

Supplement Analysis
for the
Crooked River Valley Rehabilitation Project
Environmental Impact Statement
(DOE/EIS-0506/SA-01)

Bonneville Power Administration
Department of Energy



Introduction

In June 2015, the Nez Perce-Clearwater National Forests (NPCNF), in cooperation with the Nez Perce Tribe (NPT), U.S. Army Corps of Engineers (USACE) and Bonneville Power Administration (Bonneville), completed the Crooked River Valley Rehabilitation (CRVR) Project Environmental Impact Statement (EIS) (DOE/EIS-0506). In July 2015, Bonneville issued a Record of Decision (ROD) documenting Bonneville's decision to fund the NPT's implementation of Alternative 2.

The project is located in Idaho County, Idaho and would complete habitat rehabilitation actions in the lower 2 miles of Crooked River and its floodplain within the Crooked River Valley to restore channel and floodplain functions, instream fish habitat complexity, and improve water quality which were heavily impacted by historic mining activities. Project construction started in 2016 and the final construction season is anticipated to be 2023. As part of Alternative 2, the NPT (as the project sponsor) proposed installing ten large wood structures that would be keyed into the banks in the upper 0.25 mile of the project area. The ten large wood structures included installing two large wood structures near Campground 4. Since that time, the NPT has identified turbidity issues and the desire to provide fish passage at a seasonal swimming hole and are now proposing the installation of a rock weir near Campground 4 and five large wood structures that would decrease the amount of wood keyed into the banks.

This Supplement Analysis (SA) was prepared to determine whether the proposed changes are substantial changes to the proposal evaluated in the EIS or significant new circumstances or information relevant to environmental concerns, such that either would warrant the need for a supplemental EIS. The findings of this SA determine whether additional National Environmental Policy Act (NEPA) analysis is needed pursuant to 40 Code of Federal Regulations (CFR) § 1502.9(d) and 10 CFR § 1021 *et seq.*

Description of Design Changes

To date, about 1.75 miles of the lower two valley miles has been restored, as described in the CRVR EIS. Approximately 200,000 cubic yards of tailings piles was graded to fill in the existing channel and many of the ponds left from mining activities. A new river channel was constructed with a more natural sinuosity pattern with large wood jams and bank stability structures on the outer meander bends. Side channels were constructed on the floodplain to provide off channel habitat and ponds/swales/depressions were constructed on the floodplain to provide wetland habitat. Only minor deviations to the original design were made during construction.

The remaining 0.25 mile section of the project area, planned to remove 4 acres of tailings piles adjacent to the river and install ten large wood structures to promote instream complexity for fish habitat. Large

wood and microtopography would be scattered along the floodplain to provide off channel complexity and break up overland flow. The large ponds would remain on the landscape. Two log structures would be installed near Campground 4 to create a pool and direct flow away from the eroding streambank.

The first proposed change is to construct five large wood structures instead of ten. There are several beaver dams and natural large wood jams forming in the project area which eliminated the need to construct as many large wood structures. In addition, large wood would not be keyed into the banks as described in the CRVR EIS to reduce turbidity during construction. Instead, one or two large logs would be keyed into the banks and additional wood would be interlocked using the rootwads, boulders, and anchors.

Installation of the five large wood structures would include constructing the structures with large enough trees so they would remain in place with higher flows while protruding into or spanning the channel (2 times channel width without rootwad or 1.5 times channel width with rootwad). Two of the structures would be designed to withstand a 100-year flood event and tall enough to help capture large wood. The other three structures would be designed to withstand a 10- to 25-year flow event and help capture small wood/brush. For the largest structure, the streambank would be excavated to install the logs in a crib formation that would protrude into the river about 10 to 15 feet. The remaining four large wood structures would have excavation limited to 1 to 2 individual logs. Individual narrow trenches would be dug for installation of each log, followed by backfilling with local coarse materials. Approximately 360 cubic feet (cu ft.) of material would be excavated, using an excavator operating from the streambank, per log structure (1,800 cu ft. total). The excavated material would be used to backfill the log structures. The work areas would be isolated from flowing water using cofferdams (bladder coffer if bulk bags are not effective) placed using an excavator operating from the streambank. Cofferdams would be removed and the work areas slowly rewatered.

The second proposed change is to construct a rock weir that allows fish passage in lieu of installing two log structures. The rock weir would be installed near Campground 4. This rock weir structure would move the thalweg to the middle of the river channel and reduce erosion along the outer stream bank. This structure would also serve as a swimming hole for the recreationists that use Campground 4. The public annually constructs a rock dam across the channel to provide a swimming hole (Figure 1). The rock dam impedes fish passage for juvenile fish. Constructing a designed rock weir that passes all life stages of fish would provide for adult migration at all flows, create pool habitat for fish, and prevent impromptu dam construction that blocks/delays juvenile fish passage. Installing the rock weir would eliminate the need for a large wood structure along the bank near the campground where the public accesses the river.

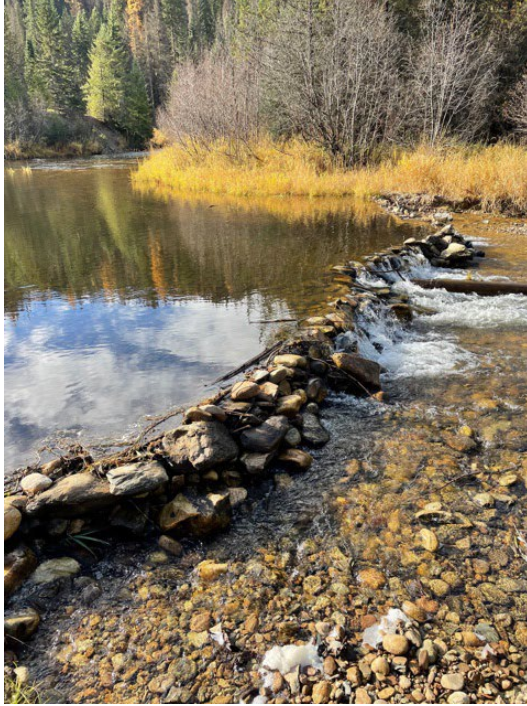


Figure 1. Rock dam at campground constructed by the public. Sediment build-up behind the dam prevents it from washing out each spring and is a barrier for juvenile fish. The photo on the right shows the eroded bank at the campground. A log jam was originally proposed to be constructed along that bank.

Installation of the rock weir would include constructing the weir using large boulders, sized to withstand high spring flows. Footer boulders would be partially buried in the channel and banks, with a second layer of boulders keyed in on top of the footer boulders. The weir would create a pool upstream of the weir. A low notch in the center of the weir would concentrate the river thalweg in the middle of the river. Installation would occur in two sections, and disturb approximately 2,500 linear feet (1,250 feet on each side of the river) of streambank. The work area on one side of the river would be isolated using cofferdams (bladder coffer if bulk bags are not effective) placed using an excavator operating from the streambank. Cofferdams would be removed and the work area slowly rewatered. After rewatering, the second half of the construction site on the opposite stream bank would be isolated using a cofferdam, the remainder of the weir constructed, the cofferdam removed, and the site slowly rewatered.

The proposed changes would occur during the in-water work window starting July 15 to coincide with low flows and minimize sediment disturbance. Reducing the number of large wood structures and changing the implementation method would further reduce chances of elevated turbidity during construction. Modifying pool creation from log structures to a rock weir would provide a more permanent solution to bank erosion, the impromptu weir creation by the public, fish passage issues, and habitat loss.

Analysis

With installation of fewer large wood structures and a rock weir in place of two log structures, the effects of the CRVR Project would be consistent with the effects described in the Final EIS. The Final EIS analyzed impacts of project construction including large wood structure installation in the mainstem and

side channels to provide bank protection and habitat complexity. While the proposed installation of a rock weir was not part of the original project proposal, the impacts would be similar to those analyzed for the originally planned log structures.

The work area and activities planned for the proposed changes would be consistent with and similar to those listed in Chapter 2, *Alternative 2 – Proposed Action (Preferred Alternative)*, and the associated construction effects described in Chapter 3 of the Final EIS. As originally planned, cofferdams would be constructed around the work areas, and mitigation measures included in the Final EIS and adopted in the ROD would be implemented.

The reduced number of large wood structures and installation of a rock weir in place of two log structures would impact ESA-listed fish species. The NPCNF is the lead Federal agency for compliance with the ESA for the CRVR Project and consulted with National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) to confirm that the proposed changes would be consistent with the original formal consultation. The NPCNF prepared a Biological Assessment for the proposed changes and requested re-initiation of consultation with the USFWS and NMFS. After review, the USFWS determined that re-initiation for potential effects to Endangered Species Act (ESA)-listed bull trout (*Salvelinus confluentus*) and bull trout designated critical habitat was not needed and that the biological opinion dated March 23, 2015 addressed the effects associated with the project changes. Re-initiation of consultation with NMFS was necessary for potential effects to Snake River steelhead (*Oncorhynchus mykiss*) and steelhead designated critical habitat. On February 17, 2023, NMFS provided a Biological Opinion for the reinitiation of the CRVR Project and concurred with NPCNF's determination that the proposed changes were likely to adversely affect steelhead and their designated critical habitat. As part of re-initiation, NMFS provided additional take, details about turbidity monitoring including when work would cease (they identified levels of turbidity above background levels at monitoring distances of 2,000 feet and between 250 and 300 feet downstream of the turbidity source), and monitoring requirements. The additional turbidity requirements for the proposed changes are consistent with and similar to mitigation measures listed in Chapter 2, *Alternative 2 – Proposed Action (Preferred Alternative)*, and the associated Soil, Water Quality, and Fish Habitat mitigation measures described in the Mitigation Action Plan of Bonneville's ROD.

The reduced number of large wood structures and installation of a rock weir in place of two log structures would not impact ESA-listed plant or wildlife species. Since the writing of the CRVR EIS analysis, however, there has been an ESA status change of two plant species. The Threatened water howellia (*Howellia aquatilis*) was delisted and the Candidate/Forest Service sensitive whitebark pine (*Pinus albicaulis*) is now formally listed as Threatened under ESA. Neither species is present in the project area, nor is suitable habitat present, thus the changed circumstances for these species would have no bearing on the existing CRVR analysis or the current proposed changes being considered.

As discussed in Chapter 3, *Water Quality*, construction activities would result in increases in turbidity that would be managed within the existing limits set by Idaho Administrative Code (IDAPA) 58.01.02, section 250 to protect fish and fish habitat. The Final EIS determines that compliance with the terms and condition set forth in the National Pollutant Discharge Elimination System (NPDES) stormwater permit and Clean Water Act (CWA) 401 water quality certification (WQC), issued by the Idaho Department of Environmental Quality to the NPCNF, would provide assurance that the Idaho State Water Quality Standard for turbidity would not be exceeded in Crooked River within the project area. In addition, NPCNF received a U.S. Army Corps of Engineers (USACE) CWA 404 permit prior to initiating work that may affect jurisdictional wetlands or waters of the U.S. The NPCNF already applied for and received

renewed CWA permits and a WQC for work associated with the proposed changes, and would follow the terms and conditions set forth in the renewed NPDES permit, 404 permit, and 401 WQC.

The reduced number of large wood structures and installation of a rock weir in place of two log structures would not impact known cultural or historic resources. All of the work would occur within the area analyzed in the Final EIS and the National Historic Preservation Act Section 106 consultation for the project.

The effects of the reduced number of large wood structures and installation of a rock weir in place of two log structures would not differ from the impacts described in the Final EIS to soil resources, wildlife resources, invasive plants, recreation resources, air quality, mineral resources, transportation, and socioeconomic resources. Because the proposed changes would occur in the same location, in a similar work season, for a similar duration, and would be similar to the actions and effects analyzed in the Final EIS and impacts to resources would not substantially deviate from those described in the Final EIS, the proposed changes do not represent a substantial change in the project or significant new circumstances or information relevant to environmental concerns.

Findings

Bonneville finds that the proposed actions and potential impacts related to the proposed installation of fewer large wood structures and installation of a rock weir in place of two log structures are similar to those analyzed in the Crooked River Valley Rehabilitation Project Final Environmental Impact Statement (DOE/EIS-0506, June 2015) and related Record of Decision. There are no substantial changes to the EIS' 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 *et seq* and 40 CFR §1502.9(d). Therefore, no further NEPA analysis or documentation is required.

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Concur:

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