Proposed Action: Upper Salmon Basin Operation and Maintenance of Tributary Habitat Improvement Projects 2022

Project Nos.: 2007-268-00, 2008-603-00, and 2010-072-00

Project Manager: Eric Leitzinger, EWM-4

Location: Lemhi and Custer counties, ID

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 routine operation and maintenance of existing fencing, irrigation infrastructure, and instream habitat structures associated with completed BPA-funded tributary habitat improvement projects in and along tributaries to the Upper Salmon River in Lemhi and Custer counties, Idaho.

This proposed action would fulfill commitments under the 2020 National Marine Fisheries Service Columbia River System Biological Opinion and would support conservation of Endangered Species Act-listed species considered in the 2020 Endangered Species Act consultation with the US Fish and Wildlife Service on the operation and maintenance of the Columbia River System. The proposed action would also support 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.).

The project sites to be treated are displayed in the table below.

Past restoration project sites included in current project actions

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Water body</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duck Creek</td>
<td>Duck Creek (trib to Pahsimeroi River)</td>
<td>44.59549</td>
<td>-113.94190</td>
</tr>
<tr>
<td>Lower Page</td>
<td>Pahsimeroi River</td>
<td>44.54707</td>
<td>-113.88278</td>
</tr>
<tr>
<td>Pahsimeroi IDL</td>
<td>Pahsimeroi River</td>
<td>44.52422</td>
<td>-113.84605</td>
</tr>
<tr>
<td>Page</td>
<td>Pahsimeroi River</td>
<td>44.53726</td>
<td>-113.86848</td>
</tr>
<tr>
<td>Middle Lemhi Henry</td>
<td>Lemhi River</td>
<td>44.89895</td>
<td>-113.62686</td>
</tr>
<tr>
<td>EVR SR 1 Phase 1 &amp;2</td>
<td>Lemhi River</td>
<td>45.10392</td>
<td>-113.73208</td>
</tr>
<tr>
<td>Little Sawmill Creek</td>
<td>Little Sawmill Creek (trib to Lemhi River)</td>
<td>44.84824</td>
<td>-113.62081</td>
</tr>
<tr>
<td>Location</td>
<td>Subcatchment</td>
<td>Latitude</td>
<td>Longitude</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------------------------------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Middle Eighteenmile</td>
<td>Eighteenmile Creek (trib to Lemhi River)</td>
<td>44.64013</td>
<td>-113.29367</td>
</tr>
<tr>
<td>Hawley Creek BDAs</td>
<td>Hawley Creek (trib to Lemhi River)</td>
<td>44.70082</td>
<td>-113.31038</td>
</tr>
<tr>
<td>Reference Reach Phase 1</td>
<td>Lemhi River</td>
<td>45.15932</td>
<td>-113.83441</td>
</tr>
<tr>
<td>Hayden Creek Hermits</td>
<td>Hayden Creek (trib to Lemhi River)</td>
<td>44.84353</td>
<td>-113.65497</td>
</tr>
<tr>
<td>Big Springs/Lemhi Confluence</td>
<td>Lemhi River</td>
<td>44.72835</td>
<td>-113.43297</td>
</tr>
<tr>
<td>Last Chance Springs</td>
<td>Last Chance Springs (trib to Pahsimeroi River)</td>
<td>44.64427</td>
<td>-113.00278</td>
</tr>
<tr>
<td>Muddy Springs</td>
<td>Muddy Springs (trib to Pahsimeroi River)</td>
<td>44.60041</td>
<td>-113.96132</td>
</tr>
<tr>
<td>Bohannon/Wellard</td>
<td>Bohannon Creek (trib to Lemhi River)</td>
<td>45.12281</td>
<td>-113.77243</td>
</tr>
<tr>
<td>Little Springs</td>
<td>Little Springs (trib to Pahsimeroi River)</td>
<td>44.58902</td>
<td>-113.92452</td>
</tr>
</tbody>
</table>

**Fencing**

All fencing actions would include routine maintenance or repair not requiring the digging of post holes, such as tightening wires, replacing old or broken wires with new ones, replacing broken posts with t-posts that can be driven into the ground without digging, and removing fallen trees or branches from fence lines.

**Irrigation Infrastructure**

Maintenance, repair, or improvement (e.g., ditch cleaning, irrigation gate cleaning, and hardware replacement), of recently constructed irrigation infrastructure would include irrigation diversions, ditch gates, ditches, pumps, power lines, and sprinkler irrigation systems that require no new ground disturbance.

**Instream Habitat Improvement Structures**

Throughout the Upper Salmon basin, BPA has funded the installation of hand-built instream habitat improvement structures constructed of driven 4-inch to 6-inch posts with woven vegetation to create stream-spanning beaver dam analogues (BDAs) and partial-spanning post-assisted wicker weaves (PALS) or brush mattresses (willow branches woven between a matrix of posts to create a horizontal "mattress" to provide overhead cover for young fish). Maintenance of these structures involves the replacement or addition of branches between previously driven posts, and the extension of BDAs and PALS as the streams flank the installed structures as they were designed to do. Maintenance would involve the hand-driving of new or replacement posts, and the cutting of live branches from riparian vegetation to weave between those posts.

**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/ Robert W Shull  
Robert W Shull  
Contract Environmental Protection Specialist  
CorSource Technology Group

Reviewed by:

/s/ Chad Hamel  
Chad Hamel  
Supervisory Environmental Protection Specialist

Concur:

/s/ Sarah T. Biegel  
July 18, 2022  
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.

**Proposed Action**: Upper Salmon Basin Operation and Maintenance of Tributary Habitat Improvement Projects 2022

**Project Site Description**

Project actions would be located in the Salmon River, East Fork Salmon River, and Pahsimeroi River valleys – the project sites are all within broad river valleys composed of alluvium, fan, and valley fill deposits from the surrounding mountains. These valleys are characterized by irrigated agricultural fields within a sagebrush steppe ecosystem. Native vegetation consists primarily of grasses and sagebrush in the upland sagebrush steppe; with cottonwoods, willows, cattails, and sedges in the riparian areas. Land use in the area is primarily agriculture (e.g., alfalfa and grass hay production).

**Evaluation of Potential Impacts to Environmental Resources**

1. **Historic and Cultural Resources**

   Potential for Significance: No

   **Explanation**: Routine maintenance and operations of structures and irrigation systems (e.g., fence repair, ditch/diversion cleaning, mechanical maintenance on irrigation infrastructure, etc.) with no new ground disturbance or alteration of existing structures would have no potential to affect historic resources.

   Extending BDAs and PALS would extend stream migration into steam banks with designed stream bank erosion with potential to affect cultural resources. For the projects with these activities the following NHPA consultations were conducted.

   **Cultural resource consultations in project areas**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Bonneville Cultural Resources project number</th>
<th>Determination</th>
<th>Implementation Measures¹</th>
<th>Idaho SHPO letter concurrence date²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duck Creek</td>
<td>ID 2020 013</td>
<td>No historic properties affected</td>
<td>None</td>
<td>7/2/2020</td>
</tr>
<tr>
<td>Lower Page</td>
<td>ID 2020 012</td>
<td>No historic properties affected</td>
<td>None</td>
<td>6/26/2020</td>
</tr>
<tr>
<td>Pahsimeroi IDL</td>
<td>ID 2018 012</td>
<td>No adverse effect</td>
<td>None</td>
<td>7/13/2018</td>
</tr>
<tr>
<td>Page</td>
<td>ID 2017 020</td>
<td>No adverse effect</td>
<td>None</td>
<td>8/1/2017</td>
</tr>
<tr>
<td>Middle Lemhi Henry</td>
<td>ID 2019 029</td>
<td>No effect</td>
<td>None</td>
<td>10/17/2019</td>
</tr>
<tr>
<td>EVR SR 1 Phase 1 &amp; 2</td>
<td>ID 2019 032</td>
<td>No adverse effect</td>
<td>None</td>
<td>12/19/2019</td>
</tr>
<tr>
<td>Little Sawmill Creek</td>
<td>ID 2016 069</td>
<td>No adverse effect</td>
<td>None</td>
<td>6/22/2017</td>
</tr>
<tr>
<td>Project Name</td>
<td>ID Number</td>
<td>Historic Properties Affected</td>
<td>None</td>
<td>Date</td>
</tr>
<tr>
<td>-------------------------------</td>
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<td>------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Middle Eighteenmile</td>
<td>ID 2017 049</td>
<td>No historic properties</td>
<td>None</td>
<td>7/1/2018</td>
</tr>
<tr>
<td>Hawley Creek BDAs</td>
<td>BLM consultation</td>
<td>No historic properties</td>
<td>Documented eligible properties would be protected from inundation by BDA location with a buffer of 20 meters determined using LIDAR to assess inundation extents.</td>
<td>4/15/2020</td>
</tr>
<tr>
<td>Reference Reach Phase 1</td>
<td>ID 2021 018</td>
<td>No historic properties</td>
<td>None</td>
<td>7/1/2021</td>
</tr>
<tr>
<td>Hayden Creek Hermits</td>
<td>BLM Programmatic</td>
<td>&quot;Form A&quot; (No Finds or Not Eligible)</td>
<td>None</td>
<td>1/10/2020</td>
</tr>
<tr>
<td>Big Springs/Lemhi Confluence</td>
<td>ID 2018 006</td>
<td>No adverse effect</td>
<td>None</td>
<td>7/17/2018</td>
</tr>
<tr>
<td>Last Chance Springs</td>
<td>ID 2021 015</td>
<td>No adverse effect</td>
<td>None</td>
<td>7/23/2021</td>
</tr>
<tr>
<td>Muddy Springs</td>
<td>ID 2021 003</td>
<td>No historic properties</td>
<td>None</td>
<td>1/13/2021</td>
</tr>
<tr>
<td>Bohannon/Wellard</td>
<td>ID 2017 005</td>
<td>No adverse effect</td>
<td>None</td>
<td>9/21/2017</td>
</tr>
<tr>
<td>Little Springs</td>
<td>ID 2021 011</td>
<td>No historic properties</td>
<td>None</td>
<td>3/18/2021</td>
</tr>
</tbody>
</table>

1 An “Inadvertent Discovery Protocol” for protecting cultural resources found during operations is applicable to all projects.

2 The Shoshone Bannock and Nez Perce tribes were also consulted on these projects, but did not respond within thirty days to BPAs consultation letters.

Maintenance of brush mattresses would have no potential to affect cultural resources. They are non-erosive stationary structures entirely within stream channels (no upland disturbance).

2. Geology and Soils

Potential for Significance: No

Explanation: No heavy equipment operations (e.g., bulldozers, excavators) would be used, so there would be no large-scale soil displacement, soil mixing, or other mechanical soil disturbance.

Fence maintenance would be almost exclusively wire tightening and replacement. Post replacement needs would be accomplished using metal T-posts driven into the ground, with no digging required.

Mechanical maintenance and repair would not disturb ground surfaces.

Manipulation of stream flows and bank erosion with BDAs and PALS would erode stream banks, but this process is consistent with natural stream and floodplain processes. Erosion would be from an upper part of floodplain while inducing stream sinuosity to deposition and aggradation of sediment to lower reaches that are unnaturally inset into the floodplain. Soils would not be lost from the floodplain by erosion from the river reach being treated by BDAs and PALS.

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

Potential for Significance: No
Explanation: No Endangered Species Act (ESA)-listed, or special-status plant species are present in these locations. Maintenance of existing infrastructure would not disturb plants, beyond the minimal trampling by workers. Management of BDAs and PALS would disturb streamside vegetation in upper parts of floodplains while establishing sites for riparian vegetation expansion in lower reaches.

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

Potential for Significance: No

Explanation: No Federal/state special-status wildlife species or habitats are within the project sites. Wildlife may be disturbed and displaced by human presence during these actions but long-term displacement resulting in competition for nearby habitats is unlikely.

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

Potential for Significance: No

Explanation: No fence or irrigation infrastructure maintenance action proposed here would physically alter aquatic habitats; there would be no adverse physical changes to water bodies, floodplains, or fish from these actions. Management of BDAs PALS, and brush mattresses would create instream, stream bank, and floodplain habitats that are conducive to natural functioning of these features with benefits to fish and improvements to stream and floodplain function; they do not create adverse effects.

Three species listed under the Federal Endangered Species Act are present in the project area: Snake River spring/summer Chinook salmon (part of the Upper Salmon Major Population Group), Snake River steelhead (part of the Salmon River Major Population Group), and bull trout. The State of Idaho lists spring/summer Chinook salmon as “critically imperiled” and Snake River steelhead as “imperiled,” but lists bull trout as “not rare and apparently secure.”¹ No other listed species of concern are present.

Fencing and irrigation infrastructure maintenance and improvements would have no effect on fish as these actions would not take place in fish habitat. Maintenance of BDAs, PALS, and brush mattresses would occur instream and would disturb and displace these fish. The effects of these actions on ESA-listed fish have been consulted on (as required by the Federal Endangered Species Act) under BPA’s programmatic Habitat Improvement Program (HIP) consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, with the conclusion that while such actions would be likely to adversely affect these species they are not likely to jeopardize their continued existence or result in the destruction or adverse modification of their critical habitats.

6. Wetlands

Potential for Significance: No

**Explanation**: Maintenance workers would likely walk through wetlands during inspections and repair, but no other surface disturbance would occur. BDA, PALS, and mattress maintenance would affect wetlands where bank erosion would occur, but would expand wetland conditions throughout the treatment area for a net expansion of wetland conditions.

7. **Groundwater and Aquifers**
   Potential for Significance: No
   **Explanation**: There would be no groundwater withdrawal. Fence and irrigation infrastructure maintenance has no potential to impact groundwater.

   BDA, PALS, and mattress maintenance would enhance the connection between these streams and their floodplains, increasing the floodplains’ potential for groundwater storage.

8. **Land Use and Specially-Designated Areas**
   Potential for Significance: No
   **Explanation**: There would be no land use changes, and no specially-designated areas are present.

   No project action would change the land’s capability to be used as it previously was.

9. **Visual Quality**
   Potential for Significance: No
   **Explanation**: No visually-prominent vegetative, landform, or structural change would be made.

   Fence maintenance would change some wooden fence post to metal fence posts, altering the rustic appearance of old posts. However, the presence of metal posts is not inconsistent with fencing throughout the area and surrounding lands, which is predominantly metal post and wire.

10. **Air Quality**
    Potential for Significance: No
    **Explanation**: Driving of vehicles to access project sites would produce emissions, but the amount would be minimal and short term.

11. **Noise**
    Potential for Significance: No
    **Explanation**: The only noise sources would be from humans working on the sites, and the use of vehicles to transport workers, supplies, and equipment to the project sites.

    All noise sources are of low intensity and short term.

12. **Human Health and Safety**
    Potential for Significance: No
    **Explanation**: Vehicle operation, working with hand tools, and working along rivers have their attendant risks to workers, but there would be no condition created that would introduce new health or safety hazards or risk into the environment.

    No condition created by these actions would increase the burden on the local health, safety, and emergency-response infrastructure.
Neither project actions nor operation of project-associated vehicles on public roads would hinder traffic or access by emergency vehicles.

**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: NA*

**Landowner Notification, Involvement, or Coordination**

*Description: All actions are within project areas that were sponsored in cooperation with the landowners. These landowners are aware of project activities and maintenance actions, and would participate with those conducting many of them.*

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

Signed: /s/ Robert W Shull  
July 18, 2022  
Robert W Shull, ECF-4  
Contract Environmental Protection Specialist  
CorSource Technology Group