

Supplement Analysis
for the
Columbia River Basin Tributary Habitat Restoration
(DOE/EA-2126/SA-23)

Tex Creek Restoration Project
BPA project number 2002-059-00
BPA contract number 74313 REL 114

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 Tex Creek Restoration Project (project) that would implement some of the specific restoration actions assessed in the Programmatic EA in Tex Creek in Grant County, Oregon. The objective of this Project is to improve passage and habitat for Endangered Species Act (ESA)-listed Mid-Columbia River steelhead trout (*Oncorhynchus mykiss*).

This SA analyzes the site-specific impacts of the Tex Creek Restoration Project to determine if the project is within the scope of the analysis considered in the Programmatic EA. It also evaluates whether the proposed project presents significant new circumstances or information relevant to environmental concerns that were not addressed by 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 (CFR) § 1502.9(d) and 10 CFR 1021 *et seq.*

Proposed Activities

BPA proposes to fund the Oregon Department of Fish and Wildlife (ODFW) to implement the Tex Creek Restoration Project. The Tex Creek Restoration Project area is approximately 7 acres and includes the lower 0.35 mile of Tex Creek and associated floodplain at the confluence with Murderers Creek near river mile 15.6 (Figure 1). The project area occurs in an unconstrained reach within the ODFW-managed Phillip W. Schneider Wildlife Area and is an inholding within the Malheur National Forest. The overall purpose of this Project is to improve passage and habitat for Endangered Species Act (ESA)-listed Mid-Columbia River steelhead trout (*Oncorhynchus mykiss*).

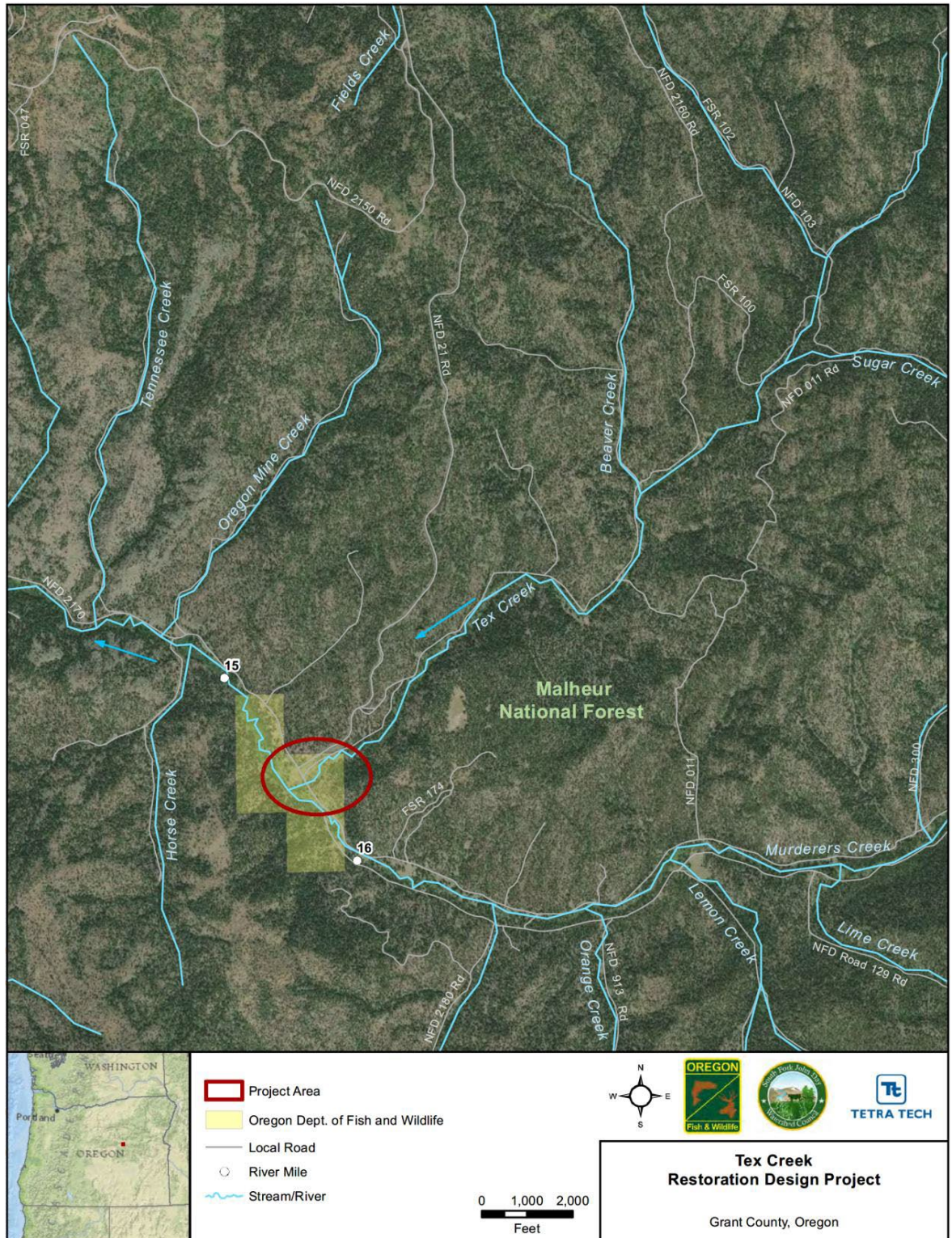


Figure 1. Tex Creek Restoration Project Area.

Construction activities would be divided between work in the floodplain and uplands, and work in the wetted channel. The Project design consists of four major elements, as further described below, intended to restore or enhance fish passage and in-stream, riparian, wetland, and floodplain habitats.

Wood Structures – A total of 35 structures are proposed using four types of structures that would serve a variety of purposes. The structures include: channel spanning structures; two-log cross structures; and three-log cross structures. Wood structure placement includes both in-channel and off-channel strategies intended to address limiting factors and provide a number of geomorphic functions and habitat benefits. Slash would be added to the channel spanning structures to help trap water and sediment, and ballast boulders would be used on some channel spanning structures to provide stability against buoyancy and mobility. Similarly, log cross structures would be either partially buried or ballasted using fill to resist mobility.

Side Channel Creation/Reactivation – Two side channels are proposed to be created totaling about 420 feet in length. The new side channels would have varying flow criteria to increase habitat availability for spawning and rearing, increase inundation and riparian vegetation extents, and facilitate groundwater storage. About 85 cubic yards would be removed from the first side channel and about 35 cubic yards would be removed from the other side channel. It is expected that spoils would be composed of mostly fine-grained silts and therefore would be disposed of locally outside of the floodplain and along adjacent hillslopes as identified in the designs, and some clean spoils would be placed on the wood structures.

Floodplain Reconnections – Two sites were identified where selective minor excavations of 34 feet (5 cubic yards) and 28 feet (2 cubic yards) would reconnect adjacent floodplains and approximately 350 feet of remnant side channels or backwaters.

Riparian Revegetation, Plantings and Seeding – Planting areas include a total of 202 shrubs and 38 native trees. These would be placed along the channel margins of new side channels and include live stakes and rooted container plants. Seeding of disturbed areas would use a seed mix of several native species that include both riparian and upland species. Planting would occur in all disturbed areas upon completion of construction work.

Construction is expected to occur as early as July 7th 2022 and may last up to four weeks; any instream construction, fish salvage, or work isolation would occur during the in water-work window, July 15th to August 31st. Access to the project would be via existing NF roads. Off-road access within the construction site would be via temporary access routes developed during project mobilization.

These actions would support conservation of ESA-listed species considered in the 2020 ESA consultation with National Marine Fisheries Service on the operations and maintenance of the Columbia River System, 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 (Northwest Power Act) (16 U.S.C. (USC) 839 *et seq.*).

Environmental Effects

The implementation of this project would require the use of heavy equipment for staging, hauling, excavation and placement of large wood structures and excavation. 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 associated with the environmental disturbances created by these actions are described in Chapter 3 of the Programmatic EA, and are incorporated by reference and summarized in this document.

Below is a description of the potential site-specific effects of the Tex Creek Restoration Project, and an assessment of whether these effects are consistent 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 from 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 Tex Creek are consistent with the analysis in the Programmatic EA, Section 3.3.1, "Fish and Aquatic Species." The Programmatic EA, Section 3.3.1.3, "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.

Mid-Columbia River steelhead trout and its designated critical habitat are present in the project area. Consultation on the effects of this project on this species was completed under BPA's programmatic Fish and Wildlife Habitat Improvement Program (HIP) ESA consultation with the conclusion 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 species or result in destruction or adverse modification of their critical habitat.

The short-term adverse effects of the project would expose, displace, reconfigure, or compact earth through the use of mechanized equipment within and along Tex Creek, and likely create conditions where sediment would be released for a short period of time following construction activities. The amount of sediment anticipated by the project would be moderate because there would be instream excavation, dewatering, and reintroduction of flows over newly exposed soils and gravels. However, mitigation measures as detailed in the Programmatic EA, Appendix B for work area isolation and fish salvage would be applied, minimizing these impacts. The sediment inputs would be consistent with the amounts evaluated in the Programmatic EA at Section 3.3.1.2.1, "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 the work area is re-watered. Small aquatic organisms that could not be practically salvaged likely would be destroyed. The newly constructed in-stream environment would be re-colonized by fish and other aquatic organisms with nearly all fish likely returning in a matter of hours to days, and 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 the Programmatic EA found at Section 3.1.3.1, "Dewatering for Instream Work" and 3.3.1.2.1, "Short-Term Effects to Fish and Aquatic Species from Construction Activities," where direct, harmful, and sometimes fatal impacts to aquatic species are disclosed; and that movement, sounds, and vibrations of human and mechanical activity are discussed as likely to disturb fish and displace them from their preferred habitat for as long as that movement, sound, and vibration are present. 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; reduction of long-term sediment inputs by streamside stabilization and streamside plantings; and the enhancement of in-stream habitat complexity over time by providing large wood structures, and overhanging vegetation (tree transplants). These beneficial effects are consistent with the analysis in the Programmatic EA found at Section 3.3.1.2.2.2, "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. These beneficial effects are consistent with the analysis in the Programmatic EA found at Section 3.3.1.2.2.2, "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 Tex Creek are consistent with the analysis in the Programmatic EA in Section 3.3.2, "Water Resources." The Programmatic EA, Section 3.3.2.3, "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.

There would be positive effects to water quantity, as this project would result in more water being retained in-river, with less water leaving the system hyporheically.

Overall, this project would create short-term, localized, sediment inputs from reintroducing stream flows onto exposed gravels. This would be a temporary impact that may last a few hours. As described in the Programmatic EA, this impact would be lessened by the application of mitigation measures such as slow, or metered placement of materials and close monitoring to keep sediment below 50 Nephelometric Turbidity Units as much as possible. The long-term effects of this project, however, would be an 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 Tex Creek are consistent with the analysis in the Programmatic EA Section 3.3.3, "Vegetation." The Programmatic EA, Section 3.3.3.3, "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 plant species listed under the ESA or other sensitive plant species are present within this project area.

This project is anticipated to have impacts consistent with those described in the Programmatic EA. Vegetation along access routes and at excavation locations would be crushed from heavy machinery and construction, all impacted sites would be planted or seeded. The Programmatic EA in Section 3.3.3.2, "Environmental Consequences for Vegetation," evaluated constructed features that could disturb over 50 acres, but the area impacted by this action would be approximately 7 acres. This level of effect would be moderate, consistent with those described in the Programmatic EA.

4. Wetlands and Floodplains

The effects of using mechanized equipment and manually working in and along the Tex Creek are consistent with the analysis in the Programmatic EA, "Wetlands and Floodplains," Section 3.3.4. The Programmatic EA, Section 3.3.4.3, "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.

This project is anticipated to have impacts similar to those described in the Programmatic EA. With this project, there would be short-term (weeks) adverse effects to floodplains and wetlands, as there would be acres of earthmoving in riparian and floodplain wetlands and temporary dewatering of the stream channel. Consistent with the Programmatic EA, there would be long-term beneficial effects from

implementation of this project. It would create conditions in this stream reach with greater sinuosity, increased connectivity to the floodplain, improved groundwater exchange, and more diverse wetland vegetative conditions. These would increase the amount and quality of wetlands in the project area. This level of effect would be low after considering short-term adverse effects and beneficial long-term effects, as is stated in the Programmatic EA.

5. Wildlife

The effects of using mechanized equipment and manually working in and along the Tex Creek are consistent with the analysis in the Programmatic EA, Section 3.3.5, "Wildlife." The Programmatic EA, Section 3.3.5.3, "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 grey wolf are present within Grant County, but are not known to exist within the project area. Therefore, the project would have no effect on ESA-listed wildlife species. No other wildlife species listed under the ESA or other state-listed or sensitive wildlife species are present within this project area.

The short-term effects from this project would be consistent with, though less than, those analyzed in the Programmatic EA. There would be approximately 7 acres of vegetative (wildlife habitat) disturbance, whereas the Programmatic EA evaluated disturbances of 50 acres or more. 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; and the habitat to which they returned would be more diverse hydrologically, but vegetatively similar. This level of effect would be low after considering short-term adverse effects and beneficial long-term effects, as is stated in the Programmatic EA.

6. Geology and Soils

The effects of using mechanized equipment and manually working in and along Tex Creek are consistent with the analysis in the Programmatic EA, Section 3.3.6, "Geology and Soils." The Programmatic EA, Section 3.3.6.3, "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 Tex Creek would cause soil displacement, compaction, and the mixing of soil horizons. The Programmatic EA in Section 3.3.3.2, "Environmental Consequences for Vegetation," evaluated construction actions that could disturb "generally less than 20 acres at any one site." The area impacted by this action would likely be only about 7 acres. Design criteria, mitigation measures, and best management practices would all be applied as described in the Programmatic EA, Section 2.4, "Mitigation Measures and Design Criteria" to minimize impacts and maintain long-term productivity of soils.

The project does not specifically target soils for restoration or enhancement (as it does fish habitat and hydrologic functions), but it does have the capacity to maintain and improve soil properties and functions as it restores hydrologic function within the floodplain. The level of effect would be moderate, consistent with the effect level described in the Programmatic EA.

7. Transportation

The effects of this project in and along Tex Creek are consistent with the analysis in the Programmatic EA, Section 3.3.7, "Transportation." The Programmatic EA, Section 3.3.7.3, "Effects Conclusion for the Proposed Action on Transportation," describes low impacts to transportation.

This project, though adjacent to National Forest (NF) roads 21, 2160, and 2170 (Murderer's Creek Access Road), would not impact any roads, neither open or closed, nor public or private. No roads would be closed; none would be temporarily blocked; none would be relocated. No work would be 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. Access to the project would be via existing NF roads. Construction actions would occur for less than four weeks. This level of impact would be low, as is stated in the Programmatic EA.

8. Land Use and Recreation

This project is accessible to recreationists including, but not limited to, hunting, fishing and wildlife watching. Recreational activity at the project area would be restricted only during construction. There would be no effect on land use from this proposed project. Land uses would not change; and public recreational opportunity on this public land would not change post construction. This level of effect is consistent with that described in the Programmatic EA at Section 3.3.8.3, "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 Tex Creek are consistent with the analysis in the Programmatic EA, Section 3.3.9, "Visual Resources." The Programmatic EA, Section 3.3.9.3, "Effects Conclusion for the Proposed Action on Visual Resources," describes low impacts to visual resources.

The proposed restoration actions are immediately adjacent to NF roads 21, 2160 and 2170, and some activities would be readily visible to travelers along these routes. As described in the Programmatic EA, Section 3.3.9.2, "Environmental Consequences for Visual Resources," there would be short-term visual impacts. The construction actions would result in visible disturbance that detract from the view and newly planted grasses, forbs, and shrubs. This visible effect would last for only a few weeks between staging, construction and replanting. When construction is complete, the river would appear less disturbed as the previously planted seeded grasses and forbs continue growth, and would provide the naturalistic scenery as seen elsewhere along this road in the following year or two. This level of impact would be low, as is stated in the Programmatic EA.

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

The effects of the proposed project in and along Tex Creek are consistent with the analysis in the Programmatic EA, Section 3.3.10 "Air Quality, Noise, and Public Health and Safety." The Programmatic EA, Section 3.3.10.3, "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 13 miles from the small town of Mt. Vernon, Oregon, which is too far for noise, dust, or exhaust from construction activities to affect the residents during the few weeks of construction activities; and no long-term source of emissions or noise would be created. 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 roads might pose to passing motorists. This project has no potential to impact public safety infrastructure (e.g. roads, telecommunications) or place a burden on emergency services (police, fire, ambulance). 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 the Programmatic EA, Section 3.3.11, "Cultural Resources." The Programmatic EA, Section 3.3.11.3, "Effects Conclusion for the Proposed Action on Cultural Resources," describes low impacts to cultural resources and potential effects would

be appropriately resolved through the Section 106 consultation process under the National Historic Preservation Act.

A cultural resource survey was conducted, and consultations with the Oregon State Historic Preservation Office (SHPO), Confederated Tribes of the Warm Springs Reservation of Oregon, Confederated Tribes of the Umatilla Indian Reservation, the Bureau of Reclamation, and ODFW were completed for the area potentially affected by the project. Based on the results of that survey, BPA determined that the project would have no adverse effect to historic resources. The Oregon SHPO concurred on July 31, 2021 that the project would have no adverse effect to historic properties. No response was received from the other consulting parties.

12. Socioeconomics and Environmental Justice

The effects of this restoration project along Tex Creek are consistent with the analysis in the Programmatic EA, "Socioeconomics and Environmental Justice," Section 3.3.10. The Programmatic EA, Section 3.3.10.3, "Effects Conclusion for the Proposed Action on Socioeconomics and Environmental Justice," describes low impacts to socioeconomics and environmental justice.

As described in the Programmatic EA, the project would not generate a requirement for additional permanent employees, and it would not 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 private 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 Tex Creek are consistent with the analysis in the Programmatic EA, Section 3.3.10, "Climate Change." The Programmatic EA, Section 3.3.10.3, "Effects Conclusion for the Proposed Action on Climate Change," describes low impacts to climate change.

Due to the short duration of construction and the relatively small number of construction vehicles, temporary emissions associated with project construction are anticipated to be well below the Environmental Protection Agency's reporting threshold of 25,000 metric tons of carbon and, therefore, the project would have a low level of greenhouse gas production and would have a low contribution to climate change from short-term emissions from motorized equipment operations during implementation of the restoration actions. Further, these would be offset to some degree by the ameliorating effects of restored floodplain function, such as increased water table inputs, increased carbon sequestration in expanded and improved riparian wetlands, and decreased water temperatures from improved instream and riparian habitat conditions. The overall contribution to climate change and greenhouse gas production would be low, which is consistent with the Programmatic EA.

Findings

BPA finds that the types of actions and the potential impacts related to the proposed Tex Creek 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-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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