

# Categorical Exclusion Determination

Bonneville Power Administration  
Department of Energy



**Proposed Action:** Santiam Substation Equipment Upgrade and Santiam-Albany No. 1 Transmission Line Modification

**Project No.:** P02460

**Project Manager:** Dianne Bonner, TEPP-TPP-1

**Location:** Linn County, Oregon

**Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021):** B4.6 Additions and modifications to transmission facilities; B4.11 Electric power substations and interconnection facilities

**Description of the Proposed Action:** Bonneville Power Administration (BPA) proposes to replace aging substation equipment and to improve electric service reliability at BPA's 230-kilovolt (kV) / 500-kV Santiam Substation near Lyons, Linn County, Oregon. Work would occur in previously-disturbed areas, including the primary Santiam Substation yard, the auxiliary switchyard located under structure 0/2 on Santiam-Albany No. 1; and the separate 500-kV yard to the east of the primary yard. Work would also occur within the Santiam Substation Transfer Bay Tap to Santiam-Albany No. 1 tie line right-of-way immediately south of Santiam Substation.

Various pieces of substation equipment have reached the end of their serviceable lives and are due for routine replacement. In addition, in the current configuration an outage on the 230-kV Santiam-Albany No. 1 transmission line interrupts the feed to the Santiam Substation 69-kV bus, ultimately resulting in a loss of electrical service to Santiam Substation. Therefore, the proposed action would maintain overall transmission system reliability by completing necessary equipment maintenance upgrades and would minimize future electric service interruptions by reconfiguring Santiam-Albany No. 1 and the Santiam Substation bus.

Within the primary Santiam Substation yard, a new point of termination for Santiam-Albany No. 1 would be established in the currently vacant Bay 13, which would allow for the isolation of the Albany Substation electric service feed from Santiam-Albany No. 1. To re-terminate Santiam-Albany No. 1 in Bay 13, a tower pass-through bus, dead-end structures, a power circuit breaker, disconnect switches, and line jumpers would be installed. Additional substation equipment upgrades would include replacing and/or installing new various types of circuit breakers, transformers, disconnect switches, surge arrestors, and the associated equipment footings, as necessary. In the separate east yard, station service equipment would also be replaced and/or installed new, including transformers, power panels, and associated racks and footings.

The new Santiam-Albany No. 1 termination and Santiam Substation bus configuration would eliminate the need for the Santiam Substation Transfer Bay Tap to Santiam-Albany No. 1 tie line that currently services power to the substation. Therefore, the tie line, including the wood three-pole structures 1/1 and 1/2 located south of the substation yard, would be decommissioned and

removed. Soil would be excavated around the bases of the poles, and then the poles would be lifted out of the ground and transported off-site for disposal. The guy anchor rods would be cut approximately 1 foot below the ground surface and the remaining in-ground portions would be retired in place. The remaining holes would be backfilled to ground level with clean backfill material. Finally, an existing sectionalizing switch and existing high-bus pedestals would be decommissioned and removed from the auxiliary switchyard under structure 0/2 on Santiam-Albany No. 1.

In total, the line reconfiguration and routine replacement of aging substation equipment would comprise approximately 25% of the existing equipment within the Santiam Substation yard, mostly with in-kind maintenance replacements. Except for removal of structures 1/1 and 1/2 on the tie line, all proposed work would occur within the existing fenced substation yards. To the greatest extent practicable, access would occur on existing roads, although off-road travel for short distances would be required to access structures 1/1, 0/2, and 1/2. Removal of the Santiam Substation Transfer Bay Tap to Santiam-Albany No. 1 tie line would temporarily disturb approximately 0.5 acres outside of the substation, and there would be no permanent ground disturbance. Any temporary material or equipment staging areas would be located in previously disturbed areas inside the existing substation yard or within the existing, previously disturbed facility footprint.

**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, Jul. 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.

Walker Stinnette  
Environmental Protection Specialist

Concur:

Katey C. Grange  
NEPA Compliance Officer

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.

**Proposed Action:** Santiam Substation Equipment Upgrade and Santiam-Albany No. 1 Transmission Line Modification

## **Project Site Description**

The project site is located on BPA fee-owned property at the 230-kV / 500-kV Santiam Substation near Lyons, Linn County, Oregon (Township 9 South, Range 1 East, Section 22). The majority of ground disturbance would occur within previously-disturbed areas that are currently covered in crushed rock with little to no vegetation. Outside of the substation yard, ground disturbance would occur to the south within the Santiam Substation Transfer Bay Tap to Santiam-Albany No. 1 tie line right-of-way. This area is also an active cattle pasture with common weeds, grasses, and forbs interspersed with non-native Scotch broom (*Cytisus scoparius*) along with areas of overgrazing and trampling leading to exposed soils. The Salkum soil unit is mapped within the project site and is not classified as hydric. The closest mapped stream is approximately 500 feet to the west of the project site and is separated from the project site by a wide vegetated buffer. This unnamed, 4th order stream is fed by a network of agricultural drainage ditches with intermittent flow and drains to the North Santiam River, which is located approximately 0.25 miles north of the project site. No wetlands or water bodies are mapped within or near the project site. Local topography is relatively flat and generally slopes down to the north toward the North Santiam River. The surrounding landscape is characterized by hills and buttes typical of transitional areas between the Willamette Valley and the Cascade Mountains. The project site is in a rural area, and adjacent land uses include agriculture, timber management, railroad operations, and transmission line rights-of-way.

## **Evaluation of Potential Impacts to Environmental Resources**

### **1. Historic and Cultural Resources**

Potential for Significance: No with Conditions

**Explanation:** BPA conducted background research and an intensive field survey of the Area of Potential Effects (APE). A previously-recorded subsurface lithic scatter (Site 35LIN835) was identified outside of the APE approximately 125 feet southwest of existing structure 1/1 on the Santiam Substation Transfer Bay Tap to Santiam-Albany No. 1 tie line. The site is unevaluated for inclusion in the National Register of Historic Places (NRHP). No new archaeological resources were identified during the archaeological field survey.

Santiam Substation is a historic district considered eligible for inclusion in the NRHP. The Santiam Substation historic district is composed of three contributing resources: the switchyard, control house, and oil house. The Santiam Substation Transfer Bay Tap to Santiam-Albany No. 1 is not a contributing resource to the historic district, and as such, is not considered a historic resource.

The proposed project avoids Site 35LIN835 and would not alter the integrity or eligibility of the Santiam Substation historic district. With the implementation of the additional measures below, BPA determined on May 17, 2023, that the proposed project would result in no adverse effect to historic properties (BPA CR Project No.: OR 2021 100). The consulting parties included:

Confederated Tribes of Siletz Indians  
Oregon Heritage: State Historic Preservation Office  
The Confederated Tribes of the Grand Ronde  
No comments were received from the consulting parties.

Notes:

- Maintain an archaeological monitor on-site for all ground disturbing work outside of the Santiam Substation yard, including during use of the access road south of structures 1/1, 0/2, and 1/2 and when removing structures and guy lines. Monitoring would be performed as outlined in the Monitoring and Inadvertent Discovery Plan prepared for the Project and BPA's Post-Review Discovery of Cultural Resources Procedure.
- Mark an avoidance area around Site 35LIN835 with signs and/or flagging in the field, as needed, to prevent construction crews from inadvertently affecting the resource.
- Use existing access roads to the greatest extent practicable. In areas where off-road travel would be required (i.e., to access structures 1/1, 0/2, and 1/2), only vehicles and equipment with rubber tires would be used. No access road maintenance, improvements, or construction outside of the substation yard would be permitted.
- Use hand-tools to cut the wood poles and guy lines at the bases. Poles would be removed by lifting directly out of the ground with a lift and/or crane and set on top of a line or flatbed truck without dragging or skidding across the ground.

## **2. Geology and Soils**

Potential for Significance: No

Explanation: The majority of ground disturbance would occur within the previously-disturbed Santiam Substation yard. Minor and temporary ground disturbance would occur outside of the yard in an area that was also previously-disturbed during construction of the tie line. Any remaining holes from the extraction of the tie line structures would be backfilled with clean gravel or soil and returned to similar grade. Excess soils would be disposed of off-site at an approved location. Standard erosion and sediment control best management practices (BMPs) would be implemented to prevent sediment migration off site. Temporarily disturbed soils would stabilize as vegetation is reestablished and would eventually return to pre-existing conditions following completion of the proposed action. There would be no permanent soil disturbance. The proposed action would not impact geology.

## **3. Plants (including Federal/state special-status species and habitats)**

Potential for Significance: No

Explanation: The proposed action would temporarily crush, strip, or clear common pasture weeds, grasses, and forbs within an area that is routinely grazed by cattle. Standard construction BMPs would include revegetation with an appropriate seed mixture, if required. Temporarily disturbed areas would eventually return to pre-existing conditions following completion of the proposed action. The proposed action would not permanently impact vegetation. There are no documented occurrences of any special-status plant species, including plants listed under the Endangered Species Act, near the project site, and no suitable special-status species habitat would be permanently impacted.

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

Potential for Significance: No

Explanation: The proposed action could result in minor and temporary disturbance of normal wildlife behavior and wildlife displacement from elevated noise and human presence. However, there would be no permanent modification of wildlife habitat, and temporarily disturbed or displaced wildlife would likely reoccupy the site following completion of the proposed action. There are no documented occurrences of any special-status wildlife species, including wildlife listed under the Endangered Species Act, near the project site, and no suitable special-status species habitat would be permanently impacted.

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

Potential for Significance: No

Explanation: The closest mapped stream is approximately 500 feet west of the project site, and the 100-year floodplain associated with the North Santiam River is over 700 feet north of the project site. No water bodies, floodplains, riparian habitat, or fish-bearing streams would be directly impacted by the proposed action, and standard erosion and sediment control BMPs would be implemented to prevent indirect impacts to these resources. Therefore, the proposed action would not impact water bodies and floodplains and would have no effect on special-status fish species or habitats.

## **6. Wetlands**

Potential for Significance: No

Explanation: No wetlands are located within or near the project site. Standard erosion and sediment control BMPs would be implemented to prevent indirect impacts to any offsite wetlands, if present. Therefore, the proposed action would not impact wetlands.

## **7. Groundwater and Aquifers**

Potential for Significance: No

Explanation: Ground excavation would not reach depths to ground water, and standard construction BMPs would reduce the potential for inadvertent spills of hazardous materials that could contaminate groundwater or aquifers. Therefore, the proposed action would not impact groundwater or aquifers.

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

Potential for Significance: No

Explanation: The proposed action is consistent with existing land use at the project site and would not impact adjacent land uses. The project site is not located in a specially-designated area. Therefore, the proposed action would not impact land use or specially-designated areas.

## **9. Visual Quality**

Potential for Significance: No

Explanation: The proposed action, including equipment replacements within the Santiam Substation yard and removal of the tie line south of the yard, would result in a perceptible change in the appearance of the project site. However, the substation equipment replacements would be similar in size and appearance to existing equipment, and no new structures would be constructed outside of the substation yard. Any visual changes would be minor relative to the scale of existing structures and equipment and would be consistent with the existing visual quality of the area. The project site is not located in a visually sensitive area.

## 10. Air Quality

Potential for Significance: No

Explanation: The proposed action would produce minor and temporary dust and vehicle emissions in the local area. Standard construction BMPs would be implemented to minimize wind erosion and dust. There would be no long-term change in air quality following completion of the proposed action.

## 11. Noise

Potential for Significance: No

Explanation: The proposed action would produce minor and temporary noise from the use of vehicles and equipment and general construction activities, which could intermittently exceed current ambient conditions. Project-related noise would largely be consistent with existing noise produced by the routine operation and maintenance of Santiam Substation as well as with existing noise produced by surrounding land uses. Project-related noise would only occur during typical working hours (approximately 7 AM to 7 PM). There would be no long-term change in ambient noise following completion of the project.

## 12. Human Health and Safety

Potential for Significance: No

Explanation: All standard safety protocols would be followed throughout implementation of the proposed action to minimize risk to human health and safety. Therefore, the proposed action would not be expected to impact human health and safety.

### **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: N/A

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

Explanation: N/A

**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: N/A

**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: N/A

### **Landowner Notification, Involvement, or Coordination**

Description: The proposed action would occur entirely on BPA fee-owned property. BPA would notify, involve, and coordinate with other entities retaining easement rights within the project area and/or with adjacent landowners, if required.

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

Signed:

Walker Stinnette  
Environmental Protection Specialist