
North Coast Regional Water Quality Control Board

November 7, 2016

Ms. Karen Mallory
Shasta Valley Resource Conservation District
215 Executive Court, Suite A
Yreka, CA 96097
mnkmallory@sbcglobal.net

Dear Ms. Mallory:

Subject: Notice of Applicability (NOA) for Coverage under the State Water Resources Control Board General 401 Water Quality Certification Order for Small Habitat Restoration Projects SB12006GN

File: Shasta Valley RCD Kettle Springs Project
CW-826503; WDID No. 1A16981WNSI

This letter is to certify coverage of Shasta Valley Resource Conservation District's Kettle Project (project) under the General 401 Water Quality Certification Order for Small Habitat Restoration Projects; Order No. SB12006GN (General 401 Order). The project will improve instream conditions in Kettle Spring Creek for coho salmon (*Oncorhynchus kisutch*) by reducing diversion amounts and maintaining consistent stream flows through irrigation efficiency and improved impoundment management.

Background

On July 19, 2016, the North Coast Regional Water Quality Control Board (Regional Water Board) received a Notice of Intent (NOI) from the Shasta Valley Resource Conservation District (applicant) to comply with the terms of, and obtain project coverage under, the General 401 Order for the project. On August 23, 2016, supplemental information was submitted and the NOI was deemed complete.

Project Location

The project is located on Kettle Spring, approximately three miles east of Interstate 5 at exit 759, within the Shasta Valley Hydrologic Unit 105.50. Coordinates of the project are 41.549° N, 122.4285° W (figure 1).

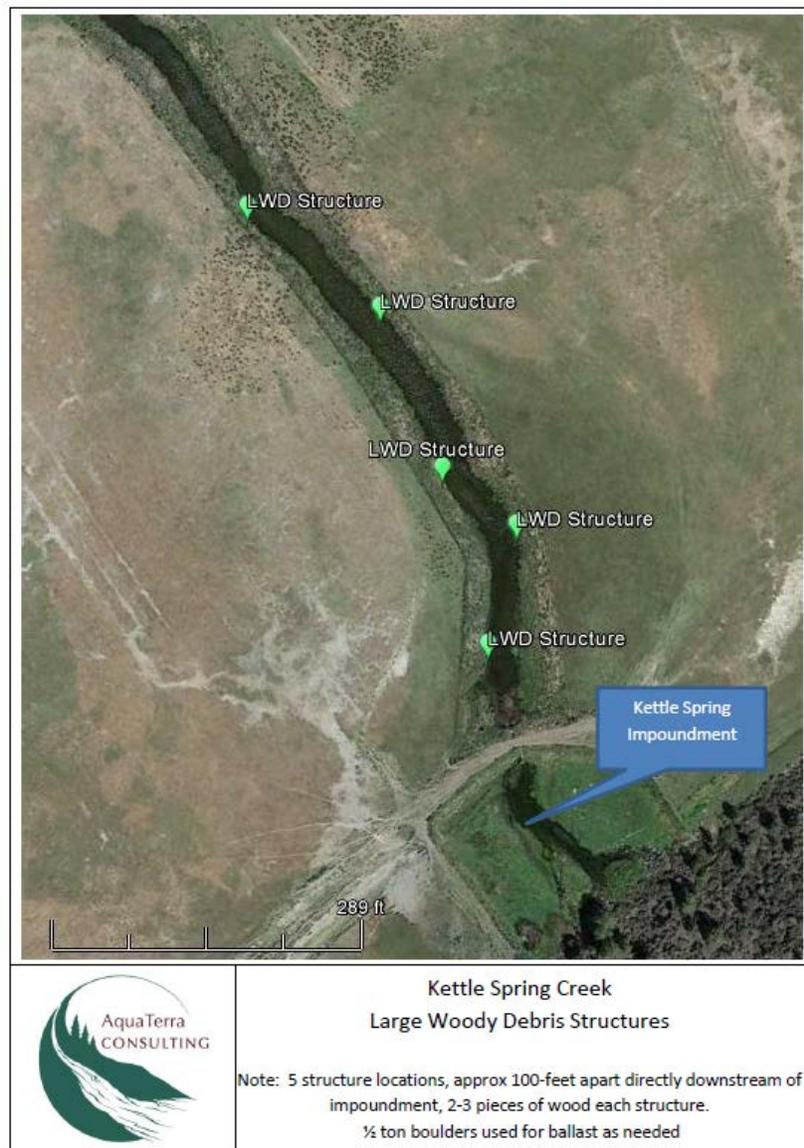


Figure 1. Project overview (AquaTerra Consulting)

Project Description

The project consists of the following components: 1) replacement of the diversion structure at Kettle Spring; 2) installation of approximately 2,300 linear feet of underground PVC pipe with risers to replace use of existing irrigation ditch for flood irrigation; and 3) installation of large woody debris (LWD) in Kettle Spring Creek.

Kettle Spring is an existing impounded spring located on private land with outflow to Kettle Spring Creek. The existing impoundment consists of an earthen levee with an approximately 8-foot wide road atop it. A 24-inch corrugated metal pipe extends under the levee conveying water from the impoundment to Kettle Spring Creek. The spring produces between three and eight cubic feet per second (cfs) of cold water. A water right holder has

a 1.15 cfs adjudicated water right and has claimed the surplus water under a riparian right, diverting most of the water from Kettle Spring to flood irrigate adjacent pastures during the irrigation season (March 1- November 1). Coho salmon have been utilizing the creek for over-summer rearing, however due to irrigation induced discharge fluctuations, fish have had to relocate.

Project actions at Kettle Spring include construction of a new spring outlet structure, new irrigation head gates, and two new underground pipes to replace use of open conveyance ditches for flood irrigation of existing pastures. The project also includes a large wood placement component. The new outlet will consist of a new 24-inch PVC pipe to conduct water from the spring impoundment to a new cast in place concrete outlet water control structure located on the downstream slope of the existing levee. The new pipe will be buried within the existing levee and the upslope will be stabilized with rip rap to protect the slope. The gate on the new outlet structure will allow for all additional water beyond the 1.15 cfs adjudicated right to flow downstream over a new stacked rock cascade to Kettle Spring Creek, resulting in a steady flow regime in Kettle Spring Creek throughout the year. Additionally, the new outlet structure will not allow for fish to enter the irrigation system.

The outlet control structure is approximately 12.5 feet long, 4.5 feet wide, and 7 feet tall, and is located within the existing levee. Portions of the new outfall structure and associated rip rap will impact jurisdictional waters and are described in the *Project Size* and *Project Associated Discharge* sections below. The new buried PVC pipelines that will replace the existing earthen ditches for flood irrigation purposes do not impact jurisdictional waters and are not considered in this NOA.

The project includes installation of LWD in Kettle Spring Creek to add hydraulic diversity, increase habitat heterogeneity, increase overhead cover, and promote reach-scale deposition and channel narrowing, and enhance instream habitat. LWD placement will include cutting juniper or other upslope trees and “dropping” them in the stream to mimic the natural process of large trees falling into the creek (a technique referred to as chop and drop). Structures will not be ballasted, bolted or cabled, and may include clusters of trees, or single trees. All LWD placement methodologies will follow the Stream Corridor Restoration: Principles, Processes, and Practices Manual (Federal Interagency Stream Restoration Working Group). A total of approximately 15 trees will be utilized for LWD structures. No excavation of the streambank will be necessary.

Project Size

The total of ground disturbance associated with the project is estimated to be approximately 180 square feet. The proposed project size does not exceed what is allowed for coverage under the General 401 Order and associated California Environmental Quality Act (CEQA) categorical exemption (15333).

Project Associated Discharge

The discharge of material into waters of the state resulting from the project includes those associated with approximately 12 cubic yards of rip rap, approximately 15 trees, and approximately six linear feet of intake pipe.

Project Time Frame

Proposed project start date: May 15, 2017

Expected date of completion: October 15, 2021

Seasonal work window (work within jurisdictional waters): May 15 to October 15

Agency Permits

The applicant has also submitted applications for permitting and/or coverage of:

- a. Army Corp of Engineers Section 404 Permit (File No. 2016-00241)
- b. NOAA Biological Opinion No. 151422SWR2009AR00566
- c. California Department of Fish & Wildlife LSAA (File No. 1600-2016-0336-R1)

Notice of Applicability & Project Determination

Regional Water Board staff has determined that the proposed activities as described in the NOI are categorically exempt from CEQA review and may proceed under the General 401 Order.

Receiving Water: Kettle Spring, Shasta Valley Hydrologic Unit 105.50

Total Impacts: Area permanently impacted: 84 square feet of wetlands
Length permanently impacted: 26 feet of streambank and channel

Excavation Volume: 5.5 cubic yards

Discharge Volume: Approximately 13 cubic yards of rip rap, 15 trees, and six linear feet of PVC pipe

Latitude/Longitude: 41.549° N, 122.4285° W

Monitoring and Reporting

The goals of the project are to improve instream conditions by keeping diversion amounts and stream flow consistent and to create habitat complexity through LWD installations. Measurable performance standards include: diversion and streamflow amounts, and LWD habitat performance trends. Post- project monitoring will be conducted in the fall of 2017 immediately following project implementation, and again in the spring of 2018 after the project site has been subjected to high flows.

As required in Section B, Item 4, of the *General 401 Order*, monitoring reports shall be submitted documenting the achievement of performance standards and project goals.

Following the completion of each seasonal work period, and then upon project completion, a report will be submitted to the Regional Water Board. This report will include the findings that result from pre- and post-project monitoring. These findings should indicate the achievement of performance standards that are relative to the project goals. Each report will include the following information:

- a. Summary of findings
- b. Identification and discussion of problems with achieving performance standards
- c. Proposed corrective measures as needed (requires Regional Water Board approval)
- d. Monitoring Data

A Notice of Completion (NOC) shall be submitted by the applicant no later than 30 days after the project has been completed. A complete NOC includes at a minimum: photographs with a descriptive title, the date each photograph was taken, the name of the photographic site, the WDID number indicated above, and success criteria for the project. The NOC shall demonstrate that the project has been carried out in accordance with the project description as provided in the applicant's NOI. Please include the project name and WDID number with all future inquiries and document submittals. Document submittals shall be made electronically to: NorthCoast@waterboards.ca.gov.

The State Water Resources Control Board General 401 Order can be found here: http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/shrpcert032713.pdf.

Please call Jake Shannon at (707) 576-2673 if you have any questions.

Sincerely,

Matthias St. John
Executive Officer

161107_JJS_dp_KettleSprings_NOA

cc: Amy Henderson, California Department of Fish & Wildlife
amy.henderson@wildlife.ca.gov
Cameron Purchio, Army Corps of Engineers
cameron.r.purchio@usace.army.mil
Tuliyani Potts, Alpineworks Consulting
tuli@alpineworks.com