

# 2021 Lemhi Valley River and Floodplain Restoration Projects

## Finding of No Significant Impact

Bonneville Power Administration

DOE/EA-2133

July 2021

### INTRODUCTION

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Bonneville Power Administration (BPA) announces its environmental findings for its proposal to provide funding for two river and floodplain habitat restoration actions in the tributaries of the Lemhi River in eastern Idaho: the Canyon Creek Confluence and the Middle Eighteenmile projects. These projects would be sponsored and managed by the Lemhi Soil and Water Conservation District and Trout Unlimited, respectively.

BPA developed an environmental assessment (EA) evaluating the Proposed Action and the No Action Alternative. The EA was released for a 15-day public comment period in May 2020. Three comments were received and are addressed in the Final EA. The Final EA also identifies changes made to the Draft EA.

Based on its analysis and public comments received, BPA has determined that the two projects within the Proposed Action to be funded are not major federal actions 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 these two projects. These projects are not the type of actions that normally requires preparation of an EIS and is not without precedent.

Attached is a Mitigation Action Plan that lists all the mitigation measures that BPA and its contractors are committed to implementing.

### PUBLIC AVAILABILITY

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The Final EA, FONSI, and MAP has been posted on BPA's project website:

[www.bpa.gov/goto/LemhiRestoration](http://www.bpa.gov/goto/LemhiRestoration)

### PROPOSED ACTION

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Under the Proposed Action in the 2020 EA, BPA would fund six mainstem and tributary river/stream restoration actions; four irrigation diversion modifications; and one culvert replacement on Idaho State Highway 28. Eight of these actions were addressed in a Finding of No Significant Impact signed on June 18, 2020 and were implemented in the summer and fall of 2020. Construction on the following two actions would begin in the summer of 2021 and are considered in this FONSI:

1. Canyon Creek Confluence, a stream and floodplain restoration project on Canyon Creek near its confluence with the Lemhi River; and
2. Middle Eighteenmile, a stream and floodplain restoration action on Middle Eighteenmile Creek, one of the headwater streams that form the Lemhi River.

The L-63 project, the remaining project evaluated in the 2020 EA, would be constructed in 2022 and is not addressed in this FONSI in case design modifications are proposed and subsequent environmental review is required.

The Canyon Creek Confluence and Middle Eighteenmile projects would benefit Chinook salmon, steelhead, and bull trout, and fulfill commitments under the 2020 National Marine Fisheries Service Columbia River System Biological Opinion. These projects would also support conservation of Endangered Species Act-listed species considered in the 2020 Endangered Species Act consultation with the US Fish and Wildlife Service on the operation and maintenance of the Columbia River System.

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## **NO ACTION ALTERNATIVE**

Under the No Action Alternative, BPA would not fund the Lemhi Valley Restoration Project actions, and the various project sponsors would not construct or implement the actions.

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## **SIGNIFICANCE OF POTENTIAL IMPACTS OF THE PROPOSED ACTION**

To determine whether the Proposed Action has the potential to cause significant environmental effects, BPA analyzed the potential impacts of the proposal on human and natural resources and presented them in Chapter 3 of the 2020 EA. To evaluate potential impacts from the Proposed Action, four impact levels were used – high, moderate, low, and no impact. High impacts could be considered significant impacts, if not mitigated, while moderate and low impacts are not. The potential impacts associated with the Proposed Action are summarized below. The two projects in the Proposed Action that would be funded in 2021 would have no significant impacts with construction as designed according to the design criteria in Appendix A, and by the implementation of applicable mitigation measures from Chapter 2, and Appendices B and C of the 2020 EA.

The following discussion provides a summary of the potential impacts associated with the two 2021 projects identified under the Proposed Action, by resource, and the reasons these impacts would not be significant.

### **Land Use, Recreation and Transportation**

Impacts on land use and recreation would be low.

- In the Canyon Creek Confluence project, land use changes over a large area would not occur, but a couple of acres would revert from agricultural use back to its original active stream, riparian, and floodplain habitats. These changes are endorsed by the land owner who partnered in the design of this project.
- Grazing use in the riparian area near Middle Eighteenmile Project would continue, though in some areas grazing may be modified to protect aquatic and riparian habitat values.
- Public land access and recreation opportunity would remain unchanged.

### **Water Resources**

Impacts on water resources would be low.

- Water quantity would not be adversely affected. No water withdrawals are proposed and dry-season water availability would be increased by improved water storage and ground water recharge through improved floodplain function.
- Construction activities would affect water quality by producing sedimentation and turbidity which would increase water temperatures slightly. The effects would be short-term only, and would be reduced or, in some cases, avoided altogether, by the application of mitigation measures.

- Construction actions using heavy equipment may create the potential for fuel and fluid leaks, but the probability of such an event is low, and the extent of the problem would likely be small given the mitigation measures in place for these actions.
- A more natural hydrologic condition would be restored in the project areas which would improve water quality by increasing sediment transport and storage capacity in the long term.
- Reconstructed streams have the potential for failure during high flows, with resulting turbidity problems downstream. However, project design features from Appendix A, and the mitigation measures to be applied would reduce or eliminate this potential.
- Short-term increases in stream temperatures are also likely, given the construction of new channels (not yet shaded by vegetation), or reshaping of stream banks and eliminating (in the short-term) shade-producing vegetation that may have already been in place. Both projects, however, call for retaining existing woody vegetation as much as possible, and for plantings to restore shade-producing riparian shrubs and trees along the banks, so these effects would be short-term.
- Water temperatures would also be moderated for the short- and long-term by the installation of shade-providing, in-stream, log structures; creation of deepened channels and pools; and by the reconnection of streams to their adjoining floodplains which would facilitate flows of groundwater between streams and groundwater.

### **Fish and Aquatic Species**

Impacts on fish and aquatic resources would be moderate in the short term, but low for the long term when considering the long-term benefits.

- All of the actions are designed to improve habitat conditions for the benefit of fish and aquatic species.
- There would be short-term human disturbance and construction-related impacts to fish and aquatic species, and also the potential for accidental spills and discharges of contaminated water. Implementation of mitigation measures from Chapter 2 and the design criteria and conservation measures in Appendices A, B, and C of the EA would avoid or minimize short-term construction-related effects.
- Isolation of in-water work areas and the salvage and handling of fish have the greatest potential to harm fish and aquatic species. But work-area isolation is a mitigation measure to prevent far more destructive effects from the operation of heavy equipment directly in flowing water. Effects to fish and aquatic species from necessary heavy equipment operations within the stream course are minimized by work-area isolation, and mitigation measures would further minimize impacts to fish during fish salvage and work area isolation.
- Short-term effects on in-stream soils, gravels, and aquatic species are expected from the introduction of new flows into reconstructed stream reaches. These could adversely affect fish and aquatic species in the short-term, but mitigation measures would be applied that would minimize the impact and effects.
- The application of turbidity monitoring protocols would limit adverse effects of construction-related turbidity, thereby reducing impacts to fish and aquatic species during construction.
- Consultation on project effects to Endangered Species Act-listed fish has been conducted with the National Marine Fisheries Service as required under the Endangered Species Act.

### **Vegetation**

Impacts on vegetation would be moderate.

- Construction actions would create a high degree of vegetation disturbance in the short term (less than 3 acres for each project), which would primarily be disturbance to agricultural

vegetation. Some vegetation would be lost from the use of heavy equipment. Most effects would be short-term, temporary, and mitigated by the application of measures which call for retaining as much woody vegetation as possible and for seeding and planting to restore and improve riparian vegetation in the project sites after construction activities.

- Follow-up inspections and herbicide treatments on bare soil sites after construction would prevent or minimize the potential for colonization by invasive plants.
- Native vegetation communities would be restored in the project areas, which would result in a long-term benefit to vegetation.

### **Wetlands and Floodplains**

Impacts on wetlands, floodplains, and groundwater would be high in the short term, but there would be an overall low effect when combined with the long-term benefits.

- Existing wetlands and floodplains would be impacted by heavy equipment used in the project actions. But these projects are designed to restore and improve river and floodplain connections and function, and increase the amount of functional wetlands. These effects would therefore be short-term, with the end result being more wetlands and increased floodplain function.
- The mitigation measures discussed above to protect soils and vegetation would also serve to protect wetlands and floodplains where designs call for retaining existing conditions in some areas.
- The appropriate Clean Water Act Section 404 permits and Section 401 water quality certifications would be obtained prior to the implementation of any work within identified wetlands.
- Newly constructed channels connected to active flows would likely disrupt existing floodplain conditions as the natural hydraulic system works to adjust to new conditions. If unforeseen high flows occur prior to new floodplain and new channel stabilization there would be a risk of bank erosion, avulsion, or constructed-channel failure. Design features in Appendix A of the EA for channel construction and floodplain roughness features minimize this potential.
- There is no proposal for groundwater withdrawal, so there would be no reduction to groundwater tables. There would, however, be an increased capacity of the affected floodplain to store floodwaters and thereby increase groundwater storage.

### **Wildlife**

Impacts on wildlife would be moderate to high in the short term, but the overall project effects would be low when the short-term effects are combined with the long-term benefits to wildlife.

- There would be short-term wildlife disturbance and habitat destruction impacts from construction activities in these projects. Mitigation measures concerning avoidance of known nest sites, and the mid- to late-summer construction schedule for all projects would minimize the potential for disturbance to spring-time nesting birds and other wildlife reproductive activities.
- Some small wildlife individuals would be displaced from their home ranges by the short-term habitat modifications unavoidable in these projects. But in the long term, habitat would be improved and increased in extent allowing an increased habitat capability to support higher numbers of such animals once the habitats have recovered.
- There would be no effect to Endangered Species Act-listed wildlife.

## **Geology and Soils**

Impacts on geology and soils would be moderate to high in the short term, but with the implementation of mitigation measures and the long-term benefits, the overall effect would be moderate for the long term.

- Construction actions would create a high degree of soil disturbance from the use of heavy equipment, but it would be short-term, temporary, and mitigated by the use of Best Management Practices and revegetation.
- The projects, collectively, would impact less than 6 acres of soil.
- Herbicide use could affect soils, but the application of mitigation measures would prevent contamination of surface waters, human use areas, and non-target areas and vegetation.
- Some project actions, such as the fencing and planting following construction activities would have little impact on soils.
- The projects are designed to restore natural flooding and sediment deposition regimes, and native plant communities, both of which would be a long-term improvement to soil function and productivity in the project areas.

## **Transportation**

Impacts on transportation would be low.

- The transportation system would remain unchanged in the long term, though there would be some short-term slowing of transportation flow during movement of large equipment into and away from construction sites.

## **Visual Quality**

Impacts on visual quality would be low.

- No change to the general agricultural and sagebrush-steppe visual character of the project sites would occur. Though the visual character may change in specific locations (*e.g.* where a newly constructed stream channel might replace an area of sage-brush steppe or section of agricultural field), the larger visual character would remain the same, and the high visual quality would remain unchanged.
- Impacts to visual quality from the presence of construction equipment working in the Canyon Creek Confluence project, which is close to a well-traveled local road, are anticipated, but would be single-season and short-term only. The Middle Eighteenmile project is set far back from main roadways and would not be visible.
- Barren soil areas would be hydro-seeded or seeded with the expectation that vegetation cover would be restored quickly.

## **Air, Noise, and Public Health and Safety**

Impacts on air, noise, and public health and safety would be low.

- Impacts to air quality are expected from construction equipment emissions and dust raised during construction. Mitigation measures address these pollution sources so the effects would be minimized. No long- or short-term violations of state air quality standards would occur.
- Noise would be generated by construction equipment, but the project sites are not near sensitive noise receptors, and the sounds are not inconsistent with those generated routinely in this agricultural valley. Operations are restricted to daylight hours to minimize disturbance to Lemhi Valley residents.
- Application of herbicides would be guided by detailed Conservation Measures from Appendix C to prevent application to surface waters or non-target locations.

## Cultural Resources

Impacts on cultural resources would be low.

- Each project has been surveyed for cultural resources; and consultation with the Idaho State Historic Preservation Office (SHPO) and the affected tribes (Shoshone-Bannock Tribes, Nez Perce Tribe, and the Confederated Salish and Kootenai Tribes) has been conducted in compliance with Section 106 of the National Historic Preservation Act (NHPA).
- For the Middle Eighteenmile project, no resources were identified during surveys and the Idaho SHPO concurred with BPA's determination that there would be no historic properties affected. For the Canyon Creek project, the only resource identified in the project area was Old Highway 28, which will be avoided by the project, and SHPO concurred with BPA's determination that there would be no adverse effect to this resource.

## Socioeconomics and Environmental Justice

Impacts on socioeconomics would be low and there would be no impacts on environmental justice.

- No adverse effects to socioeconomics or environmental justice were identified in the EA. Small adjustments in land use, as described under "*Land Use and Recreation*" above, would not impact agricultural productivity or revenue sufficient to change land uses, decrease ranching or farming-related jobs, or lead to a decrease in agricultural support services.
- There would be small, beneficial impacts to the local economy from the expenses generated by the proposed construction actions.
- There are no environmental justice populations in the Lemhi Valley.

## Climate Change

Impacts on climate change would be low.

- A small amount of greenhouse gasses would be produced in the short term by emissions from the operation of construction equipment and other vehicles on these projects. Ultimately, the projects would serve to ameliorate the warming effects of global climate change by increasing riparian and wetland habitats (and thereby, their carbon sequestration services), and by restoring floodplain function and its long-term water table maintenance services.

## DETERMINATION

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Based on the information in the EA, as summarized here, BPA determines that the two projects identified under the Proposed Action are 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 two projects identified under the Proposed Action.

Issued in Portland, Oregon.

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