

State Water Resources Control Board

July 28, 2017

Patty Forbes
California Department of Fish and Wildlife
Watershed Restoration Grant Branch
1416 9th Street, Room 1266
Sacramento, CA 95814

Dear Patty Forbes:

RECEIVED

AUG 02 2017

WATERSHED RESTORATION
GRANTS BRANCH

RE: CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER FOR THE 2016 Fish Habitat Restoration Project for 2017 (SWRCB FILE # SB17006IN)

Enclosed please find a CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER, authorized by State Water Resources Control Board Acting Executive Director, Mr. Michael Lauffer. This Order is issued to the California Department of Fish and Wildlife (CDFW) for the 2016 Fish Habitat Restoration Project for 2017 (Project). Attachments A through F of the Enclosure are also part of the Order.

This Order is issued in response to an application submitted by CDFW for proposed Project discharges to waters of the state, to ensure that the water quality standards for all waters of the state impacted by the Project are met. You may proceed with your Project according to the terms and conditions of the enclosed Order.

If you require further assistance, please contact me by phone at 916 341-5462 or by email at Brendan.reed@waterboards.ca.gov. You may also contact Bill Orme, Chief of the Water Quality Certification and Wetlands Unit, by phone at (916) 341-5464 or by email at Bill.Orme@waterboards.ca.gov.

Sincerely,



Brendan Reed
Environmental Scientist
Division of Water Quality – Water Quality Certification and Wetlands Unit
State Water Resources Control Board

Enclosures (1): Order for 2016 Fish Habitat Restoration Project for 2017

cc: [Via email only] (w/ enclosure):

Jason Brush
Chief, Wetlands Regulatory Office
(WTR-8)
U.S. Environmental Protection Agency, Region 9
Brush.Jason@epa.gov

Ruth Valenzuela
District Director
Assembly Member Jim Wood, District 2
Ruth.Valenzuela@asm.ca.gov

Tom Weseloh, Chief Consultant
Joint Committee of Fisheries and Aquaculture
Senator Mike McGuire, Chair
Tom.weseloh.ca.gov

Justin Yee
South Pacific Division, San Francisco District
U.S. Army Corps of Engineers
Justin.yee@usace.army.mil

Crystal Huerta
South Pacific Division, Los Angeles District
U.S. Army Corps of Engineers
Crystal.huerta@usace.army.mil

Leif Goude U.S. Fish & Wildlife Service, Sacramento
Leif_goude@fws.gov

Lynn Roberts
Fish & Wildlife Service, Arcata
Lynn_roberts@fws.gov

Lana Chang
U.S. Fish and Wildlife Service, Ventura
Lena.chang@fws.gov

Julie Weeder
National Oceanic and Atmospheric Administration
Julie.weeder@noaa.gov

cc: Continued on next page

cc: (Continued)

Jay Ogawa
National Oceanic and Atmospheric Administration
Jay.ogawa@noaa.gov

Karen Larsen
Deputy Director for Water Quality
State Water Resources Control Board
Karen.Larsen@waterboards.ca.gov

CWA Section 401 WQC Program
Division of Water Quality
State Water Resources Control Board
Stateboard401@waterboards.ca.gov

Stephen Bargsten
Program Manager
North Coast Regional Water Quality Control Board
Stephen.Bargsten@waterboards.ca.gov

Phil Hammer
Program Manager
Central Coast Regional Water Quality Control Board
Phillip.Hammer@waterboards.ca.gov

LB Nye
Program Manager
Los Angeles Regional Water Quality Control Board
LB.Nye@waterboards.ca.gov



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER

Effective Date: July 28, 2017

Program Type: Restoration

Reg. Meas. ID:	412515
Place ID:	834241
SWRCB ID:	SB17006IN
USACOE#:	RGP 78: SPL- 2003-01123- BAH
USACOE#:	RGP 12" SPL- 2003-01123- BAH

Project Type: Ecological Aquatic/Stream/Habitat Restoration

Project: 2016 Fish Habitat Restoration Project for 2017 (Project)

Applicant: California Department of Fish and Wildlife
Applicant Contact: Patty Forbes
Watershed Restoration Grant Branch
1416 9th Street, Room 1266
Sacramento, CA
Phone: (916) 327-8842
Email: patty.forbes@wildlife.ca.gov

Applicant's Agent: Karen Carpio
1416 9th Street, Room 1266
Sacramento, CA 95814
Phone: (916) 327-8658
Email: Karen.carpio@wildlife.ca.gov

State Water Board Staff: Brendan Reed
Environmental Scientist
P.O. Box 100
Sacramento, CA 95812-0100
Phone: (916) 341-5462
Email: Brendan.Reed@waterboards.ca.gov

State Water Board Contact Person:

If you have any questions, please call State Water Resources Control Board (State Water Board) Staff listed above or (916) 341-5478 and ask to speak with the Water Quality Certification and Wetlands Unit Program Manager.

Table of Contents

I. Order.....3
II. Public Notice3
III. Project Purpose.....3
IV. Project Description3
V. Project Location3
VI. Project Impact and Receiving Waters Information.....3
VII. Description of Direct Impacts to Waters of the State.....4
VIII. Avoidance and Minimization.....4
IX. Compensatory Mitigation.....5
X. California Environmental Quality Act (CEQA).....5
XI. Petitions for Reconsideration.....5
XII. Fees Received5
XIII. Conditions5
XIV. Water Quality Certification..... 13

- Attachment A** Project Map
- Attachment B** Receiving Waters, Impact and Restoration Information
- Attachment C** CEQA Findings
- Attachment D** Signatory Requirements
- Attachment E** Certification Deviation Procedures
- Attachment F** Notification and Reporting
- Attachment G** Mitigation Measures, Monitoring and Reporting Program for the 2016 Fish Habitat Restoration Project (MMRP)

I. Order

This Clean Water Act (CWA) section 401 Water Quality Certification action and Order (Order) and attachments A through F is issued at the request of the California Department of Fish and Wildlife (herein after Permittee) for the Project. This Order is for the purpose described in the application and supplemental information submitted by the Permittee. The application was received on March 31, 2017. The application was deemed complete on May 11, 2017. Prior to receiving a complete application, State Water Board staff issued a notice of incomplete application and the Permittee responded to the request for application information on the following dates (Table 1).

Table 1: Record of Notice(s) of Incomplete Application	
Date of Notice of Incomplete Application	Date all requested information was received.
5/1/2017	5/9/2017

II. Public Notice

The State Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 from May 11, 2017 to June 1, 2017.

III. Project Purpose

The purpose of the Project is to restore anadromous fisheries habitat in non-tidal reaches of rivers and streams, improve watershed conditions impacting salmonid streams, and improve the survival, growth, migration, and reproduction of anadromous fish.

IV. Project Description

The Permittee allocates grant funds through the Fish Habitat Restoration Project to grantees to restore degraded anadromous fish habitat in coastal streams. Restoration projects must be consistent with procedures found in the Permittee’s “California Salmonid Stream Habitat Restoration Manual.” The Permittee manages an annual grant cycle initiated in the spring of each year.

The Project supports a variety of projects from sediment reduction to watershed education throughout coastal California. Funded projects must be implemented in two to four years, and most of the habitat restoration activities take place during the dry summer season. The majority of the funding is awarded for habitat restoration projects that improve fish shelter, spawning gravels, and pool habitat. These habitat restoration activities conform to the mandates of the Fish and Game Code and Public Resources Code.

V. Project Location

The Project occurs in various coastal streams in the following counties: Del Norte, Humboldt, Mendocino, Santa Barbara, Santa Cruz, Siskiyou, Sonoma and Ventura County. A map showing the Project locations is found in Attachment A of this Order.

VI. Project Impact and Receiving Waters Information

The Project is located within the jurisdiction of the North Coast, Central Coast, and Los Angeles Regional Water Quality Control Boards (collectively Regional Water Boards).

Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the applicable water quality control plans (Basin Plan) for the regions and other plans and policies which may be accessed online at: http://www.waterboards.ca.gov/plans_policies/. The Basin Plans include water quality standards, which consist of existing and potential beneficial uses of waters of the state, water quality objectives to protect those uses, and the state and federal antidegradation policies.

It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.

Project impact and receiving waters information can be found in Attachment B. Table 1 of Attachment B shows the receiving waters and beneficial uses of waters of the state impacted by the Project. Individual impact location and quantity is shown in Table 2 of Attachment B.

VII. Description of Direct Impacts to Waters of the State

This Order authorizes direct permanent and temporary impacts to waters of the state associated with the Project to streams and riparian habitat. Project activities that will result in impacts to waters of the state include: (1) installation of large woody debris, log structures, boulder structures, and other structures related to in-stream habitat improvements; (2) removal of fish passage barriers; (3) placement of new non-barrier stream crossings; (4) stabilization of stream banks; (5) decommissioning of roads within waters of the state; (6) and restoration of riparian habitat. Individual project impact locations and quantities are shown in Table 2 of Attachment B.

Total Project fill/excavation quantities for all 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 only.

Table 2: Total Project Fill/Excavation Quantity ¹									
Aquatic Resource Type	Temporary Impact ²			Permanent Impact					
				Physical Loss of Area			Degradation of Ecological Condition Only		
	Acres	CY	LF	Acres	CY	LF	Acres	CY	LF
Riparian Zone	26.07	0	14,846	0.483	0	19,993	0	0	0
Stream Channel	5.039	0	78,541	3.090	0	12,763	0	0	0

VIII. Avoidance and Minimization

Projects receiving certification from the State Water Board that authorize impacts to waters of the state must demonstrate the Project design has first avoided and then minimized impacts to waters of the state to the maximum extent practicable. Adequate avoidance and minimization

¹ Cubic Yards (CY); Linear Feet (LF)

² Includes only temporary direct impacts to waters of the state and does not include upland areas of temporary disturbance which could result in a discharge to waters of the state.

measures to waters of the state are required by the Project Mitigated Negative Declaration (MND). These measures can be found in Attachment G of this Order, the Mitigation Measures, Monitoring and Reporting Program for the 2016 Fish Habitat Restoration Project (MMRP). The minimization measures generally focus on preventing wastes from entering waters of the state by implementing various best management practices.

IX. Compensatory Mitigation

No compensatory mitigation was required for permanent impacts because the Project is a fisheries restoration project that results in a net benefit to water resources.

X. California Environmental Quality Act (CEQA)

On January 25, 2017, the Permittee, as lead agency, adopted an initial study/mitigated negative declaration (IS/MND) (State Clearinghouse (SCH) No. 2016122052) for the Project and filed a Notice of Determination (NOD) at the SCH on January 25, 2017. Pursuant to CEQA, the State Water Board has made Findings of Facts (Findings) which support the issuance of this Order and are included in Attachment C.

XI. Petitions for Reconsideration

Any person aggrieved by this action may petition the State Water Board to reconsider this Order in accordance with California Code of Regulations, title 23, section 3867. A petition for reconsideration must be submitted in writing and received within 30 calendar days of the issuance of this Order.

XII. Fees Received

An application fee of \$ 200.00 was received on March 31, 2017. The fee amount was determined as required by California Code of Regulations, title 23, sections 3833(b)(3) and 2200(a)(3), and was calculated as category D - Ecological Restoration and Enhancement Projects (fee code 85) with the dredge and fill fee calculator.

XIII. Conditions

The State Water Board has independently reviewed the record of the Project to analyze impacts to water quality and designated beneficial uses within the watersheds of the Project. In accordance with this Order, the Permittee may proceed with the Project under the following terms and conditions:

A. Authorization

Impacts to waters of the state shall not exceed quantities shown in Table 2.

B. Reporting and Notification Requirements

The following section details the reporting and notification types and timing of submittals. Requirements for the content of these reporting and notification types are detailed in Attachment F, including specifications for photo and map documentation during the Project.

Written reports and notifications must be submitted using the Reporting and Notification Cover Sheet located in Attachment F, which must be signed by the Permittee or an authorized representative.

1. Project Reporting

- a. **Annual Reporting:** The Permittee shall submit an Annual Report each year on anniversary of the date of this Order. Annual reporting shall continue until a Notice of Project Complete Letter is issued to the Permittee.

2. Project Status Notifications

- a. **Commencement of Construction:** The Permittee shall submit a Commencement of Construction Report prior to start of initial ground disturbance activities annually. The Commencement of Construction Report shall list the expected start dates for each individual project approved by this order.
- b. **Request for Notice of Completion of Discharges Letter:** The Permittee shall submit a Request for Notice of Completion of Discharges Letter following completion of active Project construction activities. This request shall be submitted to the State Water Board staff within thirty (30) days following completion of all Project construction activities. Upon acceptance of the request, State Water Board staff shall issue a Notice of Completion of Discharges Letter to the Permittee, which will end the active discharge period and associated annual fees.
- c. **Request for Notice of Project Complete Letter:** The Permittee shall submit a Request for Notice of Project Complete Letter when construction and/or any post-construction monitoring is complete,³ and no further Project activities will occur. This request shall be submitted to State Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request, the State Water Board staff shall issue a Notice of Project Complete Letter to the Permittee which will end the post discharge monitoring period and associated annual fees.

3. Conditional Notifications and Reports: The following notifications and reports are required as appropriate.

a. Accidental Discharges of Hazardous Materials⁴

Following an accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material, the following applies (Wat. Code, § 13271):

- i. As soon as (A) Permittee has knowledge of the discharge or noncompliance, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures then:
- first call – 911 (to notify local response agency)
 - then call – Office of Emergency Services (OES) State Warning Center at: (800) 852-7550 or (916) 845-8911

³ Completion of post-construction monitoring shall be determined by State Water Board staff and shall be contingent on successful attainment of restoration and mitigation performance criteria.

⁴ "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. (Health & Saf. Code, § 25501.)

- Lastly follow the required OES procedures as set forth in:
http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill_Booklet_Feb2014_FINAL_BW_Acc.pdf
 - ii. Following notification to OES, the Permittee shall notify State Water Board, as soon as practicable (ideally within 24 hours). Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.
 - iii. Within five (5) working days of notification to the State Water Board, the Permittee must submit an Accidental Discharge of Hazardous Material Report.
- b. Violation of Compliance with Water Quality Standards:** The Permittee shall notify the State Water Board of any event causing a violation of compliance with water quality standards. Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.
- i. Examples of noncompliance events include: lack of storm water treatment following a rain event, discharges causing a visible plume in a water of the state, and water contact with uncured concrete.
 - ii. This notification must be followed within three (3) working days by submission of a Violation of Compliance with Water Quality Standards Report.
- c. In-Water Work**
- i. The Permittee shall notify the State Water Board at least forty-eight (48) hours prior to initiating work in water or stream diversions. Notification may be via telephone, e-mail, delivered written notice, or other verifiable means.
 - ii. Within three (3) working days following completion of work in water or stream diversions, an In-Water Work/Diversions Water Quality Monitoring Report must be submitted to State Water Board staff.
- d. Modifications to Project**
- Project modifications may require an amendment of this Order. The Permittee shall give advance notice to State Water Board staff if Project implementation as described in the application materials is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority by submitting a Modifications to Project Report. The Permittee shall inform State Water Board staff of any Project modifications that will interfere with the Permittee's compliance with this Order. Notification may be made in accordance with conditions in the certification deviation section of this Order.

C. Water Quality Monitoring

1. **General:** If surface water is present, continuous visual surface water monitoring shall be conducted to detect accidental discharge of construction related pollutants (e.g. oil and grease, turbidity plume, or uncured concrete).
2. **Accidental Discharges/Noncompliance:** Upon occurrence of an accidental discharge of hazardous materials or a violation of compliance with a water quality standard, State

Water Board staff may require water quality monitoring based on the discharge constituents and/or related water quality objectives and beneficial uses.

3. In-Water Work or Diversions:

A Water quality monitoring plan shall be submitted to State Water Board staff 30 (thirty) days prior to commencement of a project that involves in-water work or construction dewatering or diversions. The Water quality monitoring plan shall be in conformance with the applicable Regional Water Quality Control Board's basin plan and provide for monitoring for appropriate parameters.

D. Standard

1. This Order is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330, and California Code of Regulations, title 23, chapter 28, Article 6 commencing with section 3867. Additionally, the State Water Board reserves the right to suspend, cancel, or modify and reissue this Order, after providing notice to the Permittee, if the State Water Board determines that: the Project fails to comply with any of the conditions of this Order; or, when necessary to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) or federal Clean Water Act section 303 (33 U.S.C. § 1313). For purposes of Clean Water Act section 401(d), the condition constitutes a limitation necessary to assure compliance with water quality standards and appropriate requirements of state law.
2. This Order is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent certification application was filed pursuant to subsection 3855(b) of chapter 28, title 23 of the California Code of Regulations, and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. This Order is conditioned upon total payment of any fee required under title 23 of the California Code of Regulations and owed by the Permittee.
4. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under state and federal law. For purposes of Clean Water Act, section 401(d), the applicability of any state law authorizing remedies, penalties, processes, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Order.

E. General Compliance

1. Failure to comply with any condition of this Order shall constitute a violation of the Porter-Cologne Water Quality Control Act and the Clean Water Act. The Permittee and/or discharger may then be subject to administrative and/or civil liability pursuant to Water Code section 13385.

2. Permitted actions must not cause a violation of any applicable water quality standards, including impairment of designated beneficial uses for receiving waters as adopted in the Basin Plans by any applicable Regional Water Board or any applicable State Water Board (collectively Water Boards) water quality control plan or policy. The source of any such discharge must be eliminated as soon as practicable.
3. In response to a suspected violation of any condition of this Order, the State Water Board may require the holder of this Order to furnish, under penalty of perjury, any technical or monitoring reports the Water Boards deem appropriate, provide that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The additional monitoring requirements ensure that permitted discharges and activities comport with any applicable effluent limitations, water quality standards, and/or other appropriate requirement of state law.
4. The Permittee must, at all times, fully comply with engineering plans, specifications, and technical reports submitted to support this Order; and all subsequent submittals required as part of this Order. The conditions within this Order and Attachments supersede conflicting provisions within Permittee submittals.
5. This Order and all of its conditions contained herein continue to have full force and effect regardless of the expiration or revocation of any federal license or permit issued for the Project. For purposes of Clean Water Act, section 401(d), this condition constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements of state law.
6. The Permittee shall adhere to all requirements in the Mitigation Measures, Monitoring and Reporting Program for the 2016 Fish Habitat Restoration Project (MMRP) (January 25, 2017) which is incorporated herein by reference and any additional measures as outlined in Attachment C, CEQA Findings of Fact.
7. **Construction General Permit Requirement:** The Permittee shall maintain compliance with conditions described in, and required by, NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ; NPDES No. CAS000002).
8. The Permittee is responsible for ensuring each individual grantee implements their individual projects in accordance with this Order. The Permittee shall notify State Water Board staff of any instances of non-compliance in accordance with Part C of the Report and Notification Requirements found in Attachment E of this Order.

F. Administrative

1. Signatory requirements for all document submittals required by this Order are presented in Attachment D of this Order.
2. This Order does not authorize any act which results in the taking of a threatened, endangered or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050-2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531-1544).

If a "take" will result from any act authorized under this Order held by the Permittee, the Permittee must obtain authorization for the take prior to any construction or operation of the portion of the Project that may result in a take. The Permittee is responsible for meeting all requirements of the applicable endangered species act for the Project authorized under this Order.

3. The Permittee shall grant State Water Board staff, Regional Water Board staffs, or an authorized representative (including an authorized contractor acting as a Water Board representative), upon presentation of credentials and other documents as may be required by law, permission to:
 - a. Enter upon the Project or compensatory mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records are kept.
 - b. Have access to and copy any records that are kept and are relevant to the Project or the requirements of this Order.
 - c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order.
 - d. Sample or monitor for the purposes of assuring Order compliance.
4. A copy of this Order shall be provided to all individual Grantees, any consultants, contractors, and subcontractors working on individual projects. Copies of this Order shall remain at the Project site for the duration of this Order. The Permittee shall be responsible for work conducted by its consultants, contractors, and any subcontractors.
5. A copy of this Order must be available at the Project site(s) during construction for review by site personnel and agencies. All personnel performing work on the Project shall be familiar with the content of this Order and its posted location at the Project site.

G. Construction

1. Appropriate BMPs shall be implemented throughout Project areas as described in this Order. All BMP materials shall be on-site prior to initiation of construction activity and ready for use.
2. Restoration techniques shall be implemented according to the specifications in the *California Salmonid Stream Habitat Restoration Manual* (Fourth Edition, July 2010).
3. All work areas shall be effectively isolated from stream flows using suitable control measures prior to commencement of any in-water work. The diverted stream flow shall not be contaminated by construction activities. Structures for isolating the in-water work area and/or diverting the stream flow (e.g., coffer dam, geo-textile silt curtain) shall be stabilized so that the disturbed areas will not come in contact with the stream flow.
4. In the event of rain, any in-water work area shall be temporarily stabilized before stream flow overtops or overwhelms the diversion structure. The stream bed shall be stabilized so that the disturbed areas will not come in contact with the stream flow.
5. Substances resulting from project activities that could be harmful to aquatic life shall not be discharged to waters of the state, including, but not limited to petroleum lubricants

and fuels, cured and uncured cements, epoxies, paints and other protective coating materials, and cement concrete or asphalt concrete.

6. Vehicles shall not be driven through, or equipment operated in, waters of the state, unless approved in advance by State or Regional Water Board staff. At a minimum, the limits of the worked area must be clearly flagged and spill prevention control equipment must be available in the immediate vicinity of the approved vehicle operation area.
7. Equipment shall not be fueled, maintained, parked or staged within or near any stream, channel, or water body margin in such a manner that petroleum products or other pollutants from the equipment may enter these areas under any flow conditions.
8. For projects that require vegetation of riparian areas or re-vegetation of disturbed areas, viable seeds or seedlings of native species from the same watershed, or the greater watershed, shall be used.
9. When a project is complete, any trash, excess material, or other debris must be removed from the work area and disposed of properly.

H. Mitigation for Temporary Impacts

1. The Permittee shall restore all areas of temporary impacts to waters of the state and all Project site upland areas of temporary disturbance which could result in a discharge of waters of the state in accordance with the individual project specifications which were submitted with the application received on March 31, 2017 and incorporated herein by reference.
2. The State Water Board may extend the monitoring period beyond requirements of the individual project specifications upon a determination by State Water Board Executive Director that the performance standards have not been met or are not likely to be met within the monitoring period.
3. If restoration of temporary impacts to waters of the state is not completed within ninety (90) days of the impacts, compensatory mitigation may be required to offset temporal loss of waters of the state.

Table 4: Required Project Mitigation Quantity for Temporary Impacts ⁵								
Aquatic Resource Type	Mit. Type ⁶	Units	Method ⁷					
			Est.	Re-est.	Reh.	Enh.	Pres.	Unknown
Riparian Zone	PR	Acres			26.07			
Riparian Zone	PR	LF			14846			
Stream Channel	PR	Acres			5.039			
Stream Channel	PR	LF			78541			

I. **Ecological Restoration and Enhancement:** The quantity of waters of the state permanently gained by the Project is shown in Table 4.

Table 5: Total Ecological Restoration and Enhancement Quantity ⁸							
Aquatic Resource Type	Res. ⁹ Type	Units	Method ¹⁰				
			Est.	Re-est.	Reh.	Enh.	Pres.
Stream Channel	PR	Acres	0	536.96	12.43	101.02	4.97

⁵ For Staff use only: Record quantities in CIWQS table side B for mitigation for temporary impacts and for permanent degradation of ecological condition; ecological restoration/enhancement projects.

⁶ Mitigation type for onsite restoration of temporary impacts is Permittee Responsible (PR).

⁷ Methods: establishment (Est.), reestablishment (Re-est.), rehabilitation (Reh.), enhancement (Enh.), preservation (Pres.). Unknown applies to advance credits with an unknown method and or location.

⁸ For Staff use only: Record quantities in CIWQS mitigation/restoration table side B for mitigation for temporary impacts and for permanent degradation of ecological condition; ecological restoration/enhancement projects.

⁹ Restoration (Res.)

¹⁰ Methods: establishment (Est.), re-establishment (Re-est.), rehabilitation (Reh.), enhancement (Enh.), preservation (Pres.).

Stream Channel	PR	LF	0	1168476	27080	220315	10824
Riparian Zone	PR	Acres			191	3.98	
Riparian Zone	PR	LF			25920	8765	

J. Certification Deviation

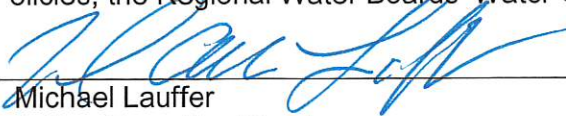
1. Minor modifications of Project locations or predicted impacts may be necessary as a result of unforeseen field conditions, necessary engineering re-design, construction concerns, or similar reasons. Some of these prospective Project modifications may have impacts on water resources. Some modifications of Project locations or predicted impacts may qualify as Certification Deviations as set forth in Attachment E. For purposes of this Certification, a "Certification Deviation" is a Project locational or impact modification that does not require an immediate amendment of the Order, because the State Water Board has determined that any potential water resource impacts that may result from the change are sufficiently addressed by the Order conditions and the CEQA Findings. After the termination of construction, this Order will be formally amended to reflect all authorized Certification Deviations and any resulting adjustments to the amount of water resource impacts and required compensatory mitigation amounts.
2. A Project modification shall not be granted a Certification Deviation if it warrants or necessitates changes that are not addressed by the Order conditions or the CEQA environmental document such that the Project impacts are not addressed in the Project's environmental document or the conditions of this Order. In this case a supplemental environmental review and different Order will be required.

XIV. Water Quality Certification

I hereby issue the Order for the 2016 Fish Habitat Restoration Project for 2017, SWRCB File # SB17006IN certifying that as long as all of the conditions listed in this Order are met, any discharge from the referenced Project will comply with the applicable provisions of Clean Water Act sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards).

The State Water Board will file a Notice of Determination (NOD) at the SCH within five (5) working days of issuance of this Order. This discharge is also regulated pursuant to State Water Board Water Quality Order No. 2003-0017-DWQ which authorizes this Order to serve as Waste Discharge Requirements pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.).

Except insofar as may be modified by any preceding conditions, all Order actions are contingent on: (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the conditions of this Order and the attachments to this Order; and, (b) compliance with all applicable requirements of Statewide Water Quality Control Plans and Policies, the Regional Water Boards' Water Quality Control Plans and Policies.



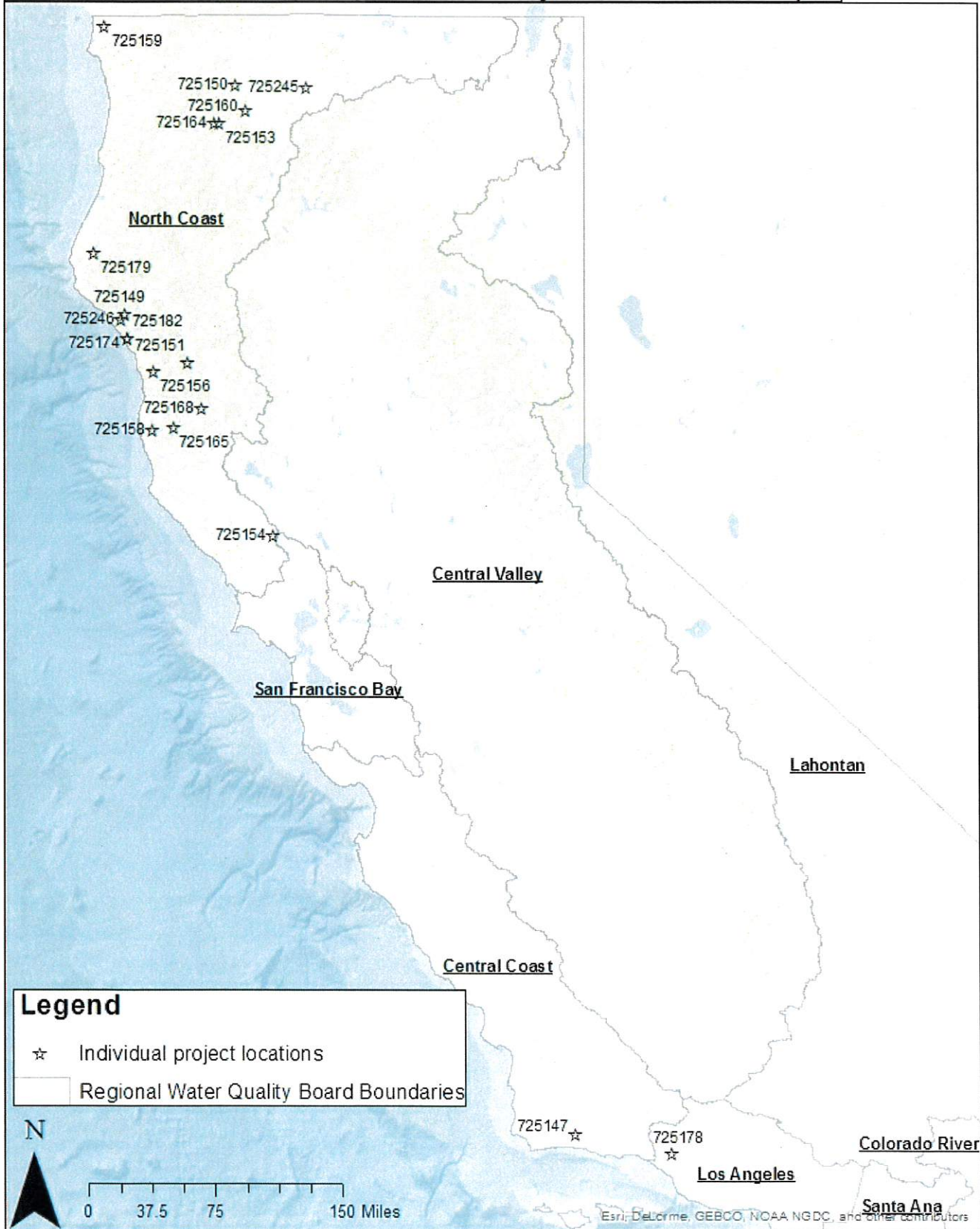
Michael Lauffer
Acting Executive Director
State Water Resources Control Board

7/28/17
Date

- Attachment A** Project Map
- Attachment B** Receiving Waters, Impacts and Restoration Information
- Attachment C** CEQA Findings
- Attachment D** Signatory Requirements
- Attachment E** Certification Deviation Procedures
- Attachment F** Notification and Reporting
- Attachment G** Mitigation Measures, Monitoring and Reporting for the 2016 Fish Habitat Restoration Project (MMRP)

(This page intentionally left blank)

2016 Fish Habitat Restoration Project for 2017 Map



(This page intentionally left blank.)

Receiving Waters

The following table shows the receiving waters associated with each impact site.

Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses
725147	Quiota Creek	Stream	314.40	Santa Ynez River, downstream	AGR, COLD, COMM, FRESH, GWR, IND, MIGR, MUN, PRO, RARE, REC1, REC2, SPWN, WARM, WILD
725149	Dinner Creek	Stream	111.32	South Fork Eel river (Benbow Hydrologic Subarea)	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA
725150	Mill-Shackleford Creek	Stream	105.42	Scott River (Scott Valley Hydrologic Subarea)	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA
725151	Woodman Creek	Stream	111.42	Middle Fork Eel River (Spy Rock Hydrologic Subarea)	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA
725153	Mid Klamath Tributaries, North Fork Salmon River Tributaries, Salmon River Tributaries, Scott River Tributaries, South Fork Salmon River Tributaries	Stream	105.20 105.30 105.40	Salmon River, Middle Klamath River, and Scott River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL
725154	Yellowjacket Creek	Stream	114.25	Middle Russian River (Geyserville Hydrologic Subarea)	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA
725156	Jack of Hearts Creek	Stream/Riparian	111.33	South Fork Eel River (Laytonville Hydrologic Subarea)	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA

Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses
725158	Little North Fork Big River	Stream	113.30	Big River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA
725159	Rowdy Creek	Stream	103.12	Smith River (Rowdy Creek Hydrologic Subarea)	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA
725160	French Creek	Stream/Riparian	105.42	Scott River (Scott Valley Hydrologic Subarea)	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA
725164	North Fork Salmon River	Stream	105.23	Salmon River (Sawyers Bar Hydrologic Subarea)	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA
725165	James Creek	Stream	113.30	Big River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA
725168	String Creek, Tartar Creek	Stream	111.62	Upper Main Eel River (Tomki Creek Hydrologic Subarea)	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA
725174	Anderson Creek	Stream	111.32	South Fork Eel river (Benbow Hydrologic Subarea)	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA
725178	San Antonio Creek	Riparian	180701010103	San Antonio Creek (Above Lion Creek)	MUN, IND, PROC, AGR, GWR, FRSH, WARM, COLD, WILD, MIGR, SPWN, WET
725179	Maple Creek, Oil Creek, Price Creek, Sweet Creek	Stream/Riparian	111.11	Lower Eel River (Ferndale Hydrologic Subarea)	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MAR, MIGR, SPWN, SHELL, EST, AQUA, CUL
725182	Anderson Creek	Stream/Riparian	111.32	South Fork Eel river (Benbow Hydrologic Subarea)	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA

Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses
725245	Shasta River	Stream	105.50	Shasta River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA
725246	Mattole River	Riparian	112.30	Mattole River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA

Individual Direct Impact Locations

The following table shows individual impact locations.

Table 2: Individual Direct Impact Information

Site ID	Latitude	Longitude	Project Name and Description	Direct Impact Duration	Fill/Excavation		Area & Length Restored		
					Acres	Linear Feet	Restoration Method	Acres	Linear Feet
725147	34.56013	-120.08518	Quitota Creek Fish Passage Improvement, Crossing 5 Project- The purpose of the project is replace an existing Arizona (fair weather) crossing that contains a blocked 16-inch diameter corrugated metal pipe culvert with a 59-foot free span bridge. This will restore fish access to 3.17 miles of stream with high-quality critical habitat for southern steelhead spawning, rearing and over-summering.	Temporary (stream)	0.12	211	Rehabilitation	0.12	211
				Permanent (Stream)	0	0	Re-establishment	7.68	16738
725149	40.093053	-123.93157	Dinner Creek Fish Passage Barrier Removal Project- Removal of three fish migration barriers, opening access to over 9,400 feet of spawning habitat in the Dinner Creek watershed. This will be accomplished by replacing three undersized culverts with fish friendly culverts.	Temporary (stream)	0.027	3696	Rehabilitation	0.027	3696
				Permanent (stream)	0	0	Re-establishment	1.29	2810
725150	41.56042	-122.98706	Scott River, Mill/Shackleford Creek Bridge Project- Eliminate a significant partial barrier to juvenile coho salmon providing unimpeded passage for all life stages at all flows by replacing the existing low water ford with a 66-foot prefabricated, free span, weathered steel, heavy-load, vehicle bridge. In addition, 1,050 feet of forest road connected to the road crossing will be decommissioned preventing road related impacts of mobilized sediment, substrate embeddedness.	Temporary (stream)	0.606	2640	Rehabilitation	0.606	2640
				Permanent (stream)	0	0	Re-establishment	3.64	7920

Table 2: Individual Direct Impact Information

Site ID	Latitude	Longitude	Project Name and Description	Direct Impact Duration	Fill/Excavation		Area & Length Restored		
					Acres	Linear Feet	Restoration Method	Acres	Linear Feet
725151	39.776662	-123.39083	Woodman Creek (Eel River) Railroad Crossing Fish Passage Project- Removal of the railroad crossing at Woodman Creek to restore fish passage and access to approximately 14 miles of salmonid habitat. The project will remove the Woodman Creek railroad crossing, restore the lower-most 500 feet of Woodman Creek's historic stream channel at its confluence with the mainstem Eel River by partially backfilling the existing Woodman Creek channel confluence that flows across bedrock cascades forming the barrier, and permanently dispose of approximately 30,000 cubic yards of excavated fill material.	Temporary (stream)	0.2	581	Rehabilitation	0.2	581
				Permanent (stream)	0	0	Re-establishment	33.94	73920
725153	41.31465	-123.12386	Mid-Klamath Tributary Fish Passage Improvement Project- Improve juvenile and adult salmonid fish passage to over 70 tributaries in the Middle Klamath, Salmon and Lower Scott River Subbasins through manual modification of seasonal barriers.	Temporary (stream)	3.306	73920	Rehabilitation	3.306	73920
				Permanent (stream)	0	0	Re-establishment	484.4	1056000
725154	38.634404	-122.66223	Yellowjacket Creek Fish Passage Improvement Project- The project will improve fish passage by constructing a series of boulder step-pools, and installing a new fish screen on the diversion at existing concrete weir structure. The project will restore fish access to 1.9 miles of high quality spawning and rearing habitat upstream of the barrier. A cone screen system designed to meet required fish screening criteria and maintain permitted water diversion rates.	Temporary (stream)	0.436	700	Rehabilitation	0.436	700
				Permanent (stream)	0	0	Re-establishment	4.61	10032
725156	39.715	-123.68722	Upper Jack of Hearts Creek Coho Habitat Restoration Project- Removal of two	Temporary (stream)	0.014	100	Rehabilitation	0.014	100

Table 2: Individual Direct Impact Information

Site ID	Latitude	Longitude	Project Name and Description	Direct Impact Duration	Fill/Excavation		Area & Length Restored		
					Acres	Linear Feet	Restoration Method	Acres	Linear Feet
			complete barriers in order to restore fish access to approximately 1,160 feet of Jack of Hearts Creek, and upgrade roads to prevent the direct delivery of 1,295 cubic yards of sediment.	Temporary (riparian)	0.61	163	Rehabilitation	0.61	163
			Little North Fork Big River Instream Coho Habitat Enhancement Project- The goal of this project is to improve habitat complexity, pool frequency, pool depth, and shelter values within the project reach. This goal will be achieved by installing at least 43 pieces of large wood and rootwads at 21 locations along a one mile reach of the Little North Fork Big River.	Permanent (stream)	0.018	570	Rehabilitation	0.53	1160
			Rowdy Creek Instream Habitat Enhancement Project- The purpose of the project is to improve spawning and rearing habitat for salmonids through pool retention, pool development and increased habitat complexity. This will be accomplished by installing 16-18 large woody debris structures along 1250 feet of Rowdy Creek. In addition, 500 native conifer trees will be planted to provide for future large wood recruitment.	Temporary (riparian)	2.87	354	Rehabilitation	2.87	354
			French Creek Main Channel and Off Channel Habitat Improvement and Monitoring- The objective to this project is to create 4 instream features and one 350 foot side channel within a 650 foot reach of French Creek. Instream features consist of 100 logs.	Permanent (stream)	0.0083	360	Enhancement	0.58	1267
725159	41.9339	-124.10509		Temporary (riparian)	0.63	166	Rehabilitation	0.63	166
725160	41.4	-122.9		NA	0	0	Enhancement (Riparian)	0.1	317

Table 2: Individual Direct Impact Information

Site ID	Latitude	Longitude	Project Name and Description	Direct Impact Duration	Fill/Excavation		Area & Length Restored		
					Acres	Linear Feet	Restoration Method	Acres	Linear Feet
			boulder rocks, and 80 cubic yards of spawning gravel. These structures will enhance spawning and rearing habitats by providing cover, increasing pool complexity, increasing pool depth and frequency, sorting and collecting spawning gravels. The project will also provide velocity refuge during peak winter flows for juvenile salmonids and migrating adult salmonids. In addition 320 native trees will be planted to enhance riparian cover, and for future wood recruitment.	Permanent (stream)	0.29	634	Enhancement	0.29	634
			Kelly Gulch Fisheries and Riparian Habitat Enhancement Phase II Project- The purpose of this project is to enhance off-channel habitat at the mouth of Kelly Gulch on the North Fork Salmon River by improving connectivity to and enhancing side channels, creating an alcove and an off-channel pond. Phase II is the restoration of the Kelly Gulch river bar, with plans to 1) enhance the river bar overflow channel by installing a large wood apex jam at the inlet; 2) excavate the overflow channel and create an alcove at the outlet; and 3) enhance the most up-river pond on the bar, known as Willow Pond, and the seasonal outlet of the pond.	Temporary	0	0	NA	0	0
725164	41.315324	-123.16853		Permanent (stream)	0.0229	1056	Re-establishment	1.4	1056
			James Creek Coho Stream Habitat Enhancement Project- The purpose of this project is to improve the complexity, frequency, and depth of pools in a 4,310 foot reach of James Creek by installing 29 structures containing 91 pieces of large woody debris (LWD).	Temporary	0	0	NA	0	0
725165	41.315324	-123.16853		Permanent (stream)	0.339	739	Enhancement	1.98	4310
725168	39.35285	-123.51032	String Creek Instream Steelhead Habitat	Temporary	0	0	NA	0	0

Table 2: Individual Direct Impact Information

Site ID	Latitude	Longitude	Project Name and Description	Direct Impact Duration	Fill/Excavation		Area & Length Restored		
					Acres	Linear Feet	Restoration Method	Acres	Linear Feet
			Enhancement Project - The purpose of the project is to improve habitat complexity, and pools within priority North Coast Steelhead recovery habitat. This will be accomplished through installing 11 large woody debris structures along 0.65 miles of String Creek and Tartar Creek.	Permanent (stream)	1.57	3432	Enhancement	1.57	3432
			Anderson Creek Habitat Enhancement Project for Coho Recovery Phase III - The objective of this project is to create 25 instream features consisting of 100 pieces of large woody debris within a 0.9-mile section of Anderson Creek. The addition of these structures will enhance spawning and rearing habitats by providing cover, increasing pool complexity, increasing pool depth and frequency, sorting and collecting spawning gravels, increasing the quality and quantity of rearing habitat within the project reach, and by providing velocity refuge during peak winter flows for juvenile salmonids and migrating adult salmonids.	Temporary	0	0	NA	0	0
725174	39.47438	-123.27256		Permanent (stream)	2.18	4752	Enhancement	2.18	4752
			Lower San Antonio Creek Arundo Eradication Project - The project will achieve the removal and ongoing herbicide treatments of 16 acres of invasive Arundo donax (Arundo) along lower San Antonio Creek, a tributary of the Ventura River in Ventura County. Once Arundo has been removed, 10 of the 16 acres will be replanted with native riparian vegetation.	Temporary (riparian)	16	3339	Enhancement	16	3339
725178	34.424964	-119.26105		Permanent (riparian)	0	0	NA	0	0
			Miller Riparian Restoration Project - Installation of 19,980 feet of fencing to exclude livestock from stream and riparian	Permanent (riparian)	0.46	19958	Rehabilitation	191	25920
725179	39.933037	-123.91298							

Table 2: Individual Direct Impact Information

Site ID	Latitude	Longitude	Project Name and Description	Direct Impact Duration	Fill/Excavation		Area & Length Restored		
					Acres	Linear Feet	Restoration Method	Acres	Linear Feet
			areas and installation of off-stream livestock watering stations. The project will create 191 acres of livestock-free riparian area, develop control fencing at two existing water trough sites, and develop 5 additional water trough sites.	Permanent (stream)	0.08	480	Rehabilitation	11.9	25920
			Anderson Creek Sediment Reduction and Coho Recovery Project Phase 2- The purpose of the project is to decommission roads and treat sediment sources in the Anderson Creek watershed. The project will implement 18 site specific road treatments for road decommissioning along 1.33 miles of road, which will prevent sediment from entering Anderson Creek.	Temporary (riparian)	5.96	10824	Rehabilitation	5.96	10824
725182	34.424964	-119.26105		Permanent (Stream)			Preservation	4.97	10824
			Montague Water Conservation District - Dwinnell Enhancement Project- This project improves Montague Water Conservation District's (MWCD) infrastructure to allow for increased release rates from Dwinnell Reservoir to the Shasta River, improve water quality and temperature of water released to the Shasta River below Dwinnell Dam by incorporating cold groundwater and develop a dependable cold water habitat fed by MWCDs seeps.	Temporary (stream)	0.33	600	Rehabilitation	0.33	600
			Mattole Storage and Forbearance 2017-2020- This project will restore, improve, and protect juvenile anadromous fish habitat and fish passage through installation of storage tanks totaling 50,000 gallons and placing restrictions on corresponding seasonal water rights to prevent summertime water diversion. The project will improve summer stream flows to provide connectivity between pools.	Temporary	0	0	NA	0	0
725245	41.541878	-122.37429		Permanent (stream)	0.01	106	Enhancement	92	200640
725246	40.0539	-123.9614		Permanent (riparian)	0.023	35	Enhancement	3.88	8448



(This page intentionally left blank.)

A. Environmental Review

On January 25, 2017, the California Department of Fish and Wildlife (CDFW), as lead agency, adopted an initial study/mitigated negative declaration (IS/MND) (State Clearinghouse (SCH) No. 2016122052) for the Project and filed a Notice of Determination (NOD) at the SCH on January 25, 2017. The State Water Board is a responsible agency under CEQA (Pub. Resources Code, § 21069) and in making its determinations and findings, must presume that CDFW's adopted environmental document comports with the requirements of CEQA and is valid. (Pub. Resources Code, § 21167.3.) The State Water Board has reviewed and considered the environmental document and finds that the environmental document prepared by CDFW addresses the Project's water resource impacts. (Cal. Code Regs., tit. 14, § 15096, subd. (f).) The environmental document includes the mitigation monitoring and reporting program (MMRP) developed by CDFW for all mitigation measures that have been adopted for the Project to reduce potential significant impacts. (Pub. Resources Code, § 21081.6, subd. (a)(1); Cal. Code Regs., tit. 14, § 15074, subd. (d).)

B. Incorporation by Reference

Pursuant to CEQA, these Findings of Facts (Findings) support the issuance of this Order based on the Project IS/MND, the application for this Order, and other supplemental documentation.

All CEQA project impacts, including those discussed in subsection C below, are analyzed in detail in the Project Final IS/MND which is incorporated herein by reference. The Project IS/MND is available at: <https://www.wildlife.ca.gov/Grants/FRGP/MND>. A hard copy of the IS/MND is available upon request by contacting staff at the State Water Board.

Requirements under the purview of the State Water Board in the MMRP are included in Attachment G of this Order.

The Permittee's application for this Order, including all supplemental information provided, is incorporated herein by reference.

C. Findings

The IS/MND describes the potential significant environmental effects to water resources that were mitigated in the IS/MND. Considering the whole of the record, the State Water Board makes the following findings:

- (1) Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and*
- (2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment. (Cal. Code Regs., tit. 14, § 15070.)*

a.i. Potential Significant Impact to Biological Resources:

The Project has the potential to significantly impact riparian, or other sensitive natural communities, identified in local or regional plans, policies and regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service. However, the Project will have less than significant effects; the following facts support this finding.

a.ii. Facts in Support of Finding:

The Project will have less than significant effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service. Project activities are designed to improve and restore stream habitat, and provide a long-term benefit to both anadromous salmonids and other fish and wildlife. The Project will be implemented in a manner that will avoid short-term adverse impacts to special status plants and wildlife are described in the Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (Appendix C of the IS/MND) and additionally in the MMRP (Appendix B of the IS/MND). The biological resources section of the MMRP proposes mitigation measures that are sufficient to reduce impacts to biological resources to a level that are less than significant. These measures are described in the following sections of the MMRP: IV. A. Biological Resources (1) through (19); IV. B. Specific Measures for Endangered, Rare, or Threatened Species That Could Occur at Specific Work Sites (1) through (14); IV. C. Riparian and Re-vegetation (1) through (10). In addition, there are conditions in the Order that require actions to be taken that will further reduce impacts to biological resources to a level that is less than significant. Further, conditions, outlined in section XII.G. (Construction Conditions) of the Order, help prevent erosion, turbidity, and pollutant discharges into waters of the state. Finally, conditions (Section XIII C. (Water Quality Monitoring)) that require visual water quality monitoring for the prevention of pollutant discharges into waters of the state.

b.i. Potential Significant Impact to Geology and Soils:

The project could result in potentially significant impact to soil erosions or the loss of topsoil. However, the Project will have less than significant effects; the following facts support this finding.

b.ii. Facts in Support of Finding:

The Project will result in a less than significant impact on soil erosions or the loss of topsoil. Implementation of the Project will contribute to an overall reduction in erosion and sedimentation. Restoring historic land surface profiles, planting riparian vegetation, and installing erosion reduction structures will prevent chronic erosion and sediment delivery to streams. Road improvements and decommissioning will involve removing multiple road fills and stream crossings to restore historic land surface profiles and reduce erosion and sediment delivery to streams. The potential of significant soil loss and erosion from construction activities will be reduced to less than significant through implementation of the mitigation measures in the geology and soils section of the MMRP: VI. Geology and Soils (1) through (13). Overall, project implementation, and proposed mitigation measures in the MMRP are sufficient to reduce geological impacts and impacts to soils a less than significant level. These include conditions, outlined in in section XII.G. (Construction Conditions) of the Order, help prevent erosion, turbidity, and pollutant discharges into waters of the state. In addition, conditions in Section XIII C. (Water Quality Monitoring) require visual water quality monitoring to prevent pollutant discharges from erosion and siltation into waters of the state.

c.i. Potential Significant Impact from Hazards and Hazardous Materials:

The Project has the potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accidental conditions involving the release of hazardous

materials into the environment. However, the Project will have less than significant effects; the following facts support this finding.

c.ii. Facts in Support of Finding:

The Project will have a less than significant impact on creating a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The hazards and hazardous materials section of the MMRP (VIII Hazards and Hazardous Materials, (1) through (14)) propose mitigation measures that will avoid impacts or reduce impacts from hazards and hazardous materials to a level that is less than significant. In addition, there are conditions in the Order that require actions to be taken that will further reduce impacts from hazards and hazardous materials to a level that is less than significant. These include conditions in section XII.G. (Construction) of the Order that help prevent erosions, turbidity, and pollutant discharges into waters of the state. Further, conditions in Section XIII C. (Water Quality Monitoring) require visual water quality monitoring for the prevention of pollutant discharges into waters of the state and conditions for reporting accidental discharges of hazardous materials into waters of the state.

d.i. Potential Significant Impact to Hydrology and Water Quality:

The Project could have the potential to significantly impact and violate water quality standards or waste discharge requirements, or otherwise substantially degrade water quality. However, the Project will have less than significant effects; the following facts support this finding.

d.ii. Facts in Support of Finding:

The Project will have a less than significant impact on water quality through violations of water quality standards or waste discharge requirements, or by substantially degrading water quality by depleting groundwater or interfering with groundwater recharge, and/or altering existing drainage causing erosion, siltation, or substantially increasing the rate or amount of flooding. There is the potential for minor short-term increases in turbidity during the installation of instream structures or removal of culverts. However, the hydrology and water quality section of the MMRP (XI. Hydrology and Water Quality, (1) through (11)) proposed mitigation measures that will reduce impacts to hydrology and water quality to a level that is less than significant. Some minor short-term increases in turbidity may occur as the streambed around instream structures adjusts during the first high stream flow event following project completion but this is not expected to produce an increase over background turbidity that substantially degrades water quality. In addition, there are conditions in the Order that will require actions be taken that will project water quality. These include conditions in section XII.G. (Construction) of the Order that help prevent erosions, turbidity, and pollutant discharges into waters of the state. Further, conditions in Section XIII C (Water Quality Monitoring) require visual water quality monitoring for the prevention of pollutant discharges into waters of the state and conditions for reporting accidental discharges of hazardous materials to waters of the state.

D. Determination

The State Water Board has determined that the Project, when implemented in accordance with the MMRP and the conditions in this Order, will not result in any significant adverse water resource impacts. (Cal. Code Regs., tit. 14, § 15096, subd (h).) The State Water

Board will file a NOD with the SCH within five (5) working days from the issuance of this Order. (Cal. Code Regs., tit. 14, § 15096, subd. (i).)

Attachment D
Signatory Requirements

(This page intentionally left blank)

SIGNATORY REQUIREMENTS

*All Documents Submitted In Compliance With This Order
Shall Meet The Following Signatory Requirements:*

1. All applications, reports, or information submitted to the State Water Resources Control Board (State Water Board) must be signed and certified as follows:
 - a) For a corporation, by a responsible corporate officer of at least the level of vice-president.
 - b) For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
 - c) For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.
2. A duly authorized representative of a person designated in items 1.a through 1.c above may sign documents if:
 - a) The authorization is made in writing by a person described in items 1.a through 1.c above.
 - b) The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
 - c) The written authorization is submitted to the State Water Board Staff Contact prior to submitting any documents listed in item 1 above.
3. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."



Attachment E
Certification Deviation Procedures

(This page intentionally left blank)

Certification Deviation Procedures

Introduction

These procedures are put into place to preclude the need for Order amendments for minor changes in the Project routing or location. Minor changes or modifications in project activities are often required by the Permittee following start of construction. These deviations may potentially increase or decrease impacts to waters of the state. In such cases, a Certification Deviation, as defined in Section XIII (J) of the Order, may be requested by the Permittee as set forth below:

Process Steps

Who may apply: The Permittee or the Permittee's duly authorized representative or agent (hereinafter, "Permittee") for this Order.

How to apply: By letter or email to the 401 staff designated as the contact for this Order.

Certification Deviation Request: The Permittee will request verification from the State Water Board staff that the project change qualifies as a Certification Deviation, as opposed to requiring an amendment to the Order. The request should:

1. Describe the Project change or modification:
 - a. Proposed activity description and purpose;
 - b. Why the proposed activity is considered minor in terms of impacts to waters of the state;
 - c. How the Project activity is currently addressed in the Order; and,
 - d. Why a Certification Deviation is necessary for the Project.
2. Describe location (latitude/longitude coordinates), the date(s) it will occur, as well as associated impact information (i.e., temporary or permanent, federal or non-federal jurisdiction, water body name/type, estimated impact area, etc.) and minimization measures to be implemented.
3. Provide all updated environmental survey information for the new impact area.
4. Provide a map that includes the activity boundaries with photos of the site.
5. Provide verification of any mitigation needed according to the Order conditions.
6. Provide verification from the CEQA Lead Agency that the proposed changes or modifications do not trigger the need for a subsequent environmental document, an addendum to the environmental document, or a supplemental EIR. (Cal. Code Regs., tit. 14, §§ 15162-15164.)

Action by State Water Board on Request: State Water Board staff will make a determination on the Certification Deviation request within 10 working days from receipt of a complete request and notify the Permittee via email of the staff determination. Determination of whether a Certification Deviation request is complete is at the discretion of State Water Board staff.

Post-Discharge Certification Deviation Reporting:

1. Within 30 calendar days of completing the approved Certification Deviation activity, the Permittee will provide a post-discharge activity report that includes the following information:
 - a. Activity description and purpose;
 - b. Activity location, start date, and completion date;
 - c. Erosion control and pollution prevention measures applied;
 - d. The net change in impact area by water body type(s) in acres, linear feet and cubic yards;
 - e. Mitigation plan, if applicable; and,
 - f. Map of activity location and boundaries; post-construction photos.

Action by Water Board on Post-Discharge Activity Report: State Water Board staff will review the post-discharge Certification Deviation Report within 15 working days from receipt of a complete report. State Water Board staff will determine, in consultation with the Permittee and other regulatory agencies, if applicable, whether additional mitigation will be required. If additional mitigation is required, State Water Board staff will inform the Permittee within the 15-day review period. Determination of whether a post-discharge activity report is complete is at the discretion of State Water Board staff.

Annual Summary Deviation Report:

1. Until a Notice of Completion of Discharges Letter or Notice of Project Complete Letter is issued, include in the Annual Project Report (see Construction Notification and Reporting attachment) a compilation of all Certification Deviation activities through the reporting period with the following information:
 - a. Site name(s).
 - b. Date(s) of Certification Deviation approval.
 - c. Location(s) of authorized activities.
 - d. Impact area(s) by water body type prior to activity in acres, linear feet and cubic yards, as originally authorized in the Order.
 - e. Actual impact area(s) by water body type in, acres, linear feet and cubic yards, due to Certification Deviation activity(ies).
 - f. The net change in impact area by water body type(s) in acres, linear feet and cubic yards;
 - g. Mitigation to be provided (approved mitigation ratio and amount).

Action by State Water Board on Annual Certification Deviation Report: Following issuance of a Notice of Completion of Discharges Letter or Notice of Project Complete Letter, the State Water Board will amend the Order to reflect all approved Certification Deviations and the amended Order will serve as a record of actual Project activities.

Attachment F
Report and Notification Requirements

(This page intentionally left blank)

Copies of this Form

In order to identify your project, it is necessary to include a copy of the Project specific Cover Sheet below with your report: please retain for your records. If you need to obtain a copy of the Cover Sheet you may download a copy of this Order as follows:

1. Go to: http://www.waterboards.ca.gov/water_issues/programs/cwa401/certifications.shtml
2. Find your Order in the table based on Applicant, Date, and Subject headers.

Report Submittal Instructions

1. Check the box on the Report and Notification Cover Sheet next to the report or notification you are submitting.
 - **Part A (Annual Report):** This report will be submitted annually from the anniversary of Project effective date until a Notice of Project Complete Letter is issued.
 - **Part B (Project Status Notifications):** Used to notify the State Water Board of the status of the Project schedule that may affect Project billing.
 - **Part C (Conditional Notifications and Reports):** Required on a case by case basis for accidental discharges of hazardous materials, violation of compliance with water quality standards, notification of in-water work, or other reports.
2. Sign the Report and Notification Cover Sheet and attach all information requested for the Report Type.
3. **Electronic Report Submittal Instructions:**
 - Submit signed Report and Notification Cover Sheet and required information via email to: stateboard401@waterboards.ca.gov and cc: Brendan.Reed@waterboards.ca.gov
 - Include in the subject line of the email:
Subject: ATTN: Brendan Reed; Reg. Measure ID: 412515_Report

Definition of Reporting Terms

1. **Active Discharge Period:** The active discharge period begins with the effective date of this Order and ends on the date that the Permittee receives a Notice of Completion of Discharges Letter or, if no post-construction monitoring is required, a Notice of Project Complete Letter. The Active Discharge Period includes all elements of the Project including site construction and restoration for all individual projects..
2. **Request for Notice of Completion of Discharges Letter:** This request by the Permittee to the State Water Board staff pertains to projects that have post construction monitoring requirements, e.g. if site restoration was required to be monitored for 5 years following construction. State Water Board staff will review the request and send a Completion of Discharges Letter to the Permittee upon approval. This letter will initiate the post-discharge monitoring period and a change in fees from the annual active discharge fee to the annual post-discharge monitoring fee.

3. **Request for Notice of Project Complete Letter:** This request by the Permittee to the State Water Board staff pertains to projects that either have completed post-construction monitoring and achieved performance standards or have no post-construction monitoring requirements, and no further Project activities are planned. State Water Board staff will review the request and send a Project Complete Letter to the Permittee upon approval. Termination of annual invoicing of fees will correspond with the date of this letter.
4. **Post-Discharge Monitoring Period:** The post-discharge monitoring period begins on the date of the Notice of Completion of Discharges Letter and ends on the date of the Notice of Project Complete Letter issued by the State Water Board staff. The Post-Discharge Monitoring Period includes continued water quality monitoring or compensatory mitigation monitoring.
5. **Effective Date:** Date of Order issuance.

Map/Photo Documentation Information

When submitting maps or photos, please use the following formats.

1. **Map Format Information:**

Preferred map formats of at least 1:24000 (1" = 2000') detail (listed in order of preference):

 - **GIS shapefiles:** The shapefiles must depict the boundaries of all project areas and extent of aquatic resources impacted. Each shape should be attributed with the extent/type of aquatic resources impacted. Features and boundaries should be accurate to within 33 feet (10 meters). Identify datum/projection used and if possible, provide map with a North American Datum of 1983 (NAD38) in the California Teale Albers projection in feet.
 - **Google KML files** saved from Google Maps: My Maps or Google Earth Pro. Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. Include URL(s) of maps. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
 - **Other electronic format** (CAD or illustration format) that provides a context for location (inclusion of landmarks, known structures, geographic coordinates, or USGS DRG or DOQQ). Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
 - Aquatic resource maps marked on paper **USGS 7.5 minute topographic maps** or **Digital Orthophoto Quarter Quads (DOQQ)** printouts. Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
2. **Photo-Documentation:** Include a unique identifier, date stamp, written description of photo details, and latitude/longitude (in decimal degrees) or map indicating location of photo. Successive photos should be taken from the same vantage point to compare pre/post construction conditions.

REPORT AND NOTIFICATION COVER SHEET

Project: 2016 Fish Habitat Restoration Project for 2017
Permittee: California Department of Fish and Wildlife
Reg. Meas. ID: 412515 **Place ID:** 834241
Order Effective Date: July 28, 2017

Report Type Submitted

Part A – Project Reporting

Report Type 1 **Monthly Report**
Report Type 2 **Annual Report**

Part B - Project Status Notifications

Report Type 3 **Commencement of Construction**
Report Type 4 **Request for Notice of Completion of Discharges Letter**
Report Type 5 **Request for Notice of Project Complete Letter**

Part C - Conditional Notifications and Reports

Report Type 6 **Accidental Discharge of Hazardous Material Report**
Report Type 7 **Violation of Compliance with Water Quality Standards Report**
Report Type 8 **In-Water Work/Diversions Water Quality Monitoring Report**
Report Type 9 **Modifications to Project Report**
Report Type 10 **Transfer of Property Ownership Report**
Report Type 11 **Transfer of Long-Term BMP Maintenance Report**

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Print Name ¹

Affiliation and Job Title

Signature

Date

¹STATEMENT OF AUTHORIZATION (include if authorization has changed since application was submitted)

I hereby authorize _____ to act in my behalf as my representative in the submittal of this report, and to furnish upon request, supplemental information in support of this submittal.

Permittee's Signature

Date

***This Report and Notification Cover Sheet must be signed by the Permittee or a duly authorized representative and included with all written submittals.**

Part A – Project Reporting

Report Type 2	Annual Report
Report Purpose	Notify the State Water Board staff of Project status during both the active discharge and post-discharge monitoring periods.
When to Submit	Annual reports shall be submitted each year on the anniversary of the effective date of this order. Annual reports shall continue until a Notice of Project Complete Letter is issued to the Permittee.
Report Contents	<p>The contents of the annual report shall include the topics indicated below for each project period. Report contents are outlined in Annual Report Topics below.</p> <p><u>During the Active Discharge Period</u></p> <ul style="list-style-type: none"> • Topic 1: Construction Summary • Topic 2: Mitigation for Temporary Impacts Status <p><u>During the Post-Discharge Monitoring Period</u></p> <ul style="list-style-type: none"> • Topic 2: Mitigation for Temporary Impacts Status
Annual Report Topics (1-3)	
Annual Report Topic 1	Construction Summary
When to Submit	With the annual report during the Active Discharge Period.
Report Contents	<ol style="list-style-type: none"> 1. Project progress and schedule including the following for each individual project: initial ground disturbance, site clearing and grubbing, road construction, site construction, and the implementation status of construction storm water best management practices (BMPs). If construction has not started, provide estimated start date and reasons for delay. 2. Map showing general Project progress of individual projects. 3. If applicable: <ol style="list-style-type: none"> a. Summary of Conditional Notification and Report Types 6 and 7 (Part C below). b. Summary of Certification Deviations. See Certification Deviation Attachment for further information.
Annual Report Topic 2	Mitigation for Temporary Impacts Status
When to Submit	With the annual report during both the Active Discharge Period and Post-Discharge Monitoring Period.
Report Contents	<ol style="list-style-type: none"> 1. For each individual project: planned date of initiation and map showing locations of mitigation for temporary impacts to waters of the state and all upland areas of temporary disturbance which could result in a discharge to waters of the state.

- | | |
|--|--|
| | <p>2. For each individual project: if mitigation for temporary impacts has already commenced, provide a map and information concerning attainment of performance standards contained in the restoration plan.</p> |
|--|--|

Part B – Project Status Notifications

Report Type 3	Commencement of Construction
Report Purpose	Notify State Water Board staff prior to the start of construction.
When to Submit	Must be received at least seven (7) days prior to start of initial ground disturbance activities.
Report Contents	<ol style="list-style-type: none"> 1. Date of commencement of construction for each individual project. 2. Anticipated date when discharges to waters of the state will occur for each individual project. 3. Project schedule milestones including a schedule for onsite compensatory mitigation, if applicable.

Report Type 4	Request for Notice of Completion of Discharges Letter
Report Purpose	Notify State Water Board staff that post-construction monitoring is required and that active Project construction, including any mitigation and permittee responsible compensatory mitigation, is complete.
When to Submit	Must be received by State Water Board staff within thirty (30) days following completion of all Project construction activities.
Report Contents	<ol style="list-style-type: none"> 1. Status of storm water Notice of Termination(s), if applicable. 2. Status of post-construction storm water BMP installation. 3. Pre- and post-photo documentation of all Project activity sites where the discharge of dredge and/or fill/excavation was authorized. 4. Summary of Certification Deviation discharge quantities compared to initial authorized impacts to waters of the state, if applicable. 5. An updated monitoring schedule for mitigation for temporary impacts to waters of the state and permittee responsible compensatory mitigation during the post-discharge monitoring period, if applicable.

Report Type 5	Request for Notice of Project Complete Letter
Report Purpose	Notify State Water Board staff that construction and/or any post-construction monitoring is complete, or is not required, and no further Project activity is planned.
When to Submit	Must be received by State Water Board staff within thirty (30) days following completion of all Project activities.
Report Contents	<p>Part A: Mitigation for Temporary Impacts</p> <ol style="list-style-type: none"> 1. A report establishing that the performance standards outlined in the restoration plan have been met for each individual project site upland areas of temporary disturbance which could result in a discharge to waters of the state. 2. A report establishing that the performance standards outlined in the restoration plan have been met for restored areas of temporary impacts to waters of the state. Pre- and post-photo documentation of all restoration sites.

	Part B: Post-Construction Storm Water BMPs
--	---

- | | |
|--|---|
| | <ol style="list-style-type: none">3. Date of storm water Notice of Termination(s), if applicable.4. Report status and functionality of all post-construction BMPs. |
|--|---|

Part C – Conditional Notifications and Reports

Report Type 6	Accidental Discharge of Hazardous Material Report
Report Purpose	Notifies State Water Board staff that an accidental discharge of hazardous material has occurred.
When to Submit	Within five (5) working days following the date of an accidental discharge. Continue reporting as required by State Water Board staff.
Report Contents	<ol style="list-style-type: none"> 1. The report shall include the OES Incident/Assessment Form, a full description and map of the accidental discharge incident (i.e. location, time and date, source, discharge constituent and quantity, aerial extent, and photo documentation). If applicable, the OES Written Follow-Up Report may be substituted. 2. If applicable, any required sampling data, a full description of the sampling methods including frequency/dates and times of sampling, equipment, locations of sampling sites. 3. Locations and construction specifications of any barriers, including silt curtains or diverting structures, and any associated trenching or anchoring.

Report Type 7	Violation of Compliance with Water Quality Standards Report
Report Purpose	Notifies State Water Board staff that a violation of compliance with water quality standards has occurred.
When to Submit	The Permittee shall report any event that causes a violation of water quality standards within three (3) working days of the noncompliance event notification to State Water Board staff.
Report Contents	The report shall include: the cause; the location shown on a map; and the period of the noncompliance including exact dates and times. If the noncompliance has not been corrected, include: the anticipated time it is expected to continue; the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and any monitoring results if required by State Water Board staff.

Report Type 8	In-Water Work and Diversions Water Quality Monitoring Report
Report Purpose	Notifies State Water Board staff of the completion of in-water work.
When to Submit	Within three (3) working days following the completion of in-water work. Continue reporting in accordance with the approved water quality monitoring plan.
Report Contents	As required by the approved water quality monitoring plan.

Report Type 9	Modifications to Project Report
Report Purpose	Notifies State Water Board staff if the Project, as described in the application materials, is altered in any way or by the imposition of subsequent permit

	conditions by any local, state or federal regulatory authority.
When to Submit	If Project implementation as described in the application materials is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority.
Report Contents	A description and location of any alterations to Project implementation. Identification of any Project modifications that will interfere with the Permittee's compliance with the Order.

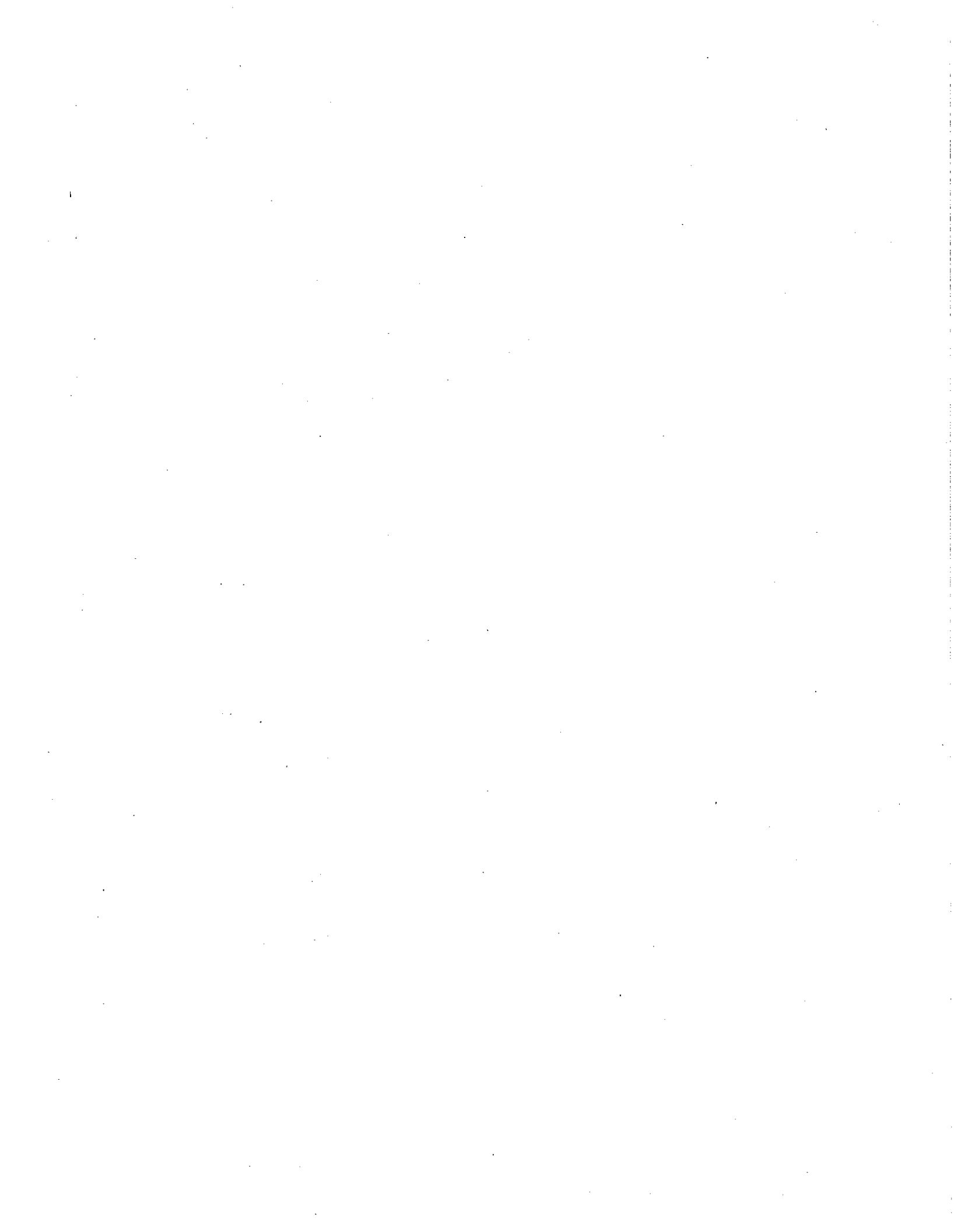
Report Type 10	Transfer of Property Ownership Report
Report Purpose	Notifies State Water Board staff of change in ownership of the Project or Permittee-responsible mitigation area.
When to Submit	At least 10 working days prior to the transfer of ownership.
Report Contents	<ol style="list-style-type: none"> 1. A statement that the Permittee has provided the purchaser with a copy of this Order and that the purchaser understands and accepts: <ol style="list-style-type: none"> a. the Order's requirements and the obligation to implement them or be subject to administrative and/or civil liability for failure to do so; and b. responsibility for compliance with any long-term BMP¹ maintenance plan requirements in this Order. 2. A statement that the Permittee has informed the purchaser to submit a written request to the State Water Board to be named as the permittee in a revised order.

Report Type 11	Transfer of Long-Term BMP Maintenance Report
Report Purpose	Notifies State Water Board staff of transfer of long-term BMP maintenance responsibility.
When to Submit	At least 10 working days prior to the transfer of BMP maintenance responsibility.
Report Contents	A copy of the legal document transferring maintenance responsibility of post-construction BMPs.

¹ Best Management Practices (BMPs) is a term used to describe a type of water pollution or environmental control.

Mitigation Measures, Monitoring and Reporting Program for the 2016 Fish Habitat Restoration
Project (MMRP)

Attachment G



APPENDIX B

MITIGATION MEASURES, MONITORING AND REPORTING PROGRAM FOR THE 2016 FISH HABITAT RESTORATION PROJECT

SECTION 1: MITIGATION

General mitigation measures are implemented for all action items. Specific mitigation measures are identified for the various species found at or near the project site. A CDFW grant manager is assigned to each action item and is responsible for ensuring the general and specific mitigation measures are implemented.

I. AESTHETICS

No specific mitigation measures are required to protect aesthetics.

II. AGRICULTURE RESOURCES

No specific mitigation measures are required to protect agricultural resources.

III. AIR QUALITY

No specific mitigation measures are required to protect air quality.

IV. BIOLOGICAL RESOURCES

A. General Measures for Protection of Biological Resources

- 1) Timing. To avoid impacts to aquatic habitat the activities carried out in the restoration program typically occur during the summer dry season where flows are low or streams are dry.
 - a) Work around streams is restricted to the period of June 15 through November 1 or the first significant rainfall, whichever ever comes first. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Wildlife (i.e. on the Shasta River projects must be completed between July 1 and September 15 to avoid impacts to immigrating and emigrating salmonids). This is to take advantage of low stream flow and avoid the spawning and egg/alevin incubation period of salmon and steelhead.
 - b) Upslope work generally occurs during the same period as stream work. Road decommissioning and other sediment reduction activities are dependent on soil moisture content. Non jurisdictional upslope projects do not have seasonal restrictions in the Incidental Take Statement but work may be further restricted at some sites to allow soils to dry out adequately.

In some areas equipment access and effectiveness is constrained by wet conditions.

- c) The approved work window for individual work sites will be further constrained as necessary to avoid the nesting or breeding seasons of birds and terrestrial animals. At most sites with potential for raptor (including northern spotted owls) and migratory bird nesting, if work is conditioned to start after July 9, potential impacts will be avoided and no surveys will be required. For work sites that might contain nesting marbled murrelets, the starting date will be September 16 in the absence of surveys. The work window at individual work sites could be advanced if surveys determine that nesting birds will not be impacted.
 - d) For restoration work that may affect swallow nesting habitat (such as removal or modification of bridges, culverts or other structures that show evidence of past swallow nesting activities), construction shall occur after August 31 to avoid the swallow nesting period. Suitable nesting habitat shall be netted prior to the breeding season to prevent nesting. Netting shall be installed before any nesting activity begins, generally prior to March 1. Swallows shall be excluded from areas where construction activities cause nest damage or abandonment.
 - e) All project activities shall be confined to daylight hours.
- 2) Projects shall not disturb or dewater more than 500 feet of contiguous stream reach.
 - 3) During all activities at project work sites, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.
 - 4) Staging/storage areas for equipment, materials, fuels, lubricants, and solvents, will be located outside of the stream's high water channel and associated riparian area where it cannot enter the stream channel. Stationary equipment such as motors, pumps, generators, compressors, and welders located within the dry portion of the stream channel or adjacent to the stream, will be positioned over drip-pans. Vehicles will be moved out of the normal high water area of the stream prior to refueling and lubricating. The grantee shall ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, CDFW shall ensure that the grantee has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
 - 5) The number of access routes, number and size of staging areas, and the total area of the work site activity shall be limited to the minimum necessary to complete the restoration action while minimizing riparian disturbance without

affecting less stable areas, which may increase the risk of channel instability. Existing roads shall be used to access work sites as much as practicable.

- 6) The access and work area limits shall be identified with brightly colored flagging or fencing. Flagging and fencing shall be maintained in good repair for the duration of project activities. All areas beyond the identified work area limits shall not be disturbed.
- 7) Any construction debris shall be prevented from falling into the stream channel. Any material that does fall into a stream during construction shall be immediately removed in a manner that has minimal impact to the streambed and water quality.
- 8) Where feasible, the construction shall occur from the bank, or on a temporary pad underlain with filter fabric.
- 9) Any work within the stream channel shall be performed in isolation from the flowing stream and erosion protection measures shall be in place before work begins.
 - a) Prior to dewatering, the best means to bypass flow through the work area to minimize disturbance to the channel and avoid direct mortality of fish and other aquatic invertebrates shall be determined.
 - b) If there is any flow when work will be done, the grantee shall construct coffer dams upstream and downstream of the excavation site and divert all flow from upstream of the upstream dam to downstream of the downstream dam.
 - c) No heavy equipment shall operate in the live stream, except as may be necessary to construct coffer dams to divert stream flow and isolate the work site.
 - d) Cofferdams may be constructed with clean river run gravel or sand bags, and may be sealed with sheet plastic. Upon project completion, sand bags and any sheet plastic shall be removed from the stream. Clean river run gravel may be left in the stream channel, provided it does not impede stream flow or fish passage, and conforms to natural channel morphology without significant disturbance to natural substrate.
 - e) Dewatering shall be coordinated with a qualified fisheries biologist to perform fish and wildlife relocation activities.
 - f) The length of the dewatered stream channel and the duration of the dewatering shall be kept to a minimum and shall be expected to be less than 300 contiguous feet or 500 total feet per site.
 - g) When bypassing stream flow around work area, stream flow below the construction site shall be maintained similar to the unimpeded flow at all times.

- h) The work area shall be periodically pumped dry of seepage. Pumps shall be placed in flat areas, away from the stream channel. Pumps shall be secured by tying off to a tree or staked in place to prevent movement by vibration. Pump intakes shall be covered with 0.125 inch mesh to prevent entrainment of fish or amphibians that failed to be removed. Pump intakes shall be periodically checked for impingement of fish or amphibians, and shall be relocated according to the approved measured outlined for each species bellow.
 - i) If necessary, flow shall be diverted around the work site, either by pump or by gravity flow, the suction end of the intake pipe shall be fitted with fish screens meeting CDFW and NOAA criteria to prevent entrainment or impingement of small fish. Any turbid water pumped from the work site itself to maintain it in a dewatered state shall be disposed of in an upland location where it will not drain directly into any stream channel.
 - j) Fish shall be excluded from the work area by blocking the stream channel above and below the work area with fine-meshed net or screen. Mesh shall be no greater than 1/8-inch diameter. The bottom edge of the net or screen shall be completely secured to the channel bed to prevent fish from reentering the work area. Exclusion screening shall be placed in areas of low water velocity to minimize fish impingement. Screens shall be regularly checked and cleaned of debris to permit free flow of water.
- 10) Where the disturbance to construct coffer dams to isolate the work site would be greater than to complete the action (for example, placement of a single boulder cluster), the action shall be carried out without dewatering and fish relocation. Furthermore, measures shall be put in place immediately downstream of the work site to capture suspended sediment. This may include installation of silt catchment fences across the stream, or placement of a filter berm of clean river gravel. Silt fences and other non-native materials will be removed from the stream following completion of the activity. Gravel berms may be left in the stream channel provided it does not impede stream flow or fish passage, and conforms to natural channel morphology without significant disturbance to natural substrate.
- 11) Best management practices associated with fish screens and measures to minimize effects to salmonids associated with fish screen construction, maintenance, and repair are presented below:
- a) Screening projects shall only take place on diversions with a capacity of 60 cfs or less. Screening larger diversions shall require separate consultation. Fish screens shall be operated and maintained in compliance with current law, including Fish and Game Code, and CDFW fish screening criteria.

- b) Notwithstanding Fish and Game Code section 6027, fish screens and bypass pipes or channels shall be in-place and maintained in working order at all times water is being diverted.
- c) If a screen site is dewatered for repairs or maintenance when targeted fish species are likely to be present, measures shall be taken to minimize harm and mortality to targeted species resulting from fish relocation and dewatering activities. The responsible party shall notify CDFW before the project site is de-watered and streamflow diverted. The notification shall provide a reasonable time for personnel to supervise the implementation of a water diversion plan and oversee the safe removal and relocation of salmonids and other fish life from the project area. If the project requires site dewatering and fish relocation, the responsible party shall implement the dewatering and relocation measures as described in this document to minimize harm and mortality to listed species.
- d) If a fish screen is removed for cleaning or repair, measures shall be undertaken to ensure juvenile fish are not passively entrained into the diversion canal. The area shall be isolated, cleared of fish, and dewatered prior to screen maintenance or replacement. If dewatering the work area is infeasible, then the area in front of the screen shall be cleared of fish utilizing a seine net that remains in place until the project is complete. In the case of a damaged screen, a replacement screen shall be installed immediately or the diversion shut down until a screen is in place.
- e) Fish screens shall be inspected and maintained regularly (not less than two times per week) to ensure that they are functioning as designed and meeting CDFW fish screening criteria. During the diversion season, screens shall be visually inspected while in operation to ensure they are performing properly. Outside the diversion season when the screening structure is dewatered, the screen and associated diversion structure shall be more thoroughly evaluated.
- f) Existing roads shall be used to access screen sites with vehicles and/or equipment whenever possible. If it is necessary to create access to a screen site for repairs or maintenance, access points shall be identified at stable stream bank locations that minimize riparian disturbance.
- g) Sediment and debris removal at a screen site shall take place as often as needed to ensure that screening criteria are met. Sediment and debris shall be removed and disposed at a location where it will not re-enter the water course.
- h) Stationary equipment used in performing screen maintenance and repairs, such as motors, pumps, generators, and welders, located within or adjacent to a stream shall be positioned over drip pans.
- i) Equipment which is used to maintain and/or repair fish screens shall be in good condition and checked and maintained on a daily basis to prevent

leaks of materials that could be deleterious to aquatic life, wildlife, or riparian habitat.

- j) To the extent possible repairs to a fish screen or screen site shall be made during a period of time when the target species of fish are not likely to be present (for example, in a seasonal creek, repair work should be performed when the stream is dry).
 - k) Equipment used to maintain and/or repair fish screens shall not operate in a flowing stream except as may be necessary to construct coffer dams to divert stream flow and isolate the work site.
 - l) Turbid water which is generated by screen maintenance or repair activities shall be discharged to an area where it will not re-enter the stream. If the CDFW determines that turbidity/siltation levels resulting from screen maintenance or repair activities constitute a threat to aquatic life, all activities associated with the turbidity/siltation shall cease until effective CDFW-approved sediment control devices are installed and/or abatement procedures are implemented.
- 12) Any equipment entering the active stream (for example, in the process of installing a coffer dam) shall be preceded by an individual on foot to displace wildlife and prevent them from being crushed.
- 13) If any non-special status wildlife are encountered during the course of construction, said wildlife shall be allowed to leave the construction area unharmed, and shall be flushed, hazed, or herded in a safe direction away from the project site. "Special status wildlife" is defined as any species that meets the definition of "endangered, rare, or threatened species" in section 15380, article 20 in Title 14 of the California Code of Regulations, also known as the "CEQA Guidelines".
- 14) Any red tree vole nests encountered at a work site shall be flagged and avoided during construction.
- 15) For any work sites containing western pond turtles, salamander, foothill yellow-legged frogs, or tailed frogs, the grantee shall provide to the CDFW grant manager for review and approval, a list of the exclusion measures that will be used at their work site to prevent take or injury to any individual pond turtles, salamanders, or frogs that could occur on the site. The grantee shall ensure that the approved exclusion measures are in place prior to construction. Any turtles or frogs found within the exclusion zone shall be moved to a safe location upstream or downstream of the work site, prior to construction.
- 16) All habitat improvements shall be done in accordance with techniques in the *California Salmonid Stream Habitat Restoration Manual*. The most current version of the manual is available at:
<http://www.dfg.ca.gov/fish/Resources/HabitatManual.asp>.

- 17) The grantee shall have dependable radio or phone communication on-site to be able to report any accidents or fire that might occur.
- 18) Installation of bridges, culverts, or other structures shall be done so that water flow is not impaired and upstream and downstream passage of fish is assured at all times. Bottoms of temporary culverts shall be placed at or below stream channel grade.
- 19) Temporary fill shall be removed in its entirety prior to close of work-window.

B. Specific Measures for Endangered, Rare, or Threatened Species That Could Occur at Specific Work Sites

1) Rare Plants

The work sites for the 2016 FHR project are within the range of a variety of rare plant species. The plant species found on a State or Federal special status list that might be associated with the 2016 FHR project, was determined from a search of CDFW's Natural Diversity Database. Because of the large number of widely scattered work sites proposed, it is not feasible to survey individual work sites in advance and still be able to implement the restoration projects, due to time limits on the availability of restoration funds. Lists of special status plant species that might occur at individual work sites are presented in Appendix A. Past experience with grant projects from previous years has shown that the potential for adverse impacts on rare plants at salmonid restoration work sites is very low. Few sites surveyed for rare plants between 1999 and 2012 were found to have rare plant colonies; disturbance of rare plants was avoided in all cases. In order to avoid impacts to rare plants during the 2016 FHR project, the following mitigation measures will be implemented:

- a) CDFW or another qualified biological consultant shall survey all work sites for rare plants prior to any ground disturbing activities. Rare plant surveys will be conducted following the "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities" (CDFW, 2009). These guidelines are available in Appendix C or on the web at: <http://www.dfg.ca.gov/habcon/plant/>.
- b) If any special status plant species are identified at a work site, CDFW shall require one or more of the following protective measures to be implemented before work can proceed:
 - i. Fencing to prevent accidental disturbance of rare plants during construction,
 - ii. On-site monitoring by a qualified biologist during construction to assure that rare plants are not disturbed, or

iii. Redesign of proposed work to avoid disturbance of rare plants.

c) Plant surveys will also include any host plants for butterflies identified as occurring in the area either in the CNDDDB or the official species list. These host plants are as follows for each butterfly:

Butterfly	Host plant
Mission blue butterfly (<i>Icaricia icarioides missionensis</i>) - Endangered	Silver Bush Lupine (<i>Lupinus albifrons</i>)
San Bruno elfin butterfly (<i>Callophrys mossii bayensis</i>) - Endangered	stonecrop (<i>Sedum spathulifolium</i>)
Callippe silverspot butterfly (<i>Speyeria callippe callippe</i>) - Endangered	Johnny jump up (<i>Viola pedunculata</i>)
Myrtle's silverspot (<i>Speyeria zerene myrtleae</i>) - Endangered	hookedspur violet (<i>Viola adunca</i>)
Bay checkerspot butterfly (<i>Euphydryas editha bayensis</i>) - Threatened	native plantain (<i>Plantago erecta</i>)

- i. If any host plant species are identified at a work site, CDFW shall require one or more of the following protective measures to be implemented before work can proceed:
 - (a) Fencing to prevent accidental disturbance of larval host plants during construction,
 - (b) On-site monitoring by a qualified biologist during construction to assure that larval host plants are not disturbed, and
 - (c) Redesign of proposed work to avoid disturbance of larval host plants.
- ii. If it becomes impossible to implement the project at a work site without impacts to larval host plants, then activity at that work site shall not proceed. If it becomes impossible to implement the project at a work site without potentially significant impacts to rare plants, then activity at that work site shall be discontinued.
- iii. CDFW shall ensure that the grantee or responsible party is aware of these site-specific conditions, and shall inspect the work site before, during, and after completion of the action item.

2) Arroyo toad (*Anaxyrus californicus*)

Of the 23 work sites proposed as part of the 2016 FHR project, none of the sites shows the Arroyo Toad listed on the corresponding species list in Appendix A.

3) California freshwater shrimp (*Syncaris pacifica*)

None of the 23 work sites proposed as part of the 2016 FHR project occurs within the range of California freshwater shrimp (CFS). If in the opinion of the USFWS-approved biologist, adverse effects to shrimp would be further minimized by moving shrimp away from the project site, the following procedure shall be used:

4) California red-legged frog (*Rana draytonii*)

Of the 23 work sites proposed as part of the 2016 FHR project, four occur within the range of the California red-legged frog (CRLF). Activities proposed for (725239 Southern Coho Salmon Captive Broodstock Program (UCSC-NOAA), 725240 MBSTP Coho Captive Broodstock and Recovery Program, 725154 Yellowjacket Creek Fish Passage Improvement Project, and 725178 Lower San Antonio Creek Arundo Eradication) (Appendix A) will not remove or degrade CRLF habitat; however, precautions shall be required at these sites to avoid the potential for take of CRLF while using heavy equipment. The potential for impacts to CRLF will be mitigated by complying with all of the mandatory terms and conditions associated with incidental take authorized by the USFWS, Biological Opinion (file no. 1-1-03-F-273, 81420-2009-I-0748-1, and 81440-2009-F-0387 for projects within the San Francisco District of the USACE, and file no. 2008-F-0441 for projects within the Los Angeles District of the USACE). CDFW shall implement the following measures to minimize adverse effects to the CRLF and its habitat:

- a) Project activities in potential red-legged frog habitat shall be restricted to the period between July 1 and October 15.
- b) At least 15 days prior to the onset of project activities, CDFW shall submit the names(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities shall begin until CDFW has received written approval from the USFWS that the biologist(s) is qualified to conduct the work.
- c) USFWS-approved biologist(s) who handle red-legged frogs shall ensure that their activities do not transmit diseases. To ensure that diseases are not conveyed between work sites by the USFWS-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force (<http://www.fws.gov/ventura/docs/species/protocols/DAFTA.pdf>) shall be followed at all times.
- d) A CDFW monitoring plan shall be developed to determine the level of incidental take of the red-legged frog associated with the Restoration Program funded activities in the area. The monitoring plan must include a standardized

mechanism to report any observations of dead or injured red-legged frog to the appropriate USACE and USFWS offices.

- e) A USFWS-approved biologist shall survey the project site at least two weeks before the onset of activities. If red-legged frogs are found in the project area and these individuals are likely to be killed or injured by work activities, the USFWS-approved biologist will allow sufficient time to move them from the site before work activities resume. Only USFWS-approved biologists will participate in activities with the capture, handling, and monitoring of red-legged frogs.
- f) Before any project-related activities, the approved biologist must identify appropriate areas to receive red-legged frog adults and tadpoles from the project areas. These areas must be in proximity to the capture site, contain suitable habitat, not be affected by project activities, and be free of exotic predatory species (i.e. bullfrogs, crayfish) to the best of the approved biologist's knowledge.
- g) Prior to the onset of project activities, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the red-legged frog and its habitat, the importance of the red-legged frog and its habitat, the general measures that are being implemented to conserve the red-legged frog as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.
- h) A USFWS-approved biologist shall be present at the work site until such time as removal of red-legged frogs, instruction of workers, and habitat disturbance has been completed. The USFWS-approved biologist shall have the authority to halt any action that might result in impacts that exceed the levels anticipated by the USACE and USFWS during review of the proposed action. If work is stopped, the USACE and the USFWS shall be notified immediately by the USFWS-approved biologist or on-site biological monitor.
- i) If red-legged frogs are found and these individuals are likely to be killed or injured by work activities, the USFWS-approved biologists must be allowed sufficient time to move them from the site before work activities resume. The USFWS-approved biologist must relocate the red-legged frogs the shortest distance possible to one of the predetermined areas. The USFWS-approved biologist must maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photographs (digital preferred) to assist in determining whether translocated animals are returning to the point of capture. Only red-legged frogs that are at risk of injury or death by project activities may be moved.
- j) If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 0.125 inch to prevent red-legged frogs from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain down stream flows

during construction activities and eliminate the possibility of ponded water. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.

- k) Ponded areas shall be monitored for red-legged frogs that may become entrapped. Any entrapped red-legged frog shall be relocated to a pre-determined receiving area by a USFWS-approved biologist.
- l) A USFWS-approved biologist will permanently remove from the project area, any individuals of exotic species, such as bullfrogs (*Rana catesbiana*), centrarchid fishes, and non-native crayfish to the maximum extent possible. The biologist will have the responsibility to ensure that their activities are in compliance with the Fish and Game Code.
- m) The CDFW or USACE shall report any observation of the incidental take of red-legged frogs associated with the implementation of the Restoration Program projects in accordance with RGP78. The USFWS and the USACE must review the circumstances surrounding the incident to determine whether any patterns of repeated authorized or unauthorized activities are occurring that may indicate that additional protective measures are required. If, after completion of the review, the USACE and the USFWS agree that additional protective measures are required and can be implemented within the existing scope of the action, the USACE must require the CDFW to implement the agreed-upon measures within a reasonable time frame; if the corrective actions cannot be implemented within the scope of the existing action, the USACE and USFWS will determine whether re-initiation of consultation is appropriate.
- n) Despite term and condition i of this section (above), the USACE must immediately re-initiate formal consultation with the USFWS, pursuant to 7(a) (2) of the Endangered Species Act, if red-legged frogs are taken within the action area at or in excess of the incidental take anticipated in the Incidental Take Statement section of the U.S. Fish and Wildlife biological opinion (file no. 2008-F-0441), whether by project or by year.
- o) If these mitigation measures cannot be implemented or the project activities proposed at a specific work site cannot be modified to prevent or avoid potential impacts to CRLF or its habitat, then project activity at that work site shall be discontinued.

5) California tiger salamander (*Ambystoma californiense*)

Of the 23 proposed projects in the 2016 FHR project, one project is within the range of the California tiger salamander (725239 Southern Coho Salmon Captive Broodstock Program (UCSC-NOAA)) (Appendix A). This project will not impact the species since it is a cooperative rearing project located in a hatchery. The species uses ponds and vernal pools for breeding and grassland habitat for

estivation, both of which are usually not in proximity to anadromous fish bearing streams.

- 6) Chinook salmon (*Oncorhynchus tshawytscha*), Coho salmon (*Oncorhynchus kisutch*), steelhead trout (*Oncorhynchus mykiss*), and coast cutthroat trout (*Oncorhynchus clarki clarki*)

While all of the work proposed under this program will enhance habitat for one or more of these species, all of the work sites proposed as part of the 2016 FHR project could involve instream work in their habitat (Appendix A). In order to avoid any potential for negative impacts to these species, the following measures will be implemented:

- a) Project work within the wetted stream shall be limited to the period between June 15 and November 1, or the first significant rainfall, or which ever comes first. This is to take advantage of low stream flows and to avoid the spawning and egg/alevin incubation period of salmon and steelhead. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Wildlife (i.e. on the Shasta River projects must be completed between July 1 and September 15 to avoid impacts to immigrating and emigrating salmonids). Whenever possible, the work period at individual sites shall be further limited to entirely avoid periods when salmonids are present (for example, in a seasonal creek, work will be confined to the period when the stream is dry).
- b) Suitable large woody debris removed from fish passage barriers that is not used for habitat enhancement, shall be left within the riparian zone so as to provide a source for future recruitment of wood into the stream, reduce surface erosion, contribute to amounts of organic debris in the soil, encourage fungi, provide immediate cover for small terrestrial species and to speed recovery of native vegetation.
- c) Prior to dewatering a construction site, fish and amphibian species shall be captured and relocated by CDFW personnel (or designated agents). The following measures shall be taken to minimize harm and mortality to listed salmonids resulting from fish relocation and dewatering activities:
 - i. Fish relocation and dewatering activities shall only occur between June 15 and November 1 of each year.
 - ii. Fish relocation shall be performed by a qualified fisheries biologist, with all necessary State and Federal permits. Captured fish shall be moved to the nearest appropriate site outside of the work area. A record shall be maintained of all fish rescued and moved. The record shall include the date of capture and relocation, the method of capture, the location of the relocation site in relation to the project site, and the number and species of fish captured and relocated. The record shall

be provided to CDFW within two weeks of the completion of the work season or project, whichever comes first.

- iii. Electrofishing shall be conducted by properly trained personnel following NOAA *Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act*, June 2000.
- iv. Prior to capturing fish, the most appropriate release location(s) shall be determined. The following shall be determined:
 - i. Temperature: Water temperature shall be similar as the capture location.
 - ii. Habitat: There shall be ample habitat for the captured fish.
 - iii. Exclusions from work site: There shall be a low likelihood for the fish to reenter the work site or become impinged on exclusion net or screen.
- v. The most efficient method for capturing fish shall be determined by the biologist. Complex stream habitat generally requires the use of electrofishing equipment, whereas in outlet pools, fish may be concentrated by pumping-down the pool and then seining or dipnetting fish.
- vi. Handling of salmonids shall be minimized. However, when handling is necessary, always wet hands or nets prior to touching fish.
- vii. Temporarily hold fish in cool, shaded, aerated water in a container with a lid. Provide aeration with a battery-powered external bubbler. Protect fish from jostling and noise and do not remove fish from this container until time of release.
- viii. Air and water temperatures shall be measured periodically. A thermometer shall be placed in holding containers and, if necessary, periodically conduct partial water changes to maintain a stable water temperature. If water temperature reaches or exceeds 18 °C, fish shall be released and rescue operations ceased.
- ix. Overcrowding in containers shall be avoided by having at least two containers and segregating young-of-year (YOY) fish from larger age-classes to avoid predation. Larger amphibians, such as Pacific giant salamanders, shall be placed in the container with larger fish. If fish are abundant, the capturing of fish and amphibians shall cease periodically and shall be released at the predetermined locations.
- x. Species and year-class of fish shall be visually estimated at time of release. The number of fish captured shall be counted and recorded. Anesthetization or measuring fish shall be avoided.

- xi. If feasible, initial fish relocation efforts shall be performed several days prior to the start of construction. This provides the fisheries biologist an opportunity to return to the work area and perform additional electrofishing passes immediately prior to construction. In many instances, additional fish will be captured that eluded the previous day's efforts.
 - xii. If mortality during relocation exceeds three percent, capturing efforts shall be stopped and the appropriate agencies shall be contacted immediately.
 - xiii. In regions of California with high summer temperatures, relocation activities shall be performed in the morning when the temperatures are cooler.
 - xiv. CDFW shall minimize the amount of wetted stream channel that is dewatered at each individual project site to the fullest extent possible.
 - xv. Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX, pages 52 and 53 of the *California Salmonid Stream Habitat Restoration Manual*.
- d) If these mitigation measures cannot be implemented, or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to anadromous salmonids or their habitat, then activity at that work site shall be discontinued.

7) Least Bell's Vireo (*Vireo bellii pusillus*)

Of the 23 projects proposed as part of the 2016 FHR project, none are within the range of the least Bell's vireo.

8) Marbled murrelet (*Brachyrampus marmoratus*)

Five of the 23 work sites proposed as part of the 2016 FHR project are in potentially suitable habitat for the marbled murrelet. Activities proposed for the sites (725159 Rowdy Creek Instream Habitat Enhancement Project Reach III, 725170 Supply Creek Restoration Project Phase II, 725153 Mid-Klamath Tributary Fish Passage Improvement Project, 725239 Southern Coho Salmon Captive Broodstock Program (UCSC-NOAA), and 725240 MBSTP Coho Captive Broodstock and Recovery Program) (Appendix A) will not remove, degrade, or downgrade suitable marbled murrelet habitat. As a result, direct injury or mortality of murrelets is not an issue. The potential exists for noise from heavy equipment work at these sites to disrupt marbled murrelet nesting. To avoid this potential impact, the following mitigation measures shall be implemented:

- a) Restoration work in areas considered by the Arcata and Ventura USFWS offices shall not be conducted within 0.25 mile of occupied or un-surveyed

suitable marbled murrelet habitat between March 24 and September 15. Restoration work in areas considered by the Sacramento USFWS Office shall not be conducted within 0.25 mile of any occupied or un-surveyed suitable marbled murrelet habitat between November 1 and September 15.

- b) The work window at individual work sites near suitable habitat may be modified, if protocol surveys determine that habitat quality is low and occupancy is very unlikely.
- c) If these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential adverse effects to marbled murrelet or their habitat, then activity at that work site shall be discontinued.
- d) For projects contained in streams and watersheds included in a USFWS Habitat Conservation Plan the mitigation measures contained within those Habitat Conservation Plans shall be followed.

9) Northern spotted owl (*Strix occidentalis caurina*)

Of the 23 work sites proposed as part of the 2016 FHR project, 15 are in potentially suitable habitat for the northern spotted owl (725159 Rowdy Creek Instream Habitat Enhancement Project Reach III, 725149 Dinner Creek Fish Passage Barrier Removal Project, 725246 Mattole Storage and Forbearance 2017-2020, 725170 Supply Creek Restoration Project Phase II, 725179 Miller Riparian Restoration Project, 725153 Mid-Klamath Tributary Fish Passage Improvement Project, 725156 Upper Jack of Hearts Creek Coho Habitat Restoration Project, 725182 Anderson Creek Sediment Reduction and Coho Recovery Project Phase 2, 725174 Anderson Creek Habitat Enhancement Project for Coho Recovery Phase III, 725165 James Creek Coho Stream Habitat Enhancement Project, 725158 Little North Fork Big River Instream Coho Habitat Enhancement Project, 725168 String Creek Instream Steelhead Habitat Enhancement Project, 725160 French Creek Main Channel & Off Channel Habitat Improvement & Monitoring, 725164 Kelly Gulch Fisheries and Riparian Habitat Enhancement Phase II, and 725185 Morrison Gulch Sediment Reduction Project) (Appendix A). None of the activities will remove, degrade, or downgrade northern spotted owl habitat. As a result, direct injury or mortality of owls is not likely. The potential exists for heavy equipment work at these sites to disturb spotted owl nesting. To avoid this potential effect, the following mitigation measures will be implemented:

- a) Work with heavy equipment at any site within 0.25 miles of suitable habitat for the northern spotted owl shall not occur from November 1 to July 31 for projects in areas under the jurisdiction of the Sacramento USFWS Office and from November 1 to July 9 for projects in areas under the jurisdiction of the Arcata USFWS Office.

- b) The work window at individual work sites may be advanced prior to July 9 or July 31 (corresponding to the different time constraints of the Sacramento and Arcata USFWS office), if protocol surveys determine that suitable habitat is unoccupied.
- c) If these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to northern spotted owls or their habitat, then activity at that work site shall be discontinued and CDFW must reinitiate consultation with USFWS.
- d) For projects contained within streams and watersheds included in a USFWS Habitat Conservation Plan the mitigation measures contained within those Habitat Conservation Plans shall be followed.

10) Point Arena mountain beaver (*Aplodontia rufa nigra*)

Of the 23 projects proposed in the 2016 FHR project, none are within the range of the Point Arena mountain beaver.

11) San Francisco Garter snake (*Thamnophis sirtalis tetrataenia*)

Of the 23 projects proposed in the 2016 FHR project, none are located within the range of the San Francisco garter snake.

12) Southwestern Willow flycatcher (*Empidonax traillii extimus*)

Of the 23 work sites proposed as part of the 2016 FHR project, none are in potentially suitable habitat for the southwestern willow flycatcher.

13) Tidewater goby (*Eucyclogobius newberryi*)

Of the 23 work sites proposed as part of the 2016 FHR project, none are in potentially suitable habitat for the tidewater goby.

14) Willow flycatcher (*Empidonax traillii*)

Of the 23 work sites proposed as part of the 2016 FHR project, none are in potentially suitable habitat for the Willow flycatcher.

C. Riparian and re-vegetation

- 1) Planting of seedlings shall begin after December 1, or when sufficient rainfall has occurred to ensure the best chance of survival of the seedlings, but in no case after April 1.

- 2) Any disturbed banks shall be fully restored upon completion of construction. Revegetation shall be done using native species. Planting techniques can include seed casting, hydroseeding, or live planting methods using the techniques in Part XI of the *California Salmonid Stream Habitat Restoration Manual*.
- 3) Disturbed and compacted areas shall be re-vegetated with native plant species. The species shall be comprised of a diverse community structure that mimics the native riparian corridor. Planting ratio shall be 2:1 (two plants to every one removed).
- 4) Unless otherwise specified, the standard for success is 80 percent survival of plantings or 80 percent ground cover for broadcast planting of seed after a period of 3 years.
- 5) To ensure that the spread or introduction of invasive exotic plants shall be avoided to the maximum extent possible, equipment shall be cleaned of all dirt, mud, and plant material prior to entering a work site. When possible, invasive exotic plants at the work site shall be removed. Areas disturbed by project activities will be restored and planted with native plants.
- 6) Mulching and seeding shall be done on all exposed soil which may deliver sediment to a stream. Soils exposed by project operations shall be mulched to prevent sediment runoff and transport. Mulches shall be applied so that not less than 90% of the disturbed areas are covered. All mulches, except hydro-mulch, shall be applied in a layer not less than two (2) inches deep. Where feasible, all mulches shall be kneaded or tracked-in with track marks parallel to the contour, and tackified as necessary to prevent excessive movement. All exposed soils and fills, including the downstream face of the road prism adjacent to the outlet of culverts, shall be reseeded with a mix of native grasses common to the area, free from seeds of noxious or invasive weed species, and applied at a rate which will ensure establishment.
- 7) If erosion control mats are used in re-vegetation, they shall be made of material that decomposes. Erosion control mats made of nylon plastic, or other non-decomposing material shall not be used.
- 8) CDFW shall retain as many trees and brush as feasible, emphasizing shade producing and bank stabilizing trees and brush to minimize impacts to the riparian corridor.
- 9) If riparian vegetation is to be removed with chainsaws, the grantee shall use saws that operate with vegetable-based bar oil when possible.
- 10) Disturbed and decompact areas shall be re-vegetated with native species specific to the project location that comprise a diverse community of woody and herbaceous species.

V. CULTURAL RESOURCES

Ground-disturbance will be required to implement the project at certain locations that, despite efforts to identify cultural resources, have the potential to affect these resources. The procedure for a programmatic evaluation of archeological resources is provided in Appendix E. Potential for inadvertent impacts will be avoided through implementation of the following mitigation measures:

- 1) CDFW shall contract with an archaeologist(s) or other historic preservation professional that meets The Secretary of the Interior's Professional Qualifications Standards (36 CFR Part 61, and 48 FR 44716) to complete cultural resource surveys at any sites with the potential to be impacted prior to any ground disturbing activities. This work may be augmented with the aid of a Native American cultural resources specialist that is culturally affiliated with the project area. Cultural and paleontological resource surveys shall be conducted using standard protocols to meet CEQA Guideline requirements. Paleontological survey protocols are listed in Appendix D.
- 2) If cultural and/or paleontological resource sites are identified at a project location, CDFW will require one or more of the following protective measures to be implemented before work can proceed: a) fencing to prevent accidental disturbance of cultural resources during construction, b) on-site monitoring by cultural and/or paleontological resource professionals during construction to assure that cultural resources are not disturbed, c) redesign of proposed work to avoid disturbance of cultural resources.
- 3) CDFW shall report any previously unknown historic, archeological, and paleontological remains discovered at a project location to the USACE as required in the RGP.
- 4) CDFW shall ensure that the grantee or responsible party is aware of these site-specific conditions, and shall inspect the work site before, during, and after completion of the action item.
- 5) Inadvertent Discovery of Cultural Resources - If cultural resources, such as lithic debitage, ground stone, historic debris, building foundations, or bone, are discovered during ground-disturbance activities, work shall be stopped within 20 meters (66 feet) of the discovery, per the requirements of CEQA (January 1999 Revised Guidelines, Title 14 CCR 15064.5 (f)). Work near the archaeological finds shall not resume until an archaeologist that meets the Secretary of the Interior's Standards and Guidelines suited to the discovery, has evaluated the materials and offered recommendations for further action. Cultural materials not associated with human interments shall be documented and curated in place.

- 6) Inadvertent Discovery of Human Remains - If human remains are discovered during project construction, work shall stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie adjacent to human remains (Public Resources Code, Section 7050.5). The county coroner shall be contacted to determine if the cause of death must be investigated. If the coroner determines that the remains are of Native American origin, it is necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American heritage Commission (NAHC) (Public Resources Code, Section 5097). The coroner will contact the NAHC. The descendants or most likely descendants of the deceased will be contacted, and work shall not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98.
- 7) Procedures for treatment of an inadvertent discovery of human remains:
- a) Immediately following discovery of known or potential human remains all ground-disturbing activities at the point of discovery shall be halted.
 - b) No material remains shall be removed from the discovery site, a reasonable exclusion zone shall be cordoned off.
 - c) The CDFW Grant Manager and property owner shall be notified and the CDFW Grant Manager shall contact the county coroner.
 - d) CDFW shall retain the services of a professional archaeologist to immediately examine the find and assist the process.
 - e) All ground-disturbing construction activities in the discovery site exclusion area shall be suspended.
 - f) The discovery site shall be secured to protect the remains from desecration or disturbance, with 24-hour surveillance, if prudent.
 - g) Discovery of Native American remains is a very sensitive issue, and all project personnel shall hold any information about such a discovery in confidence and divulge it only on a need-to-know basis, as determined by the CDFW.
 - h) The coroner has two working days to examine the remains after being notified. If the remains are Native American, the coroner has 24 hours to notify the NAHC in Sacramento (telephone 916/653-4082).
 - i) The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD) of the deceased Native American.
 - j) The MLD may, with the permission of the landowner, or their representative, inspect the site of the discovered Native American remains and may recommend to the landowner and CDFW Grant Manager means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The descendants shall complete their inspection and make

recommendations or preferences for treatment with 48 hours of being granted access to the site (Public Resource Code, Section 5097.98(a)). The recommendation may include the scientific removal and non-destructive or destructive analysis of human remains and items associated with Native American burials.

- k) Whenever the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner or his/her authorized representative rejects the recommendation of the MLD and mediation between the parties by the NAHC fails to provide measures acceptable to the landowner, the landowner or his/her authorized representatives shall re-inter the human remains and associated grave offerings with appropriate dignity on the property in a location not subject to further subsurface disturbance in accordance with Public Resource Code, Section 5097.98(e).
 - l) Following final treatment measures, the CDFW shall ensure that a report is prepared that describes the circumstances, nature and location of the discovery, its treatment, including results of analysis (if permitted), and final disposition, including a confidential map showing the reburial location. Appended to the report shall be a formal record about the discovery site prepared to current California standards on DPR 523 form(s). CDFW shall ensure that report copies are distributed to the appropriate California Historic Information Center, NAHC, and MLD.
- 8) Pursuant to RGP78 and in accordance to 36 C.F.R. Section 800.13, in the event of any discovery during construction of human remains, archeological deposits, or any other type of historic property, the CDFW shall notify the USACE archeological staff (Steve Dibble at 213-452-3849 or John Killeen at 213-452-3861) within 24 hours. Construction work shall be suspended immediately and shall not resume until USACE re-authorizes project construction.
- 9) If it becomes impossible to implement the project at a work site without disturbing cultural or paleontological resources, then activity at that work site shall be discontinued.

VI. GEOLOGY AND SOILS

There is no potential for a significant adverse impact to geology and soils; implementation of the restoration project will contribute to an overall reduction in erosion and sedimentation. Existing roads will be used to access work sites. Ground disturbance at most work sites will be minimal, except for road improvements or decommissioning. Road improvements and decommissioning will involve moving large quantities of soil from road fills and stream crossings to restore historic land surface profiles and prevent chronic erosion and sediment delivery to streams. In order to avoid temporary increases in surface erosion, the following mitigation measures will be implemented:

- 1) CDFW will implement the following measures to minimize harm to listed salmonids resulting from culvert replacement activities and other instream construction work:
 - a) All stream crossing replacement or modification designs, involving fish passage, shall be reviewed and approved by NOAA (or CDFW) engineers prior to onset of work.
 - b) If the stream in the project location was not passable to, or was not utilized by all life stages of, all covered salmonids prior to the existence of the road crossing, the project shall pass the life stages and covered salmonid species that historically did pass there. Retrofit culverts shall meet the fish passage criteria for the passage needs of the listed species and life stages historically passing through the site prior to the existence of the road crossing.
- 2) CDFW shall implement the following measures to minimize harm to listed salmonids resulting from road decommissioning activities:
 - a) Woody debris will be concentrated on finished slopes of decommissioned roads adjacent to stream crossings to reduce surface erosion; contribute to amounts of organic debris in the soil; encourage fungi; provide immediate cover for small terrestrial species; and to speed recovery of native forest vegetation.
 - b) Work sites shall be winterized at the end of each day to minimize the eroding of unfinished excavations when significant rains are forecasted. Winterization procedures shall be supervised by a professional trained in erosion control techniques and involve taking necessary measures to minimize erosion on unfinished work surfaces. Winterization includes the following: smoothing unfinished surfaces to allow water to freely drain across them without concentration or ponding; compacting unfinished surfaces where concentrated runoff may flow with an excavator bucket or similar tool, to minimize surface erosion and the formation of rills; and installation of culverts, silt fences, and other erosion control devices where necessary to convey concentrated water across unfinished surfaces, and trap exposed sediment before it leaves the work site.
- 3) Effective erosion control measures shall be in-place at all times during construction. Construction within the 5-year flood plain shall not begin until all temporary erosion controls (i.e., straw bales or silt fences that are effectively keyed-in) are in place down slope or down stream of project activities within the riparian area. Erosion control measures shall be maintained throughout the construction period. If continued erosion is likely to occur after construction is completed, then appropriate erosion prevention measures shall be implemented and maintained until erosion has subsided.

- 4) An adequate supply of erosion control materials (gravel, straw bales, shovels, etc.) shall be maintained onsite to facilitate a quick response to unanticipated storm events or emergencies.
- 5) Use erosion controls that protect and stabilize stockpiles and exposed soils to prevent movement of materials. Use devices such as plastic sheeting held down with rocks or sandbags over stockpiles, silt fences, or berms of hay bales, to minimize movement of exposed or stockpiled soils.
- 6) When needed, instream grade control structures shall be utilized to control channel scour, sediment routing, and headwall cutting.
- 7) Temporary stockpiling of excavated material shall be minimized. However, excavated material shall be stockpiled in areas where it cannot enter the stream channel. Available sites at or near the project location shall be determined prior to the start of construction. If feasible, topsoil shall be conserved for reuse at project location or use in other areas.
- 8) For projects located within the USACE San Francisco District, an annual limit on the number of sediment-producing projects per HUC 10 watershed shall be implemented to ensure that potential sediment impacts will remain spatially isolated, thus minimizing cumulative turbidity effects. Sediment producing projects include instream habitat improvement, instream barrier removal, stream bank stabilization, fish passage improvement, upslope road work, and fish screen construction (unless the screen is located in a diversion ditch and is disconnected from the waterway). The limit of projects shall be as follows:

Square mile of HUC 10 watershed	Maximum number of instream and upslope projects per year
<50	2
51-100	3
101-150	4
151-250	5
251-350	6
351-500	9
>500	12

- 9) Each year, all instream projects shall be separated both upstream and downstream from other proposed instream projects by at least 1500 linear feet in fish bearing stream reaches. In non-fish bearing reaches, the distance separating sediment-producing projects will be 500 feet.
- 10) Upon project completion, all exposed soil present in and around the project site shall be stabilized within 7 days. Soils exposed by project operations shall be mulched to prevent sediment runoff and transport. Mulches shall be applied so that not less than 90% of the disturbed areas are covered. All mulches, except

hydro-mulch, shall be applied in a layer not less than two (2) inches deep. Where feasible, all mulches shall be kneaded or tracked-in with track marks parallel to the contour, and tackified as necessary to prevent excessive movement. All exposed soils and fills, including the downstream face of the road prism adjacent to the outlet of culverts, shall be reseeded with a mix of native grasses common to the area, free from seeds of noxious or invasive weed species, and applied at a rate which will ensure establishment.

- 11) Soil compaction shall be minimized by using equipment with a greater reach or that exerts less pressure per square inch on the ground, resulting in less overall area disturbed and less compaction of disturbed areas.
- 12) Disturbed soils shall be decompacted at project completion as heavy equipment exits the construction area.
- 13) At the completion of the project, soil compaction that is not an integral element of the design of a crossing should be de-compacted.

VII. GREENHOUSE GAS EMISSIONS

No specific mitigation measures are required. Re-vegetation practices will help offset the short term, less than significant, greenhouse gas emissions.

VIII. HAZARDS AND HAZARDOUS MATERIALS

The project will not create a significant hazard to the public or the environment. At work sites requiring the use of heavy equipment, there is a small risk of an accident upsetting the machine and releasing fuel, oil, and coolant, or of an accidental spark from equipment igniting a fire. The potential for these impacts will be reduced to a less than significant level through implementation of the following mitigation measures:

- 1) Heavy equipment that will be used in these activities will be in good condition and will be inspected for leakage of coolant and petroleum products and repaired, if necessary, before work is started.
- 2) When operating vehicles in wetted portions of the stream channel, or where wetland vegetation, riparian vegetation, or aquatic organisms may be destroyed, the responsible party shall, at a minimum, do the following:
 - a) check and maintain on a daily basis any vehicles to prevent leaks of materials that, if introduced to water, could be deleterious to aquatic life, wildlife, or riparian habitat;

- b) take precautions to minimize the number of passes through the stream and to avoid increasing the turbidity of the water to a level that is deleterious to aquatic life; and
 - c) allow the work area to "rest" to allow the water to clear after each individual pass of the vehicle that causes a plume of turbidity above background levels, resuming work only after the stream has reached the original background turbidity levels.
- 3) All equipment operators shall be trained in the procedures to be taken should an accident occur. Prior to the onset of work, CDFW shall ensure that the grantee has prepared a Spill Prevention/Response plan to help avoid spills and allow a prompt and effective response should an accidental spill occur. All workers shall be informed of the importance of preventing spills. Operators shall have spill clean-up supplies on site and be knowledgeable in their proper deployment.
 - 4) All activities performed in or near a stream will have absorbent materials designed for spill containment and cleanup at the activity site for use in case of an accidental spill. In an event of a spill, work shall cease immediately. Clean-up of all spills shall begin immediately. The responsible party shall notify the State Office of Emergency Services at 1-800-852-7550 and the CDFW immediately after any spill occurs, and shall consult with the CDFW regarding clean-up procedures.
 - 5) All fueling and maintenance of vehicles and other equipment and staging areas shall occur at least 65 feet from any riparian habitat or water body and place fuel absorbent mats under pump while fueling. The USACE and the CDFW will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the CDFW will ensure that the grantee has prepared a plan to allow a prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
 - 6) Location of staging/storage areas for equipment, materials, fuels, lubricants, and solvents, will be located outside of the stream's high water channel and associated riparian area. The number of access routes, number and size of staging areas, and the total area of the work site activity shall be limited to the minimum necessary to complete the restoration action. To avoid contamination of habitat during restoration activities, trash will be contained, removed, and disposed of throughout the project.
 - 7) Petroleum products, fresh cement, and other deleterious materials shall not enter the stream channel.

- 8) Stationary equipment such as motors, pumps, generators, compressors, and welders, located within the dry portion of the stream channel or adjacent to the stream, will be positioned over drip-pans.
- 9) No debris, soil, silt, sand, bark, slash, spoils, sawdust, rubbish, cement, concrete or washings thereof, asphalt, paint, or other coating material; oil or petroleum products; or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into, or placed where it may be washed by rainfall or runoff into, waters of the state. When operations are completed, any excess materials or debris shall be removed from the work area and disposed of in a lawful manner.
- 10) All internal combustion engines shall be fitted with spark arrestors.
- 11) The grantee shall have an appropriate fire extinguisher(s) and fire fighting tools (shovel and axe at a minimum) present at all times when there is a risk of fire.
- 12) Vehicles shall not be parked in tall grass or any other location where heat from the exhaust system could ignite a fire.
- 13) The grantee shall follow any additional rules the landowner has for fire prevention.
- 14) The potential for mercury contamination is largely predicted by the presence of historic hydraulic gold mines and mercury (cinnabar) mines (California's Abandoned Mines: A Report on the Magnitude and Scope of the Issue in the State, DOC 2000). Therefore, only a few limited areas within the geographic scope of this grant program have any potential for gravels contaminated with elemental mercury, they are: Middle Klamath River, Salmon River, Scott River, and the Lower Middle and Upper Trinity River. (Though studies by the USGS failed to find significant levels of methyl mercury near these mines.)
 - a) Given the limited geographical potential for encountering mercury contamination (from historic mining) within the geographic scope, and the limited number of projects within these areas that will either disturb the channel bottom or import gravels for instream restoration; the following avoidance and mitigation measure will be adhered to: any gravel imported from offsite shall be from a source known to not contain historic hydraulic gold mine tailings, dredger tailings, or mercury mine waste or tailings.

IX. HYDROLOGY AND WATER QUALITY

- 1) Instream work shall be conducted during the period of lowest flow.
- 2) Before work is allowed to proceed at a site, CDFW shall inspect the site to assure that turbidity control measures are in place.

- 3) The waste water from construction area shall be discharged to an upland location where it will not drain sediment-laden water back to stream channel.
- 4) For projects within the USACE San Francisco District, if instream work liberates a sediment wedge, 80% of the wedge shall be removed before the sediment is liberated. The required amount can be modified if NOAA or CDFW hydrologists or hydraulic engineers agree that removing a smaller amount will better protect and enhance fish habitat in the area of the project (e.g., leaving some sediment to replenish areas downstream that lack suitable substrate volume or quality).
- 5) To control erosion during and after project implementation, CDFW shall implement best management practices, as identified by the appropriate Regional Water Quality Control Board.
- 6) Sediment-laden water caused by construction activity shall be filtered before it leaves the right-of-way or enters the stream network or an aquatic resource area. Silt fences or other detention methods shall be installed as close as possible to culvert outlets to reduce the amount of sediment entering aquatic systems.
- 7) If CDFW determines that turbidity/siltation levels resulting from an activity or activities constitute a threat to aquatic life, all activities associated with the turbidity/siltation shall cease until effective CDFW approved sediment control devices are installed and/or abatement procedures are implemented.
- 8) Poured concrete shall be excluded from the wetted channel for a period of two weeks after it is poured. During that time the poured concrete shall be kept moist, and runoff shall not be allowed to enter flowing stream. Commercial sealants shall be applied to the poured concrete surface where concrete cannot be excluded from the stream flow for two weeks. If sealant is used, water shall be excluded from the site until the sealant is dry.
- 9) If the CDFW determines that turbidity/siltation levels resulting from an activity or activities constitute a threat to aquatic life, all activities associated with the turbidity/siltation shall cease until effective CDFW approved sediment control devices are installed and/or abatement procedures are implemented.
- 10) Prior to use, all equipment shall be cleaned to remove external oil, grease, dirt, or mud. Wash sites shall be located in upland locations so that dirty wash water does not flow into the stream channel or adjacent wetlands.
- 11) Water conservation projects that include water storage tanks and a Forbearance Agreement, for the purpose of storing winter water for summer use, require registration of water use pursuant to the Water Code §1228.3, and require consultation with CDFW and compliance with all lawful conditions required by CDFW. Diversions to fill storage facilities during the winter and spring months shall be made pursuant to a Small Domestic Use Appropriation (SDU) filed with

the State Water Resources Control Board (SWRCB). CDFW will review the appropriation of water to ensure fish and wildlife resources are protected. The following conditions shall then be applied:

- a) Seasonal Restriction: No pumping is allowed when stream flow drops below 0.7 cubic feet per second (cfs) except as permitted by CDFW in the event of an emergency.
- b) Bypass Flows: Pumping withdrawal rates shall not exceed 5% of stream flow. If CDFW determines that the streamflow monitoring data indicate that fisheries are not adequately protected, then the bypass flows are subject to revision by CDFW.
- c) Cumulative Impacts: Pumping days shall be assigned to participating landowner(s) when streamflows drop below 1.0 cfs to prevent cumulative impacts from multiple pumps operating simultaneously.
- d) Pump Intake Screens: Pump intake screens shall comply with the "2000 California Department of Fish and Game Screening Criteria"* for California streams that provide habitat for juvenile coho salmon, Chinook salmon and steelhead. The landowner shall be responsible for annual inspection and maintenance of screens. Additionally, the landowner shall be responsible for cleaning screens as needed to keep them free of debris and ensure that screen function complies with the criteria specifications.
- e) These conditions do not authorize incidental take of any species, removal of riparian vegetation, or bed, bank, or channel alteration.
- f) CDFW shall be granted access to inspect the pump system. Access is limited to the portion of the landowner's real property where the pump is located and those additional portions of the real property which must be traversed to gain access to the pump site. Landowners shall be given reasonable notice and any necessary arrangements will be made prior to requested access including a mutually-agreed-upon time and date. Notice may be given by mail or by telephone with the landowner or an authorized representative of the landowner. The landowner shall agree to cooperate in good faith to accommodate CDFW access.

* Fish Screening Criteria are from "State of California Resources Agency Department of Fish and Game Fish Screening Criteria, June 19, 2000." The "approach velocity" shall be calculated according to Section 2C "Screens which are not Self Cleaning."

X. LAND USE AND PLANNING

No specific mitigation measures are required for land use and planning.

XI. MINERAL RESOURCES

No specific mitigation measures are required for mineral resources.

XII. NOISE

Personnel shall wear hearing protection while operating or working near noisy equipment (producing noise levels ≥ 85 db, including chain saws, excavators, and back hoes). No other specific mitigation measures are required for noise.

XIII. POPULATION AND HOUSING

No specific mitigation measures are required for population and housing.

XIV. PUBLIC SERVICES

No specific mitigation measures are required for public services.

XV. RECREATION

No specific mitigation measures are required for recreation.

XVI. TRANSPORTATION/TRAFFIC

The project will not affect transportation/traffic, because erosion control and culvert replacement projects will occur in wildland/rural sites with very little use. There is a potential that culvert replacement at some work sites could temporarily interfere with emergency access. This potential impact will be avoided through implementation of the following mitigation measure at any sites where emergency access might be necessary:

- 1) During excavation for culvert replacement, the grantee shall provide a route for traffic around or through the construction site.

XVII. UTILITIES AND SERVICE SYSTEMS

No specific mitigation measures are required for utilities and service systems.

SECTION 2: MONITORING AND REPORTING

CDFW shall implement the following measures to ensure that individual restoration projects authorized annually through the RGP (RGP12 and RGP78) will minimize take of listed salmonids, monitor and report take of listed salmonids, and to obtain specific information to account for the effects and benefits of salmonid restoration projects authorized through the RGP.

- 1) CDFW shall provide USACE, NOAA, and USFWS notification of projects that are authorized through the RGP. The notification shall be submitted at least 90 days prior to project implementation and must contain specific project information including; name of project, type of project, location of project including hydrologic unit code (HUC), creek, watershed, city or town, and county.
- 2) CDFW Grant Manager shall inspect the work site before, during, and after completion of the action item, to ensure that all necessary mitigation measures to avoid impacts are properly implemented.
- 3) CDFW shall perform implementation monitoring immediately after the restoration activity is completed to ensure that projects are completed as designed.
- 4) CDFW shall perform effectiveness/validation monitoring on at least 10 percent of restoration projects funded annually. A random sample, stratified by project type and region, shall be chosen from the pool of new restoration projects approved for funding each year. Pre-treatment monitoring shall be performed for newly selected projects, and post-treatment monitoring will be performed within three years following project completion.
- 5) Current monitoring forms and instructions used by CDFW for the implementation monitoring and effectiveness monitoring are found in the California Salmonid Stream Habitat Restoration Manual. CDFW shall submit a copy of the annual report, no later than March 1 annually to NOAA.
- 6) The CDFW annual report to NOAA shall include a summary of all restoration action items completed during the previous year. The annual report shall include a summary of the specific type and location of each project, stratified by individual project, 5th field HUC and affected species and evolutionary significant unit (ESU)/Distinct Population Segment (DPS). The report shall include the following project-specific summaries, stratified at the individual project, 5th field HUC, and ESU level:
 - a) A summary detailing fish relocation activities; including the number and species of fish relocated and the number and species injured or killed. Any capture, injury, or mortality of adult salmonids or half-pounder steelhead shall be noted in the monitoring data and report. Any injuries or mortality from a fish

relocation site that exceeds 3.0% of the affected listed species shall have an explanation describing why.

- b) The number and type of instream structures implemented within the stream channel.
 - c) The length of stream bank (feet) stabilized or planted with riparian species.
 - d) The number of culverts replaced or repaired, including the number of miles of restored access to unoccupied salmonid habitat.
 - e) The distance (miles) of road decommissioned.
 - f) The distance (feet) of aquatic habitat disturbed at each project site.
- 7) CDFW shall incorporate project data into a format compatible with the CDFW/NOAA/Pacific Fisheries Management Council Geographic Information System (GIS) database, allowing scanned project-specific reports and documents to be linked graphically within the GIS database.
- 8) For Marin, Monterey, Napa, San Mateo, Santa Clara, Santa Cruz, and Sonoma Counties, CDFW shall submit an annual report due by January 31 (RGP12) of each year of implemented projects to the U.S. Fish and Wildlife Service Office, 2800 Cottage Way, Sacramento, California 95825. The report must include:
- a) A table documenting the number of California red-legged frogs killed, injured, and handled during each FHR project that utilizes the USACE authorization.
 - b) A summary of how the terms and conditions of the biological opinions (file no. 08ESMF00-2016-F-0874) and the protective measures by the USACE and CDFW worked.
 - c) Any suggestions of how the protective measures could be revised to improve conservation of this species while facilitating compliance with the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act).
- 9) For Los Angeles, Santa Barbara, San Luis Obispo, and Ventura Counties, CDFW shall submit an annual report due by January 31 (RGP12) and February 28 (RGP78) of each year of implemented projects to the U.S. Fish and Wildlife Service Office, 2493 Portola Road, Suite B, Ventura, California 93003. The report must include:
- a) A table documenting the number of red-legged frogs killed, injured, and handled during each FHR project that utilizes the USACE authorization.
 - b) A summary of how the terms and conditions of the biological opinions (file no. 08EVEN00-2016-F-0093 and 2008-F-0441) and the protective measures by the USACE and CDFW worked.
 - c) Any suggestions of how these protective measures could be revised to improve conservation of this species while facilitating compliance with the Act.

- 10) CDFW shall submit annual reports on July 1 of each year to the 401 Program Managers of the State Water Resources Control Board and the appropriate Regional Water Quality Control Boards documenting work undertaken during the preceding year and identifying for all such work:
 - a) Project name and grant number;
 - b) Project purpose and brief description;
 - c) Name(s) of affected water body(ies);
 - d) Latitude/longitude in decimal degrees to at least four decimals;
 - e) For ongoing projects:
 - i. Project progress and schedule including initial ground disturbance, site clearing and grubbing, road construction, site construction, and the implementation status of construction storm water best management practices (BMPs).
 - a. If construction has not started, provide estimated start date and reasons for delay.
 - ii. Map showing general project progress.
 - iii. Mitigation for temporary impact status
 - a. Planned date of initiation and map showing locations of mitigation for temporary impacts to waters of the state and all upland areas of temporary disturbance which could result in a discharge to waters of the state.
 - b. If mitigation for temporary impacts has already commenced, provide a map and information concerning attainment of performance standards contained in the restoration plan.
 - iv. Restoration and enhancement status
 - a. Planned date of initiation of vegetation installation.
 - b. If installation is in progress, a map of what has been completed to date.
 - c. If the restoration site has been installed, provide a final map and information concerning attainment of performance standards contained in the individual project specifications.
 - f) For projects completed during the year:
 - i. The type(s) of receiving (affected) water body(ies) (e.g. at minimum: river/streambed, lake/reservoir, ocean/estuary/bay, riparian area, or wetland type); and

- ii. The total quantity in acres of each type of receiving water body temporarily impacted, and permanently impacted;
 - iii. Pre- and post-photo documentation of all restoration sites, including revegetation sites.
 - iv. A report establishing that the performance standards outlined in the individual project specifications have been met.
 - v. Final map of all restoration areas.
 - vi. A report establishing that the performance standards outlined in the restoration plan have been met for each project site upland areas and/or waters of temporary disturbance.
- g) For each water body type affected, the quantity of waters of the U.S. temporarily and permanently impacted. Fill/excavation discharges shall be reported in acres and fill/excavations discharges for channels, shorelines, riparian corridors, and other linear habitat shall also be reported in linear feet;
- h) Actual construction start and end-dates;
- i) Whether the project is on-going or completed.
- j) Copies of reports documenting the following monitoring activities:
- i. Post-project monitoring immediately after the activity is completed to ensure that projects are completed as designed; and
 - ii. Effectiveness monitoring on a random subset of 10% of the projects, within one to three years after project completion.
- 11) CDFW shall report any previously unknown historic archeological and paleontological remains discovered at a site to the USACE as required in the RGP. This information will also be provided to the Native American Heritage Commission, 915 Capitol Mall, Sacramento, CA 95814.
- 12) Pursuant to RGP78, CDFW shall monitor and maintain the structures or work conducted at a given site for at least three years after construction to ensure the integrity of the structure and successful growth of the planted vegetation.
- 13) CDFW shall allow representatives of USACE to inspect the authorized activities at any time deemed necessary to ensure that they are being or have been accomplished with the terms and conditions of the RGP.
- 14) Pursuant to RGP78, CDFW shall notify the USACE annually of the year's projects. If the USACE has not issued a Notice to Proceed (NTP) or identified any issues (verbal or written) within 60 days of receive the notifications, CDFW can proceed with project. The NTP may include site specific special conditions to avoid and minimize adverse impacts to waters of the U.S and shall be valid for the duration of the RGP78 unless there is a change in the project's scope of work.