

**Supplement Analysis
for the
Columbia River Basin Tributary Habitat Restoration
Programmatic Environmental Assessment
(DOE/EA 2126/SA-15)**

**Hayden Reach Temporary Bridge Installation
Bonneville project number 2010-072-00
Bonneville contract number 76913 rel 26**

Bonneville Power Administration
Department of Energy



Introduction

In December 2020, Bonneville Power Administration (Bonneville) and the Bureau of Reclamation completed the *Columbia River Basin Tributary Habitat Restoration Programmatic Environmental Assessment* (DOE/EA 2126) (Programmatic EA). The Programmatic EA analyzed the potential environmental impacts of implementing habitat restoration actions in the Columbia River Basin and its tributaries.

Consistent with the Programmatic EA, this Supplement Analysis (SA) analyzes the effects of the *Hayden Reach Temporary Bridge Installation*, which would install a temporary bridge across the Lemhi River.

This SA analyzes the site-specific impacts of the *Hayden Reach Temporary Bridge Installation* to determine if the project is within the scope of the analysis considered in the Programmatic EA. It also evaluates whether the proposed project presents significant new circumstances or information relevant to environmental concerns that were not addressed by the EA. 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).

Proposed Action

Bonneville proposes to fund the Lemhi Soil and Water Conservation District (LSWCD) and the Idaho Department of Fish and Game (IDFG) to install a temporary bridge across the Lemhi River. The *Hayden Reach Temporary Bridge Installation* would be located on private land within Lemhi County in Township 18 North, Range 24 East, Section 33, approximately 26.7 miles southeast of Salmon, Idaho. It would install a 90-foot rail car bridge across the Lemhi River from State Highway 28 to provide temporary access for construction of a larger river and floodplain restoration project. NEPA analysis of the larger project, to which this action is connected, has been delayed pending project redesign to capture recent opportunities¹ to expand the project and thereby address design limitations on the original project. The rail-car bridge had been delivered to its installation location (immediately adjacent to State Highway 28) anticipating imminent installation to serve construction action on the larger project. Action on the larger project would potentially begin the following year and the current highway-shoulder location of the rail-car bridge presents safety issues for highway travelers over the winter. Installation of the bridge over the Lemhi River in its designed location would resolve the highway safety concerns. The bridge location would be temporary, as the larger project would ultimately relocate and fill this section of the Lemhi River.

Installation of the bridge would require construction of two temporary bridge abutments. These abutments would be constructed from transportable concrete blocks (called “ecology blocks”) placed atop gravel footings excavated into the uplands above and back from each river bank. No instream construction is proposed, but up to six in-stream

¹ The opportunity to expand the project arose from an unanticipated offer to IDFG to purchase property adjacent to the project.

round-trip crossings by an excavator at the location of the temporary bridge would be needed to move material and equipment across the Lemhi River. The work would be conducted late in the fall when flows are lowest.

The left-bank approach to the bridge from State Highway 28 and a right-bank connection from the bridge to an existing unsurfaced road across the river would both be graded and surfaced with gravel.

This proposed project would support conservation of Endangered Species Act-listed species considered in the 2020 Endangered Species Act consultations with the National Marine Fisheries Service and the US Fish and Wildlife Service on the operation and maintenance of the Columbia River System.

Environmental Effects

Abutment construction would disturb and displace soil above the riverbanks on both sides of the Lemhi River, and heavy-equipment stream crossings would compact and disrupt gravels within the river bed and damage vegetation along the river banks. The project would also create noise and vehicle emissions; and temporarily increase vehicle traffic and human activity in the project area. These actions and the typical effects associated with the environmental disturbances created by them are consistent with those described in Chapter 3 of the Programmatic EA at Sections 3.1, “*Effects Common to Construction Activities*”, Section 3.3.2.2, “*Environmental Consequences for Water Resources*”. These sections are incorporated by reference and summarized in this document below.

Below is a description of the potential site-specific effects of the *Hayden Reach Temporary Bridge Installation*, and an assessment of whether these effects are consistent with those described in the Programmatic EA. This action is part of a larger project designed to improve aquatic and riparian habitats in and along this reach of the Lemhi River for the long term, where this reach of river would be relocated to the east and the current channel that the bridge would cross would be eliminated entirely. The adverse effects from soil and vegetation disturbance, and from human and mechanical activity would, therefore, be short-term only.

1. Fish and Aquatic Species

The effects of using an excavator along the Lemhi River are consistent with the analysis in the Programmatic EA, Section 3.3.1, “*Fish and Aquatic Species*”. The Programmatic EA, Section 3.3.1.3, “*Effects Conclusion for the Proposed Action on Fish and Aquatic Species*”, describes overall low impacts to fish and aquatic species after considering moderate short-term adverse effects and beneficial long-term effects.

Three species listed under the Endangered Species Act (ESA) are present in the project area: Snake River spring/summer Chinook salmon, Snake River steelhead, and bull trout (there are no additional state-listed or state-sensitive species present). Effects on ESA species were consulted on using Bonneville’s Habitat Improvement Program programmatic consultation where actions were found likely to adversely affect ESA-listed salmonids and their critical habitat in the short term but would not likely result in jeopardy to the species or result in destruction or adverse modification of critical habitat. This consultation’s mitigation measure of conducting machine fording of rivers during low flows would be applied to minimize effects.

Fish habitat is poor in the construction area, being a channeled river with no instream habitat structures and relatively high flow velocity. Fish presence here is lower than it would be in most other reaches of the Lemhi River.

The short-term adverse effects of the proposed project would disturb upland soils and vegetation through the use of mechanized equipment along the Lemhi River, but not on its banks or in its channel, thus no excavations in aquatic habitats would occur. There would, however, be stream crossings by the excavator.

The six crossings of the river would likely create conditions where streambed gravels and cobbles would be compacted and sediment would be released for a short period of time during each crossing by the excavator. Compaction and sediment would be detrimental to fish and aquatic species, but the area of compaction would be limited to the tracks of the excavator. Sediment effects would likely be light since this section of river is mostly cobble and gravel with little sediment, and those effects would likely extend only 100 to 200 feet downstream. These crossings would scare larger fish from the site, but likely crush and destroy comparatively immobile species and those in the gravels such as juvenile fish, mussels, arthropods, and aquatic insects. Aquatic insect and arthropod populations would recover to some degree before future project activity would remove aquatic habitat from this location entirely, but the in-gravel juvenile fish and mussel populations would not.

This level of effect to fish and aquatic species would be low because the habitat is of lower value, the area of impact is small, and the impact itself is limited. It would be less than the moderate amounts evaluated in the Programmatic EA at Section 3.3.1.2.1, "*Short-Term Effects to Fish and Aquatic Species from Construction Activities*".

2. Water Resources

The effects of using an excavator in and along the Lemhi River are consistent with the analysis in the Programmatic EA in Section 3.3.2, "*Water Resources*". The Programmatic EA, Section 3.3.2.3, "*Effects Conclusion for the Proposed Action on Water Resources*", describes overall low impacts to water quality after considering moderate short-term adverse effects and beneficial long-term effects.

There would be no effect to water quantity with this action, as it proposes no water withdrawals.

Overall, this action would create short-term, localized, sediment inputs from the crossings of an excavator. These crossings would likely disturb less than 1,000 square feet of river bed and banks. The Programmatic EA evaluated actions that would disturb many multiples of that, and the sediment produced from these crossings would be far less than what occurs naturally during annual, natural, high flow events. As in the Programmatic EA, these are short-term effects (likely 5 to 10 minutes or less for each crossing over the course of two to three days). These minimal effects are less than those described in the Programmatic EA Section 3.3.2.2.2, "*Effects on Water Quality*".

3. Vegetation

The effects of using an excavator in and along the Lemhi River are consistent with the analysis in the Programmatic EA Section 3.3.3, "*Vegetation*". The Programmatic EA, Section 3.3.3.3, "*Effects Conclusion for the Proposed Action on Vegetation*", describes overall moderate impacts to vegetation after considering moderate short-term adverse effects and beneficial long-term effects. No plant species listed under the ESA or sensitive plant species are present within this project area.

This project is anticipated to have less impact than that described in the Programmatic EA. The scale of activity and effect for this bridge placement is smaller (less than 0.10 acres) than the projects described in the Programmatic EA (up to 50 acres). This level of effect would be low, and less than the moderate effects discussed in the Programmatic EA in Section 3.3.3.2, "*Environmental Consequences for Vegetation*".

4. Wetlands and Floodplains

With this project, there would be no adverse effects to wetlands since there are no such features within the affected area. The floodplain would be impacted within the footprints of the abutments to be installed (less than 0.05 acres), but this is far less than the project areas assessed in the Programmatic EA, and therefore consistent with that analysis.

5. Wildlife

The effects of using an excavator in and along the Lemhi River are consistent with the analysis in the Programmatic EA Section 3.3.5, "*Wildlife*". The Programmatic EA, Section 3.3.5.3, "*Effects Conclusion for the Proposed Action on Wildlife*", describes overall low impacts to wildlife after considering short-term adverse effects and beneficial long-term effects.

The area impacted by this project is very small (less than 0.10 acres) and provides minimal habitat value for medium-size or larger mammals, being so close to the highway. It does, however, provide habitat for small mammals, reptiles, amphibians, and for nesting and foraging migratory birds. No wildlife species listed under the ESA or sensitive wildlife species are present within this project area.

Some small wildlife individuals would likely be harmed or killed by the excavator operations, but larger, more mobile terrestrial species and birds would simply be displaced during the two to three-day construction period. Existing habitat would be eliminated in the short-term since most excavated area would be converted to temporary bridge approaches to serve the larger restoration project. In the long term, that larger project would entirely relocate this section of river and fill the current channel. Habitat values here would be restored, but they would be changed from the stream-side riparian shrubs there now to more open floodplain meadow and wetlands with willow thickets as is found in the Lemhi floodplain up and downstream of the project site. Riparian habitats here currently would essentially be relocated to the new location of the river, and likely expanded and improved. The effects of the short-

term actions by themselves are low, and considering the long-term beneficial effects, this action would be fully consistent with the assessment in the Programmatic EA, Section 3.3.5.2 “*Environmental Consequences for Wildlife*”.

6. Soils

The effects of using an excavator in and along the Lemhi River are consistent with the analysis in the Programmatic EA, Section 3.3.6, “*Geology and Soils*”. The Programmatic EA, Section 3.3.6.3, “*Effects Conclusion for the Proposed Action on Geology and Soils*”, describes moderate impacts to geology and soils.

Excavation would be required for this project so soils would be displaced, compacted, and mixed. The extent of excavation, however, would be limited to about 2,500 square feet (0.057 acre), and topsoil would be salvaged for later restoration following completion of the larger project. Erosion protection and spill protection measures for equipment fluids would be in place. Considering the small area affected and the application of mitigation measures, the overall level of effect on soils would be low and consistent with that discussed in the Programmatic EA in Section 3.3.6.2, “*Environmental Consequences for Geology and Soils*”.

7. Transportation

The effects of this project in and along the Lemhi River are consistent with the analysis in the Programmatic EA Section 3.3.7, “*Transportation*”. The Programmatic EA, Section 3.3.7.3, “*Effects Conclusion for the Proposed Action on Transportation*”, describes low impacts to transportation.

This project is immediately adjacent to State Highway 28, and construction actions installing the left bank abutment and constructing the approach to the bridge from the highway may require the closure of one lane of traffic for about one day. This type of impact was assessed in the Programmatic EA in Section 3.3.7.2 (*Environmental Consequences for Transportation*) where road or lane closures might be necessary for bridge construction or culvert replacements. This project would require no road closures, or permanent changes to the transportation system. This level of impact on transportation would be low and thereby consistent with the Programmatic EA at Section 3.3.7.2, “*Environmental Consequences for Transportation*”.

8. Land Use and Recreation

The effects of this project in and along the Lemhi River are consistent with the analysis in the Programmatic EA Section 3.3.8, “*Land Use and Recreation*”. The Programmatic EA, Section 3.3.8.3, “*Effects Conclusion for the Proposed Action on Land Use and Recreation*”, states that overall effects on land uses and recreation would be low to moderate.

There would be no effect on land use, and minimal effect on recreation from this proposed project. Land uses would not change, and public recreational opportunity on the river at this location would be affected for only a couple of days. This level of effect is consistent with that described in the Programmatic EA at Section 3.3.8.2, “*Environmental Consequences for Land Use and Recreation*”, which describes low to moderate impacts to land uses and recreational opportunity.

9. Visual Resources

The effects of the proposed project in and along the Lemhi River are consistent with the analysis in the Programmatic EA Section 3.3.9, “*Visual Resources*”. The Programmatic EA, Section 3.3.9.3, “*Effects Conclusion for the Proposed Action on Visual Resources*”, describes low impacts to visual resources.

The project site is visible from State Highway 28. The project would temporarily (one year) add a bridge adjacent to an existing bridge which would indicate to viewers that a project is in progress. It would not, however, change the character of the riverside riparian and pasture scenery across the river because the area impacted is so small (less than 0.1 acre). The completed project would relocate the river channel to the east, the old bridge would be demolished, and the new rail-car bridge would be relocated elsewhere to cross a new section of river resulting in only one bridge farther from the highway in the future scenery. The level of effect from the immediate action of installing a second bridge would be low since that would only be a minor short-term modification to the existing scenery, and the scenery at the site would remain consistent with the Lemhi River valley’s scenic character. This low immediate effect, by itself, is consistent with what is described in the Programmatic EA in Section 3.3.9.2, “*Environmental Consequences for Visual Resources*”.

10. Air Quality, Noise, and Public Health and Safety

The effects of this action in and along the Lemhi River are consistent with the analysis in the Programmatic EA, Section 3.3.10, “*Air Quality, Noise, and Public Health and Safety*”. The Programmatic EA, Section 3.3.10.3, “*Effects Conclusion for the Proposed Action on Air Quality, Noise, and Public Health and Safety*”, describes low impacts to these resources.

Driving of motor vehicles and operation of construction equipment would produce emissions, but the amount would be minimal and short-term, and consistent with that produced by local ranching and agricultural activities. The effects on air quality would be low.

Noise from the operation of construction equipment would occur during daylight hours only and would be consistent with that commonly produced by local ranching and agricultural activities. The environmental effects of that short-term noise would be low.

Vehicle and mechanical equipment operation, and working with hand and power tools have their attendant risk to users, but there would be no condition created from these actions that would introduce new human health or safety hazards or risk into the environment. No condition created by these actions would increase the burden on the local health, safety, and emergency-response infrastructure. Neither project actions nor operation of project-associated vehicles on public roads would hinder traffic or access by emergency vehicles.

This level of effect on air quality, noise levels, and human health and safety would be low, as is described in the Programmatic EA in Section 3.3.10.2, “*Environmental Consequences for Air Quality, Noise, and Public Health and Safety*”.

11. Cultural Resources

The effects of this action in the Lemhi River are consistent with the analysis in the Programmatic EA Section 3.3.11, “*Cultural Resources*”. The Programmatic EA, Section 3.3.11.3, “*Effects Conclusion for the Proposed Action on Cultural Resources*”, describes low impacts to cultural resources because cultural resources would either be avoided by project construction or the consequence of impacts would be resolved through the Section 106 consultation process.

Excavation would be required for this project so there would be potential to affect cultural resources. A survey was conducted and consultation was completed with the Idaho State Historic Preservation Office (SHPO) and the Nez Perce Tribe for the larger restoration project area which includes the temporary bridge site. Only one cultural resource was identified, the old bridge being replaced, but it was found ineligible for the National Register of Historic Places. SHPO concurred with Bonneville on June 28, 2021, that the undertaking would result in no historic properties affected, and there was no response from the Nez Perce Tribe. This outcome of consultation is consistent with what is described in the Programmatic EA in Section 3.3.11.2, “*Environmental Consequences for Cultural Resources*”.

12. Socioeconomics and Environmental Justice

The effects of this project in and along the Lemhi River are consistent with the analysis in the Programmatic EA, Section 3.3.10, “*Socioeconomics and Environmental Justice*”. The Programmatic EA, Section 3.3.10.3, “*Effects Conclusion for the Proposed Action on Socioeconomics and Environmental Justice*”, describes low impacts to socioeconomics and environmental justice.

This project would not generate a need for additional permanent employees nor would it require individuals to leave the local area, or relocate within it. There would be no effect on housing available for local populations. This project would not displace people or eliminate residential suitability of lands being treated, or from lands near the project site. The project would generate short-term employment for those directly installing the bridge and would provide small short-term cash inputs to local businesses for fuel, equipment, and meals. This degree of effect would be low, consistent with what is described in the Programmatic EA at Section 3.3.13.2, “*Environmental Consequences for Socioeconomics*”.

There is no environmental justice population present in the Lemhi River Valley so there would be no potential to affect environmental justice populations.

13. Climate Change

The effects of this project in and along the Lemhi River are consistent with the analysis in the Programmatic EA Section 3.3.14, “*Climate Change*”. The Programmatic EA, Section 3.3.14.3, “*Effects Conclusion for the Proposed Action on Climate Change*”, describes low impacts to climate change.

The project would have a low level of effect on climate change due to the short duration of motorized equipment operations during bridge installation and the relatively small number of construction vehicles. Temporary emissions are anticipated to be well below 25,000 metric tons of CO₂e during construction (the limit set by the Environmental Protection Agency for reporting emissions). The emissions would be low and short-term with a low overall effect on climate change. This is consistent with the Programmatic EA at Section 3.3.14.2, “*Environmental Consequences for Climate Change*”.

Findings

Bonneville finds that the types of actions and the potential impacts related to the proposed *Hayden Reach Temporary Bridge Installation* were examined, reviewed, and consulted upon and are similar to those analyzed in the *Columbia River Basin Tributary Habitat Restoration Programmatic Environmental Assessment* (DOE/EA 2126) and Finding of No Significant Impact. There are no substantial changes in the EA’s Proposed Action and no significant new circumstances or information relevant to environmental concerns bearing on the EA’s Proposed Action or its impacts within the meaning of 10 CFR § 1021.314(c)(1) and 40 CFR §1502.9(d). Therefore, no further NEPA analysis or documentation is required.

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