

2020 Lemhi Valley River and Floodplain Restoration Projects

Finding of No Significant Impact

Bonneville Power Administration

DOE/EA-2133

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INTRODUCTION

Bonneville Power Administration (BPA) announces its environmental findings for its proposal to provide funding for eight river and floodplain habitat restoration actions in the mainstem and tributaries of the Lemhi River in eastern Idaho. These projects would be sponsored and managed by the Idaho Department of Fish and Game, Lemhi Regional Land Trust, Trout Unlimited, Lemhi Soil and Water Conservation District, and the Upper Salmon Basin Watershed Program of the State of Idaho's Office of Species Conservation.

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.

BPA hereby adopts the EA, and based on its analysis and public comments received, BPA has determined that the eight 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 those eight projects. These projects are not the type of actions that normally requires preparation of an EIS and are not without precedent.

Attached is a Mitigation Action Plan (MAP) that lists all the mitigation measures that BPA and the project sponsors are committed to implementing.

PUBLIC AVAILABILITY

The Final EA, FONSI, and MAP will be posted on BPA's project website:
www.bpa.gov/goto/LemhiRestoration

PROPOSED ACTION

Under the Proposed Action, BPA would fund six mainstem and tributary river/stream restoration actions; four irrigation diversion modifications; and one culvert replacement on Idaho State Highway 28.

On the mainstem of the Lemhi River, the following projects are proposed:

1. Lemhi Headwaters, a river and floodplain restoration project
2. Narrows Reach, a river and floodplain restoration project
3. Eagle Valley, a river and floodplain restoration project
4. Lemhi/Big Springs, a river and floodplain restoration project
5. L-58C, an irrigation diversion relocation
6. L-63, an irrigation weir removal (not addressed in this FONSI)

On the Lemhi River's tributaries, the following projects are proposed:

7. Canyon Creek Confluence, a stream and floodplain restoration project on Canyon Creek near its confluence with the Lemhi River (not addressed in this FONSI)
8. Hayden Creek, a stream and floodplain restoration action within the inset floodplain of Hayden Creek
9. Middle Eighteenmile, a stream reconstruction action (not addressed in this FONSI)
10. Canyon Creek Boundary, an irrigation diversion relocation and stream habitat improvement
11. Little Sawmill Culvert, a culvert replacement project

Construction on most of these actions would begin in the summer of 2020 and are considered in this FONSI. Three of the river restoration projects (Lemhi Headwaters, Narrows Reach, and Eagle Valley) would start with a first phase in 2020, and would continue with subsequent phases in years 2021 through 2023.

The L-63, Middle Eighteenmile, and Canyon Creek Confluence projects would be constructed in 2021 and are not addressed in this FONSI in case design modifications are proposed and subsequent environmental review is required.

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.

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 EA. To evaluate potential impacts from the Proposed Action, 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 the Council of 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 potential impacts associated with the Proposed Action are summarized below. The eight projects in the Proposed Action that would be funded 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.

The following discussion provides a summary of the potential impacts associated with the eight 2020 projects identified under the Proposed Action, by resource, and the reasons these impacts would not be significant.

Land Use and Recreation

Impacts on land use and recreation would be low.

- Land use changes over a large area would not occur, though specific locations might revert from agricultural use back to their original active streams, riparian habitats, or floodplain habitats. These changes are recognized by the affected land owners who partnered in the design of these projects.
- Grazing use in many riparian areas would continue, though in some areas grazing may be modified to protect aquatic and riparian habitat values.
- Land management direction on National Forest or BLM-managed lands with the project sites would not change.
- 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 water quantity 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 rivers 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), or reshaping of stream banks and eliminating in the short-term shade-producing vegetation that may have already been in place. All 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 instream 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 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 this is a mitigation action 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 thereby minimized. The mitigation measures would further minimize impacts to fish from 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.

Vegetation

Impacts on vegetation would be moderate.

- Construction actions would create a high degree of vegetation disturbance and loss from the use of heavy equipment, but it 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.
- Though two projects (Lemhi Headwaters, and Eagle Valley) could impact up to 100 acres of vegetation, most actions would impact less than ten.
- Multi-year staging of the three larger projects would reduce the number of acres of vegetation impacted in any one year.
- 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 intend existing conditions to remain.
- The appropriate Clean Water Act Section 404 permits and Section 401 water quality certifications would be acquired prior to the implementation of any work within identified wetlands.
- Newly constructed side channels, or historical channels reconnected to active flows would likely disrupt existing floodplain conditions as the 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 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 timing around the bald eagle nest in the Eagle Valley project, avoidance of known nest sites, and mid- to late-summer construction activities in all projects would minimize the potential for disturbance to nesting birds or 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.

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 BMPs and revegetation.
- Most of the projects would impact less than ten acres of soil.
- Two projects (Lemhi Headwaters, and Eagle Valley) could impact up to 100 acres of soils by construction activities, but these projects would occur over multiple years, that would effectively reduce the number of acres of soil impacts in any one year.
- 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 fencing and planting 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 construction actions. Transportation impacts would be minimized with the use of flaggers and maintaining one open lane on roadways.

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 new stream channel might replace a 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 an area are anticipated, but those in the foreground near roads and without vegetative screening (Little Sawmill Culvert and L-63) would be single-season and short-term only. The larger projects (Eagle Valley, Lemhi Headwaters, and the Narrows projects) are set far back from main roadways or would be effectively screened from view by dense willows.

- Barren soil areas that 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 sites (other than L-63) 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.
- The primary impact on public health and safety would be the potential to hinder traffic flow and response time of emergency vehicles on public roadways. The only project where this might occur would be the replacement of the Little Sawmill Creek culvert. Appropriate traffic controls and flaggers would be applied to this project to reduce or eliminate these safety concerns, and to prevent conflicts between vehicle travel and construction equipment operations on State Highway 28.
- 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 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).
- The effect on cultural resources would be low because eligible archeological or historic sites would either be avoided by project construction or adverse effects would be appropriately mitigated through the NHPA Section 106 consultation process.

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 cultural resources 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

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

Issued in Portland, Oregon.

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Date