

DEPARTMENT OF ENERGY
Bonneville Power Administration

**Marys Peak
Bonneville Power Administration
Communications Site Project
Finding of No Significant Impact**

DOE/EA-2050

December 15, 2021

Summary

Bonneville Power Administration (BPA) announces its environmental findings for Alternative 3C Marys Peak Co-locate with USFS – BPA Albany Substation (Alternative 3C), which is one of the three proposed action alternatives identified for the Marys Peak BPA Communications Site Project (Proposed Action or Project). Alternative 3C includes the construction of a building addition onto the existing USFS communications building at the Marys Peak summit, installation of BPA communications equipment inside the building addition, construction of a new 60-foot tall steel-lattice structure, cutting up to 14 noble fir trees located near the summit to accommodate a new microwave radio beam path, access road improvements, removal of the BPA communications site at the Marys Peak summit, and revegetation at the location of the former BPA communications site. A microwave radio dish would be installed on an existing steel-lattice structure at the BPA Albany Substation.

BPA prepared an environmental assessment (EA) evaluating the three Proposed Action alternatives and a No Action Alternative. Based on the analysis in the EA, BPA has determined that Alternative 3C 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 for Alternative 3C and BPA is issuing this Finding of No Significant Impact (FONSI) for this alternative.

BPA solicited and received comments on the draft EA and responses to those comments are presented in Appendix F of the final EA. As a result of public comments, refinements or changes to the action alternatives, No Action Alternative, or environmental analysis are presented in the final EA.

BPA has prepared a Mitigation Action Plan (MAP, attached) that lists the minimization and mitigation measures and best management practices (BMPs) that BPA is committed to implementing as part of the Project.

Public Availability

This FONSI will be mailed directly to interested parties who requested a copy. A notification of availability will be mailed and emailed to interested parties and other potentially affected parties. For copies of this FONSI and the final EA, please call BPA's toll-free document request line at 1-800-622-4520. The documents are also available on the Project website at:

<http://www.bpa.gov/goto/maryspeak>.

Proposed Action Alternative 3C

Under Proposed Action Alternative 3C, BPA would perform activities at Marys Peak, located in Benton County, Oregon, and at the BPA Albany Substation, located in Linn County, Oregon.

BPA would perform the following activities at the Marys Peak communications site:

- Stage equipment, materials, and vehicles within the fence at the summit and in up to 1,800 square feet (0.04 acre) of the paved public parking lot
- Install temporary structures or features using BMPs and removing them when no longer needed for public safety and to protect sensitive resources, including temporary fencing to restrict access due and erosion and sediment controls, if needed
- Improve the unpaved access road leading from the paved parking lot to the summit, for construction access

- Construct a building addition (13 feet wide, 25 feet long, 8 feet tall) on the east side of the existing USFS-owned building, to replace the existing BPA building
- Install a HVAC system and other ventilation systems, as necessary
- Construct a 60-foot tall, BPA-owned, steel-lattice structure with an ice bridge connected to the USFS communications building; add or adjust the tower grounding system underground
- Construct a rock retaining wall next to the new steel-lattice structure's slab footing, if needed
- Install a 6-foot diameter BPA microwave dish and a 20-foot tall VHF whip antenna on the new BPA-owned steel-lattice structure
- Upgrade electrical service between the electrical meter and the new building
- Relocate or replace the existing BPA propane tank
- Demolish the existing BPA facilities and remove materials from site
- Install about 100 feet of new chain link fence and associated lightning protection ground rods underground closer to the USFS site; remove about 229 feet of existing chain link fence that currently surrounds the BPA communications site, leaving the existing fence post footings and lightning protection ground rods underground
- Cut up to 14 noble firs to create an unobstructed microwave beam path on about 0.53 acre of BLM land
- Revegetate areas disturbed by construction and infrastructure removal with native plant species

BPA would also perform the following activities at the BPA Albany Substation:

- Install a microwave radio system and other equipment inside the building
- Install a 6-foot diameter microwave dish and antenna system on the steel-lattice structure

Additional details about Proposed Action Alternative 3C are presented in Chapter 2 of the final EA.

No Action Alternative

The No Action Alternative assumes that the existing BPA communications sites at Marys Peak and at Prospect Hill would remain in service and continue to operate as they currently do with the existing communications equipment in place. Periodic routine and emergency maintenance would occur at both communications sites to ensure they continue to function within the larger BPA communications network. The No Action Alternative also assumes that the BPA Albany Substation would continue to operate as it currently functions without the installation of new communications equipment. The BPA Albany Substation would continue to receive periodic routine and emergency maintenance to support its current functions. However, the reliability and safety concerns that prompted the proposal for action would persist. Because BPA would not have reliable communications between field staff and dispatch, BPA would likely need to seek alternative communications solutions in the future.

Significance of Potential Impacts of Alternative 3C

Chapter 3 of the final EA identifies and evaluates potential impacts from construction, operation, and maintenance of Proposed Action Alternative 3C. For this analysis, four impact levels were used—high, moderate, low, and no impact. In addition, some impacts were identified as beneficial. High impacts are considered to be significant impacts, whereas moderate and low impacts are not. Direct, indirect, and cumulative impacts were evaluated. As noted 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 potential impacts of Proposed Action Alternative 3C and the reasons these impacts would not be significant.

Land Use and Recreation

At Marys Peak, Proposed Action Alternative 3C would have **no to moderate** impacts on land use and recreation, and some effects would be **beneficial**. Mitigation measures would be implemented to reduce the impacts to a level of non-significance.

- No new permanent access restrictions on Marys Peak visitors would occur as a result of the Project.
- Visitors may experience temporary access restrictions in construction areas due to public safety concerns. However, a communications plan will notify visitors in advance of planned construction activities and locations, so visitors can make informed decisions about their trip before visiting Marys Peak and can have a pleasant visit and experience good views while there.
 - Project-related information relevant to potential Marys Peak visitors would be made available via the USFS website, onsite signage at trailheads, existing signboards at public parking lot and the campground, and other obvious locations. Information will include potential access road and trail closures, how to avoid construction activities as much as possible, and directions and maps for alternative hiking routes when the access road is closed to hiking during access road improvements and tree-cutting activities.
 - Project work would be avoided at Marys Peak during Federal holidays and weekends, which tend to be high-visitation days.
- Construction equipment would be kept clear of recreational resources, including parking areas and trails, to the greatest extent possible, to minimize interference with visitors.
- Visitors may experience temporary construction-related noise due to project activities, including demolishing and removing the BPA communications site. However, the demolishing and removal of the site would occur in the fall (i.e., during the off-peak visitation season) to reduce the number of public interactions with the intent of minimizing disturbances to visitors and maintaining an enjoyable recreational visit to Marys Peak.
- After the new building addition is constructed next to the existing USFS communications site building, the new HVAC unit would be installed on the south-facing wall of the building addition to minimize noise and visual impacts to visitors near the picnic table area (located north of the communications site).
- Approximately 7,700 square feet of the Marys Peak summit area would no longer be a designated communications site after the BPA communications site is removed. The former communications site area would be revegetated with native plant species. These activities would result in a beneficial effect on land use and recreation.

At the BPA Albany Substation, there would be **no** temporary or permanent impacts from access restrictions during or after construction because project activities would occur within the substation's fenced area where the public does not recreate and the designated land use of the substation would not change.

Geology and Soil

Impacts on geology and soils at Marys Peak from Proposed Action Alternative 3C would be **low**. Project designs avoid permanent and temporary impacts to geology and soils to the maximum extent possible,

and mitigation measures would be implemented to reduce the impacts to geology and soils to a level of non-significance.

- About 0.05 acre (2,200 square feet) would be permanently impacted from excavating and covering soils with impervious surfaces (e.g., foundations) or covering soils with rock associated with water bar and rock apron installation along the 0.65 mile-long access road leading from the paved parking lot to the Marys Peak summit.
- About 0.35 acre (15,250 square feet) of geology and soils would be temporarily impacted from construction activities and staging, most of which is located within the chain link fence area at the Marys Peak summit, which has been highly disturbed by past actions.
- Access road work, especially the installation of up to eight water bars with rock aprons, would improve the drainage of seasonal runoff from the road's surface. Water bars direct water toward rock aprons, which reduce the amount of erosion, scouring, and rutting the access road would experience in the future. Rock aprons dissipate stormwater flows before reaching the vegetated meadow habitat, thereby avoiding runoff and erosion impacts to the meadow.
- A Project Revegetation Plan was developed by the USFS and BPA with coordination with the BLM, to proactively address potential erosion and vegetation impact concerns at disturbed areas. Per the Project Revegetation Plan, to help reduce potential for erosion, erosion control products and native seed collected from Marys Peak would be incorporated into the base of each rock apron.
- Erosion potential for disturbed soils would be greatest during and immediately after construction ground disturbance; however, the implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP) and an Erosion-Sedimentation Control Plan (ESCP), including BMPs implemented during construction activities, would limit soil disturbance and compaction, soil exposure, and potential erosion impacts, including the potential for stormwater runoff.

Some mitigation measures to be implemented to reduce permanent and temporary impacts to geology and soils to a level of non-significance include the following:

- Employ an onsite environmental monitor (hired directly by BPA) during all outdoor construction activities at Marys Peak.
- Locate staging areas in previously disturbed or graveled areas to minimize disturbance to soil and vegetation, where possible.
- Areas that would be temporarily impacted by Project construction would be revegetated following the Project Revegetation Plan, which contains site-specific methods developed for use within the Marys Peak Scenic Botanical Special Interest Area (SBSIA).
- Inspect erosion and sediment controls periodically during construction, maintain them as needed to ensure their continued effectiveness, and where appropriate, remove them from the site when vegetation is reestablished and the site has been stabilized.
- Avoid spreading any excavated soils outside the communications site fence. Inside the communications site fence, utilize uncontaminated native soil as backfill; excess soil beyond the needs of backfill or restoration must be removed and disposed of in a USFS-approved area, or off-site, outside the Marys Peak SBSIA at an appropriate location following all applicable county, state, and federal laws and regulations.
- Maintain soil profiles by storing excavated soils onsite and backfilling holes with subsoils first, followed by top soils.
- Prohibit the use of heavy equipment in the 0.53-acre tree-cutting area to avoid impacts to soils on the slope; cut trees with machinery located on roads or by using chainsaws and other hand equipment.

- Inspect and repair access roads and other facilities after construction to ensure proper function and minimal erosion levels, and to avoid or minimize potential future impacts to soils.
- Stockpile topsoil and subsoil separately in small, low piles for a short period of time, so that it remains biologically active, and avoid mixing subsoil and top soil as much as possible.

At the BPA Albany Substation, there would be **no** temporary or permanent impacts on geology and soils because no ground disturbing work is proposed at this site.

Vegetation

At Marys Peak, impacts on vegetation from Proposed Action Alternative 3C would be **moderate**, and some effects on vegetation would be beneficial. Project designs avoid permanent and temporary impacts to vegetation to the maximum extent possible, and a Project Revegetation Plan and mitigation measures would be implemented to reduce the temporary and permanent impacts to vegetation to a level of non-significance.

- About 0.05 acre (2,200 square feet) of moderate-quality grassland would be permanently impacted in areas with a permanent footprint (i.e., new steel-lattice structure, new building addition, and new water bar aprons).
- About 0.35 acre (15,250 square feet) of moderate-quality grassland would be temporarily impacted by Project activities. The majority of the temporary vegetation impact area is located within the chain link fence area at Marys Peak summit.
- The movement of equipment and workers, the introduction of fill materials, and soil disturbance could result in the introduction or spread of non-native and noxious weeds into areas disturbed by construction. However, to reduce or eliminate this risk BPA would conduct pretreatment of existing weeds in all construction work areas, and treat any noxious weeds found in Project work areas following construction.
- Temporary impacts to vegetation at Marys Peak would be reduced to a level of non-significance by implementing the Project Revegetation Plan (posted on the Project website at www.bpa.gov/goto/MarysPeak). The Project Revegetation Plan was reviewed by USFS and BLM botanists and contains site-specific methods developed for use within the Marys Peak SBSIA.
- Vegetated areas of special interest, such as the Marys Peak rock garden and meadow habitat, would not be impacted by Project activities, because those areas would be designated as “No Work” areas on all design and construction documents and maps. Additionally, temporary exclusion rope fencing and signage would be installed, prior to construction, along the access road to the Marys Peak summit in areas with rare native plant species and high-quality plant communities, including the rock garden near the summit.
- To further avoid impacts to vegetation within the Marys Peak SBSIA, equipment and vehicle staging areas would only be located in areas within the chain link fence at the communications site and in the paved public parking lot.
- Impacts to vegetation would be avoided by preventing entry into areas outside of the unpaved access road or the fenced communications site by all contractor personnel, vehicles, equipment, and materials.
- Impacts to vegetation would be further reduced because water bar and rock apron locations would be marked in the field with flags prior to conducting access road work, and BPA would coordinate with a USFS botanist to inspect the area to determine if there are native plants to salvage for replanting in the fall.

- Because impacts to vegetation and unique plant communities are of interest at Marys Peak, a professional botanist would be employed to monitor access road work at Marys Peak to ensure vegetation-related mitigation occurs.
- Up to 14 noble firs would be cut on BLM-administered land to accommodate a new microwave radio beam path. The trees would be cut by chainsaws or other hand equipment to minimize soil and understory vegetation disturbance. The amount of trees to be cut for the beam path is relatively small when compared to the larger noble fir stand at Marys Peak and would not be a significant impact on the existing high-quality forest habitat. Although some plant and sensitive fungi habitat could be disturbed or removed by the tree cutting, more meadow habitat would eventually be created in its place.
- Only locally sourced, genetically adapted native plant materials from seeds and cuttings collected from the Marys Peak SBSIA would be used for revegetating areas disturbed by Project activities.
- Dismantling and removal of the BPA communications site and grading the site would result in disturbance of about 0.14 acre (6,100 square feet) of existing vegetation habitat within the chain link fence at the Marys Peak summit. However, approximately 7,700 square feet of the Marys Peak summit area would no longer be a designated communications site, and would be revegetated with native species found at Marys Peak, resulting in a beneficial effect on vegetation.

Some mitigation measures to be implemented to reduce permanent and temporary impacts on vegetation to a level of non-significance include the following:

- Employ an on-site environmental monitor (hired directly by BPA), during all outdoor construction activities at Marys Peak.
- To avoid potential new weed species introductions to Marys Peak, rock and gravel used for road surfacing, fill material, and other uses would be obtained from a quarry that is approved by the SNF botanist prior to installation on Marys Peak, and ideally is local and ODA-certified weed-free.
- Begin access road work (including grading and water bar installation) at the top of Marys Peak (near the summit), with work progressing downhill towards the paved parking lot, when feasible, to avoid bringing weed seed from areas lower along the access road up to the unique vegetation areas near the Marys Peak summit.

There would be **no** impacts on vegetation at the BPA Albany Substation because all work at this site would occur within the graveled yard where vegetation is absent.

Wildlife

At Marys Peak, Proposed Action Alternative 3C would have **no to moderate** impacts on wildlife, and some effects on wildlife would be **beneficial**. Project designs avoid permanent and temporary impacts to wildlife to the maximum extent possible, and mitigation measures would be implemented to reduce the temporary and permanent impacts to wildlife to a level of non-significance.

- About 0.05 acre (2,200 square feet) of moderate-quality grassland wildlife habitat would be removed in areas with a permanent footprint (i.e., new steel-lattice structure, new building addition). The majority of this permanent wildlife impact area would be located within the chain link fence area at the Marys Peak summit, and some is located along the access road due to the installation of up to eight rock aprons.
- About 0.35 acre (15,250 square feet) of low- to moderate-quality grassland wildlife habitat would be temporarily impacted by Project activities, the majority of which would be located

within the chain link fence area at the Marys Peak summit where wildlife might frequent less often than the higher quality grassland wildlife habitat found outside of the fenced communications sites.

- No impacts would occur to federally and state-listed wildlife species because they do not occur in the study area, as evidenced by multiple years of wildlife surveys.
- Short-term temporary impacts on wildlife habitat could occur when the habitat is disturbed by Project activities, but the disturbance would not prevent the reestablishment of habitat similar to the preconstruction conditions.
- The cutting of up to 14 noble fir trees could have a low impact on wildlife habitat; however, this would not be a significant impact to the existing high-quality forest habitat because there is adjacent high-quality forested habitat nearby and the amount of trees to be cut for the beam path is relatively small when compared to the larger noble fir stand at Marys Peak. Furthermore, the cut trees would be left as snags at least 20 feet tall or taller, if possible, and woody debris would be left on the forest floor to create diverse habitat features for a variety of wildlife species.
- Trees would be cut between August 15 and March 1 to avoid the typical nesting period for birds.
- The BPA building and associated equipment would be removed from the site and it would be restored with native vegetation, which would have a low beneficial effect on wildlife.

There would be **no to low** impacts on federally and state-listed ESA status wildlife species at the BPA Albany Substation because installation of a new microwave dish would be on an existing structure that birds and bats are likely accustomed to avoiding during flight, and associated elevated noise levels from installation would be short in duration. No impacts would occur on wildlife habitat at the substation, because all work would occur within the substation's fenced yard.

Visual Quality

At Marys Peak, there would be **no to moderate** impacts from Proposed Action Alternative 3C on visual quality. Project designs avoid permanent and temporary impacts on visual quality to the maximum extent possible, and mitigation measures would be implemented to reduce the temporary and permanent impacts on visual quality to a level of non-significance.

- The installation of a new 60-foot tall steel-lattice structure at the Marys Peak summit communications site would have a moderate permanent impact on visual resources; however, this would be offset by the reduction of infrastructure and equipment clutter at the Marys Peak summit by the removal of the existing BPA communications building, existing BPA communications structures, and upon USFS approval, the removal of the chain link fence that surrounds the BPA communications site. Improvements to scenic quality on Marys Peak summit would be evident, as the consolidation of communications infrastructure would limit the extent to which existing and proposed communications infrastructure blocked views to the west, a beneficial effect. Furthermore, removal of the BPA communications site would mean approximately 7,700 square feet of the Marys Peak summit area would be revegetated with native plant species. Taken together, these activities would result in an overall beneficial effect on visual quality at the Marys Peak summit.
- Permanent low visual quality impacts would occur from access road improvements. However, the visual contrast from access road improvements would lessen over time as the new gravel weathers and vegetation along the road edge encroaches into the graveled areas.
- Permanent low visual quality impacts would occur from the cutting of up to 14 noble fir trees to accommodate the new microwave radio beam path. However, the trees to be cut would likely only be visible to hikers from portions of the access road and from the summit. Because only

one small area of trees within a larger stand would be cut and it would gradually transition to meadow, permanent impacts on scenic resources from tree cutting would be low.

- Temporary impacts to visual quality would occur during construction on the Marys Peak summit, along the access road, and during tree cutting. Construction equipment would be located onsite for the minimum amount of time possible, and the visual contrast from access road improvements would lessen over time.
- No impacts on Marys Peak scenic resources would occur for viewers in the Valley Bottom and Coast Range because the consolidation of the communications site at the Marys Peak summit and cutting of trees for a new beam path would be nearly indiscernible from existing conditions when viewed from residential areas and communities, and from along Highway 20, due to distance and screening by topography and vegetation.

Some mitigation measures to be implemented to reduce permanent and temporary impacts to visual quality to a level of non-significance include the following:

- Consult with a USFS landscape architect and botanist on the final siting of all site facilities, and maintain open views in the site layout to the extent possible.
- Review site, building, propane tank, microwave dish, and steel-lattice structure designs with USFS, including the colors and materials to be used, to choose those most visually appropriate for the setting (i.e., naturally appearing palette with low light reflectivity while maintaining low heat-absorption colors; matte finish).
- Implement access road improvements in a manner that maintains the scale and character of the existing road, minimizes impacts on shoulders, and maintains the rural setting.
- Maintain the existing color of gravel during any necessary road resurfacing as much as possible.
- Install the HVAC unit on the south-facing wall of the Marys Peak communications building addition to minimize visual impacts to visitors near the picnic table area located north of the communications site.
- Site all construction staging and storage areas away from locations that would be clearly visible from sensitive viewer groups as much as practicable.
- Provide information to visitors at Marys Peak on how to avoid construction activities as much as possible, including posting Project information and updates on the SNF website and posting and maintaining signs at trailheads and other obvious locations, such as existing signboards at the public parking lot and the campground, so that visitors can have a pleasant visit and experience good views.

At the BPA Albany Substation, some viewers (in particular nearby subdivision residents and park users) may notice the installation of a new microwave dish; consequently, permanent impacts to visual resources would be **low** to **moderate**. There would be a temporary **low** impact on visual quality during installation of the microwave dish, which would be short in duration.

Cultural Resources

At Marys Peak, Proposed Action Alternative 3C is expected to have **no** to **moderate** impacts on cultural resources eligible for listing in the National Register of Historic Places (NRHP). Project designs avoid permanent and temporary impacts to cultural resources to the maximum extent possible, and mitigation measures would be implemented to reduce the temporary and permanent impacts to cultural resources to a level of non-significance.

- Cultural resource surveys of the Area of Potential Effect (APE) revealed no archaeological materials on the ground or during subsurface testing. Based on this result, no impacts on archaeological resources are anticipated from the Project.

- Traditional Cultural Properties (TCPs) within the APE at the BPA Marys Peak communications site could be affected by Project implementation. If impacts could not be avoided, impacts would be low to moderate with the implementation of applicable mitigation measures.
- The BPA Marys Peak communications site would be dismantled and removed. The site would be restored to natural vegetation and there would be no evidence of the existing site. Because the BPA Marys Peak communications site is eligible for the NRHP, removal of the site would be an adverse effect on historic resources. BPA cultural resources staff are working with consulting parties to develop a Memorandum of Agreement (MOA) that will determine appropriate mitigation for this adverse effect to achieve a level of non-significance.
- The USFS Marys Peak communications site has not been evaluated for NRHP eligibility. If the USFS communications site is determined eligible for the NRHP, BPA would work with consulting parties to develop a MOA that would determine appropriate mitigation for any adverse effects to achieve no to moderate impacts.

Some mitigation measures to be implemented to reduce permanent and temporary impacts to cultural resource at Marys Peak to a level of non-significance include the following:

- Work with consulting parties to develop a MOA to determine appropriate mitigation measures that will address unavoidable adverse effects under the National Historic Preservation Act (NHPA).
- Implement BPA's Inadvertent Discovery Protocol, which specifies that if ground-disturbing activities reveal any cultural materials, all activities in the vicinity of the find must cease. The BPA archaeologist, Oregon State Historic Preservation Office, affected Tribes, and USFS and/or BLM archaeologists (as appropriate) would be notified immediately and consultation under Section 106 of the NHPA would begin.

At the BPA Albany Substation, the addition of equipment to the control house and to the existing steel-lattice structure would not affect the characteristics that make the substation eligible for listing in the NRHP or the function of the substation. Therefore, the Project would have no adverse effect on the substation's eligibility for the NRHP, resulting in **no** impact. There would also be **no** impacts on archaeological resources or TCPs at the BPA Albany Substation.

Socioeconomics

At Marys Peak, Proposed Action Alternative 3C would have **no** to **moderate** impacts on socioeconomics; some effects on socioeconomics would be beneficial. Project designs avoid permanent and temporary impacts to socioeconomics to the maximum extent possible, and mitigation measures would be implemented to reduce the temporary impacts to socioeconomics to a level of non-significance.

- No permanent impacts to socioeconomics or property values would occur as a result of the Project, and the Project would not result in the removal or permanent alteration of tourism facilities. Any disruption to tourism would be short-term and temporary.
- Relatively few workers would be employed during the construction phase and most would likely permanently reside outside of Benton County. Because construction would be completed within a short time frame of up to six months, non-local workers are not expected to relocate their households to the study area.
- Because only a few workers, if any, would reside in the area during construction and their stay would be temporary, there would be no impacts on housing availability during construction. Increased demand for housing would be temporary, having low temporary impacts and no permanent impacts on regional population and overall demand for housing.

- Due to Project construction, fewer people might come to Marys Peak and might not stay as long, affecting the amount of money spent in nearby communities. Consequently, Project construction activities could have temporary economic impacts. However, implementation of the Project would temporarily stimulate the local economy through some material purchases in the area, payroll to construction workers, and related indirect or multiplier effects. Furthermore, the temporary income resulting from the presence of workers in the community would constitute a low, beneficial impact on the regional economy.

At the BPA Albany Substation, there would be no permanent socioeconomic impacts as a result of the Project, which would not affect the amount of taxes collected by the county. Temporary impacts on the salability of nearby residential properties would be **low**. The property values of residences near the Albany Substation are not expected to be permanently affected because the activities that would occur are those expected during typical routine maintenance.

Noise

At Marys Peak, noise-related impacts from Proposed Action Alternative 3C would be **moderate**. Project designs avoid these permanent, intermittent impacts from noise to the maximum extent possible, and mitigation measures would be implemented to reduce the impacts of noise to a level of non-significance.

- Sources of permanent noise impacts at Marys Peak would include the operation of backup engine generators and HVAC units. The backup engine generator would only run when there is unexpected power loss (usually due to storms and high winds) at the communications site, and during weekly testing at nighttime when people are unlikely to be outdoors near the site. BPA installs engine generators inside of its communications building with an external exhaust system; therefore, noise levels outside of the fenced communications site would be low for any potential visitors standing outside the chain link fence when the engine generator is operating.
- The HVAC unit would create continuous noise when the communications building's temperature rises above 75 degrees Fahrenheit (°F) and falls below 70°F, to protect temperature-sensitive equipment inside the building. The HVAC's outdoor compressor, which is the loudest component of the HVAC system, would only run when the unit is in cooling mode. As conditions allow, the system would use economizer mode most of the time, which reduces the compressor's operation and, in turn, reduces the noise impacts experienced by visitors located outside of the chain link fence. Furthermore, the HVAC unit would be installed on the south-facing wall of the Marys Peak communications building addition to minimize noise impacts for visitors passing north of the communications site (near the picnic table area, and where trails and the access road are closest to the communications site).
- Construction activities at Marys Peak would result in temporary noise impacts. However, construction noise would only persist for the duration of the construction period (up to 6 months) and would only intermittently exceed current ambient conditions. While visitors may experience temporary construction noise during the construction period, Project activities would not occur during weekends or on Federal holidays as stipulated by one of the mitigation measures. Furthermore, per the mitigation plan, visitors would be notified in advance of planned construction activities and locations, so they can make informed decisions about their trip to potentially avoid construction noise.
- Maximum noise levels from operation of construction equipment could reach up to 88 dBA Lmax at 50 feet from the construction site, which is equivalent to typical noise levels produced from a general construction site. Construction noise would dissipate rapidly with distance from the construction site, and noise-sensitive receptors beyond the Project study area (greater than

1,000 feet from the work area) are not likely to experience construction noises above 60 dBA. This is a noise level equivalent to a normal conversation between two people sitting about 3 feet apart.

Some mitigation measures to be implemented to reduce permanent and temporary impacts to noise to a level of non-significance include the following:

- 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.
- Request that the construction contractor turn off construction equipment during prolonged periods of nonuse.

At the BPA Albany Substation, there would be **no** permanent operational noise impacts and **low** temporary impacts due to construction activities. Installation of the microwave dish on the existing steel-lattice communications structure at the substation would only take a few days and be a relatively quiet process, because there would be no ground disturbance or heavy construction equipment required for the installation.

Air Quality and Greenhouse Gas Emissions

At Marys Peak, Proposed Action Alternative 3C would have **no to moderate** impacts on air quality and greenhouse gas emissions. Project designs avoid permanent and temporary impacts to air quality and greenhouse gas (GHG) emissions to the maximum extent possible, and mitigation measures would be implemented to reduce the temporary impacts to a level of non-significance.

- There would be no permanent impact to air quality following completion of the Project; however, there would be low permanent impacts to global concentrations of GHGs from vehicle and equipment operation and tree cutting with chainsaws.
- Although vehicle and heavy equipment operation during construction activities could increase dust and particulate levels, impacts would be temporary, would occur in localized areas, and would not be expected to exceed air quality standards or significantly contribute to visibility reduction or regional haze. In addition, implementation of dust suppression measures and other identified air quality-related mitigation measures would further minimize these impacts. Air quality standards would not be violated by the Project.

At the BPA Albany Substation, the minimal amount of work would result in no ground disturbance and no tree removal; therefore, there would be **no** impacts on air quality and greenhouse gas concentrations.

Public Health and Safety

At Marys Peak, Proposed Action Alternative 3C would have **no to moderate** impacts on public health and safety.

- Construction could result in a temporary increased risk of fires and injury from the use of heavy equipment and hazardous materials. The general public would not be allowed in construction areas while work with the potential to harm people is ongoing, and therefore the public would not be at risk of injury from construction. Furthermore, by implementing all safety requirements and mitigation measures, the construction activities would not create significant impacts to the health and safety of workers and the public.
- Despite the presence of security infrastructure at the BPA and USFS communications sites on the Marys Peak summit, a recent vandalism incident occurred at the BPA communications site.

As such, there is evidence of a moderate level of risk of theft, vandalism, or acts of sabotage or terrorism at the new co-located communications site.

- A new BPA microwave antenna and associated dish would be installed on a new steel-lattice structure at the Marys Peak summit. Significant exposures from microwave antennas could only occur if an individual were to stand directly in front of and very close to such an antenna for a period of time. Because the antenna would be mounted on a steel-lattice structure located within the fenced communications site with restricted access, the public would not be exposed to microwave field levels in excess of Federal Communications Commission guidelines.
- A new VHF whip antenna would be installed at the top of the new steel-lattice structure at the Marys Peak communications facility. This antenna would replace the VHF antenna currently located on the BPA wood pole structure. The new VHF antenna would emit VHF radiation, like the other VHF equipment at the Marys Peak communications sites. As with all forms of electromagnetic energy, the strength of VHF radiation decreases rapidly with increasing distance from the antenna. Since any incremental change in VHF emissions from the replacement antenna would be low, public health and safety impacts from VHF exposure would be low, and not elevated to a level of significance.
- At the USFS Marys Peak communications site, an HVAC unit and some electronic equipment would be installed in the addition to the communications building. This electrical equipment could result in a slight increase in electromagnetic field (EMF) levels beyond the fence line, but this change in EMF would be very low and remain comparable to levels experienced by visiting commercial facilities.

Some mitigation measures to be implemented to reduce Impacts to public health and safety to a level of non-significance include the following:

- Prepare an ESCP, site-specific safety plan, and fire prevention and suppression plan in compliance with federal, state and county requirements before starting construction; plans shall specify how to manage and respond to emergency situations involving hazardous materials to include oils and fuels, and any abandoned toxic materials found in work sites; all plans shall be kept on-site and maintained and updated as needed during construction.
- Secure the work area at the end of each workday, as much as possible, to protect the general public and to safeguard equipment.
- Limit vehicle speeds on unpaved roads and surfaces to 10 miles per hour or less to reduce dust and for public safety.
- Equip all vehicles used during construction with basic fire-fighting equipment, including extinguishers and shovels to prevent fires.
- Require the construction contractor to hold safety meetings with workers at the start of each day to review potential safety issues and concerns.
- Restrict access to the summit during any construction activities that could harm the general public in the vicinity, such as when erecting a steel-lattice structure.
- Avoid all work between the parking lot and the Marys Peak summit and at the Marys Peak summit communications site during Federal holidays and weekends to minimize impacts to visitors.
- Avoid removing the Marys Peak BPA communications site during Federal holidays and weekends to minimize disturbance during periods of high visitation for public safety.

At the BPA Albany Substation, the public is not expected to be exposed to EMF or microwave radiation from the addition of the microwave antenna, resulting in **no** health and safety impacts.

There would be **low** temporary impacts during construction at the BPA Albany Substation from increased general safety risks. However, by implementing all safety requirements and mitigation measures, the construction activities would not create significant impacts to the health and safety of workers and the public.

Resources on which the Project would have Minimal or No Impacts

The following resources were not analyzed in detail in the EA because the three proposed action alternatives (including Proposed Action Alternative 3C) would have no or minimal impacts on them compared to the No Action Alternative.

Wetlands and Water Resources (including Floodplains)

There would be no impacts on Wetlands and Water Resources (including floodplains) from implementation of Proposed Action Alternative 3C. The Marys Peak BPA Communications site is located in upland habitat with no waterways or wetlands within 200 feet of work areas. There would be no direct or indirect impacts to water features or water quality from erosion and sedimentation because water features are not located near work areas. The BPA Albany Substation is located near the Calapooia River, but all Project work would occur within the substation fence and there is no potential for erosion or sedimentation because there would be no ground disturbance.

Fish

There would be no impacts on fish from Proposed Action Alternative 3C because there would be no direct or indirect impacts to waterways, riparian areas, and water quality; therefore, no fish or fish habitat would be affected.

Transportation

Proposed Action Alternative 3C would have negligible impacts on transportation. Traffic operations in the Project area would be minimally affected because, although ingress and egress of a small number of construction vehicles from public roads would occur briefly, area roads generally have low traffic volumes. The minimal amount of materials and equipment that would be brought to Project work sites is not expected to result in any damage to public roads.

Public Services

There would be no impacts on public services from Proposed Action Alternative 3C because it would have minimal impacts on transportation. Therefore, the Project would have no effect on public services such as police services, fire suppression services, and school transportation.

Environmental Justice Populations

There would be no impacts on environmental justice populations from Proposed Action Alternative 3C because no minority or low-income populations are identified near Project work sites.

Determination

Based on the information in the final EA, as summarized here, BPA determines that implementation of Proposed Action Alternative 3C 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 Alternative 3C Marys Peak Co-locate with USFS – BPA Albany Substation.

Issued in Portland, Oregon.

SCOTT G. ARMENTROUT
Executive Vice President
Environment, Fish and Wildlife

Mitigation Action Plan

for the

Marys Peak Bonneville Power Administration Communications Site Project

Summary

This Mitigation Action Plan (MAP) is referenced in the Finding of No Significant Impact (FONSI) for the Marys Peak Bonneville Power Administration (BPA) Communications Site Project (U.S. Department of Energy Environmental Assessment DOE/EA-2050, December 15, 2021). In the FONSI, BPA announced its environmental findings for Alternative 3C: Marys Peak Co-locate with USFS – BPA Albany Substation (Alternative 3C), which is one of the three proposed action alternatives identified for the Marys Peak BPA Communications Site Project (Proposed Action or Project). Alternative 3C includes co-locating with the USFS at their existing communications site at the Marys Peak summit, access road improvements, tree removal for a new beam path, removal of the existing BPA communications site, and revegetation of the communications site area.

This MAP is for Proposed Action Alternative 3C and includes all of the integral elements and commitments made in the final environmental assessment (final EA) to mitigate potential adverse environmental impacts.

BPA and its contractors are responsible for implementing the mitigation measures during various phases of Project construction. Relevant portions of this MAP will be included in the construction contract specifications, which will obligate the contractor to implement the mitigation measures that relate to contractor responsibilities during and after construction.

The MAP table (Table 1) below indicates which of the following person(s)/parties are responsible for implementing each mitigation measure. The parties include:

BPA Project Manager (PM), BPA Contractor (BPA-Contractor), BPA Revegetation Contractor (BPA-Reveg. Contractor), BPA Environmental Monitor (BPA-ENV-MON), BPA Contracting Officer's Representative (BPA-COR), BPA Design Engineer (BPA-DE), BPA Access Road Engineer (BPA-ARE), BPA Lands Specialist (BPA-LS), BPA Construction Contractor Lands Specialist (BPA-CCLS), BPA Public Affairs Specialist (BPA-PAS), BPA Environmental Protection Specialist from the Environmental Planning and Analysis Group (BPA-EPS-ECT), BPA Environmental Protection Specialist from the Pollution Prevention and Abatement Group (BPA-EPS-EPI), BPA Archaeologist (BPA-ARCH), BPA Forester (BPA-FOR), USFS Botanist (USFS-BOT), USFS Special Uses (USFS-SU), USFS Recreation Staff (USFS-REC), USFS Public Affairs Officer (USFS-PAO), USFS landscape architect (USFS-LA), USFS Archaeologist (USFS-ARCH), USFS Engineer (USFS-ENG), BLM Forester (BLM-FOR), BLM Botanist (BLM-BOT), BLM Soil Scientist (BLM-SOIL), and others as specified in Table 1.

BPA is in the process of obtaining required permits and completing coordination and consultation with State of Oregon 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 all permits and the outcomes of consultations are incorporated into this MAP.

If you have general questions about the Marys Peak BPA Communications Site Project, contact the BPA Project Manager, Ben Younce, toll-free at 800-622-4519 or directly at 360-619-6276, or e-mail bbyounce@bpa.gov.

If you have questions about the MAP, contact the BPA Environmental Protection Specialist for the Marys Peak BPA Communications Site Project environmental review, Doug Corkran, toll-free at 800-622-4519 or directly at 503-230-7646, or e-mail dfcorkran@bpa.gov. Alternatively, contact Becky Hill, Contract Environmental Protection Specialist, toll-free at 800-622-4519 or directly at 503-230-7312, or rlhill@bpa.gov.

If you have questions about the MAP *during Project implementation*, contact the BPA Environmental Protection Specialist for the Project’s implementation, Kevin George, toll-free at 800-622-4519 or directly at 503-230-4786, or e-mail kbgeorge@bpa.gov.

This MAP may be amended if revisions are needed due to new information or if there are Project adjustments.

Minimization and Mitigation Measures

Minimization and mitigation measures identified to reduce potential impacts associated with the Proposed Action Alternative 3C are provided in the MAP table (Table 1).

Table 1. Mitigation Action Plan (MAP) Table

| Minimization and Mitigation Measure | Implementation |
|--|---|
| LAND USE AND RECREATION | |
| Install the HVAC unit on the south-facing wall of the Marys Peak communications building addition to minimize noise and visual impacts to visitors near the picnic table area located north of the communications site. | During construction BPA-PM, BPA-DE, USFS-ENG |
| Conduct a preconstruction public meeting and invite landowners, land managers, Benton County law enforcement, and communications site users to meet with construction contractors and BPA staff responsible for Project implementation to receive information and discuss concerns and receive contact information for construction contractor liaisons and BPA staff. | Prior to construction BPA-PM, BPA-EPS-ECT, BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON, BPA-Reveg. Contractor |
| Explain land use and recreation-related BMPs and mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements. | Prior to construction BPA-EPS-ECT, BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Coordinate with the USFS Public Affairs Officer to develop a communications plan to notify recreational and other user groups about construction activities, including potential closures of roads, trails, and other areas via the USFS website, onsite signage, and other methods of public outreach. | Prior to and during construction USFS-REC, USFS-PAO, BPA-PM, BPA-EPS-EPI, BPA-Contractor |
| Provide information to visitors at Marys Peak on how to avoid construction activities as much as possible, including posting Project information and updates on the SNF website and posting and maintaining signs at trailheads and other obvious locations, such as existing signboards at the public parking lot and the campground, so that visitors can have a pleasant visit and experience good views. | Prior to and during construction BPA-PM, BPA-EPS-ECT |

| Minimization and Mitigation Measure | Implementation |
|--|--|
| Coordinate the scheduling of construction traffic and access restrictions with CPI, USFS, and other communications site operators so that they can safely conduct routine and emergency maintenance. | Prior to and during construction BPA-ARE, BPA-Contractor, BPA-ENV-MON, BPA-Reveg. 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. | During construction BPA-COR, BPA-PM, BPA-Contractor |
| Encourage use of carpooling and shuttle vans among construction workers to minimize construction-related traffic and associated emissions. | During construction BPA-PM, BPA-Contractor |
| Schedule all construction work during daylight hours (7 a.m. to 7 p.m.) | During construction BPA-PM, BPA-COR, BPA-EPS-EPI, BPA-Contractor |
| Avoid all work between the parking lot and the Marys Peak summit and at the Marys Peak summit communications site during federal holidays and weekends | During construction BPA-PM, BPA-Contractor |
| Coordinate with USFS to accommodate special-use permit activities by rescheduling construction activities that would interfere with the permitted activities, if possible. | During construction USFS-SU, USFS-ENG, BPA-PM, BPA-Contractor |
| Keep construction equipment clear of recreational resources, including parking and trails, to the greatest extent possible. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Close the access road to hiking during access road improvements and tree-cutting activities, and install signage at the gate, the summit, and other trailheads, providing directions and maps for alternative hiking routes. | During construction BPA-EPS-EPI, BPA-Contractor |
| Instruct construction contractors to promptly close all gates after entry and to post and maintain signs around construction areas warning of construction activity, where needed. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Limit vehicle speeds on unpaved roads and surfaces to 10 miles per hour or less to reduce dust and for public safety. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Control dust during construction with water or other appropriate control methods, without the use of chemical additives, as needed. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Remove the Marys Peak BPA communications site as late as possible in the fall of the year to minimize disturbance to visitors. | During construction BPA-PM, BPA-EPS-EPI, BPA-Contractor |
| Avoid removing the Marys Peak BPA communications site during federal holidays and weekends to minimize disturbance during periods of high visitation for public safety. | During construction BPA-PM, BPA-Contractor |
| GEOLOGY AND SOILS | |
| Design and improve access roads to manage drainage from the road surface, and size and space water bars properly to accommodate flows and direct sediment-laden waters into vegetated areas. | During design phase and during construction BPA-ARE, BPA-Contractor, BPA-ENV-MON, BPA-Reveg. Contractor |

| Minimization and Mitigation Measure | Implementation |
|--|---|
| Develop and implement a Project Revegetation Plan to revegetate areas disturbed by construction, including soil preparation as necessary; Use site-specific methods developed for use within the Marys Peak Scenic Botanical Special Interest Area (SBSIA) and approved by USFS and BLM staff. | Prior to construction BPA-EPS-EPI, BPA-Reveg. Contractor, USFS-BOT, BLM-BOT |
| Use plant materials sourced only from Marys Peak and West Point Spur for revegetation. | During construction BPA-EPS-EPI, BPA-Reveg. Contractor |
| Use certified weed-free rice wattles or erosion control blankets impregnated with native seed obtained from Marys Peak for erosion control. | During construction BPA-EPS-EPI, BPA- Contractor, BPA-Reveg. Contractor, BPA-ENV- MON |
| Prepare an erosion and sediment control plan (ESCP), Stormwater Pollution Prevention Plan (SWPPP), site-specific safety plan, and fire prevention and suppression plan in compliance with federal, state and county requirements before starting construction; plans shall specify how to manage and respond to emergency situations involving hazardous materials to include oils and fuels, and any abandoned toxic materials found in work sites; all plans shall be kept on-site and maintained and updated as needed during construction. | Prior to construction BPA-EPS-EPI, BPA- Contractor |
| Explain geology and soils-related BMPs and mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements. | During construction BPA-EPS-EPI, BPA-EPS- EPI, BPA-Contractor, BPA-ENV-MON |
| Avoid locating equipment and vehicle staging areas within the Marys Peak SBSIA, except in areas within the chain link fence at the communications site and in the paved public parking lot. | During construction BPA-EPS-EPI, BPA-ENV- MON, BPA-Contractor, BPA-ENV-MON |
| Locate staging areas in previously disturbed or graveled areas to minimize disturbance to soil and vegetation, where possible. | During construction BPA-EPS-EPI, BPA- Contractor, BPA-ENV- MON |
| Employ an on-site environmental monitor (hired directly by BPA and not the construction contractor), during all outdoor construction activities at Marys Peak to ensure all mitigation measures and BMPs are correctly implemented during construction and to ensure that construction equipment and personnel remain within designated construction areas, and public restricted access areas are in place for human health and safety purposes. | Prior to and during construction BPA-EPS-EPI, BPA-COR, USFS-REC |
| Limit vehicle speeds on unpaved roads and surfaces to 10 miles per hour or less to reduce dust. | During construction BPA-EPS-EPI, BPA- Contractor, BPA-ENV- MON |
| Obtain rock and gravel used for road surfacing, fill material, and other uses from a quarry that is approved by the SNF botanist prior to installation on Marys Peak, and ideally is local and ODA certified weed-free. | During construction BPA-EPS-EPI, BPA-ARE, BPA-Contractor, USFS- BOT |
| Lay down tarp(s) before depositing temporary gravel piles (on the tarps) to ensure that the gravel can be lifted relatively easily after use, and not become embedded in vegetated areas. | During construction BPA-EPS-EPI, BPA- Contractor, BPA-ENV- MON |

| Minimization and Mitigation Measure | Implementation |
|--|---|
| Limit the quantity of gravel brought to the Marys Peak summit for construction purposes, to the extent possible. | During construction BPA-EPS-EPI, BPA-DE, BPA-Contractor, BPA-ENV-MON |
| Leave vegetative strips adjacent to any open trench areas to avoid or minimize erosion and sedimentation. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Control dust during construction with water or other appropriate control methods, without the use of chemical additives, as needed. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Manage erosion and sediment as specified in the ESCP, including implementation of approved BMPs to minimize or eliminate sediment discharge into waterways and wetlands, minimize the size of construction disturbance areas, and minimize removal of vegetation, to the greatest extent possible. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Inspect erosion and sediment controls periodically during construction, maintain them as needed to ensure their continued effectiveness, and where appropriate, remove them from the site when vegetation is reestablished and the site has been stabilized. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-Reveg. Contractor |
| Avoid spreading any excavated soils outside the communications site fence and inside the fence; utilize uncontaminated native soil as backfill. Excess soil beyond the needs of backfill or restoration must be removed and disposed in a USFS-approved area, or off-site, outside the Marys Peak SBSIA at an appropriate location following all applicable county, state, and federal laws and regulations. | During construction BPA-EPS-EPI, BPA-ENV-MON, BPA-Contractor works |
| Maintain soil profiles by storing excavated soils on-site and backfilling holes with subsoils first followed by top soils. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Prohibit the use of heavy equipment in tree-cutting areas and cut trees with machinery located on roads or by using chainsaws and other hand equipment. | During construction BPA-EPS-EPI, BPA-FOR, BPA-Contractor, BPA-ENV-MON |
| Inspect and repair access roads and other facilities after construction to ensure proper function and nominal erosion levels. | Post construction BPA-EPS-EPI, BPA-ARE, BPA-Contractor, BPA-ENV-MON |
| Monitor growth of any planted materials until site stabilization is achieved (defined by an appropriate level of cover by native species) and revegetation performance criteria are met (as described in the Project Revegetation Plan); if vegetative cover is inadequate, implement adaptive management and reseed/replant to ensure adequate revegetation. | Post construction BPA-EPS-EPI, BPA-ARE, BPA-Contractor, BPA-Reveg. Contractor |
| VEGETATION | |
| Develop and implement a Project Revegetation Plan to revegetate areas disturbed by construction, including soil preparation as necessary; Use site-specific methods developed for use within the Marys Peak Scenic Botanical Special Interest Area (SBSIA) and approved by USFS and BLM staff. | Prior to and during construction BPA-EPS-EPI, BPA-Reveg. Contractor, USFS-BOT, BLM-BOT |

| Minimization and Mitigation Measure | Implementation |
|--|---|
| Use plant materials sourced only from Marys Peak and West Point Spur for revegetation. | During construction BPA-EPS-EPI, BPA-Reveg. Contractor |
| Use certified weed-free rice wattles or erosion control blankets impregnated with native seed obtained from Marys Peak for erosion control. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-Reveg. Contractor, BPA-ENV-MON |
| Designate the Marys Peak summit rock garden and meadow areas as “No Work” areas on all design and construction documents and maps. | During design phase and during construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Prepare an erosion and sediment control plan (ESCP), Stormwater Pollution Prevention Plan (SWPPP), site-specific safety plan, and fire prevention and suppression plan in compliance with federal, state and county requirements before starting construction; plans shall specify how to manage and respond to emergency situations involving hazardous materials to include oils and fuels, and any abandoned toxic materials found in work sites; all plans shall be kept on-site and maintained and updated as needed during construction. | Prior to and during construction BPA-EPS-EPI, BPA-Contractor |
| Explain vegetation-related BMPs and mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Provide training to all Project personnel, prior to the start of construction, on the importance of the botanical resources at Marys Peak and on the ecological and economic importance of controlling invasive species and how they can be spread during construction. | Prior to construction BPA-EPS-EPI, BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Locate staging areas in previously disturbed or graveled areas to minimize disturbance to soil and vegetation, where possible. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Avoid locating equipment and vehicle staging areas within the Marys Peak SBSIA, except in areas within the chain link fence at the communications site and in the paved public parking lot. | During construction BPA-EPS-EPI, BPA-ENV-MON, BPA-Contractor |
| Control noxious weeds and certain invasive non-native plant species, including oxeye daisy and hairy cat’s-ear, in construction work areas before construction to reduce the potential for widespread establishment and the need for long-term management. | Prior to construction BPA-EPS-EPI, BPA-Reveg. Contractor, USFS-BOT |
| Install temporary exclusion rope fencing and signage, prior to construction, along the access road to the Marys Peak summit in areas with rare plant species and high-quality plant communities, including the rock garden near the summit. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Prevent entry into areas outside of the unpaved access road or the fenced communications site by all contractor personnel, vehicles, equipment, and materials. | Prior to and during construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |

| Minimization and Mitigation Measure | Implementation |
|---|---|
| Mark water bar and rock apron locations in the field with flags prior to conducting access road work, and coordinate with a USFS botanist to inspect the area to determine if there are native plants to salvage, if so, then salvage and replant in the fall. | Prior to and during construction BPA-EPS-EPI, BPA-ARE, BPA-Contractor, BPA-Reveg. Contractor, USFS-BOT |
| Employ an on-site environmental monitor (hired directly by BPA and not the construction contractor), during all outdoor construction activities at Marys Peak to ensure all mitigation measures and BMPs are correctly implemented during construction and to ensure that construction equipment and personnel remain within designated construction areas, and public restricted access areas are in place for human health and safety purposes. | Prior to and during construction BPA-EPS-EPI, BPA-COR, USFS-REC |
| Employ a professional botanist to monitor access road work at Marys Peak to ensure vegetation-related mitigation occur. | During construction BPA-Contractor, BPA-Reveg. Contractor |
| Limit vehicle speeds on unpaved roads and surfaces to 10 miles per hour or less to reduce dust. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Equip all vehicles used during construction with basic fire-fighting equipment, including extinguishers and shovels to prevent fires. | Prior to and during construction BPA-EPS-EPI, BPA-Contractor |
| Obtain rock and gravel used for road surfacing, fill material, and other uses from a quarry that is approved by the SNF botanist prior to installation on Marys Peak, and ideally is local and ODA certified weed-free. | Prior to and during construction BPA-EPS-EPI, BPA-ARE, BPA-Contractor, USFS-BOT |
| Lay down tarp(s) before depositing temporary gravel piles (on the tarps) to ensure that the gravel can be lifted relatively easily after use, and not become embedded in vegetated areas. | Prior to construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Limit the quantity of gravel brought to the Marys Peak summit for construction purposes, to the extent possible. | During construction BPA-EPS-EPI, BPA-DE, BPA-Contractor, BPA-ENV-MON |
| Ensure that any plant materials used for erosion and sediment control meet or exceed North American Weed Management Association Weed-Free certification standards. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Leave vegetative strips adjacent to any open trench areas to avoid or minimize erosion and sedimentation. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Control dust during construction with water or other appropriate control methods, without the use of chemical additives, as needed. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |

| Minimization and Mitigation Measure | Implementation |
|--|---|
| Clean equipment and vehicles at air or water-wash stations at a location approved by USFS and BLM, including vacuuming vehicle interiors and floorboards, prior to entering Marys Peak Road and as soon as possible after leaving the work area, to minimize the introduction and spread of weeds during construction. | During construction BPA-EPS-EPI, BPA-Contractor, USFS-BOT, BLM-BOT |
| Arrange for inspection of cleaned equipment by USFS staff prior to entering Marys Peak Road. The USFS would inspect all equipment prior to entry to verify they have been cleaned and are weed propagule-free. The USFS would deny entry to any equipment that is not deemed clean. This would apply to both the prime contractor and subcontractors. | During construction USFS-BOT, USFS-ENG, BPA-Contractor |
| Install boot scrapers at the gate near the bathrooms/paved parking area on Marys Peak, and ensure all construction workers clean boots on the scrapers before entering/leaving work areas to avoid introducing or spreading noxious weeds. | During construction BPA-EPS-EPI, BPA-Contractor, USFS-REC |
| Restrict construction activities (including trenching work) to the minimum work area needed to work safely and effectively, to limit disturbance of vegetation communities. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Begin access road work (including grading and water bar installation) at the top of Marys Peak (near the summit), with work progressing downhill towards the paved parking lot, when feasible. | During construction BPA-EPS-EPI, BPA-ENV-MON, BPA-ARE, BPA-Contractor |
| Cut or crush vegetation in areas that would remain vegetated, rather than blading or clearing. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| During road grading, do not side cast any graded materials; side cast materials must be either compacted on the road surface or removed from the site and disposed of at a USFS-approved upland location. | During construction BPA-EPS-EPI, BPA-ARE, BPA-Contractor, BPA-ENV-MON |
| Remove access road rock that inadvertently lands in areas with native vegetation during the placement of rock and relocate it to the road's surface; the removal of rock would be done with care to avoid further damage to vegetation. | During construction BPA-EPS-EPI, BPA-ARE, BPA-Contractor, BPA-Reveg. Contractor, BPA-ENV-MON |
| Avoid spreading any excavated soils outside the communications site fence and inside the fence, utilize uncontaminated native soil as backfill; excess soil beyond the needs of backfill or restoration must be removed and disposed of in a USFS-approved area, or off-site, outside the Marys Peak SBSIA at an appropriate location following all applicable county, state and federal laws and regulations. | During construction BPA-EPS-EPI, BPA-ENV-MON, BPA-Contractor |
| Stockpile topsoil and subsoil separately in small, low piles for a short period of time, so that it remains biological active, and avoid mixing subsoil and top soil as much as possible. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Prohibit the use of heavy equipment in tree-cutting areas and cut trees with machinery located on roads or by using chainsaws and other hand equipment. | During construction BPA-EPS-EPI, BPA-FOR, BPA-Contractor, BPA-ENV-MON |
| Cut trees within microwave beam paths as snags, if possible, and leave woody debris on the forest floor to create diverse habitat. | During construction BPA-FOR, BLM-FOR, BPA Contractor, BPA-Reveg. Contractor, BPA-ENV-MON |

| Minimization and Mitigation Measure | Implementation |
|---|---|
| Monitor growth of any planted materials until site stabilization is achieved (defined by an appropriate level of cover by native species) and revegetation performance criteria are met (as described in the Project Revegetation Plan); if vegetative cover is inadequate, implement adaptive management and reseed/replant to ensure adequate revegetation. | Post construction BPA-EPS-EPI, BPA-ARE, BPA-Contractor, BPA- Reveg. Contractor |
| Conduct a post-construction noxious weed survey each year for five years after construction, of all areas disturbed by and adjacent to construction activities, to determine if there are new or expanded noxious weed or invasive non-native plant infestations; implement appropriate control measures of noxious weed infestations. | Post construction BPA-Reveg. Contractor |
| WILDLIFE | |
| Explain wildlife-related BMPs and mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements. | Prior to and during construction BPA-EPS-ECT, BPA-EPS- EPI, BPA-Contractor, BPA-ENV-MON |
| Identify active bird nests in construction work areas prior to conducting construction during the breeding season (March 1 to August 15) and clearly mark active nests for avoidance by construction equipment and personnel, if possible, or BPA would obtain the appropriate permits from USFWS if the nest could not be avoided. | Prior to construction BPA-EPS-ECT, BPA-EPS- EPI, BPA-Contractor, BPA-ENV-MON |
| Limit vehicle speeds on unpaved roads and surfaces to 10 miles per hour or less to avoid collisions with wildlife. | During construction BPA-EPS-EPI, BPA- Contractor, BPA-ENV- MON |
| Prohibit the use of heavy equipment in tree-cutting areas and cut trees with machinery located on roads or by using chainsaws and other hand equipment. | During construction BPA-EPS-EPI, BPA-FOR, BPA-Contractor, BPA- ENV-MON |
| Cut trees within microwave beam paths as snags, if possible, and leave woody debris on the forest floor to create diverse habitat. | During construction BPA-FOR, BLM-FOR, BPA Contractor, BPA-Reveg. Contractor, BPA-ENV- MON |
| Cut trees between August 15 and March 1 to avoid the typical nesting period for birds. | During construction BPA-EPS-EPI, BPA Contractor, BPA-ENV- MON |
| Ensure workers do not leave food or garbage out that would attract wildlife. | During construction BPA-EPS-EPI, BPA- Contractor, BPA-ENV- MON |
| Cover construction holes outside of fenced areas that would be left open overnight. | During construction BPA-EPS-EPI, BPA- Contractor, BPA-ENV- MON |
| Keep cranes in the “down” position when left onsite overnight to reduce potential for avian or bat collisions. | During construction BPA-EPS-EPI, BPA- Contractor, BPA-ENV- MON |

| Minimization and Mitigation Measure | Implementation |
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| Allow areas where trees are cut within the Marys Peak SBSIA to revert to natural non-forested habitat. | During construction BPA-FOR, BLM-BOT, BPA Contractor, BPA-Reveg. Contractor |
| VISUAL QUALITY | |
| Consult with a USFS landscape architect and botanist on the final siting of all site facilities. | During design phase BPA-DE, USFS-LA, USFS-BOT, BPA-PM |
| Maintain open views in the site layout to the extent possible (visual quality design). | During design phase BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Review site, building, propane tank, microwave dish, and steel-lattice structure designs with USFS, including the colors and materials to be used, to choose those most visually appropriate with the setting (i.e., naturally appearing palate with low light reflectivity while maintaining low heat absorption colors; matte finish). | During design phase BPA-EPS-ECT |
| Implement access road improvements in a manner that maintains the scale and character of the existing road, minimizes impacts on shoulders, and maintains the rural setting. | During design phase and during construction BPA-EPS-EPI, BPA-ARE, BPA-Contractor, BPA-ENV-MON |
| Maintain the existing color of gravel during any necessary road resurfacing as much as possible. | During construction BPA-EPS-EPI, BPA-ARE, BPA-Contractor |
| Install the HVAC unit on the south-facing wall of the Marys Peak communications building addition to minimize noise and visual impacts to visitors near the picnic table area located north of the communications site. | During construction BPA-PM, BPA-DE, USFS-ENG |
| Explain visual quality-related BMPs and mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements. | Prior to construction BPA-EPS-ECT, BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Site all construction staging and storage areas away from locations that would be clearly visible from sensitive viewer groups as much as practicable. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Provide information to visitors at Marys Peak on how to avoid construction activities as much as possible, including posting Project information and updates on the SNF website and posting and maintaining signs at trailheads and other obvious locations, such as existing signboards at the public parking lot and the campground, so that visitors can have a pleasant visit and experience good views. | During construction BPA-PM, BPA-EPS-ECT |
| Limit vehicle speeds on unpaved roads and surfaces to 10 miles per hour or less to reduce dust. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Control dust during construction with water or other appropriate control methods, without the use of chemical additives, as needed. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |

| Minimization and Mitigation Measure | Implementation |
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| Maintain and clean construction sites as much as practicable and keep construction areas free of debris. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Allow areas where trees are cut within the Marys Peak SBSIA to revert to natural non-forested habitat. | During construction BPA-FOR, BLM-BOT, BPA Contractor, BPA-Reveg. Contractor |
| CULTURAL RESOURCES | |
| Work with consulting parties to determine appropriate mitigation for unavoidable adverse effects under the NHPA. | During design phase BPA-EPC-ECT, BPA-ARCH, USFS-ARCH |
| Explain cultural resources-related BMPs and mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements. | Prior to construction BPA-EPS-ECT, BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Implement BPA's Inadvertent Discovery Protocol. This procedure specifies that if ground-disturbing activities reveal any cultural materials (e.g., structural remains, Euro-American artifacts, or Native American artifacts), all activities in the vicinity of the find must cease. The BPA archaeologist, Oregon SHPO, and affected Tribes would be notified immediately and consultation under Section 106 of the NHPA would begin. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ARCH, BPA-ENV-MON |
| SOCIOECONOMICS | |
| Conduct a preconstruction public meeting and invite landowners, land managers, Benton County law enforcement, and communications site users to meet with construction contractors and BPA staff responsible for Project implementation to receive information and discuss concerns and receive contact information for construction contractor liaisons and BPA staff. | Prior to construction BPA-PM, BPA-EPS-ECT, BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON, BPA-Reveg. Contractor |
| Explain socioeconomics-related BMPs and mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements. | Prior to construction BPA-EPS-ECT, BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Coordinate with the USFS public affairs officer to develop a communications plan to notify recreational and other user groups about construction activities, including potential closures of roads, trails, and other areas via the USFS website, onsite signage, and other methods of public outreach. | Prior to construction USFS-REC, USFS-PAO, BPA-PM, BPA-EPS-EPI, BPA-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 BPA-COR, BPA-PM, BPA-Contractor |
| Keep construction equipment clear of recreational resources, including parking and trails, to the greatest extent possible. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Schedule all construction work during daylight hours (7 a.m. to 7 p.m.) | During construction BPA-PM, BPA-COR, BPA-EPS-EPI, BPA-Contractor |

| Minimization and Mitigation Measure | Implementation |
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| Avoid all work between the parking lot and the Marys Peak summit, and at the Marys Peak summit communications site during federal holidays and weekends to minimize impacts to visitors. | During construction BPA-PM, BPA-Contractor |
| Avoid removing the Marys Peak BPA communications site during federal holidays and weekends to minimize disturbance during periods of high visitation for public safety. | During construction BPA-PM, BPA-Contractor |
| NOISE | |
| Install the HVAC unit on the south-facing wall of the Marys Peak communications building addition to minimize noise and visual impacts to visitors near the picnic table area located north of the communications site. | During construction BPA-PM, BPA-DE, USFS-ENG |
| Explain noise-related BMPs and mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements. | Prior to construction BPA-EPS-ECT, BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Coordinate with the USFS public affairs officer to develop a communications plan to notify recreational and other user groups about construction activities, including potential closures of roads, trails, and other areas via the USFS website, onsite signage, and other methods of public outreach. | Prior to construction USFS-REC, USFS-PAO, BPA-PM, BPA-EPS-EPI, BPA-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. | During construction BPA-COR, BPA-PM, BPA-Contractor |
| Schedule all construction work during daylight hours (7 a.m. to 7 p.m.) | During construction BPA-PM, BPA-COR, BPA-EPS-EPI, BPA-Contractor |
| Avoid all work between the parking lot and the Marys Peak summit and at the Marys Peak summit communications site during federal holidays and weekends. | During construction BPA-PM, BPA-Contractor |
| Avoid removing the Marys Peak BPA communications site during federal holidays and weekends to minimize disturbance during periods of high visitation. | During construction BPA-PM, BPA-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 BPA-EPS-EPI, BPA-Contractor, BPA-COR |
| Require that the construction contractor turn off construction equipment during prolonged periods of nonuse. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| AIR QUALITY AND GREENHOUSE GASES | |
| Explain air quality and greenhouse gas-related BMPs and mitigation measures to construction contractors and inspectors during a preconstruction meeting covering environmental requirements. | Prior to construction BPA-EPS-ECT |
| Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Encourage use of carpooling and shuttle vans among construction workers to minimize construction-related traffic and associated emissions. | During construction BPA-PM, BPA-Contractor |
| Limit vehicle speeds on unpaved roads and surfaces to 10 miles per hour or less to reduce dust. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |

| Minimization and Mitigation Measure | Implementation |
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| Obtain rock and gravel used for road surfacing, fill material, and other uses from a quarry that is approved by the SNF botanist prior to installation on Marys Peak, and ideally is local and ODA certified weed-free. | During construction BPA-EPS-EPI, BPA-ARE, BPA-Contractor, USFS- BOT |
| Control dust during construction with water or other appropriate control methods, without the use of chemical additives, as needed. | During construction BPA-EPS-EPI, BPA- Contractor, BPA-ENV- MON |
| Require that the construction contractor turn off construction equipment during prolonged periods of nonuse. | During construction BPA-EPS-EPI, BPA- Contractor, BPA-ENV- MON |
| Require that all engines in vehicles used for construction, operation, and maintenance are maintained in good operating condition to minimize exhaust emissions. | During construction BPA-EPS-EPI, BPA- Contractor, BPA-COR |
| Use alternative fuels for generators at construction sites, such as propane or solar, or use electrical power where practicable. | During construction BPA-EPS-EPI, BPA- Contractor |
| Recycle or salvage nonhazardous construction and demolition debris where practicable. | During construction BPA-PS-EPI, BPA- Contractor |
| Encourage use of the proper size of equipment for the job to maximize energy efficiency. | During construction BPA-PM, BPA- Contractor, BPA-ENV- MON |
| PUBLIC HEALTH AND SAFETY | |
| Prepare an ESCP, site-specific safety plan, and fire prevention and suppression plan in compliance with federal, state and county requirements before starting construction; plans shall specify how to manage and respond to emergency situations involving hazardous materials to include oils and fuels, and any abandoned toxic materials found in work sites; all plans shall be kept on-site and maintained and updated as needed during construction. | Prior to and during construction BPA-EPS-EPI, BPA- Contractor |
| Employ an on-site environmental monitor (hired directly by BPA and not the construction contractor), during all outdoor construction activities at Marys Peak to ensure all mitigation measures and BMPs are correctly implemented during construction and to ensure that construction equipment and personnel remain within designated construction areas, and public restricted access areas are in place for human health and safety purposes. | Prior to and during construction BPA-EPS-EPI, BPA-COR, USFS-REC |
| Design, construct, and operate the proposed electrical facilities to meet BPA safety requirements. | During the design phase and during construction BPA-PM, BPA-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. | During construction BPA-COR, BPA-PM, BPA- 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 BPA-PM, BPA-COR, BPA- EPS-EPI, BPA-Contractor |

| Minimization and Mitigation Measure | Implementation |
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| Limit vehicle speeds on unpaved roads and surfaces to 10 miles per hour or less to reduce dust and for public safety. | During construction BPA-EPS-EPI, BPA-Contractor, BPA-ENV-MON |
| Equip all vehicles used during construction with basic fire-fighting equipment, including extinguishers and shovels to prevent fires. | Prior to and during construction BPA-EPS-EPI, BPA-Contractor |
| Require the construction contractor to hold safety meetings with workers at the start of each day to review potential safety issues and concerns. | During construction BPA-COR, BPA-PM, BPA-Contractor |
| Restrict access to the summit during any construction activities that could harm the general public in the vicinity, such as when erecting a steel-lattice structure. | During construction BPA-COR, BPA-PM, BPA-Contractor |
| Schedule all construction work during daylight hours (7 a.m. to 7 p.m.) | During construction BPA-PM, BPA-COR, BPA-EPS-EPI, BPA-Contractor |
| Avoid all work between the parking lot and the Marys Peak summit, and at the Marys Peak summit communications site during federal holidays and weekends to minimize impacts to visitors. | During construction BPA-PM, BPA-Contractor |
| Avoid removing the Marys Peak BPA communications site during federal holidays and weekends to minimize disturbance during periods of high visitation for public safety. | During construction BPA-PM, BPA-Contractor |