



Central Valley Regional Water Quality Control Board

13 December 2019

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

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, WQID NO. 5A52CR00197

On 13 November 2019, U.S. Fish and Wildlife Service (Applicant) filed a Notice of Intent (NOI) requesting coverage under the 27 March 2013 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 (General Certification Order) for the North Fork Battle Creek Barrier Modification and Fish Passage Improvement Project – Upper Barrier Site (Project). After review of the NOI and the supplemental material submitted by the applicant, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has determined that the Project qualifies for enrollment under the General Certification Order.

This Notice of Applicability is being issued under the General Certification Order pursuant to Section 3838 of the California Code of Regulations.

A copy of the General Certification Order is enclosed. The General Certification Order may also be accessed on the [State Water Resources Control Board's Clean Water Act Section 401 – Certification and Wetlands Program Web Page](http://www.waterboards.ca.gov/water_issues/programs/cwa401/generalorders_wb.shtml) (http://www.waterboards.ca.gov/water_issues/programs/cwa401/generalorders_wb.shtml)

The Project must proceed in accordance with the requirements contained in this Notice of Applicability and General Certification Order. Coverage under the General Certification Order is no longer valid if the Project, as described, is modified.

PROJECT DESCRIPTION

The purpose of the North Fork Battle Creek Barrier Modification and Fish Passage Improvement Project – Upper Barrier Site is to improve upstream passage for adult Chinook salmon and steelhead at the Upper Barrier site located in Eagle Canyon on North Fork Battle Creek near Manton, California.

This Project objectives are to increase water depth at low flow fish passage flows; reduce channel velocity; reduce vertical drops; increase existing pools or create new pools; reduce the overall slope of the channel; and create variable swim paths.

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 (540 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 180 cubic 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 130 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.

Dewatering

Work within the creek will be completed in the dry during the regulatory approved low flow period. A diversion system will be installed prior to the start of instream work.

Site Access Roads

Access to the site will be along one of two existing access roads which may require improvement to accommodate large equipment and material delivery. Improvements to these existing access roads may involve additional rocking within the existing road prism, the construction of designated truck passing areas/turn outs and the replacement of existing culverts.

Specific site access is as follows:

1. The Yarder Option - Access is from 30105 Manton Road (the south access road) via a locked gate (latitude: 40.410992, longitude: -121.922137), along an existing, approximately 5,000 linear foot, 16-foot-wide access road which crosses one unculverted (exposed) ephemeral stream;
2. The Crane Option – Access is from 30464 Battle Creek Bottom Road (the north access road) via a locked gate (latitude: 40.437752, longitude: -121.918589), along an existing, approximately 5,000 linear foot, 12-foot-wide access road which crosses four culverted ephemeral streams.

The existing south access road is currently used by PG&E to access the Eagle Canyon Dam and is rocked in some locations. The contractor may need to add rock to some areas of the access road in order to support equipment and material delivery. Some work outside the road prism may be required in order to construct designated truck passing areas / turnouts. These turnouts will be flagged in the field and constructed outside of sensitive resource areas. Seasonal wetlands with potential large branchiopod habitat are located adjacent to the access road. An unvegetated ephemeral stream crosses the south access road and is exposed and unculverted. Work on the south access road would include installing up to 10 cubic yards of rock within other waters of the U.S. associated with this ephemeral stream in order to support construction equipment using the road. The rocking of the ephemeral stream (Site Access Road) will result in 118 square feet (0.003 acres) of permanent impacts. This is not a discharge to a special aquatic site or wetland.

Construction

A skyline yarding system could be installed with the boom on the western rim downstream of the Digger Creek confluence and the other end anchored to bedrock on the northern canyon wall located upstream of the Upper Barrier Site.

A crane may be used instead of a yarding system, with it placed as close to the western rim as possible. A crane will allow for more maneuverability and control for rock removal and rock placement during construction, which is a key component of the design.

Prior to construction, rockfall hazards will be mitigated using various techniques, including scaling rocks off the cliff and anchoring rocks using rock bolts, as described in the geologic report (CSA, 2016).

Description of Direct Impacts to Waters of the State

Total Project fill/excavation quantities for all impacts are summarized in Tables 1 and 2. Permanent impacts are categorized as those resulting in a physical loss in area and also those degrading ecological condition.

Table 1: Total Project Fill/Excavation Quantity for Temporary Impacts¹

Aquatic Resources Type	Acres	Cubic Yards	Linear Feet
Ditch	0.002		16
Ephemeral Stream			
Stream Channel	0.28	180	230

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	0.02	2	2

Approximate Timeframe of Project Implantation

July 1 through September 30, or October 14 with CDFW and NMFS approval.

Project Location

Address: Eagle Canyon on North Fork Battle Creek and Digger Creek, 15 river miles upstream from the Sacramento River, Manton, CA.

County: Shasta and Tehama Counties

Section 25, Township 30 North, Range 1 West, MDB&M.

Latitude: 40.425° and Longitude: -121.917°

Maps showing the Project location are found in Attachment A.

¹ Includes only temporary direct impacts to waters of the state and does not include area of temporary disturbance which could result in a discharge to waters of the state. Temporary impacts, by definition, are restored to pre-project conditions and therefore do not include a physical loss of area or degradation of ecological condition.

FINDINGS OF APPLICABILITY

This letter serves as formal notice that Order No. SB12006GN is applicable to this fish passage improvement project. Your waste discharge identification (WDID) number is 5A52CR00197.

REPORTING

A Notice of Completion (NOC) shall be submitted by the applicant no later than 30 days after the work has been completed. The NOC shall demonstrate that the work has been carried out in accordance with the description provided in the applicant's Notice of Intent.

Failure to comply with the terms and conditions of Order No. SB12006GN **may expose** U.S. Fish and Wildlife Service **to enforcement action pursuant to the Clean Water Act and California Water Code.**

If you require further assistance, please contact me by phone at (530) 224-4848 or by email at Daniel.Warner@waterboards.ca.gov. You may also contact Lynn Coster, Senior Environmental Scientist of the Storm Water and Water Quality Certification Unit, by phone at (530) 224-2437 or by email at Lynn.Coster@waterboards.ca.gov.

Original Signed by Bryan Smith
(for) Patrick Pulupa,
Executive Officer

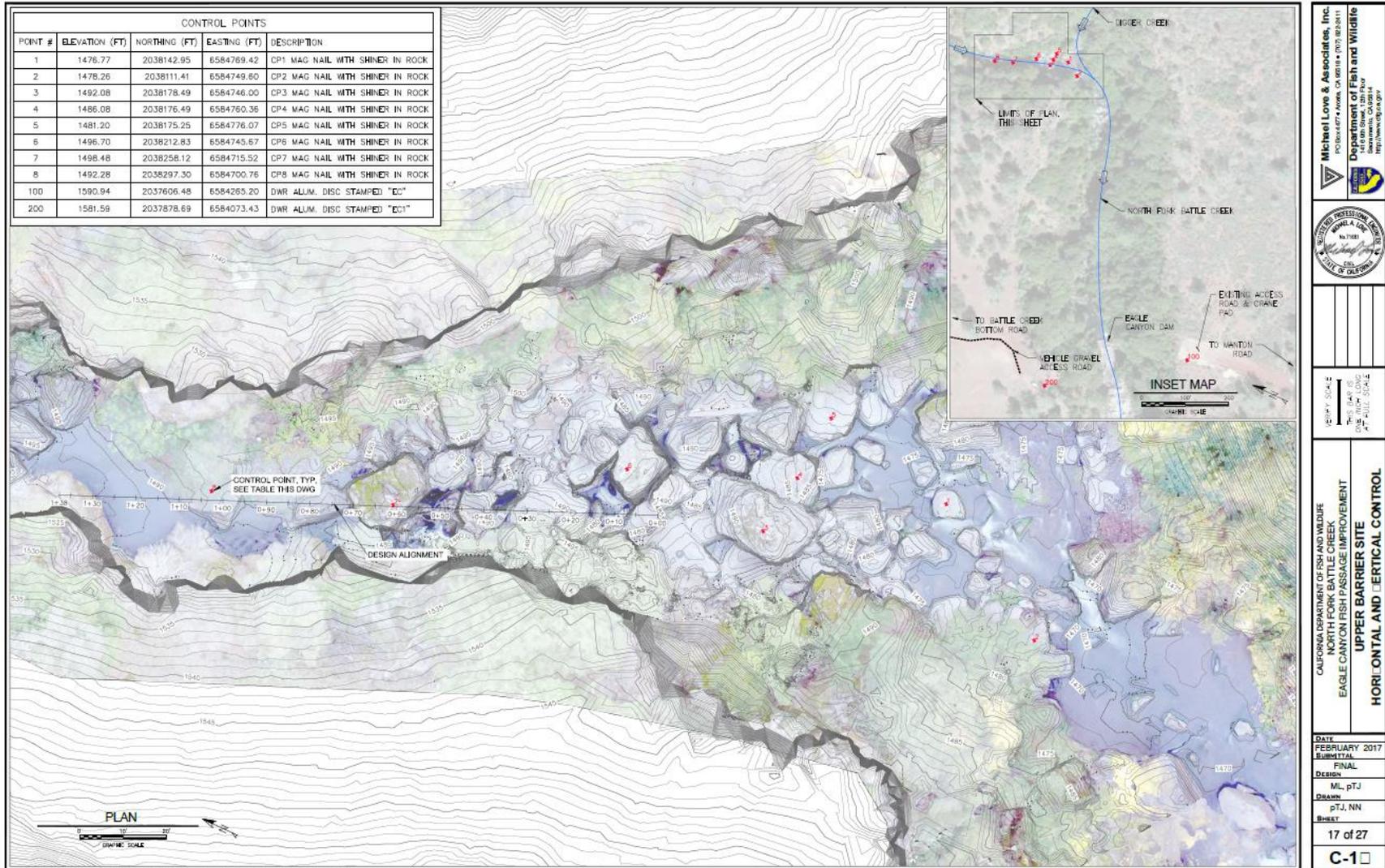
DLW: db

Enclosure: Amended Order for Clean Water Act Section 401 General Water Quality Certification for Small Habitat Restoration Projects File No. SB12006GN (Applicant Only)

cc: Mr. Bill Jennings, CALSPA, Stockton

cc 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.

Figure 1 - Site Location



Michael Love & Associates, Inc.
 P.O. Box 6277, Reno, CA 95716 • 707.328.8111

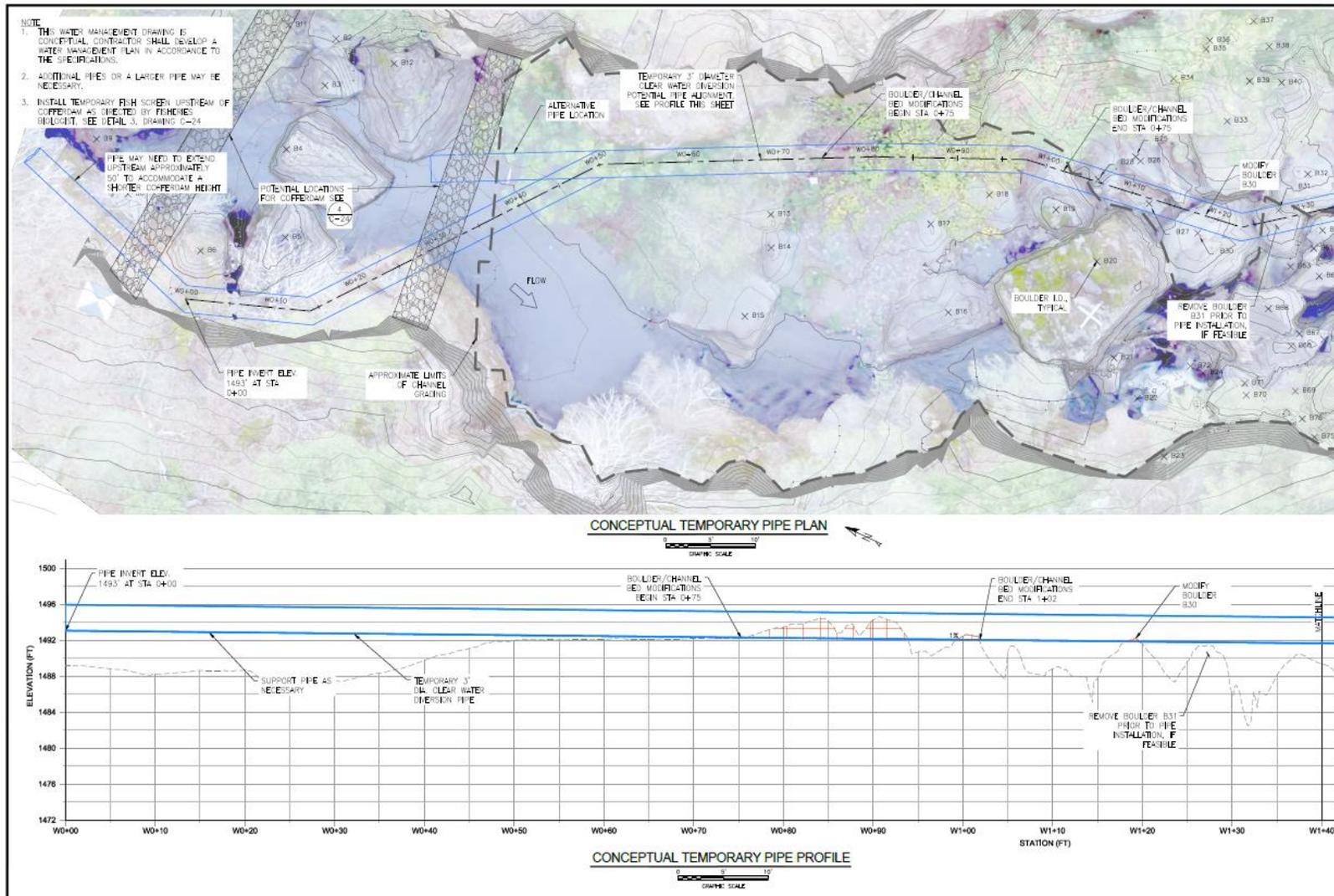
Department of Fish and Wildlife
 14100 Howe Ave., Suite 1200, Fair
 Meadows, California
 95940 • 916.439.2400

CERTIFIED PROFESSIONAL ENGINEER
 No. 1781
 Michael Love
 State of California

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
 NORTH FORK BATTLE CREEK
 EAGLE CANYON FISH PASSAGE IMPROVEMENT
 UPPER BARRIER SITE
 HORIZONTAL AND VERTICAL CONTROL

DATE: FEBRUARY 2017
 SUBMITTAL
 DESIGN
 ML, pTJ
 DRAWN
 pTJ, NN
 SHEET:
 17 of 27
C-1

Figure 2 - Water Diversion Pipe and Cofferdam Location



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Michael Love & Associates, Inc.
 1000 West 47th Avenue, Suite 100, Denver, CO 80211
 (303) 733-1111
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Department of Fish and Wildlife
 1600 South Broadway, Suite 100
 Denver, CO 80202
 (303) 861-3000

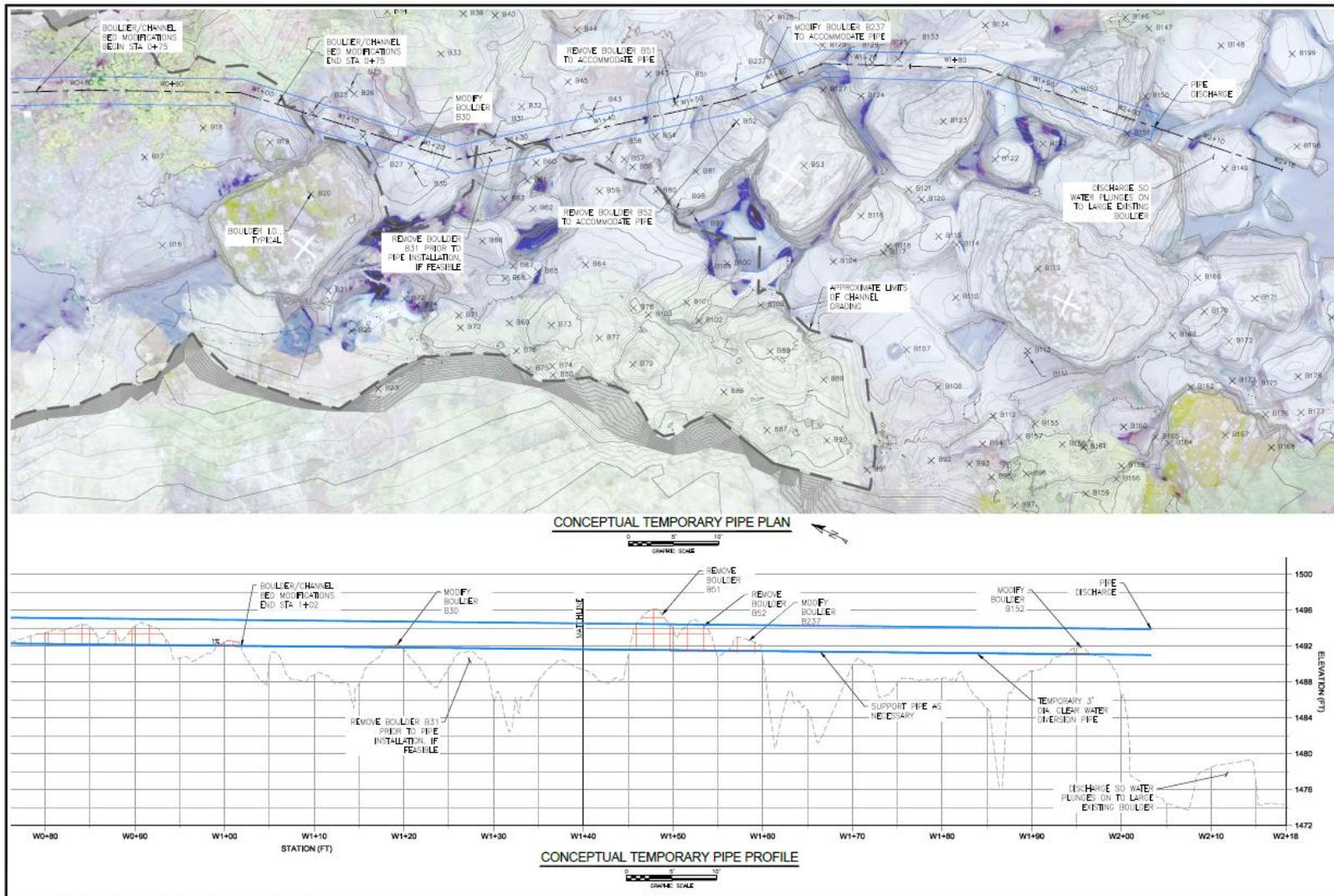
REGISTERED PROFESSIONAL ENGINEER
 No. 15781
 State of Colorado

SCALE: 1" = 40' (PLAN)
 1" = 10' (PROFILE)

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
 NORTH FORK BATTLE CREEK
 EAGLE CANYON FISH PASSAGE IMPROVEMENT
 UPPER BARRIER SITE
 WATER MANAGEMENT 1 OF 1

DATE: FEBRUARY 2017
 REVISION:
 DESIGN: ML, pTJ
 DRAWN: pTJ, NN
 SHEET: 18 of 27
 C-1

Figure 3 – Water Diversion Pipe Location



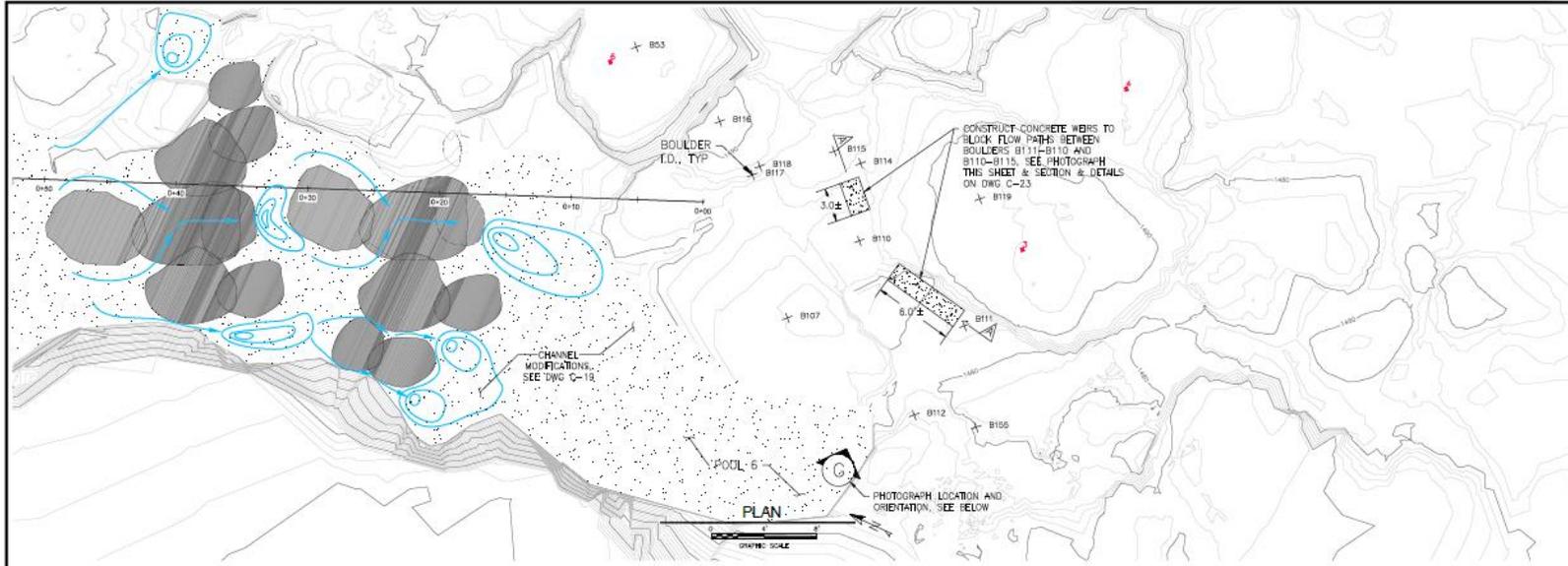
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Michael Love & Associates, Inc.
 10004477 Avenue, Colorado Springs, CO 80901
 Department of Fish and Wildlife
 1415 North Street, 1st Floor
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 Fax: 970.226.8111

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
 NORTH FORK BATTLE CREEK
 EAGLE CANYON FISH PASSAGE IMPROVEMENT
 UPPER BARRIER SITE
 WATER MANAGEMENT

DATE: FEBRUARY 2017
 SUBMITTAL: FINAL
 DESIGN: ML, pTJ
 DRAWN: pTJ, NN
 SHEET: 19 of 27
 C-1

Figure 4 – Weir Locations



PHOTOGRAPH G EXISTING CONDITIONS
 NOT TO SCALE



PHOTOGRAPH G EXISTING CONDITIONS WITH (N) WEIR
 NOT TO SCALE

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 Department of Fish and Wildlife
 1415 9th Street, 1st Floor
 Sacramento, CA 95833

REGISTERED PROFESSIONAL ENGINEER
 No. 7881
 State of California

DATE: FEBRUARY 2017
 SUBMITTAL: FINAL
 DESIGN: ML, pTJ
 DRAWN: pTJ, NN
 SHEET: 25 of 27
 C- []

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
 NORTH FORK BATTLE CREEK
 EAGLE CANYON FISH PASSAGE IMPROVEMENT
 UPPER BARRIER SITE
 EIR CONSTRUCTION PLAN & PHOTOS

GRAPHIC SCALE
 1" = 100'
 THIS DRAWING IS
 THE PROPERTY OF
 MICHAEL LOVE & ASSOCIATES, INC.

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