

Project Review Application For:

Electrical Line Relocation Along the Historic Columbia River Highway Multnomah Falls to Ainsworth State Park Multnomah County, Oregon

Submitted to:

U.S. Government, USDA Forest Service
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Prepared for:

City of Cascade Locks
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Prepared by:

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Project Review Application
Electrical Line Relocation Along the Historic Columbia River
Highway
Multnomah Falls to Ainsworth State Park

Applicant: City of Cascade Locks
P.O. Box 308
Cascade Locks, OR 97014

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Location: The section of the project within the US Forest Service is along the Historic Columbia River Highway from the Horsetail Falls parking lot to just west of the drinking fountain pullout, approximately 2,300 feet. Multnomah County, Oregon

Tax Lots: 1N 6E 3 Tax Lots: 800, 34.8 acres, vacant land
1N 6E 4 Tax Lot: 100, 60.56 acres, vacant land

Property Owner: U.S. Government, USDA Forest Service
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Attachments: Attachment A: Construction, Site & Erosion Control Plans
Attachment B: Multnomah County NSA Application
Attachment C: Wetlands

Project Description

The applicant, the City of Cascade Locks, proposes to replace an overhead utility (electric) line with an underground system within the rights-of-way of the Historic Columbia River Highway (HCRH), Interstate 84 (I-84), and Union Pacific Railroad (UPRR) as well as on National Forest System Lands. This application is only for the portion of the project on National Forest System Lands. However, to avoid difficulty of analyzing impacts for a portion of the project, an in-depth analysis of the project impacts was conducted for the full project area and is available to view on the (see the [Multnomah County Website](#) for full details on the entire Multnomah County project file #T2-08-075).

The existing, three-phase, overhead power lines, which cross the HCRH in several locations, would be removed. New power lines (i.e., three-phase conductors in conduit) would be installed underground along the north side of the HCRH, except in one area where they would be installed underground along the south side of the highway to avoid wetlands.

1.1. Purpose

The purpose of the project is to increase the reliability of electrical service and reduce maintenance and repair needs along the project section. The existing power poles are approximately 50 years old. The western portion of the Columbia River Gorge, which includes the project section, often experiences severe weather conditions such as heavy rain, strong winds, and winter storms including snow and ice. Landslides sometimes occur. The overhead power lines have a history of damage caused by trees, wind, ice, and snow, resulting in disturbance and interruptions to electrical service.

1.2. Location and Site Characteristics

The project corridor lies on the south side of the Columbia River Gorge, characterized by a floodplain terrace between the river and steep, rocky terrain drained by perennial and seasonal tributaries. The project corridor is a rural residential area of the Columbia River Gorge National Scenic Area (NSA). The site lies approximately 10 miles west of the city of Cascade Locks. The project corridor is vegetated primarily by non-native herbaceous and scrub-shrub plant species.

The section of the project within the National Forest in the Columbia River Gorge National Scenic Area is along the Historic Columbia River Highway from the Horsetail Falls parking lot to just west of the drinking fountain pullout, approximately 2,300 feet. (see Attachment A, Construction Sheets 14 - 16). This small portion of the project is located along the Historic Columbia River Highway is from approximately stations 139+00 to 141+25 and 145+75 to station 162+00. The Forest Service is the underlying fee owner with the Oregon Department of Transportation having an easement for Highway 30, Historic Columbia River Highway, in the above described areas. Parts of the proposed line would lie immediately adjacent to the edge of pavement of the HCRH. The area is maintained by ODOT and is covered with gravel, weeds, and some native vegetation. The HCRH is narrow, and the right-of-way available for installation of the

underground line is constrained by steep slopes, rock walls, trees, and (on the north side of the highway) the adjacent railroad tracks.

No trees, at this time, are proposed to be removed on NFS Lands. However, if during the course of construction activities, root systems are encountered and endangered disturbing the viability of any trees and rendering them unsafe, some trees at may be removed. It is expected that the number of trees that this would occur to would be minimal – three at most.

1.3. Proposed Work

Project construction would involve six steps: excavating a trench (or boring in areas that cannot be excavated) for the underground lines, placing conduit in the trench and bores, running wires through the conduit, transferring power from the overhead to the underground lines, removing the overhead lines, and cutting flush and covering poles with natural soil or gravel depending on location. Within ponded wetlands, poles will remain. Cutting flush and covering the poles will be completed by the City of Cascade Locks approximately a year after the underground line is installed.

The applicant will employ a contractor to dig the trenches, create the bores and lay the underground line. One of three different methods, each of which will meet electrical code standards, would be used to bury the proposed line, depending on site conditions.

Where the line is placed immediately adjacent to the HCRH, the contractor will dig a trench approximately 17 inches wide and 14 inches deep (see Plan Sheet 2B). Three 2-inch-diameter PVC conduits would be placed in concrete at the bottom of the trench. The concrete would be at least 10 inches deep. The concrete would be covered with gravel and made to blend into the adjoining areas. Excavators, backhoes, rock saws, directional boring equipment, light duty trucks and trailers will be required during construction. The project would not disturb any of the historic qualities or features of the HCRH such as the historic Warrenite surface or the masonry drinking fountain.

To ensure proper voltage flow and control, the applicant will install 7 concrete vaults (4 feet wide, 4 feet long, and either 4 feet or 6 feet deep) on National Forest System Lands. Proposed vault locations are shown in Attachment A, project plans. The top surface of the vaults would be at grade, and the rest of the vault would be below grade. As shown on Sheet 2B-1, the vault covers would be galvanized steel and painted dark brown to match the natural landscape elements.

No transformer boxes will be located on the NFS Lands Section. Along the rest of the route, the boxes will enclose transformers, which are needed to provide service to the UPRR. Each transformer box will be 32 inches square and 24 inches high, set on a 4-inch high concrete pad. They have a matte plastic surface and will be dark green.

Once the new system is installed, crews will transfer the electric load from the old system to the new system. The old system will be de-energized and its components removed. Lines will be disconnected, and materials recycled or reused when possible. Utility poles

will be cut flush to the ground to minimize potential environmental impacts except where they are within wetlands in which case they will remain in place as requested by the National Marine Fisheries. Light duty trucks and trailers will be used during the energy transfer and dismantling process. Vegetated areas disturbed by construction of the project will be replanted with native plant species of the Columbia River Gorge.

For the east end of the project area, construction access will be from the HRCH with a temporary bridge over Horsetail Creek. The temporary bridge will be wood, 12 feet wide and span over the OHWM for the creek. Any areas disturbed by the temporary bridge will be returned to their pre-project state using appropriate native species.

Work on the HRCH will be done during the day. There will be single lane closures during the day for approximately two weeks. There will be one supervisor and two flaggers to manage traffic flow. Signs will be placed at safe intervals to alert drivers of upcoming lane closures. At night, vertical cones will be placed on the work area to allow the concrete to set. Applicable ODOT *Standard Specifications for Highway Construction* (2008) will be followed for all construction and roadway work.

1.4. Wetlands

A David Evans and Associates, Inc. (DEA) Biologist and Ecologist delineated the project area according to the Level 2 Routine On-Site Method described in the *1987 U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987). This method requires an area to possess a prevalence of hydrophytic vegetation, hydric soils, and wetland hydrology. Under normal circumstances, positive indicators of each of these three parameters must be present for an area to satisfy the criteria for jurisdictional wetlands. Normal conditions exist in the project area. (A copy of the wetland delineation report is included in Attachment C).

In general, plots were located in low areas most likely to experience hydrology. Paired plots were used to establish wetland boundaries.

One wetland, Wetland B, was identified on National Forest System Lands. However, there will be no permanent impacts as a result of the proposed project. Mitigation for temporary impacts is shown in Attachment A, Project Plans.

ODOT's *Standard Specifications for Highway Construction (2008)*, including Section 00280.00 Erosion and Sediment Control, 00290.00 Environmental Protection, Section 00320.00 Clearing and Grubbing, Section 0010.30 Seeding and Section 0010.40 Planting will be followed for the project area. These standards also address Noxious Weed Management. (Standards are included with Attachment B, Multnomah County NSA Application).

1.5. Sensitive Species

Information regarding sensitive species was gathered by examining literature, interviewing local agency representatives for existing information on project-area wildlife and plant habitat and known species locations, and conducting field surveys.

The primary references included:

- US Fish and Wildlife Service (USFWS) Federal Listed and Proposed Endangered and Threatened Species, Candidate Species and Species of Concern that may occur within Multnomah County (USFWS 2007);
- US Forest Service Special Status Plant and Animal Species List (Forest Service 2008);
- Oregon Natural Heritage Information Center (ORNHIC 2008).

The applicant representative conducted interviews with Forest Service biologists with knowledge of the project corridor. These experts included Chuti Fiedler and Robin Dobson, with the Forest Service. These experts were queried for known presence of Special Status species and their habitats, which are known or are likely to occur within the project area (Fiedler and Dobson, pers. comm. 2008).

Existing literature and scientific data were reviewed to determine species distribution and habitat requirements. The (ORNHIC) and the U.S. Fish and the (USFW) databases were queried for documented and projected occurrences of candidate, proposed, and listed species in the project area (ORNHIC 2008, USFWS 2008). National Marine Fisheries Service (NMFS) species and critical habitat information was reviewed (NMFS 2006). The Oregon Department of Fish and Wildlife (ODFW) Fish Habitat Distribution maps were reviewed (ODFW 2006).

Early coordination and pre-consultation with state and federal regulatory agencies were conducted during a series of site visits, meetings, and phone conversation. A scoping visit and meeting was held at the proposed project site on April 25, 2008. Present at the meeting were Jim Brick and Misha Keene, Oregon Department of Fish and Wildlife (ODFW), Tracy Hupp (City of Cascade Locks), David Kennedy, Kristina Gifford, and Loren Stucker of David Evans and Associates, Inc.(DEA). In addition, information pertinent to construction of the project and project impacts were received through telephone and email conversations with Devin Simmons, NMFS.

Specific information on vegetation, soils, habitat, and hydrology was produced during DEA's investigation of the project area, including a wetland delineation and biological assessment site reconnaissance.

The project will have no effect on any of the listed species or designated critical habitat, and will not jeopardize the continued existence of candidate species identified as potentially present. The project would have no adverse effect on Essential Fish Habitat.

Discussions with Devin Simmons (ODOT NMFS liaison) supports a determination of no effect to listed fish species and designated critical habitat for listed fish provided:

- No in stream work would occur
- Removal of riparian vegetation will not occur, or is minor.

- Placement of temporary crossing structures on Oneonta and Horsetail Creeks will not weaken or collapse the stream banks.
- Placement and removal of the work-bridges will occur during the in-water work window.
- The existing overheads lines at Oneonta and Horsetail Creeks would be replaced with a new span that will be 175 feet wide. The unnamed drainage would be avoided by the realignment of the power line to the HCRH.

In addition, NMFS will not require the removal of the currently vacated poles within the before-Wetland B. Due to the nature of creosote poles, access constraints, and the sensitive nature of the wetland it is better to leave the poles intact rather than breaking or cutting them thereby decreasing the likelihood that creosote may be released.

1.6. Cultural Resources

A Finding of Effect letter will be submitted to SHPO. Concurrence is expected and will be forwarded to US Forest Service when received. A cultural survey report conducted by AINW recommends a finding of “No Historic Properties Adversely Affected” per the provisions of 36 CFR 800.5(b) for aboveground historic resources (see Attachment B of the Multnomah County NSA review file). AINW found no evidence of prehistoric or historic-period archaeological resources during the pedestrian survey and the shovel testing work. AINW recommends a finding of “*No historic properties affected*” for archaeological resources per the provisions of 36 CFR 800.4(d)(1). The Oregon Department of Transportation is compiling its own cultural resource document based on AINW’s survey. That document will also be forwarded to the US Forest Service when received.

1.7. Scenic Criteria

The proposed development will not alter the existing topography in the project area. Trenches will be backfilled to existing grade and planted with native vegetation where appropriate. The vault covers will be painted dark brown to minimize their visibility. The transformer boxes would be painted dark green to blend in with the landscape. Any disturbed areas from installation of the project would be restored to their pre-project state and planted with native vegetation if necessary. Four “Underground Utility Warning” will be placed along the line on National Forest System Lands. However, the sign is small 3 inches by 12 inches and will not be visually intrusive.