

**Supplement Analysis**  
for the  
**Columbia River Basin Tributary Habitat Restoration Project**  
(DOE/EA -2126/SA-36)

**Bull Run Creek Mine Tailing Restoration Project**  
**BPA project number 2000-031-00**  
**BPA contract number 73982**

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 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 proposed Bull Run Creek Mine Tailing Restoration Project (Project), which would specifically implement some of the restoration actions assessed in the Programmatic EA in Bull Run Creek in Grant County, Oregon. The Project aims to address the effects of historical mining practices and associated limiting factors to benefit Endangered Species Act (ESA)-listed steelhead trout (*Oncorhynchus mykiss*) and bull trout (*Salvelinus confluentus*), and their designated critical habitat. This SA analyzes the site-specific impacts of the Project to determine if it is within the scope of the analysis considered in the Programmatic EA. This SA also evaluates whether the Project presents significant new circumstances or information relevant to environmental concerns that were not addressed by the Programmatic EA. The findings of this SA determine whether additional National Environmental Policy Act (NEPA) analysis is needed pursuant to 40 Code of Federal Regulations (C.F.R.) § 1502.9(d) and 10 C.F.R. § 1021 *et seq.*

**Proposed Activities**

BPA is proposing to fund the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and US Forest Service (USFS) to implement the Project. The Project would be located within the USFS-managed Wallowa-Whitman National Forest (WWNF), 12 miles west of the town of Sumpter in Grant County, Oregon, and disturb approximately 88 acres (Figure 1). Project construction would begin during the summer of 2023.

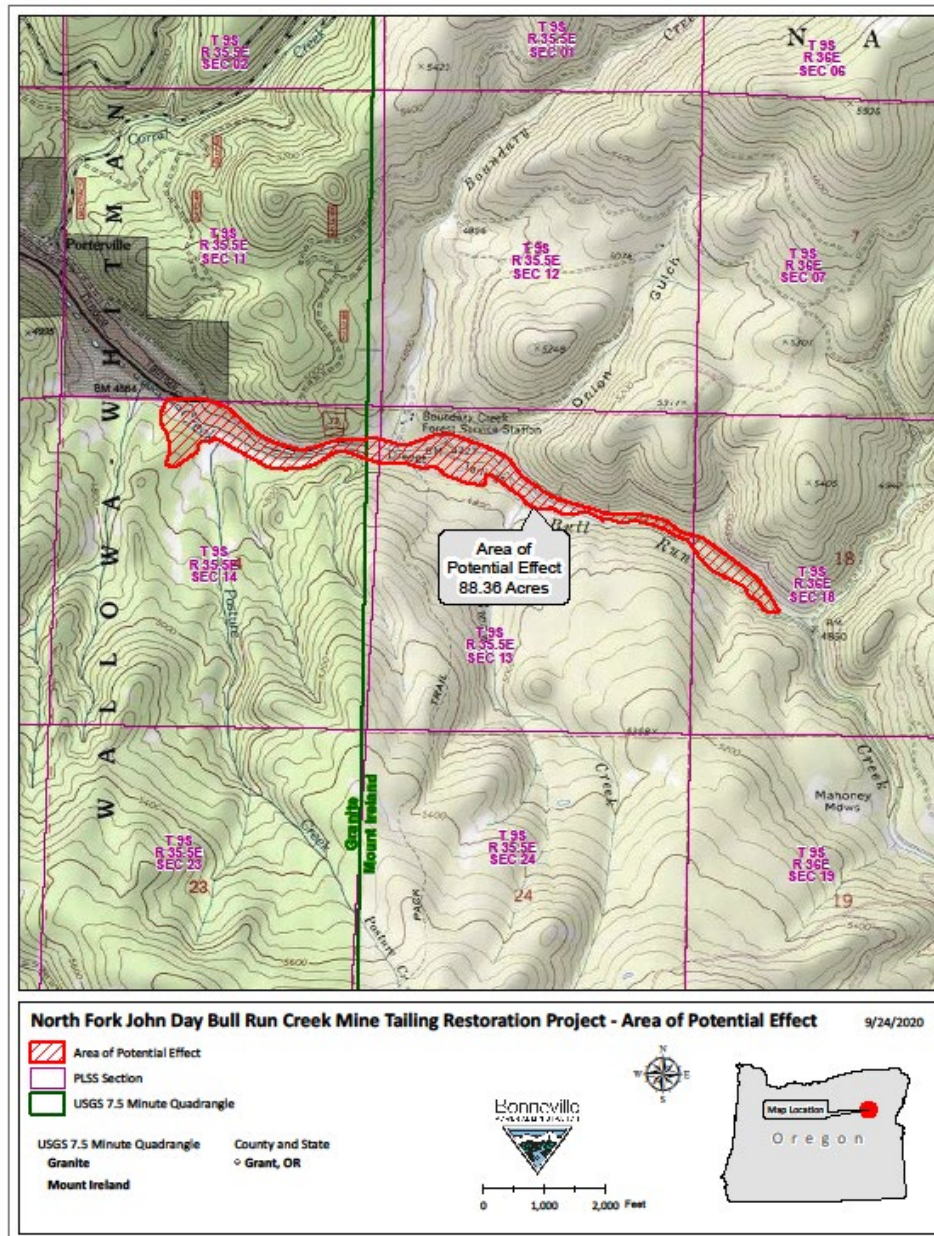


Figure 1. Bull Run Creek Mine Tailing Restoration Project Location.

The Project would address habitat simplification and lack of floodplain connectivity stemming from historical mining practices, and would address tailings left in place from dredge mining activities along two miles of Bull Run Creek on WWNF lands. Bull Run Creek is a headwater stream in the upper North Fork John Day River basin that provides spawning and rearing habitat for ESA-listed steelhead and bull trout. Flows in the Project’s reach are unregulated and are not subject to diversion upstream.

Early mining efforts consisted of small hand developed placer mining followed by placer mining using floating dredges beginning in 1938, neither of which use heavy metals and there is no evidence of contamination at the Bull Run Creek site<sup>1</sup>.

<sup>1</sup> TM106\_Biosolids, Paul Devries; August 30, 2021.

Specific Project features would include:

- Incorporation of whole logs with rootwads and log structures into the stream channel at appropriate locations and sufficient densities to increase the frequency of floodplain inundation including embedded wood, and loose wood placement within the channel and floodplain;
- Excavation of floodplains, new channels, and wetland features (swales, depressions, and localized low elevation terraces);
- Filling of bypassed sections of the existing channel and create floodplain swales using suitable material from floodplain and channel excavation;
- Addition of roughness to excavated floodplains and channels via large wood placement and native plantings;
- Addition of riparian zone plantings along generally unvegetated portions of the remaining, existing channel;
- Addition of soil amendments to areas of excavated floodplain to amend the coarse placer mining tailings; and
- Restoration of hillslope topography along the south valley edge using excavated material.

Construction would occur in two phases, with the bulk of new floodplain and channel excavation, associated earthwork, log work, and plantings being completed during Phase 1, where flows are maintained in the existing channel. Phase 2 would not be implemented until at least two years have passed to give the plantings in the new floodplains and new channel riparian zones time to become established (2025 at the earliest). A staged rewatering of the new channel would occur as water is routed into the new channels. All sections of existing channel that are bypassed by the new channel would then be filled as the main part of Phase 2 work. Approximately 500 logs from local WWNF salvage operations would be used in both phases; this number may be increased pending number of useable logs salvaged for use as loose logs. Phase 1 would require approximately 430 logs with rootwads: 210 embedded in the channel, 205 placed in channels and on floodplains, and two crib jams each constructed of approximately seven logs with rootwads. Approximately 70 loose logs would be placed in channels and on floodplains during Phase 2. Approximately 55,000 cubic yards (CY) of material would be excavated, of which 39,000 CY would be reused in the Project and 16,000 CY hauled offsite to a local quarry.

The following general sequence of activities would be planned for Phase 1, assuming construction begins in mid- to late June:

1. Clear/grub and fell timber as needed and develop access routes and staging areas.
2. Stockpile salvaged timber at WWNF-approved locations for use in the Project as in-channel and floodplain large wood placement.
3. Prepare staging area and access route surfaces.
4. Install temporary erosion control at locations indicated on plans and at other locations deemed necessary depending on conditions encountered.
5. Excavate floodplains, stockpile upper topsoil layer if any, and haul other material and place at upland site designated by, and in a manner at direction of, the CTUIR project manager and WWNF staff.
6. Excavate/salvage topsoils at hillslope reconstruction and other approved fill areas, and stockpile material at approved locations for later integration into floodplain surfaces (Phase 1) and bypassed channel sections (Phase 2) as needed.
7. Work salvaged topsoils and soil amendments into floodplain surfaces where/as needed to provide a suitable medium for subsequent plantings.

8. Starting on or after July 15, begin instream work, install embedded logs where indicated in plans following Temporary Soil and Erosion Control water management, and fish salvage plans.
9. Where indicated on the plan sheet detailing access, place temporary bridge across channel for access.
10. Work progressively in upstream or downstream direction per contractor's choice.
11. In-water work is estimated to occur over the full duration of the standard four week window (July 15-August 15).
12. Place loose logs where specified on the plans and as directed both during the in-water work window and after.
13. Perform site cleanup and abandon access routes that would not be accessed in Phase 2, seed and place slash across access routes that would be reused for Phase 2;
14. Prepare site for re-vegetation and permanent erosion control;
15. In following spring, complete planting plan.

The following general sequence of activities would be planned for Phase 2 starting in July 2025, after Phase 1 plantings would become established:

1. Prepare staging area and access route surfaces.
2. Install temporary erosion control at locations indicated on plans and other locations deemed necessary based on conditions encountered.
3. Where indicated on the plan sheet detailing access, place temporary bridge across channel for access.
4. Starting on or after July 15, begin instream work. Install water management BMPs, excavate new channel connections with existing channel, install large wood pieces at head of existing channel sections that would be re-routed, and backfill bypassed existing channel per plans using stockpiled material.
5. Work progressively in upstream or downstream direction per contractor's choice.
6. In-water work is estimated to occur over the full duration of the standard four week window (July 15-August 15).
7. Loose logs would be placed on floodplain and in-channel as directed both during the in-water work window and after.
8. Final clean up and abandon access routes as necessary.
9. Prepare site for re-vegetation and permanent erosion control.
10. In following spring, complete planting plan.

There may be additional work as needed to address issues identified after construction in accordance with the Project's adaptive monitoring and management plan<sup>2</sup>. The site would be visually monitored following construction to ensure that project elements are functioning properly and may address issues such as failing wood structures or planting failures.

These actions would support conservation of ESA-listed species considered in the 2020 ESA consultations with National Marine Fisheries Service and US Fish and Wildlife Service (Services) on the operation and maintenance of the Columbia River System and BPA's commitments to the Confederated Tribes of the Warm Springs Reservation of Oregon under the 2020 Columbia River Fish Accord Extension agreement, while also supporting ongoing efforts to mitigate for effects of the FCRPS on fish and wildlife in the mainstem Columbia River and its tributaries pursuant to the Pacific Northwest Electric Power Planning and Conservation Act of 1980, 16 U.S.C. 839 *et seq.*

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<sup>2</sup> Bull Run Monitoring and Adaptive Management Plan, John Zakrajsek, January 23, 2023

## **Environmental Effects**

The Project would require use of heavy machinery (tracked excavator, dump truck, tracked backhoe, dozer, and skidder) for staging, hauling, earthwork, excavation, and fill for the main and side channels, floodplain and hillside, and wood installation. All of these restoration actions during construction would disturb and displace soil in and along the stream, damage vegetation, create noise and vehicle emissions, stress fish, and temporarily increase vehicle traffic and human activity in the Project area. The typical effects of these actions and environmental disturbances are described in Chapter 3 of the Programmatic EA and are summarized in this document.

Below is a description of the Project's potential site-specific effects and an assessment of their consistency with those described in the Programmatic EA. Because the Project is designed to improve both aquatic and riparian habitats for the long term, adverse effects from soil and vegetation disturbance and human and mechanical activity would be temporary.

### **1. Fish and Aquatic Species**

The effects of using mechanized equipment and manually working in and along Bull Run Creek are consistent with the analysis in Section 3.3.1 of the Programmatic EA ("Fish and Aquatic Species"). Section 3.3.1.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Fish and Aquatic Species") describes overall low impacts to fish and aquatic species after considering moderate short-term adverse effects and beneficial long-term effects.

Bull Run Creek supports ESA-listed Mid-Columbia River steelhead and bull trout and their designated critical habitat. Non-listed Chinook salmon (*O. tshawytscha*), redband rainbow trout (*O. mykiss gairdneri*), westlope cutthroat trout (*O. clarkii lewisi*), and margined sculpin (*Cottus marginatus*) also occur in Bull Run Creek. Consultation with the Services on the effects of this Project on these ESA-listed species was completed under BPA's programmatic Fish and Wildlife Habitat Improvement Program. The Services concluded that the Project would likely adversely affect these species and their critical habitat in the short term, but would not likely result in jeopardy to the continued existence of these species or result in destruction or adverse modification of their critical habitat.

The Project's short-term adverse effects would include exposing, displacing, reconfiguring, or compacting earth using mechanized equipment within and along Bull Run Creek and causing runoff that temporarily increases sediment input after construction. The amount of sediment input would be moderate because there would be instream excavation, dewatering, and reintroduction of flows over exposed soils and gravels. However, mitigation measures as 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").

Fish would only return to the work area after stream flow is reintroduced following work area isolation, fish salvage, dewatering, and instream construction activity. Small aquatic organisms that could not be practicably salvaged would likely not survive. The newly constructed in-stream environment would be re-colonized by fish and other aquatic organisms, with nearly all fish likely returning in a manner of hours to days, and 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 preferred habitat during periods of movement, sounds, and vibrations from human and mechanical activity. The Project's long-term beneficial effects include

creation of more complex habitats through the addition of meanders, pools, and woody streamside vegetation to the stream and adjacent riparian areas, and enhancement of in-stream habitat complexity 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 in-stream habitat complexity over time and 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 effects on fish species would be moderate in the short term and beneficial in the long term. Taken together, the Project’s overall effects on fish would therefore be low, consistent with the analysis in the Programmatic EA.

## **2. Water Resources**

The effects of using mechanized equipment and manually working in and along Bull Run Creek are consistent with the analysis in Section 3.3.2 of the Programmatic EA (“Water Resources”). Section 3.3.2.3 of the Programmatic EA (“Effects Conclusion for the Proposed Action on Water Resources”) describes overall low impacts to water quality after considering moderate short-term adverse effects and beneficial long-term effects. Section 3.3.2.2.1 of the Programmatic EA analyzes effects on water quantity. There would be an effect to overall water quantity as a result of these Project activities related to recreating a functional system. The Project activities would cause changes to the existing hydrology in Bull Run Creek. The constructed floodplain and amended soils are expected to be able to store and provide natural filtration.

Overall, the Project would create short-term, localized, sediment inputs from introducing stream flows onto exposed gravels. This would be a temporary impact that may last a few hours. As described in the Programmatic EA, mitigation measures—including slow or metered placement of materials and close monitoring—would reduce this impact. One long-term Project effect, however, would be increased potential for the river to maintain flows conducive for passing all life stages of salmonids. The short-term adverse effects and 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 Bull Run Creek are consistent with the analysis in Section 3.3.3 of the Programmatic EA (“Vegetation”). Section 3.3.3.3 of the Programmatic EA (“Effects Conclusion for the Proposed Action on Vegetation”) describes overall moderate impacts to vegetation after considering moderate short-term adverse effects and beneficial long-term effects. No ESA-listed or other sensitive plant species are present within the Project area.

The Project is anticipated to have impacts consistent with those described in the Programmatic EA. The Project site is dominated by sagebrush and weedy species, and vegetation along access routes and at excavation locations would be uprooted or crushed by heavy machinery and construction, and all impacted sites would be planted or seeded. Section 3.3.3.2 of the Programmatic EA (“Environmental Consequences for Vegetation”) evaluated larger-scale construction effects on vegetation (more than 50 acres in some cases) than those anticipated to result from this action (about 18 acres). Based on the scope and scale of effects for this action, the overall level of effect would be moderate, as contemplated by the Programmatic EA.

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

The effects of using mechanized equipment and manually working in and along the Bull Run Creek are consistent with the analysis in Section 3.3.4 of the Programmatic EA (“Wetlands and Floodplains”). Section 3.3.4.3 of the Programmatic EA (“Effects Conclusion for the Proposed Action on Wetlands and Floodplains”) describes overall low impacts to wetlands and floodplains after considering short-term adverse effects and beneficial long-term effects.

The Project is anticipated to have impacts similar to those described in the Programmatic EA. There would be short-term (i.e., weeks-long) adverse effects to floodplains due to earthwork. Most of the wetlands within the Project area are of low quality (e.g., the wetlands are created by depressions within the tailings and are not hydrologically connected); the Project is expected to have permanent direct impacts resulting from earthwork activities (e.g. cut, fill), and indirect impacts in which wetland areas would likely be converted to other habitats. Consistent with the Programmatic EA, Project implementation would also confer long-term beneficial effects by increasing connectivity to the floodplain and creating more diverse wetland vegetative conditions. These would increase the amount of wetlands in the Project area. Appropriate Clean Water Act permitting would be obtained by CTUIR prior to any waterbody disturbance. This overall level of effect would be low after considering short-term adverse effects and beneficial long-term effects, as stated in the Programmatic EA and any mitigation measures requested as part of the Clean Water Act permitting would be followed.

#### **5. Wildlife**

The effects of using mechanized equipment and manually working in and along the Bull Run Creek are consistent with the analysis in Section 3.3.5 of the Programmatic EA (“Wildlife”). Section 3.3.5.3 of the Programmatic EA (“Effects Conclusion for the Proposed Action on Wildlife”) describes overall low impacts to wildlife after considering short-term adverse effects and beneficial long-term effects. ESA-listed gray wolf may be present within Grant County but would not be affected by the Project because suitable habitat is not located within or near the Project site. 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 consistent with those analyzed in the Programmatic EA. 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, at which point that habitat would be more hydrologically diverse but vegetatively similar. This overall 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 Bull Run Creek are consistent with the analysis in Section 3.3.6 of the Programmatic EA (“Geology and Soils”). Section 3.3.6.3 of the Programmatic EA (“Effects Conclusion for the Proposed Action on Geology and Soils”) describes moderate impacts to geology and soils.

This Project is anticipated to have impacts consistent with those described in the Programmatic EA. Staging, hauling, and constructing large wood structures along Bull Run Creek would cause soil displacement, compaction, and the mixing of soil horizons. Design criteria, mitigation measures, and best management practices would all be applied as described in Section 2.4 of the Programmatic EA (“Mitigation Measures and Design Criteria”).

The Project would target previously disturbed soils for restoration through soil amendments to support revegetation and resetting a geomorphically appropriate channel-floodplain form, and the proposed actions would result in maintaining and improving soil properties and functions as hydrologic function is

restored within the floodplain. Based solely on the scope and scale of effects for this action, the overall level of effect would be moderate, which is consistent with the effect level described in the Programmatic EA.

#### **7. Transportation**

The effects of this Project in and along Bull Run Creek are consistent with the analysis in Section 3.3.7 of the Programmatic EA (“Transportation”). Section 3.3.7.3 of the Programmatic EA (“Effects Conclusion for the Proposed Action on Transportation”) describes low impacts to transportation.

This Project, though adjacent to Baker Road (24 Road), would not impact any roads, either open or closed, public or private. No open roads would be closed, nor would any roads be temporarily blocked or relocated, nor any work conducted from the highway or its shoulders. As part of the Project, vehicles transporting workers and equipment to Project sites would be sharing local roads with other traffic during construction. This overall level of impact would be low, as is stated in the Programmatic EA.

#### **8. Land Use and Recreation**

Current land use in the Project reach is recreational, with car camping at unimproved sites along the north side of the channel, and there is one mining claim that may become potentially active in the future. This Project would avoid encroaching on the claim and would preserve future use of the majority of the unimproved camping sites. 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 projects.

#### **9. Visual Resources**

The effects of the proposed Project in and along Bull Run Creek would be consistent with the analysis in Section 3.3.9 of the Programmatic EA (“Visual Resources”). Section 3.3.9.3 of the Programmatic EA (“Effects Conclusion for the Proposed Action on Visual Resources”) describes low impacts to visual resources.

The proposed restoration actions are immediately adjacent to Baker Road and some activities would be readily visible to travelers along this route. As described in Section 3.3.9.2 of the Programmatic EA (“Environmental Consequences for Visual Resources”), Project-related construction would accordingly 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. The most obvious change would be from a dredge tailing dominated landscape to more functional habitat. However, short-term visual impacts would last for only a few months during staging, construction, and replanting. When construction is complete, the creek 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 this road. 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 Bull Run Creek would be consistent with the analysis in Section 3.3.10 of the Programmatic EA (“Air Quality, Noise, and Public Health and Safety”). Section 3.3.10.3 of the Programmatic EA (“Effects Conclusion for the Proposed Action on Air Quality, Noise, and Public Health and Safety”) describes low impacts to air quality, noise, and public health and safety. This Project is about 12 miles from Sumpter, Oregon, which is too far for noise, dust, or exhaust from construction activities to affect the residents during the few weeks of construction activities. Additionally, the Project would not create any long-term source of emissions or noise. Impacts to safety would come from workers sharing the roads when travelling to and from work sites; and the visual distraction that construction work so close to Baker Road might pose to passing motorists. This Project has little



potential to impact public safety infrastructure (e.g., roads, telecommunications equipment, etc.) or to burden emergency services (e.g., police, fire, and emergency medical services). This level of impact would be low, as is stated in the Programmatic EA.

### **11. Cultural Resources**

The effects of this Project are consistent with the analysis in Section 3.3.11 of the Programmatic EA (“Cultural Resources”). Section 3.3.11.3 of the Programmatic EA (“Effects Conclusion for the Proposed Action on Cultural Resources”) 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.

Site-specific National Historic Preservation Act Section 106 consultation for the Project was completed with BPA as the lead agency, in coordination with USFS archaeologists. BPA conducted a cultural resource survey, and consulted with the Oregon State Historic Preservation Office (SHPO), the Confederated Tribes of the Warm Springs Reservation of Oregon (CTWSRO), and CTUIR. On October 27, 2020, BPA received a response from CTWSRO concurring with the area of potential effect and requesting a copy of the inventory. Based on the results of that survey, BPA determined that the Project would have no adverse effect on historic resources and notified the consulting parties. The consultation was completed on December 6, 2022. BPA did not receive a response from the other parties that it consulted during this process.

### **12. Socioeconomics and Environmental Justice**

The effects of this restoration Project along Bull Run Creek would be consistent with the analysis in Sections 3.3.13 of the Programmatic EA (“Socioeconomics and Environmental Justice”). Section 3.3.13.4 of the Programmatic EA (“Effects Conclusion for the Proposed Action on Socioeconomics and Environmental Justice”) describes low socioeconomic and environmental justice impacts.

Consistent with the effects described in the Programmatic EA, the Project would not generate a requirement for additional permanent employees nor would it require individuals to leave the local area, or relocate to it. There would be no effect on housing available for local populations. This Project would not displace people or eliminate residential suitability of lands being restored, or from lands near it. 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.

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

### **13. Climate Change**

The effects of this Project in and along Bull Run Creek are consistent with the analysis in Section 3.3.14 of the Programmatic EA (“Climate Change”). Section 3.3.14.3 of the Programmatic EA (“Effects Conclusion for the Proposed Action on Climate Change”) describes low impacts on climate change.

Due to the short duration of construction and the relatively small number of construction vehicles and other gas-powered equipment, the project’s overall contribution to climate change—consisting of greenhouse gas emissions associated with short-term Project construction activities—would be low. Any emissions would also be offset to some degree by the ameliorating effects of restored floodplain function, such as increased carbon sequestration in expanded wetlands. The Project would also help increase long-term water table inputs through restored floodplain function and increased connectivity of the river and side channels to their floodplains. It would also increase riparian shading along the river

and side channels. Both of these results could ameliorate the effects of climate change on aquatic species. The overall effects on climate change and greenhouse gas production would accordingly be low.

### **Findings**

BPA finds that the types of actions and the potential impacts related to the proposed Bull Run Creek Mine Tailing Restoration 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 Programmatic EA's Proposed Action and no significant new circumstances or information relevant to environmental concerns bearing on the Programmatic EA's Proposed Action or its impacts within the meaning of 10 CFR § 1021.314 and 40 CFR §1502.9(d). Therefore, no further NEPA analysis or documentation is required.

/s/ Israel Duran

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Concur:

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