

NWS-2020-1070 Transmission Services BPA

In wetlands adjacent to unnamed tributaries of the Hylebos Waterway at Tacoma, Pierce County, Washington

Section 1, T20N, R3E

Lat: 47.256628°

Long: -122.366564°

Work: The applicant proposes to excavate and place fill in 98 square feet of PEM/PSS Category III and IV wetlands (Wetlands B and C) to construct a transmission tie-line, which would interconnect the existing transmission lines with a new bay within the Tacoma Substation. The tie-line would be constructed by installing four wood-pole transmission structures in the existing transmission line right-of-way located immediately east of BPA's Tacoma Substation. Two of the structures, labeled Structure 1/2 and 1/3, would be installed in wetlands. Each of these structures would consist of three poles. The two 3-pole structures would have 2 to 4 guy wires attached to each pole, which would connect to helical anchors screwed into the ground.

Holes for placement of the wood pole transmission structures would be excavated using a Vac-truck. Suction would be used to remove a total of 50 cubic yards of soil/slurry from the holes and then pipe the material into an attached tanker. All excavated soil/slurry material would be disposed of at an offsite landfill. The new wood poles would be embedded below-ground at a depth of 8 to 12 feet deep, in a foundation that is 12 to 16 feet deep. To prevent leaching of PCP into wetlands from the treated poles, the portion of the poles below the ground surface would have pole wraps and be enclosed in a 4-foot diameter vertical corrugated metal pipe. Each of the corrugated metal pipe footings would have concrete poured into the first four feet of the footing. The remainder of the excavated hole would be backfilled with 1-inch granular rock above the concrete. In addition, rock would be used to backfill the excavated area around each pole. Rock would be mounded around the base of the pole to 6 inches above ground. The total volume of fill would be 26 cubic yards.

New 230-kilovolt conductor wire would be attached to the structures to complete the tie line. Installation of conductor wire requires pulling and tensioning (P&T) of the conductor, using a puller truck on one end and a tensioner rig on the opposite end of the new conductor. Two P&T sites would be temporarily located within 0.28 of an acre of Wetland B. Because the site is level, no grading would be required. Wooden wetland mats would be installed to prevent compaction of soils. Following construction, the wooden wetland mats would be removed. The emergent vegetation under the wooden wetland mats would maintain their root systems and would not sustain permanent impacts.

The transmission structure work located in, or near, wetlands would be conducted during the dry summer months. Temporary sediment and erosion controls would be used to protect downstream waters.

Following construction, BPA would seed all disturbed wetland areas with a native wetland seed mix consisting of grass species. The seed mix would be broadcast sown in the disturbed areas between September 1 and October 1, and then a layer of certified weed-free, sterile straw would be applied as mulch. If necessary, BPA would reapply the native wetland seed mix to any bare ground areas during the following spring.

Ancillary to the work requiring Corps authorization, additional work would occur inside the BPA Tacoma Substation yard. An unused steel-lattice transmission structure would be removed and a new 76-foot-tall steel-lattice transmission structure would be installed. Several new switch stands and sectionalizing bus work (rigid conductor), along with foundations would be installed. Three new manholes would be added to allow for the addition of sump-pumps. Existing drainage pipes would be re-routed to these locations. Electrical equipment would be installed inside the control house.