Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy

Proposed Action: Evaluating Salmon-Habitat Functions of Large Wood Placed in Tidal Channels at South Tongue Point Restoration

Project No.: 2002-077-00

Project Manager: Jason Karnezis, EWL - 4

Location: Clatsop County, Oregon

Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021):
B3.3 Research related to conservation of fish, wildlife, and cultural resources.

Description of the Proposed Action: The Bonneville Power Administration (BPA) proposes to fund the Pacific Northwest National Laboratory (PNNL) and Columbia River Estuary Study Taskforce (CREST) to evaluate salmon-habitat functions of large wood placed in tidal channels post project implementation at South Tongue Point in Clatsop County, Oregon. The proposed project would assess the potential protective benefits of large wood structures in estuaries for juvenile salmonids using sampling techniques including benthic invertebrates sampling and fish sampling.

Benthic invertebrates (invertebrates associated with the creek bottom) would be sampled by hand using a petite ponar sampler with a 36-sqare inch footprint and a sampling volume of 2.4-liters. Samples would be placed in a 500-micrometer sieve and rinsed with channel water previously filtered through a 106-micrometer sieve and contained in a spray bottle. In treatment channels, the benthic invertebrates would be sampled in association with the three large wood structures that were installed as part of the South Tongue Point Restoration Project. In the control channels, benthic invertebrates would be sampled at three locations throughout the channel that would be paired with the upstream distances of wood placements in the treatment channels. The total anticipated benthic samples collected would be 54 per year, which would disturb roughly up to 0.2-cubic yards. In treatment channels, aquatic invertebrates from each large wood structure would be hand sampled by gently scraping and rinsing into a 500-micrometer sieve. A Neuston net would also be used to collect invertebrates on the outgoing tide when ⅔ - ½ of the root wad becomes exposed. The net would be held either over the side of the boat or by two staff wading, depending on water depth. The net would be placed downstream of the root wad and filtered river water in a spray bottle would be used to rinse the root wad to dislodge invertebrates, then dislodged invertebrates would be collected in the cod end of the net. All samples would be preserved in 95% ethanol. Invertebrate sampling would occur once a month for three months across an anticipated period of 4 to 5 years.

An additional proposed sampling effort would be to address the effects of adding mulch in the restoration process. Staff would sample benthic invertebrates in the remaining two channel systems that were not mulched. Two channels within each channel system would be selected, sampled using the same methodology as above, and compared with those collected in the previous section. This effort would result in an additional 36 samples collected per year, which would increase the disturbance to an anticipated total of up to 0.3-cubic yards per year.

Fish sampling would be completed using beach seines that would be cast at high slack tide. There would be six seine hauls at the three sites per month, at each location three tows would be near the large wood structures and three would be away from the large wood structures. Beach seines would be deployed by foot or boat. After deployment, seines would be immediately hauled to the shoreline and fish would be processed and released. All fish caught would be identified, counted, and released. A subset of salmonids would be anesthetized, measured (e.g., fork length, weight), and undergo stomach lavage. Those fish would also be released following recovery from the anesthetic. Accessing the project site would be by foot or a small fishing boat.

If channel structures form through time that makes fyke netting an option, T-posts would be installed, one on each bank, at the mouth of each of the six channels (treatments and controls) for a total of 12 t-posts. These t-posts would be removed at the end of the study. At high-tide, the fyke net would be attached to the t-posts and fished as the tidal cycle drops to low-tide. Fish would be processed by hand through the tidal cycle and fishing would cease when water levels got too low to safely support fish. The net would be removed at low tide. Fish sampling would occur across a 3-day period where the paired treatment and control channels would be sampled simultaneously. All fish caught would be identified, counted, and released. A subset of salmonids would be anesthetized, measured (e.g., fork length, weight), and undergo stomach lavage. Those fish would also be released following recovery from the anesthetic.

Funding the proposed activities fulfills commitments under the 2020 National Marie Fisheries Service Columbia River System Biological Opinion (2020 NMFS CRS BiOp). These proposed activities also fulfill commitments specified in the 2020 U.S. Fish and Wildlife Service Columbia River System BiOp (2020 FWS CRS BiOp). These actions also support BPA's ongoing efforts to mitigate for effects of the 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.).

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/ Catherine Clark
Catherine Clark
Environmental Protection Specialist

Concur:

/s/ Sarah T. Biegel *02/26/2024*
Sarah T. Biegel 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 proposed project area is in Clatsop County, Oregon, along the tidally dominated portion of the lower Columbia River Estuary at Columbia River Mile 18. The waterway riverward of the site is referred to as the John Dat Channel of the Columbia River, which previously consisted of dredge fill materials. This area consists of eastern shoreline fringe and southern wetland complex. A predominantly overgrown and currently unused railroad is located along an elevated embankment bordering the western side of the site.

Evaluation of Potential Impacts to Environmental Resources

1. Historic and Cultural Resources

Potential for Significance: No

Explanation: A BPA archaeologist reviewed the project activities and determined that there would be no potential to affect cultural or historic resources (BPA CR No. OR 2023 186).

2. Geology and Soils

Potential for Significance: No

Explanation: Minimal ground-disturbing activities are proposed. Approximately 0.3-cubic yards per year would be disturbed by research activities. All access to project site would be along established roadways and infrastructure (boat launches, etc.), then access outside of roadways would occur by foot.

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

Potential for Significance: No

Explanation: The proposed actions would not require any tree or vegetation removal or management and would not result in adverse modification to suitable protected plant habitats. Therefore, the proposed actions would have no effect on special-status plant species or habitats.

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

Potential for Significance: No

Explanation: Minor and temporary disturbance of normal wildlife behavior could occur from elevated noise and human presence at the various field sites. However, the proposed actions would be temporary (no more than a few hours at each site). Wildlife species that could be

present in the area would likely return once human presence and noise has completed. The proposed actions would not result in adverse modification to suitable protected species habitat. Therefore, the proposed actions would have no effect on special-status wildlife species or habitats.

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

Potential for Significance: No

Explanation: ESA-listed Chinook, coho, chum, eulachon, sockeye, and steelhead would be monitored, trapped, marked, and sampled via fyke nets and/or beach seines. Other state-sensitive fish species encountered during trapping would likely be sturgeon and lamprey. All fish species would be handled and released. Chinook, coho, and chum would be anesthetized and fin clipped. A subset of Chinook would also undergo stomach lavage. The proposed sampling activities are requirements under the Biological Opinion under the 2020 NOAA Fisheries Columbia River Systems BiOp (2020 CRS BiOp), NOAA Fisheries annually issues a Determination of Take memorandum under the CRS BiOp describing the maximum number of individual ESA-listed fish that may be handled each year.

Minor and temporary disturbance of fish could occur from human presence during benthic study activities. However, the proposed actions would be temporary (no more than a few hours at each site) and would be largely consistent with human activity and natural processes typical of the sites. The proposed actions would not result in adverse modification to suitable protected species habitat. Therefore, the proposed benthic study would have no effect on special-status or ESA-listed fish species or designated critical habitats.

There would be no impact to adjacent waterbodies or floodplains because minimal ground-disturbing activities are proposed. All work would be carried out in the previously-disturbed project site.

6. Wetlands

Potential for Significance: No

Explanation: Some proposed activities (e.g., accessing sites on foot and completing assessments) could take place within or near wetlands. However, minimal ground disturbance would occur as a result of the proposed actions. Therefore, the proposed actions would not impact wetlands.

7. Groundwater and Aquifers

Potential for Significance: No

Explanation: Minimal ground disturbance would occur as a result of the proposed actions. Therefore, the proposed actions would not impact groundwater or aquifers.

8. Land Use and Specially-Designated Areas

Potential for Significance: No

Explanation: No changes to existing land uses are proposed.

9. Visual Quality

Potential for Significance: No

Explanation: No permanent new equipment or habitat-altering activities are proposed. Therefore, no changes to visual quality would occur.

10. Air Quality

Potential for Significance: No

Explanation: Vehicles (trucks, boats) would generate exhaust emissions during project activities. These emissions would be minor and temporary and have no long-term impacts on air quality.

11. Noise

Potential for Significance: No

Explanation: Vehicles (trucks, boats) would generate noise during project activities. This noise would be minor and temporary and have no long-term impacts.

12. Human Health and Safety

Potential for Significance: No

Explanation: All personnel would use best practices to ensure human health and safety. All fish handling would be conducted and supervised by trained personnel to ensure 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: CREST and PNNL would continue to work with landowners to obtain access to research site locations.

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

Signed: */s/ Catherine Clark* *02/26/2024*
Catherine Clark Date
Environmental Protection Specialist