Proposed Action: Pacific Lamprey Acoustic Telemetry and Larval Salvage Studies

Project No.: 2017-005-00 (Contract #85347)

Project Manager: Siena M. Lopez-Johnston, EWM-4

Location: Cowlitz and Yakima Counties, Washington and Columbia County, Oregon

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

Description of the Proposed Action: Bonneville Power Administration (BPA) proposes to fund the US Geological Survey (USGS) under the the Pacific Lamprey Conservation Intiative (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. Funding the proposed activities supports ongoing efforts to mitigate for effects of the Federal Columbia River Power System 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.). BPA proposes to fund as part of the PLCI the following specific actions:

Acoustic Telemetry Study

A newly developed acoustic transmitter for use in eels and lamprey (ELAT) is small enough to be implanted in juvenile lamprey, thereby allowing detection of migrating juveniles using an acoustic telemetry array. To maximize the probability of detecting juvenile lamprey implanted with ELATs, the USGS would conduct studies to test and refine the monitoring approach (i.e., acoustic telemetry array configuration, individual receiver depth, ELAT ping rate, etc.).

The USGS would install, operate, and maintain an acoustic telemetry array across the Lower Columbia River (approximately river kilometer 86) from Oak Point, Cowlitz County, Washington on the north bank to Port Westward, Columbia County, Oregon on the south bank. The array would consist of two parallel lines of six individual acoustic telemetry receivers (twelve receivers total) spaced approximately 96 meters apart and at least 50 meters from each shore. Each of the battery-powered receivers would be held in place with a weighted anchor resting on the riverbed. The receivers, which operate continuously and autonomously, would require regular service trips to replace batteries, download data, and perform other routine operation and maintenance activities. It is likely that installation, operation, and maintenance activities would be conducted from boats, but some receivers may be accessed from the shore, if it is safe to do so.

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and the Confederated Tribes and Bands of the Yakama Nation (YN) would collect, tag, and release the juvenile lamprey. No
materials, equipment, or activities associated with lamprey collection, tagging, and release would be funded by BPA as part of this project.

**Larval Salvage Study**

The USGS would conduct studies to determine how common lamprey salvage techniques affect larval lamprey survival. The studies could provide guidance for future dewatering and salvage activities.

Larval lamprey and sediment would be collected at various sites during planned dewatering periods (e.g., seasonal water diversion closures and routine hatchery pond maintenance). The lamprey salvage studies would begin only after salmonid salvage is completed (i.e., when salmonids are no longer present in the study area). “Wet” and/or “dry” electrofishing would be carried out at different voltage levels to salvage the lamprey. Some test areas would also receive an additional treatment designed to simulate the disturbance from walking on lamprey-containing sediments.

Each group of salvaged lamprey would be transported to a laboratory and monitored for a 60-day period. To test and observe burrowing ability, lamprey would be held with the sediment collected at the salvage site. Survival and growth would be documented throughout the holding period.

**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  
Contract Environmental Protection Specialist  
Salient CRGT

Reviewed by:

/s/ Chad J. Hamel  
Chad J. Hamel  
Supervisory Environmental Protection Specialist
Concur:

/s/ Katey C. Grange           October 6, 2020
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:** Pacific Lamprey Acoustic Telemetry and Larval Salvage Studies

**Project Site Description**

For the acoustic telemetry study, an acoustic telemetry array would be installed across the Lower Columbia River (approximately river kilometer 86) from Oak Point, Cowlitz County, Washington on the north bank to Port Westward, Columbia County, Oregon on the south bank. Lamprey salvage would be conducted at three locations:

- North Toutle Fish Hatchery in Cowlitz County, Washington,
- Wapato Irrigation Diversion located on the Yakima River (rkm 176.2) in Yakima County, Washington, and
- Sunnyside Irrigation Diversion located on the Yakima River (rkm 171.4) in Yakima County, Washington.

**Evaluation of Potential Impacts to Environmental Resources**

1. **Historic and Cultural Resources**

   Potential for Significance: No

   **Explanation:** BPA has determined the proposed activities would have no potential to cause effects to historic properties. The proposed activities (install, operate, and maintain an acoustic telemetry array and conduct fish salvage at existing salvage sites) would not result in ground disturbance that could potentially impact archaeological resources. No modifications to existing historically built resources are proposed.

2. **Geology and Soils**

   Potential for Significance: No

   **Explanation:** No ground disturbance would result from the installation, operation, and maintenance of the acoustic telemetry array. Larval lamprey salvage would occur at an existing fish hatchery rearing pond and irrigation diversions. In each of these locations, sediment accumulation is a concern for site managers, and sediment is routinely removed as part of seasonal maintenance. Therefore, there would be no additional impact to geology and soils.

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

   Potential for Significance: No

   **Explanation:** The proposed project would not require any tree or vegetation removal or management and would not result in adverse modification to suitable protected plant
habitats. Therefore, there would be no effect on state special-status plant species or plant species protected under the Federal Endangered Species Act (ESA).

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 project sites. However, proposed activities would be consistent with current activities typical of the project sites, and wildlife species that could be present in the area would likely be habituated to these types of human activities. The proposed project would not result in adverse modification to suitable protected species habitat. Therefore, there would be no effect on state special-status wildlife species or wildlife species protected under the Federal ESA.

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

Potential for Significance: No

**Explanation**: The acoustic telemetry array would be held in place with weighted anchors resting on the riverbed, and it is likely that installation, operation, and maintenance activities would be conducted from boats. Larval lamprey salvage studies would occur at existing fish salvage sites and only after bony fish salvage is completed (i.e., protected fish species are no longer present). No natural streambeds would be impacted by the proposed activities. These activities would not have a significant impact on water bodies and floodplains, and there would be no effect on Federal ESA or state special-status fish species, ESUs, or habitats.

6. **Wetlands**

Potential for Significance: No

**Explanation**: Some work areas could be located within or near wetlands. However, all ground disturbance would occur at existing fish salvage sites, where sediment is routinely removed as part of seasonal maintenance. Therefore, there would be no impact to wetland quality, condition, or size.

7. **Groundwater and Aquifers**

Potential for Significance: No

**Explanation**: All ground disturbance would occur at existing fish salvage sites, where sediment is routinely removed as part of seasonal maintenance. Therefore, there would be no impact to groundwater and aquifers.

8. **Land Use and Specially-Designated Areas**

Potential for Significance: No

**Explanation**: There would be no change in land use and no impact to specially-designated areas.

9. **Visual Quality**

Potential for Significance: No

**Explanation**: All proposed actions would occur at existing sites. There would be no impact to visual quality.
10. Air Quality

Potential for Significance: No

Explanation: Minor and temporary emissions could increase in the local area from the transportation of staff and equipment to project areas. There would be no substantial change in air quality.

11. Noise

Potential for Significance: No

Explanation: Minor and temporary noise could increase in the local area from vehicle and equipment use. However, these actions would not be inconsistent with current activities typical of the project sites. There would be no substantial change in ambient noise.

12. Human Health and Safety

Potential for Significance: No

Explanation: Individuals carrying out proposed project activities would be trained in proper techniques and use of materials and equipment. The project would not generate or use hazardous materials and would not create conditions that would increase risk to human health and safety. No impacts to human health and safety are expected as a result of project 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 USGS would coordinate with site managers to conduct lamprey salvage studies at the hatchery and irrigation diversions. No other landowner notification, involvement, or coordination would be required as all proposed project sites would be accessed via existing roads and public lands.

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  
W. Walker Stinnette, EC-4  
Contract Environmental Protection Specialist  
Salient CRGT  

October 6, 2020  
Date