

Klickitat Hatchery Spring Chinook Upgrades Mitigation Action Plan August 2023

1.1 MITIGATION ACTION PLAN

This Mitigation Action Plan is part of the Finding of No Significant Impact (FONSI) for the Klickitat Hatchery Spring Chinook Upgrades Project. This action would fund upgrades to the Klickitat Hatchery in the Klickitat River Basin in Klickitat County, Washington, including funding capital improvements to the Klickitat Hatchery facilities to support an increase in spring Chinook salmon production and a transition from a segregated to an integrated spring Chinook program.

This Mitigation Action Plan is for the Proposed Action and includes all integral elements and commitments made in the Environmental Assessment (EA) to mitigate potential adverse environmental impacts.

Bonneville Power Administration, the Yakama Nation, and their contractors would each play a role in implementing mitigation measures during various phases of project work. Relevant portions of this Mitigation Action Plan would be included in the construction contract specifications. The contractor would be obligated to implement the mitigation measures identified in the Mitigation Action Plan that relate to contractor responsibilities during construction and post-construction. The construction contract specifications would include relevant portions of the Mitigation Action Plan.

The Mitigation Action Plan may be amended if revisions are needed due to new information or if there are any significant project changes.

1.2 BEST MANAGEMENT PRACTICES AND MITIGATION MEASURES

Minimization and mitigation measures have been identified to reduce potential impacts associated with the Proposed Action and are provided in the table below.

Best Management Practices and Mitigation Measures

Best Management Practice and Mitigation Measure	(Who/When)
Transportation	
Employ traffic control flaggers and post signs warning of construction activity and merging traffic, when necessary for any potential interruptions of traffic.	BPA/Contractor; During construction
Follow the applicable state, county, and city requirements for traffic control and lane closures.	BPA/Contractor; During construction
Geology and Soils	
Minimize the construction disturbance area and removal of vegetation to the greatest extent possible.	BPA/Contractor; During construction
Locate staging areas in previously disturbed areas of the main hatchery complex to minimize soil and vegetation disturbance.	BPA/Contractor; During construction
Minimize the area of soil exposed and use dust abatement measures when necessary (see mitigation measures in Air Quality).	BPA/Contractor; During construction
Stabilize disturbance areas by applying a weed-free gravel (if available).	BPA/Contractor; During construction
Conduct project construction along the spring intake access road, spring intake work, and pipeline installation, during the fall and winter (September through January) during low water-use at the hatchery to minimize erosion, compaction, and sedimentation, to the extent practicable.	BPA/Contractor; During construction
Install appropriate erosion-control devices such as silt fencing, weed-free straw wattles, and sediment barriers where needed to minimize soil transport prior to construction beginning.	BPA/Contractor; Before and during construction
Prepare an erosion control plan to minimize sediment runoff and fugitive dust.	BPA/Contractor; Before construction

Best Management Practice and Mitigation Measure	(Who/When)
Vegetation and Noxious Weeds	
<p>Implement a noxious weed control program which includes the following elements:</p> <ul style="list-style-type: none"> • Clean equipment and vehicles of mud, dirt, and plant parts before entering the project area and before leaving the project area to minimize the spread of invasive or noxious weeds. • Prohibit discharge of vehicle wash water into any stream or water body. • Limit construction activities to areas needed to work effectively to prevent native or desirable plant disturbance. 	<p>BPA/Contractor; Before, during, and after construction</p>
<p>Implement a revegetation plan to restore native plant communities and provide wildlife habitat and include the following elements:</p> <ul style="list-style-type: none"> • Reseed disturbed areas after construction with native vegetation. • Monitor seeded and planted areas until disturbed areas are stabilized (defined as at least 70% cover by native or acceptable non-native species) and reseed or replant if necessary to ensure native vegetation is established. 	<p>Yakama Nation, BPA/Contractor; After construction</p>
Water Quality and Quantity, Wetlands, and Floodplains	
<p>Prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) that would include best management plans (BMPs) such as installation of silt fences, straw wattles, and jute matting.</p>	<p>BPA/Contractor; Before and during construction</p>
<p>Inspect erosion and sediment controls weekly, maintain them as needed to ensure their continued effectiveness, and remove them from the proposed hatchery site when vegetation is re-established, and the area has been stabilized.</p>	<p>BPA/Contractor; During construction</p>
<p>Implement a Spill, Prevention, Control, and Countermeasure Plan (SPCCP) to prevent chemicals from entering water resources.</p>	<p>BPA/Contractor; Before and during construction</p>
<p>Locating vehicle staging, cleaning, maintenance, refueling, and fuel storage areas a minimum of 75 feet from water sources consistent with requirements of the project's Yakama Nation Water Code Administration Hydraulic Permit.</p>	<p>BPA/Contractor; During construction</p>
<p>Wash heavy equipment before delivery to project site to remove oils, fluids, grease, etc. Inspect and clean equipment regularly. Prohibit discharge of vehicle wash water into any stream, water body, or wetland without pre-treatment to meet state water quality standards.</p>	<p>BPA/Contractor; Before and during construction</p>

Best Management Practice and Mitigation Measure	(Who/When)
Follow project-specific Clean Water Act protection measures as required by contractor-acquired permitting.	Contractor; During construction
To the extent possible, conduct ground-disturbing construction activities during the dry season.	BPA/Contractor; During construction
Comply with the National Pollution Discharge and Elimination System General Permit for construction activities.	BPA/Contractor; During construction
Implement a revegetation plan to restabilize soils (see mitigation measures in Vegetation and Noxious Weeds).	Yakama Nation, BPA/Contractor; After construction
Fish	
Prepare and implement a SWPPP that would include appropriate BMPs such as delineation of construction limits within 200 feet of streams and wetlands and installation of silt fences, weed-free straw wattles, and jute matting.	BPA/Contractor; Before and during construction
Develop and implement a SPCCP.	BPA/Contractor Before and during construction
Use construction BMPs to limit turbidity impacts such as regularly monitoring turbidity levels and ensure they are within the allowable limits.	BPA/Contractor; During construction
Reduce construction noise and vibration as much as possible to prevent fish disturbance and displacement.	BPA/Contractor; During construction
Wildlife	
Coordinate timing and methods of construction with USFWS to minimize disturbance to ESA-listed species and life stages.	BPA/Contractor; Before and during construction
Coordinate with BPA and Yakama Nation biologists prior to construction to identify and avoid removing vegetation that may provide nesting habitat during the migratory bird or northern spotted owl nesting season (approximately late February until late August).	BPA/Contractor; During construction
Clean and maintain work areas with proper trash control and sanitation to prevent wildlife attraction.	BPA/Contractor; During construction
Implement measures to control erosion (see mitigation measures in Geology and Soils), potential spills of hazardous materials through the implementation of a SPCCP, and minimize potential for impacting habitat.	BPA/Contractor; Before and during construction

Best Management Practice and Mitigation Measure	(Who/When)
Implement a revegetation plan to improve and reduce alterations to wildlife habitat (see mitigation measures in Vegetation and Noxious Weeds).	BPA/Contractor; After construction
Minimize construction noise and vibration as much as possible (see mitigation measures in Noise).	BPA/Contractor; During construction
Recreation	
Post appropriate contact information on site for contractor liaisons and project staff to address any concerns or complaints during construction.	BPA/Contractor; During and after construction
To the extent practicable, limit construction activity to 7:00 AM to 8:00 PM to minimize impacts to nearby residents and recreational visitors.	BPA/Contractor; During construction
Inform local rafting operations when feasible and post notices at the hatchery entrance describing the construction schedule and any anticipated disruptions for recreational boating access in the project vicinity.	BPA/Contractor; During construction
Historic and Cultural Resources	
Flag off known culturally sensitive areas to ensure that staging and construction activities avoid these areas.	BPA/Contractor; During construction
Ensure a cultural resource monitor from the Yakama Nation is on site to monitor any construction work carried out within 30 yards of the flagged avoidance areas.	Yakama Nation, BPA/Contractor; During construction
Prepare an Archaeological/Cultural Resource Inadvertent Discovery Plan to be reviewed by the Yakama Nation Tribal Historic Preservation Office and distributed to project personnel prior to construction.	Yakama Nation, BPA; Before construction
<p>Protect any unanticipated cultural resources or human remains discovered during construction as follows:</p> <ul style="list-style-type: none"> • Stop work in the immediate vicinity of the discovery and protect findings in place. • Notify the BPA Environmental Lead (Carolyn Sharp; 503-230-5206 or 503-728-8010) and BPA Archaeologist (Jenna Peterson; 503-230-3018) who would make appropriate contacts and arrange for the resource to be evaluated. • Take reasonable steps to ensure the confidentiality of the discovery site and restrict access to the discovery site. 	Yakama Nation, BPA/Contractor; During construction

Best Management Practice and Mitigation Measure	(Who/When)
Air Quality	
Sequence and schedule work to reduce the amount of bare soil exposed to wind erosion, as appropriate.	BPA/Contractor; During construction
Implement measures to control fugitive dust and drive vehicles at a low speed (less than 5 miles per hour) on access roads to minimize dust.	BPA/Contractor; During construction
Ensure spill containment equipment is available during the application of dust abatement chemicals.	BPA/Contractor; During construction
Do not burn vegetation or other debris associated with construction clearing.	BPA/Contractor; During construction
Ensure the construction contractor complies with all applicable regulations concerning air pollution control.	BPA/Contractor; During construction
Ensure the construction contractor uses appropriate BMPs to reduce emissions, such as minimizing idling times.	BPA/Contractor; During construction
Greenhouse Gases and Climate Change	
Ensure all vehicles are in good operating condition to minimize exhaust emissions.	BPA/Contractor; During construction
Turn off construction equipment during prolonged periods of non-use to reduce emissions.	BPA/Contractor; During construction
Encourage the use of proper size of construction equipment for the job to maximize energy efficiency.	BPA/Contractor; During construction
Use alternative fuels, such as propane, for stationary equipment at the construction sites or use electrical power where practicable.	BPA/Contractor; During construction
Visual Quality	
Require contractors to maintain a clean construction site.	BPA/Contractor; During construction
Remove all temporary structures, devices, materials, and equipment from the site upon completion of all construction activities; and dispose of all excess spoils and waste materials in compliance with federal, state, and local regulations.	BPA/Contractor; After construction
Noise	
Use sound-control devices on all construction equipment powered by gasoline or diesel engines.	BPA/Contractor; During construction
Operate and maintain all equipment to minimize noise and turn off construction equipment when not in use for prolonged periods (e.g., minimize idling).	BPA/Contractor; During construction

Best Management Practice and Mitigation Measure	(Who/When)
Public Health and Safety	
Coordinate with local law enforcement, fire protection, and other emergency responders to ensure they are prepared to address any emergencies that may arise during construction.	BPA/Contractor; Before construction
Prepare a safety plan in compliance with state requirements before starting construction; specify how to manage hazardous materials such as fuel and any toxic materials found in work sites; include a fire prevention and suppression plan and detail how to respond to emergency situations. Keep the safety plan on site during construction and maintain and update as needed.	BPA/Contractor; Before construction
Prepare and implement an SPCCP and include the following: <ul style="list-style-type: none"> • Procedures to reduce and recycle hazardous and non-hazardous wastes • Notification procedures • Specific clean-up and disposal instructions for different products • Quick response containment and clean-up measures • Proposed methods of disposal of spilled materials • Employee training on spill containment 	BPA/Contractor; Before construction
Train staff in the proper use, transport, handling, and storage of all chemicals to minimize dangers of overexposure or accidental release to the environment.	BPA/Contractor; Before construction
Conduct all project-related activities in compliance with regulations and established guidelines for use, handling, storage, and disposal of toxic and hazardous substances.	BPA/Contractor; During construction
Dispose of non-hazardous waste in approved landfills or recycling areas. Dispose of hazardous wastes according to applicable federal and state laws.	BPA/Contractor; During construction