

**UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION**

<b>LNG DEVELOPMENT COMPANY, LLC OREGON PIPELINE COMPANY, LLC  NORTHWEST PIPELINE LLC</b>	Docket Nos. CP09-6-001  CP09-7-001  Docket No. CP13-507-000
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**WASHINGTON STATE DEPARTMENT OF FISH & WILDLIFE'S COMMENTS  
ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE  
PROPOSED OREGON LNG TERMINAL AND PIPELINE PROJECT AND  
WASHINGTON EXPANSION PROJECT**

The staff of the Federal Energy Regulatory Commission (FERC or Commission) has prepared a draft environmental impact statement (EIS) for the Oregon LNG Terminal and Pipeline Project (Oregon LNG Project) proposed by LNG Development Company, LLC and Oregon Pipeline Company, LLC (collectively referred to as Oregon LNG) and the Washington Expansion Project proposed by Northwest Pipeline LLC (Northwest) in the above-referenced dockets. Oregon LNG requests authorization under Section 3 of the Natural Gas Act (NGA) to site, construct, and operate an import/export liquefied natural gas (LNG) terminal in Warrenton, Oregon. Oregon LNG also requests a Certificate of Public Convenience and Necessity (Certificate) pursuant to Section 7(c) of the NGA to construct and operate a natural gas pipeline from the proposed LNG terminal to an

interconnect with the interstate transmission system of Northwest near Woodland, Washington. Northwest requests a Certificate pursuant to Section 7(c) of the NGA to expand the capacity of its existing natural gas transmission facilities between Woodland and Sumas, Washington.

**HDD and Quantification of Habitat in Environmentally Sensitive Areas.** The Washington State Department of Fish and Wildlife (WDFW) has some of the same general comments to many different parts of the project. The WDFW recommends a horizontal direction drill (HDD) below as many stream crossings as technologically possible. FERC should have Northwest and Oregon LNG (Project Proponents) analyze all environmentally sensitive areas with HDD bores as an alternative for crossing methods. Northwest has explained their inability to use an HDD for a few of their proposed water crossings, but WDFW recommends the Project Proponent analyze the rest of the water crossings, wetlands, sensitive habitat, and other environmentally sensitive areas. WDFW also recommend that the Project Proponents propose mitigation in area units of habitat with areas that cannot use a HDD bore. WDFW recommends the Project Proponents mitigate on-site when possible, but also propose temporary mitigation in area units for habitat that has reduced in function after construction. Any construction that removes mature plants, trees, and shrubs will not have the same habitat function as pre-construction habitat.

**Pre-Construction Surveys and LNG Terminal Area.** Our second general comment involves the use of pre-construction habitat surveys. The Project Proponents should quantify their habitat impacted in area units before construction. WDFW would like to make sure that the impacted habitat would have the same function after

construction. Although we recommend this technique for the entire project, we have more specific pre-construction survey methods for water crossings in the Specific Comments Section. Specifically, we would also urge the same consideration for the LNG terminal's massive construction dredging and continuous maintenance dredging. Please have Oregon LNG calculate functioning area units of habitat and types of habitat before construction so that we can guarantee that we maintain the same amount and types of habitat for sensitive and important species. We remain unsure if 120 acres of habitat mitigation will replace completely the current habitat functions in Youngs Bay. Please have Oregon LNG consider quality of habitat in these calculations as well. We also cannot support the currently proposed In Water Work Window of June 1 through September 30 for dredging or construction in Youngs Bay or the location of the dredge spoils. The Project Proponent should give more consideration of the possible large impact in the environmental analysis to the intake of ballast water by the LNG carriers and sub-adult salmon and eulachon (*Thaleichthys pacificus*), who may have large populations in the area at certain times of the year.

**Washington State Priority Habitat and Species.** Lastly, WDFW recommends that FERC have the Project Proponents make a better effort to understand where the projects will impact Washington State Priority Habitat and Species. WDFW cannot verify Priority Habitats exists by some of the descriptions of vegetation given. WDFW also recommends that the Project Proponent describe habitat types, within a half-mile to understand the disturbance from noise impacts on Washington State Priority Species, especially raptors, northern goshawk (*Accipiter gentilis*) and peregrine falcon (*Falco peregrinus*). The Proponent Proponents could avoid surveys for any raptors in possible habitat by constructing out of the breeding season as well.

## SPECIFIC COMMENTS TO DEIS

**Table 1.5 4-1.** Under the status of WDFW permits, WDFW has the understanding that Oregon LNG has pre-empted Washington State regulatory authority and will not ask for a Hydraulic Project Approval (HPA).

**2.1.1.1 Turning Basin and Berth.** For environmental analysis, please have Oregon LNG quantify and identify the aquatic habitat here. Please also describe the quality of habitat. WDFW remains unsure if the 120-acre mitigation land replaces the habitat function of the massive construction and continuous dredging in Youngs Bay. Oregon LNG has proposed to remove and take out of the river system, 1.2 million cubic yards of sediment. Please connect this amount of sediment with the loss of habitat. Please explain the impacts to the Select Area Fisheries Enhancement (SAFE) gill-net fishery in Youngs Bay. WDFW does not support the In Water Work Window for construction of June 1 through September 30. We would have huge numbers of juvenile fish of all species, including federally-listed, green sturgeon (*Acipenser medirostris*) (Washington State Priority Species and federally-listed) in peak abundance in August, Buoy 10 recreational fishery in full swing in August during proposed construction barge traffic, and white sturgeon (*Acipenser transmontanus*) (Washington State Priority Species) fishery that occurs in this area through the end of June. Please have Oregon LNG address all these impacts.

**2.1.1.1 Dredge Disposal Site.** WDFW does not support the In Water Work Window (IWWW) for construction of June 1 through September 30. We recommend the use of the IWWW of October 1 – December 31. We also recommend the use of an upriver dredge disposal site. WDFW recommends that Oregon LNG barges the spoils up river

and deliver them in the river at an appropriate area and time that would have little or no aquatic and environmental concerns. If Oregon LNG does not use the dredge disposal sites in the ocean, they can implement the more fish protective IWWW. WDFW recommends the analysis of the October through December work window accompany the dredge disposal moving upriver. Please analyze the impacts of habitat to the removal of sediment from the Columbia River Watershed.

**2.1.1.1 Water System and Wastewater Management.** WDFW recommends the use of fish screens meeting the National Marine Fisheries Service criteria on any water intake from the Columbia River or its tributaries to reduce entrainment.

**2.1.2.1 LNG Marine Carriers and Waterway for LNG Marine Traffic.** Please have Oregon LNG quantify the impacts to aquatic life, including fish, but particularly juvenile salmon and eulachon to the intake of ballast water. Please have Oregon LNG recommend mitigation in habitat unit areas for their impacts.

**2.1.2.2 Terminal Electrical Power Supply.** WDFW recommends using the most updated version of the Aviation Power Line Interaction Committee's (APLIC) Guidelines to prevent avian collision and electrocution for their electrical infrastructure.

**2.1.4.1 Turning Basin and Ship Berth.** WDFW does not support the In Water Work Window (IWWW) for construction of June 1 through September 30. We recommend the use of the IWWW of October 1 – December 31. We also recommend the use of an upriver dredge disposal site. WDFW recommends that Oregon LNG barges the spoils up river and deliver them in the river at an appropriate area and time that would have little or no aquatic and environmental concerns. If Oregon LNG does not use the dredge disposal sites in the ocean, they can implement the more fish protective IWWW. WDFW

recommends the analysis of the October through December work window accompany the dredge disposal moving upriver. Please analyze the impacts of habitat to the removal of sediment from the Columbia River Watershed.

**2.2.2 Land Requirements.** WDFW recommends that the Project Proponents describe the habitat types that they would impact, particularly Northwest's impacts on 2,051.6 acres with the WEP. General age class, size, species, and etc. would help understand if some of these impacts involve Priority Habitats in need of possible Protection, Mitigation and Enhancement (PM&E) Measures might be Oregon White Oak Woodlands, Herbaceous Balds, Old Growth-Mature Forest, Riparian, West-side Prairie Riparian, Freshwater Wetlands - Fresh Deepwater, Instream, Talus, and Cliff Priority Habitats. Please have the Project Proponents use these definitions:

Old Growth/Mature Forest --“Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80 - 200 years old west and 80 - 160 years old east of the Cascade crest.”

Riparian Forest -- “The area adjacent to flowing or standing freshwater aquatic systems. Riparian habitat encompasses the area beginning at the ordinary high water mark and extends to that portion of the terrestrial landscape that is influenced by, or that directly influences, the aquatic ecosystem. In riparian systems, the vegetation, water tables, soils, microclimate, and wildlife inhabitants of terrestrial ecosystems are often influenced by perennial or intermittent water. Simultaneously, adjacent vegetation, nutrient and sediment loading, terrestrial wildlife, as well as organic and inorganic debris influence the biological and physical properties of the aquatic ecosystem. Riparian habitat includes

the entire extent of the floodplain and riparian areas of wetlands that are directly connected to stream courses or other freshwater,” (WDFW 2008).

If the Project Proponents construct in forestlands or other habitat that meet these criteria or other criteria in the Washington Priority Habitat List, please have Northwest consult with WDFW on an Impact Mitigation Plan. The Department recommends evaluating the site for all Washington State Priority Habitat and Species (<http://wdfw.wa.gov/conservation/phs/list/>) and Washington’s Species of Greatest Conservation Need (SGCN) ([http://wdfw.wa.gov/conservation/cwcs/2005\\_cwcs.html](http://wdfw.wa.gov/conservation/cwcs/2005_cwcs.html)). WDFW also recommends that the Project Proponents describe the habitat types on ½ mile of either side of the Right-Of-Way to describe the possible effects area. WDFW has particular interest in the State of Washington Priority Species raptors, including northern goshawks and peregrine falcons that may react adversely to construction and blasting disturbance noises by abandoning nest or chicks.

**2.2.3.2 Wetland Crossings.** WDFW recommends protection and mitigation impact plans for all wetlands with the possibility of western toads (*Anaxyrus boreas*), a Washington State Priority Habitat Species.

**2.2.3.2 Waterbody Crossings.** WDFW recommends that Northwest conduct protocol surveys at the water crossings to identify any Cascade torrent salamander (*Rhyacotriton cascadae*), a Washington State Priority Species, if Northwest finds torrent salamander habitat within the possible range. Additionally, protocol surveys should accompany any non-HDD wetland crossings for western toad (*Bufo boreas*), another State of Washington Priority Species, in still water, including still water at the sides of streams. We

recommend Northwest consult with WDFW for survey protocols. If Northwest finds these species, please have Northwest consult with WDFW on an Impact Mitigation Plan.

The Project Proponents must restore and mitigate correctly to mitigate fully for their impacts. To mitigate completely, the Project Proponents must replace or provide better functioning aquatic and riparian habitat. The Project Proponent must conduct Pre-Construction Habitat Surveys to mitigate fully and replace habitat function fully. The Project Proponents should replicate the surrounding stream habitat, so WDFW recommends that the Project Proponents survey habitat (40 X stream width ft.) above and below crossing. When constructing these surveys, please note stream width, habitat area units, quality of habitat, and type of fish habitat. For on-site mitigation, the ROW crossing riparian and aquatic habitat should mimic the stream width and type of habitat above and below the Right-Of-Way (ROW) crossing.

**2.2.3.2 Rugged Terrain, second paragraph, first sentence.** Herbaceous Balds and Cliffs, Washington State Priority Habitats may reside in or around ridgetops. Please consult with WDFW on an impact mitigation plan, so that we can lessen impacts to these habitats.

**2.2.4 Construction Schedule.** Please describe habitat types on directly impacted habitat and within ½ mile away on either side. Please describe the habitat types before the Project Proponent begin clearing vegetation.

**3.4.2.2 Minor Route Variations, Kalama River Option A (Proposed).** Provided the distance allows for enough buffer for safety near residences, WDFW recommends the existing route proposed by Northwest.



**3.4.2.2 Minor Route Variations, Queen’s Bog Crossing and Unnamed Bog at MP**

**1381.3 Crossing.** WDFW prefers the avoidance of bogs, but remain unsure of the impacts to habitat. We recommend that Northwest reports the exact number of mature trees, their age-class, and species. We also remain unsure of the exact safety buffer for residences.

**3.4.2.2 Minor Route Variations, Skagit River/Heartbreak Hill Option A (Proposed).**

WDFW recommends the proposed route with the use of the existing aerial span.

**4.2.5.2 Aquatic Resources Impacts and Mitigation, Construction Impacts and**

**Mitigation.** WDFW not recommend standard upland procedures for dry streams. The Project Proponent should pay close attention to contours, streambed, and log/rock placement because the Project Proponents need to maintain fish passage when the stream fills with water again. Additionally, please plant and restore any dry streamside with species associated with riparian areas and not just everyday upland species of plants, trees, and vegetation.

**Table 4.2.6-2.** WDFW recommends\_vegetation descriptions into habitat types with more information than shown in this table. Please report tree species, age class, and stand size to describe better habitat use.

**4.2.7.2 Unique or Sensitive Habitats.** Please consult with WDFW on mitigation plans for oak woodlands, snag rich areas, etc. for Priority Habitat and Species.

**4.2.7.4 Migratory Birds.** General raptor nest surveys may not find all Priority Species raptors’ nests. The Project Proponent should conduct protocol surveys for northern

goshawk and peregrine falcons, if they have habitat within ½ mile of the project footprint.

DATED this 6<sup>th</sup> day of October, 2015.

Respectfully submitted:

BROCK APPLEGATE  
Renewable Energy and Major Projects Mitigation Biologist

A handwritten signature in black ink that reads "Brock A. Applegate". The signature is written in a cursive, flowing style.

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**Literature Cited**

WDFW. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

**PROOF OF SERVICE**

I certify that I served a copy of this document on all parties or their counsel of record on the date below as follows:

US Mail Postage Prepaid via Consolidated Mail Service, E-mail or State Campus Delivery

I certify under penalty of perjury under the laws of the state of Washington that the foregoing is true and correct.

DATED this 6<sup>th</sup> day of October, 2015, at La Conner, WA.



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**BROCK APPLGATE**  
Renewable Energy and Major Projects Mitigation Biologist

Document Content(s)

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