Supplement Analysis
for the
Columbia River Basin Tributary Habitat Restoration Programmatic Environmental Assessment
(DOE/EA-2126/SA-71)

Lower Lemhi Eagle Valley Ranch Subreach 1 Adaptive Management
BPA project number 2010-072-00
BPA contract number 84063 REL 18

Bonneville Power Administration
Department of Energy

Introduction

In June 2020, Bonneville Power Administration (BPA) analyzed the effects of the Eagle Valley Ranch Habitat Improvement Project, Subreach 1 Project in the *Lemhi Valley River and Floodplain Restoration Projects Environmental Assessment* (DOE/EA-2133) (Lemhi EA), which analyzed the effects of river and floodplain habitat restoration actions from a number of projects in the mainstem and tributaries of the Lemhi River in eastern Idaho. In December 2020, BPA and the Bureau of Reclamation completed the *Columbia River Basin Tributary Habitat Restoration Programmatic Environmental Assessment* (DOE/EA-2126) (Programmatic EA). The Programmatic EA analyzed the potential environmental impacts of implementing habitat restoration actions in the Columbia River Basin and its tributaries. The effects analysis in the Programmatic EA is similar to the Lemhi EA, but more comprehensive in that it covers more restoration actions. Subsequent projects in the Lemhi Valley have been analyzed for consistency with the effects analysis in the Programmatic EA.

Consistent with the Programmatic EA, this supplement analysis (SA) analyzes the effects of the Lower Lemhi Eagle Valley Ranch Subreach 1 Adaptive Management Project (project), which BPA is proposing to fund. The project would implement many of the specific restoration actions assessed in the Programmatic EA in the Lower Lemhi River Valley in Lemhi County, Idaho. The Eagle Valley Ranch Habitat Improvement Project, Subreach 1 (Subreach 1) was implemented over several years starting in 2021. The Subreach 1 project area has experienced ice dam formation the past several winters, which has led to undesirable flooding outside the project area in some years. This project would modify some of the restoration features constructed as part of the Subreach 1 project to reduce the likelihood of ice formation at those constructed features. This project would also modify or construct new side channels to serve as overflow and bypass channels for floodwaters that may accumulate behind ice dams wherever they might form in the project area.

This SA also evaluates whether the proposed project presents substantial new circumstances or information relevant to environmental impacts that were not addressed in 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 funding Idaho Department of Fish and Game (IDFG) to complete the project located on the Lemhi River approximately 8 miles southeast of the town of Salmon in Lemhi County, Idaho. The project area is within the footprint of the multi-phased Subreach 1 project area (Figure 1). Three habitat restoration phases have been constructed in the Subreach 1 project area and two adaptive management phases have been implemented to address ice formation and flooding issues. The proposed activities would be the third phase (Phase 3) of adaptive management to address icing and flooding issues that have been observed after new habitat restoration implementation.

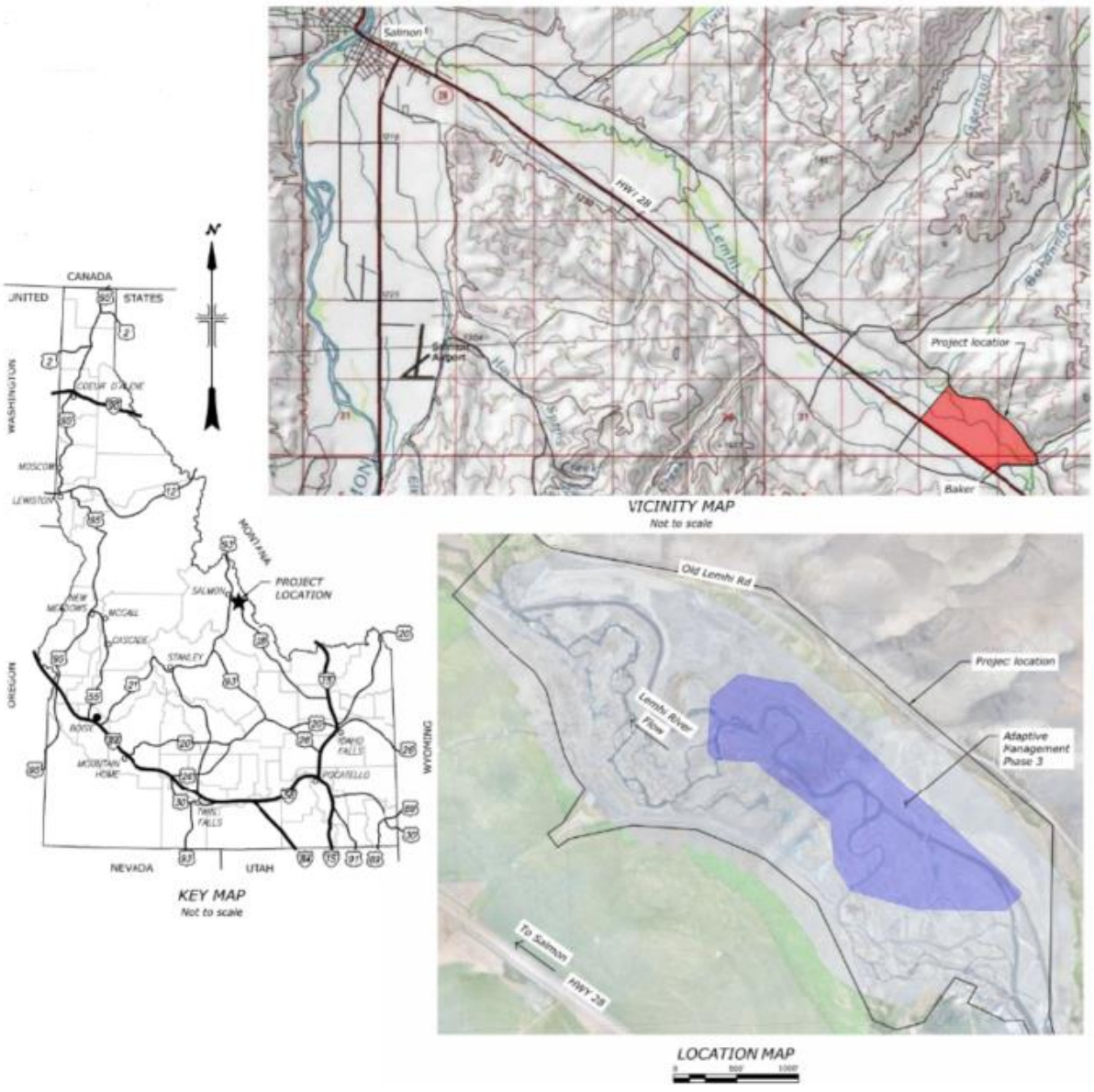

Figure 1. Location of proposed project.

Two types of ice form in river environments, surface[1] and frazil[2] ice. Frazil ice tends to form in areas of the Lemhi River that have a higher gradient and higher velocities where the channel has been altered (*e.g.,* straightened, vegetation removed, diverted for irrigation, levees added), such as in the project area and upstream through the lower reach of the river. For the past several winters, frazil ice formed in the Lemhi River above the project area and then flowed down through the project area. Though the Subreach 1 project design was compliant with BPA's Fish and Wildlife Habitat Improvement Program (HIP) requirements and state and federal regulatory permit terms and conditions, the large volume of incoming frazil ice and its interaction with surface ice development through the project area during the past several winters exceeded expectations. The goals of the project are to use information observed during project monitoring in the winter months to reduce the potential for future ice dam formation in the Subreach 1 project area, while still maintaining habitat improvements achieved by the Subreach 1 project for Endangered Species Act (ESA)-listed fish, including Snake River Chinook salmon (*Oncorhynchus tshawytscha*), Snake River steelhead (*O. mykiss*), and bull trout (*Salvelinus confluentus*). The past several winters have been average in terms of temperatures, so monitoring would continue over several winters to ensure the system performs as expected during more extreme cold events.

The project would achieve its goals by increasing flow velocities in the main channel through the project area, increasing the river's access to low-elevation channels (swales) and side channels to increase conveyance capacity for overflowing water and ice during high flows, and installing additional habitat structures.

Flow velocities within the main channel would be increased by:

- Realigning and straightening approximately 2,700 feet of main channel in strategic locations (with constructed riffles throughout) to increase slope and flow velocities and removing any previously installed wood structures that would fall in the proposed realignment;
- modifying some previously installed wood structures along banks in the project area by cutting off pieces above low flow elevation to a two-foot maximum extension from the bank (wood structures in the river below low-flow elevation would remain as is) to reduce development of surface ice and reduce the potential for frazil ice accumulation at the structures; and
- removing gravel beds and reducing pool depths to reduce cross sectional area at river bends.

Increased access to overflow swales and side channels would be accomplished by realigning inlets of existing side channels, changing reconnection points and lengthening existing swales, filling in (removing) existing swales, or constructing new swales to connect to the river at elevations just below where the river would overflow its banks and flow onto the floodplain. Swales and side channels would receive flood flows if ice dams form and would be designed to route those flows around the potential jam locations prior to excessive buildup of ice and water. This would reduce flood risk to properties upstream of the Subreach 1 project area. Some existing swales would be extended in length and some new swales would be excavated (approximately 5,000 feet of new swale length in total). Riffles would be constructed throughout the length of swales to control slope and water velocity.

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[1] Surface ice forms in slow-moving water, most typically along channel edges and pools. Growth extends from the surface downward into the water column and tends not to form in rivers that have velocities above two feet per second.

[2] Frazil ice forms in fast-moving turbulent water when air temperatures are typically below 14 degrees Fahrenheit as sediment interacts with supercooled water forming disk-shaped ice crystals that are suspended throughout the water column. These disks are transported downstream and start collecting together and forming a slush. The slush moving downstream can interact with surface ice and start the formation of an ice jam that restricts flow.

Additional wood and vegetation structures, similar to those installed during the Subreach 1 project, would be added to the project area to increase bank stability and provide habitat. Approximately 26 multi-log wood structures would be installed along the main and side channels. Willows would be planted as brush banks (live cuttings placed horizontally in excavated trenches along riverbanks parallel to the flow) along about 800 feet of the main and side channel banks and swales. Willows would also be planted as willow baffles (live cuttings placed vertically in excavated trenches on the floodplain perpendicular to overland flows) along about 800 feet in 6-to 8-foot-long excavated trenches).

The project would occur along 2,800 feet of the Lemhi River and would have direct impacts to approximately 20 acres. Equipment staging and material stockpile areas would require about 4.5 of those acres. The project would use existing farm roads where possible and staging/stockpile areas, temporary access roads, and temporary crossings established in prior phases of work (approximately 2 acres). Approximately 1.2 miles of additional temporary access roads, 1.3 acres of staging areas, and one temporary crossing would be established during project implementation. When the channel is diverted for construction, the project would use the dewatered channel for temporary access to reduce impacts to previous restoration efforts.

The top six inches of organic topsoil would be salvaged from newly excavated areas and stockpiled for use in final contouring and restoration of the project area. All staging areas and temporary access routes, as well as compacted areas within the mapped limits of disturbance, would be de-compacted by ripping to a depth of eight inches with heavy equipment designed to loosen and aerate the soil but leave organic matter on the surface. Upon construction completion, the project area would be reseeded with seed mixes specific to streambanks, wetlands, riparian areas, or uplands and would be treated for invasive plants.

Construction of instream work elements would take place within the approved in-water work window. Site access, staging, and post-construction clean-up activities may take place prior to, during, or after the in-water work window. Proposed actions would be implemented in accordance with conservation measures outlined in BPA's HIP biological opinions. Features requiring excavation in the river and along the banks would require the use of temporary coffer dams to isolate work areas from active river flows to reduce turbidity impacts. Some isolation of work areas that would involve damming of the entire channel width would divert water into an alternate channel or bypass for the duration of work. Fish within these isolated work areas would be salvaged by experienced and permitted personnel before construction started in those areas. Erosion and sediment controls would be installed and maintained throughout construction and until all disturbed soils are revegetated or stabilized. Work would require the use of heavy equipment such as excavators, dump trucks, and bulldozers.

IDFG would monitor the effectiveness of the actions for several years after construction is complete. If failures in system function, structure function and integrity, or risks to infrastructure, riverscape processes, or fish passage occur, IDFG would implement adaptive management procedures as funding allows. Adaptive management procedures would include similar actions to those described here and those previously implemented at the site, including but not limited to additional earthwork to modify existing channels, excavation to create new channels, construction of riffles, installation of new wood and vegetation structures, and modification of existing structures. IDFG would also implement adaptive management procedures if there were low survival or establishment of native vegetation in restored areas, including replanting and adding browse protection fencing as needed. Lastly, IDFG would monitor in winter and implement actions to remove surface ice formation or accumulation of frazil ice at any particular location if it seemed likely that an ice dam would form. If an ice dam were to be observed, modifications would be implemented such as filling pools to increase flow velocity, making cross sectional modifications, or modifying wood structures that appear to capture frazil ice. All adaptive management actions would take place within the same project footprint.

Funding this project would fulfill commitments under the 2020 National Marine Fisheries Service Columbia River System Biological Opinion (2020 NMFS CRS BiOp) and the 2020 U.S. Fish and Wildlife Service Columbia River System Biological Opinion (2020 USFWS CRS BiOp). These actions also support BPA's commitments to the State of Idaho in the Columbia River Fish Accord, 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*.).

Environmental Effects

The implementation of this project requires the use of construction crews and heavy equipment for shaping swales, realigning channels, constructing riffles, and installing or modifying wood and vegetations structures. Actions would disturb and displace soil in and along the river, damage vegetation, create 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 Lemhi 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 Snake River Chinook salmon, Snake River steelhead, and bull trout, and their designated critical habitats are present within the project area. No other state or ESA-listed aquatic species are known to be present within the project area. BPA completed an ESA Section 7 consultation on the effects of the project's actions on these species in its HIP programmatic consultations, which found that such actions would likely adversely affect these species and their designated critical habitat in the short term but would not likely result in jeopardy to the species or result in destruction or adverse modification of their designated critical habitat.

The short-term adverse effects of the project would expose, displace, reconfigure, or compact earth using mechanized equipment within and along the Lemhi River and create conditions where small amounts of sediment could be released for short periods of time. The amount of sediment anticipated from the project would be moderate. Excavation of new channels or segments and construction of riffles in these areas would be done "in the dry", meaning work would take place before the area is exposed to flows from the river. Temporary sediment discharges would be expected from the introduction of first-time flows into these areas. Instream excavation for modifications to existing channels, including realigning or straightening and constructing riffles, and installing or modifying wood and vegetation structures would also produce temporary sediment discharges. Mitigation measures would be applied, such as isolating instream work areas from flows, which may also require 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 life at critical life stages, as detailed in the Programmatic EA. 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. The project area has limited vegetation that would screen human activity during work activities within and along the river. Some work sites would require work area isolation using coffer dams to separate part or all of the stream from flows and then dewatering them. Fish trapped in isolated areas would need to be salvaged and relocated to free-flowing portions of the river prior to dewatering. Fish salvage involves electroshocking, capture, and handling to relocate the fish. This is stressful for individual fish but avoids leaving the fish stranded in a dewatered location. Dewatering would also likely kill aquatic organisms (*e.g.,* invertebrates) not able to survive the temporary dewatering or be salvaged. 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.

The project's long-term beneficial effects include the creation of more complex habitats through improvements to the main and side channel including constructed riffles and wood structures, an increase in floodplain access, and enhanced riparian cover. These 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 Lemhi 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 short-term adverse effects and beneficial long-term effects. There would be no effect on water quantity from water withdrawals. There would, however, be the potential for improved water quantity from increased recharge of groundwater since the connection between surface flows and the floodplain would be increased over both space and time.

Overall, this project would create short-term, localized sediment inputs from using mechanized equipment along and within the river while excavating and filling areas around established channels, constructing riffles, and installing wood and vegetation structures. Temporary sediment inputs would also be created when flows are introduced to newly excavated areas. Restoration actions would disturb lengths of 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. These short-term effects would be lessened by the application of mitigation measures, such as installing sediment barriers in all work areas, removing vegetation and soil from equipment before starting work, sealing fine materials into riffles, and staged rewatering to slowly introduce flows into dewatered areas, as detailed in Section 2.4 of the Programmatic EA ("*Mitigation Measures and Design Criteria*"). The project may also cause short-term increases in stream temperature due to construction-related disturbance of riparian vegetation and the channel. The long-term effects of this project, however, would an increased potential of the river and floodplain to effectively manage frazil ice and sediment loads and a reduction of summer stream temperatures from improved stream form, instream habitat structures, and increased riparian vegetative cover. 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 Lemhi 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 beneficial long-term effects. There are no state or ESA-listed plant species present in the project area.

Project implementation, including excavation and fill activities, structure installation, and establishment of staging areas and access routes would have moderate short-term impacts on vegetation. Plants 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. Vegetation impacts would also be mitigated by planting willow baffles throughout the floodplain and along banks. Increased floodplain inundation would improve water-tolerant vegetation diversity and density in the long-term. 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 effects of using mechanized equipment and manually working in and along the Lemhi 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 concluded that overall impacts to wetlands and floodplains would be low after considering short-term, adverse effects and beneficial long-term effects.

By design, all the proposed construction activities would occur in riparian wetlands and floodplains. IDFG would obtain required permits issued by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act, and adhere to all requirements, conditions, and prescriptions set forth. There would be adverse impacts in the short term, but improved wetland conditions would follow project completion. The project would modify previously restored river and wetland habitats to maintain high enough flows on the property's floodplain to improve their ability to transport frazil ice. The actions would maintain wetland and floodplain habitats and functions, albeit in a different configuration than previously constructed, and would prevent the need for more highly engineered flood control actions that would be less protective of those habitats and functions. There would be adverse impacts in the short term, but wetland conditions and floodplain function would be maintained following project completion. Consistent with the Programmatic EA, there would be long-term beneficial effects on floodplains from implementation of the project. There would be increased connectivity among the existing and new channels and their adjacent floodplains from constructed swales, side channels, and riffles. These would maintain an effective connection between the river and the floodplain. Floodplain grading and willow baffle placement would improve capture and desired deposition of sediment. This level of effect would be low, as stated in the Programmatic EA.

5. Wildlife

The effects of using construction equipment and manually working in and along the Lemhi River are consistent with the analysis in Section 3.3.5.3 of the Programmatic EA ("*Effects Conclusion for the Proposed Action on Wildlife"*). The Programmatic EA describes low impacts overall to wildlife after considering certain short-term adverse effects to individual wildlife species, such as potential construction-related mortality, and beneficial long-term effects.

No ESA-listed or state-listed wildlife species are known to exist within the proposed project area. The USFWS Information for Planning and Conservation (IPaC) tool lists three ESA-listed Threatened species, Canada lynx (*Lynx canadensis*), grizzly bear (*Ursus arctos horribilis*), and North American wolverine (*Gulo gulo luscus*), as having the potential to occur in the project area. There is no designated critical habitat for these species and no confirmed presence in the project area. The monarch butterfly (*Danaus plexippus*), ESA-proposed Threatened, and Suckley's cuckoo bumble bee (*Bombus suckleyi*), ESA-proposed Endangered, also have the potential to be present in the project area, but there is no designated critical habitat within the project area. Due to current agricultural land use practices and nearby residences, desired habitat conditions and sufficient food sources for ESA-listed and proposed species are not abundant in the project area and it is unlikely these species would be present in the project area. Therefore, the project would have no effect on ESA-listed wildlife species.

Bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) are present in Lemhi County year-round. There is no confirmed presence of nests or previously used nest sites for either species in the project area. Because construction activities have been happening at this site each year for several years, it is unlikely bald or golden eagles are present. Therefore, the project would have no impacts to bald and golden eagles. However, if a nest is observed in the project area, IDFG would employ protection measures (*e.g.,* timing, distance) as necessary to ensure eagles would not be harmed as a result of the project. Bald and golden eagles could benefit from the project in the long-term from an increased source of food coming from improved fish and wildlife habitats in the area. Therefore, the project would have no adverse impacts to bald and golden eagles.

The short-term effects from this project would be less than those analyzed in the Programmatic EA, because the planned restoration actions would have far less impact to soils and vegetation, and thus, to wildlife habitat. Human presence would cause sound and movement that temporarily disturbs or displaces local wildlife. Construction activities would destroy the habitats of small animals but would only temporarily displace medium-sized 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 wouldn't begin until July, 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 there would be long-term beneficial improvement of wildlife habitat and no long-term negative changes to wildlife habitat. This level of effect would be low, as stated in the Programmatic EA.

6. Geology and Soils

The effects of using mechanized equipment and manually working in and along the Lemhi River are consistent with the analysis Section 3.3.6.3 of the Programmatic EA ("*Effects Conclusion for the Proposed Action on Geology and Soils*"). The Programmatic EA describes moderate overall effects after accounting for mitigation measures and long-term benefits.

The short-term effects from this project would be less than those analyzed in the Programmatic EA because the planned restoration actions here would have far less impacts to soils. Though heavy machinery would impact soils during fill and excavation activities, riffle construction, and wood and vegetation structure installation, these areas are relatively small, and the project would be implemented with mitigation measures designed to reduce adverse effects, such as minimizing the area of impact, applying erosion control measures, and site decompaction and seeding after construction.

Long-term improvement to soils is expected once disturbed surfaces are 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.

7. Transportation

The effects of this project in and along the Lemhi River 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 main effect the proposed restoration action would have on transportation would be vehicles transporting workers and equipment to the project site sharing local roads with other traffic. Project vehicles would access the site via Lemhi Road on the north side of the river. No roads would be closed; none would be temporarily blocked; none would be relocated. Temporary access routes would be on existing private farm roads or pasture land. This level of impact would be low, as stated in the Programmatic EA.

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 privately-owned lands used for agriculture. Existing exclusion fencing keeps cattle out of the river and riparian areas on both sides of the river. There is no public access or public recreational opportunities. Land uses would not change because of the project – land would remain in agricultural production and cattle would continue to be excluded from the river and riparian areas – and public recreational opportunities would not change.

9. Visual Resources

The effects of the proposed project in and along the Lemhi River is consistent with the analysis in Section 3.3.9.3 ("*Effects Conclusion for the Proposed Action on Visual Resources*"), which describes low impacts to visual resources.

The proposed project is less than 0.5 miles from Highway 28, but it is at the same elevation as the highway and the sightline would be obscured by willow and cottonwood vegetation in the floodplain. The project would be visible to people driving on Lemhi Road and from a few nearby residences, resulting in short-term, minor visual impacts. Travelers on Lemhi Road and nearby landowners would see heavy equipment during construction and may see new wood and vegetation structures across the floodplain and exposed soils during earthwork activities. After vegetation re-establishment, the project area would have a natural appearance and would not visually detract from the area.

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

The effects of the proposed project in and along the Lemhi River is 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*"). This section 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, 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. Construction activities would take place during daylight hours only and would produce noise at similar levels to ongoing agricultural operations in the area.

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. Proposed actions are designed to keep flows above a certain velocity in winter to prevent ice dam formation and to provide additional bypass channels for conveying water if an ice jam were to form. This would reduce the likelihood of the river flowing outside of the floodplain and flooding nearby private lands. Therefore, the project's beneficial effects would include reduced potential for flooding and damage to landowner property.

11. Cultural Resources

The effects of this restoration action in and along the Lemhi River are consistent with the analysis in Section 3.3.11.3 of the Programmatic EA ("*Effects Conclusion for the Proposed Action on Cultural Resources*"). The Programmatic EA describes low impacts to cultural resources because cultural resources would be avoided by project construction and effects would be appropriately resolved through the National Historic Preservation Act Section 106 consultation process.

Proposed actions would be the same types of action as previously implemented and occur entirely within the Area of Potential Effect (APE) identified for the Subreach 1 project. Cultural resources surveys and two subsequent consultations with the Shoshone Bannock Tribes of the Fort Hall Reservation, the Nez Perce Tribe of Idaho, the Confederated Salish and Kootenai Tribes, and the Idaho State Historic Preservation Office (SHPO) were completed for the areas potentially affected by the Subreach 1 project.

On June 26, 2015, BPA made a determination of no historic properties affected and sent letters of consultation and the cultural survey report to consulting parties. Idaho SHPO provided their concurrence on July 1, 2015. No other responses were received by the end of the 30-day consulting period. On December 5, 2019, BPA determined proposed actions would have no effect to historic properties and sent letters of consultation and a cultural survey report to consulting parties. U.S. Bureau of Reclamation was an additional consulting party for this consultation. On December 24, 2019, Idaho SHPO concurred with BPA's determination. No other responses were received before the end of the 30-day consulting period.

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 this restoration project in and along the Lemhi River are 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 impacts to socioeconomics.

As described in the Programmatic EA, none of the restoration actions would generate a requirement for additional permanent employees, and the actions would not result in a requirement for individuals to leave the local area or relocate within it. There would be no effect on housing available for local populations. This project would not displace people or eliminate residential suitability from lands being restored, or from lands near the restoration project site. 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.

13. Climate Change

The effects of this project in and along the Lemhi River 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 low impacts 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.

Findings

BPA finds that the types of restoration actions and the potential impacts related to the proposed *Lower Lemhi Eagle Valley Ranch Subreach 1 Adaptive Management 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 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.[3] Therefore, no further NEPA analysis or documentation is required.

JACQUELYN SCHEI

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Concur:

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Katey Grange
NEPA Compliance Office

[3] 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*.