

Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy



Proposed Action: Beaver Creek Culvert Replacement and Stream Enhancements

Project No.: 1994-042-00, 1998-028-00

Project Manager: Jesse Wilson, EWL-4

Location: Jefferson County, Oregon

Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021): B1.20 Protection of cultural resources, fish and wildlife habitat

Description of the Proposed Action: Bonneville Power Administration (BPA) proposes to fund the Oregon Department of Fish and Wildlife and the Jefferson County Soil and Water Conservation District (hereafter “the Sponsor”) to enhance habitat for Endangered Species Act (ESA)-listed threatened Middle Columbia River steelhead trout (*Oncorhynchus mykiss*) in Jefferson County, Oregon by replacing a culvert that has become a fish passage barrier, enhancing aquatic habitat, and reconnecting the floodplain downstream of the culvert. These actions would support conservation of ESA-listed species considered in the 2020 ESA consultation with the National Marine Fisheries Service on the operations and maintenance of the Columbia River System while also supporting ongoing efforts to mitigate for effects of the Federal Columbia River Power System (FCRPS) on fish and wildlife in the mainstem Columbia River and its tributaries pursuant to the Pacific Northwest Electric Power Planning and Conservation Act of 1980 (Northwest Power Act) (16 U.S.C. (USC) 839 et seq.).

Beaver Creek is a small seasonal stream located in eastern Jefferson County. The creek is a tributary to Trout Creek. Beaver Creek runs underneath a dirt road roughly 600 feet upstream from the confluence with Trout Creek through a small circular culvert. The culvert has become perched with a drop of nearly 2 feet on the downstream end, creating an impassable fish barrier and preventing steelhead from reaching the habitat located upstream of the culvert. Additionally, the undersized culvert has resulted in a heavily incised channel for much of the lower portion of Beaver Creek, creating a simplified riparian corridor with limited floodplain interaction that has negatively impacted fish habitat in the creek.

In coordination with Jefferson County road crews, the Sponsor would remove this culvert and replace it with a new, open arch culvert with a natural bed. Excavators would be used to remove the road and current culvert. The new culvert would then be installed in the same location. The new culvert would have a width of 18 feet at the base and a height of 5.75 feet and would be constructed of corrugated metal. The culvert would be mounted on concrete footings and anchored using metal bolts. Once installed, the area above the culvert would be backfilled and the road prism over the culvert rebuilt. The bottom of the culvert would be lined with gravel and sediment to mimic the natural streambed.

To repair the channel incision caused by erosion of the streambed by the culvert, the channel of Beaver Creek downstream of the culvert would be re-graded to raise the channel bed to match the upstream elevation and slope. The sponsor would use machinery to fill, re-grade, and contour the stream channel to reestablish site appropriate channel geometries and planform. This work would reconnect the stream with the floodplain from which it has become disconnected. After these actions are complete, the sponsor would restore riparian vegetation to the floodplain by planting and seeding native riparian species. Additionally, woody debris (individual logs with rootwads, slash fill, etc.) would be placed in the stream channel to improve fish habitat and aquatic complexity.

All project activities would be completed during the late summer and early autumn. During this period, Beaver Creek is a dry channel. No activities would occur in areas with water, and all project activities would be complete before the winter flows begin.

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/ Thomas DeLorenzo

Thomas DeLorenzo

Environmental Protection Specialist

Concur:

/s/ Sarah T. Biegel

Sarah T. Biegel

NEPA Compliance Officer

July 15, 2022

Date

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: Beaver Creek Culvert Replacement and Stream Enhancements

Project Site Description

Beaver Creek is a small intermittent stream located in eastern Jefferson County, Oregon, roughly 21 miles east of Madras. Beaver Creek is a minor tributary to Trout Creek, the dominant waterway in the valley. Beaver Creek is completely dry during late summer and autumn and is fed by snowmelt during spring and early summer. The culvert which would be replaced is located roughly 600 feet upstream of the confluence of Beaver Creek and Trout Creek and runs underneath Northeast Trout Creek Road, a dirt and gravel county road. The region is very rural, with the nearest residence more than half a mile from the project site. The surrounding area has been heavily affected by historical agriculture and grazing, with much of the land dominated by grass and shrubland. Due to the incision and erosion caused by the undersized culvert, the channel of Beaver Creek downstream from the culvert largely lacks riparian vegetation.

Evaluation of Potential Impacts to Environmental Resources

1. Historic and Cultural Resources

Potential for Significance: No

Explanation: BPA identified an area of potential effect (APE) and conducted background research into recorded cultural resources and archaeological surveys near the APE (BPA CR Project No. OR 2020 120). BPA determined that the activities would have no effect on historic properties. BPA initiated consultation with the Confederated Tribes of Warm Springs Reservation and the Oregon State Historic Preservation Office on March 22, 2021. The consultation period ended April 21, 2021. No responses were received.

Notes:

- In the event of an inadvertent discovery of cultural resources during project activities, all work would cease, the area would be secured, and BPA archaeological staff would be notified.

2. Geology and Soils

Potential for Significance: No

Explanation: Project activities would require earthmoving, but the long-term effects would be positive and outweigh any short-term negative effects. Replacing the existing culvert would require excavating the culvert and road. Once the new culvert is in place, the material excavated would be backfilled to restore the roadway to its current conditions. The channel of Beaver Creek downstream of the culvert is currently incised and eroded due to the undersized culvert. Re-grading this channel would reestablish stream processes and floodplain interaction, and the seeding and planting of riparian vegetation would help maintain the stream conditions and reduce erosion in the future.

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

Potential for Significance: No

Explanation: There are no ESA-listed plant species present at the project site (U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool). There are no Oregon state-listed plant species present in Jefferson County (Oregon Department of Agriculture). As a result, there would be no effect on listed plant species.

Effects on non-listed plants would be minor. The lower portion of Beaver Creek does not currently support extensive riparian vegetation due to the incision and erosion of the channel caused by the undersized culvert. Following the channel reconstruction, the area would be seeded and planted with native riparian species, improving the complexity of the environment and quantity of plants in the area.

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

Potential for Significance: No

Explanation: There are no ESA-listed wildlife species present at the project site (IPaC). There are no Oregon-state listed animal species present in Jefferson County (ODFW). As a result, there would be no effect on listed species.

Effects on non-listed animals would be minor. Wildlife may be disrupted by human presence and construction activities (sounds, exhaust, shadows, etc.). However, these effects would be temporary and cause no lasting impact to wildlife in the area.

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

Potential for Significance: No

Explanation: Beaver Creek is a seasonal stream which typically only flows during spring and early summer. There would be no water in the creek during the project activities. As a result, there would be no effects on fish or water bodies. The long-term effect of the project activities would be to re-open the upstream portion of Beaver Creek for steelhead habitat that is currently blocked by the culvert, which would benefit fish species. Re-grading the channel of the creek would restore interaction with the historical floodplain and have a positive effect on the floodplain.

6. Wetlands

Potential for Significance: No

Explanation: There are no wetlands located at the project site (USFWS National Wetlands Inventory). As a result, there would be no effects on wetlands.

7. Groundwater and Aquifers

Potential for Significance: No

Explanation: No new wells or uses of groundwater are proposed. Project activities would potentially cause minor effects to groundwater. Restoring the historical grade of the stream would

result in the floodplain retaining more groundwater than it currently does. However, this effect would be limited to restoring the historical conditions of the site before the channel became incised.

8. Land Use and Specially-Designated Areas

Potential for Significance: No

Explanation: Existing land use would not change as a result of these activities.

9. Visual Quality

Potential for Significance: No

Explanation: There would be no adverse effects to the visual quality of the environment as a result of these activities. Project activities would restore the historical visual nature of the Beaver Creek channel and floodplain which has become degraded due to the channel incision caused by the current undersized culvert.

10. Air Quality

Potential for Significance: No

Explanation: There would be minor, temporary exhaust caused by machinery used during project activities. This exhaust would cause no long-term changes to local air quality.

11. Noise

Potential for Significance: No

Explanation: There would be minor, temporary noise caused by machinery used during project activities. This noise would cause no long-term impacts.

12. Human Health and Safety

Potential for Significance: No

Explanation: All personnel would use best management practices to protect worker health and safety. All heavy machinery would be operated solely by licensed and trained personnel.

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 Beaver Creek channel flows through private property. The Sponsor has obtained written permission from the landowner to access the site and conduct habitat restoration actions upon it. Northeast Trout Creek Road is a county road maintained by Jefferson County. The County is assisting with construction activities that would take place in the roadway. No other external coordination is required.

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

Signed: /s/ Thomas DeLorenzo July 15, 2022
Thomas DeLorenzo, ECF-4 Date
Environmental Protection Specialist