUND

Statutory Framework for Consistency Review

The CZMA authorizes a coastal state to review activities requiring federal agency authorizations, in or outside of the coastal zone, affecting any land or water use or natural resource of the coastal zone, for their consistency with the enforceable policies of the state's approved Coastal Management Program (CMP) a process referred to as "consistency review."[3] An applicant seeking federal permits to conduct activities in or affecting the coastal zone must certify that its proposed use is consistent with "the enforceable policies of the state's approved [CMP]." A federal agency cannot grant a permit "until the state ... has concurred with the applicant's certification."[4] DLCD is Oregon's designated coastal management agency statutorily responsible for acting on the required certification of consistency with the OCMP pursuant to CZMA section 307(c)(3)(A). An applicant for any project requiring a federal license or permit must obtain a CZMA consistency concurrence for the federal license or permit to be granted in Oregon's coastal zone.

The procedural regulations applicable to this project are available at 15 CFR part 930, subpart D and Oregon Administrative Rule (OAR) chapter 660, division 35. In accordance with the consistency provisions of the federal CZMA and implementing regulations at 15 CFR part 930, the proposed JCEP, which requires authorizations and approvals from multiple federal agencies and which is located in Oregon's Coastal Zone, is subject to the consistency provisions of the CZMA and must be conducted in a manner which is consistent with the enforceable policies of Oregon's federally approved OCMP and any applicable enforceable policies. To be consistent with the OCMP, the proposed project must comply with enforceable policies contained in: 1) the statewide land use planning goals; 2) the applicable acknowledged city or county comprehensive plans and land use regulations; and 3) selected state authorities, *e.g.* those governing removal-fill, water quality, and fish & wildlife protections.

A list of enforceable policies applicable to the project can be found in Appendix 1.C

[3] 16 USC § 1456(c)(3)(A).
[4] 16 USC § 1456(c)(3)(A).

OCMP Jurisdiction and Review Process

DLCD is the designated lead agency of the OCMP under ORS 196.435(1) and 15 CFR §§ 930.6(b) and 930.11(o). The OCMP is a networked program comprising of DLCD as the lead state agency, ten other state agency partners, and local jurisdictions within the coastal zone. Networked state agency partners play critical roles within the OCMP to carry out various state statutes, administrative rules, and permit and authorizations in the coastal zone. 15 CFR § 930.6. DLCD has the sole authority to make consistency determinations for the OCMP.

The Oregon coastal zone includes the state's coastal watersheds and extends seaward three nautical miles and inland to the crest of the coast range, with a few exceptions:

- Along the Umpqua River, where it extends upstream to Scottsburg;
- Along the Rogue River, where it extends upstream to Agness; and
- In the Columbia River Basin, where it extends upstream to the downstream end of Puget Island.

This watershed-based coastal zone was first expressed in 1971 by the Oregon Legislature. Within this zone, the OCMP applies to the land and water areas, except on lands owned by the federal government or held in trust under Indian tribal jurisdiction.

OCMP Federal Consistency Review Authority

Only DLCD is authorized to determine whether a federal action is consistent with the enforceable policies of the OCMP. See OAR 660-035-0020 and 15 CFR § 930.6. 15 CFR § 930.6 specifically provides "the State agency shall be responsible for securing necessary review and comment from other State, regional, or local government agencies, and, where applicable, the public. Thereafter, only the State agency is authorized to comment officially on or concur with or object to a federal * * *consistency certification."

Further, in its 2017 Program Evaluation Findings, NOAA's Office for Coastal Management (OCM) stated its position regarding the role of DLCD:

> *"Requirements to obtain local permits and local land use compatibility statements are recognized by NOAA as part of the Oregon Coastal Management Program; however,* ***the state cannot delegate or defer its Coastal Zone Management Act federal consistency decision-making authority to a local government permit decision****. Regardless of state law requirements****, only the lead state agency authorized by NOAA as part of a state's coastal management program can determine whether a federal action is consistent with the enforceable policies*** *of the state's NOAA-approved program. State Coastal Zone Management Act decisions must be based on the substantive standards of enforceable policies approved by NOAA and* ***cannot be based on decisions or actions (or non-action) by a local government****. A state coastal management program's* ***lead state agency may***

consider the substantive standards within local enforceable policies *approved by NOAA...*

A state may include a local permit decision or local land use compatibility statement in its findings for a Coastal Zone Management Act review, but a decision by a state to issue an objection cannot be based on a local government… permit or land use compatibility statement*. In addition to not being authorized under the Coastal Zone Management Act and NOAA's regulations regarding state agency decisions for federal consistency, delegating or deferring Coastal Zone Management Act decisions to local governments is contrary to the act's requirements that local interests not outweigh national and regional interests."*[5] (Emphasis Added).

State Statutes and Associated Permits and Authorizations

15 CFR § 930.6(c) provides that "the issuance or denial of relevant state permits can constitute the state agency's consistency concurrence or objection." DLCD administrative rules provide that issued state permits or authorizations are the only acceptable evidence demonstrating consistency with the enforceable policies that the permit or authorization covers. OAR 660-035-0050. DLCD rules provide that "For activities located within the state's jurisdiction that require state or local permits or authorizations, *the issued permit or authorization is the only acceptable evidence* demonstrating consistency with the enforceable policies that the permit or authorization covers."[6] These rules have been approved by NOAA as enforceable policies of the OCMP. **Therefore, the OCMP objects to this project on the basis that the applicant has not received, and in some cases has not applied for, all required state permits and authorizations.**

Jordan Cove has failed to establish consistency with seven of the applicable enforceable policies identified by DLCD and JCEP. As DLCD explained nearly two years ago in a letter to Jordan Cove, "DLCD will not concur that a proposed project is consistent with the OCMP until the applicant has obtained the necessary approvals … for the project per OAR 660-035-0050 (4).[7]" NOAA has repeatedly held, in considering similar networked programs, that an applicant's failure to secure the permits that demonstrate compliance with the program during the consistency review period provides a valid basis for objection to a consistency certification.[8]

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[5] https://coast.noaa.gov/data/czm/media/OregonCMP2017.pdf

[6] OAR 660-035-0050(4) (emphasis added).

[7] Patty Snow, DLCD Coastal Program Manager, Letter to Meagan Masten, Pembina Pipeline Corporation, at 2 (Oct. 27, 2017), FERC Accession No. 20171030-5070.

[8] Decision and Findings by the U.S. Secretary of Commerce in the Consistency Appeal of AES Sparrows Point LNG, LLC and Mid-Atlantic Express, LLC from an Objection by the State of Maryland, 6-7 (June 26, 2008), available at https://coast.noaa.gov/data/czm/consistency/appeals/fcappealdecisions/mediadecisions/aes.pdf ("Maryland's federally

Approved Program is a network of state laws and policies. These laws and policies are the 'enforceable policies' of Maryland's Program and require, in part, the issuance of state permits to engage in certain activities within the coastal

Jordan Cove Energy Project Overview

Project Review Details

Under 15 CFR § 930.52, an "applicant" means "any * * * corporation * * * *organized or existing under the laws of any nation[.]" JCEP is an "applicant" under 15 CFR § 930.52 because Pembina is the parent company of Pacific Connector Gas Pipeline L.P. and Jordan Cove Energy Project, L.P. and is a Canadian corporation. Pursuant to 15 CFR § 930.56, DLCD provided JCEP with an advisory letter informing them of the Federal Consistency Review Process on October 27, 2017. *See* Appendix 5.A. JCEP is seeking two major federal permits/licenses needed for the proposed project: the Army Corps section 404/section 10 permit and the Federal Energy Regulatory Commission's energy siting certificate. OCMP has listed these federal licenses or permits activities as subject to review for consistency with the OCMP. 15 CFR §930.53; OCMP Table 7. In the case of multiple federal permits for one project, per 15 CFR § 930.59, DLCD requested that JCEP submit one joint federal consistency application so that these two federal permits/licenses can be reviewed together. JCEP agreed to this request. The applicant for the proposed project submitted a complete application on April 12, 2019. *See* Appendix 1.B. Per 15 CFR § 930.60(a)(1), before consistency review occurs as described above, DLCD has 30 days to review whether the application includes all necessary data and information (NDI). Due to project modifications, JCEP submitted supplemental information to DLCD on May 6, 2019. *See* Appendix 5.B. To initiate federal consistency review, applicants must provide DLCD with the NDI required by 15 CFR § 930.58. On May 13, 2019, DLCD submitted a letter to JCEP informing them that their necessary data and information requirements had been met, review had been initiated, and a review deadline was in place for October 12, 2019. *See* Appendix 5.C. On July 12, 2019, DLCD supplied the federally required 3-month notification letter that the project is still under review. Included in this letter was a request for additional information. *See* Appendix 5.D. On August 15, 2019, DLCD supplied an additional information request to the applicant. *See* Appendix 5.G. JCEP responded to DLCD information requests formally on July 31, 2019, August 23, 2019, and August 20, 2019. *See* Appendices 5.F, 5.H, and 5.I. The responses and associated information were deemed insufficient for OCMP federal consistency review purposes. Under 15 CFR § 930.60(b), an applicant and DLCD may mutually agree in writing to stay the federally mandated six-month review period. DLCD received a request from the applicant on September 16, 2019 to execute a Stay Agreement. A Stay Agreement was executed between DLCD and the applicant, which extended DLCD's decision deadline to February 28, 2020. *See* Appendix 5.K. JCEP submitted a letter to the Oregon Department of Justice (DOJ) regarding federal consistency and conditioning state permits on September 4, 2019. *See* Appendix 5.J. On November 4, 2019, a memo and corresponding matrix was

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zone."); Decision and Findings by the U.S. Secretary of Commerce in the Consistency Appeal of Weaver's Cove Energy, LLC and Mill River Pipeline, LLC from Objections by the Commonwealth of Massachusetts, 5-6 (June 26, 2008), available at https://coast.noaa.gov/data/czm/consistency/appeals/fcappealdecisions/
media decisions/weaverscoveenergy608.pdf ("A state may require that an applicant obtain and submit relevant state licenses and permits as a condition to possessing necessary information. … Massachusetts's Program requires submission of applicable licenses and permits, authorizing the state to object to projects when an applicant has failed to obtain and submit all applicable licenses and permits during the state's review period. As such, Appellants' failure to obtain applicable state licenses and permits provided Massachusetts with a valid basis upon which to object to the Project.")

provided to JCEP to indicate which state permits and authorizations DLCD was willing to hypothetically condition as part of its Federal Consistency Review. *See* Appendix 5.L. On December 20, 2019, DLCD received a letter from JCEP requesting clarification on DLCD's position as it relates to issuing concurrences with conditions and specifically conditioning a decision on the issuance of state permits linked to enforceable policies of the OCMP. *See* Appendix 5.M. DLCD responded to this letter to clarify the OCMP and federal consistency review process on January 10, 2020. *See* Appendix 5.N. DLCD provided a follow-up clarification letter to JCEP on January 29, 2020, to reiterate the OCMP position, specifically as it related to certain environmental quality permits and associated enforceable policies. *See* Appendix 5.O. A summary of the project overview timeline can be found in Appendix 1.A.

Public Participation

Public Participation, as required by 15 CFR § 930.2, took place in July, August, and September of 2019. DLCD published a public notice for the project on July 23, 2019 and the public comment period closed at midnight on September 21, 2019. *See* Appendix 5.E. The OCMP received approximately **20,000 public comments**. All public comments received during the public comment period were logged, reviewed, and considered for review purposes. **Approximately 80 percent of public comments were opposed to the project and 20 percent were in favor of the project.** Generally, public comments expressed concern on adverse impacts to state or federally listed species, adverse impacts to archeological and historical sites, adverse impacts to water resources, interference with navigation and recreation, insufficient compensatory mitigation, and lack of compliance with the statewide planning goals. Those commenting in favor of the project generally cited the potential economic benefits in terms of jobs and infrastructure investments associated with the project.

The Jordan Cove Project Overview

The Jordan Cove LNG Export Terminal and associated facilities are proposed to be located on the bay side of the North Spit of Coos Bay in Section 5 of Township 25 South, Range 13 West at Latitude/Longitude: 43.432238°, -124.267136°. The primary site for the LNG Export Terminal is approximately 7.5 miles up the existing Coos Bay Federal Navigation Channel, approximately 1,000 feet north of the city limit of North Bend, in Coos County, Oregon, and more than one mile away from the nearest residence. The Pacific Connector gas pipeline would extend for approximately 229 miles across Klamath, Jackson, Douglas, and Coos Counties, Oregon and terminate at the proposed LNG Export Terminal in Coos County. The pipeline would occupy 4,947.7 acres of land during construction and 1,398.57 acres of land as part of a permanent easement.

The export terminal and associated facilities (collectively, the "LNG Export Facilities") include the following components: LNG Export Terminal, Slip and Access Channel, Materials Offloading Facility, Navigation Reliability Improvements, Meteorological Station, Industrial Wastewater Pipeline, Trans Pacific Parkway / US 101 Widening, APCO Sites 1 and 2, Kentuck Site, Eelgrass Mitigation Site, and Temporary Construction Areas.

PCGP is seeking to construct and operate a new 229-mile 36-inch diameter gas pipeline. The proposed pipeline would receive natural gas from interconnections near Malin, Oregon and deliver the gas to the LNG Export Terminal near Coos Bay, Oregon. There, the natural gas would be liquefied, stored, and

loaded onto vessels for transit to Pacific markets. The pipeline is expected to transport up to 1,200,000 decatherms per day (Dth/d) at 1600 psig and produce up to 7.8 million metric tons per annum (mtpa) LNG for export.

COASTAL EFFECTS ANALYSIS

DLCD reviews federal license or permit activities for coastal impacts in five categories: natural resources, recreation and access, cultural resources, aesthetic resources, and economic resources. Coastal effects analyses can include:

1. The affected uses (*e.g.*, commercial and recreational fishing, boating, tourism, shipping, energy facilities) and resources (*e.g.*, fish, marine mammals, reptiles, birds, landmarks).
2. Where and in what densities the uses and resources are found.
3. How the state has a specific interest in the resource or use. (*e.g.*, economic values, harvest amounts, vulnerabilities, seasonal information relevant to the proposed activity).
4. Where the proposed activity overlaps with these resources, uses and values.
5. Impacts to the resources or uses from the proposed activity.
6. A reasonable showing of a causal connection to the proposed activity, including how the impacts from the activity results in reasonably foreseeable effects on the state's coastal uses or resources.
7. Why any required mitigation may be inadequate.
8. Empirical data and information that supports the effects analysis, visualizes the affected area, resources and uses with maps; and shows values, trends and vulnerabilities.

Coos Bay Regional Overview

Coos County has an extremely blue economy, generating over $179 million in goods and services from ocean resources in 2015 alone.[9] Located along the southern coast of Oregon, the Coos Bay area is home to one of the busiest ports in the state.[10] Moreover, some of the largest coastal communities on the Oregon Coast are in the Coos Bay region. As a result, these communities heavily rely on the ocean transportation sector. While the commercial and recreational fishing industry make up a large portion of the marine transportation sector, Coos Bay also serves as a port for mass cargo shipments, passenger expeditions, and tugtow operations. Each of these industries are vital to the sustainability of the Coos Bay area, as they are the main drivers of its economy. Hundreds of commercial and pleasure crafts are reliant on the area's moorage services. Many of these communities identify with the fishing community and have a unified passion for the sustainability and protection of wildlife within the area (*i.e.* shellfish, finfish, Dungeness crab.)

[9] https://coast.noaa.gov/snapshots/#/process?action=ocean&state=41&county=011&bounds=null
[10] Ocean Reports

Home to the second largest estuary in the Oregon, Coos Estuary expands throughout a majority of the county and is of great importance to the community and state. Communities with land use jurisdiction related to the JCEP include Coos County, Coos Bay and North Bend. Other smaller communities in the regional area include Charleston, Empire, Cooston, Glasgow, Hauser, and Lakeside. These communities are known for their charm, historical significance, and natural beauty. The region is also home to the McCullough Bridge and many other historical buildings and monuments.

The Coos Bay community is greatly connected to the region's natural resources. Some of these natural resources include unique environments which provide habitat for several endangered species local to the area. For example, Kentuck Inlet serves as marshland habitat for several endangered and threatened species including Coho salmon and marbled murrelet. In an effort to understand this diverse ecosystem, the region also is home the South Slough National Estuarine Research Reserve, the state's only unit of the National Estuarine Research Reserve System established under the CZMA.[11]

Recreation and access are of critical importance to the Coos Bay community. Recreation opportunities include kayaking, hiking, fishing, bird watching, waterskiing, canoeing, boating, swimming, ATV riding, camping, surfing, scuba diving, biking, and other activities.[12] [13] The region is also home to the popular Oregon Dunes National Recreation Area. Access to the ocean, natural resources, and recreational sites in the region are highly valued by communities and visitors alike. Finally, Coos Bay is also home to several aesthetic resources, such as Cape Arago, Sunset Bay, and Shore Acres State Parks, and Bastendorff Beach County Park.

Considered to be "the best natural harbor between San Francisco and the Puget Sound," Coos Bay is an estuary fed by multiple tributaries, including the Coos River.[14] The Coos Bay Estuary is a 20,566 acre riverine estuary that consists of 12 focal species and nine biotic habitats.[15] Focal species present in the Coos Bay Estuary include bat rays, bay shrimp, Chinook salmon, Coho salmon, Dungeness crab, English sole, green sturgeon, Pacific herring, shiner perch, staghorn sculpin, starry flounder, and steelhead. Coos Bay is home of several estuarine habitats, which are crucial to the survival of several species in the area. Approximately 30 tributaries enter Coos Bay, including the massive Coos River, and mix with saltwater to create prime estuarine habitat for animal species.[16] "These ecosystems and their highly

[11] http://estuaries.noaa.gov/About/Default.aspx?ID=116
[12] Traveloregon.com/places-to-go/cities/lakeside
[13] Visittheoregoncoast.com/cities/Charleston/
[14] Visittheoregoncoast.com/cities/coos-bay/
[15] West Coast Estuaries Explorer, 2019 (The Pacific Marine & Estuarine Fish Habitat Partnership selected focal fish species to encompass the diversity of life histories, habitat use, and ecological roles of species found in West Coast estuaries. The *Nursery Functions of U.S. West Coast Estuaries: The State of Knowledge for Juveniles of Focal Invertebrate and Fish Species* assessment compiled information on the presence of juveniles or the species in general within many estuaries along the West Coast and assessed the nursery habitat potential for 15 ecologically and economically important fish and invertebrate species).
[16] ODFW/Oregon State Doc/LCDC

productive tidal wetlands provide habitat for keystone species such as anadromous salmonids and brant geese, as well as economically important shellfish."[17]

In addition to serving as critical habitat for vulnerable and endangered species, Coos Bay also contains wetlands that benefit the region in a variety of ways. First, wetlands serve as filters for water pollution runoff, and are crucial to protecting marine water quality so that it is suitable for other users. Next, wetlands play a "pivotal part of the natural" ecosystem in providing habitat for migratory species, juvenile species, and other megafauna found in Oregon's wetland systems. Finally, these wetlands serve as "base for commercial fishing jobs and revenue," providing over 479 jobs in Coos County alone.[18] The Coos Bay area has a healthy blue economy, mainly focused on tourism and recreation, as well as living resources (*i.e.* fishing, aquaculture, etc.).[19] As of 2015, Coos County represented over $88 million dollars in wages for ocean jobs.[20]

Oregon includes the home of nine federally recognized Native American tribes, including the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians, the Confederated Tribes of Siletz Indians, and the Coquille Indian Tribe. Oregon respects the rights and resources of Oregon's native tribes. The Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians can "trace their ancestry back to the aboriginal inhabitants of the South Central coast of Oregon."[21] Due to its proximity to several unique natural resources, Coos Bay remains a focal point of coastal culture, for both the Native American tribes and users of the central port for the southern half of Oregon.

Direct and Indirect Effects

The term "coastal effect" is defined as "any reasonably foreseeable effect on any coastal use or resource resulting from a federal agency activity or federal license or permit activity." 15 CFR § 930.11(g). Effects include both direct effects and indirect effects that are later in time or farther removed in distance but are still reasonably foreseeable.

Natural Resources

Applicable Enforceable Policies: Goal 6, ORS 468B, ORS 196, ORS 274, ORS 469, ORS 496, ORS 509

Oregon has thoroughly documented adverse impacts of dredging on fish, wildlife, and habitat resources in the Coos Bay Estuary in the comments provided to FERC on its Draft and Final Environmental Impact Statements (DEIS) for the JCEP See Appendices 2.A, 2.B, 2.E, 2.F, and 2.G. Further, these comments are reiterated in the Oregon Department of Fish and Wildlife (ODFW) comments to Coos Bay City Council regarding Comprehensive Plan Amendment 187-18-000153: Jordan Cove Energy Project Estuary Navigation and Reliability Improvements, dated August 27, 2009. *See* Appendix 8.A.

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[17] The Coastal Connection: assessing Oregon estuaries for conservation planning.
[18] Coastal County Snapshot
[19] https://coast.noaa.gov/snapshots/#/process?action=ocean&state=41&county=011&bounds=null
[20] https://coast.noaa.gov/snapshots/#/process?action=ocean&state=41&county=011&bounds=null
[21] Ctclusi.org/history

Water Resources

Given the magnitude and scale of the project, impacting as it will hundreds of miles in Oregon including sensitive coastal areas, the project has the potential to significantly affect water quality in the state. Due to insufficient information on the best management practices JCEP proposes for use, there is continued concern from DLCD regarding adverse effects to water resources, specifically the impact on the waters of the state related to land subsidence, soil erosion, and stormwater runoff.

The project would remove some eighteen million cubic yards of material from the estuary. Suspended sediment will make the water murky and increase turbidity. Dredging of this scope could stir up contaminated sediments from past industrial activities, including polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), heavy metals, petrochemicals, pesticides and other persistent and toxic contaminants. Contaminated sediments can enter the food chain, accumulate in the tissues of animals and fish, and present significant health risks to people consuming these foods. Contaminated sediments also pose a major threat to shellfish such as oyster beds, a major local industry. Endangered Oregon Coast Coho salmon would be negatively impacted.

Wetlands

A US Geological Survey report states that "It is not widely accepted that mitigation projects are successful. Although the current wetland permit programs assume that wetland loss is being ameliorated, no long-term, interdisciplinary research shows unequivocally that a created wetland has fully replaced the lost function resulting from a wetland's destruction."[22] As part of its Removal-Fill application review (see Appendix 7.H), Department of State Lands (DSL) noted the following freshwater impacts and pipeline impacts to wetlands and waters, primarily within the coastal zone:

Freshwater Water Impacts:

- Permanent Impacts to 1.91 acres of dunal wetlands (LNG Export Facilities)
- 39, 273 cubic yards of fill
- 23 cubic yards of removal

Pipeline Impacts to Wetlands and Waters:

- Pipeline will affect 342 waterbodies, 66 perennial, 163 intermittent, 100 ditches, nine lakes or stock ponds, and four estuarine crossings
- Pipeline will cross a total of 5.3 miles of wetlands
- Construction right of way and temporary extra work areas will affect 112.9 acres of wetlands, 106.71 acres of palustrine emergent wetlands, 2.3 acres of palustrine scrub-shrub wetlands, and 2.55 acres of palustrine forested wetlands
- 0.64 acres of palustrine unconsolidated bottom or aquatic bed wetlands will be disturbed by the pipeline

[22] U.S. Department of the Interior, U.S. Geological Survey Fact Sheet FS-246-96 (https://pubs.usgs.gov/fs/1996/0246/report.pdf)

- Permanent vegetation type conversion impacts will affect a total of 0.91 acres of wetlands, including 0.73 palustrine forested and 0.18 palustrine scrub-shrub wetlands
- Approximately 9,800 cubic yards of removal and fill in waters
- Approximately 49,000 cubic yards of removal and fill in wetlands

Fish and Wildlife

Disturbance to Marine Mammals:

Numerous species of marine mammals routinely occur in the nearshore marine waters immediately outside the mouth of Coos Bay, and several species temporarily or permanently reside within the Coos estuary tidal basin.[23] ODFW has identified many species of marine mammals common in the waterway leading to the LNG Export Terminal, including eight species of whales and a species of sea lion. Additionally, California sea lions (*Zalophus californianus*) are common near the docks and marinas immediately inside the mouth of Coos Bay, and Steller sea lions (*Eumetopias jubatus*) sometimes forage in the estuary from haul out sites at nearby Cape Arago. In addition, juvenile northern elephant seals (*Mirounga angustirostris*), orca (*Orcinus orca*), harbor porpoise (*Phocoena phocoena*), and gray whales (*Eschrichtius robustus*) are occasional visitors to the tidal waters of the Coos estuary. In contrast to the temporary use of the estuary by the species of marine mammals described above, the tidal waters, submerged and submersible lands within the Coos estuary are inhabited year-round by populations of Pacific harbor seals (*Phoca vitulina*). Pacific harbor seals haul out in large numbers on the exposed tideflats at multiple sites located in the lower region of the Coos estuary and in South Slough, and they forage in the estuary for numerous species of resident and transitory estuarine fish. Breeding activities typically occur between February and May, and the harbor seal pups are born and weaned in the estuary from March to June. The ODFW Nearshore Conservation Plan considers the Oregon populations of Pacific harbor seals a Strategy Species and identifies priority conservation actions to limit anthropogenic disturbance, adhere to the federal protections developed by National Marine Fisheries Service (NMFS), and capitalize on opportunities to generate new information and fill data gaps.

Construction of the LNG Export Facilities, operation of the LNG Export Terminal, and the subsequent vessel traffic increase to up to 140 large LNG carrier trips per year would disturb Pacific harbor seal populations that reside year-round within the Coos estuary tidal basin. In particular, harbor seals will be susceptible to immediate and acute disturbance by noise associated with LNG Export Facilities construction as well as longer term chronic disturbance from vessel wakes and noise generated by passage of the LNG carriers through the Coos Navigational Channel. The FEIS includes recommendations that JCEP prepare a Marine Mammal Monitoring Plan that identifies specific measures that would be implemented to reduce noise impacts and to ensure compliance with NMFS underwater noise criteria pertaining to ESA-listed species of whales. DLCD advocated for expanding the scope of the recommended Marine Mammal Monitoring Plan to include consideration of the effects of noise on resident populations of adult and juvenile Pacific harbor seals and to minimize potential disturbance to early season harbor seal breeding and pupping activities. Additional disturbance effects include the

[23] Rumrill, 2003

potential for chronic disturbance to the harbor seal haul out sites associated with vessel wakes generated by the passage of the LNG carriers. Hauled out harbor seals disturbed by the presence of large vessels exhibit an increased likelihood of entering the water (2X increase in disturbance) and higher when the vessels are within 100 meters of the haul out site (3.7X increase in disturbance).[24] Moreover, adult harbor seals also exhibit an increased likelihood of entering the water in response to vessels whenever a pup is present (1.3X increase in disturbance). These observations indicate that harbor seal haul-outs are disturbed by the passage of large vessels, and they suggest that local fitness of the resident population of harbor seals may be reduced by vessel disturbances particularly when they occur during breeding and pupping seasons.[25]

Impacts to Wildlife in Freshwater Wetlands, Uplands, and Beaches on the North Spit:
Freshwater wetland habitats on the North Spit provide functionally important ecological features as they contribute to nutrient cycling where the sandy soil types are very limited in primary nutrients, and they provide freshwater refugia within a short distance of saline habitats. The wetlands and open water ponds are important for production of a number of amphibians including rough skinned newts (*Taricha granulosa*), red-legged frogs (*Rana aurora*), as well as several species of tree frog (*i.e.* Pacific tree frog *Pseudacris regilla*). Three-spined stickleback (*Gasterosteus aculeatus*) occupy a number of the ponds and deeper wetlands. Numerous waterfowl species transition through these ponds including mallards (*Anas platyrhynchos*), bluebills (*Aythya marila*), wood ducks (*Aix sponsa*), and Canada geese (*Branta Canadensis*).

JCEP proposes to mitigate unavoidable impacts to freshwater wetlands at the Kentuck Mitigation Site. The state uses the Fish and Wildlife Habitat Mitigation Policy provided in OAR chapter 635, division 415, to determine necessary mitigation offsets depending on the functions and values of the habitat being impacted, what the policy refers to as Habitat Categories. From 2011- 2014, ODFW determined that within the project area for the JCEP Terminal Facilities and workforce housing there is an approximate Habitat Category 2 total of 33.9 acres as follows: 16.7 estuarine/intertidal habitat; 0.3 acres of low salt marsh; 5.8 acres of intertidal unvegetated sand; 4.7 acres of algae/mud/sand; 3.4 acres of shallow subtidal; and 3.0 acres of eelgrass habitat within the project location where estuarine dredging is proposed. JCEP proposes dredging 15.4 acres of deep subtidal Habitat Category 3 too. The Fish and Wildlife Habitat Mitigation Policy, dictates providing offsets for temporarily impacted areas that may be unavailable to fish and wildlife while vegetation is recovering.

DLCD also considered the effect of converting upland habitat on upland wildlife resources displaced by construction and operation of the LNG Export Facilities. The North Spit is used by a variety of important wildlife such as the western snowy plover (*Charadrius nivosus nivosus*), coastal marten (*Martes caurina*), pacific fisher (*Pakania pennantii*), bald eagle (*Haliaeetus leucocephalus*), rookeries for great blue heron (*Ardea herodius*), black-tailed deer (*Odocoileus hemionus*), American beaver (Castor Canadensis), mountain lion (*Puma concolor*), Roosevelt elk (*Cervus elaphus rooseveltii*), porcupine (*Erethizon dorsatum*), various bat species, and black bear (*Ursus americanus*). There are also 11 species of

[24] Mathews et al., 2016
[25] Mathews et al., 2016

amphibians (8 salamanders, 3 frogs) and at least 10 species of reptiles that have been found to occur on the North Spit.

Impacts of the LNG Export Facilities on Snowy Plover Nesting and Foraging Habitat:
DLCD is particularly concerned about the JCEP's impacts to western snowy plover (hereafter, snowy plover) nesting and foraging habitat. This species is a federally listed threatened species and is also listed as Threatened on the Oregon Endangered Species Act.[26] Snowy plovers populations have declined on the Pacific coast over the past century, but recent nest monitoring has shown stable to increasing populations. The reason for the recent increase is the intensive and coordinated management by state (ODFW, OPRD) and federal agencies (USFWS, USACE, USFS, BLM) to address the threats to the plover including 1) habitat destruction caused by development and recreation, 2) resource extraction, 3) invasion of non-native beachgrass (*Ammophila spp*.), and 3) increased predation by corvids (ravens and crows) and other predators (gulls, coyotes, skunks, etc.).[27] The North Spit is a particularly important component of snowy plover habitat along the Oregon coast, with the highest numbers of nesting plovers and the highest nest success rates among all plover sites.[28] One of the primary reasons for the North Spit's success is the multi-agency maintenance of grass-free sandy beaches within snowy plover habitat restoration areas as well as OPRD recreation management and USFWS predator control. Significant funding and resources have gone into snowy plover recovery on the North Spit. Snowy plover abundance and productivity at the North Spit requires continued management.

Despite these constant and expensive management efforts, there are additional threats which cannot be managed locally. With climate change, the North Spit is experiencing an increased frequency and intensity of storm events. Overwash from high tide events during these storms destroy nests, and prevailing winds during these storm events can cause blowing sand to bury nests. With the predicted rise in sea levels associated with climate change, this only increases the risk of loss of beach habitat for snowy plovers.

Any additional threat puts the snowy plover at risk of declining again. Impacts to plover nesting and foraging areas may come from the noise associated with construction and operation, but more likely from the increased recreational pressure and subsequent increase in predators on the North Spit. On page 4-322 of the DEIS, FERC states "Jordan Cove terminal construction and operations personnel would likely use the North Spit for recreational purposes and increased recreational use could result in increased plover disturbance including destruction of nests by dogs, off-road vehicle traffic, inadvertent trampling, or increased predation if scavengers and predators (corvids, coyotes, striped skunk, feral cats) are attracted to nesting areas due to the presence of trash and food remains." The proposed activity will effect snowy plover and the recovery efforts on the North Spit.

[26] ORS 496.171-192, also see OAR 635-100-0105
[27] USFWS 2007
[28] Lauten et al. 2018, M. Nugent ODFW personal communication

Impacts to Coastal Marten Habitat:

Adjacent to the slip is a large dune occupied by a mature shore pine vegetation community that is potential habitat for the coastal marten (*Martes caurina*). Coastal martens have a limited range and occur in coastal shore pine as well as late-successional mixed conifer forests. Coastal martens have an apparently low survival rate in fragmented forests elsewhere in the United States, and habitat connectivity has been identified as one of the key conservation strategies for this species. Abundance and distribution of the coastal marten in Oregon is still largely unknown, though ongoing research by ODFW, universities, and federal partners is underway. Coastal martens have been documented on trail cameras in close proximity to the LNG Export Terminal site in 2018 and in identical shore pine habitat. Conservation concern for the coastal marten is on the rise. Currently, ODFW considers the coastal marten a State Sensitive Species under OAR 635-100-0040 and an Oregon Conservation Strategy Species. Coastal martens were recently petitioned for listing on the federal Endangered Species Act list[29] and the USFWS has not yet issued its decision.

Impacts from the PCGP Pipeline to Fish and Wildlife Habitat:

The PCGP (pipeline) portion of the project proposes construction of a 36" steel gas pipeline extending 229 miles from the North Spit of Coos Bay to Malin that would connect the LNG export facility to the Ruby LNG pipeline carrying gas primarily from the Rocky Mountain region. The pipeline will cause significant direct and indirect impacts to fish and wildlife habitat, as well as the indirect impacts to water quality associated with an increase in watershed runoff caused by this project, particularly in areas where the pipeline is proposed on slopes exceeding 50%, and where vegetation will be removed from riparian corridors. Impacts include the Coos, Coquille, South Umpqua, and Upper Rogue watersheds. According to FERC, overall the pipeline would affect 352 waterbodies, including 69 perennial streams, 270 intermittent streams, nine perennial ponds, and four estuaries, many of which are in the coastal zone. This is significant because all of these waterbodies provide habitat for fish and wildlife.

In the coastal zone, JCEP proposes to utilize horizontal directional drilling (HDD) for the crossing of the Coos Bay estuary and the Coos River. For other crossings, the applicant would use dry open-cut crossing methods. These actions will both temporarily and permanently impact fish and wildlife habitats in the coastal zone and must be conducted in a manner consistent with the ODFW Fish and Wildlife Habitat Mitigation Policy, the ODFW recommended In-Water Work Windows, and receive applicable ODFW In-Water Blasting and Fish Passage authorizations.

The current and desired future condition of the waterbodies affected by the pipeline is predominantly linked to management actions in the riparian habitats and adjacent uplands. Historically, dredging, rip-rap installation, upland and tidal mudflat leveling, filling of tidal wetlands and saltmarsh, and other development and utilization have impacted some of the aquatic habitats in Coos Bay. However, improvements in forest management that reduce sediment inputs and regulations conserving wetlands and waterways led to substantial recovery of the ecological potential of Coos Bay. Many of the pipeline

[29] 80 FR 18741

impacted streams have historically been ecologically degraded by a number of human impacts including: removal of native coastal riparian forest, road construction with subsequent chronic sediment contribution, and debris torrent and mass-wasting events related to forestry activities. The majority of these streams, many of which are critical for native salmon, trout, sculpin, lamprey, and other aquatic species production, are in a gradual trend of recovery following management guidelines and best management practices (BMPs) implemented through agency and private ownership coordinated efforts.[30] The proposed pipeline construction and maintenance with associated long-term disturbance would introduce an added burden inhibiting ecological recovery. The proposed pipeline stream crossings have the potential to negatively affect watercourse ecosystems through alteration of channel beds and banks, increasing total suspended solids (TSS), alteration of substrate size and quantity in the reach, and changes to the immediate area benthic community. These impacts can result in deleterious impacts for fish due to decreased food availability, changes in foraging range increasing predation, aquatic habitat simplification, and decrease in overall health.

Placement of the pipeline on steep slopes and direct routing parallel to the slope may have geomorphic affects. Coastal sandstone soils are highly susceptible to mass-wasting when undercut and generally disturbed. The project includes construction of an extensive road network to access the pipeline installation and facilitate pipeline maintenance, which will further create potential for mass-wasting slope failures and general sediment production over the current condition. Additionally, the proposed access road networks will likely have long-term chronic effects to fish and wildlife unless seeded, mulched, and closed. Poor stream health conditions for anadromous fish production in the Coos, Coquille, and South Umpqua River basins is largely related to upland disturbance that increase sediment loading and loss of riparian forest since 1900. Sediment transport to streams is a substantial factor currently suppressing recovery of Oregon Coast Coho salmon a threatened species under the federal Endangered Species Act (ESA). Extensive research has documented the impacts of sediments to salmonids. Work to reduce sediment input into coastal and inland streams that will be impacted by the pipeline is foundationally critical for enhancing spawning and rearing habitat for fall Chinook salmon, Oregon Coast threatened Coho salmon, Pacific lamprey (*Entosphenus tridentata*), winter steelhead (*O. mykiss irrideus*) and coastal cutthroat trout (*O. clarki clarki*). Water quality is directly linked to hatch rates and food available for those species. Sediment loading above natural background levels contributes to embedding of substrates, which often results in reduced hatch rates for eggs in redds, inability of fry to emerge from redds, inhibited production of macroinvertebrates that live in the interstitial spaces of gravels, and impacts on the ability of fish to obtain food due to the nature of salmonids to feed predominantly by using their sight.[31]

Impacts to Marbled Murrelet and Northern Spotted Owl Habitat:
The PCGP project would impact late-successional forest wildlife such as the marbled murrelet and the northern spotted owl. Both of these species are listed as “threatened” under the ESA and the Oregon Endangered Species Act, ORS 496.171 to 496.192; OAR 635-100-0105. Both species are experiencing

[30] Oregon Coast Coho Conservation Plan; ODFW (2007).
[31] Burns 1970; Hall and Lanz 1969; Weiser and Wright 1988; Suttle et al. 2004; Tripp and Poulin 1992; Waters 1995

declines in higher suitability habitat. For marbled murrelet as an example, higher-suitability habitat in Oregon is estimated to have reduced by nearly 10 percent, from 853,400 acres in 1993 to 774,800 acres in 2012, a net loss of 78,600 acres.[32] On federal lands, habitat losses were mostly due to wildfire, whereas those on nonfederal lands were largely the result of timber harvest.

The proposed activity will effect marbled murrelet and northern spotted owl habitats. FERC determined that the proposed pipeline would impact over 2,000 acres of forest including over 750 acres of late-stage old growth forest that provides habitat to marbled murrelet, northern spotted owl, and other federally-listed and state-listed threatened and endangered species.[33] FERC notes the potential impacts to both marbled murrelet and the northern spotted owl, including clearance of large trees and understory essential for nesting habitat to create the pipeline right-of-way and for temporary work areas, as well as impacts from ambient noise and human disturbance.

Furthermore, for marbled murrelet, which forages at sea, LNG carrier traffic and their associated impacts (ballast water, dredging, risk of fuel and lubricant spills, etc.) creates additional risk for the species. FERC describes the minimization measure proposed by the applicant to mitigate for these risks, which simply involves a timing restriction for tree removal within the breeding season. ODFW finds this timing restriction measure to be inadequate and looks to the suite of minimization and mitigation measures identified in the 2014 *Revised Conservation Framework for the Northern Spotted Owl and Marbled Murrelet: Jordan Cove Energy and Pacific Connector Gas Pipeline Project* as essential to addressing the coastal effects of the project.[34]

Air Resources

The transport, storage, and liquification of fracked natural gas exposes workers and adjacent communities to numerous toxic air pollutants. Airborne toxins pose more serious risks for workers, as likelihood and severity of exposure increases significantly with proximity to operations, as well as during particular stages of production.[35] The proposed activity would affect air quality in the coastal zone.

Critical Habitat

JCEP LNG Export Terminal Impacts to the Coos Bay Estuary:

JCEP will affect aquatic habitats of Coos Bay and upland habitats on the North Spit. Coos Bay is the largest estuary located entirely in Oregon and supports populations of fish and shellfish that contribute to large commercial and recreational fisheries. The North Spit is an ocean peninsula land feature that provides estuarine, ocean, wetland, and upland habitats to fish and wildlife within a very small geographical area. This unique landform and bay provide a number of strategic benefits for production of fish and wildlife. The aquatic and upland habitats encompassed by the LNG Export Facilities have been subjected historically to a number of landscape and waterway alterations including: dredging,

[32] Raphael et al. (2016)
[33] ORS 496.171 to 496.182
[34] USFWS 2014
[35] McKenzie, Human health risk assessment of air emissions from development of unconventional natural gas resources, 2012.

riprap installation, leveling, and removal of native coastal pine forest, filling of wetlands, and other development related impacts. These habitats historically would have been primarily characterized as Habitat Category 2 or 3 habitats, (providing essential, important, and/or limited habitat function for fish and wildlife) under the ODFW Fish and Wildlife Habitat Mitigation Policy. Although negatively impacted historically, much of the tidal, subtidal, and upland habitats at the proposed project site have received only minimal disturbance in the past two decades and substantial recovery of ecological function has occurred.

The subtidal, tidal, intertidal, and shoreline features of the Coos Bay estuary tidal basin provide critical habitat for a number of culturally and economically important game and non-game species including, but not limited to: Dungeness crab (*Metacarcinus magister*), red rock crab *(Cancer productus*), cockles (*Clinocardium nuttallii*), gaper clams (*Tresus capax)*, butter clams (*Saxidomus giganteus)*, littleneck clams (*Protothaca staminea*), rockfish (*Sebastes spp.*), lingcod (*Ophiodon elongates*), greenling (*Hexagrammos decagrammus*), California halibut (*Paralichthys californicus*), English sole (*Parophrys vetulus*), Pacific sand dabs (*Citharichthys sordidus*), ghost shrimp (*Neotrypaea californiensis*), mud shrimp (*Upogebia pugettensis*), starry flounder *(Platichthys stellatus)*, smelts (Osmeridae family), (Engraulidae family), sardines (Clupeidae family), fall run Chinook salmon *(Oncorhynchus tshawytscha)*, green sturgeon *(Acipenser medirostris)*, white sturgeon *(A. transmontanus)*, (OC) ESA threatened coho salmon *(Orncorhunchus kisutch)*, and possibly Pacific lamprey (*Entosphenus tridentata*). There is some potential that Pacific smelt (eulachon) (*Thaleichthys pacificus)* may also occur in the vicinity of the LNG Export Terminal. Additionally, the tideflats and subtidal regions of the lower Coos estuary are sites for the commercial harvest of bay clams (gaper clams, butter clams, cockles) and the mudflats in the JCEP area support a commercial fishery for ghost shrimp (*Neotrypaea californiensis*).

Native Olympia oyster (*Ostrea lurida*) have recently re-established as scattered populations within the marine and polyhaline regions of the Coos Bay estuary where they typically occur as individuals or small clusters attached to rip-rap, rock, shell, or other hard substrata. ODFW considers the recovering populations of Olympia oyster a Strategy Species in the Nearshore Conservation Plan.[36] These populations of Olympia oysters are particularly sensitive to smothering and burial by silt and other suspended materials; the proposed activity could expose the oysters to suspended sediment and siltation during dredging activities associated with excavation of the LNG Export Terminal. The proposed slip would create a new deepwater alcove backwater that could affect water flow patterns in the vicinity, salinity patterns, turbidity associated with initial and repeated dredging, and shallow water conversion to deepwater.

Dredging Impacts to Estuarine Habitats and Communities:
Construction of the vessel slip, access channel, temporary material barge berth, the material offloading facility, and rock pile apron will directly affect estuarine habitats. The estuarine portion of the LNG Export Facilities would directly impact 37 acres of estuarine habitat, including two acres of eelgrass habitat, 13 acres of intertidal habitat, four acres of shallow subtidal habitat, and 18 acres of deep

[36] www.oregonconservationstrategy.org

subtidal habitat. The proposed activity also includes extensive dredging and excavation of four submerged areas of the sub-tidal zone in Coos Bay (total 40 acres) along the Federal Navigational Channel and vessel access route to improve navigation reliability for the LNG carriers.

Unconsolidated soft-sediment habitat is widespread in the Coos Bay estuary tidal basin where it occurs extensively throughout the intertidal zone and sub-tidal zone along the bottoms, sides, and margins of primary and secondary tidal channels.[37] Soft-sediment habitats provide a series of diverse, productive, and dynamic ecological functions in the estuary, including provision of habitat and forage areas for invertebrates, fish, birds, and marine mammals, as well as serving as an important source of detritus. Soft sediments also play an important role in the microbial and biogeochemical transformations of organic materials and nutrient cycling, and they typically serve as a sink or reservoir for the deposition of water-borne particles. Diverse communities of motile, epifaunal, and infaunal invertebrates inhabit the soft-sediments, and the communities of crabs, shrimp, amphipods, polychaete worms, copepods, hydroids, anemones, clams, and other invertebrates are specifically adapted to survive, feed, grow, and reproduce themselves in the unconsolidated sediments.[38] Microbial activity and deposition of organic matter associated with fine-grained sediments together support a complex food web that includes multiple resident (infaunal, epifaunal, motile) and transitory (seasonal, migratory) species. In particular, mixed communities of bay clams (*i.e.*, gaper clams, butter clams, cockles, and other species) are known to occur throughout the intertidal zone in the area immediately west and north-west of the airport runway.[39] The known clam beds within ODFW area AP (Airport Runway) are located within 50 meters of the Temporary Dredge Line for the Federal Navigation Channel and within about 500 meters of the proposed JCEP Access Channel.

Mixed communities of shellfish, such as Dungeness crab, red rock crab, bay shrimp, gaper clams, butter clams, littleneck clams, softshell clams, cockles, and many other species are year-round residents of the intertidal and sub-tidal areas of the Coos Bay estuary. Some of these shellfish are motile (*i.e.,* crabs and shrimp) and periodically move to different locations or migrate through the intertidal and sub-tidal zones, while others are stationary (*i.e.,* bivalves) and remain largely in place over the duration of their adult lives. The mixed communities of living bivalves and the beds of their non-living shells (*e.g.*, shell rubble or shell hash) are particularly important because they function to stabilize unconsolidated sediments and provide heterogeneous habitat for numerous species of adult and juvenile fishes, crabs, shrimp, amphipods, worms, and other estuarine organisms. Moreover, filter-feeding by dense populations of living clams can sometimes play an important role in the removal of phytoplankton and smaller particulate materials, thereby decreasing turbidity and increasing light penetration through the estuarine water column. Consequently, maintenance of suitable soft-sediment habitat is essential for survival of the moderately long-lived (life-span 10-15 years or longer) gaper, butter, and cockle clams, particularly in the sub-tidal zone. When soft-sediment habitat is chronically disturbed and altered by dredging of the subtidal zone, there may be a permanent loss and impact to benthic invertebrate

[37] Cortright et al., 1987
[38] Simenstad 1983; Emmett et al., 2000
[39] ODFW 2009; area AP

populations and a decline in the biodiversity of benthic communities. Loss of some or all of these sub-tidal populations of bay clams has implications for both the ecological functioning of sub-tidal habitats and the ability of the bay clams to serve as broodstock to support the recreational and commercial shellfish fisheries in Coos Bay.[40]

It is expected that dredging and removal of the soft-sediments will likely have substantial and immediate local impacts on the sub-tidal populations of benthic invertebrates and shellfish, such as gaper clams, butter clams, and cockles. This may include the physical removal of the clams and their surrounding sediments, as well as a disruption of the mixed ecological communities of shellfish, mobile and infaunal invertebrates, and fish that make use of the sub-tidal habitats. Dredging would directly remove benthic organisms (*e.g.*, worms, clams, benthic shrimp, starfish, and vegetation) from the bay bottom within the access channel and navigation channel modifications. Mobile organisms such as crabs, many shrimp, and fish could move away from the region during the process, although some will be entrained during dredging so that direct mortally or injury could occur.

Large-scale dredging modifications that include subsequent maintenance dredging every 5-10 years may not provide the opportunity for bay clams and other shellfish to recruit successfully and fully re-colonize after the repeated disturbance events. It is also likely that benthic food resources may also be impaired or lost for other estuarine species (*i.e.*, forage fish, salmonids, crab) as a result of dredging actions. Consequently, dredging activities that significantly disturb or remove the mixed communities of long-lived bay clams from soft-sediment habitat in the sub-tidal zones of Coos Bay are expected to have longer-term impacts that extend well beyond a time period of many years.

The JCEP also includes extensive dredging and excavation of four submerged areas of the sub-tidal zone in Coos Bay along the Federal Navigational Channel and vessel access route to improve navigation reliability for the LNG carriers. These actions include dredging of 27 acres of deep subtidal habitat at bend areas along the Federal Navigation Channel, and the dredge lines for this additional activity would include disturbance and modification of another 13 acres of mostly deep subtidal habitat. Following maintenance dredging would disturb the 40 acres of subtidal habitat and result in a short-term reduction in the ecological function of these areas by disturbance of the benthic and epibenthic organisms.

Impacts to Eelgrass:

The JCEP includes construction of a marine terminal slip and dredging of an access channel. These activities will permanently destroy about 1.9 acres of established native eelgrass (*Zostera marina*). Dredging in the intertidal and shallow subtidal zones within the JCEP area is expected to have significant deleterious effects on native eelgrass habitats and the species found therein. Beds of eelgrass occur at several locations throughout the Coos Bay tidal basin where they provide numerous ecological functions, including heterogeneous habitat for a number of fish and wildlife species, nursery habitat for invertebrates and fish, forage areas for shorebirds and waterfowl, primary production and a source of organic-rich detritus, stabilization of unconsolidated sediments, trapping of suspended sediments, and

[40] D'Andrea 2012

contribute to improvements to estuarine water quality.[41] In particular, the emergent blades and rhizomes of eelgrass beds provide complex and heterogeneous multi-dimensional habitat within the unconsolidated soft-sediments in the intertidal and shallow subtidal zones. In many cases, the abundance and species composition of macroinvertebrate, shellfish, and fish communities differ within eelgrass beds in comparison with un-vegetated areas where eelgrass is absent. Eelgrass beds are known to provide habitat for numerous species of invertebrates, including polychaete worms, cockles, gaper clams, butter clams, littleneck clams, Dungeness crab, grass shrimp and epibenthic invertebrates such as harpacticoid copepods, isopods, and gammerid amphipods. In addition, eelgrass beds also provide habitat for a diverse community of fishes, including juvenile salmonids, sculpin, English sole, shiner perch, lingcod, rockfish, pipefish, and herring.

Long-term efforts to remove root wads, large woody debris, and other natural structures embedded in the unvegetated soft sediment of Coos Bay in order to facilitate commercial shipping and recreational boating have greatly exacerbated the lack of structural complexity along the shoreline and further increase the ecological importance of eelgrass beds. The heterogeneous canopies of eelgrass beds provide both primary complexity and an ecological edge effect that presents an important biophysical transition zone for fish and invertebrates that forage in adjacent un-vegetated habitats.

Construction and operation of the LNG Export Terminal would require massive dredging operations in the Coos Bay Estuary, which is critical habitat for Coho salmon and is home to thriving oyster farms, traditional shellfish gathering areas, as well as other aquatic and estuarine life.[42] Dredging and disposal of dredged material will increase turbidity, degrade the shoreline and the bay and negatively impact habitat in the area.

JCEP would develop an Eelgrass Mitigation Site to offset potential impacts to eelgrass habitat from construction and operation of the LNG Export Facilities. The Eelgrass Mitigation Site project components include re-contouring of an existing un-vegetated sandbar to create an area of optimal eelgrass habitat, and transplanting eelgrass from a donor site into the mitigation area. Specifically, the JCEP proposal is to reduce and re-contour a 9.34 acre area of the intertidal shoal down to an average 1.0 to -2.0 ft NAVD 88 (-0.28 to -1.28 ft MLLW) depth to create 6.78 acres of optimal eelgrass habitat. In comments provided to the Coos Bay Planning Commission on September 24, 2019, the ODFW clearly describes adverse impacts to eelgrass habitat and the significant ecological value the habitat provides. *See* Appendix 8.F.

As part of DSL's Removal-Fill application review, they note the following Estuarine Impacts (see Appendix 7.H):

- Permanent impact to 3.08 acres of eelgrass beds (slip and access channel and pile dike rock apron)
- Permanent impact to 19.54 acres of mudflat, salt marsh, and shallow subtidal areas (slip and access channel)

[41] Thom et al. 2003; Kentula and DeWitt 2003
[42] Retzer, 2013

- Permanent impacts to 81.63 acres of deep subtidal habitats (NRI dredging and slip and access channel dredging)
- Total fill in estuary 39, 483 cubic yards
- Total removal in estuary 1,784,475 cubic yards

Introduction of Non-indigenous Species through Ballast Discharge:
Movement and translocation of ballast water associated with vessels is widely considered as the most significant transfer mechanism for nonindigenous species in the marine environment. Filling of LNG carriers at the LNG Export Terminal will be coupled with concurrent discharge of ballast water that will exit the terminal area and mix with the tidal waters of the Coos Bay estuary. Consequently, it is expected that the Coos Bay estuary will receive a very large volume of ballast water that originated in foreign ports, as well as seawater that was pumped into the vessel at sea during transit. Such ballast water typically contains a taxonomically diverse and reproductively viable community of estuarine and marine organisms that have potential to establish themselves as non-indigenous species within the estuarine tidal basin.

Habitat Loss at the JCEP LNG Terminal Site:
A substantial proportion of the upland habitats at the JCEP sites adjacent to the bay are not in pristine condition; however, they have been in a relative state of quiescence for more than a decade. ODFW considers the area predominately as Habitat Category 3, 4, and 5 habitats under OAR 635-415-0025. A substantial component of forested dune habitat remains in Habitat Category 3 condition at the site. The proposed activity would alter these lands through conversion of terrestrial lands into submerged lands; the elimination of the viability of remaining dune and forested dune habitats, largely due to encroachment, removal, disturbance, etc.; and reduction in the viability of immediately adjacent habitat as a result of construction of the LNG Export Facilities, including direct forest clearing of at least 90.0 acres. Further, impacts to the uplands and wetlands at the JCEP sites will essentially render much of the affected habitats area incapable of supporting the native plant and wildlife species that currently occupy the site due to a number of factors including, but not limited to the direct removal and disturbance (*e.g.* disturbance factors such as ship moorage/loading activities and road traffic, machinery and compressor noise), alteration of the surfaces through paving, placement of gravel, removal of the organic layer on the sandy soils, etc. that eliminate capacity of the habitats to support fish and wildlife, and invasion of competitive plants and non-native or native plant and animal colonists such as crows, starlings, and Scotch broom (*Sarothamnus scoparius*) that result in a loss of habitat capacity and function due to competitive interactions. Finally, daily human disturbance occurring post-construction during the operations at the site and the creation of the LNG Export Facility would further fragment the North Spit peninsula, a uniquely rare habitat type on the Oregon Coast.

Recreation and Access Resources

Applicable Enforceable Policies: Goal 6, ORS 468B, ORS 196, ORS 274, ORS 496, ORS 509

The proposed activities of dredging and the operation of the facility would affect public water recreation opportunities to use the navigable waters in Coos Bay and Jordan Cove. Recreational fishing activity in the bay occurs throughout the year for various targets. Safety zone requirements will likely affect all other users of Coos Bay. Coos County reviewed JCEP's position on impacts on local vessels of the Coast

Guard Safety and Security Zone.[43] The county determined that a 500-yard security zone unique to LNG carriers must affect recreational boaters and all other users, reasoning that:

> "the estuary is rarely, if ever, wider than 1000 yards in the vicinity where the LNG ships would use the estuary, and therefore, as a practical matter, the security zone covers the entire width of the estuary in most places. See also Exhibit 54 (State of Oregon DLCD Staff Comments on FERC DEIS, at p. 204). But where exactly does that leave things? The opponents seem to conclude that vessels will need to avoid the entire estuary from the mouth of the bay to the LNG tanker docking stations during LNG tanker passage. If that is indeed the case, then it seems like such a scenario presents a much stronger case for the conclusion that the LNG tankers "substantially interfere" with other navigation. If, however, the US Coast Guard will simply make other vessels move as far away from the channel to the banks (as much as reasonably practical considering the boat's draft), then a substantial inference seems less likely."[44]

The proposed activity would affect recreational navigation; the level of "interference" between LNG tankers and other boat traffic is unclear. This same issue is just one of several that would adversely affect commercial fisheries. All other boats and ships that use the bay are smaller than those proposed as LNG carriers. Besides wood chip carriers, numerous recreational trips are provided and utilized on a range of vessels, including the historic Tall Ships, Lady Washington, and Hawaiian Chieftain. These visit frequently for extensive tourist opportunities, including adventure and evening sails and special events in the bay.

The proposed activity affects the estuary and associated coastal resources used for recreation. Construction and operation of the LNG Export Facility would affect access to, and interest in, the area for recreation. The Coos Bay-North Bend-Charleston area is dubbed "Adventure Coast" and opportunities for water and land-based tourism and recreation are highlighted throughout the region and marketed by the Coos Bay–North Bend Visitor & Convention Bureau.[45] BLM administers lands that include 709 acres classified as an Area of Critical Environmental Concern (ACEC); the remainder are designated as Recreation Management Areas (RMAs). The North Spit Trail System, which is approximately 300 feet from the Trans-Pacific Parkway, is close to the project area. FERC indicates that more than 6,000 people travel annually on the sand road to the North Jetty. Traffic alone in the construction phase would interfere with access to and from the recreational areas of the North Spit. The southern boundary of the Oregon Dunes National Recreation Area (ODNRA) is about 100 feet north of the LNG Export Terminal, across the Trans-Pacific Parkway, and the Horsfall Campground is located about one-half mile to the northeast. On the other side of the recreation area, off road vehicles are

[43] Coos County File No. REM-19-001

[44] Coos County Order to Reopen the Record [Remand File No. REM-19-001/LUBA Case No. 2016-095], August 23, 2019, at p. 2.

[45] https://oregonsadventurecoast.com/.

prohibited and there are bike trails, water trails, and many recreational assets that are near and associated with the general area.

Cultural Resources

Applicable Enforceable Policies: Goal 6, ORS 468B, ORS 196, ORS 274, ORS 496, ORS 509

The 500-acre parcel of land on which the LNG Export Facility would be sited lies on the traditional territory of the Coos Tribe, Siletz Tribe and others. The proposed activity would affect tribal access to salmon and shellfish, aquatic resources important to both tribal culture and livelihoods. The excavations along the PCGP route, export facility, and shipping channel would impact the traditional homelands and culturally significant landscapes of six federally recognized tribes. The rivers, streams, wetlands, shoreline, intertidal resources, and subtidal habitats are traditional locations for fishing, gathering, and transportation used by Tribal nations. The lands of the North Spit and the Coos watershed and geographic area of Coos Bay are considered by the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians (CTCLUSI) to be a Traditional Cultural Property (TCP), "Q'alay ta Kukwis schichdii me." The proposed activity would affect traditional subsistence and the cultural resources of the Coos Indians.

Tribal lands and lands traditionally used by tribal members are the sites of construction of both the LNG Export Terminal and along 229 miles of pipeline. The tribes recognize the high likelihood that the construction of the Project would destroy cultural resources, especially sacred grounds—grave sites and buried villages, as well as traditional cultural plants, animals, fish and marine life. The tribes have indicated that such losses would have serious emotional and cultural consequences for tribes and significant adverse impacts on their traditional way of life and economy, especially the loss of fishing and shellfish harvesting. Tribal governments have expressed concern that the currently proposed fish salvage methods would not adequately capture and protect lamprey, which is an important resource to tribal communities.

Aesthetic Resources

Applicable Enforceable Policies: Goal 6, ORS 468B, ORS 196, ORS 274, ORS 469, ORS 496, ORS 509

One of the policies that the CZMA and the OCMP seek to promote is the preservation and protection of aesthetic values and aesthetic coastal features.[46] FERC highlights serious adverse effects of the LNG Export Facilities on the region's aesthetic resources, stating,

> "Constructing and operating the Jordan Cove LNG Project would result in ***substantial short-term and long-term changes to the existing landscape within the viewshed*** of the Project. As described in the preceding sections, ***the LNG tanks and related facilities at the terminal would be visible from a range of viewpoints within the surrounding area*** and the visual effects were assessed to be low to

[46] 16 USC §§145(2), 1452(2)(F).

> high dependent on the user and viewpoint location. Jordan Cove attempted to optimize design factors for the LNG tanks and has adopted various measures to mitigate for the visibility of the Project facilities, including use of landform contouring and stabilization, vegetative screening, architectural treatments, and use of hooded lighting. However, based on the size and location of the proposed LNG facilities we conclude that the Jordan Cove LNG portion of the Project ***would significantly affect visual resources*** for some views and viewing locations." [emphasis added].[47]

Other visual issues include light pollution affecting westward views of sunsets and the night sky. The dredge spoil piles that would be placed at APCO sites 1 and 2 would tower 50 to 60 feet above ground level of the historic McCullough Bridge, a National Register of Historic Places structure, and would be highly visible throughout the area as well as from all traffic crossing the bridge, especially south bound traffic coming into North Bend.

Noise has significant adverse effects on human health and safety. These effects include sleep disruption, communication interference, cardiovascular and endocrine effects, job performance decrements, and adverse educational effects. The cities of Coos Bay and North Bend, and surrounding residential and recreational areas already experience higher than recommended levels of noise, primarily from transportation sources. Construction of the LNG Export Terminal is expected to take 3-5 years and would produce high noise levels from heavy construction vehicles as well as extremely disturbing noise from pile driving. Once built the LNG Export Terminal would operate continuously, generating very high noise levels. Other noise sources include excavation of a significant volume of solid bedrock, explosive pulsed noises associated with dredging operations, HDD operations will generate continuous noise for the entire duration of the drilling and pipe pull back procedures, and pile driving will create pulsed noise for an extended and imprecisely defined period of time.

Economic Resources

Applicable Enforceable Policies: Goal 6, ORS 468B, ORS 196, ORS 274, ORS 469, ORS 496, ORS 509

Although only about 225,000 of the state's nearly four million residents live in coastal counties, many Oregonians use, rely on, or benefit from the coastal region that supports almost a $60 billion annual coastal and ocean economy driven by fisheries, agriculture, timber, tourism, and ocean industries. Many of the affected communities are eager for jobs, tax revenue and economic development. Economic prosperity is a necessary condition for healthy communities. The proposed activity would recognize both economic benefit and detriment. The proposed activity represents a major investment in the Coos Bay region. Economic effects of the proposed activity also include potential adverse environmental effects and impacts to the long-standing current and future economically important industries (*e.g*. commercial fishing, recreational fishing and hunting, aesthetics, wildlife viewing, and aquaculture) that depend on healthy and abundant fish, wildlife, and habitats.

[47] DEIS, p. 4-586.

Recreation and Tourism

According to a Travel Oregon study, outdoor recreation continues to be one of the fastest-growing travel markets in the United States. On the Oregon Coast, outdoor recreation accounted for about 10 percent of all visitor spending in 2017, amounting to about $200 million. In 2017, visitors to Coos County spent more than $258.1 million on hotel stays, food & beverage, shopping, recreation, fuel, and more. Even more importantly, visitor spending in Coos County supports more than 3,300 jobs, more jobs than Bay Area Hospital and the forestry/wood products industry combined. Travel generates $1.5 million in local tax revenues. In comparison, direct visitor spending in Oregon topped $11.8 billion in 2017, a 4.7 percent increase over 2016 spending and increased to $12.3 billion in 2018. This spending supports more than 112,000 Oregon jobs and generates $314.5 million in state tax revenues. Visitor spending in Oregon in 2017 divided by the total population of Oregon, 4,141,100 is $2,850. This number goes up exponentially when you look solely at Coos County. For every resident in Coos County, approximately 63,310, visitors to the county spent $4,076 per resident. The Cities of Coos Bay and North Bend, as well as the Coquille Indian Tribe, collect a seven percent tax on overnight stays in hotels, motels, bed & breakfast inns, RV parks and vacation rentals and a portion of this provides a portion of this tax revenue to help with marketing. Travel generates $1.5 million in local tax revenues.[48] Additionally, there are numerous recreation and tourism based businesses in the Coos Bay region that depend on healthy and vibrant recreational opportunities in the Bay.

Fisheries

Fishing activity in the bay occurs throughout the year for various target species. The recreational fishing industry in Oregon has broad scale economic impact and is tied to trips in and out of the bay region. The recreational crab fishery would be among those most vulnerable, as it would be adversely affected by the habitat alterations from construction and dredging and frequent tanker traffic in the navigation zone of the estuary. In addition to clams and crabs, other invertebrates that are harvested commercially and recreationally in the bay include oysters, bay mussels, ghost shrimp, kelp worms, and mud shrimp. Each of these species has a different reproductive cycle and uses different aspects of the habitat.

LNG vessel traffic in Coos Bay would further interfere with ocean-based fisheries. The Dungeness crab fishery is consistently the most valuable single species commercial fishery in Oregon, making the crustacean's well-being of special significance to the economy of Coos Bay and the state. Coos Bay is a crucial "nursery" habitat for the Dungeness crab. The highest number of juvenile crabs are found in soft sediments and eel grass beds of estuaries, where the young crabs find food and shelter from predators.

The Oregon Department of Agriculture (ODA) commented on the 2015 DEIS that the adverse impacts of the project on the commercial oyster industry in the Coos Bay project area had not been disclosed. ODA outlined operations and indicated how dredging and access restrictions during construction and operation would likely jeopardize this local established industry. There are leases in several areas of the bay that host high quality mariculture facilities that are part of the local food economy and are

[48] Nicolas, A. Johnson, "Visitor spending data released by Travel Oregon," The World, July 16, 2018; Runyan and Associates 2019, "Oregon Travel Impacts Statewide Estimates 1992 – 2018," Oregon Tourism Commission.

important renewable resource operations for the area. Clausen Oysters leases land from the Port of Coos Bay and is the largest oyster farm in Oregon.

The Coos Bay area is an important port for commercial fishing and the third largest working waterfront on the Oregon Coast.[49] The Charleston Boat Basin, which is outside of the Coos Bay city limits and closer to the mouth of Coos Bay, is the primary area that houses the commercial fleet. Between 200 and 250 commercial fishing vessels operate out of the Charleston boat basin during the spring, summer, and fall months when major fisheries for Pacific pink shrimp (*Pandalus jordani*), Chinook salmon (*Oncorhynchus tshawytscha*), Pacific hake (whiting; *Merluccius productus*), albacore tuna (*Thunnus alalunga*), and market squid (*Doryteuthis* [*Loligo*] *opalescens*) are operating. A number of these are transient vessels that deliver product to processors or offload for shipment to other processing facilities out of the area. They also take advantage of the ice facilities and marine supply stores that operate near Charleston and in the city of Coos Bay. Over 200 commercial fishing vessels that range in size from about 30 feet long (salmon trollers and small combination vessels) to almost 100 feet long (trawlers and seiners) considered the boat basin their year-round home port. The Port of Coos Bay facilities (ice plant, docks, moorage, etc.) can support a commercial fishing fleet of 250 vessels.[50] Two small fishermen's markets offer retail services on the docks, one in Charleston and one in Coos Bay. Retail seafood stores and seafood restaurants operate in Charleston, Coos Bay, and the adjacent city of North Bend.

Commercial landings are increasing in volume and value in the Charleston/Coos Bay area. In 2017, commercial harvests were seven percent of the Oregon landings by volume but accounted for 21 percent of Oregon's ex-vessel value (ex-vessel value is based on the prices paid by processors to fishermen) for all species for a total of $30.6 million. In 2018, those figures increased to 10 percent of statewide landings by volume and to 23 percent by value to $40.2 million.[51] A standard economic multiplier of 2.5 increases the commercial seafood industry's value to the local community to $76.5 million in 2017 and $100.6 million in 2018. Pink shrimp and other shrimp species, including spot prawns, account for the highest landings volume, but Dungeness crab and related crab species account for the greatest value. In 2018, shrimp and prawn landings were 11,994,911 pounds, followed by Dungeness crab/crab species at 6,000,101 pounds. However, Dungeness crab remains the primary economic driver of commercial fisheries, with a value of $19.7 million in 2018, followed by pink shrimp at $9.3 million.[52]

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[49] Port of Coos Bay 2018 Annual Report; https://www.oipcbannualreport18.com/charlestonmarina. Also, Port of Coos Bay, "Year in Review: Letter from the CEO," June 30, 2019; https://www.portofcoosbay.com/news-releases/2019/1/30/year-in-review-letter-from-the-ceo.

[50] Port of Coos Bay 2018 Annual Report; https://www.oipcbannualreport18.com/charlestonmarina. Also, Port of Coos Bay, "Year in Review: Letter from the CEO," June 30, 2019; https://www.portofcoosbay.com/news-releases/2019/1/30/year-in-review-letter-from-the-ceo.

[51] Pacific States Marine Fisheries Commission; Pacific Fisheries Information Network (PacFIN) APEX fish ticket reporting system for Oregon data. Report: ALL005, WOC All Species by Port Group, with filters for data by year.

[52] Pacific States Marine Fisheries Commission; Pacific Fisheries Information Network (PacFIN) APEX fish ticket reporting system for Oregon data. Report: ALL005, WOC All Species by Port Group, with filters for data by year. (https://reports.psmfc.org/pacfin/f?p=501:1000::::::).

Carefully managed fisheries have been recovering and adding to the economic value of the coastal economy. In 2018, West Coast trawl fishermen increased their groundfish catch by more than 14 million pounds, a 300 percent increase over what they caught in 2017.[53] Trawlers delivering to Charleston share in some of that increase that is expected to continue to grow over time. Much of Oregon's trawl industry relied on groundfish, a federally managed group of almost 100 species of midwater and bottom-dwelling rockfish (yellowtail rockfish, widow rockfish, and others in the genus Sebastes); roundfish (such as sablefish, Pacific hake, lingcod); flatfish (such as starry flounder, soles, petrale); sharks and skates; and other species.[54]

Many of Oregon's fisheries are certified as sustainable according to global Marine Stewardship Council certification standards. Oregon pink shrimp, several rockfish species, Chinook, and Dungeness crab are either certified, have been certified or are undergoing re-certification. This certification makes these fisheries more marketable both locally and globally.

In Oregon, the commercial crabbing fishery is a tremendous economic engine with potential to be impacted by this project. For example, the 2017-2018 Dungeness crab season (December to August) generated $74 million in ex-vessel value.[55] Like many other important fisheries, Dungeness crab use Coos Bay and the surrounding nearshore area for nursery habitat that may be affected by this project's proposed dredging activity, and the Coos Bay fishing fleet relies heavily on crab for its profits.

Hazards and Safety

Reliability and safety of LNG, terminal, carrier traffic and natural gas pipeline

LNG tankers and the LNG tanks at the terminal, if ruptured, present both a risk of asphyxiation and life-threatening burns in the event of natural disaster or human-caused accident to over 16,000 people near the terminal in a "Hazardous Burn Zone." The Society of International Gas Tanker and Terminal Operators (SIGTTO) has developed criteria to minimize risks, including in the site selection and design for LNG ports and jetties. The proposed LNG Export Terminal conflicts with several of SIGTTO's best practices recommendations. SIGGTO discourages siting near population centers. Around 16,000 area residents would likely be at least injured if a release of highly flammable LNG were to be coupled with an ignition source.

Additionally, SIGTTO recommends against siting on a bend, in configurations where vessels would be berthed adjacent to each other, near other docking facilities, in a channel that is less than five times the minimum width of tankers, or where tankers would not have ready escape to the open seas at all times. The proposed activity meets none of these safety recommendations. There is a 90-degree turn from the

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[53] SeafoodNews.com, "West Coast Trawlers see Highest Groundfish Landings Since 2000 with Rockfish Resurgence," Feb. 12, 2019; https://www.seafoodnews.com/Story/1131867/West-Coast-Trawlers-see-Highest-Groundfish-Landings-Since-2000-with-Rockfish-Resurgence.

[54] National Marine Fisheries Service Northwest Fisheries Science Center, Fisheries Resource Analysis and Monitoring Division. "What are groundfish?"; https://www.nwfsc.noaa.gov/research/divisions/fram/economic/economic_data_groundfish.cfm.

[55] *See* https://www.dfw.state.or.us/MRP/shellfish/commercial/crab/docs/Crab%20Newsletter_2018_final.pdf, and https://www.dfw.state.or.us/MRP/shellfish/commercial/crab/news_publications.asp).

ocean entrance into the bay, and then another bend near the proposed site that other ship traffic, including commercial and recreational users, must navigate past to enter the Coos Bay harbor. A fully loaded LNG carrier ship could run aground at the bar. Management practices cannot mitigate these physical constraints in the navigation corridor. Moreover, the transit time for vessels from the proposed site would be 90 minutes, and would require a high tide, due to the draft of these very large ships. If there were a seismic event and tsunami warning, any ship in the loading area would not have adequate time to exit to the open ocean.

Potential impacts on the LNG terminal resulting from an earthquake or tsunami

A 13-year study completed by Oregon State University researchers in 2012 and published by the U.S. Geological Survey concluded that there is a 40 percent chance of a major earthquake in the Coos Bay region during the next 50 years. That earthquake could approach the intensity of the Tohoku quake that devastated Japan in 2011.[56] The Pacific Northwest is vulnerable to earthquakes due to its position on the Cascadia Subduction Zone. Experts estimate a 42 percent likelihood of an earthquake up to a magnitude of 9.0 in the zone within the next 50 years. An earthquake of that magnitude would devastate the Northwest; the most severe impacts, including soil liquefaction, landslides, and tsunamis, would fall on coastal areas. The initial surge of a tsunami could carry marine vessels, other objects and debris inland, smashing coastal buildings and structures. Weeks of inundation that could follow would compound the damage. Spatial analysis completed by DLCD shows that the LNG Export Facilities are within the tsunami inundation zones for each category of tsunami inundation zones, ranging from smaller impact tsunamis to extremely high impact tsunamis. *See* Appendix 11.I.

Spatial restrictions of channel use to recreational and commercial fisheries

The U.S. Coast Guard typically requires exclusion zones of up to 500 meters surrounding LNG tankers transiting and while at dock for safety and national security purposes. ODFW, the Pacific Fisheries Management Council, and Oregon Dungeness Crab Commission have pointed out the access and economic conflicts this practice would create with all other users, including the shellfish (crabbing/clamming) and finfish (rockfish, salmon, and steelhead) fisheries in Coos Bay. Security requirements alone would affect the contribution of fisheries to the economics of Coos County and Southwest Oregon and affect the economic impact of recreational opportunities and the local businesses that depend on them.

[56] 13-Year Cascadia Study Complete – And Earthquake Risk Looms Large; http://oregonstate.edu/ua/ncs/archives/2012/jul/13-year-cascadia-study-complete-%E2%80%93-and-earthquake-risk-looms-large Study Link: Turbidite Event History—Methods and Implications for Holocene Paleoseismicity of the Cascadia Subduction Zone - By Chris Goldfinger, C. Hans Nelson, Ann E. Morey, Joel E. Johnson, Jason R. Patton, Eugene Karabanov, Julia Gutiérrez-Pastor, Andrew T. Eriksson, Eulàlia Gràcia, Gita Dunhill, Randolph J. Enkin, Audrey Dallimore, and Tracy Vallier - http://pubs.usgs.gov/pp/pp1661f/

Wildfire risk

Oregon faces great wildfire risk. The proposed activity could substantially increase wildfire risk from human and equipment activity in heavily timbered areas during PCGP pipeline construction and operation. The majority of the pipeline route is forested and vulnerable to wildfire. Pipeline construction would occur primarily during "fire season." Pipeline construction employs the use of feller-bunchers, chainsaws, bulldozers, track-hoes, rock saws, and other heavy equipment, as well as blasting. Pipeline rupture and explosion during operation is a risk. Areas of the project have extensive soil and seismic characteristics present. Evidence of numerous areas at risk of soil liquefaction and lateral spreading, and extensive landslide-prone conditions have already been identified across the 229-mile route. The Pipeline and Hazardous Materials Safety Administration (PHMSA) reported an increasing number of ruptures and explosions nationwide due to particularly weather-related landslides. PHMSA also issued two sets of protocols calling for renewed efforts to site, engineer, build, and monitor gas pipelines.[57] Landslides can be found along the pipeline route.

Flight Hazards

The proposed project would be situated less than 1.1 miles from the Southwest Oregon Regional Airport located in North Bend. The Federal Aviation Administration (FAA) issued four notices of presumed hazard for the two LNG tanks at the terminal and the two towers at the south dune power plant. These LNG infrastructure facilities violate the FAA Obstruction Standard. This geographical area is regularly consumed naturally by fog and visual impairment is regularly compromised imposing a potential air to surface collision and explosion hazard to the residents of Coos Bay and North Bend. FAA has issued 13 Notices of Presumed Hazard regarding the proximity of the local airport and flight paths to proposed LNG tanks.

Cumulative Effects

Cumulative adverse coastal effects have been defined as the effects of an activity when added to the baseline of other past, present, and future activities in the area of, and adjacent to, the coastal zone. Thus, an analysis of cumulative effects considers the adverse coastal effects of a project when added to the temporary or permanent effects associated with other activities that already are likely to occur. DLCD notes that there are many unmitigable impacts that the proposed activity would have on public health, safety, clean air, clean water, healthy forests, the local economy, and a stable climate.

Channel Modification

DLCD considers cumulative effects from additional large-scale projects in Coos Bay as part of this federal consistency review. This is particularly important related to a proposed Channel Modification project by the Port of Coos Bay. The JCEP terminal will dredge a combined total of 5.7 million cubic yards (CY) from North Spit and Coos Bay in order to create the slip for ships to load LNG and navigate along the Coos Bay

[57] PHMSA, "Pipeline Safety: Potential for Damage to Pipeline Facilities Caused by Earth Movement and Other Geologic Hazards," Federal Register, 5/2/2019.

channel to the ocean. The Port of Coos Bay has also proposed a navigation channel modification project that will also highly benefit the JCEP project.[58] DLCD recognizes that the Port of Coos Bay channel modification project will convey benefit to the JCEP project both in terms of financial savings and through increased transport efficiency. Accordingly, it is important to consider the impacts of the USACE Port of Coos Bay Channel Modification Project, because they are connected, similar, and cumulative actions. To not consider the combined impacts of the Port's channel modification project and the JCEP project will effectively underestimate the biological and economic impacts to the state's fish and wildlife habitat resources in the Coos Bay estuary, due to these connected, similar, and cumulative actions.

Channel Modification Impacts include deepening and widening of the existing Coos Bay navigational channel to 37' deep and 300'wide, expansion of the Coos Bay navigational channel to 45' deep and 450' wide from the channel entrance to River Mile 8.2, and alteration of the hydrodynamic characteristics of the Coos Bay estuarine tidal basin in response to deepening and widening. Alterations of hydrodynamic characteristics include physical changes in the intrusion of marine waters, coupled with alteration of the salinity regime, conductivity, exchange volume, tidal prism, tidal currents, and other parameters, shifts in the location, configuration, and spatial extent of marine dominated, estuarine, and freshwater-tidal habitats, changes in the composition of ecological communities that reside within the water column, marine-dominated, estuarine, and freshwater-tidal habitats, and changes in the location and potential for rearing of juvenile fish.

Additional impacts from this related project include impacts to the ocean floor outside the mouth of Coos Bay where a large quantity of dredged material (estimated at 18-25 million CY) will be deposited at an ocean disposal site, or multiple sites, deposition of dredged materials on the ocean floor will alter the physical characteristics of the benthic habitat due to both the substantial modification of the bottom topography and the anticipated characteristics of the dredged material (*e.g.* estimated 8.5 million CY of sandstone and siltstone debris), deposition of dredged materials on the ocean floor will impact the benthic communities of resident marine fish and invertebrates, as well as transient species of concern including green sturgeon (*Acipenser medirostris*), dredged materials transported away from the deposition sites have the potential to negatively affect important nearby rocky reef habitats, disposal of dredged materials may occur in areas of heavy Dungeness crab commercial fishing activity, potentially interfering with crab habitat and fishing vessels; and excessive mounding of sediments can alter the wave climate, creating enhanced risk to commercial fishing vessels that navigate nearshore waters during stormy conditions.

Climate Change

Oregon adopted emissions reduction goals to help address climate change with strong leadership and action. According to analysis provided by advocacy organization Oil Change International, by 2050, when Oregon is committed to have reduced emissions to 75 percent below 1990 levels, JCEP's in-state emissions would amount to 16 percent of the total without providing a single kilowatt hour of energy to

[58] US Army Corps of Engineers – USACE Environmental Impact Statement, see Federal Register 82 FR 39417

any individual, family, business, or other consumer in Oregon.[59] Modelling efforts have shown that the total lifecycle carbon and methane emissions of JCEP are predicted to be over 36.8 million metric tons (MMT), the equivalent of 7.9 million passenger vehicles. This is 15.4 times the 2016 emissions of the Boardman coal-fired power plant that Oregon set to retire in 2020. Its total in-state annual emissions are predicted to be over 2.2 MMT, which would make it the largest single source of climate pollution in the state.

The Oregon Ocean Acidification and Hypoxia (OAH) Action Plan produced recommendations and guidance for the state to slow OAH impacts and adapt to the changes we are already seeing in that arena. In addition to their goal of developing effective and efficient ways to reduce excess CO_2 and OAH stressors, they prioritized research actions to include developing strategies to restore, protect, and sustain nursery habitat for valuable shellfish, submerged aquatic vegetation and native shellfish. They also prioritized Oregon's water quality, life history stages of OAH vulnerable marine species, and economic resilience in coastal communities and marine industries.

ENFORCEABLE POLICIES ANALYSIS

Oregon exerts control over private and public land and waters uses and natural resources in its coastal zone including through certain state policies that OCM has approved as enforceable policies of the OCMP. 16 USC § 1453(6a); 15 CFR § 930.11(h). OCMP identified the enforceable polices applicable to the proposed activity. Appendix 5.A; 15 CFR § 930.56. The Joint Coastal Zone Management Act Certifications states, "DLCD staff and Applicant's representatives have consulted to review the Project and identify applicable enforceable policies and the relevant state authorities listed in the OCMP." Consistency Certifications at 5. Tables 1, 2, and 3 of the Joint Coastal Zone Management Act Certifications address consistency with the applicable enforceable polices of the OCMP. Pursuant to 15 CFR § 930.63(b), OCMP now describes how the proposed activity is inconsistent with specific enforceable policies.

Overview of Inconsistent Policies

On the basis of the current record, the JCEP **has not established that the project is consistent** with the following enforceable policies and underlying standards within them:

Enforceable Policy	Mechanism for Inconsistency
Goal 6 - Air, Water, and Land Resources	Permit Application Denied
ORS chapter 196 - Removal-Fill	Permit Application Withdrawn
ORS chapter 274 - Submersible and Submerged Lands	Authorization Applications Withdrawn
ORS chapter 468B - Water Quality	Permit Application Denied
ORS chapter 469 - Energy; Conservation Programs; Energy Facilities Public Health and Safety	Insufficient Information to Establish Consistency

[59] Oil Change International, "Jordan Cove LNG and Pacific Connector Pipeline Greenhous Gas Emissions Briefing," http://priceofoil.org/content/uploads/2018/01/JCEP_GHG_Final-Screen.pdf.

ORS chapter 496 - Wildlife Administration	Insufficient Information to Establish Consistency
ORS chapter 509 - General Protective Regulations (Fish Passage)	Insufficient Information to Establish Consistency

Detailed Enforceable Policy Analysis

DLCD, as a state agency, is required to take actions that are authorized by laws with respect to programs affecting land use in compliance with the goals. ORS 197.180(1)(a). A DEQ certification of water quality standards for a federal permit and license is an example of a program affecting land use. OAR 340-018-0030(5)(g). Goal 2 requires inter alia an adequate factual base for decisions. OAR 660-035-0050(4) provides that for evidence supporting consistency for federal license or permit activities that require state permits or authorizations, "the issued permit or authorization is the only acceptable evidence demonstrating consistency with the enforceable policies that the permit or authorization covers." Thus, as a basis for a consistency determination, JCEP is required to provide DLCD the issued permit or authorization.

The JCEP consistency certifications relies on "[p]ertinent permits, permit applications, and other agency documentations" provided in exhibits. Examples are Exhibit E - DSL Removal-Fill Application; Exhibit F - DSL Proprietary Authorizations, and Exhibit G - DEQ 401 Water Quality Certification Package. On January 23, 2020, JCEP notified DSL that it was withdrawing its Exhibit E removal fill application 60697-RF from further consideration. On January 24, 2020, JCEP withdrew its applications for twelve proprietary easements. On May 6, 2019, DEQ denied JCEP's request for 401 water quality certification without prejudice; to date JCEP has not submitted a new water quality certification.

Where a copy of a state application is provided to establish compliance with an enforceable policy and that application has either been denied or withdrawn, the consistency certification does not provide substantial evidence of compliance with an enforceable policy. Additionally, where the withdrawn materials are provided as necessary data and information pursuant to 15 CFR § 930.58(a)(2), the application provides insufficient information necessary for DLCD to determine consistency. 15 CFR § 930.63(c). **DLCD objects to the consistency certification due to both insufficient information and a lack of issued state permits tied to enforceable policies of the OCMP.**

ORS chapter 196 - Removal-Fill

The Department of State Lands (DSL) is responsible for regulating removal and fill in waters of the state, which are defined as "all natural waterways, tidal and nontidal bays, intermittent streams, constantly flowing streams, lakes, wetlands" and includes other bodies of water in Oregon. ORS 196.800(15). State law, ORS 196.800 to 196.990, governs the removal-fill regulatory program.

JCEP certifies that the proposed activity complies with ORS chapter 196 – Removal-Fill, an enforceable policy of the OCMP. In order to comply with this enforceable policy, an applicant must demonstrate that the project described in the application:

"(a) Is consistent with the protection, conservation and best use of the water resources of this state as specified in ORS 196.600 to 196.921; and

"(b) Would not unreasonably interfere with the paramount policy of this state to preserve the use of its waters for navigation, fishing and public recreation." ORS 196.825(1).

There is a set of factors that DSL must consider in making these findings. ORS 196.825(3). These factors include *inter alia* the public need for the proposed fill or removal, the availability of alternatives to the project for which the fill or removal is proposed, whether the proposed fill or removal conforms to sound policies of conservation and would not interfere with public health and safety, whether the proposed fill or removal is in conformance with existing public uses of the waters and with uses designated for adjacent land in an acknowledged comprehensive plan and land use regulations, whether the proposed fill or removal is compatible with the acknowledged comprehensive plan and land use regulations for the area where the proposed fill or removal is to take place or can be conditioned on a future local approval to meet this criterion, whether the proposed fill or removal is for streambank protection, and whether the applicant has provided all practicable mitigation to reduce the adverse effects of the proposed fill or removal.

The JCEP consistency certification relies on "[p]ertinent permits, permit applications, and other agency documentations" provided in exhibits. Where a copy of an application is provided to establish compliance with an enforceable policy and that application has either been denied or withdrawn, the consistency certification has not established compliance with an enforceable policy.

On November 3, 2017, a removal-fill permit application was filed with the DSL. JCEP provided DLCD that application (60697-RF) as part of its consistency certification as Exhibit E. *See* Appendix 7.A and 7.B. A revised application was resubmitted on April 30, 2018. The resubmittal deadline was extended to May 18, 2018. The revised application was resubmitted on May 10, 2018. One June 4, 2018, JCEP requested that DSL suspend review and change the application status to "awaiting revision." On August 24, 2018, JCEP requested that the "awaiting revision" status continue and that a new resubmittal deadline be extended to November 30, 2018. On November 7, 2018, JCEP submitted another revised removal-fill application. DSL deemed the application complete and opened the public comment period on December 6, 2018. Public comment remained open until February 3, 2019. DSL held five public hearings around the state during the public comment period and DSL received more than 49, 000 comments during that time. The removal-fill permit application decision was due on March 5, 2019.

Due to the volume of public comments, DSL requested more information on April 10, 2019 (see Appendix 7.G) and an extension to September 20, 2019 and JCEP agreed. DSL completed review of public comments and sent the Public Review issues and request for additional information letter to JCEP on April 10, 2019. Appendix 7.C. JCEP submitted a response to this letter on May 9, 2019. On July 10, 2019, DSL met with JCEP to review that response. On September 4, 2019, DSL received JCEP's response to public comments. DSL received an additional partial response on October 20, 2019. On September 13, 2019, JCEP requested an extension to January 31, 2020 and DSL agreed. On November 12, 2019, DSL provided a letter to JCEP outlining the remaining issues to resolve public comments. On November 14,

2019, DSL met with JCEP to discuss that letter. On December 5, 2019, JCEP submitted a response to DSL's November 12, 2019 letter. On December 12, 2019, DSL and JCEP met again to discuss the remaining issues, and DSL provided a subsequent letter to JCEP to request information and actions needed to address outstanding issues, with a deadline of January 2, 2020.

JCEP sent an email on January 3, 2020 to DSL with updated impact tables and figures but did not adequately address all outstanding issues. Additionally, on December 18, 2019, DSL received an email and letter from JCEP that did not satisfactorily answer outstanding questions from DSL. This letter also contained incorrect assumptions about agreements between partner agencies regarding a mitigation plan that DSL had not yet received. On January 15, 2020, DSL received an extensive and specific 18-page letter from ODFW that outlined several outstanding issues. ODFW stated that "at this time, it is difficult for ODFW to provide an updated comprehensive review when the most current information has only been provided in a piece-meal fashion," contrary to JCEP's December 18, 2019 communication statement that state agencies were in agreement on these issues. ODFW's letter identifies issues that have not been resolved. *See* Appendix 8.I.

On January 16, 2020, JCEP requested an additional extension to March 31, 2020. DSL denied the extension request on January 21, 2020 due to JCEP's inability to provide timely and sufficient information to address all outstanding questions and issues. *See* Appendix 7.D. DSL had not yet received requested critical information regarding the eelgrass Compensatory Wetland Mitigation plan, the Kentuck Compensatory Wetland Mitigation issues raised by ODFW, the analysis of temporary impacts to wetlands and waters, the stream mitigation to resolve ODFW's comments, and the protection instruments and bonding for the mitigation sites, among other issues. JCEP notified DSL on January 23, 2020 that it was withdrawing its removal fill application 60697-RF from further consideration by DSL. *See* Appendix 7.E. A detailed timeline of the removal-fill process is provided in Appendix 7.G.

Because there is no longer an application pending for a permit required to conduct removal-fill activities necessary to construct and operate the project, there is no longer a record on which to base a consistency determination. **DLCD therefore cannot concur that the project is consistent with the State's removal-fill enforceable policy due to a lack of sufficient information. DLCD also objects that under OAR 660-035-0050(4), "the issued permit or authorization is the only acceptable evidence demonstrating consistency with the enforceable policies that the permit or authorization covers." JCEP has not met the requirement to provide DLCD a DSL issued removal fill permit.**

Even if JCEP had not withdrawn its removal-fill application, the information that JCEP has provided as part of its application was not sufficient to demonstrate consistency with the state's removal-fill enforceable policy. Among the factors that DSL must consider is whether the proposed fill or removal conforms to sound policies of conservation and would not interfere with public health and safety, and whether the applicant has provided all practicable mitigation to reduce the adverse effects of the proposed fill or removal. ORS 196.825(3)(e), (i). ODFW's January 15, 2020, letter to DSL indicates that

the applicant has not provided all practicable mitigation to reduce adverse impacts.[60] Without this mitigation, the proposed removal fill has not established that it conforms to sound policies of conservation and would not interfere with public health and safety. This in turn means that there is insufficient evidence to conclude that the project is consistent with the protection, conservation and best use of the water resources of this state as specified in ORS 196.600 to 196.921.

ORS chapter 274 - Submersible and Submerged Lands

The people of Oregon are the owners of the submerged and submersible land ("beds and banks") underlying all navigable and tidally influenced waterways. In most cases, this ownership extends to the line of ordinary high water or high tide, but ownership can be mixed, even along the same waterway. DSL is responsible for management of publicly owned submerged and submersible land. The public has rights to use the beds and banks of navigable waterways for any legal activity, such as boating, fishing and swimming, including pulling your canoe or kayak onto the bank. Structures and facilities on these

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[60] ODFW, a networked agency under the OCMP, expressed concerns related to eelgrass mitigation plans at both the local and state level. *See* appendices 8.A, 8.E, 8.H. Regarding JCEP's application for a state removal-fill permit, ODFW outlines their concerns as:

- •Several potential problematic issues associated with the proposed JCEP eelgrass mitigation plan that have not been fully considered and addressed by the applicant.
- •Concern that the excavated JCEP mitigation basin may refill with sediment, and that the rate of sedimentation may not be conducive to survival, growth, and propagation of the planted eelgrass plants.
- •Planned mitigation activities should follow state established in-kind, in-proximity standards and require long-term monitoring and remedial replanting of eelgrass as needed to compensate for losses that may occur over the entire lifespan of the Project.
- •The applicant does not demonstrate that serious consideration has been given to avoidance of impacts to eelgrass beds. In a December 11, 2019 meeting with DSL, ODFW, and USACE, the applicant reviewed a draft alternatives analysis that considered alternative sites for eelgrass transplant. ODFW has raised additional alternatives to the applicant since that meeting. However, a more thorough alternatives analysis has not been provided nor has the Compensatory Wetland Mitigation Plan been updated to include the December 2019 analysis. ODFW recommended a more detailed analysis of eelgrass mitigation sites that characterize the location, species composition, and abundance of the eelgrass and other submerged aquatic vegetation at the alternative sites and provide a more detailed rationale for rejection of the alternative sites and acceptance of the proposed site. ODFW determined the existing JCEP Mitigation Plan is incomplete because it does not provide a full description of the steps that were taken to avoid adverse impacts to existing eelgrass beds in Coos Bay.
- •ODFW recommends the eelgrass mitigation strategies be re-evaluated to favor avoidance.
- •ODFW has identified several issues regarding eelgrass impacts and mitigation raised by the proposed JCEP, including characterization of permanent and transitory impacts to existing eelgrass, and shortcomings inherent in the proposed Eelgrass Mitigation Plan.
- •The rationale provided by JCEP for designation of only a portion of the tidal elevation range as "optimal" for eelgrass at the proposed mitigation site is not clear.
- •The JCEP includes excavation of about 0.04 million cubic yards of the shoal material to create a shallow circular tidal basin that will retain estuarine water and serve as the primary site for eelgrass mitigation activities. Concern has been repeatedly raised about the likelihood for poor water quality conditions, including low dissolved oxygen concentrations and elevated temperature, and trapping of decaying drift algae and other organic materials within the shallow excavated basin. JCEP does not provide any technical analysis nor rationale for the shape of the shallow excavated tidal basin, nor any explanation about the time frame that is expected for the newly excavated basin to re-fill with sediments.

state-owned lands require an authorization from DSL. ORS chapter 274 governs submerged and submersible lands. JCEP certifies that the proposed activity complies with ORS chapter 274 – Submersible and Submerged Lands, an enforceable policy of the OCMP.

ORS chapter 274 provides substantive standards through identification for when a lease, license, permit, or other authorization is required. The statutes also define conditions and provides enforceable mechanisms for implementation of the substantive provisions. These policies are rendered enforceable by the leases or licenses required in ORS 274.040, 274.530, and 274.885; by the permits in ORS 274.735 and 274.825 and by general authorizations in ORS 274.043, 274.525, and 274.895 where leases are not required; and by prohibited actions in ORS 274.610, 274.710, 274.820, and Oregon Laws 2010, chapter 11, sections 1 and 2. Enforcement implementation includes the opportunity for judicial review under ORS 274.412, cancellations under ORS 274.850, and indemnity requirements under ORS 274.560 and 274.800.

The JCEP consistency certification relies on "[p]ertinent permits, permit applications, and other agency documentations" provided in exhibits. Multiple proprietary authorizations are required in the coastal zone to demonstrate consistency with OCMP enforceable policies. Prior to withdrawal, the applicant did not have a complete application portfolio submitted to DSL for review. JCEP provided DLCD proprietary applications as part of its consistency certification as Exhibit F. JCEP notified DSL on January 24, 2020 that it was withdrawing its proprietary authorization applications from further consideration by DSL. *See* Appendix 7.F. Where a copy of an application is provided to establish compliance with an enforceable policy and that application has been withdrawn, the consistency certification has not established consistency with the associated enforceable policy.

ORS chapter 468B – Water Quality

JCEP certifies that the proposed activity complies with ORS chapter 468B – Water Quality, an enforceable policy of the OCMP. ORS chapter 468B provides for the conservation of the waters of the state, appropriate reuse of water and wastes; protection, maintenance, and improvement of the quality of the waters of the state for public water supplies, for the propagation of wildlife, fish and aquatic life and for domestic , agricultural, industrial, municipal, recreational and other legitimate beneficial uses; that no waste be discharged into any waters of this state without first receiving the necessary treatment or other corrective action to protect the legitimate beneficial uses of such waters; and the prevention, abatement and control of new or existing water pollution. ORS 468B. 015. This enforceable policy further provides for the prevention and abatement of pollution by "requiring the use of all available and reasonable methods necessary to achieve the purposes of ORS 468B.015 [providing policy] and to conform to the standards of water quality and purity established under ORS 468B.048 [providing rules for standards of quality and purity]." ORS 468B.025.

ORS chapter 468B – Water Quality requires that without holding a permit from DEQ that specifies applicable effluent limitations, an entity may not:

> "(a) Discharge any wastes into the waters of the state from any industrial or commercial establishment or activity or any disposal system.

"(b) Construct, install, modify or operate any disposal system or part thereof or any extension or addition thereto.

"(c) Increase in volume or strength any wastes in excess of the permissive discharges specified under an existing permit.

"(d) Construct, install, operate or conduct any industrial, commercial, confined animal feeding operation or other establishment or activity or any extension or modification thereof or addition thereto, the operation or conduct of which would cause an increase in the discharge of wastes into the waters of the state or which would otherwise alter the physical, chemical or biological properties of any waters of the state in any manner not already lawfully authorized.

"(e) Construct or use any new outlet for the discharge of any wastes into the waters of the state." ORS 468B.050(1).

The JCEP consistency certification relies on "[p]ertinent permits, permit applications, and other agency documentations" provided in exhibits. Where a copy of an application is provided to establish compliance with an enforceable policy and that application has been denied and not resubmitted, the consistency certification has not established compliance with an enforceable policy.

On May 22, 2018, USACE issued a public notice of a complete application from JCEP which commenced DEQ's water quality certification review pursuant to section 401 of the Clean Water Act. JCEP provided DLCD that application as part of its consistency certification as Exhibit G. DEQ made its water quality certification decision on May 6, 2019, denying JCEP's request for 401 water quality certification without prejudice, affording JCEP the opportunity to resubmit an application for 401 water quality certification with DEQ. *See* Appendices 6.D and 6.E. JCEP has to date not submitted a new 401 water quality certification application to DEQ and the current record before DLCD is a **denial of 401 water quality certification.**[61] *See* Appendices 6.D and 6.E.

Summary of DEQ Findings:

- JCEP did not provide evidence that it would use the best controls for preventing dredged materials from entering the waterways, minimizing turbidity, and pollution, and keeping inorganic and organic materials out of public waters.
- JCEP did not demonstrate that it would use the best methods to prevent waste materials from construction of the pipeline, access roads, and water crossings from entering public waters or identify and mitigate landslide risk which would put organic and inorganic materials into waters.
- Stormwater management at the LNG terminal would cause increased turbidity and changes in hydrology in wetlands affecting the resident biological communities.
- Placement of marine sediments upland would be in violation of biocriteria, OAR 340-041-0011.

[61] http://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20191219-5010

- No assurance that the project will not violate the dissolved oxygen water quality standard at OAR 340-041-0016.
- There is no assurance that the project will not violate the pH water quality standard at OAR 340-041-0021.
- JCEP has not demonstrated that construction of the pipeline and related activities would avoid disturbance of habitat and biological communities, prevent landslides.
- The pipeline and associated work areas and roadways are likely to violate Oregon's water quality standard for temperature.
- There is no reasonable assurance that the proposed activities would be conducted in a manner that would not violate the Toxic Substances water quality standard at OAR 340-041-0033.
- JCEP's proposed activities do not employ the highest and best treatment to control turbid discharges and would likely violate the Turbidity water quality standard at OAR 340-041-0036.
- JCEP considered methods to avoid and minimize water quality impacts to temperature, turbidity, sedimentation, and biocriteria, DEQ found that the project does not meet the requirements of DEQ's antidegradation policy.

DLCD adopts DEQ's description of how the proposed activity is inconsistent with the water quality certification provisions of the OCMP. (See Appendices 6.D and 6.E).

In DEQ's Evaluation and Findings for 401 Water Quality Certification, DEQ advised:

> "DEQ notes that it has not received an application for WQC for issuance of a FERC permit or license associated with the Project. DEQ did receive information relevant to JCEP's applications to the Corps for Section 404/10 permits on February 6, 2018; May 21, 2018; November 21, 2018; March 19, 2019 and April 30, 2019. However, to the extent there was any ambiguity as to the nature of the materials received by DEQ on February 6, 2018 (specifically, whether that submittal constituted a separate request to DEQ for WQC for any FERC authorization or was a supplement to materials for the Corps' review) JCEP confirmed in correspondence on December 7, 2018, that the February 6, 2018 materials were supplements to its application to the Corps for Section 404 and Section 10 permits. Additionally, contrary to JCEP's assertion in its December 7, 2018, letter to DEQ that JCEP had submitted to DEQ a 401 WQC application on October 22, 2017, no record supports this assertion. The only materials DEQ received regarding the Project in October of 2017 were emailed notices from the Corps on October 23, 2017 and October 24, 2017 of the Corps' receipt of Section 404/10 permit application materials from JCEP. As described above, the Corps deemed that application incomplete (33 CFR § 325.2(a)). As a result, in accordance with DEQ's rule (OAR 340-048-0032(1)) DEQ did not receive a 401 WQC application from JCEP for the Corps' permits until the Corps determined JCEP's application constituted a valid request for certification and issued the Public Notice on May 22, 2018, pursuant to Corps regulations. See 33 CFR § 325.2(b)(1)(ii). In the event that JCEP resubmits an application to DEQ for certification, DEQ requests that JCEP expressly state whether the application is for certification for pending FERC authorizations under the Natural Gas Act as well as the pending Corps Section 404/10 permits." (See Appendix 6.E, page 3)

DLCD therefore cannot concur that the project is consistent with the State's water quality certification enforceable policy. DLCD also objects that under OAR 660-035-0050(4), "the issued permit or authorization is the only acceptable evidence demonstrating consistency with the enforceable policies that the permit or authorization covers." JCEP has not met the requirement to provide DLCD a DEQ issued water quality certification.

ORS chapter 496 – Wildlife

ORS 496.012 establishes the state's wildlife management policy, including managing to prevent serious depletion of any indigenous species and to maintain all species of fish and wildlife at optimum levels for future generations.

ORS 496.171 to 496.182 authorizes ODFW to develop conservation and recovery plans for wildlife species listed as state threatened or endangered species, including guidelines that it considers necessary to ensure the survival of individual members of the species. These guidelines may include take avoidance and protecting resources sites such as spawning beds, nest sites, nesting colonies, or other sites critical to the survival of individual members of the species. ORS 496.182(2)(a). State land management agencies work with ODFW to determine their agency's role in conservation of endangered and threatened species. ORS 496.172(3). The "taking" of any listed species is prohibited. ORS 498.026(1). Illegal take is a violation of the wildlife laws, subject to criminal prosecution pursuant to ORS 496.992. Thus, the Oregon ESA's primary authority is related to state agency actions on state-owned or managed lands; and prohibits killing or obtaining possession or control without an incidental take permit. Where approval for take is given by USFWS, then this is taken as a waiver under Oregon ESA. ODFW defers to USFWS take permit determinations for species that are listed both state and federally listed. ODFW can be more restrictive than the USFWS in its protection of listed species but cannot be less restrictive. Moreover, ODFW can address the habitat mitigation needs for listed species under the wildlife management policy and the Fish and Wildlife Habitat Mitigation Policy, OAR chapter 435, division 415, on both federal and non-federal lands.[62]

JCEP asserts in their federal consistency application that "[t]he ongoing consultation with ODFW, fish passage measures, and in-water work timing protocols demonstrate that the Project will comply with the current edition of ORS Chs. 496, 498, 506, and 509." Consistency Certification at Table 2-2.

ORS 496.012 provides in full:

> "It is state policy to manage wildlife to prevent serious depletion of any indigenous species and to provide the optimum recreational and aesthetic benefits for present and future generations of the citizens of this state. In furtherance of this policy, the State Fish and Wildlife Commission

[62] *See California Coastal Commission v. Granite Rock Co.*, 480 US 572 (1987); 43 CFR 24.3(a) ("In general the States possess broad trustee and police powers over fish and wildlife within their borders, including fish and wildlife found on Federal lands within a State.")

shall represent the public interest of the State of Oregon and implement the following coequal goals of wildlife management:

> "(1) To maintain all species of wildlife at optimum levels.
> "(2) To develop and manage the lands and waters of this state in a manner that will enhance the production and public enjoyment of wildlife.
> "(3) To permit an orderly and equitable utilization of available wildlife.
> "(4) To develop and maintain public access to the lands and waters of the state and the wildlife resources thereon.
> "(5) To regulate wildlife populations and the public enjoyment of wildlife in a manner that is compatible with primary uses of the lands and waters of the state.
> "(6) To provide optimum recreational benefits.
> "(7) To make decisions that affect wildlife resources of the state for the benefit of the wildlife resources and to make decisions that allow for the best social, economic and recreational utilization of wildlife resources by all user groups."

OCMP, in close coordination with networked state agency partner ODFW, determined that due to the following insufficiencies, JCEP has not established consistency with ORS 496.012:

- Impacts to Category 1 habitats for marbled murrelet and northern spotted owl
- Insufficient compensatory mitigation plans for impacts to Category 2 habitat for marbled murrelet and northern spotted owl
- Insufficient risk assessment and contingency planning for eelgrass mitigation
- Insufficient risk assessment and contingency planning for Horizontal Directional Drilling
- Underestimated impacts to shellfish, benthic communities, and estuarine habitats associated with dredging for the terminal and navigation channel
- No long-term stewardship plan (demonstration of durability) for the Kentuck mitigation site
- Net loss of upland habitat impacted by the LNG Export Terminal
- Underestimated impacts to stream and riparian resources, net loss of riparian habitat with insufficient plans for large woody debris
- Compensatory Wetland Mitigation Plan does not address temporal loss of wetland habitats during post-construction rehabilitation
- Lack of a habitat mitigation plan for upland habitat impacts in juniper woodland, shrub-steppe, and oak woodland habitats
- Out-of-kind and out-of-proximity mitigation proposed on USFS and BLM lands
- Inappropriate/insufficient plans for ensuring instream flow is maintained for aquatic life during hydrostatic testing and dust abatement
- In-water work windows have not been agreed upon, the applicant has indicated a desire to work outside in-water work windows in some areas

DLCD requested that JCEP provide as other information needed for the consistency review "[u]pdated categorization of federal and non-federal habitats in the coastal zone and survey/data that supports the categorization for the FERC's preferred alternative in the DEIS for the pipeline route and terminal." (Appendix 2.B). JCEP stated that it is working with ODFW on categorization, but declined to address the Blue Ridge Variation. JCEP is resisting that route change and claims that it would be premature to gather and provide information. In DLCD's August 15, 2019 request for information, DLCD requested "the information supplementing the Corps federal permit application #NWP2017-41 that is the basis for Corps Supplemental Notice dated July 26, 2019." (Appendix 5.G). A key element of that supplemental notice is the "Blue Ridge Variation." It does not appear that the Corps agrees that it is premature to gather essential information about FERC's recommended alternative. DLCD is allowed by federal regulations governing the CZMA consistency review to request information needed for that review. 15 CFR § 930.63(c).

Further, DLCD requested plans for in-water blasting, but JCEP responded that plans would not be applicable to the consistency review because "[n]o in-water blasting is proposed within the coastal zone." However, the Joint Coastal Zone Management Act Certifications lists "In-Water Blasting Permit (limited to Pipeline in Coastal Zone)" as state authority the project would require. Consistency Certifications at 7. Given the geology of the Oregon coast, it is highly unlikely that in-water blasting will not be needed. There is a likelihood that JCEP may reach bedrock anywhere in the terminal site area and this substrate cannot be dredged without hard rock drilling and/or blasting. Moreover, the coastal zone extends some 53 miles to the east along which the pipeline would be buried. JCEP's claim in its July 31 response to DLCD's request contradicts information in the DEIS. Lithified sedimentary rock found in the Coastal Range has the potential to require blasting to trench for the pipeline. Table 4.1.2.6-1 Summary of Blasting Potential along the Proposed Pacific Connector Pipeline identifies six stretches from MP 0 through MP 59 where blasting potential is categorized as "moderate." Since the Applicant has failed to provide necessary detail and design for their proposed water crossings, it is unreasonable to assume that there would be no water crossings in those stretches that would be part of sedimentary rock formations. It is clear from coordination with ODFW that appropriate information about in-water blasting is necessary to ensure compliance with enforceable policies of the OCMP. Pursuant to 15 CFR § 930.66(3)(b), any in-water blasting should be subject to supplemental coordination.

The DEIS and FEIS description of proposed activities do not describe how the project will avoid serious depletion of Oregon's fish and wildlife resources. Key areas of the project description that are insufficient to determine consistency with the wildlife policy include, but are not limited to: the LNG Export Terminal impacts to the Coos Bay Estuary, dredging impacts to estuarine habitats and communities, impacts to eelgrass, introduction of non-indigenous species through ballast water discharge, disturbance to marine mammals, impacts to wildlife in freshwater wetlands, uplands, and beaches on the North Spit of Coos Bay, impacts of the LNG Export Facilities on Snowy Plover nesting and foraging habitat, impacts to the Coastal Marten habitat, habitat loss at the LNG Export Terminal site,

impacts from the PCGP pipeline to fish and wildlife habitat, impacts to Marbled Murrelet and Northern Spotted Owl habitat, and in-water blasting and in-water work.[63]

ODFW informed DLCD by letter dated February 4, 2020 that it does not find the current proposals for the JCEP/PCGP projects to be consistent with all of the OCMP fish and wildlife Enforceable Policies. ODFW identified the primary issues as incomplete fish passage plans required by ORS 509.580 to 509.910 and OAR chapter 635, division 412, and inadequate avoidance, minimization, and mitigation of impacts to fish and wildlife habitat to ensure consistency with the state Wildlife Policy, ORS 496.012 and OAR chapter 635, division 415. *See* Appendix 8.J.

Fish and Wildlife Habitat Mitigation:
DLCD finds that the applicant has not sufficiently addressed aquatic and upland impacts to fish and wildlife habitats consistent with the Wildlife Policy as implemented through the Fish and Wildlife Habitat Mitigation Policy.[64] Division 415 governs ODFW's provision of biological advice and recommendations concerning mitigation for losses of fish and wildlife habitat caused by development actions. Based on standards in the division 415, JCEP seeks concurrence on the appropriate category to apply to land or water where a development action is proposed. The enforceable policy provides that for Habitat Category 1, impacts to the habitat must be avoided. If impacts cannot be avoided, then the actions do not satisfy the Wildlife Policy. For Habitat Category 2, impacts to the habitat should be avoided and if impacts cannot be avoided, a high level of mitigation as specified in rule, is needed.

In previous versions of the JCEP/PCGP project, the applicant was working cooperatively with ODFW to develop habitat mitigation plans for the LNG Export Facilities and for the pipeline. Draft plans included habitat categorization for areas of direct impact and lists of potential mitigation options were in development. ODFW deems a mitigation plan essential to demonstrate consistency with the state's wildlife enforceable policies. Since the inception of the JCEP, DLCD has been calling for a comprehensive mitigation plan that provides for all of the various mitigation pieces. The primary purpose of this comprehensive mitigation plan would be to ensure that all natural resource impacts are adequately addressed in a seamless fashion both geographically and jurisdictionally, both to avoid duplication and to ensure nothing is overlooked. To date, a sufficient comprehensive mitigation plan has not been developed by JCEP. A comprehensive mitigation plan should follow the mitigation hierarchy of avoid, minimize, and mitigate and include at least the following components of mitigation to address:

- ESA listed species per USFWS and NFMS consultation in Section 7 and Section 10 processes,
- Migratory Bird Treaty Act species including golden and bald eagles,
- Marine mammals per the Marine Mammal Protection Act,
- Fish and wildlife habitat loss (on all land ownerships) per the ODFW Fish and Wildlife Habitat Mitigation Policy,

[63] Oregon Agency Comments on the DEIS.
[64] OAR 635-415-0000 through 635-415-0025

- Fish passage mitigation,
- In-water blasting impacts,
- Water quality/quantity mitigation per DEQ 401 Water Quality Permitting and through WRD Limited License Approvals,
- Wetland/waterway mitigation per DSL removal fill and US Army Corps of Engineers 404/408 permits,
- USFS, BLM, BOR, and USACE mitigation.

DLCD therefore cannot concur that the project is consistent with the State's wildlife management enforceable policies due to a lack of sufficient information.

ORS chapter 469 - Energy; Conservation Programs; Energy Facilities Public Health and Safety

An enforceable policy on state energy provides in part:

> "In the interests of the public health and the welfare of the people of this state, it is the declared public policy of this state that the siting, construction and operation of energy facilities shall be accomplished in a manner consistent with protection of the public health and safety[.]" ORS 469.310.

JCEP proposes to construct a thermal energy production facility with the capacity to generate more than 25 MW. As proposed, the generating capacity of the thermal power plant facility falls within the jurisdiction of the state Energy Facility Siting Council. ORS 469.300(27); 469.320(1). Barring final engineering which describes how the facility will be incapable of generating more than 25 MW, or a fully executed agreement between the applicant and the state establishing that this is the case, JCEP will require approval from Oregon's Energy Facility Siting Council and will be responsible for meeting Oregon siting standards found in state law. In addition to other standards, these include Oregon's CO_2 emissions standards, the provision of a legally enforceable retirement bond for the project, and a comprehensive discussion of, and preparation for, emergency situations that could endanger humans and the environment from construction and operation activities.

JCEP has withdrawn its application for approval from the Energy Facility Siting Council,[65] but as recognized in DLCD's August 15, 2019 information request, JCEP has yet to provide "engineering designs that demonstrate that facility will" be "below regulatory thresholds."[66](Appendix 9.B)

[65] https://www.oregon.gov/energy/facilities-safety/facilities/Documents/JCEP-PCGP/2019-04-12-JCEP-App-Withdrawal.pdf.

[66] https://www.oregon.gov/lcd/OCMP/Documents/CZMA_InfoRequest_JCEP_PCGP_August15.pdf.

DLCD therefore cannot concur that the project is not subject to consistency with the State's energy facilities enforceable policies due to a lack of sufficient information.

ORS chapter 509 – General Protective Regulations

Oregon's Fish Passage law, ORS 509.580 to 509.645, requires upstream and downstream fish passage. ORS chapter 509 mandates that "fish passage is required in all waters of this state in which native migratory fish are currently or have historically been present." ORS 509.585(1).

On February 22, 2019, JCEP filed fish passage applications with ODFW and provided DLCD that application (Appendix 8.B) as part of its consistency certification as Exhibit K. In Oregon's comments on the FEIS, ODFW identifies the incomplete or missing Fish Passage Plans (ORS 509.580 through 509.645; OAR 635-412-0005 through 635-412--0040). ODFW has received Fish Passage Plans for the portion of the project located in the coastal zone (see Appendices 8.C and 8.D), however ODFW has requested additional information from JCEP in order to finalize those approvals. ODFW received sufficient information for the Kentuck and APCO mitigation actions within the coastal zone. These actions include the East Bay Drive Bridge, Golf Course Lane Culvert, Kentuck Tide Gate, Kentuck Creek Restoration, and the APCO Bridge. ODFW is working on final fish passage authorizations for these restoration actions.

DLCD, in close coordination with networked state agency partner ODFW, determined that JCEP has not established consistency with ORS 509.580 to 509.645 due to the following insufficiencies for the pipeline and road crossings fish passage plans within the coastal zone:

- Lack of an updated Appendix 3 of the applicant's fish passage application (Horizontal Directional Drill Plans – CZMA) to understand current drilling strategies, potential impacts, and appropriate In-Water Work Windows, and
- Lack of an updated Appendix 6 of the applicant's fish passage application (Stream Crossing Risk Assessment - CZMA) – Stream Restoration actions. This information is critical in the development of site-specific stream crossing restoration plans.

Until this information is provided and determined to meet applicable criteria of enforceable policies, DLCD cannot concur that this project is consistent with fish passage statutes.

In a letter dated February 4, 2020, ODFW confirmed these findings, stating "ODFW does not find the current proposals for the JCEP/PCGP projects to be consistent with all of the OCMP fish and wildlife Enforceable Policies. The primary issues have to do with incomplete fish passage plans (ORS 509.580-509.910 and OAR chapter 635, division 412), and inadequate avoidance, minimization, and mitigation of impacts to fish and wildlife habitat to ensure consistency with the State Wildlife Policy (ORS 496.012 and OAR 635-415)." (See Appendix 8.I)

Statewide Planning Goal 6 - Air, Water and Land Resources Quality

JCEP certifies that the proposed activity complies with Goal 6, an enforceable policy of the OCMP. Goal 6, Air, Water and Land Resources Quality is to "maintain and improve the quality of the air, water and land resources of the state." OAR 660-015-0000(6). This enforceable policy further provides: "All waste

and process discharges from future development, when combined with such discharges from existing developments shall not threaten to violate or violate applicable state or federal environmental quality statutes, rules and standards."

Goal 6 requires a determination, supported by substantial evidence, explaining why it is reasonable to expect that applicable state and federal environmental quality standards can be met by the proposed activity. *Salem Golf Club v. City of Salem,* 28 Or LUBA 561, 583 (1994). The JCEP consistency certification relies on "[p]ertinent permits, permit applications, and other agency documentations" provided in exhibits. Where a copy of an application is provided to establish compliance with an enforceable policy and that application has either been denied or withdrawn, the consistency certification has not established compliance with an enforceable policy.

On May 22, 2018, the Corps issued a public notice of a complete application from JCEP which commenced DEQ's water quality certification review pursuant to Section 401 of the Clean Water Act. JCEP provided DLCD that application as part of its consistency certification as Exhibit G. DEQ made its water quality certification decision on May 6, 2019, denying JCEP's request for 401 water quality certification without prejudice; affording JCEP the opportunity to resubmit an application for 401 water quality certification with DEQ (see Appendix 6.D). JCEP has to date not submitted a new 401 water quality certification application to DEQ. JCEP applied for removal fill on November 3, 2017. JCEP provided DLCD that application (60697-RF) as part of its consistency certification as Exhibit E. JCEP notified DSL on January 23, 2020 that it was withdrawing its removal fill application 60697-RF from further consideration by DSL.

DLCD therefore cannot concur that the project is consistent with the State's enforceable policies due to a lack of sufficient information. DLCD also objects that under OAR 660-035-0050(4), "the issued permit or authorization is the only acceptable evidence demonstrating consistency with the enforceable policies that the permit or authorization covers." JCEP has not met the requirement to provide DLCD with issued permits and authorizations.

ALTERNATIVE BASIS FOR OBJECTION

Alternative Basis of Insufficient Information and Identified Information Necessary to Determine Consistency

Under the regulations implementing the CZMA, a state may object on alternative bases. A permissible basis is an objection that the applicant has failed, following a written request, to supply information necessary for the state to determine consistency. DLCD objects under 15 CFR § 930.63(c) because JCEP has failed to provide "information necessary … to determine consistency."[67] As DLCD and other agencies have repeatedly observed, JCEP has failed to provide information regarding what JCEP intends to do to mitigate numerous impacts or whether and how such mitigation will work. DLCD has informed JCEP that information regarding mitigation of various specific impacts is essential to DLCD's evaluation. JCEP has not explained how it will mitigate many impacts pertinent to the enforceable policies of the OCMP, therefore DLCD must further object "on the [alternative] grounds of insufficient information" as described under each enforceable policy above. 15 CFR § 930.63(c).

DLCD further objects on the additional alternative basis that JCEP has not provided information sufficient to determine whether less harmful alternatives are available. For example, DLCD requested information regarding "[a]lternative analysis for size and shape of slip and access channel."[68] Shallower or less extensive dredging of the access channel, federal navigation channel, and slip would reduce harmful impacts. The project may not actually require the level of proposed dredging or the proposed slip design; if it does not the impacts associated with this activity are inconsistent with enforceable policies of the OCMP.

ESTABLISHING CONSISTENCY

The CZMA regulations give a State the option, at the time it objects to the consistency certification for a proposed project, to describe any alternatives that would permit the project to be conducted in a manner consistent with its management program. NOAA's regulations state:

> "The objection **may** describe alternative measures (if they exist) which, if adopted by the applicant, may permit the proposed activity to be conducted in a manner consistent with the enforceable policies of the management program."[69] (emphasis added)

In describing alternatives, NOAA's regulations provide further guidance:

> "If a State agency proposes an alternative(s) in its decision letter, the alternative(s) shall be described with sufficient specificity to allow the applicant to determine whether to, in consultation with the State agency: adopt an alternative; abandon the project; or file an appeal under subpart H. Application of the specificity requirement

[67] *See also* 15 CFR § 930.63(a) ("A state agency may assert alternative bases for its objection.")
[68] DLCD Aug. 15, 2019.
[69] 15 CFR § 930.63(b)

demands a case specific approach. More complicated activities or alternatives generally need more information than less-complicated activities or alternatives."[70]

JCEP has not proposed alternatives to this project that would enable the project to be fully consistent with the OCMP. While the OCMP is open to alternatives that would make the project fully consistent with the enforceable policies of the OCMP, additional analysis would be needed to determine whether or not alternatives would be sufficient to meet enforceable policy standards. **At this time, JCEP's project objectives and our enforceable policies are incompatible.**

The following table outlines what would be required for the proposed project to become consistent with the enforceable policies of the OCMP that it is currently inconsistent with.

INCONSISTENT ENFORCEABLE POLICIES	HOW TO BECOME CONSISTENT
Statewide Planning Goal 6	In order to be consistent, JCEP would need to receive an issued 401 Water Quality Certification from DEQ and Removal/Fill authorization from DSL.
ORS Chapter 468B - Water Quality	In order to be consistent, JCEP would need to receive an issued 401 Water Quality Certification from DEQ.
ORS Chapter 196 – Removal-Fill	In order to be consistent, JCEP would require an approve Removal-Fill authorization from the DSL.
ORS Chapter 274 – Proprietary	In order to be consistent, JCEP would require an approval on all Proprietary Authorizations for areas within Oregon's coastal zone from the DSL
ORS Chapter 496 - Wildlife	In order to be consistent, JCEP would need to establish avoidance of Habitat Category 1 habitat, as identified by ODFW.
ORS 469 - Energy; Conservation Programs; Energy Facilities Public Health and Safety	In order to be consistent, JCEP has to obtain and EFSC license or provide engineering designs that demonstrate that facility will be below regulatory thresholds.

Supplemental Considerations for JCEP and FERC

DLCD and its networked agency partner ODFW believe there may be alternative sites available for avoiding impacts to eelgrass. JCEP states "the proposed Eelgrass Mitigation Site was selected after an updated rigorous evaluation of potential sites" and the evaluation criteria and site evaluations for four prospective sites are provided for Haynes Inlet, Old Hatchery Site, Jordan Cove, and Eelgrass Mitigation Site near Airport.

ODFW states that

> "The JCEP Project Description states that the Jordan Cove Embayment site was rejected because 'the amount of area available for eelgrass mitigation may not be sufficient to satisfy the eelgrass requirements of the JCEP.' This rationale is unfounded because the Jordan Cove Embayment certainly contains the spatially equivalent 8-10 acres of un-vegetated sandy shoal habitat that occurs in the lower intertidal zone at the Eelgrass Mitigation Site near the Airport. Further rationale presented for rejection of the Jordan Cove Embayment site is that the 'shifting nature of eelgrass colonies within Jordan Cove

[70] 15 CFR § 930.64(d)

may make it difficult for a mitigation site to comply with annual performance monitoring criteria or successfully meet eelgrass mitigation requirements.' It is not clear, however, how the shifting nature of eelgrass is likely to differ between the preferred (Eelgrass Mitigation Site near Airport) and the rejected (Jordan Cove Embayment Site) sites because historical assessments, hydrodynamic evaluation, and stability modeling was only conducted at the preferred Eelgrass Mitigation Site near the Airport, but not at the Jordan Cove Embayment Site."

The Jordan Cove Embayment should receive further evaluation as a potential site to conduct the eelgrass mitigation work. Further consideration should specifically be given to compare and contrast the ecological conditions (including existing bathymetry, hydrodynamic conditions, characteristics of surface and sub-surface sediments, stability modeling, wind fetch, exposure to wind chop, tidal currents, erosion, sediment deposition, light attenuation, habitat use by invertebrates, fishes, and waterfowl), land availability, presence of nearby eelgrass, viable design strategy, and current recreational uses between the rejected (Jordan Cove Embayment) and preferred (Eelgrass Mitigation near Airport) sites. Additional analysis and information should be provided regarding the rationale for rejection of the Jordan Cove Embayment as a possible site for the eelgrass mitigation work.

Alternative Ideas that DLCD believe should be explored by JCEP and FERC:

- Analysis of how a small incremental reduction in the overall capacity of the proposed facility as a BMP designed to minimize the overall adverse impacts of the project, including removing the "need" for NRIs to fit the proposed LNG Tanker size
- Analysis of pipeline route alternatives that would not impact the Coos Estuary or Habitat Category 1; several viable upland alternative routes were suggested during the FERC scoping process.[71]
- Analysis of alternative eelgrass mitigation sites

CONCLUSIONS

Based on the foregoing, the proposed project has not established consistency with all of the enforceable policies and underlying standards of the federally approved OCMP and DLCD summarizes the justification for objection below:

1. DLCD objects because **JCEP has failed to demonstrate consistency with the OCMP by failing to obtain necessary permits and by failing to provide sufficient information requested by DLCD**.

    a. JCEP fails to demonstrate that the project is consistent with enforceable policies under the jurisdiction of the Oregon Department of State Lands (DSL).

    b. JCEP fails to demonstrate that the project is consistent with enforceable policies under the jurisdiction of the Oregon Department of Environmental Quality (DEQ).

[71] https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=14633140

c. JCEP fails to demonstrate that the project is consistent with the enforceable policies under the jurisdiction of the Oregon Department of Fish and Wildlife (ODFW).

2. DLCD objects because **JCEP has failed to demonstrate that the proposed project would be consistent with enforceable policies contained in a Statewide Planning Goal.**

3. DLCD objects because **JCEP has failed to demonstrate that the proposed project would be consistent with enforceable policies under the jurisdiction of partnering state agencies in Oregon's coastal network.**

Pursuant to 15 CFR part 930, subpart H, and within 30 days from receipt of this letter, you may request that the Secretary of Commerce override this objection. In order to grant an override request, the Secretary must find that the activity is consistent with the objectives or purposes of the Coastal Zone Management Act, or is necessary in the interest of national security. A copy of the request and supporting information must be sent to the Department of Land Conservation and Development, which administers the Oregon Coastal Management Program, and to the federal permitting or licensing agency. The Secretary of Commerce may collect fees from you for administering and processing your request. The Department of Commerce, FERC and the Portland District of the U.S. Army Corps of Engineers are being notified of this decision by copy of this letter.

Sincerely,

Jim Rue
Director
Department of Land Conservation and Development

Cc: John Peconom, FERC
Tyler Krug, USACE
Jason Miner, Governor's Office
Annette Liebe, Governor's Office
Steven Shipsey, DOJ
Jesse Ratcliffe, DOJ
Patty Snow, DLCD/OCMP
Heather Wade, DLCD/OCMP
Deanna Caracciolo DLCD/OCMP
Hui Rodomsky, DLCD/OCMP
Sean Mole, ODOE
Mary Camarata, ODEQ
Mary Bjork, OWRD
Sarah Reif, ODFW
John Pouley, OPRD/SHPO
Bob Lobdell, DSL
Jacob Taylor, DSL
Jill Rolfe, Coos County
Chelsea Schnabel, City of North Bend
Carolyn Johnson, City of Coos Bay
Joshua Shaklee, Douglas County

APPENDICIES

1. **CZMA Application Materials**
    A. Project Overview & Detailed Timeline
    B. JCEP Federal Consistency Review Application & Exhibits List – April 12, 2019
    C. Applicable Enforceable Policies – August 1, 2019
2. **FERC Documentation**
    A. Oregon State Agency Scoping Comments on FERC's Notice of Intent to Prepare an Environmental Impact Statement for Docket No. PF 17-4-000 (Jordan Cove Energy Project LP and Pacific Connector Gas Pipeline LP)
    B. State of Oregon Cover Letter & Oregon State Agency Comments on DEIS - July 3, 2019
    C. JCEP Response to DEIS Comments – July 22, 2019
    D. FERC Endangered Species Act, Section 7 Biological Opinion – July 29, 2019
    E. State of Oregon Comments FERC Final Environmental Impact Statement for JCEP – December 23, 2019
    F. ODFW Supplemental FEIS Comments – February 5, 2020
    G. DEQ Supplemental FEIS Comments to FERC – February 10, 2020
3. **U.S. Army Corps of Engineers Application and Documentation**
    A. Joint Permit Application Cover Letter - October 23, 2017
    B. LNG Terminal Joint Permit Application
    C. Pacific Connector Pipeline Joint Permit Application
    D. U.S. Army Corps of Engineers Process Explanation Letter & Information Request – November 3, 2017
    E. U.S Army Corps of Engineers Environmental Data: JCEP Response – December 1, 2017
    F. U.S Army Corps of Engineers Public Notice Extension – July 17, 2018
4. **Local Land Use Information**
    A. LCOG Staff Report: Recommended Denial – August 13, 2019
    B. LUBA Appeal: OSCC vs. JCEP #2016-095
5. **DLCD Correspondence**
    A. CZMA Advisory – October 27, 2017
    B. JCEP Supplements to CZMA Application (project modifications) – May 6, 2019
    C. Review Initiated Letter – May 13, 2019
    D. 3-Month Notification and Information Request – July 12, 2019
    E. CZMA Public Notice – July 23, 2019
    F. JCEP Response to 3 Month Notification & Information Request – July 31, 2019
    G. Second Information Request & Clarification – August 15, 2019
    H. CZMA Information Response Tables – August 20, 2019
    I. Second Information Request Response from JCEP – August 23, 2019
    J. Letter to DOJ on CZMA Conditioning from JCEP – September 4, 2019
    K. Stay Agreement between DLCD and JCEP – October 7, 2019
    L. Conditioning Matrix & Memo, November 3, 2019
    M. Letter from JCEP to DLCD – December 20, 2019
    N. Response Letter to JCEP from DLCD - January 10, 2020 letter
    O. Clarification Letter to JCEP from DLCD - January 29, 2020 letter

6. **DEQ Correspondence**
    A. JCEP Application for DEQ 401 Water Quality Certification – February 6, 2018/ DEQ 401 Water Quality Certification Application Package – February 6, 2018
    B. 401 Technical Memorandum - February 2, 2018
    C. NPDES Permit Modification Application - January 31, 2019
    D. DEQ 401 Water Quality Certification Denial – May 6, 2019
    E. DEQ 401 Evaluation and Findings Report – Mary 2019
7. **DSL Correspondence**
    A. DSL Removal-Fill Application – Part 1
    B. DSL Removal-Fill Application – Part 2
    C. Overview of Decision Process and Need for Additional Information Letter - April 10, 2019
    D. DSL Denial of Extension for Removal-Fill Permit Review – January 21, 2020
    E. JCEP Withdrawal of Removal-Fill Application – January 23, 2020
    F. DSL Receipt of Withdrawal Removal-Fill and Proprietary Permit Applications – January 30, 2020
    G. DSL Removal-Fill JCEP Review Timeline – January 30, 2020
    H. DSL Redacted Removal-Fill Permit Findings
8. **ODFW Correspondence**
    A. Comments to the City of Coos Bay, Comprehensive Plan Amendment 187-18-000153: Jordan Cove Energy Project Estuary Navigation and Reliability Improvements - August 27, 2019
    B. Kentuck and APCO Fish passage Plan Submission – February 22, 2019
    C. JCEP Fish Passage Plan – Temporary Bridge Installation at MP 44.29 – March 25, 2019
    D. PCGP Fish Passage Plan – April 2019
    E. ODFW Comments to Coos Bay Planning Commission - September 24, 2019
    F. ODFW – Protest of BLM RMPA for JCEP – December 20, 2019
    G. ODFW Jordan Cove Protest of USFS RLMP Amendment – January 6, 2020
    H. ODFW Comments to DSL on Removal-Fill – January 15, 2020
    I. ODFW Enforceable Policy Recommendation Letter – February 4, 2020
9. **ODOE Correspondence**
    A. DOGAMI Comments Related to Geologic Hazards and JCEP - December 1, 2017
    B. ODOE Withdrawal of Application for Exemption – April 12, 2019
10. **Reports, Journal Articles, White Papers, and Supplemental Information**
    A. ODFW White Paper: 2019 ODFW Oregon Marbled Murrelet Habitat
    B. Oregon Travel Impacts Report – June 2018
    C. USCG Waterway Suitability Report – July 1, 2008
    D. Site Selection and Design for LNG Ports and Jetties Information Paper No 14
    E. LNG and Public Safety Issues Summary – 2015
    F. Oregon Administrative Rule 660 Division 4 Approval
11. **Maps**
    A. Map 1: Coos Bay Estuary Management Plan Boundaries
    B. Map 2: Coos Bay Estuary Management Plan Unit Types
    C. Map 3: Coos Bay Estuary Management Plan Units

D. Map 3: JCEP Dredge Zones
E. Map 4: JCEP Pipeline Map
F. Map 5: JCEP Estuary Project Map
G. Map 6: Eelgrass Habitat 1
H. Map 7: Eelgrass Habitat 2
I. Map 8: JCEP LNG Facility Tsunami Hazard

12. Other Graphics & Tables

A. Coos Bay Estuary Management Plan Units Table
B. Goal 16: Hierarchy of Uses Graphic

13. FERC Documents

A. DEIS: https://www.ferc.gov/industries/gas/enviro/eis/2019/03-29-19-DEIS/03-29-19-DEIS.pdf
B. FEIS: https://www.ferc.gov/industries/gas/enviro/eis/2019/11-15-19-FEIS.asp

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