Melvin R. Sampson Hatchery,
Yakima Basin Coho Project
Mitigation Action Plan

DEPARTMENT OF ENERGY
Bonneville Power Administration
DOE/EIS-0522
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This Mitigation Action Plan is for the Melvin R. Sampson Hatchery, Yakima Basin Coho Project. The project involves the construction and operation of a coho hatchery for release in the Yakima Basin in central Washington. The hatchery will be constructed outside of Ellensburg, Washington.

This Mitigation Action Plan is for the Proposed Action and includes all of the integral elements and commitments made in the environmental impact statement (EIS) to mitigate potential adverse environmental impacts.

BPA and its contractor are responsible for implementing the mitigation measures during various phases of project construction. Relevant portions of this mitigation action plan will be included in the construction contract specifications, which will obligate the contractor to implement the mitigation measures identified that relate to contractor responsibilities during and after construction.

If you have any general questions about the project, contact the Project Manager, Amy Mai: toll-free telephone 800-282-3713, direct telephone 503-230-7349, or e-mail aemai@bpa.gov.

If you have questions about the mitigation action plan, contact the BPA lead for the environmental review, Dave Goodman: toll-free telephone 800-282-3713, direct telephone 503-230-4764, or e-mail jdgoodman@bpa.gov.

This mitigation action plan may be amended if revisions are needed due to new information or if there are project adjustments.

Minimization and Mitigation Measure	Implementation
Land Use and Recreation	
None	N/A
Transportation	
Employ traffic control flaggers and post signs warning of construction activity and merging traffic, when necessary for interruptions of traffic.	Yakama Nation, BPA During construction
Geology and Soils	
Minimize the construction disturbance area and removal of vegetation, to the greatest extent possible.	Yakama Nation, BPA During construction
Locate staging areas in previously disturbed or graveled areas, where practicable, to minimize soil and vegetation disturbance.	Yakama Nation, BPA During construction
Conduct peak construction activities during the dry season (between June 1 and November 1) as much as possible to minimize erosion, sedimentation, and soil compaction.	Yakama Nation, BPA During construction
Prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) that would include appropriate Best Management Practices (BMPs), such as delineation of construction limits within 200 feet of streams and wetlands, and installation of silt fences, straw bales, and jute matting.	Yakama Nation, BPA Before and during construction and facility operation
Erect silt fencing per Ecology's BMP C233. Erect silt fencing along the entire building footprint to the south and along the western perimeter. This fencing area includes all potential areas that slope toward the historic side channel/Bypass to preclude entry of sediment into riparian areas and stream channels.	Yakama Nation, BPA During construction
Erect sediment barriers per Ecology BMP C235.	Yakama Nation, BPA During construction
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.	Yakama Nation, BPA During construction and facility operation
Minimize the area of soils exposed at any one time and use dust abatement measures when necessary.	Yakama Nation, BPA During construction
Prepare and implement a fugitive dust control plan including the use of water trucks or other appropriate methods to control dust during construction, the use of gravel on access road surfaces in areas of sustained wind, and the establishment of a 15-mile-per-hour speed limit for construction vehicle use on unpaved roads and surfaces.	Yakama Nation, BPA Before and during construction
Vegetation	
Inspect equipment to remove vegetation and dirt clods that may contain noxious weeds.	Yakama Nation, BPA During construction
Dispose of excavated noxious weeds in a manner that prevents reestablishment in wetlands and adjacent areas.	Yakama Nation, BPA During construction and facility operation

Implement a revegetation plan to restore native plant communities, provide wildlife habitat, reduce the risk of weed encroachment, and ensure adequate growth. • Reseed disturbed areas after construction and regrading are complete, at the appropriate time period for germination. • Monitor germination of seeded areas; if vegetative cover is inadequate, implement contingency measures and reseed to ensure adequate revegetation of disturbed soils.	Yakama Nation, BPA After construction
Water Resources	
Implement measures to control erosion (see mitigation measures in Geology and Soils) to eliminate potential sediment discharge into waterways.	Yakama Nation, BPA During construction and facility operation
Implement a revegetation plan (see mitigation measures in Vegetation) to ensure stabilization of disturbed soils.	Yakama Nation, BPA During construction and facility operation
Design and construct access roads such that drainage from the road surface directly into surface waters is minimized and direct sediment-laden waters are drained into vegetated areas.	Yakama Nation, BPA During design and construction
Review water quality mitigation measures, required BMPs, and permit requirements with construction contractors and inspectors during a preconstruction meeting covering environmental requirements.	Yakama Nation, BPA Prior to and during construction
Develop and implement a work area isolation/dewatering plan for instream work that includes provisions for erosion and sediment control.	Yakama Nation, BPA During construction
Operate machinery primarily from the top of the river/creek bank along adjacent upland areas. Do not operate stationary equipment in the flowing water. It may be necessary to traverse the channel to install the work area isolation structure (cofferdam). Once the cofferdam is constructed, operate all machinery from behind the confines of the cofferdam.	Yakama Nation, BPA During construction
Stockpile and cover excavated streambed and bank materials away from the stream channel or flank with sediment fencing or fiber wattles to minimize fine sediment being transported into the waterbodies.	Yakama Nation, BPA During construction
Use a screened diesel or electric sump pumps, if needed, to capture seepage flow from cofferdam areas. Direct all seepage flow to an on-site detention area.	Yakama Nation, BPA During construction
Wash heavy equipment that may work below the ordinary high water mark (OHWM) elevation before it is delivered to the job site and after it is used to prevent the spread of aquatic invasive species.	Yakama Nation, BPA During construction
Prepare and implement a Spill Prevention, Control, and Countermeasure (SPCC) plan to address fuel and chemical storage, spill containment and cleanup, construction contractor training, and proper spilled material disposal. SPCC plan should include provisions to store fuel (and potential pollutants) and refuel construction equipment at least 300 feet away from streams or wetlands, and to use of pumps, funnels, absorbent pads, and drip pans when fueling or servicing vehicles.	Yakama Nation, BPA Before and during construction and facility operation
Inspect machinery daily for fuel or lubricant leaks and, prior to entering wetlands, waterways, or floodplains, and completely clean off any external petroleum products, hydraulic fluid, coolants, and other pollutants.	Yakama Nation, BPA During construction and facility operation

Prohibit discharge of vehicle wash water into any stream, water body, or wetland without pretreatment to meet state water quality standards.	Yakama Nation, BPA During construction and facility operation
If dust-abatement additives or stabilization chemicals (typically magnesium chloride, calcium chloride salts, or ligninsulfonate) are used, the following additional measures will be implemented: • Do not apply dust-abatement additives and stabilization chemicals within at least 25 feet of surface water (distances might be greater where vegetation is sparse) and apply them so as to minimize the likelihood that they would enter the water. • Do not use petroleum-based products for dust abatement. • Avoid application of dust abatement chemicals during or just before wet weather, and in areas that could result in unfiltered delivery of the dust abatement materials to surface water. • Ensure spill containment equipment is available during application of dust abatement chemicals.	Yakama Nation, BPA During construction
Comply with the National Pollution Discharge and Elimination System (NPDES) General Permit for effluent discharge.	Yakama Nation During facility operation
Comply with the Total Maximum Daily Load allocations for the Yakima Basin.	Yakama Nation During facility operation
Minimize the storage of hazardous materials on-site. When stored, storage shall consist of designated, enclosed storage areas with full secondary containment provided to fully contain accidental spills of chemicals stored at the proposed facilities.	Yakama Nation, BPA During construction and facility operation
Wetlands and Floodplains	
Implement measures to control erosion and fugitive dust (see mitigation measures in Geology and Soils) to eliminate potential for sediment discharge into wetlands.	Yakama Nation, BPA During construction and facility operation
Implement a revegetation plan (see mitigation measures in Vegetation) to ensure stabilization of disturbed soils.	Yakama Nation, BPA During construction and facility operation
Install signage, fences, and flagging to restrict work areas and confine vehicles and equipment to designated routes that avoid wetlands and waterways.	Yakama Nation, BPA During construction
When working next to wetlands and waterways, limit disturbance to the minimum necessary to achieve construction objectives, minimize habitat alteration, and limit the effects of erosion and sedimentation.	Yakama Nation, BPA During construction
Implement an SPCC plan (see mitigation measures in Water Resources).	Yakama Nation, BPA During construction and facility operation
Stockpile wetland soils removed from Wetland A during diversion channel construction and use them to re-fill the channel once construction is completed.	Yakama Nation, BPA During construction
Re-grade disturbed wetlands and vegetated areas to pre-construction contours and revegetate with appropriate native species.	Yakama Nation, BPA During construction

Locate mobile acclimation units outside of regulated floodways, 100-year floodplains, or at the highest elevation practicable. Monitor mobile acclimation units at risk of flooding and re-locate as appropriate.	Yakama Nation During mobile acclimation operations
Fish	
Comply with all Terms and Conditions and Reasonable and Prudent Measures identified in the July 2017 U.S. Fish and Wildlife Service Biological Opinion for the Melvin R. Sampson Coho Facility, 01EWFW00-2017-F-0445	Yakama Nation, BPA During construction and facility operation
Implement measures to control erosion (see mitigation measures in Geology and Soils) and potential spills of hazardous materials (see mitigation measures in Water Resources) to minimize potential for impacting water bodies.	Yakama Nation, BPA During construction and facility operation
Implement an SPCC plan and comply with NPDES General Permit (see mitigation measures in Water Resources).	Yakama Nation, BPA During construction and facility operation
Screen the proposed Bypass intake structure to meet NMFS criteria. Equip the outfall with a bar rack to prevent entry of adult fish.	Yakama Nation, BPA During construction
Construct all in-water work during the negotiated agency-approved work window of November 1 through December 31.	Yakama Nation, BPA During construction
Install and remove cofferdams during the appropriate work window for each waterbody.	Yakama Nation, BPA During construction
In October, place a picket weir downstream of the proposed outfall location to prevent adult fish from entering during the in-water work period. The Yakama Nation would seine the Bypass and historic side channel to herd adult fish from the affected reach prior to installation of the picket barrier.	Yakama Nation, BPA During construction
Operate equipment in the active channel only if necessary to install and remove cofferdams. Install the cofferdam from the top of bank to the extent possible.	Yakama Nation, BPA During construction
Experienced fisheries biologists would remove all fish species from the immediate area where the cofferdams would be installed. Fish salvage would adhere to the following protocol: • Flush adult fish that do not disperse from the construction area from the area behind the cofferdams. As part of any dewatering process, use beach seines and sanctuary nets to herd all fish from the area of capture or release. • Capture by seining juveniles that do not displace voluntarily, and if necessary, use a backpack electrofisher. Once captured, place fish into a 5-gallon bucket using small dip-nets. Captured fish would be released back into the stream channel a safe distance (about 150 feet) upstream of the work area. Qualified Yakama Nation and/or WDFW biologists would conduct work by following NMFS guidelines (NMFS 2000). • Do not use seining or electrofishing if water temperatures exceed 64°F. • Transport fish in aerated buckets or tanks and release as quickly as possible and as near capture sites upstream as possible. • Notify USFWS and NMFS in the highly unlikely event that an ESA- listed fish is injured or killed during the salvage operation. Fish salvage biologists would prepare a report for the Services that summarizes the number of fish handled, species, and individual lengths.	Yakama Nation, BPA During construction

To minimize pulses of sediment downstream, remove the cofferdams incrementally.	Yakama Nation, BPA During construction
Dewater and actively pump in-water work areas prior to pouring concrete forms.	Yakama Nation, BPA During construction
Fully cure all poured on-site concrete structures prior to contact with surface waters to prevent concrete leachate from entering live waters.	Yakama Nation, BPA During construction
Create sumps as necessary within the work area to capture any seepage flow. Pump all seepage flow to an on-site temporary settling pond, Baker tank, or other facility as determined by the contractor. Seepage flow would percolate into the ground or alluvial material prior to entry back into the water.	Yakama Nation, BPA During construction
Install a fish screen that would meet NMFS screening criteria, on pumps used for cofferdam dewatering.	Yakama Nation, BPA During construction
Adaptively manage juvenile coho releases based on studies on non-target fish via MRS Hatchery-specific MR&E activities.	Yakama Nation During facility operation
Conduct all MR&E activities in accordance with the terms and conditions of the existing Section 7 ESA consultation for MCR steelhead (NMFS 2013).	Yakama Nation During facility operation
Comply with all applicable terms and conditions of the existing USFWS Section 10 permit issued for the overall Yakama Nation Fisheries program (TE-05166B-0; incorporated herein by reference), and future ESA Section 7 consultations terms and conditions.	Yakama Nation During facility operation
Screen all surface water pumps for acclimation units (one per site, to be used for all tanks) according to NMFS juvenile salmonid criteria.	Yakama Nation During facility operation
Wildlife	
Clean work areas would be maintained with proper litter control and sanitation to prevent wildlife attraction.	Yakama Nation, BPA During and post-construction
Minimize lighting and use lighting fixtures that direct light downward and not towards off-site areas to minimize disturbance to wildlife.	Yakama Nation, BPA During construction and facility operation
Develop and implement a plan to minimize and manage predatory wildlife being attracted to fish and other potential food sources available at the facility.	Yakama Nation During facility operation
Implement measures to control erosion (see mitigation measures in Geology and Soils) and potential spills of hazardous materials (see mitigation measures in Water Resources) to minimize potential for impacting habitat.	Yakama Nation, BPA During construction and facility operation
Implement a revegetation plan (see mitigation measures in Vegetation) to ensure stabilization of disturbed soils.	Yakama Nation, BPA During construction and facility operation

Cultural Resources	
Prepare an Archaeological/Cultural Resource Inadvertent Discovery Plan.	Yakama Nation, BPA Before and during construction
Protect any unanticipated cultural resources discovered during construction as follows: • Stop work in the immediate vicinity of the discovery and protect find in place. • Notify Yakama Nation Project Manager, BPA Archaeologist, and BPA Environmental Compliance Lead immediately. Implement mitigation or other measures as instructed by BPA.	Yakama Nation, BPA During construction
Socioeconomics and Environmental Justice	
None	N/A
Air Quality and Climate Change	
Sequence and schedule construction work to minimize the amount of bare soil exposed to wind erosion.	Yakama Nation, BPA During construction
Implement measures to control fugitive dust (see mitigation measures in Geology and Soils).	Yakama Nation, BPA During construction
Do not burn vegetation or other debris associated with construction clearing.	Yakama Nation, BPA During construction
Ensure that all vehicle engines are maintained in good operating condition to minimize exhaust emissions.	Yakama Nation, BPA During construction and facility operation
Handle and dispose of all potentially odorous waste during operation in a manner that does not generate odorous emissions.	Yakama Nation, BPA During construction and facility operation
Implement vehicle idling restrictions.	Yakama Nation, BPA During construction
Encourage carpooling and the use of shuttle vans among construction workers to minimize construction-related traffic and associated emissions.	Yakama Nation, BPA During construction
Encourage the use of the proper size of equipment for each job because larger equipment requires the use of additional fuel.	Yakama Nation, BPA During construction
Use alternative fuels, such as propane, for stationary equipment at the construction sites or use electrical power where practicable.	Yakama Nation, BPA During construction
Reduce electricity use in the construction office and during facility operation by using compact fluorescent or LED bulbs and turning off computers and other electronic equipment every night.	Yakama Nation, BPA During construction
Recycle or salvage nonhazardous construction and demolition debris, as well as waste generated during facility operation, where practicable.	Yakama Nation, BPA During construction

Visual Resources	
Avoid removing vegetation along the John Wayne Pioneer Trail or waterbodies within and around the hatchery site.	Yakama Nation, BPA During construction
Limit areas of disturbance to those necessary for construction and operation.	Yakama Nation, BPA During construction
Implement a revegetation plan (see mitigation measures in Vegetation).	Yakama Nation, BPA During construction
Noise, Hazardous Waste, Public Health, and Safety	
Schedule construction work during daylight hours between 7:00 a.m. and 9:00 p.m.	Yakama Nation, BPA During construction
Locate stationary construction equipment as far away from noise-sensitive receptors as possible.	Yakama Nation, BPA During construction
Require sound-control devices that are at least as effective as those originally provided by the manufacturer on all construction equipment powered by gasoline or diesel engines.	Yakama Nation, BPA During construction
Select pumps and backup generators that do not generate excessively high noise levels.	Yakama Nation, BPA During construction
Implement an SPCC plan (see mitigation measures in Water Resources).	Yakama Nation, BPA During construction and facility operation