



US Army Corps
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Seattle District

Notice of Preparation / Clean Water Act Public Notice

Environmental and Cultural Resource Branch
P.O. Box 3755
Seattle, WA 98124-3755
ATTN: Kevin McKeag (EN-ER)

Public Notice Date: 10 May 2013
Expiration Date: 10 June 2013
Reference: EN-ER-13-04

Name: Fall Creek Fish Passage Facility Upgrade

Interested parties are hereby notified that the U.S. Army Corps of Engineers, Portland District (Corps) plans to prepare, pursuant to the National Environmental Policy Act (NEPA) Section 102(C), an environmental assessment (EA) for the proposed Fall Creek Fish Passage Facility Upgrade. Fall Creek Dam is a 175-ft. high zoned rock-filled dam located about two miles north of the Town of Lowell, Lane County, Oregon, and about 25 miles southeast of Eugene. The dam impounds Fall Creek, a tributary of Middle Fork Willamette River. The Fall Creek Project provides flood protection, storage, recreation, and fish passage. There is no hydropower facility at the dam. The project is intended to enhance fish passage at the Fall Creek Dam and implement the National Marine Fisheries Service (NMFS) Reasonable and Prudent Alternative (RPA) to "improve the fish collection facility at Fall Creek Dam" as recommend in the July 11, 2008 *Willamette River Basin Flood Control Project Biological Opinion* (BiOp).

AUTHORITY

Fall Creek Lake was authorized by Congress in the Flood Control Act of 1950 (Public Law 81-516), as part of a Federal multi-reservoir project in the Willamette River Basin.

NEED

Improvements in fish trapping are needed at the fish collection facility in order to minimize stress and injury to adult fish, and provide access to historical fish habitat above the dam. Because the facility will be used in lieu of volitional fish passage, this measure is deemed by NMFS as an essential first step toward addressing low population numbers caused by decreased spatial distribution, which is a limiting factor for Upper Willamette River (UWR) Chinook salmon and UWR steelhead. The effect of this measure is that improved collection and release of adult fish will minimize fish stress and injury, resulting in improved upstream fish passage. Lack of access to critical habitat above the dam, injury and mortality associated with inadequate passage facilities, and restriction to degraded habitat below the dams has likely caused steep declines in fish numbers and has reduced the functioning of critical habitat.

PURPOSE

The purpose of the fish facility upgrade at the Fall Creek Dam is to provide a new fish collection facility that meets NMFS criteria for upstream passage and collection facilities for ESA-listed fish

in accordance with the July 11, 2008 NMFS *Biological Opinion* Reasonable and Prudent Alternative 4.6 “Upgrade Existing Adult Fish Collection and Handling Facilities.”

PROPOSED ACTION

The parameters used to establish the design criteria for the fish ladder, pre-sort pool, holding/acclimation ponds, and sorting facility pertain specifically to Chinook salmon, UWR winter steelhead, and UWR summer steelhead. The facility also is designed to allow other fish species to enter and navigate through the trap, including Pacific lamprey, cutthroat trout, and resident rainbow trout. Multiple alternatives for prospective work have been considered based on biological efficiency, constructability, environmental impact, operation, and cost. Of these alternatives, the No Action Alternative, and Alternatives A and B (see attached preliminary design drawings) were selected for further evaluation. Both of the action alternatives (A and B) provide volitional swim-up facilities, the ability to hold fish, and water-to-water transfer capability at the transport station.

1. Alternative A, Elevated Fish Facility Alternative

This alternative consists of extending and elevating the existing fish ladder to allow a direct water-to-water transfer of fish into the transport truck. The ladder extension, sorting, and loading areas would largely be located within the paved area of the existing facility. The primary advantage of Alternative A is its relative compactness compared to Alternative B, which allows operators the ability to view the entire facility from a single vantage point.

2. Alternative B, At Grade Fish facility Alternative

This alternative consists of extending the existing fish ladder for some distance west along the bank of the regulating outlet channel. The topography of the area west of the existing facility is such that the ladder and sorting areas would be constructed closer to grade. This represents a mostly linear design, constructed mostly at grade with elevated areas where required by the existing topography. Alternative B provides a range of benefits including reduced fish stress due to fewer turning pools, ease of truck loading by providing drive through capability, and minimal interference with ongoing operations during construction. Alternative B represents a slightly higher capital cost.

3. No-Action Alternative

Under this alternative the current fish facility continues to operate with existing deficiencies, and does not provide compliance with the 2008 NMFS Biological Opinion. This alternative is being carried forward for analysis as required by NEPA to evaluate the relative merits and disadvantages of the action alternatives with that of taking no action.

Final selection of the preferred alternative and finalization of the design will occur during the NEPA process and before construction.

EXISTING CONDITIONS

Fall Creek Dam is a Corps dam that was constructed on the Middle Fork of the Willamette River during the mid-1960s. The dam and reservoir are located within areas deemed to be critical habitat for Upper Willamette River (UWR) Chinook salmon and having high conservation value. The Middle Fork population of UWR Chinook salmon is considered to be at very high risk of extinction, based on an analysis of its recent abundance, productivity, spatial structure, and diversity. The current adult trapping facility at Fall Creek is composed of a fish ladder, pre-sort

pool, powered fish crowder, and hopper/anesthetizing tank (Figure 1). The water necessary to operate the facility is withdrawn from the reservoir through three multi-level intakes referred to as fish horns that are located on the upstream face of the dam. As upstream migrating fish approach the facility, they are attracted to the attraction water discharging from the facility into the regulating outlet channel. Upon entering the facility, the fish climb a series of ladder pools into a pre-sort pool located at the uppermost end of the ladder. A finger weir located at the entrance to the pre-sort pool deters them from returning to the ladder. A powered crowder can be used to crowd fish from the pre-sort pool to the fish chute leading to a hopper that doubles as an anesthetic tank. Once anesthetized, the fish are moved by hand from the hopper/tank into a 1,500 gallon tank truck and transported to a release site approximately two miles upstream of the dam. Resident trapped fish are returned to the regulating outlet channel.



Figure 1. Current Fall Creek Fish Collection Facility at the dam outlet.

POTENTIAL ENVIRONMENTAL CONSEQUENCES

Impacts anticipated from the proposed project are discussed below.

Biological Resources. The primary species of concern associated with the facility are Upper Willamette River (UWR) Chinook salmon (*Oncorhynchus tshawytscha*) and UWR steelhead (*Oncorhynchus mykiss*). Other species that have been observed at the facility include, cutthroat trout (*Oncorhynchus clarki*), resident rainbow trout (*Oncorhynchus mykiss*), mountain whitefish (*Prosopium williamsoni*), large scale sucker (*Catostomus macrocheilus*) reidside shiner (*Richardsonius balteatus*), and northern pikeminnow (*Ptychocheilus oregonensis*). Other native species that may be present in Fall Creek but have not been observed at the fish passage facility include Pacific lamprey (*Entosphenus tridentatus*), Oregon chub (*Oregonichthys*

cramerii), and brook lamprey (*Lampetra richardsoni*). The environmental assessment will focus on project impacts to the following three fish species and their associated critical habitat:

- UWR Chinook salmon and designated critical habitat
- UWR summer steelhead
- Bull trout
- Oregon chub

The NMFS 2008 Willamette Project BiOp evaluated the effects of operation and maintenance of the Willamette Project, which included implementation of the prescribed RPA on Oregon chub and Upper Willamette Chinook salmon and designated critical habitat for Chinook salmon, among other species. The fish facility upgrade is a requirement of the RPA, and the effects associated with implementation are consistent with and anticipated by the Services respective BiOp.

The USFWS designated critical habitat for Oregon chub and revised critical habitat for bull trout on March 10, 2010 and October 18, 2010, respectively. On August 18, 2011, the Corps completed a Memorandum for Record (MFR) pursuant to consistency with Section 7(d) of the ESA addressing the Corps' resource commitments associated with ongoing operation of the Willamette Projects (including Fall Creek) and potential effects to newly designated Oregon chub critical habitat and revised bull trout critical habitat. The Corps is in consultation with the USFWS regarding the effects of ongoing operation and maintenance of the Willamette Projects to those species' designated critical habitats. The Corps considers the actions underway (e.g. implementing the 2008 Willamette Project BiOp and NMFS' RPA) sufficiently accommodate the biological and conservation needs of Oregon chub, bull trout, and their designated critical habitats during the consultation period with USFWS, and do not foresee future implementation of any reasonable and prudent alternative measures identified in the anticipated biological opinion.

Water Quality. There may be a temporary, localized increase in turbidity due to construction at the site. Practices such as the installation of silt fencing, and compost socks control runoff from construction sites and will be considered. At a minimum, visual turbidity monitoring occurs during all in water construction. The proposed action qualifies for Section 401 Water Quality Certification coverage under the pre-certified 2012 Nationwide Permit (NWP) #4 (Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities). The NWP also includes application of the Section 404(b)(1) Guidelines for the proposed action. A Section 402 permit and a Storm Water Management Plan (SWMP) will likely be required. These will be obtained as part of the environmental compliance process associated with the development of the EA prior to construction. Impacts to water temperature from loss of shade-producing vegetation are expected to be minimal. No long-term negative or adverse impacts to water quality are expected.

Wetlands. The project site will be evaluated for presence of wetlands and a wetland delineation will be conducted as needed in order to avoid impacts to any wetlands.

Cultural Resources. Any potential effects of the proposed work to cultural resources will be addressed in separate compliance documentation in accordance with Section 106 of the National Historic Preservation Act (NHPA). The EA will address potential impacts to cultural resources and historic properties and will include as appropriate the compliance documentation required under Section 106 of the NHPA. Prior to construction, a Corps archeologist will conduct a cultural resources survey of the project area to determine whether there is a potential

for the proposed repairs to cause effects to historic properties that may be located in or adjacent to the project area. The NHPA Section 106 cultural resources report will include the findings of the investigation, recommendations which may include archaeological monitoring during construction and a determination of effects to archaeological and historic properties (if any are present). If archaeological monitoring is recommended, the report will include a monitoring plan and protocols to be followed including an inadvertent discovery clause. The Corps' determinations of effects to historic properties, the cultural resources report, and monitoring plan will be submitted to the Oregon State Historic Preservation Office (SHPO) and the appropriate Tribes for their review and comment.

Air Quality. Construction vehicles and heavy equipment would temporarily and locally generate gasoline and diesel exhaust fumes, carbon dioxide (CO₂), carbon monoxide, and dust on roadways. These emissions would be exempt from the conformity requirements under the Clean Air Act, because the project constitutes a routine facility repair activity generating an increase in emissions that is clearly *de minimis*, under 40 CFR 93.153(c)(2)(iv). Unquantifiable but insignificant exacerbation of effects of CO₂ emissions on global climate change is also anticipated.

Recreation. The scenic 1,582 acre lake with its 22 miles of forested shoreline is a popular destination for fishing, boating, water skiing, swimming, camping and picnicking. Recreation opportunities would not be impacted by this project.

Cumulative Effects. Cumulative effects will be assessed during the development of the EA to determine whether the incremental contribution of the Drummond levee repair projects to the overall past, present, and future environmental impacts would be significant.

COMPLIANCE WITH OTHER LAWS AND REGULATIONS

Magnuson-Stevens Fishery Conservation and Management Act. The NMFS July 11, 2008, BiOp states that EFH at the Fall Creek Dam is likely to be adversely affected. The EFH conservation recommendations are predicated on the implementation of the RPA and the Terms and Conditions provided by NMFS in their 2008 Willamette Projects BiOp. This action is consistent with RPA measure 4.8.1 "Fall Creek Drawdown". NMFS will be consulted as part of the environmental compliance process for development of the EA and all determinations and effects analysis will be addressed in the EA.

Coastal Zone Management Act (CZMA). The proposed action is not in the coastal zone for the state of Oregon. Thus, a coastal zone management act consistency determination is not required.

Bald and Golden Eagle Protection Act. The proposed activity is an operational action that will not result in any modification to bald or golden eagle habitat either upstream or downstream of Fall Creek Project. Construction activities will be evaluated for any potential to disturb nesting bald or golden eagles.

MIGRATORY BIRD TREATY ACT. The proposed action will not result in the taking of any migratory birds.

EVALUATION

The Corps has made a preliminary determination that the environmental impacts of the proposal can be adequately evaluated under the NEPA through preparation of an EA. Preparation of an EA addressing potential environmental impacts associated with the proposed action is currently underway.

In preparation of the environmental documentation for this project, coordination has been conducted or is ongoing with the following public agencies:

- (1) U.S. Fish and Wildlife Service;
- (2) National Marine Fisheries Service
- (3) Environmental Protection Agency;
- (4) Oregon Department of Fish, Wildlife;
- (5) Oregon Department of Environmental Quality;
- (6) Oregon State Historic Preservation Office

The decision whether to construct the project will be based on an evaluation of the probable impact on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered; among these are: conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership and, in general, the needs and welfare of the people.

The Corps invites submission of comments on the potential environmental impacts of the proposed project. Comments will also be considered in determining whether it would be in the best public interest to proceed with the proposed project. The Corps will consider all submissions received by the expiration date of this notice. The nature or scope of the proposal may be changed upon consideration of the comments received. The Corps will initiate an Environmental Impact Statement (EIS), and afford all the appropriate public participation opportunities attendant to an EIS, if significant effects on the quality of the human environment are identified and cannot be mitigated.

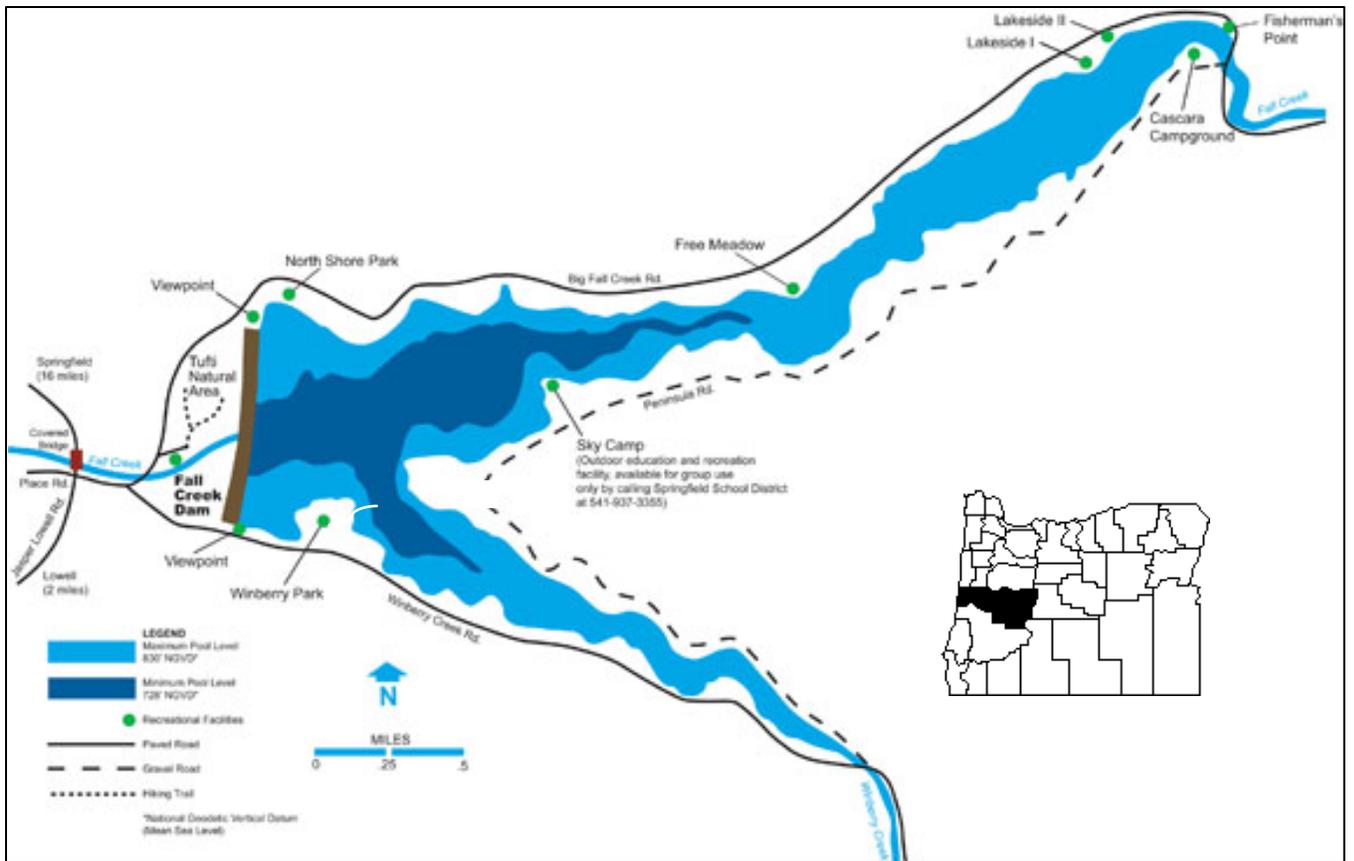
Comments should reach this office, no later than 30 days from the date of this notice in order to ensure full consideration. Please submit any comments or requests for additional information to the Seattle District Environmental Coordinator, Kevin McKeag, at (206) 764-3576, email: kevin.j.mckeag@usace.army.mil, Portland District Environmental Coordinator, Tina Teed, (503) 808-4770, tina.j.teed@usace.army.mil, or Natalie Richards, Project Manager, at (503) 808-4755, email: natalie.a.richards@usace.army.mil.

Address for written comments:

Engineering Division
Environmental and Cultural Resource Branch
P.O. Box 3755
Seattle, WA 98124-3755
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PROJECT LOCATION MAPS AND DESIGNS

Fall Creek Dam, Lane County, Oregon



Preliminary Design Drawings

Alternative B. At grade Fish Facility

