Supplement Analysis
for the
Columbia River Basin Tributary Habitat Restoration
(DOE/EA-2126/SA-78)

Sugar Channels Reconnection Project
BPA project number 2010-001-00
BPA contract number 93263

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 Sugar Channels Reconnection Project (project), which would implement many of the specific restoration actions assessed in the Programmatic EA in the Methow River Watershed in Okanogan County, Washington. The primary goal of the project is to enhance instream habitat complexity and restore floodplain and side channel connectivity along about 1.2 miles (between river miles 41.3 and 42.5) of the Methow River to support the recovery of Endangered Species Act (ESA)-listed salmon and steelhead populations in the Methow River. The project seeks to enhance habitat for ESA-listed Upper Columbia River (UCR) spring Chinook salmon (Oncorhynchus tshawytscha) and UCR summer steelhead (O. mykiss) that has been heavily modified by past and current land uses.

This SA analyzes the site-specific impacts of the Sugar Channels Reconnection Project to determine if it is within the scope of the analysis considered in the Programmatic EA. This SA also evaluates whether the proposed project presents substantial new circumstances or information about the significance of the adverse effects that bear on the analysis and that were not addressed by the EA. The findings of this SA determine whether additional National Environmental Policy Act (NEPA) analysis is needed.

Proposed Activities

BPA proposes to fund the Methow Salmon Recovery Foundation (MSRF) to implement the project on private property along the 1.2-mile-long section of the Methow River, starting above the Sugar Levee and ending above the confluence of the Twisp and Methow Rivers (Figure 1). The Methow River is a tributary of the Columbia River and land use varies from rural residential to agricultural pastureland to riparian forest conservation. The river and floodplains in the project area have been simplified due to channel modifications that were in response to historic floods and agricultural and rural development. These actions have contributed to decreased habitat complexity and the loss of floodplain and side channel connectivity.

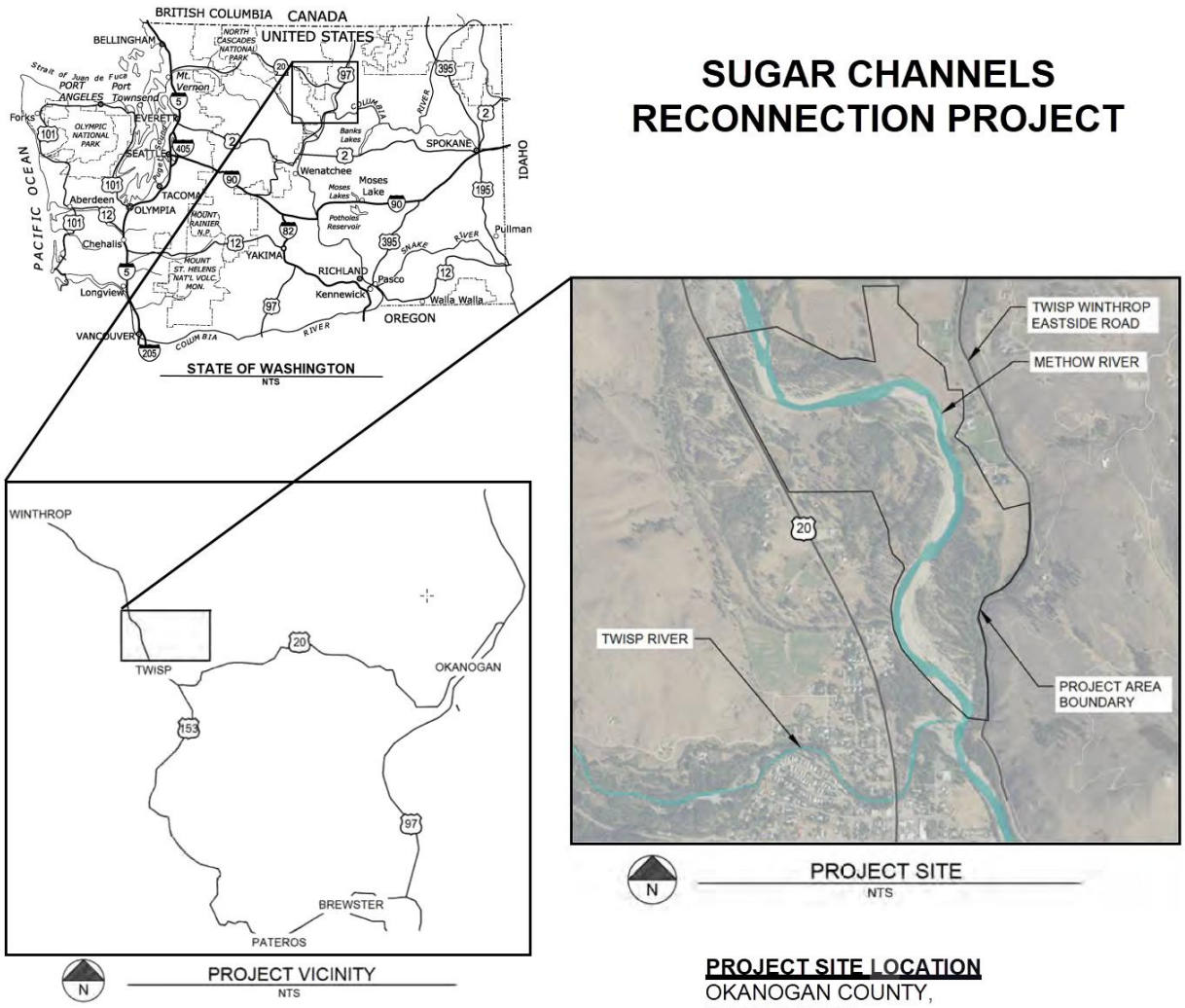

Figure 1. Project vicinity map

The proposed project includes shortening the Sugar Levee, reconnecting and establishing side channels and off-channel wetland habitat, and installing large wood habitat structures. Implementation would occur in two phases. Phase 1 work would occur September through October 2025 and include all work in the downstream section of the project area approximately below river mile (RM) 42. Phase 2 work would occur July through October 2026 and include all work in the upstream section of the project area approximately above RM 42. Following construction of each phase, maintenance of wood structures and supplemental plantings in disturbed areas would occur as needed to ensure the integrity of structures and success of revegetation efforts.

The main goal of the project is to reduce the influence of the Sugar Levee, a non-federal rock levee managed by Okanogan County in the upstream section of the project area on river right (looking downstream). The levee was constructed following the 1972 flood event and currently constrains and limits the river's access to its floodplain. The levee currently protects a segment of floodplain behind a portion of the levee that was certified by the U.S. Army Corps of Engineers (USACE) under the Levee

Rehabilitation and Inspection Program (Public Law [PL] 84-99 [Emergency Response to Natural Disasters]). PL 84-99 allows USACE to assist States and Counties with the engineering of levees before, during, or after natural disasters. Under PL 84-99, USACE also certifies the levee as technically sound and capable of protecting a specific area behind a levee from flood risk. A segment of the Sugar Levee is currently certified by USACE; however, the levee tip that is the subject of this project is not certified by the USACE. The project proposes shortening the tip of the levee by 100 feet on the downstream end of the levee and lowering or tapering another 200 feet of the levee. This would maintain flood protection of existing structures and private property downstream of the certified section of the levee and allow river flows access to floodplain initially behind the non-certified section of the levee. Shortening the levee would involve excavating rocks up to 5 feet deep below the ground surface.

Additionally, the project proposes grading about 25 acres in and around the existing side channel complex beyond the extent of the current levee location on the right bank to increase the connectivity of the side channels, floodplain, and associated wetland habitat. In the lower section of the project area on the left bank below RM 42, the project proposes grading about 5 acres to reconnect and enhance existing side channels and floodplain habitat. Excavation associated with all side channel grading would range from 2 to 5 feet deep below the ground surface.

Throughout the project area, approximately 18 large wood habitat structures would be installed in the main channel, and 80 large wood structures installed within reconnected side channels. Large wood habitat structures (varying in size from 4 to 26 trees, with and without rootwads, per structure) are expected to be buried between 6 and 15 feet deep depending on the structure type. Excavators would be used to excavate channel alluvium, place wood structures, and backfill structures with the excavated substrates. Piles driven into the stream bed would be used to secure the large wood structures.

The proposed project includes planting in riparian areas. Up to 12 acres of native trees and shrubs would be interstitially planted throughout the project area to increase riparian vegetation. Disturbed areas would be seeded with native grasses and forbs and planted with native shrubs following completion of constructed project elements.

All proposed in-water work (levee removal and installation of large wood habitat structures) would be completed during state approved work windows (September – October 2025 and July – October 2026). Temporary coffer dams, built using gravel-filled super-sacks in plastic sheeting or driven sheet piles, would be used to isolate in-water work areas. Once coffer dams are established, fish would be salvaged using electro-shocking, and fish-screened water pumps would be used to remove the remaining water. Access to the project area would follow existing roads, and staging would be in pre-determined locations that avoid sensitive areas such as wetlands and are outside the ordinary high-water delineation. After completion of the project, soil within staging areas would be de-compacted to a minimum depth of 12 inches and seeded with native grasses and forbs and planted with native shrubs. Maintenance of the wood structures and plantings (addition of wood or ballast in previously disturbed areas or supplemental plantings) would occur in subsequent years in response to unforeseen high flow events or plant mortality.

These actions would support the conservation of ESA-listed species considered in the 2020 ESA consultations between National Marine Fisheries Service and the U.S. Fish and Wildlife Service (USFWS) on the operation and maintenance 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*.

Environmental Effects

The implementation of this project requires the use of construction equipment and manual hand tools which would disturb and displace soil in and along the streams; damage vegetation; produce noise and vehicle emissions; and temporarily increase vehicle traffic and human activity in the project area.

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 potential site-specific effects of the project and an assessment of whether these effects are consistent with those described in the Programmatic EA.

1. Fish and Aquatic Species

The effects of using mechanized equipment and manually working in and along the Methow River are consistent with the analysis in the Programmatic EA, Section 3.3.1.2 ("*Environmental Consequences for Fish and Aquatic Species*"), which describes overall low impacts to fish and aquatic species after considering moderate short-term adverse effects and beneficial long-term improvements.

ESA-listed UCR spring Chinook salmon, UCR steelhead, bull trout (*Salvelinus confluentus*), and their designated critical habitats are present within the project area. No other state or federally listed species are known to be present within the project area. BPA completed ESA Section 7 consultation on the effects of the project's actions on these species in its HIP programmatic consultation, which found that such actions would likely adversely affect these species and their designated critical habitat in the short term, but would not be likely to result in jeopardy to the species or result in destruction or adverse modification of their designated critical habitat.

In the short term, mechanized equipment would expose, displace, reconfigure, or compact earth within and along the Methow River**,** likely causing moderate, temporary sediment discharges, primarily from the introduction of first-time flows into the newly constructed area. These impacts would be minimized because new excavations would be accomplished in the dry with no exposure to stream flows wherever possible**,** and where not possible, the work area would be isolated from the main channel. Project actions would be subject to the conservation measures from BPA's HIP consultations, such as installing temporary erosion controls before starting work, locating equipment fueling areas at least 150 feet from the stream, and working during the approved in-water work window to avoid impacts to fish at critical life stages, such as during spawning. Though the amount of sediment discharged would be elevated, turbidity levels would be below levels harmful to fish and at durations not anticipated to cause harm as evaluated in Section 3.3.1.2.1 of the Programmatic EA ("*Short-Term Effects to Fish and Aquatic Species from Construction Activities*").

Movement, sounds, and vibrations from construction-related human and mechanical activity would likely temporarily disturb and displace fish and aquatic organisms from their preferred habitats for the duration of the disturbance. This sound and vibratory disturbance would be minimized as excavation for the levee modification and grading for the side channel reconnections would be done in the dry, but some work in the main channel would require work-area isolation. Dewatered work areas would require fish and aquatic organism salvage prior to complete dewatering and would likely kill aquatic organisms (e.g., invertebrates) not able to survive the temporary dewatering and not large enough to be effectively salvaged. Fish salvage involves electro-shocking, capture, and handling to relocate the fish. This is stressful for individual fish but avoids leaving the fish stranded in a dewatered location. The newly constructed instream environment would be recolonized 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. The anticipated amount of activity and aquatic species disturbance is consistent with the analysis in Sections 3.1.3.1 and 3.3.1.2.1 of the Programmatic EA ("*Dewatering for Instream Work*" and "*Short-Term Effects to Fish and Aquatic Species from Construction Activities*," respectively).

The Programmatic EA disclosed direct, harmful, and sometimes fatal impacts to aquatic species, including displacement of fish from their preferred habitat during periods of movement, sounds, and vibrations from human and mechanical activity. Project implementation would have beneficial long-term effects on fish and aquatic species due to enhanced instream habitat complexity and restored floodplain and side channel connectivity along the Methow River and its floodplains. 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*").

2. Water Resources

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

There would likely be a low effect on water quantity, as this project would make no water withdrawals, but there could be increased groundwater recharge since the connection between surface flows and the floodplain would be increased over both space and time.

The project would produce localized short-term sediment inputs from the impacts of using mechanized equipment along and in the river, floodplains, and side channels to install wood structures, excavate a portion of the levee, and grade portions of side channels and floodplains. Restoration actions would disturb lengths of the stream or riverbank consistent with the analysis in Section 3.3.2.2.2.1 of the Programmatic EA ("Sedimentation and Turbidity Effects") but resulting sediment discharges likely would not be greater than what occurs naturally during annual high-flow events. There would be short-term effects which would be lessened by the application of mitigation measures, such as installing sediment barriers in all work areas and removing vegetation and soil from equipment before starting work and where feasible, operating equipment from the bank or previously cleared areas, as detailed in Section 2.4 of the Programmatic EA ("Mitigation Measures and Design Criteria"). The long-term effects of this project, however, would be a decreased potential for unnatural sediment inputs and an increased potential of the floodplains to effectively manage their sediment loads. These long-term beneficial effects are consistent with those described in the Programmatic EA.

3. Vegetation

The effects of using mechanized equipment and manually working in and along the Methow River are consistent with the analysis in Section 3.3.3.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Vegetation"), which describes overall moderate impacts to vegetation after considering moderate short-term adverse effects and highly beneficial long-term effects.

No ESA-listed or state-listed plant species are known to exist within the proposed project area. Project implementation would have moderate short-term impacts on vegetation. Plants about 47 acres within the project area would be removed, graded over, and trampled during implementation. Disturbance to riparian areas would be minimized per mitigation measures, such as seeding and planting native species in any disturbed areas and preventing the spread of noxious weeds by washing construction equipment and applying weed control measures at the site. Increased floodplain inundation would improve water-tolerant vegetation diversity and density in the long-term. Thus, while the negative short-term effects to vegetation would be moderate, the overall effects of the project would be moderate and beneficial in the longer term and would be consistent with the effects described in the Programmatic EA.

4. Wetlands and Floodplains

The effects of using mechanized equipment and manually working in and along the Methow River are consistent with the analysis in Section 3.3.4.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Wetlands and Floodplains"), which describes overall low wetland and floodplain impacts after considering moderate short-term adverse effects and beneficial long-term effects.

Wetlands in the project area are classified by the National Wetlands Inventory as riverine, which includes all wetlands and deepwater habitats contained within a channel. By design, proposed construction activities would occur in wetlands and heavy equipment use and earth-moving activities during project construction would have short-term negative impacts. The short-term effects on wetlands would be moderate and temporary from the crushing and potential removal of wetland vegetation and soils through the use of heavy equipment operations in and around the identified wetlands. MSRF would obtain the required permit issued by the USACE under Section 404 of the Clean Water Act. Section 404 permits regulate the discharge of dredged or fill material into waters of the United States, including wetlands. MSRF would adhere to all requirements, conditions, and prescriptions set forth in the USACE Section 404 permit.

Consistent with the analysis in the Programmatic EA, there would be long-term beneficial effects from increased connectivity between the Methow River, wetlands and floodplains, and side channels. The project is intended to improve wetland and floodplain conditions. Added wood placement would slow stream flows, increase wetland and floodplain inundation potential, and provide more efficient sediment movement and retention. The proposed levee modifications would allow the channel to naturally migrate and connect to a portion of floodplain that was previously isolated from stream flows.

Wetland and floodplain quality would improve with the restoration of natural flow patterns, sediment movement and retention, and the replacement of invasive plant species with native plants. With greater wetland and floodplain connectivity at the site, wetland hydrology would likely improve, potentially expanding the wetland area and re-establishing native vegetative communities.

5. Wildlife

Potential wildlife impacts are consistent with the analysis in Section 3.3.5.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Wildlife"), which describes overall low impacts to wildlife after considering beneficial long-term effects and moderate-to-high short-term adverse effects on individual small wildlife species, such as potential construction-related mortality, but comparatively minor impacts on larger animals that may only be temporarily displaced from construction-affected habitats. No population level impacts to wildlife species are anticipated.

No ESA-listed or state-listed wildlife species are known to exist within the proposed project area. Project implementation would have moderate short-term impacts on non-listed wildlife. In the short term, human presence would cause sound and movement that temporarily disturbs or displaces local wildlife. Construction activities would destroy the habitats of small animals. This would temporarily displace medium-size or larger animals from their preferred habitats during construction, and they would likely re-occupy the site once human activity has moved or ceased. Construction activities would occur in mid- to late summer, and would thus avoid disturbance to migratory bird nesting, which occurs in the spring. Abundant similar wildlife habitat is present adjacent to the project area, these effects would be limited in duration, and thus, there would be no long-term negative changes to wildlife habitat.

In the long-term, the proposed project would improve riparian vegetation and wildlife habitats along the Methow River, increasing the area's capacity to support both a higher number and a higher diversity of wildlife species. The overall effects of this project would be low and consistent with those evaluated in the Programmatic EA.

6. Geology and Soils

The effects of using construction equipment in and along the Methow River are consistent with the analysis in Section 3.3.6.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Geology and Soils"), which anticipates moderate-to-high short-term effects, but low overall effects 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. Project construction activities – including floodplain and side channel grading, levee excavation, 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, planting, and re-seeding – would mitigate these impacts.

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

7. Transportation

The project's transportation impacts are consistent with the analysis in Section 3.3.7.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Transportation"), which anticipates a low impact given the temporary nature of any effects on roads.

The project area is accessible via State Route (SR) 20 along the west side of the project area and the Twisp Winthrop Eastside Road along the east side. Temporary access routes developed during project mobilization would provide off-road access. SR 20 and Twisp Winthrop Eastside Road would not be blocked or closed during the scheduled implementation. However, congestion may occur for short periods along each road as vehicles transport workers and equipment to 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.

8. Land Use and Recreation

Impacts to land use and recreation are consistent with the analysis in Section 3.3.8.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Land Use and Recreation"), which concludes that land use practices at underlying project sites would remain unchanged in most cases. The project is located on private land used for rural residential, agricultural pastureland, and riparian forest conservation and use would remain unchanged. Newly accessible floodplains below the shortened Sugar Levee would continue to be used for riparian forest conservation. The property has no public recreational opportunities. Public recreation occurs within the project area along the Methow River and includes a moderate level of fishing, boating, and swimming occurring in late spring through early fall.

In the short term, river recreationalists would be temporarily disturbed by noise and human presence during project construction. They would also be temporarily displaced (up to 4 weeks per Phase 1 and 2, including weekends) by isolation of the work areas along the Methow River. While working in the river, lookouts with handheld two-way radios would be posted upstream to notify on-coming river recreationalists of isolated work areas. Additionally, for the long term, large wood habitat structures to be installed along the Methow River were designed to mitigate potential safety hazards by not adding rootwads or tree limbs that could snag river users as they pass by.

The disturbance and displacement would be limited in duration and would not permanently disturb or displace recreationalists in the project area. These effects would be minor, temporary, and localized to the project area. No long-term change in river use would occur. Overall, the project would have a low effect on river recreation due to short duration of construction near and in the river, and there would be no effect on land uses, consistent with those evaluated in the Programmatic EA.

9. Visual Resources

Impacts of the proposed project on the visual quality are consistent with the analysis in Section 3.3.9.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Visual Resources"), which concluded the effects on scenic values would be low. The proposed project area is not located within a visually sensitive area, but users of SR 20 and Twisp Winthrop Eastside Road would be able to see project activities. Road users would see heavy equipment during project activities and the result of project activities, including large wood structures in the river and on the floodplains, modified levee, and exposed soil until

vegetation is re-established. After vegetation re-establishment, the project area would have a natural appearance and would improve visual quality as the area would return to a more natural condition.

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

The effects of the project in and along the Methow River are consistent with the analysis in Section 3.3.10.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Air Quality, Noise, and Public Health and Safety"), which describes low impacts to 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 and transportation activities would temporarily elevate ambient noise levels at the construction site, the project would not result in long-term changes to noise levels. The residences within and near the project area would hear construction and traffic noise for a short duration and only during daylight hours. Adequate signage and other routine safeguards would minimize risks to worker and public safety for the duration of project construction. Only a portion of the existing levee would be removed to provide access to the floodplain. The remaining section would maintain protection of existing structures and private property downstream. In addition, reconnecting the floodplain would increase resiliency of downstream infrastructure to future flood events by providing more space for flood flows in the floodplain. While working in the river, lookouts with handheld two-way radios would be posted to ensure public safety for river recreationalists near isolated work areas. In addition, large wood habitat structures to be installed along the Methow River were designed to mitigate safety hazards such as rootwads or tree limbs snagging river uses as they pass by.

11. Cultural Resources

The effects of the project on cultural resources are consistent with the analysis in Section 3.3.11.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Cultural Resources"), which describes low impacts to cultural resources. Here, project construction would avoid cultural resources, and the National Historic Preservation Act (NHPA) Section 106 consultation process would appropriately resolve any effects.

BPA conducted a NHPA Section 106 consultation with the Washington State Department of Archaeology and Historic Preservation (DAHP), Confederated Tribes and Bands of the Yakama Nation (YN), and Confederated Tribes of the Colville Reservation (CCT). BPA determined that implementation of the proposed activities would result in no historic properties affected. DAHP concurred with BPA's determination on August 3, 2023. The 30-day consultation period ended September 3, 2023. No additional comments were received from other consulting parties. BPA also consulted with DAHP, YN, and CCT on an amendment to the project area and determined that implementation of the proposed amendment would result in no historic properties affected. DAHP concurred with BPA's determination on July 23, 2024. The 30-day consultation period ended August 23, 2024. The CCT Tribal Historic Preservation Office responded in agreement with the determination on September 24, 2024. No additional comments were received from other consulting parties.

As described in the Programmatic EA, the results of this consultation were that the project would not adversely affect historic properties. In the unlikely event that cultural material is inadvertently encountered during the implementation of this project, BPA would require that work be halted in the vicinity of the finds until they can be inspected and assessed by BPA in consultation with the appropriate consulting parties.

12. Socioeconomics

The effects of the project are consistent with the analysis in Section 3.3.13.4 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Socioeconomics and Environmental Justice") which describes low socioeconomic impacts. The project would have small, temporary, but beneficial

socioeconomic impacts by providing jobs for construction workers and increasing spending on food, fuel, lodging, and materials at local businesses. The project would not result in requirements for additional permanent employees or for individuals to leave the local area or relocate within it, nor would it affect housing availability for local populations, displace people, or eliminate residential suitability of lands being restored or near them.

13. Climate Change

Impacts to climate change due to project activities are consistent with the analysis in Section 3.3.14.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Climate Change"), which describes overall low effects to climate change. Due to the short duration of construction activities and the relatively small number of vehicles and equipment involved, project-related greenhouse gas emissions are anticipated to be low. This minimal contribution to climate change would be offset to some degree by the increased functioning of the floodplain including increased water table inputs, increased carbon sequestration in expanded and improved wetland habitats.

Findings

BPA finds that the types of actions and the potential impacts related to the proposed *Sugar Channels Reconnection* project 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 substantial new circumstances or information about the significance of the adverse effects that bear on the analysis in the EA's Proposed Action or its impacts within the meaning of the National Environmental Policy Act (NEPA), DOE Implementing Procedures (dated June 30, 2025), and 40 CFR § 1502.9.[1] Therefore, no further NEPA analysis or documentation is required.

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NEPA Compliance Officer

[1] BPA is aware that the Council on Environmental Quality (CEQ), on February 25, 2025, issued an interim final rule to remove its NEPA implementing regulations at 40 C.F.R. Parts 1500–1508. Based on CEQ guidance, and to promote completion of its NEPA review in a timely manner and without delay, in this SA BPA is voluntarily relying on the CEQ regulations, in addition to DOE's NEPA Implementing Procedures (dated June 30, 2025), to meet its obligations under NEPA, 42 U.S.C. §§ 4321 et seq.