Eightmile Ranch Coho Acclimation Site

Finding of No Significant Impact

Bonneville Power Administration
DOE/EA-1959
October 2016

SUMMARY

Bonneville Power Administration (BPA) announces its environmental findings on the Eightmile Ranch Coho Acclimation Site project. The site is located on National Forest land adjacent to the Chewuch River about 10 miles north of Winthrop in Okanogan County, Washington. The project would involve construction of an earthen pond, approximately 0.3 acre in size, in order to allow hatchery-raised coho to acclimate in a semi-natural setting before entering the wild so that they are better prepared to survive in the natural environment.

The acclimation site at Eightmile Ranch would replace sites on the Chewuch River that were evaluated in the Mid-Columbia Coho Restoration Program Final Environmental Impact Statement (EIS) (USDOE/BPA 2012) and later became unavailable for development. These sites need to be replaced in order to have sufficient numbers of coho released in the Chewuch subbasin to support natural production and to provide broad distribution of coho throughout the entire Methow basin.

BPA would fund construction and operation of the facility as part of the Mid-Columbia Coho Restoration Program, which is being implemented by the Confederated Tribes and Bands of the Yakama Nation (Yakama Nation). The Okanogan-Wenatchee National Forest, Methow Valley Ranger District (Forest Service), issued a project-specific amendment to Okanogan Forest Plan Standard and Guideline 9-4; the amendment allows the Forest Service to issue a Special Use Permit to the Yakama Nation to construct and operate the acclimation site on National Forest land.

BPA and the Forest Service prepared an environmental assessment (EA) evaluating the Proposed Action and the No Action Alternative. BPA and the Forest Service issued the draft EA for public comment in December 2014 and issued the final EA, which included responses to comments received on the draft EA, in March 2016. Based on the analysis in the EA, BPA has determined that the Proposed Action is not a major federal action significantly affecting the quality of the human environment, within the meaning of the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] 4321 *et seq.*). Therefore, the preparation of an environmental impact statement (EIS) is not required, and BPA is issuing this Finding of No Significant Impact (FONSI) for the Proposed Action. The Proposed Action is not the type of action that normally requires preparation of an EIS and is not without precedent.

This FONSI includes a statement of findings on how the Proposed Action impacts wetlands and floodplains—impacts to wetlands and floodplains would be avoided where possible—and a Mitigation Action Plan that lists all the mitigation measures that BPA and Yakama Nation are committed to implementing.

PUBLIC AVAILABILITY

This FONSI will be mailed directly to individuals who previously requested it; a notification of availability will be mailed or emailed to other potentially affected parties; and the FONSI will be posted on BPA's project website *https://www.bpa.gov/goto/Eightmile*.

PROPOSED ACTION

Under the Proposed Action, BPA would fund construction and operation of a coho acclimation pond at Location 2 on Eightmile Ranch, on the Okanogan-Wenatchee National Forest. The Forest Service would issue a project-specific amendment to Okanogan Forest Plan Standard and Guideline 9-4 that allows for an intake to supply water to the new pond. The amendment allows the Forest Service to issue a Special Use Permit to the Yakama Nation to construct and operate the acclimation site.

The irregularly shaped earthen pond would be 190 feet long by 100 feet wide by 8 feet deep. The pond would occupy about 15,000 square feet (approximately a third of an acre). It would require construction of a new water-supply intake in the bank of the Chewuch River and a total of 1,480 linear feet of new buried pipeline to supply surface water to the pond and to discharge water from the pond. The water would flow to the pond via gravity and would not require pumping. During acclimation, water levels in the pond would fluctuate between 4 and 8 feet deep, depending on water levels in the river.

BPA and the Forest Service also considered another location at the Eightmile Ranch site, known as "Location 1." Location 1 is not the preferred alternative, because construction of this site would remove a wetland. Accordingly, Location 2 is preferred by both BPA and the Forest Service.

An acclimation site at Eightmile Ranch would meet the following purposes:

- Support efforts to protect, mitigate and enhance fish and wildlife for effects of the Federal Columbia River Power System (FCRPS) 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 USC 839b(h)(10)(A)).
- Assist in carrying out commitments related to proposed hatchery actions that are contained in the 2008 Columbia Basin Fish Accords Memorandum of Agreement with the Yakama Nation and others.
- Implement BPA's Fish and Wildlife Implementation Plan Environmental Impact Statement and Record of Decision policy direction which calls for protecting weak stocks, while sustaining overall populations of fish for their economic and cultural value (BPA 2003).

Construction is expected to last for about five months during the summer and fall of 2017. Details of the Proposed Action are presented in Chapter 2 of the EA.

Construction would not occur until Endangered Species Act consultation is complete, via issuance of a Biological Opinion by National Marine Fisheries Service and U.S. Fish and Wildlife Service.

NO ACTION ALTERNATIVE

Under the No Action Alternative, BPA would not fund construction and operation of an acclimation pond at the Eightmile Ranch site, and the Forest Service would not amend the Forest Plan or grant a Special Use Permit for an acclimation pond at the site. The Mid-Columbia Coho program would continue, but the likelihood of establishing a self-sustaining population of coho in the Chewuch portion of the Methow basin, and possibly in the Methow basin as a whole, would be reduced, thus reducing the ecological, economic, and cultural values of coho reintroduction.

SIGNIFICANCE OF POTENTIAL IMPACTS OF THE PROPOSED ACTION

To determine whether the Proposed Action has the potential to cause significant environmental effects, Chapter 3 of the EA evaluates the potential impacts on human and natural resources. Four impact levels were used - high, moderate, low, and no impact. These impact levels are based on the considerations of context and intensity defined in Council on Environmental Quality regulations (40 Code of Federal Regulations 1508.27). High impacts could be considered significant impacts, if not mitigated, while moderate and low impacts are not. The Proposed Action would have no significant impacts.

The following discussion provides a summary of the Proposed Action's potential impacts and the reasons these impacts would not be significant.

Land Use

The proposed action would result in no or low impacts to land use.

- Although the construction of the water supply lines would remove 49,000 square feet (1.1 acre), or 2% of the Ranch's pasture, for one season, disturbed areas would be replanted with a seed mix approved by the Forest Service's Ranch Manager. The proposed pond is not in pasture, so no pasture would be permanently removed from production.
- The pond would be far enough from the helispot and other ranch facilities that no existing ranch uses would be affected. Construction would be done in coordination with Forest Service ranch operations.
- The Proposed Action is consistent with the Okanogan Forest Plan, as amended, because it would not impair the uses for which the land is designated. It is also consistent with Riparian Reserve values as identified in the Northwest Forest Plan because it would not adversely affect riparian resources or uses.

Soils

The proposed action would result in low impacts to soils.

- A total of 3,614 cubic yards of soil would be permanently removed for the pond and the intake and outlet structures. Other than the intake structure, these structures are not in soils designated as prime farmland. Moreover, none of the areas, including the location of the intake structure, are farmed.
- Of the total amount of soil permanently removed, the intake structure would remove 14 to15 cubic yards of soil designated as prime farmland, which is at the river's edge. This area is not farmed.

- A total of 2,132 cubic yards of soil would be temporarily displaced for the buried pipelines. During excavation, topsoil would be segregated from subsoil; when back-filling the trench, the topsoil would be placed back on top, to minimize potential reduction in soil productivity.
- The excavated areas would be replanted with a seed mix approved by the Forest Service's Ranch Manager.
- Mitigation measures (use of sediment barriers, reseeding disturbed areas, and other measures described in detail in the Mitigation Action Plan) would minimize the risk of soil erosion during construction and would aid in soil recovery.
- Construction activities would occur during the dry season, which would minimize soil erosion and compaction.

Water Quantity and Water Rights

The proposed action would result in low or no impacts to the surface-water supply, groundwater supply, and water rights in the project vicinity.

- Withdrawals from the Chewuch River for the acclimation pond during the six to eight week acclimation period in early to late spring could reduce in-river flows by a small amount (up to 4.6 cubic feet per second) in the 1,380-foot reach between the pond intake and discharge. This amount represents 10% or less of the total average minimum river flow. Downstream users would not be affected because the water withdrawn is returned to the river, and because no other users withdraw from the affected reach.
- Adaptive measures, such as delaying the start of acclimation or installing portable pumps to re-circulate water, would ensure that the project maintains minimum instream flows at all times, including during dry years.
- Groundwater withdrawals would be limited to less than 0.5 cfs for no more than a few days each early spring if needed to de-ice the intake, or as a short-term emergency water supply in the unlikely event the surface water supply system fails. The groundwater could be used only if the Forest Service's irrigation system is already activated. The amount potentially used would be much less than the Forest Service's existing groundwater right and would not affect either Forest Service or other groundwater users in the vicinity.

Water Quality

The proposed action would result in low impacts to water quality.

- Construction Best Management Practices would minimize turbidity in the river from instream work, as specified in the Mitigation Action Plan.
- A Spill Prevention Control and Countermeasure Plan (SPCC Plan) would be developed that includes: site plan and narrative describing methods of erosion and sediment control; methods for confining, removing, and disposing of excess construction materials and measures for equipment washout facilities; a spill containment plan; and measures to reduce or recycle hazardous and non-hazardous wastes.
- Effluent from the pond would contain phosphorus, but modeling shows that the amount at the pond outlet would be a small fraction (less than one percent) of total river flow and undetectable a few miles downstream (USDOE/BPA 2012).

Wetlands and Floodplains

The proposed action would result in no impacts to wetlands, low impacts to wetland buffers, and low impacts to floodplains.

- No construction would take place in wetlands for Location 2. Approximately 50 feet of the security fence would encroach on a wetland buffer by a few feet, but the occupied area would be too small to change the protection qualities of the buffer.
- Flood elevations could be lowered due to removal of excavated materials from the floodplain. Excess soils would be disposed outside the 100-year floodplain. Consequently, it is unlikely that the project would direct or divert flood flows in a manner that affects properties either upstream or downstream of the project site.

Botany

The proposed action would result in low impacts to vegetation.

- Construction would remove vegetation from approximately 49,000 square feet of pasture and 19,300 square feet of forest. These areas would all be replanted immediately after construction, with the exception of the 15,000 square feet of pond. The planting scheme would follow a detailed plan specified in Appendix 2 of the EA and summarized in the Mitigation Action Plan.
- Mountain lady's slipper, a U.S. Forest Service sensitive species located near the project footprint, would not be affected because work would occur approximately 60 feet from the documented population, and a 20-foot no-work buffer (or other distance as specified by the Forest botanist) would be marked around the population.
- Approximately 26 large trees, primarily ponderosa pine and cottonwood trees taller than 20 feet, would be removed. The trees range from 4 to 36 inches in diameter. The project, however, would maintain 60% canopy cover near known populations of mountain lady's slipper to maintain habitat standards for the plant.

Invasive Plants

The proposed action would result in low potential to spread invasive plants.

- No invasive plant populations were found in the project area during plant surveys, and few invasive plants were detected outside of the project area but in the near vicinity.
- Mitigation measures, such as re-vegetation of disturbed areas and washing of vehicles entering the site, would be implemented as described in the Mitigation Action Plan to avoid introducing invasive plants to the project area.

Fish

The proposed action would result in low impacts to fish and their habitat.

- Effects on Endangered Species Act (ESA)-listed fish and critical habitat from temporary sedimentation due to excavation and construction would be low because best management practices would be used for erosion control.
- Timing restrictions and special in-water work methods would be used to avoid or mitigate construction impacts to fish.
- The project would use standard measures to minimize impacts to larval Pacific lamprey, including electrofishing with settings specific to lamprey, performing a slow de-watering

of the in-water work area to allow lamprey to escape, and salvaging juvenile lamprey from dredged river sediments before they dry out.

- Based on water-quantity modeling, a withdrawal of 4.6 cubic feet per second during low flows in the Chewuch River would have low effects on the amount of habitat available for spring Chinook, steelhead, and bull trout. Additionally, water use would be managed to ensure that minimum instream flows are maintained to protect fish passage.
- The water intake system would be constructed using National Marine Fisheries Service (NMFS) and Washington Department of Fish and Wildlife (WDFW) screening guidelines to avoid entraining fish.
- Additional measures that might be required by permitting agencies such as U.S. Fish and Wildlife Service (USFWS) or NMFS would be implemented.

Wildlife

The proposed action would result in low impacts to wildlife.

- There would be no reduction in habitat for ESA-listed wildlife species.
- There would be minor reductions in habitat for other sensitive wildlife such as ruffed grouse, western gray squirrel, and mule deer (0.5 - 1.09 acres, depending on the species), a low impact due to the abundance of similar habitat in the area.
- Construction noise could cause certain species to avoid the site for up to five months in the summer and fall of 2017.
- Operations would not disturb wildlife because the site currently experiences human activity year-round.

Wild and Scenic River Eligibility

The proposed action would result in low impacts to the eligibility of the Chewuch River for inclusion in the Wild and Scenic River system.

- Design criteria would ensure that the project would not adversely affect the qualities that classify the Chewuch River as "Scenic" and that make it eligible for inclusion in the Wild and Scenic River system.

Visual Quality and Recreation

The proposed action would result in low impacts to visual quality and recreation.

- Design criteria would ensure little change to aesthetic and visual qualities as viewed from West Chewuch Road or the river.
- The Proposed Action would not interfere with current recreational uses, such as rafting, tubing, and sightseeing.

Cultural Resources

The proposed action would result in low impacts to cultural resources.

- One historic site was located within the affected area, but adverse effects are unlikely because historic features would be avoided.
- Construction would be monitored by a cultural resources specialist to ensure that if undocumented cultural resources are unearthed, work would be stopped until their significance is determined.

Air Quality and Noise

The proposed action would result in low impacts to air quality and noise.

- Construction activities could cause minor short-term increases in dust during summer and fall of 2017, but dust abatement measures would minimize impacts to air quality.
- Intermittent construction noise could be noticed by recreational users of the area during summer of 2017. Construction would be confined to weekdays from 8 a.m. to 5 p.m.
- There could be an increase in noise due to the operation of a generator at the site during the two-month spring acclimation period. This noise likely would be limited to one 15-minute period per day, and would remain within state-approved environmental noise regulations.

Socioeconomics and Climate Change

The proposed action would result in low impacts to socioeconomics and climate change.

- Mid-Columbia Coho Restoration Program EIS, Sections 3.12 and 3.14.3 (USDOE/BPA 2012) assesses the benefits and adverse effects of the overall coho restoration program on population levels, employment, infrastructure, cultural values, and climate change and found the effects to be low.
- The restored coho populations in the Wenatchee and Methow basins may result in socioeconomic benefits.

DETERMINATION

Based on the information in the EA, as summarized here, BPA determines that the Proposed Action is not a major federal action significantly affecting the quality of the human environment within the meaning of NEPA (42 USC 4321 *et seq*.). Therefore, an EIS will not be prepared and BPA is issuing this FONSI for the Proposed Action.

Issued in Portland, Oregon

/s/ Greg J. Dondlinger acting for
F. Lorraine Bodi
Vice President
Environment, Fish and Wildlife

October 27, 2016
Date

MITIGATION ACTION PLAN

SUMMARY

This Mitigation Action Plan (MAP) is part of the Finding of No Significant Impact (FONSI) for the Eightmile Ranch Coho Acclimation Site project (Proposed Action). BPA proposes to fund the Yakama Nation to construct and operate a coho acclimation pond at Location 2 on National Forest land at Eightmile Ranch in the Methow basin, Okanogan County, Washington. The project would remove some vegetation surrounding the new pond; establish a temporary staging area; potentially remove fish from the Chewuch River during construction of the intake; and re-vegetate areas disturbed by construction activities.

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

BPA and the Yakama Nation are responsible for implementation of mitigation measures during various phases of the Proposed Action. To ensure that the contractor implements mitigation measures, the relevant portions of this MAP will be included in the construction contract specifications developed for the project, and in contracts with Yakama Nation for operation of the facility. This will obligate the contractor to implement the mitigation measures identified in the MAP that relate to contractor responsibilities during construction, post-construction, facility operations and maintenance.

Construction would not occur until Endangered Species Act consultation is complete, via issuance of a Biological Opinion by National Marine Fisheries Service and U.S. Fish and Wildlife Service.

If you have any questions about the project, contact the project manager, Roy Beaty, at 503-230-5213 or *rebeaty@bpa.gov*. If you have questions about the MAP you may contact Michelle Guay, Contract Environmental Protection Specialist, CorSource Technology Group, at 503-230-3459 or *mxguay@bpa.gov*. Alternatively, you may contact Jenna Peterson, BPA Supervisory Environmental Protection Specialist (Acting), at 503-230-3018 or *jepeterson@bpa.gov*. This MAP may be amended if revisions are needed due to new information or if there are any substantial project changes.

Minimization and mitigation measures have been identified to reduce potential impacts associated with the Proposed Action as detailed in the following table.

Mitigation Action Table

Mitigation Measure	Implementation	Responsible Party
General Design Criteria		
Design project elements that might be visible from the Chewuch River (a candidate Wild and Scenic River), including the intake structure and fencing, so they do not intrude on river users' experience of the natural environment or degrade conditions that make the river eligible for the Wild and Scenic River system.	Pre-Construction	BPA, YN, USFS
Design project elements to minimize views of the facility from the West Chewuch Road.	Pre-Construction	BPA, YN, USFS
Design the pond with an irregular shape and use native vegetation, boulders, and natural materials to screen it and the surrounding fence from viewers on West Chewuch Road (Forest Road 5100), the ranch administrative site, and the Chewuch River.	Pre-Construction	BPA, YN, USFS
Make the pond fence of vinyl-coated steel with a 2-inch by 2-inch mesh in a dark earth-toned color so that it is less visible from viewpoints such as West Chewuch Road or the river year round.	During Construction	YN
Screen the water intake pipeline to be consistent with the current NMFS and WDFW screening criteria (NMFS 2008; Revised Code of Washington [RCW] 77.57.010 and RCW 77.57.070).	During Construction	YN
Locate project components that require ground disturbance to avoid or minimize impacts to trees and shrubs.	During Construction	YN
General Construction Criteria		
Clearly mark construction zones, staging areas, access routes, and vegetation clearing limits; inform construction personnel of those areas before any ground-disturbing activity begins.	During Construction	YN
Meet the terms and conditions attached to specific permits which include, but are not limited to: the Special Use Permit from the Forest Service, Biological Opinions from USFWS and NMFS, the Hydraulic Project Approval (HPA) from the State of Washington, a Shorelines Development Permit from Okanogan County, and a water right and a water quality certification from Ecology.	During Construction	YN
Coordinate timing and methods of construction with resource agencies to minimize disturbance to special-status fish species and life-stages.	During Construction	YN
Monitor food, garbage, and other bear attractants during the day and, remove them from the site at the end of each day to avoid interactions between bears and humans.	During Construction	YN
Limit all construction activity to normal workday hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, to avoid or minimize noise.	During Construction	YN
Inspect rock, gravel, or sand sources for invasive plants before use. Infested material must be treated and judged to be weed-free by the Forest Service weed specialist before it is used.	During Construction	YN

Remove excess excavated soils from the site to a disposal location that meets the conditions of all permits unless specified otherwise (e.g., if preserving topsoil).	During Construction	YN
Remove all temporary structures, devices, materials or equipment; and dispose of all excess spoils and/or waste materials in compliance with federal, state, and local regulations upon completion of all construction activities.	During Construction	YN
Stockpile large wood, native vegetation, weed-free topsoil or native material displaced during construction for use in site restoration, if practicable.	During Construction	YN
Segregate topsoil from subsoil during excavation; when back filling the trench, place the topsoil back on top, to minimize potential reduction in soil productivity.	During Construction	YN
Have construction monitored by a professional archaeologist to ensure that the existing historic site (a Civilian Conservation Corps camp) is avoided and to ensure that if any currently unknown subsurface cultural materials are unearthed, work is stopped until their significance is determined.	During Construction	YN, BPA, USFS
Erosion Control		
Install a temporary filter fabric fence to prevent sediment from entering the stream before starting work in areas where the bank would be disturbed. Remove accumulated sediments during the construction period and before removing the filter fence once work is completed.	During Construction	YN
Use a type of filter fabric based on soil conditions at the site. For soils that pass U.S. standard sieve 200, select the equivalent opening size (EOS) to retain 85% of the soil. For all other soil types, use an EOS no larger than U.S. standard sieve 100.	During Construction	YN
Fasten a wire mesh support fence securely to the upslope side of the posts, and staple or wire the fabric to the mesh when using standard-strength filter fabric. If extra-strength fabric is used, the wire mesh fence may be eliminated.	During Construction	YN
Install and maintain all temporary erosion controls downslope of applicable project activities until site restoration is complete.	During Construction	YN
Ensure that the sediment plume created by any work below the ordinary high water mark (OHWM) of the Chewuch River does not exceed background turbidity at least 300 feet downstream of the project location or as specified in the Hydraulic Project Approval. If these criteria are exceeded, suspend work until the criteria are met.	During Construction	YN
Conduct surveys to identify the number and location of Chinook redds adjacent to or immediately downstream (300 feet downstream of disturbance site) if instream work is approved to take place outside the normal work window of July 1 - 31 and would occur after spring Chinook spawning; if any redds are present, install silt fences above the redds to protect them from suspended sediment prior to any instream work.	During Construction	YN
Dewatering		
Isolate the in-water construction area from active flow to prevent water and fish from entering the work area by placing cofferdams made of gravel-filled bags and plastic sheeting at the inlet and outlet.	During Construction	YN

Capture and safely move fish from the impounded area as it becomes de-watered. Qualified individuals from Yakama Nation would perform the fish capture. Fish-capture and transportation equipment must be ready and on the job site. Immediately and safely transfer captured fish to free-flowing water downstream of the project site.	During Construction	YN
Use standard measures to minimize impacts to larval Pacific lamprey, including electrofishing with settings specific to lamprey, performing a slow de-watering of the in-water work area to allow lamprey to escape, and salvaging juvenile lamprey from dredged river sediments before they dry out.	During Construction	YN
Equip the device used to divert water from the river during construction with a fish guard to prevent passage of fish into the diversion device pursuant to RCW 77.57.010 and 77.57.070. Screen the pump intake with 3/32-inch mesh to prevent immature salmon or steelhead fry (20-30 millimeters long) from entering the system. The screened intake shall have enough surface area to ensure that the velocity through the screen is less than 0.4 feet per second. Maintain the screen to prevent injury or entrapment to juvenile fish, and ensure that the screen is in place whenever water is withdrawn from the stream through the pump intake.	During Construction	YN
Route pump water from within the work area to an upland area approved by the Forest Service to allow removal of fine sediment and to allow water to infiltrate back into the groundwater.	During Construction	YN
Monitor stream flow and weather conditions daily for events that may cause extremely high flows. Before such events occur, remove all equipment from the in-water work site until flows have abated.	During Construction	YN
Complete all work below the OHWM during the in-water work period as specified in the Hydraulic Permit Approval to minimize the potential for sedimentation and to minimize impacts to incubating steelhead and spawning spring Chinook salmon.	During Construction	YN
Bank Stabilization		
Use bank stabilization material that is clean, angular rock, certified weed-free, and install it to withstand 100-year peak flows. Do not use stream gravels or other round cobbles as exterior armor. Do not use riprap.	During Construction	YN
Limit bank stabilization to the extent necessary to preclude channel erosion from the river.	During Construction	YN
Replace native rock removed during the installation of the discharge pipe to the area around the pipe.	During Construction	YN
Water Quality Protection		
Develop a site-specific SPCC Plan that includes: site plan and narrative describing methods of erosion and sediment control; methods for confining, removing, and disposing of excess construction materials and measures for equipment washout facilities; a spill containment plan; and measures to reduce or recycle hazardous and non-hazardous wastes. The SPCC plan should include notification procedures, specific cleanup and disposal instructions for different products, quick response containment and cleanup measures, proposed methods of disposal of spilled materials, and employee training on spill containment.	Pre-Construction	YN

Ensure that materials for containment and cleanup are available onsite during pre-construction, construction and restoration phases of the project.	Pre-Construction, During Construction, Post-Construction	YN
Use only fluids certified as non-toxic to aquatic organisms in any equipment that operates in the water and uses hydraulic fluid.	During Construction	YN
Locate vehicle staging, cleaning, maintenance, refueling, and fuel storage a minimum of 150 feet from the river.	During Construction	YN
Select equipment that has the least adverse effect on the environment, e.g., minimally sized, with low ground pressure when heavy equipment is used.	During Construction	YN
Ensure that equipment used for this project is free of external petroleum-based products. Remove accumulations of soil or debris from the drive mechanisms (wheels, tires, tracks, etc.) and undercarriage of equipment prior to use within 150 feet of the acclimation pond or river. Check equipment daily for leaks, and complete any necessary repairs before beginning work.	Pre-Construction and During Construction	YN
"Diaper" all stationary power equipment such as generators, cranes, or stationary drilling equipment operating within 150 feet of the river to prevent leaks, unless suitable containment is provided to prevent potential spills from entering the water.	During Construction	YN
Take extreme care to ensure that no petroleum products, hydraulic fluid, fresh cement, sediments, sediment-laden water, chemicals, or any other toxic or deleterious materials are allowed to enter or leach into the river or wetlands.	During Construction	YN
Do not allow concrete or fresh cement or grout to be poured directly within, or to fall or leach into, the area below the OHWM or wetted perimeter of the river or acclimation pond.	During Construction	YN
Notify the Washington Military Department Emergency Management Division and the designated WDFW Area Habitat Biologist immediately if at any time during or as a result of project activities fish are observed in distress, a fish kill occurs, or water quality problems develop (including equipment leaks or spills). Do not resume work until WDFW approves. Implement any additional measures that WDFW may require to mitigate the impacts.	During Construction	YN
Use low-phosphorus fish food to minimize phosphorus levels in the pond discharge.	Post-Construction	YN
Air Quality Protection		
Use dust-abatement measures as necessary during construction to minimize the effects of dust on users of West Chewuch Road and the Chewuch River and on operations at the ranch. Measures used should consider soil type, equipment used, prevailing wind direction, and the effects of other erosion and sediment control measures.	Pre-Construction and During Construction	YN
Sequence and schedule work to reduce the amount of bare soil exposed to wind erosion.	During Construction	YN
Do not apply dust-abatement additives and stabilization chemicals (typically magnesium chloride, calcium chloride salts, or lignin sulfonate) within at least 25 feet of the river channel; use methods to minimize the likelihood that they would enter the river.	During Construction	YN

Do not use petroleum-based products for dust abatement.	During Construction	YN
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 the river.	During Construction	YN
Make spill-containment equipment available during application of dust-abatement chemicals.	During Construction	YN
Maintain motorized equipment regularly to minimize emissions.	Pre-Construction and During Construction	YN
Vegetation Protection		
Adhere to Forest Service management recommendations1 to protect mountain lady's slipper as follows: • Maintain current microclimate conditions of the habitat by ensuring that the overstory canopy coverage is at 60% or more to prevent increased sunlight to the site. • Avoid direct mechanical damage to plants. • Avoid changes in soil moisture and temperature or to the nature of the duff layer. • Place a 20-foot-diameter buffer around the mountain-lady's slipper plants identified during the on-site survey before equipment access and earth disturbance begins, using a barrier such as high-visibility construction fencing or similar material. • Coordinate with Forest Service botanists before and during project implementation to ensure management recommendations are being met.	Pre-Construction and During Construction	YN
Clean all heavy equipment (bulldozers, skidders, graders, backhoes, dump trucks, etc.) before entering the Eightmile acclimation site to prevent the spread of invasive plants and weeds.	Pre-Construction and During Construction	YN
Do not drive machinery entering the work site through the population of diffuse knapweed identified to the north and west of the project area.	Pre-Construction and During Construction	YN
Re-Vegetation		
Restore damaged banks to a natural slope pattern and profile that is suitable for establishment of permanent woody vegetation.	During Construction	YN
Grade disturbed areas and soils deposition areas and cover them with at least 2 inches of compost.	During Construction	YN
Use measures (including vehicle washing and replanting with native plants) to reduce the potential for spreading invasive plants. During construction and re-vegetation, use straw and mulch that is certified weed-free by the State or by the Forest Service weed specialist.	Pre-Construction, During Construction, and Post-Construction	YN

[1] Seevers, J. and F. Lang. 1998. *Management Recommendations in IM-OR-99-027 - Vascular Plants for Cypripedium montanum.*

Seed the disturbed areas to prevent future erosion and the invasion of invasive plants. Use a native erosion-control grass seed mix or other native vegetation that provides wildlife benefit and erosion control.	During Construction and Post-Construction	YN
Replant the pasture disturbed during excavation for the pipelines with a seed mix approved by the Forest Service's Ranch Manager.	Post-Construction	YN
Monitor seeding for a period of at least three years to ensure germination and establishment in reseeded areas when needed.	Post-Construction	YN
Protect plantings from deer, beaver, rodents, etc.; regularly water, weed, and properly maintain plantings until established. Replace plantings as necessary for a period of at least three years to achieve a minimum of 80% survival by the end of the third growing season.	During Construction and Post-Construction	YN
Operations and Maintenance		
Ensure that water intake operation and maintenance conforms to NMFS and WDFW screening guidelines and the water rights of the permittee.	During Construction and Post-Construction	YN
Maintain the water intake screen so that it remains in place and functioning properly whenever water is withdrawn from the river.	Post-Construction	YN
Use handheld tools for the annual installation of screens and any emergency maintenance and repair work.	Post-Construction	YN
Place any large woody debris removed from the intake in the river downstream from the diversion.		
Perform all maintenance work with care to avoid harm to fish and to minimize discharge of sediment to the stream.	Post-Construction	YN
Take one or more of the following measures to meet minimum instream flows during extreme low-flow periods: • Delay the start of acclimation until Chewuch River flows increase to the point where a 4.6-cfs withdrawal would not reduce flows below minimum instream flows. • Reduce water needs by acclimating fewer fish. • Reduce withdrawals until river flows increase. • Implement methods to re-use water, including the use of portable pumps to re-circulate the pond water.	Post-Construction	YN
Provide annual reports to NMFS and USFWS that describe any mortality to ESA-listed species if the number is above the allowable take levels described in the Biological Opinions from the Services.	Post-Construction	YN
Use only non-lethal predator hazing on the site.	Post-Construction	YN
Minimize the potential to attract bears by storing fish food off site.	Post-Construction	YN
Maintain vegetation to screen the pond and the security fence from the road and the river to the extent possible.	Post-Construction	YN

Cover containment boxes for Passive Integrated Transponder (PIT)-tag monitoring hardware with camouflage netting.	Post-Construction	YN
Site Reclamation		
When the acclimation pond is no longer needed, if the Special Use Permit is terminated, the Forest Service would likely require the site to be returned as closely as possible to its original condition (see Appendix 2 in the EA for a potential reclamation plan) following these basic reclamation criteria: • Remove the steel intake structure and fill the intake pipe with rock. • Plug the outlet pipe with rock. • Refill the acclimation pond to the current ground level and seed it with grasses that match the surrounding vegetation. • Leave pipelines and the electrical conduit buried. • Remove other constructed elements, such as fencing and the manhole; fill and re-vegetate the holes. • Use native plants for re-vegetation.	Post-Construction	YN
Wild and Scenic River Eligibility Mitigation		
Submerge the intake below the low-water line to minimize its visibility from oblique angles.	During Construction	YN
Pull the fish screens and replace them with steel sheets that are painted with camouflage colors during the nine months of the year that fish are not being acclimated (June through February).	Post-Construction	YN
Obscure the intake beneath vegetation planted along the stream bank and beneath a log jam that is already present at the site. The log jam is one of several installed as part of a separate Yakama Nation habitat improvement project (BPA Fish and Wildlife Project 2009-003-00).	During Construction	YN
Coat the fence surrounding the pond with a dark earth-toned vinyl so that it is less visible from the river and the road during all seasons of the year.	During Construction	YN
Plant native vegetation around the pond to screen views of the fence and pond from the river and the road.	During Construction	YN
Construct the pond with an irregular shape, using boulders and other natural materials to give it a natural appearance.	During Construction	YN