**Proposed Action:** Genetic Assessment of Columbia River Stocks

**Project No.:** 2008-907-00

**Project Manager:** Brady Allen

**Location:** Multiple counties, Idaho, Oregon, Washington

**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:** Bonneville Power Administration (BPA) proposes to fund four inter-related projects from the Fish & Wildlife Program Accords that address Single Nucleotide Polymorphism (SNP) Discovery, Genetic Baseline Expansion, Genetic Stock ID (GSI) to Evaluate Catch, and GSI of salmon and steelhead passing Bonneville Dam. Managed by the Columbia River Inter-Tribal Fisheries Commission, the four projects are highly related since SNP markers are needed to complete species specific baselines, and these baselines are requisite to complete GSI.

The specific objectives are:
1) Discover and evaluate SNP markers in salmon and steelhead
2) Expand and create genetic baselines for multiple species (Chinook, steelhead, sockeye, and coho)
3) Implement GSI programs for mainstem Chinook fisheries
4) GSI of steelhead and Chinook passing Bonneville Dam

This project would work closely with an existing BPA-funded project (2010-031-00) to ensure that future genetic marker sets used in the Columbia River basin are standardized, providing genetic tools for managing wild and hatchery stocks in the basin with GSI techniques segregating adult wild runs by stock of origin, and Parentage Based Tagging technologies identifying the stock and age of sampled hatchery fish.

This would allow the integration of sampling programs at Bonneville and Lower Granite Dam and in Columbia River and Snake River mainstem fisheries such that any sampled wild adult can be included in mixture analyses to determine stock composition and any sampled Snake River hatchery adult can be assigned to a stock and cohort. This sampling and genotyping would provide a robust baseline from which GSI mixture analyses can be performed, and would also provide temporal monitoring of genetic diversity/structure across the basin allowing estimation of gene flow and effective population size. Incorporating age and sex information collected simultaneously from migrating adults and juveniles would provide data on abundance and biodiversity of Snake River Chinook salmon and steelhead that have previously been unavailable for managing wild stocks in the basin.

**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/ Sarah T. Biegel Date: June 30, 2020
Sarah T. Biegel
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: Genetic Assessment of Columbia River Stocks

Project Site Description

The genetics laboratory is located at the Hagerman Genetics Laboratory at the Hagerman Fish Culture Experiment Station in Gooding County, Idaho. Genetics are collected from various sites in the Columbia River Basin.

Evaluation of Potential Impacts to Environmental Resources

<table>
<thead>
<tr>
<th>Environmental Resource</th>
<th>No Potential for Significance</th>
<th>No Potential for Significance, with Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Historic and Cultural Resources</td>
<td>☑</td>
<td>☐</td>
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<tr>
<td>Explanation: The proposed activities would occur within the confines of the existing structures, and would not require any ground-disturbing activities for the completion of this work.</td>
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<tr>
<td>2. Geology and Soils</td>
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<tr>
<td>Explanation: All work is confined to the Hagerman Genetics Laboratory and there are no ground-disturbing activities required for the completion of this work would be within the confines of the existing facilities. Ground disturbance or activities external to the existing structure are not planned.</td>
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<td>3. Plants (including Federal/state special-status species and habitats)</td>
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<td>☐</td>
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<tr>
<td>Explanation: All work is within existing facilities; no habitat present. There are no anticipated impacts to any sensitive plant species.</td>
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<tr>
<td>4. Wildlife (including Federal/state special-status species and habitats)</td>
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<tr>
<td>Explanation: All work is implemented within existing facilities; no species or habitat present.</td>
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<tr>
<td>5. Water Bodies, Floodplains, and Fish (including Federal/state special-status species, ESUs, and habitats)</td>
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</tr>
<tr>
<td>Explanation: All work would occur in the footprint of existing structure, and would not require any ground-disturbing activities for the completion of the work. All genetic samples are provided by other programs and no fish are handled under this contract.</td>
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<td>6. Wetlands</td>
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<tr>
<td>Explanation: All work would occur in the existing structure and wetlands would not be impacted.</td>
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<tr>
<td>7. Groundwater and Aquifers</td>
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<tr>
<td>Explanation: All work would occur in the laboratory, and no ground excavation is planned.</td>
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</tbody>
</table>
8. **Land Use and Specially-Designated Areas**

   **Explanation:** All work would occur in the laboratory, and would not impact or change land use.

9. **Visual Quality**

   **Explanation:** All work would occur in the laboratory, and would not impact visual quality.

10. **Air Quality**

    **Explanation:** All work would occur in the laboratory and would not impact air quality.

11. **Noise**

    **Explanation:** All work would occur in the laboratory and would not affect noise levels.

12. **Human Health and Safety**

    **Explanation:** All work would occur in the laboratory, and safety regulations would be followed as necessary.

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**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, if necessary:**

- **Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators) that are not otherwise categorically excluded.**
  
  **Explanation, if necessary:**

- **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, if necessary:**

- **Involve genetically engineered organisms, synthetic biology, governementally 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, if necessary:**

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**Landowner Notification, Involvement, or Coordination**

**Description:** This work would be implemented in the Hagerman Fish Culture Experiment Station, which is owned and managed by Columbia River Inter-Tribal Fish Commission and the University of Idaho.
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-4  
Contract Environmental Protection Specialist  
Salient/CRGT  

Date: June 30, 2020