

**Supplement Analysis**  
for the  
**Columbia River Basin Tributary Habitat Restoration Programmatic Environmental Assessment**  
(DOE/EA-2126/SA-82)

**Bar G-Pahsimeroi Habitat Improvement Project**  
**BPA project number 2010-072-00**  
**BPA contract number 84063 REL 25**

Bonneville Power Administration  
Department of Energy



### **Introduction**

In December 2020, Bonneville Power Administration (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.

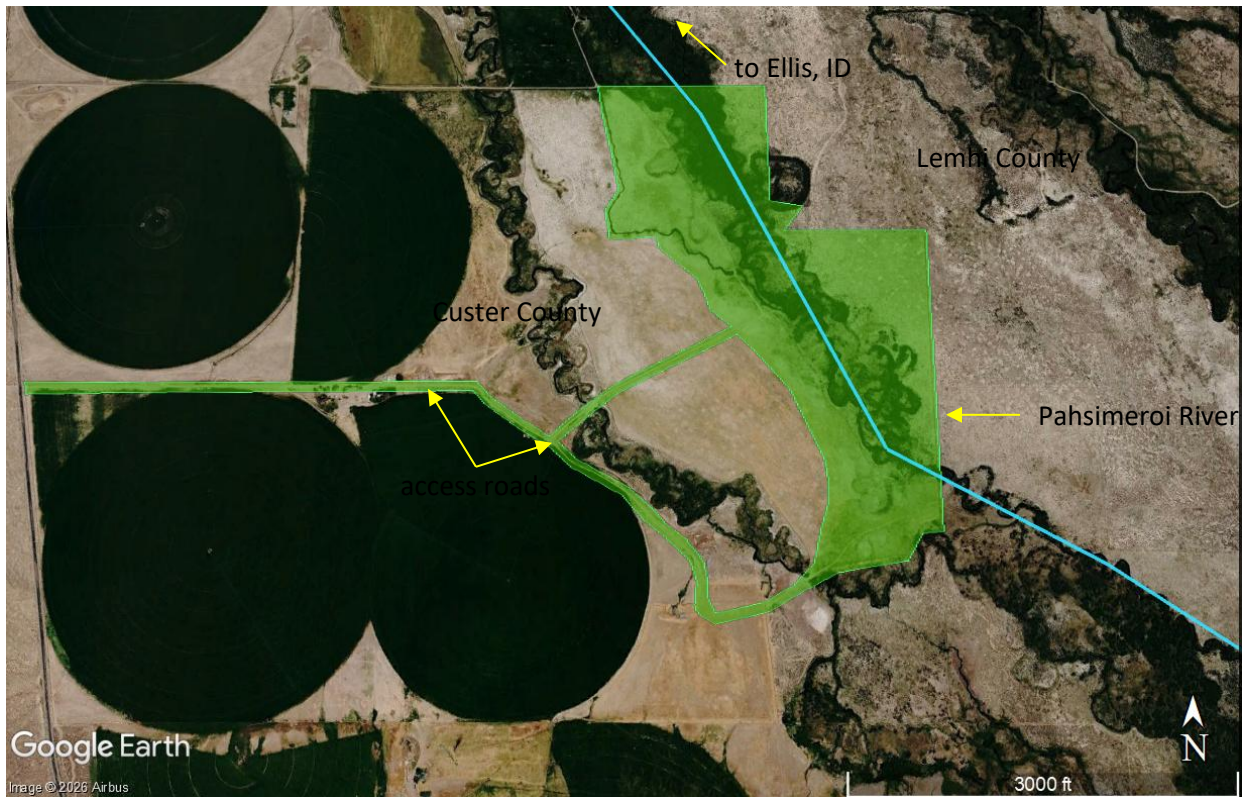
Consistent with the Programmatic EA, this Supplement Analysis (SA) analyzes the effects of the Bar G – Pahsimeroi Habitat Improvement Project (project). The project would implement specific restoration actions assessed in the Programmatic EA in the Pahsimeroi River watershed in Custer and Lemhi counties, Idaho. The objective of the project is to improve natural processes and conditions to increase rearing habitat within the system to support survival and productivity of Endangered Species Act (ESA)-listed juvenile Snake River Chinook salmon (*Oncorhynchus tshawytscha*), Snake River steelhead (*O. mykiss*), and bull trout (*Salvelinus confluentus*).

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.

### **Proposed Activities**

BPA along with the National Marine Fisheries Service (NMFS) Pacific Coastal Salmon Recovery Fund proposes funding Trout Unlimited (TU) to complete the project located on the Pahsimeroi River, approximately 8.5 miles southeast of the town of Ellis in Custer County, Idaho (Figure 1). The Pahsimeroi River forms the border between Custer and Lemhi counties, and work would occur in both counties. The project extends approximately one river mile (RM), from RM 15.5 to RM 16.5, through a privately-owned working cattle ranch. There is an existing irrigation diversion located in the project area.

The project would improve juvenile salmon rearing habitat by increasing channel sinuosity; reconnecting relict meanders; creating new secondary channels; reconnecting floodplain and side channel habitat; installing instream habitat structures; constructing beaver dam analogs and engineered riffles in strategic locations; planting native riparian plants along the banks and floodplain; and installing cattle exclusion fencing to protect the project area.



**Figure 1. Location of proposed project. Project area, including access routes, shown in green.**

Depending on site conditions, herbicide treatments for invasive plants would be applied a few weeks prior to any ground disturbance to prevent distribution of invasive species during construction. During construction, approximately 9,000 cubic yards (CY) of material would be excavated for side channel creation and reconnecting the floodplain. Excavated materials would be used to fill areas in the floodplain and main channel to force flow into side channels, create or stabilize banks, and stabilize wood structures.

The project would construct riffles in the main and side channels (about 50, ranging in length from approximately 15 feet to 115 feet) and install a variety of wood structures (about 160) in the channels and on the floodplain. Wood structures would range in size from one log to more complex, multiple log jam structures. Approximately six beaver dam analogs (BDAs) would be constructed in the main channel, focused in the downstream project area. BDAs would be constructed by adding riffle material to the channel bed and placing willow rootballs on top. A log would be placed into an excavated trench on each bank, extending into the channel over the willow rootballs. The logs would be angled toward each other, forming a wide V-shaped structure that would anchor the willow rootballs. The length of the logs would overlap across the width of the channel, but there would be a gap between them to allow for fish passage during low flow. Slash woody material—shorter logs with a 4-inch-diameter or less—would be woven between the rootballs and streambed material would be added at the front and back of the structure. Live willow stakes and slash woody material would be placed in the excavated bank trenches before backfilling the trenches and topping the bank slopes with riffle material.

In six locations of the project area, relict BDAs would be constructed in a series to span the channel and floodplain, ranging in size from about 250 feet long to 800 feet long, totaling about 2,800 feet of relict BDAs across the project area. Relict BDA construction would be similar to channel BDAs except logs would be buried into banks or existing ground across the floodplain. Wood material would extend about 2 feet above ground level and be planted with willow stakes. There would be breaks in the length of each BDA to accommodate flows. Brush bank treatments would consist of live willow stakes, which would be buried in a mud slurry and covered with slash material. The tops of the willow stakes would be

angled over the water. Brush bank treatments would curve around the ends of the BDA at each break. Willow weave fences would be constructed in the channel in strategic locations to trap fine sediment and reduce flows. These structures would consist of several posts driven into the streambed with willow cuttings and rootballs secured to them.

The project would install a variety of structures along banks to provide vegetation, stability, and erosion control, including brush bank treatments; willow baffles (20-foot-long to 40-foot-long trenches filled with live willow cuttings, slash woody material, and soil); willow rootballs secured to banks with posts; and soil wrapped in biodegradable fabric and topped with sod. Maximum bank excavation would be 8 feet deep for incorporation of wood and vegetation structures before being backfilled. In addition, the project would scarify several tussocks in the floodplain to prepare them for revegetation with native plant species.

Approximately 4,500 feet of existing fence would be removed from the floodplain area and 5,700 feet of jack-rail fence would be installed as cattle enclosure fencing around the floodplain. The point of diversion, the location where water is diverted into an irrigation ditch for agricultural use, would remain in the same location. The headgate that controls the amount of water diverted would be replaced and a flow measuring device would be installed, consistent with Idaho Department of Water Resources regulations. About 710 feet of the existing irrigation ditch, measured from the point of diversion, would be filled and a new 760-foot ditch segment would be excavated to the west to move it out of the floodplain before reconnection with the existing ditch.

Equipment needed to complete the project includes bulldozers, excavators, loaders, and a variety of service vehicles. Erosion controls and work area isolation would be implemented according to the design plans reviewed and approved under BPA's Habitat Improvement Program (HIP). Stranded aquatic organisms would be captured and moved out of isolated work areas prior to dewatering. One material and equipment staging area (less than 2 acres) would be established to support the project. Access routes would be on existing farm roads (about 3 miles) or temporary access routes created for construction. Temporary access routes (about 1 mile) would not require any road construction but would be created by clearing vegetation and driving on existing ground. One temporary bridge would be installed and may require temporary abutments on each end that would be partially buried (up to 4 feet deep) on the banks. There are two existing wet crossings that would be hardened with rock as part of the project.

After construction, disturbed areas, including temporary access routes, would be de-compacted (up to 8 inches) and seeded and mulched. In addition, about 0.5 mile of existing ranch road running through the floodplain would be decompacted and seeded. Wetland and riparian areas would also be planted with 1-gallon native plants, plugs, and live stakes. Protective fencing may be installed around plants to protect them from wildlife browsing.

The project may be implemented in phases over several years, depending on funding. In-water work would occur during the state approved in-water work period (July 1 to August 21). Work outside the channel may take place before or after the in-water work period. Planting would take place immediately after all construction has been completed, or later in the fall (around September to November) and following spring (around March to June) when conditions are more favorable and there is no snow on the ground.

The site would be monitored for several years after construction is complete. If failures occur, such as in system function, structure function, or integrity; or if there is an increase in risk to infrastructure, riverscape processes, or fish passage, adaptive management procedures would be implemented. These procedures would include installation of new structures of the same type originally installed, modification of structures, or a combination of both. Adaptive management procedures (replanting, reseeded) may also be implemented if the native plant community is slow to establish or there is low

survival in restored areas. If needed, additional herbicide applications would be applied in subsequent years if monitoring shows encroachment by invasive species.

Funding for this project would fulfill commitments under the 2020 NMFS Columbia River System Biological Opinion and the 2020 U.S. Fish and Wildlife Service (USFWS) Columbia River System Biological Opinion. These actions also support 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. (USC) 839 *et seq.*).

### **Environmental Effects**

Chapter 3 of the Programmatic EA, as summarized in relevant parts below, discusses typical environmental disturbances and impacts stemming from habitat restoration in the Columbia River Basin. The implementation of this project requires the use of construction crews and heavy equipment for excavating channels and an irrigation ditch; constructing riffles; installing wood and vegetation structures; scarifying tussocks; and installing fencing. Implementation would also include use of herbicides. 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. Below is a description of the potential site-specific impacts of the proposed 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 invasive weed treatments, using mechanized equipment, and manually working in and along the Pahsimeroi 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 species of concern 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 Pahsimeroi 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. When possible, excavation of new channels and construction of riffles, installation of wood structures and BDAs, and bank treatments in these areas would be done 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. Construction of riffles, installation of wood structures and BDAs, and bank treatments proposed within an active channel would also produce temporary sediment discharges. Mitigation measures would be applied, such as isolating instream work areas from flows, installing temporary erosion controls before starting work, 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 adverse impacts as evaluated in Section 3.3.1.2.1 of the Programmatic EA ("*Short-Term Effects to Fish and Aquatic Species from Construction Activities*"). Fence construction; excavation of the new irrigation ditch alignment; scarification of tussocks; and invasive weed treatments would have no potential to add sediment to the river.

Movement, noise, 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 areas that would require work area isolation would use coffer dams to separate part or all of the stream from flows and then dewater 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 and would need to be salvaged for survival.

Invasive weed treatments would result in loss of invasive plants and a reduction in cover for the river. The project area has limited vegetation, including invasive plants near the stream, so loss of cover over the stream would be minimal in the project area. Weed treatments also have the potential to transport herbicides to aquatic environments and affect aquatic species and their habitats. Mitigation measures would be applied to reduce impacts of herbicide application near aquatic environments, including using an approved list of products and application methods; application by a licensed applicator; minimizing drift, and ensuring riparian buffers are maintained. Disturbed areas, including those treated by herbicides, would be seeded or planted with native plants after construction to support establishment of native plant communities and increased cover in the riparian area.

The anticipated amount of activity and aquatic species disturbance is consistent with the analysis in Sections 3.1.3.1, 3.3.1.2.1, and 3.3.1.2.2.3 of the Programmatic EA (*"Dewatering for Instream Work," "Short-Term Effects to Fish and Aquatic Species from Construction Activities,"* and *"Invasive Plant Control and Vegetation Management (Category 3) Effects on Aquatic Species,"* 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 channels from constructed riffles and wood structures, an increase in floodplain access, and enhanced native 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 invasive weed treatments, using mechanized equipment, and manually working in and along the Pahsimeroi 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. The amount of water diverted at the P-10 diversion would not change as a result of this project.

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. 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"*).

Invasive weed treatments also have the potential to transport herbicides to aquatic environments during or after application. Mitigation measures would be applied to reduce impacts of herbicide application, including using an approved list of products and application methods; application by a licensed applicator; minimizing drift; and ensuring riparian buffers are maintained. Consistent with the analysis in Section 3.2.3.2.2 of the Programmatic EA (*"Herbicide Applications and Contamination of Aquatic Habitats"*), effects would be moderate.

The project may cause short-term increases in stream temperature due to construction-related disturbance of riparian vegetation and invasive weed treatments. The long-term effects of this project, however, would be improved distribution of stream flow and energy, increased floodplain interaction to improve water storage, and a reduction of summer stream temperatures from improved stream form, instream habitat structures, and increased native 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, manually working in and along the Pahsimeroi River, and invasive weed treatments 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 (wood, vegetation, fencing), scarification of tussocks; invasive weed treatments; and establishment of staging areas and access routes would have moderate short-term impacts on vegetation. Invasive plants within the project area would be treated with herbicides to kill them and allow establishment of native plant communities. Other plants within the project area would be removed, graded over, and trampled during implementation. Disturbance to riparian areas would be minimized through the implementation of mitigation measures, such as seeding and planting native species in any disturbed areas, preventing the spread of noxious weeds by washing construction equipment, and minimizing drift or overspray of herbicides. Vegetation impacts would also be reduced by installing sod, brush banks, willow baffles, and willow rootballs throughout the floodplain and along banks and planting willows in wood structures. Increased floodplain inundation would improve water-tolerant vegetation diversity and density in the long-term. Thus, the overall effects of the project would be beneficial and moderate and would be consistent with the effects described in the Programmatic EA.

### **4. Wetlands and Floodplains**

The effects of using mechanized equipment, manually working in and along the Pahsimeroi River, and invasive weed treatments 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, proposed construction activities would occur in riparian wetlands and floodplains and approximately two acres of wetlands would be impacted. The project would obtain a required permit issued by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act and a Section 401 water quality certification from Idaho Department of Environmental Quality. The project would adhere to all requirements and prescriptions set forth in the permit and certification. There would be adverse impacts in the short term from invasive weed treatments and modification of river and wetland habitats to restore and maintain wetland and floodplain habitats and functions. Consistent with the Programmatic EA, there would be long-term beneficial effects on wetlands and floodplains from

implementation of the project. There would be increased connectivity among the existing and new channels and their adjacent floodplains. Floodplain grading and vegetation structure placement would improve capture and desired deposition of sediment. Removing invasive weeds would allow native plant communities to become established. This level of effect would be low, as stated in the Programmatic EA.

## 5. Wildlife

The effects of invasive weed treatments, using construction equipment, and manually working in and along the Pahsimeroi 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 from improved habitat.

No ESA-listed or state-listed wildlife species are known to be present within the proposed project area. The USFWS Information for Planning and Conservation (IPaC) tool lists the North American wolverine (*Gulo gulo luscus*), ESA-listed Threatened, as having the potential to occur in the project area. There is no designated critical habitat for wolverine 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*) can be found in Lemhi and Custer counties year-round. There is no confirmed presence of nests or previously used nest sites for either species in the project area. If a nest is observed in the project area, TU would employ protection measures (e.g., timing and distance restrictions) 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 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. These animals would likely re-occupy the site once human activity has moved or ceased.

Effects to wildlife from herbicide application in the project area would be moderate, consistent with the analysis in Section 3.2.3.2.1 of the Programmatic EA ("*Herbicide Applications and Terrestrial Species*"). Invasive weed treatments could result in direct contact with herbicides for small animals still in the project area when work is performed. Medium and large-sized animals would likely leave the area before any treatments. Indirect contact with herbicides (e.g., dermal contact with sprayed vegetation, ingestion of contaminated vegetation) is possible but it is unlikely exposure would be lethal. Effects would be minimized by following mitigation measures, such as using an approved list of products and application methods, application by a licensed applicator, and minimizing drift.

Abundant similar wildlife habitat is present adjacent to the project area, effects from invasive weed treatments and construction activities 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, consistent with the Programmatic EA.

## **6. Geology and Soils**

The effects of invasive weed treatments, using mechanized equipment, and manually working in and along the Pahsimeroi 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"*). 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 would have far less impacts to soils. Though heavy machinery would impact soils during construction and herbicides may have impacts to biological components of soils, treated areas would be relatively small, and the project would be implemented with mitigation measures designed to reduce adverse effects. These mitigation measures include minimizing the area of impact; applying erosion control measures; site decompaction and seeding after construction; using an approved list of herbicides and application methods; and application of herbicides by a licensed applicator.

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. This level of effect would be moderate, consistent with the analysis in the Programmatic EA.

## **7. Transportation**

The effects of this project in and along the Pahsimeroi 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 Custer Road on the west side of the river. No roads would be closed, temporarily blocked, or 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. For recreation, the Programmatic EA concluded impacts would most likely occur on public lands and include adverse impacts related to construction activities that would result in some short-term visual and noise impacts and cause short-term traffic delays. 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. Exclusion fencing on the west side of the river would be moved farther away from the river to accommodate new channel excavation and floodplain structures, resulting in a minor change in land use from pasture (about 30 acres) to restored river and floodplain. There are no public recreational opportunities or public access to the project area, and this would not change after the project is implemented. Thus, there would be no impact to recreation.

## **9. Visual Resources**

The effects of the proposed project in and along the Pahsimeroi 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 project would have short-term, minor visual impacts from construction activities and vehicles accessing the site. The proposed project is about a mile away from the nearest public road (Custer Road), so road users may see some construction activity. Two nearby residences, including the

landowner where the project would occur, are between Custer Road and the project and would likely see construction activity. In the long term, road users and residents may see new wood and vegetation structures across the floodplain. After vegetation re-establishment, the project area would have a natural appearance and would not visually detract from the area. This level of impact would be low, consistent with the analysis in the Programmatic EA.

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

The effects of the proposed project in and along the Pahsimeroi 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 vehicle and equipment exhaust, dust, and from herbicide applications 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, activities would take place during daylight hours only and 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. Operating construction vehicles and equipment inherently carries potential safety risks to operators; however, staff training and implementing best management practices, such as daily on-site safety precautions, would minimize that risk during construction activities. Herbicide applications would follow mitigation measures to reduce risks to workers and the public, including having a licensed applicator that would develop an herbicide transportation and safety plan before transporting or applying any herbicides, making the risk from herbicides insignificant. This level of impact would be low, consistent with the analysis in the Programmatic EA.

#### **11. Cultural Resources**

The effects of this restoration action in and along the Pahsimeroi 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.

BPA sent a letter to consulting parties initiating consultation and sharing the project's Area of Potential Effects (APE) on September 19, 2025 (BPA Cultural Resources No.: ID 2025 025). Consulting parties included the Shoshone-Bannock Tribes of the Fort Hall Reservation, the Nez Perce Tribe, and the Idaho State Historic Preservation Office (SHPO). On October 2, 2025, BPA received SHPO concurrence on the APE. On February 26, 2026, BPA sent a letter to consulting parties along with a survey report and summary of historic properties. BPA made a finding of No Adverse Effect to historic properties. On March 17, 2026, SHPO concurred with BPA's determination. No response was received from the Shoshone-Bannock Tribes of the Fort Hall Reservation or Nez Perce Tribe within the 30-day response 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 Pahsimeroi 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. Thus, the effects would be low.

## **13. Climate Change**

The effects of this project in and along the Pahsimeroi 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 actions and the potential impacts related to the proposed Bar G – Pahsimeroi Habitat Improvement 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 the National Environmental Policy Act (NEPA) and the Department of Energy NEPA Implementing Procedures. Therefore, no further NEPA analysis or documentation is required.

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