Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy

Proposed Action: Cascade Forest Conservancy Beaver Dam Analog Installation on Stump Creek

Project No.: 2017-005-00 (Contract Number 88065)

Project Manager: Tim S. Ludington, EWM-4

Location: Cowlitz County, Washington

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 Cascade Forest Conservancy (CFC) to install a series of beaver dam analogs (BDAs) and similar structures to increase the quantity and diversity of instream and riparian habitats in Stump Creek in Cowlitz County, Washington (Township 9 North, Range 4 East, Section 31). The work would be funded as part of the larger Pacific Lamprey Conservation Initiative (PLCI), a cooperative effort among agencies and tribes to achieve long-term persistence of Pacific lamprey (*Entosphenus tridentatus*) and support traditional tribal cultural use throughout the Columbia River Basin. These actions would support conservation of ESA-listed species considered in the 2020 ESA consultations with NMFS on the O&M of the Columbia River System. Funding supports ongoing efforts to mitigate for effects of the Federal Columbia River Power System on fish and wildlife in the main stem 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.). The installation of instream structures is expected to improve fish spawning and rearing habitat by slowing the downstream transport of water, sediment, nutrients, and woody material; reconnecting stream flow to side and relic channels; and inundating larger extents of the floodplain. In-stream structures would block flow (channel spanning structures), concentrate flow toward the banks (partial spanning structures mid-channel or bank-attached), or redirect flow to side and relic channels (flow splitting structures). Material for each structure would consist of two to eight trees (4- to 12-inch diameter at breast height [DBH] and 20 to 40 feet long) and root wads either sourced from offsite or felled onsite in the immediate riparian zone (primarily red alder [*Alnus rubra*]). Branches and slash material salvaged onsite would be packed into the voids between the larger logs and root wads. Habitat cover structures consisting of felled trees and salvaged slash would also be installed throughout the reach to add habitat complexity within existing and/or newly-created pools. The structures would be installed in the active channel or braced against standing trees and/or boulders along the banks. Depending on the substrate, 3-inch posts could be used to secure the structures in-place. If posts are used, they would be spaced 1.5 feet apart, driven to half depth, and trimmed to the horizontal elevation of the structure. Any woven slash material would not exceed 18 inches above low flow water surface elevation.

Installation of the structures would be performed with hand tools, including chainsaws to fell trees, portable winches to position logs and root wads, and post drivers. Equipment would be refueled at

least 150 feet from the stream with spill containment measures in place. The project site would be accessed from an existing gravel road that parallels Stump Creek to the south. No access road work or vegetation clearing would be required to access the stream as the surrounding area has been recently clear-cut. Vehicles and equipment would be staged on the existing gravel access road shoulder, and only natural material (i.e., logs, root wads, and slash) would be staged off-road closer to the stream. The work would occur within the in-water work period (July 15 – September 15).

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/ W. Walker Stinette
W. Walker Stinnette
Environmental Protection Specialist

Concur:

/s/ Katey C. Grange *August 2, 2022*
Katey C. Grange Date
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.

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Project Site Description

The project site is located on private property along Stump Creek, a small headwater tributary of the South Fork Toutle River approximately 3.5 miles west of Mount St. Helens in Cowlitz County, Washington (Township 9 North, Range 4 East, Section 31). Stump Creek roughly parallels the South Fork Toutle River, which is located less than 1,000 feet to the north within the same floodplain. Instream structures would be installed along approximately 300 feet of Stump Creek, in an area where there is currently little structure or wood within the single thread and straight channel. The stream bed is primarily composed of coarse (cobble-sized) sediments, with a few areas where flood debris has impounded gravels and fine sediments. The South Fork Toutle River drainage was impacted by the eruption of Mount St. Helens in 1980. Within the project site, layers of ash and unsorted sediments visible in cut banks and gullies indicate a series of lahars, or mixtures of water, debris, and rock fragments, flowed down the slopes of Mount St. Helens and entered the South Fork Toutle River drainage following the eruption. Trees in the riparian zone adjacent to Stump Creek consist primarily of red alder estimated to be 40 to 60 feet tall, and 4 to 12 inches DBH. The surrounding area is managed for timber harvest and has been repeatedly and extensively logged since at least the 1950s, as evidenced by historic aerial imagery.

Evaluation of Potential Impacts to Environmental Resources

1. Historic and Cultural Resources

Potential for Significance: No

Explanation: Considering the dynamic geological history of the South Fork Toutle River and Stump Creek drainage over the past 40 years, and the depth and thickness of the lahar layer and subsequent sediment deposition above it, traditional cultural resources would likely be buried deeper than what a typical shovel probe could reach (<1 meter deep), and would likely be in disturbed context. Furthermore, the proposed action (i.e., felling trees onsite, collecting salved slash, and placing wood instream in an active channel) would result in minor disturbance of surface sediments. No impacts are expected to occur into or below the lahar layer that would impact native soils. Therefore, on May 11, 2022, BPA simultaneously determined that the proposed undertaking would result in no historic properties affected (BPA CR Project No.: WA 2021 205; DAHP Log No.: 2022-05-03055-BPA) and initiated National Historic Preservation Act, Section 106 consultation with the following parties:

- Cowlitz Indian Tribe
- Washington Department of Archaeology and Historic Preservation (DAHP)

On May 11, 2022, DAHP concurred with the APE and with BPA's determination. No other comments were received within 30 days.

2. Geology and Soils

Potential for Significance: No

Explanation: The proposed action (i.e., felling trees onsite, collecting salved slash, and placing wood instream in an active channel) would result in minor temporary ground disturbance. Instream structures are expected to alter stream flow, which in turn would alter the movement of sediment through the Stump Creek drainage. This would be considered a desirable outcome intended to produce long-term improvements in aquatic and riparian habitats. CFC would be responsible for implementing general conservation measures to minimize soil impacts (e.g., erosion and sedimentation), developed under BPA's programmatic Habitat Improvement Program (HIP) biological opinion in coordination with U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS). 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 include felling red alder trees (approximately 40 to 60 feet tall, and 4 to 12 inches DBH) and collecting branches and slash material within the riparian area south of Stump Creek. Additional off-site trees would be harvested from managed timber lands and brought to the project site. Although ground disturbance and associated vegetation disturbance would be minor, the proposed action could crush, strip, or inundate vegetation in limited areas. CFC would be responsible for implementing general conservation measures to minimize vegetation impacts, developed under BPA's programmatic HIP biological opinion in coordination with USFWS and NMFS. There are no documented occurrences of any special-status plant species near the project site, and no such species are expected to occur at the site. The proposed action is expected to improve riparian habitat, which would have a beneficial effect to riparian vegetation.

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

Potential for Significance: No

Explanation: Minor and temporary disruption of normal wildlife behavior and wildlife displacement could occur from elevated noise and human presence during implementation. Felling red alder trees and collecting branches and slash material would constitute a minor and temporary reduction in wildlife habitat. The project site is not considered suitable habitat for special-status wildlife species, and no such species are expected to occur in the project site vicinity. CFC would be responsible for implementing general conservation measures to minimize wildlife impacts, developed under BPA's programmatic HIP biological opinion in coordination with USFWS and NMFS. Wildlife that could be temporarily displaced during implementation would likely reoccupy the site following completion of the proposed action. The proposed action is expected to improve aquatic and riparian habitat, which would have a beneficial effect to wildlife species.

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

Potential for Significance: No with Conditions

Explanation: Stump Creek supports two fish species protected under the Federal Endangered Species Act: coho salmon (*Oncorhynchus kisutch*) and steelhead trout (*Oncorhynchus*

mykiss). The creek is also designated critical habitat for steelhead trout. The proposed action (i.e., placing wood instream in an active channel) would result in minor and temporary increase in turbidity. Endangered Species Act consultation was completed under BPA's programmatic HIP biological opinion in coordination with USFWS and NMFS. CFC would be responsible for implementing general conservation measures to minimize fish impacts, developed under the HIP biological opinion. Despite short-term adverse impacts from increased turbidity, the overall impacts would be beneficial to the ESA-listed species. Instream structures are expected to alter stream flow, reconnect stream flow to side and relic channels, and inundate larger extents of the floodplain. This would be considered a desirable outcome intended to produce long-term improvements in aquatic habitat, which would have a beneficial effect to fish species.

6. Wetlands

Potential for Significance: No

Explanation: The proposed action would result in minor and temporary ground disturbance, which could occur within or near wetlands. The U.S. Army Corps of Engineers reviewed the proposed action and determined on August 1, 2022 that the proposed action would not constitute a discharge of dredged or fill material into waters of the U.S., and therefore no permit under the Clean Water Act would be required.

7. Groundwater and Aquifers

Potential for Significance: No

Explanation: No new wells or other groundwater withdrawal are proposed. The proposed action is expected to improve habitat functionality, which could increase water storage and raise the local water table. Therefore, proposed action would not adversely impact groundwater and aquifers.

8. Land Use and Specially-Designated Areas

Potential for Significance: No

Explanation: The proposed action would not impact land use, and the project site is not located in a specially-designated area.

9. Visual Quality

Potential for Significance: No

Explanation: The proposed action would result in minor changes in the appearance of the project site from temporary woody material and equipment staging and vegetation disturbance. The instream structures would have a natural appearance and would be consistent with the existing visual quality of the site. The project site is not located in a visually sensitive area, and these changes would be temporary and/or nearly undetectable by most viewers.

10. Air Quality

Potential for Significance: No

Explanation: The proposed action would cause a minor and temporary increase in dust and emissions in the local area. There would be no long-term change in air quality following completion of the proposed action.

11. Noise

Potential for Significance: No

Explanation: During implementation, use of vehicles and equipment and general human activity at the project site would temporarily and intermittently produce noise at levels higher than current ambient conditions. No noise-sensitive land uses are present near the project site. 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: The proposed action would not generate or use hazardous materials and would not create conditions that would increase risk to human health and safety. Standard best management practices would minimize the risk to human health and safety during implementation. No impacts to human health and safety are expected as a result of the proposed actions.

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 project site is located on privately owned property, and the project sponsor has been coordinating with the landowner. No additional landowner notification, involvement, or coordination would be required.

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

Signed: */s/ W. Walker Stinnette* *August 2, 2022*
W. Walker Stinnette Date
Environmental Protection Specialist