

Supplement Analysis
for the
Columbia River Basin Tributary Habitat Restoration
Programmatic Environmental Assessment
(DOE/EA 2126/SA-16)

Windfall Creek Project
Bonneville project number 1990-044-00
Bonneville contract number 76828 rel 16

Bonneville Power Administration
Department of Energy



Introduction

In December 2020, Bonneville Power Administration (Bonneville) 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 *Windfall Creek Project* that would implement some of the specific restoration actions assessed in the Programmatic EA in the Benewah Creek valley in Benewah County, Idaho. The objectives are to increase in-stream habitat diversity; increase floodplain connectivity; and improve riparian and floodplain vegetative diversity for the benefit of Westslope cutthroat trout. This SA analyzes the site-specific impacts of the *Windfall Creek 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).

Proposed Activities

The *Windfall Creek Project* would be located near the mouth of Windfall Creek, a tributary of Benewah Creek approximately 12 miles upstream of Parkline, Idaho on the shore of Chatcolet Lake. The project would be located on a small stream, Windfall Creek, which has active bank erosion, lack of habitat complexity, reduced floodplain connectivity, and a loss of wetland functions due to depleted groundwater during summer. Bonneville would fund the Coeur d'Alene Tribe to enhance stream and wetland conditions and functioning by reconnecting Windfall Creek to its historical floodplain and establishing a braided channel condition with an elevated water table. The project would improve conditions for fish and wildlife by increasing channel complexity and increasing the quantity and quality of wetlands on the site.

The *Windfall Creek Project* would temporarily install a 10-inch-diameter plastic pipe that would bypass flows around the entire work area while under construction. Three segments of incised channels totaling 939 feet would then be filled using material from a nearby stockpile. An instream riffle grade-control structure would be constructed in the stream below the floodplain to match constructed and existing grades. Approximately twenty, 10- to 12-inch-diameter trees and logs would be placed in the channels, and approximately forty to fifty, 6- to 12-inch-diameter trees and tree tops would be placed across the floodplain. Disturbed areas would be planted with containerized plants and seeded with a native grass mix. The project would result in a total of 5.82 acres of floodplain that would be inundated, and multiple channels within that floodplain are expected to form naturally. The entire project is estimated to take less than six weeks to complete.

Environmental Effects

The implementation of this project would require the use of a track-mounted excavator, tracked skid-steer, and dump truck for constructing the grade-control structure, filling channels, and installing the large wood atop the filled channels and across the floodplain. All of these restoration actions would disturb and displace soil in and along the stream; damage vegetation; temporarily create noise and vehicle emissions; 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 *Windfall Creek 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 in and along Windfall 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.

No species listed under the Endangered Species Act, nor listed by the State of Idaho as "Special Status" species are present in the project area. The project would be completed to benefit the native Westslope cutthroat trout which use Windfall Creek for spawning.

Project actions would expose, displace, reconfigure, or compact earth through the use of mechanized equipment in and along the stream, and create conditions where sediment would be released for short periods of time. Sedimentation in amounts above that to which fish are adapted can be harmful as discussed in the Programmatic EA at Section 3.3.1.2.1, "*Short-Term Effects to Fish and Aquatic Species from Construction Activities*". The stream would be dewatered during construction activities, so no sedimentation would occur during machinery operations. Stream flows, however, would be reintroduced into and across filled channels where bare and recently disturbed earth would be in contact with those flows, creating the potential for flows to pick up sediment. The gentle slope (approximately 2%), low flows, and placed wood for floodplain roughness, however, would keep stream velocities and power low, and thereby minimize sedimentation. Additionally, mitigation measures for minimizing sediment input as detailed in the Programmatic EA would be applied. The sediment inputs would thereby 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*", and have minimal potential for triggering the behavioral and physiological effects from excessive sediment as described on fish therein. The short-term effects of sediment anticipated from the project would be moderate.

The movement, sounds, and vibrations of human and mechanical activity during construction, and especially the dewatering of the stream through a 10"-pipe, would disturb fish and displace them temporarily from their preferred habitat for as long as those conditions are present. 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 3.3.1.2.1, "*Short-Term Effects to Fish and Aquatic Species from Construction Activities*" where disturbance from these actions is discussed.

The greatest impact to fish would be from the action of dewatering the stream and salvaging fish from the construction areas. The effects of electrofishing and fish handling are discussed in the Programmatic EA at Section 3.3.1.2.1, "*Short-Term Effects to Fish and Aquatic Species from Construction Activities*", and the effects on fish from fish salvage for the Windfall Creek Project would be the same.

The project's long-term beneficial effects include creation of more complex fish habitats through the addition of wood structures, channel development, and woody streamside vegetation to the stream and adjacent riparian areas. These beneficial effects are consistent with the analysis in the Programmatic EA found at Section 3.3.1.2.2, "*River, Stream, Floodplain, and Wetland Restoration and Channel Reconstruction (Category 2) Effects on Aquatic Species*".

The effects to fish and aquatic species would be low overall after considering the moderate short-term adverse effects and the beneficial long-term effects.

2. Water Resources

The effects of using an excavator in and along Windfall Creek are consistent with the analysis in the Programmatic EA, “*Water Resources*”, Section 3.3.2. The Programmatic EA, Section 3.3.2.3, describes 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 these projects make no water withdrawals.

Overall, this project would create short-term, localized, sediment inputs from the rewatering of streams across filled channels and newly graded floodplains. As in the Programmatic EA, this is a short-term effect which would be lessened by the application of mitigation measures for work-area isolation (Appendix B in Programmatic EA), protection of existing vegetation, minimization of areas to be impacted, location of refueling areas, use of non-toxic hydraulic fluids, and revegetation when actions are complete.

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

3. Vegetation

The effects of using mechanized equipment in and along Windfall 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 Endangered Species Act or as “Special Status” by the State of Idaho are present within this project area.

This project is anticipated to have impacts similar to those described in the Programmatic EA. There would be approximately two acres of earthmoving, with its associated vegetative loss. This is consistent with the Programmatic EA in Table 9, page 98, where actions are shown to be mostly up to one acre in size, though with some up to 100 acres. Impacts to vegetation would be primarily from the loss of vegetation in the de-watered channels (that would be filled) and from the disturbance of vegetation along the creek during riffle construction, related to the two acres of earthmoving within and along stream channels. The project area, however, would be hydroseeded and planted with native shrub species following construction, so this loss would be short-term. This level of effect would be low.

4. Wetlands and Floodplains

The effects of using mechanized equipment in and along Windfall 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 approximately two acres of earthmoving within and along stream channels with riparian wetlands. The Programmatic EA evaluated more extensive impacts to wetlands from projects that would impact even larger rivers and streams with their associated riparian wetlands.

Consistent with the Programmatic EA, there would be long-term beneficial effects from implementation of this project. The impacted wetlands would not be lost, but rather altered and expanded by the more extensive connection between the stream channel and its floodplain that would result from this project. There would also be some redirection of flows as channel-filling and large wood installations would facilitate more natural lateral movement and sinuosity of channels as they redevelop, and this would slow water velocities, facilitate more effective connection between the channel and its floodplain, and provide for more efficient sediment movement and retention in the floodplain.

This level of effect would be low overall, considering short-term adverse effects and long-term beneficial effects as is stated in the Programmatic EA.

5. *Wildlife*

The effects of using mechanized equipment in and along Windfall 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. No wildlife species listed under the Endangered Species Act or by the state as “Special Status” are present within this project area.

The short-term effects from this project in the Benewah Creek valley would be consistent with those analyzed in the Programmatic EA, because the planned restoration actions would impact wildlife habitat at a scale consistent with those analyzed there. Though there would be a temporary loss of up to two acres of wildlife habitat from the soil and vegetation disturbance, impacts would be primarily from disturbance of wildlife by the temporary presence and activity of humans and machines. This could temporarily displace them from their preferred haunts during construction (four to six weeks), and they would likely re-occupy the site once human activity has moved or ceased. This level of effect would be low, as is stated in the Programmatic EA.

6. *Geology and Soils*

The effects of using mechanized equipment in and along Windfall 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.

The short-term effects to soils from this project in the Benewah Creek valley would be consistent, but somewhat less than those analyzed in the Programmatic EA. There would be up to two acres of earthmoving (with mixing of soil horizons and compaction of soils) during channel filling and riffle construction, as well as soil compaction and mixing of soil horizons by the excavator when placing trees and logs at each placement site. This would be less than the impacts of excavations for the larger projects considered in the Programmatic EA. To minimize impacts to soils, mitigation measures such as, minimizing the area of impact and applying erosion control measures, would be applied. The degree of effect to soils from the anticipated level of mechanized activity for this project would be moderate, consistent with that analyzed in the Programmatic EA.

7. *Transportation*

The effects of this project in and along Windfall 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 in the Benewah Creek valley 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. The most effect the proposed restoration actions would have on transportation would be that vehicles transporting workers and equipment to project sites would be sharing local roads with other traffic during construction. This level of impact would be low, as is stated in the Programmatic EA.

8. *Land Use and Recreation*

There would be no effect on land use or recreation from this proposed project. Land uses would not change; and public recreational opportunity on this private land within the Coeur D’Alene Indian Reservation (of which there is none because the lands are not open to public use) would not change. 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 Windfall 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 in the Benewah Creek valley are over 12 miles from the nearest major highway, but are adjacent to the Benewah Creek Road, which is a local gravel-surfaced road serving local landowners. As discussed above, there would be up to two acres of soil and vegetation disturbance, and this would alter the scenic landscape in the foreground for one to two growing seasons until the area sufficiently “greens up”. This level of disturbance, however, is consistent with the local scenery as farmers routinely disc their hayfields and loggers create small tractor-logged, clearcut patches on the hillsides. The completed project, following “green-up” would be consistent with the surrounding landscape and essentially undetectable to most people. There would be no long-term change to the visual landscape, since completed work would create no new terrestrial landscape feature and the primary altered feature would be the size and location of stream courses. 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 Windfall 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 in the Benewah Creek valley is far from any major population center or public use area; thus, it would not have any potential to directly impact the public, other than when sharing the roads when workers travel to and from work sites. Air quality and noise would be affected by operations and emissions from the heavy machinery. But this would be very short-term, and too far from any population area to be heard or seen. No long-term source of emissions or noise would be created. No restoration action proposed has 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 these restoration actions in the Benewah Creek valley 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 because cultural resources would be avoided by project construction, effects would be appropriately resolved through the Section 106 consultation process, or any project’s adverse effects to cultural or historic resources that cannot be appropriately resolved through the Section 106 consultation process would not be tiered to the programmatic environmental assessment.

Consultation with the Coeur D’Alene Tribal Historic Preservation Office was completed for the area potentially affected by the proposed project. The results of that consultation were that one resource eligible for the National Register of Historic Places, the Johnson Homestead, was identified within the project area. That site would be protected by a flagged, 30-meter avoidance buffer. so there would be no historic properties affected. A number of cultural-resource-protecting implementation measures were also agreed to that would provide for tribal and BPA archaeologist communications, project monitoring, and worker orientation.

As described in the Programmatic EA, the result of this consultation was that sites, if present or found during construction, would be avoided and there would be no adverse effect to sites.

12. Socioeconomics and Environmental Justice

The effects of this restoration project along Windfall 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 nor would it require 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 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.

The sponsor and implementer of this project, the Coeur d'Alene Tribe, is considered an "environmental justice population" and would be the ones to benefit most from this project. There would be no adverse effect.

13. Climate Change

The effects of this project in and along Windfall 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.

The project would have a low level of effect on climate change from short-term emissions from motorized equipment operations during implementation of the restoration actions, but 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 effects on climate change would be low, which is consistent with the Programmatic EA.

Findings

Bonneville finds that the types of actions and the potential impacts related to the proposed *Windfall Creek Project* were 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 EA's Proposed Action and no significant new circumstances or information relevant to environmental concerns bearing on the EA's Proposed Action or its impacts within the meaning of 10 CFR § 1021.314(c)(1) and 40 CFR §1502.9(d). Therefore, no further NEPA analysis or documentation is required.

/s/ Robert W. Shull

Robert W. Shull
Contract Environmental Protection Specialist
Cor-Source Technology Group

Reviewed by:

/s/ Chad Hamel

Chad Hamel
Supervisory Environmental Protection Specialist

Concur:

/s/ Sarah T. Biegel

Sarah T. Biegel
NEPA Compliance Officer

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