Supplement Analysis
for the
Columbia River Basin Tributary Habitat Restoration Programmatic Environmental Assessment
(DOE/EA 2126/SA-03)

Tucannon Project Area 13
Bonneville project number 2010-077-00
Bonneville contract number 74314

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* (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 *Tucannon Project Area 13 Restoration Project*. The project's objective is to work with and restore natural riverine sedimentation, flooding, and vegetation processes by re-introducing instream natural roughness and increasing floodplain connectivity.

Proposed Action

Bonneville proposes to fund to Washington Department of Fish and Wildlife (WDFW) for restoration activities to increase channel complexity and floodplain connectivity along a one-mile-long segment of the Tucannon River located within WDFW's Wooten Wildlife Area. The combination of large wood structures, berm removal, and gravel augmentation are anticipated to improve bedload transport and floodplain connection in this river reach. These treatments are intended to return the river closer to its historical, naturally-functioning state, and increase fish habitat complexity. These activities are intended to fulfill commitments for Endangered Species Act (ESA)-listed Snake River spring Chinook under the 2020 National Marine Fisheries Service Columbia River System Biological Opinion and provide benefits to other ESA-listed species, bull trout, and Middle Columbia River steelhead.

Specific Actions for Floodplain Restoration include:

Berm Removal: Existing gravel berms would be removed in two locations, and a third berm would be breached in several locations. The two removed berms are approximately 400 and 250 feet long, respectively. The berm materials would be reused onsite for gravel augmentation material.

Instream Wood Placements. Up to 85 wood placements would be constructed along and/or within the Ordinary High Water (OHW) of the main channel of the Tucannon River. These wood placements would consist of nearly 400 trees. Excavator(s) would be used to excavate channel alluvium and floodplain sediments, to place large wood, and backfill the structures with the excavated substrates. Rock would be used to ballast the wood

Floodplain Wood Placements: Up to 40 single logs with root wads would be placed on gravel bars within and throughout the floodplain. Excavator(s) would excavate sufficient alluvium to allow the log to lay flat on the gravel bar or floodplain surface.

Gravel Augmentation: Gravel/cobble would be used to aggrade the channel at several strategic locations throughout the reach. This would be accomplished through four buried log structures designed to lift the bed

approximately 3 feet in key locations. The structures are buried with river rock (a general mix consisting of all sizes) taken from the berms removed during the project and then topped with 3 inch minus gravel.

Riparian Plantings: Native species would be used to revegetate any disturbed areas following completion of constructed project elements. Grass seeding of access routes, staging areas and other disturbed areas would be completed immediately following construction.

Maintenance: Maintenance to these structures (addition of wood or ballast in previously disturbed areas) would occur on subsequent years in response to unforeseen high flow events. Construction of project elements below OHW would be carried out during the summer in-water work window for the Tucannon River, July 15th through August 30th. Project elements above OHW would be completed August through September. Existing gravel access roads and compacted floodplain terrace surfaces would be used for access and staging areas would be located within the overall project footprint away from wetlands and waterbodies.

These activities are intended to fulfill commitments under the 2020 National Marine Fisheries Service Columbia River System Biological Opinion. These actions would also support conservation of ESA-listed species considered in the 2020 ESA consultations with the National Marine Fisheries Service and the United States Fish and Wildlife Service on the operations and maintenance of the Columbia River System.

Environmental Effects

1. Fish and Aquatic Species

The effects of using a excavator for berm removal and gravel and wood placement along the Tucannon River are consistent with the analysis in the Programmatic EA, "*Fish and Aquatic Species*", Section 3.3.1. The Programmatic EA, Section 3.3.1.3, 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 are present in the project area: Middle Columbia River steelhead, Snake River Spring Chinook and Columbia River bull trout and their critical habitat. Consultation on the effects of this action on these species was completed under BPA's programmatic Fish and Wildlife Habitat Improvement Program (HIP4) consultation with the conclusion that the projects would likely adversely affect these species and their critical habitat but would not likely result in jeopardy to the species or result in destruction or adverse modification of their critical habitat.

The short-term adverse effects of this project would expose, displace, reconfigure, or compact earth through the use of mechanized equipment within and along the Tucannon River, and likely create conditions where sediment would be released for a short period of time following construction activities. The amount of sediment released would be moderate because there would be instream excavation, dewatering, and reintroduction of flows over newly exposed soils and gravels. However, mitigation measures as detailed in the Programmatic EA, Appendix B for work area isolation and fish salvage would be applied, minimizing these impacts. These mitigation measures include: slowly dewatering the reach, conducting fish capture activities during periods of coolest water temperatures, having a fish biologist supervising fish capture activities, and effective utilization of block nets to secure the area. The sediment inputs would be consistent with the amounts evaluated in the Programmatic EA at Section 3.3.1.2.1.

The work area isolation, fish salvage, dewatering, and instream construction activity would displace fish from the work area until the work area is re-watered. Small aquatic organisms that could not be practically salvaged would likely be destroyed. The newly constructed in-stream environment would be re-colonized by fish and other aquatic organisms with near-full recovery likely in a matter of weeks, and full recovery likely following the first seasonal flushing flows. The anticipated amount of activity and the level of aquatic species disturbance, however, is consistent with the analysis in the Programmatic EA found at Section 3.1.3 that movement, sounds, and vibrations of human and mechanical activity would disturb fish and likely displace them temporarily.

This project's beneficial effects include the removal of artificially confining features such as push-up berms and increases in-channel roughness from large wood additions. The frequency and duration of hydrological connectivity within this reach of the Tucannon River would increase, along with the restoration of stream flow and temperature regimes to ranges beneficial to fish and other aquatic species. These beneficial effects are consistent with the analysis in the Programmatic EA found at Section 3.2.2, *"Effects of Improving River, Stream, Floodplain, and Wetland Habitat (Category 2)*".

2. Water Resources

The effects of using an excavator for berm removal and gravel and wood placement along the Tucannon River are consistent with the analysis in the Programmatic EA, "*Water Resources*", Section 3.3.2. The Programmatic EA, Section 3.3.2.3, 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, as these projects make no water withdrawals.

Overall, the project would create short-term sediment input from reintroducing flows to the dewatered work area following berm excavation, gravel and wood placement. As in the Programmatic EA, this is a short-term effect which would be lessened by the application of mitigation measures for work area isolation (Appendix B in Programmatic EA) and others, such as protection of existing vegetation, minimization of areas to be impacted, location of refueling areas, use of non-toxic hydraulic fluids, and revegetation when actions are complete. The level of effect on water quality for the mid to long term would be low, which is consistent with the analysis presented in the Programmatic EA.

3. Vegetation

The effects of using an excavator for berm removal and gravel and wood placement along the Tucannon river are consistent with the analysis in the Programmatic EA, "*Vegetation*", Section 3.3.3. The Programmatic EA, Section 3.3.3.3, describes overall moderate impacts to vegetation after considering moderate short-term adverse effects and beneficial long-term effects. No plant species listed under the Endangered Species Act are present within this project area.

This project, however, is anticipated to have less impact than that described in the Programmatic EA. Impacts to vegetation would be primarily from the loss of invasive vegetation growing on the berms. Areas that would be disturbed would be seeded with a locally derived and adapted native seed mixture. Any temporary impacts to on-site vegetation that may result from the implementation of this project would be completely restored to diverse, native vegetative communities.

4. Wetlands and Floodplains

All wetlands would be avoided during construction. The placement of floodplain roughness features (log placements) in the floodplain would be consistent with the analysis in the Programmatic EA "Wetlands and Floodplains", Section 3.3.4.2.2. The placement of floodplain roughness features would slow the flow of water across the floodplain surface thereby improving floodplain function. No non-woody fill would be added to wetlands. Wetlands would be improved by adding wood only. The project would be following the BPA HIP4 conservation measures to avoid temporary construction related impacts. A Nationwide Permit 27 (NWS-2020-477) was obtained and all permit conditions would be followed. This level of effect would be low, as is stated in the Programmatic EA.

5. Wildlife

The effects of using an excavator for berm removal and gravel and wood placement along the Tucannon River are consistent with the analysis in the Programmatic EA, "*Wildlife*", Section 3.3.5. The Programmatic EA, Section 3.3.5.3, describes overall low impacts to wildlife after considering short-term adverse effects and beneficial long-term effects. The Tucannon subbasin contains 276 species of wildlife, whose presence/status varies by area. No wildlife species, including endangered, threatened, sensitive or candidate species, have been documented in or adjacent to the project area and no designated critical habitat is present.

Impacts would primarily be from disturbance of wildlife by the temporary presence and activity of humans and machines. This could temporarily displace them from their preferred haunts during construction (three to four weeks), and they would likely re-occupy the site once human activity has ceased. This level of effect would be low, as is stated in the Programmatic EA.

6. Geology and Soils

The effects of using an excavator for berm removal and gravel and wood placement along the Tucannon River are consistent with the analysis in the Programmatic EA, "*Geology and Soils*", Section 3.3.6. The Programmatic EA, Section 3.3.6.3, describes moderate impacts to geology and soils.

The removal of approximately 650 feet of berm and the placement of wood would temporarily disturb soils on the project site. Best Management Practices (BMPs) have been developed to avoid or minimize temporary fine sediment impacts during construction and project elements were sited to minimize channel crossing locations. All ground disturbance would be stabilized and rehabilitated using native plantings.

Gravel augmentation through the placement of berm materials would release fine sediment into the river. The amount of sediment released would be a short-term pulse, which would disspate in a matter of hours and be minimized through the use of sediment fencing. Large wood structures are designed to capture sediment and incorporate the materials into the structure. The level of effect from this project, would be short-term and moderate, which is consistent with the analysis presented in the Programmatic EA.

7. Transportation

The effects of using an excavator for berm removal and gravel and wood placement along the Tucannon River are consistent with the analysis in the Programmatic EA, "*Transportation*", Section 3.3.7. The Programmatic EA, Section 3.3.7.3, describes low impacts to transportation.

This action would not impact any roads, either open or closed, public, or private. No roads would be closed; none would be temporarily blocked; none would be relocated. The most effect this action would have on transportation would be that vehicles transporting workers and equipment to the project site would be sharing local roads with other traffic. This level of impact would be low, as is stated in the Programmatic EA.

8. Land Use and Recreation

There would be no effect on land use or recreation from this proposed action. Land uses would not change; and public recreational opportunity on the WDFW Wooten Wildlife Area would not change. This level of effect is consistent with that described in the Programmatic EA at Section 3.3.8.3 which states that land use practices underlying project sites would not be changed for most projects.

9. Visual Resources

The effects of this action in and along the Tucannon River are consistent with the analysis in the Programmatic EA, "*Visual Resources*", Section 3.3.9. The Programmatic EA, Section 3.3.9.3, describes low impacts to visual resources.

The proposed work would have little to no effect on visual quality. The new large wood structures would be visually consistent with adjacent vegetation and the topography of the proposed side channels and would not be located in a visually sensitive area. Any change to the viewshed due to construction vehicles or equipment would be short term and temporary. This level of impact would be low, as is stated in the Programmatic EA.

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

The effects of this action in and along the Tucannon River are consistent with the analysis in the Programmatic EA, "*Air Quality, Noise, and Public Health and Safety*", Section 3.3.10. The Programmatic EA, Section 3.3.10.3, describes low impacts to air quality, noise, and public health and safety.

The project is far from any major population center or public use area, and would not have any potential to directly impact the public, other than when sharing the roads when workers travel to and from the work site. But this is very short-term, and likely too far from any population area to be heard or seen; no long-term source of emissions or noise would be created. No action proposed has the potential to impact public safety infrastructure (e.g. roads, telecommunications) or place a burden on emergency services (police, fire, ambulance). This level of impact would be low, as is stated in the Programmatic EA.

11. Cultural Resources

The effects of this action are consistent with the analysis in the Programmatic EA, "*Cultural Resources*", Section 3.3.11. The Programmatic EA, Section 3.3.11.3, describes low impacts to cultural resources because cultural resources would be avoided by project construction or any expected effects would be appropriately resolved through the Section 106 consultation process.

On December 2018, Bonneville initiated Section 106 consultation with the Confederated Tribes and Bands of the Yakama Nation, Confederated Tribes of Colville Reservation (CCT), Confederated Tribes of the Umatilla Indian Reservation, Nez Perce Tribe, the Washington Department of Fish and Wildlife, and the Washington Department of Archaeology and Historic Preservation (DAHP). The WDFW conducted cultural resource surveys and prepared a report. Bonneville determined that the implementation of the proposed undertaking would result in no historic properties affected (WA 2018 239) and sent out a final determination on October 7, 2019. The CCT, NPT, and SHPO concurred with BPA's determination. No other tribal responses were received within 30 days.

12. Socioeconomics and Environmental Justice

The effects of this action are consistent with the analysis in the Programmatic EA, "*Socioeconomics and Environmental Justice*", Section 3.3.10. The Programmatic EA, Section 3.3.10.3, describes low impacts to socioeconomics and environmental justice.

As described in the Programmatic EA, this action would neither generate a requirement 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 the land being affected, or from lands near the project site. The project would generate short-term employment for those directly implementing the actions and provide small, short-term input to local businesses for fuel, equipment, and meals. This degree of effect would be low, which is consistent with the Programmatic EA.

There are no environmental justice populations present that could be affected, as this action and its impacts are limited to the private land on which it is located, and no offsite or indirect effects are anticipated that could impact such populations elsewhere.

13. Climate Change

The effects of this action are consistent with the analysis in the Programmatic EA, "*Climate Change*", Section 3.3.10. The Programmatic EA, Section 3.3.10.3, describes low impacts to climate change.

The action would have a low level of effect on climate change from short-term emissions from motorized equipment operations during implementation of the proposed activity.

Findings

Bonneville finds that the types of actions and the potential impacts related to the proposed *Tucannon Project Area 13 Restoration Project* 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 Proposed Action and no significant new circumstances or information relevant to environmental concerns bearing on the 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.

/s/ Dan Gambetta
Dan Gambetta
Environmental Protection Specialist

Concur:

/s/ Sarah T. Biegel Date: *May 24, 2021*
Sarah T. Biegel

NEPA Compliance Officer