

**Supplement Analysis**  
for the  
**Columbia River Basin Tributary Habitat Restoration**  
**Programmatic Environmental Assessment**  
(DOE/EA - 2126/SA-38)

**Upper Grande Ronde River Bowman Habitat Restoration**  
**BPA project number 1992-026-01**  
**BPA contract number 79905 REL 14**

Bonneville Power Administration  
Department of Energy



**Introduction**

In December 2020, Bonneville Power Administration (BPA) and the Bureau of Reclamation (BOR) completed the *Columbia River Basin Tributary Habitat Restoration Programmatic Environmental Assessment* (DOE/EA-2126) (Programmatic EA). The Programmatic EA analyzed the potential 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 Upper Grande Ronde River Bowman Habitat Restoration Project (Project), which would specifically implement some of the restoration actions assessed in the Programmatic EA in the Grande Ronde River in Union County, Oregon. The Project aims to improve channel complexity, habitat diversity, floodplain connectivity and inundation, and riparian and floodplain vegetative diversity for the benefit of Endangered Species Act (ESA)-listed species.

This SA was prepared to analyze the Project's site-specific impacts to determine if it is within the scope of 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 in the 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 Action**

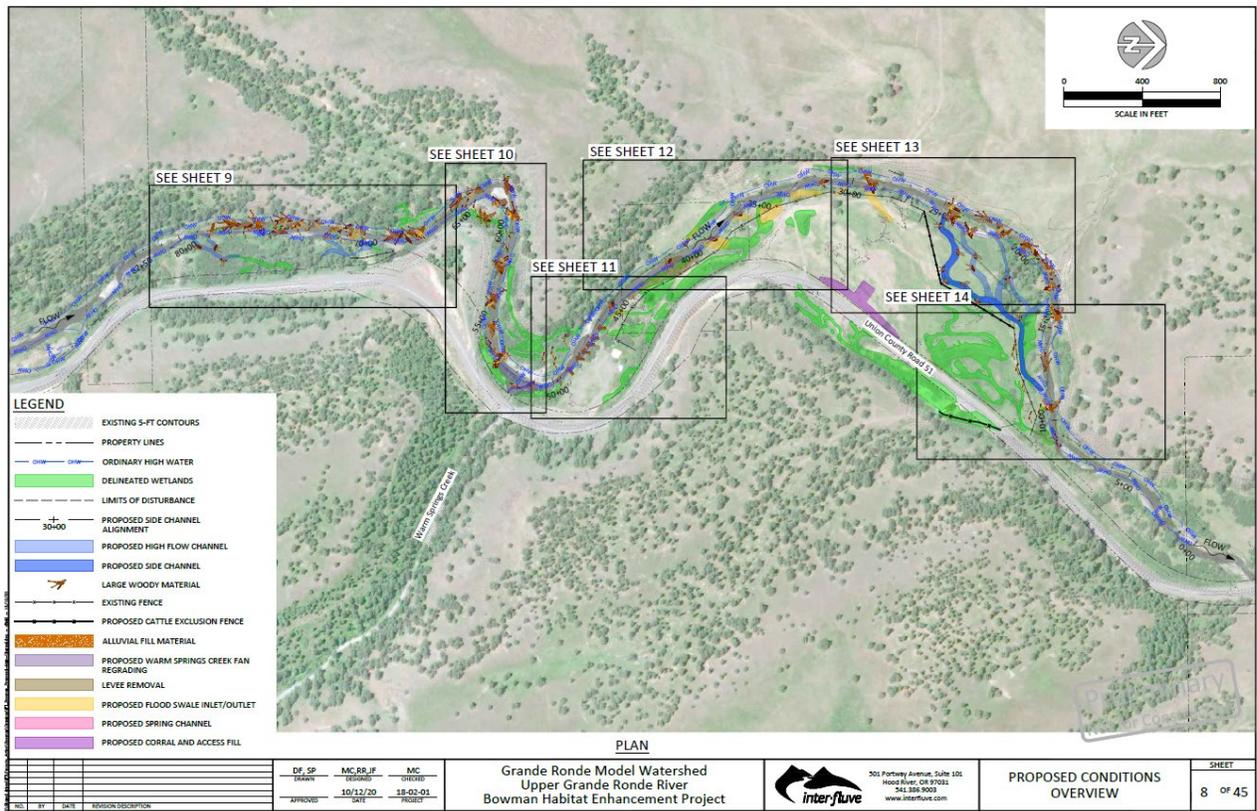
BPA proposes to fund the Oregon Department of Fish and Wildlife (ODFW) to implement the Project along 1.4 miles of the Upper Grande Ronde River and associated banks, between river miles (RM) 153.8 and 155.2, approximately 18 miles southwest of La Grande in Union County, Oregon.

Originating in the Blue Mountains at an elevation of 7,710 feet, the Grande Ronde River flows north and then northeast through the town of La Grande, Oregon, and continues into the Snake River near RM 169 in Idaho. The Grande Ronde's headwaters begin in the Wallow-Whitman National Forest (National Forest). The region supports an array of sustainably managed ecosystems used for both wilderness areas and recreation. Surrounded by the National Forest, the Project site is located within a Shared

Stewardship Opportunity Area where historical infrastructure development, industrialization, and agriculture practices have heavily impacted the Grande Ronde River and land. Channelization has reduced complexity in this portion of river while grazing within the floodplain has depleted most of the riparian vegetation. Remaining vegetation communities within the Project area consist of pasture grasses, weedy forbs, scattered shrubs, and scattered evergreen trees. This has caused erosion, increased sediment, decreased water quality, and substantial habitat loss for ESA-listed species.

The Project area would be located within a partially confined reach of the Grande Ronde River (Figure 1). The upper portion of the reach (RM 154.4 to RM 155.2) (Figure 1 Sheet boxes 9 -11) is contained within a canyon with some small areas of floodplain, while the reach downstream of RM 154.4 (Figure 1 Sheet boxes 12 – 14) is less confined, as the narrower valley broadens for about 0.5 miles before entering another more confined reach.

**Figure 1. Upper Grande Ronde River Bowman Habitat Restoration Design**



The Project would occur on 32 acres of private land currently used for livestock grazing and would consist of channel and floodplain connectivity construction, channel realignment, large wood structure installation, and vegetation management. Work element details are as follows:

**Channel and Floodplain Connectivity:** High ground areas adjacent to the existing channel would be lowered in select locations to create high flow swales, reconnect segments of the floodplain, and reactivate side historical channels. Swales would vary in size, ranging approximately two to five feet in depth, ten to ninety feet wide, and no longer than 200 feet in length. A multi-threaded channel complex would be formed from the historic side channels in the floodplain. Towards the northern

downstream portion of the project site, the multi-threaded channel complex consisting of four smaller segments, approximately 150 to 400 feet in length, would stem from one large side channel approximately 1,300 feet in length. The multi-threaded channels would be realigned to direct flow as needed. The channels would be approximately three to four feet deep and five to ten feet wide. Small pools and large woody structures would be constructed in conjunction with side channels and swales. Excavation would be minimal and excavated materials would be used to narrow the main channel and divert flow to the floodplain. Existing riparian fences would be deconstructed and replaced following swale construction. Upon completion, the swales, the multi-threaded channel complex, and portions of the floodplain would be fully active for approximately six months every year.

**Warms Springs Creek Outlet:** Warm Springs Creek is a tributary flowing from southeast which flows through an existing culvert under county Highway 51 before its confluence with the Grande Ronde River. The channel between the culvert and the river is sloped and has a substantial headcut which has created a fish passage barrier. Approximately 150 feet of Warm Spring Creek would be re-aligned and roughened to reduce the slope and the existing headcut. Within the channel, a low-flow notch would be constructed to concentrate flow and extend the duration of fish passage.

**Spring Channel:** An existing cold water spring at the northern downstream end of the project site would be enhanced by deepening the channel up to approximately two feet in some locations, creating an outlet pool, and reconnecting it to the main channel. A cattle crossing impeding the spring's flow would be removed and rebuilt in a location where it would not impact the aquatic habitat.

**Large Wood Accumulations:** Ten groupings of large woody structures mimicking natural wood accumulation would be positioned in-channel and throughout the floodplain of the Project reach. Each grouping would consist of 4 to 8 large woody structures working together to systematically redirect flow. Each structure would consist of large whole trees (up to approximately 80 feet in length) woven with a variety of smaller trees and logs anchored in place with vertically driven logs. Helicopters or heavy equipment would position the structures in excavated footprints and narrow trenches four to six feet deep, after which they would be embedded and backfilled with re-purposed alluvial fill materials. Approximately 1,420 cubic yards of large woody material—salvaged on-site or sourced locally—would be used.

**Vegetation Management:** Approximately five acres of riparian area and one acre of upland area would be replanted with native plants and seed mixes. All access roads, staging areas, and disturbed ground would be seeded and mulched to replenish native understory. Non-native species would be removed and disposed offsite. All trees removed within clearing limits would be utilized in the project construction. Trees not marked for removal would be left undisturbed and any damaged trees would be replaced. Container plants would be locally sourced and live cuttings would be collected from the site. Mechanized equipment and hand tools would be used for planting.

Overall, approximately 8,170 cubic yards of excavation would occur within the 100-year floodplain, 390 of which would be removed from the floodplain and re-purposed elsewhere on-site. Floodplain inundation would potentially increase by ten acres or greater.

Project implementation would begin in 2023, with staging and dry-work to occur throughout spring and summer and in-water work to be completed during the in-water-work-window from July 1<sup>st</sup> through July 30th.

Cofferdams, isolation berms, turbidity curtains, and fish salvage techniques would be used as needed. The Project would require the use of an excavator, a track hoe, a helicopter, vibratory pile driving, water pumps, dump trucks, and a dozer. The latter would be used for reconstructing channels, pools, and swales; installing and backfilling the large wood structures; and removing and planting vegetation within the channel and floodplain.

The Project would improve habitat and passage for ESA-listed spring Chinook, summer steelhead, bull trout, and other fish and wildlife species, fulfilling commitments under the 2020 National Marine Fisheries Service (NMFS) Columbia River System Biological Opinion and supporting conservation of ESA-listed species considered in the 2020 ESA consultation with the US Fish and Wildlife Service (USFWS) on Columbia River System operation and maintenance. The Project also supports 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, 16 U.S.C. 839 *et seq.*

### **Environmental Effects**

The construction phase of the restoration actions would disturb and displace soil in and along the stream, damage vegetation, create noise and vehicle emissions, stress handled fish, and temporarily increase vehicle traffic and human activity in the Project area. These actions' typical environmental effects and disturbances are described in Chapter 3 of the Programmatic EA and 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. This Project is designed to improve both aquatic and riparian habitats for the long term, so the adverse effects from soil and vegetation disturbance and human and mechanical activity, as detailed below, would be short-term only.

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

The effects of using mechanized equipment and manually working in and along the Upper Grande Ronde River 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.

Critical bull trout habitat and three ESA-listed species are present in the Project area: spring Chinook salmon, steelhead, and bull trout. BPA completed ESA Section 7 consultation with USFWS and NMFS (Services) on the Project's effects on these ESA-listed species as part of its programmatic Fish and Wildlife Habitat Improvement Program (HIP) 4 consultation, following which the Services concluded that the Project would likely adversely affect these species and their designated critical habitat in the short term, but likely would not result in jeopardy to the species' continued survival or result in destruction or adverse modification of their critical habitat. HIP conservation measures, which would reduce project-

related impacts to both ESA-listed and state-sensitive species, would be applied during project implementation.

In the short term, the Project's adverse effects would include exposing, displacing, reconfiguring, or compacting earth using mechanized equipment within and along the Upper Grande Ronde River, and likely causing brief post-construction sediment discharges. The amount of sediment discharged would likely be moderate due to instream excavation, dewatering, and reintroduction of flows over newly exposed soils and gravels. However, application of mitigation measures as detailed in Appendix B of the Programmatic EA for work area isolation and fish salvage would minimize these impacts. The sediment inputs would be consistent with the amounts evaluated in Section 3.3.1.2.1 of the Programmatic EA (entitled "Short-Term Effects to Fish and Aquatic Species from Construction Activities").

The work area isolation, fish salvage, dewatering, and instream construction activity would displace fish from the work area until stream flow is reintroduced. Much of the main channel would be accessible to fish, as channel diversion structures would only be used during side-channel realignment and large wood structures would be individually isolated as needed. Small aquatic organisms that could not be practicably salvaged would likely perish. Fish and other aquatic organisms would recolonize the newly constructed instream with near-full recovery likely in a matter of weeks and full recovery likely following the first 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) discussing direct, harmful, and sometimes-fatal impacts to aquatic species, including movement, sounds, and vibrations from human and mechanical activity that would be likely to disturb fish and displace them from their preferred habitat for the duration of the disturbance(s).

The Project would offer long-term beneficial effects by developing habitat complexity. Actions to that end include constructing preferential flow paths and breaching a levee to reconnect the floodplain. Planting vegetation would stabilize the floodplain, reduce temperature and long-term sediment inputs, and improve water quality. Assembling large wood structures in-stream and along the floodplain would increase juvenile salmonid rearing habitat. These beneficial effects are consistent with the analysis in Section 3.3.1.2.2 of the Programmatic EA ("River, Stream, Floodplain, and Wetland Restoration and Channel Reconstruction (Category 2) Effects on Aquatic Species").

## **2. Water Resources**

The effects of using mechanized equipment and manually working in and along the Upper Grande Ronde River are consistent with the analysis in Sections 3.3.2 and 3.3.2.3 of the Programmatic EA ("Water Resources" and "Effects Conclusion for the Proposed Action on Water Resources," respectively) describing overall low impacts to water quality after considering moderate short-term adverse effects and beneficial long-term effects. There would be no effect to water quantity, as the Project would not involve water withdrawals.

Overall, the Project would create localized short-term sediment inputs from re-watering the re-aligned side channel and from habitat complexity construction. Excavation and earthmoving in close proximity to water may also release sediment and cause turbidity plumes in the waterway. Consistent with the Programmatic EA, this would be a short-term effect mitigated by measures for work-area isolation

(Appendix B in Programmatic EA), minimization of areas to be impacted, and revegetation when actions are complete.

The Project's long-term effects, however, would decrease the potential for unnatural sediment inputs, increase the floodplain's potential to effectively manage its sediment loads, and reduce stream temperatures from improved stream form, instream habitat structure, and increased riparian vegetative cover. These long-term beneficial effects would be consistent with those described in the Programmatic EA, resulting in a low level of effect on water quality for the mid- to long-term.

### **3. Vegetation**

The effects of using mechanized equipment in and along the Upper Grande Ronde River 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 special-status species of concern or ESA- or state-listed plant species are present within the Project area. This Project is anticipated to have similar impacts as those described in the Programmatic EA. Vegetation management would impact vegetation at the Project site. Staging, stockpiling, and access routes would have minimal impact as most of these areas are denuded and compacted with little vegetation. Section 3.3.3.2 of the Programmatic EA ("Environmental Consequences for Vegetation") evaluated constructed features that could disturb over 50 acres, but the affected vegetated area would likely be less than 20 acres due to the sparseness of existing vegetation. All impacted areas would be replanted with native trees clippings, woody plants, and mixed grass seed. Vegetation would be salvaged and repurposed when possible. Impacts to vegetation would include trampling by mechanized equipment and human foot traffic (from which the vegetation would be anticipated to recover well); cutting of willow and dogwood branches to revegetate the riparian area (from which all species are anticipated to recover fully); and management of the weed populations. This level of effect would be moderate, consistent with the Programmatic EA.

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

The effects of using mechanized equipment in and along the Upper Grande Ronde River 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 adverse effects to floodplains, freshwater emergent wetlands and freshwater forested/shrub wetlands stemming from acres of earthmoving moving activities within in wetland boundaries such as; a levee removal, installation of large wood structures, planting of native vegetation, creation of swales and pools, and increased inundation within the stream channel, floodplain and wetlands . Clean Water Act Section 401 certification and 404 permit have been issued. Consistent with the Programmatic EA, Project implementation would have long-term beneficial effects, including enhancing stream structure and channel complexity, increasing juvenile salmon rearing habitat, reconnecting the floodplain, improving groundwater exchange, and increasing wetland quality and

quantity. Overall, the Project would likely increase floodplain inundation by more than 10 acres. Consistent with the analysis in the Programmatic EA, this level of effect would be low after considering short-term adverse effects, beneficial long-term effects, and any mitigation measures requested as part of the Clean Water Act permitting that would be followed.

## 5. **Wildlife**

The effects of using mechanized equipment and manually working in and along the Upper Grande Ronde River 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. According to the USFWS’s Information for Planning and Consultation (IPaC)<sup>1</sup> and the ODFW’s Area of Known Wolf Activity (AKWA)<sup>2</sup>, the gray wolf, a threatened species, has been documented within a five-mile radius of the Project area. Encounters at the Project site would be highly unlikely as gray wolves are nocturnal and generally avoid human populated areas. The proposed actions are not expected to affect any special-status species, as reflected in a “no effect” determination.

The Project’s short-term effects on other wildlife species 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 haunts and prevent them from reoccupying the site for the duration of construction activities. Additionally, increasing floodplain inundation could initially displace upland species. It would take a couple of years for the transplanted and newly planted vegetation to provide the increased wildlife habitat value intended. Over time, however, the habitat values along the Upper Grande Ronde River would improve relative to the area’s pre-project condition, with increasing woody vegetation diversity and abundance and capability to support more wildlife and higher species diversity. This overall level of effect would be low after considering short-term adverse effects and beneficial long-term effects, consistent with the analysis in the Programmatic EA.

## 6. **Geology and Soils**

The soils and geologic effects of using mechanized equipment and manually working in and along the Upper Grande Ronde River 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.

The Project is anticipated to have impacts consistent with those described in the Programmatic EA. The construction of side channels, large wood structures, removal of the existing levee, construction of swales, re-alignment of Warm Springs Creek outlet, and vegetation management would require excavation and would cause soil displacement, compaction, and mixing of soil horizons. Section 3.3.3.2 of the Programmatic EA (“Environmental Consequences for Vegetation”) evaluated construction actions that could disturb “generally less than 20 acres at any one site,” but with some “exceeding 50 acres.” The Project’s area of impact would likely be only about eight acres from excavation during levee removal, swale creation and channel realignment, and up to 20 acres of minor disturbances, such as planting or accessing the site. Design criteria, mitigation measures, and best management practices

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<sup>1</sup> U.S FWS’s Information for Planning and Consultation (IPaC): <https://ipac.ecosphere.fws.gov/location/index>

<sup>2</sup> ODFW’s Wildlife Division, Area of Known Wolf Activity (AKWA): <https://www.dfw.state.or.us/Wolves/Packs/index.asp>

would all be applied as described in Section 2.4 of the Programmatic EA (“Mitigation Measures and Design Criteria”) to minimize impacts and maintain long-term soil productivity.

Although the Project would not specifically target soils for restoration or enhancement, it would have the capacity to maintain and improve soil properties and functions as it restores hydrologic function and vegetative conditions within the floodplain. The level of effect would be moderate, consistent with the effect level described in the Programmatic EA.

## **7. Transportation**

The Project’s effects on transportation would be 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.

The Project would be located on private land and would not impact any roads, either open or closed, public or private. No roads would be closed, temporarily blocked, or relocated. At most, vehicles transporting workers and equipment to Project sites would share local roads with other traffic during construction—a low level of impact, consistent with the analysis in the Programmatic EA.

Although the Project is expected to have minimal impacts on transportation or infrastructure, some of the proposed stream restoration actions would greatly modify the channel structure and hydraulic characteristics of the Grande Ronde River within the Project reach. Engineers designed and reviewed the Project to ensure that it would not change flow conditions to affect downstream road prisms, culverts, and bridges, as mentioned in Section 3.3.7.2 of the Programmatic EA.

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

The Project would have no effects on land use or recreation. Land use would remain unchanged, while public recreational opportunities are already limited as the Project would occur on private land. Water-based recreationalists could enter the Project site from an upstream location, though low flow conditions through late summer and fall would substantially decrease that possibility. Although land uses would not change, small-scale changes would result from channel modifications, floodplain activation, increased seasonal water distribution, re-vegetation, and cattle exclusion fencing. Increased inundation and fencing could alter established access routes and result in a reduced area for cattle grazing. This level of effect is consistent with those 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 Project’s effects in and along the Grande Ronde River are 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 would be seen from Union County Road 51 to the east, and all 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”), there would be short-term visual impacts, which would occur during construction activities due to the presence of heavy

equipment, stockpiled supplies, and denuded areas. Until the newly planted grasses, trees, and shrubs begin to visually restore the setting, areas of bare soils would be highly visible and likely detract from the otherwise pastoral scenery along this highway, though for only a few weeks in late summer. When construction is complete, the river would appear natural and the Project site would look like a plowed or mowed field for the remainder of the construction year, or until the seeded grasses sprout. Full vegetation recovery would be likely in the following years, and the entire area would again provide the pastoral scenery as seen elsewhere along this highway. This level of impact would be temporary low, consistent with the analysis in the Programmatic EA.

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

Project effects in and along the Grande Ronde River are 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.

The Project area is rural and located approximately three miles from the nearest town—Starkey, OR—which is too far for noise, dust, or exhaust from construction activities to affect town residents during the few weeks of construction activities.

**Air Quality:** Construction and transportation equipment would emit some carbon monoxide, nitrogen oxide, unburned hydrocarbons, and particulates (primarily soot) from tailpipe emissions and cause dust during ground disturbance and travel along unpaved access roads during implementation of restoration actions. These emissions could affect air quality locally for short durations. Impacts would be low in both concentration and duration, consistent with the impacts described in the Programmatic EA.

**Noise:** Construction equipment, transportation, and restoration activities would increase ambient noise levels within the project area during implementation. Impacts would be minimal, temporary, and no long-term source of emissions or noise would be created. Overall, noise levels would be consistent with the Programmatic EA and upon completion levels would return to baseline conditions.

**Public Safety and Health:** 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 the highway might pose to passing motorists. This Project would not impact public safety infrastructure (e.g. roads, telecommunications) or burden emergency services (police, fire, ambulance, etc.). This level of impact would be low, consistent with the analysis in the Programmatic EA

## **11. Cultural Resources**

The Project’s effects would be 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. Potential effects would be appropriately resolved through the Section 106 consultation process under the National Historic Preservation Act.

Consultations with the Oregon State Historic Preservation Office and the Confederated Tribes of the Umatilla Indian Reservation were completed August 28, 2020 for the Project’s area of potential effect.

As a result of cultural resources field inventory, the Project was redesigned to avoid impacts to two archaeological sites identified. In addition to the redesign, monitoring and minimization measures were prescribed for implementation during construction, including: a site-specific Inadvertent Discovery Plan (IDP); pre-construction cultural resources training; 10 to 30 meter buffers and boundary flagging; and cultural resources monitoring during all ground disturbing activities.

In the letter dated July 29, 2020 BPA determined that, with the implementation of the avoidance and minimization measures, the Project would result in no historic properties affected. SHPO concurred that there would be no adverse effects to historical properties as a result of the Project. No additional comments were received within or following the 30 day consultation period.

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

The Project's effects would be consistent with the analysis in Section 3.3.10 of the Programmatic EA ("Socioeconomics and Environmental Justice"). Section 3.3.10.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Socioeconomics and Environmental Justice") describes low impacts to socioeconomics and environmental justice.

Consistent with the effects described in the Programmatic EA, the Project would not require additional permanent employees or require individuals to leave the local area or relocate within it. There would be no effect on housing available for local populations. The Project would not displace people or eliminate residential suitability of lands being restored, or from lands near restoration project sites. 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 private lands on which they are located, and no offsite effects are anticipated that could impact such populations elsewhere

## **13. Climate Change**

The Project's effects would be consistent with the analysis in Section 3.3.10 of the Programmatic EA ("Climate Change"). Section 3.3.10.3 of the Programmatic EA ("Effects Conclusion for the Proposed Action on Climate Change") describes low impacts to climate change.

Due to the short duration of construction activities and the relatively small number of motorized vehicles and helicopters involved, temporary construction-related greenhouse gas emissions are anticipated to be well below the Environmental Protection Agency's reporting threshold of 25,000 metric tons of carbon—a low contribution to climate change. These emissions would be offset to some degree by the Project's ameliorating effects of restored floodplain function, such as a long-term increased water table inputs, increased carbon sequestration in expanded, and improved riparian wetlands, and the potential for decreased water temperatures from improved instream and riparian habitat conditions. Overall, the long-term effects on climate change would be low and beneficial, consistent with the impacts described in Section 3.3.14.2 of the Programmatic EA.

**Findings**

BPA finds that the types of actions and the potential impacts related to the proposed Upper Grande Ronde River Bowman Habitat Restoration Project have been examined, reviewed, and consulted upon and are similar to those analyzed in the Columbia River Basin Tributary Habitat Restoration Programmatic Environmental Assessment (DOE/EA/EIS-2126) and Finding of No Significant Impact. There are no substantial changes in the proposed action and no significant new circumstances or information relevant to environmental concerns bearing on the proposed action or its impacts within the meaning of 10 C.F.R. § 1021.314 *et seq.* and 40 C.F.R. § 1502.9(d). Therefore, no further NEPA analysis or documentation is required.

/s/ Lindsey Arotin

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Concur:

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