
Central Valley Regional Water Quality Control Board

7 February 2020

Laurie Earley
U.S. Fish and Wildlife Service
10950 Tyler Road
Red Bluff, CA 96080

ORDER AMENDING NOTICE OF APPLICABILITY; STATE WATER RESOURCES CONTROL BOARD AMENDED ORDER FOR CLEAN WATER ACT SECTION 401 GENERAL WATER QUALITY CERTIFICATION FOR SMALL HABITAT RESTORATION PROJECTS FILE NO. SB12006GN FOR U.S. FISH AND WILDLIFE SERVICE, NORTH FORK BATTLE CREEK BARRIER MODIFICATION AND FISH PASSAGE IMPROVEMENT PROJECT – UPPER BARRIER SITE, SHASTA AND TEHAMA COUNTIES, WDID NO. 5A52CR00197A1

This Order responds to the 1 January 2020 request for an amendment of the North Fork Battle Creek Barrier Modification and Fish Passage Improvement Project Notice of Applicability (WDID No. 5A52CR00197). The original Notice of Applicability (NOA) was issued on 13 December 2019. The requested amendment is hereby approved, and the original NOA is therefore amended as described below. Please attach this document to the original NOA.

AMENDMENT:

The U.S. Fish and Wildlife Service is requesting an amendment to the NOA to change the North Fork Battle Creek Barrier Modification and Fish Passage Improvement Project permanent impacts from 0.02 acre to 0.03 acre. Therefore, the Project Description, Instream Modifications; and Description of Direct Impacts to Waters of the State, Table 2 are replaced as shown below:

PROJECT DESCRIPTION

Instream Modifications

Approximately 720 cubic yards of boulder jumbles blocking fish passage, and potentially some bedrock, will be removed as part of the creek bed regrading and boulder barrier removal. Approximately 75 percent (556 cubic yards) of the material removed will be reused in the channel to form channel-spanning rock structures (hydraulic structures) designed to improve fish passage. The remainder of the material will be placed in an upland area and/or hauled offsite. There will be a net overall reduction of 164 cubic

KARL E. LONGLEY SCD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

North Fork Battle Creek Barrier Modification and Fish Passage Improvement Project – Upper Barrier Site

yards of rock material as a result of the proposed improvements. Trees will likely need to be trimmed or removed along the creek bank during construction to remove the boulders.

Approximately 150 linear feet of creek channel will be regraded and five channel spanning rock structures (hydraulic structures) will be installed to control channel grade and water surface profile. Hydraulic structures will include boulder steps and bedrock chutes and/or pools to create surface drops between two and three feet in height. Each hydraulic structure is designed with three different flow paths, each with specific elevations or specific relationships to the other defined flow path elevations and vertical tolerances. These hydraulic structures will create variable swimming paths and will accommodate a variety of salmonid class sizes. In-situ rock will be placed as needed to support the installed boulders and hydraulic structures and fill voids. The finished channel bed between the hydraulic structures will consist of in-situ and salvaged rock ranging in size from large boulders to gravels. Approximately 70 linear feet of slope rock will be installed as directed along the east side of the creek, filling voids with finer material to prevent piping. A maximum slope of 1.5 to 1 will be maintained. The in-channel creek bed modifications total 4,277 square feet (0.10 acres). Two small concrete weirs (2 feet by 3 feet by 18 inches and 2 feet by 6 feet by 18 inches) will be constructed to keep water from flowing out of the secondary alignment corridor during low to moderate flows, which will improve flow and fish passage under these flow conditions. Approximately 1.5 cubic yards of concrete will be used to create the two weirs. A Fish Passage Engineer will be present to direct the work and may make modifications in the field.

Description of Direct Impacts to Waters of the State

Total Project fill/excavation quantities for permanent impacts are summarized in Table 2. Permanent impacts are categorized as those resulting in a physical loss in area and also those degrading ecological condition.

Table 2: Total Project Fill/Excavation Quantity for Permanent Physical Loss of Area Impacts

| Aquatic Resources Type | Acres | Cubic Yards | Linear Feet |
|-------------------------------|--------------|--------------------|--------------------|
| Ditch | | | |
| Ephemeral Stream | 0.003 | 10 | 16 |
| Stream Channel | 0.03 | 18 | 150 |

CENTRAL VALLEY WATER BOARD CONTACT:

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WATER QUALITY CERTIFICATION:

I hereby issue an Amendment of the existing Notice of Applicability for U.S. Fish and Wildlife Service, North Fork Battle Creek Barrier Modification and Fish Passage Improvement Project (WDID No. 5A52CR00197A1). All other conditions and provisions of the original NOA and any previously approved amendments remain in full force and effect, except as modified based on the conditions of this NOA. Failure to comply with the terms and conditions of the original NOA, previously approved amendments, or of this NOA may result in suspension or revocation of the NOA.

Original signed by Bryan Smith for
PATRICK PULUPA, Executive Officer
Central Valley Regional Water Quality Control Board

2/7/2020
Date

DLW: db

cc

via email: United States Environmental Protection Agency, San Francisco
U.S. Army Corps of Engineers, Redding
Water Quality Certification Program, SWRCB, Sacramento
Jeff Souza, Tehama Environmental Solutions, Inc., Red Bluff