Supplement Analysis
for the
Mid-Columbia Coho Restoration Program Final EIS
(DOE/EIS-0425)

Early Winters 3 Acclimation Ponds (SA-6)

Bonneville Power Administration
Department of Energy

Introduction

In 2012, BPA completed the Mid-Columbia Coho Restoration Program Final Environmental Impact Statement (EIS) (DOE/EIS-0425) and Record of Decision (ROD) documenting its decision to fund the Yakama Nation to implement the remaining phases of its comprehensive coho restoration program in the Wenatchee and Methow river basins. Since 1996, the program has been developing a locally adapted broodstock with the goal of establishing naturally reproducing, self-sustaining coho populations in multiple tributaries throughout the two basins. The action proposed in the EIS included a small new hatchery in the Wenatchee basin and 24 acclimation ponds in targeted tributaries in the two basins. Since the EIS was completed, Yakama Nation determined the need for another acclimation site, known as Early Winters 3,[1] in the upper Methow basin.

This supplement analysis was prepared to determine if the proposed site represents a substantial change to the coho program as considered in the EIS, or if it presents significant new circumstances or information relevant to environmental concerns that bear on the proposed action or its impacts. The findings of this supplement analysis determine whether a supplemental EIS is needed pursuant to 40 Code of Federal Regulations (CFR) § 1502.9(c).

Proposal Description

The Early Winters 3 acclimation site would include construction of two new semi-natural ponds and associated facilities on a privately owned parcel on Early Winters Creek about 1/3 mile upstream from its confluence with the Methow River, near the town of Mazama in Okanogan County, Washington.

Figure 1 shows the proposed layout of the site. Proposed constructed facilities include:

- Two acclimation ponds.
  - 100 ft. x 33 ft. x 4 ft. deep (approximately 3,300 sq. ft.)
  - 80 ft. x 29 ft. x 4 ft. deep (approximately 2,300 sq. ft.)
- An 8-foot high, zig-zag, stacked-wood pole fence encircling both ponds.
- Two screened surface-water intakes, a water-supply system, and a discharge pipe to deliver up to 4 cubic feet per second (cfs) of surface water to the ponds and back to Early Winters Creek.
- Six logs buried in the bank of Early Winters Creek to encourage backwatering so that the intake would be adequately submerged.
- Two wells and a buried water-delivery pipeline to provide a backup water supply of up to 4 cfs to the ponds when surface water is unavailable.

[1] This is the third site identified on Early Winters Creek; the other two were eliminated from further NEPA evaluation due to engineering and environmental concerns.

- Extension of electrical power to the site, including 380 feet of overhead power line, one new power pole, one replacement pole, 700 feet of buried powerline (Figure 1, dashed white line), and a 10-foot by 20-foot generator building with a propane tank.

The design, construction, and operation of the Early Winters 3 acclimation ponds would be consistent with those described in the 2012 EIS for sites proposed in Methow subbasin. The Early Winters 3 site would acclimate up to 75,000 coho; total coho production and release numbers in the upper mainstem Methow basin would remain as described in the 2012 EIS (no more than 350,000 coho smolts).

Construction of the Early Winters 3 acclimation ponds would begin in 2017, and acclimation would begin in 2018.

Analysis

Consistent with the acclimation sites evaluated in the EIS, Early Winters 3 would be of comparable size, would accommodate a similar number of smolts, would be operational from March through May, and smolts would leave the site into free-flowing waters by their own volition. The area that would be disturbed by construction is a rural residential yard that is thinly forested with ponderosa pine trees. Soil excavated to create the ponds would be used to form berms around the pond or trucked to an approved disposal location, away from water bodies or wetlands. Excavation activities would occur during the summer low-flow season (July through September) and would incorporate best management practices, as discussed in the EIS and ROD, to limit the amount of sediment-laden water entering Early Winters Creek.

Surface-water supply: Surface water use would be non-consumptive—all water withdrawn from Early Winters Creek would be discharged back into the creek. Although the 100-foot reach of stream between the intake and the outlet would be affected by the withdrawal, other water-rights holders would not be affected because none occur in this reach. Surface-water withdrawal would not occur if it would cause flows in Early Winters Creek to drop below statutory levels established by Washington State Department of Ecology. During periods of insufficient flow, Yakama Nation would either keep coho at the hatchery until flow is sufficient or switch to the groundwater sources. The groundwater wells may be hydrologically connected to Early Winters Creek; however, groundwater withdrawal would have no effect on surface flows, because the water use is non-consumptive, and the water will be discharged in an equal amount back into Early Winters Creek. During low flows, the groundwater discharge could have a beneficial effect on surface flows in Early Winters Creek. These effects would be sporadic and short term and therefore well within the range addressed by the EIS, which predicted minor changes to surface-water supply.

Groundwater supply: The use of groundwater would be sporadic and short term, occurring only in cases of emergency, maintenance, or low surface-water supply. Based on testing and monitoring, use of the wells would be expected to cause less than 2 feet of drawdown at the nearest domestic water-supply well (about 530 feet away). This amount of drawdown would be too small to impair the amount of water that the wells can pump. The reason for the low amount of drawdown is that the aquifer is very permeable and has high continuity with the Methow River (meaning that there is ample water that would recharge the wells quickly).[2] These effects would be sporadic and short term and therefore within the range addressed by the EIS, which predicted minor changes to groundwater supply.

2 GeoEngineers. January 29, 2016, Early Winters Test Well 1 Construction and Aquifer Testing Report (Draft).

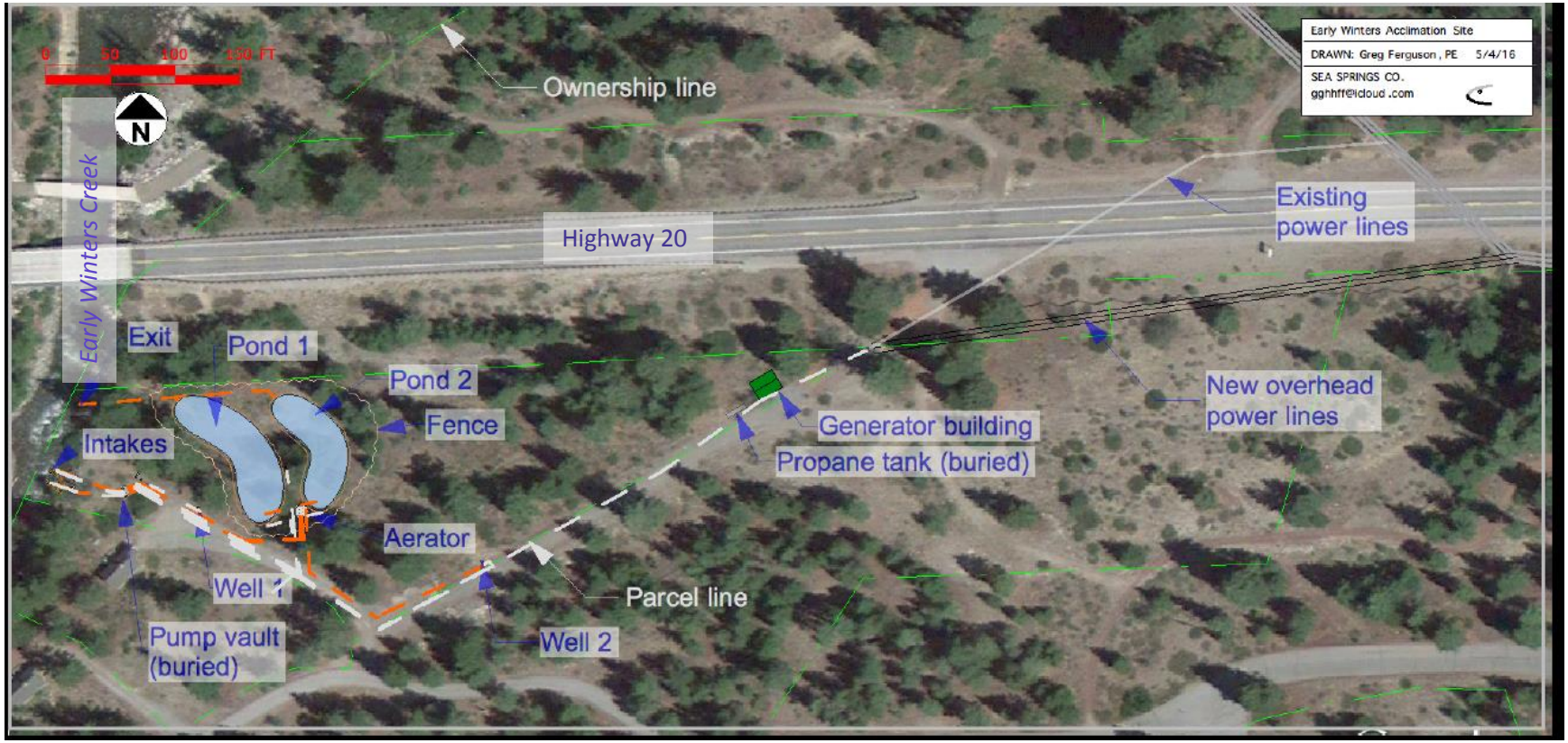

Figure 1. Early Winters 3 Acclimation Site Plan

Water quality: Effects on water quality from construction, including in-water work, would be minimal and similar to other sites described in the EIS, and would be mitigated by the use of best management practices as discussed in the EIS and ROD.

Recent analysis[3] indicates that operations would result in less than 0.05% increase in total phosphorous (TP) loads in Early Winters Creek, which is well within the natural range of the upper Methow system. The combined TP loading from this site plus two other coho acclimation sites proposed on the upper Methow River would also be a small fraction of the background level (less than 0.15%).

The Methow River basin is listed as a "water of concern" for pH and dissolved oxygen (DO), as defined in the Washington State water-quality standards (Washington Administrative Code 173-201A-320). Impairments of pH and DO typically result from excessive algal growth triggered by nutrients (including TP). Because the site would contribute negligible amounts of nutrients during a time of year when algal growth is less active, further impairments to pH and DO would be unlikely. Changes to TP, pH, and DO would be expected to range within the effects addressed by the EIS, which predicted minor, localized impacts to water quality.

The Methow River basin is listed as impaired for temperature. The EIS demonstrated that operation of an acclimation facility does not alter water temperature in the receiving waters.

Vegetation: No plants listed under the Endangered Species Act (ESA) or included on the State of Washington Priority Habitat and Species (PHS) list are present at the site.[4] Approximately nine ponderosa pines would be removed to construct the acclimation site. The construction would also remove 275 square feet of riparian vegetation alongside Early Winters Creek. All but 27 square feet of disturbed vegetation would be replanted with trees, shrubs, and a seed mix. Impacts to vegetation would be small relative to total native habitat in the area, as described in the EIS.

Fish: ESA-listed bull trout, spring Chinook, and summer steelhead could be present in Early Winters Creek during the proposed construction and operations. Impacts of construction (sedimentation, accidental releases of fuel, disturbance to fish, etc.) would be short-term, localized, and minimized through the implementation of best management practices as described in the EIS and ROD. During operations, surface-water withdrawals would be non-consumptive, except for the 100-foot reach of stream between the intake and the outlet, and water flow in Early Winters Creek would not drop below statutory minimum levels set by the State of Washington. Impacts of water withdrawal on ESA-listed and other fish would be low, consistent with impacts described in the EIS.

Wildlife: Wildlife species documented in the area include the gray wolf and spotted owl (ESA listed), wintering concentrations of bald eagles (PHS listed), harlequin duck (PHS listed), and other non-listed species. Gray wolves would likely avoid the area or change their foraging locations during construction and operations. Spotted owls would not likely be affected because suitable habitat does not occur in areas likely to be disturbed by noise, visual impacts, or tree removal. U.S. Fish and Wildlife Service concurred with this determination in a Biological Opinion dated July 18, 2016. Harlequin ducks are unlikely to use the site because they seek out remote areas free of human disturbance for nesting. Bald eagle wintering concentrations would not be affected because construction would occur in the summer and early fall. The most likely effect on eagles would be beneficial, in that the returning coho would be a source of food. Disturbance to wildlife, including nesting birds, would occur within the same timing and

[3] Mugunthan, Pradeep. January 30, 2015. Memorandum: Evaluation of Water Quality Impacts from Changes to Coho Acclimation Sites Proposed in the Mid-Columbia Coho Restoration Program.

[4] Grette Associates. January 5, 2016. Technical Memorandum: Mid-Columbia Coho Restoration Project Early Winters Priority Habitat, Species and Plant Analysis.

duration as described by the EIS. Likewise, permanent habitat loss for wildlife would be small (about 5,800 square feet), consistent with impacts as described the EIS.

***Floodplains*[5]:** The intakes and outlet would be in the floodplain but would conform to the existing bank contour, with no effect to flood flows. The logs at each intake would reduce the cross sectional area of the floodplain by 3%. Formation of scour pools under the logs would partially offset the decrease in floodplain storage capacity. The acclimation site would have low impacts on floodplain capacity, consistent with the impacts analysis in the EIS.

Wetlands: No wetlands are present at the site. Therefore, the construction and operation of the acclimation site would have no impact on wetlands.

Cultural resources: In letters dated October 1, 2015 and August 24, 2016, the State of Washington Department of Archaeology and Historic Preservation concurred with BPA's finding that no historic properties would be adversely affected by construction of the acclimation pond site. This finding is consistent with the cultural resource impacts analysis in the EIS.

Visual quality: The site is visible from the Cascade Loop Scenic Byway (Highway 20), but is partially screened by trees. The ponds would be constructed to appear as natural as possible, and the fence around the pond would be similar to other zig-zag style wooden fences in the area. The new power line and pole would be similar in height to the existing poles. Thus, construction and operation of the acclimation site would have low impacts on visual quality, consistent with the analysis of the full program in the EIS.

Recreation and noise: The site itself is a recreational site, with cabins available for rent. A campground and hiking trails are near the site as well. Construction noise would be heard on the site and possibly also at the campground and trails. Construction activity would be limited to approximately 60 days from mid-July until December during weekdays and daylight hours only, as described in the EIS. No watercraft launch sites are near the site, and if kayakers or floaters are on adjacent waters, they likely would pass the site quickly.

Operational impacts would be infrequent and of short duration, limited to noise from the generator and from an alarm horn to indicate problems with water levels or power supply. These impacts would occur only from March through May. No year-round residences occur in areas that could be subjected to high levels of operational noise. Although operational noise could extend to the campground and cabins, these areas experience low to no use before Memorial Day due to high snow levels, so it is unlikely that these users would be present. The generator would be muffled according to state noise standards and used infrequently (only during interruptions of electrical power and when tested for 10 minutes weekly during the day). The alarm would be used sporadically and turned off quickly via a remote web-based monitoring and control system. Thus, the impacts from construction and operations on recreation and noise would be similar to the impacts analyzed in the EIS.

[5] Floodplain information and analysis is from Early Winters Acclimation Site Project Description, 3/30/16.

Findings

This supplement analysis finds that the potential impacts from the construction and operations of Early Winters 3 have been examined, reviewed, and consulted upon and are similar to those analyzed in the Mid-Columbia Coho Restoration Program EIS, ROD, and applicable biological assessments and biological opinions. There are no substantial changes in the proposed action and no significant new circumstances or information relevant to environmental concerns bearing on the proposed action or its impacts within the meaning of 10 CFR § 1021.314(c)(1) and 40 CFR §1502.9(c). Therefore, a supplemental EIS is not needed.

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