

Hills Creek-Lookout Point Transmission Line Rebuild

Mitigation Action Plan

SUMMARY

This Mitigation Action Plan is for the Hills Creek-Lookout Point Transmission Line Rebuild Project. The project would rebuild the 26-mile Hills Creek-Lookout Point transmission line and improve the associated access network located in Lane County, Oregon.

This Mitigation Action Plan is for the Proposed Action and includes all of the integral elements and commitments made in the 2017 environmental assessment (EA) and Supplemental EA to mitigate potential adverse environmental impacts.

BPA and its 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 the contractor to implement the mitigation measures identified that relate to contractor responsibilities during and after construction.

If you have any general questions about the project, contact the Project Manager, Jeff Flansburg: toll-free telephone 800-622-4519, direct telephone 360-619-6571, or e-mail jtflansburg@bpa.gov.

If you have questions about the Mitigation Action Plan, contact the BPA lead for the environmental review, Beth Belanger: toll-free telephone 800-622-4519, direct telephone 503-230-7579, or e-mail babelanger@bpa.gov.

If you have questions about the Mitigation Action Plan during implementation, contact the BPA environmental lead for project implementation, Jonah Reenders: toll-free telephone 800-622-4519, direct telephone 503-230-4723, or e-mail jdreenders@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

MINIMIZATION AND MITIGATION MEASURE	IMPLEMENTATION
Land Use, Recreation and Transportation	
Provide a construction schedule to all potentially affected landowners.	Before and during construction (BPA/ Contractor)
Post a construction schedule at Oakridge Airport and all potentially affected recreational areas.	Before and during construction (BPA/Contractor)
Coordinate the construction schedule with US Forest Service recreation specialists to post alerts for construction activities that may impact users of recreational facilities.	Before and during construction (BPA/ contractor)
Maintain existing access to residences and other areas during construction.	During construction (BPA/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 (BPA/Contractor)
Compensate landowners for the value of any property damaged by construction activities, as appropriate.	After construction (BPA)
Coordinate with local agencies to avoid construction activities that could conflict with their own construction activities.	Before and during construction (BPA/ Contractor)
Prepare a notice about construction activities and a proposed schedule for posting on the ODOT's traffic advisory website called Trip Check (www.tripcheck.com)	Before construction (BPA)
Schedule construction activities at the transmission line crossings of Highway 58 to avoid lane closures during peak travel times, as determined in coordination of ODOT.	Before and during construction (BPA/Contractor)
Use traffic safety signs and flaggers to inform motorists and manage traffic during construction activities on affected roads.	During construction (BPA/Contractor)
Install permanent gates at selected locations to minimize unauthorized use of BPA access roads and unauthorized entry to BPA right-of-way.	During construction (BPA/Contractor)
Where existing rural roadways are narrow, provide traffic control to ensure traffic safety.	During construction (BPA/Contractor)
Follow the applicable state, county, city, and railroad requirements for traffic control and lane closures.	During construction (BPA/Contractor)
Coordinate with ODOT to obtain any permits that may be required for new approaches to ODOT-managed state right-of-way, work within the state highway right-of-way, or use of oversized or over weight vehicles.	Before construction (BPA/Contractor)
Coordinate with Lane County Public Works to obtain any right-of-way permits that may be required for project activities, including hauling, within Lane County roadways and right-of-way.	Before construction (BPA/Contractor)
Geology and Soils	
Place absorbent matting and concrete blocks or cribbing to keep wood poles off the ground in material staging yards.	During construction (BPA/Contractor)
Stabilize permanent disturbance areas by applying a weed-free gravel (if available) top layer to the roadways.	After construction (BPA/Contractor)
Place new structures in existing structure holes to the maximum extent practicable to reduce ground disturbance.	During construction (BPA/Contractor)
Barrier wraps, or other encapsulating methods, would be installed on wood poles within 50 feet of wetlands or streams or within the 100-year floodplain to	During construction (BPA/Contractor)

prevent potential leaching of pentachlorophenol (PCP) into surrounding soils.	
Conduct project construction, 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/Contractor)
Contact BPA geotechnical specialists and the underlying landowner if geotechnical issues, such as new landslides, arise during construction.	During construction (BPA/Contractor)
Install appropriate erosion-control devices where needed to minimize soil transport.	Before and during construction (BPA/Contractor)
Retain vegetative buffers where possible to prevent sediments from entering waterbodies.	During construction (BPA/Contractor)
Design access road enhancements using low grades, water bars, and drain dips to help control runoff and prevent erosion.	Before construction (BPA)
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 (BPA/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/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 (BPA/Contractor)
Inspect revegetated areas to verify adequate growth and implement contingency measures as needed.	After construction (BPA/Contractor)
Inspect and maintain access roads and cross-drains to ensure proper function and nominal erosion levels after construction.	After construction (BPA/Contractor)
Salvage, stockpile, and solarize (for 2 to 4 weeks with plastic to kill weeds) selected topsoil where practicable for replacement on cut/fill slopes to improve site restoration and plant establishment.	During construction (BPA/Contractor)
Vegetation	
Use the existing road system to access structure locations.	During construction (BPA/Contractor)
Minimize the construction area and disturbance to vegetation to the extent practicable, especially within Forest Service and Corps habitat restoration areas, Northern spotted owl habitat, wetlands, and waterbody crossings.	During construction (BPA/Contractor)
Locate materials storage and staging areas in previously disturbed areas.	Before construction (BPA/Contractor)
Conduct as much work as possible, including tree removal during the dry season to minimize erosion and soil compaction.	During construction (BPA/Contractor)
Conduct tree removal in a manner that minimizes disruption to remaining trees and shrubs.	During construction (BPA/Contractor)
Cut trees and leave existing root systems intact to help prevent erosion.	During construction (BPA/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 (BPA/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 (BPA/Contractor)
Keep pulling/tensioning equipment inside the transmission line right-of-way for pulling/tensioning sites located on right-of-way.	During construction (BPA/Contractor)
Conduct post-construction site restoration monitoring with at least three field visits per year until site stabilization is achieved.	After construction (BPA/Contractor)
Prior to construction, identify noxious weed infestation areas for avoidance (as practicable) and/or treat noxious weeds adjacent to access roads and structure sites.	Before and during construction (BPA/Contractor)

Perform follow-up monitoring and treat infestation areas after construction if needed.	During and after construction (BPA/Contractor)
Perform weed treatment in disturbed areas along trails as needed for up to 3 years following construction.	After construction (USFS Restoration Team)
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/Contractor)
Implement planting plan that would benefit native pollinators for the abandoned and new right-of-way in line mile three.	After construction (BPA/USFS Restoration Team)
Streams and Fish	
Conduct in-water work in the Middle Fork Willamette River sub basin between August 1 and August 31 in Buckhead and Burnt Bridge creeks, and between July 1 and August 31 in all other streams, or during ODW biologist-approved extensions.	During construction (BPA/Contractor)
Conduct soil-disturbing activities during the dry season and culvert work when streams are dry, where possible.	During construction (BPA/Contractor)
Comply with applicable Clean Water Act permits for work in wetlands or streams.	During construction (BPA/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 (BPA/Contractor)
Isolate in-water work areas prior to culvert and ford installations, dewater work area as necessary for construction and to minimize turbidity. Do not discharge turbid water to streams.	During construction (BPA/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/Contractor)
Restrict construction vehicles and equipment to access roads and designated work areas.	During construction (BPA/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/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 adjacent grades, and seed for stability. In steep terrain or near waterbodies or wetlands, haul waste material offsite.	During construction (BPA/Contractor)
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/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/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/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 (Contractor)
Install cross-drains per BPA access road design specifications.	During construction (Contractor)
Revegetate disturbed areas using a slow-release fertilizer.	After construction (BPA/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/Contractor)
Conduct in-water work between August 1 and August 31 for work in Buckhead and Burnt Bridge Creeks and between August 1 and September 30 for all other streams.	During construction (BPA/Contractor)
Install culverts and fords in accordance with ODFW fish passage requirements.	During construction (BPA/Contractor)
Prepare and implement a storm water pollution prevention plan.	Before and During construction (BPA/Contractor)
Use pole wraps on structures located within 50 feet of a stream.	During construction (BPA/Contractor)
Conduct fish salvage according to NMFS/ODFW requirements.	During construction (BPA/Contractor)
Out slope access roads (e.g. 2 to 5 percent), maintaining natural drainage patterns and minimizing interceptions and concentration of up gradient runoff when practicable.	During construction (BPA/Contractor)
Wetlands, Floodplains and Groundwater	
Install erosion-control measures prior to work in or near floodplains.	Before construction (BPA/Contractor)
Limit the placement of fill for access road work in floodplains to the minimum required.	During construction (BPA/Contractor)
Avoid and minimize wetland impacts where possible by marking wetland boundaries. 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/Contractor)
Obtain and comply with applicable Corps Clean Water Act and State of Oregon removal/fill permits for all work in wetlands or streams.	During construction (BPA/Contractor)
Install erosion-control measures prior to work in or near wetlands (e.g., silt fences, straw wattles, and other sediment control measures) and reseed disturbed areas as required.	Before and after construction (BPA/Contractor)
Avoid depositing excavated material in wetland areas.	During construction (BPA/Contractor)
Avoid locating construction staging, equipment or materials storage, or vehicle fueling within 150 feet of wetland areas.	During construction (BPA/Contractor)
Use existing roads to access structure locations. Clearly mark road sections to be decommissioned before construction	During construction (BPA/Contractor)
Remove any temporary equipment mats and revegetate.	After construction (BPA/Contractor)
Restore all temporary disturbance areas to original contours and decompact, if necessary.	After construction (BPA/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/Contractor)
Replant all temporary disturbance areas within wetlands with native species and remove or control invasive plants until native plants are well-established. Monitor revegetated wetland areas to ensure adequate cover. 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) and the Forest Service's EIS and Record of Decision for Preventing and Managing Invasive Plants (U.S. Forest Service 2005) to limit impacts to water quality	During and after construction (BPA/Contractor)
Revegetate decommissioned road segments through wetlands	During construction (BPA/Contractor)
Purchase 0.7 wetland mitigation bank credits at the Coyote Prairie North Mitigation Bank to replace lost wetland area, functions and values for 0.69	Before construction (BPA)

acres of wetland impacts in the Middle Fork Willamette River watershed that are within the service area of the bank (west of Oakridge).	
Purchase 0.07 credits from Oregon Department of State Lands' Payment-in-Lieu Program to compensate for lost wetland area, functions and values outside of service area of any mitigation bank or fee-in-lieu program (east of Oakridge).	Before construction (BPA)
Limit the placement of fill for access road work in floodplains to minimum required.	During construction (BPA/Contractor)
Install erosion-control measures prior to work in or near floodplains.	During construction (BPA/Contractor)
Prepare and implement a storm water pollution prevention plan.	Before construction (Contractor)
Use pole wraps, or other encapsulating methods, on structures located within 50 feet of wetlands or streams or within the 100-year floodplain.	During construction (Contractor)
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 1/1-1/5, 2/6-2/7, 4/9-5/1, 8/2-8/4, 9/2-9/7, 10/5-10/9, 11/1-11/6, 16/4-16/5, 17/5-17/6, 18/5-18/6, 20/8-20/9, 22/3-22/4, 23/1-23/2, 26/3-26/9.	During construction (BPA)
Trim or girdle up to 20 of the trees identified for removal on Forest Service land between line miles 9 and 16 within the right-of-way to provide habitat/structure for wildlife, particularly Northern spotted owls, small mammals and amphibians	During construction (BPA)
Trim or girdle up to 35 of the trees identified for removal on Forest Service/Corps land between line miles 15 and 22 within the right-of-way to provide habitat/structure for wildlife.	During construction (BPA)
Restore areas disturbed by construction at a minimum to pre-construction condition.	During construction (BPA/Contractor)
Avoid tree removal between April 1 and July 15 to minimize displacement of nesting birds.	During construction (BPA/Contractor)
Remove danger trees in suitable Northern spotted owl habitat and within 110 yards of known occupied Northern spotted owl habitat outside the nesting season (March 1 and July 15).	During construction (BPA/Contractor)
Provide maps of areas (including within 110 yards of known occupied Northern spotted owl habitat between March 1 and September 30) to be avoided by helicopters to minimize impacts on wildlife.	Before and During construction (BPA)
Avoid all work within 0.25 mile of occupied Northern spotted owl sites during the critical breeding period: March 1 through July 15.	During construction (BPA/Contractor)
Schedule work as late in the Northern spotted owl nesting season as possible, while still ensuring road work is completed prior to the start of the wet season.	During construction (BPA/Contractor)
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 (BPA/Contractor)
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/Contractor)
Provide cultural resource monitors, as necessary, to observe ground-disturbing activities in areas of previously documented cultural sites.	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, Oregon State Historic Preservation Office (SHPO), affected Tribes, and Willamette National Forest, if	During construction (BPA)

applicable, would be notified immediately.	
Stop construction in the area immediately should human remains or burials be encountered. Secure the area, placing it off limits for anyone but authorized personnel, and immediately notify proper law enforcement, the BPA archaeologist, the Oregon SHPO, and the tribes.	During construction (BPA/Contractor)
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)
Implement any additional cultural resource mitigation measures identified through the Section 106 consultation process.	Before and during construction (BPA/Contractor)
Visual Quality	
Locate construction staging and storage areas away from locations that would be clearly visible from residences and recreation facilities.	Before and during construction (Contractor)
Focus security lighting at staging areas and the material storage yard inward to minimize spillover of light and glare.	During construction (Contractor)
Require that contractors maintain a clean construction site and remove all construction debris.	During construction (Contractor)
Socioeconomics and Public Health	
Maintain access to all businesses, residences, and public facilities during construction.	During construction (Contractor)
Notify local agencies, residences, and business owners of upcoming construction activities and potential disruptions associated with the Proposed Action.	Before and during construction (BPA/Contractor)
Coordinate with utility providers that share BPA right-of-way to determine the exact locations of utilities and minimize service disruptions to other utility lines.	Before and during construction (BPA/Contractor)
Compensate landowners at market value for any new land rights required for new, temporary, or permanent access roads on private lands and apply for applicable permits to obtain new access rights on public lands.	Before construction (BPA)
Noise, Public Health and Services	
Use sound-control devices on construction equipment with gasoline or diesel engines and limiting construction noise to daylight hours (7:00 a.m. to 5:00 p.m.) to reduce noise impacts.	During construction (Contractor)
Implement spill prevention and response plan.	During construction (Contractor)
Air Quality	
Use water trucks or other dust control measures to control dust during construction.	During construction (Contractor)
Keep all vehicles in good operating condition to minimize exhaust emissions.	During construction (Contractor)
Turn off construction equipment during prolonged periods of non-use.	During construction (Contractor)
Drive vehicles at low speeds (less than 5 mph) on access roads to minimize dust during high dust conditions.	During construction (Contractor)
Greenhouse Gases	
Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites.	During construction (Contractor)
Locate staging areas in previously disturbed or graveled areas to minimize soil and vegetation disturbance where practicable.	During construction (Contractor)
Encourage the use of the proper size of equipment for the job to maximize energy efficiency.	Before and during construction (BPA/Contractor)
Recycle or salvage non-hazardous construction and demolition debris where	During and after construction (Contractor)

practicable.	
Dispose of wood poles off-site at an appropriate facility in the local area where practicable.	During and after construction (Contractor)
Use local rock sources for road construction that meet road material and weed free standards, where practicable.	During construction (Contractor)
Obtain approval to operate temporary backup diesel generators under Lane County's General Air Containment Discharge permit administered by Lane Regional Air Protection Agency.	Before construction (BPA)
References: Bonneville Power Administration (BPA) 2000. <i>Transmission System Vegetation Management Program Final Environmental Impact Statement/Record of Decision</i>	