



COLUMBIA RIVERKEEPER  
111 Third Street  
Hood River, OR 97031  
phone 541.387.3030  
[www.columbiariverkeeper.org](http://www.columbiariverkeeper.org)

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Dick Pedersen  
Director  
Oregon Department of Environmental Quality  
811 SW 6<sup>th</sup> Ave.  
Portland, OR 97204

Steve Mrazik  
Northwest Region Manager  
Oregon Department of Environmental Quality  
2020 SW 4<sup>th</sup> Ave., Suite 400  
Portland, OR 97201

Nina DeConcini  
Northwest Region Division Administrator  
Oregon Department of Environmental Quality  
2020 SW 4<sup>th</sup> Ave., Suite 400  
Portland, OR 97201

Sara Christensen  
Water Quality Certification Coordinator  
Oregon Department of Environmental Quality  
2020 SW 4<sup>th</sup> Ave., Suite 400  
Portland, OR 97201

Jennifer Purcell  
North Coast Regional Solutions Team  
Oregon Department of Environmental Quality  
4301 Third Street  
Tillamook, OR 97141

**VIA ELECTRONIC AND U.S. MAIL**

**RE: Public Comments on LNG Development Company, LLC, dba Oregon LNG,  
NWP-2005-748, 401 Certification.**

To the Oregon Department of Environmental Quality:

Please accept these comments on the Clean Water Act ("CWA") 401 certification for Joint Permit Application, NWP-2005-748, LNG Development Company, LLC, dba Oregon LNG ("Oregon LNG"). These comments are submitted on behalf of Columbia Riverkeeper, the Pacific Coast Federation of Fishermen's Associations, the Institute for Fisheries Resources, Northwest Steelheaders Association, Northwest Environmental Advocates, Sierra Club, Northwest Property Rights Coalition, Oregon Shores Conservation Coalition, Northwest Guides and Anglers Association, Oregon Physicians for Social Responsibility, Save Our Wild Salmon,

the Center for Biological Diversity, Columbia Pacific Commonsense, Landowners and Citizens for a Safe Community, Food and Water Watch, the Northwest Environmental Defense Center, the Native Fish Society, Forest Grove Oregon Citizens Against the Pipeline, Willapa Hills Audubon Society, Wahkiakum Friends of the River, Oregon Coast Alliance, 350PDX, Tessa Scheller, Roble and Catherine Anderson, and Cheryl Johnson (collectively “Commenters”). Commenters are a diverse coalition of national, regional, and local groups, as well as several individuals, committed to protecting public health, quality of life, and natural resources in the Pacific Northwest and beyond. Collectively, our organizations represent hundreds of thousands of members, many of which are threatened directly by Oregon LNG’s proposed liquefied natural gas (“LNG”) Terminal, LNG tankers, Pipeline, and supporting infrastructure. Many of our members are also threatened by natural gas extraction and associated impacts on domestic gas prices, public health, climate change, and coastal resources. Commenters request that the DEQ deny the 401 certification for Oregon LNG’s proposed Terminal and Pipeline.

Oregon LNG’s proposal would impose significant environmental and economic harm in the Columbia River estuary and beyond. The project would undermine the State of Oregon’s efforts to protect water quality, recover endangered and threatened species, and support vibrant fishing communities. Commenters incorporate by this reference the Clean Water Act Section 404, Rivers & Harbors Act Section 10, and Marine Mammal Protection Act Section 103 comments, exhibits, and expert reports filed on behalf of Commenters (hereafter “the Coalition 404 Comments”). Commenters endeavor not repeat information contained in the Coalition 404 Comments. Instead, Commenters provide new information and describe why DEQ must deny Oregon LNG’s 401 water certification based on the project’s failure to comply with state water quality standards.

## **1.0 Executive Summary.**

### **1.1 DEQ should deny Oregon LNG’s 401 certification for the same reasons the agency denied the Bradwood LNG 401 certification.**

DEQ’s decision denying the Bradwood LNG terminal and pipeline 401 certification is highly relevant to DEQ’s analysis of the Oregon LNG project. NorthernStar Natural Gas proposed building the Bradwood LNG import terminal 22 miles upriver from Astoria at Bradwood, Oregon, within the Columbia River estuary. The Bradwood LNG and Oregon LNG projects share many similar, significant impacts on water quality and designated uses, including fishing and aquatic life. In fact, Oregon LNG proposes significantly more dredging and wetland fill than the Bradwood LNG project. On May 5, 2010, NorthernStar filed for bankruptcy.<sup>1</sup> DEQ

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<sup>1</sup> Exhibit 22 (DEQ, *Evaluation Report and Findings on Clean Water Act 401 Water Quality Certification Application for Bradwood Landing* (Mar. 10, 2011)).

denied the Bradwood LNG 401 certification on March 10, 2011. As these comments explain, DEQ's detailed decision denying the Bradwood LNG project supports denying the Oregon LNG 401 certification.



**Destroying important Estuary habitat.** The site of Oregon LNG's proposed terminal, industrial dock, and 135 acre LNG tanker turning basin covers high quality salmon habitat and wetlands.

DEQ denied Bradwood's 401 certification based on a series of substantive findings of water quality standards violations, as well as NorthernStar's failure to produce information requested by DEQ. Specifically, DEQ's letter denying the Bradwood 401 certification describes two overarching reasons for denial, stating:

1. DEQ's review under the Antidegradation rule indicates that implementation of the proposal would result in a significant lowering of water quality for the parameters of: Narrative Criteria, Biocriteria, Dissolved Oxygen, Nuisance Phytoplankton, Temperature, Total Dissolved Solids, Toxic Substances, and Turbidity, and further that this lowering of water quality will adversely impact the existing designated beneficial uses including Anadromous Fish Passage, Salmonid Fish Rearing, Salmonid Fish Spawning, Resident and Aquatic Life, Wildlife and Hunting, Fishing, and Aesthetic Quality in the Columbia River. In addition, the subject waterways are already classified as Water Quality Limited so further degradation to Temperature (in all subject streams except Hunt Creek) and Toxic Substances (in the Columbia River) must be prohibited. Other consideration in the recommendation of denial of 401 WQC are that the reversal of the impacts from project induced geomorphic alterations would not be possible and mitigation was not demonstrated to be adequate or

achievable. This finding on Antidegradation prevents a demonstration that the proposal will be in compliance with Section 303 of the Clean Water Act.

2. DEQ further notes that in addition to failing to demonstrate compliance with water quality standards, applicants failed to provide information required of all applicants to allow DEQ to determine whether conditions are required to ensure that the project will comply with other applicable requirements of state law. Such requirements include compliance with water quality related statewide goals and acknowledged local land use plans and regulations under ORS 197.180 and rules ensuring compliance with Oregon's Coastal Management Plan.<sup>2</sup>

DEQ's decision denying Bradwood LNG supports similar findings of denial for the Oregon LNG project. For example, like the Bradwood LNG project, Oregon LNG proposes an unprecedented amount of dredging in near-shore, ESA-listed species critical habitat. And like the Bradwood LNG project, Oregon LNG's construction and operation would harm traditional fishing grounds. Commenters discuss the parallels between the Bradwood and Oregon LNG projects and DEQ's rationale for denying the Bradwood LNG project throughout this comment.

## **1.2 The project does not comply with Oregon water quality standards.**

The proposed LNG Terminal and Pipeline do not comply with Oregon's water quality standards. Water quality standards consist of designated uses of the waterbody, the water quality criteria necessary to protect those uses, and an Antidegradation policy. Oregon has broad authority to deny a 401 certification. *See PUD No. 1 of Jefferson County v. Washington Dept. of Ecology*, 511 U.S. 700, 714 (1994) (holding that states can deny or condition 401 certifications because "the construction and operation of the project as planned would be inconsistent with one of the designated uses . . . namely, salmonid and other fish migration, rearing, spawning, and harvesting."). DEQ should deny the 401 certification because Oregon LNG's project harms salmon and other designated uses. Specifically, the project does not comply with Oregon's water quality standards because it: fails to protect designated and existing uses, such as threatened salmon and sturgeon, fishing, and navigation; fails to comply with Oregon's narrative and numeric water quality standards for toxic pollutants and turbidity; and fails to comply with Oregon's Antidegradation policy because it will add additional pollutants to a 303(d)-listed waterbody. The Coalition 401 Comments and other comments filed by expert state and federal agencies demonstrate that Oregon LNG's project does not comply with water quality standards and mitigation is inadequate.

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<sup>2</sup> Exhibit 1a at 1 (Letter from DEQ to U.S. Army Corps of Engineers and Federal Energy Regulatory Commission (Mar. 10, 2011)).

### 1.3 DEQ does not have adequate information to review this project.

Oregon LNG has presented incomplete, inaccurate, and inconsistent information about the scope, design, and impacts of the project. For example, Oregon LNG’s hydrodynamic modeling falls far short of the in-depth analysis DEQ required in the context of the Bradwood LNG project. For example, Oregon LNG opts for 2-dimensional modeling in a number of scenarios, foregoing the more probative 3-dimensional modeling. This was a critical flaw in the Bradwood LNG hydrodynamic modeling.<sup>3</sup> DEQ must hold Oregon LNG to the same standards as other 401 certification applicants.

Similarly, Oregon LNG fails to provide fundamental information on proposed mitigation. In comments to the U.S. Army Corps of Engineers (“Corps”), the U.S. Environmental Protection Agency (“EPA”) concludes that the project does not comply with 40 CFR § 230.10(d), which requires “adequate mitigation in terms of avoidance, minimization and then providing adequate compensatory mitigation.” For example, the agency states: “EPA is concerned that while this [mitigation] project will add some ecological benefits to the overall system, it doesn’t result in a net gain in wetland habitat in the estuary.”<sup>4</sup> EPA concludes that Oregon LNG has not demonstrated compliance with the CWA’s implementing regulations.

The Oregon Department of Fish and Wildlife (“ODFW”) comments also critique the paucity of information provided by Oregon LNG on proposed mitigation. ODFW states: “The information provided in the application regarding the proposed 120-acre mitigation site at the mouth of the Young’s River is not sufficient for ODFW to assess its merits as a site to mitigation for loss of wetlands habitats at the proposed terminal site.”<sup>5</sup> ODFW goes on to state, “Given the lack information provided in the application, ODFW cannot determine if the proposed mitigation meets the “reliable in-kind, in-proximity” standard identified in the FWHMP for Category 3 Habitat.” The Columbia River Estuary Study Taskforce (“CREST”) levies a similar critique in comments to the Corps.<sup>6</sup> DEQ simply does not have adequate information to conduct the 401 certification review and should reject the application as incomplete.

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<sup>3</sup> Exhibit 22 (DEQ, *Evaluation Report and Findings on Clean Water Act 401 Water Quality Certification Application for Bradwood Landing* (Mar. 10, 2011)).

<sup>4</sup> Exhibit 1b at 4 (Letter from EPA to Corps (Jan. 16, 2015) (hereafter “EPA 404 Comments”)).

<sup>5</sup> Exhibit 1c at 15 (Letter from ODFW to Corps (Jan. 16, 2015) (hereafter “ODFW 404 Comments”)).

<sup>6</sup> Exhibit 1d (Letter from CREST to Corps (Jan. 16, 2015) (hereafter “CREST 404 Comments”)).

**1.4 DEQ must review whether Oregon LNG complies with Clatsop County and the City of Warrenton’s land use regulations and Statewide Planning Goals.**

Pursuant to the “state agency coordination program” rules, DEQ has an affirmative obligation to review the Oregon LNG proposal for compliance with land use regulations and statewide planning goals. OAR 340-018-0050 (“Department actions . . . shall be compatible with local government acknowledged comprehensive plans to the extent required by law”). The Oregon LNG proposal is inconsistent with the acknowledged Clatsop County and City of Warrenton Comprehensive Plans, land use codes, and the Goals. In turn, DEQ should deny the 401 certification.

**1.5 DEQ must conduct a needs assessment.**

DEQ must ensure compliance with Goal 16, which prohibits dredging unless “a need (i.e., a substantial public benefit) is demonstrated and the use or alteration does not unreasonably interfere with public trust rights.” Therefore, DEQ must determine whether there is a need for the project and whether the project interferes with public trust rights.

**2.0 General Comments.**

**2.1 The scope of the 401 review should be broad.**

Consistent with DEQ’s approach for the Bradwood LNG terminal and pipeline, DEQ should undertake a broad scope of review, which analyzes the water quality impacts of every component of the Oregon LNG project. DEQ’s review should include an in-depth analysis of the impacts on water quality and designated uses, including the impacts from: dredging; erosion and wake stranding caused by tankers and tugs; delays to shipping, boating, and fishing due to tanker traffic; impacts on salmon and other aquatic life from the tankers and Terminal and Pipeline construction and operation; pollutants in wastewater discharge; surface and ground water intake; ballast water intake (entrainment and impingement); exotic species; habitat destruction due to terminal and pipelines; frac-out from pipeline drilling; disturbance of wildlife; geological hazards; fire and other safety hazards; and economic harm on shipping, fishing, and tourism industries. Due to the wide range of existing and beneficial uses in the Columbia River estuary, DEQ has an obligation to review each of these impacts.

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## 2.2 DEQ does not have adequate information to review this project.

DEQ does not have adequate information on the design, impacts, and operation of the project. DEQ “may request any additional information necessary to complete an application or to assist the department in evaluating the project’s impacts on water quality.” OAR 340-048-0020(3). “An applicant’s failure to complete an application or provide requested additional information . . . is grounds for denial of certification . . .” *Id.* DEQ should reject the incomplete and inaccurate application from Oregon LNG and require additional information.

DEQ, along with other state and federal agencies, has conducted multiple meetings with Oregon LNG and has requested more information on the project design, impacts, and mitigation. However, critical components of the project and mitigation design are still missing.<sup>7</sup> For example, Oregon LNG has not completed adequate hydrodynamic modeling, relying extensively on 2-dimensional modeling. If DEQ continues its review, DEQ must deny the 401 certification because it does not have adequate information to ensure compliance with Oregon’s water quality standards.

Federal and state agency comments, as well as expert reports filed on behalf of Commenters, demonstrate that Oregon LNG’s application contains inaccurate and inadequate information.<sup>8</sup> For example, on the impacts of dredging, the ODFW 404 Comments state:

ODFW disagrees with OLNG’s statement that the newly exposed surface of dredging area will be high quality benthic habitat. In ODFW’s opinion, the new depth will result in habitat conversion and continued disturbance to retain depth will result in decreased habitat quality.<sup>9</sup>

ODFW also disagrees with Oregon LNG’s conclusion on the quality of habitat impacted by dredging, stating “[t]his shallow-water habitat is critical for rearing habitat for several ESA-listed salmonids and is also used by a variety of other estuarine dependent species.”<sup>10</sup> ODFW also notes that Oregon LNG has failed to respond to agency requests to utilize the ODFW Fish and Wildlife Habitat Mitigation Policy (“FWHMP”). ODFW states:

As early as 2007, ODFW has requested that OLNG utilize standards identified in the FWHMP to characterize the quality and quantity of wetlands/waterways and other habitat

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<sup>7</sup> See Coalition 404 Comments; Exhibit 1c (Letter from ODFW to Corps (Jan. 16, 2015)); Exhibit 1b (Letter from EPA to Corps (Jan. 16, 2015)).

<sup>8</sup> See Coalition 404 Comments.

<sup>9</sup> ODFW 404 Comments at 5.

<sup>10</sup> *Id.* at 15.

types affected by the project. ODFW remains concerned that the applicant has not provided a complete categorization of habitats per the FWHMP for ODFW review. ODFW considers this important information for us to be able to adequately assess the potential effects of the project and fish and wildlife and their habitats.<sup>11</sup>

CREST, a council of governments with expertise in the Columbia River estuary, likewise criticizes the adequacy of information provided by Oregon LNG. CREST's 404 comments to the Corps state:

We disagree with the assertions in the Habitat Prioritization Table 1. taken from the *Oregon LNG Report APPENDIX 3B Biological Survey Reports – Aquatic Species and Habitat*, 2013.

CREST would assert that the low and high marsh habitat on [the] Skipanon Peninsula **is** essential habitat for fish and wildlife with a high potential for restoration . . . . The entire peninsula has a high potential for restoration, is close to the mouth of the Columbia River, and is hydrologically connected to ongoing restoration work in the Skipanon River, Youngs Bay, and Youngs Bay tributaries. The development of the Oregon LNG terminal should be viewed within the historical context of low and high marsh habitat loss in the Columbia River Estuary, and ongoing restoration efforts.<sup>12</sup>

Oregon LNG's 401 application fails to provide DEQ with fundamental, accurate information about project impacts on water quality standards, including designated uses.

EPA's 404 Comments also highlight inaccurate and inadequate information in Oregon LNG's application. For example, on the project purpose and need, EPA takes issue with the alleged need for the project, explaining:

Oregon LNG states that the primary purpose of the Oregon LNG Project is to facilitate the re-export of Canadian-sourced natural gas (and to a lesser extent, the export of U.S.-sourced gas from the Rocky Mountain region) to foreign markets as well as facilitate the availability of such gas supplies for deliver to Pacific Northwest markets, including the Portland metropolitan [area]. However, we noted that the energy supply and demand landscape seems in a state of flux within the U.S. With one other LNG proposal pursuing FERC licensing for a site in Oregon and its associated natural gas pipeline within the same service area that could provide supplies of natural gas to the Pacific Northwest from either Canada or the Rocky Mountains; there are still many uncertainties associated with the current natural gas market that puts the long-term commitment of any particular site that would warrant the permanent and temporary impacts to natural resources associated

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<sup>11</sup> *Id.* at 14.

<sup>12</sup> Exhibit 1d at 2 (Letter from CREST to Corps (Jan. 16, 2015) (emphasis in original)).



with the current natural gas market that puts the long-term commitment to any particular site that would warrant the permanent and temporary impacts to natural resources proposed with construction of the Oregon LNG facility and the associated Washington Expansion Pipeline proposal, at considerable risk.<sup>13</sup>

The Coalition 404 Comments also describe in detail why Oregon LNG's application materials contain inaccurate and inadequate information on project need.

DEQ also lacks fundamental information on proposed project mitigation. The Bierly Expert Report, Exhibit 2, describes why information provided on Oregon LNG's proposed mitigation for the Terminal and associated in-water work is woefully inadequate. ODFW draws a similar conclusion. ODFW's 404 comments state:

The information provided in the application regarding the proposed 120-acre mitigation site at the mouth of the Young's River is not sufficient for ODFW to assess its merits as a site to mitigate for loss of wetlands habitats at the proposed terminal site. At a minimum, ODFW recommends that the applicant provide the following additional information for review and approval:

- a. Site map showing key features such as dikes, tidegates, developed structures, existing waterways and drainages, wetland features, existing unique habitats, etc.
- b. Description of goals and how they will be measured.
- c. Restoration plan showing how the proposed mitigation actions restore natural hydrologic function and habitats at the site, including an accounting of anticipated quality and quantity of wetlands, waterways and other habitat types (per ODFW FWHMP).
- d. Project timeline.
- e. Monitoring plan with reporting schedule (see Section 7.5 below).<sup>14</sup>

EPA also concludes Oregon LNG fails to provide critical information needed to evaluate the efficacy of proposed mitigation.<sup>15</sup>

For the reasons stated above and in the Coalition 404 Comments, DEQ should deny Oregon LNG's 401 certification because the application contains blatant factual errors and lacks adequate information.

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<sup>13</sup> EPA 404 Comments at 2.

<sup>14</sup> ODFW 404 Comments at 15.

<sup>15</sup> EPA 404 Comments at 4.

**2.3 DEQ should analyze the information disclosed in FERC’s forthcoming draft environmental impact statement and the Services’ Biological Opinions before taking action on the 401 certification.**

The Coalition urges DEQ to consider information disclosed in the draft environmental impact statement (“DEIS”), Biological Opinions, and public comments on these documents in reaching a decision on the 401 certification. First, a DEIS is fundamental for the public, tribes and state and federal agencies to understand a proposed project’s impact on the environment and public health. The Corps opened the 404/10/103 public comment period before producing a DEIS for public or agency review. This decision hinders public comment not only on the 404/10/103 application, but the 401 certification as well. DEQ, however, should not let the Corps’ decision undercut the quality and content of its 401 certification review. Commenters urge DEQ to evaluate the DEIS and EIS, as well as public comments on these documents, in reaching a decision on the 401 certification.

Second, DEQ should evaluate the Biological Opinions produced by the National Marine Fisheries Service (“NMFS”) and the U.S. Fish and Wildlife Service (“USFWS”) (collectively “the Services”). At this juncture, DEQ’s only in-depth biological evaluation of the project’s impacts is a document prepared by Oregon LNG. For the reasons explained in the Williams, Bierly, and Rhodes expert reports, the applicant-generated Biological Assessment is not a reliable source of information on the project’s impacts.<sup>16</sup> For this reason, DEQ must analyze the information and conclusions contained the Services’ Biological Opinions.

**2.4 DEQ must review whether Oregon LNG complies with Clatsop County and the City of Warrenton’s acknowledged comprehensive plans, other land use laws, and Statewide Planning Goals.**

Pursuant to the “state agency coordination program” rules, DEQ has an affirmative obligation to review Oregon LNG’s proposal for compliance with the acknowledged Clatsop County and City of Warrenton Comprehensive Plans and the Statewide Planning Goals. OAR 340-018-0040 (DEQ “shall to the extent required by law, achieve goal compliance for land use programs and actions identified in OAR 340-018-0030 by assuring compatibility with acknowledged comprehensive plans . . .”); OAR 340-018-0050 (“Department actions under OAR 340-018-0030 shall be compatible with local government acknowledged comprehensive plans to the extent required by law”). DEQ cannot issue a 401 certification until Oregon LNG demonstrates compliance with state land use laws.

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<sup>16</sup> See Exhibits 1, 2, and 3.

DEQ must deny the 401 certification based on the project's failure to comply with water quality related provisions of Clatsop County's land use laws. To determine compatibility, DEQ may rely on a Land Use Compatibility Statement ("LUCS"). Here, Oregon LNG has not produced a LUCS from Clatsop County. Clatsop County denied land use authorizations for Oregon LNG's proposed Pipeline because the 41-mile long segment of pipeline through Clatsop County is inconsistent with the acknowledged Clatsop County Comprehensive Plan and Land Water and Development and Use Ordinance. Clatsop County concluded that the Pipeline is inconsistent with dozens of provisions of county law, including aquatic and water quality protections. As DEQ is aware, Oregon LNG appealed Clatsop County's decision. The appeal is pending. Until DEQ obtains a LUCS from Clatsop County or complies with the requirements of OAR 340-048-0020(2)(i), DEQ cannot issue a 401 certification for the project.

DEQ should also deny the 401 certification based on the project's failure to comply with the City of Warrenton's Comprehensive Plan and land use ordinance. As an initial matter, DEQ should not rely on the City of Warrenton ("City") LUCS because the Terminal and Pipeline are inconsistent with multiple provisions of the City's Comprehensive Plan. The City's Land Use Planning Director signed a LUCS on July 3, 2013. At the time, neither City staff nor the City Council had received a land use application from Oregon LNG. The City, therefore, did not have adequate information to determine whether the project, as proposed in the 401 certification, complies with land use compatibility requirements under state law. To date, the City of Warrenton has not held a single public hearing on the Oregon LNG project. As Coalition and CREST comments on Oregon LNG's CZMA application demonstrate, Oregon LNG's project does not comply with the City of Warrenton's Comprehensive Plan, the Warrenton Municipal Code, or the Statewide Planning Goals.<sup>17</sup>

## **2.5 DEQ must conduct a needs assessment.**

As described above, DEQ cannot issue the 401 certification unless the project complies with the Statewide Planning Goals. OAR 340-018-0040 – 0050. Therefore, DEQ has an obligation to review the project's compliance with the Goals. Goal 16 prohibits dredging unless "a need (i.e., a substantial public benefit) is demonstrated and the use or alteration does not unreasonably interfere with public trust rights." Therefore, DEQ must determine whether there is a need for the project and whether the project interferes with public trust rights.

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<sup>17</sup> Exhibit 35 (Letter from Columbia Riverkeeper *et al.* to the Oregon Department of Land Conservation and Development, Oregon LNG Coastal Zone Management Act Public Comments (Nov. 2013)).

The Coalition 404 Comments and attachments thereto, as well as federal and state agency comments, demonstrate that: (1) there is no need for the project, and (2) Oregon LNG's fails to demonstrate any substantial benefit to Oregonians. In turn, DEQ cannot demonstrate a public need, as required by Goal 16.

**2.6 DEQ should deny the Oregon LNG 401 certification for many of the same reasons the agency denied the Bradwood LNG 401 certification.**

DEQ denied the Bradwood LNG 401 certification for many of the same reasons the agency should deny the Oregon LNG certification. Both LNG terminals propose unprecedented dredging for private sector projects in the Columbia River estuary. Both projects would interfere with and degrade highly-valued fishing grounds in the Columbia River estuary. And both projects would degrade water quality in a river that is already listed as impaired for multiple parameters. Commenters urges DEQ to review carefully reasoning and precedent established in the agency's decision denying the Bradwood LNG 401 certification and, based on this review, deny the Oregon LNG 401 certification. In the following section, the Coalition highlights parallels between the Bradwood LNG 401 certification decision and Oregon LNG's proposal.

First, both the Bradwood LNG and Oregon LNG projects propose an unprecedented amount of dredging for a private sector project in the Columbia River estuary. DEQ contracted with an independent third party to review of the hydrodynamic modeling and analysis submitted by Bradwood LNG. A similar third party review is warranted for the Oregon LNG project. Oregon LNG failed to produce hydrodynamic modeling that even approaches the level of analysis DEQ required for the Bradwood LNG project. For example, Oregon LNG's hydrodynamic modeling relies extensively on 2-dimensional modeling, provides a localized analysis of dredging impacts, and is unclear on the source of the underlying data. Consistent with DEQ's review of the Bradwood LNG 401 certification, DEQ should: (1) require additional information, and (2) use this information to enlist the assistance of an independent, third party reviewer.

Second, DEQ denied the Bradwood LNG 401 certification because the project would lower water quality for multiple parameters, and "this lowering of water quality, along with loss of habitat and food sources, will adversely impact the existing designated beneficial uses of: Anadromous Fish Passage; Salmon Fish Rearing; Salmonid Fish Spawning; Resident and Aquatic Life; Wildlife and Hunting; Fishing; and Aesthetic Quality of the Columbia River,

which is designated as a salmon and steelhead migration corridor.”<sup>18</sup> The Oregon LNG project warrants an identical finding of denial. The ODFW, EPA, Coalition 404 Comments and Williams, Bierly, and Rhodes expert reports describe how Oregon LNG’s project will lower water quality and result in habitat loss. These same comments and reports also demonstrate that Oregon LNG’s mitigation is inadequate to compensate for the habitat loss and water quality degradation. For the same reasons DEQ denied Bradwood LNG’s project, the agency should deny Oregon LNG’s project.

Third, DEQ’s Antidegradation review for Bradwood LNG concludes by recommending 401 certification denial. DEQ’s decision denying the Bradwood LNG 401 certification states:

Based on evaluation of the best available information, adverse impacts to multiple water quality parameters may be significant and this will adversely impact existing and potential designated beneficial uses. Because the subject waterways are already Water Quality Limited, reversal of the impacts of the geomorphic alternations would not be possible, and mitigation has not been demonstrated to be adequate or achievable, DEQ concludes that application for 401 WQC for this proposed project should be denied.<sup>19</sup>

Like Bradwood LNG, Oregon LNG’s project would adversely impact existing and potential designated uses, including: Anadromous Fish Passage; Salmonid Fish Rearing; Salmonid Fish Spawning; Resident and Aquatic Life; Wildlife and Hunting; Fishing; and Aesthetic Quality in the Columbia River, which is designated as a salmon and steelhead migration corridor. Moreover, Oregon LNG’s project proposes more dredging and wetland impacts than the Bradwood LNG project. Table 1 provides a comparison of the two projects.

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<sup>18</sup> Exhibit 22 at 25 (DEQ, *Evaluation Report and Findings on Clean Water Act 401 Water Quality Certification Application for Bradwood Landing* (March 10, 2011)).

<sup>19</sup> *Id.* at 25.

**Table 1. Comparison of Bradwood LNG and Oregon LNG Proposals.**

	<b>Bradwood LNG</b>	<b>Oregon LNG</b>
<b>Terminal Location</b>	Lower Columbia River, Clifton Channel, River Mile (RM) 38-39	Lower Columbia River, Youngs Bay, RM 11.5
<b>Size of Dredge Area</b>	46 acres within a 58 acre area <sup>20</sup>	109 acres in 135 acre area <sup>21</sup>
<b>Amount of Dredging</b>	700,000 cubic yards <sup>22</sup>	1.2 million cubic yards <sup>23</sup>
<b>Natural Water Depth</b>	-20 feet Columbia River Datum (CRD)	20 to 30 feet Mean Lower Low Water (MLLW) <sup>24</sup>
<b>Depth of Dredging</b>	-42 feet CRD	-50 feet MLLW at berthing area; -45 MLLW at turning basin <sup>25</sup>
<b>Maintenance Dredging</b>	80,000 every two – four years	300,000 cubic yards every three years <sup>26</sup>
<b>Dredge Spoil Disposal Location</b>	Portion for dredge spoils as fill for construction of the terminal, with the balance moved to the Wahkiakum County Sand Pit <sup>27</sup>	Proposes in-water dredge spoil disposal at designated Pacific Ocean site outside of the mouth of the Columbia River <sup>28</sup>
<b>Vessel Traffic</b>	<ul style="list-style-type: none"> <li>· 125 vessels would arrive at the terminal each year<sup>29</sup></li> <li>· 250 inbound and outbound vessel trips</li> </ul>	<ul style="list-style-type: none"> <li>· 127 vessels would arrive at the terminal each year<sup>30</sup></li> <li>· 254 inbound and outbound vessel trips</li> </ul>

<sup>20</sup> Bradwood Biological Assessment at ES-1 (hereafter “Bradwood BA”).

<sup>21</sup> Oregon LNG Biological Assessment at 2-25; 3-33 (hereafter “OLNG BA”).

<sup>22</sup> Bradwood BA at 2-5.

<sup>23</sup> OLNG BA at 3-33.

<sup>24</sup> *Id.* at 2-25.

<sup>25</sup> *Id.* at 3-33.

<sup>26</sup> *Id.* at 2-25.

<sup>27</sup> Bradwood BA at 2-16 – 2-17.

<sup>28</sup> OLNG BA at 2-21.

<sup>29</sup> Bradwood BA at 2-129.

<sup>30</sup> OLNG BA at 3-70.

	· ~ 2.4 LNG vessel trips per week	· average of 2.4 LNG vessel trips per week <sup>31</sup>
<b>ESA-Listed Species Impacted by Project According to Applicant-drafted BA</b>	· 38 listed endangered or threatened species or proposed · applicant concluded project may affect, and is likely to adversely affect 16 ESA-listed species <sup>32</sup>	· 52 listed endangered or threatened species or proposed for listing · applicant concluded project may affect, and is likely to adversely affect, 22 ESA-listed species
<b>Ballast Water Intake Impacts</b>	· 125 LNG import vessels per year would take on ballast water	· 2 LNG import vessels per year would intake ballast water <sup>33</sup>
<b>Cooling Water Impacts</b>	· 125 LNG import vessels per year would discharge cooling water <sup>34</sup>	· 125 LNG export vessels per year would withdraw cooling water <sup>35</sup> · All LNG vessels would discharge cooling water <sup>36</sup>

For the reasons stated above and described in the Coalition 404 Comments, DEQ’s decision denying the Bradwood LNG project supports similar findings of denial for the Oregon LNG project.

### **3.0 The Project Fails to Comply with Oregon’s Water Quality Standards.**

Under section 401 of the CWA, the state must certify that any discharge into navigable waters will comply with state or tribal effluent limitations (CWA § 301), water quality related effluent limitations (CWA § 302), water quality standards and implementation plans (CWA § 303), national standards of performance (CWA § 306), and toxic and pretreatment effluent standards (CWA § 307). 33 U.S.C. § 1341(a). Water quality standards include: (1) designated uses, (2) narrative and numeric criteria, and (3) the state’s Antidegradation Policy.

Oregon regulations provide a list of nine criteria to evaluate when reviewing a 401 certification application. OAR 340-048-0042(2). Notably, OAR 340-048-0042(2)(h) directs DEQ to consider “[p]otential water quality impacts from construction activities” as a standalone criterion. This indicates that the remaining eight criteria are not limited to “construction

<sup>31</sup> *Id.* at 3-2.

<sup>32</sup> Bradwood BA at ES-3.

<sup>33</sup> OLNG BA at 2-35.

<sup>34</sup> Bradwood LNG BA at 2-100.

<sup>35</sup> OLNG BA at 2-4.

<sup>36</sup> *Id.* at 2-100.

activities;” otherwise, OAR 340-048-0042(2)(h) would be superfluous. As a practical matter, DEQ’s 401 certifications routinely include conditions related to project operations. As pertains to this project, the regulations direct DEQ to carefully consider “potential water quality impacts from the activity’s use, generation, storage, or disposal of hazardous substances,” “potential modifications of groundwater quality that might affect surface water quality,” and “potential water quality impacts from wastewater discharges” in deciding whether to issue 401 certification for the proposed Terminal and Pipeline. Because these potential water quality impacts do not comply with the state’s designated uses, numeric or narrative water quality criteria, or Antidegradation Policy, DEQ should deny 401 certification for the project.

### **3.1 DEQ must deny the 401 certification because the project does not protect existing and designated uses.**

CWA section 401 requires DEQ to ensure that there is a reasonable assurance that all components of Oregon LNG’s project comply with Oregon’s water quality standards. All certifications must protect existing or designated uses. The following are examples of designated uses listed for the lower Columbia River: Fish & Aquatic Life; Fishing; Boating; Wildlife & Hunting; Water Contact Recreation; Aesthetic Quality; Commercial Navigation & Transportation. *See* OAR 340-041, Table 101A. Under OAR 340-041-0101(1), DEQ must manage water quality in the Columbia River “to protect the designated beneficial uses.”

The Coalition 404 Comments and expert reports explain in great detail the harm that Oregon LNG would cause to designated and existing uses. In the following section, we address two examples of designated uses threatened by Oregon LNG’s project, fishing and aquatic life. Oregon LNG’s project and proposed mitigation fail to protect these designated use and, therefore, DEQ must deny the 401 certification.

#### **3.1.1 Protection of the designated use of fishing, OAR 340-041-0101.**

Oregon LNG’s project proposes unprecedented impacts to the Columbia River’s most prized fishery. The project would degrade and block or delay access to the estuary’s most active sport and commercial fishery.<sup>37</sup> DEQ must analyze comments describing the LNG project’s significant impacts to commercial and sport fishing and, based on this information, deny the certification. For example, ODFW’s 404 Comments explain the importance of the fishery and critique Oregon LNG’s failure to account for the project’s significant impacts to fishing. ODFW’s 404 Comments state: “[T]he application does not do a sufficient job characterizing the local importance of the commercial and recreational fisheries or how they will be affected during

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<sup>37</sup> *See* Coalition 404 Comments.



construction and operation of the OLNNG terminal, berthing dock, and other facilities.”<sup>38</sup> ODFW goes on to describe Oregon LNG’s passing recognition of the importance of the Buoy 10/Youngs Bay fishery, and explains why Oregon LNG fails to account for the project’s impact on this fishery. For example, ODFW’s 404 Comments state:

The applicant does acknowledge the extremely popular recreational fishery for Chinook and coho salmon that occurs near the mouth of the Skipanon River (Buoy10 Fishery), and that the proposed OLNNG terminal is located in the mid-region of this popular fishing salmon area. *However, the application does not adequately characterize the potential for substantial disruption of this socially and economically important fishery during construction and operation of the marine terminal complex.* For instance, this fishery experienced 107,700 angler trips in 2014 with a combined catch of nearly 84,500 salmon.<sup>39</sup>

DEQ denied the Bradwood LNG 401 certification based, in part, on impacts to fishing. Here, Oregon LNG’s project would impact significantly more anglers, as well as commercial fishing and recreational crabbing. Based on the well-documented use of the Buoy 10/Youngs Bay fishery and the direct and indirect impacts of Oregon LNG’s project on fishing, DEQ must deny the 401 certification.

### **3.1.2 Protection of the designated use of aquatic life, OAR 340-041-0101.**

The LNG Terminal and Pipeline fail to protect the designated use of aquatic life, including threatened salmonids and other ESA-listed species. The expansive acreage of dredging and filling in critical habitat fails to protect salmonids. The construction and operation of the Terminal and Pipeline, including removing riparian vegetation, tanker traffic, wastewater discharge, ballast water intake, pipeline stream crossings, and the risk of catastrophic damage due to a gas fire combine to create unacceptable harm to aquatic life. DEQ denied the Bradwood LNG terminal based on the project’s failure to protect the designated use of aquatic life. An identical finding of denial is warranted for the Oregon LNG project.

Oregon LNG proposes dredging the mouth of Youngs Bay to create an LNG tanker turning basin and build an industrial dock. The aquatic area covered by Oregon LNG’s proposal includes habitat designated as “critical habitat” for the recovery of endangered and threatened salmon and steelhead stocks. This includes: Lower Columbia River Chinook Salmon, Snake River Fall-run Chinook Salmon, Upper Columbia River Spring-run Chinook Salmon, Upper

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<sup>38</sup> ODFW 404 Comments at 17.

<sup>39</sup> *Id.* (emphasis added).

Columbia River Spring-run Chinook Salmon, Lower Columbia River Steelhead, Middle Columbia River Steelhead, Upper Columbia River Steelhead, Upper Willamette River Steelhead, Snake River Basin Steelhead, and Columbia River Chum Salmon. Lower Columbia River Coho Salmon critical habitat is proposed in the terminal area. Oregon LNG's dock and turning basin require an unprecedented level of habitat modification in Youngs Bay. Oregon LNG proposes dredging 1.2 million cubic yards of river bottom to create a turning basin that can accommodate LNG tankers ranging in size from 70,000 to 266,000 cubic meters. The turning basin would extend from the edge of the Columbia River Federal Navigation Channel to the berthing line to facilitate LNG tanker turning, docking, and undocking. The bottom elevation is currently 20 to 30 feet below mean lower low water (MLLW). Oregon LNG proposes dredging to -43 feet Columbia River Datum (CRD), with two additional feet allowed for overdredging to -45 feet CRD.<sup>40</sup> As the Coalition 404 Comments, expert reports, and federal and state agency comments demonstrate, Oregon LNG's project fails to protect aquatic life, including ESA-listed species.

### **3.2 DEQ must deny the 401 certification because the project does not comply with Oregon's narrative or numeric water quality standards.**

The project would violate numeric and narrative criteria and the requirement to support beneficial uses. Each of those components stands alone and is independently enforceable. If DEQ finds a violation of one component, the agency must deny the certification. The Coalition 404 Comments and expert reports explain in great detail how the project would violate water quality standards. We incorporate the attached Coalition 404 comments by reference and briefly address the specific criteria below.

#### **3.2.1 Narrative criteria, OAR 340-041-0007.**

OAR 340-041-0007 prohibits "the creation of ... toxic or other conditions that are deleterious to fish or other aquatic life ...." Oregon LNG's 152 acres of dredging, expansive wetland fill, and Pipeline construction would harm fish and other aquatic life. Both the Coalition 404 Comments and expert reports document how Oregon LNG's project will alter and degrade habitat quality to the detriment of fish and other aquatic life. EPA's 404 comments also cite extensive harm to fish and other aquatic life. For example, EPA's comments describe the impact of dredging on the Columbia River. EPA concludes:

These changes prevent the system from supporting a diversity of estuarine and near shore-dependent species. They damage and destroy fish feeding and rearing areas, destroy benthic communities, and alter aquatic community composition, with adverse

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<sup>40</sup> Supp. JPA, Appendix N at ES-2.

effects on the food chain. Intensive sediment removal can also create a need for regular maintenance dredging. Annual dredging destroys benthic communities and prevents re-establishment of diverse fish habitats. *For these reasons, the proposed project is likely to significantly damage fish habitat overall and increase local erosion rates well beyond just the construction of the terminal.*<sup>41</sup>

Like EPA, ODFW described extensive impacts from dredging and pipeline construction on fish and aquatic life.

DEQ should also deny the 401 certification under OAR 340-041-0007 based on impacts from ballast and engine cooling water intake and discharge. Oregon LNG proposes a bidirectional terminal and, in turn, DEQ must evaluate the impacts of ballast water under both an import and export scenario. For the Bradwood LNG project, NMFS and DEQ raised major concerns about the impacts of LNG tankers on juvenile salmon and other fish. To evaluate the impacts of ballast water, DEQ should review information and studies generated during the process of reviewing the Bradwood LNG import terminal. Because Oregon LNG's project is designed to respond to natural gas market fluctuations, DEQ must analyze the impacts of ballast water under both import and export scenarios.

DEQ's analysis under OAR 340-041-0007 should also account for additional deleterious conditions described in the Coalition 404 Comments, including: modification of river flow and hydrology at the mouth of Youngs Bay, wake stranding of juvenile fish, pollution discharge, water withdrawals, the impacts of pile driving, and destruction of riparian and upland habitat along entire pipeline.

### **3.2.2 Biocriteria, OAR 340-041-0011.**

DEQ should deny the 401 certification under OAR 340-041-0011, which states "Waters of the state must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities." As described above and in the Coalition 404 Comments, the Terminal will degrade resident biological communities due to habitat destruction, wake stranding of juvenile fish, toxic discharges, increase temperature and turbidity, and removal of riparian vegetation, among other impacts. The Pipeline will degrade water quality and destroy habitat.

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<sup>41</sup> EPA 404 Comments at 2 (emphasis added).

### **3.2.3 Dissolved Oxygen, OAR 340-041-0016.**

Dredging and lengthy in-water work will reduce the dissolved oxygen in the Columbia River to levels that violate the water quality standard. The Columbia River is water quality limited for dissolved oxygen so any additional oxygen demand from Oregon LNG's dredging and Terminal construction and operation will certainly cause or contribute to violations of the water quality standards.

### **3.2.4 Temperature, OAR 340-041-0028.**

Oregon LNG's dredging, vegetation clearing, and wastewater discharge will contribute to the exceedance of the temperature water quality standard for salmon rearing and migration. Because the Columbia River is already water quality limited, any contribution of heat from Oregon LNG above the ambient river temperature causes or contributes to a violation of the temperature water quality standard.

Increased temperatures in the Columbia River also affect other water quality parameters—conventional and toxic—and enhance the adverse effects of other parameters on the beneficial uses, particularly salmonids. Increased water temperature increases bacteria levels, a pollutant for which the Columbia is water quality limited. Concurrent violations of the temperature and dissolved oxygen standards also cause increased risk to beneficial uses. Temperature also affects the uptake of toxic contaminants because elevated temperatures decrease available dissolved oxygen in the water column. In addition, the biological demands on aquatic species increase with increasing temperatures. At lower dissolved oxygen levels, the amount of oxygen delivered to fish tissue decreases, restricting the ability of fish to maximize metabolic performance. Low dissolved oxygen levels increase the acute toxicity of various toxic pollutants, such as metals and ammonia. Low dissolved oxygen levels may compound the adverse effects of some toxic pollutants. Alternatively, toxic pollutants may increase sensitivity to low levels of dissolved oxygen. Therefore, when elevated temperatures cause depleted oxygen levels, there are additive impacts with toxic pollutants. The combination of these three pollutants, already presents in the project vicinity, will increase from the proposed activity.

### **3.2.5 Toxic substances, OAR 340-041-0033.**

DEQ should deny the 401 certification under OAR 340-041-0033 because the proposed dredging and dredge spoil disposal will introduce toxic substances above natural background levels in concentrations that may be harmful to aquatic life. Sediments are a major source of hydrophobic contaminants for aquatic life. The lower Columbia River violates Oregon's water

quality standards for multiple toxic contaminants, including PCBs, dioxins, DDE, and DDT. DEQ must address the increases in the movement and availability of these toxins in its evaluation and must assess the impact on numeric and narrative criteria, including OAR 340-0410-0033.

### **3.2.6 Turbidity, OAR 340-041-0036.**

Oregon LNG's long-term dredging will violate the standard of no more than a ten percent increase above background levels. Oregon LNG's application ignores the best available science on the impacts of dredging on turbidity and sediment. The Williams Expert Report describes the literature on the impacts of dredging on turbidity and sediment, stating:

Dredging will also increase turbidity and suspended sediment for at least as long as dredging occurs – the OLNNG project construction phase and subsequent periodic maintenance dredgings of turning basin. These impacts degrade water quality and have negative effects on salmonids. Elevated turbidity can violate water quality standards and increase treatment costs for downstream water uses (Reid, 1999). Elevated turbidity and suspended sediment levels can also impair the ability of salmonids to feed and cause gill damage (Rhodes et al., 1994). Elevated turbidity and sediment delivery can also adversely affect benthic macroinvertebrates that are an essential part of aquatic foodweb for salmonids and other aquatic fauna.<sup>42</sup>

Oregon LNG fails to analyze and account for the best available science on turbidity and suspended sediment. The turbidity standard has an exception for “limited duration activities necessary to address an emergency or to accommodate essential dredging.” The 24-hour, 7-day dredging over three months is not limited in duration and not essential.

Further, the pipeline will have significant impacts on the turbidity of many waterways during construction. The Rhodes Expert Report, Exhibit 3, describes these impacts in detail.

### **3.3 Oregon's Antidegradation Policy Prohibits the Proposed Project in Water Quality Limited Waters.**

Oregon rules state that “water quality limited waters may not be further degraded . . .” OAR 340-041-0004(7). The Columbia River is water quality limited for temperature, dissolved oxygen, and other pollutants. Therefore, DEQ cannot authorize Oregon LNG's new, additional discharge of these pollutants into the already degraded Columbia River. OAR 340-041-0004(7) states that DEQ may grant narrow exceptions, but only if the “benefits of the lowered water

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<sup>42</sup> Exhibit 1 at 22 (Williams Expert Report).

quality outweigh the environmental costs of the reduced water quality” and the discharge will not harm endangered species. The environmental costs of this project are tremendous and the discharge will certainly harm endangered species.

DEQ should deny the water quality certification because it cannot make the requisite finding that “[t]he action is necessary and benefits of the lowered water quality outweigh the environmental costs of the reduced water quality.”<sup>43</sup> OAR 340-041-0004(9)(a)(B) directs DEQ to evaluate this balancing test “in accordance with DEQ’s ‘Antidegradation Policy Implementation Internal Management Directive [“IMD”] for NPDES Permits and section 401 water quality certifications,’ pages 27, and 33-39 (March 2001)”<sup>44</sup> The IMD further elaborates that “the ... applicant... must provide DEQ with enough information to allow for a financial impact analysis that assesses whether allowing an activity that lowers water quality has socioeconomic benefits that outweigh the environmental costs.”<sup>45</sup> As the Coalition 404 Comments demonstrate, Oregon LNG’s filings fail to demonstrate that allowing the project has socioeconomic benefits that outweigh the environmental costs. EPA likewise disagrees with Oregon LNG’s claims that the economic benefits outweigh the environmental costs. EPA’s 404 Comments state:

EPA has some concerns that the proposed project will not provide the level or degree of economic benefit that the applicants and local governments are anticipating, but will instead contribute to the further degradation of environmental conditions within the lower Columbia River estuary while eliminating or changing very valuable in-channel and near shore habitat conditions.<sup>46</sup>

DEQ should also deny Oregon LNG’s 401 certification under OAR 340-041-0004(9)(a)(B) because Oregon LNG fails to demonstrate that “[t]he action is necessary.”<sup>47</sup>

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<sup>43</sup> OAR 340-041-0004(9)(a)(B).

<sup>44</sup> *Id.*

<sup>45</sup> DEQ, 2001. *Internal Management Directive: Antidegradation Policy Implementation* at 34.

<sup>46</sup> EPA 404 Comments at 2.

<sup>47</sup> *See* Coalition 404 Comments.

#### 4.0 Conclusion.

For the reasons stated above and described in the Coalition 404 Comments, Commenters urges DEQ to reject the application as incomplete or deny the 401 certification. Commenters appreciate DEQ's consideration of public input on Oregon LNG's project. Please direct any questions or correspondence to the undersigned at (541) 965-0985 or [lauren@columbiariverkeeper.org](mailto:lauren@columbiariverkeeper.org).

Sincerely,



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Lauren Goldberg  
Staff Attorney, Columbia Riverkeeper  
*Submitted on behalf of Columbia Riverkeeper, the Pacific Coast Federation of Fishermen's Associations, the Institute for Fisheries Resources, Northwest Steelheaders Association, Northwest Environmental Advocates, Sierra Club, Northwest Property Rights Coalition, Oregon Shores Conservation Coalition, Northwest Guides and Anglers Association, Oregon Physicians for Social Responsibility, Save Our Wild Salmon, the Center for Biological Diversity, Columbia Pacific Commonsense, Landowners and Citizens for a Safe Community, Food and Water Watch, the Northwest Environmental Defense Center, the Native Fish Society, Forest Grove Oregon Citizens Against the Pipeline, Willapa Hills Audubon Society, Wahkiakum Friends of the River, Oregon Coast Alliance, 350PDX, Tessa Scheller, Roble and Catherine Anderson, and Cheryl Johnson*

*cc via email w/o encl.:*

Christine Reichgott, U.S. Environmental Protection Agency  
Teresa Kubo, U.S. Environmental Protection Agency  
Richard Chong, U.S. Army Corps of Engineers  
Mike Turaski, U.S. Army Corps of Engineers  
Kerry Carroll, Washington Department of Ecology  
Edward Bowles, Oregon Department of Fish and Wildlife  
Chris Knutsen, Oregon Department of Fish and Wildlife  
Richard Whitman, State of Oregon Governor's Office

Margi Hoffman, State of Oregon Governor's Office  
Larry Knudsen, Oregon Department of Justice  
Anika Marriot, Oregon Department of Justice  
Mike Lopez, Nez Perce  
Brent Hall, Confederated Tribes of the Umatilla Indian Reservation  
Audie Huber, Confederated Tribes of the Umatilla Indian Reservation  
Carl Merkle, Confederated Tribes of the Umatilla Indian Reservation  
Elmer Ward, Confederated Tribes of Warm Springs  
Brady Kent, Confederated Tribes and Bands of the Yakama Nation  
Elizabeth Sanchez, Confederated Tribes and Bands of the Yakama Nation