

Supplement Analysis
for the
Columbia River Basin Tributary Habitat Restoration
(DOE/EA-2126/SA-40)

Asotin Creek Project Area 06 Fish Habitat Restoration
BPA project number 1994-018-05

Bonneville Power Administration
Department of Energy



Introduction

In December 2020, Bonneville Power Administration (BPA) and the Bureau of Reclamation (BOR) completed the *Columbia River Basin Tributary Habitat Restoration Programmatic Environmental Assessment* (DOE/EA-2126) (Programmatic EA). The Programmatic EA analyzed the potential 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 effect of the proposed Asotin Creek Project Area 06 Fish Habitat Restoration (Project), which would implement many of the specific restoration actions that the Programmatic EA assessed in the Snake River Basin in Asotin County, Washington. Project objectives include increasing fish habitat by increasing the quantity and quality of available aquatic habitat for steelhead, chinook, and bull trout, and improving channel and floodplain function to support long-term habitat complexity.

The SA analyzes the Project's site-specific impacts to determine if it is within the scope of the Programmatic EA's analysis. It also evaluates whether the Project presents significant new circumstances or information relevant to environmental concerns that the Programmatic EA did not address. The findings of this SA determine whether additional National Environmental Policy Act (NEPA) analysis is needed pursuant to 40 Code of Federal Regulations (C.F.R.) § 1502.9(d) and 10 C.F.R. § 1021 et seq.

Proposed Activities

BPA proposes to fund the Asotin County Conservation District (ACCD) to complete the Project along a 0.4-mile-long segment of Asotin Creek between river miles (RM) 7.0 and 7.4. The Project would support the conservation of ESA-listed species considered in a 2020 ESA consultation with National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (FWS) on the operation, maintenance, and management of the Columbia River System. Funding the project would also support ongoing efforts to mitigate for effects for 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, 16 U.S.C. 839 *et seq.*

The Project is located along Asotin Creek approximately 7 miles southwest of Asotin, Washington along the Asotin Creek Road. The Project would begin at RM 7.0 and would end at approximately RM 7.4. Asotin Creek is a tributary to the Snake River and is listed as a major spawning area for the Asotin

population of the Snake River Steelhead distinct population segment and the Project is in a priority restoration reach as identified by the Snake River Salmon Recovery Plan for southeast Washington (Snake River Salmon Recovery Board, 2011). The Project reach is located downstream of a 1-mile-long bedrock canyon. This Project would address some limiting factors (habitat diversity, sediment input, temperature, and habitat quality) identified as part of the Snake River Salmon Recovery Plan. Adjacent to the project area, between Asotin Creek Road and Asotin Creek, a home is located approximately 60 feet from the side channel. Habitat complexity and floodplain connectivity would be enhanced by side channel reconnection, installed log structures, off-channel habitat enhancement, and floodplain roughness.

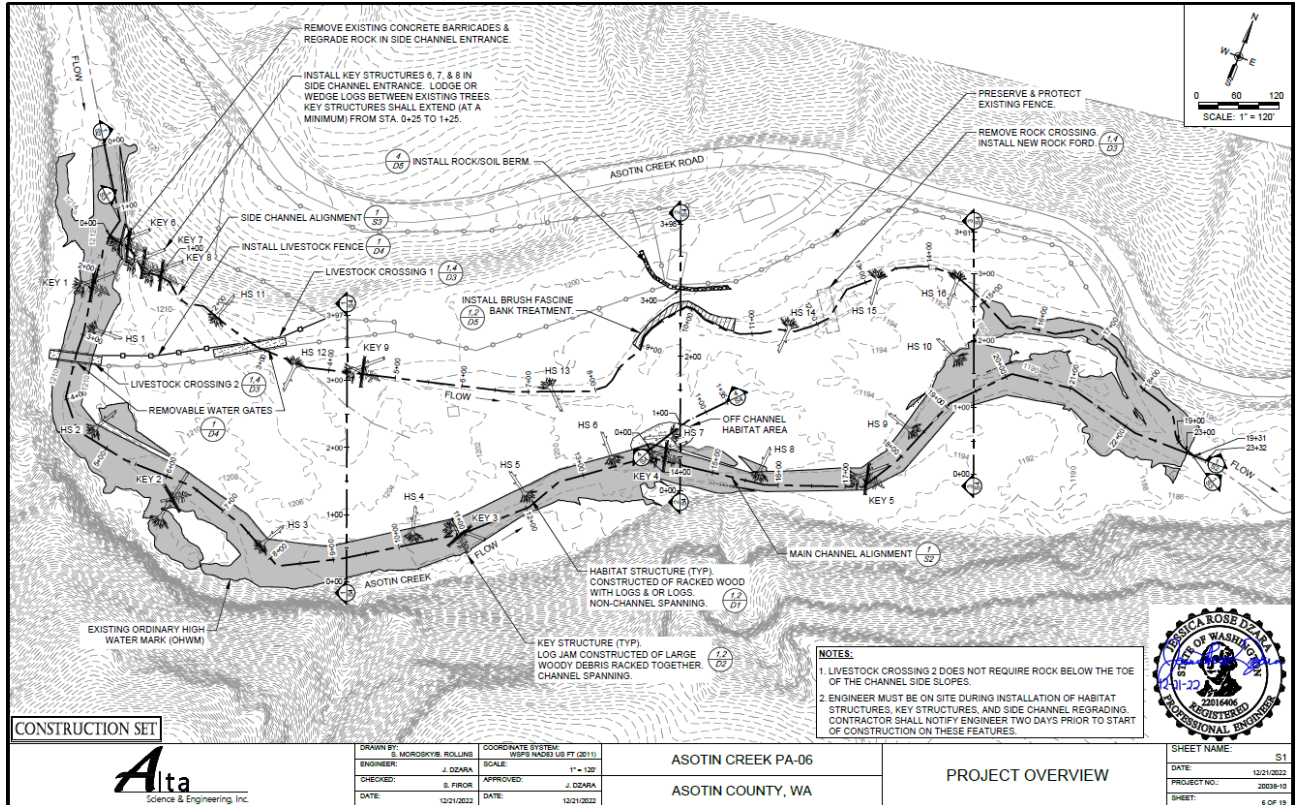


Figure 1: Asotin Creek PA-06 Fish Habitat Restoration Components

The project includes the below elements.

Side Channel Reconnection

The Project would involve side channel reconnection that would be accomplished by removing concrete jersey barriers and regrading a portion of the side channel entrance where angular rock was used to stabilize the jersey barriers. Key structures would be placed in the side channel entrance to reduce the potential for down cutting where a steeper channel slope exists. The side channel reconnection’s areal extent would be approximately 8,000 square feet. Side channel reconnection would increase the quantity and quality of available fish habitat in the Project area, improve floodplain connectivity, and increase high-flow and flood-event conveyance in the Project area compared to the existing single-thread channel.

Log Structures

Proposed log structures, habitat structures and key structures, would have a natural appearance and engage at all flows with logs and boulders placed along the channel bottom.

Key structures would be made of large woody debris and built to span the bankfull channel. Their primary objective is to slow and spread flows laterally during flood events. Key structures would be partially buried in the streambed or banks or wedged between live trees or log posts for stability. Smaller wood material would be wedged within the larger logs to decrease porosity of the structure. No hardware would be used to anchor the key structures.

Habitat structures would be made of large woody debris but are smaller than key structures and would not span the bankfull channel. Their primary objective is to trap and sort sediment, deflect flood flows in a desired direction to target bank or floodplain features, and provide quality habitat and refuge for salmonids during all flows. Bank-attached structures would deflect flow laterally and spread flow out. Rootwads would be placed on the channel bed to ensure that the habitat structures are active at a range of flows, including low flows. Anchor logs would be buried in the streambank and fill would be compacted with vibratory compaction equipment and placed in compaction layers (lifts). No hardware would be used to anchor the habitat structures. All structures would be partially buried in the banks or wedged between trees or log posts for stability.

Log structure installation in the mainstem would occur during the in-water work window, while side channel structures would be installed when the structure sites are dry. The structures installation areal extent would be approximately 200 square-feet for habitat structures and 900 square-feet for key structures. Potential impacts would be minimal, but disturbance to native vegetation along the existing channel would occur. Disturbed areas would be roughened and new vegetation would be planted post-construction.

Off-Channel Habitat Area

The proposed off-channel habitat area would be excavated to create a lower section that would be inundated at the 2-year flow event. This area would then be sloped to drain to the main channel to minimize the potential for fish stranding at low flow. The off-channel's areal extent of this portion of the project would be approximately 2,500 square feet. Key structures would be placed downstream of the off-channel habitat area to increase inundation. Potential impacts associated with the off-channel habitat area would be minimal, but disturbance to native vegetation along the project area would occur. This area would have plantings occurring post-construction in order to revegetate disturbed areas and expand native riparian vegetation, along with hydroseeding, and floodplain roughness.

Brush Fascine

Brush bundles (fascines) would be placed along approximately 180 linear feet of the side channel streambanks to decrease sedimentation and boost native vegetation in those areas. The brush fascine's areal extent would be approximately 2,000 square feet. Potential impacts would be minimal, but disturbance to native vegetation along the side channel would occur. Disturbed areas around the treatment would be planted, seeded, and the floodplain would be roughened.

Rock/Soil Berm

A berm would be installed to provide flood protection up to a 100-year flood event to the adjacent home and property. The berm would be installed using a rock and clay core that would restrict flow and discourage erosion that could cause failure of the underground piping serving the property. Rock armoring would be included to minimize the potential for erosion affecting the adjacent home. The rock

and clay material would be compacted using vibratory compaction equipment to provide a cohesive connection between surfaces.

The proposed berm construction would be approximately 1,300 square feet. The finished berm would be covered in slash and seeded to promote native vegetation enhancement. Disturbed areas around the berm would be planted, seeded, and treated with floodplain roughness.

Livestock Crossings and Rock Ford

Two livestock crossings and one rock ford would be installed within the Project area. These crossings would consist of gravel and rock to create a stable area where cattle or equipment could cross the stream without damaging the streambed or banks. Installation of the livestock crossings would provide a pathway to move cattle through the project area between grazing allotments, and installation of the rock ford would provide an access point for the landowner. The crossings and ford would have a cumulative aerial extent of 1,000 square feet. The contractor would be required to preserve and protect native vegetation marked out on site and locations would be adjusted to avoid substantial impacts.

Floodplain Roughness

The proposed floodplain roughness treatments would be utilized to break up flow paths, help re-establish native vegetation, and promote sediment accumulation on the floodplain. Floodplain roughness would include the installation of 11 post assisted log structures (PALS) to help accumulate fine sediments on the floodplain. These structures would be in conjunction with regrading of the floodplain to be consistent with the original floodplain before disturbance occurred. These actions would occur on the floodplain in areas disturbed by construction activities including temporary access and haul routes, small disturbed areas near log structures, brush fascine, and livestock crossings. The work's extent would be approximately 1 acre in multiple locations spread across the total Project area. These areas would be seeded and planted according to the revegetation plan.

Revegetation

Hydro-seeding would occur in conjunction with live plantings to help prevent non-native, weedy, species from reoccupying the disturbed areas. Additional revegetation in the form of plantings would occur post-construction for multiple years after implementation to maintain native vegetation establishment in the project area. The proposed revegetation of the project site would provide native plant species a greater potential to re-establish and outcompete non-native, weedy, vegetation from encroaching into the project area. The revegetation would also help reduce the potential for post-construction sediment erosion. Approximately 1.5 acres of the project area would be revegetated.

Environmental Effects

Chapter 3 of the Programmatic EA as summarized in relevant parts below, discusses typical environmental disturbances and impacts stemming from habitat restoration in the Columbia River basin. Below is a description of the Project's potential site-specific impacts and an assessment of whether these impacts are consistent with those described in the Programmatic EA.

1. Fish and Aquatic Species

In the short term, the Project would expose, displace, reconfigure, or compact earth through the use of mechanized equipment within and along Asotin Creek and likely create conditions where sediment would be released for a short period of time during construction activities. A moderate amount of sediment is anticipated to be released by the Project activities, including bank excavation for installation of key log structures, livestock crossing and rock ford installation, and rewatering of the additional side

channel. However, mitigation measures detailed in Appendix B of the Programmatic EA for work area isolation and fish salvage would be applied, minimizing these impacts. The sediment inputs would be consistent with the amounts evaluated in Section 3.3.1.2.1 of the Programmatic EA (“Short-Term Effects to Fish and Aquatic Species from Construction Activities”).

The instream construction activity would displace fish from the work area until implementation is completed. Small aquatic organisms that could not be practically salvaged would likely not survive. The newly constructed in-stream environment would be re-colonized by fish and other aquatic organisms, with nearly all fish likely returning in a matter of hours to days, and with full returns likely following the seasonal flushing flows. Fish would also be temporarily disrupted and displaced during livestock crossing and rock ford use post-implementation. The livestock crossings and rock fords would be designed to provide fish passage, so this disruption would be temporary and not impede fish use after crossings. The anticipated amount of activity and the level of aquatic species disturbance is consistent with the analysis in Section 3.3.1.2.1 of the Programmatic EA (“Short-Term Effects to Fish and Aquatic Species from Construction Activities”). Specifically, those sections of the Programmatic EA disclosed direct, harmful, and sometimes fatal impact to aquatic species, including displacement of fish from their preferred habitat during periods of movement, sounds, and vibrations from human and mechanical activity.

ESA-listed Snake River Chinook and steelhead and their critical habitat are present within the Project area. BPA completed Section 7 consultation on the potential effect of the Project on ESA-listed species under BPA’s programmatic Fish and Wildlife Habitat Improvement Program (HIP) biological opinion. The Project would include implementation of HIP conservation measures. Overall, short-term impacts to fish and aquatic species would be low, consistent with the analysis in Section 3.3.1.2.1 of the Programmatic EA (“Short-Term Effects of Fish and Aquatic Species from Construction Activities”).

Project implementation would have beneficial long-term effects on fish and aquatic species as a result of increased stream complexity, enhanced riparian cover, improved passage and protection along Asotin Creek, increased available floodplain access and flows, and an expected reduction in summer water temperatures. The beneficial effects are consistent with the analysis in Section 3.3.1.2.2 of the Programmatic EA (“Effects to Fish and Aquatic Organisms unique to the Categories of Action”).

Overall, Project impacts would be consistent with Section 3.3.1.3 of the Programmatic EA (“Effects Conclusion for the Proposed Action on Fish and Aquatic Species”), which describes low impacts to fish and aquatic species after considering moderate short-term adverse effects from construction and beneficial long-term effects.

2. Water Resources

Several aspects of the Project construction—including mechanized equipment operation, secondary channel reconstruction, ford installation, berm installation, boulder placement, and large wood structure development along Asotin Creek—would temporarily expose, displace, reconfigure, or compact earth. In-stream excavation, improved secondary channel reconstruction, and large wood structure installation could briefly cause plumes of sediment discharge during project implementation, for which ACCD would apply mitigation measures as detailed in Section 2.4 of the Programmatic EA (“Mitigation Measures and Design Criteria”). With the implementation of the mitigation measures and the limited duration of any resultant turbidity plume, the Project’s anticipated impacts to water quality and quantity would be low and non-existent, respectively, consistent with the analysis in Section 3.3.2 of the Programmatic EA (“Water Resources. Project Implementation”).

The Project would decrease unnatural sediment inputs in the long term by increasing sediment storage potential and floodplain access. The Project is expected to reduce stream temperatures in the long term by improving stream form and increasing instream habitat structures and riparian vegetative cover and

protection. These long-term beneficial effects are consistent with those described in the Programmatic EA.

Section 3.3.2.2 of the Programmatic EA (“Environmental Consequences for Water Resources”) describes overall low impacts to water quality after considering moderate short-term adverse effects during construction and the Project’s beneficial long-term effects. The Project would be consistent with these effects.

3. Vegetation

No ESA-listed or state-listed plant species are present in the Project area. Project implementation, including the improved secondary channel, large wood structures, establishment of overland access routes, staging and spoil disposal areas, would have moderate short-term impacts on vegetation. ACCD would remove, grade, and trample approximately 2 acres of vegetation within the Project work areas. Temporary access routes, staging areas, and spoil disposal areas would be established to minimize impacts to the floodplain, and ACCD would minimize disturbance to riparian areas during construction to the extent practicable. Any trees or woody material removed during Project construction would be used for instream habitat structures. After construction, ACCD would revegetate temporary work areas. ACCD would expand the limited existing riparian corridor by re-seeding and planting using native stock. Increased floodplain inundation would improve vegetation diversity and density in the long-term.

The effects of using construction equipment and manually working in and along Asotin Creek are consistent with the analysis in Section 3.3.3 of the Programmatic EA (“Vegetation”), which concludes that although construction may have moderate short-term impacts on vegetation, the Project’s long-term benefits would include more riparian habitats and restored or improved vegetative conditions. Thus, the overall effects of the Project would be moderate and would be consistent with the effects described in the Programmatic EA.

4. Wetlands and Floodplains

The sole wetland delineated within the Project area totals 0.29 acres and is classified as riverine. Earth-moving activities during Project construction would have short-term impact on this wetland. There would be short-term negative Project effect to the wetland, but the long-term impacts would outweigh these negative effects. Construction activities would require excavation in portions of the wetland during Project activities as well as wetland revegetation to mitigate for disturbance. The ACCD obtained a permit from the U.S. Army Corps of Engineers (NWS-2023-0806) under Nationwide Permit 27 to conduct excavation and fill in this wetland pursuant to Section 404 of the Clean Water Act. The ACCD would adhere to all requirements and prescriptions set forth in the Army Corps permit for activities occurring within the wetland.

In the long-term, the Project could increase wetland acreage and improve floodplain conditions. Added in-stream roughness, side channel activation, and wood placement would slow stream flows and increase floodplain inundation potential. Wetland quality would improve due to the restoration of natural flow patterns and the replacement of invasive species with native plants. With greater floodplain connectivity at the site, wetland hydrology would likely improve, potentially expanding the wetland area and re-establishing native vegetative communities.

Flow redirection from wood structures would facilitate more natural lateral movement and sinuosity within the stream mainstem channel, which would slow velocities, facilitate more effective connection between the mainstem channel, side channel, and floodplain, and provide more efficient sediment movement and retention in the floodplain. Impacts to wetlands and floodplains are consistent with the analysis in Sections 3.2.1, 3.2.2, 3.2.9, and 3.3.4 of the Programmatic EA (respectively entitled “Effects of

Fish Passage Restoration (Category 1),” “Effect of Improving River, Stream, Floodplain, and Wetland Habitat (Category 2),” “Effects of Actions for Riparian and Upland Habitat Improvements and Structures (Category 9),” and “Wetlands and Floodplains”). Consistent with the Programmatic EA, there would be long-term beneficial effects from increased connectivity between the existing Asotin Creek mainstem channel and its floodplain.

5. Wildlife

No ESA-listed or state-listed terrestrial wildlife species are known to exist within the proposed Project area. In the short-term, human presence may cause sound and movement that temporarily disturbs local wildlife. Specifically, construction and vegetation removal may temporarily displace mobile species such as birds and small mammals for the duration of such activity, while harassing, harming, or killing smaller, less mobile species and/or depriving them of habitat. However, abundant similar wildlife habitat is present adjacent to the Project area, these effects would be limited in duration, and there would be no long-term negative changes to wildlife habitat. In the long-term, the proposed Project would increase the richness and diversity of plant species as well as the extent, heterogeneity, and structural diversity of riparian habitat.

Potential wildlife impacts are consistent with the analysis in Sections 3.2.1, 3.2.2, 3.2.9, and 3.3.5 of the Programmatic EA (respectively entitled “Effects of Fish Passage Restoration (Category 1),” “Effects of Improving River, Stream, Floodplain, and Wetland Habitat (Category 2),” “Effects of Actions for Riparian and Upland Habitat Improvements and Structures (Category 9),” and “Wildlife”), the latter of which anticipates moderate-to-high short-term effects on small wildlife species such as potential construction-related mortality, but comparatively minor impacts on larger animals that may only be temporarily displaced from the increased habitat quality and carrying capacity resulting from the Project. The overall effects of this Project would be low to moderate and consistent with those evaluated in the Programmatic EA.

6. Geology and Soils

Project construction activities—including secondary channel reconstruction, large wood installation, and soil compaction by heavy equipment—would temporarily increase localized soil erosion potential and decrease soil structure. However, use of erosion and sediment control devices, coupled with post-construction site-restoration activities—including site decompaction and re-seeding—would mitigate these impacts.

Long-term improvement to soils is expected once disturbed surfaces are re-seeded and riparian plantings are established and stabilize the soil surface. Long-term improvement to sediment transport and floodplain access within the Project reach would restore natural sediment-forming processes.

Impacts to geology and soils are consistent with the analysis in Sections 3.2.1, 3.2.2, 3.2.9, and 3.3.6 of the Programmatic EA (respectively entitled “Effects of Fish Passage Restoration (Category 1),” “Effects of Improving River, Stream, Floodplain, and Wetland Habitat (Category 2),” “Effects of Actions for Riparian and Upland Habitat Improvements and Structures (Category 9),” and “Geology and Soils”), which anticipate moderate-to-high short-term effects but overall effects ranging from low to moderate after accounting for mitigation measures and long-term benefits. The overall effects of this Project would be consistent with those evaluated in the Programmatic EA.

7. Transportation

The Project area is accessible via Asotin Creek Road, which runs adjacent to the northern extent of the Project area. Temporary access routes developed during Project mobilization would provide off-road access. Asotin Creek Road would not be blocked or closed during the scheduled implementation. However, congestion may occur for short periods along Asotin Creek Road as vehicles and machinery are brought into the Project Area. Overall, the Project would have a low effect on transportation due to the short duration of vehicle congestion near the work area.

The Project's transportation impacts are consistent with the analysis in Sections 3.2.1, 3.2.2, 3.2.9, and 3.3.7 of the Programmatic EA (respectively entitled "Effects of Fish Passage Restoration (Category 1)," "Effects of Improving River, Stream, Floodplain, and Wetland Habitat (Category 2)," "Effects of Actions for Riparian and Upland Habitat Improvements and Structures (Category 9)," and "Transportation"), which anticipate overall effects ranging from low to moderate given the temporary nature of any effects on roads.

8. Land Use and Recreation

The Project is located on private land previously used as rangeland for cattle grazing, a practice that continues on adjacent land along with Conservation Reserve Enhancement Program (CREP) practices on either side of the Project area. In the short-term, construction activities would require relocation of the lessees' cattle to another grazing allotment for the duration of construction. In the long-term, cattle grazing in the riparian zone, though currently allowed, would be restricted. Changes to cattle grazing in the area would not have a major effect on the overall quality of land due to the plentitude of adjacent grazing areas. Further, the changes in grazing use in the Project area would be consistent with the CREP practices in this area. Recreation is not currently, nor planned to be, a primary use of this land.

Impacts to land use and recreation are consistent with the analysis in Sections 3.2.1, 3.2.2, 3.2.9, and 3.3.8 of the Programmatic EA (respectively entitled "Effects of Fish Passage Restoration (Category 1)," "Effects of Improving River, Stream, Floodplain, and Wetland Habitat (Category 2)," "Effects of Actions for Riparian and Upland Habitat Improvements and Structures (Category 9)," and "Land Use and Recreation"), which concludes that land use practices underlying Project sites would remain unchanged in most cases. Although some small acreages along stream course areas may revert from grazing uses back to the wetland and riparian conditions from which they historically were converted, the Project's overall effects on land uses and recreation would likely be low to moderate, consistent with those evaluated in the Programmatic EA.

9. Visual Resources

Although the proposed Project is not located within a visually sensitive area, its activities would be visible to users of Asotin Creek Road during and after implementation. During implementation, road users would see heavy equipment when construction is in progress. After implementation, road users would see large wood structures across the floodplain and within channels and temporarily exposed soil until vegetation is re-established, at which point the Project area would have a natural appearance and would not visually detract from the area.

Impacts to visual resources are consistent with the analysis in Sections 3.2.1, 3.2.2, 3.2.9, and 3.3.9 of the Programmatic EA (respectively entitled "Effects of Fish Passage Restoration (Category 1)," "Effect of Improving River, Stream, Floodplain, and Wetland Habitat (Category 2)," "Effects of Actions for Riparian and Upland Habitat Improvements and Structures (Category 9)," and "Visual Resources"), which concludes that the effect on scenic values from the Project would be low. The overall effects of the

Project on visual resources are expected to be low and would be consistent with those evaluated in the Programmatic EA.

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

Air quality impacts from exhaust and dust emissions from construction equipment would be temporary and localized in nature, with no long or short-term violations of state air quality standards expected as a result of Project implementation.

Although construction, transportation, and site-rehabilitation activities would temporarily elevate ambient noise levels at the construction site, the Project would not result in long-term changes to noise levels.

Adequate signage and other routine safeguards would minimize risks to worker and public safety for the duration of construction and site restoration.

Impacts to air quality, noise, and public health and safety are consistent with the analysis in Sections 3.2.1, 3.2.2, 3.2.9, and 3.3.10 of the Programmatic EA (respectively entitled “Effects of Fish Passage Restoration (Category 1),” “Effect of Improving River, Stream, Floodplain, and Wetland Habitat (Category 2),” “Effects of Actions for Riparian and Upland Habitat Improvements and Structures (Category 9),” and “Air Quality, Noise, and Public Health and Safety”), the latter of which found the Project’s noise effects— and the restoration program’s effects on air quality, public health, and safety—to be low. The Project’s overall effects would be consistent with those evaluated in the Programmatic EA.

11. Cultural Resources

Following a National Historic Preservation Act (NHPA) Section 106 consultation with the Department of Archaeology and Historic Preservation (DAHP), Nez Perce Tribe, the Confederated Tribes and bands of the Yakama Nation (YN), and the Confederated Tribe of the Umatilla Indian Reservation (CTUIR), BPA determined on January 4th 2023 that no historic properties would be affected. DAHP concurred with this determination on January 4th 2023. Nez Perce Tribe concurred with this determination on January 10th 2023. No other consulting parties’ responses were received.

Potential cultural resource impacts are consistent with the analysis in Sections 3.2.1, 3.2.2, 3.2.9, and 3.3.11 of the Programmatic EA (respectively entitled “Effects of Fish Passage Restoration (Category 1),” “Effect of Improving River, Stream, Floodplain, and Wetland Habitat (Category 2),” “Effects of Actions for Riparian and Upland Habitat Improvements and Structures (Category 9),” and “Cultural Resources”), which anticipated that such impacts would be low, either because construction would avoid cultural resources altogether or because concerns would be appropriately resolved through the consultation process. The Project would have no effect to historic properties, which would be less of an effect that that discussed in the Programmatic EA.

12. Socioeconomics and Environmental Justice

The Project would have small, temporary, but beneficial socioeconomic impacts by providing jobs for construction workers and boosting purchases of food, fuel, lodging, and materials for construction and restoration from local businesses in smaller communities. Improvements to natural scenery could have long-term socioeconomic benefits.

There are no environmental justice populations present that could be affected, as the Project and its impacts are limited to the private lands on which they are located, and no offsite effect are anticipated that could impact such populations.

Consistent with the analysis in Sections 3.2.1, 3.2.2, 3.2.9, and 3.3.13 of the Programmatic EA (respectively entitled “Effects of Fish Passage Restoration (Category 1),” “Effect of Improving River, Stream, Floodplain, and Wetland Habitat (Category 2),” “Effects of Actions for Riparian and Upland Habitat Improvements and Structures (Category 9),” and “Socioeconomics and Environmental Justice”), the Project is anticipated to have low socioeconomic and environmental justice impacts in the Snake River Basin due to the small scale and dispersed nature of the work involved. Overall, no permanent adverse effects to environmental justice populations are expected. The overall effects of this Project would be consistent with those evaluated in the Programmatic EA.

13. Climate Change

Due to the short duration of construction activities and the relatively small number of vehicles involved, Project-related greenhouse gas emissions are anticipated to be low. This minimal contribution to climate change would largely result from motorized equipment operation during implementation of the restoration actions and would be offset to some degree by the ameliorating effects of restored floodplain function such as increased water table inputs, increased carbon sequestration in expanded and improved wetland habitats, and decreased water temperatures from improved instream and riparian habitat conditions. The overall effects on climate change would be low.

Impacts to climate change are consistent with the analysis in Sections 3.2.1, 3.2.2, 3.2.9, and 3.3.14 of the Programmatic EA (respectively entitled “Effects of Fish Passage Restoration (Category 1),” “Effect of Improving River, Stream, Floodplain, and Wetland Habitat (Category 2),” “Effects of Actions for Riparian and Upland Habitat Improvements and Structures (Category 9),” and “Climate Change”), which found that the Project’s overall effects on climate change would be low.

Findings

BPA finds that the types of actions and the potential impacts related to the proposed 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 C.F.R. § 1021.314 and 40 C.F.R. § 1502.9(d). Therefore, no further NEPA analysis or documentation is required.

/s/ Catherine Clark

Catherine Clark
Environmental Protection Specialist

Concur:

Katey Grange
NEPA Compliance Officer