Holcomb-Naselle Transmission Line Rebuild Project

Mitigation Action Plan

SUMMARY

This Mitigation Action Plan is for the Holcomb-Naselle Transmission Line Rebuild Project. The project would rebuild the existing 21-mile-long 115-kilovolt (kV) transmission line by replacing many of its wood-pole structures and other line components and improve its road system in Pacific and Wahkiakum counties, Washington.

This Mitigation Action Plan is for the Proposed Action and includes all of the integral elements in the environmental assessment (EA) to mitigate potential adverse environmental impacts.

BPA, BPA's access road contractor (AR Contractor), BPA's tree clearing (TC Contractor), and BPA's best management practices implementation and monitoring contractor (BMP Contractor) are responsible for implementing the mitigation measures during various phases of project construction. *Relevant portions of this mitigation action plan will be included in the construction contract specifications, which will obligate BPA and its contractors to implement the mitigation measures identified that relate to BPA and contractor responsibilities during and after construction.*

If you have any general questions about the project, contact the Project Manager, Amanda Williams: toll-free phone 800-622-4519, direct line 360-619-6634, or email amloran@bpa.gov.

If you have questions about the Mitigation Action Plan, contact the BPA lead for the environmental review, Tish Eaton: toll-free phone 800-622-4519, direct line 503-230-3469, or e-mail tkeaton@bpa.gov.

If you have questions about the Mitigation Action Plan during implementation, contact the BPA environmental leads for project implementation, Jonnel Deacon: toll-free phone 800-622-4519, direct line 503-230-5646, or e-mail jwdeacon@bpa.gov or Greg Tippetts: toll-free phone 800-622-4519, direct line 360-570-4338, or e-mail gptippetts@bpa.gov.

This Mitigation Action Plan may be amended if revisions are needed due to new information or if there are project adjustments.

MITIGATION MEASURES

Minimization and mitigation measures identified to reduce potential impacts associated with the Proposed Action are provided in the Mitigation Action Plan Table.

Mitigation Action Plan Table

BEST MANAGEMENT PRACTICES AND MITIGATION MEASURES	IMPLEMENTATION
Soils and Geologic Hazards	
Stabilize permanent disturbance areas by applying a weed-free gravel (if available) top layer to the roadways.	After construction (BMP Contractor)
Place new structures in existing structure holes to the maximum extent practicable to reduce ground disturbance.	During construction (BPA)
Conduct project construction, including tree removal, during the dry season when rainfall, runoff, and stream flow are low to minimize erosion, compaction, and sedimentation, to the extent practicable.	During construction (BPA/AR Contractor)
Contact BPA geotechnical specialists and the underlying landowner if geotechnical issues, such as new landslides, arise during construction.	During construction (BPA/AR Contractor)
Install appropriate erosion-control devices where needed to minimize soil transport.	Before and during construction (BMP Contractor)
Retain vegetative buffers where possible to prevent sediments from entering waterbodies.	During construction (BPA/AR Contractor)
Include water control structures on reconstructed and improved access roads using low grades, water bars, and drain dips to help control runoff and prevent erosion.	During and after construction (AR Contractor)
Properly space and size culverts on access roads.	During design (BPA)
Apply water from water trucks on an as-needed basis to minimize dust and reduce erosion due to wind.	During construction (BPA/AR Contractor)
Revegetate disturbed areas to help stabilize soils as soon as work in that area is completed and appropriate environmental conditions exist, such as moderate temperatures and adequate soil moisture.	After construction (BMP Contractor)
Inspect revegetated areas to verify adequate growth and implement contingency measures as needed.	After construction (BMP Contractor)
Inspect and maintain access roads and cross-drains to ensure proper function and nominal erosion levels after construction.	After construction (BPA/AR Contractor)
Vegetation	
Use the existing road system to access structure locations.	During construction (BPA/AR Contractor/BMP Contractor)
Minimize the construction area and disturbance to vegetation to the extent practicable, especially in Marbled Murrelet habitat, wetlands, and waterbody crossings.	During construction (BPA/AR Contractor)
Flag rare plant populations in line mile 13 for avoidance during access road work.	Before construction (BPA/BMP Contractor)
Locate materials storage and staging areas in previously disturbed areas.	Before construction (BPA/AR Contractor)

BEST MANAGEMENT PRACTICES AND MITIGATION MEASURES	IMPLEMENTATION
Conduct as much work as possible, including tree removal during the dry season to minimize erosion and soil compaction.	During construction (BPA/AR Contractor/TC Contractor)
Conduct tree removal in a manner that minimizes disruption to remaining trees and shrubs.	During construction (TC Contractor)
Cut trees and leave existing root systems intact to help prevent erosion.	During construction (TC Contractor)
Return temporarily disturbed areas to their original, pre-construction contours and conduct site restoration and revegetation measures before or at the beginning of the first growing season following construction.	After construction (BMP Contractor)
Revegetate disturbed areas with grasses, forbs, or shrubs to ensure appropriate vegetation coverage and soil stabilization prior to rainy season (November 1).	After construction (BMP Contractor)
Keep pulling/tensioning equipment inside the transmission line right-of-way for pulling/tensioning sites located on right-of-way.	During construction (BPA)
Conduct post-construction site restoration monitoring once a month until site stabilization is achieved.	After construction (BPA/BMPContractor)
Prior to construction, identify noxious weed infestation areas for avoidance (as practicable).	Before construction (BPA)
Implement measures to minimize noxious weed spread–inspect vehicles before entering construction areas, install and use weed wash stations and wash before entering or leaving work areas, or use other appropriate equipment cleaning measures.	During construction (BPA/AR Contractor/TC Contractor)
Water Resources, Floodplains, and Fish	
Conduct soil-disturbing activities during the dry season and culvert work when streams are dry, where possible.	During construction (BPA/AR Contractor)
Comply with applicable Clean Water Act permits for work in streams.	During construction (BPA/AR Contractor)
Divert stream flow around the work area and maintain downstream flow if construction occurs during times when streams are flowing.	Before and during construction (AR Contractor)
Isolate in-water work areas prior to culvert installations, dewater work area as necessary for construction and to minimize turbidity, and do not discharge turbid water to streams.	Before and During construction (AR Contractor)
Return temporary disturbance areas for culvert and road work to pre-construction contours: mulch, seed, and plant as per plans and specifications.	After construction (BPA/AR Contractor/BMP Contractor)
Restrict construction vehicles and equipment to access roads and designated work areas.	During construction (BPA/AR Contractor/TC Contractor)
Store, fuel, and maintain all vehicles and other heavy equipment (when not in use) in a designated upland staging area located a minimum of 150 feet away from any stream, waterbody, or wetland or where any spilled material cannot enter natural or manmade drainage conveyances.	During construction (BPA/AR Contractor/TC Contractor)
Dispose of waste material generated from access road work in a stable upland site (in gentle terrain more than 200 feet from waterbodies or wetlands) approved by the BPA environmental lead, smooth to match	During construction (BPA/AR Contractor)

BEST MANAGEMENT PRACTICES AND MITIGATION MEASURES	IMPLEMENTATION
adjacent grades, and seed for stability. In steep terrain or near waterbodies or wetlands, haul waste material offsite.	
Design culverts (non-fish bearing drainages) for the 100-year storm event to minimize future maintenance needs.	During design (BPA)
Develop and implement a spill prevention and spill response plan.	Before and During construction (BPA/BMP Contractor)
Confirm equipment is clean (e.g., power-washed) and that it does not have fluid leaks prior to contractor mobilization of heavy equipment to site; inspect equipment and tanks for drips or leaks daily and make necessary repairs within 24 hours.	Before and During construction (BPA/AR Contractor/TC Contractor)
Contain petroleum product spills immediately, eliminate the source, deploy appropriate measures to clean and dispose of spilled materials in accordance with federal, state, and local regulations, and contact the BPA Environmental Lead.	During construction (BPA/AR Contractor/TC Contractor)
Maintain emergency spill control materials, such as oil booms and spill response kits, on-site at each ford or culvert replacement site at all times and ready for immediate deployment.	During construction (AR Contractor)
Install cross-drains per BPA access road design specifications.	During construction (AR Contractor)
Revegetate disturbed areas using a slow-release fertilizer.	After construction (BMP Contractor)
Locate water drafting sites (locations where contractor may fill water trucks) to minimize adverse effects on stream channel stability, sedimentation, and in-stream flows.	During construction (BPA/AR Contractor)
Conduct in-water work between August 1 and September 30 for all tributaries of the Willapa River and between August 1 and September 15 for tributaries of the Naselle River.	During construction (AR Contractor)
Install culverts in accordance with WDFW fish passage requirements.	During construction (AR Contractor)
Limit the placement of fill for access road work in floodplains to the minimum required.	During construction (AR Contractor)
Install erosion-control measures prior to work in or near floodplains.	Before construction (BMP Contractor)
Prepare and implement a storm water pollution prevention plan.	Before and During construction (BPA/AR Contractor/BMP Contractor)
Use pole wraps and culverts on structures located within 50 feet of a stream or floodplain.	During construction (BPA)
Wetlands	
Use temporary equipment mats when working in wetlands in the wet season and only drive vehicles and equipment across wetlands during the dry season.	During construction (BPA)
Comply with applicable Clean Water Act for all work in wetlands.	During construction (BPA/AR Contractor)
Install erosion-control measures prior to work in or near wetlands (e.g., silt fences, straw wattles, and other sediment control measures)	Before construction (BMP Contractor)
Avoid depositing excavated material in wetland areas.	During construction (BPA/AR Contractor)
Avoid locating construction staging, equipment or materials storage, or vehicle fueling within 150 feet of wetland areas.	During construction (BPA/AR Contractor/TC Contractor)

BEST MANAGEMENT PRACTICES AND MITIGATION MEASURES	IMPLEMENTATION
Use existing roads to access structure locations.	During construction (All)
Remove any temporary equipment mats and revegetate.	After construction (BPA/BMP Contractor)
Restore all temporary disturbance areas to original contours and decompact, if necessary.	After construction (BMP Contractor)
Reseed all temporary disturbance areas in wetlands with native species and monitor revegetated wetland areas to ensure adequate cover.	After construction (BMP Contractor)
Use herbicides to control vegetation near wetlands in accordance with BPA's Transmission System Vegetation Management Program Final Environmental Impact Statement/Record of Decision (BPA 2000) to limit impacts on water quality.	After construction (BPA)
Use pole wraps and culverts on structures located within 50 feet of wetlands	During construction (BPA)
Wildlife	
Install bird diverters where the line crosses rivers, wetlands, or other high bird-use areas, and it would be technically feasible: transmission line spans 2/2 - 2/3, 4/7 - 5/2, 12/7 - 12/8, 13/1 - 14/1, 14/6 - 14/7, and 15/8 - 16/3.	During construction (BPA)
Restore areas disturbed by construction at a minimum to pre-construction condition.	After construction (BPA/ AR Contractor/BMP Contractor)
Remove danger trees in suitable marbled murrelet habitat and within 110 yards of known occupied marbled murrelet habitat outside the nesting season (April 1 and September 23).	During construction (TC Contractor)
Provide maps of areas (including within 110 yards of known occupied marbled murrelet habitat between April 1 and September 23) to be avoided by helicopters to minimize impacts on wildlife.	Before and During construction (BPA)
Schedule work as late in the marbled murrelet nesting season as possible, while still ensuring road work is completed prior to the start of the wet season.	During construction (All)
Schedule work within 110 yards of known occupied (13/4 to 13/6) marbled murrelet habitat during the nesting season (April 1 to September 23) to begin two hours after sunrise and end two hours before sunset; pre-work meetings occurring within two hours of sunrise would occur off-site at a developed location.	During construction (All)
Remove all food scraps and food packaging of any kind from the project sites and transport off-site after each work day; food cannot be left exposed and unattended for any amount of time; no food may be fed to or left for wildlife.	During construction (All)
The BPA environmental lead will inspect the work area and provide trash management recommendations anytime they are on-site and find trash or food being improperly managed.	During construction (BPA)
Cultural Resources	
Locate transmission structures, equipment and material storage area, and access roads to avoid known cultural resource sites and limit ground disturbance.	Before and During construction (BPA/AR Contractor)

BEST MANAGEMENT PRACTICES AND MITIGATION MEASURES	IMPLEMENTATION
Conduct archaeological monitoring in the vicinity of cultural site 45PC247. No ground disturbing activities would occur within or near the existing site boundaries for 45PC247. The number of vehicles would be limited within the site and only parked within the existing access road prism.	During construction (BPA)
Follow BPA's Inadvertent Discovery Procedure which requires that if an inadvertent discovery of cultural resources is made all work in the vicinity would stop immediately and the BPA archaeologist, Washington Department of Archaeology and Historic Preservation (DAHP), affected Tribes, and Washington Department of Natural Resources (WDNR), if applicable, would be notified immediately.	During construction (All)
Stop all operations immediately within 200 feet of the inadvertent discovery of human remains, suspected human remains, or any items suspected to be related to a human burial are encountered during project construction; secure the area around the discovery and immediately contact local law enforcement, the BPA archaeologist, the Washington DAHP, the affected Tribes, and WDNR, if applicable.	During construction (All)
Provide cultural resources awareness training to explain cultural resource-related avoidance and mitigation measures to the BPA transmission line maintenance crew, construction contractors and inspectors during preconstruction meetings.	Before and During construction (BPA)
Depict cultural sites as sensitive areas to avoid in construction documents, on construction maps, and in the field.	Before construction (BPA)
Other Resources	
Place absorbent matting and concrete blocks or cribbing to keep wood poles off the ground in material staging yards.	During construction (BPA)
Provide a construction schedule to all potentially affected landowners.	Before and During construction (BPA)
Maintain existing access to residences and other areas during construction.	During construction (BPA/AR Contractor)
Coordinate with commercial timber landowners to ensure that access road enhancements, gates, and construction and maintenance activities would minimize disruptions to commercial forestry operations.	Before and During construction (All)
Compensate landowners for the value of any property damaged by construction activities, as appropriate.	After construction (BPA)
Use traffic safety signs and flaggers to inform motorists and manage traffic during construction activities on affected roads.	During construction (BPA/AR Contractor)
Install permanent gates at selected locations to minimize unauthorized use of BPA access roads and unauthorized entry to BPA right-of-way.	After construction (AR Contractor)
Where existing rural roadways are narrow, provide traffic control to ensure traffic safety.	During construction (AR Contractor)
Follow the applicable state, county, and city requirements for traffic control and lane closures.	During construction (BPA/AR Contractor)
Use water trucks to control dust during construction, as needed.	During construction (BPA/AR Contractor)

BEST MANAGEMENT PRACTICES AND MITIGATION MEASURES	IMPLEMENTATION
Keep all vehicles in good operating condition to minimize exhaust emissions.	During construction (All)
Turn off construction equipment during prolonged periods of non-use.	During construction (All)
Drive vehicles at low speeds (less than 20 miles per hour) on access roads and in the BPA right-of-way to minimize dust.	During construction (All)
Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites.	Before construction (BPA/AR Contractor)
Locate staging areas in previously disturbed or graveled areas to minimize soil and vegetation disturbance where practicable.	Before construction (BPA/AR Contractor)
Encourage the use of the proper size of equipment for the job to maximize energy efficiency.	During construction (All)
Recycle or salvage non-hazardous construction and demolition debris where practicable.	After construction (All)
Dispose of wood poles at an appropriate facility in the local area where practicable.	After construction (BPA)
Use local rock sources for road construction that meet road material and weed free standards, if possible.	During construction (BPA/AR Contractor)
Use non-reflective conductors.	During construction (BPA)
Focus security lighting at staging areas and the material storage yard inward to minimize spillover of light and glare.	During construction (BPA)
Require that BPA and all contractors maintain a clean construction site and remove all construction debris.	During and After construction (All)
Use sound-control devices on construction equipment with gasoline or diesel engines and limit construction noise to daylight hours (7:00 a.m. to 7:00 p.m.) to reduce noise impacts.	During construction (All)