

Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy



Proposed Action: Improvements to Little Creek Irrigation Diversions 5 & 6

Project No.: 1992-026-01

Project Manager: Tracy Hauser, EWL-4

Location: Union County, Oregon

Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021): B1.20 Protection of cultural resources, fish and wildlife habitat

Description of the Proposed Action: The Bonneville Power Administration (BPA) proposes to fund the Union County Soil and Water Conservation District (USWCD) to improve two irrigation diversion structures along Little Creek near the city of Union, Oregon. The proposed activities would improve fish passage and open additional spawning and rearing habitat above the diversions for a number of species, including Endangered Species Act (ESA)-listed Chinook salmon (*Oncorhynchus tshawytscha*), steelhead (*Oncorhynchus mykiss*), and bull trout (*Salvelinus confluentus*). Funding the proposed activities would support conservation of ESA-listed species considered in the 2020 ESA consultations with both National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) 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 (the Northwest Power Act) (16 USC (USC) 839 et seq.).

Two existing irrigation diversions along Little Creek would be modified. The first is the Weaver Irrigation Diversion, referred to as Little Creek Diversion No. 5 (LC5). LC5 is a channel spanning structure with two concrete bank abutments and two in-stream concrete pillars between which wooden stop logs can be placed to raise the water level behind the structure during irrigation season. The irrigation intake is located on the northern (river right) shore and is currently unscreened. The drop height over the diversion while stop logs are in place is more than 30 inches and presents a fish passage barrier. Moreover, the current design of LC5 constricts the flow of Little Creek, increasing both stream velocity and the risk of ice and debris jams forming above the structure. These jams can further impede fish passage through the diversion, as well as present a health and safety risk to maintenance personnel who, because of the design of LC5, typically have to wade into the river to clear the jams.

The second structure is the Israel-Ames Irrigation Diversion, referred to as Little Creek Diversion No. 6 (LC6). LC6 is located roughly 2,000 feet upstream of LC5 and consists of a channel-spanning concrete weir. A single low-flow notch in the center of the weir allows for the placement of stop logs during the irrigation season. With the stop logs in place, the drop over LC6 is nearly 3 feet, effectively blocking all fish passage through the structure. As at LC5, the irrigation intake at LC6 is also currently not screened and permits fish to enter into the local irrigation system.

USWCD would improve conditions at both LC5 and LC6 by replacing the existing concrete in-water diversion structures, adding fish screens to the irrigation intakes, and constructing permanent bypass channels for fish to use during irrigation season. USWCD would first isolate the diversion structures in the Little Creek channel, divert the river through temporary channels on the southern (river left) banks, and dewater the areas around the structures. The concrete in-stream structures would be removed and replaced with new structures using modern steel stanchions for flow control. The new structures would reduce debris entrainment and give maintenance personnel better control over water levels at the diversions to better allow for fish passage outside of irrigation season and reduce the incidence of debris jams forming and blocking fish passage. Simultaneously, USWCD would install new rotary drum fish screens at the irrigation intakes for both LC5 and LC6 to prevent fish from being drawn into the irrigation system.

Following the completion of the diversion structure improvements, USWCD would build fish bypass channels around LC5 and LC6. These new channels would wrap around the structures on the southern (river left) banks of the irrigation diversions. The fishways would be approximately 1.5 feet wide and between 70 and 75 feet long in order to keep the slope and water velocity reasonable for juvenile fish use. The fishways would be built of simulated streambed material to mimic natural stream conditions. Boulders would be placed regularly throughout the channel to reduce water velocity and create resting areas for fish and riparian plant forbs would be planted along the banks to create shade and habitat cover. Concrete plunge pools would be installed at the top entrance of the fishways to further reduce velocity through the channels. USWCD would also place a limited amount of bank armoring riprap near the bottom output of the bypass channels to prevent scour of the nearby bridges by flows from the fishway and diversion.

Staging for equipment and material would be in previously-disturbed areas adjacent to the construction areas; a private parking area to the north (river right) of LC5 and a vacant grass lot to the south (river left) of LC6. All access would be along existing roadways. Following construction, all disturbed areas would be re-seeded with native grass seed mix. Disturbed areas along the river banks would be planted by riparian plant forbs where appropriate. The areas would be monitored to ensure desired vegetation regrowth. The new structures would also be monitored to inform future design decisions about how to address fish passage issues at other diversions along Little Creek in the future.

Findings: In accordance with Section 1021.410(b) of the Department of Energy's (DOE) National Environmental Policy Act (NEPA) Regulations (57 FR 15144, Apr. 24, 1992, as amended at 61 FR 36221-36243, Jul. 9, 1996; 61 FR 64608, Dec. 6, 1996, 76 FR 63764, Nov. 14, 2011), BPA has determined that the proposed action:

- 1) fits within a class of actions listed in Appendix B of 10 CFR 1021, Subpart D (see attached Environmental Checklist);
- 2) does not present any extraordinary circumstances that may affect the significance of the environmental effects of the proposal; and
- 3) has not been segmented to meet the definition of a categorical exclusion.

Based on these determinations, BPA finds that the proposed action is categorically excluded from further NEPA review.

/s/ Thomas DeLorenzo

Thomas DeLorenzo

Environmental Protection Specialist

Concur:

Katey C. Grange
NEPA Compliance Officer

Attachment(s): Environmental Checklist

Categorical Exclusion Environmental Checklist

This checklist documents environmental considerations for the proposed project and explains why the project would not have the potential to cause significant impacts on environmentally sensitive resources and would meet other integral elements of the applied categorical exclusion.

Proposed Action: Improvements to Little Creek Irrigation Diversions 5 & 6

Project Site Description

Little Creek is a tributary of Catherine Creek and part of the network of small streams that feed into the Grande Ronde River in northeastern Oregon. The stream is largely fed by snowmelt from the nearby Wallowa Mountains and varies greatly in depth and volume seasonally. Historically, the river hosted extensive spawning and rearing habitat for a number of resident and anadromous fish species, such as Coho salmon (*Oncorhynchus kisutch*), Pacific lamprey (*Entosphenus tridentatus*), Chinook salmon, steelhead, and bull trout. Intensive agriculture and grazing across the surrounding plateau, along with increased channelization and irrigation withdrawals in the river itself, had profound effects on this habitat.

LC5 and LC6 are two irrigation diversions that remain in active use today. Water rights at the locations date as far back as the mid-19th century. Both locations siphon stream flow between late spring and autumn and divert it into an extensive open ditch irrigation system that crisscrosses the agricultural fields to the north. The diversions are located near the northern border of the city of Union, Oregon. Road bridges for two state roads – North 1st Street at LC5 and the Cove-Union Highway at LC6 – are located directly downstream from the diversions. The area surrounding both diversions is rural residential, dominated by large grass fields and lawns, with some limited riparian vegetation along the banks of Little Creek. The total project area, including staging and access, is planned to be no more than 0.4 acres at LC5 and 0.57 acres at LC6.

Evaluation of Potential Impacts to Environmental Resources

1. Historic and Cultural Resources

Potential for Significance: No

Explanation: BPA identified an Area of Potential Effects (APE) and reviewed the project area for cultural and historic resources (BPA CR Project No. OR 2022 066). BPA determined that the project would result in no historic properties affected and on January 12, 2023 initiated consultation with the Oregon State Historic Preservation Office (SHPO), the Oregon Department of Transportation, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), and the Nez Perce Tribe. On February 10, 2023, SHPO concurred with BPA's determination. By way of written communication to the project archaeologist, the Nez Perce Tribe deferred to CTUIR with no other comments. No other responses were received. The consultation period ended on February 13, 2023.

2. Geology and Soils

Potential for Significance: No

Explanation: Ground disturbance would be necessary for some project activities. Removal of some of the in-stream concrete structures and creation of the fish bypass channels would require excavation and shifting of soil. Equipment and human presence would also potentially disturb the top layer of soil in the project and staging areas. However, the effects of this disturbance would be localized to the project area and there would be no long-term effects on soils in the area. The project does not propose to substantially change or alter the current planform of the area. Additionally, USWCD would plant vegetation in all disturbed areas following construction to reduce erosion and retain soil in the area.

3. Plants (including Federal/state special-status species and habitats)

Potential for Significance: No

Explanation: No ESA-listed plant species have been recorded in or near the project area (USFWS Information for Planning and Consultation (IPaC) tool). No Oregon state-listed plants have been recorded in or near the project area (Oregon Department of Agriculture).

Non-listed plants in the project area would be impacted by project activities, such as ground disturbance and human presence. Areas with disturbed vegetation would be re-seeded and re-planted following project activities to restore site conditions. Additional riparian planting along the banks of Little Creek and the new fish bypass channels would improve vegetation quality in the area compared to current conditions, which are mostly dominated by grasses and non-complex cover. The long-term effects of project activities on vegetation would therefore be minimal to positive.

4. Wildlife (including Federal/state special-status species and habitats)

Potential for Significance: No

Explanation: ESA-listed grey wolf (*Canis lupus*) has the potential to appear in and near the project area (IPaC). While grey wolves have been observed occasionally in Union County, they typically avoid human presence and noise. According to Oregon Department of Fish and Wildlife (ODFW) monitoring data, areas of known wolf activity in Union County are generally confined to upland regions in the foothills of the surrounding mountains, and the City of Union is not considered an area of known wolf activity (ODFW Wildlife Division). It is therefore highly unlikely that any grey wolves would be in the project area due to the proximity to roads and residences. No separately listed Oregon state endangered species have the potential to appear in or near the project area (ODFW Wildlife Division).

Non-listed wildlife in the project area would be disturbed by the effects of project activities, such as human presence and noise from equipment. This disturbance would be limited in duration and cause no lasting impacts to local wildlife.

5. Water Bodies, Floodplains, and Fish (including Federal/state special-status species, ESUs, and habitats)

Potential for Significance: No

Explanation: ESA-listed Snake River Chinook salmon, Snake River Basin steelhead, and bull trout are present in Little Creek at the project area (StreamNet, IPaC). No separately listed Oregon state endangered fish species have been recorded in the project area (ODFW Wildlife Division). Construction activities would take place within the river channel at both diversion locations. While project activities are scheduled to take place during the ODFW in-water work window and outside of spawning season, there is the potential that some listed fish are present in the Little Creek reach during the proposed construction period.

Prior to any construction, the river would be dewatered and diverted through constructed side channels. All construction work would occur only once the project area was completely dewatered and fish salvage was complete to reduce impacts to fish from construction activities.

The long-term effects of the project would be beneficial to fish. Both LC5 and LC6 present passage barriers during irrigation season. The new fish bypass channels would allow for migration even when stop logs are installed in the diversions and open additional spawning and rearing habitat above the diversions for resident and migratory fish species year-round. The new in-stream steel stanchions would also entrain less debris and improve sediment flow, improving overall conditions in Little Creek. Additionally, the new fish screens at the irrigation intakes would prevent fish from entering the irrigation network and return them to Little Creek. Despite the short-term effects on fish in the area, the long-term effects of the project on fish and waterbodies would be positive.

Notes:

- All fish salvage, dewatering, and other actions that would have the potential to impact ESA-listed fish species would conform to the procedures and proscriptions contained in BPA's Habitat Improvement Program (HIP4) programmatic biological opinions (HIP PNF #2023045).
- To minimize impacts to spawning and rearing fish, all in-channel project activities would occur during the local in-water work window. No work would be conducted within the river footprint outside of this time without first consulting with ODFW and BPA environmental compliance staff.
- Project activities have the potential to discharge fill into waters of the United States and/or the state of Oregon. USWCD obtained Clean Water Act permit approval from the U.S. Army Corps of Engineers (USACE) to conduct project activities through BPA's Regional General Permit #6 (RGP-6) (Corps No. NWP-2023-48). All project activities would conform to the procedures and proscriptions contained in the RGP-6 permit and set by USACE.

6. Wetlands

Potential for Significance: No

Explanation: Little Creek is highly incised and generally lacks the floodplain interaction necessary to produce riparian wetlands. However, there is one small (less than 0.05 acre) wetland on the southern bank (river right) of Little Creek near LC5 believed caused by backwater from the irrigation diversion during high flow periods.

Project activities would affect this wetland. The wetland is located in the area in which the fish bypass channel at LC5 would be constructed. Additionally, the wetland is believed to be the result of backwater from LC5, and the design of the new steel stanchion structure would reduce the amount of backwater caused by debris and ice jams at LC5. USWCD provided payment in-lieu of mitigation to the Oregon Department of State Lands (DSL) for the potential effects on this wetland. Because of the small size of this wetland compared to the overall project area, the lack of other identified wetlands in the remainder of the project area, and USWCD's mitigation payment to DSL, the overall effect of project activities on wetlands would be low.

7. Groundwater and Aquifers

Potential for Significance: No

Explanation: No new wells or groundwater use are proposed. Project activities would have little to no effect on the water table in the area.

8. Land Use and Specially-Designated Areas

Potential for Significance: No

Explanation: No changes to existing land use are proposed. LC5 and LC6 and their respective staging areas are located on private land and the use of this land would not change following construction. No water rights at the LC5 or LC6 points of diversion would change as a result of these activities. No impacts to public use of the nearby roadways would occur, other than a minor increase in traffic as workers commute to and from the project sites daily. This traffic increase would be temporary and no changes to the roadways would be made.

9. Visual Quality

Potential for Significance: No

Explanation: There would be no major changes to the visual quality of the area as the result of project activities.

10. Air Quality

Potential for Significance: No

Explanation: There would be minor increases in local air pollution during project activities due to exhaust from machinery and equipment. These effects would be limited in scope and duration and cause no long term impacts to air quality.

11. Noise

Potential for Significance: No

Explanation: There would be minor increases in noise generated by machinery and equipment used during project activities. These effects would be limited in scope and cause no long term impacts.

12. Human Health and Safety

Potential for Significance: No

Explanation: All personnel would use best management practices to ensure human health and safety. All machinery would be operated solely by licensed and trained professionals.

Evaluation of Other Integral Elements

The proposed project would also meet conditions that are integral elements of the categorical exclusion. The project would not:

Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders.

Explanation: N/A

Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators) that are not otherwise categorically excluded.

Explanation: N/A

Disturb hazardous substances, pollutants, contaminants, or CERCLA excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases.

Explanation: N/A

Involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those of the Department of Agriculture, the Environmental Protection Agency, and the National Institutes of Health.

Explanation: N/A

Landowner Notification, Involvement, or Coordination

Description: The project area is located largely on private land, with a small portion of project activities taking place within the Oregon Department of Transportation's (ODOT) right of way. USWCD has obtained written permission from the landowners and ODOT to conduct project activities. No other external coordination is required.

Based on the foregoing, this proposed project does not have the potential to cause significant impacts to any environmentally sensitive resource.

Signed: /s/ Thomas DeLorenzo March 27, 2023
Thomas DeLorenzo Date
Environmental Protection Specialist