

# Categorical Exclusion Determination

Bonneville Power Administration

Department of Energy



**Proposed Action:** VHF Radio System Upgrades at Lookout Mountain Radio Station and Custer Substation

**Project No.:** P01237

**Project Manager:** Molly Kovaka, TEP-CSB-2

**Location:** Whatcom County, Washington

**Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021):** B1.19 Microwave, meteorological, and radio towers

**Description of the Proposed Action:** BPA proposes to upgrade its VHF radio system at two sites in its Puget Sound Radio Region. The upgrades would include the addition of equipment at BPA's existing Lookout Mountain Radio Station, upgrading the VHF system at its Custer Substation, and the establishment of a microwave beam path between the two radio sites. The project would help replace BPA's aging VHF radio system with a simple, modern radio system with improved voice coverage for remote field personnel.

At the existing **Lookout Mountain** Radio Station on Whatcom County (Washington) Parks and Recreation land, BPA would install equipment in the communication building and on the radio tower. This would involve installing batteries (vented lead-acid [VLA] or valve-regulated lead-acid [VRLA] batteries), racks and associated communications equipment, fuse panels, other electronics, and power supply supporting equipment and hardware. Minor alterations may be made to existing radio transmission line ports through building walls. An ice bridge (metal frame supporting radio transmission cables) would be installed over the approximate 40-foot-length from the tower to the building exterior ports. Up to ten 48-inch-deep footings to support ice bridge legs of about four-inch diameter would need to be excavated and installed. Interior and exterior grounding bars and lightning protection would be welded to equipment. Hand excavation of the yard between the tower and the communication building would be needed to access the station's ground mat for welding of the ground wire. Two VHF whip antennas would be installed at the top and middle of the 150-foot-tall tower, and one microwave shielded dish antenna would be placed at the 130-foot height. Work phases would be staggered and would occur in summer 2018 or 2019, and then in 2022 or 2023 for completion.

The **Custer Substation** is an existing BPA transmission system facility near Ferndale, WA. BPA would install a new microwave radio and other telecommunication equipment on existing rack(s) inside the control house. Adjacent to existing wall ports, an approximately 16-inch by 18-inch port would be cut through the wall to accommodate radio transmission lines for the new microwave antenna. The antenna would be an eight-foot diameter shielded dish placed at the 85-foot height. The old UHF antenna and internal radio equipment would be removed once the new microwave system is operational. As with Lookout Mountain, new interior and exterior equipment would be grounded with new connections to the existing ground mat, and associated excavation performed to attach to and/or repair the grounding mat where necessary.

In addition, a 20-mile long **microwave antenna-to-antenna beam path** would be established for the transmittal of radio data from Lookout Mountain to Custer. The beam path needs to be clear of obstructions in order for the radio communications to work reliably. At this time, there are no obstructions, but the beam path would need to be monitored for possible future tree grow-in and other obstructions over its lifetime.

**Findings:** In accordance with Section 1021.410(b) of the Department of Energy's (DOE) National Environmental Policy Act (NEPA) Regulations (57 FR 15144, Apr. 24, 1992, as amended at 61 FR 36221-36243, July 9, 1996; 61 FR 64608, Dec. 6, 1996, 76 FR 63764, Nov. 14, 2011), BPA has determined that the proposed action:

- (1) fits within a class of actions listed in Appendix B of 10 CFR 1021, Subpart D (see attached Environmental Checklist);
- (2) does not present any extraordinary circumstances that may affect the significance of the environmental effects of the proposal; and
- (3) has not been segmented to meet the definition of a categorical exclusion.

Based on these determinations, BPA finds that the proposed action is categorically excluded from further NEPA review.

/s/ Michael J. O'Connell  
Michael J. O'Connell  
Environmental Protection Specialist

Concur:

/s/ Stacy L. Mason  
Stacy L. Mason  
NEPA Compliance Officer

Date: April 9, 2018

Attachment(s): Environmental Checklist

## Categorical Exclusion Environmental Checklist

This checklist documents environmental considerations for the proposed project and explains why the project would not have the potential to cause significant impacts on environmentally sensitive resources and would meet other integral elements of the applied categorical exclusion.

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### Project Site Description

All work would occur within existing facility buildings and in fenced gravel or asphalt yards. The Lookout Mountain Radio Station is on BPA fee-owned property inside Whatcom County Parks and Recreation land at 2,680 feet above sea level. Lookout Mountain is composed of immature mixed conifer forests most recently changed from state-owned timberland to park land. The access road is used by recreational visitors year-round. There are pockets of older, larger stature woodland within drainages that the access road traverses. Custer is a substation and maintenance headquarters at about 65 feet above sea level, and within about 400 feet of salmonid-bearing California Creek, and five miles to the Strait of Georgia. The facility is surrounded by mixed agricultural and forested parcels.

### Evaluation of Potential Impacts to Environmental Resources

Environmental Resource Impacts	No Potential for Significance	No Potential for Significance, with Conditions
1. <b>Historic and Cultural Resources</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p><u>Explanation:</u> In January 2016, the Washington Department of Archaeology and Historic Preservation (DAHP) concurred with BPA that a full radio station rebuild at Lookout Mountain would have no adverse effect on cultural and historic resources. The BPA archeologist concluded the VHF upgrades of the current project would thus have no potential to affect resources at Lookout Mountain, as all potential effects of this type of work were covered by the earlier consultation. On March 8, 2018 DAHP concurred with the BPA historian that the work at Custer Substation would have no effect on historic properties.</p>		
2. <b>Geology and Soils</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p><u>Explanation:</u> All ground disturbance would be limited to the previously-disturbed facilities' yards between the radio towers and the supporting buildings. At both sites, up to five holes would be dug manually to about 18 inches depth for grounding connections and grounding mat repairs as needed. At Lookout Mountain, up to ten additional holes would be dug to 48-inch depth in order to install the new ice bridge legs' foundations. The excavated material would be used where possible for backfill and disposed of properly where it could not serve as reliable fill material, and Best Management Practices (BMPs) would be utilized to limit soil loss.</p>		
3. <b>Plants</b> (including federal/state special-status species)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p><u>Explanation:</u> All work would take place in the paved or graveled facility yards that are maintained to prevent plant growth. The microwave beam path is clear of vegetation and would likely continue to be clear into the foreseeable future: no vegetation removal would be needed.</p>		

4. **Wildlife** (including federal/state special-status species and habitats)



Explanation: The work would be limited to the existing facilities and there would be only minimal potential disturbance to wildlife in the vicinity from the noise generated or the vehicular traffic to and from sites.

5. **Water Bodies, Floodplains, and Fish** (including federal/state special-status species and ESUs)



Explanation: Nearby to Custer, California Creek harbors North Puget Sound Coho Salmon, a candidate for listing under the Endangered Species Act (ESA), and Lookout Mountain is adjacent to watersheds for ESA-threatened Steelhead and Chinook Salmon habitat. However, the scale of ground disturbance would be small and the potential for erosion from the sites' paved or graveled yards would be low because BMPs would be utilized to limit soil loss. Lookout Mountain work may occur during the Whatcom County watershed closure, however, the ground area disturbance of about 40 square-feet would be far below a 500 square-foot threshold Whatcom County recommends for work inside the closure period.

6. **Wetlands**



Explanation: The work would be limited to the existing facilities and the grounds therein with no potential effects to wetlands.

7. **Groundwater and Aquifers**



Explanation: Disturbance of facility ground would be minor and would reach to the existing grounding mat at around 18 inches below the ground surface, or about 48 inches at Lookout Mountain for ice bridge leg foundations. The area has been disturbed by the recent rebuild of the Lookout Mountain radio station. Groundwater and aquifers are not anticipated at either site. BMPs would be utilized to limit impacts of any inadvertent breaching of water sources.

8. **Land Use and Specially Designated Areas**



Explanation: The work would take place at existing communication facilities and no change in land use would occur. While Lookout Mountain is a recreational area with good public access, the work would be limited to the fenced radio station. Access for construction would be along the same route as public non-vehicular access and the appropriate controls like warning signs for increased vehicular traffic would allow for safe shared use.

9. **Visual Quality**



Explanation: Slight changes to the visual appearance of tower equipment like antenna installation or replacement would not constitute changes in quality. Microwave dishes up to eight feet in diameter pose minimal impact to existing visual resources because they would be of similar color to the support tower, and would be mainly consistent with the existing hardware on the antenna.

10. **Air Quality**



Explanation: Minor, temporary generation of emissions associated with increased vehicle traffic would occur during construction.

11. **Noise**



Explanation: Minor, intermittent noise associated with installation activities would occur during construction.

12. **Human Health and Safety**



Explanation: Minor exposure of asbestos or lead could occur with the described work. When work would be contracted the contractor would have a current certified Class III Competent Person for asbestos operations and maintenance identified, and would apply BPA-approved mitigation measures when cutting/drilling through potentially lead- or asbestos-containing materials. When the work would be performed by BPA personnel, BPA Work Standards and the Safety and Health Program Handbook for such hazards would be followed.

VRLA batteries would be handled in replacement procedures. While the lead-acid is enclosed by battery housing, workers would take all necessary handling precautions to prevent spill or leakage. Evident spills or leaks would be neutralized using standard measures. Old batteries would be packed and shipped according to BPA Pollution Prevention and Abatement requirements.

Lookout Mountain recreational users would be alerted via clear signage of increased traffic levels associated with construction and construction vehicle operators would be educated regarding the expected recreational uses on and near the access road.

**Evaluation of Other Integral Elements**

The proposed project would also meet conditions that are integral elements of the categorical exclusion. The project would not:

- Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders.

Explanation, if necessary:

- Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators) that are not otherwise categorically excluded.

Explanation, if necessary:

- Disturb hazardous substances, pollutants, contaminants, or CERCLA excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases.

Explanation, if necessary:

- Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those of the Department of Agriculture, the Environmental Protection Agency, and the National Institutes of Health.

Explanation, if necessary:

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**Landowner Notification, Involvement, or Coordination**

Description: BPA has coordinated with the Whatcom County Parks and Recreation, and Planning and Development Services Departments on Lookout Mountain work to meet local standards in environmental controls like the watershed ground-disturbing work closure. Custer Substation is on BPA fee-owned land fully accessible via public rights of way.

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Based on the foregoing, this proposed project does not have the potential to cause significant impacts to any environmentally sensitive resource.

Signed: /s/ Michael J. O'Connell  
Michael J. O'Connell, ECT-4

Date: April 9, 2018