

# Categorical Exclusion Determination

Bonneville Power Administration  
Department of Energy



**Proposed Action:** Big Cliff PH - Detroit PH No. 1 & 2 Beachie Creek Fire Emergency Response Project

**PP&A No.:** 4,545

**Project Manager:** Lisa Casey, TEPL-TPP-3

**Location:** Marion County, OR

**Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021):** B 1.3 Routine Maintenance

**Description of the Proposed Action:** The Bonneville Power Administration (BPA) will continue emergency maintenance and repair activities along the Big Cliff PH-Detroit PH No. 1 & 2 13.8 kV transmission line, which was impacted by the Beachie Creek fire. The transmission line runs along the southern shores of Big Cliff Reservoir on the Santiam River, from Big Cliff Dam to Detroit Dam in the Oregon Cascades. The line is supported by steel lattice structures. Over Labor Day weekend, 2020, the Beachie Creek fire, which was first observed in the area in mid-August, grew substantially, fed by dry conditions and a historic wind event. The fire spread to the Big Cliff PH-Detroit PH transmission right-of-way (ROW) while growing to nearly 200,000 acres.

On September 8th a large tree fell into the conductor at the structure 1/6 span of the transmission line, which damaged structure 1/6 and 1/7, and caused an outage on the line. Structure 1/8 was also damaged, either during the tree fall event, or in a separate event. The outage on the line inhibits standard operation of the Big Cliff Dam and hydroelectric facility, which is owned and operated by the U.S. Army Corps of Engineers (USACE). The tree was removed in late September, but due to the damaged structures and conductor, the line remains de-energized. Vehicular access to the ROW to repair the structures is poor, with the road bed in many locations cut in a narrow bench along the northern slopes of the Santiam River valley, directly adjacent to the Big Cliff Reservoir/Santiam River. In addition to the already poor access, the fire caused slumping and landslides in at least two locations, which further restrict access to the damaged steel lattice structure locations.

Prior to the fire, BPA had planned access road improvements for the summer and fall of 2020 which were delayed due to the COVID-19 pandemic (see Big Cliff PH - Detroit PH No. 1 & 2 Miles 1-3 Road and Trail Improvement Project Categorical Exclusion, dated 9/2/2020). In late September and early to mid-October, BPA's transmission line maintenance crews acted in emergency response to clear the road surface of debris and slumps caused by the fire, cutting back the road bed into the cliff side to widen and improve the safety of the road, and adding rock to stabilize the road surface. In order to mobilize transmission line bucket trucks and other heavy equipment to repair the damaged structures, additional access road work is proposed, including regrading and blading, addition of surface rock, installation of water bars and drain dips, and landing construction at the structure sites damaged during the fire. This emergency response road

work is consistent with that described within the Road and Trail Improvement Project Categorical Exclusion.

In addition to the road work, BPA is proposing to install slope stabilization measures at the two slide areas using soil nails with mesh stabilization. The slope stabilization measures would be installed immediately adjacent to the existing access road, which is next to and approximately 40 ft. in elevation above the Santiam River. The soil nails and mesh stabilization would be 45 feet long at one location, and 30 feet at the other location. The slope stabilization measures would preserve the relatively thin BPA access road footprint bench at these locations.

In order to repair the damaged steel lattice, the top damaged section of structure 1/7 would be removed and replaced. The work would require helicopter support. The new structure would be constructed off-site at the helicopter fly yard, which would be located nearby, flown in, and attached by transmission line maintenance crews. Structures 1/6 and 1/8 would need several damaged pieces of steel lattice removed and replaced, but would not need to be entirely reconstructed. Work on these structures would be completed with standard equipment such as a bucket truck. Once the structures at 1/6, 1/7, and 1/8 are repaired, the conductor would be repaired and re-strung, and any damaged hardware associated with the conductor would be replaced. At that time, the line would be re-energized. The work areas would be stabilized with native seed and straw.

**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.

*/s/ Aaron Siemers*

Aaron Siemers, Environmental Protection Specialist

*/s/ Katey Grange*

Date: October 19, 2020

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:** Big Cliff PH - Detroit PH No. 1 & 2 Beachie Creek Fire Emergency Response Project

### **Project Site Description**

The Big Cliff PH - Detroit PH No. 1 & 2 Beachie Creek Fire Emergency Response Project is located in the Cascades of central Oregon, near the southern banks of the Santiam River and Big Cliff Reservoir, in the Western Cascades Lowlands and Valleys ecoregion. The ecoregion is characterized by mild, wet winters and thick forests of western hemlock and Douglas fir, as well as relatively high-gradient streams and rivers that in some locations support endangered salmon and bull trout.

In the project area, the Big Cliff PH - Detroit PH transmission line right-of-way (ROW) runs generally parallel to the Big Cliff Reservoir. The transmission line was built on the northern facing mountain slopes of the Santiam River valley. The transmission line is approximately 75 – 150 linear ft. south of the reservoir, and approximately 75 - 150 ft. higher in elevation. The vegetation within the transmission right-of-way (ROW) is cleared periodically of trees to maintain safety and reliability standards. Prior to the Beachie Creek fire, the ROW supported native shrubs and other vegetation such as sword fern, lady fern, as well as invasive species such as foxglove, Himalayan blackberry, oxeye daisy, and Scotch broom. The gradient of the greater project area is rather steep, with slopes up to approximately 45-75% in some locations, however the former access road and trail system, as well as the transmission right-of-way, in many sections of the project area, was cut and benched from the slope during construction. This benching along the slopes has resulted in emergence of several groundwater seeps that have formed wetlands in the project area. In addition to the wetlands, the trail crosses several small, unnamed streams that drain the northeast facing slopes of the mountainside.

The Beachie Creek fire has dramatically altered the landscape in the project area. The understory was significantly burned, and the majority of the trees appear to be standing dead. Landslides and rock fall are common along slopes. Waterways will likely be transporting more sediment due to the lack of vegetative ground cover, and the risk of erosion and debris flows has increased. While the full impact of the fire has yet to be determined, it is clear that the fire has altered the ecosystem of the project area for the foreseeable future.

## Evaluation of Potential Impacts to Environmental Resources

### 1. Historic and Cultural Resources

Potential for Significance: No

#### Explanation:

BPA archaeologists have been notified of the emergency response actions to date, and the proposed actions to return the line to service. The area of potential effect (APE) for the emergency response project is similar to the APE for the aforementioned access road project which was surveyed in the summer of 2020, with Section 106 consultation completed in September of 2020. At this point, no further Section 106 consultation is required.

#### Notes:

- In the unlikely event of inadvertent discovery of cultural or historic resources during project activities, all work would immediately stop until the resources can be evaluated by BPA archaeologists and additional consultations with the appropriate parties is completed as necessary.

### 2. Geology and Soils

Potential for Significance: No

#### Explanation:

Overall, the Beachie Creek fire has burned the understory vegetation as well as the majority of the trees in the project area, which has increased the risk of soil erosion. In regards to emergency response actions, road construction is occurring on pre-existing, established road. Any side cast soils and rock cuts would be stabilized on site in a manner to reduce the risk of erosion and/or rock slide as much as possible. Some additional road work would involve grading of landings near the impacted structure sites to allow for safe mobilization of transmission line vehicles. These locations would be stabilized with road rock. All other disturbed soils would be stabilized with straw or other acceptable erosion and sediment control methods, and seeded with a native seed mix.

#### Notes:

- The fire has resulted in at least two landslides which have impacted the BPA access road, and are a risk to the Santiam River. BPA is proposing to stabilize these two slide areas with soil nails and metal mesh fence, which would mitigate impacts to geology and soils in the project area.

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

Potential for Significance: No

#### Explanation:

The Beachie Creek fire has burned much of the understory and trees in the project area, which prior to the fire was comprised of native grasses, ferns, forbs, and trees such as grey alder and Douglas fir. No additional impacts to plants from project activities is anticipated.

BPA obtained a species list for the project area from the US Dept. of Fish and Wildlife (USFWS). An effects determination was conducted for Kincaid's lupine, Bradshaw's desert parsley, Nelson's Checkermallow, and Willamette daisy. BPA determined that the project would have no effect on special status plants and habitat.

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

Potential for Significance: No

Explanation:

The Beachie Creek fire has disrupted the local ecology and wildlife, but animals such as deer and birds are still present in the project area. Construction on the project would likely disturb wildlife in the area due to the presence of humans and additional noise. However, disturbance would be temporary.

BPA obtained a species list for the project area from US Dept. of Fish and Wildlife. An effects determination was conducted for Fisher and Northern spotted owl. BPA determined that the project would have no effect on special status wildlife and habitat.

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

Potential for Significance: No with Conditions

Explanation:

The project area is not located in or near a floodplain.

No in-water work is planned in ESA-listed fish streams. There is one documented fish stream (coastal cutthroat trout) that crosses the BPA access road with a ford crossing on the western side of the work area. However, BPA has investigated this stream and there appears to be an impassable falls immediately downstream from the ford crossing, prior to the stream merging with the Santiam River. Regardless, no work other than drive through construction activity is planned for this crossing, and it will be inspected during construction to ensure activity does not degrade the ford and significantly impact water quality. The Santiam River is also ESA-listed, and located approximately 75-150 linear feet north-northeast of the work areas, but the work area is separated by approximately 75 - 150 feet of elevation, and no work is planned in the Santiam River. BPA has determined that the project would have no effect on ESA-listed fish and designated critical habitat.

In the spring of 2020, BPA initiated a wetland and waterway survey to map and characterize wetlands and waterways in the project area. A total of seven intermittent and perennial waterways were identified and mapped. Emergency response road work has been completed in and near several of these waterways, including placement of rock and water crossing features. BPA reviewed the emergency response road work for compliance with Section 404 and Section 401 of the Clean Water Act (CWA), as well as the Oregon Removal Fill Law (OR RF Law). The work within waters of the U.S. and State that has been completed under the emergency response actions qualifies for maintenance exemptions within the respective laws, which authorize BPA to conduct maintenance within jurisdictional waters on currently serviceable access roads and water crossing features.

#### **6. Wetlands**

Potential for Significance: No with Conditions

Explanation:

In the spring of 2020, BPA initiated a wetland and waterway survey to map and characterize wetlands and waterways in the project area. A total of four wetlands were identified and mapped. Emergency work has been conducted in and near two of these wetlands, which involved maintaining existing roads. BPA reviewed the emergency work for compliance with Section 404 and Section 401 of the Clean Water Act (CWA), as well as the Oregon Removal Fill Law (OR RF Law). The emergency response actions within waters of the U.S. and State qualify for maintenance exemptions within the respective laws, which authorize BPA to conduct maintenance within jurisdictional waters on currently serviceable access roads and water crossing features.

## **7. Groundwater and Aquifers**

Potential for Significance: No

### Explanation:

Groundwater seeps in the project area emerge as wetlands and waterways in and near certain sections of the access roads and trail due to the historic cuts along the north facing slopes of the Santiam River valley during construction of the Big Cliff Dam and the transmission line. Other than that observation, excavation and grading would not be at depths that would impact or intersect aquifers and/or groundwater.

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

Potential for Significance: No

### Explanation:

Current land use is transmission line easement and wildlife habitat. The project area is owned and managed by the U.S. Army Corps of Engineers (USACE), associated with the Big Cliff and Detroit hydroelectric dams which the USACE operates. The project would not impact current land use. No specially-designated areas are present in the project area.

## **9. Visual Quality**

Potential for Significance: No

### Explanation:

The project area is remote and access is controlled. Project activities would not alter existing visual quality.

## **10. Air Quality**

Potential for Significance: No

### Explanation:

Some dust may be generated due to construction traffic, transport and placement of rock, and general construction activities.

## **11. Noise**

Potential for Significance: No

### Explanation:

Some noise may be generated due to construction traffic, transport and placement of rock, and general construction activities. However, the project area is in a remote location and any noise generated would be temporary.

## **12. Human Health and Safety**

Potential for Significance: No

### Explanation:

Emergency response project components, including installing the soil nail and mesh fence slope stabilization measures, would improve worker safety on the project. The area is closed to the public so public safety would not be a concern.

### **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: BPA has been coordinating emergency response activity with the U.S. Army Corps of Engineers and will continue to do so until the line is returned to service.

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

Signed: Aaron Siemers, EPR-4  
Physical Scientist (Environmental)

Date: October 19, 2020