United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
620 SW Main Street, Suite 201
Portland, Oregon 97205-3026

IN REPLY REFER TO:
9043.1
ER15/0436

Electronically Filed

October 6, 2015

Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Subject: Review of Draft Environmental Impact Statement for the Proposed Oregon Liquefied Natural Gas Terminal and Pipeline Project and the Washington Expansion Project (Docket Nos CP09-6-000, 001; CP09-7-000, 001; CP13-507-000)

Dear Ms. Bose:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the Proposed Oregon Liquefied Natural Gas (LNG) Terminal and Pipeline Project and the Washington Expansion Project (Docket Nos CP09-6-000, 001; CP09-7-000, 001; CP13-507-000) (Project). The following comments reflect considerable concern about environmental impacts related to the potential development of this project, including the potential to impact natural and cultural resources, as well as trust resources. The Department reserves the right to comment further on issues raised herein, or on additional issues associated with the proposed project as new or different information becomes available in the future, including any new analyses performed.

Overview of National Parks in the Project Area

There is a great deal of local, regional, and national interest in recognizing and preserving the resources of the Lewis and Clark National Historic Trail and Lewis and Clark National Historical Park. After review of the Draft EIS, the Department is concerned that the proposed action, as currently designed, would likely result in adverse impacts to national park visitors as well as to natural, cultural, and scenic resources. We recommend further analyses to better quantify these impacts. To be consistent with the NPS mission and minimize impacts to the ecosystem and visitor experience (see National Park Service [NPS] Management Policy Section 8.6.4.1), NPS, by policy, supports avoidance of park lands and encourages the use of a practicable alternative. The No Action Alternative, system alternatives, offshore alternatives, and five on-shore alternatives to the proposed action would minimize these impacts to national park resources and visitors. The Department recommends design modifications to mitigate adverse impacts if the proposed action is selected.

The U.S. Coast Guard, based on research by Sandia National Laboratories (Sandia), has identified three concentric "Zones of Concern" for intentional LNG spills and three concentric "Zones of Interest" for accidental spills. These

comments refer to the Sandia Zones of Concern and Accidental Sandia Hazard Zones as described in the DEIS and shown in Figures 4.1.13-12 and 4.1.13-13.

The proposed LNG terminal and a portion of the new pipeline segment are located along the Lewis and Clark National Historic Trail. Congress established the Trail in an amendment to the National Trails System Act in 1978 [16 U.S.C. § 1244(a)(6)]. The NPS administers the Trail and is charged under this Act with the identification and protection of the historic route, remnants, and artifacts of the Expedition for public use and enjoyment. The terminal would be located within 0.25 miles of the Trail and the pipeline would cross the Trail (page ES-8).

The Lewis and Clark National Historic Trail extends from Wood River, Illinois to the mouth of the Columbia River in Oregon, following the outbound and inbound routes of the Lewis and Clark Expedition. In the Project area, the Corps of Discovery explored both the north and south shores of the Columbia River estuary, around Young's Bay, up the present Lewis and Clark River, and along the Pacific Coast. They built a fortification and quarters named Fort Clatsop to spend the winter of 1805-1806 and traded with local tribes. Trail infrastructure in the area is a mix of motor routes, land trails, water trails, waysides, visitor centers, parks, overlooks, etc. This area of the trail is rich in cultural history, unique and varied natural resources, and outstanding scenery. Preservation of these resources and the public's ability to continue to safely access them for enjoyment is of utmost concern to the Department.

Originally established as Fort Clatsop National Memorial, Congress in 2005 expanded and redesignated Fort Clatsop NM as Lewis and Clark National Historical Park "in order to preserve for the benefit of the people of the United States the historic, cultural, scenic, and natural resources associated with the arrival of the Lewis and Clark Expedition in the lower Columbia River area, and for the purpose of commemorating the culmination and the winter encampment of the Lewis and Clark Expedition …" (Public Law 108-387). Today, the park is comprised of seven units totaling approximately 3,400 acres. The Fort Clatsop Visitor Center is 3 miles from the terminal location while the northwest corner of the park is located 2.1 miles away. The pipeline passes approximately 95 feet from the easternmost boundary of the Fort Clatsop unit, on the east side of the Lewis and Clark River, near milepost 5.2. A transmission line would be upgraded as part of the project and runs approximately 1,700 feet through wetlands and forests of the Fort Clatsop unit of the park. Visitors launch kayaks and canoes at the park and paddle the Lewis and Clark River that will be crossed with horizontal directional drilling.

Alternatives Analysis

In the evaluation of alternatives, the DEIS uses only one criterion related to national park resources: the number of Class I airsheds within 125 miles. As a result, the alternatives are not fully evaluated based on their impact to national park visitors and resources. In the evaluation of the Tongue Point alternative, the DEIS considered the nearby location of the Lewis and Clark National Wildlife Refuge. Similar consideration should be extended to both Lewis and Clark National Historic Trail and Lewis and Clark National Historical Park and should include all interrelated aspects of the project. Though a full environmental analysis similar to Chapter 4 was not completed for all alternatives by the DEIS, the alternatives that are likely to minimize the national park impacts based on their proximity to national parks include: the No Action Alternative; 3.2 System Alternatives; 3.3.1 Offshore LNG Terminal Alternatives; 3.3.2 Onshore LNG Alternatives at Barlow Point, Kalama, Bradwood Landing, Wauna, and Port Westwood.

The Department recommends the following for the FEIS:

1. The FEIS should consider the impacts to national park resources and visitors when selecting alternatives and include screening criteria for alternatives that include proximity to national parks. Relevant criteria would include: avoids locations that would put national park visitors within a Sandia Zone of Concern 1, avoids locations that would place national park lands within the direct effect of an area of potential effect (APE), and avoids the use of national park lands for the construction of interrelated project facilities.

Safety

The DEIS evaluated safety to the visitors to Lewis and Clark National Historic Trail only in terms of LNG marine traffic (page 4-316). However, the Lewis and Clark National Historic Trail is within 0.25 miles of the terminal (page ES-8). This places visitors within a Sandia Zone of Concern 1 and Accidental Sandia Hazard Zone 3. The

Alternatives Analysis specifically looked to minimize the number of people that would be within Zones of Concern 1 or 2; this implies that being in this zone is inherently unsafe. According to the modeled design spills in the DEIS, visitors following the route of Lewis and Clark along the Columbia River would be exposed to accidental spills near the terminal including flammable vapor, hydrogen sulfide vapor, and benzene (Figures 4.11.3-3, 4.11.3-4, 4.1.13-9, 4.1.13-10). The proposed vapor fence is oriented towards the land, with only a portion of the river side of the project enclosed with a fence.

Hikers on the Kwis Kwis Trail at Lewis and Clark National Historical Park would come within 2.2 miles of the terminal and would be on the border of Sandia Zone of Concern 3. Visitors paddling on the Lewis and Clark River, including those on NPS guided kayak tours, would pass over or near three horizontal directional drilling (HDD) crossings and would be within the potential impact circle of a pipeline incident.

These are new and novel hazards and many visitors to the national parks would not be familiar with them. The Oregon Department of Geology and Mineral Industries' education efforts on tsunami hazards provide a good example of how to educate visitors on unfamiliar hazards. Visitors to the region see tsunami warning signs on local roads as well as posted tsunami maps in downtowns, beaches, and trailheads, and can visit a dedicated website for more information.

The national parks in this area rely on the U.S. Coast Guard to assist in search and rescue operations, especially on the Columbia River. The NPS is concerned that the project may affect their response time. Helicopter searches and rescues are conducted out of Air Station Astoria. The DEIS states that the Federal Aviation Administration (FAA) "determined the storage tanks pose no hazard to air navigation" (page 4-241). However, the DEIS does not state if the FAA has evaluated the other components of the project, including the elevated gas flare that would be about 68.5 feet tall with a maximum flame length of about 150 feet (page 2-6). The project may also affect response time by Coast Guard boats. The FEIS should also explicitly state whether the Coast Guard boats on searches and rescues would be exempt from the 500 yard security zone around the LNG marine carriers.

The Department recommends the following for the FEIS:

1. Because the stretch of Lewis and Clark River between MP 3.1 and MP 5.7 is an outside area occupied by 20 or more people at least 50 days per year, Oregon LNG should include it in the list of high consequence areas (HCA) that are included in the pipeline integrity management program under 49 CFR 192.911 (page 4-434).

2. The FEIS should explicitly state whether or not the Coast Guard boats on searches and rescues would be exempt from the 500 yard security zone around LNG marine carriers.

3. The FEIS should detail the methods by which visitors would be educated on the hazards associated with the terminal, pipeline, and marine carrier traffic and familiarized with local emergency plans. These could be similar to the posted tsunami warning signs, posted maps, hotel staff briefings, web pages, and brochures used by Oregon Department of Geology and Mineral Industries to communicate with visitors about tsunami risks.

4. The FEIS should confirm that the FAA concludes that all aspects of the project, including the elevated gas flare, do not pose a hazard to air navigation. The FEIS should also confirm that the Coast Guard's search and rescue response time by helicopter would not be delayed because of the construction or operation of the project.

5. The FEIS should confirm that the Coast Guard's search and rescue response time by boat would not be delayed because of the construction or operation of the project including marine carrier traffic.

Transmission Line

As stated in the DEIS, the Council on Environmental Quality (CEQ) requires agencies to consider environmental effects of proposed actions, including direct and indirect effects, if those effects are reasonably foreseeable (page 4-665). Therefore, FERC should further consider the environmental effects of the electrical facilities that will be

constructed to support the terminal, including upgrading the existing 115-kv Clatsop-Warrenton transmission line to double circuit 230-kv/115-kv. According to Oregon LNG, this transmission line upgrade would not occur but for the proposed action and "would not have independent utility apart from the proposed action" (Oregon LNG 2013). The applicant-prepared draft Biological Assessment considers the transmission line work to be "interrelated and interdependent" (Oregon LNG 2013).

Unlike some of the other past, present, and reasonably foreseeable future actions listed in Table 4.3-1, the electrical facility upgrades are not conceptual, not indeterminate, and can be described quantitatively. The DEIS details the 230-kv upgrade (pages 2-9, 2-23 to 2-36, 4-244) and the applicant has provided information about the transmission line to FERC and has responded to inquiries about the transmission line from FERC requesting further information that has included quantitative impacts (for example: Oregon LNG 2013; Oregon LNG 2014a; Oregon LNG 2014b). Though considered by FERC to be non-jurisdictional, the impacts resulting from this electrical facility work should be considered and further analyzed in order to evaluate the direct and indirect impacts from the proposed action.

As discussed in NPS letters dated April 29, 2014 and July 9, 2015, approximately 1,700 linear feet of the proposed Clatsop-Warrenton 230-kv transmission line pass through Lewis and Clark National Historical Park. Of this total, 1,000 feet cross the Otter Point wetland restoration site. A series of levee breaches in 2012 restored the tidal influence of the Lewis and Clark River to this 33 acre site in order to provide foraging and rearing habitat for federally threatened and endangered Chinook salmon, coho salmon, chum salmon, and steelhead, as well as to restore the cultural landscape (NPS 2010a). The activities included the creation of over 5,000 linear feet of tidal channel, placement of large woody debris, and planting native species. The NPS, Bonneville Power Administration, U.S. Fish and Wildlife Service, Columbia River Estuary Study Taskforce, and U.S. Army Corps of Engineers undertook this $1.5 million cooperative project as part of the federal government's commitments under the 2008/2010 Biological Opinion for the Federal Columbia River Power System.

The Otter Point wetland restoration project was designed in consultation with Pacific Power to accommodate the existing footprint of 115-kv power poles and existing transmission easement. Before the site was returned to a wetland, Pacific Power collaborated on the project to replace a pole and adjust the height of the line.
The proposed action would replace these poles with larger structures. This would require the creation of footings, structure laydown and worksite areas, tree clearing, and construction of a road through the wetland because the "existing ROW and corridor road usage assumes unimproved roads that lead to and along the corridor" (Oregon LNG 2014b). Because there is no corridor road in the wetland, improvements would be constructed as "necessary for safe passage of construction equipment" (Oregon LNG 2014b).

Another 700 feet of the potentially upgraded transmission line would cross through forest that is being actively managed through variable density thinning and planting to accelerate the development of a late seral forest under the park's Forest Restoration Plan/Environmental Assessment of 2011 (NPS 2011).

The DEIS states that the right-of-way (ROW) was narrowed to 100 feet "[i]n response to NPS concerns" (page 2-26). This is incorrect. The ROW was reduced to 100 feet in order for Oregon LNG to stay within the existing 1966 legal easement. As stated in the NPS letter dated April 29, 2014, even with a reduction in the ROW, the NPS still had concerns regarding the transmission line and offered to meet with the design team to identify likely impacts and the best solution to avoid impacts. The Department is still concerned about the potentially upgraded transmission line's adverse impact to listed species, wetlands, vegetation, visual resources, and cultural resources. Because the potentially upgraded transmission line is interrelated to the proposed action, the Department's comments regarding the impacts from the transmission line are included in the analysis topics, rather than being listed separately.

The Department recommends the following for the FEIS:

1. Because of its known design and its interrelated and interdependent nature to the terminal and pipeline, the FEIS should analyze and address the electrical facilities separate from other reasonably foreseeable actions

2. The FEIS should further evaluate the impacts of the proposed electrical facilities, including the upgraded 230-kv transmission line, in the same manner of the other project components including geologic resources; soils and sediments; water resources; wetlands; aquatic resources; vegetation; terrestrial wildlife; threatened, endangered, and other special status species; land use, recreation, and visual resources;

socioeconomics; cultural resources; air quality and noise; and, reliability and safety. Currently, Table 4.3-1 only lists vegetation and visual resources as primary relevant resources. However, as detailed below, the project would also impact wetlands, listed species, cultural resources, and recreation on national park lands.

3. Appendix F: Oregon LNG Mitigation and Monitoring Plans should be updated to include mitigation for any impacts from the interrelated electrical facilities.

4. The text on 2-26 should be edited to read "in order to stay within the current Pacific Power easement, Oregon LNG designed the upgraded 230-kV line so that the ROW width would remain at 100 feet on NPS land."

5. Provide a detailed explanation of how construction vehicles and construction footprint would be kept within the 100 foot ROW within Lewis and Clark National Historical Park. The Plan of Development, the Stormwater Pollution Prevention Program, and/or the Environmental Control and Compliance Management Plan should include clear explanations of the procedures to avoid trespass outside the 100-foot ROW. Procedures should include a professional survey of the ROW prior to construction commencement, clear marking of boundaries to aid crews in avoiding trespass, and notification of NPS before entry by surveyors and other construction workers or vehicles.

Cultural Resources

There is the potential for adverse effects to the archaeological and historic resources of Lewis and Clark National Historical Park. The DEIS states "The easternmost boundary for the LCNHP is located about 0.6 mile west of the direct effects APE" (page 4-320). This may be in reference to the old boundary of the park, before the 2005 expansion. It is correct that the lands of Lewis and Clark National Historical Park listed on the National Register are approximately 0.6 miles from the pipeline; however, the taxlot owned by the park closest to the pipeline is 710010001000, which includes lands along the bank of the Lewis and Clark River. The pipeline centerline is approximately 95 feet from the easternmost boundary of Lewis and Clark National Historical Park, near MP 5.2 (The previous estimate of 30 feet in the NPS letters of November 7, 2012, and July 9, 2015, was based on an Oregon LNG-generated parcel map; the updated distance was measured on the ground using the detailed waterbody crossing design maps in Appendix G). The park boundary was surveyed in 2005 by the Bureau of Land Management. The survey maps and notes are available at: https://www.glorecords.blm.gov/default.aspx.

Part of Lewis and Clark National Historical Park is therefore within the direct effects APE (300 feet wide) as well as the indirect effects APE (1 mile). The national park lands within the direct effects APE have not yet been surveyed for historic and archaeological resources.

The proposed project includes upgrading an existing transmission line that runs through the park. For reasons discussed above, this related work should be included in the APE. The work would involve ground disturbance on park lands to install guard poles or lattice structures and to build access roads (Oregon LNG, 2014c). These areas have not yet been surveyed for historic and archaeological resources.

The potential transmission line would adversely affect cultural resources at the park by degrading the cultural landscape at the Otter Point wetland restoration site through activities such as filling wetlands and removing vegetation. The Otter Point project was undertaken not only to provide habitat for federally listed salmonids, but also to restore the cultural landscape associated with the Lewis and Clark Expedition (NPS 2010A). The wetland plant species chosen for revegetation were documented in the journals of Lewis and Clark and are still culturally important to local tribes. Moreover, the landscape itself has become an interpretive medium, with park staff using key landmarks and habitats including those at Otter Point as part of their ongoing retelling of the Lewis and Clark story to park visitors (Deur 2008). The Otter Point wetland restoration site is an integral part of ranger led kayak tours, wherein interpretive rangers paddle visitors up the restored channel and use the restored wetland landscape to explain why the expedition selected the fort location.

The DEIS states that "while there are numerous campsites related to the 1804-1806 Lewis and Clark expedition along the lower Columbia River, none have been recorded as archaeological sites." This is incorrect. The Fort Clatsop site was listed on the National Register in 1988 in part for its potential archaeological resources (Criterion

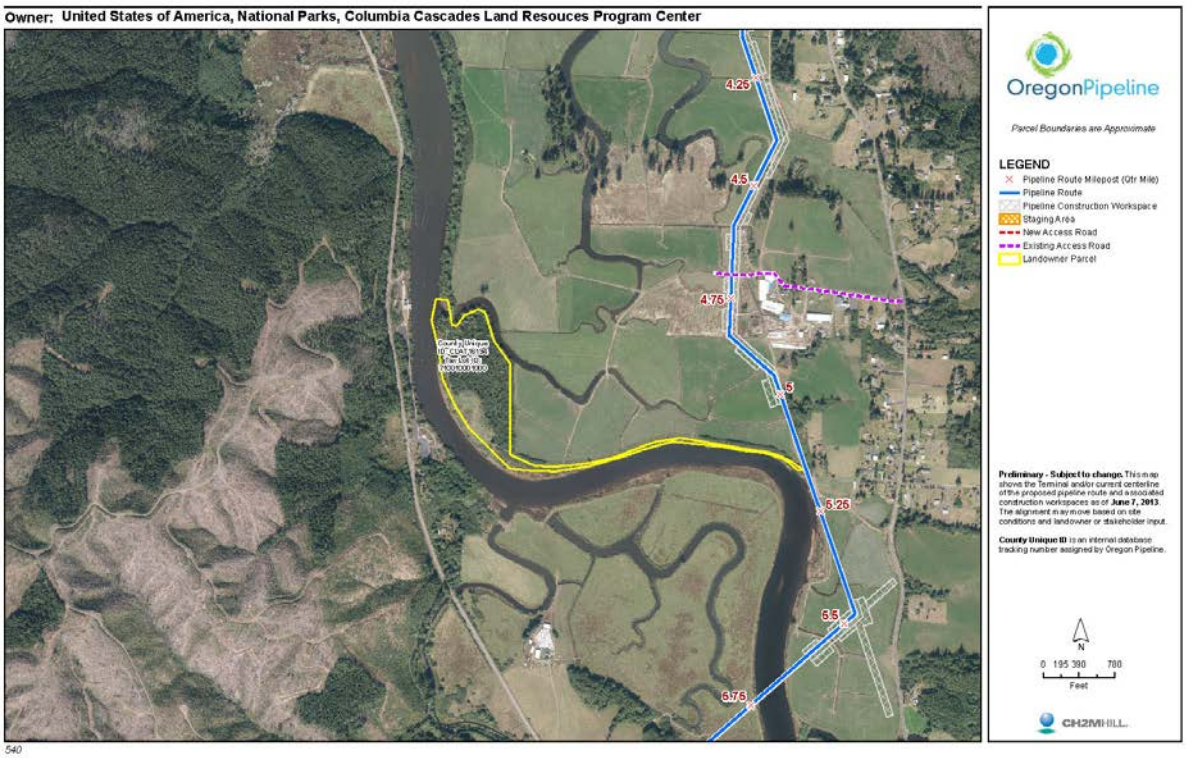
D). The Lewis and Clark site at Middle Village - Station Camp (45PC106) was recorded as an archaeological site in 2010. Both are outside of the direct effects APE.

Before construction, a cultural resource study of potentially affected park lands – including subsurface investigations – should be conducted in consultation with Oregon State Historic Preservation Office and affiliated tribes. The National Park Service should also be consulted regarding these studies. In addition, FERC and Oregon LNG – in consultation with the US Army Corps of Engineers and the Department – should develop a plan that identifies ways to avoid, minimize, and/or mitigate impacts to the wetlands at the Otter Point wetland restoration site that serve as a cultural landscape. The Department should review and concur with the wetland delineation, impacts assessment, and proposed compensatory mitigation for impacts on NPS lands.

The Department recommends the following for the FEIS:

1. The text should be corrected to read: "there are two locations associated with the 1804-1806 Lewis and Clark expedition along the lower Columbia River that have been recorded as archaeological sites or listed on the national register for their archaeological resources. They are both outside of the direct effects APE."

Figure 1: Eastern Boundary of Lewis and Clark National Historical Park (in yellow) in Relation to Pipeline Route



Impacts to Listed and Special Status Species in Lewis and Clark National Historical Park

As designed, the proposed project will cause adverse impacts to listed species due to the permanent loss of rearing habitat for federally threatened and endangered juvenile salmonids in park lands. As discussed above, in order to upgrade a transmission line inexorably linked to the terminal and pipeline, the project would construct 1,000 feet of access road, create structure laydown and worksite areas, and install permanent footings through juvenile salmon habitat (NPS 2014; NPS 2015). This habitat was restored as part of the federal government's commitments under the 2008/2010 Biological Opinion for the Federal Columbia River Power System to recover these species. Large woody debris installed to provide structural habitat would have to be removed, plants installed to provide cover and food web connections would be removed or filled, and tidal channels that had been excavated would be filled (NPS 2010a; NPS 2014; NPS 2015). In a letter dated April 29, 2014, and sent to Oregon LNG and FERC, the NPS offered to work with the design team to identify likely impacts at this site and find the best solution for avoidance of impacts. To date, the NPS has not been contacted by Oregon LNG, aside from communications about limiting the ROW to 100 feet (Oregon LNG 2014b).

The tidal waters of the Lewis and Clark River flow into park wetlands at several points, including Otter Point, Colewort Creek (also known as the South Clatsop Slough), and Alder Creek (also known as the Fort Clatsop reference wetland). These provide rearing habitat for Lower Columbia River Chinook salmon, Upper Willamette River Chinook salmon, Lower Columbia River coho salmon, Columbia River chum salmon, steelhead (ESU unknown); and Coastal Cutthroat trout (NPS 2014).

These park waters are near the HDD crossings at MP 3.1, 4.5, 5.2, and 5.7. Though designed to minimize impacts to fish, there is potential for the HDD to impact listed fish species from frac-outs that could affect water quality and turbidity and releases of other fluids associated with heavy equipment (page 4-57; Appendix F 8-1). This risk is heightened by the fact that geotechnical information on the Lewis and Clark River is not yet complete and so it is not known if there is an elevated potential for inadvertent release of drilling fluid into the river (4-58). Through river flows and tidal actions, these inadvertent releases could impact listed species in park waters because of the proximity of the park to these crossings.

The proposed pipeline crosses under Hansen Creek at milepost 3.0 and the upgraded transmission line will also cross Hansen Creek (Oregon LNG 2014c). The source of this creek is in Lewis and Clark National Historical Park. As stated in the NPS letter of April 24, 2014, federally listed juvenile coho salmon were found in Hansen Creek (Brenkman 2008). Downstream impacts at Hansen Creek could affect the listed species that subsequently use national park waters as habitat.

The DEIS states that there is a bald eagle nest at Lewis and Clark National Historical Park 660 feet from the pipeline (page 4-147). Though this eagle pair uses the park for foraging, the nest is on private land within 660 feet of the pipeline (NPS 2012).

FERC and Oregon LNG – in consultation with the US Army Corps of Engineers and the Department – should develop a plan that identifies ways to avoid, minimize, and/or mitigate impacts to the wetlands at the Otter Point wetland restoration site that serve as juvenile salmonid habitat. The Department should review and concur with the wetland delineation, impacts assessment, and proposed compensatory mitigation for impacts on NPS lands. In addition, prior to the release of the FEIS, updated geotechnical information on the Lewis and Clark River should be provided to the NPS in order to evaluate any risks at the HDD crossings at MP 3.1, 4.5, 5.2, and 5.7

The Department recommends the following for the FEIS:

1. When finalizing the Horizontal Directional Drilling Frac-out Contingency Plan for the crossings at 3.1, 4.5, 5.2, and 5.7, Lewis and Clark National Historical Park should be included in the consultations so that all high-priority areas are identified in advance. Also, in Appendix F, the agency contact list in the event of a frac-out should be edited to include the National Park Service (Superintendent, Lewis and Clark National Historical Park) and the Department of the Interior (Regional Environmental Officer) in the FEIS.

2. Table 4.1.5-3 and Table 4.1.8-7 should be updated to include Hansen Creek as a waterbody in which federally listed fish may be present with an HDD crossing at MP 3.0.

3. The text on 4-147 should be edited to read: "According to comments provided by the NPS, there is an active bald eagle nest on private land about 660 feet from the pipeline near MP 5.0."

Wetlands

Lewis and Clark National Historical Park is approximately 95 feet from the pipeline centerline at MP 5.2, where horizontal directional drilling is occurring. As stated in the NPS letter of July 9, 2015, these lands closest to the project are classified as wetlands by the National Wetlands Inventory. There is a risk of impacts to park wetlands because "HDD operations potentially pose a risk to wetlands and water bodies through frac-outs" (Appendix F 8-1).

Impacts to wetlands would also occur from the project due to the potentially upgraded Clatsop-Warrenton transmission line. As discussed in detail in the Transmission Line section above, this line would be upgraded through a restored wetland site, and the project calls for the permanent loss of these wetlands from constructing 1,000 feet of access road, creating structure laydown and worksite areas, and installing permanent footing.

Section 4.1.4 describes the process by which the applicant created the wetland mitigation plan and states that "the USACE, ODSL, and EPA accept best professional judgment for wetland function assessments" (page4-64). In accordance with the attached multiagency transmission memorandum of understanding signed by the Department and by FERC on October 23, 2009, NPS is responsible for determining impacts for NPS resources such as the Otter Point wetlands.

The DEIS mentions the existence of impacts to estuarine wetlands; however, many sections discussing wetland impacts and restoration only analyze palustrine wetlands and related vegetation communities. The wetlands impacted within Lewis and Clark National Historical Park include estuarine wetlands. FERC and Oregon LNG – in consultation with the US Army Corps of Engineers and the Department – should develop a plan that identifies ways to avoid, minimize, and/or mitigate impacts to the wetlands at the Otter Point wetland restoration site. The Department should review and concur with the wetland delineation, impacts assessment, and proposed compensatory mitigation for impacts on NPS lands. Wetland discussion throughout the document (particularly in Appendix F) should include estuarine wetland impacts and planning.

The Department recommends the following for the FEIS:

1. When finalizing the Horizontal Directional Drilling Frac-out Contingency Plan for the crossings at 3.1, 4.5, 5.2, and 5.7, Lewis and Clark National Historical Park should be included in the consultations so that all high priority areas are identified. Also, in Appendix F, the agency contact list in the event of a frac-out should be edited to include the National Park Service (Superintendent, Lewis and Clark National Historical Park) and the Department of Interior (Regional Environmental Officer) in the FEIS.

Vegetation

Clearing the 100-foot ROW associated with the Clatsop-Warrenton transmission line along 1,700 linear feet within the Lewis and Clark National Historical Park would have direct vegetation impacts. Currently, Pacific Power does not completely remove all trees and shrubs within its ROW; only trees that pose a danger to the line are removed. The proposed project would result in the removal of additional native trees, shrubs, and other vegetation from park lands.

Indirect impacts to vegetation would occur from pipeline construction. Several acres of land would be disturbed near the park for pipeline construction and could serve as a vector for invasive species that would seed into the park. The Department agrees that weed-free straw should be used, native species should immediately be replanted in disturbed areas, and the Oregon Department of Fish and Wildlife (ODFW) should review and approve the revegetation plan and seed mixes (page 4-125). The Department also recommends that the straw be composed of native grasses (not agricultural crops like wheat) and from a certified weed-free source.

Tree clearing and vegetation disturbance within the 100-foot ROW of the Clatsop-Warrenton transmission should be minimized to the greatest extent possible. The NPS should be consulted regarding the specific locations of access

roads, footings, structure laydown, and worksite areas in order to identify potential sensitive areas. Pacific Power currently works collaboratively with the park to control invasive species and top trees whenever possible rather than completely remove them. These actions should continue for work associated with transmission upgrades. In addition, the NPS should be provided with the annual monitoring reports of invasive species along the pipeline ROW for MP 1.0 to 11.0 for the three years that they are conducted.

The Department recommends the following for the FEIS:

1. The FEIS should clarify that "weed free straw" refers to "straw composed of native grasses from a certified weed free source."

Water Withdrawals from the Lewis and Clark River

The DEIS (page 4-52) states that the Lewis and Clark River is a 303(d)-listed waterbody for Cholorphyll A and Fecal Coliform. As stated in the NPS letter of April 29, 2014, it is also listed as impaired for dissolved oxygen as Category 5: water quality limited, Total Maximum Daily Load needed (NPS 2014, Oregon Department of Environmental Quality 2012).

The DEIS also states that the river is used by federally listed species (page 4-58). In addition, it has been designated by Oregon as Essential Salmonid Habitat (Oregon Department of State Lands 2010). Preventing further impairment of the Lewis and Clark River is therefore important for protecting listed species and the downstream resources at Lewis and Clark National Historical Park.

The City of Warrenton would be the source of the majority of the water needed for terminal construction, for domestic facility needs, and potentially for horizontal directional drilling (page 4-47, 4-48, and 4-61). The Lewis and Clark River is the source for the City of Warrenton's municipal water.

The DEIS does not analyze the potential for further impairment of the Lewis and Clark River from water withdrawals for the construction and operation of the proposed project, as requested by the NPS (NPS 2014; NPS 2015). In comments dated August 11, 2014, Oregon LNG stated that the project would use "surplus water from the City, meaning the City would not need to obtain additional water rights." However, as stated in their response, this interpretation 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). The City of Warrenton could expand its infrastructure within its water rights before or during the proposed project; as a result, water provided to the proposed project could be beyond what the City of Warrenton currently withdraws under its existing water rights.

The Department recommends the following for the FEIS:

1. Table 4.1.3-5 should be updated to include the impairment for dissolved oxygen of the Lewis and Clark River for River Mile 0 – 27.5.

2. In order to isolate the effect of withdrawals for the project irrespective of other infrastructure improvements of the City of Warrenton, the FEIS should analyze the total potential cubic feet per second (cfs) that the project would divert from the Lewis and Clark River along with current instream flow data from the Lewis and Clark River. There is current no instream flow data available for the Lewis and Clark River, so this data must be collected. This analysis is necessary in order to determine if the project would further impair the Lewis and Clark River and if the withdrawals would lead to increases in temperature and decreases in dissolved oxygen that would be outside the limits for federally listed salmonids.

Chum Salmon in the Lewis and Clark River

The DEIS states that "there is a small chance that chum salmon may be present in low numbers in Youngs Bay tributaries crossed by the pipeline route", but it does not include them in the tables listing salmon presence in waterbodies crossed by the Oregon LNG Pipeline (page 4-139). As mentioned in the NPS letter of April 29, 2014,

both juvenile and adult chum have been documented using the Lewis and Clark River (NPS 2014). Juvenile chum were found in the tidal waters of the Lewis and Clark River that flow into the park at Alder Creek (also known as the Fort Clatsop reference wetland) and Colewort Creek (also known as the South Clatsop Slough) at Lewis and Clark National Historical Park (Sagar 2010; Sagar 2011; Sagar 2012).

The juvenile chum found in the park are likely from adult chum that spawn in the mainstem Lewis and Clark River. As discussed in the NPS letter of April 29, 2014, the reaches (30049 and 30051) where spawning chum and redds were found are precisely at the pipeline crossing at MP 11.0 (NPS 2014). This represents the only location in the Youngs Bay Watershed where chum salmon are known to spawn, and in 2013 represented 4.4% of all Oregon adult returns outside of Multnomah/Horsetail Falls (ODFW 2015).

The Department recommends the following for the FEIS:

1. Table 4.1.5-3 should be updated to include chum salmon as a species present at the Lewis and Clark River.

2. The FEIS should include an evaluation of alternatives to the river crossing at MP 11.0 at the Lewis and Clark River to avoid the only known spawning location for chum salmon in the Youngs Bay Watershed. This would eliminate the risk of an HDD frac-out or other spill into the waterbody in this location.

Scenic Resources

The NPS is charged by law with preserving the scenic value of NPS lands for future generations. Viewing scenery is an important part of the visitor experience. There are many public viewpoints on the Lewis and Clark National Historic Trail from which visitors look out across the Columbia River estuary. Scenic resources were also specifically included in the enabling legislation of Lewis and Clark National Historical Park. Visitors would be able to see the terminal from the Cape Disappointment, Dismal Nitch, and Station Camp – Middle Village units of Lewis and Clark National Historical Park.

The NPS has peer-reviewed guidance on how to produce and evaluate visual simulations, (Sullivan and Meyer 2014). This guidance includes general criteria that visual simulations must meet based on Sheppard (2005). The visual simulations must be: (1) spatially accurate and realistic, (2) representative, (3) visually clear, (4) engaging without entertaining, and (5) defensible and documented (Sullivan and Mayer 2014).

The visual simulations in the DEIS do not meet several of these criteria, as further described below. As a result, the NPS considers the visual impact analysis to be “seriously deficient” in depicting the potential impacts of the project (Sullivan and Meyer 2014).

First, simulations presented do not appear to be spatially accurate and realistic and information is lacking as to how the simulations were developed to make a determination of their accuracy. The simulations do not include several important components of the project that impact scenic resources. Most problematic, the simulations do not depict the elevated gas flare. According to the DEIS, the “elevated flare height would be about 68.5 feet tall and the maximum flame length, conservatively assuming no wind, would be about 150 feet” (Page 2-6). This is a dramatic visual impact and one that is not included in the simulations.

The visual simulations also do not depict the scenic impact from the potential upgrade to the Clatsop-Warrenton transmission line. The upgraded Clatsop-Warrenton transmission line would replace current wooden pole structures with much larger metal lattice structures, which would adversely impact the scenic resources of the park.

Figure 2: Comparison of 115-kv structures and 230-kv structures.
Please note: the following photographs do not adhere to visual simulation standards. Taken at different distances, they illustrate the difference in the scale of structures.

Current 115-kv river crossing at the Otter Point wetland restoration site.

230-kv crossing of Youngs River

230-kv crossing of Youngs River

The simulations in the DEIS are not representative of the views experienced by national park visitors. Only one key observation point (KOP) approximates the national park visitor experience: KOP 1 (Tansy Point) which is 0.3 miles from an overlook and interpretive panel on the trail. The visual analysis at this KOP, though not conforming to industry standards, still shows that visual resources will be adversely affected. Across the river, the visitor facilities at Station Camp – Middle Village were constructed specifically to provide "breathtaking views over the Columbia River" (NPS 2010b). In particular, raised platforms were constructed with "sweeping views of the Columbia River and surroundings" (NPS 2010b). At one of these raised platforms, visitors are encouraged to look through representations of spyglasses, towards prominent geographic locations on the Oregon shoreline and put themselves in the place of William Clark as he surveyed the landscape from this location in 1805. The DEIS concludes that "the terminal facilities would be visible in the distance, but would not appear out of character with the existing facilities that are also visible along the shoreline in this area," but it does not actually conduct a visual simulation from a KOP in this area (page 4-255). The proposed project would place in this view two storage tanks that are 190 feet tall and 270 feet wide, an elevated flare 68.5 feet tall with a flame length of 150 feet, an evaporative cooling tower, and other facilities. These are unlike anything in the vicinity.

The simulations in the DEIS are also not visually clear. The resolution used does not depict the project components and landscape with sufficient detail to serve as a sound basis for impact assessment.

The simulations included in the DEIS also lack documentation and therefore do not allow for scientific scrutiny of the methods used. The following documentation is standard industry practice and is necessary in order to evaluate the simulations:

- Geographic coordinates and elevation for the camera/KOP location;
- Date and time of the photograph;
- View direction and camera height;
- Weather conditions;
- Lighting condition (frontlit, backlit, sidelit) and solar azimuth/elevation;
- Camera and lens make and model;
- Focal length used for photograph (for film single-lens reflex [SLR] cameras) or 35-mm equivalent focal length for digital SLR cameras;

- Horizontal and vertical width of field depicted in the simulation;
- Distance to nearest and farthest visible portions of facility;
- Proper viewing distance for the simulation in the presented format; and
- An inset or supplementary map (with a legend) that shows the location of the KOP, the facility boundary and major components, nearby features such as roads and populated places, and that depicts graphically the horizontal field of view shown in the simulation.

The above documentation was not provided in the DEIS. Proper viewing distance is one of the most critical pieces of information that is missing. In order to correctly estimate the project's visual contrast and scale, the simulated photos must be viewed at a distance as prescribed by the National Academy of Sciences (2007): Distance from viewer = Width of Image / (2 * tan (HFOV1/2)). In the DEIS, the simulated views are produced so small that it is difficult to view at the appropriate distance; this results in the proposed project seeming smaller than in actuality (Sullivan and Meyer 2014).

Even without acceptable visual simulations, the Department disagrees with the assertion that the project would "not appear out of character with the existing industrial facilities that are also visible along the shoreline in this area" because of the nature of the shoreline (page 4-256). The majority of the shoreline between Clatsop Spit and the Youngs Bay Bridge is undeveloped and has protected conservation status. The remainder is mostly composed of residential, retail, and small scale commercial facilities such as those at the Hammond and Warrenton marinas. The only nearby industrial site that the DEIS specifically identifies in the visual impacts section is the Warrenton Hampton Affiliates facilities in Warrenton, also referred to as Weyerhauser in the DEIS (page 4-255). To equate the visual impacts of the mill with the proposed LNG terminal is inappropriate. The facilities of the proposed terminal – storage tanks, cooling towers, flare systems – are orders of magnitude larger than the lumber mill, as evidenced by KOP 5 (though this comparison is made using non-conforming visual simulations).

The DEIS arrives at the conclusion that there is no adverse impact to visual resources before soliciting the opinion of those directly impacted by the change in visual resources – such as national park visitors – to determine if they feel the scenic quality would lowered. A properly designed public survey instrument would allow for the change in value of the scenic resources through contingent valuation to be described in a quantified rather than qualitative manner. This contingent valuation approach has been used by several federal agencies to assign the economic value to a viewshed and measure the economic loss from degraded scenic views, including views degraded by energy projects (BLM 2010; BLM 2013; Groothuis, Groothius, & Whitehead 2008; Kask et al, 2002).

The Department recommends the following for the FEIS:

1. The visual simulations used in the DEIS should be redone or revised in order to conform to accepted practices. The NPS should be consulted in the development of the new visual simulations. Because national park visitors will be impacted by the change in scenic resources, the Department recommends using the NPS's guidance document (Sullivan and Meyer 2014). However, other peer-reviewed guidance for evaluating the visual impact of energy projects is available from other agencies and bureaus, such as the Bureau of Land Management. Federal Highway Administration guidance from 1989 does not reflect current science and is not designed specifically for large energy projects.

2. The simulations need to include other components, including an elevated gas flare with a flame length of 150 feet and an upgraded Clatsop-Warrenton transmission line.

3. Additional simulations should be conducted to depict the views experienced by national park visitors. Sites would include Station Camp Middle Village, along the Lewis and Clark River, and along the Lewis and Clark National Historic Trail nearest the terminal.

4. The simulations should provide adequate documentation for how they were created, including the proper distance at which they should be viewed, both on screen and print..

5. The resolution of the simulations needs to be improved so that all details of the facility and landscape can be seen.

6. After the simulations are updated to conform to current standards, public opinion should be sought, including from national park visitors, to determine if the people who would experience the views feel that there would be an adverse impact. The results of this survey should be included in the FEIS.

7. A contingent valuation approach should be used to quantify any economic loss to the change in scenic resources. In the FEIS, the resultant value should be accounted for in the net economic impact of the proposed project. Otherwise, the estimate of economic benefit would be overstated.

8. Further design changes should be made in order to mitigate the visual impact of the project. The scale of the storage tanks and cooling towers, for example, could be reduced to a size commensurate with surrounding buildings. Further research into gas flare units could lead to a smaller visible flame. Though these changes might reduce the size of the proposed project, it would still meet the stated purpose and need for exporting Canadian-sourced natural gas to foreign markets.

Noise

Lewis and Clark National Historic Trail visitors experience the trail through auto touring, land-based exploration, and water recreating. As noted in the DEIS, the site is currently unused and standards were created using previously unused site requirements for noise (page 4-350). Trail visitors have the opportunity to experience natural sounds at this location. Noise generated during the four-year construction period and 50-year operation of the project will adversely affect their experience. Based on Figure 4.1.12-1, trail users will encounter noises above 60 dBA if traveling on the river during construction. During operation with no associated marine traffic, according to Figure 4.1.12-2, trail users on the water will encounter noises over 50 dBA. Currently, there are no noise-sensitive areas (NSAs) or monitoring points associated with recreational visitors. Even if trail users experience sounds under the 55 dBA limit during the operation of the terminal, their experiences with natural sounds will be adversely affected.

There is also the potential for visitors to Lewis and Clark National Historical Park to be adversely affected by noise during construction. Park visitors launch kayaks and canoes at Netul Landing, located on the Lewis and Clark River between the crossings at MP 3.0 and MP 5.0. Traveling upstream and downstream on the river, these visitors will be paddling near six HDD entry and exit points and would experience noise levels above 55 dBA if unmitigated (See Table 1). By the HDD Entry at MP 3.4, the HDD Entry at MP 5.0, and the HDD Exit at MP 6.0, visitors will encounter predicted noise that is higher than experienced at the current NSAs (Table 4.1.12-21). As a result, mitigation that lowers the noise from HDD activities to 55 dBA at the currently designated NSAs might not be sufficient to reduce noise to a 55 dBA level to park visitors. Additional NSAs and monitoring points near the river would improve the ability to protect visitors from noise levels above 55 dBA. Although, even at a 55 dBA noise level, the ability for visitors to experience natural sounds during construction would be impacted.

Table 1

Predicted Unmitigated Noise Levels Experienced by Park Visitors On the the Lewis and Clark River

HDD Site	Approximate distance to visitors, in feet[1]	Unmitigated Noise Levels (L_{eq}, dBA)[2]
Exit at 2.8	1500	55
Entry at 3.4	1000	63
Entry at 5.0	600	68
Exit at 5.5	600	63
Entry at 5.6	1500	60
Exit at 6.0	800	65

1. If visitors are travelling close to the riverbank, distances would be closer and dBA would be higher.
2. Based on Table 4.1.12-20.

The Department recommends the following for the FEIS:

1. The FEIS should include additional NSAs at the locations used by visitors of the Lewis and Clark National Historic Trail and calculate the noise that would be experienced at these points during dredging, pile driving, other construction, operation, and marine traffic associated with the facility. These points should be considered when Oregon LNG refines their terminal operational noise analysis and develops acoustical controls and monitored during construction and operation. Currently, NSAs are only located inland and do not adequately represent the noise that would be experienced by national park visitors on the Lewis and Clark River.
.
2. The FEIS should include additional NSAs and monitoring points in the HDD noise mitigation plan to minimize adverse impacts to visitors on the Lewis and Clark River.

Recreation

Various recreational activities at the Lewis and Clark National Historic Trail and Lewis and Clark National Historical Park would be impacted by the proposed project. The Department is particularly concerned about potential impacts to visitors who are exploring the trail along the Lower Columbia Water Trail. This established 146-mile water trail from the Bonneville Dam to the Pacific Ocean provides sites and facilities for non-motorized boating, and an opportunity to experience this scenic area of the historic route much as the Corps of Discovery did. There are several water trail access sites near the proposed LNG terminal, including – but not limited to – the Hammond marina and the Warrenton marina. These access points are heavily used for recreational purposes.

There would be direct effects on recreation due to safety concerns and exclusion of visitors during construction, operation, and related marine traffic. As noted in the DEIS, kayakers and canoeists typically stay in shallow waters outside of the navigation channel (page 4-238). The LNG Terminal and 2,128-foot access trestle would be constructed in these shallow waters used by kayakers and canoeists. During construction, these recreational vessels would be restricted from the construction area. During operation, the DEIS states that recreation would continue to be allowed on the Lower Columbia Water Trail. However, it is not clear if non-motorized users would be allowed to pass under the access trestle or if a detour around the trestle would be required.

The restored tidal channels of the Otter Point wetland restoration site are paddled by park visitors, including ranger-led tours. The construction proposed to upgrade the transmission line would limit these opportunities.

There would also be indirect effects, as people elect to forgo recreation due to the other impacts of the proposed project. For example, recreationists may feel unsafe in Sandia Zones of Control and choose other areas to recreate. Although the increases in noise and air pollution associated with the proposed project may be below statutory limits, they may lead to a decrease in recreation as visitors avoid these effects. Recreation may also decrease because of the decrease in scenic values. Traffic during construction might also reduce recreation.

When analyzing impacts to visitors, Oregon LNG consulted with the “Port of Astoria and cruise ship representatives” (page 492). However, neither the DEIS nor Oregon LNG included consultation or interviews with other types of tourists to determine if they would continue to visit the area during or after the construction of an LNG facility, as has been done with other LNG projects (Kadar, Pearson & Partners, 2009).

Visitation to Lewis and Clark National Historical Park and Lewis and Clark National Historic Trail provide economic benefit to the local community. In 2014, the 244,920 visitors to Lewis and Clark National Historical Park spent $13.7 million in communities near the park. That spending supported 221 jobs in the local area and had a cumulative benefit to the local economy of over $19 million (Thomas, Huber & Koontz, 2015). The project could lead to a decrease in visitation to national park units because of the indirect and direct impacts to recreation. The economic loss from a potential decrease in visitation should be included in the calculation of economic benefits of the project.

The Department recommends the following for the FEIS:

1. The FEIS should detail how recreational users will be excluded from construction zones: signage, buoys, patrol boats, etc.

2. The FEIS should provide more details on how non-motorized boat users will continue to be able to use the Lower Columbia Water Trail in the vicinity of the terminal and access trestle, including a map and design drawings, if necessary.

3. FERC and Oregon LNG, in collaboration with the Office of Management and Budget (OMB) and the NPS, should conduct a survey of visitors to determine if they would change their visitation patterns based on the construction and operation of the project. The FEIS should include the results of the survey and calculate any projected change in tourist spending. Any change in tourist spending should also be accounted for in the projected net economic impact of the proposed project.

Project-wide Aquatic and Terrestrial Species Concerns

The Department has specific concerns about other aquatic and terrestrial species issues associated with the Project's pipeline segments in Washington and Oregon. Please see the attached table for a complete summary of the Department's concerns and comments.

CONCLUSION

The Department appreciates the opportunity to comment and the collaborative effort undertaken by FERC, the Project proponents, and FERC's third-party contractor to address many of the complex issues associated with the proposed project. The Department encourages FERC staff to conduct a site visit of Lewis and Clark National Historic Trail and Lewis and Clark National Historical Park in order to experience the historical, natural, cultural, and scenic resources that warranted Congressional action to protect them in 1958, 1978, 2002, and 2005.

If you have any questions regarding the data presented or the Department's comments regarding NPS resources, please reach out to the following contacts:

- Dan Wiley, Chief of Resources Stewardship, Lewis and Clark National Historic Trail (402-661-1830, Dan_Wiley@nps.gov)
- Chris Clatterbuck, Chief of Natural and Cultural Resources, Lewis and Clark National Historical Park (503-861-4441, chris_clatterbuck@nps.gov)

If you have any questions regarding the Department's comments in attached table, please contact Doug Young, Fish and Wildlife Service Energy Program Manager, at 503-231-6179.

If you have any other questions or concerns, please feel free to contact me at (503) 326-2489.

Sincerely,

Allison O'Brien

Allison O'Brien
Regional Environmental Officer

Attachments:

Comment Table Draft EIS for Oregon LNG and Washington Expansion Projects—USFWS Review, September 2015

Memorandum of Understanding Among the U.S. Department of Agriculture, Department of Commerce, Department of Defense, Department of Energy, Environmental Protection Agency, the Council on Environmental Quality, the Federal Energy Regulatory Commission, the Advisory Council on Historic Preservation, and Department of the Interior, Regarding Coordination in Federal Agency Review of Electric Transmission Facilities on Federal Land

Literature Cited

Brenkman, S. J. 2008a. *Inventory of fish species in Fort Clatsop National Memorial, Astoria, Oregon (2002). Natural Resource Technical Report NPS/NCCN/NRTR—2008/143*. National Park Service, Fort Collins, Colorado

Bureau of Land Management, 2010. *Estimating Nonmarket Environmental Values*. Available at: http://www.blm.gov/style/medialib/blm/wo/Information_Resources_Management/policy/im_attachments/2010.Par.49792.File.dat/IM2010-061_att1.pdf

Bureau of Land Management, 2013. *Instruction Memorandum 2013-131*. Available at: http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2013/IM_2013-131__Ch1.print.html

Bischoff, J. M, R. B. Raymond, K. U. Snyder, L. Heigh, and S. K. Binder. 2000. *Youngs Bay Watershed Assessment*. E&S Chemistry, Inc. and Youngs Bay Watershed Council, Corvallis, OR.

Deur, D., 2008. *Otter Point Restoration Site Preliminary Cultural/ Historical Assessment*. National Park Service.

Kadar, Pearson & Partners, 2009. *Tourism Impact Assessment – Kimberley Liquefied Natural Gas (LNG) Project*.

Kask, S.B., Mathews, L.G., Steward, S., Rotegard, L., 2002. *Blue Ridge Parkway Scenic Experience Project Final Report*, August 22, 2002. Available at: http://www.nps.gov/blri/learn/management/upload/acf587.pdf

Oregon Department of State Lands 2010. *Essential Salmonid Habitat: Clatsop County.* Available at: http://www.oregon.gov/dsl/PERMITS/docs/maps/clatsop.pdf

Oregon Department of Environmental Quality 2012. *Oregon's Draft 2012 Integrated Report Assessment Database and 303(d) List*. Available at: http://www.oregon.gov/deq/WQ/Pages/Assessment/2012report.aspx

Oregon LNG 2013. *Applicant-prepared Draft Biological Assessment and Essential Fish Habitat Assessment for the Oregon LNG Terminal and Oregon Pipeline Project, December 2013*.

Oregon LNG, 2014a. Environmental Information Request Dated August 1, 2013: Response to Outstanding Resource Report 1 Requests, February 28, 2014.

Oregon LNG, 2014b. Environmental Information Request Dated August 1, 2013. Updated Response to Resource Report 1 Request. Attachment: Temporary and Permanent Land Disturbance from Transmission Line Construction and Operation, July 1, 2014.

Oregon LNG, 2014c. Responses to Federal Energy Regulatory Commission Environmental Information Request Dated July 22, 2014. Responses to Oregon Department of Fish and Wildlife Comments Dated September 26, 2013, and National Park Service Comments Dated April 29, 2014, August 11, 2014.

Groothuis, P.A., Groothuis, J.D., and Whitehead, J.C., 2008. *Green vs. Green: Measuring the Compensation Required to Site Electrical Generation Windmills in a Viewshed*, Energy Policy, 36(4): 1545-1550, April 2008.

National Academy of Sciences. 2007. *Environmental Impacts of Wind-Energy Projects*. Washington, D.C., National Academies Press.

National Park Service, 2010a. *Otter Point Restoration/ Environmental Assessment*.

National Park Service, 2010b. *Station Camp – Middle Village Environmental Assessment.*

National Park Service, 2011. *Forest Restoration Plan / Environmental Assessment*.

National Park Service, 2014. National Park Service Responses To The Applicant-Prepared Draft Biological Assessment and Essential Fish Habitat Assessment for the Oregon LNG Terminal and Oregon Pipeline Project filed on December 30, 2013 and supplemented on January 10, 2014 and April 4, 2014 as well as the attachment Temporary and Permanent Land Disturbance from Transmission Line Construction and Operation that was submitted on February 28, 2014, April 24, 2014.

ODFW, 2015. Chum Reintroduction Project: update and next steps. Available at: http://www.dfw.state.or.us/fish/crp/docs/lower-columbia/meetings/2015/chum_project_2015.pdf

Sagar, J.P., et al, 2010. *Action Effectiveness Monitoring for the Columbia River Estuary Habitat Restoration Program: Annual Report for Year 5 (September 15, 2008 – December 31, 2009).* Lower Columbia Estuary Partnership, Portland, Oregon.

Sagar, J.P., et al, 2011. *Action Effectiveness Monitoring for the Columbia River Estuary Habitat Restoration Program: Annual Report for Year 6 (September 15, 2009 – December 31, 2010).* Lower Columbia Estuary Partnership, Portland, Oregon.

Sagar, J.P., et al, 2012. *Action Effectiveness Monitoring for the Columbia River Estuary Habitat Restoration Program: Annual Report for Year 7 (September 15, 2010 – December 31, 2011).* Lower Columbia Estuary Partnership, Portland, Oregon.

Sheppard, S. 2005. "Validity, Reliability, and Ethics in Visualization." In *Visualization for Landscape and Environmental Planning: Technology and Applications*, edited by I.D. Bishop and E. Lange, 79–97. Oxford: Taylor & Francis.

Sullivan, R. and Meyer, M., 2014 *Guide To Evaluating Visual Impact Assessments for Renewable Energy Projects* Natural Resource Report NPS/ARD/NRR—2014/836.

Thomas, C.C., Huber, C., & Koontz, L. 2014. *National Park Visitor Spending Effects Economic Contributions to Local Communities, States, and the Nation*, Natural Resource Report NPS/NRSS/EQD/NRR—2015/947, National Park Service, 2015.

Comment Table Draft EIS for Oregon LNG and Washington Expansion Projects—USFWS Review, September 2015					
Comment No.	**Project**	**DEIS Section or Appendix**	**Page No.**	**DEIS**	**USFWS Comment**
1	WEP	3.4.2.2, Minor Route Variations; 4.2.3.2 Waterbody Crossings - Surface Waters	3-59, 4-472 to 4-483	Assessing risk of lateral and vertical scour.	The USFWS indicated concern during the administrative DEIS comment period regarding the proposed open-cut method at several major stream crossings along the WEP pipeline. The Toutle River is given as an example here of a major stream crossing. As indicated in the DEIS, WEP determined that Horizontal Directional Drilling (HDD) was not compatible at this location. However, Section 3.4.2.2 notes high water events in recent years that have significantly altered the Toutle River's streambed, exposing existing and abandoned pipelines which required emergency relocation. If HDD is not feasible to use at this higher risk site, please provide further evidence and analysis that the proposed depth and width of the new pipeline will be sufficient to offset risk of future scour and exposure of the pipeline at the Toutle River. For all major waterbodies proposed for open-cut or dam and pump crossing method mentioned in Section 4.2.3.2 *Sensitive and Major Waterbody Crossings*, that have similar high scour risk, please provide an analysis of scour risk and the proposed pipe depth and width design considerations that will be used to avoid impacts from future scour events.
2	OLNG	5.2.1 FERC Staff Recommended Mitigation- OLNG	5-33	*27. Prior to pipeline construction, Oregon LNG shall file its Riparian Restoration and Monitoring Plan with the Secretary for review and written approval by the Director of OEP. The plan shall include seed and planting mixture for the restoration of riparian areas that is based on regional habitat differences, and include documentation of Oregon LNG's consultation and approval of the plan by the NRCS, ODFW, and other applicable agencies.*	The Riparian Restoration and Monitoring Plan should be included as part of the Proposed Action in the Biological Assessment.
3	OLNG	5.2.1 FERC Staff Recommended Mitigation- OLNG	5-40	*28. Prior to construction of the Oregon LNG Project, Oregon LNG shall file with the Secretary a Migratory Bird Conservation Plan, along with documentation of consultation and approval by the FWS.*	The OLNG applicant already has received an example outline of a migratory bird conservation plan from USFWS, and has provided (for the previous import project phase) a draft migratory bird conservation plan that began to apply this previous USFWS guidance. The new OLNG migratory bird conservation plan should follow the outline previously provided to OLNG, be consistent with the FERC EO 13186 MOU with USFWS regarding conservation of migratory birds and their habitats, and should be provided for USFWS review and determination of completeness prior to final submittal to FERC.
4	WEP	5.2.2 FERC Staff Recommended Mitigation- WEP	5-55	*Prior to construction, Northwest shall file with the Secretary a Migratory Bird Conservation Plan, along with documentation of consultation and approval by the FWS.*	The WEP migratory bird conservation plan should be consistent with the EO 13186 FERC MOU with USFWS regarding conservation of migratory birds and their habitats, and should follow the outline for a migratory bird conservation plan, as previously provided to the WEP applicant by USFWS.

5	OLNG and WEP	4.1.3.2, 4.2.3.2 Waterbody Crossings - Surface Waters	4-44 to 4-62, 4-472 to 4-483	Sections regarding waterbody crossings in fish-bearing streams.	Please develop a fish salvage plan that describes, in addition to standard fish salvage protocols, salvage methods in circumstances of emergency salvage situations during waterbody crossing construction, such as inadvertent release of bentonite. Where bull trout may be present, document and utilize fish salvage procedures identified in *Fish Exclusion, Capture, Handling and Electroshocking Protocols and Standards* (USFWS, Lacey, Washington, 2012).
6	OLNG	4.1.7.5 - Migratory Birds	4-146 to 4-151	*"The effects on migratory birds from habitat loss or alteration in habitats lacking substantial woody vegetation would be relatively limited, given that most of these areas are in an early seral stage that mostly attracts species adapted to edges and open habitats."*	This impact assessment for non-woody habitats is not accurate. There are a number of migratory bird species that nest in early-seral forest habitats and edge habitats, as well as grassland and other non-woody vegetation habitats, and clearing within these habitats during the migratory bird breeding season could lead to nesting failure. The conclusion that impacts to migratory bird species within non-forested areas would be "relatively limited" is unsupported in the DEIS, and should be modified in the FEIS. As noted elsewhere in these comments, the FEIS should include a reasonable analysis of OLNG-related impacts to all habitats (not just woody vegetation), and to the migratory bird species that might nest or otherwise utilize those non-forested habitats.
7	OLNG	4.1.7.5 - Migratory Birds	4-146 to 4-151	Discussion regarding Birds of Conservation Concern.	The DEIS identified 15 species of migratory Birds of Conservation Concern that may be impacted by OLNG. In addition to those identified as Birds of Conservation Concern, please also indicate that most bird species native to the U.S. are protected under the MBTA, and protection under the MBTA is not limited to those species with unique conservation status or protection.
8	OLNG and WEP	4.1.7.5 - Migratory Birds and 4.2.7.4 – Migratory Birds	4-146 to 4-151, 4-519	Discussion regarding bald eagles.	Bald eagles are also protected under the Bald and Golden Eagle Protection Act. Please provide a discussion of bald eagles in a separate section pertaining to the Bald and Golden Eagle Protection Act, including a discussion of avoidance and minimization measures outlined in the Act, and how the WEP and OLNG Projects will address this species.
9	OLNG and WEP	4.1.7.5, 4.2.7.4 - Migratory Birds	4-146 to 4-151, 4-519	Section regarding Bald and Golden Eagle Protection Act.	Two field surveys, conducted in 2007 and 2012, identified four bald eagle nests within 0.5 miles of the pipeline route. NPS identified one active bald eagle nest on the Lewis and Clark National Historical Park within 660 feet of the pipeline near MP 5.0. Three years have passed since the last aerial survey for raptor nests. Existing raptor nests should be assumed occupied unless surveys conducted in the year of construction establish that they are unoccupied. Please also indicate if additional raptor nest surveys will be conducted prior to construction, and how WEP or OLNG construction activities will be modified to address any newly-discovered, occupied raptor nest sites.
10	OLNG	4.1.7.5 - Migratory Birds	4-146 to 4-151	Mitigation for the impacts to migratory bird species at the Terminal.	Mitigation for the impacts to migratory bird species at the OLNG Terminal include capping piles offshore of the Terminal to prevent "predatory birds" from preying on migrating juvenile salmon. This mitigation element, including reporting and adaptive management, appears to be OLNG's mitigation to avoid and minimize OLNG-related avian predation of salmonid species. This is not a protective MBTA measure. Please place this salmonid species mitigation measure in the appropriate OLNG fish section.

11	OLNG	4.1.7.5 - Migratory Birds	4-146 to 4-151	The DEIS concludes *"In summary, construction activities may cause minor temporary and short-term impacts on migratory birds through displacement, while no effects are expected on any migratory species at the population level. Oregon LNG would implement mitigation measures to reduce impacts on migratory birds during construction and operation and has also proposed compensatory mitigation for habitat that supports migratory birds. We are recommending that Oregon LNG consult with FWS to prepare a Migratory Bird Conservation Plan. Therefore we conclude that the overall impact of the project on migratory birds would be minor."*	The USFWS notes that a migratory bird conservation plan for OLNG was not available for inclusion in the DEIS. Without fully understanding the migratory bird impacts of OLNG, or the mitigation actions proposed by the applicant to address migratory bird impacts, the DEIS's conclusion of "minor impact to migratory birds" is questionable. Please ensure that the OLNG works with the USFWS to develop a comprehensive assessment of migratory bird effects and develops a migratory bird conservation plan for the OLNG project (per USFWS guidance on outline and contents of a migratory bird conservation plan), and include in the FEIS any migratory bird impact conclusions and offsetting mitigations that are identified in the applicant's migratory bird conservation plan.
12	OLNG	4.1.7.5 - Migratory Birds	4-146 to 4-151	Generalizations about migratory birds.	The DEIS states that migratory bird species do not depend on any one area for their whole life cycle since they are migratory, and that raptors are more easily displaced than species that are more tolerant (song sparrows). These generalizations about migratory bird behavior and responses are misleading and potentially inaccurate; while it is true that most adult birds could avoid or move out of an area under construction, any eggs and nestlings of any migratory bird species within the action area (including the right-of-way as well as adjacent habitats that will be impacted during construction activities) could be adversely impacted by construction activities. In addition, many native bird species do not seasonally migrate; therefore, OLNG-related habitat impacts to these resident migratory bird species could be significantly greater than those truly migratory bird species, which may only utilize the OLNG's action area for portions of the year.
13	OLNG and WEP	4.1.7.5, 4.2.7.4 - Migratory Birds	4-146 to 4-151, 4-519	Timing of habitat clearing.	It is unclear what factors would contribute to any need for vegetation to be cleared in the spring and summer months (avian breeding season). Please describe factors that would result in vegetation needing to be cleared during the avian breeding season for both OLNG and WEP. The migratory bird conservation plans for WEP and OLNG should describe any offsetting actions proposed to address the impacts that may occur when migratory bird habitats are removed during the breeding season.

14	OLNG	4.1.7.5 - Migratory Birds	4-147	"*While some individual birds may be displaced, no effects are expected on any migratory species at the population level*."	In addition to the general, population-scale migratory bird analysis provided in DEIS, please describe (per the USFWS-FERC MOU on implementing FERC's responsibilities under Executive Order 13186 – Migratory Bird Conservation) the OLNG and WEP projects' impacts to migratory bird habitats: 1. Acreage and type of migratory bird habitat that is proposed for clearing; 2. Acreage of migratory bird habitat that will be allowed to regrow into previous habitat 3. Acreage of migratory bird habitat that will be maintained as early-seral habitat. 4. Frequency of maintenance actions that could affect restored migratory bird habitat These migratory bird habitat impacts, as well as impacts to individual migratory birds, should be summarized and addressed within a Migratory Bird Conservation Plan, developed for OLNG and WEP, with USFWS assistance and review. A FERC staff recommendation should continue to be provided in the FEIS indicating that both WEP and OLNG should: "*Prior to construction of the Oregon LNG and WEP Projects, Oregon LNG and WEP should file with the Secretary its agency-approved Migratory Bird Conservation Plan (including each project's migratory bird and habitat avoidance, minimization, restoration, and compensatory mitigation commitments), developed in consultation with the USFWS."*
15	OLNG	4.1.7.5 - Migratory Birds	4-148	"*Birds that nest in proximity to the pipeline corridor could be at most risk of displacement. Extended displacement could result in nest failure. However, disturbance would be short-term and localized."*	The DEIS acknowledges some impacts to migratory bird species during construction, primarily noting the potential for "displacement" of individuals. However, the potential impacts to migratory bird species from the proposed construction of WEP and OLNG are not adequately characterized. While a quantitative assessment of potential nests destroyed may not be practicable, a more comprehensive summary of potential impacts to migratory bird species is warranted in the FEIS, including a general assessment of impacts to individual birds and various life stages, as well as summarization of the acreage of migratory bird habitats impacted.
16	OLNG	4.1.8 Threatened, Endangered and Other Special Status Species	4-152	"*The action agency must submit its BA to the USFWS and/or NMFS and, if it is determined that the action is "likely to adversely affect" a listed species, the federal agency must submit a request for formal consultation to comply with Section 7 of the ESA*."	For clarification, please replace with the following sentence (USFWS suggested changes in **bold**): The action agency must submit its BA to the USFWS and/or NMFS and, if it is determined that the action is "likely to adversely affect" a listed species **and/or their designated critical habitat**, the federal agency must submit a request for formal consultation to comply with Section 7 of the ESA.
17	OLNG	4.1.8 Threatened, Endangered and Other Special Status Species	4-152	*"For purposes of this environmental analysis, special status species of plants and animals include…"*	In addition to the bulleted list of special status species in this section, please add species and critical habitats that are <u>proposed</u> for listing under the ESA.
18	Oregon LNG (OLNG) and Washington Expansion	4.1.8, 4.2.8, Threatened and Endangered Species and	4-153, 4-535	Discussion regarding Endangered Species Act (ESA) effects determinations.	Consultation under the ESA has not been initiated with the USFWS; therefore, conclusions of effects to ESA-listed resources should be noted as preliminary until FERC finalizes the BA.

	Project (WEP)	Designated Critical Habitat			
19	OLNG and WEP	4.1.8 Threatened, Endangered and Other Special Status Species	4-153	*"Prior to construction of the Oregon LNG Project, Oregon LNG should file with the Secretary its agency-approved Mitigation Plan (for sensitive species and their habitats), developed in consultation with the USACE, ODFW, USFWS, WDFW, and NMFS."*	In addition to FERC staff's recommendation regarding agency approval and filing of the OLNG Mitigation Plan with the Secretary, an additional FERC recommendation should be included in the FEIS for the development, agency approval, and filing of the WEP Mitigation Plan. This new FERC staff recommendation should indicate that, prior to construction of WEP, WEP should file with the Secretary its agency-approved Mitigation Plan that is adequate to offset and compensate for the WEP's impacts to natural resources (e.g., threatened and endangered species, migratory birds, aquatic resources).
20	WEP	4.2.3.2, Water Resources, Surface Waters	4-472 to 4-483	*"Operation of WEP generally would not affect surface waters, although maintenance activities requiring ground disturbance in or near waterbodies could result in temporary increases in turbidity. Such impacts would be minimized using the same types of erosion and sediment control measures used during construction. As part of continued operations and maintenance of the right-of-way, Northwest would monitor the 26-inch-diameter pipeline where it is abandoned in place. Northwest would take corrective actions if the pipeline becomes exposed."*	The USFWS has concerns regarding the potential for future exposure of the existing 26-inch-diameter pipeline, which is proposed to be abandoned in place instead of being removed as part of the WEP's action. Exposed pipelines can become a barrier to fish passage and exacerbate erosion or bank failure. For all waterbody crossings mentioned in Section 4.2.3.2 *Sensitive and Major Waterbody Crossings*, especially where bull trout are present and the existing 26-inch-diameter pipeline will be abandoned in place, please include the following discussion, analysis, and additional conservation measures : 1. Please provide an adequate analysis and evidence that any remnant pipeline segments are buried under waterbodies at a sufficient depth, over a sufficient width, to avoid future vertical and lateral scour and subsequent exposure of the pipeline. 2. Identify a remnant pipeline monitoring plan, and discuss the frequency for monitoring for scour and pipeline exposure at stream crossings at all waterbodies mentioned in Section 4.2.3.2 *Sensitive and Major Waterbody Crossings.* 3. Discuss the range of corrective actions that could take place if the 26-inch-diameter pipeline were to be exposed. 4. Ensure that consideration and mitigating actions are given to waterbody crossings at streams and rivers where climate change will continue to contribute to a more variable water regime that is expected to exacerbate erosion, bank failure and scour. Please present and discuss an analysis of how climate change factors were considered in the determination to leave the 26-inch-diameter pipeline in place. 5. The USFWS recommends that old pipelines that will be replaced with new pipelines be fully (or partially) removed on major fish-bearing rivers and streams to reduce the risk of them becoming potential impediments to fish passage in the event that bed scour, channel migration or erosion exposes the pipeline in the future. Please provide a discussion regarding whether removal of the existing pipeline was considered and/or what factors regarding scour depth potential led to the proposal to abandon the pipeline in place. 6. Please ensure that the waterbody crossing designs for WEP, as well as the risk

					evaluation for segments of to-be-abandoned pipeline that will remain under these same waterbody crossings, were guided by the USFWS Risk-Based Approach to Designing and Reviewing Pipeline Stream Crossings to Minimize Impacts to Aquatic Habitats and Species (Castro et al. 2014).
21	WEP	4.2.7.4 – Migratory Birds	4-519	Discussion regarding Birds of Conservation Concern.	The DEIS notes seven species of FWS migratory Birds of Conservation Concern may be impacted by WEP. Please also indicate that the MBTA covers and protects most bird species native to the U.S., and protection under the MBTA is not limited to those species with unique conservation status or protection.
22	WEP	4.2.7.4 – Migratory Birds	4-519	Information regarding raptor nest surveys.	The DEIS states that aerial raptor surveys were conducted in 2013, noting eight raptor nests within 1.5 miles of the WEP pipeline. Please indicate if additional surveys will be conducted prior to construction, and how WEP construction activities will be modified to address any newly-discovered, occupied raptor nest sites. Existing nests should be assumed occupied unless surveys conducted in the year of construction establish that they are unoccupied. Please also indicate if additional raptor nest surveys will be conducted prior to construction, and how WEP construction activities will be modified to address any newly-discovered raptor nest sites.
23	WEP	4.2.7.4 – Migratory Birds	4-519	Information regarding migratory bird avoidance and minimization measures.	Some preliminary migratory bird avoidance and mitigation measures were included in the DEIS, although it was noted that WEP has not finalized its migratory bird conservation measures. The FEIS should more adequately discuss all migratory bird protective measures that WEP will implement, as identified in the yet-to-be-developed WEP migratory bird conservation plan.
24	WEP	4.2.7.4 – Migratory Birds	4-519	"*Because most of the WEP would be constructed within Northwest's existing pipeline right-of-way, thus minimizing disturbance to migratory bird habitat, preconstruction surveys would be conducted, and we are recommending that Northwest prepare a Migratory Bird Conservation Plan that would specifically address measures to avoid, reduce, or mitigate impacts on bird species of special concern, we conclude that the overall impact of the project on migratory birds would be minor.*"	The USFWS notes that a migratory bird conservation plan for WEP was not available for inclusion in the DEIS. Without fully understanding the migratory bird impacts of WEP, or the mitigation actions proposed by the applicant to address migratory bird impacts, the DEIS's conclusion of "minor impact to migratory birds" is questionable. Please ensure that the WEP works with the USFWS to develop a comprehensive assessment of migratory bird effects and develops a migratory bird conservation plan for the WEP project (per USFWS guidance on outline and contents of a migratory bird conservation plan), and include in the FEIS any migratory bird impact conclusions and offsetting mitigations that are identified in the applicant's migratory bird conservation plan.
25	OLNG and WEP	4.2.8.1 Threatened, Endangered and Other Special Status Species	4-535	*"Northwest would implement the following conservation measures to avoid or minimize effects on Oregon spotted frog. Construction and maintenance mowing would not occur during the breeding period (February to March). Construction at waterbody crossings would not occur prior to the in-water work windows that start in mid-July, thereby allowing most, if not all, egg masses to hatch into tadpoles."*	The DEIS states that vegetation clearing will take place outside of the migratory bird breeding season. However, applying timing restrictions on vegetation clearing near waterbody crossings based only on the migratory bird breeding season may not adequately protect Oregon spotted frogs, which may be sensitive to effects of riparian vegetation removal until mid-July. Please include a table showing all stated vegetation clearing windows by resource for both OLNG and WEP, and indicate in the FEIS how the protective timing windows for each affected natural resource will interact (benefit, not benefit) with the other resources.
26	OLNG	Appendix F – OLNG Mitigation and Monitoring	Appendix F-6, Migratory	Information provided in Appendix F-6.	Appendix F6 appears to predate the DEIS, and therefore does not reflect the revisions made within the body of the DEIS. Appendix F6 also does not include guidance language from the FERC-USFWS Executive Order 13186 MOU on

		Plans	Birds—Regulatory Review and Mitigation		conservation of migratory bird habitats. Please update Appendix F6 accordingly.
27	OLNG and WEP	Appendix F and J: Mitigation and Monitoring Plans		Information regarding use of vegetation during WEP and OLNG restoration.	The WEP and OLNG restoration plans should be designed to support the President's pollinator habitat enhancement target via FERC and applicants' efforts to include locally-appropriate pollinator seed mixes in the restoration plan, and long-term efforts to maintain the right-of-way while conserving pollinator plant species. The USFWS recommends revegetating all disturbed areas with a mix of 100% native herbaceous and woody species in both the temporary and permanent revegetation seed mixes. Please ensure that the restoration procedures in the SWPPP also reflect this pollinator/native seed mix request for both OLNG and WEP. Also, the USFWS recommends that FERC ensure each project's long-term operation and maintenance address pollinator plant conservation by requiring appropriate best management practices (e.g., mowing, herbicide application restrictions) that protect pollinator plants from maintenance activities during flowering periods.
28	WEP	Appendix J1: WEP Erosion Control and Revegetation Plan		Missing Mazama pocket gopher conservation measures.	Update the WEP Erosion Control and Revegetation Plan (ECRP) to reflect conservation measures, identified and developed during informal consultation with the USFWS, designed to avoid, minimize and mitigate for impacts to ESA-listed species. Of particular concern are conservation measures designed for habitat restoration activities (including soil disturbance, relocation and revegetation) in prairie areas where the federally-listed Mazama pocket gopher may be present.
29	WEP	Appendix L-Other Sensitive Species	Table L-1, p. L-1	Information regarding Federal ESA status of species.	The Federal ESA status for the following species was incorrectly listed in Appendix L. The correct current ESA status is provided below: 1. Mazama pocket gopher-Threatened 2. Fisher-Proposed Threatened Please update Appendix L to reflect other changes in ESA listing status that may have been made for ESA species and critical habitats since Appendix was last updated.
30	WEP	Stormwater	n/a	Missing information regarding stormwater pollution.	Please provide a Stormwater Pollution Prevention Plan (or equivalent) for WEP (as was provided for OLNG), and indicate where the WEP stormwater pollution best management practices can be found.
31	WEP	Climate Change	n/a	Information regarding climate change assessment for WEP.	There does not appear to be a cumulative assessment of the OLNG and WEP projects' contribution of greenhouse gases to climate change. A discussion on greenhouse gas emissions from WEP was included, but no language regarding the effects of WEP's greenhouse gas production on climate change was provided. Please provide a greenhouse gas and climate change assessment for WEP, and incorporate into a cumulative assessment of combined projects' greenhouse gas effects on climate change.

MEMORANDUM OF UNDERSTANDING AMONG THE U.S. DEPARTMENT OF AGRICULTURE, DEPARTMENT OF COMMERCE, DEPARTMENT OF DEFENSE, DEPARTMENT OF ENERGY, ENVIRONMENTAL PROTECTION AGENCY, THE COUNCIL ON ENVIRONMENTAL QUALITY, THE FEDERAL ENERGY REGULATORY COMMISSION, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, AND DEPARTMENT OF THE INTERIOR, REGARDING COORDINATION IN FEDERAL AGENCY REVIEW OF ELECTRIC TRANSMISSION FACILITIES ON FEDERAL LAND

I. PURPOSE

The Department of Agriculture (USDA), Department of Commerce (DOC), Department of Defense (DoD), Department of Energy (DOE),Environmental Protection Agency (EPA), Council on Environmental Quality (CEQ), Advisory Council on Historic Preservation (ACHP), Department of the Interior (DOI), and the Federal Energy Regulatory Commission (FERC) ("Participating Agencies" or "Participating Agency," as appropriate), enter into this Memorandum of Understanding (MOU) to expedite the siting and construction of qualified electric transmission infrastructure in the United States. As described below, this MOU improves coordination among project applicants, federal agencies, and states and tribes involved in the siting and permitting process. It will improve uniformity, consistency, and transparency by setting forth the roles and responsibilities of these entities when project applicants wish to construct electric transmission infrastructure. In addition, this MOU provides a single point of contact (POC) for coordinating all federal authorizations required to site electric transmission facilities on federal lands, which include interests in land administered by the Participating Agencies.

This MOU supersedes the August 8, 2006, MOU signed by the Participating Agencies. This MOU does not apply to transmission lines that cross the U.S. international border, federal submerged lands, national marine sanctuaries, or the facilities constructed by federal Power Marketing Administrations. Nothing in this MOU will affect the FERC's jurisdiction to license hydroelectric facilities and the appurtenant transmission lines under Part I of the Federal Power Act (FPA).

Through this MOU, the DOE implements its authority under section 216 of the Federal Power Act (FPA), as amended by section 1221(a) of the Energy Policy Act of 2005, to designate a Lead Agency to: (1) serve as the point of contact for applicants, state agencies, Indian tribes, and others regarding proposed projects; (2) coordinate preparation of unified environmental documentation that will serve as the basis for all federal decisions necessary to authorize the use of federal lands for Qualifying Projects as defined in Section III; (3) coordinate all federal agency reviews necessary for project development and siting, including the Bald and Golden Eagle Protection Act, the Clean Air Act (CAA) the Clean Water Act (CWA), Coastal Zone Management Act (CZMA),

Endangered Species Act (ESA), Magnuson Stevens Fishery Conservation and Management Act (MSFCMA), Marine Mammal Protection Act (MMPA), National Marine Sanctuaries Act (NMSA), FPA, the Fish and Wildlife Coordination Act, Migratory Bird Treaty Act, the National Environmental Policy Act (NEPA), and National Historic Preservation Act (NHPA) (Federal Agency Reviews); and (4) maintain a consolidated administrative record of all federal actions taken with respect to a Qualifying Project.

II. BACKGROUND

The President has stated that the country that harnesses the power of clean, renewable energy will lead the 21st century. Expanding and modernizing the transmission grid by siting proposed electric transmission facilities will help to accommodate additional electricity generation capacity over the next several decades, including new renewable generation as well as improve reliability and reduce congestion. The Participating Agencies have significant roles to play in siting these facilities.

Transmission siting involves many different authorities governing the use of federal, state, tribal, and county lands, as well as private lands that make up the landscape. As a result, projects involving multiple federal land management agencies are subject to a wide array of processes and procedural requirements for compliance with legal mandates and multiple authorizations. The intent of this MOU is the coordination of these various requirements and designation of a single federal point-of -contact. On non-federal lands, project applicants must adhere to the processes and comply with the requirements of each land owner and state.

The Participating Agencies have a significant interest in working with constituents and stakeholders to assess impacts from transmission projects and to site these facilities appropriately. Pursuant to statute, the Participating Agencies play different roles in the federal review, authorization and siting process.

Under section 216(h) of the FPA, DOE is authorized to act as the Lead Agency to coordinate federal authorizations and related Federal Agency Reviews required to site an interstate electric transmission facility on federal land. DOE has previously delegated its 216(h) authority to FERC for transmission projects located within National Interest Electric Transmission Corridors (NIETCs) as designated by the Secretary of Energy. That authorization remains unchanged by this MOU. Through this MOU, DOE exercises its authority to designate a Lead Agency for coordinating all required federal authorizations and Federal Agency Reviews for transmission proposals other than applications made pursuant to section 216(b) of the FPA. With respect to such transmission projects the Participating Agencies will carry out their responsibilities under this MOU pursuant to the FERC regulations concerning the siting of transmission facilities in NIETCs (see Part 50 of Chapter 18 of the Code of Federal Regulations).

DEFINITIONS

Cooperating Agencies: For purposes of this MOU, Cooperating Agencies are those that have jurisdiction by law regarding a proposed project, or that otherwise have special expertise with respect to environmental and other issues pertinent to Federal Agency Reviews. States, tribes and local governments with relevant expertise or authority, or that are potentially affected by or interested in a project, also will be invited to participate throughout the Federal Agency Review process as Cooperating Agencies.

Qualifying Projects: For purposes of this MOU, Qualifying Projects are high voltage transmission line projects (generally though not necessarily 230 kV or above), and their attendant facilities, or otherwise regionally or nationally significant transmission lines and their attendant facilities, in which all or part of a proposed transmission line crosses jurisdictions administered by more than one Participating Agency. Qualifying Projects will not include those transmission projects proposed to be sited in a NIETC pursuant to section 216(b) of the FPA.

III. ASSIGNMENT OF LEAD AGENCY FOR FEDERAL AGENCY REVIEWS

DOE will designate a Lead Agency for Qualifying Projects. This designation will recognize the agency with the most significant land management interests related to the Qualifying Project or the agency recommended by other Participating Agencies impacted by the project to be the Lead Agency.

For Qualifying Projects that would cross DOI-administered lands, including trust or restricted Indian land, and USDA-administered lands, the DOI and USDA will consult and jointly determine: 1) whether a sufficient land management interest exists to support their assumption of the Lead Agency role and 2) if so, which of the two agencies should assume that role. The DOI and USDA will notify DOE of their determination in writing or electronically. Unless DOE in writing or electronically notifies DOI and USDA of its objection to such determination within two business days, such determination is deemed accepted.

When the Lead Agency is not established as described above, the relevant Participating Agencies will consult and jointly determine a Lead Agency within 20 days after determining that a proposal is a Qualifying Project. The agencies will notify DOE of their determination in writing or electronically. Unless DOE in writing or electronically notifies those Participating Agencies of its objection within 2 business days, such determination is deemed accepted.

IV. AUTHORITY TO ENTER INTO THIS MOU

General

Section 1221 of the Energy Policy Act of 2005 requires that all federal agencies with authority to issue Federal authorizations enter into a memorandum of understanding to ensure timely and coordinated review and permitting of electricity transmission facilities.

USDA

The authority for the USDA to enter into this MOU includes Service First, Pub. L. No. 111-8, Div. E, Title IV, § 418, 123 Stat. 747 (2005).

DOC

The authority for the DOC to enter into this MOU includes sections 1221(h), 119 Stat. 594, 946-951 (2005) and 16 U.S.C. 824p.

DoD

The Authority for the DOD to enter into this MOU includes the Energy Policy Act of 2005, Pub. L. No. 109-58,§§ 368, 372, 119 Stat. 727-728, 734-735 (2005), and 10 U.S.C. § 2668, and the Sikes Act, 10 U.S.C. §§ 670a-670f, and The Military Lands Withdrawal Act of 1999, Pub. L. No. 106-65, §§ 113 Stat. 885 (1999).

The United States Army Corps of Engineers (USACE) within DOD is responsible for administering laws for the protection and preservation of waters of the United States, pursuant to the requirements of section 10 of the Rivers and Harbors Act (RHA) of 1899 and section 404 of the CWA. Under the RHA the USACE may authorize work and/or structures in or affecting the course, condition, location or capacity of navigable waters of the United States. Under the CWA, the USACE may authorize the discharge of dredged or fill material into waters of the United States, including wetlands, where the USACE determines that the proposed action is the least environmentally damaging practicable alternative. A USACE permit is required whether the work in waters is permanent or temporary. Examples of temporary discharges include dewatering of dredged material prior to final disposal, and temporary fills for access roadways, cofferdams, storage and work areas. A USACE permit is required whether work is proposed on federally-owned land or private property.

DOE

The authority for the DOE to enter into this MOU includes sections 301 and 641 of the DOE Organization Act (42 U.S.C. 7151 and 7251) and 216(h) and 309 of the FPA (16 U.S.C. 824p(h) and 825h).

EPA

The authority for the EPA to enter into this MOU includes NEPA, the CWA, and the CAA.

CEQ
The authority for the CEQ to enter into this MOU is the NEPA(42 U.S.C. 4321 *et*seq.).

FERC
The authority for the FERC to enter this MOU includes section 309 of the FPA.

ACHP
The authority for the ACHP to enter into this MOU includes section 202 of the NHPA.

DOI
The authority for the DOI to enter into this MOU includes section 307(b) of the Federal Land Policy and Management Act of 1976 (43 USC § 1737(b)), the ESA (16 U.S.C. § 1531*et* seq.), NEPA, the Migratory Bird Treaty Act (16 U.S.C. § 703 *et* seq.), the NPS Organic Act (16 U.S.C. §§ 1-3), the Indian Right-of-Way Act of 1948 (25 U.S.C. § 323 *et* seq.), the Act of June 17, 1902 (Reclamation Act), as amended and supplemented (43 U.S.C. § 391 *et* seq.), and Service First, §330, Pub. L. No. 106-291, as amended by §428, Pub. L. No. 109-54 and §418, Pub. L. No. 111-8.

V. LEAD AGENCY RESPONSIBILITIES

A. Pre-Application Coordination: The Lead Agency will notify Participating Agencies of proposed Qualifying Projects in a timely manner and facilitate a pre-application meeting for prospective applicants and relevant federal and state agencies and Tribes to communicate key issues of concern; explain applicable processes; outline the data requirements and applicant submissions necessary to complete the required Federal Agency Reviews in a timely manner; and establish schedules. Upon the request of the applicant, the Lead Agency will coordinate with Participating Agencies and will provide appropriate follow-up information to the applicant within 60 days of the meeting.

B. Consultation with Cooperating Agencies: The Lead Agency will consult fully with the Cooperating Agencies throughout the Federal Agency Review Process to improve coordination, identify and obtain relevant data in a timely manner, set schedules, and identify and expeditiously resolve issues or concerns. If disputes remain unresolved, the dispute resolution process described in section IX.J may be used.

C. Schedule: The Lead Agency will consult with DOE, the Qualifying Project applicant, other affected parties, and Cooperating Agencies to establish an efficient project schedule. The Cooperating Agencies will work diligently to comply with the agreed-upon timeline, to the extent consistent with applicable law. Cooperating Agencies will make necessary decisions, within their respective authorities, regarding federal approvals in accordance with the following time-lines: 1) when an environmental assessment and finding of no significant impact

is determined to be the appropriate level of review under NEPA, within one year of acceptance of a completed application, or 2) when an Environmental Impact Statement (EIS) is required pursuant to NEPA, within 1 year and 30 days after the close of the public comment period for a draft EIS. If a Participating Agency is unable to meet an applicable deadline, it will promptly notify the Lead Agency, Cooperating Agencies, the applicant and other relevant parties, explain the reason for delay, and propose a new projected completion date. If the Lead Agency determines that such delay will result in a substantive change to the project schedule, the Lead Agency will justify such change in writing to DOE.

D. NEPA and Other Environmental Compliance: The Lead Agency will prepare a unified environmental review document for each Qualifying Project application, incorporating, to the maximum extent practicable, a single environmental record on which all entities with authority to issue authorizations for a given project can base their decisions.

E. Consolidated Administrative Record: The Lead Agency will maintain a consolidated administrative record of the information assembled and utilized by the Cooperating Agencies as the basis for their decisions.

F. Electronic Format and Data Standards: The Lead Agency will, to the extent practicable and consistent with federal law, ensure that all project data are submitted and maintained in electronic geospatial formats or other generally-accessible electronic forms (e.g., geographic information system data must include metadata descriptions meeting Federal Geographic Data Committee standards); will compile and make available the information assembled and utilized by the Cooperating Agencies; and as appropriate, provide public access to the data by maintaining on the agency website information and links to the information available from all Cooperating Agencies.

G. Implementing Procedures: The prospective Lead Agencies will coordinate and establish necessary agency procedures to implement their responsibilities when designated as Lead Agency.

VI. COORDINATED Bureau of Land Management (BLM) and U.S. Forest Service (USFS) AUTHORITY

A. Authorizing Officer: For those Qualifying Projects crossing BLM and USFS lands, the BLM and the USFS will select an Authorizing Officer (AO) in accordance with “Service First” authority. The AO may come from either agency. The AO has the authority and responsibility to supervise the work of BLM and USFS personnel on project teams and to issue the right-of-way and temporary use permits on federal lands administered by the BLM or the USFS.

B. Project Manager: The AO will select a Project Manager for each Qualifying Project. The Project Manager will have the authority and responsibility to oversee the project and to facilitate issuance of the relevant final authorizing document(s) (e.g. permit(s)) for the project.

C. Project Teams: The AO will establish the project team consisting of qualified specialists from the Lead Agency and Participating Agencies to assist in the project review. The Project Manager will oversee the work of such teams and elevate to appropriate line officers the need for additional resources or schedule adjustments.

D. Cost Recovery Account: The BLM, USFS, and Participating Agencies will, consistent with relevant law, fund their costs for each project through cost-recovery funds.

VII. RESPONSIBILITIES OF PARTICIPATING AGENCIES

When a Participating Agency is contacted regarding an application for siting a transmission line on federal land, and the Participating Agency determines that it may be a Qualifying Project, the Participating Agency will consult with other relevant Participating Agencies regarding recommendations for Lead Agency designation.

A. USDA

The USDA will fulfill the responsibilities of the Lead Agency, in accordance with section IV of this MOU. The USDA will participate fully in the application and permit process whenever its lands are involved.

USFS

The USFS will fulfill the responsibilities of the Lead Agency in accordance with section IV of this MOU. The USFS AO may issue permits for transmission lines on federal lands administered by the BLM or USFS, under the Service First initiative.

B. DOC

The DOC will participate in the application and permit process whenever and to the extent that resources subject to its jurisdiction are involved, including consultations pursuant to the ESA, the MSFCMA, and NMSA, and authorizations issued pursuant to the MMPA.

C. DoD

Consistent with its national defense mission, the DoD will participate fully in the application and permit process whenever its lands or other lands necessary for training, testing, and operations are identified as locations for qualifying transmission projects. The Lead Agency will consult with DoD

when applicants for transmission projects request use of DoD lands for transmission right-of-ways. DoD will determine whether proposed qualifying projects will adversely impact Defense activities and will work with the Lead Agency to identify measures to mitigate those impacts.

Army Corps of Engineers (USACE)

The USACE will determine whether qualified electric transmission proposals adjacent to Corps civil works water resources projects will adversely impact the project missions, resources and values of such projects, and will work with the Lead Agency to identify measures to avoid, minimize and mitigate those impacts.

The USACE has statutory permitting authorities under Section 404 of the CWA and Section 10 of the RHA. Under these authorities, the USACE is responsible for issuing permits for work involving the discharge of dredged or fill material into waters of the United States, including some wetlands, and for work in navigable waters. Whether a preferred alternative is located on Federal, state, or other public or private land, does not obviate the need for a project proponent to obtain a permit if the proposed work would result in impacts to aquatic resources or navigable water bodies. The Lead Agency shall consult with the USACE to determine if work associated with the construction of a transmission line may have impacts to jurisdictional waters under either statute. If it is determined that a project will have an impact to a jurisdictional area, or if a transmission line will span a navigable water body, the Lead Agency shall inform the project applicant that a USACE permit will likely be necessary. The Lead Agency should endeavor to include pertinent information in any environmental documentation prepared in compliance with NEPA in order to satisfy the USACE's NEPA requirements.

D. DOE

The DOE, having designated the Lead Agency herein, will provide expertise to assist the Lead Agency in determining the suitability of proposed qualifying projects, based on national goals and objectives; technical assistance with regard to evaluating transmission proposals, siting, and mitigation issues; and coordination with regional interconnect institutions, as needed, especially early in the planning process. To ensure adherence to applicable schedules, DOE will provide assistance to the Lead Agency in establishing the schedule and will approve any deviation in the established project schedule. The DOE will also maintain a publicly available website and links to the information available from all Participating and Cooperating Agencies.

E. EPA

The EPA will fulfill its responsibilities relevant to the siting of electric transmission facilities, including, but not limited to, commenting on EIS under section 309 of the CAA, and exercising the authority to participate in the CWA section 404 permit process and to restrict, in certain circumstances, the use of

specific disposal sites for dredged or fill material pursuant to Section 404(c). In this regard, EPA, in coordination with the USACE, will review electric transmission facility proposals that involve the discharge of dredged or fill material in waters of the United States for compliance with the CWA Section 404(b)(1) Guidelines. Additionally, EPA has authority to issue and/or review state and tribe-based permits under the CAA or for activities that involve discharges of pollutants subject to the requirements of the National Pollutant Discharge Elimination System, established under section 402 of the CWA.

F. CEQ
The CEQ will be available to assist in resolving any issues regarding the coordination of the environmental reviews required for siting and permitting qualifying projects.

G. FERC
The FERC will fulfill the responsibilities of the Lead Agency, in accordance with section IV of this MOU.

H. ACHP
The ACHP will be available to assist in resolving any issues regarding the coordination of the environmental reviews required for siting and permitting qualifying projects and to participate in consultation under Section 106 of the NHPA, as needed, in accordance with 36 CFR part 800 "Protection of Historic Properties."

I. DOI
The DOI will fulfill the responsibilities of the Lead Agency in accordance with section IV of this MOU. The DOI will also issue permits for transmission lines on the National System of Public Lands and National Forest System lands, under the Service First initiative, §330, Pub. L. No. 106-291, as amended by §428, Pub. L. No. 109-54 and §418, Pub. L. No. 111-8. Pursuant to the Service First initiative, the BLM may, through Fiscal Year 2011, issue right-of-way grants on National Forest System lands using relevant USDA authority and the USFS may issue grants on public lands using relevant BLM authority.

BLM
The BLM will, where appropriate, be the Agency within the DOI that is responsible for implementation of the duties described in this MOU.

U.S. Fish and Wildlife Service (FWS)
Consistent with its principal trust responsibility to protect and conserve migratory birds, threatened and endangered species, certain marine mammals, and inter-jurisdictional fish, the FWS will consult with applicants for transmission projects potentially affecting any of these resources. The FWS will also consult with

applicants on qualifying projects potentially affecting fresh water or marine resources and water quality. The FWS will determine whether proposed qualifying projects adjacent to national wildlife refuges will adversely impact the resources and values of such refuges, and will work with the Lead Agency to identify measures to mitigate those impacts.

Bureau of Indian Affairs (BIA)
The BIA will facilitate contact with tribes likely to be affected by qualifying transmission projects and ensure that tribal interests are represented and considered. The BIA will review and approve, as appropriate, rights-of-way across trust and restricted Indian land for transmission projects.

Bureau of Reclamation (BOR)
The BOR will coordinate discussions among the BLM, Federal Preference Power Customers, the Power Marketing Administrations within DOE, and Federal Project Use Customers to ensure minimal impacts to qualifying federal project operations and maintenance resulting from the construction and operation of new high-voltage transmission lines.

National Park Service (NPS)
The NPS will determine whether proposed qualifying projects adjacent to units of the National Park System will adversely impact the resources and values of such units, and will work with the Lead Agency to identify measures to mitigate those impacts.

United States Geological Survey (USGS)
The USGS will provide unbiased science and predictive understanding when needed to assist siting qualifying transmission infrastructure on federal lands, including impacts to the water, biology, energy, and mineral resources of those lands. As necessary, the USGS may develop and evaluate inventory and monitoring methods, protocols, experimental designs, analytical tools, and models to measure and assess the immediate and long-term effects of transmission infrastructure.

VIII. PARTICIPATING AGENCY AGREEMENTS

All Departments signatory to this MOU with their respective agencies, and the independent agencies signatory to this MOU, agree to the following:

A. Agency Points-of-Contact (POC): Each Participating Agency will establish, for purposes of implementation of this MOU, a POC to assist with coordination of that agency's participation in future projects. The POC will assist with identifying and assigning appropriate personnel to the project and/or the project team; ensure that timelines are fairly negotiated and met; ensure that their

respective agency participation receives a high priority within the agency; ensure that project design, impact, and mitigation issues are recognized and addressed early in the project planning; and in other ways ensure that each project receives full and appropriate consideration of that agency's interests such that issues can be identified and resolved expeditiously as the project develops.

B. Cooperating Agencies: Cooperating Agencies should participate fully throughout the Federal Agency Review process as described below:

(1) Timely Coordination: Cooperating Agencies will submit reviews in accordance with the timeline established by the Lead Agency after consultation with Cooperating Agencies.

(2) Personnel and Expertise: Cooperating Agencies will provide personnel and/or expertise to the Lead Agency as agreed to during initial project negotiations.

(3) Provide Data and Studies: Cooperating Agencies will be responsible for the provision of any information necessary to complete application reviews and authorizations in accordance with deadlines established by the Lead Agency after consultation with Cooperating Agencies.

(4) Communicate Effectively: Each Cooperating Agency will assign a lead POC for coordination and consultation with the Lead Agency during the life of the project (from the point of initial application to the point of operation).

(5) Share Information and Data: Each Cooperating Agency will share information and data with other Cooperating Agencies and, to the maximum extent practicable, submit information in a common standard for electronic record-keeping and analysis.

(6) Issue Resolution: Cooperating Agencies will ensure that any issues or problems with the project or processes are brought to the immediate attention of the Lead Agency, and will participate fully in seeking and implementing resolution. The Lead Agency will inform Cooperating Agencies regarding new information and necessary changes related to the project.

IX. ADMINISTRATIVE PROVISIONS

A. Nothing in this MOU is intended to or will be construed to limit or affect in any way the authority or legal responsibilities of the Participating Agencies.

B. Nothing in this MOU binds the Participating Agencies to perform beyond their respective authorities.

C. Nothing in this MOU may be construed to obligate the Participating Agencies or the United States to any current or future expenditure of resources in advance of the availability of appropriations from Congress. Nor does this agreement obligate the Participating Agencies, or the United States to spend funds on any particular project or purpose, even if funds are available.

D. The mission requirements, funding, personnel, and other priorities of the Participating Agencies may affect their ability to fully implement all the provisions identified in this MOU.

E. Specific activities that involve the transfer of money, services, or property between or among the Participating Agencies will require execution of separate agreements or contracts.

F. Nothing in this MOU is intended to, or will, be construed to restrict the Participating Agencies from participating in similar activities or arrangements with other public or private agencies, organizations, or individuals.

G. This MOU is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

H. Any information furnished between the Participating Agencies under this MOU may be subject to the Freedom of Information Act, 5 U.S.C. § 552, *et seq.* (FOIA). The Participating Agencies agree to consult one another prior to releasing potentially privileged or exempt documents.

I. All press releases and public statements issued by the Participating Agencies concerning or characterizing this MOU will be jointly reviewed and agreed to by delegated staff representing each of the undersigned signatories.

J. All participants agree to resolve disputes expeditiously. If a dispute arises among the Participating Agencies regarding the terms or the implementation of this MOU, the following steps will be taken:

(1) The Participating Agency that seeks resolution will provide a written statement of its dispute, along with any rationale or supporting

documents, to the other Participating Agencies and DOE within 5 working days. The Participating Agencies and DOE will engage in discussions in an attempt to arrive at a consensus and resolve the dispute;

(2) If no resolution is reached within 10 calendar days of receipt of the statement of dispute, the dispute may be elevated in writing, along with any rationale or supporting documents to the relevant Participating Agencies' respective headquarters-level officials or their designees and CEQ. The principal contacts for the parties will engage in discussions to seek consensus;

(3) If consensus is not reached by the headquarters-level officials within fifteen working days of their receipt of the written statement of the dispute, the Participating Agencies will promptly elevate the matter to the principal policy makers for the respective Participating Agencies and the CEQ Chair who will endeavor to resolve the matter within 20 working days;

(4) The time limits in paragraph (2) may be extended on the agreement of the parties to the dispute. The parties may employ an agency dispute resolution services office to assist in the resolution of disputes. Disputes will be resolved within sufficient time to enable completion of decisions within the deadlines established by the Lead Agency in consultation with the relevant Participating Agencies; and

(5) Any Participating Agency that learns of an applicant or state's intent to appeal any matter under subsection 216(h)(6) of the FPA will immediately notify the principal policy makers of the affected Participating Agencies and CEQ Chair who will engage the applicant or state in discussions to resolve the matter.

K. Periodic meetings of the Participating Agencies will be scheduled to review progress and identify opportunities for advancing the purposes of this MOU.

L. A Participating Agency may terminate participation in this MOU 120 days after providing written notice to the other Participating Agencies.

M. A Participating Agency may amend or modify this MOU through agreement among all Participating Agencies.

N. This MOU is not intended to authorize the siting of any electric transmission facility within the boundaries of any unit of the National Wildlife Refuge System, National Park System, or National Marine Sanctuary System.

O. This MOU is not intended nor will it be interpreted to alter or diminish the consultation responsibilities of federal agencies under Section 7(a)(2) of the ESA or the NHPA.

X. PRINCIPAL CONTACTS

Each Participant hereby designates the following federal employees as the principal contacts regarding this MOU. These contacts may be changed through written notice to each Participant and Participating Agency

DOE:	Director of the Office of Electricity Delivery and Energy Reliability
FERC:	Director of the Office of Energy Projects
DOC/NOAA:	Deputy General Counsel
DOD:	Deputy Undersecretary of Defense for Installations and Environment
DOD/USACE:	Assistant Secretary of the Army for Civil Works
EPA:	Director of the Office of Federal Activities
DOI:	Assistant Director for Minerals and Realty, Bureau of Land Management
CEQ:	Associate Director for NEPA
USDA/FS:	Assistant Director of Lands, Forest Service
ACHP:	Director of the Office of Federal Agency Programs

XI. TERM OF THE AGREEMENT

This MOU will take effect on the date of the last approving signature specified below.

XII. SIGNATORIES

By: _____ Date: OCT 2 3 2009

ASHTON B. CARTER
UNDER SECRETARY OF DEFENSE
ACQUISTION, TECHNOLOGY & LOGISTICS

By: _____ Date: October 23, 2009

TOM VILSACK
SECRETARY OF AGRICULTURE

By: _____ Date: OCT 2 3 2009

KEN SALAZAR
SECRETARY OF THE INTERIOR

By: _____ Date: Oct 22, 2009

GARY F. LOCKE
SECRETARY OF COMMERCE

By: _____ Date: 10/23/09

JON WELLINGHOFF
CHAIRMAN, FEDERAL ENERGY REGULATORY COMMISSION

By: Date: October 23, 2009

LISA P. JACKSON
ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY

By: _____ Date: October 23, 2009

NANCY H. SUTLEY
CHAIR, COUNCIL ON ENVIRONMENTAL QUALITY

By: Date: October 22, 2009

JOHN L. NAU
CHAIRMAN, ADVISORY COUNCIL ON HISTORIC PRESERVATION

By Date: October 23, 2009

DR. STEVEN CHU
SECRETARY OF ENERGY