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*Via Email*

**RE: Pre-Public Comment Period Questions on Oregon LNG's Wastewater NPDES Permit Application.**

Dear Mr. Burkhart,

Thank you for the opportunity to submit preliminary questions on Oregon LNG's application to discharge pollution to the Columbia and Skipanon Rivers. The following questions are submitted on behalf of Columbia Riverkeeper, Sierra Club, Columbia Pacific Common Sense, Food and Water Watch, Oregon Shores Conservation Coalition, and Forest Grove Oregon Citizens Against the Pipelines (collectively "Riverkeeper"). Commenters are a diverse coalition of national, regional, and local 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 terminal, tankers, and the pipeline infrastructure that will 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.

The Columbia River, and the communities that depend on it, face serious threats from toxic pollution and elevated temperatures. Every day thousands of pipes buried under and along the Columbia River discharge toxic and other pollution from cities, industry, and stormwater. Pesticides and heavy metals also enter the river from non-point source pollution, such as runoff from agricultural lands and air deposition. In its application, Oregon LNG proposes increasing toxic and temperature pollution to an already overburdened river system. We urge DEQ to analyze carefully Oregon LNG's application, and the representations therein, to ensure pollution from Oregon LNG does not compromise public health or salmon recovery efforts in the Columbia River Basin.

## Wastewater Permit: General Questions

1. **Mixing Zone.** Oregon LNG's application states that it will use the City of Warrenton's regulatory mixing zone. Oregon LNG's application ignores a practical reality: it is not "using" the City's mixing zone; it is creating a second, overlapping mixing zone on top of the City's existing mixing zone. How does Oregon LNG demonstrate compliance with OAR 340-041-0053(2)(c)(A) – (B), which requires that mixing zones be as small as possible and not overlap?
  
2. **Antidegradation Analysis.** Oregon LNG's Antidegradation Analysis evaluates the effect of the proposed terminal's discharge on the assimilative capacity of the Columbia River. This analysis defines the current ambient river concentration of a pollutant as the concentration after the Warrenton POTW and Pacific Seafood's existing effluents are fully mixed with the river at the regulatory mixing zone boundary.
  - a. Will DEQ require that Oregon LNG submit an updated Antidegradation Analysis that reflects changed circumstances with Pacific Seafood?
  - b. Does DEQ agree that Oregon LNG's Antidegradation Analysis can rely on dilution from Warrenton POTW and/or Pacific Seafood?
  
3. **Point of Compliance for Pollution Discharges.** In 2011, the State of Oregon adopted the nation's most protected human health criteria because people in Oregon regularly eat locally caught fish. Many of Oregon's human health criteria are below quantitation limits. Although not detectable by some lab methods, DEQ determined that these pollutants pose serious threats to human health even at very low levels. *See e.g.,* DEQ Implementation of Methylmercury Criterion in NPDES Permits IMD (Jan. 2013) ("Because MeHg bioaccumulates so readily, the levels of MeHg in the water column sufficient to cause harm to fish consumers may not actually be measurable (using traditional analytical methods)."). Oregon LNG proposes to dilute its wastewater with other wastewater before discharging to the Columbia River.
  - a. How does DEQ propose to measure Oregon LNG's point of compliance with water quality standards for toxic pollutants, particularly bioaccumulative toxic pollutants?
  - b. Will DEQ measure compliance before or after Oregon LNG's wastewater mixes with the City's wastewater?
  
4. **Mixing Wastewater with Pacific Seafood Wastewater.** Oregon LNG's application states that Oregon LNG will mix its effluent with treated wastewater from the City of Warrenton and Pacific Seafood. In so doing, Oregon LNG dilutes wastestream prior to discharge to the Columbia River. Oregon LNG's application fails to address how the devastating fire at Pacific Seafood in June 2013 will impact its plans and associated reasonable potential analyses (RPAs).<sup>1</sup>

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<sup>1</sup> OPB, *Pacific Seafood finds temporary facilities after processing plant fire* (June 14, 2013), <http://www.opb.org/news/article/pacific-seafood-finds-temporary-facilities-after-processing-plant-fire/>

5. **Mixing Wastewater with City of Warrenton POTW Wastewater.** Oregon LNG's application states that it will use effluent from the City of Warrenton Publicly Owned Treatment Works (POTW) and discharge wastewater via the existing City of Warrenton outfall. In National Environmental Policy Act (NEPA) scoping comments to the Federal Energy Regulatory Commission (FERC), the City of Warrenton states:

While domestic water use at the [Oregon LNG] facility is likely to be nominal, processing water demands and subsequent discharges will likely strain the city's systems. The EIS should analyze the projected demand of both domestic and process water and the city's capacity to provide such volumes to the plant and any improvements necessary to the city's system to meet the demand. Similar analyses should address the disposal of process water from the plant.

Letter from City of Warrenton to FERC (Dec. 21, 2012). Has Oregon LNG reached an agreement with the City of Warrenton to use its effluent and outfall?

Additionally, DEQ indicated at the public hearing in Astoria on November 12, 2013, that Oregon LNG would use a large proportion of the City of Warrenton POTW's wastewater as process water. The balance of wastewater effluent and intake from the Oregon LNG facility is confusing, and the information in Oregon LNG's application contradicts the assertion that Oregon LNG will use more POTW water than it discharges into the system. For instance, Oregon LNG's application demonstrates in a block flow diagram that the terminal will discharge more water to Warrenton's POTW than it receives. *See* Oregon LNG Application, Figure 2-1, "Cooling Water Makeup Supply and Treatment – Block Flow Diagram." According to the figure, as well as the discussion on Oregon LNG Application page 2-2, Oregon LNG will generally discharge more wastewater than it receives from the POTW system.

Has Oregon LNG verified that the flows coming from the City of Warrenton will remain the same in the wake of the Pacific Seafood fire? Please clarify the balance of how much water will come into the Oregon LNG facility from Warrenton, how much the facility will consume, and how much is planned for discharge.

6. **Land Use Compatibility Statement.** DEQ should reject the Land Use Compatibility Statement (LUCS) for the Oregon LNG terminal. Despite signing the LUCS, the City acknowledged that Oregon LNG has not submitted an application. In addition, the City acknowledged that Oregon LNG must obtain a hardship variance for filling "locally significant" wetlands. *See* Letter from Skip Urling to DEQ (June 28, 2013) (referencing matrix of land use requirements for Oregon LNG, but failing to address the wetland hardship variance); Warrenton Development Code 16.156.080 (Wetland Hardship Variance); Oregon LNG Removal-Fill Permit Application to DSL, Matrix Accompanying Skip Urling Affidavit, Section 6, of Waterway Lease Application Form at 20. It is unclear how the terminal is "consistent" with the local land ordinance use if it requires a waiver from complying with the ordinance.

Oregon LNG also requires a variance for outdoor gas flaring, which is not allowed under the Warrenton Development Code in the industrial zone (I-2). Oregon LNG plans to use gas flares during maintenance, startup and shutdown of liquefaction trains, and emergency events (“abnormal operations”). *See* Oregon LNG CZMA Certification at 13-46 (discussing gas flares). Oregon LNG would use flares to burn off hydrocarbons at the facility. For the low-pressure flare, Oregon LNG’s CZMA consistency certification submittal states: “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.” Oregon LNG Application at 13-46.

DEQ should reject Oregon LNG’s LUCS because gas flaring violates the “Heat and Glare” limitations in the I-2 zone Development Standards. Specifically, the Developments Standards for the I-2 zone, “Heat and Glare,” state: “Except for exterior lighting, operations producing heat or glare shall be conducted entirely within an enclosed building.” WDC 16.64.040.N. Oregon LNG’s gas flares will: (1) produce heat and glare, and (2) not be located in an enclosed building.

### **Wastewater Permit: Specific Questions**

1. Oregon LNG NPDES Permit Application (hereafter “OLNG”) OLNG p. 1-6: Oregon LNG states that the capacity of the stormwater treatment system is based on a 25-year, 24-hour rainfall total of 5.5 inches, and a runoff coefficient of 0.5. What happens if storm event greater than a 25-year storm event?
2. OLNG p. 2-10: Does DEQ concur with Oregon LNG’s determination that none of the existing categorical technology-based standards apply to Oregon LNG and, therefore, only water quality standards should be considered for evaluating discharge limits?
3. OLNG p. 3-1: Oregon LNG’s application states: “The mixed flow of the Terminal, Warrenton POTW, and Pacific Seafood will utilize the existing mixing zones that that are defined in the City of Warrenton’s NPDES Permit No. 0087 (DEQ, 2013a) for its outfall.”
  - a. Will DEQ require a new mixing zone analysis given the nearly five-fold increase in pollution discharges that Oregon LNG proposes?
  - b. Will DEQ treat Oregon LNG’s new pollution discharges as an overlapping mixing zone to the existing City of Warrenton mixing zone?
4. OLNG p. 4-8: The Columbia River is water quality limited for temperature (*i.e.*, on Oregon’s EPA-approved 303(d) list) for temperature at the City of Warrenton outfall. Oregon LNG proposes to use a regulatory mixing zone for temperature. Absent a mixing zone, Oregon LNG proposes to discharge wastewater in exceedance of Oregon’s numeric temperature criteria. To date, neither EPA nor the states of Oregon and Washington have issued a temperature Total Maximum Daily Load (TMDL) for the Columbia River. Oregon LNG’s application assumes incorrectly that there is assimilative capacity for temperature in the Columbia River. How does Oregon LNG’s proposal to apply a mixing

zone for temperature comply with the Clean Water Act given the Ninth Circuit's ruling in *Friends of Pinto Creek v. EPA*, 504 F.3d 1007 (9th Cir. 2007)?

5. OLNG p. 4-7: Oregon LNG's application states that "the combined wastewater discharges of the Terminal, the Warrenton POTW, and Pacific Seafood into the existing Warrenton outfall mixing zone will result in concentrations below the ambient water quality criteria and the human health criteria in the Oregon Water Quality Standards (OAR, 2012)." Given the status of Pacific Seafood, will DEQ require Oregon LNG to submit updated application materials that reflect a wastestream that does not include contributions from Pacific Seafood?
6. OLNG p. 4-7: Oregon LNG's application fails to address water quality based effluent limitations for aluminum. The State of Oregon does not have numeric human health or aquatic life criteria for aluminum. Nonetheless, DEQ has required that NPDES permittees comply with the MCL for aluminum found in Table 7, OAR 331-061-0030(6). *See Northwest Aluminum NPDES Permit No. 101759*. The MCL for aluminum is 0.05 mg/L - 0.2 mg/L. Will DEQ require a water quality based effluent limitation for aluminum?
7. OLNG p. 4-8: Oregon LNG's application states: "The Terminal wastewater temperatures will achieve the 20°C moving 7-day average maximum temperature through dilution in the Warrenton RMZ." Oregon LNG is a new discharger to the Columbia River. DEQ's Regulatory Mixing Zone IMD-Part 1 (Rev. 2) discusses new dischargers, stating: "If there is no available dilution due to lack of flow or because the stream is water quality limited for a parameter in question, water criteria should be applied at the end-of-pipe or other alternatives considered (*e.g.*, development of site-specific criteria, uses of a variance, change in beneficial uses of the receiving stream)." Regulatory Mixing Zone IMD-Part 1 at 11. Because the Columbia River is on the 303(d) list for temperature there is no dilution available for temperature. Does DEQ agree with Oregon LNG's position that Oregon LNG can use the City of Warrenton's regulatory mixing zone to accommodate its pollution discharges?
8. OLNG p. 4-11: Oregon LNG's Antidegradation Review states that its analysis "demonstrates that the Terminal's proposed discharge will not cause a measureable change in water quality in the Columbia River outside of the existing Warrenton POTW outfall mixing zone, and therefore will not degrade quality of the river." Does DEQ agree with Oregon LNG's position that Oregon LNG can use the City of Warrenton's mixing zone as part of its Antidegradation Review?
9. OLNG p. 4-13: Oregon LNG states: "Since there are not human health carcinogens in the Terminal discharge or the Warrenton POTW discharges, these evaluations are not necessary." This statement is not accurate. For example, according to Human Health Criteria Table 40, arsenic is a carcinogen and Oregon LNG proposes to discharge arsenic to the Columbia River. Does DEQ agree with Oregon LNG's determination that there no

human health carcinogens in the Terminal discharge or the Warrenton POTW discharges?

10. OLNG p. 4-13: Oregon LNG's application describes DEQ's Antidegradation Policy IMD and the agency's determination that "degradation" means a "measurable change in water quality away from conditions unimpacted by anthropogenic sources (outside the mixing zone, if existing)." For selenium, a toxic pollutant, the results of Oregon LNG's assimilative capacity analysis show a 0.3 percent reduction for assimilative capacity during the dry season and a 0.4 percent reduction in assimilative capacity during the wet season. Nonetheless, Oregon LNG concludes that the proposed discharge will have no effects on the river's assimilative capacity. Does DEQ agree with this conclusion based on Oregon LNG's findings for selenium and assimilative capacity?

### **Conclusion**

Columbia Riverkeeper, Sierra Club, Columbia Pacific Common Sense, Food and Water Watch, Oregon Shores Conservation Coalition, and Forest Grove Oregon Citizens Against the Pipelines appreciate the opportunity to provide preliminary questions on Oregon LNG's NPDES permit application. Please direct any correspondence or questions to the undersigned at (541) 965-0985 or lauren@columbiariverkeeper.org. Thank you in advance for considering our questions as DEQ reviews Oregon LNG's application.

Sincerely,



Lauren Goldberg  
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Columbia Riverkeeper

cc:

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