

Bonneville Power Administration

**Midway-Moxee Rebuild
and
Midway-Grandview Upgrade
Transmission Line Project**

Finding of No Significant Impact

March 2016

This page left intentionally blank

**Midway-Moxee Rebuild and Midway-Grandview Upgrade
Transmission Line Project**

**DEPARTMENT OF ENERGY
Bonneville Power Administration**

**Finding of No Significant Impact (FONSI)
and Floodplain Statement of Findings
DOE/EA-1951**

Summary: Bonneville Power Administration (BPA) announces its environmental findings on the Midway-Moxee Rebuild and Midway-Grandview Upgrade Transmission Line Project (Proposed Action or Rebuild and Upgrade Project). The project involves rebuilding the 34-mile-long Midway-Moxee transmission line and rebuilding and upgrading the 26-mile-long Midway-Grandview transmission line. These existing 115-kilovolt (kV) transmission lines run through Benton and Yakima counties, Washington. The lines are aging and require replacement of wood-pole structures and other line components; upgrade of the Midway-Grandview transmission line would allow the line to carry more electricity and provide for local electrical load growth, while maintaining a reliable power supply to Benton Rural Electricity Association and Benton Public Utility District.

BPA has prepared an Environmental Assessment (EA) evaluating the Proposed Action and a No Action Alternative. Based on the analysis in the EA, BPA has determined that the Proposed Action is not a major federal action significantly affecting the quality of the human environment, within the meaning of the National Environmental Policy Act (NEPA) of 1969. Therefore, preparation of an Environmental Impact Statement (EIS) is not required and BPA is issuing this FONSI for the Proposed Action. The Proposed Action is not the type of action that normally requires preparation of an EIS, and the nature of the Proposed Action is not without precedent.

Comments received on the draft EA and responses to those comments are presented in Chapter 8, Draft EA Comments and Responses, of the final EA. The final EA also identifies minor revisions to the EA based on comments received.

BPA has prepared a Mitigation Action Plan (MAP) that lists all of the mitigation measures that BPA is committed to implementing (attached).

A Floodplain Statement of Findings is also included in this FONSI. Impacts on floodplains and wetlands would be avoided where possible and minimized by the mitigation measures included in the EA where there is no practicable alternative.

Public Availability: This FONSI will be mailed directly to interested parties who requested a copy, a notification of availability will be mailed to other potentially affected parties, and the final EA and FONSI are available on the project website at www.bpa.gov/goto/MidwayMoxee.

Proposed Action: Under the Proposed Action, BPA would remove and replace the wood-pole transmission line structures, replace existing conductor, replace a disconnect switch in the Cold Creek Substation, replace the fiber optic cable on the Midway-Moxee transmission line, conduct work on some existing unpaved access roads, construct some new unpaved access roads, and remove some danger trees. The transmission lines would continue to operate as 115-kV lines.

The proposed schedule is to begin rebuilding both transmission lines in September 2016, with some access road work beginning in September 2016. The first 17 miles of the Midway-Moxee transmission line and the first 9 miles of the Midway-Grandview transmission line would be rebuilt by spring 2017. The remainder of both transmission lines would be rebuilt beginning in the fall of 2017, through the spring of 2018. Ongoing stabilization of construction work areas, revegetation, monitoring, clean up, and other project-related actions would continue after 2018, as needed. Details of the Proposed Action are presented in Chapter 2, Proposed Action and Alternatives, of the final EA.

No Action Alternative: The No Action Alternative assumes that BPA would not rebuild the Midway-Moxee transmission line and would not rebuild and upgrade the Midway-Grandview transmission line and would continue to operate and maintain the existing transmission lines. Construction activities associated with the project would not occur, and the reliability and safety concerns and need for increased power that prompted the proposal for action would persist.

Because of the deteriorated condition of the existing transmission lines, it is likely that the No Action alternative would result in more frequent maintenance and more frequent access would be required to maintain them as materials continue to deteriorate and fail over time. Given the poor condition of some of the access roads, it is possible that the access road work proposed under the project would be funded and carried out as a separate BPA maintenance project in the future, independent of rebuilding the transmission lines.

Significance of Potential Impacts: To evaluate potential impacts from construction of the Proposed Action, four impact levels were used—high, moderate, low, and no impact. In addition, some impacts have been identified as beneficial. The impact analysis is detailed in Chapter 3, Affected Environment, Environmental Consequences, and Mitigation Measures, of the final EA and summarized below. High impacts are considered to be significant impacts, whereas moderate and low impacts are not. Direct, indirect, and cumulative impacts were evaluated. There were no high impacts associated with the Proposed Action.

The impact analysis in Chapter 3, Affected Environment, Environmental Consequences, and Mitigation Measures, of the final EA includes required mitigation. As mentioned above, a detailed MAP was developed to list the mitigation measures, components, persons responsible, and implementation schedule for each measure. The MAP includes measures to reduce some impacts even when those impacts are not considered significant.

The following discussion provides a summary of the Proposed Action's potential impacts and the reasons these impacts would not be significant.

Land Use and Recreation: Impacts on land use and recreation would be low to moderate.

- Temporary access restrictions to residential and agricultural land uses would be minimized by keeping equipment clear of residential driveways and farm and ranching roads, to the greatest extent possible.
- Temporary impacts on agricultural lands would include some crop damage, disturbance of soils (about 2.07 acres), and disturbance of livestock.
- Installation of new wood-pole structures and access road construction would permanently convert about 0.1 acre of ranch land, 0.02 acre of orchard, 0.39 acre of crop land, 0.2 acre of vineyards and 12.9 acres of lands suitable for grazing.
- Impacts on existing agricultural uses were minimized during design by increasing the height of 33 wood-pole structures with taller wood-pole structures to accommodate tall crops, and by moving the location of four replacement wood-pole structures out of orchards.
- Removal of some tall-growing vegetation required for safe operation of the transmission lines would include some residential landscaping trees and poplar trees that serve as agricultural wind breaks.
- Temporary disturbance to residential uses during construction would depend on the proximity of work to homes and would include increased noise levels and delays in access to residences.
- Although no designated public parks or recreational areas are located within the study area, construction activity would displace game and discourage tribal and non-tribal hunting in the vicinity of construction work areas.
- The minimal amount of native plant habitat that would be removed and tribal traditional plant gathering that could be disrupted would be minimized on Department of Energy (DOE)-Hanford by constructing in the winter months and including native plant species of tribal cultural importance in revegetation seed mixes.
- There would be no direct conflicts with existing land use plans and policies.

Transportation: Impacts on transportation would be low.

- Impacts would be temporary and include a low increase in daily traffic volume due to construction vehicles, brief traffic delays during ingress and egress of public roads, and temporary single-lane road closures during removal and replacement of conductors over state and county roads.
- Potential impacts would be minimized by use of traffic control flaggers, postings of signs along roads warning of construction activity and merging traffic, keeping equipment clear of agricultural roads and residential driveways to the greatest extent possible, and by coordinating with state and county road staff.

Socioeconomics, Environmental Justice, and Public Services: Impacts on socioeconomics, environmental justice, and public services would be low and some socioeconomic effects would be beneficial.

- No permanent changes would occur to housing or the population in the project area; temporary housing for about 30 workers would be accommodated by locally available lodging within a reasonable commuting distance of the project.
- Some local material purchases and spending by construction workers over a 14-month period could benefit the local economy and could include a minor increase in state sales tax revenues collected.
- After construction, the rebuilt transmission lines would contribute to regional stability and economic growth by reliably meeting power demands.
- Interferences with agricultural and ranching operations would be temporary.
- Conversion of about 14 acres of agricultural land to access roads would constitute a minimal reduction in quantity of productive agricultural land as well as the annual crop production; farmers would be compensated for possible loss of income related to the displacement of agricultural lands for access roads in areas for which BPA does not currently hold easements.
- Although some crops would be removed, impacts would be minimized by increasing the height of 33 wood-pole structures to accommodate tall crops, and by moving the location of four wood-pole structures out of orchards.
- Construction noise and activity could result in some temporary negative impacts on property values and salability on an individual basis, but impacts would likely last for no more than a few days in each location.
- Coordination with tribes to address potential environmental justice impacts occurred through the National Historic Preservation Act Section 106 consultation process and NEPA public involvement, as well as through opportunities for tribes to review and comment on design information, resource study plans, resource reports, revegetation plans, and weed treatment plans; and encouraging participation in several field trips to the project area.
- Impacts on public services would be minimal and localized; there would be no disruption of emergency service operations; water use would not affect local supplies; and local waste disposal sites have adequate capacity for any waste materials generated by the project.

Noise: Noise impacts from construction and operation would be low to moderate.

- Although residences located within 800 feet of construction sites could be temporarily exposed to daytime noise levels higher than the applicable residential noise thresholds, noise increases would be limited to daylight hours and only for a few days at any given location.

- Noise from construction-related traffic would temporarily contribute to existing traffic noise on local roads.
- Noise from helicopter use to install conductors would exceed noise thresholds at some residences, but disturbances would be temporary and intermittent as helicopters would not be in any given line mile for more than about 3 hours at a time.
- Tribal traditional land uses would be disturbed by temporary increased noise levels during construction; a schedule of construction activities distributed to affected tribes would allow avoidance of areas that would be impacted.
- Potential noise impacts would be minimized by sound control devices on gasoline or diesel engine equipment, maintenance of equipment, and by locating construction equipment as far away as practicable from noise-sensitive land uses.
- Corona-generated audible noise of the rebuilt lines would be the same or would decrease, and would remain below the State of Washington's noise thresholds.

Public Health and Safety: Impacts on public health and safety would be low.

- Health and safety risks during project construction could include increased risk of electrical shocks, fires, or injury from high-voltage and heavy equipment and use of hazardous materials; safety meetings would occur each day to review potential safety concerns.
- Potential construction traffic safety issues would be minimized through limiting vehicle speeds on unpaved roads to 15 miles per hour, employing traffic control flaggers, and posting signs warning of construction activity and merging traffic.
- The transmission lines would be designed, constructed, and operated to meet the National Electrical Safety Code standards, which provide safety requirements to prevent or reduce safety risks such as electrical shocks, including maintaining proper clearances between transmission lines and the ground, roadways, and vegetation.
- Unauthorized uses of transmission line rights-of-way would be limited through installation of access road gates, where appropriate.
- To protect the general public, unauthorized personnel would not be allowed in active construction areas and work areas would be secured and construction holes covered at the end of each workday.
- A site-specific Safety Plan would specify how to manage hazardous materials, respond to emergency situations, and address fire prevention and suppression.
- Electric fields generated by the transmission lines are expected to increase less than 0.1 kilovolt per meter within some portions of the right-of-way and no changes are expected beyond the edge of the right-of-way.
- Magnetic fields generated by the transmission lines are mostly expected to stay the same or increase a small amount (1 to 2 milligauss); although magnetic fields within portions of the Midway-Grandview right-of-way could increase up to about 10 milligauss.

- Interference with television or radio reception is not anticipated to occur, and BPA would work with affected landowners to restore reception if interference does occur.

Geology and Soils: There would be no impacts on geological resources and the impacts on soils would be low to moderate.

- Potential impacts on soils from construction activities (topsoil loss, vegetation removal, erosion, soil compaction, decreased soil productivity), would be minimized by managing sediments as specified in the Stormwater Pollution Prevention Plan, using erosion control measures, minimizing the size of disturbance areas and vegetation removal, and reseeding disturbed areas.
- About 0.5 acre of soils would be permanently disturbed for new and adjusted structure locations and about 92 acres would be temporarily disturbed during structure installation.
- Access road work would disturb about 82.1 acres of soils, but roads would be designed to minimize drainage directly into surface waters, culverts would be sized to accommodate predicted flows, and road shoulders would be stabilized by revegetation.
- Staging areas would be located in previously disturbed or graveled areas, where practicable.

Vegetation: Impacts on vegetation would be low to moderate.

- Construction activities would result in the temporary clearing, crushing, or disturbance of about 131.4 acres of vegetation communities of varying quality, including <0.05 acre of high-quality shrub-steppe.
- Transmission structure and access road work would result in the permanent removal of about 143.4 acres of vegetation of varying quality, including about 3.0 acres of high-quality habitat.
- Pulling and tensioning the conductor at 34 locations would impact a variety of vegetation communities, but most of the impacts would be temporary and would be reduced by implementing the mitigation measures.
- The potential introduction and spread of noxious weeds would be avoided or minimized through pre-construction weed treatment, revegetation, washing of equipment and vehicles before entering work areas, and post-construction weed treatment.
- Endangered Species Act-listed Umtanum desert buckwheat would not be directly impacted because individuals are located at least 60 feet from construction areas; habitat areas would be fenced or flagged for avoidance; an on-site monitor would be present; nearby disturbed areas would be revegetated with native species; and mitigation measures would be implemented to avoid weed introduction and risk of fire.
- Of the 344 acres Umtanum desert buckwheat designated critical habitat in the area, about 0.93 acre would be permanently impacted and about 1.14 acres would be temporarily impacted; impacts would be minimized through implementation of mitigation measures,

including revegetation approved by DOE-Hanford and U.S. Fish and Wildlife Service biologists.

- Special-status plant species habitat impacts would include about 34 acres of temporary impact and 0.5 acre of permanent impact on Columbia milk-vetch (federal species of concern, state sensitive, BLM Sensitive) habitat and 10.9 acres of temporary and 0.1 acre of permanent impact on Piper's daisy habitat (state sensitive, BLM Sensitive).
- Impacts on special-status species would be limited through minimizing structure construction areas and reducing road widths, conducting construction in winter when species are dormant and pollinators are not present, revegetating disturbed areas with native species, and by coordinating with public land managers to implement mitigation consistent with their policies.
- About 172 trees would be removed including native black cottonwoods, landscape trees, and agricultural wind breaks trees.

Wildlife: Impacts on wildlife would be low to moderate.

- Construction activities would impact wildlife and wildlife habitat through the degradation and removal of habitat which would increase habitat fragmentation and impact wildlife movement, foraging, nesting, and denning.
- Construction activities could impact wildlife through incidental mortality of small mammals and reptiles in construction work areas, especially when construction occurs during hibernation periods.
- Construction noise and activity levels would displace wildlife during construction, but because adequate habitat is available in the project area, wildlife could disperse and would be expected to return after construction.
- Mitigation measures would be implemented to limit disturbance to wildlife and wildlife habitat, including minimizing structure construction areas, conducting most construction outside the nesting season, revegetating disturbed areas, and by coordinating with public land managers to implement mitigation consistent with their policies.
- Construction activities would temporarily impact about 132 acres of wildlife habitat, of which about 59 acres are habitats with native plant communities, including shrub steppe and perennial grassland, and permanently impact about 143 acres of wildlife habitat, of which about 48 acres are habitats with native plant communities, including shrub steppe, perennial grassland, and riparian habitat.
- The pulling and tensioning of conductor at 34 locations could result in about 26 acres of temporary impacts on wildlife habitat due to the clearing and crushing of vegetation, but most of the impacts would be temporary and reduced by implementing mitigation measures.
- Construction would temporarily impact about 37 acres of shrub-steppe habitat (15.8 acres low-quality, 15.5 acres medium-quality, and 5.4 acres high-quality), resulting in the long-term decline of the quality and quantity of shrub-steppe available for species that require

sagebrush for some part of their life cycle, a moderate impact because of the length of time required for shrub-steppe habitats to recover from disturbance.

- Construction would permanently impact about 30 acres of shrub-steppe habitat (15.5 acres low-quality, 10.5 acres medium-quality, and 3.7 acres high-quality) which would impact sagebrush-obligate species, a moderate impact.
- Construction would impact habitat for special-status wildlife species, which would likely be displaced by construction activities, and affected by the temporary and permanent reduction in the quantity and quality of habitat, but no federally listed species would be affected and mitigation would reduce the level of impacts on wildlife habitat.
- Construction would impact habitat for the greater sage-grouse with the Yakima Training Center Priority Area of Conservation, including the permanent or long-term loss of about 36 acres of shrub-steppe habitat and temporary impacts on about 6 acres of perennial grassland habitat.
- Construction activities would occur mostly outside of the nesting period for migratory birds and mitigation measures would be implemented to reduce impacts on nesting birds.
- Disturbance of nesting ferruginous hawks would be avoided through site-specific construction timing restrictions (March 1 through August 1) within a 0.6 mile buffer and appropriate construction timing restrictions would be implemented for other nesting raptors, including burrowing owl, Swainson's hawk, red-tailed hawks, and prairie falcons.
- The removal of 172 danger trees would result in the loss of habitat for perching, foraging, and nesting birds in an area where there are few trees available for nesting, but as mitigation, trees in riparian areas would be cut as snags and tree removal would occur outside of the nesting period.

Waterways and Water Quality: Impacts on waterways and water quality would be low.

- Ground disturbing activities would not affect groundwater quality because these activities would not result in deep excavations that would reach groundwater resources.
- Groundwater recharge would be unaffected because the disturbance of about 175 acres by the project is small compared to the surrounding acreage in the project area where groundwater is recharged.
- Construction disturbance could affect water quality because work would occur between early fall and late spring when rain and snowfall events occur and some project area waterways could be actively flowing, increasing the potential for soil erosion into downstream waters.
- Water quality impacts would be minimized through the implementation of a Stormwater Pollution Prevention Plan, which would include erosion and stormwater control best management practices (BMPs) to eliminate sediment discharge into waterways, and by minimizing the size of construction disturbance areas, and reducing vegetation removal, to the greatest extent possible.

- The use of construction equipment would increase the potential for leaks and spills of vehicle fluids to enter nearby waterways, but this potential would be minimized by the implementation of mitigation measures (e.g., implementation of a Spill Prevention Control and Countermeasure Plan, storage, refueling, and maintenance of vehicles and equipment at least 200 feet from waterways, regular inspection of vehicles for drips and leaks and prompt repairs, and washing of vehicles and equipment prior to entering streams during permitted instream work).
- The removal of 25 wood-pole structures and the installation of 27 wood-pole structures within 200 feet of waterways would have no direct impacts on surface waters because equipment would not enter waterways, but vegetation removal and soil excavation could indirectly affect surface water quality by increasing the potential for soil erosion into downstream surface waters.
- There would be no fill in waterways and access roads would be designed and constructed to minimize drainage from the road surface directly into surface waters, new and replacement culverts would be large enough to accommodate predicted flows, and cross drains and water bars would be installed to accommodate flows and direct sediment-laden waters into vegetated areas.
- Two danger trees (black cottonwood) would be removed in a riparian areas along Sulphur Creek, an intermittent stream, but removal would likely not impact surface waters because they would be cut without disturbing the tree roots and given the limited amount of shading typically present along the surface waters in the project area, the removal of these trees would have a low impact on surface water temperature.

Wetlands and Floodplains: Impacts on wetlands and floodplains would be low.

- There would be no impacts on wetlands from the removal and installation of wood-pole structures—no existing or proposed structures are located within 100 feet of wetland boundaries and erosion control would be implemented.
- The use of a conductor pulling and tensioning site within or near a wetland near the Grandview Substation could be required, resulting in vegetation removal, soil compaction, the potential for increased erosion, and a reduction in wetland or wetland buffer function.
- Access road work would not occur within wetlands and potential impacts on wetlands and wetland buffers would be minimized by restricting work areas, implementing erosion control measures, revegetating disturbed areas, and treating noxious weeds.
- Proposed construction within 100-year floodplains would be limited to the Dry Creek floodplain along the Midway-Grandview transmission line and would include the removal and replacement of one wood-pole structure in the same location, installation of one gate, and the improvement of 978 feet (0.19 mile) of existing access road, affecting about 0.3 acre of floodplain.

- Impacts on 100-year floodplains would only minimally alter floodplain functions, and would not cause major changes to floodplain capacity or alter of flood flows and impacts would be minimized by restricting work areas, implementing erosion control measures, and revegetating disturbed areas.
- Conductor pulling and tensioning sites would not be located in or within 200 feet of 100-year floodplains and danger trees would not be removed within 100-year floodplains.
- No work would be conducted within the 100-year Kittitas Canyon floodplain along the Midway-Moxee transmission line, but construction within 200 feet of the floodplain could result in the deposition of a small amount of soil in floodplains that would not change existing flood-storage capacity or alter the course of floodwaters and impacts would be minimized by restricting work areas, implementing erosion control measures, and revegetating disturbed areas.

Fish: There would be no impacts on fish and fish habitat because the project area does not cross fish-bearing streams and fish habitat would not be affected by project activities.

Visual Quality: Visual impacts would be low to moderate.

- Construction equipment and activity would be seen by sensitive viewer groups, including motorists, residents, hunters, and tribes participating in traditional land uses, resulting in temporary visual impacts.
- Changes in the design of both transmission lines would result in some permanent visual changes and both transmission lines would be more visible in the landscape because 32 existing wood-pole structures would be replaced more than 10 feet from their existing locations, 32 two-pole structures would be replaced with three-pole structures, nine new wood-pole structures would be installed, the heights of most wood-pole structures would increase, and the diameter of the conductor would increase.
- Construction of about 4.5 miles of new roads along the Midway-Moxee transmission line and 1.0 mile of new access roads along the Midway-Grandview transmission line would result in permanent visual changes in these locations, primarily associated with the removal of vegetation and the placement of rock on the road surface.
- Improvements to existing access roads, including adding rock to the surface, could make the access roads slightly more visible in the landscape.
- Removal of vegetation, including the removal of about 172 danger trees near the rights-of-way would result in permanent visual changes and removal of shrubs and herbaceous vegetation in construction work areas would result in temporary visual changes.
- Motorists would have views of construction activities, but construction would be temporary and motorists typically travel at relatively high speeds which reduces their visual sensitivity.

- Some residential viewers would be temporarily impacted by views of construction activities, but construction would be temporary and the level of impact on their views would vary depending on their location and proximity to construction areas.
- There would be permanent visual impacts on residential viewers from changes in the appearance of both transmission lines and impacts would be low to moderate depending on the level of change in their view and the proximity of residences to the transmission lines.
- Visual impacts on hunters and tribes engaged in tribal traditional uses would be variable depending on the location, the timing of the construction activity, and the level of visual sensitivity of the viewers.
- Mitigation measures that would avoid or minimize visual impacts include scheduling construction work during daylight hours to avoid use of nighttime illumination, siting construction staging and storage areas away from locations sensitive viewer groups, maintaining clean construction sites, and controlling dust generation.

Cultural Resources: Impacts on cultural resources eligible for listing in the National Register of Historic Places (NRHP) are expected to be low to moderate.

- During project design, the locations of known cultural resources were reviewed and where possible, BPA implemented design changes to avoid them, including moving the location of wood-pole structures and access roads outside of known cultural sites.
- It is not anticipated that the Proposed Action would adversely affect the characteristics that make both transmission lines eligible for listing in the NRHP because the changes in design would be relatively minor and are consistent with changes permitted under the multiple property documentation description of BPA's historic transmission system.
- Three cultural sites that are considered eligible for listing in the NRHP could be affected by project construction, but BPA would avoid each cultural site during construction, to the greatest extent possible.
- BPA is preparing a mitigation plan to address unavoidable impacts on cultural resources eligible for listing in the NRHP in consultation with the State Historic Preservation Office, consulting tribes, and affected land managing agencies, that includes the use of cultural resource monitors during construction, in agreed-upon locations.
- Mitigation measures would be implemented during construction to minimize the potential to impact cultural sites, including fencing or flagging cultural sites as areas to be avoided, maintaining construction limits greater than 100 feet away from cultural site boundaries where possible, and minimizing the size of construction disturbance areas and removal of vegetation near cultural sites.
- BPA would address impacts on culturally important plant resources by including native plant species in the revegetation seed mixes for the DOE-Hanford Site that are of cultural importance to tribes, based on tribal input.

- Because previously undocumented cultural resources could be inadvertently disturbed or damaged during project construction, BPA would implement an Inadvertent Discovery Plan that details construction crew member responsibilities for reporting in the event of a discovery during construction and BPA would notify and consult with the State Historic Preservation Office and consulting tribes if cultural resources are discovered during construction.

Air Quality and Greenhouse Gas Emissions: Impacts on air quality would be moderate during construction and other air quality and greenhouse gas impacts would be low.

- The operation of construction equipment and vehicles would temporarily generate criteria pollutant emissions (e.g., ozone, carbon monoxide, and particulate matter) in localized work areas, but the minor increases in emissions are not anticipated to cause a violation of the National Ambient Air Quality Standards established under the Clean Air Act.
- Measures would be implemented where feasible to minimize the generation of criteria pollutant emissions including locating staging areas as close to construction sites as practicable to minimize driving distances, locating staging areas in previously disturbed or graveled areas to minimize soil and vegetation disturbance, minimizing the idling of equipment, and ensuring that all vehicles used on the project are in compliance with applicable federal and state air quality regulations for tailpipe emissions.
- The increase in particulate matter caused by the generation of dust by travel on unpaved surfaces and wind erosion of disturbed soils would result in moderate impacts before vegetation cover is restored, but localized increases in particulate matter would decrease after soils are stabilized by revegetation.
- Dust control measures would be implemented, including minimizing the extent of soil disturbance, controlling dust in disturbed areas using water trucks or other appropriate methods, seeding disturbed areas to establish vegetative cover, locating staging areas in previously disturbed or graveled areas to minimize soil and vegetation disturbance where practicable, and BPA would follow a Fugitive Dust Control Plan for implementation during construction for activities within the DOE-Hanford Site.
- The emission of greenhouse gases, primarily in the form of carbon dioxide, nitrous oxides, and methane, from the use of construction vehicles and equipment, increased worker traffic, and vegetation removal, would be below the U.S. Environmental Protection Agency's mandatory reporting threshold for large emission sources of greenhouse gases.
- The removal of an estimated 0.3 acre of danger trees would result in a small loss of greenhouse gas sequestration potential, a low impact on greenhouse gas concentrations.

Floodplain Statement of Findings: This Floodplain Statement of Findings was prepared in accordance with DOE's NEPA implementing regulations and compliance with Floodplain and Wetland Environmental Review Requirements (10 Code of Federal Regulations 1021 and 1022).

BPA is proposing to rebuild the existing Midway-Moxee transmission line in the existing transmission line right-of-way that crosses the 100-year floodplain of unnamed drainages in Kittitas Canyon in Yakima County and to rebuild the existing Midway-Grandview transmission line in the existing transmission line right-of-way that crosses the 100-year floodplain along Dry Creek in Benton County. An assessment of impacts on floodplains is summarized below and discussed in greater detail in Section 3.11, Wetlands and Floodplains, of the final EA.

The Midway-Moxee transmission line right-of-way crosses the northern tip of the 100-year floodplain along an unnamed drainage within Kittitas Canyon. The floodplain is a broad area that extends into the transmission line right-of-way and the surrounding agricultural fields and that does not include any defined stream channels. Transmission line structures and access roads are not located in the floodplain area and no project work, including conductor pulling and tensioning and danger tree removal, would occur within this floodplain.

Project construction would occur near, but outside the 100-year floodplain within Kittitas Canyon. Construction within 200 feet of the floodplain could result in the deposition of a small amount of soil in floodplains, but the amount of sediment deposited would be likely minimal with the implementation of project BMPs and would not change existing flood-storage capacity or alter the course of floodwaters. Thus, impacts on the floodplain are expected to be low.

The Midway-Grandview transmission line right-of-way crosses the 100-year floodplain along Dry Creek. Dry Creek is an ephemeral waterway with a shallow channel. There is no riparian vegetation along the portion of Dry Creek in the right-of-way and the associated floodplain consists of a broad, flat area vegetated with upland species, including non-native grasses and native shrubs. One wood-pole transmission line structure and an unpaved access road are located within the boundaries of the floodplain.

Proposed transmission line structure work within the Dry Creek floodplain would include the replacement of one wood-pole structure in the same location. This structure could not be relocated outside floodplains due to engineering constraints. Removing the existing wood poles and augering holes for the new poles would result in the deposition of a small amount of excavated soils on the ground surface, soil compaction, and vegetation removal within the floodplain.

Proposed access road work within the Dry Creek floodplain would include the improvement of 978 feet (0.19 mile) of existing unpaved access roads and the installation of one gate. BPA is unable to avoid use of these existing access roads within floodplains because the road serves as the access road to BPA's Wautoma Substation. Access road work would impact about 0.3 acre of floodplain from activities such as grading or rocking of existing road surfaces and vegetation removal. Gate installation would require the installation of two new posts. These activities could result in minor soil compaction, vegetation removal, and erosion and sedimentation and would not be expected to cause any major changes to floodplain capacity or any alteration of flood flows.

Construction within 200 feet of the Dry Creek floodplain could result in the deposition of a small amount of soil in floodplains, but the amount of sediment deposited would be reduced with the implementation of project BMPs and would not change existing flood-storage capacity or alter the course of floodwaters. Impacts are expected to be low and limited to incidental amounts of sediment deposition in the floodplain from soil erosion in disturbed areas.

BPA would implement mitigation measures and BMPs to avoid or minimize impacts on floodplains from construction. Potential impacts on soils would be minimized through the implementation of a Stormwater Pollution and Prevention Plan, which would address measures to reduce erosion and runoff and to stabilize disturbed areas. Impacts on soils and vegetation in floodplains would be minimized by restricting construction activities to the minimum area needed to work safely and effectively and by reseeding areas disturbed by construction. Chemical contamination within floodplains would be avoided by cleaning vehicles and equipment prior to entry, and by implementing a Spill Prevention Control and Countermeasure Plan that would require storage, refueling, and maintenance of vehicles and equipment at least 200 feet from floodplains. If any chemical spills did occur, a Spill Protection and Countermeasure Control Plan would address spill containment and cleanup. To minimize the introduction and spread of weeds, vehicles and equipment would be cleaned prior to entering and as soon as possible after leaving each work area and by conducting pre-construction and post-construction weed treatment.

Determination: Based on the information in the final EA, as summarized here, BPA determines that the Proposed Action is not a major federal action significantly affecting the quality of the human environment within the meaning of NEPA, 42 U.S. Government Code 4321 *et seq.* Therefore, an EIS will not be prepared and BPA is issuing this FONSI for the Proposed Action.

Issued in Portland, Oregon

/s/ F. Lorraine Bodi
F. Lorraine Bodi
Vice President
Environment, Fish and Wildlife

February 18, 2016
Date

MITIGATION ACTION PLAN
For the
Bonneville Power Administration
Midway-Moxee Rebuild and Midway-Grandview Upgrade Transmission Line Project

This Mitigation Action Plan (MAP) is referenced in the Finding of No Significant Impact (FONSI) for the Bonneville Power Administration (BPA) Midway-Moxee Rebuild and Midway-Grandview Upgrade Transmission Line Project (Rebuild and Upgrade Project) (U.S. Department of Energy Environmental Assessment DOE/EA-1951, February 2016). The Proposed Action involves rebuilding 34 miles of an existing 115-kilovolt (kV) transmission line (Midway-Moxee transmission line) and rebuilding and upgrading 26 miles of an existing 115-kV transmission line (Midway-Grandview transmission line).

This MAP is for the Proposed Action and includes all of the measures presented in the final Environmental Assessment (final EA) to mitigate adverse environmental impacts. A construction contractor will rebuild and upgrade these transmission lines for BPA. To ensure that the construction contractor will implement the mitigation measures that the construction contractor is responsible for, the relevant portions of this MAP will be included in the Mitigation Implementation Table (the directions to the contractor) for the Rebuild and Upgrade Project.

The MAP table below indicates which of the following person(s) are responsible for implementing each mitigation measure: BPA Project Manager (PM), Contractor (Contractor), Revegetation Contractor (Reveg Contractor), BPA Contracting Officer's Technical Representative (COTR), Design Engineer (DE), BPA Road Engineer (RE), BPA Lands Specialist (BPALS), Construction Contractor Lands Specialist (CCLS), BPA Public Affairs Specialist (PAS), Environmental Protection Specialist from the Environmental Planning and Analysis Group (EPS-EC), BPA Environmental Protection Specialist from the Pollution Prevention and Abatement Group (EPS-EP), BPA Archeologist (ARCH), BPA Forester (FOR), and BPA Wenatchee District.

BPA is in the process of obtaining required permits and completing coordination and consultation with state and federal agencies and tribes. Although some consultation is complete, some was ongoing at the time the MAP was finalized. Chapter 4, Environmental Consultation, Review, and Permit Requirements, of the EA describes the types of consultation and permits that are referenced in this MAP. Although the specific requirements of all permits and consultation are not listed in the MAP, the construction contractor and BPA are required to follow the terms, conditions, and provisions of the various permits and consultations. Therefore, the requirements of permits and outcomes of consultation are incorporated into this MAP.

If you have general questions about the Rebuild and Upgrade Project, contact the BPA Project Manager, Chad Hamel: toll-free telephone 800-282-3713, direct telephone 360-619-6557, or e-mail cjhamel@bpa.gov.

If you have questions about the MAP, contact the BPA Environmental Protection Specialist for the Rebuild and Upgrade Project environmental review, Kimberly St.Hilaire: toll-free telephone 800-282-3713, direct telephone 503-230-5361, or e-mail krsthilaire@bpa.gov.

If you have questions about the MAP during project implementation, contact the BPA Environmental Protection Specialist for Rebuild Project implementation, Kevin George: toll-free telephone 800-282-3713, direct telephone 503-230-4786, or e-mail kbgeorge@bpa.gov.

Mitigation Action Plan for the Midway-Moxee Rebuild and Midway-Grandview Upgrade Transmission Line Project

Resource and Mitigation Measure	Implementation
LAND USE AND RECREATION	
Coordinate the routing and scheduling of construction traffic with the Washington State Department of Transportation and Yakima and Benton county road staff to minimize interruptions to local traffic.	During construction (Contractor, CCLS)
Coordinate the routing and scheduling of construction traffic with U.S. Department of Energy Richland Operations Office (DOE-RL) staff.	During construction (Contractor, CCLS)
Conduct a preconstruction public meeting and invite landowners to meet with construction contractors and BPA staff responsible for project implementation to receive information and discuss concerns and provide contact information for construction contractor liaisons and BPA staff to local residents.	Prior to construction (Contractor, CCLS, PAS, EPS-EP)
Develop and distribute a schedule of construction activities, including potential lane closures, to potentially affected landowners along the transmission line corridors to inform residents, including farm and grazing operations, when they may be affected by construction activities.	Prior to and during construction (Contractor, CCLS, PAS)
Develop and distribute a schedule of construction activities on the DOE Hanford Site to potentially affected tribes, when tribal traditional land uses may be affected by construction activities.	Prior to and during construction (COTR, EPS-EP, CCLS, Contractor)
Explain land use related mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements.	Prior to construction (EPS-EP, COTR, RE, Contractor)
Keep construction activities and equipment clear of residential driveways and farm and ranching roads, to the greatest extent possible.	During construction (COTR, Contractor)
Employ traffic control flaggers and post signs along roads warning of construction activity and merging traffic for temporary interruptions of traffic, where needed.	During construction (COTR, Contractor)
Instruct construction contractors to promptly close all gates after entry, avoid frightening or endangering livestock, and to contact landowners immediately if problems with livestock occur.	During construction (Contractor, CCLS, PM, PAS)
Reseed disturbed areas after construction activities are complete, at the appropriate time period for germination, with a native seed mix, a seed mix recommended by Washington Department of Fish and Wildlife (WDFW), or a seed mix identified in the Stormwater Management Manual for Eastern Washington, or as agreed upon with landowners for use on their property (Washington State Department of Ecology 2004).	Post construction (EPS-EP, BPALS, BPA Wenatchee District, CCLS, Reveg Contractor)
Include native plant species in revegetation seed mixes for the DOE Hanford Site that are of cultural importance to tribes, based on tribal input.	Post construction (EPS-EP, COTR, Wenatchee District, Reveg Contractor)
Monitor seed germination of seeded areas until site stabilization is achieved (defined by an appropriate level of cover by native or acceptable non-native species for this geographic area) and implement contingency measures and reseed to ensure adequate revegetation of disturbed soils if vegetative cover is inadequate.	Post construction, as needed (EPS-EP, COTR, Contractor, Reveg Contractor)

TRANSPORTATION	
Coordinate the routing and scheduling of construction traffic with the Washington State Department of Transportation and Yakima and Benton county road staff to minimize interruptions to local traffic.	During construction (Contractor, CCLS)
Coordinate the routing and scheduling of construction traffic with DOE-RL staff.	During construction (Contractor, CCLS)
Develop and distribute a schedule of construction activities, including potential lane closures, to potentially affected landowners along the transmission line corridors to inform residents, including farm and grazing operations, when they may be affected by construction activities.	Prior to and during construction (Contractor, CCLS, PAS)
Explain transportation-related mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements.	Prior to construction (EPS-EP, COTR, RE, Contractor)
Employ traffic control flaggers and post signs along roads warning of construction activity and merging traffic for temporary interruptions of traffic, where needed.	During construction (COTR, Contractor)
Install temporary guard structures (wood-pole structures) over local utility lines and public roadways, where needed, to ensure continued service and safe passage when the conductor line is replaced, or, if guard structures are not used along some roadways, employ flaggers to ensure safe passage.	During construction (COTR, Contractor)
Keep construction activities and equipment clear of residential driveways and farm and ranching roads, to the greatest extent possible.	During construction (COTR, Contractor)
SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, AND PUBLIC SERVICES	
During project design, re-locate some structures in cropland, orchards, and vineyards to nearby farm roads, in order to minimize the amount of cropland removed from production for access road construction, where possible.	Design phase (DE, PM, BPALS)
Coordinate the routing and scheduling of construction traffic with the Washington State Department of Transportation and Yakima and Benton county road staff to minimize interruptions to local traffic.	During construction (Contractor, CCLS)
Develop and distribute a schedule of construction activities, including potential lane closures, to potentially affected landowners along the transmission line corridors to inform residents, including farm and grazing operations, when they may be affected by construction activities.	Prior to and during construction (Contractor, CCLS, PAS)
Require the construction contractor to employ a lands liaison, who would be available to provide information, answer questions, and address concerns during project construction.	During construction (Contractor)
Compensate affected farmers for lost agricultural production caused by construction, as appropriate.	During construction (BPALS)
Explain mitigation measures related to socioeconomics, environmental justice, and public services to construction contractors and inspectors during a preconstruction meeting covering environmental requirements.	Prior to construction (EPS-EP, COTR, RE, Contractor)
NOISE	
Schedule all construction work during daylight hours to avoid noise and the use of nighttime illumination of work areas.	During construction (COTR, Contractor)
Develop and distribute a schedule of construction activities, including potential lane closures, to potentially affected landowners along the transmission line corridors to inform residents, including farm and grazing operations, when they may be affected by construction activities.	Prior to and during construction (Contractor, CCLS, PAS)

Develop and distribute a schedule of construction activities on the DOE Hanford Site to potentially affected tribes, when tribal traditional land uses may be affected by construction activities.	Prior to and during construction (COTR, EPS-EP, CCLS, Contractor)
Explain noise-related mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements.	Prior to construction (EPS-EP, COTR, RE, Contractor)
Require sound control devices on all construction equipment powered by gasoline or diesel engines that are at least as effective as those originally provided by the manufacturer.	During construction (Contractor, COTR)
Maintain all construction equipment in good condition in order to minimize noise generation.	During construction (COTR, Contractor)
Locate construction equipment as far away as is practicable from noise-sensitive land uses.	Prior to construction (Contractor, COTR)
PUBLIC HEALTH AND SAFETY	
Prepare a site-specific Safety Plan before starting construction; specify how to manage hazardous materials, such as fuel and any toxic materials found in work sites; include a Fire Prevention and Suppression Plan and detail how to respond to emergency situations; keep the Safety Plan on site during construction and maintain and update, as needed.	Prior to and during construction (PM, COTR, Contractor)
Implement a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with federal, state, and local requirements that addresses fuel and chemical storage, spill containment and cleanup, construction contractor training, and proper spilled material disposal activities. For activities within the DOE Hanford Site, prepare and implement spill prevention and response procedures in coordination with DOE-RL staff.	During construction (EPS-EP, COTR, Contractor)
Coordinate the routing and scheduling of construction traffic with the Washington State Department of Transportation and Yakima and Benton county road staff to minimize interruptions to local traffic.	During construction (Contractor, CCLS)
Coordinate the routing and scheduling of construction traffic with DOE-RL staff.	During construction, (Contractor, CCLS)
For all activities within the DOE Hanford Site, coordinate activities with the Hanford Patrol and Hanford Fire Department.	Prior to construction and during construction (COTR, Contractor)
Develop and distribute a schedule of construction activities, including potential lane closures, to potentially affected landowners along the transmission line corridors to inform residents, including farm and grazing operations, when they may be affected by construction activities.	Prior to and during construction (Contractor, CCLS, PAS)
Explain public health and safety related mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements.	Prior to construction (EPS-EP, COTR, RE, Contractor)
Require the construction contractor to employ a lands liaison, who would be available to provide information, answer questions, and address concerns during project construction.	Prior to and during construction (CCLS, Contractor)
Require the construction contractor to hold safety meetings with workers at the start of each work day during construction to review potential safety issues and concerns.	Prior to and during construction (EPS-EP, COTR, Contractor)
Require weekly meetings, attended by the construction contractor and BPA staff, to discuss safety issues.	During construction (COTR, Contractor)

Employ traffic control flaggers and post signs along roads warning of construction activity and merging traffic for temporary interruptions of traffic, where needed.	During construction (COTR, Contractor)
Limit vehicle speeds on unpaved roads and surfaces to 15 miles per hour.	During construction (COTR, Contractor)
Design, construct, and operate the transmission lines to meet the National Electric Safety Code standards.	During design phase (DE, PM), during construction (COTR, Contractor), and during post construction (BPA Wenatchee District)
Install temporary guard structures (wood-pole structures) over local utility lines and public roadways, where needed, to ensure continued service and safe passage when the conductor line is replaced, or, if guard structures are not used along some roadways, employ flaggers to ensure safe passage.	During construction (COTR, Contractor)
Ground fences and other metal structures on and near the transmission line rights-of-way during construction to limit the potential for nuisance shocks.	During construction (COTR, Contractor)
Store, fuel, and maintain vehicles and equipment in designated vehicle staging areas located a minimum of 200 feet from any streams, water bodies, and wetlands, and during fueling or service, use pumps, funnels, absorbent pads, and drip pans.	During construction (COTR, Contractor)
Report possible hazardous materials, toxic substances, or petroleum products discovered during construction that would pose an immediate threat to human health or the environment, including large dump sites, drums of unknown substances, suspicious odors, and stained soil.	During construction (COTR, Contractor)
Secure the work area at the end of each workday, as much as possible to protect the general public and to safeguard equipment.	During construction (COTR, Contractor)
Cover construction holes that would be left overnight.	During construction (COTR, Contractor)
Restore reception quality if transmission lines cause radio or television interference.	During operation (PM, Wenatchee District, BPALS)
GEOLOGY AND SOILS	
Design and construct access roads to minimize drainage from the road surface directly into surface waters, size new and replacement culverts large enough to accommodate predicted flows, and size and space cross drains and water bars properly to accommodate flows and direct sediment-laden waters into vegetated areas.	During design phase (RE) and during construction (COTR, RE, Contractor)
Develop and implement a Revegetation Plan for areas of disturbance within the DOE Hanford Site, including soil preparation as necessary, using site-specific methods developed for use within the DOE Hanford Site and approved by DOE-RL staff.	Prior to construction (EPS-EP, Reveg Contractor) and post construction (EPS-EP, Reveg Contractor)
Explain geology and soil-related mitigation measures and best management practices (BMPs) to construction contractors and inspectors during a preconstruction meeting covering environmental requirements.	Prior to construction (EPS-EP, COTR, RE, Contractor)
Locate staging areas in previously disturbed or graveled areas to minimize soil and vegetation disturbance, where practicable.	Prior to construction (EPS-EP, COTR, Contractor)
Minimize ground disturbance, particularly in areas prone to erosion (i.e., slopes steeper than 20 percent).	During construction (COTR, Contractor)

Manage sediment as specified in the Stormwater Pollution Prevention Plan, with an approved method that meets the Stormwater Management Manual for Eastern Washington erosion and stormwater control BMPs, to eliminate sediment discharge into waterways and wetlands, minimize the size of construction disturbance areas, and minimize removal of vegetation, to the greatest extent possible (Washington State Department of Ecology 2004).	Prior to, during, and post construction (EPS-EP, COTR, Contractor)
Inspect and maintain access roads, fords, and other facilities after construction to ensure proper function and nominal erosion levels.	Post construction (Wenatchee District)
Reseed disturbed areas after construction activities are complete, at the appropriate time period for germination, with a native seed mix, a seed mix recommended by WDFW, or a seed mix identified in the Stormwater Management Manual for Eastern Washington, or as agreed upon with landowners for use on their property (Washington State Department of Ecology 2004).	Post construction (EPS-EP, BPALS, BPA Wenatchee District, CCLS, Reveg Contractor)
Monitor seed germination of seeded areas until site stabilization is achieved (defined by an appropriate level of cover by native or acceptable non-native species for this geographic area) and implement contingency measures and reseed to ensure adequate revegetation of disturbed soils if vegetative cover is inadequate.	Post construction (EPS-EP, COTR, Contractor, Reveg Contractor)
VEGETATION	
Prepare a site-specific Safety Plan before starting construction; specify how to manage hazardous materials, such as fuel and any toxic materials found in work sites; include a Fire Prevention and Suppression Plan and detail how to respond to emergency situations; keep the Safety Plan on site during construction and maintain and update, as needed.	Prior to and during construction (PM, COTR, Contractor)
Develop and implement a Revegetation Plan for areas of disturbance within the DOE Hanford Site, including soil preparation as necessary, using site-specific methods developed for use within the DOE Hanford Site and approved by DOE-RL staff.	Prior to post construction (EPS-EP, Reveg Contractor)
Minimize disturbance to special-status plant populations by reducing access road widths in populations, where possible.	During design phase (EPS-EC, RE) and during construction (EPS-EP, RE, Contractor)
Coordinate with public land managers to implement vegetation-related mitigation measures consistent with their policies.	Prior to, during, and post construction (EPS-EC, EPS-EP, BPALS, Contractor)
Explain vegetation-related mitigation measures and BMPs to construction contractors and inspectors during a preconstruction meeting covering environmental requirements.	Prior to construction (EPS-EP, COTR, RE, Contractor)
Follow the provisions of the Memorandum of Agreement between the Washington Department of Natural Resources and BPA for managing impacts on state lands from BPA transmission line and access road easements (Washington State Department of Natural Resources 2012).	Prior to and during construction (EPS-EC, EPS-EP, PM)
Ensure that all hay, hay cubes, straw, and mulch possessed, used, or stored on Bureau of Land Management (BLM)-administered lands has proof of weed-free certification that meet or exceed North American Weed Management Association Weed-Free Forage certification standards.	During construction (EPS-EP, COTR, Contractor)
Identify known special-status plant populations, including a 25-foot buffer, as sensitive areas to be avoided, if possible, in construction documents and maps used by construction contractors.	Prior to construction (EPS-EP, EPS-EC)
Avoid locating staging areas on the DOE Hanford Site, except in developed areas at the Midway Substation, at the base of the Umtanum Ridge.	Prior to construction (COTR, Contractor)

Employ an on-site monitor during construction to ensure all mitigation measures and BMPs are correctly implemented during construction on the DOE Hanford Site to ensure construction equipment and personnel remain within designated construction areas.	During construction (EPS-EP, COTR, Contractor)
Restrict construction activities to the minimum work area needed to work safely and effectively to limit disturbance of native vegetation communities.	During construction (COTR, Contractor)
Equip all vehicles with basic fire-fighting equipment, including extinguishers and shovels to prevent fires that could harm native vegetation and result in disturbed areas that could be vulnerable to colonization by noxious weeds.	During construction (COTR, Contractor)
Avoid spreading augered soils in high-quality plant communities and special-status species habitat (sensitive areas) and do not spread more than 10 feet from the bases of existing or replacement wood-pole structures; replace augered soils in structure holes, remove from sensitive areas and either deposit at the base of a nearby transmission line structure that is not in a sensitive area or dispose of in an approved area off-site.	Prior to construction (EPS-EC, EPS-EP, Contractor)
Avoid conducting pulling and tensioning within designated critical habitat for Umtanum desert buckwheat.	During construction (EPS-EP, Contractor)
Install “Sensitive Area” signage on or near fencing or flagging indicating where construction activities and entry of any kind are prohibited.	Prior to construction (EPS-EC, EPS-EP, Contractor)
Install signage, fences, or flagging to restrict vehicles and equipment to designated routes and work areas in areas with high-quality plant communities and special-status species.	Prior to and during construction (EPS-EC, EPS-EP, Contractor)
Install protective fencing, staking, or flagging around areas (including 25-foot buffer) with Umtanum desert buckwheat individuals that occur within 200 feet of construction work areas prior to initiation of construction activities.	Prior to construction (EPS-EC, EPS-EP, Contractor)
Install screw guy anchors at transmission structures with guy wires in designated critical habitat for Umtanum desert buckwheat, if possible.	During construction (COTR, Contractor)
Conduct construction activities in designated critical habitat for Umtanum desert buckwheat during the winter to minimize impacts on pollinators and above-ground portions of native plants, to minimize the effect on native plant seed production, and to minimize the risk of construction-related fire.	During construction (EPS-EP, COTR, Contractor)
Use vehicle and equipment cleaning stations to minimize the introduction and spread of weeds during construction by cleaning vehicles and equipment prior to entering and as soon as possible after leaving each work area.	During construction (EPS-EP, COTR, Contractor)
Use weed-free mulch on public lands.	During construction (EPS-EP, COTR, Contractor)
Use local sources of rock for road construction, if possible, and obtain road fill materials from noxious weed-free quarries.	During construction (RE, COTR, Contractor)
Cut or crush vegetation rather than blading or clearing areas that would remain vegetated.	During construction (COTR, Contractor)
Control noxious weeds in construction work areas manually, mechanically, and/or chemically as recommended for each species, prior to construction, if needed, with a focus on species with small, contained infestations to reduce the potential for widespread establishment and the need for long-term management.	Prior to construction (EPS-EP, Contractor)

Reseed disturbed areas after construction activities are complete, at the appropriate time period for germination, with a native seed mix, a seed mix recommended by WDFW, or a seed mix identified in the Stormwater Management Manual for Eastern Washington, or as agreed upon with landowners for use on their property (Washington State Department of Ecology 2004).	Post construction (EPS-EP, BPALS, BPA Wenatchee District, CCLS, Reveg Contractor)
Include native plant species in revegetation seed mixes for the DOE Hanford Site that are of cultural importance to tribes, based on tribal input.	Post construction (EPS-EP, COTR, Wenatchee District, Reveg Contractor)
Monitor seed germination of seeded areas until site stabilization is achieved (defined by an appropriate level of cover by native or acceptable non-native species for this geographic area) and implement contingency measures and reseed to ensure adequate revegetation of disturbed soils if vegetative cover is inadequate.	Post construction, as needed (EPS-EP, COTR, Contractor, Reveg Contractor)
Conduct a post-construction noxious weed survey approximately 1 year after construction of all areas disturbed by construction activities to determine if there are new noxious weed infestations; implement appropriate control measures of noxious weed infestations.	Post construction (EPS-EP, BPA Wenatchee District)
WILDLIFE	
Prepare a site-specific Safety Plan before starting construction; specify how to manage hazardous materials, such as fuel and any toxic materials found in work sites; include a Fire Prevention and Suppression Plan and detail how to respond to emergency situations; keep the Safety Plan on site during construction and maintain and update, as needed.	Prior to and during construction (PM, COTR, Contractor)
Identify active bird nests in construction work areas prior to conducting construction during the breeding season (March 1 to July 31) if possible and clearly mark active nests for avoidance by construction equipment and personnel.	Prior to construction (EPS-EP, COTR, Contractor)
Explain wildlife-related mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements.	Prior to construction (EPS-EP, COTR, RE, Contractor)
Ensure that all hay, hay cubes, straw, and mulch possessed, used, or stored on BLM-administered lands has proof of weed-free certification that meet or exceed North American Weed Management Association Weed-Free Forage certification standards.	During construction (EPS-EP, COTR, Contractor)
Avoid conducting construction activities between Midway-Moxee Structures 10/1 to 16/1 from August 1 to November 15, to avoid areas of documented seasonal use by greater sage-grouse.	During construction (EPS-EP, COTR, Contractor)
Avoid conducting construction activities within 4 miles of leks from February 1 to June 15 to avoid disturbing greater sage-grouse during lekking season.	During construction (EPS-EP, COTR, Contractor)
Fund a public agency or tribe to conduct off-site mitigation project(s) for preservation or restoration of greater sage-grouse habitat in priority areas of conservation in Washington state and notify state, federal, and tribal resource managers when funds are available to propose projects; project funding must be complete by the end of 2020.	Prior to, during, or post construction (EPS-EC, EPS-EP, PM)
Cover construction holes that would be left overnight.	During construction (COTR, Contractor)
Minimize disturbance of medium and high-quality shrub steppe patches in construction work areas within the Yakima Training Center Priority Area of Conservation, if possible, and restrict vehicles and equipment to designated routes and work areas.	During construction (EPS-EP, COTR, Contractor)
For activities taking place in the DOE Hanford Site, reduce structure removal and installation construction footprint to 50-feet by 100-feet in Level 3, 4, and 5 habitat types, as much as possible.	During construction (COTR, Contractor)

Coordinate with DOE-RL staff if Townsend's ground squirrels are encountered on the DOE Hanford Site, to determine what, if any, specific protections or administrative controls need to be implemented.	During construction (EPS-EP, COTR, Contractor)
Control noxious weeds in construction work areas manually, mechanically, and/or chemically as recommended for each species, prior to construction, with a focus on species with small, contained infestations to reduce the potential for widespread establishment and the need for long-term management.	Prior to construction (EPS-EP, Contractor)
Conduct a post-construction noxious weed survey approximately 1 year after construction of all areas disturbed by construction activities to determine if there are new noxious weed infestations; implement appropriate control measures of noxious weed infestations.	Post construction (EPS-EP, BPA Wenatchee District)
Enforce speed limits for construction vehicles of 15 miles per hour on unpaved access roads to reduce the likelihood of collision with wildlife.	During construction (COTR, Contractor)
Cut danger trees in riparian areas as snags.	During construction (COTR, FOR, Contractor)
Cut danger trees between September and March 1 to avoid the typical nesting period for migratory birds.	During construction (COTR, FOR, Contractor)
Conduct field surveys for raptor nests within 0.6 mile of construction areas during the spring to determine if nests are active if construction would occur within identified buffer areas during the breeding season for that species.	Prior to construction (EPS-EP, Contractor)
Avoid construction or other disturbance within 0.6 mile of active or potentially active ferruginous hawk nest sites, between March 1 and August 31 and near other raptor nests, during the specified time period.	During construction (EPS-EP, COTR, Contractor)
WATER RESOURCES (Waterways and Water Quality and Wetlands and Floodplains)	
Implement a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with federal, state, and local requirements that addresses fuel and chemical storage, spill containment and cleanup, construction contractor training, and proper spilled material disposal activities. For activities within the DOE Hanford Site, prepare and implement spill prevention and response procedures in coordination with DOE-RL staff.	During construction (EPS-EP, COTR, Contractor)
Schedule instream construction work for times when the flow within affected streams is minimal or absent.	During construction (COTR, Contractor)
Design and construct access roads to minimize drainage from the road surface directly into surface waters, size new and replacement culverts large enough to accommodate predicted flows, and size and space cross drains and water bars properly to accommodate flows and direct sediment-laden waters into vegetated areas.	Design phase (RE) and during construction (COTR, RE, Contractor)
Explain wetland, floodplain, and water resources-related mitigation measures, BMPs, and any permit requirements to construction contractors and inspectors during a preconstruction meeting covering environmental requirements.	Prior to construction (EPS-EP, COTR, RE, Contractor)
Manage sediment as specified in the Stormwater Pollution Prevention Plan, with an approved method that meets the Stormwater Management Manual for Eastern Washington erosion and stormwater control BMPs, to eliminate sediment discharge into waterways and wetlands, minimize the size of construction disturbance areas, and minimize removal of vegetation, to the greatest extent possible (Washington State Department of Ecology 2004).	Prior to, during, and post construction (EPS-EP, COTR, Contractor)
Minimize ground disturbance and vegetation removal within 200 feet of wetlands, waterways, and floodplains, to the greatest extent practicable.	During construction (EPS-EP, COTR, Contractor)

Locate pulling and tensioning equipment at least 50 feet from surface waters, including wetlands, and outside of 100-year floodplains, if possible.	During construction (COTR, Contractor)
Store, fuel, and maintain vehicles and equipment in designated vehicle staging areas located a minimum of 200 feet from any streams, water bodies, and wetlands, and during fueling or service, use pumps, funnels, absorbent pads, and drip pans.	During construction (COTR, Contractor)
Control noxious weeds in construction work areas manually, mechanically, and/or chemically as recommended for each species, prior to construction, if needed, with a focus on species with small, contained infestations to reduce the potential for widespread establishment and the need for long-term management.	Prior to construction (EPS-EP, Contractor)
Use vehicle and equipment cleaning stations to minimize the introduction and spread of weeds during construction by cleaning vehicles and equipment prior to entering and as soon as possible after leaving each work area.	During construction (EPS-EP, COTR, Contractor)
Power wash all vehicles and equipment at an approved cleaning facility prior to mobilizing at construction work areas to remove any residual sediment, petroleum, or other contaminants; prior to entering wetlands, waterways, and floodplains, completely clean off any external petroleum products, hydraulic fluid, coolants, and other pollutants.	Prior to and during construction (COTR, Contractor)
Inspect equipment, including tanks, on a weekly basis for drips and leaks and promptly make necessary repairs.	Prior to and during construction (COTR, Contractor)
Prohibit sidecasting of road grading materials along roads within 50 feet of wetlands, waterways, and floodplains.	During construction (COTR, RE, Contractor)
Cut danger trees in the Sulphur Creek riparian corridor without disturbing tree roots.	During construction (COTR, FOR, Contractor)
Install signage, fences, and flagging to restrict work areas and confine vehicles and equipment to designated routes outside of wetlands where possible.	Prior to and during construction (EPS-EP, COTR, Contractor)
Inspect and maintain access roads, fords, and other facilities after construction to ensure proper function and nominal erosion levels.	Post construction (Wenatchee District)
Reseed disturbed areas after construction activities are complete, at the appropriate time period for germination, with a native seed mix, a seed mix recommended by WDFW, or a seed mix identified in the Stormwater Management Manual for Eastern Washington, or as agreed upon with landowners for use on their property (Washington State Department of Ecology 2004).	Post construction (EPS-EP, BPALS, BPA Wenatchee District, CCLS, Reveg Contractor)
VISUAL QUALITY	
Schedule all construction work during daylight hours to avoid noise and the use of nighttime illumination of work areas.	During construction (COTR, Contractor)
Develop and distribute a schedule of construction activities, including potential lane closures, to potentially affected landowners along the transmission line corridors to inform residents, including farm and grazing operations, when they may be affected by construction activities.	Prior to and during construction (Contractor, CCLS, PAS)
Explain visual quality-related mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements.	Prior to construction (EPS-EP, COTR, RE, Contractor)
Site all construction staging and storage areas away from locations that would be clearly visible from sensitive viewer groups as much as practicable.	Prior to and during construction (EPS-EP, COTR, Contractor)

Control dust during construction, using water trucks or other appropriate methods, as needed.	During construction (COTR, Contractor)
Limit vehicle speeds on unpaved roads and surfaces to 15 miles per hour.	During construction (COTR, Contractor)
Maintain and clean construction sites as much as practicable and keep construction areas free of debris.	Prior to and during construction (COTR, Contractor)
CULTURAL RESOURCES	
Prior to construction, survey and identify cultural resources in any areas that were not previously surveyed due to lack of permission to enter or because of project changes and conduct consultation under the National Historic Preservation Act on any cultural resources that are identified.	Prior to construction (EPS-EC, ARCH, RE, PM)
Develop and distribute a schedule of construction activities on the DOE Hanford Site to potentially affected tribes, when tribal traditional land uses may be affected by construction activities.	During construction (COTR, EPS-EP, CCLS, Contractor)
Avoid siting pulling and tensioning sites and new access roads within 100 feet of historic properties, where possible.	Prior to pulling and tensioning (EPS-EP, ARCH, COTR, Contractor)
Prepare and implement a mitigation plan for unavoidable impacts on cultural resources eligible for listing in the National Register in consultation with the State Historic Preservation Office, consulting tribes, and affected land managing agencies, that includes the use of cultural resource monitors during construction, in agreed-upon locations.	Prior to and during construction (EPS-EP, ARCH, COTR, Contractor)
Explain cultural resources-related mitigation measures to construction contractors and inspectors, including the field marking of cultural sites for avoidance, during a preconstruction meeting covering environmental requirements.	Prior to construction (EPS-EP, COTR, RE, ARCH, Contractor)
Depict cultural sites in construction documents and on construction maps as sensitive sites to be avoided.	Prior to construction (ARCH, EPS-EP)
Include native plant species in revegetation seed mixes for the DOE Hanford Site that are of cultural importance to tribes, based on tribal input.	Post construction (EPS-EP, COTR, Wenatchee District, Reveg Contractor)
Maintain construction limits greater than 100 feet away from cultural site boundaries where possible, through fencing or flagging as an area to be avoided.	During construction (EPS-EP, ARCH, COTR, Contractor)
Minimize the size of construction disturbance areas and removal of vegetation near cultural resource sites, to the greatest extent possible.	During construction (EPS-EP, ARCH, COTR, Contractor)
Implement an Inadvertent Discovery Plan that details construction crew member responsibilities for reporting in the event of a discovery during construction; require work to stop immediately and notification of local law enforcement officials (as required), appropriate BPA personnel, the Washington Department of Archaeology and Historic Preservation, affected land managing agencies, and affected tribes if cultural resources or human remains are discovered during construction activities.	During construction (EPS-EP, ARCH, COTR, Contractor)
AIR QUALITY AND GREENHOUSE GASES	
Incorporate measures into a Fugitive Dust Control Plan for construction work on the DOE Hanford Site, identified in consultation with DOE-RL, which would minimize dust in the dry, windy conditions at the DOE Hanford Site.	Prior to and during construction (COTR, Contractor)

Encourage the use of the proper size of equipment for the job to maximize energy efficiency.	During construction (COTR, Contractor)
Explain air quality-related resources-related mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements.	Prior to construction (EPS-EP, COTR, RE, Contractor)
Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites.	Prior to and during construction (EPS-EP, COTR, Contractor)
Locate staging areas in previously disturbed or graveled areas to minimize soil and vegetation disturbance, where practicable.	Prior to construction (EPS-EP, COTR, Contractor)
Use local sources of rock for road construction, if possible, and obtain road fill materials from noxious weed-free quarries.	During construction (RE, COTR, Contractor)
Ensure all vehicles are in compliance with applicable federal and state air quality regulations for tailpipe emissions and properly maintained.	During construction (RE, COTR, Contractor)
Control dust during construction, using water trucks or other appropriate methods, as needed.	During construction (COTR, Contractor)
Gravel access road surfaces in areas of sustained wind to reduce potential dust erosion.	During construction (RE, COTR, Contractor)
Limit vehicle speeds on unpaved roads and surfaces to 15 miles per hour.	During construction (COTR, Contractor)
Minimize idling construction equipment, if feasible.	During construction (COTR, Contractor)
Recycle or salvage non-hazardous construction and demolition debris, where practicable.	During construction (COTR, Contractor)
Reseed disturbed areas after construction activities are complete, at the appropriate time period for germination, with a native seed mix, a seed mix recommended by WDFW, or a seed mix identified in the Stormwater Management Manual for Eastern Washington, or as agreed upon with landowners for use on their property (Washington State Department of Ecology 2004).	Post construction (EPS-EP, BPALS, BPA Wenatchee District, CCLS, Reveg Contractor)

References

Washington State Department of Ecology. 2004. *Stormwater Management Manual for Eastern Washington*. Publication Number 04-10-076. September. Available: <https://fortress.wa.gov/ecy/publications/publications/0410076.pdf>. Accessed: September 15, 2014.

Washington State Department of Natural Resources. 2012. Memorandum of Agreement between the Washington Department of Natural Resources and the Bonneville Power Administration, Department of Energy for Managing Impacts to State Lands from BPA Transmission Line and Access Road Easements. DNR #Q92-088448, February 17, 2012.

This page left intentionally blank