

Supplement Analysis
for the
Columbia Basin Tributary Habitat Restoration Programmatic Environmental Assessment
(DOE/EA-2126/SA-89)

Chesnimnus Creek Restoration Project Zones 2 through 4
BPA project number 1992-026-01
BPA contract number 84044 REL 73

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 (Programmatic EA) (DOE/EA-2126). The Programmatic EA analyzed the potential impacts of implementing fish and wildlife habitat restoration projects across the Columbia River Basin, ranging from constructing fencing and planting vegetation to relocating roads and excavating new stream channels.

Consistent with the Programmatic EA, this supplement analysis (SA) analyzes BPA's proposal to provide funding to the Nez Perce Tribe (NPT) to implement Zones 2 through 4 of the Chesnimnus Creek restoration project. The project would seek to restore roughly four river miles of stream and floodplain in northern Wallowa County, Oregon, to improve habitat conditions for Endangered Species Act (ESA)-listed salmonids which use the river for spawning and rearing habitat. These actions would support conservation of ESA-listed species considered in the 2020 ESA consultation with the National Marine Fisheries Service (NMFS) on the operations and maintenance of the Columbia River System. These actions also support BPA's ongoing efforts to mitigate for effects of the Federal Columbia River Power System on fish and wildlife in the mainstem Columbia River and its tributaries pursuant to the Pacific Northwest Electric Power Planning and Conservation Act of 1980 (Northwest Power Act) (16 U.S.C. § 839 *et seq.*).

This SA analyzes the site-specific impacts of these activities to determine if they are within the scope of the analysis considered in the Programmatic EA. It also evaluates whether the proposed action presents substantial new circumstances or information relevant to environmental concerns or about the significance of the adverse effects that bear on the Programmatic EA analysis. The findings of this SA determine whether additional National Environmental Policy Act (NEPA) analysis is needed pursuant to Department of Energy (DOE) NEPA Implementing Procedures.

Proposed Activities

Chesnimnus Creek is a tributary of Joseph Creek in northern Wallowa County, Oregon. Primarily fed by snowmelt from the nearby Blue Mountains, the creek historically hosted extensive year-round spawning and rearing habitat for a variety of ESA-listed salmonids. Anthropogenic impacts over the last century – including the construction of a series of push-up berms and rock riprap barriers to channelize the stream, extensive floodplain cattle grazing, and trapping and removing local beaver populations – have severely degraded conditions in the stream. NPT proposes to enhance the local aquatic habitat and

restore natural stream function by removing levees and bank armoring, excavating new side channels, installing fish habitat forming wood structures, improving stream crossings, and planting new riparian vegetation throughout the restored floodplain.

The Chesnimnus Creek project site is located in a valley along the stream channel running from roughly river miles 4.6 to 9.2 of the stream. Much of the site is privately owned, with a portion along the upstream end located in Wallowa Whitman National Forest. The site has historically been used for ranching, timber harvest, and light agriculture. Barbed wire cattle exclusion fencing was constructed along much of the stream channel in the early 2000s, but degraded conditions have persisted despite the riparian corridor of the stream not being actively used for ranching, largely because of extensive berming and bank armoring. The total area of the project site is just over 300 acres, of which roughly 19 acres will be disturbed by excavation and earthmoving.

Beginning in 2027, NPT would implement Zones 2 through 4 of the Chesnimnus Creek project, running from roughly river miles 4.6 to 8.1 of the stream and its surrounding floodplain. Zone 1 of the Chesnimnus Creek project area, which encompasses the stream channel running roughly one additional river mile further upstream, is located in Wallowa Whitman National Forest and is managed by the U.S. Forest Service. If NPT proposes to implement any restoration projects in Zone 1 in the future, those actions would undergo separate environmental review in coordination with the Forest Service. Zones 2 through 4 of the project site have independent utility and would provide nearly four miles of improved fish habitat in Chesnimnus Creek even if Zone 1 of the project is not implemented.

NPT plans to implement one zone of restoration work each year between 2027 and 2029, with all work in the stream channel conducted during the local in water work window designated by the Oregon Department of Fish and Wildlife (ODFW). For the Joseph Creek watershed, this in water work window typically runs from mid-July through February every year. Any in-stream work outside of these windows would be coordinated with ODFW, the U.S. Army Corps of Engineers, Oregon Department of State Lands, and NMFS.

NPT would promote more extensive interaction between Chesnimnus Creek and its historical floodplain by removing a series of push-up berms and levees, along with rock riprap bank armoring, that have been constructed throughout all three zones of the project site. These earthworks were created by landowners to limit natural channel migration and permit the construction of the road which runs adjacent to Chesnimnus Creek, Forest Service road NF-4625, as well as to open more of the valley floor for ranching and agricultural activity. Combined with pinch points from stream crossings, the channel of Chesnimnus Creek is largely disconnected from its historical floodplain and is confined to a straight incised chute for much of its length, with heavily degraded instream habitat conditions for fish as a result of these modifications.

Levees and bank armoring would be removed using construction machinery like excavators, bulldozers, and skid steers. Once the earthworks are removed, these areas would be re-graded to allow the stream to once again naturally interact with the floodplain. Soil and rock removed would be used to fill deeply incised sections of stream channel to help create more natural elevation changes and promote integration. These new channel sections would be further improved by the excavation of additional side channels and by adding sinuosity to the existing channel to help disperse high flow energy and promote natural stream evolution and floodplain interaction. Excavation near the stream channel would be isolated from flowing water using cofferdams and impermeable sheets and most excavation would be conducted in dry conditions to reduce potential impacts to water quality and fish in the stream. Cut and fill for the overall project site would be largely balanced and would not require extensive removal or importing of spoils from the site. In total, roughly 43,000 cubic yards of material would be excavated and relocated throughout Zones 2 through 4 of the project site.

In addition to the excavation to reconnect the floodplain, NPT would install a series of fish habitat-forming structures throughout the reach. Some structures would be engineered wooden debris jams. These would be constructed using logs, rootwads, and slash fill to create backwater-forming wood structures to catch and retain water and form scour pools to provide resting habitat and predation protection for fish. Additional individual logs would be placed throughout the stream channel to increase channel roughness. In total, NPT expects to install roughly 400 habitat jams, individual trees, and other wood debris structures throughout Zones 2 through 4.

NPT would also construct a variety of smaller habitat-forming structures throughout the Chesnimnus Creek channel. Beaver dam analogs (BDAs) and post-assisted log structures (PALS) would be installed to mimic the historical role that beaver dams played in the stream. These structures would be constructed by pounding posts into the stream channel bottom and weaving racking material between them to form structures that would catch debris floating downstream to develop natural backwaters and scour pools for fish habitat. In addition to wooden habitat structures, NPT would place rocks and boulders uncovered during excavation and from riprap piles throughout the stream to increase channel roughness, create backwater-forming riffles, and encourage interaction with the floodplain during high flows.

Some human-built infrastructure in the project area would also be modified to improve instream conditions. An existing bridge that provides access to the landowner's ranch in Zone 3 of the project site is undersized and incapable of safely passing high flows under the bridge consistent with fish passage requirements, constricting the natural evolution of the stream both upstream and downstream of the crossing and increasing stream velocity through the constriction. New concrete abutments would be constructed for a prefabricated steel bridge with a span of at least 72 feet to meet year-round fish passage criteria and safety needs. The new bridge would be wide and elevated enough to reduce the constriction of the stream in this section of the reach and allow for the addition of habitat forming jams and debris above and below the bridge. Additionally, there are currently seven unimproved fords that cross the stream throughout Zones 2 through 4 of the project site. These crossings would be hardened consistently with fish passage requirements and BPA's Habitat Improvement Program programmatic biological opinions (HIP4 BiOp) with NMFS by realigning the fords to minimize disturbance to the stream channel, adding non-angular rock and gravel to the fords, and ensuring that their elevation matches that of the stream channel so that they do not become barriers to fish during low flows. No new fords would be constructed.

Segments of cattle exclusion fencing that run along the stream channel would also be relocated and rebuilt. In some sections, fencing would be set back to exclude cattle from more of the restored floodplain. The bottom strands of existing barbed wire fencing segments would be replaced with smooth wire to allow for wildlife to pass safely below the fence. Additional fencing would also be constructed. In areas in which barbed wire is undesirable, wooden buck-and-pole style fencing would also be constructed to replace existing barbed wire lines. Fencing would be used to prevent cattle grazing in newly constructed floodplain and preserve the improved stream conditions. Roughly 6,500 total feet of fencing would be moved, modified, or constructed across Zones 2 through 4.

Following construction, NPT would plant native shrubs and trees along the banks of the stream and throughout disturbed areas to establish new large woody vegetation. Plantings would include nursery-grown red osier dogwood (*Cornus sericea*), thinleaf alder (*Alnus incana*), ponderosa pine (*Pinus ponderosa*), and a variety of native willow species (*Salix spp.*). Additional grass and forb seed would be spread throughout the project site to promote further vegetative growth. The area would be monitored and actively maintained by NPT, including replanting these plants as needed and removing noxious, invasive, and undesirable weeds until a self-sustaining local ecosystem has been fully established in the restored reach.

Environmental Effects

The typical environmental impacts associated with habitat restoration activities in the Programmatic EA are described in Chapter 3. Below is a description of the potential site-specific impacts of Chesnimnus Creek floodplain restoration project and an assessment of whether these impacts are consistent with those described in the Programmatic EA.

1. Fish

The effects of the proposed actions on fish are consistent with the analysis in the Programmatic EA, Section 3.3.1, which concluded that project actions would cause moderate short-term adverse effects on fish but provide long-term benefits, making the overall impacts on fish low.

The portion of Chesnimnus Creek that runs through the project site currently hosts limited suitable habitat for fish, despite historical conditions that provided for spawning and rearing habitat for ESA-listed Chinook salmon (*Oncorhynchus tshawytscha*), steelhead (*O. mykiss*), and coho salmon (*O. kisutch*). Of these species, only steelhead is currently found in the Chesnimnus Creek watershed today.¹ Oregon state special-status fish species Pacific lamprey (*Entosphenus tridentatus*) has also been documented in the Joseph Creek watershed, including Chesnimnus Creek.² Non-listed fish species in the area include resident populations of rainbow trout (*O. mykiss*) and redband trout (*O. m. gairdneri*).³

All project actions would be conducted subject to the conservation measures included in BPA's HIP4 BiOp. The HIP4 BiOp includes conservation measures designed to minimize negative effects on ESA-listed fish species, and thereby other species of non-listed fish which would be present near the project area during construction. Designs for the proposed actions were reviewed in accordance with the HIP4 BiOp review process during the development of the project, which included review by NMFS to ensure consistency with the HIP4 BiOp. Conservation measures for fish include handling and salvage procedures, work area isolation, turbidity monitoring, and reporting requirements.

Section 3.3.1.2.2 of the Programmatic EA analyzes the effects of channel reconstruction and stream restoration activities on aquatic species. Consistent with this section of the Programmatic EA, there would be short-term adverse effects on fish such as temporary disturbance from noise and human presence, stress from handling during fish salvage, and temporary increases in turbidity in the stream. However, the proposed actions would also have long-term benefits by improving habitat conditions for fish. In order to minimize the short-term effects on fish, NPT would only conduct work in and around the Chesnimnus Creek channel during the in-water work windows set by ODFW, usually beginning in mid-July and running through February. NPT would isolate areas of the channel in which construction is occurring using impermeable cofferdams to reduce the impacts on fish in these areas, consistent with mitigation measures included in the HIP4 BiOp. Prior to any excavation, fish would be removed from these areas and relocated into the stream. The cofferdams would reduce turbidity in the stream during construction by isolating construction areas from the stream. However, there may still be temporary increases in stream turbidity during re-watering of excavated areas. Fish in the area would still be disturbed by noise and human presence, but the use of these mitigation measures would reduce the adverse impacts to the greatest extent possible.

¹ Pacific States Marine Fisheries Commission (PSMFC). "StreamNet Mapper." Accessed June 3, 2026. <https://www.streamnet.org/home/data-maps/>; U.S. Fish and Wildlife Service (USFWS). "Information for Planning and Consultation (IPaC)." Accessed June 3, 2026. <https://ipac.ecosphere.fws.gov/>.

² Oregon Department of Fish and Wildlife (ODFW), Wildlife Division. "Threatened, Endangered, and Candidate Fish and Wildlife Species." Accessed June 3, 2026. https://www.dfw.state.or.us/wildlife/diversity/species/threatened_endangered_candidate_list.asp.

³ PSMFC. "StreamNet Mapper."

The long-term effects of the proposed actions on fish would be beneficial. Creation of new side channels and habitat features would improve the conditions for fish spawning and rearing habitat in Chesnimnus Creek. Improvements to floodplain interaction and riparian vegetation would also provide positive effects for fish in the area. New cattle exclusion fencing would reduce the effects of grazing on riparian vegetation by setting back grazing further from the riparian corridor and increasing the amount of protected vegetated floodplain in the area. The modified stream crossings would also improve habitat conditions for fish. The new bridge would be wider to lessen the constriction of the stream channel and reduce stream velocity under the crossing. Improved fords would have gradients that allow for fish passage at all stream volumes as well as be filled with rounded stone to reduce potential injuries to crossing fish from angular rock. Increasing the amount of instream habitat available for fish and improving the quality of the habitat would have long-term positive effects on both ESA-listed and non-listed fish.

In summary, there would be short-term negative effects on fish from the proposed actions, reduced by the use of mitigation measures, and long-term beneficial effects. The overall effects on fish would therefore be low, consistent with the analysis in the Programmatic EA.

2. Water Resources

The effects of the proposed actions on water resources are consistent with the analysis in the Programmatic EA, Section 3.3.2, which concluded that the impacts on water resources would be low.

Section 3.3.2.2.1 of the Programmatic EA analyzes the effects of actions on water quantity. There would be low effects on overall water quantity from the proposed actions. There are no new diversions or water withdrawals proposed. However, there would be mild changes to the rate of downstream water flow as a result of the modified hydrology of Chesnimnus Creek. The proposed actions would add new more sinuous channels, increase floodplain interaction, and install backwater-forming habitat structures throughout the stream. These actions would reduce the flow velocity of the stream and increase groundwater saturation during high flow periods. While these would represent changes from the current conditions, the overall volume of Chesnimnus Creek would not be significantly altered, merely the rate at which the creek discharges downstream. The overall effects on water quantity would therefore be low, consistent with the Programmatic EA.

Section 3.3.2.2.2 of the Programmatic EA analyzes the effects of actions on water quality. The Chesnimnus Creek project was designed to be consistent with BPA's HIP4 BiOp, which includes a number of conservation measures for reducing and mitigating the short-term adverse effects of project actions on water quality. These adverse effects would include increased turbidity from construction and excavation near the stream as well as temporary turbidity plumes from re-watering newly excavated sections of the channel. NPT would implement conservation measures during project construction to mitigate these adverse effects. Downstream turbidity monitoring would be conducted every four hours during all in-water work as required by the HIP4 BiOp, and work would cease if turbidity greatly exceeds background levels due to construction. Work areas would be isolated using cofferdams and turbidity screens to reduce the potential impacts of construction on water quality. Machinery would be stored and refueled only in designated staging areas that are isolated from work sites using mitigation measures like straw wattles and impermeable pads to reduce the potential for erosion or spills into the creek. Even with these mitigation measures, there may be short-term impacts on local water quality as newly constructed stream channels are re-watered and fines and dust are flushed downstream. This turbidity plume would be temporary and mitigated by the implementation of HIP4 BiOp conservation measures like pre-washing and staged re-watering of affected areas.

The long-term effects of the proposed actions would improve water quality in Chesnimnus Creek. The more sinuous channels, increased floodplain interaction, and backwater-forming habitat structures would reduce the flow velocity of Chesnimnus Creek. This would reduce the amount of erosion that the stream is undergoing and help retain sediment in the reach, improving local water quality.

Improvements to floodplain and riparian vegetation would further improve these conditions. In summary, effects on water quality would be adverse but lowered through the implementation of conservation measures in the short-term and beneficial in the long-term. The overall effects on water quality would therefore be low, consistent with the analysis in the Programmatic EA.

3. Vegetation

The effects of the proposed actions on vegetation are consistent with the analysis in the Programmatic EA, Section 3.3.3, which concluded that there would be moderate short-term adverse effects on vegetation and long-term positive effects, making the overall effects moderate.

ESA-listed Spalding's catchfly (*Silene spaldingii*) is found throughout the Blue Mountains basin.⁴ Spalding's catchfly is an herbaceous perennial flower typically found in upland shrub-steppe or bunchgrass prairies in northeastern Oregon. The Chesnimnus Creek project site, by contrast, is a relatively wet riparian area heavily affected by historical agriculture and anthropogenic modification. Because of the unsuitable habitat and extensive human-caused impacts to vegetation in the area, it is highly unlikely that there would be any Spalding's catchfly in or around the project site. As a result, there would be no effect on Spalding's Catchfly.

Oregon state separately listed plant species rough goldenweed (*Pyrrocoma scaberula*) is found in Wallowa County.⁵ All known local populations of rough goldenweed are limited to the Hells Canyon area, more than twenty miles from the Chesnimnus Creek project site. Moreover, rough goldenweed is typically only found in dry rocky ridgetops, canyons, and prairies. It is highly unlikely that rough goldenweed would be found in the comparatively wet riparian project site of the Chesnimnus Creek project. As a result, there would be no effect on rough goldenweed.

There would be short-term moderate adverse effects on vegetation in the project area. Some vegetation in excavation sites would be removed during construction of the new stream channels and removal of levees. NPT would largely avoid stands of high-quality riparian vegetation and salvage larger plants and trees and re-plant them after construction when possible. NPT would further minimize the effects on local vegetation by limiting excavation to the smallest extent needed to accomplish the project goals. Nevertheless, due to the nature of the work, the proposed actions would result in the removal of some amount of local vegetation in the short term. As a result, the overall short-term effects on vegetation during construction would be moderate.

The long-term effects on local vegetation would be beneficial. The new, more sinuous channel and expanded floodplain interaction would reduce the flow velocity of Chesnimnus Creek increase the amount of groundwater available for riparian plants. NPT would plant and seed native plants throughout the project area following construction to help establish a new, self-sustaining riparian ecosystem. Planted and seeded areas would be monitored in future years to ensure that these new plantings are not being outcompeted by non-native, invasive, and noxious weeds. NPT would adaptively manage the area, including removing weeds and re-planting native plants as necessary, to ensure that restoration goals are being met. Installed livestock fencing would further protect and improve riparian vegetation. The long-term effects on vegetation would therefore be beneficial to the quality and quantity of plants in the area.

In summary, while the short-term adverse effects on local vegetation would be moderate, the long-term effects of the proposed actions would be beneficial to vegetation in the project area. The overall effects on vegetation would therefore be moderate, consistent with the Programmatic EA.

⁴ USFWS. "IPaC."

⁵ Oregon Department of Agriculture. "Listed Plants." Accessed June 3, 2026. https://www.oregon.gov/oda/plant_conservation/pages/listed-plants.aspx.

4. Wetlands

The effects of the proposed actions on wetlands are consistent with the analysis of the Programmatic EA, Section 3.3.4, which concluded that some wetlands would be temporarily damaged or destroyed but would be restored, expanded, and improved over the long-term making the overall impacts on wetlands low.

Due to the extensive levee system and bank armoring along the channel, there is only one mapped wetland present in the riparian corridor of Chesnimnus Creek in the project, located at a river bend near the upstream end of Zone 2 of the project site.⁶ NPT conducted a wetland delineation that identified three additional areas that exhibited limited wetland vegetation along the project site.⁷ There would be no adverse short-term effects on wetlands outside of these areas.

The mapped wetland in Zone 2 and the three additional wetlands delineated by NPT would be temporarily disturbed by actions proposed in the area. NPT would obtain a Clean Water Act (CWA) permit for the proposed actions in these wetlands through the U.S. Army Corps of Engineers' Regional General Permit #6. Construction would not begin until this permit is granted. NPT would adhere to the mitigation measures and best practices required under the CWA permit to reduce the impacts to wetlands. These mitigation measures include limits on the types of materials and equipment that can be used in construction, timing restrictions, and review and approval of the proposed construction designs and revegetation plan by the U.S. Army Corps of Engineers. Removing levees and floodplain grading near the Chesnimnus Creek channel around these wetlands, as well as installing wood habitat-forming structures in the stream, would require some ground disturbance in the wetlands. While these effects would cause negative short-term effects on these wetlands, NPT would re-plant the area with native vegetation to help restore the impacted areas following construction. In addition, the removal of levees throughout the project area would re-integrate Chesnimnus Creek with its historical floodplain, improving conditions for existing wetlands and promoting new wetland development throughout the project site.

In summary, there would be short-term adverse effects on a small wetland on the project site. The long-term effects of the project would be to improve the conditions for potential wetlands throughout the project site. The overall effects would therefore be low, consistent with the Programmatic EA.

5. Wildlife

The effects of the proposed actions on wildlife are consistent with the analysis in the Programmatic EA, Section 3.3.5, which concluded that short-term adverse effects on wildlife would be moderate for individuals disrupted by construction but would provide long-term benefits, making the overall impacts on wildlife low.

ESA-listed North-American Wolverine (*Gulo gulo luscus*) may be found in Wallowa County.⁸ It is highly unlikely that wolverine would be present at the project site during construction. The typical hunting and denning habitat for wolverine is cool regions with snowpack that persists late into the spring and early summer. In areas like eastern Oregon, this typically means that wolverine habitat is limited to high-elevation boreal forest and subalpine tundra. By contrast, the project site is a riparian valley below 3,500 feet in elevation. Additionally, wolverine typically avoid areas with consistent human presence. The project site is near a Forest Service road, residences, and an active cattle ranch, further dissuading wolverine from regular presence near the project site. USFWS reviewed the proposed actions as part of HIP4 project review procedures, and NPT would employ mitigation measures in the HIP4 BiOp for wolverine to reduce the potential impacts to any wolverine near the area during construction. These conservation measures include limiting actions in potential wolverine habitat during the primary

⁶ USFWS. "National Wetlands Inventory." Accessed June 10, 2026. <https://www.fws.gov/program/national-wetlands-inventory/>.

⁷ Inter-Fluve. *Chesnimnus Creek Wetland Delineation Report* (Inter-Fluve, August 2025).

⁸ USFWS. "IPaC."

denning season, using fencing that does not impede wolverine movement, and storing all potential attractants like food and garbage in containers that are inaccessible to wildlife. Wolverine are therefore not likely to be adversely affected by the proposed actions, consistent with the determination of the HIP4 BiOp.

Oregon special-status wildlife species gray wolf (*Canis lupus*) is known to be present in Wallowa County.⁹ The Chesnimnus Creek project site falls within the known range of the Peavine wolf pack that is regularly monitored by ODFW.¹⁰ The Peavine pack was most recently observed in its range by ODFW staff in April 2026. While wolves are present in the region, it is unlikely that they would be found around the project site during construction. Wolves generally avoid human presence and noise, and there are no known denning sites near the project site. Noise from construction, as well as regular human presence at nearby residences, would likely deter wolves from remaining near the project area during construction. Any wolves near the area would relocate to other sections of their range because of this disturbance. As a result, effects on would be mild on grey wolves.

There would be low, short-term adverse effects on other non-ESA-listed wildlife present near the project site during construction. Wildlife would be disturbed by human presence and noise, particularly that caused by construction equipment and machinery. These effects would be limited in duration and would end once the project has been fully constructed. Additionally, these disturbances would be limited to the area directly surrounding the Chesnimnus Creek channel and would not affect wildlife outside of this relatively narrow riparian corridor. Disturbed wildlife would temporarily relocate to other areas but would be free to return to the project area once construction is complete. The proposed actions would not include any capturing, trapping, or forced relocation of wildlife.

The long-term effects of the proposed action would be to improve conditions for wildlife in the area. Removing levees and re-integrating Chesnimnus Creek with its historical floodplain would improve the quality and extent of vegetation in the area, providing additional shade, forage, and resting habitat for local wildlife. However, the extent of these impacts would be relatively minor, as the primary goal of the project is to improve instream fish habitat. Improvements to wildlife habitat would be incidental.

In summary, there would be short-term adverse effects on wildlife and low beneficial long-term effects. The overall effects on wildlife would therefore be low, consistent with the Programmatic EA.

6. Geology and Soils

The effects of the proposed actions on local geology and soils are consistent with the analysis in the Programmatic EA, Section 3.3.6, which concluded that the short-term adverse effects on geology and soils would range from moderate to high but would be mitigated by conservation measures included in the HIP4 BiOp. Given the implementation of the conservation measures and the expected beneficial long-term benefits from the proposed action, the overall effects would be moderate.

The proposed actions would require extensive earthmoving and excavation and, as a result, cause short-term adverse effects on the soil at the project site. An extensive series of manmade push up levees along the stream corridor would be removed and the areas re-graded to form a more natural floodplain. Small side channels and more sinuous segments of the stream would also be excavated throughout the work area. Installing the improved stream crossings would require excavation, such as that necessary for installing new bridge footings. Additional minor excavation would be needed for installing wood habitat jams and planting vegetation throughout the project area.

NPT would mitigate the effects of earthmoving on local geology and soils by employing the conservation measures included in the HIP4 BiOp and CWA permit BMPs and conditions. Access to the project site would be along the road that runs parallel to Chesnimnus Creek and no new disturbance would be necessary for ensuring access by equipment and machinery to work sites. Staging for equipment and

⁹ ODFW. "Threatened, Endangered, and Candidate Fish and Wildlife Species."

¹⁰ ODFW. "Wolves in Oregon." Accessed June 4, 2026. <https://dfw.state.or.us/wolves/index.html>.

materials would be limited to designated areas that are isolated from work sites and open water with control measures like staked straw wattles and impermeable storage pads to reduce the potential impacts to soil outside of these staging areas. Dust abatement measures like using water spray during excavation to reduce particulates in the air would be used if necessary. The long-term effects of the proposed actions, such as planting new vegetation and reconnecting Chesnimnus Creek with its historical floodplain, would help improve sediment and soil retention in the area and improve the quality of local soils.

In summary, the effects of the proposed actions on local soils and geology would be moderate in the short-term, mitigated by the use of mitigation measures, and low and beneficial in the long-term. Taken together, the overall impacts on soils would therefore be moderate, consistent with the Programmatic EA.

7. Transportation

The effects of the proposed actions on transportation are consistent with the analysis in the Programmatic EA, Section 3.3.7, which concluded that the impacts to transportation would be low.

Access to the project sites would be via a public Forest Service road, NF-4625, which runs alongside the Chesnimnus Creek channel for the length of the project site. While there would be increases in day-to-day traffic along this road from staff, machinery, and supplies traveling to and from the project site during construction, this increase would not be substantial enough to impair the public's reasonable use of the roadway. Staging areas for materials and equipment would be located adjacent to this road and would not require parking machinery or storing materials in areas that would block public use of the road. Stream crossings that would be modified and improved are all for private use by the landowner to access portions of their ranch and construction in these areas would not impede transportation along the public road. No actions are proposed for Zones 2-4 of the Chesnimnus Creek project that would require long-term road closures or large-scale changes in traffic patterns.

In summary, the effects of the proposed actions on transportation would be low, consistent with the Programmatic EA.

8. Land Use and Recreation

The effects of the proposed actions on land use and recreation are consistent with the analysis in the Programmatic EA, Section 3.3.8, which stated that underlying land use practices of project sites would not be changed for most projects and concluded that the effects on recreation would be low.

Zones 2-4 of the Chesnimnus Creek project site are located on privately owned property. NPT has coordinated closely with the landowners on the project designs and impacts that the implementation would have on the property. While the landowners would not have access to project sites during construction, the project would not change the underlying ownership of the property. Access to the property outside of the work areas by the landowner would not be impacted by construction, as travel along NF-4625, the nearby public Forest Service road, would not be impaired. Areas accessed by existing fords and the bridge have alternate access routes for use during construction. Once fully constructed, the landowners would once again have access to all project areas. As the property is privately owned, no public recreation is permitted on the property and there would be no effects on recreation.

Newly constructed and set back cattle exclusion fencing would reduce the amount of floodplain that is open to grazing in the Chesnimnus Creek project area. The riparian corridor for Chesnimnus Creek is currently not in use for active ranching activity and much of it is already fenced to block access by cattle. Since this area is not being actively grazed, the new exclusion fencing would not substantially change the current land use of the riparian corridor of Chesnimnus Creek.

In summary, there would be no long-term changes to land use and ownership and no effect on public recreation on the Chesnimnus Creek project site. The overall effects would therefore be low, consistent with the Programmatic EA.

9. Visual Resources

The effects of the proposed actions on the visual quality of the project site are consistent with the analysis in the Programmatic EA, Section 3.3.9, which concluded that the impacts to visual resources would be low.

The current visual quality of the Chesnimnus Creek project site is fairly typical for the surrounding region. The stream channel runs along the bottom of a valley between high elevation ridges, surrounded by narrow riparian corridors and shrub-steppe grassland. Chesnimnus Creek has been highly channelized and confined from its natural conditions by a series of manmade levees. By removing these barriers, NPT would restore conditions of the valley floor closer to their historical character and more in-line with other local valleys that did not undergo the extent of anthropogenic modification as Chesnimnus Creek.

In summary, there would be changes to the current visual quality of the project site, but these changes would not be out of character for the region and would restore the historical visual conditions of the area. The overall effects on visual resources would therefore be low, consistent with the conclusions of the Programmatic EA.

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

The effects of the proposed actions on air quality, noise, and public health and safety are consistent with the Programmatic EA, Section 3.3.10, which concluded that the impacts on air quality, noise, and public health and safety would be low.

Construction would temporarily affect local air quality and generate noise. Excavation and earthmoving would require the use of heavy construction machinery like excavators, bulldozers, and skid steers, which would generate exhaust and noise while in use. Dust and particulates from earthmoving would also affect local air quality. NPT would employ dust abatement measures contained in the HIP4 BiOp, such as spraying water to reduce the drift of particulates in the air, to mitigate these effects. No actions are proposed which would cause long-term effects on air quality and noise. Effects on air quality and noise would also be temporary, limited to times when construction is actively being done. The effects would also be limited to the local project site and would not affect the wider region. The effects of the proposed actions on air quality and noise would therefore be low, consistent with the Programmatic EA.

The proposed actions would have low effects on public health and safety. The project area is located on privately owned property and is not accessible to the public. Moreover, the proposed actions would not create any new long-term risks to public health and safety. There would be moderate risks for staff on-site during construction due to the nature of construction activities, such as risks from operating heavy machinery. All personnel would use best practices to ensure worker safety during construction, including that all equipment is operated solely by trained and licensed personnel. The implementation schedule is also structured to allow for construction to proceed at a deliberate and careful pace to reduce the danger to staff that would potentially be caused by rushed implementation. The effects of the proposed actions on public health and safety would therefore be low, consistent with the Programmatic EA.

11. Cultural Resources

The effects of the proposed actions on cultural and historic resources are consistent with the analysis in the Programmatic EA, Section 3.3.11, which concluded that the impacts to cultural resources would be low and any effects would be appropriately resolved through the process set forth in Section 106 of the National Historic Preservation Act and its implementing regulations (Section 106 process).

BPA initiated the Section 106 process for the Chesnimnus Creek project (BPA CR Project No. 2025 065) by identifying an area of potential effects (APE) for the project site and surrounding area. The APE was surveyed in 2025 and sites of cultural and historic resources were identified. A report evaluating these sites for eligibility for inclusion on the National Register of Historic Places was prepared. Project designs

were modified to avoid eligible sites, and mitigation measures were developed through the Section 106 process to further reduce the potential for impacts to these sites.

On March 16, 2026, BPA determined that the proposed actions would have no adverse effect on historic properties and cultural resources. Consulting parties were the Oregon State Historic Preservation Office (SHPO), the Nez Perce Tribe, and the Confederated Tribes of the Colville Reservation. On April 14, 2026, SHPO responded to BPA requesting additional information on built resources in the APE. BPA provided a report documenting this additional information on May 1, 2026. On May 28, 2026, SHPO concurred with BPA's determination. No other responses were received. The consultation period ended on May 31, 2026.

To minimize the potential effects on cultural resources, eligible sites identified by the field survey would be marked for avoidance with 50-foot buffers. No construction or earthmoving would be permitted within this buffer, and staging and access would not be permitted in this area. In the unlikely event that cultural material is inadvertently encountered during implementation, work would be halted until BPA and the consulting parties can assess the finds.

In summary, the effects on cultural and historic resources would be low and minimized by employing mitigation measures developed through the Section 106 process, consistent with the Programmatic EA.

12. Socioeconomics

The effects of the proposed actions on socioeconomics are consistent with the analysis in the Programmatic EA, Section 3.3.13, which concluded that impacts on socioeconomics would be low to moderate.

Zones 2-4 of the Chesnimnus Creek project are located on privately owned property in north-central Wallowa County, Oregon. Wallowa County has a total population of around 7,600. The city of Enterprise is the closest population center to the Chesnimnus Creek project site, roughly 21 miles to the southwest. However, because of the remoteness of the site, transport from Enterprise is not direct and requires driving more than 34 miles to reach the project site. The project site is bordered to the north by the Wallowa-Whitman National Forest.

The proposed actions would not require any new permanent employees or create any new permanent jobs. The short-term effects on local socioeconomics would be limited to minor local economic impacts from workers purchasing fuel, meals, and other products from Enterprise and the surrounding area. These effects would be mild because of the remote nature of the project site and would not persist beyond construction of the proposed actions. There would be no substantial long-term changes to the socioeconomics conditions of the region.

In summary, the effects of the proposed actions on socioeconomics would be low, consistent with the Programmatic EA.

13. Climate Change

The effects of the proposed actions on climate change are consistent with the analysis in the Programmatic EA, Section 3.3.14, which concluded that impacts on climate change would be low.

Greenhouse gases generated by the proposed actions would be limited to exhaust from construction machinery, such as excavators, skid steers, and trucks. These effects would be limited in duration and would not result in any long-term greenhouse gas emissions. NPT would avoid running equipment when it is not in use to conserve fuel and reduce exhaust emissions. Additionally, the restored floodplain and increased vegetation of the Chesnimnus Creek project site following construction would partially improve these emissions by sequestering more carbon dioxide than the current, limited vegetative corridor is capable of absorbing. These effects would be minor.

In summary, the effects of the proposed actions on climate change would be low in the short-term and have low beneficial long-term effects. The overall effects would therefore be low, consistent with the Programmatic EA.

Findings

BPA finds that the types of actions and the potential impacts related to the proposed implementation of Zones 2 through 4 of the Chesnimnus Creek project are consistent to those analyzed in the Programmatic EA and Finding of No Significant Impact. There are no substantial changes in the EA's Proposed Action and no substantial new circumstances or information about the significance of the adverse effects that bear on the analysis in the EA's Proposed Action or its impacts within the meaning of NEPA and the DOE NEPA Implementing Procedures. Therefore, no further NEPA analysis or documentation is required.

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Concur:

Katey Grange
NEPA Compliance Officer

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