

**Supplement Analysis**  
for the  
**Columbia River Basin Tributary Habitat Restoration**  
**(DOE/EA-2126/SA-46)**

**Pack River Delta Restoration Project**  
**BPA project number 1992-061-03**  
**BPA contract number 84045 Rel 4**

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. In May of 2023, Bonneville completed a Supplement Analysis (SA; SA-34) that found that island creation and expansion actions did not represent a substantial change to the proposal evaluated in the Programmatic EA and were not significant new circumstance or information relevant to the environmental concerns that were not addressed by the Programmatic EA.

Consistent with the Programmatic EA, this site-specific SA analyzes the effects of the Pack River Delta Restoration Project that would implement restoration actions assessed in the Programmatic EA in the Pack River Delta (Delta) along the shores of Lake Pend Oreille in Bonner County, Idaho. The project objectives are to raise and restore upland areas in the Delta by creating new islands where native vegetation can be established and provide wildlife habitat.

This SA analyzes the site-specific impacts of the Pack River Delta Restoration Project to determine if it is within the scope of the analysis considered in the Programmatic EA, including whether there are substantial changes to the proposal analyzed in the 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) and 10 CFR 1021 *et seq.*

**Proposed Activities**

Bonneville proposes to fund the Idaho Department of Fish and Game (IDFG) to raise and restore areas in the Pack River Delta in Bonner County, Idaho by creating eight new landforms and islands, bringing them above summer-time lake levels so that native vegetation can be established.

The Pack River is the second largest tributary to Lake Pend Oreille (the Clark Fork River being the largest), entering at the north end of the lake approximately ten miles east of Sandpoint, Idaho. The

Pack River provides important spawning and rearing habitat and a migration corridor for Endangered Species Act (ESA)-listed bull trout (threatened). The project area is bounded by the Lake Pend Oreille Wildlife Management Area on the west and Idaho State Highway 20 on the east. Across Highway 20 are several private residences and land managed by the U.S. Forest Service (Idaho Panhandle National Forest).

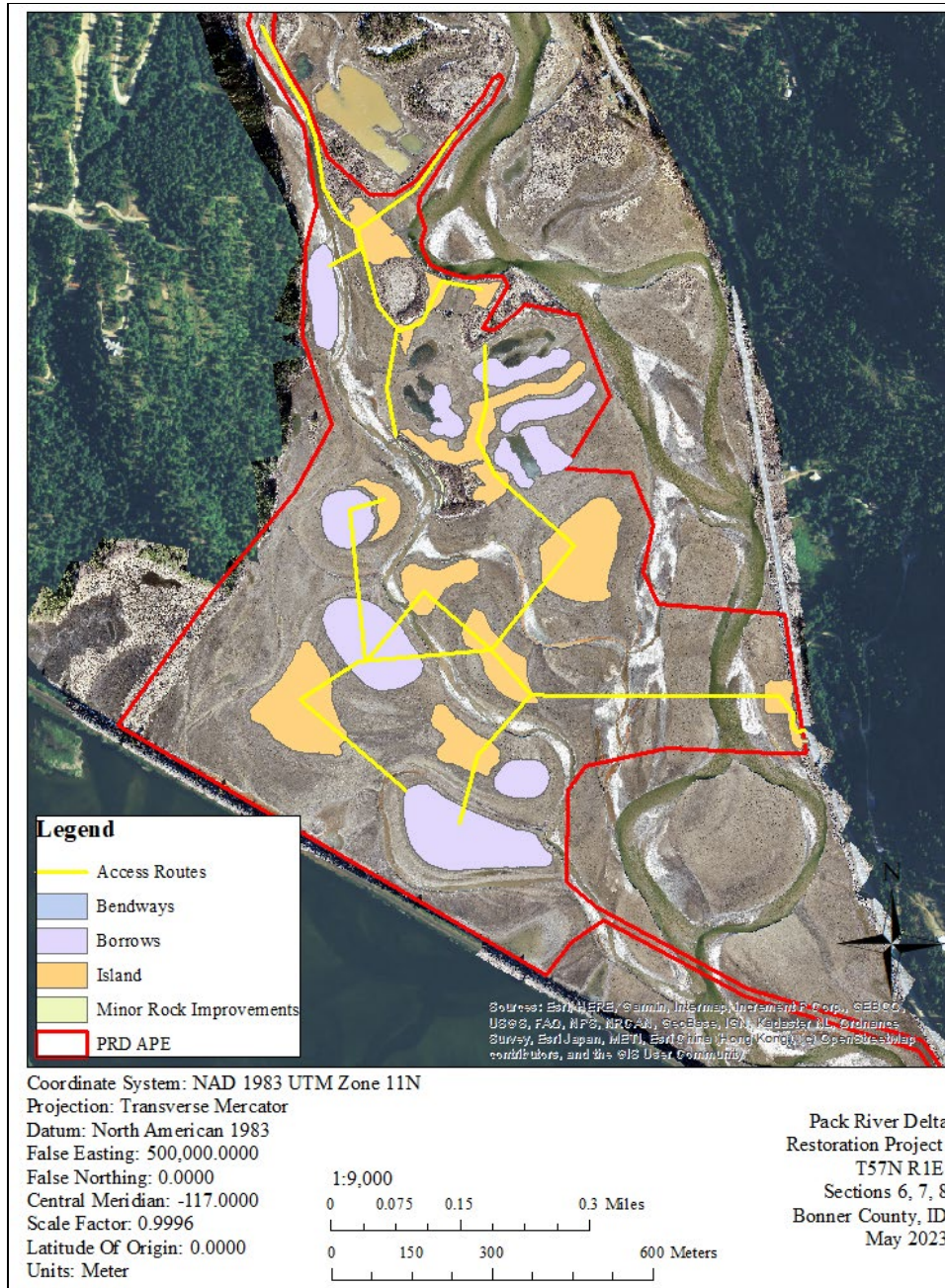


Figure 1. Pack River Delta Construction Areas

The Pack River Delta Restoration Project is intended to mitigate the loss of wildlife habitat caused by the operations of the Albeni Falls and Cabinet Gorge dams. Due to the placement of a railroad line breakwater, the Pack River Delta is protected against wind-driven wave erosion from the south, so the loss of wildlife habitat stems partially from the raising and lowering of Lake Pend Oreille by the operation of Albeni Falls Dam. Further, the Pack River is an undammed river and delivers woody debris and sediment to the Delta. Because soils are exposed after vegetation has died and soils eroded due to fluctuating lake levels, much of the target area has turned into a mud flat, and the sediment delivered by the Pack River is not captured in the delta.

Construction of the Pack River Delta Restoration Project would entail the excavation of barrow areas to provide fill that would be used to create the new raised island areas and enhance existing islands. Island creation would result in eight new landforms and islands bringing them above summer-time lake levels. The total area created by the new islands would be approximately 20 acres. Once completed, the new island areas would be revegetated with native vegetation, which would help establish new emergent zones (partially submerged) surrounding the upland areas. These island creation activities would be conducted from November 2023 to February 2024 when the project area is exposed (not submerged) so that in-water work is not necessary. Excavating the barrow areas would also increase wetland habitat complexity by creating 17 acres of new deep-water habitat and pools. Once the upland areas are established, the new habitat would attract wildlife and improve recreation access and opportunities for sportsmen.

Construction access would occur from State Highway 20 and would cross the Pack River to allow construction equipment to reach the project area (see Figure 1). A temporary bridge would be installed that would span the Pack River. Once across the Pack River, temporary access roads would be built to the various construction zones using interlocking construction matting.

These actions would support conservation of ESA-listed species considered in the 2020 ESA consultations with the U.S. Fish and Wildlife Service on the operations and maintenance of the Columbia River System (CRS). This project also supports ongoing efforts to mitigate for effects of the Federal Columbia River Power System on fish and wildlife in the mainstem Columbia River and its tributaries pursuant to the Pacific Northwest Electric Power Planning and Conservation Act of 1980 (Northwest Power Act) (16 U.S.C. (USC) 839 *et seq.*)

### **Public Scoping, Comments, and Responses**

To help determine issues to be addressed in this SA, BPA conducted public scoping between August 3 and September 4, 2023. A letter describing the proposed project, including public notification and a location map, was sent to local landowners, Tribes, local, state and federal agencies, and other interested parties. Three letters or emails were received from two individuals during the public scoping period. BPA received the following questions, and has provided responses in italics below:

- Commenter 1: My one suggestion would be to identify wildlife species that will benefit from island restoration/creation and include in this numerical estimate, if available, abundance of existing populations and expected biological benefits.

*Response: Pack River Delta improvements would primarily benefit waterfowl. Maximum waterfowl counts on Lake Pend Oreille usually occur in November and December. Waterfowl numbers have been as*

high as 60,000 ducks, 15,000 Canada geese, and 2,000 tundra swans. Diving ducks such as redheads, scaup, and ring-necked ducks also utilize the area. Redhead counts have reached 20,000 ducks. The biological benefits of the project are expected to be an increase in habitat complexity in the Delta and provide additional areas that would attract waterfowl, particularly in the winter months when the lake levels are lowest (Pearson, 2020).

- Commenter 2

Comment 1: : We are in the process of obtaining access to our land locked lots (pin nos. RP57NO01-E073150A and E073001A). We have retained legal counsel to do so. Our preferred access is along the shoreline road that you will be using for creating the eight new islands. Will you be leaving the road that you will be creating intact so that it can be used subsequently for traffic? Who owns the road that you will be using? Please provide a sketch or drawing of the road.

Comment 2: Thank you for your quick response to our questions and comments. We have the following comments on the report you sent us:

1. The bendway weir on the west side of island #13. We would appreciate it if you dredge that area so that we can get our boats out of the area around our lots to the lake.
2. Block 15 of the IDFG: Access to the construction area is "or from an existing right of way near the northwest corner of the delta near road mile 38.7". We request you use this area and do not restore the road to grade. Leave the road for access by homeowners to land locked lots.

*Response: Your request for additional dredging to allow boat access to your property is not within the scope of this project, which is to enhance wildlife habitat conditions within the Pack River Delta.*

*As described above, all construction access to the project site would be on the west side of the Delta, off Highway 20. Construction equipment would access the site via a temporary bridge over the Pack River. Project construction is planned for November 2023, during winter draw-down of Lake Pend Oreille so the Pack River Delta habitat will be a mudflat. There are no existing roads in the Delta, so temporary access routes would be created using interlocking construction matting that would be removed once construction is completed so no roads will remain. The areas used for access would then be flooded with summer lake elevations and the temporary access would be inundated. The project and all temporary access routes would occur on land managed by the U.S. Army Corps of Engineers and Idaho Department of Fish and Game as part of the Pend Oreille Wildlife Refuge Area – Pack River Unit. The project design that shows the locations of the temporary access roads that are proposed for the project are shown above.*

### **Environmental Effects**

The Pack River Delta Restoration Project would require the use of heavy equipment, including a track-mounted excavator excavating barrow areas, dump trucks for hauling excavated material, and a bulldozer for constructing new island areas. Operation of these machines for these tasks would disturb

and displace soil, create noise, and produce vehicle emissions. Typical effects of these environmental disturbances are described in Chapter 3 of the Programmatic EA and summarized in this document.

Below is a description of the potential site-specific effects and an assessment of whether these effects are consistent with those described in the Programmatic EA. The Pack River Delta Restoration Project is designed to improve wildlife habitats over the long term so the adverse effects from construction activity, as detailed below, would be short-term only.

### **1. Fish and Aquatic Species**

The effects of using mechanized equipment and manually working in the Pack River Delta are consistent with the analysis in Section 3.3.1 of the Programmatic EA (“Fish and Aquatic Species”). 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.

Bull trout is the only listed fish under the ESA. While the Pack River Delta is designated as critical habitat for bull trout, all of the construction would be in exposed areas because of the reservoir being drawn down to low levels in the fall and winter. A temporary bridge would be installed over the Pack River for equipment to access the area. This would have the potential to impact bull trout if they were present, but adult bull trout would not be migrating in November. The Pack River delta is designated as foraging, migration and over-wintering (FMO) critical habitat for bull trout but is used primarily as a migratory corridor between Lake Pend Oreille and spawning areas in the upper Pack River. Because the project would occur in the shallow water portions of the Delta, away from the main channel, there would be no effect on bull trout critical habitat.

The Pack River Delta Restoration Project’s short-term adverse effects would include exposing, displacing, reconfiguring, or compacting earth using mechanized equipment in the Pack River Delta. Turbidity in the Pack River is not anticipated because there would be no instream excavation, dewatering, or reintroduction of flows over newly exposed soils and gravels, though some minor sediment inputs would occur from the installation of the temporary bridge. Because of this, physical effects to fish or other aquatic organisms or their habitats would be low.

The Pack River Delta Restoration Project’s long-term beneficial effects for fish and aquatic species would include creation of more complex habitats created by excavation of the barrow areas and the establishment of new raised vegetated islands. These beneficial effects are consistent with the analysis in the Programmatic EA.

### **2. Water Resources**

The effects of using mechanized equipment and manually working in the Pack River Delta are consistent with the analysis in Section 3.3.2 of the Programmatic EA (“Water Resources”). Section 3.3.2.3 (“Effects Conclusion for the Proposed Action on Water Resources”) describes overall low impacts on water quality after considering moderate short-term adverse effects and beneficial long-term effects.

There could be some increased turbidity causing minor short-term water quality effects resulting from the installation of the temporary bridge. This level of impact would be low, consistent with the analysis in the Programmatic EA.

### **3. Vegetation**

Because construction activities for the Pack River Delta Restoration Project would occur in a mud flat area normally submerged by Lake Pend Oreille, there would be no effects on vegetation from project construction. The new island areas would be revegetated following construction so there would be an overall net benefit to vegetation, consistent with the analysis in the Programmatic EA.

### **4. Wetlands and Floodplains**

The effects of using mechanized equipment and manually working in the Pack River Delta are consistent with the analysis in Section 3.3.4 of the Programmatic EA (“Wetlands and Floodplains”). Section 3.3.4.3 (“Effects Conclusion for the Proposed Action on Wetlands and Floodplains”) describes overall low impacts to wetlands and floodplains after considering short-term adverse effects and beneficial long-term effects.

The Pack River Delta Restoration Project is anticipated to have less impacts than those described in the Programmatic EA. The island creation portion of the project would utilize material from within the Pack River Delta and so additional material would not be added that would affect the Lake Pend Oreille floodplain. Approximately 150 cubic yards of rock would be imported to protect some of the island areas. The relatively small amount of material being imported, in relation to total area of the lake, would not have an impact on the Lake Pend Oreille floodplain.

The project area would occur in the exposed lakebed of Lake Pend Oreille and is not considered to be a wetland. Therefore, this project would have no effect on wetlands.

### **5. Wildlife**

The effects on wildlife and wildlife habitats from the Pack River Delta are consistent with the analysis in Section 3.3.5 of the Programmatic EA (“Wildlife”). 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.

No special-status species of concern or ESA-listed or state-listed wildlife species are present within the project area.

During the fall and winter months, when the mud flats are exposed, some waterfowl can be found utilizing the area when it is not covered in snow and ice. These birds would likely vacate the area during the construction period but can utilize similar mud flats nearby and return once construction is completed. Post-construction, wildlife would have access to increased habitat that would likely increase and improve over time. The adverse level of impacts would be low in the short term and beneficial in the long term, consistent with the analysis in the Programmatic EA.

### **6. Geology and Soils**

The effects of using mechanized equipment and manually working in the Pack River Delta are consistent with the analysis in Section 3.3.6 of the Programmatic EA (“Geology and Soils”). Section 3.3.6.3 (“Effects Conclusion for the Proposed Action on Geology and Soils”) describes moderate impacts to geology and soils.

Because of the soft and unstable soil conditions on the Pack River Delta floor, access routes would be built to the various construction zones using interlocking construction matting. This would result in

minimal soil compaction and disturbance by heavy equipment; much less of an impact than was considered in the Programmatic EA. Access to the Delta is directly from Highway 20, so no new access roads constructed by grading or moving soil would be necessary. This level of impact associated with minor compaction under the construction matting would be low, which would be less than what was discussed in the analysis in the Programmatic EA.

## **7. Transportation**

The Pack River Delta Restoration Project effects on transportation would be consistent with the analysis in Section 3.3.7 of the Programmatic EA (“Transportation”). Section 3.3.7.3 (“Effects Conclusion for the Proposed Action on Transportation”) describes low impacts to transportation.

The Pack River Restoration Delta Project would not modify any public roads: none would be closed, temporarily blocked, or relocated. Idaho State Highway 20 runs along the north/northeast edge of Lake Pend Oreille and flaggers may need to occasionally stop traffic when the temporary bridge is installed and removed. The travel disruption would be minor on the two occasions it occurs. The project would also affect transportation during construction as vehicles transporting workers and equipment to the site share Highway 20 with other traffic. Traffic disruption would be controlled by flaggers and would occur over a short time period. Further, vehicles transporting workers and equipment would be a small addition to typical Highway 20 traffic, for these reasons the level of impact would be low, consistent with the analysis in the Programmatic EA.

## **8. Land Use and Recreation**

The effects of the Pack River Delta Restoration Project are consistent with the analysis in the Programmatic EA, Section 3.3.8, “Land Use and Recreation,” which states that land use practices underlying project sites would not be changed for most projects and recreation impacts would be low.

There would be no effect on land use because the land use designation would not change, and minor short-term effects on recreation would occur from the proposed project. Public recreational opportunities (hunting) on the Delta would be disrupted for several weeks during construction though hunting opportunities are few during the month of November. Once completed, the project would result in improved habitat for wildlife resulting in beneficial effects for recreational users (hunters). Because the loss of hunting opportunity would be temporary, and other locations with hunting opportunities exist around Lake Pend Oreille, the level of impact would be low, consistent with the analysis in the Programmatic EA.”

## **9. Visual Resources**

The effects of the Pack River Delta Restoration Project on the viewshed in the Delta area are consistent with the analysis in the Programmatic EA, Section 3.3.9, (“Visual Resources”). Section 3.3.9.3, (“Effects Conclusion for the Proposed Action on Visual Resources”) which describes low impacts to visual resources.

Because the project is immediately adjacent to Idaho State Highway 20, all activities would be readily visible to travelers along this route, resulting in short-term visual impacts as described in Section 3.3.9.2 of the Programmatic EA (“Environmental Consequences for Visual Resources”).

The project area in November would normally be an exposed mud flat. The ground disturbance from island creation would be visible during construction but would last for about four months. When construction is complete, the Pack River Delta would be altered but would be an improvement over the mud flat conditions that would normally be visible when Lake Pend Oreille is at winter-time low levels. During summer months when the lake level rises, the new island areas would be visible but would be visually consistent with the surroundings. This level of impact would be low, consistent with the analysis in the Programmatic EA.

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

The effects of the proposed project in the Pack River Delta are consistent with the analysis in Section 3.3.10 of the Programmatic EA (“Air Quality, Noise, and Public Health and Safety”). Section 3.3.10.3 (“Effects Conclusion for the Proposed Action on Air Quality, Noise, and Public Health and Safety”) describes low impacts to air quality, noise, and public health and safety.

The Pack River Delta Restoration Project would occur in a rural area approximately 10 miles east of Sandpoint, Idaho. A few scattered residences are along Idaho State Highway 20, but are more than 0.5 mile from construction activities, so noise, dust, or exhaust from construction activities is unlikely to affect those residences. No long-term source of emissions or noise would be created. The Pack River Delta Restoration Project has no potential to impact public safety infrastructure (e.g., roads, telecommunications, etc.) or to burden emergency services (e.g., police, fire, ambulance, etc.) This level of impact would be low, less than described in the Programmatic EA.

#### **11. Cultural Resources**

The Pack River Delta Restoration Project effects on cultural resources would be consistent with the analysis in Section 3.3.11 of the Programmatic EA (“Cultural Resources”). Section 3.3.11.3 (“Effects Conclusion for the Proposed Action on Cultural Resources”) describes low impacts to cultural resources since potential effects would be resolved through the National Historic Preservation Act Section 106 consultation process.

Bonneville conducted a cultural resource survey and held consultations with the Idaho State Historic Preservation office, the Nez Perce Tribe, Coeur d'Alene Tribe, Confederated Salish and Kootenai Tribes, and Kalispel Tribe of Indians. The resulting survey and consultation concluded that there would be no adverse effect to historic properties in the area. On August 29, 2023, the Idaho State Historic Preservation Office concurred that the Pack River Delta Restoration Project would have no adverse effect on historic properties. No responses were received from consulting the Nez Perce Tribe, Coeur d'Alene Tribe, Confederated Salish and Kootenai Tribes, and Kalispel Tribe of Indians.

#### **12. Socioeconomics and Environmental Justice**

The Pack River Delta Restoration Project effects are consistent with the analysis in Section 3.3.10 of the Programmatic EA (“Socioeconomics and Environmental Justice”). Section 3.3.10.3 (“Effects Conclusion for the Proposed Action on Socioeconomics and Environmental Justice”) describes low impacts to socioeconomics and environmental justice.

As described in the Programmatic EA, the Pack River Delta Restoration Project would not require additional permanent employees, require individuals to leave the local area or relocate to it, affect housing available for local populations, displace people, or eliminate residential suitability of lands being



restored or in their vicinity. It could generate short-term employment for those directly implementing the restoration actions and would provide small short-term cash inputs to local businesses for fuel, equipment, and meals. This degree of effects would be low.

There are no environmental justice populations present that could be affected because the project location is the Lake Pend Oreille lakebed, and no offsite effects are anticipated, so there would be no effect to environmental justice populations.

### **13. Climate Change**

The proposed project's effects on the Pack River Delta are consistent with the analysis in Section 3.3.10 of the Programmatic EA ("Climate Change"). Section 3.3.10.3 ("Effects Conclusion for the Proposed Action on Climate Change") describes low impacts to climate change. Due to the short duration of construction (approximately four months) and the relatively small number of construction vehicles involved, temporary emissions from construction would result in a low level of effect on climate change, mainly from short-term motorized equipment emissions during implementation of restoration actions.

#### **Findings**

The types of actions and the potential impacts related to the proposed Pack River Delta Restoration Project 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 and 40 CFR §1502.9(d). Therefore, no further NEPA analysis or documentation is required.

/s/ Ted Gresh

Ted Gresh  
Environmental Protection Specialist

Concur:

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Katey Grange  
NEPA Compliance Officer

## **References**

Pearson, B. (2020, December 1). *Bounty of Waterfowl*. Retrieved from The Bonner County Bee:  
<https://bonnercountydailybee.com/news/2020/dec/01/idahos-wmas-provide-bounty-waterfowl-hunting-oppor/>