Public Testimony on the Oregon LNG Bidirectional Terminal & Pipeline Land Use Applications to the City of Warrenton

Submitted to the City of Warrenton Hearings Officer on behalf of:

Columbia Riverkeeper
Oregon Shores Conservation Coalition
Northwest Property Rights Coalition
Columbia Pacific Common Sense
Oregon Physicians for Social Responsibility
Wahkiakum Friends of the River
Sierra Club
Center for Biological Diversity
Landowner & Citizens for a Safe Community
Forest Grove Oregon Citizens Against the Pipeline
Food and Water Watch
Save Our Wild Salmon

September 2, 2015

TABLE OF CONTENTS

September 2, 2015

Mr. Daniel Kearns, Hearings Officer
c/o Skip Urling, City of Warrenton Planning Department
225 S. Main Ave.
P.O. Box 250
Warrenton, OR 97146
cityplanner@ci.warrenton.or.us

Via Hand Delivery and Email

RE: Consolidated Land Use Applications for the Oregon LNG Liquefied Natural Gas Terminal and Pipeline (LNG Development Company, LLC and Oregon Pipeline Company, LLC)

Dear Mr. Kearns,

On behalf of Columbia Riverkeeper, the Oregon Shores Conservation Coalition, the Northwest Property Rights Coalition, Columbia Pacific Common Sense, Oregon Physicians for Social Responsibility, Wahkiakum Friends of the River, Sierra Club, the Center for Biological Diversity, Landowners and Citizens for a Safe Community, Forest Grove Oregon Citizens Against the Pipeline, Food and Water Watch, and Save Our Wild Salmon (collectively the Coalition), we submit the following testimony on the Oregon LNG Bidirectional Terminal and Pipeline land use applications. For the reasons detailed in this testimony and supporting evidence, the Hearings Officer should deny Oregon LNG's applications because the project violates provisions of the Warrenton Development Code (WDC) and is inconsistent with the Warrenton Comprehensive Plan (WCP).

Commenters are a diverse coalition of local, regional, and national groups 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 Terminal, associated liquefied natural gas (LNG) tanker vessel traffic, and the Pipeline that would feed North American natural gas to the Terminal. 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.

Oregon LNG's proposal to build an LNG export terminal, a high-pressure natural gas pipeline, and export North American natural gas overseas poses grave threats to the City of Warrenton and surrounding communities.[1] Oregon LNG proposes building the Terminal on

[1] Throughout this testimony, the Coalition refers to Oregon LNG's project as an LNG export project. This characterization is consistent with Oregon LNG's application, which describes minimal LNG imports (*i.e.*, approximately one LNG import vessel per year).

undeveloped land, including high quality wetlands, located on the East Skipanon Peninsula. Oregon LNG's plans also call for deepening the Columbia River—removing 1.2 million cubic yards of river bottom—to dock LNG tankers and dredging 300,000 cubic yards of river bottom every three years to maintain the proposed berth.

Along the Pipeline route, the project would impact forest lands, farms, and rivers and use eminent domain to take private land for LNG export. The Pipeline would also cross endangered species critical habitat and threaten wetlands.

The project would also induce additional natural gas production in the United States, primarily involving hydraulic fracturing (*i.e.*, fracking) of unconventional gas sources, causing attendant environmental harm; this inducement would occur notwithstanding Oregon LNG's plan to export gas produced in Canada. The project would increase domestic gas prices, likely causing an increase in coal fired electricity generation, increasing emissions of greenhouse gases, conventional, and toxic air pollutants.

Overall, Oregon LNG's proposal would impose significant environmental and economic harm in the City of Warrenton and beyond. For the reasons detailed below and described in exhibits to this testimony, the Hearings Officer should deny Oregon LNG's consolidated land use applications.

1.0 EXECUTIVE SUMMARY.

The following section summarizes examples of why the Hearings Officer should deny Oregon LNG's land use applications.

1. Oregon LNG lacks property owner authorization. WDC 16.208.070(D)(3)(a)(iii) requires property owner authorization to deem an application complete. The U.S. Army Corps of Engineers (Corps) holds a significant property right, a dredge spoil disposal easement, on the East Skipanon Peninsula; the easement covers the proposed Terminal site. The Corps has not authorized Oregon LNG's land use applications. Without Corps authorization, the City cannot proceed with processing the applications. *See infra* at Section 6.1.

2. Oregon LNG's gas flare violates the City's prohibition on outdoor operations producing heat or glare. The Terminal requires a gas flare and a permanently lit pilot light, which violate the I-2 zone Development Standards. WDC 16.64.040(N) states: "Except for exterior lighting, operations producing heat or glare shall be conducted entirely within an enclosed building." Oregon LNG's gas flare and pilot light: (1) produce heat or glare, and (2) are not conducted entirely within an

enclosed building. Oregon LNG therefore fails to demonstrate compliance with WDC 16.64.040(N). *See infra* at Section 6.2.5.

3. Oregon LNG fails to satisfy the mandatory criteria for obtaining a hardship variance to fill locally significant wetlands. Oregon LNG would destroy nearly 35 acres of high quality wetlands designated as "locally significant," which violates the wetland and riparian protection standards in WDC Chapter 16.156. Oregon LNG fails to demonstrate the wetland fill satisfies the six hardship variance criteria, including showing "[t]he proposed development represents a reasonable and legal use of the lot or parcel, considering the zoning." WDC 16.156.080(B)(1). The export Terminal is an unreasonable, illegal use of the East Skipanon Peninsula: Oregon LNG has not received approval from the Corps to build the Terminal over the Corps' dredge spoil disposal easement area. The Corps has a valid property right, and Oregon LNG failed in its attempt to have a federal court declare the Corps' property interest invalid. In addition, the Coalition testimony and evidence demonstrate that the project fails to satisfy WCP and WDC requirements and, therefore, the Terminal is not a legal use of the lot or parcel. *See infra* at Section 6.7.

4. Oregon LNG fails to meet the requirements of WDC 16.220.030(A)(4) because the City lacks adequate public facilities and services to handle an emergency at the Terminal or along the Pipeline route. Oregon LNG has not produced convincing evidence that the City has the first responders, fire fighters, hospital infrastructure, police, and emergency response equipment necessary to handle an emergency at the Terminal or along the Pipeline. For example, Oregon LNG has not produced a final Emergency Response Plan or identified contractual commitments to supply the City with necessary public facilities and services to address an emergency at the Terminal or along the Pipeline within the City. *See infra* at Section 6.12.

5. The Hearings Officer should deny Oregon LNG's applications because they fail to protect the City in the event of an earthquake and tsunami. Oregon LNG cannot meet the standards established for safe operation within either the Flood Hazard Overlay or Soils Hazard overlay zones. Oregon LNG proposes building the Terminal within the tsunami inundation zone on sandy soils susceptible to liquefaction during an earthquake. The applications fail to address the latest scientific advances relevant to geology and geologic hazards, and do not evaluate the performance of natural gas and petroleum facilities during the 2011 Tohoku earthquake in Japan. *See infra* at Section 6.4.

6. Oregon LNG's unprecedented proposal to dredge over 1.2 million cubic yards of near-shore habitat, designated as "critical" for the survival and recovery of over a dozen endangered and threatened species, violates WDC 16.160.020(B) and (C). The Hearings Officer should deny the application under WDC 16.160.020(B) and (C) because: (1) Oregon LNG fails to demonstrate a need (*i.e.*, a substantial public benefit) for the project; (2) the project unreasonably interferes with public trust rights; (3) feasible alternative upland locations exist; and (4) Oregon LNG fails to minimize potential adverse impacts. *See infra* at Section 6.8.1.

7. The Terminal would exclude the public from shoreline access to areas traditionally used for fishing, hunting, and other shoreline activities in violation of WCP 5.323(3). Oregon LNG fails to demonstrate consistency with WCP 5.323(3), which provides: "Proposed major shoreline developments shall not, individually or cumulatively, exclude the public from shoreline access to areas traditionally used for fishing, hunting or other shoreline activities." Safety/security zones imposed by the Coast Guard for Oregon LNG's Terminal, dock, and vessel traffic would exclude the public from shoreline access to areas traditionally used for fishing, hunting, and other shoreline activities, such as boating and wading. In turn, the Hearings Officer must deny the application under WCP 5.323(3). *See infra* at Section 7.3.5.2.

8. The proposed Terminal is inconsistent with WCP 5.323 because Oregon LNG would not retain public access across the site. WCP 5.323 provides that "existing public ownerships, right-of-ways, and similar public easements in estuary shorelands which provide access to or along the estuary shall be retained or replaced if sold, exchanged or transferred. Right-of-ways may be vacated to permit redevelopment of shoreland areas provided public access across the affected site is retained." The Clatsop County assessors' maps identify a public right-of-way running as an extension of King Avenue to the estuary through Tax Lot 380. Clatsop County dedicated this right-of-way in 1967. The property is also contains several trails, including the Skipanon Peninsula trail that is part of the City of Warrenton's trail system and included in the City's Trails Master Plan. The Plan describes the trail as including "a spur running along King Street to Harbor Drive." Oregon LNG does not propose retaining or replacing public access to the site. The project is therefore inconsistent with WCP 5.323. *See infra* at Section 7.3.5.2.

For the reasons described below, Oregon LNG fails to demonstrate compliance with multiple requirements in the WDC and WCP.

2.0 LEGAL BACKGROUND ON LNG SITING & LOCAL LAND USE.

The Coalition urges the Hearings Officer to proceed with reviewing Oregon LNG's application and disregard Oregon LNG's claim that the City of Warrenton's land use process, as incorporated into the Oregon Coastal Management Program (OCMP), is preempted by federal law. Oregon LNG's certification submittal to the Oregon Department of Land Conservation and Development (DLCD), and related arguments raised in the City of Warrenton land use applications, are nothing short of an attack on the validity of the OCMP. Pursuant to section 307(c) of the Coastal Zone Management Act (CZMA), Oregon LNG must provide to the Federal Energy Regulatory Commission (FERC) a consistency certification from the State of Oregon that the project is consistent with the OCMP. 16 U.S.C. § 1456(c)(3). DLCD has authority to approve, approve with conditions, or object to the consistency certification. Here, Oregon LNG's proposal must be consistent with the OCMP, specifically: (1) the statewide planning goals; (2) the comprehensive plans and implementing ordinances of Clatsop County, the City of Warrenton, and Tillamook County; and (3) applicable state authority.

Despite Oregon LNG's protestations, the State of Oregon has a valid coastal management program with NOAA-approved enforceable policies. As a practical matter, DLCD addressed many of the legal arguments raised in Oregon LNG's certification and land use applications.[2] Nothing in the CZMA or its implementing rules supports Oregon LNG's argument that a state program only contains "enforceable policies" if NOAA approved those policies after 1990. Here, to the extent the current City of Warrenton comprehensive plan and implementing ordinance contain the same language, or substantially the same language, as the comprehensive plan and implementing ordinances approved by NOAA in 1980s, the City of Warrenton portions of the OCMP satisfy the definition of an "enforceable policy." The Hearings Officer should therefore proceed with reviewing, and denying, Oregon LNG's land use applications.

3.0 THE COLUMBIA RIVER ESTUARY.

Oregon LNG proposes building the West Coast's first LNG export terminal in the Columbia River estuary, an area at the center of a regional and national effort to restore endangered and threatened salmonids and other species. The Columbia River estuary is a federally-designated Estuary of National Significance under the Clean Water Act's National Estuary Program.[3] The Columbia River estuary is also an "ecologically critical area," 40 CFR

[2] *See* Exhibit 66, Letter from DLCD to NOAA and attachments thereto (July 15, 2013).
[3] EPA, National Estuary Program in Region 10, http://yosemite.epa.gov/R10/ECOCOMM.NSF/6da048b9966d22518825662d00729a35/c7a2ab5e252f309688256fb600779ea6!OpenDocument.

§ 1508.27(b)(3), that is essential to the survival juvenile salmon and steelhead, waterfowl, and many other species.[4] In addition, the U.S. Environmental Protection Agency (EPA) designated the Columbia River as one of seven Priority Large Aquatic Ecosystems.[5]

The Columbia River estuary provides vital habitat for salmon throughout the Columbia River basin, and is of particular importance from a threatened and endangered species recovery perspective.[6] The estuary is designated as critical habitat for 17 species of ESA-listed fish and Essential Fish Habitat for Pacific salmon.[7]

Multiple studies identify the Columbia River estuary as vitally important for juvenile salmonid rearing and endangered species recovery.[8] The estuary is one of three major habitats that all Columbia River salmon transit in their life history pathway moving between freshwater and marine environments. All salmon migrating out of and back into the Columbia River Basin pass through the estuary twice. "A growing body of evidence, much of it quite recent (Bottom *et al.* 2005; Roegner *et al*. 2012; Weitkamp *et al*. 2012), provides increasing insight into the important role that shallow water estuarine habitats in the [lower Columbia River estuary] play in stabilizing production of Columbia River salmon and steelhead."[9] Estuarine

[4] NMFS, *Columbia River Estuary ESA Recovery Plan Module for Salmon and Steelhead* (2011); Fresh *et al*., *NOAA Technical Memorandum NMFS-NWFSC-69: Role of the Estuary in the Recovery of Columbia River Basin Salmon and Steelhead* (2005); 78 Fed. Reg. 2,726 (Jan. 14, 2013) (*Proposed Critical Habitat Designation for Lower Columbia Coho Salmon*).
[5] EPA, *Columbia River Basin: State of the River Report for Toxics* (Jan. 2009), http://www2.epa.gov/sites/production/files/documents/columbia_state_of_the_river_report_jan2009.pdf.
[6] *See generally* Exhibit 1, Williams, Richard N., *Review of the draft Biological Assessment and Essential Fish Habitat for Proposed Oregon LNG Terminal Project* (Jan. 8, 2015) (hereafter Williams Expert Report), Exhibit 2, Bierly, Kenneth, *Oregon LNG Terminal Wetland Impacts and Proposed Mitigation Review: Analysis of Available Information* (Jan. 8, 2015) (hereafter Bierly Expert Report), and Exhibit 3, Rhodes, Jonathan, J. *Summary of likely impacts of construction and maintenance of pipeline for the proposed Oregon LNG Terminal and Oregon Pipeline Project (Project) on watersheds and aquatic resources and adequacy and veracity of the discussion and assessment of these impacts in the Project's Biological Assessment (BA), Joint Permit Application (JPA), and supplements thereto* (Jan. 12, 2015) (hereafter Rhodes Expert Report).
[7] Exhibit 5, Letter from National Marine Fisheries Service to FERC, Oregon LNG NEPA Scoping (Dec. 20, 2012).
[8] NMFS, *Columbia River Estuary ESA Recovery Plan Module for Salmon and Steelhead* (2011); Fresh *et al*., *NOAA Technical Memorandum NMFS-NWFSC-69: Role of the Estuary in the Recovery of Columbia River Basin Salmon and Steelhead* (2005); 78 Fed. Reg. 2,726 (Jan. 14, 2013) (*Proposed Critical Habitat Designation for Lower Columbia Coho Salmon*).
[9] Exhibit 106, Williams, Richard N., *Review of the draft Biological Assessment and Essential Fish Habitat for Proposed Oregon LNG Terminal Project* at 5 (Jan. 8, 2015).

habitats provide high growth opportunities for outmigrating juvenile salmon and also provide protection from predators. Research in the Columbia River estuary demonstrates that the estuary is an important staging area where juvenile and adult salmon, steelhead, and trout undergo significant physiological changes that allow transitions to and from saltwater.

Public and private entities have invested, and continue to spend, billions of dollars in efforts to restore endangered and threatened salmon in the Columbia River Basin.[10] This includes the federal agencies' obligations under the Federal Columbia River Power System Biological Opinion (FCRPS BiOp). The estuary is ground zero for restoration efforts. For example, the federal government, tribes, states, and others have made significant investments in riparian and wetland restoration projects in the estuary. The federal government has funded—and will continue to fund for the foreseeable future—a significant portion of the salmon restoration efforts in the Columbia River estuary.

The Columbia River estuary supports tribal fisheries throughout the Columbia River Basin. Since time immemorial, Columbia River Basin tribes have relied on salmon that depend on the estuary for survival. As the Columbia River Inter-Tribal Fish Commission (CRITFC) explains:

> To call salmon a staple of the tribal diet would be an understatement. Historically, the typical tribal member ate almost a pound of salmon every day, but salmon represented much more than a source of nutrition—they shaped our societies and our religions.[11]

Indian people have lived in the Columbia River Basin for thousands of years. Salmon was their staple of life and the foundation of their culture and economy. According to conservative estimates, prior to European settlement, the Columbia River's annual salmon returns ranged from 11 to 16 million fish.[12] In 1855, the U.S. government signed treaties with some Columbia River tribes. In these treaties, tribes ceded most of their lands, but reserved the right to fish at "all usual and accustomed fishing places…in common with citizens." CRITFC summarizes the tribes' focus on salmon restoration in the Columbia River Basin:

> Today the tribes are doing everything in their power to make sure that salmon return to as many of their traditional waters as they can. Enormous amounts of resources are being poured into this effort, and tribal youth are joining the fight to save salmon. Every year, more and more tribal members are becoming fish biologists, environmental engineers, and other scientists who are offering their

[10] *See* Thom, R. *et al.*, Columbia River Estuary Ecosystem Restoration Program, 2012 Synthesis Memorandum, PNNL-21477 FINAL (Jan. 2013).
[11] CRITFC website, http://www.critfc.org/salmon-culture/we-are-all-salmon-people/.
[12] CRITFC website, http://www.critfc.org/about-us/fisheries-timeline/.

> minds as well as their hearts for the protection of the salmon, the water, and ultimately, their traditional way of life.[13]

Salmon and other fisheries in the Columbia River estuary also support vibrant traditions of non-tribal subsistence, commercial, and sport fishing.[14] The Buoy 10 fishery, spanning the mouth of the Columbia River, is one of the Pacific Northwest's most renowned fisheries. Oregon LNG's Waterway Suitability Analysis states:

> The most notable sport fishing season is the 'Buoy 10' season, which is the primary salmon season. This fishery, which runs from approximately August 1 through early September, extends from Buoy #10, near the entrances to the Columbia River, upriver past the Astoria-Megler Bridge to Tongue Point. A pamphlet published by the Oregon State Marine Board states that an estimated 5,000 boats are on hand on the weekends in August. The Salmon University Web page states that it is not uncommon to see 300+ boats trolling in an area of ½ mile near the buoy.[15]

Despite significant declines in the salmon fishery, commercial fishing in the Columbia River estuary persists. The primary commercial fisheries operating in the Columbia River estuary are gill-netters and crabbers. Gill nets are used on the Columbia River for salmon, sturgeon, shad, and smelt, with salmon as the primary target. In addition to commercial and sport fishing on the Columbia River, a number of fishing vessels operate out of the Columbia River in ocean fisheries.[16]

Upper Columbia River and Snake River Chinook salmon are essential for the survival of Puget Sound's Southern Resident Killer Whale (SRKW) population. The birth rate of the SRKWs is strongly correlated with the abundance of Chinook salmon. New information shows that abundant runs of Columbia and Snake River Chinook salmon are important to the long-term survival of the SRKW.[17] Juvenile Chinook salmon use the lower Columbia River estuary for migration and sustenance. Adult salmon must migrate along the Columbia River past the site of the proposed Terminal site.

---

[13] CRITFC website, http://www.critfc.org/salmon-culture/we-are-all-salmon-people/.
[14] Exhibit 58, Oregon Department of Fish and Wildlife and Washington Department of Fish and Wildlife, 2014 Joint Staff Report: Stock Status and Fisheries for Spring Chinook, Summer Chinook, Sockeye, Steelhead, and Other Species, and Miscellaneous Regulations (Jan. 22, 2014).
[15] Exhibit 6, Oregon LNG Waterway Suitability Analysis (March 2008) (citations omitted) (hereafter OLNG WSA).
[16] *Id.* at 2-18.
[17] http://www.nwfsc.noaa.gov/research/divisions/cb/ecosystem/marinemammal/satellite_tagging/blog.cfm.

Oregon LNG proposes building the Terminal at the mouth of Youngs Bay, located within the Columbia River estuary. Youngs Bay is one of four Select Area Fisheries Enhancement (SAFE) sites, also known as "terminal fisheries" sites, in the Columbia River estuary. "Funded since 1993 by the Bonneville Power Administration, the SAFE project uses existing hatchery facilities to spawn, hatch and conduct initial rearing of juvenile salmon for subsequent out-planting to net pen facilities in or around bays in the lower Columbia River."[18] The purpose of the SAFE program is to provide sport and commercial fisheries on the lower Columbia River with minimal impacts to non-local salmon stocks, including those protected under the Endangered Species Act (ESA).[19] Pursuant to the FCRPS BiOp, the Bonneville Power Administration funds the Youngs Bay SAFE site.[20] In particular, the FCRPS BiOp identifies funding for the Youngs Bay Select Areas Fisheries as a "Reasonable and Prudent Alternative," explaining that the federal and state agencies established the program "to mitigate fisheries by providing the opportunity to harvest locally-produce salmon stocks in off-channel areas of the Columbia River."[21] According to a Washington Department of Fish and Wildlife Columbia River Fishing Group report, "[t]he Youngs Bay site has been the most successful to date, due in large part to the fact that it is the largest body of water included in the program."[22]

[18] WDFW, Columbia River Fish Working Group at 3 (Oct. 2008) http://www.co.clatsop.or.us/Assets/Dept_10014/PDF/selective_fishingOct08.pdf.
[19] Columbia Basin Bulletin, *ODFW Seeking Lower Columbia Commercial Fisherman for Testing of Expanded Fisheries in 'Select Areas'* (Jan. 10, 2014), http://www.cbbulletin.com/429474.aspx.
[20] Columbia Basin Fish & Wildlife Program, Project No. 1993-060-00, Select Area Fisheries Enhancement, http://www.cbfish.org/Project.mvc/Display/1993-060-00.
[21] *Id.*
[22] WDFW, Columbia River Fish Working Group (Oct. 2008), http://www.co.clatsop.or.us/Assets/Dept_10014/PDF/selective_fishingOct08.pdf.

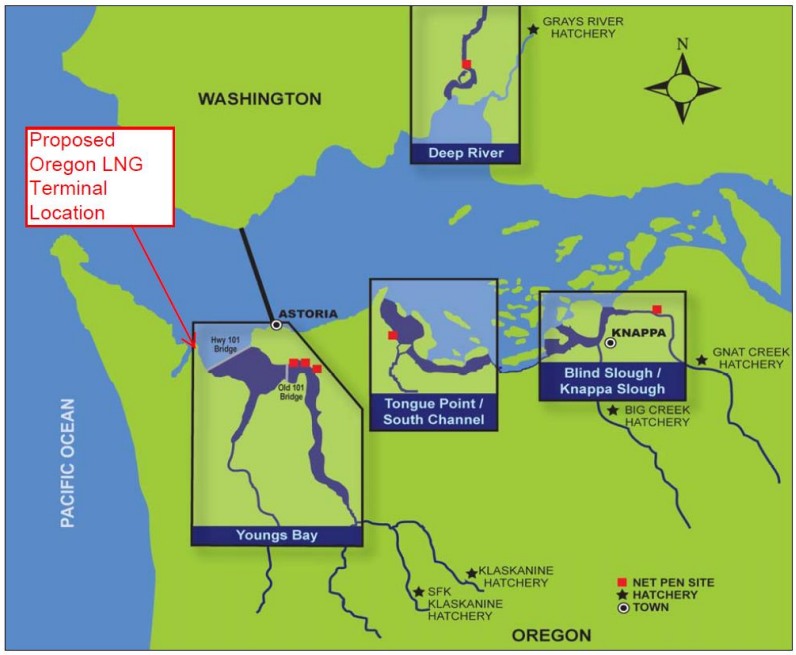

Figure 1. Map of Select Area Fisheries Enhancement sites. Credit: ODFW, WDFW, Clatsop County (Oregon LNG project location added to graphic).

Overall, the Columbia River estuary is a local and regional treasure, and a national priority for watershed health and salmon recovery. For the reasons explained below, Oregon LNG's project will contribute to the degradation of an ecosystem that is the center of a national and regional effort to restore endangered salmon and other fish runs, Southern Resident Killer Whales, and other marine birds and mammals.

4.0 OREGON LNG'S PROJECT.

In the following section, the Coalition summarizes Oregon LNG and Williams Pipeline's LNG export project.

- **Natural Gas Extraction.** Oregon LNG would use natural gas feedstock primarily from Western Canada, but also leaves the door open for obtaining natural gas from the western U.S.[23] Oregon LNG's primary source of gas appears to be shale gas. Shale gas production requires the controversial practice of hydraulic fracturing, or fracking, the impacts of which are discussed in greater detail below.

- **LNG Terminal – Upland.**[24] The Terminal would occupy 88.7 acres of a 96-acre parcel of state-owned land located on the northern portion of the East Bank of the

[23] Oregon LNG Prefiling Review Draft Resource Report 1 at 1-4.
[24] Oregon LNG's Joint Permit Application (JPA), NWP-2005-748, describes the dredge and fill activities at the Warrenton, Oregon, Terminal site and the section of pipeline extending from the Terminal to Woodland, Washington.

Skipanon Peninsula (East Skipanon Peninsula) near the confluence of the Skipanon and Columbia rivers. Oregon LNG subleases the upland property from the Port of Astoria, which leases the property from the Oregon Department of State Lands (DSL). The Corps holds a dredge spoil disposal easement on the East Skipanon Peninsula, including the portion of the Peninsula where Oregon LNG proposes building the Terminal. The Corps' easement, and Oregon LNG's pending lawsuit against the Corps, are discussed in greater detail below.

To build the Terminal and access road, Oregon LNG proposes filling 33.78 acres of palustrine and estuarine wetlands.[25]

The Terminal includes two 160,000-cubic meter LNG storage tanks and a gas flare system. No impervious surfaces currently exist at the Terminal site.[26] The Terminal would result in approximately 28 acres of impervious surfaces.[27] The Terminal access road would create 2.5 acres of impervious surface.[28]

To operate the Terminal, Oregon LNG proposes withdrawing 10,100-acre feet of water per year from the Columbia River estuary.[29] According to Oregon LNG's water pollution discharge permit application, the Terminal would discharge between 1,000 and 2,600 gallons per minute of process wastewater and up to 1,500 gallons per minute of stormwater to the Columbia River.[30]

- **LNG Terminal – Below the High Water Line.** The marine facilities associated with the Terminal cover approximately 148 acres of aquatic area at the mouth of Youngs Bay.[31] Oregon LNG proposes building a 2,128-foot pier with a ship berth for one LNG vessel.[32] The 12-foot-wide pier provides access for two-way vehicle traffic and an 11-foot-wide pipeway.[33] Oregon LNG also proposes dredging 135.2-acres to create a

[25] JPA Public Notice at 2.
[26] JPA at 6-3.
[27] *Id.*
[28] *Id.*
[29] Oregon LNG Water Right Application S-87920. Oregon LNG also proposes withdrawing water for pipeline testing, Terminal construction, and fire suppression testing. *See* Oregon LNG Water Right Applications S-87921, LL-1486, LL-1487.
[30] Oregon LNG NPDES Permit Application (July 3, 2013).
[31] Oregon LNG Applicant Prepared Biological Assessment (hereafter OLNG BA) at 2-12.
[32] *Id.*
[33] *Id.*

turning basin and 17.1 acres to create an LNG vessel berthing area.[34] This requires dredging 1.2 million cubic yards in Youngs Bay.[35] To maintain the turning basin, Oregon LNG would dredge 300,000 cubic yards every three years.[36]

- **Dredge Spoil Disposal.** Oregon LNG proposes transporting dredged material from the marine berth and turning basin to an open-water disposal site in the Pacific Ocean.

- **LNG Tanker Traffic.** One LNG tanker alone is longer than three football fields and towers 20-stories high. Each departing tanker would carry the amount of gas equal to 8 percent of what the U.S. uses every day.[37] The Terminal would require 127 new inbound vessels crossing the Columbia River Bar every year, for a total of 254 new vessel trips (inbound and outbound). Each ship requires a moving safety/security zone of a minimum of 500 yards.[38] The U.S. Coast Guard (Coast Guard) also imposes a safety/security zone around the waterside area of the Terminal.[39] LNG vessel impacts include engine cooling water and ballast water intakes and discharges, with amounts varying depending on vessel design and whether the vessel is importing or exporting LNG.[40]

- **Oregon LNG's Pipeline in Oregon & Washington.** Oregon LNG proposes building 86 miles of 36-inch diameter, high-pressure pipeline through the City of Warrenton and Clatsop, Tillamook, and Columbia counties. Oregon LNG would then drill under the Columbia River to build a pipeline through Cowlitz County (an approximate 5030 linear foot horizontal directional drill (HDD)). The pipeline would connect to the Williams Pipeline in Woodland, Washington. The Pipeline route crosses agricultural and forest lands, residential properties, rivers, streams, and wetlands. Specifically, Pipeline construction includes 185 stream crossings.[41] Oregon LNG would employ HDD to cross 21 rivers and larger streams and dry open trench methods to cross the

[34] JPA Public Notice at 3.
[35] OLNG BA at 2-25.
[36] *Id.* at 2-27.
[37] Calculation based on U.S. Energy Information Agency report, http://205.254.135.24/dnav/ng/ng_prod_sum_dcu_NUS_a.htm, and capacity of Q-Max LNG vessels, http://www.chemlink.com.au/conversions.htm.
[38] Waterway Suitability Assessment (WSA) for the Proposed Oregon LNG Receiving Terminal in Warrenton, Oregon at v.
[39] *Id.*
[40] OLNG BA at 2-4.
[41] JPA Public Notice at 2.

164 streams, including wetlands. Total Pipeline construction-related ground disturbance equals approximately 1195.2 acres.

- **WEP Pipeline in Washington State.** Williams Pipeline (Williams) proposes building 136-miles of new, high-pressure pipeline in ten different segments in or near the existing Northwest Pipeline right-of-way. This project is referred to as the Washington Expansion Project Pipeline, or WEP Pipeline. Segments of the WEP Pipeline would run from Washington's northern border south to Woodland, Washington. Williams would also increase existing compression horsepower at five existing compressor stations.

- **Oregon LNG Mitigation.** To mitigate impacts caused by the Terminal, Oregon LNG proposes wetland restoration at 120 acres located at the mouth of the Youngs River in Clatsop County. Oregon LNG proposes breaching a levee to create estuarine wetland habitat. To mitigate impacts caused by the Pipeline, Oregon LNG proposes: (1) to mitigate temporary impacts to wetlands through onsite wetland rehabilitation, and (2) to use offsite, in-kind mitigation through an approved in-lieu fee program.

5.0 EXPERT TESTIMONY & AGENCY PUBLIC COMMENTS ON THE OREGON LNG TERMINAL AND PIPELINE.

5.1 Expert reports on the aquatic impacts of Oregon LNG's project & the adequacy of proposed mitigation.

Leading experts in the fields of fisheries, hydrology, and wetland ecology prepared three reports analyzing the impacts of Oregon LNG's project.[42] The Coalition submits the expert reports to assist the Hearings Officer in evaluating the environmental impacts of Oregon LNG's project. The Coalition also submits PDF copies of the references cited in each expert report.

The expert reports demonstrate that Oregon LNG's project poses significant harm to endangered species and other aquatic and terrestrial life. The expert reports conclude that Oregon LNG's proposed mitigation fails to compensate for these significant harms. Below, the Coalition summarizes the credentials of the scientists who prepared the reports. CVs are also attached to each report.

Dr. Richard N. Williams, Ph.D., prepared a report titled *Review of the draft Biological Assessment and Essential Fish Habitat for Proposed Oregon LNG Terminal Project* (hereafter Williams Expert Report), Exhibit 1, which analyzes the impacts of Oregon LNG's project at

[42] *See* Exhibits 1-3.

the Terminal below the high-water mark. Dr. Williams is a fisheries ecologist and Research Associate in the Department of Biology at the College of Idaho. Dr. Williams served as the Chair of the Independent Scientific Review Panel for the Northwest Power and Conservation Council from 1996 to 2005. He currently serves as a member of the Peer Review Group for the Council. Dr. Williams has been active in Columbia River salmon recovery issues since 1987. In 2006 Dr. Williams and colleagues published a book on Pacific salmon recovery, *Return to the River*, which describes the century-long decline of Columbia River salmon and steelhead and proposes a new approach to restoration. Dr. Williams holds a B.S. in Zoology and English Literature from the College of Idaho and an M.S. and Ph.D. in Zoology from Brigham Young University.

Mr. Kenneth F. Bierly prepared an expert report analyzing the habitat value of wetlands at the proposed Terminal site, impacts from wetland fill, and the adequacy of Oregon LNG's proposed mitigation. Mr. Bierly's report, *Oregon LNG Terminal Wetland Impacts and Proposed Mitigation Review: Analysis of Available Information*, is attached hereto as Exhibit 2. Mr. Bierly is a wetland ecologist with three decades of experience in state environmental regulation. Mr. Bierly served as the Wetland Program Director for DSL from 1988 to 1996. From 1996 to 1999, Mr. Bierly served as the Program Manager for the State of Oregon Governor's Watershed Enhancement Board (OWEB). Mr. Bierly went on to lead the Oregon Watershed Enhancement Board as Deputy Director from 1999 to 2013. At OWEB, Mr. Bierly oversaw the production of the Oregon Watershed Assessment Manual and worked with local watershed councils throughout the state to complete watershed assessments for all lands using a common format. Mr. Bierly received a Hammer Award from the Clinton administration for his role in developing the Oregon Conservation Reserve Enhancement Program. The program remains a model for linking incentives to ecological needs in a creative manner. Mr. Bierly holds a B.S. degree from Oregon State University and a M.S. degree from Colorado State University.

Mr. Jonathan Rhodes prepared an expert report reviewing the impacts of Oregon LNG's proposed Pipeline on aquatic ecosystems, Exhibit 3. Mr. Rhodes is a hydrologist with more than 28 years of professional experience. Mr. Rhodes's professional experience includes work with tribal, federal, state, county, and city governments, as well as universities and non-profit groups. Mr. Rhodes served as Senior Scientist-Hydrologist for over twelve years for CRITFC, where his primary focus was the protection of salmon and steelhead habitats in the Columbia River Basin. Mr. Rhodes has published extensively on a variety of topics, including hydrologic nitrogen transport in forested watersheds, the genesis of topographic structures in melting snow, post-fire watershed management, fuel treatments, stream sedimentation, and comprehensive measures to protect and restore imperiled salmonids in the Columbia Basin. He holds a B.S. in hydrology from the University of Arizona, an M.S. in hydrology and

hydrogeology from the University of Nevada-Reno, and has finished all required academic work toward a Ph.D. in forest hydrology at the University of Washington.

5.2 Federal, state, and tribal agency public comments on Oregon LNG's Project & the adequacy of proposed mitigation.

To assist the Hearings Officer in evaluating Oregon LNG's application, the Coalition compiled federal, state, and tribal agency comments on Oregon LNG's project.[43] In recent years, agencies have submitted multiple comments to agency decisionmakers, including FERC and the Corps, evaluating Oregon LNG's project and proposed mitigation. The Coalition urges the Hearings Officer to consider agency input on the impacts of Oregon LNG's project and the adequacy of mitigation rather than rely on Oregon LNG's conclusory statements about the opinions of agencies.[44]

In particular, the Hearings Officer should evaluate comments filed on behalf of expert agencies in light of outstanding permitting decisions and environmental reviews for the project. For example, FERC and the Corps have not issued or denied licenses or permits for Oregon LNG's project. The U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) (collectively the Services) have not issued draft or final Biological Opinions pursuant to the Endangered Species Act (ESA). In August 2015, FERC issued a draft environmental impact state (DEIS) for the project. FERC has not completed a final environmental impact statement (FEIS). It is unclear if so-called NEPA "cooperating agencies," including the Corps, will concur with the findings of FERC's FEIS. For example, cooperating agencies may adopt FERC's FEIS in whole or in part, or reject the FEIS and develop independent EISs.

While the Coalition anticipates that Oregon LNG will rely heavily on FERC's conclusions in the DEIS, we urge the Hearings Officer to consider the entire record, including public comments filed on behalf of expert agencies that demonstrate FERC's draft conclusions do not reflect consensus in the scientific community. For example, for the Bradwood LNG project, proposed upstream on the Columbia River, the states of Oregon and Washington, the Nez Perce Tribe, and multiple nonprofit organizations challenged the adequacy of FERC's FEIS in the Ninth Circuit Court of Appeals. The Ninth Circuit did not reach of the merits of the Bradwood LNG case because NorthernStar, the project proponents, filed for bankruptcy.

[43] Exhibits 9-17, 19, 63-66, 79, 71, 77 (agency comments on the Oregon LNG project).
[44] *See e.g.*, Oregon LNG Terminal Land Use Application at 5-13 (June 2014, revised Nov. 2014) (hereafter Terminal Application) ("While no formal approval commitments have been made, state and federal agencies indicated the location and conceptual plan for the mitigation site are consistent with state and federal requirements.").

Nevertheless, the Ninth Circuit litigation casts doubt on the legality, quality, and reliability of FERC's environmental reviews for LNG projects.

6.0 THE PROJECT FAILS TO COMPLY WITH THE WARRENTON DEVELOMENT CODE.

Oregon LNG fails to demonstrate that the project complies with multiple sections of the WDC. In the following section, the Coalition identifies specific sections of the WDC and explains why Oregon LNG's application lacks necessary information to support a finding of compliance or why the evidence in the record supports a finding of denial.

6.1 Oregon LNG failed to obtain property owner consent for its applications.

To deem an application "complete," the WDC requires that applicants include a "signed written authorization of the property owner of record if the applicant is not the owner." WDC 16.208.070(D)(3)(a)(iii). Specifically, WDC 16.208.070 (D)(3)(a)(iii) states:

> When an application is received by the City, the Community Development Director or its designee shall immediately determine whether the following essential items are present. If the following items are not present, the application shall not be accepted and shall be immediately returned to the applicant . . . iii. The signature of the applicant on the required form, and *signed written authorization of the property owner of record if the applicant is not the owner*.

(emphasis added). Oregon LNG failed to comply with WDC 16.208.070 (D)(3)(a)(iii). Therefore, Oregon LNG's application is incomplete and the City cannot proceed with reviewing the application.

As an initial matter, Oregon LNG is not the property owner of record. In turn, Oregon LNG's application included authorization from three property owners: the State of Oregon, the Port of Astoria, and James J. Neikes. However, Oregon LNG failed to obtain authorization from a fourth property owner of record: the Corps.

The Corps received a permanent property right, an easement, in 1957 to dispose of dredge spoils on the East Skipanon Peninsula.[45] The Corps' easement covers nearly the entire

[45] Exhibit 67, Map produced by Oregon Department of State Lands on March 14, 2014, showing Port of Astoria lease area, which is subleased to Oregon LNG, and 1957 Corps easement; Exhibit 68, *LNG Development Company v. U.S. Army Corps of Engineers*, Findings and Recommendation, Case no. 3:14-cv-1239-AC (D. Or. July 28, 2015).

footprint of Oregon LNG's proposed Terminal site. The Corps obtained the easement in exchange for dredging the Skipanon River and, in turn, opening the river to navigation.

In August 2014, Oregon LNG filed a lawsuit against the Corps in federal court. *LNG Development Company v. U.S. Army Corps of Engineers*, No. 3:14-cv-1239-AC (D. Or. filed Aug. 1, 2014). Oregon LNG's lawsuit claims that the Corps does not have a valid right to the easement. The Corps filed a motion to dismiss in November, and Oregon LNG filed an amended complaint in December. In January 2015, the Corps filed a second motion to dismiss.

According to a December 14, 2014, letter from the Corps to the FERC, the Corps intends to vigorously defend the government's property right on the East Skipanon Peninsula.[46] Specifically, the Corps' letter states:

> FERC should also be aware that the leased location of the proposed Oregon LNG Terminal at Warrenton, Oregon is currently proposed for co-location with the Corps' longstanding Skipanon Channel Project disposal site easement. This conflict is currently the subject of a quiet title action brought against the Corps by Oregon LNG Development Company, LLC in the U.S. District Court for the District of Oregon. The Corps plans to vigorously defend this action.[47]

The Corps' letter also acknowledges the fact that Oregon LNG's proposed terminal is "co-locat[ed]" with the easement.

On July 28, 2015, Magistrate Judge Acosta issued a preliminary order ruling against Oregon LNG.[48] Specifically, the court held that Oregon LNG's lawsuit is time-barred by the Quiet Title Act's statute of limitation and the court lacks subject matter jurisdiction over the case. In turn, the court granted the Corps' motion to dismiss. On August 31, 2015, Judge Brown, the Article III judge assigned to the case, affirmed Magistrate Judge Acosta's preliminary order and issued a final order dismissing the case.[49]

In sum, the Hearings Officer should deny Oregon LNG's application because: (1) the Corps is a property owner, (2) Oregon LNG did not file any property owner authorization from the Corps, and (3) Oregon LNG therefore failed to comply with the requirement in WDC 16.208.070 (D)(3)(a)(iii) to provide authorization from all property owners of record.

//

---

[46] Exhibit 7, Letter from Corps to FERC (Dec. 14, 2014).
[47] *Id.* at 2.
[48] Exhibit 68.
[49] Exhibit 76, *LNG Development Company v. U.S. Army Corps of Engineers*, Order, Case no. 3:14-cv-1239-AC (D. Or. Aug. 31, 2015).

6.2 WDC – Water-Dependent Industrial Shoreland (I-2) District.

6.2.1 WDC 16.64.010.

The Terminal is inconsistent with the purpose of the I-2 zone. The Water-Dependent Industrial Shoreland (I-2) zone encompasses the onshore or upland portion of the East Skipanon Peninsula. WDC 16.64.010, "Purpose," states in part: "Uses of the Water-Dependent Industrial Shoreland areas shall maintain the integrity of the estuary and coastal waters." Evidence demonstrates that Oregon LNG's project, even accounting for the company's efforts to minimize and mitigate wetland impacts, fails to maintain the integrity of the estuary and coastal waters. Expert input on Oregon LNG's project from EPA, NMFS, the National Park Service, the Oregon Department of Fish and Wildlife (ODFW), the Columbia River Estuary Study Taskforce, and others contradict Oregon LNG's conclusions on the project's impact on the estuary and coastal waters.[50] In addition, Columbia Riverkeeper *et al.*'s public comments to the Corps on Oregon LNG's 404/10/103 application, NWP-2005-748, Exhibit 70 (hereafter Coalition 404 Comments), describe why Oregon LNG's project fails to maintain the integrity of the estuary and coastal waters.[51] The Coalition incorporates by reference Exhibit 70. Expert reports by Dr. Williams, Mr. Bierly, and Mr. Rhodes likewise demonstrate that Oregon LNG's project fails to maintain the integrity of the estuary and coastal waters.

For the reasons described in the Coalition 404 Comments, expert testimony, and agency comments, the Hearings Officer should deny Oregon LNG's applications.

6.2.2 WDC 16.64.020.

The Terminal fails to conform to the standards in WDC 16.64.040, applicable Development Code standards, and other City laws and, therefore, fails to satisfy the requirements of a permitted use in the I-2 zone. WDC 16.64.020, "Permitted Uses," states:

> The following uses and activities and their accessory uses and activities are permitted in the I-2 zone if the Community Development Director determines that the uses conform to the standards in Section 16.64.040 [Development Standards], applicable Development Code standards, and other City laws . . . .

Permitted uses include "marine cargo transfer facilities." WDC 16.64.020(A)(2). The Terminal application states:

> The Terminal, including its accessory uses and activities, is a water-dependent industrial use and defined specifically as a 'marine cargo transfer facility'

[50] *See* Exhibits 10, 63, 64, 65, 69, and 71; *see also* Exhibits 1-3.
[51] Exhibit 70, Letter from Columbia Riverkeeper *et al.* to Corps (Jan. 16, 2015).

> through the City Commission's decision on September 7, 2005 (case file: AP 05-2 [CI 05-1]) concerning an application for a Code Interpretation by Skipanon Natural Gas, LLC. The final conclusion on Skipanon's application was that LNG terminals, with the accessory uses and activities, fall within the scope of the 'marine cargo transfer facility' use identified as a permitted water-dependent industrial use in WDC 16.64.020(A)(2) of the City's I-2 zone.[52]

Oregon LNG cannot rely on the 2005 decision alone to demonstrate the project is a permitted use under WDC 16.64.020. Specifically, WDC 16.64.020 requires a determination that the uses conform to the Development Standards, WDC 16.64.040, applicable WDC standards, and other City laws, such as the Comprehensive Plan. For the reasons detailed in the Coalition's testimony, Oregon LNG fails to demonstrate compliance with WDC 16.64.040, applicable WDC standards, and the Comprehensive Plan. The project therefore fails to satisfy the requirements of a permitted use in the I-2 zone.

6.2.3 WDC 16.64.040(A).

WDC 16.64.040(A) requires that "[a]ll uses shall satisfy the applicable Columbia River Estuary Shoreland and Aquatic Area Development Standards in Chapter 16.160." For the reasons detailed in Section 6.8 below, the project fails to comply with multiple provisions of the Columbia River Estuary Shoreland and Aquatic Area Development Standards. The Hearings Officer should conclude that Oregon LNG fails to demonstrate compliance with WDC 16.64.040(A).

6.2.4 WDC 16.64.040(E).

Oregon LNG's application fails to demonstrate compliance with WDC 16.64.040(E). WDC 16.64.040(E) states: "All uses must meet applicable state and federal air quality and noise laws or regulations." The Hearings Officer should rely on the Oregon Department of Environmental Quality (DEQ) to determine whether Oregon LNG's project meets applicable state and federal air quality and noise laws. To date, DEQ has not issued any draft or final air quality permits for the project. The Hearings Officer therefore lacks adequate information to assess whether Oregon LNG's project satisfies state and federal air quality laws.

Oregon LNG also fails to demonstrate that the project will meet applicable state noise regulations, OAR Chapter 340 Division 35. OAR 340-035-0035(1)(b)(B), "New Sources Located on Previously Unused Sites," provides:

> (i) No person owning or controlling a new industrial or commercial noise source located on a previously unused industrial or commercial site shall cause or

[52] Terminal Application at 5-12.

> permit the operation of that noise source if the noise levels generated or indirectly caused by that noise source increase the ambient statistical noise levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels specified in Table 8, as measured at an appropriate measurement point, as specified in subsection (3)(b) of this rule, except as specified in subparagraph (1)(b)(B)(iii).
>
> (ii) The ambient statistical noise level of a new industrial or commercial noise source on a previously unused industrial or commercial site shall include all noises generated or indirectly caused by or attributable to that source including all of its related activities. Sources exempted from the requirements of section (1) of this rule, which are identified in subsections (5)(b) - (f), (j), and (k) of this rule, shall not be excluded from this ambient measurement.

Rather than demonstrate compliance with state noise regulations, Oregon LNG describes general, undefined plans to address noise pollution at a future design phase. For example, Oregon LNG states:

> Oregon LNG anticipates working with vendors to ensure the Terminal is consistent with the applicable noise limits. A suitable acoustical design will be developed as part of the final design process. Mitigation measures employed may include silencers, barriers, and enclosures.[53]

Oregon LNG also fails to demonstrate that pipeline-related horizontal direction drilling (HDD) activities, which may require continuous 24-hour operation, satisfy state noise regulations.[54] Overall, Oregon LNG fails to demonstrate that construction and operation of the Terminal or Pipeline will comply with state noise regulations and, in turn, the Hearings Officer should deny the applications under WDC 16.64.040(E).

6.2.5 WDC 16.64.040(N).

The Hearings Officer should deny Oregon LNG's application because the Terminal requires a gas flare and a permanently lit pilot light, which are not authorized under the I-2 zone Development Standards. WDC 16.64.040(N) states: "Except for exterior lighting, operations producing heat or glare shall be conducted entirely within an enclosed building." Oregon LNG fails to demonstrate compliance with WDC 16.64.040(N).

Specifically, the Terminal violates the restrictions in WDC 16.64.040(N) for two reasons. First, the gas flare will: (1) produce heat and glare, and (2) occur outdoors (*i.e.*, not within an enclosed building). While the *process* that produces the flare may occur entirely

[53] Terminal Application at 5-17.
[54] *Id.* at 5-15.

within enclosed structures, the flare itself does not. Oregon LNG's application proposes a conclusory finding that fails to acknowledge the gas flare and pilot light are not conducted entirely within an enclosed building. Specifically, Oregon LNG states:

> Operations at the Terminal will not produce heat or glare as a byproduct, with the exception of the flare. The flare is a single tower, 100 feet tall, with a 20-inch pipe surrounded by lattice structure with a small pilot light that will be permanently lit. As a conservative estimate, an actual flame of no more than 50 feet will occur once a year for 12 hours. The regasification system that will heat the LNG that it can be transported in the pipeline will include a combination of direct ambient air vaporizers and natural-gas-fired heaters. These facilities will vaporize the LNG into natural gas by heating it to a temperature of 40°F. This process will occur entirely within enclosed structures; therefore, the Terminal complies with this criterion.[55]

The Hearings Officer should reject Oregon LNG's proposed finding because it ignores the fact that the gas flare and pilot light are not within an enclosed building.

Notably, the applicant's *Visual Impact Assessment the Oregon LNG Bidirectional Terminal*, Resource Report Appendix 8B, confirms that the flare is not located within an enclosed structure. The *Visual Impact Assessment* concludes that the flare would be visible from four of the six "Key Observation Points" analyzed in the assessment. In particular, the *Visual Impact Assessment* concludes that the flare would be visible from: (1) Tansy Point, *see* Appendix 8B at 6-8, (2) Western Skipanon Peninsula Jetty Road, *see id.* at 6-10, (3) Eastern Skipanon Peninsula Dike Road, *id.* at 6-11, and (4) Youngs Bay Bridge, *see id.* at 6-12. Oregon LNG's *Visual Impact Assessment* removes any doubt that the flare is not located entirely within an enclosed structure. Oregon LNG therefore fails to meet the requirement that "operations producing heat or glare *shall be conducted* entirely within an enclosed building."[56]

Second, the Terminal requires a permanently lit pilot light. Pilot lights produce heat and glare. Oregon LNG makes no showing that the pilot light is located in an enclosed building. In fact, Table 6.2-1, "Description of the Most Visible Proposed Terminal Components," in Oregon LNG's *Visual Impact Assessment* lists the pilot light.[57] Furthermore, a pilot light does not fall within the exception for "exterior lighting." The purpose of a pilot light is not to illuminate the Terminal site; instead, the pilot light is part of the operation of the flare. The Application notes that the pilot light is "small," but lacks any measurements to substantiate this opinion. Even if the pilot light is "small," WDC 16.64.040(N) does not

[55] Terminal Application at 5-20.
[56] WDC 16.64.040(N) (emphasis added).
[57] Oregon LNG Resource Report, *Visual Impact Assessment the Oregon LNG Bidirectional Terminal*, Appendix 8B at 6-2.

contain an exemption for sources of heat and glare based on size. Oregon LNG therefore fails to demonstrate that the permanently lit pilot light satisfies the requirements of WDC 16.64.040(N).

In sum, the Hearings Officer should deny Oregon LNG's application based on failure to comply with WDC 16.64.040(N).

6.2.6 WDC 16.64.040(T).

WDC 16.64.040(T) states, "All developments shall comply with the wetland and riparian protection standards of Chapter 16.156." Section 6.6 discusses why Oregon LNG's project fails to meet the wetland and protection standards in WDC 16.156. In addition, Section 6.7 explains why Oregon LNG fails to meet the requirements for a hardship variance to destroy wetlands of significance and, therefore, cannot demonstrate compliance with WDC Chapter 16.156.

6.3 WDC 16.72 – Aquatic Development (A-1) District.

Oregon LNG proposes dredging for the LNG carrier berth and turning basin, as well as the trestle/pier, within the Aquatic Development (A-1) District. The proposal calls for dredging 1.2 million cubic yards of river bottom from an area covering approximately 135 acres, roughly the size of 102 football fields. The size and scale of Oregon LNG's impact on the estuary is unmatched. After consulting with expert state and federal agencies, the Coalition was unable to identify any other private development project in the Columbia River estuary that required dredging in the quantity or size proposed by Oregon LNG.

For the reasons explained below, the project is not consistent with the purpose of the A-1 District and fails to meet the requirements for siting within this district.

6.3.1 WDC 16.72.020.

Oregon LNG fails to meet the requirements for a permitted use under WDC 16.72.020 because the applicant fails to demonstrate that the project conforms to the standards in WDC 16.72.040 and other applicable development code sections. WDC 16.72.020, "Permitted Uses," states in part: "The following uses and activities and their accessory uses and activities are permitted in the A-1 Zone if the Community Development Director determines that the uses conform to the standards in Section 16.72.040, applicable Development Code Standards, and other City laws . . . ." Sections 6.3.2 to 6.3.4 of the Coalition's testimony demonstrates why Oregon LNG's project fails to satisfy the requirements of WDC 16.72.040, "Development Standards." By failing to demonstrate compliance with WDC 16.72.040, Oregon LNG fails to demonstrate the project is a permitted use in the AD-1 district.

6.3.2 WDC 16.72.040(A).

WDC 16.72.040(A) states, "All uses and activities [in the A-1 zone] must satisfy applicable Columbia River Estuary Shoreland and Aquatic Area Development Standards in Chapter 16.160." For the reasons set forth in Section 6.8 below, Oregon LNG fails to demonstrate compliance with applicable sections of WDC Chapter 16.160. The application therefore fails to meet the requirements of WDC 16.72.040(A).

6.3.3 WDC 16.72.040(C).

WDC 16.72.040(C) states, "All applicable policies in the City's Comprehensive Plan and Goal Exceptions shall be met." Section 7.0 below addresses Oregon LNG's failure to comply with the WCP. Oregon LNG's project therefore fails to comply with WDC 16.72.040(C).

6.4 WDC 16.88 – Flood Hazard Overlay District.

The Hearings Officer should deny Oregon LNG's land use application because it fails to address adequately the threat of an earthquake and tsunami. As described below, the application demonstrates that Oregon LNG cannot meet the standards established for safe operation within either Flood Hazard Overlay (FHO) zone. Further, in statements addressing these legal standards, the application fails to address the latest scientific advances relevant to geology and geologic hazards, and does not evaluate the performance of natural gas and petroleum facilities during the 2011 Tohoku earthquake.

The Cascadia Subduction Zone, where the eastward-moving Juan de Fuca tectonic plate plunges beneath the westward-moving North American plate close to the Oregon coast,[58] creates a severe hazard for earthquakes of magnitude 9.0 or even higher.[59] Experts estimate the recurrence time for earthquakes in the southern region of the Cascadia Subduction Zone, comprising Northern California and the Oregon coast, at 240 years over a period of 10,000

[58] Oregon Department of Land Conservation and Development, *Oregon Coastal Zone Management Program Tsunami Guide*, http://www.oregon.gov/LCD/OCMP/docs/Publications/TsunamiGuide20140108.pdf (April 2014).

[59] Goldfinger, Christopher *et al., Turbidite Event History—Methods and Implications for Holocene Paleoseismicity of the Cascadia Subduction Zone*, U.S. Geological Survey Professional Paper 1661-F, http://pubs.usgs.gov/pp/pp1661f/, (2014)

years.[60] Because the last event occurred in 1700, experts estimate the likelihood of a severe seismic event within the expected 50 year lifetime of the facility at up to 42%.[61]

Additionally, since the subduction zone is located offshore, a tsunami of devastating proportions would follow. Experts predict a tsunami similar to the tsunami that inundated Japan's coast immediately following the 2011 Tohoku magnitude 9.0 megathrust earthquake.[62] The tsunami wave height at Fukushima crested at 49 feet,[63] consistent with early modeling studies showing that offshore mega-earthquakes in the Pacific U.S. region can trigger tsunamis with wave heights of 30 to 70 feet.[64] In Tohoku, the wave surged inland to a distance equivalent to 128 feet above sea level—well above the elevation of the proposed LNG terminal— traveled up to 6 miles inland, and killed over 15,000 people.[65] This is the context in which Oregon LNG proposes to construct the Terminal and Pipeline in Warrenton.[66]

Portions of the Terminal are located in the FHO zone,[67] and portions of the proposed Terminal site are within the Special Flood Hazard Area (SFHA) (100 year floodplain) defined by the Federal Emergency Management Agency (FEMA) for eligibility in the National Flood Insurance Program (NFIP).[68] The WDC states that construction of new "critical facilities" shall be, to the extent possible, located outside the limits of the SFHA. New critical facilities are permissible if no feasible alternative site is available. WDC 16.88.040(G)(2)(b).

The Terminal is a critical facility because it is an installation which produces, uses or

---

[60] *Id.* at 3.
[61] *Id.* By the year 2060, within the lifetime of the proposed facility, the southern portion of the Cascade Subducation Zone will have exceeded 85% of recurrence intervals if no major earthquake has yet occurred.
[62] Oregon Department of Land Conservation and Development, *Oregon Coastal Zone Management Program Tsunami Guide* at 5-6.
[63] Charles B. Miller, Notes on Potential Effects of a Subduction Earthquake and Tsunami Sequence on a Jordan Cove LNG Terminal at 9. http://350corvallis.org/wp-content/uploads/2013/01/LNG-in-Tsunami-Zone_all.pdf.
[64] Dr. Hal Mofjeld, NOAA Center for Tsunami Research. Pacific Marine Environmental Laboratory, http://nctr.pmel.noaa.gov/faq_display.php?kw=1998%20Interview%20with%20Dr.%20Hal%20Mofjeld#9
[65] Becky Oskin, Japan Earthquake and Tsunami of 2011: Facts and Information, http://www.livescience.com/39110-japan-2011-earthquake-tsunami-facts.html.
[66] Conditions expected at the Terminal in the event of an earthquake/tsunami are very similar to those anticipated at the LNG export terminal in Coos Bay proposed by Jordan Cove Energy Project.
[67] http://www.co.clatsop.or.us/landuse/page/flood-hazard-overlay-zone
[68] The Flood Insurance Study for Clatsop County, Oregon and Incorporated Areas. Available at City of Warrenton, City Hall. WDC 16.88.020.

stores hazardous materials or hazardous waste. WDC 16.12.020.[69] Hazardous materials are "…materials such as, but not limited to, motor oil, gasoline, diesel fuel or other flammable liquids…" WDC 8.04.020. Cold liquefied natural gas stored on site can be classified as a flammable liquid, because it will burn at concentrations of 5-15% if it is depressurized and comes in contact with warm air.[70] Further, the natural gas piped into and out of the Terminal is a highly flammable substance with a chemical composition resembling motor oil, gasoline and diesel fuel. In short, the proposed Terminal would both use and store hazardous materials on site, and is thus a critical facility as defined in the WDC.

The purpose of the FHO District in the City of Warrenton is, in part, to prevent certain structures and land uses in areas unsuitable for human habitation because of the danger of flooding, unsanitary conditions, or other hazards. WDC 16.88.010(C). Other purposes of the FHO District include the protection of human life and health (WDC 16.88.010(B)) and minimization of the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public. WDC 16.88.010(E).

Oregon LNG has not, and cannot, provide adequate assurance that the Terminal protects public safety. In its geotechnical analysis, Oregon LNG presents the results of computer models in which tsunami wave heights are estimated at just 8 to 16 feet at the Terminal site–well below the 49 foot crest height at Fukushima in the 2011 Tohoku earthquake. Together with estimates of land subsidence and soil liquefaction caused by the earthquake, the 8 to 16 foot wave height prediction is the basis for Oregon LNG's proposal to construct a protective earthen berm 22 to 27 feet high surrounding the terminal site. However, as Oregon LNG acknowledges, the earthquake that precedes the tsunami will cause soil liquefaction and likely compromise the integrity of this berm. This may well cause severe flooding at the site. After the tsunami hits the coast, its destructive power inland will increase with debris it picks up in its path. This includes large broken pieces of the proposed LNG facility, which may cause increased loss of life and damage to property. Further, fires in the already-devastated region are a common aftermath of tsunamis.

In earlier correspondence, the Oregon Department of Geology and Minerals Industries (DOGAMI) recommended that the performance of natural gas and petroleum plants in the Tohoku earthquake and tsunami be evaluated and considered in siting and design of the

[69] Oregon LNG does not argue that their new critical facility is permissible because there is no feasible alternative site available. WDC 16.88.040(G)(2)(b). Oregon LNG appears to ignore the question of "critical facility" entirely.
[70] California Energy Commission. Frequently Asked Questions about LNG, http://www.energy.ca.gov/lng/faq.html#900

proposed Terminal and Pipeline.[71] Oregon LNG's application and Geotechnical Investigation Report, Appendix F, fail to address DOGAMI's input. DOGAMI also recommended a comprehensive review of new science relevant to the geology and geologic hazards in Oregon.[72] Oregon LNG has not provided this analysis. Indeed, Oregon LNG incorrectly states that the estimated probability of a triggering earthquake is just 5% in a 50 year time window, far below the best recent estimates.[73]

The Hearings Officer should deny Oregon LNG's application based on the dangers of flooding, the hazards to human life, and the increased rescue and relief costs required in the event of an earthquake and tsunami. WDC 16.88.010(B), (C), and (E).

6.5 WDC 16.96 – Soils Hazard Overlay District.

The Hearings Officer should deny the Terminal application because the site's physical characteristics are not appropriate for the use. Approval of a conditional use requires that the physical characteristics of the site, in terms of topography, soils and other pertinent considerations, are appropriate for the use. WDC 16.220.030(A)(5). Further, the WDC imposes special regulations to minimize development hazards in areas with moderate to highly compressible soils, including the Coquille-Clatsop Complex soils found on the East Skipanon Peninsula. WDC 16.96.010.[74] The Hearings Officer should deny the application because Oregon LNG has not demonstrated that the site is appropriate for a critical facility that uses and stores hazardous materials. WDC 16.96.020(A); WDC 16.220.030(A)(5).

The risk of a devastating 9.0 magnitude earthquake and subsequent tsunami on the lower Columbia River estuary and Oregon Coast is well-documented.[75] Despite this risk, Oregon LNG proposes building the Terminal on land created from sand deposits. Sandy soils are highly susceptible to liquefaction. Liquefaction is a soil behavior phenomenon in which saturated sand softens and loses strength during strong earthquake ground shaking.[76] Even

[71] Letter from State of Oregon to FERC, Comments on NEPA Scoping for Oregon LNG Bidirectional Project, at 17 (Dec. 19, 2012).
[72] *Id.*
[73] Resource Report 15, Oregon LNG Bidirectional Project, Warrenton, Oregon. Seismic Slope Stability and Displacement Evaluation for Perimeter Earth Berm at Section 2.0. CH2MHill. Project No. 199863 (May 23, 2013).
[74] Soils Survey of Clatsop County, Oregon. Available upon request. *See* http://columbiaestuary.org/services/resource-library/soil-survey-clatsop-county-oregon
[75] Exhibit 37, Oregon Department of Land Conservation and Development, *Preparing for a Cascadia Subduction Zone Tsunami: A Land Use Guide for Oregon Coastal Communities* (Jan. 2014), http://www.oregon.gov/lcd/ocmp/docs/publications/tsunamiguide20140108.pdf.
[76] Exhibit 32, *Earthquake Risk Study for Oregon's Critical Energy Infrastructure Hub*, Oregon Department of Geology and Mineral Industries, Open File Report 0-13-19 at 7 (2013). In 2013,

FERC, which has a history approving LNG proposals, has questioned Oregon LNG's "unprecedented" engineering plans and the company's attempt to mitigate for seismic and tsunami risks.[77] The uncertainty surrounding Oregon LNG's seismic engineering is highly relevant to the Hearings Officer's review of the project's compliance with the Soil Hazard Overlay district requirements.

Oregon LNG concedes that liquefaction at the Terminal site is likely in the event of an earthquake. In addition, the Oregon Department of Energy and DOGAMI recognize the risks of siting energy infrastructure on soils susceptible to liquefaction.[78] In Oregon LNG's October 2008 Resource Report 6, the company acknowledged that it had drilled 350 feet deep at the proposed terminal site without reaching bedrock. Oregon LNG proposes "deep soil mixing" to improve the foundation of its project, but this strategy is unproven and may not provide a stable foundation given the very severe geologic risks that could impact the Oregon LNG site. For example, in comments on the scope of the Oregon LNG EIS, DOGAMI states:

> [T]he Applicant should provide a thorough geological characterization of the proposed project area and surrounding area as well as a comprehensive site-specific geologic hazard and geotechnical assessment (including seismic, tsunami, lateral spreading, subsistence, surface fault rupture, landslide, flood and channel migration hazards) at the proposed facility and along the pipeline.[79]

DOGAMI goes on to state:

> These assessments should include supporting evidence to explain how the facility can be appropriately constructed and operated. *This is particularly relevant due to the generally high seismic and seismically-induced hazards at the facility and the generally high landslide hazards along the pipeline route*.[80]

---

the DOGAMI released a study on earthquake risk and Oregon's critical energy infrastructure, which focused on the Portland metro area. In that report, DOGAMI states: "Liquefaction and lateral spreading hazards are the *primary concern* to the oil terminals that handle Oregon's fuel supply." *Id.* at 7 (emphasis added).

[77] Exhibit 33, Letter from FERC to Oregon LNG (Environmental Data Request) (Aug. 1, 2013).

[78] Exhibit 32.

[79] Letter from State of Oregon to FERC, Comments on NEPA Scoping for Oregon LNG Bidirectional Project at 17 (Dec. 19, 2012).

[80] *Id.* (emphasis added).

Although Oregon LNG filed Resource Reports on seismic and tsunami risks, DOGAMI requested additional analysis of the most current science on these risks. DOGAMI's letter to FERC states:

> We also recommend that a comprehensive review of new science relevant to geology and geological hazards be incorporated into the proposed EIS. New science should include, but not limited to, recent publications about the seismic hazard in Oregon (e.g., Goldfinger and others, 2012; Witter and others, 2011) and new landslide hazard maps in Oregon (e.g., DOGAMI publications). The performance of natural gas and petroleum facilities during the March 11, 2011 Tohoku Japan earthquake and tsunami should be evaluated and considered in siting and design of the proposed export terminal and pipeline.[81]

The Hearings Officer should consider DOGAMI's input in evaluating Terminal's compliance with the WDC and WCP.

Oregon LNG fails to demonstrate that the berm system would protect LNG tanks, pipeline infrastructure, gas flare facilities, and other infrastructure at the Terminal. FERC raised significant concerns about the efficacy of Oregon LNG's seismic engineering plans. In its August 1, 2013, letter to Oregon LNG, FERC raised questions about Oregon LNG's proposed system of berms. FERC's letter to Oregon LNG states:

> The project foundations are designed for liquefaction settlements of up to 28 inches extending to depths of 169 feet (elevation -148 feet) and downdrag from this settlement. *The design provides unprecedented pile lengths of up to 280 feet for the tanks and 200 to 220 feet for other equipment.* While the design is apparently conservative considering liquefaction to unprecedented depths of 169 feet, the berms protecting the tanks are sitting on the same materials and are subject to 1-foot lateral and up to 3-feet vertical displacement *and have a high likelihood of failure when subjected to the design Tsunami event . . . The designer need to clearly demonstrate that the LNG tanks and the process areas would not be flood due to the Design Tsunami. The present report falls significantly short of this important consideration.*[82]

Oregon LNG has not resolved FERC's significant critque of the Terminal design. In addition, FERC is not satisfied by the quality of Oregon LNG's seismic slope stability and displacement analysis, stating: "[Oregon LNG must] [p]erform additional seismic slope and displacement

[81] *Id.*
[82] Exhibit 33, Letter from FERC to Oregon LNG (Environmental Data Request) at 17 (Aug. 1, 2013) (emphasis added).

cases for rapid drawdown after [a] tsunami."[83] The Hearings Officer must consider these concerns and rely on third-party analysis to verify whether Oregon LNG's claims on seismic and tsunami engineering are reliable. Based on this analysis, the Hearings Officer should deny Oregon LNG's conditional use permit. WDC 16.220.030(A)(5).

6.6 WDC 16.156.030 – Wetland Area Development Standards.

Oregon LNG's application does not contain state permits required under WDC 16.156.030(B)(1). Under WDC 16.156.030(B)(1), applications for grading or building permits that "would alter land within a mapped wetland boundary, *shall contain* . . . [a] valid State of Oregon Wetland Removal-Fill Authorization." (emphasis added). Oregon LNG concedes that it has not obtained a Removal-Fill Authorization from DSL.[84] The Application concludes that Oregon LNG complies with WDC 16.156.030(B)(1) because Oregon LNG will submit a copy of the Removal-Fill Authorization once DSL issues an authorization. The speculative, future submittal of a state permit fails to satisfy the requirement of WDC 16.156.030(B)(1).

6.7 WDC 16.156.080 – Hardship Variance Procedure and Criteria.

The Hearings Officer should deny Oregon LNG's request for a hardship variance to fill wetlands of local significance because the applicant fails to satisfy the mandatory criteria in WDC 16.156.080. Terminal construction and operation would create approximately 34.9 acres of permanent wetland impacts, including impacts from the Terminal, access road, and water pipelines.[85] In addition, the project Terminal would result in 3.2 acres of temporary wetland impacts. *Id.* The application states that the wetlands are "locally significant," but argues that that the City's requirements for a hardship variance do not apply.[86] In the following section, the Coalition explains why: (1) Oregon LNG's proposal to fill wetlands of local significance requires a hardship variance, and (2) Oregon LNG fails to satisfy the requirements for obtaining a variance.

6.7.1 Oregon LNG's proposed wetland impacts require a hardship variance.

As an initial matter, the Hearings Officer should reject Oregon LNG's argument that a hardship variance is not required for the majority of the proposed wetland impacts.[87] The City

[83] *Id.* at 18.
[84] Terminal Application at 5-82.
[85] *Id.* at 5-13.
[86] *Id.* at 5-82.
[87] *Id.*

concluded that the project requires a hardship variance.[88] Nonetheless, Oregon LNG maintains that a variance is not required because "the City's designation of significant wetlands in the LWI [Local Wetland Inventory map] apply to Goal 5 resources and Statewide Planning Goals 16 and 17 supersede requirements of Statewide Planning Goal 5."[89] Under Warrenton Comprehensive Plan (WCP) Section 5.150(e), the shoreland areas on the northern 96 acres of the East Skipanon Peninsula are within the shoreland boundary regulated by Statewide Planning Goal 17. Oregon LNG's argument hinges on WCP 4.100, which states:

> OAR 660-023-0240(2) [incorrectly identified as OAR 660-023-0024(2) in the WCP] establishes that the requirements of Statewide Planning Goal 16 and 17 supersede the requirements of Statewide Planning Goal 5 for natural resources also subject to and regulated by those goals. As a result, whether and under what circumstances development may impact wetlands and riparian corridors in estuarine and coastal shoreland areas is governed by the policies implementing Goals 16 and 17 rather that the City's adopted Goal 5 implementation program.[90]

Oregon LNG goes on to argue that "[t]he City's designation of significant wetlands in the LWI apply to Goal 5 resources as indicated in WDC 16.156.010." *Id.* Oregon LNG concludes that the requirements of Goals 16 and 17 supersede the "significance" designation of wetlands located on the Terminal site.

The Hearings Officer should reject Oregon LNG's argument. First, Oregon LNG's argument hinges on WCP 4.100, while ignoring the directive in WCP 5.100. WCP 5.100 states: "The City of Warrenton treats significant wetlands and riparian corridors that are located in the City's Goal 17 Shoreland zone *as Goal 5 resources*." (emphasis added). WCP 5.100 demonstrates that Oregon LNG's argument (*i.e.,* that the City's designation of significant wetlands in the Local Wetland Inventory map apply to Goal 5 resources and Statewide Planning Goals 16 and 17 supersede requirements of Statewide Planning 5) is incorrect.[91] The City treats significant wetlands located within the Goal 17 Shoreland zone as Goal 5 resources

[88] *See* Oregon LNG Removal-Fill Permit Application to DSL, Matrix Accompanying Skip Urling Affadavit, Section 6, of Waterway Lease Application Form at 20.
[89] Terminal Application at 5-82.
[90] *Id.* at 5-82 (citing WCP 4.100).
[91] *See also* OAR 660-023-0240(2) (stating "The requirements of Goals 15, 16, 17, and 19 shall supersede requirements of this division for natural resources that are also subject to and regulated under one or more of those goals. However, local governments may rely on a Goal 5 inventory produced under OAR 660-023-0030 and other applicable inventory requirements of this division to satisfy the inventory requirements under Goal 17 for resource sites subject to Goal 17.").

and, therefore, the shoreland areas on the northern 96 acres of the East Skipanon Peninsula are treated as Goal 5 resources.

Second, to the extent Oregon LNG proposes filling wetlands located within the I-2 zone, the I-2 zone Development Standards state expressly that the protection standards of WDC Chapter 16.156 apply. WDC 16.64.040(T), "Development Standards," states: "All developments shall comply with the wetland and riparian area protection standards in Chapter 16.156." WDC 16.64.040(T) does not create any exception for Goal 16 or 17 resources. Moreover, the Terminal application assumes that WDC 16.64.040(T) applies to the project.[92] Oregon LNG fails to reconcile the argument it advances under WDC 16.156.080 with the requirements imposed under WDC 16.64.040(T).

In sum, the hardship variance requirements of WDC 16.156.080 apply to the project.

6.7.2 The Hearings Officer should deny Oregon LNG's request for a hardship variance to fill locally significant wetlands.

Oregon LNG fails to demonstrate that a hardship variance is necessary and satisfies the criteria under WDC 16.156.080. WDC 16.156.080, Hardship Variance Procedure and Criteria, states:

> A. For any lands demonstrated to have been rendered not buildable by application of this chapter, the property owner may apply for a hardship variance for relief from the restrictions of this chapter.
>
> B. Hardship variance applications are subject to review in accordance with the standards of Section 16.208.050, Type III Procedure (Quasi-Judicial). Granting of a hardship variance requires that:
>
> 1. The proposed development represents a reasonable and legal use of the lot or parcel, considering the zoning.
>
> 2. Strict adherence to this chapter and other applicable standards would effectively preclude a use of the parcel that could be reasonably expected to occur in similarly zoned parcels.
>
> 3. The property owner would be precluded a substantial property right enjoyed by the majority of landowners in the vicinity.

[92] *Id.* at 5-21 (including a two sentence finding for why the project complies with WDC 16.64.040(T)).

4. The variance is the minimum necessary to retain use of the property.

5. Granting of the variance will not be materially detrimental to the public welfare or be injurious to property or improvements in the neighborhood of the premises.

6. The variance will be in general harmony with the intent and purpose of this chapter, and will not adversely affect any officially adopted Comprehensive Plan policy.

Without a hardship variance, Oregon LNG cannot proceed with the current project design.

6.7.2.1 WDC 16.156.080(A).

The project does not satisfy the threshold requirement for a hardship variance. WDC 16.156.080(A) states: "For any lands demonstrated to have been rendered not buildable by application of this chapter, the property owner may apply for a hardship variance for relief from the restrictions of this chapter." Oregon LNG does not demonstrate that WDC Chapter 16.156 renders the East Skipanon Peninsula "not buildable." Rather, Oregon LNG's argument describes why the WDC wetland protections render *its project design* unbuildable.

Oregon LNG fails to include any meaningful analysis of alternative project designs that avoid impacting over 30 acres of locally significant wetlands. For example, Oregon LNG does not explain how modifying the project to handle less LNG could reduce the need for, or size of, the wetland impacts. Similarly, Oregon LNG does not demonstrate that the lands are not buildable *per se*; Oregon LNG only attempts to argue why the lands are not buildable for its desired purposes. For these reasons, Oregon LNG does not satisfy the threshold criteria for obtaining a hardship variance.

6.7.2.2 WDC 16.156.080(B)(1).

Oregon LNG fails to demonstrate that "[t]he proposed development represents a reasonable and legal use of the lot or parcel, considering the zoning," pursuant to WDC 16.156.080(B)(1). First, the proposed development is an unreasonable, illegal use of the East Skipanon Peninsula: Oregon LNG has not received approval from the Corps to build the Terminal over area covering the Corps' dredge spoil disposal easement. The Corps has a valid property right, and Oregon LNG failed it its attempt to have a federal court declare the Corps' property interest invalid.[93] Second, the Coalition testimony and evidence demonstrate that the proposed Terminal and supporting infrastructure fail to satisfy the requirements of the WCP

[93] *See supra* Section 6.1.

and WDC and, therefore, the Terminal is not a legal use of the lot or parcel. The Hearings Officer should deny the hardship variance under WDC 16.156.080(B)(1).

6.7.2.3 WDC 16.156.080(B)(2).

A hardship variance is not warranted because Oregon LNG has not satisfied WDC 16.156.080(B)(2). WDC 16.156.080(B)(2) states: "Strict adherence to this chapter and other applicable standards would effectively preclude a use of the parcel that could be reasonably expected to occur in similarly zoned parcels." For the same reasons described in Section 6.7.2.1, *supra*, Oregon LNG has not demonstrated that strict adherence to Chapter 156 effectively precludes a use of the parcel that could be reasonably expected to occur in similarly zoned parcels. There are not LNG terminals within similarly zoned parcels in the City of Warrenton or, for that matter, in the states of Oregon or Washington. LNG terminals pose significant risks to public health and safety, one of many reasons why federal agencies, including NMFS, recommend siting LNG terminals far away from population centers. Oregon LNG fails to demonstrate that strict adherence to the wetland protections in WDC Chapter 156 would effectively preclude a use of the parcel that could be reasonably expected to occur in similarly zoned parcels.

6.7.2.4 WDC 16.156.080(B)(3).

The Hearings Officer should deny Oregon LNG's hardship variance request under WDC 16.156.080(B)(3), which states: "The property owner would be precluded a substantial property right enjoyed by the majority of landowners in the vicinity." Oregon LNG's application makes no claim or argument that the WDC's wetland protections preclude a substantial property right enjoyed by the majority of landowners in the vicinity. For example, Oregon LNG's application does not mention any landowner in the vicinity that owns or operates an LNG terminal or similar industrial development, let alone a majority of landowners in the vicinity that enjoy a similar property right. Instead, Oregon LNG's application contains boilerplate language describing how the City concluded that LNG terminal's primary use is consistent with a "marine cargo facility," permitted use in the I-2 zone.[94] This argument does not demonstrate preclusion of "a substantial property right enjoyed by the majority of landowners in the vicinity." The Hearings Officer should therefore deny the variance under WDC 16.156.080(B)(3).

[94] Terminal Application at 5-88.

6.7.2.5 WDC 16.156.080(B)(4).

Destroying nearly 35 acres of high-quality wetlands falls far short of demonstrating that "[t]he variance is the minimum necessary to retain use of the property." WDC 15.156.080(B)(4). First, Oregon LNG fails to demonstrate that the variance is the "minimum necessary." For example, the Terminal application fails to analyze alternative project designs with lower quantities of LNG, such as reducing the size or number of LNG storage tanks. Second, Oregon LNG makes no showing that the variance in the minimum necessary "to retain use" of the property; instead, Oregon LNG focuses on why the variance is the minimum necessary to retain the proposed use of an LNG terminal. WDC 16.156.080(B)(4), however, hinges on retaining use of the property, in general, not the specific use desired by an applicant. Oregon LNG therefore fails to satisfy WDC 15.156.080(B)(4).

6.7.2.6 WDC 16.156.080(B)(5).

Granting the variance will facilitate the development of an LNG terminal, a project that is materially detrimental to public welfare and will harm nearby property. Oregon LNG therefore fails to meet the requirements in WDC 16.156.080(B)(5), which requires applicants demonstrate that "[g]ranting of the variance will not be materially detrimental to the public welfare or be injurious to property or improvements in the neighborhood of the premises."

The Terminal raises significant public health and safety issues, which the Coalition 404 Comments discuss in detail.[95] For example, the Terminal would put a significant number of people at risk of catastrophic accidents resulting from an LNG or natural gas accident. The route for LNG tankers and the Terminal site itself are extremely close to population centers such as Warrenton, Hammond, and Astoria. Oregon LNG fails to fully disclose the consequences of an accidental or terrorist-induced ignition of a vapor cloud from an LNG tank or tanker. To date, Oregon LNG has not identified resources, including funding, to respond to emergencies. For these reasons, the Hearings Officer should deny the hardship variance under WDC 16.156.080(B)(5).

6.7.2.7 WDC 16.156.080(B)(6).

WDC 16.156.080(B)(6) requires a showing that "[t]he variance will be in general harmony with the intent and purpose of this chapter, and will not adversely affect any officially adopted Comprehensive Plan policy." As the Coalition's testimony and supporting evidence demonstrate, Oregon LNG's proposal to fill nearly 35 acres of locally significant wetlands

[95] Coalition 404 Comments at Section 7.13.

conflicts with multiple is inconsistent with the intent and purpose of Chapter 156 and multiple Comprehensive Plan policies.

Because Oregon LNG fails to demonstrate compliance with the six criteria in WDC 16.156.080(B), the Hearings Officer should deny the company's request for a hardship variance.

6.8 WDC 16.160 – Columbia River Estuary Shoreland and Aquatic Area Development Standards.

WDC 16.160, Columbia River Estuary Shoreland and Aquatic Area Development Standards, apply to all project components proposed in the I-2 and A-1 zones. For the reasons explained below, Oregon LNG fails to demonstrate consistency with multiple development standards designed to protect the integrity of the Columbia River Estuary Shoreland and Aquatic Area.

6.8.1 Oregon LNG fails to meet the standards in WDC 16.160.020(B) and (C), "Deep-Water Navigation, Port and Industrial Development" and 16.160.060(F)(1)–(4).

The Hearings Officer should deny the application under WDC 16.160.020(B) and (C) because: (1) Oregon LNG fails to demonstrate a need (*i.e.*, a substantial public benefit) for the project; (2) the project unreasonably interferes with public trust rights; (3) feasible alternative upland locations exist; and (4) Oregon LNG fails to minimize potential adverse impacts.

WDC 16.160.020(B) and (C) state:

> The standards in this subsection apply to port and industrial development occurring in and over estuarine waters, and on adjacent shorelands. This section also applies to navigation projects related to deep-draft maritime activities, such as channel, anchorage and turning basin development or expansion.
>
> ***
>
> B. New or expanded facilities for deep-water navigation, port or industrial development requiring aquatic area dredging or filling may be allowed only if all of the following criteria are met:
>
> 1. The proposed use is required for navigation or other water-dependent use requiring an estuarine location, or is specifically allowed in the applicable aquatic zone; and
> 2. A need (i.e., a substantial public benefit) is demonstrated; and
> 3. The proposal does not unreasonably interfere with public trust rights; and
> 4. Feasible alternative upland locations do not exist; and

5. Potential adverse impacts are minimized.

C. Deep-water navigation, port or industrial development requiring new piling or dolphin installation, construction of pile-supported structures, or other uses or activities which could alter the estuary may be permitted only if all of the following criteria are met:

1. A need (i.e., a substantial public benefit) is demonstrated; and
2. The proposal does not unreasonably interfere with public trust rights; and
3. Feasible alternative upland locations do not exist; and
4. Potential adverse impacts are minimized."

For the reasons described below, Oregon LNG also fails to meet the requirements WDC 16.160.060(F)(1)–(4), which impose similar requirements as WDC 16.160.020(B) and (C).

6.8.1.1 Oregon LNG fails to demonstrate a public need.

There is no need for the Oregon LNG project. The stated project purpose is "to export North American natural gas to foreign markets."[96] According to Oregon LNG's Joint Permit Application to the Corps, "[a] secondary purpose of the Project is to facilitate the availability of Canadian gas supplies for delivery to Pacific Northwest markets, including the Portland metropolitan area."[97] Yet, as discussed below, there is no "need" that this project will satisfy. Even if Oregon LNG identifies a market for the gas, Oregon LNG fails to demonstrate why this project, in this location, is necessary to fulfill that need given the significant, certain impacts to the Columbia River estuary.

As an initial matter, Oregon LNG fails to demonstrate a market need for its proposed facility. Oregon LNG is one of multiple proposals to export LNG from the United States. Pending and authorized LNG export projects amount to 40.96 billion cubic feet per day (bcf/d) of gas.[98] In August 2015, Platts and Bentek Energy published an in-depth market analysis on LNG exports. The analysis states:

> LNG exports have long been touted as the metaphoric savior of the US gas markets, tempting producers and midstream players with the allure of global

[96] Oregon LNG Bidirectional Project Joint Permit Application to the Corps at 2.
[97] *Id.*
[98] U.S. DOE, *Applications Received by DOE/FE to Export Domestically Produced LNG from the Lower-48 States* (as of Sept. 10, 2014), http://energy.gov/sites/prod/files/2014/09/f18/Summary%20of%20LNG%20Export%20Applications.pdf.

> demand. However, global gas demand growth has flagged over the last year, rising by a mere 0.7 Bcf/d, while at the same time 2.2 Bcf/d of new export capacity is expected to be added to the market by the end of 2015. LNG spot prices have slipped back into territory not seen since prior to the 2011 Fukushima disaster, which led to Japan shuttering 47.5 GW of nuclear generation capacity. *The recent dip in global LNG prices may be just the beginning of a longer-term trend of well supplied LNG markets, which could leave many LNG export terminals in the US underutilized and global gas markets wading through a protracted period of depressed prices.*[99]

The Platts/Benteck Energy report concludes: "Despite hopes that global demand will arrive as the savior of US gas markets starting in 2016, it appears that the US LNG exporters may be entering the market just as the party seems to be dying down."[100]

Leading market analysts concur with the Platts/Benteck Energy report.[101] In an August 24, 2015, report to clients, Bank of America stated: "Spare U.S. liquefaction capacity could aggravate the ongoing spot LNG market glut . . . . Longer-term, the critical question for LNG global prices is whether there will be enough demand to meet incremental supply from Australia and the U.S." [102] In April 2015, Moody's Investor Service (Moody's) issued a similar market forecast for LNG exports. According to Moody's, export projects already under construction will continue as planned, which will lead to excess liquefaction capacity over the rest of the decade. "Notably, through 2017, Australia will see new capacity come online from roughly $180 billion in investments, which will result in a 25% increase in global liquefaction capacity. Likewise, the U.S. is poised to become a net LNG exporter after the [Cheniere] Sabine Pass Liquefaction LLC . . . project goes into service in the fourth quarter of 2015."[103] Moody's states: "Lower oil prices are causing LNG suppliers to curtail their capital budgets. This will result in the cancellation of a majority of the almost 30 proposals [to export LNG] in the U.S., 18 in western Canada and four in eastern Canada." Oregon LNG's application fails to address the current market forecast for LNG exports, which demonstrates there is no need for new LNG export terminal in the Columbia River estuary.

---

[99] Exhibit 73, Platts and Benteck Energy, *LNG Exports: Oasis or Mirage?* at 1 (Aug. 2015).
[100] *Id.* at 4.
[101] Exhibit 74, Moody's Investor Service, *Moody's: Liquefied natural gas projects nixed amid lower oil prices* (Apr. 7, 2015).
[102] Exhibit 72, Bloomberg Business, *BofA Says Collapsing Oil Drags U.S. LNG Exports Down With It* (Aug. 24, 2015).
[103] Exhibit 74.

Oregon LNG also fails to address EPA's analysis of project need. EPA raised significant questions about the public need for Oregon LNG's project in a January 16, 2015, letter to the Corps. EPA's letter states:

> 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 delivery to Pacific Northwest markets, including the Portland metropolitan. However, we note that the energy supply and demand landscape seems to be in a state of flux within the US. With one other LNG proposal pursing FERC licensing for a site in Oregon and its associated natural gas pipeline within the same service area that could provide new 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 to any particular site that would warrant permanent and temporary impacts to natural resources proposed with construction of the Oregon LNG facility and associated Washington Expansion Pipeline proposal at considerable risk.[104]

EPA's letter supports a finding that Oregon LNG failed to demonstrate a need for the project.

Second, Oregon LNG fails to demonstrate the need for siting LNG tanks and liquefaction facility adjacent to the Columbia River. The LNG tanks and liquefaction facility are not water-dependent and, therefore, Oregon LNG fails to demonstrate a need for siting the Terminal in wetlands adjacent to the Columbia River. For example, Oregon LNG could build the Terminal at an upland location and build a pipeline to the dock to load LNG onto ocean-going vessels.

Third, Oregon LNG fails to demonstrate a need for an LNG export terminal on the East Skipanon Peninsula when the project proposes exporting natural gas feedstock from Canada. This issue is discussed at length in the alternatives analysis section of the Coalition 404 Comments, Exhibit 70 at 23-43, which the Coalition incorporates by reference. Oregon LNG's Application describes the project's purpose and need, stating in part:

> The primary purpose of the Project is to export North American natural gas to foreign markets. The Project will interconnect with the Northwest interstate transmission system, which connects Pacific Northwest demand centers gas supplies in British Columbia and the Rocky Mountain area of the United States. With the establishment of this interconnection, the Project will be able to export Canadian natural gas and, to a lesser extent, U.S. natural gas. A secondary purpose of the Project is to facilitate the availability of Canadian gas supplies

[104] Exhibit 64 at 2, Letter from EPA to Corps (Jan. 16, 2015).

> for delivery to Pacific Northwest markets, including the Portland metropolitan area. The Project will also enable delivery of gas to isolated U.S. markets in need of supply, including Hawaii and coastal Alaskan communities.[105]

Oregon LNG fails to demonstrate the need for an LNG export terminal in Warrenton, Oregon, when the primary purpose of the project is to export natural gas extracted in Canada.

To the extent Oregon LNG's proposes importing LNG, Oregon LNG fails to demonstrate the need for an LNG import terminal in light of the outlook for North American natural gas production. Oregon LNG's purpose and need statement appears to acknowledge this reality, stating:

> The outlook for North American natural gas production has improved, owing to drilling productivity gains that have enabled rapid growth in supplies from unconventional gas-bearing formations in the United States and Canada. Improvements in drilling and extraction technologies have coincided with rapid diffusion in the natural gas industry's understanding of the unconventional resource base and best practices in drilling and resource development. These changes have rendered obsolete once prominent fears of declining future domestic natural gas production.[106]

Oregon LNG's own evidence on the demand for LNG export wholly undercuts the company's arguments for siting a bidirectional terminal capable of importing natural gas.

Sierra Club and Columbia Riverkeeper address the purpose of and need for Oregon LNG's project at length in detailed comments and accompanying exhibits submitted to the U.S. Department of Energy (DOE), attached hereto as Exhibit 18.[107] The Coalition hereby incorporates by this reference Exhibit 18. For the reasons stated in Exhibit 18 and described above, the Coalition objects to Oregon LNG's characterization of the purpose and need for the project.

From the project's impacts on domestic natural gas prices to impacts on fishing and endangered species recovery in the estuary, Oregon LNG fails to demonstrate a "substantial public benefit." The Coalition 404 Comments and associated exhibits address, in detail, why Oregon LNG's project harms the public interest and fails to result in a substantial public benefit. The Coalition incorporates those comments by reference.

---

[105] JPA at 2.
[106] Supplement to the Joint Permit Application for the Oregon LNG Bidirectional Project (Oct. 2014) at 3-1 (hereafter "Supp. JPA").
[107] Exhibit 18, Sierra Club and Columbia Riverkeeper USDOE Protest on Oregon LNG.

6.8.1.2 The project will unreasonably interfere with public trust rights.

Oregon LNG's proposal unreasonably interferes with public trust rights and, therefore, fails to meet the requirements in WDC 16.160.020(B)(3) and (C)(2). Since early statehood, Oregon courts and the legislature have recognized that water is a publicly owned resource. Public rights in state waters include not only navigation, fishing, hunting, and recreation, but also boating, swimming, and other uses. Public trust rights also include rights to wildlife. A scholar on the Oregon Public Trust Doctrine explains:

> The Oregon PTD [Public Trust Doctrine] is more robust than generally recognized to date. The doctrine is a background principle of state property law, reflecting the pre-statehood principle that as sovereign trustee, the state must manage public water and wildlife resources for the benefit of present and future generations. The PTD is actually shorthand for a collection of Oregon doctrines protecting public usufructuary rights in natural resources, including public rights to navigate on public highways like beaches and waterways, public ownership of water, and sovereign ownership of wildlife. The PTD unifies common law doctrines that recognize public rights to use trust resources, including customary rights to use Oregon beaches recognized in *Hay*. Although the origins of Oregon's PTD lie in longstanding public ownership of waters and wildlife, and the public highways language from the Northwest Ordinance in the Statehood Act, the PTD is quite vibrant, reflected in both historic and modern statutes, as well as modern case law concerning state ownership of wildlife and public rights to use waters and ocean beaches.[108]

For the reasons explained below, Oregon LNG's application ignores and mischaracterizes the project's significant and unreasonable impacts on public trust rights.

First, the security and exclusion zones associated with the LNG Terminal, dock, and vessels constitute an unreasonable interference with the public trust. The Coalition addresses the impacts of Oregon LNG's tanker traffic on public access in the estuary in greater detail in Section 7.2.5.2 below and provides a brief overview in the instant section. Due to the safety and security risks associated with LNG, the U.S. Coast Guard (Coast Guard) imposes safety/security exclusion zones around LNG vessels and docks, as well as fixed security

[108] Exhibit 78, Michael C. Blumm & Erika Doot, *Oregon's Public Trust Doctrine: Public Rights in Waters, Wildlife, and Beaches*, 42 Envt'l Law 375 (2012).

exclusion zones around LNG terminals (hereafter referred to as safety/security zones).[109] FERC confirmed the applicability of the Coast Guard's safety/security zones in the DEIS.[110]

For the Oregon LNG project, the Coast Guard determined that project would require:

1. A moving safety/security zone around LNG vessels extending 500-yards from the vessel and ending at the shoreline.

2. A 200-yard safety/security zone around the vessel when moored at the facility.

3. A 50-yard fixed safety/security zone around the LNG Terminal when there is not a vessel at the dock. [111]

No vessel may enter the safety/security zone without first obtaining permission from the Coast Guard Captain of the Port.[112]

Oregon LNG's project unreasonably interferes with public trust rights in fishing. Over 46,000 commercial and recreational fishing boats use the Columbia River estuary each year for fishing and transit to the ocean. These boats would have to avoid the 500 yard safety zone around LNG tankers. The LNG tanker exclusion zones would create delays in the extremely short and regulated commercial fishing season. Due to heavily regulated fishing seasons, missing just one drift could cost thousands of dollars. Further, LNG tankers and fishing boats would both need to cross the notoriously dangerous Columbia River bar at favorable tides. Because the LNG tankers would have priority, fishing boats would experience more risky crossings. Significantly, LNG tankers are unannounced for security reasons. As a result, private and commercial boats will not have the opportunity adjust river use habits.

Oregon LNG also creates an unreasonable interference with public trust rights by restricting and disrupting local marine traffic, particularly at a nearby public marina on the Skipanon River. Exclusion zones restrict access to the Skipanon River while LNG tankers are approaching and docking at the facility.

---

[109] *See* Exhibit 41, Coast Guard Letter of Recommendation for Oregon LNG Project at 1 (Apr. 24, 2009).
[110] Oregon LNG DEIS at 4-426.
[111] Exhibit 42, Coast Guard Letter of Recommendation Analysis at 1-2 (Apr. 24, 2009).
[112] *Id.*; *see also* Oregon LNG DEIS at 4-426 (stating "No vessel may enter the safety/security zone without first obtaining permission from the Coast Guard COTP. The expectation is that the COTP's Representative will work with the Pilots and patrol assets to control traffic, and will allow vessels to transit the Safety/Security zone on a case-by-case assessment conducted on the scene."); *id.* at 4-429 (describing Coast Guard facility safety measures for LNG facilities outlined in 33 CR 105, including a required Facility Security Plan).

In public comments to the Corps, the Oregon Department of Fish and Wildlife (ODFW) raised substantial concerns about Oregon LNG's impacts on public trust rights, stating:

> The Skipanon Marina and Warrenton Deep Sea facilities are an important harbor and marina complex for recreational and commercial vessels. As a result many commercial and recreational vehicles transit through the area identified for the proposed marine terminal berthing area during their exit and return to the Skipanon Marina. The application recognizes that 'the Pacific Ocean, Columbia River, and other rivers crossed by the pipeline support diverse commercial and recreational fishing industries whose harvests include sturgeon, salmon, steelhead, bottomfish, and crabs' (Section 4-40 / Commercial and Recreational Fishing). *However, the application does not do a sufficient job of characterizing the local importance of the commercial and recreational fisheries or how they will be affected during construction and operation of the OLNG terminal, berthing dock, and other facilities.*[113]

ODFW also concludes that Oregon LNG's characterization of impacts to the Buoy 10 fishery are inadequate, stating:

> The applicant does acknowledge the extremely popular recreational fishery for Chinook and coho salmon that occurs near the mouth of the Skipanon River (Buoy 10 Fishery), and that the proposed OLNG 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 and a combined catch of nearly 84,500 salmon.[114]

Similarly, ODFW notes that Oregon LNG does not explain how the project would affect recreational crabbing in the Terminal vicinity.[115]

Dredging and dock building will also unreasonably interfere with public trust rights. Dredging will degrade vital fish habitat, which will reduce health of the fisheries. The commercial salmon fishery is already severely limited due to dwindling populations. Oregon LNG's permanent destruction of key salmon habitat will further degrade the fishery, and, in turn, degrade the opportunities for commercial and recreational fishing, as well as tribal fishing rights throughout the Columbia River Basin. Oregon LNG proposes dredging a massive hole that spans 135 acres of the Columbia River in Youngs Bay—roughly the size of 102 football fields. This is the heart of what historically has been the most popular non-tribal sport and

[113] Exhibit 63 at 17, Letter from ODFW to Corps (Jan. 16, 2015) (emphasis added).
[114] *Id.* (emphasis added).
[115] *Id.* at 17-18.

commercial salmon fishing area on the Columbia River.[116] Furthermore, Youngs Bay is the most productive Chinook salmon mitigation site (*i.e.,* to mitigate for lethal impacts of the Columbia River hydroelectric dams) in the entire Columbia River estuary. The Hearings Officer should deny Oregon LNG's application because siting an LNG terminal in the heart of this productive fishery will unreasonably interfere with public trust rights in fishing and boating.

As discussed above, Youngs Bay is one of four sites in the lower Columbia River that comprise the ODFW's Select Area Fisheries Enhancement (SAFE) project. The SAFE project is a two-decade long salmon stocking program funded primarily by the Bonneville Power Administration to off-set harm to endangered salmon from Columbia and Snake River hydroelectric dams. The primary purpose is to reduce fishing impacts on wild and weak upriver salmon stocks by increasing the availability of hatchery fish in off-channel areas of the lower Columbia. The FCRPS BiOp identifies funding for the Youngs Bay Select Areas Fisheries as a "Reasonable and Prudent Alternative" (*i.e.,* a mitigation measure to off-set endangered salmon and steelhead harm from the dams). The BiOp states that fisheries agencies established the program "to mitigate fisheries by providing the opportunity to harvest locally-produce salmon stocks in off-channel areas of the Columbia River."

Of the four terminal fisheries sites in the Columbia River Estuary, the Youngs Bay site has the highest five-year average for Chinook salmon harvest. Biologists believe that stocking salmon at Youngs Bay may result in a *10-fold increase* in survival and catch rates because the fish are released closer to the ocean at a size and time of year that is more conducive to spring Chinook out-migration.[117]

In February 2014, the Oregon Fish and Wildlife Commission adopted a sport fishing closure in the section of Youngs Bay near the proposed Terminal site.[118] The closure restricts sport fishing from August 1st to September 15th. The purpose of the closure is to reduce the impact of sport fishing on hatchery fish returning to Youngs Bay so that these fish will be available for commercial fishing in Youngs Bay. "The closure, along with several other changes to fisheries management, emerged during the 2012 process to restructure sport and commercial fisheries on the Columbia River. Senate Bill 830, passed by 2013 Oregon

---

[116] Exhibit 39, Martin, Irene, *A Social Snapshot of the Columbia River Gillnet Fishery* (Sept. 2005); *see also* U.S. Coast Guard, Buoy 10 Taskforce, http://www.uscg.mil/d13/sectcolrvr/ops/buoy10.asp.
[117] ODFW News Release, http://www.dfw.state.or.us/news/2009/november/110609b.asp (Nov. 6, 2009).
[118] ODFW News Release, http://www.dfw.state.or.us/news/2014/february/020714.asp (Feb. 7, 2014).

Legislature, directed the [Oregon Fish and Wildlife] Commission to create a closure area."[119] The Northwest Sportfishing Industry Association is fighting to reverse the season sport fishing closure.[120] This demonstrates the importance of Youngs Bay to the efforts to restore and maintain a healthy fishery in the Columbia River. The Terminal's impacts would undermine these efforts, and harm sport and commercial fishing in the region.

Dredging activities also have the potential to disrupt recreational and commercial fishing, as well as shipping on the Columbia River. Dredging activities have the potential to disrupt recreational and commercial access near the Skipanon Peninsula, where Oregon LNG proposes dredging. In addition, the 24-hour per day dredging will completely block access to the traditional fishing grounds at the mouth of Youngs Bay. This will seriously degrade sport and commercial fishing and violate the public trust. Even after dredging is complete, routine operation of the Terminal requires maintenance dredging and, in turn, harms river commerce.

Oregon LNG's project—from construction through operation—imposes unprecedented, harmful impacts on fishing, hunting, boating and other public trust rights in Youngs Bay and the Columbia River estuary. These impacts rise to the level of "unreasonable interference" and, therefore, the Hearings Officer must deny the project.

6.8.1.3 Oregon LNG fails to carry its burden to demonstrate that feasible upland locations do not exist.

Aside from conclusory statements, Oregon LNG's application contains no technical analysis demonstrating why the company must locate the Terminal directly adjacent to the dock. Oregon LNG's desire to locate its liquefaction and storage facilities near the dock does not make the proposed facilities water-dependent. The basic purpose of the new facilities is to liquefy natural gas, and this activity need not occur near water. Although Oregon LNG wishes to integrate LNG liquefaction with shipping services, its basic purpose is to construct liquefaction facilities. Oregon LNG could locate these facilities in an upland area and connect to shipping facilities via a longer tank filling pipeline or some other means. For example, at the Dominion Cove Point LNG terminal in Maryland, Dominion located the liquefaction

[119] *Id.*
[120] Exhibit 38 (Northwest Sportfishing Industry Association, *NSIA committed to fighting today's ODFW Commission Youngs Bay ruling* (Feb. 7, 2014), http://www.nsiafishing.org/general/nsia-committed-to-fighting-todays-odfw-commission-youngs-bay-ruling/); Exhibit 59 (The Columbia Basin Bulletin, *Sportfishing interests seek reversal on 'Control Zone' closure at Youngs Bay* (Feb. 21, 2014)).

equipment approximately a mile away from the actual vessels. Oregon LNG has not carried its burden to demonstrate that no feasible upland locations exist.

6.8.1.4 Oregon LNG fails to minimize adverse impacts.

The size and scale of Oregon LNG's project runs afoul of the requirement in WDC 16.160.020(B)(5) and (C)(4) to minimize potential adverse impacts. The Coalition 404 Comments and associated exhibits, including the Williams, Bierly and Rhodes expert reports, describe in detail the project's adverse impacts.

Oregon LNG's dock and turning basin require an unprecedented level of habitat modification along the shoreline in the Columbia River estuary. 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.[121] In justifying the size and depth of the dredging alone, Oregon LNG fails to show how its project design minimizes adverse impacts to the estuary.

First, Oregon LNG does not provide sufficient reasoning or detail to justify its dismissal of many design and project alternatives that could have a less adverse impact on the aquatic ecosystem. In particular, Oregon LNG provides little consideration of the relative costs, technologies, and logistics in rejected alternatives. Many alternatives exist in the West Coast energy market that could provide cleaner, safer, more affordable energy without the enormous negative impact to the Columbia River estuary. Oregon LNG also ignores NOAA's input on project design. The Coalition addresses in detail Oregon LNG's failure to minimize adverse impacts in the Coalition 404 Comments, Exhibit 70, incorporated herein by reference.

For example, Oregon LNG does not evaluate designing the Terminal for a smaller footprint and smaller LNG vessels. Oregon LNG fails to address the possibility of building a smaller terminal; in turn, the analysis does not provide adequate data to justify why a smaller site design is not practicable. Likewise, Oregon LNG does not thoroughly evaluate the potential for using smaller vessels to access the East Skipanon Peninsula, potentially reducing the size of the Terminal overall, and limiting the depth and area of the turning basin. There are

[121] Supp. JPA, Appendix N at ES-2.

a range of sizes of LNG vessels (from under 100,000 cubic meters to greater than 200,000 cubic meters). Oregon LNG fails to discuss adequately these practicable alternatives.

Second, Oregon LNG fails to minimize adverse impacts by choosing to site the dock and associating turning basin within ESA-designated critical habitat. The aquatic area covered by Oregon LNG's proposal includes designated critical habitat for the recovery of endangered and threatened salmon and steelhead stocks. This includes critical habitat for: Lower Columbia River Chinook Salmon, Snake River Fall-run Chinook Salmon, Upper Columbia River Spring-run Chinook Salmon, Upper 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. According to Oregon LNG's Dredge Material Management Plan, "[t]he change in elevation will result in conversion of subtidal habitat to slightly deeper subtidal habitat, and there will be no direct loss of habitat."[122] Oregon LNG's claims of "no direct loss" are not supported by the best available science or the record.[123]

Third, Oregon LNG undercuts significantly government agencies' and the public's ability to comment on dredging impacts because Oregon LNG has not yet determined dredging methods. In turn, Oregon LNG has not demonstrated that its dredging methodology will minimize potential adverse impacts. Oregon LNG's Dredge Material Management Plan describes various dredging methods. However, Oregon LNG fails to disclose which method its contractors would use. Oregon LNG states:

> The method of dredging has not yet been determined, and some methods may result in direct mortality to sturgeon. Oregon LNG will prevent dredge-related mortality by selecting a dredging method that does not result in direct mortality and/or by coordinating with resource agencies on the timing of dredging.

Oregon LNG's decision to postpone specifying a dredging method undermines public input on the project's impacts. As public comments on the Bradwood LNG terminal demonstrate, the dredging method is highly relevant to the physical, chemical, and biological impacts of dredging.[124]

---

[122] *Id.* at 4-1.
[123] Exhibit 1, Williams Expert Report; Exhibit 63, Letter from ODFW to Corps (Jan. 16, 2015); Exhibit 64, Letter from EPA to Corps (Jan. 16, 2015).
[124] Exhibit 25, Columbia Riverkeeper *et al.* Clean Water Act Section 404 Comments for the Bradwood LNG Project (Dec. 18, 2007).

Finally, Oregon LNG fails to minimize adverse impacts by proposing dredging outside the in-water work window designed to protect endangered species. In comments on the project, ODFW states:

> OLNG's proposal to dredge the turning basin and berth in one 4-month in-water work window beginning June 1, 2016, through September 30, 2016 is well outside the recommended in-water work window for the area (November 1 to February 28) and has the potential to substantially interfere with recreational angling in the lower Columbia River (Buoy 10) salmon fishery (Section 7.0 Recreation Impacts).[125]

Oregon LNG's decision to conduct dredging for the dock and turning basin outside the recommended work window illustrates the company's failure to minimize adverse impacts.

In sum, the Application does not comply with WDC 16.160.020(B) and (C) because Oregon LNG fails to demonstrate a need (*i.e.*, a substantial public benefit), the proposal unreasonably interferes with public trust rights, feasible alternative upland locations exist, and Oregon LNG fails to minimize potential adverse impacts.

6.8.2 WDC 16.160.040, Dredging and Dredged Material Disposal.

Oregon LNG's proposed dredging activities fail to comply with several requirements imposed under WDC 16.160.040.

6.8.2.1 WDC 16.160.040(A).

The application fails to demonstrate compliance with the standards contained in WDC 16.160.040(A)(2)–(5). WDC 16.160.040(A)(2)–(5) state:

> Standards in this subsection are applicable to all estuarine dredging operations and to both estuarine shoreland and aquatic dredged material disposal.
>
> A. Dredging in estuarine aquatic areas, subject to dredging and dredged material disposal policies and standards, shall be allowed only if all of the following criteria are met:
>
> * * *
>
> 2. A need (i.e., a substantial public benefit) is demonstrated; and
>
> 3. The proposal does not unreasonably interfere with public trust rights; and

[125] Exhibit 63, Letter from ODFW to Corps at 19 (Jan. 16, 2015).

4. Feasible alternative upland locations do not exist; and

5. Potential adverse impacts are minimized.

For the same reasons described in Section 6.8.1 above, Oregon LNG fails to meet the criteria in WDC 16.160.040(A)(2)–(5).

6.8.2.2 WDC 16.160.040(B).

Oregon LNG fails to show that the dredging is the minimum necessary to accomplish the proposed use. *See* WDC 16.160.040(B) ("When dredging is permitted, the dredging shall be the minimum necessary to accomplish the proposed use."). For example, Oregon LNG does not evaluate designing the turning basin to accommodate smaller LNG vessels. For this reason, Oregon LNG does not meet the requirement in WDC 16.160.040(B).

6.8.2.3 WDC 16.160.040(C).

WDC 16.160.040(C) states: "Undesirable erosion, sedimentation, increased flood hazard, and other changes in circulation shall be avoided at the dredging and disposal site and in adjacent areas." The Coalition 404 Comments demonstrate that Oregon LNG has not carried its burden to demonstrate that the proposed dredging avoid undesirable erosion sediment, increased flood hazard, and other changes in circulation.[126]

6.8.2.4 WDC 16.160.040(F).

WDC 16.160.040(F) states: "Adverse short-term effects of dredging and aquatic area disposal such as increased turbidity, release of organic and inorganic materials or toxic substances, depletion of dissolved oxygen, disruption of the food chain, loss of benthic productivity, and disturbance of fish runs and important localized biological communities shall be minimized." The Coalition 404 Comments support a finding that Oregon LNG has not demonstrated compliance with WDC 16.160.040(F).[127]

6.8.2.5 WDC 16.160.040(G).

WDC 16.160.040(G) states: "The effects of both initial and subsequent maintenance dredging, as well as dredging equipment marshalling and staging, shall be considered prior to approval of new projects or expansion of existing projects. Projects will not be approved unless disposal sites with adequate capacity to meet initial excavation dredging and at least five years of expected maintenance dredging requirements are available." The Coalition 404

[126] *See* Exhibit 70, Letter from Columbia Riverkeeper *et al.* to Corps at Section 7.4.1.
[127] *Id.* at Section 7.4.2.

Comments and EPA comments to the Corps support a finding that Oregon LNG has not demonstrated compliance with WDC 16.160.040(G).[128]

6.8.3 WDC 16.160.120 – Mitigation and Restoration.

The Bierly Expert Report, Exhibit 2, demonstrates that Oregon LNG's proposed mitigation is inadequate to offset the significant harm caused by the project. EPA concurs, stating: "EPA is concerned that while this [mitigation] project will add some ecological benefits to the overall system, it doesn't result in net gain in wetland habitat in the estuary."[129] In addition, Oregon LNG's proposed off-site mitigation is uncertain, as the applicant has not received any of the necessary permits from state or federal agencies for dike breaching. Oregon LNG therefore fails to demonstrate compliance with the mitigation and restoration requirements imposed under WDC 16.160.120.

6.9 WDC 16.164 – Impact Assessment and Resource Capability Determination.

Oregon LNG's Estuary Impact Assessment for the Terminal and Pipeline are inadequate. Oregon LNG's Terminal Estuary Impact Assessment concludes:

> Construction and operation of the Terminal have the potential to result in impacts to the regulated estuary shoreland. However, Oregon LNG has consulted with state and federal resource agencies to select the best design for the various components of the Terminal, to identify the optimum construction methods.

The record does not support Oregon LNG's conclusion. Meeting with state and federal agencies does not equate to project design approval. Moreover, no agency has issued a final permit or concluded that Oregon LNG's project satisfies the requirements of state and federal law.

In fact, federal and state agencies continue to express substantial concerns about the Terminal and Pipeline.[130] To date, FERC has not produced an FEIS and the Services have not produced a Biological Opinion or Incidental Take Statement. In addition, EPA, the National Park Service, ODFW, and other state and federal agencies continue to express substantial concerns about the project's design.[131] For example, in comments to the Corps, EPA wrote:

> EPA has several concerns about the proposed project as we believe it doesn't currently comply with the Clean Water Act Section 404(b)(1) Guidelines [*i.e.*,

[128] Exhibit 64, Letter from EPA to Corps (Jan. 16, 2015).
[129] *Id.* at 4.
[130] *See* Exhibits 63-65, 69, 71.
[131] *Id.*

> the mandatory legal requirements that govern issuance or denial Clean Water Act Section 404 permits]. Additional information is needed in the analysis of potential indirect impacts from the proposal, the proposed use of the Mouth of Columbia River (MCR) Deep Water and Shallow Water Sites for dredged material disposal, and the design of the Youngs River Mitigation Site, in order to demonstrate compliance with the Guidelines. In light of these conclusions, EPA recommends that the issues raised above be resolved prior to development of the Draft Environmental Impact Statement, or through continued coordination in this 404 permitting process.[132]

EPA's comments also 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 further degradation of environmental conditions within the lower Columbia River estuary while eliminating or changing very valuable in-channel and near shore habitat conditions.[133]

As noted above, EPA also expressed substantial concerns about the adequacy of Oregon LNG's proposed mitigation to off-set the project's harm.[134]

For the reasons explained below and in the Coalition's expert reports, the Coalition urges the Hearings Officer to reach a finding under WDC 16.164.040(C), which states:

> The proposed uses and activities will result in unacceptable losses. The proposed development represents irreversible changes and action and unacceptable degradation or reduction of estuarine properties will result.

Alternatively, the Hearings Officer should reach a finding under WDC 16.164.040(D), which provides

> Available information is insufficient for predicting and evaluating potential impacts. More information is needed before the project can be approved.

A finding under either WDC 16.164.040(C) or (D) warrant denial of Oregon LNG's application.

//

//

[132] Exhibit 64 at 1, Letter from EPA to Corps (Jan. 16, 2015).
[133] *Id.* at 2.
[134] *Id.* at 4.

6.9.1 Oregon LNG failed to produce adequate information required for the Impact Assessment.

Oregon LNG's Impact Assessment lacks critical information required to evaluate the project's impacts on the estuary. WDC 16.164.030(A)–(I), (K). A lack of draft or final federal and state permits contributes significantly to the lack of reliable third-party review. As noted above, to the extent federal and state agencies have weighed in on Oregon LNG's project, agency comments demonstrate that Oregon LNG's assessment of the project's impacts is incomplete, inadequate, and, in some cases, not supported by the best available science. In addition, the Coalition's expert testimony contradicts the conclusions and information presented in Oregon LNG's Impact Assessment. In the following section, the Coalition highlights examples of Oregon LNG's failure to present complete, accurate information on the project's impact to the estuary.

6.9.1.1 WDC 16.164.030(A).

WDC 16.164.030(A) requires information on "[a]quatic life forms and habitat, including information on both the extent of and impacts on habitat type and use, species present (including threatened or endangered species), seasonal abundance, sediments, and vegetation." Expert testimony prepared by Dr. Williams and Mr. Bierly, Exhibits 1 and 2, detail information lacking in Oregon LNG's analysis of the estuary. In addition, Sections 7.4.1 and 7.4.2 of the Coalition 404 Comments demonstrate that Oregon LNG's Impact Assessment contains an incomplete analysis of aquatic life forms and habitat in the project area.

6.9.1.2 WDC 16.164.030(B).

WDC 16.164.030(B) requires information on "[s]horeland life forms and habitat, including information on both the extent of and impacts on habitat type and use, species present, (including threatened or endangered species), seasonal abundance, soil types and characteristics, and vegetation present." Expert testimony prepared by Dr. Williams and Mr. Bierly, Exhibits 1 and 2, detail information lacking in Oregon LNG's analysis of the estuary. In addition, Sections 7.4 through 7.8 of the Coalition 404 Comments demonstrate that Oregon LNG's Impact Assessment contains an incomplete analysis of shoreland life forms and habitat.

6.9.1.3 WDC 16.164.030(C).

WDC 16.164.030(C) requires information on "[w]ater quality, including information on sedimentation and turbidity, dissolved oxygen, biochemical oxygen demand, contaminated sediments, salinity, water temperatures, and expected changes due to the proposed use or activity." To date, DEQ has not issued any draft or final National Pollution Discharge Elimination System (NPDES) permits for the project. Columbia Riverkeeper's preliminary

comments on the Oregon LNG's application, Exhibit 28, highlight missing and incomplete information in Oregon LNG's assessment. Expert testimony (Exhibits 1, 2, and 3) and Section 7.4.1 of the Coalition 404 Comments also detail the inadequacy of Oregon LNG's Impact Assessment.

6.9.1.4 WDC 16.164.030(D).

WDC 16.164.030(D) requires information on "[h]ydraulic characteristics, including information on water circulation, shoaling patterns, potential for erosion or accretion in adjacent areas, changes in flood levels, flushing capacity, and water flow rates." Section 7.4.1 of the Coalition 404 Comments describe why Oregon LNG's Impact Assessment lacks complete information on water circulation, shoaling patterns, and potential for erosion or accretion in adjacent areas.

For example, Oregon LNG proposes dredging adjacent to the Federal Columbia River Navigation Channel. The applicant-generated Turning Basin Hydrodynamic Modeling Report concludes that the project will not result in increased sedimentation in the navigation channel. Oregon LNG relies on a two-dimensional model. As noted the Coalition 404 Comments explain, in the context of the Bradwood LNG project Clean Water Act Section 401 water quality certification, DEQ raised significant concerns about the use of a two-dimensional model for predicting sedimentation in the dynamic estuary system. Oregon LNG proposes dredging in an area that is relatively more dynamic than the upstream Clifton Channel, the proposed location of the Bradwood LNG terminal. The Hearings Officer cannot rely on Oregon LNG's conclusions about the project's impact on the Federal Navigation Channel without more in-depth analysis.

6.9.1.5 WDC 16.164.030(E).

WDC 16.164.030(E) requires information on "[a]ir quality, including information on quantities of particulates and expected airborne pollutants." DEQ has not issued any draft or final air quality permits for the Oregon LNG project. Absent DEQ's analysis, it is unclear if Oregon LNG has provided complete and accurate information on the quantities of particulates and expected airborne pollutants.

6.9.1.6 WDC 16.164.030(F).

WDC 16.164.030(F) requires information on "[p]ublic access to the estuary and shoreline, including information on proximity to publicly-owned shorelands and public street ends; effect on public boat launches, marinas and docks; and impact on inventoried public access opportunities." For the reasons described in Sections 7.2.5.2 and 7.2.5.3, Oregon LNG's Impact Assessment lacks complete and accurate information on public access.

ODFW's comments to the Corps also highlight Oregon LNG's failure to disclose the project's effect on public boat launches, marinas and docks.[135] For example, ODFW's comments state:

- "the application does not do a sufficient job of characterizing the local important of the commercial and recreational fisheries or how they will be affected during construction and operation of the OLNG terminal, berthing dock and other facilities."[136]

- "the application does not adequately characterize the potential for substantial disruption of this [the Buoy 10 Fishery] socially and economically important fishery during construction and operation of the marine terminal complex."[137]

- "the application does not explain how recreation recreational crabbing in this area [*i.e.,* the Oregon LNG project area] will be affected."[138]

ODFW concludes by recommending that Oregon LNG complete a more thorough analysis of the potential impacts of the project on commercial and recreational boat-based activities in the lower Columbia River. To date, Oregon LNG has not produced this analysis.

6.9.1.7 WDC 16.164.030(G).

WDC 16.164.030(G) requires information on "[n]avigation, including information on distance from navigation channels, turning basins and anchorages; proximity to range markers." As noted above, Oregon LNG's Impact Assessment lacks complete and accurate information on impacts to navigation, particularly for recreational and commercial boating. For example, Oregon LNG's application contains no information about the impact of the permanent, fixed security zone around the Terminal. The Impact Assessment fails to acknowledge, let alone address, the impact of the fixed security on vessels transiting in and out the Skipanon, vessels fishing in the Skipanon River, and vessels fishing or traveling through Youngs Bay.

6.9.1.8 WDC 16.164.030(H).

WDC 16.164.030(H) requires a "[d]emonstration that proposed structures or devices are properly engineered." For the reasons explain in Section 6.4, Oregon LNG fails to demonstrate that the proposed structures are properly engineering to withstand a tsunami and earthquake.

---

[135] Exhibit 63, Letter from ODFW to Corps at 17-18 (Jan. 16, 2015).
[136] *Id.* at 17.
[137] *Id.*
[138] *Id.* at 18.

6.9.1.9 WDC 16.164.030(I).

WDC 16.164.030(I) requires "[d]emonstration that the project's potential public benefits will equal or exceed expected adverse impacts." Sections 7.1 and 7.3 through 7.17 of the Coalition 404 Comments, Exhibit 70, detail the project's adverse impacts, and undermine Oregon LNG's claims about the project's public benefits. The Coalition incorporates by reference the Exhibit 70.

6.9.1.10 WDC 16.164.030(K).

WDC 16.164.030(B) requires a "[d]etermination of methods for mitigation and accommodation of the proposed development, based on subsections A through J of this section in order to avoid or minimize preventable adverse impacts." For the reasons set forth in the Bierly Expert Report, Exhibit 2, and described in federal and state agency comments to the Corps, Oregon LNG has not demonstrated that the methods for mitigation are feasible or that the methods will avoid or minimize preventable adverse impacts.

6.9.2 WDC 16.164.050 – Resource Capability Determination.

WDC 16.164.050 requires a "determination of whether the use or activity is consistent with the resource capabilities of the affected zone." WDC 16.164.050(C). For the reasons described above, in the Williams and Bierly expert reports (Exhibits 1 and 2), and state and federal agency comments, Oregon LNG has not demonstrated that the project is consistent with the resource capability of the affected zone. For example, in comments to the Corps, EPA concludes that "the project as proposed does not comply with 40 CFR Parts 203.10(C)–the project may cause or contribute to significant adverse impacts to the aquatic environment, or 230.10(d)–adequate mitigation in terms of avoidance, minimization and then providing adequate compensatory mitigation."[139] EPA's expert conclusion supports a finding under WDC 16.164.050 that the use or activity is not consistent with the resource capability of the affected zone.

6.10 WDC 16.192.030 – Soil Suitability.

Oregon LNG fails to satisfy the requirements in WDC 16.192.030(D)(2). Under WDC 16.192.030(D)(2), a proposed use will only be approved if the applicant can provide a report setting forth a method of eliminating soil-related hazards. For the reasons described in Section 6.5, *supra*, Oregon LNG fails to provide the required evidence showing elimination of soil-related hazards.

[139] Exhibit 64, Letter from EPA to Corps at 5 (Jan. 16, 2015).

6.11 WDC 16.192.050 – Utilities.

Oregon LNG's application fails to demonstrate that sufficient utility capacity exists to support the project. Under WDC 16.192.050(A), the development "will only be allowed" if Oregon LNG demonstrates "sufficient capacity exists or suitable evidence indicates it will exist prior to completion of the development construction." First, Oregon LNG has not made the requisite showing that the City of Warrenton POTW is capable of handling and treating wastewater from the Terminal.[140] Second, Oregon fails to demonstrate that the City can and will provide water required to operate the Terminal. For instance, in recent comments to FERC the National Park Service wrote:

> The Applicant states that the project would use 'surplus water from the City [of Warrenton], meaning the City would not need to obtain additional water rights." However, as stated in their response, this definition of surplus is based on the current diversion infrastructure of the City of Warrenton. The current infrastructure does not fully maximize the city's water rights to the Lewis and Clark River (Bischoff et al, 2000). If the City of Warrenton expands their infrastructure within their water rights during the life of the proposed project, it would be able to provide more water to the project beyond what is currently withdrawn.
>
> Analysis from 2000 has shown that a full exercise of the City of Warrenton's rights could lead to the river running dry. Specifically, it would generate a dewatering potential of 14.8% annually with a peak of 24.8% in August at the mouth of the Lewis and Clark River; and, 106.4% annually with a peak of 181.9% in August at the Lewis and Clark River above Heckard Creek (Bischoff et al, 2000). ODFW found that this dewatering potential would affect the abundance, productivity, diversity, and spatial structure of the Lower Columbia River Coho ESU in the Youngs Bay Watershed because of its impacts on all life stages of the population (ODFW 2005).[141]

The National Park Service comments raise significant questions about whether the City's unused water right is available given impacts to ESA-listed species. The Hearings Officer should deny Oregon LNG's application under WDC 16.192.050(A) because the applicant has not made the requisite showing of sufficient water and wastewater capacity at this time or by construction completion.

---

[140] Exhibit 69, Letter from National Park Service to FERC (July 9, 2015); *see also* Exhibit 79, Bischoff, J.M. et *al.*, Youngs Bay Watershed Assessment, Final Report (2000).
[141] *Id.*

6.12 The Hearings Officer should deny Oregon LNG's request for a Conditional Use Permit to fill wetlands in the I-2 zone (WDC 16.220.020; WDC 16.220.030).

Oregon LNG fails to meet conditional use permit criteria under WDC 16.220.020(A) and, therefore, the Hearings Officer should deny Oregon LNG's requested permit for temporary wetland impacts in the I-2 zone. Oregon LNG seeks a conditional use permit for 2.6 acres of temporary wetland impacts in the I-2 zone.[142] WDC 16.220.020(A) states:

> A new, enlarged or otherwise altered development listed in this Code as a conditional use shall be approved or denied by the Planning Commission under the procedure in this chapter. The Planning Commission shall base its decision on whether the use complies with:
>
> 1. Applicable policies of the Comprehensive Plan.
>
> 2. Applicable Columbia River Estuary Aquatic and Shoreland Development Standards, Chapter 16.160.
>
> 3. For certain uses in Columbia River Estuary aquatic areas, whether the use or activity meets the resource capability and purpose of the zone in which it is proposed when such a determination is required in accordance with Chapter 16.164.
>
> 4. For certain activities in Columbia River Estuary aquatic areas, the findings of an impact assessment where required by Chapter 16.164.
>
> 5. Development standards of the applicable zone.
>
> 6. Basic conditional use standards of this section.
>
> 7. Appropriate conditional use standards of this section.

For the reasons stated in Sections 6.8 and 7.0, Oregon LNG fails to demonstrate that the use complies with the applicable policies of the Comprehensive Plan and the applicable Columbia River Estuary Aquatic and Shoreland Development Standards, Chapter 16.160.

In addition, Oregon LNG has not carried its burden to demonstrate compliance with the Conditional Use Permit Review Criteria in WDC 16.220.030. To obtain a conditional use permit, the applicant must demonstrate compliance with WDC 16.220.030(A), which states:

[142] Terminal Application at 5-162.

> Before a conditional use is approved findings will be made that the use will comply with the following standards:
>
> 1. The proposed use is in conformance with the Comprehensive Plan.
>
> 2. The location, size, design and operating characteristics of the proposed use are such that the development will be compatible with, and have a minimal impact on, surrounding properties.
>
> 3. The use will not generate excessive traffic, when compared to traffic generated by uses permitted outright, and adjacent streets have the capacity to accommodate the traffic generated.
>
> 4. Public facilities and services are adequate to accommodate the proposed use.
>
> 5. The site's physical characteristics, in terms of topography, soils and other pertinent considerations, are appropriate for the use.
>
> 6. The site has an adequate area to accommodate the proposed use. The site layout has been designed to provide for appropriate access points, on-site drives, public areas, loading areas, storage facilities, setbacks and buffers, utilities or other facilities which are required by City ordinances or desired by the applicant.

Here, Oregon LNG fails to demonstrate: (1) the proposed use is in conformance with the Comprehensive Plan, *see infra* at Section 7.0; (2) the location, size, design and operating characteristics of the proposed use are such that the development will be compatible with, and have a minimal impact on, surrounding properties; (3) public facilities and services are adequate to accommodate the proposed use; and (4) the site's physical characteristics, in terms of topography, soils and other pertinent considerations, are not appropriate for the use.

Oregon LNG fails to meet the requirements of WDC 16.220.030(A)(4) because the City lacks public facilities and services that are adequate to accommodate the proposed use. To date, Oregon LNG has not produced a final Emergency Response Plan or identified contractual commitments to supply with the City with necessary public facilities and service to address an emergency at the Terminal or along the pipeline route within the City. In public comments to FERC in 2012, the City of Warrenton stated:

> Public safety is of paramount importance. While the city fire department has a strong volunteer contingent, it has only three full time employees. The police department has only nine officers and a small contingent of reserve officers to provide 24/7 coverage for approximately 17 square miles of land area and several critical governmental facilities, including Fort Stevens (Oregon's largest state park[)], the Warrenton-Astoria Regional Airport, Camp Rilea Armed Forces

> Training Center, a 100-bed juvenile corrections facility, and two boat mooring basins. The city has limited funding resources available for public safety services. Equipment purchases depend primarily on grants and loans. We believe it imperative that the EIS include an analysis of the potential effects of the proposed LNG export facility on the city's capability to respond to emergency events on the scale that could occur at the LNG plant. A complete OLNG emergency response plan must be included.[143]

Oregon LNG's draft Emergency Response Plan remains inadequate and fails to address the pipeline. Section 7.13 of the Coalition 404 Comments, Exhibit 70, describe the significant public safety risks associated with siting an LNG terminal in the City of Warrenton. Those comments are incorporated by reference. Based on this evidence, the Hearings Officer should deny Oregon LNG's application because Oregon LNG fails to demonstrate that "[p]ublic facilities and services are adequate to accommodate the proposed use." WDC 16.220.030(A)(4).

Under WDC 16.220.030(A)(5), Oregon LNG must demonstrate that the East Skipanon Peninsula's "physical characteristics, in terms of topography, soils, and other pertinent considerations, are appropriate for the use." Oregon LNG's technical documents fall far short of satisfying WDC 16.220.030(A)(5). In fact, FERC has raised serious questions about the suitability of the East Skipanon Peninsula for an LNG terminal. For example, in its August 1, 2013, letter to Oregon LNG, FERC raised significant questions about the efficacy of Oregon LNG's proposed system of berms. FERC's letter to Oregon LNG states:

> General Comment – The project foundations are designed for liquefaction settlements of up to 28 inches extending to depths of 169 feet (elevation -148 feet) and downdrag from this settlement. *The design provides unprecedented pile lengths of up to 280 feet for the tanks and 200 to 220 feet for other equipment.* While the design is apparently conservative considering liquefaction to unprecedented depths of 169 feet, the berms protecting the tanks are sitting on the same materials and are subject to 1-foot lateral and up to 3-feet vertical displacement *and have a high likelihood of failure when subjected to the design Tsunami event . . . The designer needs to clearly demonstrate that the LNG tanks and the process areas would not be flooded due to the Design Tsunami. The present report falls significantly short of this important consideration*.[144]

[143] Exhibit 14, Letter from City of Warrenton to FERC (Dec. 21, 2012).
[144] Exhibit 33 at 17, Letter from FERC to Oregon LNG (Environmental Data Request) (Aug. 1, 2013) (emphasis added).

Oregon LNG has not resolved FERC's significant critique of the Termianl design. For the reasons discussed above and in Section 6.5, the Hearings Officer should deny the conditional use permit under WDC 16.220.030(A)(5).

6.13 WDC 16.256 – Traffic Impact Study.

Oregon LNG's Pipeline application fails to consider the impacts of pipeline construction traffic on local roadways. Oregon LNG's February 2015 Traffic Impact Study states:

> Impacts associated with the construction or operation of the Pipeline are not addressed for the following reason:
>
> - Vehicles associated with construction of the approximate 3-mile segment of the Pipeline proposed in Warrenton will have a limited and short-term effect on existing traffic conditions.
>
> - At completion, the Pipeline will operate without personnel. Occasional maintenance may be required, but these trips will be sporadic and will likely occur at various locations on the Pipeline; therefore, no personnel or truck trips are included in the analysis for the operation of the Pipeline.
>
> - Pipeline operations will not impact the long-term capacity and service levels on existing roads and intersections.[145]

FERC's DEIS undermines Oregon LNG's conclusions on traffic impacts from the Pipeline.

Specifically, the FERC DEIS shows that the Oregon LNG project will significantly impact area roadways during construction of the pipeline. In Warrenton, Terminal and Pipeline construction would overlap and exacerbate traffic impacts from other area transportation projects, and seasonal traffic. The Traffic Impact Study's failure to assess the addition of pipeline construction traffic is a glaring oversight. In contrast to Oregon LNG's characterization of impacts as "limited," the DEIS states:

> The first spread would include the pipeline from its beginning at MP 0.0 to MP 33.0. *The contractor and pipe storage yard for this spread would be at Tongue Point in Astoria.* From the contractor and pipe storage yard, trucks carrying construction loads would most likely travel west along U.S. Highway 30 (also known as Marine Drive) from Tongue Point to either State Highway 202

[145] Oregon LNG 2015 Traffic Impact Study at 1-1.

> southbound or continue across the Youngs Bay Bridge on Highway 101. From Highway 101 southbound, trucks would continue south along the Oregon coast and then east on U.S. Highway 26 towards pipeline access roads. From Highway 202, trucks would use multiple county or local access construction roads to reach the pipeline alignment. About 486 heavy truck and 812 personnel vehicle/light duty truck trips per day would be needed to construct this segment.[146]

FERC describes the impact of the pipeline construction, which is particularly significant during the staging process for pipeline construction, stating:

> Construction of the pipeline would affect transportation and traffic in the project area by increasing the number of vehicle trips per day on area roads as a result of commuting and construction vehicle traffic as well as temporary closures of some minor roads. During the initial staging, temporary impacts on local transportation systems may result from the transport of construction equipment and materials to the respective staging areas. Temporary impacts on public roadways would include increased congestion or longer travel times near or through areas where the proposed pipeline would be constructed. After construction begins, daily movement of equipment and materials within the project area would create minor impacts on the flow of traffic.[147]

Oregon LNG's proposal will have an acute impact on the City of Astoria, the City of Warrenton, and major local transportation routes such as the Youngs Bay Bridge and Highway 101. Oregon LNG proposes locating the staging area for the first 33 miles of the pipeline in Astoria, and trucks carrying supplies for all 33 miles of this pipeline segment will impact the Astoria and Warrenton area. Hence, the impact of pipeline construction is not limited to the three miles of pipeline within the City of Warrenton, as Oregon LNG asserts in its Traffic Impact Study. Regardless, the 486 heavy trucks (all of which may originate from the staging area and pass through Warrenton) and the 812 personnel/light duty vehicles do not constitute a "limited" impact.

Traffic from Pipeline spread 1 construction would dramatically exceed the impact of Terminal construction. Oregon LNG's staging area for Pipeline spread one construction is in Astoria, and many trucks would pass through Astoria and Warrenton on their way to building the first 33 miles of the pipeline. According to the DEIS, the Pipeline will generate 1298 heavy and light vehicle trips. Terminal construction, according to Oregon LNG's Traffic Impact Study, Table 6 (below), will only generate 287.

---

[146] Oregon LNG DEIS at 4-307 (emphasis added).
[147] *Id.* at 4-308.

TABLE 6
Trips Generated by Bidirectional Terminal During Construction
Traffic Impact Study, Oregon LNG Bidirectional Terminal, Warrenton, Oregon

	Vehicles Per Day	Vehicles Per Peak Hour	Trips Per Peak Hour		
			Trips To Site	Trips From Site	Total Trips
Large/Heavy Vehicles (Materials/Equipment Trucks)	177	23	23	23	46
Large/Heavy Vehicles (Workforce Shuttle Buses)	27	27	27	27	54
Cars/Small Vehicles (Workforce Vanpools)	83	83	21	62	83
Terminal Total	**287**	**133**	**71**	**112**	**183**

[a] Trucks or personnel required during a peak month of construction.
[b] Estimates include construction vehicles for Terminal facilities only.

Oregon LNG February 2015 Traffic Impact Study, 3-2. Therefore, Pipeline construction traffic represents a 4,500% addition in overall traffic volume in the Astoria/Warrenton area, compared to the construction traffic alone. Heavy truck traffic is a particular concern for some residents because it generates additional noise, delays, and diesel fumes. According to the DEIS, pipeline construction would generate 486 heavy truck trips daily while the terminal would generate only 204 per day. Based on data available in FERC's DEIS, it is unreasonable for the City of Warrenton to ignore the impacts of Pipeline construction on local traffic.

Because the duration and extent of impacts of the Oregon LNG pipeline would be significant, and because Oregon LNG has omitted these impacts from its Traffic Impact Study, the Hearings Officer cannot reasonably conclude that the project will meet local transportation safety standards. According to the DEIS, "Construction of the pipeline and associated aboveground facilities would take about 18 months." In fact, by more than tripling the amount of heavy truck and other traffic, the construction of the Pipeline will likely disrupt local transportation in the Warrenton area and cause local roadways to perform below acceptable standards.

//

//

7.0 OREGON LNG'S PROJECT IS INCONSISTENT WITH THE WARRENTON COMPREHENSIVE PLAN.

The proposed LNG Terminal and Pipeline are inconsistent with multiple provisions of the WCP. For the reasons detailed below, the Hearings Officer should deny Oregon LNG's application.

7.1 The WCP applies to Oregon LNG's project.

The Hearings Officer must evaluate whether the project is consistent with the WCP. Provisions of the WCP are rendered applicable to Oregon LNG's proposal pursuant to the relevant zoning code provisions. For example, WDC 16.72.040(C), development standards for the A-1 zone, states, "All applicable policies in the City's Comprehensive Plan and Goal Exceptions shall be met." Oregon LNG argues that "the northern tip of the ESP was specifically redesignated ESWD Shorelands and rezoned I-2 in 2005 . . . for the purpose of constructing an LNG terminal" and "the City has already determined that an LNG terminal at this location is consistent with the applicable Comprehensive Plan goals and policies as part of this 2005 decision." The Hearings Officer should reject this argument. First, the City's 2005 findings did not approve the bidirectional terminal application pending before the City. Second, WCP 5.347(6) states expressly: "The Development Aquatic designations along both sides of the Skipanon are provided to accommodate future water-dependent uses. However, the designations do not create the presumption that dredging, filling or other alterations will be permitted automatically." The WCP applies to Oregon LNG's application and, for the reasons described below, Oregon LNG fails to demonstrate consistency with the WCP.

7.2 Article 4 – Natural Features.

7.2.1 WCP 4.310 – Soils.

WCP 4.310(1) states: "Hazards resulting from poor soils shall be minimized by using sound soils data and engineering principles to determine public and private development techniques and by requiring those developing property, when appropriate, to assume responsibility for some hazard-related costs." Section 6.5, *supra*, describes the poor soil conditions on the East Skipanon Peninsula and demonstrates that Oregon LNG fails to minimize hazards. For the reasons describe in Section 6.5, the project is inconsistent with WCP 4.310.

7.2.2 WCP 4.320 – Flood Hazards.

Oregon LNG failed to apply for a Flood Hazards Permit as part of the consolidated land use application. The City cannot approve Oregon LNG's project until the company demonstrates compliance with the Flood Hazard Permit requirements. Specifically, WCP

4.320(2), "Flood Hazards," states in part: "A flood hazard permit will be required for all types of development, including dredging and filling, in areas of special flood hazards identified by Federal Emergency Management Agency's (FEMA) Federal Insurance Rate Maps (FIRM)." Oregon LNG claims that it will demonstrate compliance with WCP 4.320 in a forthcoming Floodplain Development Permit. The Hearings Officer cannot rely on the future submittal of a permit application to conclude that Oregon LNG's application complies with WCP 4.320(2).

7.2.3 WCP 4.360 – Air Quality and Noise.

Oregon LNG fails to demonstrate that the Terminal and Pipeline applications are consistent with WCP 4.360(1) and (2), which aim to preserve air quality and minimize noise through compliance with applicable state and federal regulations. *See* Section 6.2.4.

7.3 Article 5 – Columbia River Estuary and Shorelands.

7.3.1 WCP 5.305 – Dredging and Dredged Material Disposal.

Oregon LNG's proposed dredging is inconsistent with WCP 5.305. WCP 5.305(1) impose nearly identical requirements as WDC 16.160.020(B). For the same reasons Oregon LNG fails to demonstrate compliance with WDC 16.160.020(B), the company fails to demonstrate compliance with WCP 5.305. *See* Section 6.8.1.

7.3.2 WCP 5.307 – Estuarine Construction.

Oregon LNG proposed over- and in-water structures are inconsistent with WCP 5.307(4). For the same reasons Oregon LNG fails to demonstrate compliance with WDC 16.160.020(B) and (C), the company fails to demonstrate compliance with WCP 5.307(4). *See* Section 6.8.1.

7.3.3 WCP 5.309 – Fill.

Oregon LNG fails to demonstrate consistency with WCP 5.309(5). For the same reasons Oregon LNG fails to demonstrate compliance with WDC 16.160.020(B) and (C), the company fails to demonstrate compliance with WCP 5.309(5). *See* Section 6.8.1. The project will unreasonably interfere with public trust rights and Oregon LNG fails to demonstrate a substantial public benefit from the project.

7.3.4 WCP 5.311 – Fish and Wildlife Habitat.

WCP 5.311(1) provides, "Endangered or threatened species habitat *shall be protected* from incompatible development." (emphasis added). Oregon LNG proposes dredging and dock building within ESA-designated critical habitat. For the reasons described in the

Williams expert report, Exhibit 1, and Coaltion 404 Comments, Exhibit 70, Oregon LNG fails to demonstrate consistency with WCP 5.311(1).

7.3.5 WCP 5.323 – Public Access.

7.3.5.1 WCP 5.323(1).

WCP 5.323 policies "are applicable to uses and activities in the Columbia River Estuary shoreland and aquatic areas which directly or indirectly affect public areas."[148] WCP 5.323 provides that "existing public ownerships, right-of-ways, and similar public easements in estuary shorelands which provide access to or along the estuary shall be retained or replaced if sold, exchanged or transferred. Right-of-ways may be vacated to permit redevelopment of shoreland areas provided public access across the affected site is retained." This language directly mirrors that of Oregon Statewide Planning Goal 17 IR 6. *See also* WCP 7.330(7) (stating "Existing public ownerships, right-of-ways, and similar public easements which provide access to estuarine or coastal beach areas shall be retained or replaced if sold, exchange or transferred. Right-of-ways may be vacated to permit redevelopment of shoreland areas provided public access across the affected site is retained.").

Pursuant to WDC 12.32.040, "Right-of-way" "means and includes, but is not limited to, the space in, upon, above, along, across, over or under the public streets, roads, highways, lanes, courts, ways, alleys, boulevards, bridges, trails, paths, sidewalks, bicycle lanes, public utility easements and all other public ways or areas, including the subsurface under and air space over these areas, but does not include parks, parkland, or other City property not generally open to the public for travel."

The Clatsop County assessors' maps identify a public right-of-way running as an extension of King Avenue to the estuary through Tax Lot 380. Clatsop County dedicated this right-of-way in 1967. The property is also the site of several trails, including the Skipanon Peninsula trail that is part of the City of Warrenton's trail system and included in the City's Trails Master Plan. The Plan describes the trail as including "a spur running along King Street to Harbor Drive."[149] These trails and rights-of-way provide access to and along the estuary.

The proposed Terminal will not retain public access across the site. As explained in the application, "Construction and operation of the Terminal will include a 6-foot-high security fence; for security reasons, the public will not be allowed within this fence. This will close off general access to the Terminal site on the northern portion of the peninsula and the segments of

[148] WDC 16.160.130, standards for public access to the estuary and its shoreline, incorporates Warrenton's Public Access Plan contained in WCP 5.323.
[149] City of Warrenton Trail Master Plan at 16.

the associated Skipanon Peninsula trail network located in this area." Further, the safety/security zones will exclude the public from the property and surrounding area.

Oregon LNG provided additional information regarding the public access issue, including letters from DSL asserting that the County's dedication of the right-of-way in 1967 was invalid. However, DSL's opinion does not establish that there is no existing public right-of-way on the property.[150] Further, the applicant's materials do not indicate that the right-of-way has ever been vacated. Clatsop County dedicated the right-of-way in 1967 and the right-of-way has never been formally challenged or vacated.

ORS 271.080 to .230 provide the procedures for vacation of public rights-of-way within city limits. Neither the State nor Oregon LNG has initiated the process required to vacate the right-of-way. The right-of-way has not been vacated and therefore remains as an existing right-of-way on the property. Therefore, the City must retain this existing right-of-way that provides access to and along the estuary.

Pursuant to WCP 5.323(1), the right-of-way may only be vacated to allow redevelopment "provided public access across the affected site is retained." Because public access will not be retained at the site, the development proposal does not comply with WCP 5.323(1), and the Hearings Officer must deny the application.

Even assuming that DSL is correct and its ownership of formerly submerged lands were to somehow cause automatic vacation of the public right-of-way, the property remains in public ownership and providing access to and along the estuary. Thus, even in the absence of the formally-dedicated right-of-way, the property contains "existing public ownerships…which provide access to or along the estuary" and which therefore must be retained pursuant to Goal 17 and WCP 5.323.

7.3.5.2 WCP 5.323(3).

Oregon LNG fails to demonstrate consistency with WCP 5.323(3), which provides: "Proposed major shoreline developments shall not, individually or cumulatively, exclude the public from shoreline access to areas traditionally used for fishing, hunting or other shoreline activities." Safety/security zones imposed by the Coast Guard for Oregon LNG's Terminal, dock, and vessel traffic will exclude the public from shoreline access to areas traditionally used for fishing, hunting, and other shoreline activities, such as boating and wading.[151] In turn, the

[150] The DSL letter also asserts that the Corps dredge spoil disposal easement on the property is invalid, an argument that was dismissed by the Oregon District Court. *See LNG Development Company v. U.S. Army Corps of Engineers,* 14-cv-01239-AC (D. Or. July 28, 2015).
[151] FERC's DEIS for the Oregon LNG project discusses the Coast Guard's role in LNG facility siting. *See* Oregon LNG DEIS at 4-424–4-429. FERC will ultimately include the security

Hearings Officer must deny the application under WCP 5.323(3).

Oregon LNG's application entirely fails to acknowledge, let alone address, the impact of the permanet security zone around the Terminal. As noted above, the Coast Guard requires a 50-yard, permanent safety/security zone extending from the Terminal shoreline into the Skipanon River and Youngs Bay. Coast Guard regulations detail the impact of a security zone. 33 CFR § 165.30 states:

> (a) A security zone is an area of land, water, or land and water which is so designated by the Capatain of the Port or District Commander for such time as is necessary to prevent damage or injury to any vessel or waterfront facility, to safeguard ports, harbors, territories, or waters of the United States or to secure the observance of the rights and obligations of the United States.
>
> (b) The purpose of a security zone is to safeguard from destruction, loss, or injury from sabotage or other subversive acts, accidents, or other causes of a similar nature:(1) Vessels, (2) Harbors,(3) Ports, and(4) Waterfront facilities in the United States and all territory and water, continental or insular, that is subject to the jurisdiction of the United States.

33 CFR § 165.33, "General regulations," also describes the implications of a security zone, stating:

> Unless otherwise provided in the special regulations in Subpart F of this part:(a) No person or vessel may enter or remain in a security zone without the permission of the Captain of the Port;(b) Each person and vessel in a security zone shall obey any direction or order of the Captain of the Port;(c) The Captain of the Port may take possession and control of any vessel in the security zone;(d) The Captain of the Port may remove any person, vessel, article, or thing from a security zone;(e) No person may board, or take or place any article or thing on board, any vessel in a security zone without the permission of the Captain of the Port; and (f) No person may take or place any article or thing upon any waterfront facility in a security zone without the permission of the Captain of the Port.

Public access to the 50-yard aquatic area, extending from the Terminal upland to the Skipanon River and Youngs Bay, requires contacting and obtaining approval from the Coast Guard Captain of the Port.[152] It is unclear if and under what circumstances the Coast Guard would grant approval. In short, the Terminal is inconsistent with WCP 5.323(3) because the

---

measures described in the Letter of Recommendation (LOR) and LOR Analysis when it issues a license for Oregon LNG's project. For a detailed discussion of the Coast Guard's role in LNG siting and LNG vessel regulation, *see Columbia Riverkeeper et al. v. U.S. Coast Guard*, 761 F.3d 1084 (9th Cir. 2014).

[152] Oregon LNG DEIS at 4-426.

safety/security zone has the specific effect of "exclud[ing] the public from shoreline access to areas traditionally used for fishing, hunting or other shoreline activities."

In attempting to demonstrate compliance with WCP 5.323(3), Oregon LNG's application ignores entirely the Terminal's safety/security zone. Instead, Oregon LNG focuses on the effect of the dock, turning basin, and the associated aquatic land, that Oregon LNG proposes leasing from DSL pursuant to a submerged and submersible land lease.[153] Oregon LNG argues that "[p]ublic access to the shoreline will remain available through the submerged and submersible land use to the Line of Ordinary High Water, as allowed by the Oregon Public Trust Doctrine." Oregon LNG's argument is not supported by evidence in the record.

Specifically, the Hearings Officer should reject Oregon LNG's argument for the following reasons:

1. The area covered by the Coast Guard's safety/security zone is significantly greater than the area covered by the aquatic land lease, and evidence demonstrates that the security zone will restrict public access.[154]

2. Oregon LNG ignores the moving safety/security zones around LNG vessels (500-yards) as well as the fixed safety/security zone (200-yards) when LNG vessels are moored at the dock. The vessel-based security zones are also inconsistent with WCP 5.323(3).

3. The LNG berth, standing alone, excludes public access to an area traditionally used for fishing, hunting, and boating.

4. The size and duration of dredging excludes public access to areas traditionally used for fishing and water recreation. ODFW states: "OLNG's proposal to dredge the turning basin and berth in one 4-month in-water work window beginning in June 1, 2015, through September 30, 2016 is well outside the recommended in-water work window for the Area (November 1 to February 28) *and has the potential to substantially interfere with recreational angling in the lower Columbia River (Buoy 10) salmon fishery* (See Section 7.0 Recreation Impacts)."[155]

The Terminal is inconsistent with WCP 5.323(3) because the safety/security zones, as well as the LNG berth and turning basin, have the specific effect of "exclud[ing] the public from

[153] Terminal Application at 5-217–5-218.
[154] *Compare* Terminal Application, Figure 5-51 (pdf p. 495) *to* Exhibit 42, Coast Guard LOR Analysis at 2.
[155] Exhibit 63 at 19 (emphasis added).

shoreline access to areas traditionally used for fishing, hunting or other shoreline activities."

The Hearings Officer should also reject Oregon LNG's unfounded argument that there are not any traditional uses of the Terminal parcel for fishing, hunting, and other shoreline activities. The application states: "Oregon LNG is not aware of any traditional uses of the Terminal parcel for fishing, hunting, or other shoreline activities."[156] To the contrary, evidence in the record demonstrates that the Terminal shoreline and aquatic area surrounding the shoreline have a lengthy history of fishing, hunting, and other shoreline activities. For example, ODFW's comments to the Corps state:

> Waterfowl hunting occurs in the tidal waters surrounding the proposed terminal site. . . . Development and operation of the terminal will result in a permanent loss of hunting opportunity in an area that is one of on [*sic*] a few areas open to waterfowl hunting within the Warrenton City limits.[157]

Oregon LNG fails to acknowledge, let alone address, this evidence as well as other evidence demonstrating traditional uses of the East Skipanon Peninsula shoreline and adjacent aquatic area for fishing and boating.[158]

7.3.6 WCP 5.327 – Residential, Commercial, and Industrial Development.

Oregon LNG's proposed dredging and filling inconsistent with WCP 5.327(2). For the same reasons Oregon LNG fails to demonstrate compliance with WDC 16.160.020(B) and (C), the company fails to demonstrate compliance with WCP 5.327(2). *See* Section 6.8.1.

7.3.7 WCP 5.331 – Significant Areas.

Oregon LNG fails to demonstrate consistency with WCP 5.331, Significant Areas. First, Oregon LNG fails to recognize that the City designated wetlands on the East Skipanon Peninsula as "locally significant" and, therefore WCP 5.331 applies to the application. Oregon LNG fails to demonstrate consistency with WCP 5.331(1), which states "[s]ignificant estuarine aquatic and shoreland resources shall be protected from degradation or destruction by conflicting uses and activities." Oregon LNG's proposal to fill nearly 35 acres of high-quality, locally significant wetlands fails to "protect from degradation or destruction."

[156] Terminal Application at 5-218.
[157] Exhibit 63 at 18.
[158] *Id.* at 17-18.

7.3.8 WCP 5.347 – Mouth of the Skipanon River Subarea.

Oregon LNG's mitigation proposal conflicts with WCP 5.347(3). WCP 5.347(3) designates a specific mitigation site to offset impacts from development on the East Skipanon Peninsula. WCP 5.347(3) states:

> The approximately 40 acre Holbrook Slough DMD/Mitigation site is reserved for mitigation of development impacts on the East Skipanon peninsula. Offsite mitigation may be considered as part of the required mitigation or in addition to this onsite mitigation. Acreage not used for mitigation would then become available for DMD or development, but not until the site is fully developed.

Oregon LNG does not propose using the Holbrook Slough DMD/Mitigation site. The application fails to provide any rationale for foregoing mitigation at the Holbrook site. Moreover, Oregon LNG fails to demonstrate how the project is consistent with WCP 5.347(3) given the express directive to utilize the site for at least a portion of mitigation for East Skipanon Peninsula development projects.

8.0 CONCLUSION.

Oregon LNG's unprecedented proposal to build an LNG terminal and pipeline in the heart of the Columbia River estuary violates multiple provisions of the Warrenton Development Code and is inconsistent with the Warrenton Comprehensive Plan. For the foregoing reasons, the Coalition asks the Hearings Officer to deny Oregon LNG's land use applications. Thank you for considering the Coalition's input on the Oregon LNG project.

Sincerely,

Lauren Goldberg
Staff Attorney
Columbia Riverkeeper

Courtney Johnson
Staff Attorney
Crag Law Center

Encl.

TABLE OF EXHIBITS

Exhibit No.	Description
1	Williams, Richard N., *Review of the draft Biological Assessment and Essential Fish Habitat for Proposed Oregon LNG Terminal Project* (Jan. 8, 2015)
2	Bierly, Kenneth, *Oregon LNG Terminal Wetland Impacts and Proposed Mitigation Review: Analysis of Available Information* (Jan. 8, 2015)
3	Rhodes, Jonathan, J. *Summary of likely impacts of construction and maintenance of pipeline for the proposed Oregon LNG Terminal and Oregon Pipeline Project (Project) on watersheds and aquatic resources and adequacy and veracity of the discussion and assessment of these impacts in the Project's Biological Assessment (BA), Joint Permit Application (JPA), and supplements thereto* (Jan. 12, 2015)
4	Letter from Center for Biological Diversity to U.S. Army Corps of Engineers, Comments on Oregon LNG Bidirectional Project Joint Permit Application, NWP-2005-748 (Jan. 2015)
5	Letter from National Marine Fisheries Service to FERC, Oregon LNG NEPA Scoping (Dec. 20, 2012)
6	Oregon LNG Waterway Suitability Analysis (Mar. 2008)
7	Letter from the Corps to FERC (Dec. 14, 2014)
8	Letter from Columbia Riverkeeper *et al.* to FERC, Comments on NEPA Scoping for Oregon LNG Bidirectional Project (Dec. 21, 2012)
9	Letter from U.S. Environmental Protection Agency to FERC, Comments on NEPA Scoping for Oregon LNG Bidirectional Project (Dec. 26, 2012)
10	Letter from National Park Service to FERC, Comments on NEPA Scoping for Oregon LNG Bidirectional Project (Nov. 7, 2012)
11	Letter from U.S. Fish and Wildlife Service to FERC, Comments on NEPA Scoping for Oregon LNG Bidirectional Project (Jan. 11, 2013)
12	Letter from State of Oregon to FERC, Comments on NEPA Scoping for Oregon LNG Bidirectional Project (Dec. 19, 2012)

13	Letter from Washington Department of Ecology to FERC, Comments on NEPA Scoping for Oregon LNG Bidirectional Project (Dec. 18, 2012)
14	Letter from City of Warrenton to FERC, Comments on NEPA Scoping for Oregon LNG Bidirectional Project (Dec. 21, 2012)
15	Letter from Washington Department of Natural Resources to FERC, Comments on NEPA Scoping for Oregon LNG Bidirectional Project (Dec. 21, 2012)
16	Letter from Oregon Department of Forestry to FERC, Comments on NEPA Scoping for Oregon LNG Bidirectional Project (Dec. 13, 2012)
17	Letter from Columbia River Estuary Study Taskforce to FERC, Comments on NEPA Scoping for Oregon LNG Bidirectional Project (Dec. 19, 2012)
18	Sierra Club and Columbia Riverkeeper, Motion to Intervene, Protest and Comments to the U.S. Department of Energy (Nov. 2013)
19	Letter from State of Oregon to FERC, Preliminary Comments of DEQ on Bradwood LNG DEIS (Nov. 2007)
20	Grays Harbor Crude-by-Rail Fact Sheet (Aug. 2013), http://www.portofgraysharbor.com/about/CBR-Project.php
21	Associated Press, *China, BP plan two Columbia River chemical plants* (Jan. 1, 2014), http://www.columbian.com/news/2014/jan/22/china-bp-plan-two-columbia-river-chemical-plants/
22	DEQ, *Evaluation Report and Findings on Clean Water Act 401 Water Quality Certification Application for Bradwood Landing* (March 10, 2011)
23	U.S. Army Corps of Engineers, Defendant's Motion to Dismiss, *Oregon Development Company, LLC v. U.S. Army Corps of Eng'rs*, Case No. 3:14-cv-01239-AC (Nov. 14, 2014)
24	Oregon Development Company, LLC, Complaint, Exh. B, *Oregon Development Company, LLC v. U.S. Army Corps of Eng'rs*, Case No. 3:14-cv-01239-AC (Aug. 1, 2014)
25	Columbia Riverkeeper *et al.* Clean Water Act Section 404 Comments for the Bradwood LNG Project (Dec. 18, 2007)
26	Ecotrust, *Economic Risk of the Morrow Pacific Project: Livelihood, Habitat, and Recreation* (Mar. 20, 2014)

27	Lower Columbia River Estuary Partnership, *Habitat change in the Lower Columbia River and Estuary, 1870-2011* (2013)
28	Letter from Columbia Riverkeeper to Oregon Department of Environmental Quality, Comments on Oregon LNG Bidirectional Project NPDES Permit Application (Nov. 21, 2013)
29	CBC News, *7,500 songbirds killed at Canaport gas plant in Saint John* (Sept. 18, 2013), http://www.cbc.ca/news/canada/new-brunswick/7-500-songbirds-killed-at-canaport-gas-plant-in-saint-john-1.1857615
30	CBC News, *Canaport LNG faces charges for bird kill* (Oct. 20, 2014), http://www.cbc.ca/news/canada/new-brunswick/canaport-lng-faces-charges-for-bird-kill-1.2805161
31	Goldfinger, C. *et al.*, *Turbidite Event History—Methods and Implications for Holocene Paleoseismicity of the Cascadia Subduction Zone: U.S. Geological Survey Professional Paper 1661-F* (2012), http://pubs.usgs.gov/pp/pp1661f/
32	*Earthquake Risk Study for Oregon's Critical Energy Infrastructure Hub*, Oregon Department of Geology and Mineral Industries, Open File Report 0-13-19 (2013), http://www.oregongeology.org/sub/earthquakes/CEI-Hub-report.pdf
33	Letter from FERC to Oregon LNG (Environmental Data Request) (Aug. 1, 2013)
34	Letter from the Oregon Department of Forestry to Clatsop County (June 25, 2010)
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)
36	Yeh, Harry et al., *Tsunami Hydrodynamics in the Columbia River*, Civil Environmental and Engineering Faculty Publication and Presentations. Paper 106 (2012), http://pdxscholar.library.pdx.edu/cengin_fac/106
37	Oregon Department of Land Conservation and Development, *Preparing for a Cascadia Subduction Zone Tsunami: A Land Use Guide for Oregon Coastal Communities* (Jan. 2014), http://www.oregon.gov/lcd/ocmp/docs/publications/tsunamiguide20140108.pdf
38	Northwest Sportfishing Industry Association, *NSIA committed to fighting today's ODFW Commission Youngs Bay ruling* (Feb. 7, 2014), http://www.nsiafishing.org/general/nsia-committed-to-fighting-todays-odfw-commission-youngs-bay-ruling/

39	Martin, Irene, *A Social Snapshot of the Columbia River Gillnet Fishery* (Sept. 2005)
40	Washington Department of Fish and Wildlife, 2014 Creel Data for Buoy 10 Fishery (accessed Jan. 13, 2015), http://wdfw.wa.gov/fishing/creel/buoy10/
41	U.S. Coast Guard Letter of Recommendation for Oregon LNG Project (April 24, 2009)
42	U.S. Coast Guard Letter of Recommendation Analysis for Oregon LNG Project (April 24, 2009)
43	Letter from Columbia Riverkeeper to Clatsop County, Testimony on Oregon Pipeline, LLC Consolidated Land Use Application (June 9, 2010)
44	Letter from Columbia Riverkeeper to Clatsop County, Testimony on Oregon Pipeline, LLC Consolidated Land Use Application (June 24, 2010)
45	Letter from Columbia Riverkeeper to Clatsop County, Testimony on Oregon Pipeline, LLC Consolidated Land Use Application (July 16, 2010)
46	Letter from Columbia Riverkeeper to Clatsop County, Testimony on Oregon Pipeline, LLC Consolidated Land Use Application (Oct. 22, 2010)
47	Letter from Columbia Riverkeeper to Clatsop County, Testimony on Oregon Pipeline, LLC Consolidated Land Use Application (Feb. 23, 2010)
48	U.S. Department of Energy: National Energy Technology Laboratory. *Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States*, DOE/NETL-2014/1649, Office of Fossil Energy (May 29, 2014), http://energy.gov/sites/prod/files/2014/05/f16/Life%20Cycle%20GHG%20Perspective%20Report.pdf.
49	Northwest Power Planning Council, Fish and Wildlife Program Fifth Power Plan (2014), https://www.nwcouncil.org/fw/program/2014-12/program/
50	Letter from Columbia Riverkeeper to U.S. Army Corps of Engineers (Dec. 8, 2014)
51	Oregonian, *Jordan Cove LNG in Coos Bay could quickly become one of the largest greenhouse gas emitters in Oregon* (Nov. 18, 2014)
52	Oregonian, *Major earthquake in Oregon could be in next 50 years, infrastructure not ready* (Aug. 1, 2012)

53	Roegner, C.G. *et al.*, *Density and Condition of Subyearling Chinook Salmon in the Lower Columbia River and Estuary in Relation to Water Temperature and Genetic Stock of Origin*, Transactions of the American Fisheries Society (July 1, 2013)
54	Roegner, C.G. *et al.*, *Distribution, Size, and Origin of Juvenile Chinook Salmon in Shallow-Water Habitats of the Lower Columbia River and Estuary, 2002-2007*, Marine and Coastal Fisheries: Dynamics, Management and Ecosystem Science (Aug. 13, 2013)
55	Teel, D.J. *et al.*, *Genetic Identification of Chinook Salmon in the Columbia River Estuary: Stock Specific Distributions of Juveniles in Shallow Tidal Freshwater Habitats*, North American Journal of Fisheries Management, 34:3, 621-641 (2014)
56	Thom, R. *et al.*, *Columbia River Estuary Ecosystem Restoration Program, 2012 Synthesis Memorandum*, PNNL-21477 FINAL (Jan. 2013)
57	Oregon LNG Project, Presentation to California Energy Commission (Dec. 4, 2008)
58	Oregon Department of Fish and Wildlife and Washington Department of Fish and Wildlife, *2014 Joint Staff Report: Stock Status and Fisheries for Spring Chinook, Summer Chinook, Sockeye, Steelhead, and Other Species, and Miscellaneous Regulations* (Jan. 22, 2014)
59	The Columbia Basin Bulletin, *Sportfishing interests seek reversal on 'Control Zone' closure at Youngs Bay* (Feb. 21, 2014)
60	Roegner, C. *The contribution of tidal fluvial habitats in the Columbia River Estuary to the recovery of diverse salmon ESUs*, Prepared for the U.S. Army Corps of Engineers (May 2013)
61	Counihan, T.D., *A survey of benthic sediment contaminants in reaches of the Columbia River Estuary based on channel sedimentation characteristics*, Science of the Total Environment, 484:331-343 (2014)
62	Kock, Tobias J., *Review of a model to assess stranding of juvenile salmon by ship wakes along the Lower Columbia River, Oregon and Washington*, USGS Open-File Report 2013-1229, http://pubs.er.usgs.gov/publication/ofr20131229
63	Letter from Oregon Department of Fish and Wildlife to U.S. Army Corps of Engineers (Jan. 16, 2015)
64	Letter from U.S. Environmental Protection Agency to U.S. Army Corps of Engineers (Jan. 16, 2015)

65	Letter from Columbia River Estuary Study Partnership to U.S. Army Corps of Engineers (Jan. 16, 2015)
66	Letter from Oregon Department of Land Conservation and Development to NOAA and attachments thereto (July 15, 2013)
67	Map produced by Oregon Department of State Lands on March 14, 2014, showing Port of Astoria lease area, which is subleased to Oregon LNG, and 1957 Corps easement
68	*LNG Development Company v. U.S. Army Corps of Engineers*, Findings and Recommendation, Case no. 3:14-cv-1239-AC (D. Or. July 28, 2015)
69	Letter from the National Park Service to the Corps (July 9, 2015)
70	Letter from Columbia Riverkeeper *et al.* to Corps (Jan. 15, 2015)
71	Letter from National Park Service to Corps (Apr. 29, 2015)
72	Bloomberg Business, *BofA Says Collapsing Oil Drags U.S. LNG Exports Down With It* (Aug. 24, 2015)
73	Platts and Benteck Energy, *LNG Exports: Oasis or Mirage?* (Aug. 2015)
74	Moody's Investor Service, *Moody's: Liquefied natural gas projects nixed amid lower oil prices* (Apr. 7, 2015)
75	Dr. Jerry Havens and Dr. James Venart, *United States LNG Terminal Safe-Siting Policy is Faulty*, submittal to FERC (Jan. 14, 2015)
76	*LNG Development Company v. U.S. Army Corps of Engineers*, Order, Case no. 3:14-cv-1239-AC (D. Or. Aug. 31, 2015)
77	Letter from Confederated Tribes of the Umatilla Indian Reservation to Corps (Jan. 16, 2015)
78	Michael C. Blumm & Erika Doot, *Oregon's Public Trust Doctrine: Public Rights in Waters, Wildlife, and Beaches*, 42 Envt'l Law 375 (2012)
79	Bischoff, J.M. et *al.,* Youngs Bay Watershed Assessment, Final Report (2000)