

Mitigation Action Plan
for the
**Walla Walla–Tucannon River Transmission Line
Rebuild Project**
DOE/EA-1731

Summary

This Mitigation Action Plan (MAP) is part of the Finding of No Significant Impact (FONSI) for the Walla Walla–Tucannon River Transmission Line Rebuild Project (Proposed Action). The Proposed Action involves rebuilding the 47-mile-long 115-kilovolt (kV) transmission line from the existing Walla Walla Substation, located in the city of Walla Walla, Washington, to the existing Tucannon River Substation, located near the town of Dayton, Washington.

This MAP is for the Proposed Action and includes all of the integral elements and commitments made in the Environmental Assessment (EA) to mitigate any potential adverse environmental impacts.

BPA and its contractor are responsible for implementation of mitigation measures during various phases of the project. A BPA contractor will remove old wood-pole structures and replace with new wood-pole structures and associated structural components. To ensure the contractor will implement mitigation measures, the relevant portions of this MAP will be included in the construction contract specifications developed for the project. This will obligate the contractor to implement the mitigation measures identified in the MAP that relate to contractor responsibilities during construction and post-construction.

If you have general questions about the project, contact the Project Manager, Stephanie Breeden, at 503-230-5192. If you have questions about the MAP, contact the Project Environmental Manager, Eric Orth, toll-free at 800-282-3713 or direct at 360-619-6559, or the Regional Environmental Specialist, Shawn Barndt, at 509-542-5437. This MAP may be amended, if revisions are needed due to new information or if there are any significant project changes.

Consultation Related to Mitigation Measures

BPA has consulted with the U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service under Section 7 of the Endangered Species Act on the potential effects of the Proposed Action on federally listed species and their habitat. Although impacts on some federally listed species or their habitat may occur during construction of the Proposed Action, implementation of the mitigation measures listed below will reduce impacts to low to moderate.

Although a formal delineation of waters of the U.S. has not been conducted, it is anticipated that the Proposed Action would result in low impacts on waters of the U.S., including wetlands. BPA will coordinate with the U.S. Army Corps of Engineers to determine the need for permitting. The mitigation provided below and in the EA is intended to minimize potential effects on waters of the U.S., and would be reflected in any required permit applications submitted in the future.

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effects of their actions on historic properties. The NHPA Section 106 process enables agencies to assess impacts on historic properties along with participation from interested and affected parties such as tribes, and then avoid, minimize, or mitigate for these impacts. Historic properties may be prehistoric or historic sites, including objects and structures that are included in or eligible for inclusion in the National Register of Historic Places (NRHP). Historic properties also include artifacts or remains within historic sites and properties of traditional and cultural importance to tribes.

As part of the Section 106 consultation process, a cultural resources assessment of the potential for the study area to support historic, archaeological, and Native American resources was completed in September 2010. The cultural resources assessment was based on a review of known archaeological resources within a one mile radius of the study area, as inventoried on the Washington Information System for Architectural and Archaeological Records Data at the Washington State Department of Archaeology and Historic Preservation (DAHP) in Olympia, Washington. A pedestrian survey of the study area was completed in August 2010. BPA also provided information and requested input on the Proposed Action from the following tribes during development of the EA: the Confederated Tribes of the Colville Indian Reservation, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes and Bands of the Yakama Nation, and the Nez Perce Tribe. Consultation with these tribal organizations was initiated on March 3, 2010, and BPA received letters of concurrence based on their surveys on December 14, 2010.

With the exception of the transmission line itself, there are no known historic, archaeological, or Native American resources in the study area. Although not currently listed, the Walla Walla–Tucannon River transmission line is considered eligible for listing on the NRHP. Previous work on the transmission line, which included in-kind replacement of structures, has moved forward with a determination of no adverse effect from DAHP. The mitigation measures prescribed below are intended to minimize impacts on unknown cultural resources, should they be discovered during construction of the Proposed Action.

Mitigation Measures

The following minimization and mitigation measures have been identified to reduce potential impacts associated with the Proposed Action.

Mitigation Action Plan Table

Environmental Resource	Mitigation
Land Use and Recreation	<ul style="list-style-type: none"> • Because the construction of a regional electric transmission line is not consistent with stated uses in the Columbia County zoning ordinance, BPA will directly engage Columbia County planning staff to address potential concerns regarding the Proposed Action. • A schedule of construction activities will be developed and distributed to all potentially affected agricultural landowners along the corridor to allow planting, harvesting, or maintenance activities to be scheduled around construction, and/or residents in the area to know when they might be affected by construction activities. • Potentially affected landowners along the corridor will be consulted regarding timing of construction activities. To the greatest extent feasible, BPA will schedule construction during periods when active farms along the corridor are likely to be fallow to minimize the potential for crop damage. • BPA will compensate landowners for the fair market value of commercial crops damaged or destroyed by construction activities. Removal of trees from the existing right-of-way to maintain safety of the transmission line will not be subject to compensation. • Disturbed areas will be revegetated after the conclusion of construction with the exception of those areas required to remain clear to ensure the safety of the transmission line and access to the structures. • To the greatest extent possible, construction activities and equipment will be kept clear of residential driveways. • The routing and scheduling of construction traffic will be coordinated with the Washington State Department of Transportation (WSDOT) and county road staff to minimize temporary interruptions to local traffic when trucks cross roads to access the study area. Road closures and traffic delays will be publicized to minimize impacts on recreational bicyclists or other visitors who may use the affected roads for access to various recreational opportunities. • Traffic-control flaggers will be employed and signs warning of construction activity and merging traffic will be posted, when necessary, for temporary interruptions of traffic.
Geology and Soils	<ul style="list-style-type: none"> • As practicable, existing structures within 50 feet of waterways will be cut at the base, rather than excavated, to minimize soil disturbance. • Structures will be located as far as possible from nearby streams and wetlands. • Culverts, cross-drains, and water bars will be spaced and sized properly. • As much work as possible will be conducted during the dry season—when streamflow, rainfall, and runoff are low—to minimize erosion, sedimentation, and soil compaction. • In disturbed areas, mechanical barriers to erosion will be used, as specified in the stormwater pollution prevention plan. • Heavy equipment will be operated to minimize soil compaction, particularly during the critical erosion period (November through March). • Disturbed, non-farmed areas will be revegetated with native seed. • After construction, access roads, culverts, and other facilities will be inspected and maintained to ensure proper function and nominal erosion

Environmental Resource	Mitigation
	<p>levels.</p> <ul style="list-style-type: none"> • Revegetation sites will be inspected to verify adequate growth, and contingency measures will be implemented, as needed.
Vegetation	<ul style="list-style-type: none"> • Prior to construction, a noxious weed survey of the study area will be conducted to identify existing locations of noxious weeds. The results of the weed survey will be used to assess if noxious weeds have spread or increased in abundance as a result of construction activities. • During construction, measures to minimize the introduction and broadcast of weed seeds will be implemented, including washing equipment and vehicles before entering construction areas. • Construction activities will be restricted to the area needed to work effectively to limit disturbance of native plant communities and to prevent expansion of noxious weed species. • Following construction, disturbed areas will be promptly reseeded with native, certified weed-free seed to stabilize sites and minimize the likelihood that noxious weed infestations will expand within the study area. • Reseeded sites will be periodically inspected to verify adequate growth. If necessary, contingency measures to ensure adequate growth and vegetation cover will be implemented. • Weed control efforts will continue to be implemented in the right-of-way as part of ongoing vegetation management efforts.
Fish and Wildlife	<ul style="list-style-type: none"> • To minimize impacts on federally listed salmonids, the use of fords will be avoided wherever an alternative route is available. • BPA will implement the U.S. Fish and Wildlife Service best management practices (BMPs) to minimize adverse effects on the Pacific lamprey, to the extent practicable. • All culvert replacement work will be done in the dry to avoid impacts on fish species. • When working in or near water bodies and wetlands (including buffer areas), disturbance will be kept to the minimum necessary, and staking or flagging will be installed to restrict vehicles and equipment to designated routes and areas. • A stormwater pollution prevention plan will be prepared, addressing measures to reduce erosion and runoff and stabilize disturbed areas. • As practicable, existing structures within 50 feet of waterways will be cut at the base rather than excavated to minimize soil disturbance. • Vegetative buffers will be retained, where possible, to prevent sedimentation into water bodies. • To minimize erosion, sedimentation, and soil compaction, as much work as possible will be conducted during the dry season, when streamflow, rainfall, and runoff are low. • Sediment barriers and other suitable erosion- and runoff-control devices will be installed, where needed, prior to ground-disturbing activities at construction sites to minimize off-site sediment movement. • No construction vehicles or equipment will be placed within 50 feet of any stream or wetland unless authorized by a permit or on an existing road. • Tensioning sites will not be located within 50 feet of streams, wetlands, or floodplains.

Environmental Resource	Mitigation
	<ul style="list-style-type: none"> • Roads and structures will be located to avoid wetlands, whenever possible. • Roads will be designed and constructed to minimize drainage from the road surface directly into water features, including wetlands. • A spill prevention control and countermeasure plan will be developed to minimize the potential for spills of hazardous materials. • Spill prevention materials will be kept on site and with equipment. • Vehicles and equipment will be maintained in good working order to prevent oil and fuel leaks.
Water Resources and Water Quality	<ul style="list-style-type: none"> • All culvert replacement work will be done in the dry season to avoid impacts on water quality. • When working in or near water bodies and wetlands (including buffer areas), disturbance will be kept to the minimum necessary, and staking or flagging will be installed to restrict vehicles and equipment to designated routes and areas. • A stormwater pollution prevention plan will be prepared, addressing measures to reduce erosion and runoff and stabilize disturbed areas. • As practicable, existing structures within 50 feet of waterways will be cut at the base rather than excavated to minimize soil disturbance. • Vegetative buffers will be retained, where possible, to prevent sedimentation into water bodies. • To minimize erosion, sedimentation, and soil compaction as much work as possible will be conducted during the dry season, when streamflow, rainfall, and runoff are low. • Sediment barriers and other suitable erosion- and runoff-control devices will be installed, where needed, prior to ground-disturbing activities at construction sites to minimize off-site sediment movement. • No construction vehicles or equipment will be placed within 50 feet of any stream or wetland unless authorized by a permit or on an existing road. • Tensioning sites will not be located within 50 feet of streams, wetlands, or floodplains. • Roads and structures will be located to avoid wetlands, whenever possible. • Roads will be designed and constructed to minimize drainage from the road surface directly into water features, including wetlands. • A spill prevention control and countermeasure plan will be developed to minimize the potential for spills of hazardous material. • Spill prevention materials will be kept on site and with equipment. • Vehicles and equipment will be maintained in good working order to prevent oil and fuel leaks. • Whenever possible, Coppei Creek, Wolf Fork of the Touchet River, and Patit Creek will only be crossed once per year by BPA upon completion of construction. • Where appropriate, the approaches to streams and crossings of streams will be covered in clean cobble rock to minimize erosion and sedimentation from BPA and landowner use. Steel plates and/or grates may also be used for driving surfaces across streams to minimize erosion and sedimentation, where appropriate.

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Wetlands	<ul style="list-style-type: none"> • Roads and structures will be located to avoid wetlands and streams, whenever possible. • Any construction activities within wetlands will be designed and implemented to minimize unavoidable impacts. BPA will coordinate with the U.S. Army Corps of Engineers and the Washington State Department of Ecology to obtain a permit for any fill placed in wetlands. • Wetland boundaries in the vicinity of construction areas will be flagged or staked so that wetlands and streams can be avoided during construction. • No machinery, construction vehicles, or equipment will be placed within 100 feet of any stream or wetland unless placement is authorized by a permit or is on an existing road. • Tensioning sites will not be located within 100 feet of wetlands. • When working next to wetlands (including their buffer areas) and water bodies, disturbance will be limited to the minimum necessary. • During work on structures within 25 feet of wetlands, contractors will avoid deposit of excavated material into wetlands by placing geotextile fabric around the work area, removing all excavated material from the wetland, and stabilizing that material in an upland area. • Machinery will be refueled and stored at least 200 feet from wetlands and waterways and inspected regularly for leaks. • An environmental specialist will meet with contractors and inspectors in the field to visit wetlands and waterways near or within construction areas to go over avoidance and mitigation measures and any permit requirements. • Erosion control measures, including the placement of silt fences along roads during construction or reconstruction, will be used to avoid sedimentation of wetlands and streams. • When temporary roads are built in wetlands, contractors will underlay temporary fill with geotextile fabric, remove all fill, and revegetate with appropriate native plant species in compliance with required permits. • Trees cut in wetland areas will be removed from the area. • Disturbed areas will be revegetated with appropriate native plant species, and specific revegetation guidelines in permits will be followed. • After construction, disturbed wetlands will be monitored for weed invasion and weeds will be controlled in accordance with BPA’s <i>Transmission System Vegetation Management Program</i>.
Floodplains	<ul style="list-style-type: none"> • Peak construction activities will be conducted during the dry season (between June 1 and November 1), as much as possible; constructing during low streamflow, rainfall, and runoff will minimize erosion, sedimentation, and soil compaction. • As specified in the stormwater pollution prevention plan, construction limits will be delineated with a sediment fence, straw wattles, or similar erosion and stormwater control BMPs to eliminate discharge into waterways and wetlands. Following construction, erosion and sediment controls will be inspected weekly and maintained as needed, and then removed from the site when no longer needed. • A spill prevention, control and countermeasures plan will be implemented to minimize the potential for an accidental spill of hazardous material and the impact from accidental spill of hazardous material, should such an

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	<p>accident occur.</p> <ul style="list-style-type: none"> • Spill prevention materials will be kept on site and with equipment. • Seeding of disturbed areas will occur after construction and regrading are complete and at the appropriate time period for germination. • Germination of seeded areas will be monitored with at least three field visits per year until site stabilization (defined as at least 70% cover by native or acceptable nonnative species) is achieved. If vegetative cover is inadequate, contingency measures will be implemented to ensure adequate revegetation of disturbed soils. • The locations of 100-year floodplains will be included on project maps for contractors and tensioning sites will be restricted to areas outside of floodplains. • All staging areas will be located at least 200 feet from floodplains as designated by the Federal Emergency Management Agency. • After construction, access roads, culverts, and other facilities will be inspected and maintained to ensure proper function and nominal erosion levels.
Visual Quality	<ul style="list-style-type: none"> • To the greatest extent possible, BPA will schedule all construction work during daylight hours. Should it become necessary to conduct nighttime or evening operations in residential areas, all work-site illumination will be shielded to direct light downward and toward the center of the work site. • To the greatest extent possible, BPA will design replacement structures to be visually similar, including materials, height, and size of footprint, to those they replace. Additional structures will also be designed to appear aesthetically consistent with existing structures. • Non-reflective conductors and insulators will be used on all replacement structures. • Construction crews will, to the greatest extent possible, avoid storing construction equipment and supplies on residential streets or access roads that directly abut residential property. • BPA will incorporate BMPs for the control of erosion and dust associated with construction of new access roads to minimize permanent visual impacts on nearby residential viewers.
Air Quality	<ul style="list-style-type: none"> • Water trucks will be used to control dust during construction. • Construction vehicles will be kept at low speeds (15 miles per hour) on unpaved access roads to minimize dust. • All vehicle engines will be in good operating condition to minimize exhaust emissions.
Socioeconomics and Public Services	<ul style="list-style-type: none"> • BPA will coordinate with the local farmers and landowners to minimize potential construction-related disruptions. • BPA will work with landowners and determine appropriate compensation for revenue losses they incur as a result of the Proposed Action.

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Cultural Resources	<ul style="list-style-type: none"> • BPA will provide for a cultural resources expert to monitor all ground-disturbing activities in the vicinity of Structures 7/3, 23/1 through 23/4, and 36/2. • Should ground-disturbing activities reveal any cultural materials (e.g., structural remains, Euroamerican artifacts, or Native American artifacts), all activities in the vicinity of the find will cease. The BPA archaeologist, DAHP, and affected tribes will be notified immediately. • If human remains, suspected human remains, or any items suspected to be related to a human burial (i.e., funerary items, sacred objects, or objects of cultural patrimony) are encountered during project construction, operations will cease immediately within 200 feet of the find. The area around the discovery will be secured and the Walla Walla County or Columbia County Sheriff, BPA archaeologist, DAHP, and the affected tribes will be contacted immediately.
Noise and Public Safety	<ul style="list-style-type: none"> • The construction contractor will be required to locate equipment as far away as is practical from noise-sensitive uses. • The construction contractor will be required to have sound-control devices that are at least as effective as those originally provided by the manufacturer installed on all construction equipment powered by gasoline or diesel engines. • The construction contractor will be required to operate and maintain all equipment to minimize noise generation. • Gasoline or diesel engines will be prohibited from having unmuffled exhaust. • Prior to starting construction, the contractor will be required to prepare and maintain a safety plan in compliance with State of Washington requirements. This plan will detail how to manage hazardous materials, such as fuel, and how to respond to emergency situations. It will be kept on site at all times. • During construction, contractors will be required to hold crew safety meetings at the start of each workday to review potential safety issues and concerns. • At the end of each workday, the contractor and subcontractors will secure the site, as much as possible, to protect equipment and the general public. • The contractor will comply with all fire safety laws, rules, and regulations of the State of Washington. The contractor will be required to prepare a fire prevention and suppression plan to meet BPA, local authority, and land manager requirements. • BPA will construct and operate the new transmission line to comply with the National Electrical Safety Code. • If a hazardous material is discovered that could pose an immediate threat to human health or the environment, BPA will require that the contractor notify the Contracting Officer's Technical Representative immediately and stop work in that area until the site is properly cleaned up. • The contractor will ground fences and other metal structures on and near the transmission line corridor during construction to limit the potential for nuisance shocks.

Environmental Resource	Mitigation
Climate Change	<ul style="list-style-type: none"> • Implement vehicle idling and equipment emissions measures. • Encourage carpooling and the use of shuttle vans among construction workers to minimize construction-related traffic and associated emissions. • Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites. • Locate staging areas in previously disturbed or graveled areas to minimize soil and vegetation disturbance, where practicable. • Encourage the use of the proper size of equipment for the job. • Use alternative fuels for generators at construction sites, such as propane or solar, or use electrical power where practicable. • Reduce electricity use in the construction office by using compact fluorescent bulbs and turning off computers and other electronic equipment every night. • Recycle or salvage non-hazardous construction and demolition debris, where practicable. • Dispose of wood poles in the local area, where practicable. • Use local rock sources for road construction.