

Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy



Proposed Action: Continued funding for studying the physical, biological and ecological mechanisms that control the early marine survival of juvenile salmonids originating from the Columbia River Basin.

Project No.: 1998-014-00

Project Manager: A. Creason, EWL-4

Location: Pacific Ocean, Oregon and Washington

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 continue funding National Oceanic and Atmospheric Administration (NOAA) Northwest Fisheries Science Center (NWFSC), Pacific States Marine Fisheries Commission (PSMC) and Oregon State University (OSU) in studying the physical, biological and ecological mechanisms that control the early marine survival of juvenile salmonids originating from the Columbia River Basin. Periods of high or low ocean productivity can mask underlying trends in freshwater habitat productivity and could lead to a misinterpretation of the proximate cause of trends in survival or adults returns.

Overall, this work seeks to identify the mechanisms that determine the importance of the Columbia River plume and near coastal ocean environments to overall salmonid survival and adult returns. Information derived from plume and nearshore ocean research is needed to increase our ability to adaptively manage Columbia River System (CRS) mitigation actions. This includes informing CRS mitigation actions to improve the survival of juveniles during residence in and migration through the entire CRS. These mitigation actions are used to fulfill commitments begun under the 2008 National Marine Fisheries Service (NMFS) Federal Columbia River Power System Biological Opinion (as supplemented in 2010 and 2014) (2008 BiOp) and ongoing commitments under the 2019 NMFS Columbia River System BiOp (2019 CRS BiOp).

PSMC activities reflects the ocean vessel contract portion of the overall project activities. The FV Frosti vessel is a Canadian contract vessel that has been used on this project annually for the last 15 years. Using the Nordic 264 surface trawl at approximately 50 stations from La Push, WA to Newport, OR, juvenile salmon abundance and distribution would be measured and quantified. Samples would be collected to assess marine growth (both somatic and bioenergetic) to study the physical and biological processes in the Columbia River plume and associated ocean environment. The collected data would be measured and compared with salmonid metrics that include the following:

- 1) Oceanographic conditions.
- 2) Phytoplankton standing stock.
- 3) Evaluate indicators relating to juvenile salmon survival.

The proposed activities are the following:

- Species sampling - Plume & coastal sampling would occur at sea on the Pacific Ocean off the coast of the State of Washington and State of Oregon.
 - A Nordic 264 surface trawl would be pulled through the water for 30 minutes, catching whatever organisms are in the top 20 meters of water. The surface trawl would have a mesh size of 0.3 cm, so the net would catch anything from small juvenile fishes to adult fish, including salmon and sharks. A marine mammal excluder device would be used to prevent the capture of the largest organisms, including dolphins and sea lions. Target species are salmonids, but for an ecosystem perspective, all organisms in this habitat are important and would be quantified. A vertical net and bongo net would both be used to sample zooplankton.

- Measure composition, distribution, and abundance of marine species, in the Columbia River plume region.
 - All species caught in the trawl would be identified and measured. Non-target species (*e.g. Adult Salmon, Rockfish, Wolf eel*) would be quickly measured and returned to their environment. Target species (*e.g. Juvenile Salmon consisting of Chinook, Coho, Sockeye, Chum and Steelhead*) would be quickly measured and frozen to be brought back to the lab. All zooplankton collected in the vertical and bongo nets would be put in jars and returned to the lab to identify species composition and abundance.

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/ Luca T. De Stefanis

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Reviewed by:

/s/ Chad Hamel

Chad Hamel
Supervisory Environmental Protection Specialist

Concur:

/s/ Katey Grange

Katey Grange
NEPA Compliance Officer

Date: June 8, 2020

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: Continued Funding for studying the physical, biological and ecological mechanisms that control the early marine survival of juvenile salmonids originating from the Columbia River Basin.

Project Site Description

All activities would occur at sea 3 to 30 nautical miles (nmi) west from shore on the Pacific ocean using the Nordic 264 research surface trawler at approximately 50 stations from La Push, WA to Newport, OR. Sampling would occur in the top 30 meters of the water column.

Evaluation of Potential Impacts to Environmental Resources

Environmental Resource Impacts	No Potential for Significance	No Potential for Significance, with Conditions
1. Historic and Cultural Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> There would be no ground disturbing activities or structure modifications, thus the proposed activities would not have the potential to affect historic properties or cultural resources. All work would be carried out from within existing ocean vessel.		
2. Geology and Soils	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> No ground disturbing activities proposed, thus the proposed activities do not have the potential to affect geology and soils.		
3. Plants (including Federal/state special-status species and habitats)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> No ground disturbing or vegetation removal activities proposed. All work would be carried out from within existing ocean vessel or laboratory facilities.		
4. Wildlife (including Federal/state special-status species and habitats)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> No ground disturbing or other activity that may affect wildlife or wildlife habitat is proposed. Field crews from 1-8 people on ocean vessels would yield avoidance or minor disturbance of seagoing wildlife (such as ocean birds) through human presence.		

5. **Water Bodies, Floodplains, and Fish**

(including Federal/state special-status species, ESUs, and habitats)

Explanation: The project work concentrates on ocean vessel operations for data collection. There would be physical handling of fish using surface trawl. Non-target species (e.g. *Adult Salmon, Rockfish, Wolf eel*) would be quickly measured and returned to their environment. Target species (e.g. *Juvenile Salmon consisting of Chinook, Coho, Sockeye, Chum and Steelhead*) would be quickly measured and frozen to be brought back to the lab. There would be no impact to adjacent waterbodies or floodplains because no ground disturbing activities are proposed. All work would be carried out from within an existing ocean vessel or laboratory facilities.

Federal & State Scientific Collection Permits secured

1. Endangered Species Act (ESA) Section -10 NMFS Scientific Collection Permit #1410-12R. Expires 12/31/23.
2. Washington State Collection Permit - Permit Number: BURKE 20-109.
3. State of Oregon Scientific Taking Permits – Permit Number: 23733.

6. **Wetlands**

Explanation: No ground disturbing activities are proposed thus the action does not have the potential to impact wetlands. All work would be carried out from within existing ocean vessel or laboratory facilities.

7. **Groundwater and Aquifers**

Explanation: No ground disturbing activities that may affect groundwater or aquifers are proposed. All work would be carried out from within existing ocean vessel or laboratory facilities.

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

Explanation: Access to ocean sample sites is on existing ocean networks and all activities are compatible with Federal, State and local ocean use and maritime law. Sampling would occur from about 5 nmi (state territorial waters) out to about 30 nm, which is past the state boundaries and inside the Exclusive Economic Zone (EEZ) (5-200 nmi).

9. **Visual Quality**

Explanation: Ocean vessel would not be any different visually than other vessel activity on the sea scape. Therefore the proposed action would not impact visual quality as the action is not inconsistent with the long-term ongoing maritime operations of other marine vessels on the surrounding oceanic seascape.

10. **Air Quality**

Explanation: All work would be carried out from within existing ocean vessel or laboratory facilities and would have no effect on air quality. Any increase in emissions from the ocean vessel accessing ocean sampling sites would be minor and for short durations.

11. **Noise**

Explanation: All work would be carried out from within existing ocean vessel or laboratory facilities and would not result in an increase in ambient noise due to an acoustically silent stern trawler designed vessel.

12. Human Health and Safety



Explanation: Workers carrying out research activities are trained in proper equipment management techniques. All crew members are certified through CPR and First Aid and have undergone sea safety and cold water survival training. This activity is not considered hazardous nor would it result in any health or safety risks to the general public.

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, 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, if necessary:

Landowner Notification, Involvement, or Coordination

Description: No notification necessary. All work would be carried out from on an ocean vessel or in laboratory facilities.

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

Signed: /s/ Luca T. De Stefanis

Date: June 8, 2020

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