



September 21, 2019

Patty Snow, Manager  
Department of Land Conservation and Development  
Coastal Management Program-DLCD  
635 Capitol St., NE, Suite 150  
Salem, OR 97301-2540

Re: U.S. Army Corps of Engineers, Section 404, Clean Water Act and Section 10 & 14, Rivers and Harbors Act, #NWP-2017-41; FERC, Section 3(a) Natural Gas Act, Dockets #CP17-494-000 and #CP17-495-000—**Public Comment Requesting DLCD Objection to Jordan Cove Energy Project’s Consistency Certification Application**

Dear Ms. Snow:

We write representing the League of Women Voters of Coos County (LWVCC), LWV of Umpqua Valley (LWVUV), LWV of Rogue Valley (LWVRV), and LWV of Klamath County (LWVKC). We are grassroots nonpartisan, political organizations operating in the four counties in Oregon that would be directly affected by the construction and operations of the proposed Jordan Cove Liquefied Natural Gas (JCLNG) and Pacific Connector Gas Pipeline (PCGP), commonly referred to collectively as the Jordan Cove Energy Project (JCEP). Our detailed review of the proposed activities and documents for the JCEP shows that the projects are in direct conflict with many the state and national League of Women Voters positions. These positions are based on League studies and resultant consensus deliberations and pertain to natural resources, water quality and quantity, climate change, offshore and coastal management, land use, energy conservation, public health and safety, and seismic risks.

Since the 1950s, the League has been in the forefront of efforts to protect air, land, and water resources. The League of Women Voters of the United States (LWVUS) “*believes that natural resources should be managed as interrelated parts of life-supporting ecosystems. Resources should be conserved and protected to assure their future availability. Pollution of these resources should be controlled in order to preserve the physical, chemical and biological integrity of ecosystems and to protect public health.*” The League of Women Voters of Oregon (LWVOR) “. . . *opposes degradation of all of Oregon’s surface and ground water . . .*” and declares that climate change is the greatest environmental challenge of our generation. And finally, at the 2018 National LWV Convention, the following resolution passed: “*The League of Women Voters supports a set of climate assessment criteria that ensures that energy policies align with current climate science. These criteria require that the latest climate science be used to evaluate proposed energy policies and major projects (emphasis added) in light of the globally-agreed-upon goal of limiting global warming to 1.5 degrees C, informed by the successful spirit of global cooperation as affirmed in the UN COP 21 Paris agreement.*” We, as local Leagues, are part of the national and state LWV. Based on these positions and our understanding of the likely impacts of the proposed JCEP on critical environmental resources and communities in our areas, the LWVCC, LWVUV, LWVRV, and LWVKC submit jointly these

comments in response to the Coastal Project Notice issued on July 23, 2019 inviting comments on project consistency with the Oregon Coastal Management Program (OCMP).

Because the JCEP seeks to construct and operate a project within the state's coastal management zone, they must seek concurrence from the Department of Land Conservation and Development (DLCD) with their claim that the Project would be consistent with the OCMP's enforceable policies.

**Our understanding of the purpose and parameters of the federal Coastal Zone Management Act (CZMA) and 15 CFR §930.50-66, OCMP, and our study and review of JCEP application materials submitted to this and other federal, state, and local agencies convince us that DLCD should object to the Applicants' Consistency Certification for the OCMP. It is not consistent in a number of ways.** We state this for several reasons that we summarize here and explain further in our comments:

**1) DLCD should object** because JCEP has failed to demonstrate consistency with the OCMP by failing to obtain necessary permits and by failing or refusing to provide information requested by DLCD.

**2) DLCD should object** because the Applicant has failed to demonstrate that the proposed project would be consistent with enforceable policies contained in pertinent Statewide Planning Goals (SWPG) and there is clear evidence that it would be inconsistent with those goals.

**3) DLCD should object** because the Applicant 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 and there is clear evidence that it would be inconsistent with some enforceable policies.

**4) DLCD should object** because the Applicant has failed to demonstrate that the project would be consistent with enforceable policies within pertinent local comprehensive plans and land use ordinances. DLCD should base that objection on their own substantive consistency review of local matters as a result of their statutory obligation to make a factual determination, in this case particularly because of evidence of problematic local processes, as well as clear evidence that the project would be inconsistent with local plans and ordinances.

**For reasons we provide in this comment, we respectfully but strenuously urge DLCD to object to the OCMP consistency certification filed by the Applicant.**

#### **COMMENTS SUMMARY**

- I. CZMA Consistency Certification Process
- II. Inadequacy of information
- III. Project fails to demonstrate consistency—Statewide Land Use Planning Goals
- IV. Project fails to demonstrate consistency—State authorities
- V. Project fails to demonstrate consistency—Local Comprehensive Plans and land use regulations
- VI. Conclusion

## I. CZMA CONSISTENCY CERTIFICATION PROCESS

### A. How the process works.

Congress in 1972 passed the Coastal Zone Management Act (CZMA) (16 U.S.C. 1451 et seq.),

. . . to protect the coastal environment from growing demands associated with residential, recreational, commercial, and industrial uses (e.g., State and Federal offshore oil and gas development). The CZMA provisions help States develop coastal management programs (Programs) to manage and balance competing uses of the coastal zone. Federal Agencies must follow the Federal Consistency provisions as delineated in 15 CFR part 930.<sup>1</sup>

Oregon has developed the Oregon Coastal Management Program (OCMP). DLCDC identifies pertinent enforceable policies that JCEP would need to meet to demonstrate consistency with the OCMP at the agency's website.<sup>2</sup> They are within,

- Statewide Planning Goals;
- State statutes governing removal-fill, water quality, and fish and wildlife protections the state Departments of Aviation, Environmental Quality (DEQ), Fish and Wildlife (ODFW), State Lands (DSL), Transportation (ODOT), Water Resources (OWRD), Parks and Recreation—State Historic Preservation Office ((SHPO); and
- Local Comprehensive Land Use Plans and ordinances.

DLCDC is reviewing 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 and the Natural Gas Act Section 3 Authorization and Section 7 Certificate of Public Convenience and Necessity managed by the Federal Energy Regulatory Commission. The agency must determine whether the project therein described would be consistent with OCMP. The applicants provided DLCDC with the following "necessary data and information" (NDI) to start a six-month review process:

- Coastal Effects Evaluation (Resource Reports and DEIS)
- Enforceable Policies Analysis
- Consistency Certification Statement
- Federal Application: FERC
- Federal Application: USACE

DLCDC indicated the required NDI had been received and initiated the six-month review on May 13, 2019. Since then, as allowed by Federal Regulations at 15 CFR 930 (Subpart D), DLCDC has made requests to JCEP in writing for additional information needed to perform the agency's substantive consistency review. On July 23, 2109 DLCDC opened a 60-day comment period during which the public and other interested parties can provide input. The deadline for comment and for JCEP to submit additional information was September 12, 2019.<sup>3</sup> DLCDC's consistency decision was scheduled for October 12, 2019.

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<sup>1</sup> Bureau of Ocean Energy Management (BOEM) website, <https://www.boem.gov/Coastal-Zone-Management-Act/>.

<sup>2</sup> [http://www.oregon.gov/LCD/OCMP/Pages/OCMP\\_Enforceable-Policies.aspx](http://www.oregon.gov/LCD/OCMP/Pages/OCMP_Enforceable-Policies.aspx).

<sup>3</sup> Jim Rue, DLCDC, to Natalie Eades, JCEP, "Second Information Request and Clarification," August 15, 2019, p. 4.

Due to JCEP's recent request for a stay, it appears that the end dates for both the consistency review and DLCD's decision may be postponed. At this writing, it is not known whether the stay will be negotiated and thereby stop the clock for a period agreed to by both parties. Nor does the public know JCEP's stated reasons for the request or any other terms that may be under discussion between the parties.

When the time comes, the agency may concur with JCEP's claim that the project would be consistent with the Oregon Coastal Management Program (OCMP) or object. In addition to a straight concurrence, they may issue a conditional concurrence that specifies certain conditions that must be met before construction can begin. The agency may also object.

In the case of an objection, the Applicant has 30 days to appeal to the Secretary of Commerce who, in accordance with 15 CFR 930.121, evaluates the state's consistency review. If he determines the review was performed appropriately, *he must sustain the state's objection unless:*

1. The Project is consistent with the objectives of the CZMA, meaning that:
  - The project furthers the national interest, as defined in the CZMA, in a significant or substantial manner;
  - The national interest furthered by the Project outweighs the Project's adverse coastal effects, and
  - There is no reasonable alternative available consistent with the state's coastal management program; or
2. The Project is necessary in the interest of national security.<sup>4</sup>

A finding in favor of either criterion #1 or #2 could result in an override of the state's objection.

## II. INADEQUACY OF INFORMATION

***DLCD should object because JCEP has failed to demonstrate consistency with the OCMP by failing to obtain necessary permits and by failing or refusing to provide information requested by DLCD.***

DLCD has indicated that, although the agency has received the "necessary data and information" to initiate their "substantive review" of consistency with the OCMP, they lack other key information necessary to perform it. From what is available to the public at this time, the Applicant is not on track to provide information DLCD has indicated they need to perform their substantive review of JCEP's claim of consistency with OCMP enforceable policies.

However, this should not stop DLCD from objecting now. We have found that inadequacy of information is a hallmark of the JCEP across the many years the project has been proposed.

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<sup>4</sup> "Decision and Findings by the U.S. Secretary of Commerce in the Consistency Appeal of Broadwater Energy LLC and Broadwater Pipeline LLC From the Objection by the State of New York, April 13, 2009, p. 2, citing 15 C.F.R. § 930.121 and providing "16 U.S.C. § 1456(c)(3)(A) ('No license or permit shall be granted by the Federal agency until the state or its designated agency has concurred with the applicant's certification or until, by the state's failure to act, the concurrence is conclusively presumed, unless the Secretary, on his own initiative or upon appeal by the applicant, finds, after providing a reasonable opportunity for detailed comments from the Federal agency involved and from the state, that the activity is consistent with the objectives of this chapter or is otherwise necessary in the interest of national security.')." "

Review of only the three DEIS comments submitted by Oregon state agencies, including those that are coastal partners—in 2008, 2015, and 2019—provides ample evidence of their repeated and ongoing attempts to obtain necessary information about how project activities would impact state resources, their missions, and state and federal laws the agencies are charged with protecting.<sup>5</sup> We highlight some examples below.

Right now, as DLCD is contemplating consistency of the project with the many enforceable policies pertinent to the OCMP. Of the few necessary permitting projects that have actually been carried through at least the public comment period, the Section 401 Water Quality permit has been denied, in part because of evidence that the project would violate Oregon’s water quality standards and in part because essential information was missing. DEQ documents the reasons for their decision to deny the application in their 200+ page *Evaluation and Findings Report*.<sup>6</sup>

The Department of State Lands (DSL) has had a similar experience. The September 20, 2019 decision date DSL had established last spring was extended at the last minute on September 17, 2019. JCEP committed to provide information requested by the agency shortly after the end of the comment period by October 2019. The new permit decision date is January 31, 2020.

**A. JCEP erroneously denies the state’s authority to require attainment of the various state and local permits and approvals as evidence, in part, of consistency with enforceable policies under their jurisdiction, claiming DLCD must make its decision with only “complete applications” in hand.**

In DLCD’s May 13, 2019 letter announcing the initiation of its six-month substantial consistency review, the agency referenced “Table 2. Additional information necessary to determine consistency” presenting 25 state and 13 local permits and authorizations, along with pertinent enforceable policies. They indicated that “Applicants will need to supply DLCD with the . . . local and state permits to establish consistency of the project with the identified enforceable policies of the Program in Table 2.”<sup>7</sup> Table 2 also provided statuses of required state permits. Some are somewhat complex, but of 38, two were designated as having been received, one has been denied, one requires more information based on public comments received, three applications had been received but were incomplete, and five applications were under review.<sup>8</sup> A significant number of Exhibits included with application materials are not elsewhere available to the public, but the titles suggest that they contain the majority, if not all, of the applications for permits and approvals not previously submitted.<sup>9</sup>

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<sup>5</sup> Theodore R. Kulongoski, Governor, to Kimberly D. Bose, FERC, “Comments of the State of Oregon, Draft Environmental Impact Statement, Jordan Cove Energy Project, LP Docket No. CP07-444, Pacific Connector Gas Pipeline, LP Docket Nos. CP07-441, CP07-442 and CP07-443,” December 4, 2008; John A. Kitzhaber, Governor, to Kimberly D. Bose, FERC, “Comments of the State of Oregon, Draft Environmental Impact Statement, Jordan Cove Energy Project Docket No. CP13-483-000 and Pacific Connector Gas Pipeline Docket No. CP13-492-000,” February 12, 2015; “Oregon State Agency Comments on FERC’s Draft Environmental Impact Statement for Docket Nos. CP 17-494-000 and CP 17-495-000 (Jordan Cove Energy Project LP and Pacific Connector Gas Pipeline LP) DOJ File No.: 0ES456-ES456. Oregon Department of Justice. 3 July 2019.”

<sup>6</sup> DEQ, *Evaluation and Findings Report: Section 401 Water Quality Certification for the Jordan Cove Energy Project*, May 2019.

<sup>7</sup> Jim Rue, DLCD, to Ms. Natalie Eades, JCEP, May 13, 2019, p. 2.

<sup>8</sup> Jim Rue, DLCD, to Ms. Natalie Eades, JCEP, May 13, 2019, Table 2, p. 2.

<sup>9</sup> We were able to obtain those Exhibits after requesting them from DLCD, but only after the agency obtained permission from Pembina. The “user agreement” required to open the files prohibited our sharing it with others and indicated that the files would only be active for seven days. Although by the time we gained access to the files, it was too late in the comment period to review them and the seven-day period was unworkable for the volume of

DLCD reiterated that same informational need in its July 12, 2019 letter “Re: Three-month Notification and Information Request” stating, “. . . DLCD will not concur that a proposed project is consistent with the Program until the applicant has obtained the necessary approvals from local government and state agencies with regulatory authority of the Program.”<sup>10</sup> But in its July 31, 2019 response, JCEP makes a general assertion that the agency has, in some aspects, “exceed[ed] the scope of the framework of federal consistency rules at 15 CFR Part 930, Subpart D.” In a footnote, they make specific reference to DLCD’s requirement for all necessary permits and approvals to be obtained as the means to demonstrate consistency with enforcement policies to which they apply, denying that the federal regulations allow such a requirement.

There are certain limits to what additional information a state may specifically identify and require as additional necessary data and information. For example, a state may require information comprising, “completed State or local government permit applications which are required for the proposed activity,” but “not . . . the issued State or local permits.”<sup>11</sup>

JCEP has misread the regulations. DLCD responds to this charge in another letter dated August 15, 2019, by stating that their requirement for evidence of obtained permits and approvals was based on 15 CFR 930.63(c) which allows that “a State agency objection may be based upon a determination that the applicant has failed, following a written State agency request, to supply the information required pursuant to 930.58 **or other information necessary for the State agency to determine consistency**.”<sup>12</sup>

From the perspective of JCEP, learning of this informational requirement is no doubt concerning, but DLCD is fully in compliance with the federal regulations in requiring attainment of at least state permits for concurrence with a consistency certification. JCEP has misunderstood the definition of the important term in CZMA regulations “necessary data and information.”<sup>13</sup> Pertinent, 2006 Final Regulations make this clear. In fact, *NOAA appears to anticipate that states will include evidence of attainment of at least state permits as a condition of consistency certification*. The discussion of the changes to 930.58(a)(2) states, “When appropriate the applicant and the State could agree pursuant to 930.60, to stay the six-month period until a specific date to allow for issuance of the State permit. *A state, at the end of the six-month review period may, of course, object if the applicant has not yet received the State permit [emphasis added].*”<sup>14</sup>

**B. JCEP has declined to provide some elements of information DLCD has requested to assist with their substantive consistency review.**

While the public has not access to more recent exchanges between the Applicant and DLCD, JCEP has denied that the agency has the authority to request other types of information besides

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materials included.

<sup>10</sup> Jim Rue, DLCD, to Ms. Natalie Eades, JCEP, “Re: Three-month Notification and Information Request,” July 12, 2019, p. 1.

<sup>11</sup> Natalie Eades, JCEP, to Jim Rue, DLCD, “Re: Response to Three-Month Notification and Information Request dated July 12, 2019.” July 31, 2019, p. 1, fn. 1 citing 15 CFR 930.58(a)(2).

<sup>12</sup> Jim Rue, DLCD, to Natalie Eades, JCEP, “Second Information Request and Clarification,” August 15, 2019, p. 2.

<sup>13</sup> *Federal Register*, July 5, 2006, p. 795.

<sup>14</sup> *Federal Register*, July 5, 2006, p. 795.

evidence of state and local permit attainment. The passage from JCEP's July 31, 2019 letter we quoted above referenced additional issues they asserted was beyond the scope of the review. We discuss these below on p. 59.

**C. JCEP has declined to provide FERC with information requested to better ensure safe and effective handling of contaminated materials at sites known to include such materials, some of which may be in the area covered by the OCMP.**

Per JCEP's letter of August 30, 2019 responding to FERC's July 22, 2019 request for additional information, FERC had requested the following:

*JCEP Request 17: Provide a revised Framework Contaminated Media Management Plan that includes specific monitoring and sampling protocols for areas of the Project where previous areas of contamination are known to have existed.*

JCEP responded with this,

JCEP will not revise the Framework Contaminated Media Management Plan ("Framework CMMP") until necessary for specific areas. The Framework CMMP provided in Resource Report 7 identifies the steps and guidance that will be taken by the contractor who will develop "Focused CMMP's" for managing known areas of existing contaminants. The Framework CMMP also describes the steps taken and outlines the regulatory steps and guidance that will be followed if Unanticipated Discoveries are made with respect to contaminants which also leads the contractor to develop Focused CMMP's as warranted. These Focused CMMPs will be developed by the contractor and provided after the authorization is issued.<sup>15</sup>

We have not seen that DLCDC has requested this information specifically to assist with its consistency review, but this matter pertains to several enforceable policies at ORS 468B. And there are contaminated sites that fit the description in FERC's request located in the coastal zone.

JCEP's application provides a list of potential impacts to water quality, but barely addresses the potential for toxic substances from prior industrial activities to be released directly by excavation or dredging of the slip and access channel, or by movement of sequestered contaminants in groundwater to areas being excavated. It was stated that "BMPs [Best Management Practices] will be implemented across the Project to prevent pollutants from entering water bodies." And later on, when addressing anticipated impacts at another area involved in the application, the Applicants state,

Additionally, there are known areas of contamination in the bottom of the former Kentuck Golf Course irrigation sump pond. Further delineation work will be performed by JCEP at both the South Dunes and Kentuck Sites to further characterize the areas of contamination and develop an ODEQ-approved disposal plan that will remove existing contaminated soils and prevent further contamination of the site."<sup>16</sup>

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<sup>15</sup> Natalie Eades, JCEP, to Kimberly D. Bose, FERC, "Pacific Connector Gas Pipeline, LP, Jordan Cove Energy Project L.P. Docket Nos. CP17-494-000 and CP17-495-000 OEP/DG2E/Gas Branch 3 Response to Staff Data Request Dated July 22, 2019," August 30, 2019, n.p., [https://elibrary.ferc.gov/idmws/file\\_list.asp?accession\\_num=20190830-5258](https://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20190830-5258)

<sup>16</sup> LWV of Coos and Klamath Counties and Rogue and Umpqua Valleys, "Re: NWP-2017-41/APP0060697 Clean

By comparison, it should not be overlooked that no such thoroughgoing attention or methodology is promised by JCEP to address a potentially far greater release of toxic contamination still posed by the nearby sites of a 30-acre aeration settling basin and former 230-acre wastewater treatment lagoon.

In JCEP's Attachment E (of their 404 Application), Dredged Materials Management Plan, they also fail to provide any evidence of planning related to this issue. However, they do acknowledge, albeit in passing, that if contaminated materials are confronted during construction, it would increase costs. This suggests further reason for concern. The Applicant acknowledges that contaminants exist in the terminal area, at least, and there is ample understanding of that by state and federal entities. Clearly, coping with contaminants would have both technical and budgetary implications of significant proportions. Yet application materials fail to provide information that allow assessment of the adequacy of response in the event of encountering contaminants. FERC has found that lacking, but the Applicant is unwilling to comply.

This is unacceptable. DLCD cannot concur that Oregon's Anti-degradation statutes would be complied with in the absence of adequate indication of how contaminants would be managed, even at sites where they are known to exist.

**D. DLCD on August 15, 2019 submitted a "Second Information Request" which, to the extent JCEP responds, will determine at least whether the agency and its coastal partners have adequate information to perform the substantive consistency review.**

The issues are found in Table 1 of DLCD's August 15, 2019 request, "Missing information necessary to determine consistency is listed, the coastal partner agency and related enforceable policies identified." The coastal partners in need of the information are DSL, WRD, DEQ, and ODOE. See more below in section IV., pp. 51-53, 56-64.

**E. As of August 15, 2019, the Applicant had not provided to DLCD information supplementing the Corps federal permit application—information on which the Corps' Supplemental Notice dated July 26, 2019 was based.**

This is certainly a legitimate request under 15 CFR §930.58(a)(1)(i) and 15 CFR §930.63(c). All of the issues featured in the Corps' Notice would be germane to the OCMP consistency review and therefore should have been provided in a timely way. We reiterate that, if this—and other pertinent information has been provided or if the agency has requested more since August 15, 2019—it does not appear that it has been made accessible to the public.

### **III. PROJECT FAILS TO DEMONSTRATE CONSISTENCY— STATEWIDE LAND USE PLANNING GOALS**

***DLCD should object because the Applicant has failed to demonstrate that the proposed project would be consistent with enforceable policies contained in pertinent Statewide***

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Water Act Section 401 and 404 Supplemental Public Comment Requesting Denial of Permit Applications," August 20, 2018, p. 13.



***Planning Goals (SWPG) and there is clear evidence that it would be inconsistent with those goals.***

Oregon's OCMP requires for concurrence with a project's consistency certification demonstration that the project would comply with enforceable policies contained in statewide planning goals. We understand that significant authority to determine that consistency is delegated to city and county planning entities by the OCMP. While the latter plan and its provisions have been approved by the federal Office for Coastal Management (OCM) of the National Oceanic and Atmospheric Administration (NOAA), in their 2017 evaluation of Oregon's program, OCM noted the essential requirement that the State agency retain the ultimate responsibility and obligation to ensure that SWPGs would actually be met by a project. We reference throughout this document and in detail in Section V. serious concerns that some permitting processes on the local level have operated in a problematic and troubling manner and warrant careful review. We call on DLCD to be mindful of these concerns and urge the agency to take into serious account information we and other commenters provide that outlines the many significant ways in which the JCEP is entirely inconsistent with pertinent planning goals and the best interests of the coastal region and the state of Oregon.

Below we discuss the individual Statewide Planning Goals that have been identified as pertinent to the JCEP substantive consistency review. We outline reasons we believe the project is inconsistent with the OCMP and therefore call for DLCD to object. We have added discussion of two additional SWPGs that were not designated, but that we believe should also be taken into consideration as part of the review.

**Goal #2: Land Use Planning (OAR 660-015-0000(2)).** To establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions.

As noted just above, we have concluded that although the various coastal communities that would be affected by the JCEP have developed land use planning processes and policy frameworks, including permits, the actual implementation of the numerous permitting and plan exception processes calls into question the likelihood that the overall objectives of the CZMA would be served by relying on them to reflect true consistency with the OCMP. We are therefore urging DLCD to resist accepting issuance of those permits, if and when it occurs, as definitive evidence of consistency of the project with the OCMP and pertinent enforceable policies. DLCD should instead ensure that they take a hard look at the full range of information brought to light during this public comment period, including and especially as it relates to ways in which the JCEP is inconsistent with the objectives of the OCMP and CZMA.

The Coos Bay Estuary Management Plan (CBEMP) offers some important insight into JCEP's inconsistency. It is an important document that provides the basis for management of the estuary. The Plan is in the process of revision, albeit slowed down because of this project. The revision and updates to the plan have been supported by the Partnership for Coastal Watersheds project that allowed for creation of a major digital data base of the condition of the watershed and estuarine resources. The changes in the estuarine ecosystem as a result of restoration measures and the recent challenges from climate change since the plan was approved are documented in the information provided by the Partnership.

However, these data regarding estuary conditions and recovery are not being used in interpretations and dialog regarding several decisions made by Coos County and City of North Bend to approve zoning changes for uses that were not even considered in plans made some

35 or more years ago. Additional discussion of conflicts regarding zoning decisions is provided in Section V, pp. 31, 67. For example, the Applicant proposes to use horizontal directional drilling (HDD) to pull a 36-inch diameter high-pressure welded steel pipeline under a tidally influenced portion of the Coos River, the eastern portion of the Coos Estuary, and the Western portion of the Coos Estuary. The areas of the estuary associated with the proposed Pacific Connector Gas Pipeline (PCGP) are mostly zoned Natural Aquatic and Conservation Aquatic. The interpretation of the pipeline running under the bay being classified as a “low-intensity utility” was a way to approve the zoning changes, but it needs to be questioned. Moreover, the HDD technology was not in use when the plan was developed and approved. In addition, even a low intensity utility is not allowed below the Deep Draft zone, the Applicant writes in its Consistency Certification that,

There is one post-acknowledgment plan amendment required for the Pipeline, which addresses the HDD crossing in Coos County and constitutes a requested amendment to the text of the Coos County Coos Bay Estuary Management Plan (“CBEMP”) to allow subsurface low-intensity utilities in the DDNC-DA CBEMP management unit. The consistency of this post-acknowledgement plan amendment with Statewide Planning Goals is independently demonstrated in Table 1.2.<sup>17</sup>

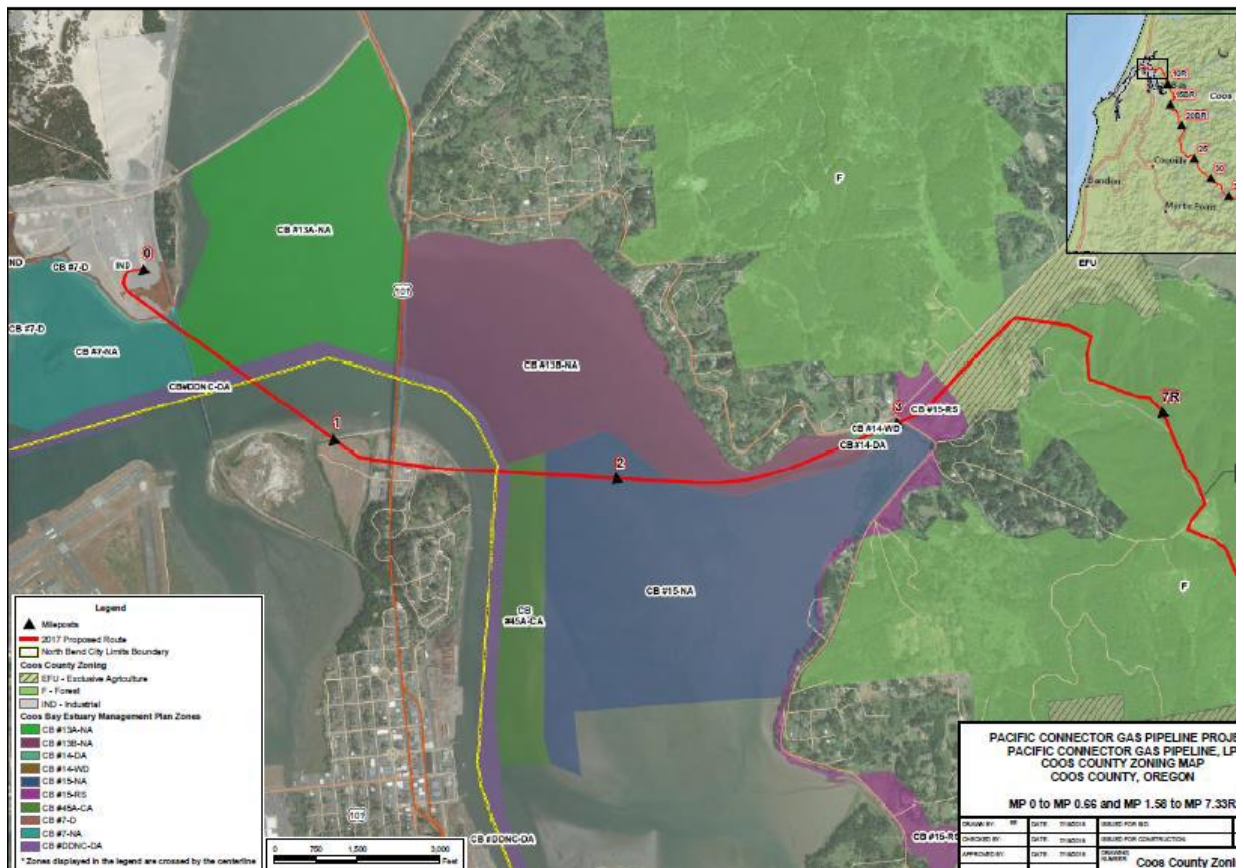


Figure 1. Schematic of the proposed 36-inch gas pipeline route beneath the Coos Bay estuary, with zoning designations.

<sup>17</sup> JCEP, “Joint Coastal Zone Management Act Certifications and Necessary Data and Information,” n.d., p. 26.

We disagree with this finding, and provide a schematic of the areas (Figure 1 above) to be influenced by the decision to identify the 36-inch diameter high pressure gas pipeline running beneath two reaches of the Coos Bay estuary as a “low-intensity utility.”<sup>18</sup> Further discussion of this decision is provided in documents by hearings officer A. Stamp in a summary of appeal process related to this decision.<sup>19</sup> The HDD operations required to route the PCGP under the Coos estuary are expected to produce an estimated minimum of 3,900 cubic yards of excavated sediment. It is not clear where these sediments would be placed or contained. What are the estimated volumes and chemical characteristics of the sediments? How are drilling fluids associated with the HDD operations to be treated and disposed of? The access areas for the leg under Coos Bay from Kentuck Slough to North Bend would have considerable activity and both areas are wetlands. Likely the sediments and drilling fluids would be brought to the surface in the vicinity of two or more of the proposed inbound and outbound pipeline HDD surface penetrations; 1) a site near the shoreline of Kentuck Slough; 2) two sites in the vicinity of the South end of the Highway 101 bridge over the Coos Estuary and; 3) one site at the proposed Pacific Connector pipeline terminus at the South Dunes LNG terminal location. Because the proposed HDD operations would take place in close proximity to the shoreline of the estuary, and because HDD operations would produce a considerable volume of drilled sediment and drilling fluids, an operations and management plan for the HDD operations is not available when one examines the FERC document referenced in footnote 42.

**Goal #6: Air, Water and Land Resources Quality (OAR 660-015-0000(6)).** To maintain and improve the quality of the air, water and land resources of the state.

1. JCEP would not comply with the goal of maintaining and improving the quality of the air.

There would conceivably be projects or developments in this coastal region that would not be inconsistent with air quality safeguards, but JCEP is not one of them. The construction phase of the facility and associated pipelines would generate and release emissions from timber clearing, grading activities during right-of-way construction, trenching activities, laying the pipeline (stringing, welding, laying, backfilling), as well as restoration activities. The extensive habitat alterations of the project to create a footprint for the facility and navigation has consequences from the dredging and fill operations that consume and release emissions from fossil fuels. The public consequences of these operations would dramatically enhance Oregon’s GHG footprint and have been estimated and evaluated for other projects by the US Army Corps of Engineers (Anderson and Barkdoll 2010).<sup>20</sup> Operations, especially but not exclusively related for liquefaction, would sustain emissions release for the life of the project. A 2018 study of lifecycle project emissions found that the JCEP would result in a global GHG emissions of 36.8 million metric tons of CO<sub>2</sub>e per year, or the annual equivalent of 7.9 million passenger vehicles. Installation and operation of the JCEP would render Oregon’s goal to reduce GHG emissions by 80%-95% below 1990 levels by 2050 unattainable. The project’s proportional share of the allowable emissions would grow steadily while at the same time, providing no energy to

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<sup>18</sup> JCEP consistency app, p. 26.

<sup>19</sup> Stamp, A. H. 2019. City of North Bend land use hearings officer analysis, conclusions, and recommendations to the city of North Bend City Council concurrent land use applications for Pacific Connector Gas Pipeline, early works alignment. 0.92 mile App 5-19. Appeal of city of North Bend File Nos. FP 2-18 and CBE 3-18. 16 September 2019.

<sup>20</sup> Anderson, MJ and Barkdoll, BD. 2010. Incorporation of air emissions in dredging method selection. Journal of Waterway, Port, Coastal, and Ocean Engineering, Vol. 136, No. 4, July 1

Oregon—or anywhere in the nation—at all.<sup>21</sup> In our view, *it is untenable to conclude that JCEP would be consistent with Goal #6 in terms of air quality.*

2. JCEP would not comply with the goal of maintaining and improving the quality of water.

The fact that, after years of working with the Applicant's predecessor, Veresen, and now in Round Three with Pembina, DEQ denied JCEP's Section 401 Water Quality Permit. That should be ample demonstration of the inconsistency of the project with this part of Goal #6. We noted above that the denial was based in part on the Applicant's failure to provide necessary information to allow DEQ to determine whether the project would violate Oregon's water quality standards. But DEQ's "Evaluation and Findings Report" identifies numerous issues where the agency was able to ascertain that it was at least likely that the state's standards would be violated by project activities. DEQ's 401 permitting process is a stand-alone process that is required for FERC to be able to issue the two NGA authorizations JCEP requires to begin construction. But DEQ's work and their inventory of missing and inadequate information makes clear that JCEP construction and operations have not been demonstrated to be consistent with this portion of Statewide Planning Goal #6 and the OCMP. That goal and the enforceable policies that implement it require that coastal zone water quality be *maintained and improved, not degraded* as JCEP clearly would do.

Fresh and marine water quality would be affected by the project. Work proposed by the Applicant within coastal riparian areas, wetlands, and waters of the State of Oregon would affect water quality by increasing point source and nonpoint sources inputs to the coastal ecosystem. In January 2015, NOAA and EPA found that the Oregon Coastal Nonpoint Pollution Control Program was still lacking. This project poses further risks from, and failure to, control nonpoint inputs. The proposed construction and pipeline activities include multiple stream crossings, removal of riparian vegetation, compaction of soils, and removal and fill operations that would damage to aquatic habitat and pose harmful effects on overall water quality such as elevated water temperatures, increased sedimentation, suspended sediments, and releases of toxic substances. The activities associated with removal and fill in the North Spit can affect the freshwater systems of that sand aquifer that provides drinking water for the Coos Bay North Bend Water Department, as well as water for the natural wetland functions of the area.

The proposed extensive area of excavation for the berth and associated channel modifications to the berth entrance and to the existing Federal Navigation Channel would result in removal of more than 4.3 million CY of wet sediments. The project proposes to dredge the slip and access channel to a depth of 45.2 feet with a 1.7-foot over dredge allowance (46.9 feet). The process of removing this material would expose previously trapped sediments and mobilize potential contaminants from the nearby industrial areas and the bay area that remain from industrial activities years ago. The release of dredging in polluted estuarine areas can trigger particle surface reactions, in particular, oxidation of metal sulphides and other metals. The release of these cations into the water column have been documented in many estuaries that have been dredged. The partnership project provided an overview map of brownfields and suspected areas for the bay area (Figure 2 below).

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<sup>21</sup> Oil Change International, "Jordan Cove LNG and Pacific Connector Pipeline Greenhouse Gas Emissions Briefing," January 2018, p. 5.

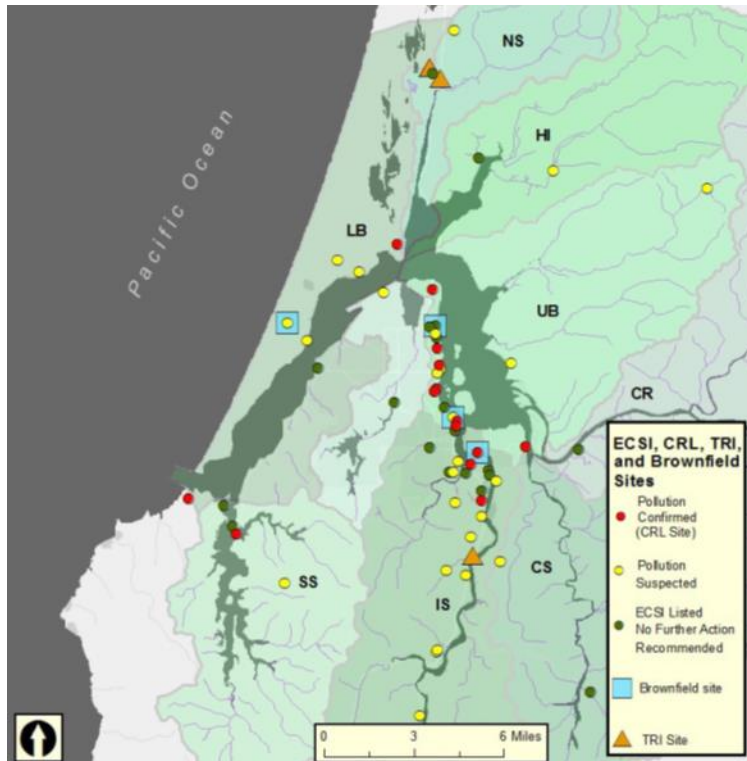


Figure 2. Maps of confirmed and suspected areas, toxic inventory, and brownfield sites along the Coos bay area.

The proposed changes in the estuary depth and configuration associated the proposed berth and entrance channel would likely affect the hydrology in the area, particularly with tidal seawater flows. The cumulative effects of multiple dredge and fill activities are extensive and represent long-term disruption in the hydrology and biological function. The 47-foot-deep excavation into the highly permeable sand substrate of the spit would provide new pathways for groundwater from the wetlands within the spit to move toward that excavation. Though sheet piles would be placed on both sides and the end of the slip, use of sheet piles as JCEP proposes is not watertight and the hydraulic gradient created by the 47-foot-deep excavation (covering more than 20 acres), in combination with a very shallow water table, would draw water toward and into the slip during construction. This disruption of groundwater hydrology could have a harmful impact on wetlands immediately adjoining the JCEP terminal site. The report and modeling by USGS (Jones 1992)<sup>22</sup> support a highly permeable aquifer and models of water levels in wells across the North Spit support the concept that the general flow of the water table is toward the north and west. The substrate permeability and slopes appear to support that runoff from the site and changes in water flow would likely influence and infiltrate the groundwater and ground water related surface water resources of the spit.

Dredging and filling and associated disruptive activities in benthic systems of estuaries leads to direct mortality of organisms and plants in the treatment area, but also alters the exchange of waters and nutrients, horizontal salinity gradients, tidal current amplitude, and resulting sediment transport. According to many scientific studies, dredging can trigger ecological succession such that more opportunistic invertebrate species are likely to dominate shortly

<sup>22</sup> Jones, M. A. 1992. Ground-water availability from a dune-sand aquifer near Coos Bay and North Bend, Oregon. U.S.G.S. Open-File Report 90-563.

following a dredging event. Other adverse effects can be observed on feeding, mobility, and reproduction.

The applicant recently provided a plan to DEQ to assert their compliance with the OAR turbidity standards via their Dredge Pollution Control Plan. However, their proposed management plan is a behavioral model of monitoring turbidity. It does not provide any detailed modeling of plumes and assumptions required, and thus provides only a portion of the information needed to assure water quality standards are met at the project.

Ships loading in the proposed ship berth would discharge ballast seawater, potentially introducing live organisms into the estuary. The access channel and berth would provide vacant substrate with increased risk of colonization of non-indigenous organisms (e.g., bacteria, virus, algae, invertebrates, and vertebrate eggs). Moreover, the frequency of ships' visitation and the size of ballast systems would provide intense propagule pressure that has not been a factor in this area before. During the loading of LNG into ships, the cargo would be cooled by the ship's cooling system and the water would then be discharged from the ships in the berth. It is naïve to assume that biocriteria and temperature releases from cooling water intake and discharge in this slip are devoid of effects on salinity, flow dynamics, and turbidity. The models provided by the Applicant consider two existing cooling systems used in ships during loading process, and do not consider the effects of these releases on the dynamics in the adjacent area from continuous use for days at a time. The pumping rates for the ships cooling during the long residence time in the slip would be substantial, and that the tidal flux may not be adequate to maintain the intake temperatures assumed for intake in their model. What about the likelihood that the intake temperature rises due to the nature of the confined space? The Applicants acknowledge that a plume of elevated temperature from the LNG transport ships berthed during loading would release heated discharge up to a 2.8°C elevation over intake temperatures. What would be the cumulative effect of this on the water quality in the area?

The proposed widening of the ship channel would alter the hydrology and affect settling rates of sediments and erosional forces within the estuary. The placement of the ship berth at an outside turn of the bay would affect the nature of downstream flow and movement of suspended particulates. Vessel wakes would interact with bottom sediments and cause resuspension. The shoreline would be affected by the energy flux, causing localized erosion. The stability of slopes, especially soft substrates, would also be adversely affected. The repeated and frequent arrival and departure of ships and their tugs into the berth would potentially affect the structural and biological habitat features and may promote colonization of exotic species that could have consequences for native species in the area. Depression wakes would be generated by large vessels such as those associated with the proposed project. Sediment resuspension would likely affect the ecosystem through increased turbidity and resultant reduced transparency, thereby disturbing fish communities and their feeding. Wakes and subsequent beach run-up (swash) from deep-draft vessels have been reported to strand juvenile salmon and other fish species when sloping beach areas are close to the navigation channel such as is the case in Coos Bay.<sup>23</sup>

**Goal #7: Areas Subject to Natural Hazards.** To protect people and property from natural hazards.

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<sup>23</sup> Pearson, W.H and J.R.Skalski, 2011. Factors affecting stranding of juvenile salmonids by wakes from ship passage in the Lower Columbia River. *River Res. Applic.* 27: 926–936.

We have conveyed in earlier public comments our belief that the site chosen for the JCEP in 2005 and retained until today could hardly be more dangerous.

1. JCEP would increase rather than reduce risk to people and property from landslides.

Landslides are well documented within areas of proposed Pacific Connector pipeline. The slides could be triggered by earthquake events or from storm related events, the instability of the geology, or construction activities. The Coast Range is especially vulnerable to slides and erosion, as it has relatively soft marine sedimentary rocks that overlie basalt, and the frequency of slides and erosion is high and well known. Moreover, areas that are disturbed and cleared of vegetation would have increased risks of failure. The proposed use of ridge tops would expose soils and erosion and channeling of overland water flow can be expected to result in increased risks for slides, slope failures, and mass wasting. Landslides are one of the most common and most devastating geohazards in Oregon and contribute over \$10 million of economic losses every year.<sup>24</sup>

2. JCEP would increase, rather than reduce, risk to people and property from earthquakes and related hazards.

Models of seismically induced landslides in Oregon show the highest risk is for areas of southern Oregon with marine sediment and slopes as can be seen in this overlay (Figure 3 below) from Sharifi-Mood et al.<sup>25</sup>

Pipeline accidents may be triggered by rupture caused, for example, by pipe damage during installation; third-party, post-construction activity; seismic activity; soil liquefaction or lateral spreading; and landslides. An ignition source in the presence of released gas can result in explosion and gas fire. The fact that the PCGP would be built to Class I standards in terms of pipe gauge and weld standards increases the risks of leaks, explosions, and gas fires which may also spread to structures and/or ignite wildfires. The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) reported in a letter to Congress in 2013 on a variety of scenarios that raise the likelihood of pipeline incidents, several of which match the Applicant's pipeline construction and routing plans.

A pipeline rupture could occur during an earthquake where subsidence affects the pipeline where it crosses a fault line. Ground-shaking from an earthquake may also cause pipeline failure, but even there is even greater likelihood of a rupture where landslides and soil liquefaction or lateral spread where pipelines cross water.<sup>26</sup>

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<sup>24</sup> Mahalingam, R., Olsen, M.J., O'Banion, M.S. 2016. Evaluation of landslide susceptibility mapping techniques using lidar-derived conditioning factors (Oregon case study), *Geomatics, Natural Hazards and Risk*, 7:6, 1884-19

<sup>25</sup> Sharifi-Mood, M., Olsen, M. J; Gillins, D. T., Mahalingam, R. 2017. Performance-based, seismically-induced landslide hazard mapping of Western Oregon. *Soil dynamics and earthquake engineering* 103:38-54.

<sup>26</sup> Conversation with Ian Madin, Geologist at Oregon Department of Gas and Mining Industry (DOGAMI), 8/30/2018.

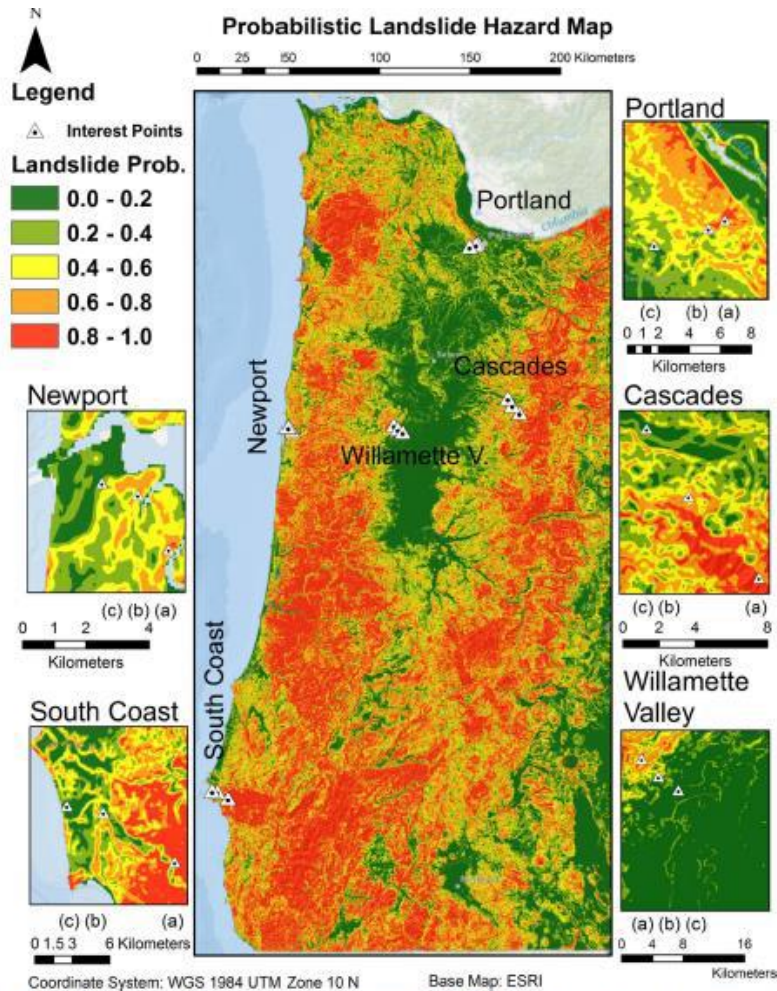


Fig. 8. Fully probabilistic landslide hazard map for western Oregon using Newmark's slope-stability model. The figure depicts the map in 5 selected regions in more detail. Interest points (a) are in steep slopes (slope > 36°), (b) in hill-sides (10° < slope < 20°) and (c) in relatively flat sites (slope < 5°). (For interpretation of the references to color in this figure, the reader is referred to the web version of this article.)

Figure 3. Landslide probability by region in Oregon.

The Coos Bay Watershed has several faults as shown in the map (Figure 4 below). Some have triggered significant earthquakes of 6.0 or more. One fault in particular is located at the proposed location of the LNG facility at Jordan Cove. The underlying geology of the Coos estuary and surrounding watershed results from the tectonic interactions between the Pacific, Gorda, Juan de Fuca, and North American (i.e., North American continent) tectonic plates, and oceanic spreading from two ridges (Juan de Fuca and Gorda) as detailed by Rumrill (2006)<sup>27</sup>. The Coos Bay/Pacific Ocean adjacent to the Bay is an area of active seismic events as detailed in the “Physical Description in the Coos Estuary and the Lower Coos Watershed.”<sup>28</sup> Within the bay and watershed are a number of faults as depicted also on the Figure 4 (below). Both the Oregon Department of Geology and Mineral Industries (DOGAMI) and independent seismic experts have raised serious concerns about the prospect of siting an LNG export facility in Coos Bay.<sup>29</sup>

<sup>27</sup> Rumrill, S. 2006. Ecology of the South Slough Estuary: Site profile of the South Slough National Estuarine Research Reserve, South Slough National Estuarine Research Reserve, 259 pp.

<sup>28</sup> <http://www.partnershipforcoastalwatersheds.org/>.

<sup>29</sup> Goldfinger C, Ikeda Y, Yeats RS, Ren J (2013a) Superquakes and supercycles. *Seismol Res Lett*. doi: 10.1785/0220110135; Y. Rong, D. D. Jackson, H. Magistrale, and C. Goldfinger. 2014. Magnitude Limits of



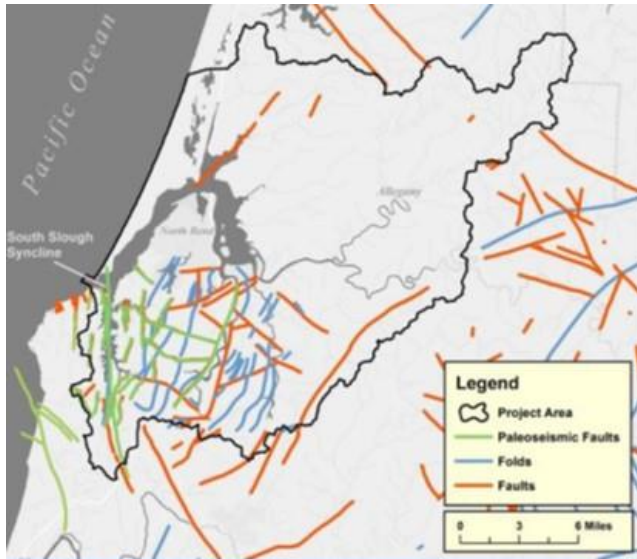
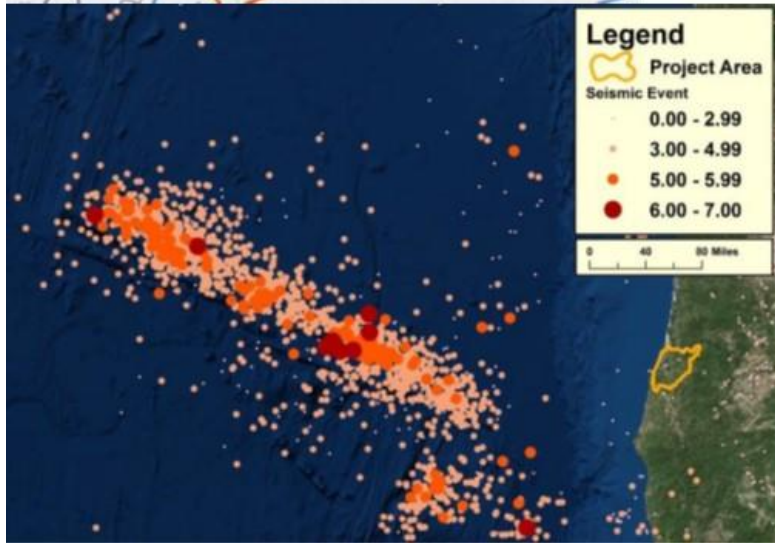


Figure 4.

Summary of faults and seismic events in the land and offshore regions.



3. JCEP would increase, rather than reduce, risk to people and property from tsunamis.

The Oregon coast is vulnerable to large seismic events from the Cascadia Subduction Zone. Studies of tsunami deposits and evidences of coastal subsidence indicate that an average of large seismic events in CSZ occurs once every 300-500 years, with the most recent large event in 1700. This event would cause damage to many structures along the coastal area in the Pacific Northwest. JCEP anticipates disposing much of the material at the Jordan Cove facility to increase the site elevation to a minimum of 34.5 feet NAVD consistent with design-level tsunami mitigation criteria. The actions of tsunami following a subduction zone event in an estuary such as Coos Bay would be repeated wave events back and forth, upstream and downstream causing longer and more damaging events. Neither the likelihood of major

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Subduction Zone Earthquakes. Bulletin of the Seismological Society of America, Vol. 104, No. 5, pp. 2359–2377; Oregon Department of Justice to FERC, December 1, 2017 conveying “DOGAMI Comments Related to Geologic Hazards and the Proposed Jordan Cove LNG Terminal and Pacific Gas Connection Pipeline,” November 17, 2017.

destruction and resultant risks to the many populations nearby nor their effects on the facility and underlying geology of the entire area are addressed appropriately. Most seismologists predict an overdue Cascadian subduction earthquake event, and data from the Japan Tohoku quake and others have shown that models were not predicting the probability of events of such exceptional magnitude.<sup>30</sup>

A ship located in the berth loading or preparing for transit out of the bay would be at high risk and since a high tide is needed for a fully loaded ship to transit out to sea, the vessel would be trapped in the berth. Loss of cooling would result in potential leakage and risk of spill and fire. In addition, access to the site would be hampered likely by local landslides on shore, underwater, and flooding of the harbor. The tsunami waves would move upstream in the bay and cause extensive flooding. The low horizon of the spit would increase the likelihood of waves from the ocean as well as bay side over topping structures. Has sea level rise that can be predicted over the operational decades of the project been accounted for in designs claimed by JCEP to protect against tsunamis?

4. JCEP would increase, rather than reduce, risk to people and property from wildfire.

The Applicant plans for pipeline construction with peak work during the summer to avoid conflicts with critical fish habitat and use. Construction of a buried pipeline requires the use of heavy equipment and explosives, activities that carry with them significant risk of starting wildfires. For example, to create a 95-foot-wide clear-cut right-of-way, trees would be felled using chain saws and feller-bunchers; brush would be cleared, including by bull-dozing across rocky ground; 10-foot-deep trenches would be dug, using where necessary rock-saws, rock drills, and blasting; and pipe would be laid and welded. Trenches would then be backfilled to bury the pipeline, again with heavy equipment in rocky terrain. These work windows also correspond to fire season. The two year-long pipeline construction schedule would bring with it increased risk of mudslides and landslides, noise pollution from heavy equipment operation and blasting, disruption of water resources, and wildfires from construction activities in our increasingly climate stressed terrain.

**Goal #8: Recreational Needs (OAR 660-015-0000(8)).** *To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.*

No one would contend that the JCEP brings any value in terms of meeting any kind of recreational needs, but more importantly for purposes of consistency with the OCMP, the project would disrupt and devastate the recreational resources in the region. It is therefore totally inconsistent with this Goal. This is of great concern because recreation is not just a goal. It is the foundation of one of the major existing components of the Coos Bay area's economy, as well as a tremendous value for Oregonians and visitors from all over the country and world.

The Coos Bay region is a great draw for visitors eager to observe and interact with the natural resources, culture, and the climate of the southern Oregon Coast. The area is served by multiple campgrounds, beaches, hotels, boat ramps and marinas, bike and hiking paths, RV

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<sup>30</sup> Goldfinger C, Ikeda Y, Yeats RS, Ren J (2013a) Superquakes and supercycles. *Seismol Res Lett.* doi: 10.1785/0220110135; Y. Rong, D. D. Jackson, H. Magistrale, and C. Goldfinger. 2014. Magnitude Limits of Subduction Zone Earthquakes. *Bulletin of the Seismological Society of America*, Vol. 104, No. 5, pp. 2359–2377; Oregon Department of Justice to FERC, December 1, 2017 conveying “DOGAMI Comments Related to Geologic Hazards and the Proposed Jordan Cove LNG Terminal and Pacific Gas Connection Pipeline,” November 17, 2017.

parks, two casinos, and other areas for recreation that feature the bay, ocean, and river resources. The Oregon Coastal Zone Management Association (OCZMA) conducts studies of Oregon's coastal economy and provides information to an extensive network of government and other agencies, aiming to improve the region's standard of living. According to the OCZMA,

Fisheries also provide part of the overall ambience folks want to experience when visiting the Oregon coast or opting to live there. They help attract artists, writers and others, including a growing number of retirees, who in turn make their own contributions to an ever-changing diverse economy and culture. Travelers spend time watching and photographing the fishing fleets, and visitors often show up at the coast seeking fresh, locally caught seafood.<sup>31</sup>

Travel Oregon reports that visitor spending in Coos County supports more than 3,300 jobs—more jobs than Bay Area Hospital and the forestry/wood products industry combined. It generates \$1.5 million in local tax revenues.<sup>32</sup>

The overall access to, and interest in, the area of recreation would be affected by the construction and the operation of the facility. In terms of tourism, the Coos Bay-North Bend-Charleston area is named “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.<sup>33</sup>

Access to and attraction to recreational resources would be affected and have not been fully considered in this project. We provide information about direct conflicts for access to the Oregon Dunes National Recreation Area (ODNRA) in discussions of Goal #16. Other destination resorts would be directly affected by the noise and traffic from construction, the dredging of the channel at four locations in the lower bay, and most certainly would be affected directly and indirectly by the safety exclusion zone for LNG ships during operations.

Empire, the village situated at the narrowest and southernmost reach of the bay, has important historical and cultural value. The Confederated Tribes of the Coos, Lower Umpqua and Siuslaw Indians (CTCLUSI) are in the process of building an interpretive center and complex at an important location in Empire known as the Hollering Place. Historically, this area provided connection between Coos Indian villages of Qaimisiich on the East (Empire) and El-ka-titc on the spit to the west. The Coos Indians on the North Spit would call across the bay to citizens of the villages at Empire to request someone to paddle over and provide passage and vice versa. In March 2018, the CTCLUSI and the City of Coos Bay signed a DDA (Disposition and Development Agreement) to collaborate on the redevelopment of The Hollering Place as a way to honor the past and provide economic and environmental benefits for the future generations of the area. The DDA obligates the Agency to sell the Hollering Place property to the Tribes where they would build a destination-caliber resort with a cultural heritage museum and promenade from bluff-top to the beach.<sup>34</sup> Three of the oldest houses remaining in Coos County are in Empire—the first Coos County Seat—and are marked in this historical district: the 1869 house of Major Morton and Anna Tower, the 1873 house of Captain James and Sarah Magee, and the 1872 house of Charles and Minnie Tower.<sup>35</sup>

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<sup>31</sup> 10 Terry Dillman, “Oregon Ports Stimulate Coastal, State Economy,” *Fisherman's News*, May 1, 2013.

<sup>32</sup> Nicolas, A. Johnson, “Visitor spending data released by Travel Oregon,” *The World*, July 16, 2018.

<sup>33</sup> <https://oregonsadventurecoast.com/>.

<sup>34</sup> Details of the project are provided: <https://ctclusi.org/hollering-place>

<sup>35</sup> Details provided; <https://oregontic.com/oregon-historical-markers/the-hollering-place/>.

Along the highway between Empire and Charleston is a newly developed large destination RV resort, Bay Point Landing.<sup>36</sup> This resort features furnished RVs for rent, cabins, a clubhouse, and gathering places. They feature over 160 RV campsites, top-tier amenities, a heated saltwater pool, and over a mile of private bayfront beach. These facilities face the lower bay and would be directly affected by the dredging operations, as well as all ship movements, as they would both be built within the safety exclusion zone (Figure 5).

DLCD must find that the JCEP would be totally inconsistent with Goal #6. The recreational facilities, opportunities, and planned developments named above are only examples. All would be devastated irreparably by the construction and operation of an LNG liquefaction, storage, and export facility.

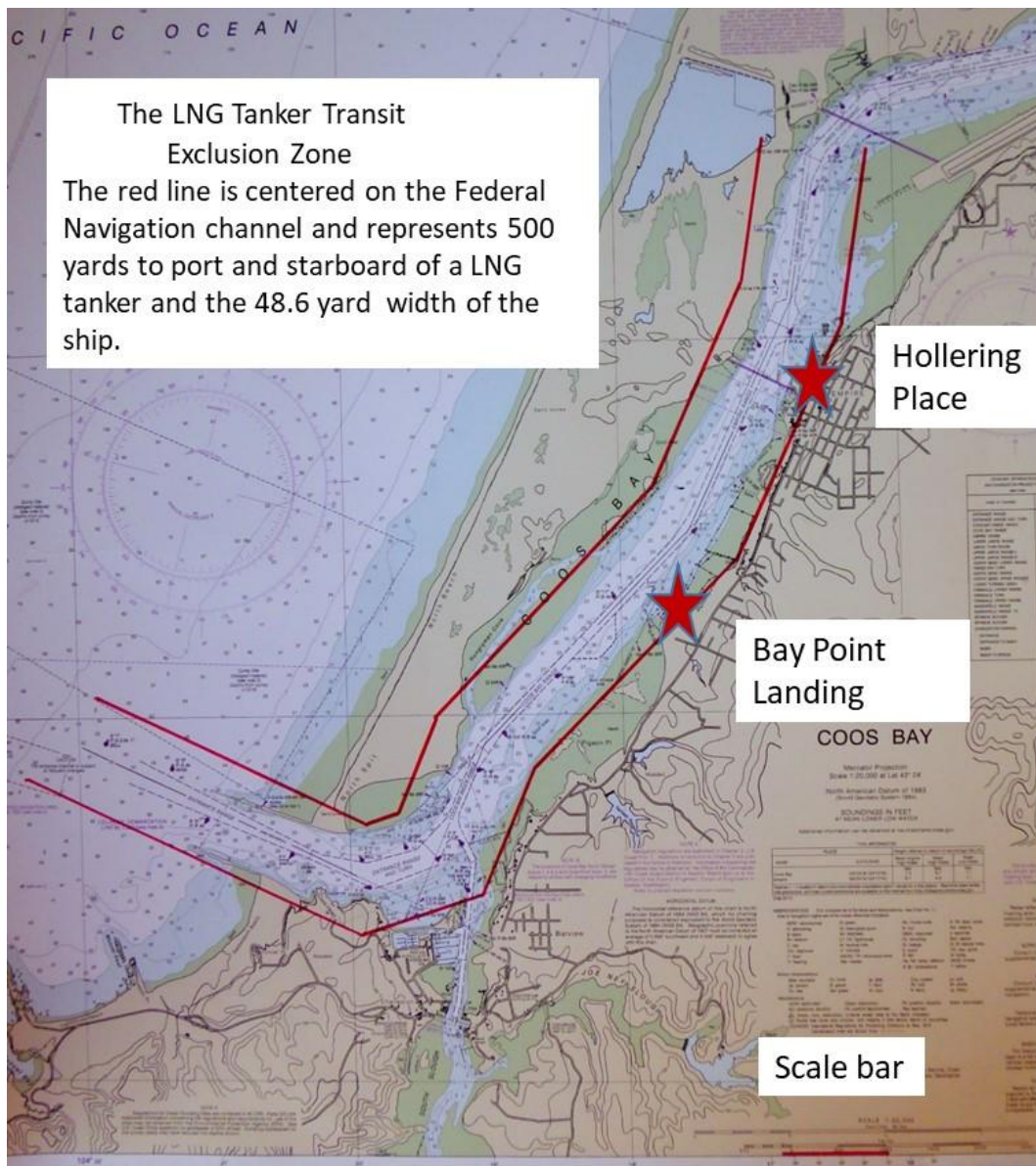


Figure 5. Schematic of exclusion zone and two destination resorts under development.

<sup>36</sup> <https://baypointlanding.com>.

**Goal #9: Economic Development (OAR 660-015-0000(9)).** *To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.*

This Statewide Planning Goal for economic development has not been identified by DLCD in their substantive consistency review; however, we respectfully contend that the agency should consider it. First, one of the major—in fact almost the only—benefit JCEP can claim for anyone or any entity besides their Canadian parent corporation and Canadian natural gas producers, is the opportunity for jobs for the community. Testimony and comments from Jordan Cove supporters hail the promise of thousands of jobs. We seriously question that many people living in the coastal area around Coos Bay would get those jobs. Second, we believe it is entirely germane to the consistency review to determine whether on balance, JCEP is likely to result in more economic detriments than benefits. Third, a mechanism developed by the Oregon Legislature to encourage and facilitate local, rural business and industry development, Enterprise Zones, has been utilized by first Veresen and now Pembina, both Canadian corporations with massive balance sheets, to accomplish their goals at a discount. In light of these three factors, the project is inconsistent with Statewide Planning Goal #9 and that goal is central to the wellbeing and future health of the coastal zone. As an adverse coastal impact, the JCEP is inconsistent with objectives of the OCMP. Additionally, Planning Guideline 2 of Goal #9 instructs that the “[comprehensive] plan should also take into account the social environmental, energy, and economic impacts on the resident population.” The JCEP would negatively impact the resident population in all of these ways.

**A. The promise of jobs—mostly temporary—engenders support from some sectors but may be of questionable reliability in the first place.**

We agree that there is a need for good jobs in our state and local communities; however, we are not confident that this project would result in employment circumstances the Applicant describes. The number of temporary jobs claimed has been elevated in the current Round Three iteration of the JCEP from 2,000 in the previous submittal to up to 8,000 in the current application. The reason for the increase is unclear, since this project lacks the jobs associated with potential of construction of the power plant sector included in the earlier version. Around 100 permanent jobs are claimed. The Applicant implies, and supporters appear to believe, that these jobs would go to local, or at least state, residents. Over the decades, communities across the nation have learned that oil and gas projects don't necessarily deliver on those promises. One of the primary reasons is that the necessary skill sets workers need for a project of this magnitude and complexity must be gained by specialized training and experience. The DEIS acknowledges this,

Jordan Cove's estimated construction workforce would average 1,023 workers over the 53-month construction period, with projected employment expected to peak in month 30 with an estimated 1,996 workers employed on site (ECONorthwest 2017a). Construction would require workers in highly skilled crafts, such as pipefitters, ironworkers, electricians, carpenters, and management staff, including safety specialists. Jordan Cove anticipates that the workers hired will already have these skills, having gained experience in other related industries, including the oil and gas and power industries.<sup>37</sup>

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<sup>37</sup> DEIS, p. 4-588.

It is not persuasive to, on one hand, profusely assure the public and agencies that this project would be constructed with the utmost care, professionalism, skill, and expertise needed to protect the natural and human environment, and then, on the other, to encourage people in need of a job who lack the necessary high level skill sets to expect that they would be among the chosen beneficiaries. Clearly, Pembina is not planning to hire and pay the costs to train thousands of Coos County residents or southern Oregonians to lay 229 miles of 36-inch pipe through extremely challenging terrain when there are thousands of experienced pipefitters, welders, etc., in North and South Dakota, Pennsylvania, eastern Colorado, Texas, and so on who are looking for work.

But full discussion of the claimed job creation benefit must also factor in jobs that would almost certainly be lost as a result of the JCEP; that also needs to be part of DLCD's consistency review in light of Goal #9. The adverse impacts on the many existing industries in the Coos Bay area, e.g., oyster farming, private timber companies, shellfish and other commercial fishing operations, tourism and recreation. Annual events such as the Oregon Coast Music Festival, Mill-Luck Salmon Celebration on Coos Bay, Bay Area Fun Fest, National Estuaries Week and so many other celebrations of culture and natural beauty are of central importance and have not received adequate attention in discussions around local land use processes. The DEIS largely glosses over these impacts and the Applicant and their economic consultant totally ignore them. The picture is skewed and misleading. DLCD needs to take these issues into consideration.

**B. The unique and historical value of Oregon Coastal communities and resources would be jeopardized at significant economic and social loss by construction and operation of the proposed Project.**

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. As articulated in the Oregon Sea Grant Strategic Plan 2014-2017, the state has pioneering land-use laws to conserve marine resources and ecological function for long-term benefits.<sup>38</sup> In addition, the Oregon Beach Bill of 1967 guarantees public access to our beaches; there is an average of two public beach-access sites per mile of coastline. Coos Bay is the largest estuary within the state, and is the location of two educational institutions, the Southwestern Oregon Community College and the University of Oregon's Institute of Marine Biology. In addition, the estuary is the site of the South Slough National Estuarine Research Reserve (SSNERR). The SSNERR agreement between Oregon and the federal government was the first estuarine sanctuary in the United States created under Section 312 of the Coastal Zone Management Act (CZMA) of 1972 (P.L. 92-583) and redesignated as the South Slough National Estuarine Research Reserve by federal law (P.L. 99-272). The management policy for the reserve is to:

- Maintain the integrity of the estuary;
- Protect the estuary from uses and activities, both within and beyond its boundaries, that may alter or affect the ecosystem and its natural dynamic processes; and
- Preserve the area for long-term scientific and educational uses.

In addition to these educational and research related assets, the area is surrounded by major parks owned and managed by the county, state, and cities.

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<sup>38</sup> Oregon Sea Grant Strategic Plan 2014-2017. Oregon Sea Grant, Oregon State University, Corvallis, OR 97333, [https://seagrants.noaa.gov/Portals/1/Strategic%20Plans/OR\\_2014-2017plan-Final\\_glossy.pdf](https://seagrants.noaa.gov/Portals/1/Strategic%20Plans/OR_2014-2017plan-Final_glossy.pdf).

This unique position provides economic benefits felt throughout the coastal regions. 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.<sup>39</sup> 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.<sup>40</sup> Travel generates \$1.5 million in local tax revenues. In comparison, direct visitor spending in the state of 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 7 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.<sup>41</sup>

The recreational fishing industry in Oregon has broadscale economic impact and is tied to trips out of regional bays. Recreational angling for finfish contributes substantially to coastal economies. Trip spending generated \$66.7 million in 2013 of total personal income to coastal economies and \$68.9 million in 2014. These numbers do not include shellfish harvesting trips that are more tied to the bays.<sup>42</sup> In addition, the commercial fisheries and working waterfronts are essential sources of jobs and economic growth. To the extent that the JCEP would disrupt the above activities, the area would suffer losses in both jobs and tax revenues.

Please see Goal #17: Coastal Shorelands, pp. 34-38, 40, 45-46, for more information on the critical role of fisheries and other local industries and developments in the area's economy and the permanent disruption JCEP would cause.

**C. Tax revenue is cited by the Applicant as a public benefit, but we see high costs and low benefits for the community and the state and the lion's share of the advantage goes to a large foreign fossil fuel conglomerate.**

No doubt, additional tax revenue would be attractive to affected counties. However, the equation is far more complicated than just dollars-in. The costs to county government directly related to JCEP activities—especially Coos County where most of the construction would occur—would be significant. These must be factored into any responsible balancing of benefits and detriments. The carbon emissions from the facility would substantially challenge Oregon's goal to grow Oregon's economy while achieving Oregon's greenhouse gas reduction goals.

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<sup>39</sup> Runyan and Associates 2019. Oregon Travel Impacts Statewide Estimates 1992 – 2018. Oregon Tourism Commission.

<sup>40</sup> Nicolas, A. Johnson, "Visitor spending data released by Travel Oregon," *The World*, July 16, 2018.

<sup>41</sup> League of Oregon Cities Transient Lodging Tax, <https://pamplinmedia.com/documents/artdocs/00003561114159.pdf>.

<sup>42</sup> *Oregon Marine Recreational Fisheries Economic Contributions in 2013 and 2014, Revision 2.2*, prepared by The Research Group, LLC for Oregon Department of Fish and Wildlife and Oregon Coastal Zone Management Association, September 2015.

JCEP's utilization of Oregon's Enterprise Zone statutes for rural economic development further demonstrates local decision-making processes resulting in inconsistency with the OCMP. JCEP proposes to develop their project within the Bay Area Enterprise Zone. The original agreement was developed during previous ownership (Veresen) and Pembina has followed suit with this approach. The Applicant submitted a request to receive a Long-Term Rural Enterprise Zone abatement for 15 years. This request of property tax abatement is for the export facility and associated infrastructure and is estimated at \$7.3 Billion. This agreement began a decade ago with the first proposed project for an LNG import facility. Since then, the project changed to an export project of smaller size and is now proposed as a facility with the capacity to export 7.8 million tonnes per annum of LNG. The current application added the proposal to dredge 583,000 CY of material from four areas along the existing Federal Navigation Channel and plans for a larger berth along with changes in the route of gas piping and mitigation. The parent Canadian company in no way fits the description of a local or regional business, the type of business Enterprise Zone statutes were intended to encourage and facilitate that include advanced manufacturing, business services, food and beverages, forestry and wood products, high technology, and outdoor gear and apparel.

The benefit to qualifying businesses is a 100 percent abatement from local property taxes for at least three years. In some cases, the abatement lasts for five years on plant and equipment newly invested in the zones. The proposed enterprise agreement provides a negotiated distribution of funds that the applicant would pay directly as a community service fee contribution (CSF). The agreement provides for a quasi-government institution as the zone manager who would oversee distribution of funds for a long-term enterprise agreement program.

There are nine enterprise zones located on the Oregon Coast. The enormity of this particular agreement and proposed development in Coos Bay dwarfs any of the other proposals or existing developments. What we see as the original intent of this option to attract businesses to develop local economies and build *long-term* economic capacity for these regions does not comport with this development whose adverse coastal impacts are enormous and benefits are almost entirely temporary. This Application involves the largest proposed alterations to the landscape ever proposed for Oregon. This is in sharp contrast to other agreements across the state for commerce, wood, and agricultural products and other negotiated long-term enterprise agreements reported for the coastal enterprise zones or other rural developments in Crook, Douglas, Morrow, and Wasco Counties.

**Goal #16: Estuarine Resources (OAR 660-015-0010(1)).** *To recognize and protect the unique environmental, economic, and social values of each estuary and associated wetlands; and to protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries.*

#### **A. Coos Bay in a key natural resource.**

The Coos Bay is the state's largest estuary. It is a drowned river valley and supports an extensive suite of aquatic natural resources. The Coos Bay Estuary Management Plan goals are to maintain the integrity of the estuarine ecosystem and balance industry, restoration, and natural resource goals. Goal #16 states that major tracts of salt marsh, tide flats, and seagrass and algal beds shall be preserved in natural management units as a minimum inclusion. The preservation and protection of these habitats is important, because they are the sites where many of the beneficial functions of estuaries take place. That decision was among the key features of the inventory and assessment of the bay leading to designation of significant natural



aquatic zones by Coos County in 1979.<sup>43</sup> The Coos Estuary is tidally dominated for most of the year due to the greater influx of oceanic water during a tidal cycle than river discharge. High wintertime precipitation leads to higher river discharge, higher water column stratification, and migration of the salinity intrusion seaward<sup>44</sup>

The Partnership for Coastal Watershed (PCW) program, in collaboration with Coos County and South Slough Reserve, recently used funding from the national estuarine science collaboratives to assist the County's Planning Department to update environmental and community data related to the Coos Bay Estuary Management Plan (CBEMP). Some parts of the CBEMP have not been updated for 40 years, leading partnership project staff to assemble numerous digital resources, data and recommendations by local stakeholders from an array of perspectives. The digital data source is an encyclopedic compilation of all available data describing the socioeconomic and environmental conditions in the Coos Bay area.<sup>45</sup> The report documents the numerous improvements in natural resource protection that has been led through planning and zoning by the Coos Watershed Association, South Slough NERR, and tribal organizations to promote natural resource protection over the past 35 years.

When the last update of this 1984 CBEMP was approved, no one had any concept of a project like the JCEP, either in terms of tools to be used or magnitude. Moreover, in 1984, the need for increasing resilience in coastal communities from the challenges of climate change and sea level rise were not considered. The objective of the work by the Partnership for Coastal Watersheds was to use this information to revise the CBEMP. After more than 35 years, changes to the needs and the restoration of function in areas of the bay previously degraded by industry were recognized. In 1984, the planners did not foresee the growth of tourism, the continued reduction of heavy industry, and the growing opportunities for sustainable development. The management and considerations of habitat needs for ESA listed fish and wildlife species were not fully considered in 1984.

Five anadromous species of salmon and trout use the bay. The salmonids use various habitats for feeding, and migration to spawning areas of tributary streams. The species include Coho salmon (*Oncorhynchus kisutch*), chinook salmon (*Oncorhynchus tshawytscha*), steelhead trout (*Oncorhynchus mykiss*), searun cutthroat trout (*Oncorhynchus clarki clarki*), and occasionally chum salmon (*Oncorhynchus keta*).

The estuarine habitat has abundant side channel habitats that provide exchange of nutrients, and this habitat within intertidal flats is critical habitat for juvenile Dungeness crab (*Cancer magister*). In addition, high densities of juvenile English sole (*Pleuronectes vetulus*) utilize lower side channels of the area. The tide flats are also critical habitat for abundant populations of mollusks and the native oyster has been a target of restoration efforts by many partners in the estuary with impressive results. The Partnership for Coastal Watersheds (PCW), program in collaboration with Coos County and South Slough Reserve, has provide key digital maps and data to illustrate distributions of crabs and mollusks in the estuary (Figure 6).

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<sup>43</sup> Brunzman, D. and F. Ratti. 1097. Coos Bay estuary inventory and study. Coos County Planning Department.

<sup>44</sup> Sutherland, David A., and Molly A. O'Neill. 2016. Hydrographic and dissolved oxygen variability in a seasonal Pacific Northwest estuary. *Estuarine, Coastal and Shelf Science* 172: 47–59. <https://doi.org/10.1016/j.ecss.2016.01.042>.

<sup>45</sup> Cornu, C. E., and J. Souder (eds). 2015. *Communities, Lands & Waterways Data Source*. Partnership for Coastal Watersheds, South Slough National Estuarine Research Reserve, and Coos Watershed Association. Coos Bay, OR.

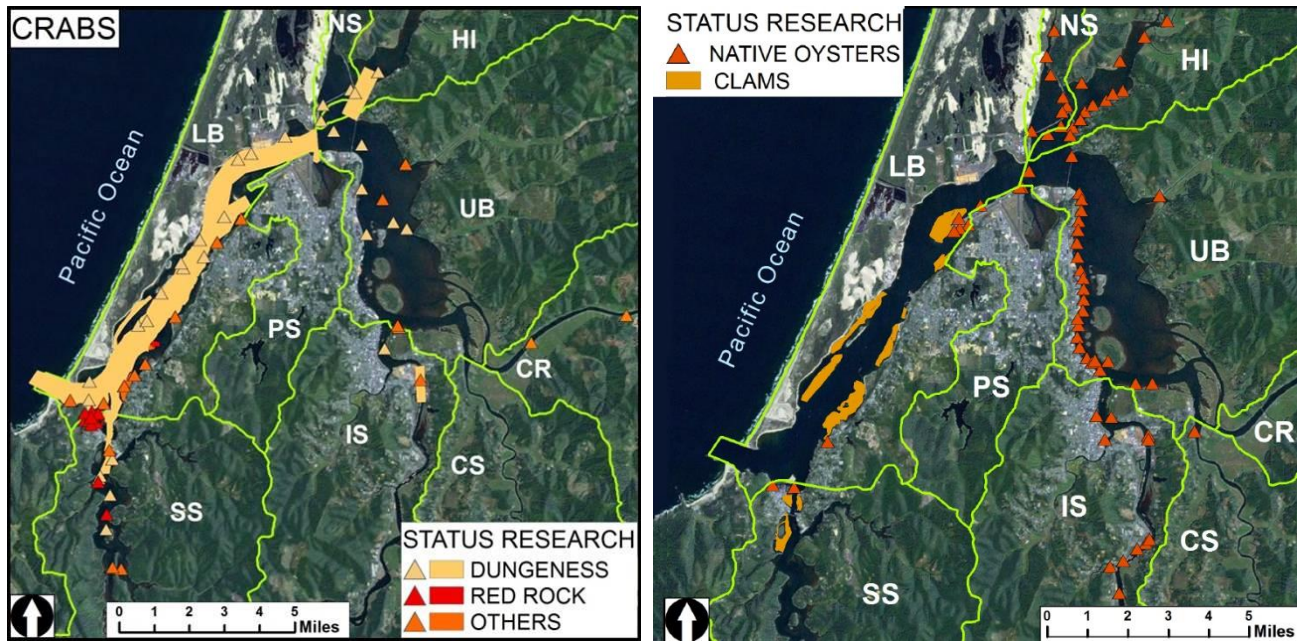


Figure 6. Left panel. Distribution of Dungeness and other crab species in the Coos Bay. Right panel, areas of native oysters and clams in Coos Bay.

**B. Modifications of the CBEMP to allow this project have been accomplished at several local levels in distinct segments without a careful and comprehensive evaluation of effects; the proposed mitigation of effects is inadequate.**

The project proposal to dredge, fill wetlands, and remove major areas of the spit to provide access for ships and infrastructure is a threat to key resources and productive estuary habitats. Watershed based changes in the CBE Management plan zoning should be addressed to consider the aquatic system in its entirety and consider the scientific data about the areas that are proposed for alteration and address cumulative effects of each component. The jurisdictions of the cities of Coos Bay and North Bend and Coos County have regarding these resources should be considered collectively, as impacts are observed in a highly integrated estuary system. Accepting a piecemeal approach to this application for specific variances in the Coos Bay estuary zones without regard to the suite of all proposed changes to governing local entities fails to provide any wholistic assessment of impact or resulting condition.

In submittals to DEQ regarding hydrology, the Applicant provided limited simulations and models for sediments and other hydrology. They provided a salinity model using a three-dimensional program Visual Plumes model, but they used the deeper Navigation Channel proposed by the Coos Bay Port in their submission to the Corps of Engineers (deepened to 45 feet). Comparisons were conducted for a duration of two months in one year, arbitrarily selected from November 16, 2011 to January 19, 2012 to represent typical tidal conditions for which representative steady-state inflow conditions were recorded. These models were never corrected to the depth of channel proposed with this application, nor did they consider conditions other than a small window, and the dynamics of interactions with sediment sizes in different times of the year.

### **C. Two mitigation projects would not mitigate losses**

Two mitigation projects are proposed to reduce or replace the natural resources and ecosystem services lost as a result of pipeline construction and the filling and dredging required for the facility and ship terminal. Both mitigations are inadequate in their approach. They are treated individually in the following discussions.

#### 1. Kentuck restoration is flawed.

The mitigation project at Kentuck has been proposed to address two separate and significant sources of ecosystem disruption and loss. It is claimed as a way to dispose of massive quantities (300,000 CY) of unconsolidated sand and silty sand sediments from dredging operations in the Coos Bay area, but also to serve as wetland mitigation for the loss of all wetlands and riparian areas that would be disrupted by the proposed 229-mile pipeline project.

The DEIS states that approximately 108.7 acres of wetlands (6.0 acres of estuarine wetlands and 102.7 acres of freshwater wetlands and open water) would be temporarily affected at the Kentuck project site in association with wetland restoration and mitigation activities. Potential impacts at the Kentuck project site include a temporary reduction in water quality due to an increase in sedimentation (e.g., resulting from import and grading of dredge material), temporary disturbances to adjacent wildlife, and a temporary impact on vegetation removed during restoration activities at the site. The mitigation plan contains no discussions of alternatives to this approach for the project or any other potential mitigation along the pipeline swath. Moreover, the Kentuck site already has substantial existing freshwater wetland values in this palustrine wetland/forest and its vegetative cover is used by migratory and resident wildlife and game and associated hydrological values. The eelgrass mitigation project at least proposes to provide a mitigation ratio of 3:1 to create 6 acres of eelgrass near the airport within a 9.3-acre site to replace the 1.9 acres of eelgrass destroyed on the north spit. DLCD needs to insist on accounting for this proposed freshwater/estuarine wetland.

The concept of reconnecting Kentuck Creek and slough within the Kentuck watershed to provide a wider wetland area rather than the narrow corridor that exists is a reasonable proposal, but the methods and design of the project fail to capture the full potential of this mitigation opportunity to further upstream mitigation. The fill of 4.3 acres proposed through construction of a high elevation dike or permanent levee around the area is not clear.

Moreover, the entire project at Kentuck poses a large risk from transporting the dredge material. Per the plan, the material would be transported across the bay and navigation channel via scow, then moved through the temporary dredge transfer line, and finally hydraulically pumped to the Kentuck mitigation site. There are no details for the protection of water resources during this activity, and there is a total absence of consideration of alternative sites or methods. The sediments destined for the Kentuck Project site would be transported using scows that would be towed to a location east of the Coos Bay Channel. Then the sediments would then be hydraulically pumped to the Kentuck mitigation site via a 1.3-plus mile-long pipeline. The pipeline route would traverse intertidal and shallow sub tidal portions of the estuary between the Coos Bay Channel and the Kentuck Project Site. This choice appears to be in direct contradiction to FERC's own procedural instructions and poses risks for what quality.<sup>46</sup> DLCD should scrutinize this planned procedure carefully as we believe this, as well as the following

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<sup>46</sup> Wetland and Waterbody Construction and Mitigation Procedures, A.2.

two issues present a significant conflict with water quality safeguards called for in Goal #6, as well.

The lack of details and inherent risks of water movement and pipelines pose threats to any of the resource values in the region of the transfer. The Kentuck sub-basin watershed, including Kentuck Creek and its main tributary, Mettman Creek, are located upstream from the proposed Kentuck mitigation project. Approximately 81% of the land use in the watershed is forestry and 11% agriculture (mostly livestock). Small farms and two rock quarries make up the remaining uses.<sup>47</sup> The forestry, livestock, and quarrying have impacted the watershed for nearly 100 years and there has been little significant positive change to date. Large recent forest clear-cuts have occurred in the Kentuck Creek sub-basin. Sediments are a significant problem in the watershed. In April, quarry operators were issued citations and fined \$68,000 by the Oregon DEQ for sediment releases 10,693% higher than the sediment level upstream.<sup>48</sup> Moreover, the stream surveys in the watershed show available spawning gravel is already fully utilized and much other gravel is embedded in sediments. Other features of the watershed documented by the Coos Watershed Association report show little promise and large challenges to provide appropriate habitat restoration in Kentuck drainage for increasing Coho salmon.

Other potential impacts associated with the proposed mitigation plan at Kentuck Inlet include the likely interference with existing mariculture operations located in the bay area near the Kentuck Inlet. Those operations would be harmed as habitat for other fish and shellfish and wildlife is disrupted by transfer and logistics of sediment movement and dewatering at Kentuck.

## 2. Eelgrass Mitigation for losses is flawed.

One site in the estuary is proposed to function as a mitigation for the entire impacts of the project would have on the eelgrass habitats. We provide detailed information about the value of eelgrass and provide a summary of the weakness of the Applicant's proposed mitigation project. The concept of simply replacing existing eelgrass beds that would be removed and affected by the dredging of the access channel and dredge pipe placement is highly problematic. Restoration projects for eelgrass are not always a success and the design of this project in particular has serious flaws.

Eelgrass beds have an important role in the life cycles of fish, invertebrates and wildlife species, and are located in many areas throughout the estuary (Figure 7 below).

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<sup>47</sup> Coos Watershed Association, 2006, Coos Bay Lowland Assessment and Restoration Plan, March 2006, Charleston, OR: Coos Watershed Association

<sup>48</sup> Oregon DEQ 2019. Notice of Civil Penalty Assessment and Order Case No. WQ/SW-WR-2019, April 29.



Figure 7. Distribution and density of seagrass in Coos Bay estuary.

Because eelgrass is a rooted plant, it performs a vital function of stabilizing coastal sediments and preventing erosion. The eelgrass community also provides direct and indirect food and cover for many marine species. Because the proposed development permanently destroys 1.9 acres of eelgrass, the Applicant proposes to mitigate this loss through development of a larger eelgrass habitat across from the project in an area that is currently an estuarine tide flat south of the western tip of the North Bend Airport runway. The design of this plan is questionable. The eelgrass mitigation site chosen by the Applicant already has some eelgrass present and there are wetland values associated with the mud flats area that is proposed to be altered from its existing slope draining toward the north east. The biology and habitat requirements and constituents of eelgrass communities are complex and the biologists in the bay have been working to restore and reestablish these communities throughout the bay and estuary. DLCD needs to consider carefully the cumulative effects of destruction of eelgrass and how restoration

practices should be accomplished using a careful scientific approach. That is not what is provided in JCEP's proposal. At certain tide levels, the excavated eelgrass mitigation area would hold water in a shallow intertidal sump formed by the dredging. This could entrap fish and provide an isolated pond environment that would heat up in warm months with low tides. It would likely inhibit the growth of the eelgrass and affect any of the associated biota using that area.

Furthermore, dredging in the intertidal and shallow subtidal zones within the JCEP project area can be expected to result in risks to the native eelgrass habitats and the species that are part of the communities they support as structural and productive environments. Eelgrasses are light-limited and can reduce suspended sediments as they affect velocity of water flows. This cycle is referred to as a positive feedback loop, as eelgrass can increase the light available at the sea floor and promote primary productivity.<sup>49</sup> Beds of eelgrass occur at several locations throughout the Coos Bay tidal basin where they provide numerous ecological functions and are used by a variety of species. The heterogeneous habitat provides nursery habitat for invertebrates and fish and is used by shorebirds and waterfowl for foraging. The primary production of O<sub>2</sub> in eelgrass and algal beds helps offset ocean acidification.

The entire system functions to improve overall estuarine water quality. The goals of coastal management include securing a vibrant estuary environment to offset future and emerging challenges to all coastal zone habitats. The results of increased CO<sub>2</sub> in the oceans ready have affected our local and regional fishermen. Fishing is often their only source of livelihood. Elevated concentrations of CO<sub>2</sub> are promoting toxic algae growth and increasing ocean acidity.<sup>50</sup> Elevated ocean temperatures have reduced growth of many species and these three factors resulted in the delay in the Dungeness crab season again this past year. The review of these issues, consequences, and summary of the multi-nation coastal effort in ocean acidification and its urgency are provided in the Oregon Ocean Coordinating Council report.<sup>51</sup> Last year the Pacific Coast Federation of Fisherman filed a lawsuit against major oil companies.<sup>52</sup> We further question that our regionally important fishing community would be served by the elevated carbon footprint resulting from construction and operation of the facility.

### 3. Enlarging four areas of the Navigation Channel is not necessary.

According to the JCEP consistency application, "The LNG Terminal also includes minor enhancements to the Channel to improve navigation reliability and enhance safety ('NRIs')."

This is hardly a minor enhancement to the navigation channel. The 583,000 CY of material proposed for removal would require a variety of dredging equipment and pipeline to move dredge spoils from the areas of dredging to proposed location for permanent storage. The areas are sloping areas near known populations of native oysters and clams and provide important

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<sup>49</sup> Reidenbach MA and Thomas EL. 2018. Influence of the seagrass, *Zostera marina*, on wave attenuation and bed shear stress within a shallow coastal bay. *Front. Mar. Sci.* 5:397. doi: 10.3389/fmars.2018.00397

<sup>50</sup> Howarth, R., F. Chan, D. J. Conley, J. Garnier, S. C Doney, R. Marino, and G. Billen. 2011. Coupled biogeochemical cycles: eutrophication and hypoxia in temperate estuaries and coastal marine ecosystems. *Front Ecol Environ.* 9(1):18–26.

<sup>51</sup> Barth, J.A., C.E. Braby, F. Barcellos, K. Tarnow, A. Lanier, J. Sumich, S. Walker, F. Recht, A. Pazar, L. Xin, A. Galloway, J. Schaefer, K. Sheeran, C. M. Regula-Whitefield. 2018. The Oregon Coordinating Council on Ocean Acidification and Hypoxia. First Biennial Report. September 2018. [oregonocean.info/index.php/ocean-acidification](http://oregonocean.info/index.php/ocean-acidification).

<sup>52</sup> Benjamin Hulac, "Fishermen Sue Oil Companies Over Rising Ocean Temperatures," *E&E News*, November 15, 2018, <https://www.scientificamerican.com/article/fishermen-sue-oil-companies-over-rising-ocean-temperatures/>

habitat for a variety of species. The removal of segments along a navigation channel would result in considerable destabilization of substrates and changes in hydrology after the action is completed. This dredging is not needed as shown by a USCG letter from US Commander Smith, Captain of the Port Sector, to the Jordan Cove Energy project dated November 7, 2018. This letter documented that simulated transits by our Coos Bay pilots demonstrated safe and successfully maneuvering of LNG carriers up to 983.3 feet in length and 160.8 feet in beam and 39 feet in draft could occur in the current channel.

To accomplish the proposed NRIs, action by the county was needed to change the estuary zoning designation of the CBEMP for these areas: approximately 10.51 acres of 59-CA, approximately 10.53 acres of 2-NA, and approximately 2.18 acres of 3-DA, to DDNC-DA. The fourth area requires the City of Coos Bay to change of 3.3 Acres from 52-NA to DDNC-DA. Not only are these changed so that dredging could be accomplished, but the zoning also included amendments to allow for maintenance dredging, as well as placement of temporary dredge transport lines in the 59-CA, 55A-CA, 2-NA, DDNC-DA, and 3-DA Districts as managed by the Coos County, and also through the 52-NA, 53-CA, 54- DA, and 55-CA Estuarine Zones managed by the City of Coos Bay.

The Applicant considers the two main vehicles for NRI dredging (1) mechanical dredging and (2) hydraulic cutter suction dredging. The Applicant estimates the types to be used, but also indicates that the final means and methods would depend on the equipment available to different contractors and the contractors' individual experience. Different attributes and risks are associated with operations of each of these instruments and their influence on the substrates surrounding operations.

The areas surrounding these four reaches of the proposed NRIs are utilized by a range of fish and wildlife and are adjacent to eelgrass beds that are essential fish habitat for multiple species. These three areas are all zoned natural aquatic and conservation aquatic for a reason. They are highly productive and support important estuarine ecosystem services. The cumulative effects of multiple dredge and fill activities are extensive and represent long-term disruption in the hydrology and biological function.

The areas would be affected by changing the dynamics and configuration of a deeper and wider Federal Navigation Channel. The tidal nature and hydrology of the bay is affected by the depth and slope of the channel. The hydrology of the bay is affected by river flows and storms and tidal events. The estuary can be fully mixed at this location at many times of the year and during large freshwater flows, stratified conditions occur. Coos Bay estuary exhibits substantial variability in circulation patterns with variation in tides, river discharge, ocean conditions, and prevalent offshore winds across tidal, spring-neap, and seasonal time scales. Altering the benthic configuration, especially on a turn in the estuary, would necessarily provide uncertainty in estimating the long-term equilibrium side slope configuration of the sediments and resulting benthos. It would take time until a new long- term equilibrium is reached. The sediments in the bay are dynamic and changes in the configuration of the bottom would alter the movements of sediments and extent of tidal surges and salinity plumes.

The applicant asserts that the record now includes a plan to achieve compliance with the OAR turbidity standards. The Applicant submitted a Dredge Pollution Control Plan to DEQ after the record had been closed and DEQ had denied their application. They claim that without a refutation, this document should be accepted. However, the lack of review does not imply acceptance. The management plan provided is a behavioral model of monitoring turbidity. It does not provide any detailed modeling of plumes and assumptions needed. This Dredge

Pollution Control Plan provides only a portion of information needed to assure water quality standards are met at the project. It is DLCD's obligation to consider these issues in its own right as part of the substantive consistency review.

The timing proposed by the project for major dredging and alteration to the navigation channel is between October and February. It is documented that in Coos Bay between January and March, Pacific herring (*Clupea pallasii*) use the bay as a spawning and nursery ground. Eggs can be found on rocks, pilings, seaweed, and seagrasses.<sup>53</sup> According to the PCW report, mature and immature herring occur in the bay during spring and summer months, and young herring have been found as far upriver as RM 20, though they are more numerous below RM 15.

Shellfish resources would be affected by the dredging and by the activities of construction such as pile driving. Populations of native Olympia oysters *Ostrea conchaphila* are dispersed throughout the area and surrounding dredging sites and also around dredge spoils sites. These populations as well as the commercial oysters can be affected by elevated suspended sediments. Other important invertebrates found within the bay habitat include ghost shrimp (*Callinassa californiensis*) and mud shrimp (*Upogebia pugettensis*). Both are important shore-based resources that are used as food source by a variety of species, as well as bait resources for fishing. It is estimated that more than 60 species of fish use the estuary area.<sup>54</sup> Among the more well-known fish to use the marine and lower bay area are starry flounder (*Platichthys stellatus*), English sole (*Parophrys vetulus*), kelp greenling (*Hexagrammos decagrammus*), Pacific sand lance (*Ammodytes hexapterus*), gunnels, and sculpins. The threatened green sturgeon (*Acipenser medirostris*) uses the bay for foraging and although they most often are in the mid reaches near the railroad bridge, they have been reported further upriver.

#### 4. The lack of independence between a project proposed by the Port of Coos Bay and the proposals by JCEP is a concern.

In addition to this proposed modification of four NRIs, JCEP has provided financial support for Port of Coos Bay's even larger dredging project to deepen and widen the Federal Navigation Channel in the Coos Estuary. JCEP has paid at least \$4 million to the Port of Coos Bay to support the evaluation of a plan submitted by the Port in 2018. The proposed project that was submitted by the Port of Coos Bay is currently under review by the US Army Corps of Engineers (USACE) and awaits issuance of a Draft Environmental Impact Statement (DEIS). These relationships between the two entities continue with direct communications between the Port and JCEP, as well as reimbursement by JCEP of expenses incurred by the Port for their proposed dredging and widening project. The Port's proposed project contains a request for channel deepening and widening with three elements that result in an estimated dredging of up to 15 million cubic yards (CY) of sediment and bedrock from the Coos Estuary and disposal of dredged material on the seabed in or near the boundary of the state territorial sea.

**Goal #17: Coastal Shorelands (OAR 660-015-0010(2)).** *To conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics. The management of these shoreland areas shall be compatible with the characteristics of the*

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<sup>53</sup> Moffatt and Nichol 2015. Environmental assessment. Coos Bay maintenance dredging. Prepared for US Army Corps of Engineers. Portland District.

<sup>54</sup> Roye, C. 1979. Natural resources of Coos Bay estuary. Estuary Inventory Report Vol. 2, No. 6, Oregon Department of Fish and Wildlife



*adjacent coastal waters; and to reduce the hazard to human life and property, and the adverse effects upon water quality and fish and wildlife habitat, resulting from the use and enjoyment of Oregon's coastal shorelands.*

Construction and operation of the JCEP in the Coos Bay vicinity on the North Spit would constitute an extreme adverse effect on coastal shorelands, making the project inconsistent with this Statewide Planning Goal.

#### **A. Fish and wildlife and habitat diversity**

This project takes the state and region in an opposite direction from protection and restoration of benefits for the public trust resources, important to the state and national interest and central to the OCMP. Even acknowledging the “development” side of the SWPG, this project is incompatible with Oregon’s program. The presence of federally protected species in the area of impact requires consultation with federal partners, as well as Indian Tribes. The JCEP project would severely disrupt the critical habitat of federally protected aquatic species, including Coho Salmon (*Oncorhynchus kisutch*) and Green Sturgeon (*Acipenser medirostris*). Indian Tribes, NOAA fisheries, and the State of Oregon have worked hard to restore the salmon populations in the south coast. The State has invested significant amounts of Oregon taxpayer money to restore water quality and salmon in all six of the sub-basins that would be affected by the JCEP—the Coos, Coquille, South Umpqua, Upper Rogue, Upper Klamath, and Lost River sub-basins. DLCD needs to take all of this into account.

The Western Environmental Law Center (WELC) determined total expenditures by the Oregon Watershed Enhancement Board (OWEB) of over \$37 million. The *ESA Coho Salmon Recovery Plan* produced by NOAA National Marine Fisheries Service outlines major threats:

Degraded water quality, reduced water quality, including high water temperatures, and increased fine sediment levels affect Coho Salmon production in several populations. Increased water temperature is the primary source of water quality impairment for Oregon Coast Coho Salmon, and rising water temperatures due to climate change could add to this problem. Land use activities have contributed to increased water temperatures in coastal streams by removing riparian vegetation, disconnecting streams from floodplains, and reducing streamflow through water diversions.<sup>55</sup>

Coos Bay is an important area for shorebirds between San Francisco Bay and British Columbia. Common shorebirds include the black oystercatcher (*Haematopus bachmani*), rock sandpiper (*Calidris ptilocnemis*), wandering tattler (*Tringa incanus*), Western sandpiper (*Calidris mauri*), whimbrel (*Numenius phaeopus*), dunlin (*Calidris alpina*), and the black-bellied plover (*Pluvialis squatarola*). In addition, the sand dunes of the North Spit provide an important wintering and breeding area for the western snowy plover (*Charadrius alexandrinus nivosus*).

The data from the PCW provided a schematic of various plant resources of concern including location of rare and endangered plants, tidal wetlands, and sea grass areas in the following figure (Figure 8).

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<sup>55</sup> NOAA National Marine Fisheries Service, *ESA Coho Salmon Recovery Plan*, p. 6.

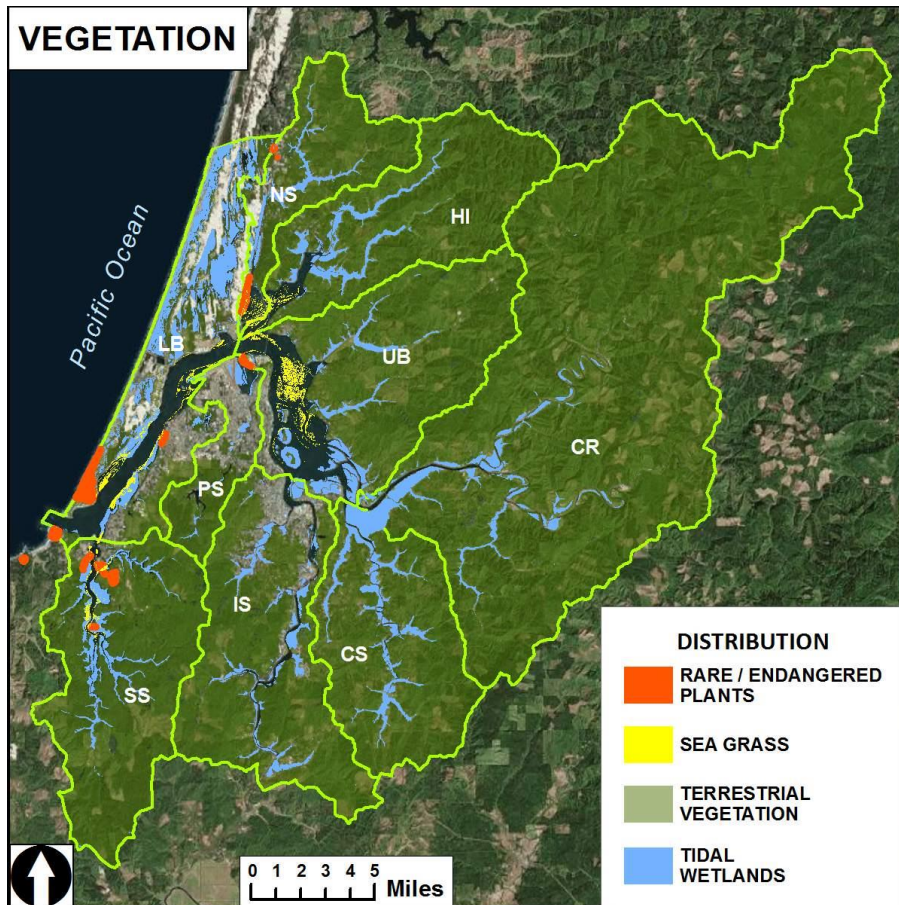


Figure 8. Summary of terrestrial, tidal vegetation, including locations of rare plant species.

**B. Key contributions to the local economy from commercial fishing and aquaculture are at risk of being lost if the project goes forward.**

In its comments on the 2015 DEIS, the Oregon Department of Agriculture (ODA) pointed out that the adverse impacts on the commercial oyster industry in the Coos Bay project area had not been disclosed such that the state and the public were not adequately informed. 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. These high quality mariculture facilities are part of the local food economy and are important renewable resource operations for the area. The largest farm, Clausen Oysters, leases land from the Port of Coos Bay and is the largest oyster farm in all of Oregon.

The Coos Bay area is an important port for commercial fishing and the third largest working waterfront on the Oregon Coast.<sup>56</sup> 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, processing infrastructure, and marine-related services. A small number of commercial vessels dock in downtown Coos Bay.

<sup>56</sup> Port of Coos Bay 2018 Annual Report; <https://www.oipcannualreport18.com/charlestonmarina>, extracted June 20, 2019. 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>.

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. The boat basin is considered the home port to more than 200 commercial fishing vessels year-round that range in size from about 30 feet long (salmon trollers and small combination vessels) to almost 100 feet long (trawlers and seiners). The Port of Coos Bay facilities (ice plant, docks, moorage, etc.) can support a commercial fishing fleet of 250 vessels.<sup>57</sup> 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.<sup>58</sup> 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 5,440.8 metric tons or 11,994,911 pounds, followed by Dungeness crab/crab species at 2,721.6 metric tons or 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.<sup>59</sup>

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.<sup>60</sup> 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

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<sup>57</sup> Port of Coos Bay 2018 Annual Report; <https://www.oipcbannualreport18.com/charlestonmarina>, extracted June 20, 2019. 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>.

<sup>58</sup> 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. Extracted at 10:17 p.m. on June 13, 2019 (<https://reports.psmfc.org/pacfin/f?p=501:1000:.....>).

<sup>59</sup> 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. Extracted at 10:17 p.m. on June 13, 2019 (<https://reports.psmfc.org/pacfin/f?p=501:1000:.....>).

<sup>60</sup> 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>, extracted June 30, 2019.

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.<sup>61</sup>

In 2000, the West Coast groundfish fishery was declared a failure due to undetermined, but likely natural causes. Managing the fishery conservatively, in order to account for scientific and management uncertainty, contributed to reduced quotas. Factors that may have contributed to the declines include changes in ocean conditions, low productivity, and five El Niño events after 1982, according to the U.S. Department of Commerce.<sup>62</sup> Between 1999 and 2002, nine species of groundfish were listed as overfished, which meant draconian management measures had to be taken to rebuild the long-lived species.<sup>63</sup> Now, roughly 20 years later, all but two of the stocks have been rebuilt and both sport and commercial fishermen are enjoying the benefits. Sport fishermen have had longer seasons and increased bag limits. Commercial fishermen have begun to reclaim markets lost almost two decades ago.<sup>64</sup>

The detailed table (pp. 37-38) below was generated using state agency fish ticket data from the PacFIN comprehensive fish ticket table. This report includes all U.S West Coast catch areas including the Puget Sound and other inland areas where marine fish are caught. (Only the portions relating to Charleston/Coos Bay and Oregon statewide landings have been included here; Canadian and Alaskan catches have been excluded).<sup>65</sup> Shoreside reported catches have species and area composition samples applied. Data that involve fewer than three vessels or dealers have been withheld to preserve confidentiality.

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

We provide this detailed information to illustrate the economic importance and future promise of the fishing sector in the Coos Bay area, if they are not disrupted by the JCEP. As we discussed above, all of these endeavors are threatened by the proposed JCLNG facility and export activities. It should be clear, although the Applicants downplay and the DEIS does not acknowledge it, that LNG tanker activity would both take precedence over and otherwise interfere with all other boating uses. Security measures due to the potential for terrorist activity add to this conclusion. DLD need to thoroughly consider the economic cost to the communities that rely on the Coos Bay for their livelihood.

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<sup>61</sup> 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](https://www.nwfsc.noaa.gov/research/divisions/fram/economic/economic_data_groundfish.cfm), extracted June 30, 2019.

<sup>62</sup> U.S Department of Commerce, National Oceanic and Atmospheric Administration press release No. NOAA 00-R103, "Commerce Secretary Daley Announces West Coast Groundfish Fishery Failure," January 19, 2000; <https://www.fisheries.noaa.gov/webdam/download/65032875>, extracted June 30, 2019.

<sup>63</sup> National Marine Fisheries Service/NOAA Fisheries West Coast Region, "Rebuilding plans pay off for West Coast groundfish fishery," April 2016.

<sup>64</sup> National Marine Fisheries Service/NOAA Fisheries, feature story: "Rebounding Populations and New Flexibility Boost Catches by West Coast Groundfish Fleet," April 15, 2019; <https://www.fisheries.noaa.gov/feature-story/rebounding-populations-and-new-flexibility-boost-catches-west-coast-groundfish-fleet>.]

<sup>65</sup> 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. Extracted at 10:17 p.m. on June 13, 2019 ([https://reports.psmfc.org/pacfin/f?p=501:1000:::~:](https://reports.psmfc.org/pacfin/f?p=501:1000:::)).

Year	Management Group	Common Name	COOS BAY, OR AREA		STATEWIDE TOTAL		CB area as a percent of statewide landings and volume	
			Round Weight (mt)	Revenue (\$)	Round Weight (mt)	Revenue (\$)	Round weight	Revenue
2017	CPEL SUBTOTAL	__ALL COASTAL PELAGIC	0.0	\$0	473.5	\$38,500	0%	0%
2017	CRAB SUBTOTAL	__ALL CRAB	2,193.8	\$15,249,301	8,625.8	\$58,728,089	25%	26%
2017	GRND SUBTOTAL	__ALL GROUND FISH __ALL HIGHLY MIGRATORY	1,444.8	\$4,458,179	112,344.2	\$51,274,338	1%	9%
2017	HMSP SUBTOTAL	__ALL SALMON	793.2	\$3,728,572	2,152.5	\$10,803,127	37%	35%
2017	SAMN SUBTOTAL	__ALL SHELLFISH	17.9	\$256,568	542.8	\$5,556,227	3%	5%
2017	SHLL SUBTOTAL	__ALL SHRIMP & PRAWNS	0.0	\$0	317.4	\$624,444	0%	0%
2017	SRMP SUBTOTAL	WITHHELD FOR CONFIDENTIALITY**	3,753.3	\$4,760,327	10,458.5	\$12,688,375	36%	38%
2017	XXXX SUBTOTAL		985.9	\$1,485,885	1,642.9	\$2,426,192	60%	61%
<b>2017</b>			<b>9,251.1</b>	<b>\$30,619,374</b>	<b>137,132.6</b>	<b>\$144,071,592</b>	<b>7%</b>	<b>21%</b>
2018	CPEL SUBTOTAL	__ALL COASTAL PELAGIC	2,171.7	\$2,025,316	2,343.9	\$2,028,961	93%	100%
2018	CRAB SUBTOTAL	__ALL CRAB	2,721.6	\$19,728,194	10,494.6	\$74,527,007	26%	26%
2018	GRND SUBTOTAL	__ALL GROUND FISH __ALL HIGHLY MIGRATORY	1,695.2	\$3,683,147	107,051.1	\$47,832,282	2%	8%
2018	HMSP SUBTOTAL	__OTHER SPECIES (NO M-GROUP)	850.0	\$3,071,173	2,638.7	\$9,722,792	32%	32%
2018	OTHR SUBTOTAL		43.4	\$511,198	411.3	\$1,660,408	11%	31%
2018	SAMN SUBTOTAL	__ALL SALMON	45.3	\$712,994	444.7	\$5,727,903	10%	12%
2018	SHLL SUBTOTAL	__ALL SHELLFISH	0.0	\$0	308.9	\$710,041	0%	0%
2018	SRMP SUBTOTAL	__ALL SHRIMP & PRAWNS	5,440.8	\$9,298,541	16,271.5	\$26,908,622	33%	35%
2018	XXXX SUBTOTAL	WITHHELD FOR CONFIDENTIALITY**	660.1	\$1,197,456	2,095.4	\$3,337,850	32%	36%

Year	Management Group	Common Name	Round Weight (mt)	Revenue (\$)	Round Weight (mt)	Revenue (\$)	Round weight	Revenue
<b>2018</b>			<b>13,628.1</b>	<b>\$40,228,019</b>	<b>142,060.1</b>	<b>\$172,455,866</b>	<b>10%</b>	<b>23%</b>
2019	CPEL SUBTOTAL	__ALL COASTAL PELAGIC	173.1	\$187,586	901.5	\$1,047,350	19%	18%
2019	CRAB SUBTOTAL	__ALL CRAB	2,304.7	\$18,640,937	8,375.0	\$65,611,817	28%	28%
2019	GRND SUBTOTAL	__ALL GROUND FISH	604.5	\$814,637	14,787.5	\$9,771,434	4%	8%
2019	HMSP SUBTOTAL	__ALL HIGHLY MIGRATORY	-	-	0.0	\$0		
2019	OTHR SUBTOTAL	__OTHER SPECIES (NO M-GROUP)	0.0	\$0	16.5	\$40,848	0%	0%
2019	SAMN SUBTOTAL	__ALL SALMON	0.2	\$4,686	15.8	\$321,898	1%	1%
2019	SHLL SUBTOTAL	__ALL SHELLFISH	0.0	\$0	132.9	\$366,080	0%	0%
2019	SRMP SUBTOTAL	__ALL SHRIMP & PRAWNS	0.0	\$0	1,616.5	\$2,041,596	0%	0%
2019	XXXX SUBTOTAL	WITHHELD FOR CONFIDENTIALITY**	315.7	\$467,547	787.0	\$1,385,343	40%	34%
<b>2019</b>			<b>3,398.2</b>	<b>\$20,115,393</b>	<b>26,632.7</b>	<b>\$80,586,366</b>	<b>13%</b>	<b>25%</b>

## C. Recreation

### 1. Recreational water-based concerns related to the required Safety and Security Zone.

Public trust rights with respect to submerged lands and navigable waters are rooted in the principle that the Oregon Department of State Lands (DSL) shall not authorize a proposed use if it would result in an unreasonable interference with the public trust rights of commerce, navigation, fishing and recreation.<sup>66</sup> DLCD has its own obligation to scrutinize this area to arrive at its consistency decision as the local permitting process is not adequately considering it.

The proposed activities of dredging and the outcome of operation of the facility would encroach upon the public's rights to use the navigable waters in Coos Bay and Jordan Cove. Fishing activity in the bay occurs throughout the year for various targets. Following the lead of the Applicant, FERC sought in the DEIS to deny that significant changes would be brought by the project. It states,

Recreational clamming and crabbing that takes place outside the navigation channel would not be directly affected by LNG carrier traffic transiting the waterway to and from the LNG terminal. *Effects would be similar to those presently experienced during the passage of other deep-draft ships* [emphasis added]. However, if crabbing or clamming activities were to occur within the established security zones, those activities may be required to cease, with attending vessels required to temporarily move out of the security zone while the LNG carrier in transit moves by.<sup>67</sup>

We disagree, as did the Hearing Officer on a Coos County hearing (REM-19-001) involving JCEP's claims about operations and impacts on local vessels of the Coast Guard Safety and Security Zone. In his Order to Reopen the Record, he relayed and commented on the Applicant's claim,

The applicant has stated that “[i]n addition to the limited number of vessels and the limited duration of their transit summarized above, the Coos Bay Pilots have testified that they anticipate that the effects of LNG carriers on fishing and other boats would closely track those of the other deep-draft ships that call on the Bay, including vessels that export wood chips and logs.” *The hearings officer does not understand the reasoning behind this statement, since it is the hearings officer's understanding that the LNG tankers will have a 500-yard security zone that does not apply to other shipping such as vessels that export wood chips, etc.*[emphasis added]<sup>68</sup>

It is clear from what follows in the Order that there are many questions that need to be answered before the precise workings and impacts of the Safety and Security Zone can be anticipated, but it does not seem plausible to expect that a 500-yard safety zone in waters on all sides of a tanker (of unspecified width) into which no vessel can enter without express permission from the Coast Guard Captain of the Port would not only interfere with recreational boaters, but also all other users. He notes that,

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<sup>66</sup> Oregon Department of State Lands. “Public Trust Doctrine,” [https://www.oregon.gov/dsl/About/Documents/Public\\_Trust\\_Doctrine.pdf](https://www.oregon.gov/dsl/About/Documents/Public_Trust_Doctrine.pdf).

<sup>67</sup> DEIS, p. 4-538.

<sup>68</sup> Andrew H. Stamp, P.C., “Order to Reopen the Record [Remand File No. REM-19-001/LUBA Case No. 2016-095],” August 23, 2019, p. 1.

. . . 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.<sup>69</sup>

The hearings officer believes that this issue deserves more thorough treatment so that the level of “interference” between LNG tankers and other boat traffic can be better quantified, qualified and evaluated. Subsequent proceedings will likely shed more light on these issues and the outcome is unclear, but we believe there is no question that there would be substantial interference and it is not beyond the realm of possibility that it would be total whenever a tanker is present—240 transit days per year. This same issue is just one of several that would adversely affect commercial fisheries and should be watched closely by DLCD as part of their consistency review.

2. The recreational crab and salmon fishery would be negatively affected by the traffic in the navigation zone. This includes the effects from habitat alterations during construction, but also during operations.

All boat-based crab fishing takes place around the slack high tide water events. The fishers deploy rings and set them with bait. Retrieval occurs during the two hours around high tide. The fishers retrieve each of these and harvest and sort the crabs. Many boats use up to a dozen rings and all activity takes place in the two-hour slack high tide period. This same time is when the LNG ships would of necessity be moving fully loaded out of the bay. This would totally and thoroughly disrupt and interfere with the recreational access to what is a highly socially and economically important component of the functional use of the estuary. Clam harvest by scuba fishers is done at slack low and high tides. In September and October, recreational fishing including fishing guides use areas in the lower and middle bay to fish for Chinook salmon. Fishing by trolling is the most popular, and the Coos is a one-way troll, meaning you troll with the tide preferring high tides, which is when the loaded LNG ships would be moving out. Further disruption and interference would result since recreational outings frequently combine crabbing with salmon fishing. With 40-60 boats in the vicinity, coordinating setting crab rings or pots, trolling for half hour or so, then checking rings and pots would create an unmanageable complication for an enjoyable outing.

Other ship traffic would be unreasonably affected by this frequency of LNG ship traffic in and out of the bay. With estimated 110 to 120 ships calling to the LNG port, there would be an average of 3 ships per week. Commercial fishing fleets depend on weather conditions for access. In the winter, often the access into and out of the bay can be limited by weather conditions. Having large ships with exclusion zones surrounding them would affect all other associated fish fleet traffic.

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<sup>69</sup> Andrew H. Stamp, P.C., “Order to Reopen the Record [Remand File No. REM-19-001/LUBA Case No. 2016-095],” August 23, 2019, p. 2.



3. The loss of access for recreation from removal of the tidal areas in the Access Channel region is also of concern.

The enormity and unique needs of an LNG export operation of this nature can be expected to take precedence over all other uses of the channel, including recreational use. The two other LNG facilities in the U.S. are situated in ports with less complex multiple uses and without the limited geography of Coos Bay. Navigation in and around the project facilities in the Coos Bay by all other users would necessarily be curtailed and disrupted to make way for the tanker and facility operations. With the explosive nature and risks to safety of the project, existing recreational and commercial shipping in the area would be affected. The proposed dredging and construction, as well as operation of the facility would restrict in significant ways all other commercial and recreational water uses, including fishing.<sup>70</sup>

Recreational boating, clamming, and crabbing access from the nearby Bureau of Land Management (BLM) boat launch would be severely curtailed during some periods of dredging operations. Even when access is possible, noise and interference from the activities would radically change the whole ambiance of most activities. Public access for hunting and access to open water areas is focused out of the BLM launch. Many recreationalists walk with their families and pets along the tidal areas. The proposed Access Channel dredging is just upstream from this important area, affecting 22 acres of tidal and subtidal habitat, 15 of which are deep subtidal habitat.

4. There are considerable state, federal, tribal, county, and local recreational facilities in the area that would also be negatively impacted by the project, despite blanket dismissal of the Applicants as insignificant.

As is covered under Goal #16—Estuarine Resources, the estuary and associated coastal resources are jeopardized by the project, despite their importance to the region and the need for their preservation. The lands administered by the BLM include 709 acres that are 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 and close to the project area. The DEIS 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 Jordan Cove LNG terminal site, across the Trans-Pacific Parkway, and the Horsfall Campground is located about 0.5-mile northeast of the LNG terminal site. According to the DEIS and 2011 data, the Forest Service documented 1.6 million visits to the Siuslaw National Forest, including the ODNRA, with 23.6 percent of visitors engaging in off highway vehicle (OHV).<sup>71</sup> There are frequent rally activities that draw large numbers of visitors. Access alone would be a challenge during construction. On the other side of the recreation area, off road vehicles are prohibited and there are bike trails, water trails, and many recreational assets that are near and associated with the general area of this facility.

Equestrian campers use the Wild Mare Horse Camp and its trails within this RMA. This campground provides a year around opportunity for recreation, with corrals provided and

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<sup>70</sup> *Oregon Shores Conservation Coalition v. Oregon Fish and Wildlife Commission*, 62 Or 481, 493 (1983).

<sup>71</sup> DEIS, p. 4-535.

equestrian trails that come from the low scrub forest to open dune areas and cross down to the beach.

The size of ships required for JCEP's operations would make a significant difference to other uses. 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 DEIS acknowledges that,

There may be some conflicts between recreational drivers on the Trans-Pacific Parkway and construction traffic traveling to and from the Jordan Cove LNG Project. Recreational drivers in this context could include recreationists using the Trans-Pacific Parkway to 74 access recreation sites, including the ODNRA, as well as people recreating by driving for pleasure.<sup>72</sup>

However, particularly those of us who live in the Coos Bay area believe the conflict would be certain and much more significant than FERC asserts. The overall access to, and interest in, the area of recreation would be affected by the construction and operation of the facility. The Coos Bay-North Bend-Charleston area is named "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.<sup>73</sup> Additional discussion of this impact is provided in "Aesthetics" just below.

#### **D. Aesthetics**

One of the policies that the CZMA and the state's OCMP seek to promote is the preservation and protection of aesthetic values and aesthetic coastal features.<sup>74</sup> Rarely concluding significant adverse impacts with regard to this project, the DEIS highlights this serious adverse effect of the JCLNG facility 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 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].<sup>75</sup>

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<sup>72</sup> DEIS, p. 4-538.

<sup>73</sup> <https://oregonsadventurecoast.com/>.

<sup>74</sup> 16 USC §§145(2), 1452(2)(F).

<sup>75</sup> DEIS, p. 4-586.

We appreciate FERC's recognition of these detrimental realities and wholeheartedly agree. But we also believe they understated the impacts of some of the particular components which, taken together, make matters even worse. We raised the following issues in our comments on the DEIS:

1. Export terminal lighting is inadequately described and mischaracterized as to degree of impact.

While the DEIS recognized LNG facility lighting as having an impact, it does not adequately assess the nature or magnitude of that impact. The Applicant claims care was taken in design of facility lighting, including use of directional light sources and shielding fixtures, but little detail permits evaluation of the effectiveness of those measures, which the Applicant states would be provided in a final lighting plan.<sup>76</sup> By then, evaluation would be too late.

Lacking information from JCEP, LNG facility lighting is generally known to be extensive and very bright, having a high impact on surrounding areas. The DEIS statement that added lighting associated with the LNG project would approach a moderate incremental impact could mean that lighting might add 50-60% to nighttime light impacts combined with those already nearby. A review of more than 110 nighttime photos of various LNG facilities shows they are usually extremely brightly lit in all details, understandable with the unique security and safety concerns that must be addressed for such projects, but qualifying as light pollution, nonetheless. An LNG carrier at berth while loading is also similarly brightly illuminated for the same reasons. The negative impact is notable.

Light spillage may be controlled by a choice of fixtures, but that would not abate reflected light from light-colored tanks and other facility components, said by the Applicant to be required to reduce heat absorption.<sup>77</sup> Those brightly illuminated features would clearly be seen for miles as the mid-toned Roseburg Forest Products chip pile nearby shows at night. However, it is certain--due to the size of the 240-acre site, extent of its infrastructure, and special security and safety requirements--that the proposed project area, including tanks, liquefaction trains, and berthed carriers, would by far outstrip the impact of the existing Roseburg facility. Terminal lighting impact would be highly visible and obnoxious to anyone having a daytime view. It would introduce light pollution affecting westward views of sunsets and the night sky. DLCD needs to acknowledge and consider in its consistency review the undeniably and massively outsized negative visual impacts on this otherwise picturesque viewshed. This is not acceptable development for a coastal area of this caliber.

2. New construction of various types is not included in the analysis of the viewshed, which appears based on dated information at least two years old.

The FERC DEIS states the following: "The only projects listed in Table 4.14-2 that involve new permanent aboveground facilities within the viewshed of the LNG terminal is the City of North Bend's Department of Human Services Building and the CTCLUSI Hollering Place." This understates the actual situation going forward.

The Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians (CITCLUSI) Hollering Place Cultural Visitor Center is under construction on the waterfront at a historic location and the narrowest spot on the Coos Bay Channel. However, several other building projects have

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<sup>76</sup> DEIS, p. 4-566.

<sup>77</sup> DEIS, p. 4-566.

been completed in the last two-three years which would also have continuous, permanent visual impacts resulting from the LNG export terminal and LNG carriers transiting the bay. Neither these nor the new RV Bay Point Landing facility are not mentioned in the DEIS, suggesting FERC may have relied on out-of-date information.

Those impacts would also likely be reflected in the ability of owners to lease, rent, or sell their dwellings over the period of facility construction, during operation, and after closure. Coos Bay construction, having bay frontage, includes: 1) a 7-unit condominium overlooking the bay and export facility at Fenwick and Maxwell Streets (distance, 1.14 miles), and 2) three high value single family homes on Chickses Drive (distance, 1.5 miles), two of which have remained unsold for several months.

3. While perhaps interesting to some, the adverse visual impact of LNG tankers visiting the bay must be acknowledged.

We question a representation of an LNG carrier that appears to be part of the simulation shown in Figure K-11 of the DEIS. Visually comparing the size of one of the LNG storage tanks (measuring 180 ft. high by 267 feet wide) and located further away upland from the pictured LNG carrier, the carrier appears to be far too small to simulate the actual size of carriers visiting Coos Bay that would sit at berth in the facility slip. The simulated carrier placed in the JCEP-supplied photo should appear close to twice the length and twice the height of the one used in that 24mm wide-angle view to adequately represent the nearly 1,000-foot LNG carriers expected to visit the proposed terminal. A clear misrepresentation is caused by the Applicant's use of a simulated image of an LNG carrier at only half the size. It should be in proportion to the facility tanks and if it were, this subject would actually appear four times larger (in all dimensions).

Whether this visual misrepresentation caused by the choice of camera lens was deliberate or not, DLCD needs to consider the permanent and significant degradation of the aesthetics of the area by the project's presence.

4. The major added impact on visual resources of dredge spoil disposal at APCO Sites 1 & 2 is not identified and analyzed in the DEIS but would certainly have a negative visual impact.

A further important visual impact stems from disposal of up to 1.8 million cu. yds. of dredge spoils from construction and periodic maintenance dredging for the project at the APCO sites 1 & 2. This has not been sufficiently described for reliable conclusions to be drawn regarding its impact, but it would be significant. 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 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. This bridge is listed on the National Register of Historic Places as a structure deemed worthy of preservation for its historical significance. Spoiling the view in this way would severely diminish the value of this architectural treasure.

5) The lack of Applicant plans and an established regulatory requirement with specific guidelines and financial guarantees providing for the retirement, reclamation, and restoration of the LNG terminal and associated infrastructure, neglects a highly significant reasonably foreseeable impact on visual resources.

There are no current federal, state, or local requirements or specific regulations for the retirement and restoration of LNG export facility sites after closure, inviting the prospect that this

expensive work would not be carried out soon, leaving an eye sore of breath-taking proportions for unknown decades to come. In fact, there are no guarantees that reclamation would ever occur. The fact that plans for this post-closure work by the Applicant are not discussed at all in the DEIS, let alone financial guarantees for its completion, make that outcome extremely likely. Therefore, it is reasonable to expect the work of retirement, reclamation, and site restoration of the LNG export terminal and related infrastructure would pass to local, state, or federal governments and funding sources, with a highly uncertain timeline or not happen at all. As FERC recognizes in the DEIS, significant, permanent visual impacts would occur to visual resources from construction and operation of the proposed LNG terminal. The failure of the Applicant to address this additional cumulative factor on aesthetics would appreciably lengthen the duration and massively increase the significance by an order of magnitude.

### **E. Construction Phase—Boomtown impacts on coastal communities**

Socioeconomic studies and law enforcement records show that boom projects of this type can lead to community disruption of many sorts that put strains on local and state government budgets and service capacity, e.g., domestic violence, drug and alcohol abuse, increased crime, public assistance needs, health care, and homelessness.<sup>78</sup> FERC in the DEIS contends that the construction phase of the JCLNG project should not be characterized as a “boomtown” scenario, citing the percentage increase over the current population.<sup>79</sup> The argument is unpersuasive. Boom-and bust situations are not statistical phenomena, rather they are defined and manifest themselves by their impacts on various socio-economic elements in the communities where they occur.

Communities that host boom and bust economic events such as in Wyoming, Utah, Colorado, the Dakotas, and Louisiana have found their economic development has down sides. During the boom phase, local government and community service providers struggle, often unsuccessfully, to meet adequately the shared and disparate needs of both temporary and permanent residents. When boom projects end, there are employment constrictions and other economic complications.<sup>80</sup> There is the potential for additional costs later in the life of the project that may have to be borne by local governments, as well, resulting is the need to again “rob Peter to pay Paul” so that other public needs go wanting. One notable example is costs to eventually decommission and clean up the site. We have not seen evidence that JCEP has completed binding agreements with local governments and other government agencies to accomplish that. Those costs could exceed tax revenues and even constitute a sizable net loss to communities and taxpayers.

JCEP would provide no energy to U.S. customers; it may also raise domestic gas prices. Industrial Energy Consumers of America (IECA) has submitted detailed communications to FERC in opposition to the project, including this concern. IECA is an association of energy-intensive, trade-exposed (EITE) manufacturing companies. They stated in one filing, “EITE industries use 75 percent of the natural gas and 73 percent of electricity consumed by the

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<sup>78</sup> Uintah Basin Homeless Coordinating Committee, “Homelessness Research Project Phase II: Community Impacts of the Oil & Gas Boom,” 2007.

<sup>79</sup> DEIS, p. 4-589.

<sup>80</sup> Numerous studies support this contention, for example Bret A. Weber, Julia Geigle, and Carenlee Barkdull, “Rural North Dakota’s Oil Boom and Its Impact on Social Services,” *Social Work*, January 2014, pp. 62-72; Ruth Seydlitz, Shirley Laska, “Social and Economic Impacts of Petroleum ‘Boom and Bust’ Cycles,” U.S. Department of the Interior, Minerals Management Service University Research Initiative, June 1994.

manufacturing sector and would be negatively impacted if natural gas prices increase as a result of exporting LNG. EITE industries account for over 40 percent of all manufacturing jobs.”<sup>81</sup>

## **F. Public safety and protection of property**

Before discussing our many individual concerns, it is our view that the JCEP as a whole poses an unacceptably high risk hazard to public safety and property and should be denied due to the countless residual adverse effects on landowners; the communities of Coos Bay, North Bend, Empire, and Charleston; and communities along the pipeline route.

Many of these hazards would not exist, but for the construction of the JCEP installation and operations of a liquefaction, LNG storage, and export facility. The few hazards that do exist would be greatly exacerbated by the project’s presence. Their impacts would be especially significant due to the fact that the location is excessively proximate to a significant population center with attendant vulnerabilities due to, for example, an airport, as well as schools, hospitals, and so on.

It is cause for concern that the Applicant has not come close to having done adequate investigation and identification of these issues or provided the community and its decision-makers with useful advance planning. For those issues they did acknowledge, many had not been resolved by the time the DEIS was issued and for most, little if any progress has been made as far as is known to the public. FERC understood this well in preparing the DEIS. They note countless instances of required design and technical plans that are incomplete or have not yet been submitted. The DEIS is remiss in some matters by acknowledging and discussing them, but then dismissing all impacts as insignificant and pronouncing the project safe and reliable, *providing that 14 pages of FERC staff’s own recommendations have been implemented*. The DEIS thereby waves a hand at every major safety hazard the project would cause or enhance and denies the public and other agencies the ability to assess, evaluate, and comment on this most essential element of the human and natural environmental impacts of the project, leaving us with this referencing the LNG terminal:

Based on our preliminary engineering and technical review of the reliability and safety of the Jordan Cove LNG Project, we recommend the following [98] mitigation measures as conditions to any order authorizing the Project. These recommendations would be implemented prior to the end of the DEIS comment period, prior to initial site preparation, prior to construction of final design, prior to commissioning, prior to introduction of hazardous fluids, prior to commencement of service, and throughout the life of the facility to enhance the reliability and safety of the facility and to mitigate the risk of impact on the public.<sup>82</sup>

We find it instructive to quote extensively from the DEIS description of how the process by which FERC authorizes the siting and construction of LNG terminals in compliance with USDOT safety requirements.

The FERC authorizes the siting and construction of LNG terminals under the NGA and delegated authority from the DOE. The FERC requires standard information to be submitted to perform safety and reliability engineering reviews. FERC’s filing regulations are codified in 18 CFR 380.12 (m) and (o), and requires each Applicant to identify how

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<sup>81</sup> Paul N. Cicio, President, Energy Consumers of America to FERC (filing), June 1, 2016.

<sup>82</sup> DEIS, pp. 4-755-68.

its proposed design would comply with the USDOT's siting requirements of 49 CFR 193 Subpart B. The level of detail necessary for this submittal requires the Applicant to perform substantial front-end engineering of the complete project. The design information is required to be site-specific and developed to the extent that further detailed design would not result in significant changes to the siting considerations, basis of design, operating conditions, major equipment selections, equipment design conditions, or safety system designs. As part of the review required for a FERC order, we use this information from the Applicant to assess whether the proposed facilities would have a public safety impact and to suggest additional mitigation measures for the Commission to consider for incorporation as conditions in the order. If the facilities are approved and the suggested mitigation measures are incorporated into the order as conditions, FERC staff would review material filed to satisfy the conditions of the order and conduct periodic inspections throughout construction and operation.<sup>83</sup>

A project proposal that is so unsatisfactory that it requires 98 recommended additions or modifications must be adjudged as, at least, woefully incomplete as provided and doesn't appear to meet the minimum requirements of the above process. The public's right to comment is so vastly diminished by this construct as to be meaningless. FERC staff's recommendations may or may not be made conditions of the Commission's Order. Or perhaps only a percentage of them would be adopted—80 percent? 50 percent? 5 percent? And of those, which ones? We see nothing that in any way binds the Commission to ensure conditions are implemented.

Moreover, although some of the recommendations pertain to requirements known to, but not yet carried out by, the Applicant. Others, though, call for other actions to be taken. The additional cost to the Applicant of a percentage of 98 changes or additions to their plans has not been revealed, but it most certainly would be substantial. As noted elsewhere in this comment, Pembina has already acknowledged insufficient financial resources to carry out this project. This mechanism opens the door to the Applicant to attempt to negotiate away especially some of the more expensive requirements. Even if all recommended conditions were to be included in a Record of Decision by the Commission, are we not asking, through such a process, for the Applicant to be unmotivated to comply, cut corners, or short-change other costly elements of the proposed project to make up for additional costs?

It is alarming to learn from the lead Oregon state agency of a serious setback to essential safety, security, and reliability coordination and therefore emergency preparedness that occurred when JCEP was taken over in May 2017 by the new owner Pembina. ODOE reported in the state agency comments on the 2019 DEIS that,

Pembina proposed a new Jordan Cove ERP, which resembled a template oil spill response plan, without consultation with key federal, state, and local agencies dismissing more than 10 years of work collaboration amongst all entities. This ERP was unanimously rejected by federal, state, and local agencies, which Pembina rescinded. After a rough start and staff re-organization, Pembina reset its approach and are taking initial steps to get back on track. This includes working with ODOE to: 1) update the original Jordan Cove ERP for review by all agencies; 2) update the Jordan Cove MOU on LNG safety, security, and emergency preparedness for the terminal and waterway; and 3) develop a MOU on safety, security, and emergency preparedness along the pipeline. In addition, Pembina provided ODOE an assurance letter committing to work with all key federal, state, and local agencies on safety, security and emergency

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<sup>83</sup> DEIS, p. 4-699

preparedness planning and coordination involving the terminal, waterway, and pipeline. However, much work remains for Pembina to regain the momentum lost over the last two years. Pembina must reinstate the quarterly planning and coordination meetings and re-engage with key federal, state, and local emergency response agencies that have been a part of the project safety, security, and emergency response planning process for over a decade. In addition to ODOE, this includes the U.S. Coast Guard (USCG) Sector Columbia River, USCG Sector North Bend, Oregon State Fire Marshal's Office, Oregon State Police (OSP), Oregon State Marine Board, Port of Coos Bay, Coos Bay Sheriff's Office, Coos County Emergency Management, Coos County Public Health, Bay Area Hospital, Southwestern Oregon Community College, City of Coos Bay Police and Fire, City of North Bend Police and Fire, Charleston Fire, North Bay Fire, and Hauser Fire.<sup>84</sup>

Below we identify and comment on the following safety hazards that we believe stretch the bounds of reasonableness in terms of putting the public and their property at risk via a facility of this type. The adverse effects of these risks and then the egregious burden planning for and financing the necessary responses and services are profoundly disturbing and, we believe, demonstrate in another way the inconsistency of this project with the OCMP and the objectives of the CZMA.

1. Flight hazards from LNG storage tanks and other terminal facilities identified by the FAA pose risks to the public and property.

On May 7, 2018, the FAA issued thirteen "Notices of Presumed Hazards" pertaining to structures related to the JCEP that would violate obstruction standards for the nearby Southwest Oregon Regional Airport (SORA). The agency warned that the hazards needed to be resolved by lowering pertinent heights or it would need to abandon the project.

Five of these notices discussed the proposed LNG storage tanks and other terminal facilities.<sup>85</sup> In the DEIS, FERC appears to try to side-step FAA's Determined Hazards to Air Navigation and resultant requirement to lower the structure height. They describe the LNG tanks heights as "presumed" rather than "determined," and recommend that the Applicant resolve the issue with the FAA, even though the FAA explicitly states that leaving the tank heights taller than 204' AMSL is unacceptable.<sup>86</sup> On September 3, 2019, the FAA suggested that JCEP has made design modifications that would lower tank and terminal facility heights to an acceptable level and has opened a public comment period until October 10, 2019. It remains to be seen whether an "on-paper" solution is ultimately found. It is important to ask, though, if the point is to shave off enough feet to squeeze by a regulatory standard or to safeguard the public safety. A misstep would result in a serious injuries and/or loss of life or property.

2. Flight hazards from carrier vessel stack heights identified by the FAA conflict with the public interest.

The FAA requires the Applicant to lower the LNG Carrier Vessel (aka Tanker) Stack Height to 136' AMSL. Nine of the FAA's "Notices of Presumed Hazards" addressed the LNG Carrier Vessel Stack Heights at various transit points. FERC failed to discuss the identified hazard that

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<sup>84</sup> "Oregon State Agency Comments, Jordan Cove Energy and Pacific Connector Gas Pipeline Project Draft Environmental Impact Statement (Docket # CP17-494-000 and CP17-495-000)," July 3, 2019, pp. 9-10.

<sup>85</sup> DEIS, p. 4-750. Copies of these notices are included in the docket at Accession No. 20180510-5165, Part 8.

<sup>86</sup> DEIS, p. 4-750.



the LNG Tankers constitute at their current proposed size.<sup>87</sup> The public and other agencies need to know the dimensions for the largest LNG tanker anticipated to call on the Port, including total stack height, beam, length, and draught. The total stack height must not exceed the maximum 136' AMSL limit identified by the FAA. The FAA must not be pressured or influenced to sign off on the project since it does not appear that a solution can be found.

### 3. Thermal plume hazards identified by the FAA.

FERC ignores the thermal plume hazard created by the gas combustion turbines used in the liquefaction process. According to a study by the National Academy of Sciences, "Exhaust plumes from (power plant) cooling systems have the potential to create in-flight hazards that affect the control and maneuver-ability of aircraft. Under certain conditions, the plumes generated by the facilities can create turbulent conditions for aircraft that fly over or through the plumes."<sup>88</sup> FERC addressed this concern by stating, "Jordan Cove commissioned a thermal plume study for the previously proposed LNG terminal in 2013 . . . which showed that the combustion turbines that were part of the previously proposed South Dunes Power Plant were identified as the main potential source of thermal plumes from the terminal. The South Dunes Power Plant is not part of the current proposal and therefore the LNG terminal would not general [sic] thermal plumes."<sup>89</sup> This statement is incorrect. First, the referenced study did not assign 100 percent of the potential thermal plumes to the South Dunes Power Plant. But more importantly, in lieu of building the South Dunes Power Plant to power the liquefaction train, the current proposed JCEP terminal would be equipped with two direct-drive combined-cycle combustion turbines to power refrigerator compressors. These turbines—which are proposed to be located closer to SORA than the South Dunes Power Plant—would, in fact, generate thermal plumes, and thus the risk to airport operations for the new design needs to be studied, not dismissed as the DEIS does.<sup>90</sup>

### 4. Heavy hydrocarbon vapor cloud explosion hazards conflict with the public interest.

LNG Export Terminals that handle and store large quantities of heavier-than-methane hydrocarbons are attended by hazards of Unconfined Vapor Cloud Explosion (UVCE). FERC underestimates the risk of UCVEs by an order of magnitude. According to Jerry Havens, (Distinguished Professor Emeritus Department of Chemical Engineering, University of Arkansas),

The new Draft Environmental Impact Statement (DEIS) for the Jordan Cove Export Terminal, just issued, continues to seriously underestimate vapor cloud explosion overpressures (damage) that could occur following credible releases of heavy hydrocarbons at the JCET site. The latest predictions that I am aware of appear to be an order of magnitude lower than are indicated by physical evidence of numerous documented UVCEs that have occurred worldwide with the potential to cause injuries and deaths to persons and result in destruction of the facility.<sup>91</sup>

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<sup>87</sup> DEIS, p. 4-750.

<sup>88</sup> Patricia T, Weber, P.E., "Jordan Cove Export Project—FERC Recommendations Place Oregonians at Risk."

<sup>89</sup> DEIS, 4-625-26.

<sup>90</sup> Patricia T, Weber, P.E., "Jordan Cove Export Project—FERC Recommendations Place Oregonians at Risk."

<sup>91</sup> Jerry Havens, "Comment by Jerry Havens, Distinguished Professor Emeritus, University of Arkansas," submitted to U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, September 22, 2018.

FERC needs to evaluate the potential for unconfined vapor cloud explosions (UVCEs) using the best available research from the scientific community, but in its response to DEIS comments, JCEP ignores the regulatory history and Dr. Havens' concerns, stating that ODOT's standards would be met and assure safety.<sup>92</sup>

Dr. Havens responded to a request from the Pipeline and Hazardous Materials Safety Administration (PHMSA), ODOT on September 1, 2019, expressing urgency:

These comments address only JCEP's response to Scenarios MR-2 involving the use of FLACS-Fire. However, these comments are not directed to the details of the calculations (using FLACS-Fire) presented for Scenario MR-2. My purpose here is to emphasize the same concerns raised in my previous (August 27, 2019) comments, and to expand on the importance of PHMSA taking immediate corrective action. I believe that the use of FLACS-Fire in JCEP's submission effectively circumvents the intent of 49 CFR Part 193, Part B because it has not been approved by PHMSA for such use. If I am wrong about this, I respectfully ask that PHMSA immediately notify me, and I will take the necessary corrective action. If I am not wrong about this, I believe we are, as a result of this action, further enabling the applicant to circumvent the Regulations in a manner that will result in important decreases in the provision of Public Safety.<sup>93</sup>

DLCD needs to be aware that this matter is not settled and until it is, concurrence with JCEP's consistency certification should not be granted. DLCD must not rely on issuance of local permits that are not considering issues such as these with adequate regard.

5. Several hazardous siting and design factors are contrary to SIGTTO Recommendations specifically designed to protect public safety; these conflict with the public interest.

The Society of International Gas Tanker and Terminal Operators (SIGTTO) exists to minimize risks, including in the site selection and design for LNG ports and jetties. The proposed JCLNG Terminal conflicts with several of SIGTTO's best practices recommendations, one of which has already been implied in most of the above discussions of specific public safety hazards: avoidance of siting near population centers. Additionally, SIGTTO recommends against siting on a bend, where vessels will 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.

Additional constraints regarding access of the proposed facility are of concern. The entrance to the bay and navigation channel from open waters has a history of problems since the time of early navigation into the bay due to the nature of shore winds, and sea conditions. These problems continue to the present. There is a 90-degree turn from the entrance into the bay, and then another bend near the proposed site that other ship traffic, including commercial and recreational uses, must navigate past to enter the Coos Bay, North Bend harbor.

The Applicant and FERC dismiss this concern with the weak argument that SIGTTO recommendations were developed for decision-making for new port sitings so therefore do not

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<sup>92</sup> JCEP, "Pacific Connector Gas Pipeline, LP and Jordan Cove Energy Project L.P. Docket Nos. CP17-494-000 and CP17-495-000 Supplemental Response to Comments on Draft Environmental Impact Statement," September 3, 2019, p. 30.

<sup>93</sup> Jerry Havens, "Jordan Cove Energy Project L.P., Docket No. CP17-495-000, Response to August 28, 2019 PHMSA Data Request," September 7, 2019, p. 1.

apply to JCEP since there is already a port there. This reverse logic is flawed. Considering the number of shipwrecks and groundings by vessels seeking to utilize the port, it appears that the Port of Coos Bay may, indeed, have been poorly placed. Installing JCEP and inviting far more massive ships with much more dangerous cargo in conjunction with a port that has marks of having been a mistaken siting makes no sense. DLCD should look carefully at this matter. It would be worth considering the serious safety and security implications if a 950-foot tanker loaded with LNG were to run aground like the New Carissa did in 1999. Even without going into detail about the myriad difficult issues related to managing the grounding situation itself, adding in the possibility of a terrorist attack in these times of global instability enhances the risks associated with the project.

6. LNG leak, spill, and explosion hazards conflict with the public interest.

The 2015 FEIS for the previous project acknowledged that around 16,000 residents of the Coos Bay/North Bend area would likely be at least injured if a release of highly flammable LNG were to be coupled with an ignition source. We have searched both the JCEP application and the current DEIS and found no mention of this threat to public safety and life. This omission is unacceptable. *An unacknowledged hazard must be defined as an adverse effect.*

The 2019 DEIS maintains this vague reference,

In accordance with the August 31, 2018 MOU, USDOT will issue a LOD to the Commission after USDOT completes its analysis of whether the proposed facilities would meet the USDOT siting standards. The LOD will evaluate the hazard modeling results and endpoints used to establish exclusion zones, as well as Jordan Cove's evaluation on potential incidents and safety measures incorporated in the design or operation of the facility specific to the site that have a bearing on the safety of plant personnel and surrounding public. The LOD will serve as one of the considerations for the Commission to deliberate in its decision to authorize or deny an application.<sup>94</sup>

What is the timing for USDOT analysis and issuance of the LOD? Where does this leave DLCD in its ability to carry out its obligation to determine public safety in accordance with the OCMP through Statewide Planning Goal #17?

#### **IV. PROJECT FAILS TO DEMONSTRATE CONSISTENCY— STATE AUTHORITIES**

***DLCD should object because the Applicant 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 and there is clear evidence that it would be inconsistent with some enforceable policies.***

**A. The Applicant fails to demonstrate that the JCEP would be consistent with enforceable policies under the jurisdiction of the Oregon Department of State Lands (DSL).**

DSL's decision on the Applicants' Removal-Fill application was expected on September 20, 2019, but on September 17, 2019, it was extended. The new decision date is January 31, 2020.

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<sup>94</sup> DEIS, p. 4-702

This is the second extension. An earlier extension was granted on March 5, 2019. This is just the latest in a long string of delays.

The drawn-out process began in 2017, with the first of several findings by DSL that JCEP's application for the Removal-Fill permit was incomplete. The process finally moved forward, but after the public comment period in early 2019, DSL found it necessary to submit to JCEP a request for more information due to questions raised. They asked JCEP to answer and provide information about several specific questions. That request included instructions to respond directly to several commenters who had submitted substantive comments. We were among those named.<sup>95</sup> Although subsequently the Applicants sent DSL a voluminous amount of information, they appear to have implicitly refused to acknowledge DSL's authority to ask for some types of information the agency specifically requested.<sup>96</sup> They have not communicated with us in any way.

The public is not privy to subsequent exchanges between the Applicants and DSL, but this latest, last minute extension appears to have been in response to JCEP's decision to produce previously withheld information. They have committed to provide some type of information by October 20, 2019. It remains to be seen if or when DSL will adjudge that they have enough answers to make their decision.

Regardless, even if JCEP and DLCD negotiate a stay, it appears that DLCD will lack some of the evidence they need to determine consistency with enforceable policies that are under the authority of DSL.

**B. The Applicant fails to demonstrate that the JCEP would be consistent with enforceable policies under the jurisdiction of the Oregon State Historic Preservation Office ("SHPO").**

ORS 930.235 requires excavation permits for project activities that could jeopardize or destroy or remove archeological resources and is an enforceable policy under the consistency certification process for the JCEP. The Applicants' "Joint Coastal Zone Management Act Certifications and Necessary Data and Information" has almost no narrative discussion of this issue beyond that and the Table of Contents lists Exhibit R "SHPO Archeological Permits," as including dozens of permit applications for each of the LNG Terminal and the PCGP, as well as a "Cultural Resources Protection Agreement and Unanticipated Discovery Plan."

We regret that the public does not have access to Exhibit R and we received access to it too late and for too short of a time to be able to review it. However, it appears that application materials for many sites have been submitted. As noted elsewhere, DLCD had notified JCEP in writing that all permits and approvals would need to be obtained prior to DLCD concurring with JCEP's claim of CZMA consistency. Also noted is JCEP's erroneous claim that requiring permits to be obtained exceeds DLCD's authority under federal regulations and in turn, DLCD's reiteration of the requirement.

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<sup>95</sup> DSL to JCEP, "DSL Removal-Fill Permit Application No. 60697-RF Jordan Cove Energy Project, Multiple Counties," April 10, 2019, p. 9,

<https://www.oregon.gov/dsl/WW/Documents/60697RFPRPCCommentsLetter20190410.pdf>.

<sup>96</sup> JCEP to DSL, "Jordan Cove Energy Project L.P. and Pacific Connector Gas Pipeline, LP, Removal/Fill Application – Response to ODSL April 10, 2019 Additional Information Request," May 9, 2019.

Backing up from the bureaucratic particulars of permits, we believe there is reason to be concerned that the Applicant has been inappropriately unmotivated to engage with either the indicated state agency or, more importantly, the Tribal groups to whom these resources belong. SHPO indicates that JCEP has chosen to categorize “scoping” input as “consultation,” even though no face-to-face contact has been had. Applicant materials and the DEIS process was impressively disappointing in terms of attention to the protection of cultural or historical resources. SHPO’s comments on the DEIS indicate that the Applicants’ record of efforts at “consultation” were minimal as was coverage of the overall mission of protecting resources. In its initial response to DEIS comments, JCEP protested that the DEIS’s treatment of the Section 106 consultation process was adequate. They indicated that Historic Properties Management Plans (HPMPs) were required by FERC and therefore would be forthcoming. Likewise, a Memorandum of Agreement would occur at some future time. No timelines, though, were provided and discussion of these has not reappeared since. As noted, Exhibit R of JCEP’s application for CZMA consistency certification includes a referenced “Unanticipated Discovery Plan (UDP),” but other critical materials were promised “before construction.” The general failure of the Applicant to communicate and exchange input with affected and interested parties is ample evidence in this instance. The bottom line is that JCEP has promised the “HPMP” and avoidance plans “prior to construction.”

It is no wonder, then, that the majority of Tribal groups potentially affected by the project are disgruntled, if not actively opposed.

DLD needs to take note of this and acknowledge inability to find consistency with these enforceable policies. As noted previously, we urge DLCD to rely on its own independent and thorough review of related matters, rather than accept permits as part and parcel of consistency. In this case, insufficient effort on the part of the Applicants to consult with experts and Tribal groups speaks volumes against their compliance with the spirit of pertinent enforceable policies.

**C. The Applicant fails to demonstrate that the JCEP would be consistent with enforceable policies under the jurisdiction of the Oregon Department of Environmental Quality (DEQ).**

JCEP lacks a significant number of essential permits and approvals that are under the authority of DEQ, but the one with the highest profile is the Section 401 (of the Environmental Protection Act) Water Quality Certification. As DLCD knows, in May 2019, DEQ denied JCEP’s application. JCEP has not reapplied. This issue may be dead or merely on hold. The EPA currently has a proposed rule change open for public comment that would change a number of aspects of the process.

DLCD also has authority and a responsibility to safeguard Oregon’s water quality through the separate process of CZMA consistency review. The agency must consider construction and operations activities of the project and determine whether they would be consistent with numerous enforceable policies, specifically at least in ORS Chapter 468B. Safeguarding water quality is also a central requirement in Statewide Planning Goal #6. In performing their substantive consistency review, we understand that the agency can, must, and should consider various pertinent types of information. One resource of extraordinary value here is DEQ’s “Evaluation and Findings Report,” a thorough document generated by the agency to outline the reasons for their action in denying the permit. It includes an explanatory inventory of information they required to determine whether project activities would violate Oregon’s water quality standard but had not been provided by the Applicant in time for DEQ to make its determination. The report also identifies aspects of proposed JCEP activities DEQ determined would likely

violate Oregon's water quality standards. These standards are precisely among the enforceable policies on which the OCMP is founded and DLCD must protect.

We believe DLCD must object to JCEP's consistency certification because DEQ found evidence that the project would violate applicable enforceable policies of the OCMP. Examples of these violations are found in DEQ's report as follows (all page numbers are from report):

- "JCEP's proposed development of the construction right-of-way does not exhibit the highest and best controls and does not demonstrate that these improvements would minimize the erosion of and discharge of inorganic and organic debris, turbid flows, and sediment from cut banks, fills, and road surfaces." See pp. 18-23.
- ". . . JCEP's Stream Fluming Procedures, the drawing in Figure 8 of these procedures show turbid discharges of decant water from spoils placed on the construction access road and right-of-way discharging into the stream channel. This would constitute a violation of DEQ's NPDES 1200-C General Construction Stormwater Permit." See p. 31.
- ". . . JCEP's proposed dredging activities do not employ the highest and best treatment options for preventing or minimizing turbidity as required by OAR 340-041-0007(1); and . . . [they] do not employ sufficient methods to keep organic or inorganic material out of public waters as required by OAR 340-041-0007(11). . . . Based upon these findings, violations of the statewide narrative criteria are likely to occur and DEQ concludes that it does not have a reasonable assurance that the proposed activities will be conducted in a manner that will not violate the Statewide Narrative Criteria." See p. 45.
- "JCEP's proposed management of stormwater in the Terminal and Off-Site Project Areas during construction and operation of the Project is likely to cause short and long-term alterations to wetland hydrology, turbidity, and form with sediment deposits, and these changes would result in detrimental alterations to the resident biological community dependent on these wetlands. . . . JCEP's management of stormwater and decant water during construction and operation of dredged material disposal sites is likely to cause short and long-term alterations to wetland hydrology, turbidity, and form with sediment deposits, and these alterations likely would result in detrimental changes to the resident biological community dependent on these wetlands. . . . JCEP proposes the permanent placement of marine sediments in upland locations that may alter the hydrologic and chemical characteristics of nearby wetland areas in a manner that would likely lead to violation of biocriteria, OAR 340-041-0011. Absent a plan to avoid or mitigate these effects, DEQ finds no reasonable assurance that these proposed activities would not violate the biocriteria standard. OAR 340-041-0011, OAR 340-048-0020(3)." See p. 53.)
- "JCEP's proposed construction and use of temporary and permanent rights of way are land disturbance activities that would likely reduce oxygen availability in spawning gravels and likely result in organic and inorganic sediment discharge to streams in amounts inconsistent with dissolved oxygen standard. . . . JCEP's proposed activities do not include sufficient methods to minimize or mitigate for potential Project related reductions in dissolved oxygen at proposed waterbody crossings or from the impacts of roads, including plans to avoid increases in the frequency of landslides from road construction and use. Based upon these findings, DEQ concludes that it does not have a reasonable assurance that the proposed activities will be conducted in a manner that will not violate the Dissolved Oxygen water quality standard at OAR 340-41-0016." See p. 55.
- "Based upon these findings, violations of the pH standard may occur in a few locations where the standard is not currently being met. JCEP has not identified methods to

assure that no additional loading will occur in these areas whether the pipeline would cross a waterbody that is limited for pH. DEQ concludes that it does not have a reasonable assurance that the proposed activities will be conducted in a manner that will not violate the pH water quality standard at OAR 340-41-0021. See p. 57.

- “As noted, dry crossings accomplished by flumed or pumped diversions would rely on an impoundment above the crossing where pumps or gravity-operated flume pipes can bypass streamflow below the work area. Impoundments typically would increase temperature by exposing an increased wetted surface area to solar gain. Given this increase in thermal load as well as the reduction in groundwater flows into streams, proposed activities are likely to cause violations of the temperature standard.” See p. 67.
- DEQ expects JCEP would consult with DEQ and provide additional information as directed by FERC to identify potentially hazardous waste and cleanup sites within the project area. Absent this information, violations of toxicity water quality standards are likely, and would [sic] DEQ concludes 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. OAR 340-041-0033, OAR 340-048-0020(3) . . . JCEP proposes a stormwater management plan that does not demonstrate the spill containment controls are designed, for example, to capture a spill from the largest storage vessel in a drainage area. . . . Without this demonstration, DEQ does not have reasonable assurance that Jordan Cove designed and located spill containment controls in manner to prevent a spill from causing a violation of the toxic substance standard. OAR 340-041-003.” See pp. 72-73.<sup>97</sup>
- “Given the following, JCEP has not demonstrated that pipeline construction and the use of the construction access road would avoid exceedances of the turbidity standard for the following reasons: • Lack of technical support for erosion controls on unstable slopes. • Lack of modeling demonstrating proposed erosion controls are the most effective. • A landslide hazard assessment that does not follow state-of-practice protocols. • A landslide hazard assessment that does not evaluate construction induced landslide hazards. • Lack of engineering design and their support for mitigating landslide risk during pipeline construction. • Lack of engineering designs for stormwater management above unstable slopes.” See p. 73.
- “JCEP’s proposed activities do not employ the highest and best treatment to control turbid discharges by failing to: a. Demonstrate the deployment of effective BMPs during pipeline construction and operation. b. Demonstrate the use of effective BMPs during road maintenance. c. Provide a site-specific waterbody crossing and restoration plans to minimize turbid discharges and restore stream form and function supporting water quality.” See p. 76.
- “JCEP’s proposed activities do not employ methods to construct and maintain roads in a manner to prevent turbid discharges to public waters by minimizing erosion of cut bank, fills, and roads. . . . JCEP’s proposed activities do not employ methods to control turbid discharges generated by organic or inorganic debris from landslides during pipeline construction, pipeline operation, waterbody construction planning, and road maintenance, and road construction.” See p. 76.

These affirmative findings of DEQ are also directly attributable to the CZMA review and provide evidence that project activities are inconsistent with pertinent enforceable policies in ORS 468B and Statewide Planning Goal #6. We urge DLCD to object.

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<sup>97</sup> We believe that the information DEQ references here as having been required by FERC is the information request JCEP has subsequently refused to provide to FERC, see pp. 7-8.

**D. The Applicant claims that recent changes in its power generation plans precludes the necessity of obtaining an Energy Facility Siting Certification from the Oregon Department of Energy’s Facility Siting Council (EFSC), but it does not appear at this writing that this resolves all related consistency issues.**

One significant change in JCEP’s Round Three project application is the replacement of a South Dunes Power Plant with natural-gas driven steam turbines to generate necessary power for liquefaction and other facility needs. The Applicant maintained that this change would allow them to avoid the Energy Facility Siting Council’s jurisdiction and applied for an exemption. They claimed that the change would reduce the generating capacity below the threshold of 25,000 kilowatts and thereby the facility would fall short of the definition of a “thermal power plant.” Their calculations turned out to be faulty—the generating capacity would have actually been 90,000 kilowatts—and after review, DOE prepared a recommendation to the Council that they deny the exemption application.<sup>98</sup> JCEP withdrew their application before the Council acted.

Some months later, JCEP submitted to FERC revisions to their design. The Applicant describes in its Supplemental Resource Report that the modification would be “minor” and cause no impacts to the human or natural environment requiring augmentation of information already submitted. In the segment conveying modifications to Resource Report 13—Engineering and Design Materials, this summary discussion is provided,

JCEP will generate up to a total maximum of 24.4 MW of electric power on-site via three STGs and import the balance of electric power, up to 26 MW, from the local electrical distribution facility owned and operated by Pacific Power. More information on the main power supply is provided in the Electrical Basis of Design (J1-000-ELE-BOD-KBJ-50001-00) included in Appendix B.13.1 and the Electrical Power Generation Study and System Description (J1-000-ELE-RPT-KBJ-50001-00) included in Appendix B.13.2. Updated engineering documentation detailing the final design electric power generation and distribution system will be submitted to FERC prior to construction of final design.<sup>99</sup>

This leads to the claim in JCEP’s consistency certification application that DLCD is currently considering.

ORS 469.500(1) (1987) authorizes EFSC to adopt standards for “all thermal power plants.” Under ORS 469.300(21) (1987), a “thermal power plant” is a “facility using any source of thermal energy with a nominal electric generating capacity of more than 25,000 kilowatts, for generation and distribution of electricity . . . .” The Project is not a “thermal power plant” subject to EFSC jurisdiction because it will not have a nominal generating capacity of more than 25,000 kilowatts. See Ex. Q. As such, the enforceable policies implemented in ORS 469.300-.320, .500-510 (1987) do not apply. Rather, where EFSC has no jurisdiction over the facility, it is the local land use authority (here, Coos County), and not EFSC, that is responsible for the necessary land use approvals.

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<sup>98</sup> Nigel Jaquiss, “Oregon Department of Energy Recommends Denying Jordan Cove Liquefied Natural Gas Project an Exemption: Recommendation Could Slow Development of Controversial, Long-planned Coos Bay Facility,” *Willamette Week*, September 1, 2018, <https://www.wweek.com/news/2018/09/01/the-oregon-department-energy-recommends-denying-jordan-cove-liquified-natural-gas-project-an-exemption/>. Article includes link to an internal “talking points” document that provides ODOE staff’s findings and other particulars.

<sup>99</sup> JCEP, “Supplemental Resource Report,” May 2019, p. 6, [https://elibrary.ferc.gov/idmws/file\\_list.asp?accession\\_num=20190502-5124](https://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20190502-5124).



Consistency with applicable land use-related enforceable policies is discussed in Table 1.2.<sup>100</sup>

*The public does not have access to the referenced Exhibit Q as, contrary to the applicants' claim, it is not part of the "consolidated application" for CZMA consistency certification.*<sup>101</sup> We were given access so late in the comment period and for so short a time that we could only ascertain that it only included correspondence with EFSC. However, we trust that DLCD is looking closely at this matter. There does not seem to be adequate information about the complex matters this significant design change would entail. Even the Supplemental Resource Report mentioned above, consists of only eight pages of modifications to parts of Resource Report 1 and 13 and repeatedly indicates that design plans would not be available until later in the project timeline.

We raise two additional concerns.

1. If it is true that the revised plan puts the facility beyond the reach of EFSC enforceable policies, and instead shifts the issue to Coos County, where is the required complete application to that jurisdiction among the Necessary Data and Information (NDI) submitted to DLCD to initiate the six-month review?

As far as we can tell, there is no information among CMZA consistence certification application materials—including those attached to JCEP's July 31, 2019 letter where they reiterate their denial that EFSC has any involvement in the project—about the replacement plan to meet energy needs to operate the entire facility. We find the referenced Table 1.2 difficult to use and lacking in necessary detail, despite the fact that it is described as the mechanism in the application that demonstrates consistency with the enforceable policies provided. But even therein, we could find no mention that the County process has even been initiated, let alone that application materials have been provided to allow DLCD to begin to consider consistency on their own. Exhibit Q's title indicates that it is confined to "Correspondence with EFSC."

We also raise the possibility that, in order for the new plan to be implemented, other processes may need to be involved. For example, since the plan would require new electrical infrastructure to deliver services to the project facilities, would there be the need for the Public Utilities Commission (PUC) to render approval?

2. DLCD raises a legitimate question, given that the new plan entails generation of just under the 25 megawatt threshold for a "thermal power plant."

DLCD's request in their August 15, 2019 letter and second request for information, appears to have been a response to JCEP's dismissal of EFSC jurisdiction in their July 31, 2019 letter.

Engineering designs that demonstrate the facility will include hardware or software that will limit energy generation below regulatory thresholds.<sup>102</sup>

In summary, though, we believe there are additional issues for DLCD to consider in their consistency review of enforceable policies under state authority. There appears to be a serious lack of information around this issue.

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<sup>100</sup> JCEP, "Joint Coastal Zone Management Act Certifications and Necessary Data and Information," n.d., Table 2-2.

<sup>101</sup> JCEP, "Joint Coastal Zone Management Act Certifications and Necessary Data and Information," n.d., p. 4.

<sup>102</sup> Jim Rue, DLCD, to Natalie Eades, JCEP, "Second Information Request and Clarification," August 15, 2019, p. 4.

**E. The Applicant fails to demonstrate that the JCEP would be consistent with the enforceable policies under the jurisdiction of the Oregon Department of Fish and Wildlife (“ODFW”).**

ODFW has sought necessary information from JCEP repeatedly and largely without success over many years. Not until the initiation of the CZMA six-month review has much progress been made. JCEP indicates at the end of July that a Comprehensive Mitigation Plan (CMP) is coming and that,

[It] will describe required and voluntary measures that will be undertaken by Jordan Cove to offset temporary and permanent impacts to natural resources that are disclosed in the Biological Assessment (BA) and the Draft Environmental Impact Statement (DEIS).<sup>103</sup>

Indeed, a CMP and multiple associated files were released in August. To the extent that the CMP presented by the Applicant confines itself to analyses and disclosure in the DEIS, it can be expected to be deficient due to the incomplete treatment of this and many other issues. DLCD notes this general concern—which we share—in their comments on the DEIS:

Of most concern to DLCD are the sweeping mitigation and inventory recommendations that rely on the applicant providing the FERC information after issuance of the certificate order for the proposed project. That approach denies other permitting processes at the federal and state level, including federal consistency review, necessary information. Oregon created a networked coastal program, which means coastal partners and their state authorities are part of the federal consistency review currently under way. Relying on mitigation agreements after the certificate order, leaves partner state agencies without the information necessary to process permits and make decisions, including DLCD.<sup>104</sup>

They further state with regard to the issue of upland mitigation and temporal mitigation,

Upland mitigation and temporal mitigation that directly addresses specific impacts for fish and wildlife for the pipeline route. Mitigation noted in DEIS is exclusively for federal lands (currently none on non-federal land; pg.36; Section 2.1.7). Mitigation actions address federal lands management goals and may not provide net benefit for fish and wildlife.<sup>105</sup>

The public, including private landowners in the coastal management area, lack sufficient time to thoroughly review the CMP during the current comment period. The agency will likely be challenged, as well. We noted earlier the frustration these last-minute information “dumps” cause, not to mention the high likelihood that important aspects of any of it will be overlooked or ineffectively analyzed in the shortness of time. This pattern is unacceptable.

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<sup>103</sup> Natalie Eades, JCEP, to Jim Rue, DLCD, Natalie Eades, JCEP, to Jim Rue, DLCD, “Re: Response to Three-Month Notification and Information Request dated July 12, 2019.” July 31, 2019, p. 3.

<sup>104</sup> “Oregon State Agency Comments, Jordan Cove Energy and Pacific Connector Gas Pipeline Project Draft Environmental Impact Statement (Docket # CP17-494-000 and CP17-495-000),” July 3, 2019, pp. 200-01.

<sup>105</sup> “Oregon State Agency Comments, Jordan Cove Energy and Pacific Connector Gas Pipeline Project Draft Environmental Impact Statement (Docket # CP17-494-000 and CP17-495-000),” July 3, 2019, p. 201.

2. The Fish and Wildlife Habitat Mitigation Policy is another critical policy for the CZMA consistency review that has still not been provided.

The policy is described as the “state’s assessment tool to determine whether the mitigation for associated habitat impacts is sufficient.” DLCD requested that it be provided as other information needed to perform the CZMA consistency review, but as of its July 31, 2019 response, JCEP disputes that request. They indicate that they are working with ODFW to provide information the Applicant believes is necessary. While it is unclear whether JCEP has reason for refusing to provide the particular habitat information DLCD requests in this case, it appears obvious that the Applicant has difficulty providing what is needed. DLCD offers to be flexible about framework, but accurately points out that, “Regardless of the framework used, the project must be consistent with fish and wildlife policies and ODFW is the coastal partner with the expertise to help determine consistency with the ODFW policies of the Program.”<sup>106</sup>

Is this discussion a smokescreen for the Applicants’ general difficulty coping with the egregious negative impacts the project is guaranteed to have on critical fish and wildlife species and the habitat that is essential for their survival? We have utilized our own expertise, consulted other experts, and reviewed ODFW’s comments and requests for information in three separate DEIS’s and now DLCD’s renewed requests for information during this current consistency review. The Applicant continuously and repeatedly indicates, as in its most recent response to DLCD, that they, “. . . will continue to work with ODFW to ensure the CMP meets applicable state regulatory requirements.”<sup>107</sup> They are working with ODFW but results so far are not forthcoming. We have concluded and conveyed in detail in our own several public comments submitted on this proposed project that the activities required, including and especially in the coastal management area, cannot be carried out without violating numerous enforceable policies—or in other words, without perpetrating vast harm on Oregon’s fish and wildlife.

3. JCEP has refused to provide DLCD with requested information for fish and wildlife habitats in the area of FERC’s preferred alternative pipeline route known as the “Blue Ridge Variation.”

DLCD requested that JCEP provide as other information needed for the consistency review “Updated 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.”<sup>108</sup> JCEP stated that it is working with ODFW on categorization, but would not include the Blue Ridge Variation. JCEP is resisting that route change and claims that it would be premature to gather and provide information. We have not seen DLCD’s response to this claim by the Applicant; however, in their August 15, 2019 request for information, the agency seeks “the information supplementing the Corps federal permit application #NWP2017-41 that is the basis for Corps Supplemental Notice dated July 26, 2019.”<sup>109</sup> 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 and should not concur if JCEP refuses to comply.

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<sup>106</sup> Jim Rue, DLCD, to Natalie Eades, JCEP, “Second Information Request and Clarification,” August 15, 2019, p. 2.

<sup>107</sup> Natalie Eades, JCEP, to Jim Rue, DLCD, “Re: Response to Three-Month Notification and Information Request dated July 12, 2019.” July 31, 2019, p. 3.

<sup>108</sup> Jim Rue, DLCD, to Ms. Natalie Eades, JCEP, “Re: Three-month Notification and Information Request,” July 12, 2019, p. 6.

<sup>109</sup> Jim Rue, DLCD, to Natalie Eades, JCEP, “Second Information Request and Clarification,” August 15, 2019, p. 3.

4. JCEP has not provided proposed offsets that demonstrate appropriate statutory compliance with habitat quantity and quality, with particular attention to the estuarine environment, snowy plover, marbled murrelet, northern spotted owl, coastal martens, vernal pools, oak woodlands, native fish bearing streams, and riparian habitats.

It is alarming to note that this and related information required by ODFW and DLCD has still not been provided after over a decade that this proposed project has been on the drawing board. Nonetheless, this inventory of missing information appears to attest in another way to the harm to sensitive and endangered species the project would perpetrate, and the insurmountable challenge JCEP faces in minimizing it. We have reviewed ODFW's comments to various state and federal agencies over much of the time the JCEP has been proposed and find them to be very clear in their explanation of both statutory requirements governing these and related issues and informational needs, including completion of documents such as the abovementioned Compensatory Mitigation Plan.<sup>110</sup>

However, the agency's discussion in the state agency comments on the 2019 DEIS reveals how little progress has been made at the end of this long endeavor. ODFW recommends that aquatic and upland impacts to fish and wildlife habitats be addressed consistent with the Oregon Wildlife Policy (ORS 496.012) and implemented through the ODFW Fish and Wildlife Habitat Mitigation Policy (OAR 635-415-0000 through 0025). This rule governs ODFW's provision of biological advice and recommendations concerning mitigation for losses of fish and wildlife habitat caused by development actions. JCEP's repeated claims that they are coordinating with ODFW ring hollow. We fear Oregon's fish and wildlife resources are in jeopardy.

5. JCEP responded to DLCD's request for information that would demonstrate avoidance of Category 1 habitats and provide evidence via spatial analysis and other surveys/data by referencing materials that are not apparently available to the public (and may not be available to other agencies).

This important issue has also been raised repeatedly by ODFW. As related above, while JCEP indicates that they are coordinating with ODFW, results over the years haven't been forthcoming. From ODFW's comments on the 2008 DEIS until those for the 2019 version, they have repeated that Category 1 habitats must be avoided, or they would need to recommend against the project.<sup>111</sup> The agency reiterated it in 2019,

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<sup>110</sup> Theodore R. Kulongoski, Governor, to Kimberly D. Bose, FERC, "Comments of the State of Oregon, Draft Environmental Impact Statement, Jordan Cove Energy Project, LP Docket No. CP07-444, Pacific Connector Gas Pipeline, LP Docket Nos. CP07-441, CP07-442 and CP07-443," December 4, 2008, p. 4; John A. Kitzhaber, Governor, to Kimberly D. Bose, FERC, "Comments of the State of Oregon, Draft Environmental Impact Statement, Jordan Cove Energy Project Docket No. CP13-483-000 and Pacific Connector Gas Pipeline Docket No. CP13-492-000," February 12, 2015, p. 73. (check pp.)

<sup>111</sup> Theodore R. Kulongoski, Governor, to Kimberly D. Bose, FERC, "Comments of the State of Oregon, Draft Environmental Impact Statement, Jordan Cove Energy Project, LP Docket No. CP07-444, Pacific Connector Gas Pipeline, LP Docket Nos. CP07-441, CP07-442 and CP07-443," December 4, 2008, p. 4; John A. Kitzhaber, Governor, to Kimberly D. Bose, FERC, "Comments of the State of Oregon, Draft Environmental Impact Statement, Jordan Cove Energy Project Docket No. CP13-483-000 and Pacific Connector Gas Pipeline Docket No. CP13-492-000," February 12, 2015, p. 73.

If ODFW determines that such habitat is Category-1, ODFW must recommend that impacts to the habitat be avoided. If impacts cannot be avoided, ODFW must recommend against the development action.<sup>112</sup>

In its July 31, 2019 response to DLCD's reiteration of this issue as a request for information, JCEP references an "Applicant Prepared Draft Biological Assessment" (APDBA), of which they provide Attachments B, C, and D to its application for CZMA consistency certification. These are not available to the public, and we received permission from Pembina to view them too late in the comment period to be able to review their adequacy.

6. DLCD should question the Applicant's claim that there would not be any in-water blasting within the coastal zone.

DLCD requested plans for in-water blasting, but JCEP responded that plans would not be applicable to the consistency review because "No in-water blasting is proposed within the coastal zone." We encourage DLCD to pursue this issue. It does not appear that a claim that there is "no" or even "little" *potential* for blasting is necessarily reliable.

The DEIS makes the same claim with regard to the terminal site, stating that there would be no blasting because "the entire site area consists of sand."<sup>113</sup> Given the geology of the Oregon coast, we find such a claim frivolous. There is a likelihood that the Applicant 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."<sup>114</sup> Since the Applicant has failed to provide necessary detail and design for their proposed water crossings, we cannot be certain, but it seems unreasonable to assume that there would be no water crossings in those stretches that would be part of sedimentary rock formations. The resultant ambiguity is precisely why DEQ found it necessary to deny the Applicant's Section 401 Water Quality permit. It is also clear from ODFW's comments on each of the three DEISs for this project that they expect, and require appropriate information about, in-water blasting.

Additionally, there are at least two additional scenarios, having nothing to do with bedrock, where blasting can be expected to be utilized that would affect waterways and their inhabitants, including in the coastal zone: culvert installation and any water crossing in close proximity to large trees. The claim of "no blasting" in the coastal zone does not appear to bear scrutiny, but at the very least, the Applicant should be required to provide more evidence than a simple denial.

7. JCEP refers DLCD to an "Attachment E" to its July 31, 2019 letter in response to DLCD's request for "fish screening plans," but this is the same October 2018 Hydrostatic Test Plan ODFW found deficient in their comments on the 2019 DEIS.

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<sup>112</sup> Oregon Department of Fish and Wildlife, "Jordan Cove Liquefied Natural Gas and Pacific Connector Gas Pipeline permit application to the US Army Corps of Engineers NWP-2017-41, and Oregon Dept of Env Quality Water Quality 401 Certification Application," July 19, 2018, p. 4.

<sup>113</sup> DEIS, p. 4-683.

<sup>114</sup> DEIS, p. 4-28.

While we did not have adequate access to the referenced Attachment E (to JCEP's July 31, 2019 letter to DLCD), it seems that the version of the Hydrostatic Test Plan dated October 2018 would have been the one that FERC utilized to prepare the DEIS. The screening plans that DLCD seeks to obtain for its consistency review respond to enforceable policy ORS 498.301 to prevent "appreciable damage to game and nongame fish populations as a result of the diversion of water for nonhydroelectric purposes from any body of water in this state." In their DEIS comments, ODFW indicates "[t]he Applicant has identified Points of Diversion (POD's) that are within 150 feet of the work area. Many POD's have water conveyance ditches outfitted with fish screens. Not all fish screens are located in the immediate vicinity of the POD."<sup>115</sup>

8. JCEP erroneously claims in its July 31, 2019 to DLCD's July 12, 2019 request for significant information regarding fish passage that the agency's request is largely redundant or outside the scope of their authority.

JCEP alleges in its letter that most of the material DLCD requested had already been provided to both DLCD and ODFW, but DLCD asserts in its August 15, 2019 response that the request was driven by inadequacy of that information. DEQ found the same deficiency in terms of lack of necessary detail as ODFW and DLCD have found. Necessary engineering drawings for high-risk sites were not provided, including in Appendixes JCEP identified as containing them. We lacked adequate access to the Appendixes JCEP alleges contain the requested information, but have found the same kind of reference to materials (often Appendixes, Exhibits, or Attachments) across other permitting processes which, when the source is carefully reviewed, have been found to be deficient or some are even blank. Since inadequate information is grounds for objection to an Applicant's consistency certification, we believe DLCD is fully within its authority and responsibility to object.

9. DLCD indicates uncertainty that the version of the APDBA submitted by the Applicant is the most recent one, rather than an older version that has already been determined to be incomplete. While there is clearly an answer to the direct question, it would be important for DLCD to be able to have confidence that they are not wasting precious time during the consistency review period considering an outdated and inadequate document.

**F. The Applicant fails to demonstrate that the JCEP would be consistent with the enforceable policies under the jurisdiction of the Oregon Department of Agriculture ("ODA").**

1. Consultation on threatened and endangered species.

2. In materials unavailable to the public, JCEP claims that no T&E plant species listed by the Oregon Department of Agriculture (ODA) would be jeopardized by construction activities within the coastal zone.

DLCD requested in its July 12, 2019 request for information, mitigation proposals for all T&E plant species, for impacts at the terminal site and the pipeline route within the coastal zone. JCEP, in its July 31, 2019 response, claims that the only such species in pertinent areas is the Point Reyes bird's beak (*Chloropyron maritimum* ssp. *palustre*) per a 2017 survey. They further claim that actual plants are only present near MP 0.9 and that Horizontal Directional Drilling

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<sup>115</sup> "Oregon State Agency Comments, Jordan Cove Energy and Pacific Connector Gas Pipeline Project Draft Environmental Impact Statement (Docket # CP17-494-000 and CP17-495-000)," July 3, 2019, p. 112.

(HDD) pipeline construction activities in that area would not disturb them and that other T&E species are “either outside the range of the Project, will not be affected by the Project or outside of the coastal zone.”<sup>116</sup> They refer to Attachment C to their letter, which constitutes Appendix V.2 of the APDBA. As above, this information has not been located and appears to be inaccessible to the public.

Nonetheless, using what we have available, we note that the DEIS appears to contradict the above claim, at least in part. Table 4.6.2-1 lists Pink sand verbena (*Abronia umbellata* ssp. *Breviflora*), Silvery phacelia (*Phacelia argentea*), and Wolf’s evening primrose (*Oenothera wolfii*) as present at the Jordan Cove terminal site. It also contradicts JCEP’s claim that Point Reyes bird’s peak is found nowhere but on the pipeline route. The Table shows it to be also present at the terminal site.<sup>117</sup> The associated narrative in the DEIS amplifies some of this information. We are not able to verify or dispute much of it. However, the discussion of Wolf’s evening primrose at least appears to suggest that it should not be dismissed. In other words, it appears to be present in the coastal zone in addition to Point Reyes bird’s peak. Concern about this species is significant enough that a mitigation plan is said to be included in a *Federally-Listed Plant Conservation Plan*.<sup>118</sup> That Plan is allegedly provided as Appendix J to the Plan of Development (POD) included with 2019 DEIS materials, but that Appendix has no content.<sup>119</sup> We also note that, since JCEP refuses to consider reviewing any aspect of the FERC-recommended Blue Ridge Variation and, as a recent issue, the area has not been researched for the presence of T&E species, circumstances along the 14-mile stretch are not considered.

We will make the point that, unless Attachment C (Appendix V.2 of the APDBA) includes some far superior details about how HDD construction activities would be carried out in the vicinity where any plant life is to survive, the simple guarantee that HDD construction ensures the safety of Point Reyes bird’s peak should be questioned. We have commented before about JCEP’s deficient understanding of HDD risks, for example to DSL on the Removal-Fill permit:

The HDD operations along the pipeline are not detailed to any extent, despite the fact that at each location there are potential risks to the water quality and environment from placement of the spoils and from risks inherent in drilling operation. There is no indication of where the drilled-out sediments brought to the surface will be placed. HDD operations generally require a suite of drilling fluids, the systematic release of which places water quality and organisms in the environment at risk. Moreover, in these drilling operations, there are risks of failure that can lead to accidental release of contaminated sediments and drilling fluids.<sup>120</sup>

We have also commented that JCEP does not appear to acknowledge the relatively high incidence of “frac-outs” and subsequent release of contaminated fluids and mud—especially harmful to vegetation.<sup>121</sup> And, there is an elevated risk of frac-out occurring on this project due,

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<sup>116</sup> Natalie Eades, JCEP, to Jim Rue, DLCD, “Re: Response to Three-Month Notification and Information Request dated July 12, 2019.” July 31, 2019, p. 6.

<sup>117</sup> DEIS, p. 4-359-60.

<sup>118</sup> DEIS, p. 4-365-66.

<sup>119</sup> DEIS, Appendix J in Appendix F.10 PCGP POD-Part 3-22.PDF.

<sup>120</sup> LWV Coos and Klamath Counties and Rogue and Umpqua Valleys, “Public Comment on Jordan Cove Energy Project Removal-Fill Permit--DSL Application Number 60697 NWP-201741—Oppose,” February 1, 2019, pp. 28-29.

<sup>121</sup> Jessica Dickers, “What is a Frac-out in HDD?” *Utility Magazine*, May 4, 2016; State of Oregon, DEIS comments, 2015, p. 102.

in part, to the excessively large diameter of the pipe and bore that would be required and the inadequate investigation of site conditions that the Applicant has performed.

Unless the newly provided materials JCEP references in their letter are of substantially higher quality than what we have seen so far, DLCD should object to their consistency certification.

## V. PROJECT FAILS TO DEMONSTRATE CONSISTENCY— LOCAL COMPREHENSIVE PLANS AND LAND USE REGULATIONS

***DLCD should object because the Applicant has failed to demonstrate that the project would be consistent with enforceable policies within pertinent local comprehensive plans and land use ordinances. DLCD should base that objection on their own substantive consistency review of local matters as a result of their statutory obligation to make a factual determination, in this case particularly because of evidence of problematic local processes, as well as clear evidence that the project would be inconsistent with local plans and ordinances.***

The spreadsheets prepared to inventory enforceable policies that pertain to subject matter of local land use permits and local comprehensive plans can act as a roadmap to a furious flurry of activity as the Applicant has sought to generate activity on as many items as possible, often simultaneously. They describe the role of local permits under the OCMP:

Under ORS 197.175, the Statewide Planning Goals are to be implemented by local governments through the adoption of comprehensive plans that are consistent with the goals. In turn, the comprehensive plans are to be implemented through adoption and enforcement of land use regulations. Once the local government adopts, and the Oregon Land Conservation and Development Commission (“LCDC”) acknowledges, a local government’s comprehensive plan and land use regulations implementing that plan, the local government is to make land use decisions consistent with those acknowledged plans and regulations. *Therefore, for any project component approved in a local land use decision as compliant under the applicable local comprehensive plan and implementing land use regulations, the project component necessarily is also consistent with Statewide Planning Goals* [emphases added].<sup>122</sup>

While we agree that permits are, by design and purpose, an essential tool for DLCD to use during their review of a project’s consistency with the CZMA, they cannot be the only determinant. They cannot have such power as to supersede the authorized state agency’s role and obligation to ensure that the project is, indeed, consistent with the state’s plan to implement the objectives of the Coastal Zone Management Act (CZMA).

The Office for Coastal Management’s (OCM) 2017 review of the operation and management of the OCMP by the Oregon Department of Land Conservation and Development underscored this. OCM’s evaluation focused on three target areas: program administration, including marine energy; state-local partnerships, including coastal hazards; and estuary management plan updates. Among the OCM recommendations, the reviewers emphasized that the Oregon Coastal Management Program, “should work with the OCM to create and provide the public with clarifying information to explain the role and responsibilities of DLCD and its networked coastal program partners in executing the federal consistency process.”<sup>123</sup>

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<sup>122</sup> JCEP, “Joint Coastal Zone Management Act Certifications and Necessary Data and Information,” n.d., p. 26.

<sup>123</sup> Office for Coastal Management. 2017. Final Evaluation Findings, Oregon Coastal Management Program.



OCM's report raises specific and legitimate concerns about DLCD's approach to the role of the state vis a vis the role of outcomes of local plans and permits. While the federal agency indicates comfort with DLCD utilizing plans and permits as an indication that a project is consistent with the state's planning goals, OCM calls on the state to be in charge.

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.<sup>124</sup>

Although OCM does not specifically call out the possibility that local processes may function improperly and put other priorities ahead of the program's charge, DLCD would be wise to recognize the potential in this case. As we have pointed out in our comments, the local permitting processes are moving forward, despite the clear existence and severity of the numerous ways in which we have pointed out the JCEP is *inconsistent* with the officially identified pertinent Statewide Planning Goals. DLCD should look carefully at those inconsistencies and consider information that will be submitted by commenters. We believe DLCD will conclude that local decision-making processes have fallen short of adequately performing their role. In such a case, we urge DLCD to dramatically upgrade their role in this consistency determination. As NOAA provides,

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.<sup>125</sup>

In other words, DLCD must do what is necessary to ensure a project's *actual* consistency with the CZMA, understanding that the latter program is charged with providing the framework for protecting Oregon's coastal areas from the adverse impacts of development. Directly put, the agency must be cognizant of the potential for local processes to function improperly.

**A. It is our view that Statewide Planning Goal #1: Citizen Involvement has been compromised and even violated across much of the local planning processes related to this project.**

The introduction of "Oregon Statewide Planning Goals and Guidelines" declares a special commitment to citizen participation:

Citizen Involvement. It's no coincidence that *Citizen Involvement* is the first among Oregon's 19 statewide planning goals. Extensive citizen participation has been the hallmark of the state's planning program from the outset. Every city and county has a Committee for Citizen

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National Ocean Service National Oceanic and Atmospheric Administration. Department of Commerce, p. 17.

<sup>124</sup> Office for Coastal Management. 2017. Final Evaluation Findings, Oregon Coastal Management Program.

National Ocean Service National Oceanic and Atmospheric Administration. Department of Commerce, p. 11.

<sup>125</sup> Office for Coastal Management. 2017. Final Evaluation Findings, Oregon Coastal Management Program.

National Ocean Service National Oceanic and Atmospheric Administration. Department of Commerce, p. 11.

Involvement (CCI) to monitor and encourage active citizen participation. The state's Citizen Involvement Advisory Committee (CIAC) also encourages such participation in all aspects of planning.

We quote from that Goal because it is such a critical element and must be kept in view as we proceed with this discussion:

GOAL 1: CITIZEN INVOLVEMENT, OAR 660-015-0000(1). To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process. The governing body charged with preparing and adopting a comprehensive plan shall adopt and publicize a program for citizen involvement that clearly defines the procedures by which the general public will be involved in the on-going land-use planning process. The citizen involvement program shall be appropriate to the scale of the planning effort. The program shall provide for continuity of citizen participation and of information that enables citizens to identify and comprehend the issues. Federal, state and regional agencies, and special- purpose districts shall coordinate their planning efforts with the affected governing bodies and make use of existing local citizen involvement programs established by counties and cities.

The League of Women Voters stands firmly and insistently on effective public participation, as well.

The League of Women Voters [of the US] believes democratic government depends upon the informed and active participation of its citizens and requires that governmental bodies protect the citizen's right to know by giving adequate notice of proposed actions, holding open meetings, and making public records accessible.

Yet, the public has been largely excluded or ignored or both in some local processes. The exorbitant number of requests and applications for permits from city and county authorities for this project and attendant processes, largely initiated in a relatively short period of time, have rendered problematic, if not impossible, the abilities of the public to fully engage in review. This is the case for state and federal processes, as well, but it is particularly egregious at the local city and county levels, especially related to the estuary management plan. In many cases, the Applicant has provided hundreds of pages of materials, often without proper pagination or indexing of documents and their appendices and attachments. Multiple timeframes for public comment have run concurrently. Public hearings on more than one matter of vital concern to the public have been scheduled during the same time period. The Applicants have submitted supplemental information, often voluminous, adding to the burden of staying abreast of the action. Even citizens representing the city and county governance find themselves unable to be informed about, and contribute to, the necessary reasonable and informed dialog.

The enormity and complexity of this project proposal and all of the required process has led some planning departments and governments to secure additional assistance from contractors from other locations. For example, the City of Coos Bay has hired the Lane Council of Governments (LCOG) to assist in reviewing documents and to provide guidance on the specific elements of each proposal related to statewide goals and local ordinances. It is important to note that, LCOG has provided a careful review of factual information and recently issued recommendations that the specific proposal was likely *not* in the best interests of the local community and the coastal region.

The public was also excluded from access to essential information in the OCMP consistency review process on the state level, as well. JCEP's application included 19 Exhibits, but they were not available on DLCD's website. Thinking it was an oversight by the agency, we requested them. After nearly two weeks, we were finally given access. We were told that permission had to be obtained from Pembina to release the information. When we attempted to open the files, access required agreeing to nondisclosure and included a notice that access was limited to seven days.

DLCD needs to take a hard look at how citizen participation fares in the face of the juggernaut that is the JCEP.

**B. Despite the thrust of numerous Statewide Planning Goals central to coastal zone management, the long-term and reasonably foreseeable cumulative effects of this project are largely ignored.**

According to the guidance for federal consistency review provided by the DLCD, the review should include,

. . . evaluation of direct and indirect impacts, including consideration of cumulative (impacts that add up) and secondary impacts (impacts that occur later in time or farther removed in distance) in or outside of the coastal zone that have 'reasonably foreseeable effects' on coastal resources or uses.<sup>126</sup>

Coastal ecosystems of Oregon are at risk from the many climate-induced effects such as stronger storms, ocean acidification, and sea level rise. All of these are cumulative effects as a result of choices made in many separate areas and the impacts are affected by coastal land use.. However, consideration of reasonably foreseeable cumulative effects has been only rarely considered as part of local zoning deliberations of the cities and the county. They are often deliberately precluded. Individual authorities evaluating applications have on some occasions exerted specific restraints to prevent consideration of essential broader views. For example, for a recent hearing regarding application for dredging in a natural aquatic zone of the estuary within the City of Coos Bay, that entity limited the testimony to consider *only* effects at that one site, prescribing that testimony regarding the extent of three additional areas proposed for dredging nearby in the bay irrelevant, simply because they fall across the boundary line with Coos County.

The subject area of this application is the 3.3-acres of area currently designated NA-52 by the CBEMP. State law and local code confines the Planning Commission's consideration to the impacts from the use(s) proposed in this application, accordingly, most, if not all, evidence addressing full LNG elements are irrelevant to the applicable evaluation criteria. A key example is the Coos Bay Municipal Code Section 17.360.010 (B) which outlines criteria for comprehensive plan amendments related to cumulative effects. Staff have found that in rendering a decision on this application, the local decision maker may only address impacts resulting from the activities proposed by this City application alone. The decision maker is not allowed to consider impacts based on other applications for other activities that are not presented as part of this application.

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<sup>126</sup> <https://www.oregon.gov/LCD/OCMP/Pages/Federal-Consistency-Explained.aspx>

The decision maker is also required to make the decision based solely on the applicable criteria that are found in the local code and comprehensive plan.<sup>127</sup>

We remind DLCD that these processes must occur in an orderly and ingenuous fashion in order for the resultant decisions to reflect the intent of the Statewide Planning Goals. Where they do not, the coastal environment, economy, and community structure are at risk.

We urge DLCD, as NOAA indicates, to exercise its authority and obligation to determine consistency with the spirit and letter of coastal zone management laws. Reliance on the outcomes local processes to determine consistency should not be thoroughgoing under any circumstances, but especially not here, where Canadian corporations have been working to build inroads into this community for over a decade to establish an export project that offers no appreciable benefit to Oregon or the nation.

## **VI. Conclusion**

Congress in 1972 passed the Coastal Zone Management Act (CZMA) (16 U.S.C. 1451 et seq.),

. . . to protect the coastal environment from growing demands associated with residential, recreational, commercial, and industrial uses (e.g., State and Federal offshore oil and gas development). The CZMA provisions help States develop coastal management programs (Programs) to manage and balance competing uses of the coastal zone. Federal Agencies must follow the Federal Consistency provisions as delineated in 15 CFR part 930.<sup>128</sup>

Subsequently, Oregon established the Oregon Coastal Management Plan (OCMP) to implement the CZMA objectives in the state and designated the Department of Land Conservation and Development (DLCD) to oversee it. The OCMP is a networked program, but DLCD has the responsibility to determine whether projects such as the Jordan Cove Energy Project would be consistent with the Statewide Planning Goals and enforceable policies of the OCMP.

After careful study of a broad range of project materials and in consideration of the objectives and particulars of the CZMA and OCMP, we have concluded and urge DLCD to consider the following:

### **A. DLCD should object to JCEP's consistency certification.**

We urge DLCD to conduct a thorough substantive consistency review, working with other state agency coastal partners to study and evaluate JCEP's proposed applications and measure them against the letter and intent of Oregon's Coastal Management Program. We believe careful attention to information regarding the goals of the coastal network, as well as information and analysis provided by public comments regarding this project will reveal that the JCEP has

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<sup>127</sup> Agenda Item Summary for "Land Use Application #187-18-000153 – Jordan Cove Energy Project Navigation and Efficiency and Reliability of the Coos Bay Deep Draft Navigation Channel.," for August 27, 2019 City of Coos Bay Special City Council Meeting, p. 3.

<sup>128</sup> Bureau of Ocean Energy Management (BOEM) website, <https://www.boem.gov/Coastal-Zone-Management-Act/>.

not only failed to demonstrate that their plans, practices, and activities are consistent with the OCMP, but that the project contradicts the intent of both the federal Act and Oregon's program.

If this application is permitted, the Coos Bay segment of Oregon's coastal zone would be permanently and, in many ways, irreparably damaged. Its communities would be placed at risk from both natural and project-induced hazards.

We hold that DLCD should object without conditions for the following reasons:

1. \_\_\_\_\_ Permits and other information that would assist in establishing that JCEP would be consistent with the OCMP have not been granted. This, even after years of interactions with state and local entities, JCEP has failed to provide numerous essential plans and other information needed to perform a consistency review.

2. We and other members of the public have been restricted from participation, in part by the Applicants' failure to provide complete information and in part by 11<sup>th</sup>-hour scheduling of the extraordinary number of local land use processes. Failure to allow for public participation is a violation of Statewide Planning Goal #1 and beyond that, of the democratic system. We believe these failures call into question to reliability of local land use decisions to demonstrate compliance with pertinent enforceable policies.

3. the Applicant failed to demonstrate that the proposed project would be consistent with enforceable policies contained in pertinent Statewide Planning Goals and in fact, there is ample evidence that the project would violate the objective of the CZMA and the parameters of the OCMP.

4. The Applicant 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. First, they have been unable to obtain required state permits that would assist the state in determining consistency with enforceable policies. Second, the Applicant has failed to respond to repeated requests for essential information needed by state agencies to consider whether project activities would violate state laws. Third, there is factual evidence that the project would violate pertinent enforceable policies.

5. The Applicant has failed to demonstrate that the project would be consistent with enforceable policies within pertinent local comprehensive plans and land use ordinances. As noted, JCEP has not managed to obtain required local permits that should assist the state in determining consistency with local land use goals, and second, there is evidence that local processes have failed to be conducted in a manner that would facilitate objective consideration. DLCD should therefore follow the express guidance of the Office of Coastal Management and conduct their own substantive consistency review of JCEP activities in light of Statewide Planning Goals and enforceable policies to a factual determination of consistency.

**B. If DLCD objects and the objection is appealed to the Secretary of Commerce, we contend that the state's objection cannot be overruled under 15 CFR § 930.121 and 16 USC § 1456(c)(3)(A).** We rely in this on key and similar factors put forth in former Secretary of Commerce Gary Locke's 2009 Decision and Findings sustaining the objection by the State of New York of the consistency certification application by Broadwater Energy LLC and Broadwater Pipeline LLC.<sup>129</sup>

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<sup>129</sup> "Decision and Findings by the U.S. Secretary of Commerce in the Consistency Appeal of Broadwater Energy

In that Decision, Secretary Locke explained that,

. . . Secretary *must sustain* the state’s objection *unless* at least one of two findings is made: 1. The Project is consistent with the objectives of the CZMA in terms of national interest. . . .<sup>130</sup>

The Broadwater Decision notes the all of three criteria pertinent to the “national interest” finding must be met for the state’s objection to be overridden.

We believe a national interest finding *cannot* be made, at least because:

- Element #1. The Appellant cannot convincingly contend that any national interest it may be deemed to further, would do so in a “significant or substantial manner. Although engaged in energy development—defined in the CZMA as in the national interest—the argument runs off course in that the nation whose interest it serves is almost exclusively Canada. The Applicants have stated clearly and publicly that little of the natural gas to be liquefied and exported would be sourced from U.S. gas fields. Furthermore, given the historic and current assets holdings and development plans of the corporation, it is not certain that Pembina would remain in the natural gas business if another product were to become more lucrative.
- Element #2. Moreover, and especially because of its primarily foreign benefits, the Appellant cannot convincingly contend that whatever (U.S.) national interest it furthers outweighs the activity’s adverse coastal effects. We have demonstrated throughout this comment—and other commenters submitting substantive documents will underscore—that the JCLNG facility alone would come with egregious adverse effects that would be perpetrated on this coastal region. The project would,
  - Disrupt existing industries and other aspects of the local economy;
  - Disrupt all other vessel traffic using the navigable waters of the Bay;
  - Entrain and otherwise harm aquatic species, including threatened and endangered species, and jeopardize their habitat;
  - Exacerbate dramatically the existing affordable housing crisis;
  - Potentially increase certain types of crime, substance abuse, and domestic violence;
  - Vastly increase GHG emissions from methane leakage and combustion and contribute air pollution;
  - Subject the public, aquatic species, and wildlife to noise pollution;
  - Disturb cultural resources and trample on indigenous rights;
  - Disrupt recreational uses;
  - Degrade the viewshed and aesthetics of the entire region; and
  - Put communities at risk by exacerbating impacts of natural hazards and creating safety hazards of its own through its activities and associated operations.
- Element #3. While the deficient alternatives analyses of both the Applicant and FERC in the DEIS indeed yielded no reasonable alternative to the project, consistency with the objectives of the CZMA on the basis of this first option—national interest—requires that

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LLC and Broadwater Pipeline LLC From the Objection by the State of New York, April 13, 2009.

<sup>130</sup> CZMA Sections 302, 303.

all three criteria specific in the pertinent regulations must be satisfied. They cannot be, at least because of the egregious adverse coastal effects we name above.

The Secretary can override a state's objection if he finds that, "The Project is necessary in the interest of national security."<sup>131</sup>

We cannot see that could be a plausible finding that the JCEP has any value in terms of national security. We also note that nothing suggests that JCEP claims any national security value in the project either.

To make a finding that a project meets the objectives of the CZMA in terms of national security, federal regulations indicate that,

A proposed activity is necessary in the interest of national security if "a national defense or other national security interest would be significantly impaired were the activity not permitted to go forward as proposed [emphasis added]."<sup>132</sup>

JCEP cannot justify a contention that any national security interest would be impaired *at all* if the project were stopped. In fact, this project or any other LNG project poses a significant national security threat in that such facilities and the LNG tankers that call there may present an attractive target for terrorist attack.

The DEIS says this,

The LNG marine vessels that would deliver or receive LNG to or from the proposed facility would also need to comply with various U.S. and international security requirements. The IMO adopted the *International Ship and Port Facility Security Code* in 2002. This code requires both ships and ports to conduct vulnerability assessments and to develop security plans. The purpose of the code is to prevent and suppress terrorism against ships; improve security aboard ships and ashore; and reduce the risk to passengers, crew, and port personnel on board ships and in port areas. All LNG marine vessels, as well as other cargo vessels (e.g., 500 gross tons and larger), and ports servicing those regulated vessels, must adhere to the IMO standards.<sup>133</sup>

However, as we described in our discussion of Statewide Planning Goal #17, the Coos Bay poses its own natural hazards that fall outside of such measures, due to the configuration of the bar and Bay coupled with weather patterns. Numerous other vessels have wrecked on the bar and run aground in the Bay due to weather conditions, as well as human error. The Applicant offers no plans for extracting a grounded tanker, but historical precedents offers clear proof that extracting a shipwrecked tanker within the Bay or at the bar defies planning.

Additionally, an export facility contradicts the national security goal of energy self-sufficiency. To the extent that U.S. gas from western states via the Ruby Pipeline, does get access to Asian markets JCEP proposes to serve, we are losing energy that could at some point be vital to national security.

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<sup>131</sup> "Decision and Findings by the U.S. Secretary of Commerce in the Consistency Appeal of Broadwater Energy LLC and Broadwater Pipeline LLC From the Objection by the State of New York, April 13, 2009, p. 36.

<sup>132</sup> 15 C.F.R. § 930.122.

<sup>133</sup> DEIS, p. 4-704.

Neither criterion that would allow the Secretary to override an objection by Oregon can be met under the law.

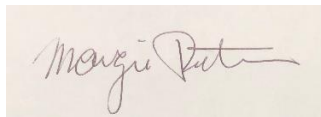
**We urge DLCD to object to JCEP's consistency certification application as the project is inconsistent with the Oregon Coastal Management Program and does not comply with the objectives of the federal Coastal Zone Management Act.**

The League of Women Voters is a volunteer organization without any motive other than to work for the best interest of all our citizens. Thank you for accepting and considering our information and concerns and thank you for your service.

Sincerely,



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Margie Peterson, Co-President, League of Women Voters of Rogue Valley  
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Cc: Governor Kate Brown  
Secretary of State Bev Clarno  
Treasurer Tobias Read  
Senator Ron Wyden  
Senator Jeff Merkley  
Congressman Greg Walden  
Congressman Peter DeFazio  
Tyler Krug, US Army Corps of Engineers  
Kimberly Bose, Federal Energy Regulatory Commission



Oregon Senator Dallas Heard  
Oregon Senator Dennis Linthicum  
Oregon Senator Floyd Prozanski  
Oregon Senator Arnie Roblan  
Oregon Representative Kim Wallan  
Oregon Representative Cedric Hayden  
Oregon Representative Gary Leif  
Oregon Representative Mike McLane  
Oregon Representative E. Werner Reschke  
Oregon Representative David Brock Smith  
Oregon Representative Caddy McKeown  
Coos County Commissioners John Sweet, Bob Main, Melissa Cribbens  
Douglas County Commissioners Chris Boice, Tim Freeman  
Jackson County Commissioners Rick Dyer, Colleen Roberts, Bob Strosser  
Klamath County Commissioners Donnie Boyd, Derrick DeGroot, Kelley Minty Morris  
Coos Bay Mayor Joe Benetti  
North Bend Mayor Rick Wetherell  
Shady Cove Mayor Lena Richardson  
Shady Cove City Council  
Myrtle Creek Mayor Matthew Hald  
Canyonville Mayor Jake Young  
Winston Mayor Dick Hayes  
Riddle Mayor William Duckett  
Klamath Falls Mayor Carol Westfall  
Jason Miner, Governor's Natural Resources Policy Advisor  
Kristen Sheeran, Governor's Climate Policy Director  
Tom Byler, Director, Oregon Water Resources Department  
Lisa Sumption, Director, Oregon Parks and Recreation  
Brad Avy, State Geologist, Oregon Department of Geology and Mining Industries  
Janine Benner, Oregon Department of Energy  
Jim Rue, Director, Department of Land Conservation and Development  
Vicki Walker, Director, Department of State Lands  
Curt Melcher, Director, Oregon Department of Fish and Wildlife  
Meta Loftsgarrden, Director, Oregon Watershed Enhancement Board  
Peter Daugherty, State Forester, Oregon Department of Forestry  
Alexis Taylor, Director, Department of Agriculture  
Paul Mather, Interim Director, Oregon Department of Transportation  
Richard Whitman, Director, Oregon Department of Environmental Quality  
Chris Stine, Project Manager, Department of Environmental Quality  
Chris Carson, President, LWVUS  
Rebecca Gladstone, President, LWVOR