

Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy



Proposed Action: Log Springs Meadow Restoration

Project No.: 2008-301-00

Project Manager: Josh Ashline- EWL-4

Location: Wasco 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 Confederated Tribes of the Warm Springs Reservation of Oregon to implement habitat protection, restoration and improvement activities at Log Springs Meadow, a 3,500-acre meadow complex located along the northern border of the Warm Springs Reservation in Wasco County, Oregon. In the early 1980's three berms were constructed across the north (Upper Berm), east (East Berm), and southwest (Lower Berm) sections of the project area to halt channel incision and retain sediment. Ponds now exist upstream of the berms in the excavation pits created during berm construction. The ponds retain water and some incoming sediment. The berms concentrated flow paths into and out of the meadow leading to further incision and channel extension. As a result, large sections of the Lower Meadow are transitioning to more dry and upland conditions. The goals of the restoration treatments are to increase sediment and water retention in the meadow and to improve downstream habitat conditions in Beaver Creek for ESA-listed mid-Columbia River steelhead (*Oncorhynchus mykiss*) and Columbia River bull trout (*Salvelinus confluentus*) and to restore meadow functions that support culturally significant plants.

The project would consist of the following treatments that would occur in three phases:

Valley Grade Control

The Valley Grade Control is intended to set the channel at a specific elevation while also conveying flow to the existing channel downstream without causing erosion. The Valley Grade Control would be located at the downstream end of the project area where the valley narrows between hillslopes, and designed so that all flows would be funneled over the feature, down an extended ramp, and redirected into the downstream channel. This feature would hold grade at the downstream end of a series of upstream restoration treatments. Construction of the Valley Grade Control includes a 2-foot-thick layer of erosion-resistant facing rock material (class 200 riprap) and a 6-inch layer of 4-inch minus stone rock filter blanket placed between the native fill and facing material. The stone filter blanket would keep the fine native material from being winnowed out from under the rock facing material during flows. The 4-inch minus stone would also be used to choke voids in the rock facing material along the entire Valley Grade Control to increase low flow pond water surface elevations upstream of the grade control and to increase low to moderate flow depths over the downslope. The crest would be about 50-feet long with a 40-foot bottom width, which would be keyed-in and sloped to match contours of existing features. The downslope is also

intended to provide a rough fish passable surface through a reasonable range of flows. The rock and soil materials necessary to construct the Valley Grade Control would be both imported and locally generated. The required native fill to construct this feature would be generated by excavating the banks to extend the crest key-ins across the valley floor. All native material used in the construction of the grade control feature would be compacted. The facing and filter blanket stone material would be imported.

Meadow ponds and plugs

Meadow pond and plug treatments would be constructed between two existing berms to create a series of ponds behind successive earthen/rock plugs. The plugs and ponds would be constructed along the incised channel and would retain water and sediment, reduce erosive stream energy, and force water onto the meadow floodplain. The plugs would allow both primary flow and floodplain inundation by the 2-year estimated peak discharge. Designed to allow for fish passage through a range of flows, meadow plugs would average about 1.4 feet in height and would be constructed with onsite materials and an erosion-resistant facing material that is about 1.5 feet thick. Pond excavation depths would range from 1 to 3 or more feet. The materials necessary to construct the plugs would be locally generated from the pond excavation and the facing and filter blanket stone material would be imported from nearby borrow sites.

Headcut revetments

Headcut revetments would include filling the downstream side of knickpoints, upslope extent of headcut extensions, and/or scour holes with imported rock material to reduce existing incision processes. The cut banks would be cut back and revetment would be keyed into the banks to limit the potential for flanking. Coir fabric and seeding would occur where banks are disturbed to key in the rock material or where adjacent banks are set back to reduce surface-water erosivity.

Berm Treatments

Existing berms in the area would be treated by a variety of methods to pass flows and remove some features associated with the berms.

- **Berm Removal** – Excavate the existing berms down to design elevation. The excavated material would be used to backfill existing incised channels or the existing cut ponds next to the berms. The down valley side of the berms would be gradually graded to existing meadow surface elevations.
- **Notch** – At selected locations the berms would be excavated approximately 1-foot lower than the Berm Removal elevation to disperse upstream surface water through multiple flow-paths into and across the meadow downstream of the berm. The down valley side of the berm would be graded and blended to match existing swales.
- **Armored Swales** - At selected locations, an armored and roughened surface would be constructed to reduce existing and future incision.
- **Culvert Removal** – The existing culverts and related drop structures in the Lower Berm and Upper Berm would be removed and replaced by an Armored Swale. Culvert materials would be disposed of off-site.
- **Culvert Decommissioning** – The existing culvert and related drop structure in the East Berm would be decommissioned. The upper culvert riser would be cut to a designed elevation and materials disposed of off-site. The culvert would be filled and the downstream outlet capped.

Phase I would include work associated with these features: valley grade control, four meadow plugs, three headcut revetments, removal of existing gabion structure and other obstructions, transport, staging, and installation of approximately 9,000 cubic yards of rip rap and other rock to create grade control and meadow plugs, installation of approximately 4,700 square yards of erosion control fabric, revegetation of approximately 4 acres of disturbed ground with native seed and plants.

Phase II would include: nine meadow plugs, two meadow ponds, two lower berm treatments, one headcut revetment, and other associated work of these features.

Phase III would include: seven meadow plugs, five meadow ponds, upper and east berm removal, and three headcut revetments, and other associated work of these features.

Construction would start in fall of 2021 and following construction, the site would be fenced and revegetation seeding and planting with native stock would occur in all areas of surface disturbance and expected extent of meadow wetting.

These actions would support conservation of ESA-listed species considered in the 2020 ESA consultations with National Marine Fisheries Service and US Fish and Wildlife on the operations and maintenance of the Columbia River System and Bonneville's commitments to the Confederated Tribes of Warm Springs under the 2020 Columbia River Fish Accord Extension agreement, while also supporting 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/ Israel Duran

Israel Duran
Contract Environmental Protection Specialist
Salient/CRGT

Reviewed by:

/s/ Chad Hamel

Chad Hamel

Supervisory Environmental Protection Specialist

Concur:

/s/ Katey C. Grange

October 28, 2021

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.

Proposed Action: Log Springs Meadow Restoration

Project Site Description

Log Springs Meadow is a 3,500-acre meadow complex located along the northern border of the Warm Springs Reservation in Wasco County, Oregon and is a culturally and ecologically significant site for the Confederated Tribes of the Warm Springs Reservation of Oregon. Log Springs Meadow is the headwaters of Coyote Creek, a primary tributary to Beaver Creek, and is bordered by Simnasho Butte to the south and the east side by Bald Peter Butte. At the downstream boundary, the meadow valley narrows dramatically between confining hillslopes. Grazing is most likely the land-use impact that initiated channel incision in the project area. Incision and channel extension continued upslope through the meadow due, in part, to continued grazing. As a result, the diversity and the distribution of native wet-meadow plants is diminished. Historical aerial photos also show some agricultural uses (probably haying) occurring in the north portion of the Lower Meadow in the early 1950's. During this time period, road development increased into and throughout Log Springs Meadow, including along the west and north sides of the Lower Meadow.

A large rock gabion with a culvert was built in the early 1980's in Coyote Creek at the downstream border of the project area, which was almost immediately flanked by the creek. A fish-passable culvert was recently installed on Coyote Creek where it enters Log Springs Meadow on the western border of the project area. Under existing conditions, surface water flow in most of the meadow streams at Log Springs occurs for only a few months during the spring, between March and May, and duration is dependent on snowpack and seasonal rain patterns.

Evaluation of Potential Impacts to Environmental Resources

1. Historic and Cultural Resources

Potential for Significance: No with conditions

Explanation: BPA submitted a determination of ***no adverse effect to historic properties*** under Section 106 of the National Historic Preservation Act (BPA CR# OR 2017 060) on September 28, 2021. No comments were received during the consultation period. Consulting parties included the Confederated Tribes of the Warm Springs Reservation of Oregon.

Notes:

- Cultural resource staff would be on site to monitor ground disturbing activities, including access route and staging areas development and improvements.

- In the event any archaeological material is encountered during project activities, work would be stopped immediately and a BPA Archaeologist and Historian would be notified, as well as consulting parties.

2. Geology and Soils

Potential for Significance: No

Explanation: Minor, temporary impact to soils and geology during construction. Access routes to the borrow site would be improved. Coir fabric and seeding would occur where banks are disturbed to key in the rock material or where adjacent banks are set back to reduce surface-water erosivity. In the long term, there would be a net benefit to soils in the area.

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

Potential for Significance: No

Explanation: There are no ESA-listed or sensitive plant species present in the project area. Short-term negative impacts to vegetation from heavy equipment use would result in soil being turned and plants being uprooted, buried, or torn apart. The project is designed to minimize impacts to native vegetation. Plant communities would be restored through seeding and planting native and culturally important species in disturbed areas following project implementation. The project would have short-term effects on vegetation from construction actions, but in the long term, there would be beneficial effects including restored or improved vegetative conditions.

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

Potential for Significance: No

Explanation: Although there are no ESA-listed wildlife species or other sensitive species in or near the project area, there would be potential for activities to temporarily displace wildlife due to human activity. However the displacement would be temporary in nature and wildlife would be expected to return once activities are complete.

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

Potential for Significance: No

Explanation: Work would be completed in the dry and there would be no fish present. The project is expected to improve habitat conditions downstream for federally-listed salmonids in Beaver Creek by increasing sediment retention and water holding capacity of the meadow. Effects to water bodies would be minimal; limited to temporary, low level turbidity once flows return. The project is expected to improve functionality and floodplain connection.

6. Wetlands

Potential for Significance: No

Explanation: There are no wetlands in the project work areas.

7. Groundwater and Aquifers

Potential for Significance: No

Explanation: The activities are designed to encourage water holding capacity of Log Springs Meadow and would benefit groundwater recharge and function.

8. Land Use and Specially-Designated Areas

Potential for Significance: No

Explanation: The activities would not change land use or affect any specially-designated areas.

9. Visual Quality

Potential for Significance: No

Explanation: Visual quality of immediate project areas may be impacted during project activities due to equipment staging and completed structures, but impacts would be short term as structures restore habitat functionality.

10. Air Quality

Potential for Significance: No

Explanation: Air quality may be impacted by the additional travel to the project site but impacts would be local and temporary in nature.

11. Noise

Potential for Significance: No

Explanation: Some work activities would raise noise levels above ambient levels for short periods of time, but only during regular working hours until work is completed.

12. Human Health and Safety

Potential for Significance: No

Explanation: All applicable safety regulations would be followed during work activities.

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 activities would occur on property owned by the Confederated Tribes of the Warm Springs.

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

Signed: /s/ Israel Duran

Israel Duran, ECF-54
Contract Environmental Protection Specialist
Salient/CRGT

October 28, 2021

Date