

# Birch Creek Floodplain Restoration Project

Finding of No Significant Impact  
Bonneville Power Administration  
DOE/EA-2135  
October 2021

## INTRODUCTION

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Bonneville Power Administration (BPA) announces its environmental findings for its proposal to fund the Birch Creek Floodplain Restoration Project located in Umatilla County, Oregon and sponsored by the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). The goal of the project is to restore fish and wildlife habitat along Birch Creek. Specifically, the project would improve habitat conditions for Endangered Species Act-listed mid-Columbia steelhead (*Oncorhynchus mykiss*) and other native fish species. To that end, the project would focus on aligning and restoring Birch Creek's main channel, improving its secondary channel and floodplain interactions, creating wetlands, and planting riparian and upland vegetation.

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 August 2020. BPA received two comments 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 Proposed Action with the new irrigation pipeline option is not a major federal action 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 the Proposed Action. The Proposed Action is not the type of action 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 have committed to implement.

## PUBLIC AVAILABILITY

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The FONSI will be posted on BPA's project website: [www.bpa.gov/goto/BirchCreek](http://www.bpa.gov/goto/BirchCreek).

## PROPOSED ACTION

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Under the Proposed Action, BPA would fund CTUIR to construct the Birch Creek Floodplain Restoration Project. CTUIR would initiate construction in summer 2021 and complete it by summer 2022. The primary project elements described below would disturb up to about 37.7 acres.

Aligning and restoring Birch Creek's main channel (between river miles 1.8 to 2.7) would involve a new channel excavated to an average depth of about 4 feet, which would increase the main channel by approximately 1.2 miles (6,250 feet). Improving secondary channel and floodplain interactions would involve excavating about a half mile of secondary channel and placing about 90 large-wood structures stabilized with boulders along the existing main channel and this new channel. To promote floodplain interactions, fill would be placed along the existing channel, alternating between left and right banks, to narrow it to a side-channel width. Creating wetlands would involve excavating floodplain areas to create

20 discrete wetlands and seasonally disconnected aquatic habitats that total about 10 acres. Planting riparian and upland plants would involve seeding areas disturbed after construction, planting between 5,000 to 8,000 native plants per year for a decade after construction, and controlling invasive plants through chemical and mechanical methods.

The Proposed Action would also involve a staging area totaling up to about five acres, one or more temporary bridges for water crossings, and a temporary access road with a width up to 20 feet. In addition, an existing groundwater pumping station, buried irrigation pipe, and electric-utility line conduit would be removed to facilitate main channel realignment. To replace them, one option would drill a new groundwater well 750 to 1,000 feet deep and build a pumping station within a 400-square-foot area. A second option would construct a new irrigation pipeline to carry water from the existing pumping station, across Birch Creek, and connect to an irrigation take that connects to the point of use. The irrigation line option, and the construction activities to implement it, would occur along a 50-foot-wide by 1,500-foot-long corridor totaling about up about 1.7 acres.

## **NO ACTION ALTERNATIVE**

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Under the No Action Alternative, BPA would not fund CTUIR to construct the Birch Creek Floodplain Restoration project. Birch Creek and the project area would remain in its current state.

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

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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. The potential impacts associated with the Proposed Action with the new irrigation pipeline option are summarized below. The Proposed Action, with implementation of selected mitigation measures, would have no significant impacts. The following discussion provides a summary of the Proposed Action's potential impacts and the reasons these impacts would not be significant.

### **Geology and Soils**

Short-term temporary adverse impacts to soils would be low, with a moderate long-term beneficial impact.

- Heavy construction equipment would compact soils, affecting productivity and function over the short term, but these compacted soils would likely recover within 15 years.
- Sediment deposits from restoration actions would promote soil quality and productivity, which would have a beneficial effect.

### **Vegetation**

Short- and long-term impacts to vegetation would be moderate to high.

- Heavy construction equipment would excavate and overturn soil, uprooting existing plant communities, which would result in short-term impacts to about 31 acres of vegetation, which would be restored after construction.
- Bare soil created by construction could increase the risk of colonization by invasive vegetation. To prevent and control their potential spread, mitigation and minimization measures will be implemented before and during construction.

- Introducing flowing water to upland vegetation would replace that vegetation with plants capable of handling wetter conditions, thus converting existing plant communities to riparian and wetland vegetation.
- Planting native vegetation would stabilize channel banks, minimize long-term sediment contributions, and restore native riparian and wetland plant communities, which would have a long-term beneficial effect.

### **Water Resources (Water Quality and Groundwater)**

There would be moderate short-term adverse impacts and high long-term beneficial impacts to water resources.

- Construction activities and removal of existing riparian vegetation associated with major restoration elements involving in-water work would result in short-term impacts due to increases in sedimentation, turbidity, and temperature. These impacts would be carefully monitored, minimized, and mitigated consistent with conservation measures in BPA's Habitat Improvement Program Endangered Species Act Biological Opinion.
- Long term, as the short-term impacts subside, water quality would realize beneficial effects as the hydrologic function in Birch Creek improves and replanted riparian vegetation matures.
- Groundwater would not experience effects from restoration work because it would occur close to the surface.
- There would be no change to groundwater extraction under the new irrigation pipeline option.

### **Wetlands and Floodplains**

There would be high long-term beneficial impacts to wetlands and floodplains.

- The Proposed Action would result in a beneficial effect by creating 10 acres of wetland and reconnecting Birch Creek to its historic floodplain.

### **Fish and Aquatic Life**

There would be moderate short-term adverse impacts and long-term beneficial impacts to fish and aquatic life.

- A short-term adverse effect to fish and aquatic species would result from increased sediment due to construction and from the potential for effects from operating construction equipment in water.
- In addition, effects to fish could result from handling and removing them from dewatered areas. These effects would be carefully monitored, minimized, and mitigated consistent with the conservation measures in BPA's Habitat Improvement Program Endangered Species Act Biological Opinion.
- A long-term beneficial impact would result from improved flow and habitat conditions following construction.

### **Wildlife**

There would be low short-term adverse impacts and moderate long-term beneficial impacts to wildlife.

- Impacts would result from construction disturbance and vegetation removal. Restoration activities under the Proposed Action would focus on existing low-quality habitat, which would improve habitat conditions and result in long-term benefits for local wildlife species.
- The irrigation pipeline option would disturb a small amount of low- to moderate-quality riparian habitat, and moderate-quality cliffs, caves, and talus habitat along the pipeline corridor.

### **Cultural Resources**

There would be no-to-low impact on cultural resources.

- The Proposed Action would avoid known cultural resources. With this avoidance of all known cultural resources, BPA determined that the project would not affect historic properties.
- Mitigation measures establish protocols to protect historical or cultural resources if identified during construction.

### **Land Use**

Impacts to land use would be low to moderate.

- The Proposed Action would result in a limited changes in land use because lands previously farmed in the project area would become floodplain habitat and no longer be available for agricultural production. This would not substantially reduce overall lands locally available for agriculture.
- A new hydrologic regime may change or reduce the current access to the project area because Birch Creek may form new channels and seasonally overtop its previously channelized banks; however, this would not be expected to substantially reduce or eliminate existing access.

### **Air Quality**

There would be low short-term adverse impacts to air quality.

- Impacts would primarily result from operating construction vehicles, which would result in short-term emissions of criteria pollutants and dust from disturbed ground. These air-quality impacts would be temporary and localized in nature.

### **Climate Change**

There would be low short-term adverse impacts and long-term beneficial impacts to climate change.

- Low-level greenhouse-gas emissions would result from operating construction vehicles and equipment during short-duration construction activities. With the short construction duration, small number of vehicles and equipment, greenhouse gas emissions would be low and therefore the potential for the Proposed Action to accelerate climate change would also be low.
- The Proposed Action would contribute to long-term amelioration of climate change by restoring functional riparian, wetland, and floodplain habitats that store carbon. Increased water table inputs could ameliorate climate change effects on aquatic species by lowering water temperatures.

## **Noise**

There would be low-to-moderate adverse impacts to noise.

- The Proposed Action would generate some short-duration noise and elevate noise levels during construction, but there are no nearby noise sensitive areas and the elevated noise levels would be temporary.

## **Public Health and Safety**

There would be low adverse impacts to public health and safety.

- The primary impact would be the potential to temporarily hinder traffic flow and emergency-vehicle response time from the presence of multiple construction equipment or supply vehicles on Birch Creek Road. Adequate signage and other routine safeguards for worker and public safety would minimize these impacts.
- In addition, the Proposed Action could create low-lying areas that seasonally pond water, which could result in a small increase in mosquito-breeding habitat compared to existing conditions.
- The Proposed Action would maintain or improve flood protection for existing public and private infrastructure outside the project area during the 100-year flood event. Long term, increased floodplain connection within the project area would temporarily store flood water and may slightly decrease downstream flows during short-duration flood events.

## **Socioeconomics**

Low-to-moderate short-term beneficial socioeconomic impacts.

- The Proposed Action would result in short-term beneficial economic impacts to local communities from an estimated \$2 million in direct project spending and temporary employment for about 10-15 construction workers.

## **DETERMINATION**

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Based on the information in the EA, as summarized here, BPA determines that the Proposed Action with the new pipeline option is not a major federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act (42 USC 4321 *et seq.*). Therefore, an EIS will not be prepared and BPA issues this FONSI for the Proposed Action.

Issued in Portland, Oregon.

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