Supplement Analysis
for the
Columbia River Basin Tributary Habitat Restoration
(DOE/EA-2126/SA-72)

Pond Series 4 Project
BPA project number 2002-059-00
BPA contract number 97291

Bonneville Power Administration
Department of Energy

Introduction

In December 2020, Bonneville Power Administration (BPA) 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 proposed Pond Series 4 Project that would implement some of the specific restoration actions assessed in the Programmatic EA in West Fork Yankee Fork Salmon River (West Fork) and Pond Series 4 located in Custer County, Idaho. The Project is intended to improve instream habitat for Endangered Species Act (ESA)-listed Snake River spring/summer Chinook salmon (*Oncorhynchus tshawytscha*), Snake River steelhead (*O. mykiss*), and bull trout (*Salvelinus confluentus*), and other non-ESA-listed fish by improving channel morphology, instream hydrologic processes, and floodplain connection.

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 that were not addressed by the Programmatic EA. The findings of this SA determine whether additional National Environmental Policy Act (NEPA) analysis is needed under 10 C.F.R. § 1021 *et seq*.

Proposed Activities

BPA proposes to fund Trout Unlimited to implement the Pond Series 4 Project. The Project work would occur in various locations over an about 18.5 acre area and would be located approximately 7 river miles from the mouth of the Yankee Fork Salmon River (Yankee Fork), and 19 miles from Stanley, on privately-owned property and adjacent to the Salmon-Challis National Forest in Custer County, Idaho (Figure 1). BPA funding of the proposed activities supports conservation of ESA-listed species considered in the 2020 National Marine Fisheries Service and U.S. Fish and Wildlife Service 2020 Columbia River System Biological Opinions. They also support BPA's commitments to the Shoshone-Bannock Tribes in the 2008 Columbia River Fish Accords Memorandum of Agreement, as amended, while also supporting 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. §§ 839 *et seq*.).

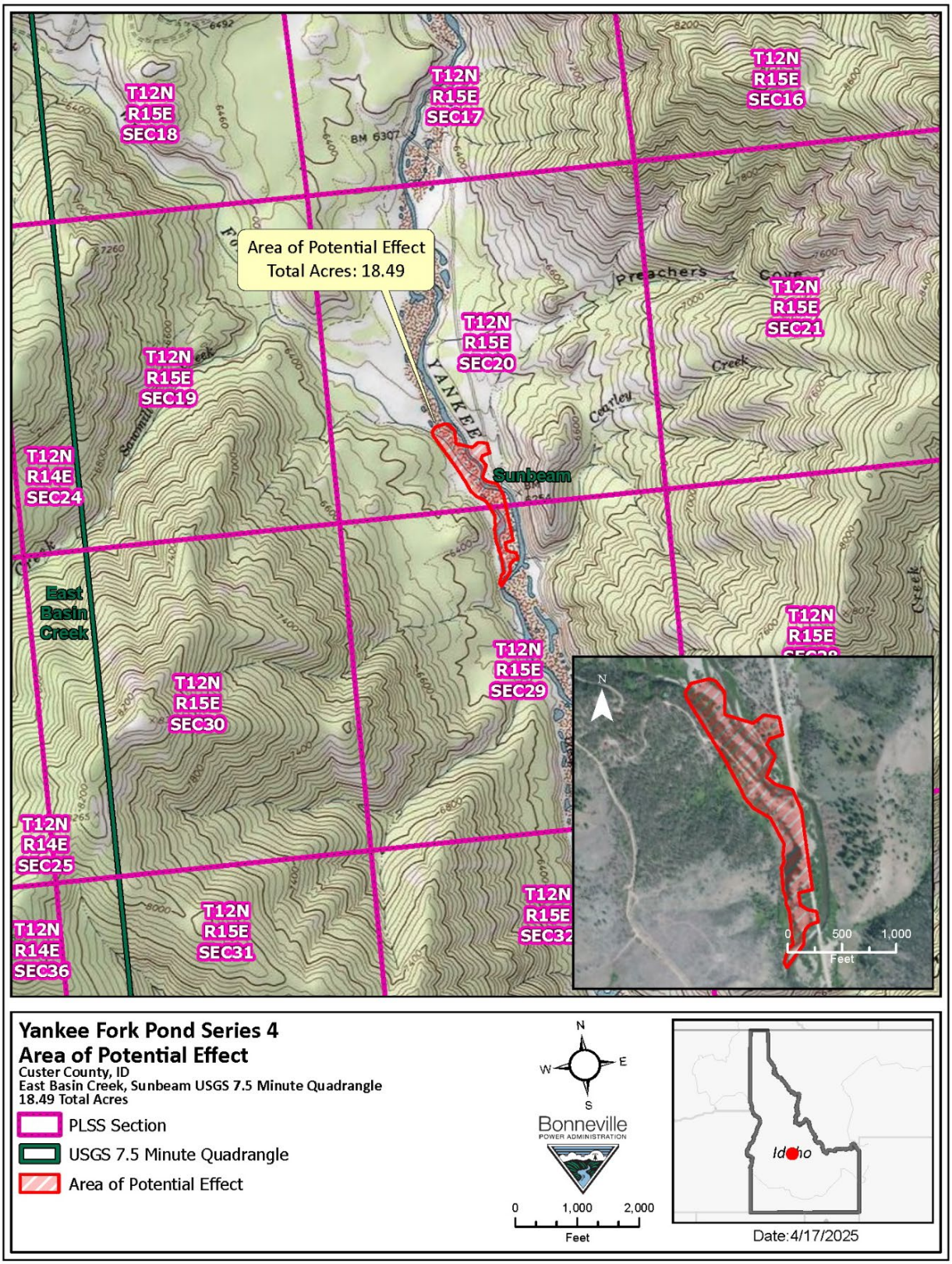

Figure 1. Pond Series 4 Project. Existing conditions with proposed actions.

The Yankee Fork watershed is located in the Northern Rocky Mountain System physiographic region that comprises mountains marked by erosion from river and glacier activity, creating steep-walled hollows, or cirques, on the sides of mountains and long valleys, or troughs. The watershed itself covers approximately 190 square miles in rural Custer County. Elevations range from over 10,000 feet at mountain peaks to around 6,000 feet where the Yankee Fork meets the Salmon River near Sunbeam Dam, and with over 60 inches of precipitation annually, much in the form of snow between October and May.

In 1940, a dredge able to reach 37 feet below the water's surface was constructed. The dredged material was processed to extract the ore and the leftover material passed through the dredge and was deposited in the curved tailing piles that are still ubiquitous along the Yankee Fork today. Prior to dredge mining activity, the channel within the Project reach area was unconfined with a largely straight channel interspersed with meandering segments and connections between the channel and floodplain. The confluence of the Yankee Fork and the West Fork rivers featured a broad floodplain that allowed for dynamic interaction between the two rivers and resulted in varied hydraulic conditions that were beneficial for salmonids. Dredging involved not only confining the channels with tailing piles but also rerouting the Yankee Fork River and disconnecting it from the floodplain, thus eliminating the mosaic of varied habitats throughout the river.

The dredge mining activity in the 1940s and 1950s created several dredge ponds, known as the Pond Series 1-4. The area named Pond Series 4 is located near the confluence of the West Fork and mainstem Yankee Fork and contains two ponds that are remnants of mid-1900s dredge mining operations. The Project area and much of the surrounding areas have been largely unable to passively recover from these impacts. During the mid-1980s, before ESA listing of Chinook salmon and steelhead, the Shoshone-Bannock Tribes constructed connecting channels between these ponds and the Yankee Fork, creating an inlet and outlet to the Yankee Fork. The undersized inlet culvert restricted passage and flows. The Pond Series 4 Project would replace the culvert to establish perennial flows throughout the Pond Series. The Project would also add habitat features such as large woody debris (LWD) structures throughout the Project to increase the available habitat, check dams in Pond Series 4 would be removed or replaced with a grade control riffle and remove tailings.

The Project would also address passage issues associated with the previously implemented West Fork Confluence Project immediately upstream of the Pond Series 4 inflow. High flows in the Yankee Fork following implementation of the West Fork Confluence Project resulted in the river abandoning one of the constructed side channels near the Pond Series 4 inflow. The side channel would be recontoured to facilitate flows into the side channel. Returning flow to that channel would also facilitate flow into Pond Series 4 and provide additional habitat in the reactivated side channel.

The Project would remove and replace a culvert, remove three check dams, construct two 200-foot riffles (inlet and outlet of Pond Series 4), grade the floodplain, excavate about 2,215 cubic yards (CY) of materials from the main channel and floodplains. Excavated materials would be used for LWD installation or reused as fill or backfill within the Project site. Sixty four LWD structures (one apex structure, six three-log structures, four six-log structures, one bleeder jam, 10 whole tree structures, 33 single log structures, three floodplain roughness structures, and seven log piles) would be installed with about 122 large logs (12-22 inch diameter at breast height and 30-50 feet in length, with and without root wads) and 232 smaller logs (4-15 inch diameter at breast height and 15-25 feet in length, with and without root wads). Small logs would also be used for brush bank treatments and willow baffle structures. Excavators, skid-steers, and haul trucks would be used to complete the project. Some work areas would be dewatered with temporary coffer dams and temporary access roads (0.5 miles), bridges, and a staging area would be constructed. Dewatering, fish salvage, and other in-water work would occur

during the approved in-water work window, July 8 - August 2, 2025. Plants would be salvaged where possible and the Project site would be decompacted and revegetated following construction. Although work is expected to be completed in 2025 there may be additional work as needed to address issues identified after construction that would be addressed in accordance with the Project's monitoring and adaptive management plan. Actions that may be considered in the plan include, but are not limited to, additional large wood enhancement, additional floodplain or side channel excavation, gravel enhancement, supplemental riparian planting, additional browse protection, supplemental watering, and additional noxious weed control.

Environmental Effects

The typical environmental impacts associated with the Programmatic EA are described in Chapter 3 of the Programmatic EA. Implementation of this Project would require the use of heavy equipment for staging, hauling, excavation, and placement of LWD structures. Potential impacts include noise and dust, temporary turbidity releases to the stream, minor impacts to resident fish populations from fish salvage activities, possible spills from construction equipment, colonization of disturbed ground by invasive vegetation, short-term disturbance issues for landowners, and damage to existing vegetation along designated access routes. Below is a description of the potential site-specific impacts of the Pond Series 4 Project and an assessment of whether these impacts 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 Pond Series 4 and West Fork 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 effects.

Three species listed under the ESA are present in the project area: Snake River spring/summer Chinook salmon (*Oncorhynchus tshawytscha*), Snake River steelhead (*O. mykiss*), and bull trout (*Salvelinus confluentus*). Their respective designated critical habitats are also within the project area. Consultation on the Project effects on these species was completed in accordance to the Habitat Improvement Program Biological Opinions (National Marine Fisheries Service, WCRO-2020-00102; US Fish and Wildlife Service, 01E0FW00-19Y-F-0710) which concluded that the project would likely adversely affect each of these species in the short term, but would not likely result in jeopardy to the species. No other aquatic species listed under the ESA or other state-listed or sensitive aquatic species are present within the Project area.

In the short term, the Project would expose, displace, reconfigure, or compact earth through the use of mechanized equipment within and along Pond Series 4 and West Fork and likely create conditions where sediment would be released for a short period of time following construction activities. Only a moderate amount of sediment is anticipated to be released by the Project because there would be instream excavation, dewatering, and reintroduction of flows over newly exposed soils and gravels. 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 work area isolation, fish salvage, dewatering, and instream construction activity would displace fish from the work area until it 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 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 the level of aquatic species disturbance, however, 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). Specifically, those sections of the Programmatic EA disclosed direct, harmful, and sometimes fatal impacts to aquatic species, including displacement of fish from their existing habitat during periods of movement, sounds, and vibrations from human and mechanical activity.

The Project's long-term beneficial effects include the creation of more complex habitats through the addition of pools and woody vegetation to the stream and adjacent riparian areas as well as the enhancement of in-stream habitat complexity over time by providing large wood structures and overhanging vegetation (tree transplants). These beneficial effects are consistent with the analysis in Section 3.3.1.2.2.2 of the Programmatic EA ("River, Stream, Floodplain, and Wetland Restoration and Channel Reconstruction (Category 2) Effects on Aquatic Species"). The Project's long-term beneficial effects include the enhancement of instream and floodplain habitat complexity. These beneficial effects are consistent with the analysis in Section 3.3.1.2.2.2 of the Programmatic EA. The effects to fish species from Project activities would be adverse in the short term and beneficial in the long term. The overall effects on fish from Project activities would therefore be low, consistent with the Programmatic EA.

2. **Water Resources**

The effects of using mechanized equipment and manually working in and along West Fork and Pond Series 4 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 impacts to water quality after considering short-term adverse effects and beneficial long-term effects. There would be no effect on water quantity from water withdrawals.

In-water work elements would be constructed with best management practices designed to minimize the severity and duration of temporary water quality impacts in accordance with the conditions of the U.S. Army Corps of Engineers and State of Idaho's joint Nationwide Permit 27 for Aquatic Habitat Restoration, Establishment, and Enhancement Activities (NWW-2025-57).

Short-term adverse water quality impacts in the form of elevated suspended sediment and turbidity levels may occur as a result of river channel, bank, and floodplain grading. Ground disturbance increases the potential for sediment mobilization when disturbed soils are exposed to precipitation or streamflow. This could occur when the temporary bypass is closed and streamflow is re-introduced to the constructed channel improvements. This would be a temporary impact that may last a few hours. As described in the Programmatic EA, this impact would be lessened by the application of mitigation measures such as slow or metered placement of materials and stream quality monitoring. One long-term effect of the Project, however, would be an increased floodplain connectivity associated with improved water quality and habitat for salmonids. The short-term adverse effects and long-term beneficial effects are consistent with those described in the Programmatic EA, and the overall effects on water quality would be low. This Project would not involve water withdrawals; however, there may be the potential for increased recharge of groundwater as the floodplain regains functionality. Overall, this would likely be a low effect to water quantity.

3. **Vegetation**

The effects of using mechanized equipment and manually working in and along West Fork and Pond Series 4 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 beneficial long-term effects. Whitebark pine (*Pinus albicaulis*) is the only other ESA-listed or sensitive plant species that could potentially be present

within the Project area (US Fish and Wildlife Service Information for Planning and Consultation [IPaC], 2025). However, the area has been highly impacted due to previous mining efforts and suitable habitat is not present.

The Project is anticipated to have impacts consistent with those described in the Programmatic EA. Vegetation along access routes and at excavation locations would be crushed by heavy machinery and construction, and all impacted sites would be planted, seeded, or both. Section 3.3.3.2 of the Programmatic EA ("Environmental Consequences for Vegetation") evaluated constructed features that would disturb up to 50 acres. Impacts to vegetation would be limited to some damage or elimination of herbaceous vegetation by construction equipment and human foot traffic (from which the vegetation would be anticipated to recover quickly naturally and via replanting) within the 18.5 acre project area. Vegetation would be salvaged where possible. Revegetation would occur via plantings and seeding according to the planting plan upon completion of construction. This level of effect would be low to moderate.

4. **Wetlands and Floodplains**

The effects of using mechanized equipment and manually working in and along West Fork and Pond Series 4 are consistent with the analysis in Section 3.3.4.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on 6 Wetlands and Floodplains"), which describes overall low impacts to wetlands and floodplains after considering short-term adverse effects and beneficial long-term effects.

Due to the incised/entrenched nature of the existing Yankee Fork as a result of anthropogenic controls (roads, bridges, and historical dredge piles), there is a narrow riparian fringe and few to no wetlands. According to the National Wetlands Inventory database managed by the U.S. Fish and Wildlife Service, no wetland habitat exists within the Project area, excluding permanently inundated riverine and semi-permanently inundated freshwater pond habitats.

The Project is anticipated to have impacts similar to those described in the Programmatic EA. Specifically, there would be short-term (i.e., weeks-long) adverse effects to floodplains, as there would be about 5 acres of earthmoving. The Project would encourage more frequent floodplain activation and potentially increase wetland habitat by adding floodplain roughness elements to spread flood flows; enhancing river riffles and constructing LWD structures to raise water surface elevations and encourage floodplain and side channel connection; and installing riparian plantings to increase wetland vegetation diversity. Consistent with the Programmatic EA, Project implementation would also have long-term beneficial effects. It would create conditions in the West Fork Yankee Fork and Pond Series 4 with increased connectivity to the floodplain and more diverse wetland vegetative conditions. These would increase the amount and quality of wetlands in the Project area. This level of effect would be low after considering short-term adverse effects and beneficial long-term effects, as stated in the Programmatic EA.

5. **Wildlife**

The effects of using mechanized equipment, installation of woody debris, and manually working in and along West Fork and Pond Series 4 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 short-term adverse effects and beneficial long-term effects.

The Project area has the potential to contain ESA-listed Canada lynx (*Lynx canadensis*) and North American wolverine (*Gulo gulo luscus*), and their critical habitats are present within Custer County (IPaC, 2025). None of these species are known to exist within the Project area. No other state-listed or sensitive wildlife species are present within this Project area. The monarch butterfly (*Danaus plexippus*)

and Suckley's cuckoo bumble bee (*Bombus suckleyi*) are proposed for ESA listing and may be in the Project area, but there is no designated critical habitat for either species. No other ESA-listed, state-listed, or other sensitive wildlife species are present within the Project area.

The Project's short-term effects would be less than those analyzed in the Programmatic EA. Although the actions of humans and machines in this area would temporarily displace wildlife from their preferred locations and prevent them from reoccupying the site until construction activity has ceased, due to levels of pre-project human activity there is a lack of wildlife habitat in most of the project area. After construction, the habitat would be more hydrologically diverse but vegetatively similar. This level of effect would be low after considering short-term adverse effects and beneficial long-term effects, as stated in the Programmatic EA.

6. **Geology and Soils**

The effects of using mechanized equipment and manually working in and along West Fork and Pond Series 4 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 describes moderate impacts to geology and soils, after accounting for mitigation measures and long-term benefits.

The Project is anticipated to have impacts consistent with those described in the Programmatic EA. Staging, hauling, and constructing large wood structures along West Fork and Pond Series 4 would cause soil displacement, compaction, and the mixing of soil horizons. Design criteria, mitigation measures, and best management practices, such as use of mulching, mats, and straw wattles for erosion control, would all be applied as described in Section 2.4 of the Programmatic EA ("Mitigation Measures and Design Criteria") to minimize impacts and maintain long-term productivity of soils. The Project does not specifically target soils for restoration or enhancement (as it does fish habitat and hydrologic functions), but the proposed actions could result in maintaining and improving soil properties and functions as hydrologic function is restored within the floodplain. The level of beneficial effect would be moderate, consistent with the effect level described in the Programmatic EA.

7. **Transportation**

The Project's effects in and along West Fork and Pond Series 4 are consistent with the analysis in Section 3.3.7.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Transportation"), which describes low impacts to transportation. The Project, though adjacent to Yankee Fork Road and West Fork Lane, would have little impact on private or public roads, either open or closed. No roads would be closed, temporarily blocked, or relocated, nor would any work be conducted from the highway or its shoulders. Access to the Project would be obtained via existing roads, and vehicles transporting workers and equipment to Project sites would share local roads with other traffic during construction, which would last less than four weeks. This level of impact would be low, as stated in the Programmatic EA.

8. **Land Use and Recreation**

The effects of the proposed Project in and along West Fork and Pond Series 4 are consistent with the analysis in Section 3.3.8.3 of the Programmatic EA, which states that overall effects on land uses and recreation would be low to moderate. There would be minor impacts on land use or recreation from the Project. Land uses would not change and public access would be temporarily restricted. There are other areas to recreate nearby during construction activities. This level of effect is consistent with that described in Section 3.3.8.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Land Use and Recreation"), which states that land use practices underlying Project sites would not be changed for most restoration actions, and the overall effects on land uses and recreation would be low.

9. **Visual Resources**

The Project's effects in and along West Fork and Pond Series 4 would be consistent with the analysis in Section 3.3.9.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Visual Resources"), which describes low impacts to visual resources. The proposed restoration actions are immediately adjacent to Yankee Fork Road and West Fork Lane, and some activities would be readily visible to travelers along these routes. As described in Section 3.3.9.2 of the Programmatic EA ("Environmental Consequences for Visual Resources"), Project-related construction would result in some short-term visual impacts, including some disturbance that detracts from the view and the visible presence of newly planted grasses, forbs, and shrubs. However, these visual impacts would last for only a few weeks during staging, construction, and replanting. When construction is complete, the disturbed areas would gradually appear less disturbed as the newly planted seeded grasses and forbs grow. Within a year or two, the matured vegetation would provide the same natural scenery that can be seen elsewhere along the roads. This level of impact would be low, as stated in the Programmatic EA.

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

The Project's effects in and along West Fork and Pond Series 4 would be 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. In the short term, although landowners immediately adjacent to the Project may hear some construction noise during the few weeks of construction activities, this would only occur during normal working hours, while residents of the small town of Stanley, Idaho—located approximately 22 miles from the Project area—would be too far away for construction-related noise, dust, or exhaust to affect them. In the longer term, the Project would not result in any new sources of emissions or noise. Although some potential safety impacts are anticipated from workers sharing roads when traveling to and from work sites and from visual distractions that construction work may create for passing motorists on the nearby Yankee Fork Road and West Fork Lane, the Project would not impact public safety infrastructure (e.g., roads, telecommunications equipment, etc.) or burden emergency services (e.g., police, fire, and emergency medical services). This level of impact would be low, as stated in the Programmatic EA.

11. **Cultural Resources**

The Project's effects 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, with any potential effects being amenable to resolution through the Section 106 consultation process under the National Historic Preservation Act.

BPA conducted a cultural resource survey and consulted with the Idaho State Historic Preservation Office (SHPO) and the Shoshone-Bannock Tribes of the Fort Hall Reservation with respect to potential Project impacts on resources in the Project's vicinity. Based on the results of that survey, and measures to avoid historic resources, BPA determined that the Project would have no adverse effect on historic resources and notified consulting parties in a letter dated May 14, 2025. On June 16, 2025, the 30-day response period expired; BPA did not receive a response from the consulting parties during this process.

12. **Socioeconomics**

The effects of this restoration Project along West Fork and Pond Series 4 would be consistent with the analysis in Section 3.3.13.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Socioeconomics and Environmental Justice"), which describes low socioeconomic impacts. The Project is located exclusively on private property and would not require additional permanent employees, nor

would it require individuals to leave or relocate to the local area. There would also be no effect on housing available for local populations, as the Project would not displace people or eliminate residential suitability of lands in or near the Project area. The Project would 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 effect would be low and consistent with the effects described in the Programmatic EA.

13. **Climate Change**

The effects of Project activities on climate change 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, and potentially decreased water temperatures from improved instream and riparian habitat conditions. Considered together, the overall effects of the project on climate change would be low and consistent with the effects described in the Programmatic EA.

Findings

BPA finds that the types of actions and the potential impacts related to the proposed Pond Series 4 Project are similar to those analyzed in the Columbia River Basin Tributary Habitat Restoration (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 10 CFR § 1021.314 and 40 CFR § 1502.9.[1] Therefore, no further NEPA analysis or documentation is required.

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[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 own regulations implementing NEPA at 10 C.F.R. Part 1021, to meet its obligations under NEPA, 42 U.S.C. §§ 4321 *et seq*.