July 11, 2019

Timothy Chorey
California Department of Fish and Wildlife
Fisheries Restoration Grants Program
P.O. Box 944209
Sacramento CA, 94244-2090

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER FOR THE 2018 FISHERIES HABITAT RESTORATION PROJECTS (SB19008IN)

Dear Mr. Chorey:

Enclosed please find a Clean Water Act section 401 Water Quality Certification and Order, authorized by State Water Resources Control Board Executive Director, Eileen Sobeck. This Order is issued to Timothy Chorey, California Department of Fish and Wildlife for 2018 Fisheries Habitat Restoration Projects (Project). Attachments A through G of the Enclosure are also part of the Order.

This Order is issued in response to an application submitted by the California Department of Fish and Wildlife for proposed Project discharges to waters of the state, to ensure that the water quality standards are met for all waters of the state impacted by the Project. 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 Jessica Nadolski, Chief of the Wetlands Permitting and Enforcement Unit, by phone at (916) 341-5290 or email at Jessica.Nadolski@waterboards.ca.gov

Sincerely,

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

Enclosures (1): Order for 2018 Fisheries Habitat Restoration Projects

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

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Effective Date: July 11, 2019

Program Type: Restoration

Reg. Meas. ID:	429076
Place ID:	856447
SWRCB ID:	SB19008IN
USACOE#:	2003-279220 and SPL-2003-01123-BAH

Project Type: Ecological Aquatic/Stream/Habitat Restoration

Project: 2018 Fisheries Habitat Restoration Projects (Project)

Applicant: California Department of Fish and Wildlife (CDFW)

Applicant Contact:
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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 Wetlands Permitting and Enforcement Unit Supervisor.

Table of Contents

I. Order

This Clean Water Act (CWA) section 401 Water Quality Certification action and Order (Order) with attachments A through G is issued at the request of the California Department of Fish and Wildlife (CDFW, herein after Permittee) for the Project. This Order is for the purpose described in the application submitted by the Permittee. The application was received on February 25, 2019 and was deemed complete on March 26, 2019.

State Water Board staff requested additional information necessary to supplement the contents of the complete application and the Permittee responded to the request for supplemental information on the following dates (Table 1).

Table 1 Record of Supplemental Application Information

Date of Request for Supplemental Information	Date All Requested Information was Received
3/26/2019	3/27/2019

II. Public Notice

The State Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 from June 10, 2019 to July 1, 2019. The State Water Board received one (1) comment regarding the Project during the twenty-one (21) day comment period. The comment received stated that the driving factor which has led to the decline of salmon populations on the west coast is ocean overfishing, not stream habitat limitations. This comment is not related to any proposed Project actions or conditions and this Order does not, and cannot, create or change fishing regulations. Therefore, no changes were made in response to the comment. Public notice regarding the IS/MND is also described in Attachment C, CEQA Findings of Fact.

III. Project Purpose

The purpose of the Project is to (1) restore anadromous fisheries habitat in non-tidal reaches of rivers and streams, (2) improve watershed condition, and (3) improve the survival, growth, migration, and reproduction of anadromous fishes.

IV. Project Description

The 2018 Fisheries Habitat Restoration (FHR) Project (Project) includes Fisheries Restoration Grant Program (FRGP) projects and Forest Land Anadromous Restoration (FLAR) projects. The entities that implement these individual projects (Grantees) use grant funds to restore degraded anadromous fish habitat in coastal streams. Individual restoration projects must be implemented in accordance with procedures found in the most recent version of the “California Salmonid Stream Habitat Restoration Manual.”

This Project supports a variety of restoration activities including improving shelter, spawning gravels, and pool habitat; reducing or eliminating erosion and sedimentation impacts; improving screen diversions and removing barriers to fish passage. These habitat restoration activities conform to the mandates of the California Legislature in the Fish and Game Code and Public Resources Code.

Individual project descriptions can be found in Table 3 of Attachment B.

V. Project Location

The proposed Project consists of individual project sites in the following counties: Humboldt, Marin, Mendocino, Santa Barbara[1], Siskiyou, and Sonoma. A map showing the Project location 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, San Francisco Bay, and Central Coast 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. Proposed 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 associated with 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, or which may discharge to, waters of the state; and (6) 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 only degrading ecological condition.

[1] Impacts and restoration for the single project in Santa Barbara County, within the Central Coast Regional Water Quality Control Board's boundaries, "Fish Passage Improvement at Crossing 8, Quiota Creek" is not included in this Order, but will be added at a later date as an amendment to this Order.

Table 2: Total Project Fill/Excavation Quantity[2]									
Aquatic Resource Type	Temporary Impact[3]			Permanent Impact					
				Physical Loss of Area			Degradation of Ecological Condition Only		
	Acres	CY	LF	Acres	CY	LF	Acres	CY	LF
Riparian Zone	3.01		10,126	0.382		798			
Stream Channel	7.75		23,747	1.69		8,433			

VIII. Description of Indirect Impacts to Waters of the State

The State Water Board recognizes the potential for indirect impacts to waters of the state associated with the Project. Indirect impacts to waters of the state and their designated beneficial uses could potentially result from Project activities. Such impacts would likely be short term and may result from the installation of instream structures, removal of instream structures, and disturbances associated with access routes. The potential indirect impacts are adequately reduced through adherence to this Order and the Project Mitigation Measures, Monitoring and Reporting Program (MMRP), included in Attachment G.

IX. Avoidance and Minimization

Projects receiving certification from the State Water Board must demonstrate that the Project design has first avoided and then minimized impacts to waters of the state to the maximum extent practicable. Adequate avoidance and minimization measures to waters of the state are required by the Project's Mitigated Negative Declaration (MND) and MMRP, included in Attachment G. The minimization measures generally focus on preventing degradation of beneficial uses by: preventing wastes from entering waters of the state; preventing degradation of water quality caused by water diversions and construction activities, preventing harm to aquatic and riparian organisms, preventing channel/riparian instability, and monitoring to prevent pollutant discharges to waters of the state.

X. Compensatory Mitigation

No compensatory mitigation is required for permanent impacts because the Project involves fisheries restoration that results in a net benefit to waters of the state.

XI. California Environmental Quality Act (CEQA)

On September 28, 2018, the CDFW , as lead agency, adopted an initial study/mitigated negative declaration (IS/MND) (State Clearinghouse (SCH) No. 2018092067) for the Project and filed a Notice of Determination (NOD) at the SCH on November 28, 2018. 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.

[2] Cubic Yards (CY); Linear Feet (LF)

[3] 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.

XII. 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 thirty (30) calendar days of the issuance of this Order.

XIII. Fees Received

An application fee of $437 was received on February 25, 2019. 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.

XIV. 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 applicable watersheds. 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 D, 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 D, 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 July 1. Annual reporting shall continue until a Notice of Project Complete Letter is issued to the Permittee.

2. Project Status Notifications

a. Commencement of Construction: Each year, the Permittee shall submit a Commencement of Construction Report at least twenty-four (24) hours prior to start of in-stream work activities. The Commencement of Construction Report shall list the anticipated 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, including any required restoration and permittee-responsible mitigation. 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,[4] 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 Materials**[5]

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
- 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 twenty-four [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.

[4] 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.

[5] "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.)

i. Examples of noncompliance events include (but are not limited to): 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 twenty-four (24) 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.

e. Transfer of Long-Term BMP Maintenance: If maintenance responsibility for post-construction best management practices (BMPs) is legally transferred, the Permittee must submit to the State Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer or designer specifications. The Permittee must provide such notification to the State Water Board with a Transfer of Long-Term BMP Maintenance Report at least ten (10) days prior to the transfer of BMP maintenance responsibility.

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 prior to commencement of any individual 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 of appropriate parameters. The plan should include monitoring of key water quality parameters, such as specific conductance, pH, turbidity, water temperature, and dissolved oxygen, both upstream and downstream of the diversion while diversions are being installed and removed. Monitoring may be limited to visual inspections while diversions are in place and functioning properly.

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 ensure that, at all times, each individual Grantee 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 must ensure that each individual Grantee adheres to all requirements in the mitigation monitoring and reporting program (Mitigation Measures, Monitoring and Reporting Program For the 2018 Fisheries Habitat Restoration Project, September 28, 2018, Attachment G) 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).

F. Administrative

1. Signatory requirements for all document submittals required by this Order are presented in Attachment E.

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, North Coast, San Francisco Bay, and Central Coast Regional Water Quality Control 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 Grantees and any consultants, contractors, and subcontractors working on the Project. Copies of this Order shall remain at the Project sites for the duration of this Order. The Permittee shall be responsible for work conducted by its Grantees, consultants, contractors, and any subcontractors.

5. A copy of this Order must be available at all 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

Dewatering and Other In-Water Work

1. All temporary dewatering/diversion methods shall be designed to isolate the immediate work area and to have the minimum necessary impacts to waters of the state.

2. All dewatering/diversion facilities shall be installed such that natural flow is maintained upstream and downstream of Project areas.

3. Any temporary dams or diversions shall be installed such that the dewatering/diversion does not cause sedimentation, siltation, or erosion upstream or downstream of Project areas.

4. All dewatering/diversion methods shall be removed immediately upon completion of dewatering/diversion activities.

5. 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 stream flow.

6. The Permittee shall not use or allow the use of erosion control products that contain synthetic materials within waters of the state at any time, except for plastic sheeting used in water diversion and dewatering activities. The Permittee shall first request approval from the State Water Board if an exception from this requirement is needed for a specific location.

7. All work performed within waters of the state shall be completed in a manner that minimizes impacts to beneficial uses.

Fugitive Dust

8. If dust suppression measures are utilized, they shall be performed such that they do not result in a discharge to waters of the state.

Good Site Management "Housekeeping"

9. Except for temporary stockpiling of waste or spoils generated by Project activities (temporary in this instance means generated and removed during the same working day), waste materials shall not be placed in a manner where they may be washed by rainfall, or otherwise discharged into waters of the state.

10. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete Project implementation.

11. Where temporary or permanent impacts have not been approved, construction vehicles must not enter waters of the state.

12. When no longer needed, all construction-related equipment, materials, and temporary BMPs shall be removed from Project sites.

13. All imported riprap, rocks, and gravels that are used shall be pre-washed.

Hazardous Materials

14. Prior to use in waters of the state, all equipment shall be cleaned of any substances that are detrimental to water quality.

15. All operation and storage of vehicles and equipment shall not result in a discharge or threatened discharge of oil, grease, other petroleum products, or any other waste that may be detrimental to the quality of waters of the state.

16. Vehicles and equipment that operate in waters of the state shall be regularly inspected for leaks. At no time shall the Permittee allow the use of any vehicle or equipment that leaks any substance possibly detrimental to water quality.

17. Raw cement, concrete (or washing thereof), asphalt, drilling fluids, lubricants, paints, coating material, oil, petroleum products, or any other substances which could be hazardous to fish and wildlife resulting from or disturbed by project-related activities, shall be prevented from contaminating fill material and/or entering waters of the state.

18. Equipment working in waters of the state, including in areas protected by diversions, shall be removed from the delineated waters for fueling, service, or maintenance whenever feasible. When use of stationary equipment that requires refueling or service in delineated waters is planned, BMPs for managing the additional risk posed by that refueling and service shall be implemented. Such BMPs should include any precautions as necessary to ensure potential spills and leaks do not result in a discharge into waters of the state.

19. On-site containment for storage of chemicals classified as hazardous shall include secondary containment and appropriate management as indicated in the Construction General Permit.

Invasive Species and Soil Borne Pathogens

20. Imported fill material must be free of weed and invasive species' seeds and live plants.

21. Equipment and machinery used in Project construction shall be inspected and cleaned of non-native invasive vegetation prior to on-site use.

Roads

22. Existing roads shall be used to access Project sites when practicable.

23. All existing roads used for the Project shall be left in a condition equal to or better than their condition prior to Project use.

24. Where use of existing roads is not practicable, temporary access routes shall be designed and constructed such that they do not cause a discharge to waters of the state. Several forest road planning, construction, and maintenance guidebooks exist for reference when identifying potential access routes.

25. Construction of new temporary access roads shall be limited to the minimum necessary to complete the Project.

Special Status Species

26. The Permittee shall follow all measures identified in the MMRP (Attachment G) and all conditions of other state and federal permits pertaining to special status species that may be affected by the Project.

Stabilization/Erosion Control

27. Effective erosion and sediment control BMPs shall be used for all disturbed areas to prevent discharges to waters of the state.

28. All erosion and sediment control materials shall be onsite and ready for use prior to initiation of ground disturbing activities.

29. Sediment control structures shall be installed and maintained for effectiveness at least forty-eight (48) hours before a rain event and shall be repaired or replaced as needed. Buildup of soil behind silt fences shall be removed and any breaches or undermined areas repaired.

30. Disturbed work areas within waters of the state must be temporarily stabilized to prevent erosion at least forty-eight (48) hours prior to the predicted commencement of a rainfall event that is forecast to bring greater than or equal to one-half inch of precipitation with a greater than a fifty (50) percent probability of occurrence, as predicted by the National Oceanic and Atmospheric Administration (NOAA) - National Weather Service. If the predicted commencement of such a rainfall event is less than forty-eight (48) hours after the prediction is issued, temporary stabilization of the disturbed in-water work areas must begin immediately

TMDL

31. Project activities must not cause or contribute to an exceedance of wasteload allocations within any waters with Total Maximum Daily Loads (TMDLs).

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 MMRP and the individual project specifications which were submitted as part of the application and incorporated herein by reference.

2. The State Water Board may extend the monitoring period beyond requirements of the MMRP or restoration plan 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. Compensatory mitigation may be required for any authorized impact site (as listed in Attachment B, Table 2) where first-year restoration work for disturbed areas in, or immediately adjacent to, waters of the state is not completed within one year of the conclusion of ground-disturbing activity (i.e., to offset temporal loss of aquatic resource functions or beneficial uses).

Table 3: Required Project Mitigation Quantity for Temporary Impacts

Aquatic Resource Type	Mit. Type[6]	Units	Method[7]					
			Est.	Re-est.	Reh.	Enh.	Pres.	Unknown
Riparian Zone	PR	Acres			3.01			
Riparian Zone	PR	LF			10,126			
Stream Channel	PR	Acres			7.75			
Stream Channel	PR	LF			23,747			

[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.

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

Table 4: Total Ecological Restoration and Enhancement Quantity

Aquatic Resource Type	Res.[8] Type	Units	Method[9]				
			Est.	Re-est.	Reh.	Enh.	Pres.
Riparian Zone[10]	PR	Acres	0	0	34.543	3.503	0
Riparian Zone	PR	LF	0	0	44,957	10,320	0
Stream Channel	PR	Acres	0.351	1.623	120.887	30.297	0
Stream Channel	PR	LF	132	855	75,727	54,902	0

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 F. 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.

[8] Restoration (Res.)

[9] Methods: establishment (Est.), reestablishment (Re-est.), rehabilitation (Reh.), enhancement (Enh.), preservation (Pres.).

[10] Riparian zone rehabilitation quantity is higher in Table 4 than in Attachment B because Table 4 includes upslope restoration activities that do not directly impact waters, but reduce sediment discharges to riparian zones and stream channels.

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.

XV. Water Quality Certification

I hereby issue the Order for the 2018 Fisheries Habitat Restoration Projects, 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 as well as the Regional Water Boards' Water Quality Control Plans and Policies.

Eileen Sobeck
Executive Director
State Water Resources Control Board

7/11/2019
Date

Attachment A Project Maps
Attachment B Receiving Waters, Impact, and Project Information
Attachment C CEQA Findings of Facts
Attachment D Report and Notification Requirements
Attachment E Signatory Requirements
Attachment F Certification Deviation Procedures
Attachment G Mitigation Measures, Monitoring and Reporting Program for the 2018 Fisheries Habitat Restoration Project

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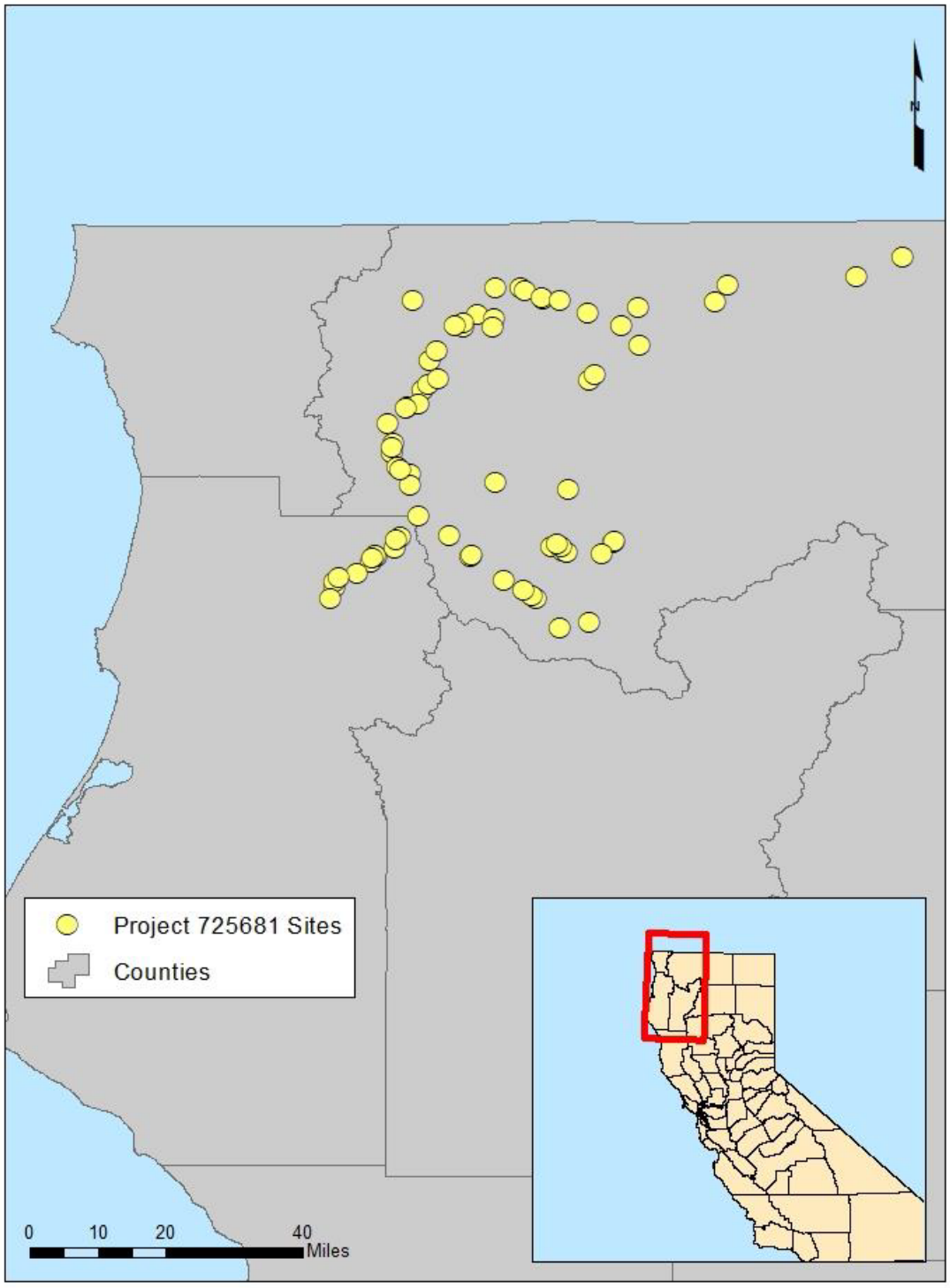
Project Type
Fish Passage Improvement
Instream Habitat Modification
Watershed Restoration (Upslope)
Counties
0 30 60 120
Miles
Map Created: February 15, 2019


N
Project 725681 Sites
Counties
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Receiving Waters

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

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725655-1	Hare Creek	Stream Channel	113.2	Hare Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 ,REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	Sedimentation/Siltation, Temperature (water)	N/A
☐	725655-2	Bunker Gulch	Stream Channel	113.2	Hare Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 ,REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	Sedimentation/Siltation, Temperature (water)	N/A

[1] California Rapid Assessment Method (CRAM) score of impacted sites provided by the Permittee.

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725646	Tannery Creek	Stream Channel, Riparian Zone	115.1	Salmon Creek	MUN, AGR, IND, PRO, GWR, NAV, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, EST, AQUA	None	N/A
☐	725633	Rohner Creek	Stream Channel, Riparian Zone	111.11	Eel River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MAR, MIGR, SPWN, SHELL, EST, AQUA, CUL	Sedimentation/Siltation	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725641	Salmon Creek	Stream Channel, Riparian Zone	110	Salmon Creek	MUN,AGR, IND, PRO, GEW, FRSH, NAV POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA,CUL	None	N/A
☐	725665-1	Redwood Creek	Stream Channel	107.20	Redwood Creek	MUN, AGR, IND, PRO, GWR, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA	None	N/A
☐	725665-2	Panther Creek	Stream Channel, Riparian Zone	107.20	Redwood Creek	MUN, AGR, IND, PRO, GWR, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA	None	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725637	Redwood Creek	Stream Channel, Riparian Zone	111.31	South Fork Eel River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Aluminum; Sedimentation/Siltation; Temperature, water	N/A
☐	725680	San Geronimo	Stream Channel, Riparian Zone	18050005/Marin Coastal	Lagunitas Creek	COLD, MIGR, RARE, SPWN, WARM, WILD, REC1, REC2	None	N/A
☐	725653	McGinnis Creek	Stream Channel, Riparian Zone	112.3	Mattole River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	Sedimentation/Siltation; Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725677	Larry Damm	Stream Channel	107.1	Redwood Creek	MUN, AGR, IND, PRO, GWR, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MAR, MIGR, SPWN, EST, AQUA, CUL	Sedimentation/Siltation; Temperature, water	N/A
☐	725647	Dutch Bill Creek	Stream Channel, Riparian Zone	114.11	Russian River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, EST, AQUA	Aluminum; Indicator Bacteria; Sedimentation/Siltation; Specific Conductivity; Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725688	Scott River	Stream Channel, Riparian Zone	105.42	Scott River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Aluminum; Biostimulatory Conditions; Oxygen, Dissolved; pH; Sedimentation/Siltation;Temperature, water	N/A
☐	725711	Soldier Creek	Stream Channel	113.11	Usal Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN	None	N/A
☐	725697-1	Unnamed Tributary to Inman Creek	Stream Channel	113.7	Garcia River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	Sediment; Temperature, water	5870

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725697-2	Inman Creek	Stream Channel	113.7	Garcia River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	Sediment; Temperature, water	5870
☐	725700	Gulch Creek	Stream Channel, Riparian Zone	113.2	Noyo River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	Sedimentation/Siltation; Temperature, water	N/A
☐	725638	Moody Creek	Stream Channel, Riparian Zone	111.32	Indian Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, AQUA	Aluminum; Sedimentation/Siltation; Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725639-1	Redwood Creek	Stream Channel, Riparian Zone	111.32	Hollow Tree Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, AQUA	Aluminum; Sedimentation/Siltation; Temperature, water	N/A
☐	725639-2	South Fork Redwood Creek	Stream Channel, Riparian Zone	111.32	Hollow Tree Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, AQUA	Aluminum; Sedimentation/Siltation; Temperature, water	N/A
☐	725681-1	Aikens Creek	Stream Channel	105.12	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 , REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-2	Beaver Creek	Stream Channel	105.35	Beaver Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Aluminum, Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-3	Black Bear Creek	Stream Channel	105.24	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-4	Bluff Creek	Stream Channel	105.12	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 , REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	2302
☐	725681-5	Bogus Creek	Stream Channel	105.37	Klamath River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Aluminum, Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-6	Boise Creek	Stream Channel	105.12	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 , REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-7	Boulder Creek	Stream Channel	105.23	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-8	Butler Creek	Stream Channel	105.21	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	3852
☐	725681-9	Cade Creek	Stream Channel	105.32	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-10	Camp Creek	Stream Channel	105.12	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 , REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-11	China Creek	Stream Channel	105.32	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-12	Clear Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	1301
☐	725681-13	Coon Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-14	Cottonwood Creek	Stream Channel	105.36	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Aluminum, Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-15	Crapo Creek	Stream Channel	105.21	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-16	Crawford Creek (Happy Camp Ranger District)	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-17	Crawford Creek (Orleans Ranger District)	Stream Channel	105.12	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 , REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-18	Cronan Gulch	Stream Channel	105.23	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	N/A
☐	725681-19	Dillon Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	1141

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-20	East Fork of the South Fork Salmon River	Stream Channel	105.24	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	2551
☐	725681-21	Elk Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	2972

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-22	Fort Goff Creek	Stream Channel	105.32	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-23	Glasgow Gulch	Stream Channel	105.23	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-24	Grider Creek	Stream Channel	105.33	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	808
☐	725681-25	Hopkins Creek	Stream Channel	105.12	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 , REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-26	Horse Creek	Stream Channel	105.33	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-27	Independence Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-28	Indian Creek (Mid Klamath tributary)	Stream Channel	105.32	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	2301
☐	725681-29	Indian Creek (South Fork Salmon tributary)	Stream Channel	105.24	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-30	Irving Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-31	Jackass Gulch	Stream Channel	105.23	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-32	Kelly's Gulch	Stream Channel	105.23	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	N/A
☐	725681-33	King Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-34	Knownothing Creek	Stream Channel	105.24	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	N/A
☐	725681-35	Little Grider Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-36	Little Horse Creek	Stream Channel	105.32	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-37	Little Humbug Creek	Stream Channel	105.35	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Aluminum, Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-38	Little North Fork	Stream Channel	105.23	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	N/A
☐	725681-39	Merrill Creek	Stream Channel	105.21	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-40	Methodist Creek	Stream Channel	105.24	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	N/A
☐	725681-41	Middle Creek	Stream Channel	105.41	Scott River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Aluminum; Biostimulatory Conditions; Oxygen, Dissolved; pH; Sedimentation/Siltation;Temperature, water	N/A
☐	725681-42	Mill Creek	Stream Channel	105.41	Scott River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Aluminum; Biostimulatory Conditions; Oxygen, Dissolved; pH; Sedimentation/Siltation;Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-43	Nordheimer Creek	Stream Channel	105.21	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-44	North Russian Creek	Stream Channel	105.23	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-45	Oak Flat Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-46	O'Neil Creek	Stream Channel	105.33	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	5954

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-47	Pearch Creek	Stream Channel	105.12	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 , REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-48	Portuguese Creek (Happy Camp Ranger District)	Stream Channel	105.32	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-49	Red Cap Creek	Stream Channel	105.12	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 , REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-50	Rock Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-51	Rodgers Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-52	Sandy Bar Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-53	Seiad Creek	Stream Channel	105.33	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	3864
☐	725681-54	Slate Creek	Stream Channel	105.12	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 , REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-55	South Russian Creek	Stream Channel	105.23	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	6735 and 2950
☐	725681-56	St. Claire Creek	Stream Channel	105.24	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	2966

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-57	Stanshaw Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-58	Swillup Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-59	Teep Teep Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-60	Thompson Creek	Stream Channel	105.32	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-61	Ti Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-62	Titus Creek	Stream Channel	105.31	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-63	Tom Martin Creek	Stream Channel	105.33	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-64	Tompkins Creek	Stream Channel	105.41	Scott River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Aluminum; Biostimulatory Conditions; Oxygen, Dissolved; pH; Sedimentation/Siltation;Temperature, water	N/A
☐	725681-65	Ukonom Creek	Stream Channel	105.32	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-66	Ullathorne Creek	Stream Channel	105.12	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 , REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-67	Walker Creek	Stream Channel	105.33	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	4583

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-68	White's Gulch	Stream Channel	105.23	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature, water	N/A
☐	725681-69	Whitmore Creek	Stream Channel	105.12	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 , REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A

Table 1: Receiving Water(s) Information

Non-Federal Waters	Impact Site ID	Waterbody Name	Impacted Aquatic Resource Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant	eCRAM ID[1]
☐	725681-70	Wilson Creek	Stream Channel	105.12	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1 , REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	N/A
☐	725681-71	Wooley Creek	Stream Channel	105.22	Wooley Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Cyanobacteria hepatotoxic microcystins, Nutrients, Organic Enrichment/Low Dissolved Oxygen, Sediment, Temperature, water	1993

Individual Direct Impact Locations

The following table shows individual impact locations.

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
725655-1	39.387730	-123.732080	Permanent (Stream Channel)	0.08	647	Enhancement	1.48	4310
			Temporary	-	-	-	-	-
725655-2	39.387730	-123.732080	Permanent (Stream Channel)	0.063	454	Enhancement	7.17	4980
			Temporary	-	-	-	-	-
725646	38.355678	-122.982625	Permanent (Riparian Zone)	0.053	188	Enhancement	0.675	2100
			Permanent (Stream Channel)	0.021	376	Enhancement	1.35	2100
725633	40.59089	-124.1546260	Permanent (Stream Channel)	0.05	125	Enhancement	0.05	125
			Temporary (Riparian Zone)	0.05	125	Rehabilitation	0.05	125
725641	40.6604096	-124.1793727	Permanent (Stream Channel)	0.069	428	Enhancement	4.8	5808
			Temporary (Riparian Zone)	0.003	76	Rehabilitation	6.67	5808

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
725665-1	41.08904	-123.90876	Permanent (Stream Channel)	0.0027	10	Enhancement	0.0022	10
			Temporary	-	-	-	-	-
725665-2	41.08901	-123.90867	Permanent (Stream Channel)	0.0082	40	Enhancement	0.048	200
			Temporary (Riparian Zone)	0.0068	50	Rehabilitation	2.6	200
725637	40.1061390	-123.8986690	Permanent (Stream Channel)	0.059	686	Enhancement	2.027	2006
			Temporary (Riparian Zone)	0.115	380	Rehabilitation	0.46	2006
725680	38.015392	-122.674781	Permanent (Stream Channel)	0.02	325	Enhancement	0.23	500
			Temporary (Stream Channel)	0.09	200	Enhancement	0.23	500
			Temporary (Riparian Zone)	0.03	100	Enhancement	0.1	300
725653	40.30094	-124.2132132	Permanent (Riparian Zone)	0.137	400	Enhancement	1.364	3960
			Temporary (Riparian Zone)	1.212	5280	Enhancement	1.364	3960
			Permanent (Stream Channel)	0.137	400	Enhancement	1.364	3960

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
			Temporary (Stream Channel)	0.275	800	Enhancement	1.364	3960
725677	41.19477	-124.0477	Temporary (Stream Channel)	1.21	408	Re-Establishment	1.21	408
725647	38.444693	-122.989850	Permanent (Stream Channel)	0.09	360	Enhancement	0.57	625
			Temporary (Riparian Zone)	0.26	625	Rehabilitation	0.26	625
725688	41.359879	-122.823975	Permanent (Stream Channel)	0.675	802	Re-Establishment	0.413	447
						Establishment	0.351	132
						Enhancement	0.119	327
			Temporary (Stream Channel)	0.7	447	Rehabilitation	0.7	447
			Temporary (Riparian Zone)	0.1	40	Rehabilitation	0.1	40
725711	39.860614	-123.823998	Permanent (Stream Channel)	0.09	1240	Enhancement	3.7	9651
			Temporary	-	-	-	-	-
725697-1	38.897	-123.43801	Temporary (Stream Channel)	0.023	50	Rehabilitation	0.11	250
725697-2	38.88218	-123.43280	Temporary (Stream Channel)	0.055	120	Rehabilitation	0.27	600

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
725700	39.43111	-123.47477	Permanent (Stream Channel)	0.188	790	Rehabilitation	0.188	790
			Temporary (Stream Channel)	0.075	990	Rehabilitation	0.126	880
			Permanent (Riparian Zone)	0.192	210	Rehabilitation	0.276	320
			Temporary (Riparian Zone)	0.039	170	Rehabilitation	0.138	160
725638	39.95945	-123.87778	Permanent (Stream Channel)	0.039	448	Enhancement	1.515	2640
			Temporary (Riparian Zone)	0.551	480	Rehabilitation	3.01	2640
725639-1	39.76799	-123.76928	Permanent (Stream Channel)	0.052	883	Enhancement	1.733	5808
			Temporary (Riparian Zone)	0.355	1550	Rehabilitation	2.6	5808
725639-2	39.77197	-123.75645	Permanent (Stream Channel)	0.045	389	Enhancement	2.545	7392
			Temporary (Riparian Zone)	0.287	1250	Rehabilitation	3.39	7392
725681-1	41.22827	-123.65121	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-2	41.86932	-122.81735	Permanent	-	-	-	-	-

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-3	41.20388	-123.22487	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-4	41.24078	-123.65258	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-5	41.92926	-122.44329	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-6	41.28261	-123.57560	Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-7	41.43772	-123.15544	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-8	41.33768	-123.40782	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-9	41.80737	-123.34900	Permanent	-	-	-	-	-

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-10	41.29234	-123.56243	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-11	41.79875	-123.31404	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-12	41.70986	-123.44835	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-13	41.61264	-123.49673	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-14	41.88890	-122.54357	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-15	41.29228	-123.336260	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-16	41.64896	-123.46389	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
725681-17	41.29540	-123.56542	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-18	41.31296	-123.19202	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-19	41.57631	-123.53923	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-20	41.15291	-123.11135	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-21	41.78134	-123.37879	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-22	41.86392	-123.25750	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-23	41.30697	-123.16684	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-24	41.84180	-123.20762	Permanent	-	-	-	-	-

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-25	41.20361	-123.66166	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-26	41.82355	-123.00556	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-27	41.65811	-123.45307	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-28	41.78996	-123.37879	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-29	41.21112	-123.23271	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-30	41.46787	-123.49032	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-31	41.30241	-123.15829	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
725681-32	41.31536	-123.1614	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-33	41.61845	-123.47220	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-34	41.24331	-123.29235	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-35	41.78382	-123.39467	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-36	41.78271	-123.31674	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-37	41.83566	-122.84313	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-38	41.31974	-123.17763	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-39	41.37933	-123.47355	Permanent	-	-	-	-	-

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-40	41.22246	-123.25005	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-41	41.66800	-123.1094	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-42	41.74305	-123.00296	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-43	41.29730	-123.35928	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-44	41.32341	-123.06041	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-45	41.72952	-123.43553	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-46	41.81018	-123.11436	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
725681-47	41.31202	-123.52513	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-48	41.85817	-123.24727	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-49	41.25859	-123.60460	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-50	41.51222	-123.53059	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-51	41.44500	-123.49032	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-52	41.48539	-123.51823	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-53	41.84298	-123.21141	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-54	41.25012	-123.64327	Permanent	-	-	-	-	-

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-55	41.32661	-123.05688	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-56	41.14102	-123.17269	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-57	41.47686	-123.5124	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-58	41.60816	-123.50086	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-59	41.53323	-123.52670	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-60	41.86360	-123.30840	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-61	41.52553	-123.52909	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
725681-62	41.67113	-123.43043	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-63	41.78413	-123.04191	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-64	41.68111	-123.09741	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-65	41.83643	-123.48455	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-66	41.29175	-123.57033	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-67	41.83643	-123.17165	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-68	41.29862	-123.08380	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-69	41.33508	-123.51173	Permanent	-	-	-	-	-

Table 2: Individual Direct Impact Information

Project ID	Latitude	Longitude	Direct Impact Duration	Fill/Excavation		Area and length restored		
				Acres	Linear Feet	Method	Acres	Linear Feet
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-70	41.32971	-123.52126	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560
725681-71	41.45139	-123.30944	Permanent	-	-	-	-	-
			Temporary (Stream Channel)	0.022	292	Rehabilitation	1.683	10560

Individual Project Information

The following table shows individual project descriptions. Project type is defined as follows: FP = Fish Passage at Stream Crossings, HB = Instream Barrier Modification for Fish Passage, HI = Instream Habitat Restoration, and HU = Watershed Restoration – Upslope.

Table 3: Individual Project Information

Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
725655	P1810507	HI	2018208	Hare Creek and Bunker Gulch Coho Stream Habitat Enhancement Project	44 sites containing 88 pieces of properly sized LWD will be installed in Hare Creek. 34 sites containing 69 pieces of properly sized LWD will be installed in Bunker Gulch. These LWD augmentation actions will create complex pools and improve the quality and quantity of spawning and rearing habitat for Coho and Steelhead on 4,310' of Hare Creek and 4,980' of Bunker Gulch.	Mendocino	Hare Creek
725646	P1830401	HI	2018280	Tannery Creek Large Wood Recruitment Project 2018	To enhance rearing and spawning habitat for Coho salmon by placing 50'+ locally recruited logs and rootwads at 42 sites along a 2,045-ft reach of Tannery Creek, placed to scour and enhance pools, retain spawning gravel, provide cover and high-flow refugia, and enhance habitat complexity.	Sonoma	Tannery Creek

Table 3: Individual Project Information							
Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
725633	P1810512	FP	2018357	Fish Passage Improvement Project at 12th Street	Improved fish passage within the lower reach of Rohner Creek, benefiting access to upstream habitat for all life stages of salmonids.	Humboldt	Rohner Creek
725641	P1810514	HI	2018290	Salmon Creek - Salmonid Habitat Enhancement with Accelerated Recruitment (SHEAR)	This project will create 19 instream features within 1.1 miles of Salmon Creek, consisting of 36 logs. These structures will enhance spawning and rearing habitats by increasing pool complexity, depth, and frequency, sorting spawning gravels, and providing velocity refugia. The end result will provide habitat for all four salmonid species that are found in Salmon Creek. Two hundred native conifers and 600 willow cuttings will also be planted where appropriate along the project reach.	Humboldt	Salmon Creek
725665	P1810515	FP	2018232	Panther Creek Barrier Removal Project	The proposed project intends to improve fish passage by removing a barrier that currently restricts passage to all life stages of salmonids. The barrier targeted by the proposed project was previously evaluated by CDFW and Redwood National Park (Bundros, et al. 2004), and consequently was recommended for removal. The removal of this barrier will	Humboldt	Panther Creek

Table 3: Individual Project Information							
Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
					immediately benefit Coho salmon within Panther and Redwood Creeks.		Redwood Creek
725637	P1810517	HI	2018236	Bioengineering and Large Wood Installation - Redwood Creek	The project objectives are to increase salmonid habitat in Redwood Creek through the placement of 25 instream LWD structures, containing 59 logs, along a 0.38-mile-long stream reach (worksite). These structures will enhance instream habitat through increased shelter and channel complexity, deepened pools, and gravel sorting. Bank stabilization and riparian improvement will be completed through bioengineering, planting and strategic armoring of currently failing or susceptible bank material.	Humboldt	Redwood Creek

Table 3: Individual Project Information							
Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
725680	P1830402	HI	2018314	Large Woody Debris and Stream Enhancement on San Geronimo Creek	The project objectives are to install several large woody debris structures consisting of anchored logs with rootwads in San Geronimo Creek, and; restore riparian habitat along San Geronimo Creek and Larsen Creek following the removal of creekside structures. The project goals are to increase winter survival of juveniles (the limiting factor for salmonids), improve spawning and spring/summer rearing habitat, and improve riparian health and function.	Marin	San Geronimo
725653	P1810518	HI	2018353	McGinnis Creek Instream Habitat Enhancement Project	The objectives of this project are to increase pool frequency, pool depth, cover, channel complexity, and floodplain connectivity through the placement of at least 100 trees in 0.75 miles of a Mattole River tributary in order to enhance spawning and rearing habitat in a stream reach with potential for steelhead, and Coho and Chinook salmon. This work will occur at 16 sites, with 35 structures through the placement of large woody debris including up to 25 whole trees.	Humboldt	McGinnis Creek

Table 3: Individual Project Information							
Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
725677	P1910502	HU	2018238	Redwood Creek Habitat Protection Project	Remove 0.8 mile of legacy logging road from riparian forest adjacent to Larry Damm Creek. Excavate and stabilize an estimated 15,000 cubic yards of fill material from stream crossings and unstable slopes. Place large wood in subject channel to improve Coho habitat, or place in main stem of Prairie Creek. These activities will prevent erosion and minimize future sedimentation of the subject stream channel. which provides critical spawning habitat for Coho.	Humboldt	Larry Damm
725647	P1830404	HI	2018331	Dutch Bill Creek Winter Habitat Enhancement Project	The primary project objective is to significantly increase the shelter rating for the project reach of Dutch Bill Creek from the current value of <25. The overall goal of the project is to improve conditions for overwintering fish by providing refuge from high velocity flows during and after rainfall events. A secondary goal is to enhance summer habitat conditions by providing additional shelter for over-summering juvenile fish.	Sonoma	Dutch Bill Creek

Table 3: Individual Project Information							
Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
725708	P1810521	HU	2018189	Dutch Charlie Creek Sediment Reduction and Fisheries Recovery Project	This project will result in the permanent removal of 7.23 miles of streamside road which represents the vast majority of the streamside road under Lyme Timber Company management in the Dutch Charlie Watershed. It will reduce future impacts from the road system to the watershed by eliminating approximately 11,304 cu. Yds. of future potential sediment from the decommissioned road system. Large wood from the decommissioned roads will be placed in the adjacent stream channels.	Mendocino	Dutch Charlie Creek
725688	P1810522	HI	2018197	Scott River Habitat Enhancement & Restoration	Improve channel structure and function by reconnecting .4 acres of off-channel habitat to the main channel. The proposed design includes 4 engineered log jams, inlet and outlet pilot channels, an off-channel pond, large wood cover in the off-channel pond, and willow and cottonwood planting. Project effectiveness monitoring will be implemented for two seasons post-construction.	Siskiyou	Scott River

Table 3: Individual Project Information							
Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
725711	T1810501	HI	2018192	Soldier Creek Instream Habitat Enhancement Project	This project will install 200 key pieces of wood within 9,651 ft of Soldier Creek, a class I stream channel, resulting in an overall wood density of approximately 6.25 key pieces per 100 meters.	Mendocino	Soldier Creek
725709	T1810502	HU	2018190	Moody Creek Sediment Reduction and Coho Habitat Enhancement Project	This project will result in the permanent removal of 3.08 miles of riparian road along Moody Creek. This represents approximately 60% of the streamside road in the watershed under Redwood Forest Foundation Inc. (RFFI) management. The project will reduce future anthropogenic sediment impacts from the road system to the watershed by preventing approximately 11,370 cu. yds. of potential sediment delivery to Moody Creek.	Mendocino	Moody Creek

Table 3: Individual Project Information							
Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
725710	T1810503	HU	2018191	Soldier Creek Sediment Reduction and Salmonid Recovery Project	This project will result in the permanent removal of 2.48 miles of streamside riparian road which represents almost 100% of the streamside road under Redwood Forest Foundation Inc. (RFFI) management along Soldier Creek. It will also reduce future anthropogenic sediment impacts from the streamside road system to the watershed by eliminating approximately 2,750 cu. yds. of future potential sediment from the decommissioned road system and normalizing the hillside hydrology.	Mendocino	Soldier Creek
725697	P1830406	HU	2018222	Inman Creek Sediment Reduction Project	Decommissioning of 1.1 miles of road for sediment reduction at worksite 1. Decommissioning of 0.5 miles of road for sediment reduction at worksite 2.	Mendocino	Inman Creek Unnamed Tributary to Inman Creek

Table 3: Individual Project Information							
Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
725700	P1810503	FP	2018179	Gulch C Coho Salmon Fish Passage Improvement Project	The objectives of the project are to restore access for salmonids to 1.3 miles of habitat upstream of two barriers and to improve the geomorphic function of Gulch C at the confluence with the Noyo River. This will be accomplished by replacing both culverts with new crossing structures. These structures were designed based on current standards, will meet fish passage requirements defined by CDFW and NMFS, and will convey the 100-year flood with associated sediment and large wood.	Mendocino	Gulch Creek
725638	P1810505	HI	2018273	Moody Creek Instream Habitat Enhancement	This project will create 16 instream features within 0.5 miles of Moody Creek, consisting of 56 logs, 41 of which will be key pieces. These structures will enhance spawning and rearing habitats by increasing pool complexity, depth, and frequency, sorting spawning gravels, and providing velocity refugia. The end result will provide habitat for all salmonid species that are found in Moody Creek.	Mendocino	Moody Creek

Table 3: Individual Project Information

Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
725639	P1810506	HI	2018274	Redwood Creek Watershed Key Piece LWD Project	Thirty-one LWD structures containing 92 pieces of LWD (35 key pieces) will be built in the Redwood Creek site. Twenty-five LWD structures containing 71 pieces of LWD (32 key pieces) will be built in the SF Redwood Creek site. These structures will enhance spawning and rearing habitats by increasing pool complexity, depth, and frequency, sorting spawning gravels, and providing velocity refugia. Between the two sites 400 native plants and trees will be planted.	Mendocino	Redwood Creek
							South Fork Redwood Creek
725681	P1810516	HB	2018241	Mid-Klamath Tributary Fish Passage Improvement Project	Improve juvenile and adult salmonid fish passage to 70 tributaries in the Middle Klamath, Salmon, and Lower Scott River sub-basins through manual modification of seasonal barriers. Project includes habitat assessment and fish presence assessment.	Siskiyou	Aikens Creek
							Beaver Creek
							Black Bear Creek
							Bluff Creek
							Bogus Creek
							Boise Creek
							Boulder Creek
							Butler Creek
							Cade Creek
							Camp Creek
							China Creek

Table 3: Individual Project Information							
Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
							Clear Creek
							Coon Creek
							Cottonwood Creek
							Crapo Creek
							Crawford Creek (Happy Camp Ranger District)
							Crawford Creek (Orleans Ranger District)
							Cronan Gulch
							Dillon Creek
							East Fork of the South Fork Salmon River
							Elk Creek
							Fort Goff Creek
							Glasgow Gulch
							Grider Creek
							Hopkins Creek
							Horse Creek
							Independence Creek

Table 3: Individual Project Information							
Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
							Indian Creek (Mid Klamath tributary)
							Indian Creek (South Fork Salmon tributary)
							Irving Creek
							Jackass Gulch
							Kelly's Gulch
							King Creek
							Knownothing Creek
							Little Grider Creek
							Little Horse Creek
							Little Humbug Creek
							Little North Fork
							Merrill Creek
							Methodist Creek
							Middle Creek
							Mill Creek
							Nordheimer Creek

Table 3: Individual Project Information							
Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
							North Russian Creek
							Oak Flat Creek
							O'Neil Creek
							Pearch Creek
							Portuguese Creek (Happy Camp Ranger District)
							Red Cap Creek
							Rock Creek
							Rodgers Creek
							Sandy Bar Creek
							Seiad Creek
							Slate Creek
							South Russian Creek
							St. Claire Creek
							Stanshaw Creek
							Swillup Creek
							Teep Teep Creek
							Thompson

Table 3: Individual Project Information							
Project ID	FRGP Grant Number	Project Type	Proposal ID	Proposal Title	Short Description	County	Stream(s)
							Creek
							Ti Creek
							Titus Creek
							Tom Martin Creek
							Tompkins Creek
							Ukonom Creek
							Ullathorne Creek
							Walker Creek
							White's Gulch
							Whitmore Creek
							Wilson Creek
							Wooley Creek

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A. Environmental Review

On September 28, 2018, the California Department of Fish and Wildlife, as lead agency, adopted an initial study/mitigated negative declaration (IS/MND) (State Clearinghouse (SCH) No. 2018092067) for the Project and filed a Notice of Determination (NOD) at the SCH on November 28, 2018. The State Water Board is a responsible agency under CEQA (Pub. Resources Code, § 21069) and in making its determinations and findings, must presume that the California Department of Fish and Wildlife's adopted environmental document comports with the requirements of CEQA and is valid (Cal. Code Regs., tit. 14, § 15231). The State Water Board has reviewed and considered the environmental document and finds that the environmental document prepared by the California Department of Fish and Wildlife 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 the California Department of Fish and Wildlife 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, including California Salmonid Stream Habitat Restoration Manual (https://www.wildlife.ca.gov/Grants/FRGP/Guidance).

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.

Requirements under the purview of the State Water Board in the MMRP are incorporated herein by reference.

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

Findings: The IS/MND states that there are no potentially significant environmental effects to water resources after the mitigation measures imposed by the lead agency.

a.i. Potential Significant Impact to Biological Resources:

The Project has the potential to have a substantial adverse effect, either directly or through habitat modifications, on 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 Game or 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 not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW), National Oceanic and Atmospheric Administration (NOAA) or U.S. Fish and Wildlife Service (USFWS). Such an impact will not occur because project activities are designed to improve and restore stream habitat, to 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 rare plants and animals and cultural resources during construction; the mitigation measures that will be implemented to avoid short-term impacts to rare plants and animals are described in the MMRP (Appendix B of the IS/MND, Attachment G of this Order) and Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (Appendix C of the IS/MND). The biological resources section of the MMRP includes mitigation measures that are sufficient to reduce impacts to biological resources to a less than significant level. These measures are described in the following sections of the MMRP: 1.IV.A General Measures for Protection of Biological Resources measures 1-19, 1.IV.B Specific Measures for Endangered, Rare, or Threatened Species that Could Occur at Specific Work Sites measures 1 through 8, and 11 through 15, and IV.C Riparian Revegetation measures 1-10. In addition, there are conditions in the Order that require actions that will further reduce impacts to biological resources to a less than significant level. Conditions in Order section XIV.G (Construction Conditions) will help prevent erosion, turbidity, and pollutant discharges into waters of the state, and conditions in section XIV.C (Water Quality Monitoring) requires water quality monitoring for the prevention and detection of pollutant discharges into waters of the state.

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

The Project has the potential to result in substantial soil erosion 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 from soil erosion or the loss of topsoil. Implementation of the 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. The potential of significant soil loss and erosion from construction activities will be reduced to less than significant through implementation of mitigation measures in the MMRP. These measures are described in MMRP section 1.VI Geology and Soils measures 1 through 13. Overall, project implementation and mitigation measures in the MMRP are sufficient to reduce geological impacts and impacts to soils to a less than significant level. In addition, conditions in this Order require actions that will further reduce impacts from soil erosion or the loss of topsoil to a less than significant level. Conditions in Order section XIV.G (Construction Conditions) will help prevent erosion, turbidity, and pollutant discharges into waters of the state, and conditions in section XIV.C (Water Quality Monitoring) will require water quality monitoring to prevent and detect discharges to waters of the state.

c.i. Potential Significant Impact to 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 accident 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. MMRP section 1.VIII Hazards and Hazardous Materials includes mitigation measures 1 through 9 that will avoid impacts or reduce impacts from hazards and hazardous materials to a less than significant level.

d.i. Potential Significant Impact to Hazards and Hazardous Materials:
The Project has the potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. 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 creating a significant hazard through the exposure of people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. MMRP section 1.VIII Hazards and Hazardous Materials includes mitigation measures 10 through 13 that will avoid impacts or reduce impacts from wildland fires to a less than significant level.

e.i. Potential Significant Impact to Hydrology and Water Quality:
The Project has the potential to violate water quality standards or waste discharge requirements, and to otherwise substantially degrade water quality. However, the Project will have less than significant effects; the following facts support this finding.

e.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. There is the potential for minor short-term increases in turbidity during the installation or removal of instream structures. However, MMRP section 1.IX Hydrology and Water Quality includes mitigation measures 1 through 10 that will reduce impacts to hydrology and water quality to a less than significant level. 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; however, this is not expected to produce an increase above background turbidity that substantially degrades water quality. In addition, conditions in this Order require actions that will protect water quality: conditions in section XIV.G (Construction) help to prevent erosion, turbidity, and pollutant discharges into waters of the state; and conditions in section XIV.C (Water Quality Monitoring) require water quality monitoring to prevent and detect pollutant discharges into waters of the state and conditions for reporting accidental discharges of hazardous materials to waters of the state.

f.i. Potential Significant Impact Associated with Mandatory Findings of Significance:
The Project has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or

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

f.ii. Facts in Support of Finding:

The Project will have a less than significant potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. The potential is less than significant due to the protective mitigation measures listed above in a-e. Overall Project activities are designed and implemented to enhance and restore the quality of the environment. The project activities are designed to improve and restore stream habitat; thereby providing long-term benefits to both anadromous salmonids and other fish and wildlife.

C. 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).)

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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: [Staff email]
   - Include in the subject line of the email:
     Subject: ATTN: Brendan Reed; Reg. Measure ID: 429076_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, and any Permittee responsible compensatory mitigation construction.

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:	2018 Fisheries Habitat Restoration Projects
Permittee:	California Department of Fish and Wildlife
Reg. Meas. ID:	429076 **Place ID:** SB19008IN
Order Effective Date:	July 11, 2019

Report Type Submitted

Part A – Project Reporting	
Report Type 1	☐ **Annual Report**
Part B - Project Status Notifications	
Report Type 2	☐ **Commencement of Construction**
Report Type 3	☐ **Request for Notice of Completion of Discharges Letter**
Report Type 4	☐ **Request for Notice of Project Complete Letter**
Part C - Conditional Notifications and Reports	
Report Type 5	☐ **Accidental Discharge of Hazardous Material Report**
Report Type 6	☐ **Violation of Compliance with Water Quality Standards Report**
Report Type 7	☐ **In-Water Work/Diversions Water Quality Monitoring Report**
Report Type 8	☐ **Modifications to Project Report**
Report Type 9	☐**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**

[1]STATEMENT 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 1	**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 July 1. Annual reports shall continue until a Notice of Project Complete Letter is issued to the Permittee.
Report Contents	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. **<u>During the Active Discharge Period</u>** • **Topic 1: Construction Summary** • **Topic 2: Mitigation for Temporary Impacts Status** • **Topic 3: Effectiveness/Validation Monitoring** **<u>During the Post-Discharge Monitoring Period</u>** • **Topic 2: Mitigation for Temporary Impacts Status** • **Topic 3: Effectiveness/Validation Monitoring**
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	**1.** 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). If construction has not started, provide estimated start date and reasons for delay. **2.** Map showing general Project progress. **3.** If applicable: **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.
	1.
	2.
Report Contents	**3.** 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**.** **4.** If mitigation for temporary impacts has already commenced, provide a map and information concerning attainment of performance standards contained in the MMRP or restoration plan.
Annual Report Topic 3	**Effectiveness/Validation Monitoring**
When to Submit	With the annual report during both the Active Discharge Period and Post-Discharge Monitoring Period.
Report Contents	**1.** Submit a copy of the annual effectiveness/validation monitoring report that is described in Section 2: Monitoring and Reporting of the MMRP.

Part B – Project Status Notifications

Report Type 2	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	**1.** Date of commencement of construction. **2.** Anticipated date when discharges to waters of the state will occur. **3.** Project schedule milestones.

Report Type 3	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	**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 4	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	**Part A: Mitigation for Temporary Impacts** **1.** A report establishing that the performance standards outlined in the MMRP or restoration plan have been met for 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** **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 5	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	**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 6	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 7	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 8	**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 9	**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 ten (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.

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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."

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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 XIV.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 ten (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 thirty (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 fifteen (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 fifteen (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.

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APPENDIX B[1]

MITIGATION MEASURES, MONITORING AND REPORTING PROGRAM FOR THE 2018 FISHERIES 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 California Department of Fish and Wildlife (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 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

[1] The MMRP is Appendix B of the Mitigated Negative Declaration and was copied as Attachment G of this Order.

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) Coffer dams 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, salamanders, foothill yellow-legged frogs, California red-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 2018 Fisheries Habitat Restoration (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 2018 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 of the Mitigated Negative Declaration for the 2018 FHR project. 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 2018 FHR project, the following mitigation measures will be implemented:

a) A 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 Sensitive Natural Communities" (CDFW, 2018). These guidelines are available in Appendix C of the Mitigated Negative Declaration for the 2018 FHR project or on the web at: https://www.wildlife.ca.gov/Conservation/Plants.

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 CNDDB or the official species list. These host plants are as follows for each butterfly:

Butterfly	Host Plant
Mission Blue Butterfly (*Icaricia icarioides missionensis*) - Endangered	Silver Bush Lupine (*Lupinus albifrons*)
San Bruno Elfin Butterfly (*Callophrys mossii bayensis*) - Endangered	Stonecrop (*Sedum spathulifolium*)
Callippe Silverspot Butterfly (*Speyeria callippe callippe*) - Endangered	Johnny Jump Up (*Viola pedunculata*)
Myrtle's Silverspot (*Speyeria zerene myrtleae*) - Endangered	Hookedspur Violet (*Viola adunca*)
Bay Checkerspot Butterfly (*Euphydryas editha bayensis*) - Threatened	Native Plantain (*Plantago erecta*)

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 22 work sites proposed as part of the 2018 FHR project, none of the sites shows the Arroyo toad listed on the corresponding species list in Appendix A of the Mitigated Negative Declaration for the 2018 FHR project.

3) California Freshwater Shrimp (*Syncaris pacifica*)

One of the 22 work sites proposed as part of the 2018 FHR project occurs within the range of California freshwater shrimp (CFS) (725646 Tannery Creek Large Wood Recruitment Project 2018) (Appendix A of the Mitigated Negative Declaration for the 2018 FHR project). The range of the CFS includes Marin, Napa, and Sonoma counties, excluding the Gualala River watershed. Therefore, the potential for impacts to CFS shall be mitigated by complying with all of the mandatory terms and conditions associated with incidental take authorized by the U. S. Fish and Wildlife Service (USFWS), Biological Opinions (file no. 1-1-03-F-273 and 81420-2009-I-0748-1). CDFW proposes to implement the following measures to minimize adverse effects to the CFS and its habitat:

a) Project activities in potential shrimp habitat shall be restricted to the period between July 1 and November 1.

b) At least 15 days prior to the onset of activities, CDFW shall submit the name(s) and credentials of biologists who will conduct activities specified in the following measures to the USFWS. The grantee shall implement any additional conservation measures requested by CDFW and/or the USFWS.

c) CDFW shall be notified at least one week in advance of the date on which work will start in the stream, so that a qualified CDFW biologist can monitor activities at the work site. All work in the stream shall be stopped immediately if it is determined by CDFW that the work has the potential to adversely impact shrimp or its habitat. Work shall not recommence until CDFW is satisfied that there will be no impact on the shrimp.

d) Where appropriate, a USFWS-approved CDFW biologist will survey each site for shrimp before allowing work to proceed and prior to issuance of a Streambed Alteration Agreement. All overhanging vegetation, undercut banks, and tree roots will be surveyed with a butterfly net or fish net.

e) Prior to the onset of work at a work site that may contain shrimp, the USFWS-approved CDFW biologist shall conduct a training session for all construction personnel. At a minimum the training shall include a description of the shrimp and its habitat, the importance of the shrimp and its habitat, the general measures that are being implemented to conserve the shrimp as they relate to the work site, and the work site boundaries where construction may occur.

f) Only USFWS-approved biologists shall participate in the capture, handling, and monitoring of shrimp. CDFW shall report annually on the number of capture, release and injuries/mortality and agrees to modify capture/release strategy with USFWS staff as needed to prevent adverse effects.

g) In site locations where shrimp are present, CDFW will require the grantee to implement the mitigation measures listed:

   i. Equipment work shall be performed only in riffle, shallow run, or dry habitats, avoiding low velocity pool and run habitats occupied by shrimp, unless shrimp are relocated according to the protocol described below. “Shallow” run habitat is defined as a run with a maximum water depth, at any point, less than 12 inches, and without undercut banks or vegetation overhanging into the water.

   ii. Hand placement of logs or rocks shall be permitted in pool or run habitat in stream reaches where shrimp are known to be present, only if the placement will not adversely affect shrimp or their habitat.

   iii. Care shall be taken during placement or movement of materials in the stream to prevent any damage to undercut stream banks and to minimize damage to any streamside vegetation. Streamside vegetation overhanging into pools or runs shall not be removed, trimmed, or otherwise modified.

   iv. No log or rock weirs (including vortex rock weirs), or check dams shall be constructed that would span the full width of the low flow stream channel. Vegetation shall be incorporated with any structures involving rocks or logs to enhance migration potential for shrimp.

   v. No dumping of dead trees, yard waste or brush shall occur in shrimp streams, which may result in oxygen depletion of aquatic systems.

h) 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:

   i. A second survey shall be conducted within 24 hours of any construction activity and shrimp shall be relocated to the nearest suitable habitat. Shrimp shall be moved while in the net, or placed in buckets containing stream water. Stress and temperature monitoring of shrimp shall be performed by the USFWS-approved biologist. Numbers of shrimp and any mortalities or injuries shall be identified and recorded. Shrimp habitat is defined as reaches in low elevation (less than 116 m) and low gradient (less than one percent) streams where banks are structurally diverse with undercut banks, exposed fine root systems, overhanging woody debris or overhanging vegetation.

   ii. When no other habitat exists on a landowner’s property, the shrimp shall be held in suitable containers with site water and released at the end of the day. Containers shall be placed in the shade.

i) If moving the shrimp out of the work area cannot be accomplished, and other avoidance measures have been deemed inappropriate, CDFW shall drop activities at the work site from the project.

j) A USFWS-approved CDFW biologist shall be present at the work site until such time as all removal of shrimp, instruction of workers, and habitat disturbance associated with the restoration project have been completed. The USFWS-approved biologist shall have the authority to halt any action that might result in the loss of any shrimp or its habitat. If work is stopped, the USFWS-approved biologist shall immediately notify CDFW and the USFWS.

k) If a work site is temporarily dewatered by pumping, intakes shall be completely screened with wire mesh no larger than 0.2 inch to prevent shrimp from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow with the least disturbance to the substrate.

l) A USFWS-approved biologist shall permanently remove from within the project work site, any individuals of exotic species, such as bullfrogs, centrarchid fishes, and non-native crayfish, to the maximum extent possible. The grantee shall have the responsibility that such removals are done in compliance with the California Department of Fish and Wildlife.

m) Invasive non-native vegetation that provides shrimp habitat and is removed as a result of Program activities shall be replaced with native vegetation that provides comparable habitat for the shrimp. Re-vegetated sites shall be irrigated as necessary until vegetation is established. Re-vegetated sites shall be monitored until shading and cover achieves 80% of pre-project shading and cover and for a minimum of 5 years.

4) California Red-Legged Frog (*Rana draytonii*)

Of the 22 work sites proposed as part of the 2018 FHR project, five occur within the range of the California red-legged frog (CRLF). Activities proposed (725625 Fish Passage Improvement at Crossing 8, Quiota Creek, 725697 Inman Creek Sediment Reduction Project, 725646Tannery Creek Large Wood Recruitment Project 2018, 725680 Large Woody Debris and Stream Enhancement on San Geronimo Creek, and 725647 Dutch Bill Creek Winter Habitat Enhancement Project) (Appendix A of the Mitigated Negative Declaration for the 2018 FHR project) 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 lease 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 with 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)*

One of the 22 proposed projects in the 2018 FHR project is within the range of the California tiger salamander (725646 Tannery Creek Large Wood Recruitment Project 2018) (Appendix A of the Mitigated Negative Declaration for the 2018 FHR project). Impacts to the species however is unlikely, due to implementation projects occurring in or near stream and riparian corridors.
California tiger salamanders primarily use ponds and vernal pools for breeding and grassland habitat for estivation, both of which are not usually 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 clarkii clarkii*)

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 2018 FHR project could involve instream work in their habitat (Appendix A of the Mitigated Negative Declaration for the 2018 FHR project). 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 whichever 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 dip netting 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 Volume II, 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) Foothill Yellow-Legged Frog (*Rana boylii*)

All of the 22 proposed projects in the 2018 FHR project, are within range of the foothill yellow-legged frog (FYLF). Activities proposed (725708 Dutch Charlie Creek Sediment Reduction and Fisheries Recovery Project, 725709 Moody Creek Sediment Reduction and Coho Habitat Enhancement Project, 725710 Soldier Creek Sediment Reduction and Salmonid Recovery Project, 725711 Soldier Creek Instream Habitat Enhancement Project, 725688 Scott River Habitat Enhancement & Restoration, 725625 Fish Passage Improvement at Crossing 8, Quiota Creek, 725655 Hare Creek and Bunker Gulch Coho Stream

Habitat Enhancement Project, 725697 Inman Creek Sediment Reduction Project, 725665 Panther Creek Barrier Removal Project, 725637 Bioengineering and Large Wood Installation – Redwood Creek, 725677 Redwood Creek Habitat Protection Project, 725638 Moody Creek Instream Habitat Enhancement, 725639 Redwood Creek Watershed Key Piece LWD Project, 725646 Tannery Creek Large Wood Recruitment Project 2018, 725641 Salmon Creek – Salmonid Habitat Enhancement with Accelerated Recruitment (SHEAR), 725649 Restoring Fish Passage from Salt River to Williams Creek, 725680 Large Woody Debris and Stream Enhancement on San Geronimo Creek, 725647 Dutch Bill Creek Winter Habitat Enhancement Project, 725656 McGinnis Creek Instream Habitat Enhancement Project, 725633 Fish Passage Improvement Project at 12th Street, 725700 Gulch C Coho Salmon Fish Passage Improvement Project, and 725681 Mid-Klamath Tributary Fish Passage Improvement Project) (Appendix A of the Mitigated Negative Declaration for the 2018 FHR project) will not remove or degrade FYLF habitat; however, precautions shall be required at these sites to avoid potential significant impacts to the FYLF while using heavy equipment. The potential for impacts to FYLFs will be mitigated by complying with all of the terms and conditions set forth in this section. Measures for minimization and avoidance of incidental take of FYLF must be developed on a site- and project-specific basis. CDFW's *Considerations for Conserving the Foothill Yellow-Legged Frog* (May 2018) (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=157562&inline) provides guidance and examples of avoidance and minimization measures, invasive non-native control and eradication, and a riparian enhancement plan for the species. CDFW shall implement the additional following measures to minimize adverse effects to the FYLF and its habitat:

a) Prior to start of work, all permits necessary to survey, handle, and relocate FYLFs shall be obtained. All best management practices, special conditions, mitigation and avoidance measures of any take permit obtained shall be complied with.

b) Within 3-5 days prior to entering or working near stream/riparian habitat within the foothill yellow-legged frog range, a qualified biologist shall examine the project site to determine the presence and/or the potential for presence of FYLF adults, juveniles, tadpoles or egg masses within the project area and 300 feet upstream and downstream.

c) The biologist must be able to recognize all potential age classes of FYLFs relative to other amphibians in the project area.

d) The CDFW approved biologist(s) shall ensure that their activities do not transmit diseases. To ensure that diseases are not conveyed between work sites by the 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.

e) If any life stage of FYLFs are found, the biologist must consult with CDFW immediately by either telephone, facsimile, or e-mail, and provide a short description of existing conditions and observations, and a list of all species observed during the examination.

f) Site-specific mitigation measures to avoid or minimize take and to avoid or minimize disturbance to FYLF habitat shall be developed and approved by the CDFW. Work shall not commence until the CDFW has provided written approval of the proposed mitigation measures and any permit to relocate FYLFs have been obtained

g) The approved biologist will dispatch and remove from the project area, any individuals of exotic species, such as bullfrogs (*Lithobates catesbeianus*), 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.

h) 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 FYLF or its habitat, then project activity at that work site shall be discontinued.

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

Of the 22 projects proposed as part of the 2018 FHR project, none are within the range of the Least Bell's Vireo.

9) Marbled Murrelet (*Brachyrampus marmoratus*)

Eleven of the 22 work sites proposed as part of the 2018 FHR project are in potentially suitable habitat for the Marbled Murrelet. Activities proposed for the sites (725709 Moody Creek Sediment Reduction and Coho Habitat Enhancement Project, 725710 Soldier Creek Sediment Reduction and Salmonid Recovery Project, 725711 Soldier Creek Instream Habitat Enhancement Project, 725655 Hare Creek and Bunker Gulch Coho Stream Habitat Enhancement Project, 725677 Redwood Creek Habitat Protection Project, 725638 Moody Creek Instream Habitat Enhancement, 725641 Salmon Creek – Salmonid Habitat Enhancement with Accelerated Recruitment (SHEAR), 725680 Large Woody Debris and Stream Enhancement on San Geronimo Creek, 725656 McGinnis Creek Instream Habitat Enhancement Project, 725700 Gulch C Coho Salmon

Fish Passage Improvement Project, 725681 Mid-Klamath Tributary Fish Passage Improvement Project) (Appendix A of the Mitigated Negative Declaration for the 2018 FHR project) will not remove, degrade, or downgrade suitable Marbled Murrelet habitat. As a result, direct injury or mortality of Marbled 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.

10) Northern Spotted Owl (*Strix occidentalis caurina*)

Of the 22 work sites proposed as part of the 2018 FHR project, 17 are in potentially suitable habitat for the Northern Spotted Owl (725708 Dutch Charlie Sediment Reduction and Fisheries Recovery Project, 725709 Moody Creek Sediment Reduction and Coho Habitat Enhancement Project, 725710 Soldier Creek Sediment Reduction and Salmonid Recovery Project, 725711 Soldier Creek Instream Habitat Enhancement Project, 725688 Scott River Habitat Enhancement & Restoration, 725655 Hare Creek and Bunker Gulch Coho Stream Habitat Enhancement Project, 725697 Inman Creek Sediment Reduction Project, 725665 Panther Creek Barrier Removal Project, 725677 Redwood Creek Habitat Protection Project, 725638 Moody Creek Instream Habitat Enhancement, 725639 Redwood Creek Watershed Key Piece LWD Project, 725646 Tannery Creek Large Wood Recruitment Project 2018, 725641 Salmon Creek – Salmonid Habitat Enhancement with Accelerated Recruitment (SHEAR), 725680 Large Woody Debris and Stream Enhancement on San Geronimo Creek, 725656 McGinnis Creek Instream Habitat Enhancement Project, 725700 Gulch C Coho Salmon Fish Passage Improvement Project, and 725681 Mid-Klamath Tributary Fish Passage Improvement Project) (Appendix A of the Mitigated Negative Declaration for the 2018 FHR project). None of the activities will remove, degrade, or downgrade Northern Spotted Qwl habitat. As a result, direct injury or

mortality of Northern Spotted Owls is not likely. The potential exists for heavy equipment work at these sites to disturb Northern 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.

11) Point Arena Mountain Beaver (*Aplodontia rufa nigra*)

Of the 22 projects proposed in the 2018 FHR project, none are within the range of the Point Arena mountain beaver.

12) San Francisco Garter Snake (*Thamnophis sirtalis tetrataenia*)

Of the 22 projects proposed in the 2018 FHR project, none are within the range of the San Francisco garter snake.

13) Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

Of the 22 work sites proposed as part of the 2018 FHR project, none are in potentially suitable habitat for the Southwestern Willow Flycatcher.

14) Tidewater Goby (*Eucyclogobius newberryi*)

Of the 22 work sites proposed as part of the 2018 FHR project, none are in potentially suitable habitat for the tidewater goby.

15) Willow Flycatcher (*Empidonax traillii)*

Of the 22 work sites proposed as part of the 2018 FHR project, four are located in potential suitable habitat for the Willow Flycatcher (725641 Salmon Creek – Salmonid Habitat Enhancement with Accelerated Recruitment (SHEAR), 725649 Restoring Fish Passage from Salt River to Williams Creek, 725656 McGinnis Creek Instream Habitat Enhancement Project, and 725681 Mid-Klamath Tributary Fish Passage Improvement Project) (Appendix A of the Mitigated Negative Declaration for the 2018 FHR project). None of the activities proposed for these sites will significantly degrade existing Willow Flycatcher habitat, but the potential exists for the noise from heavy equipment work or harvesting of revegetation material at these sites to disrupt Willow Flycatcher nesting. To avoid this potential impact, the following mitigation measures will be implemented:

a) Heavy equipment work shall not begin within one quarter mile of any site with known or potential habitat for the Willow Flycatcher until after August 31.

b) Harvest of willow branches at any site with potential habitat for the Willow Flycatcher will not occur between May 1 and August 31.

c) The work window at individual work sites may be modified, if protocol surveys determine that nesting birds do not occur within 0.25 miles of the site during the breeding season.

d) No more than 1/3 of any willow plant shall be harvested annually. Care shall be taken during harvest not to trample or over harvest the willow sources.

e) CDFW shall ensure that the grantee or responsible party is aware of this site specific condition, and will inspect the work site before, during, and after completion of the action item.

f) If for some reason 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 Willow Flycatcher or their habitat, then activity at that work site will be discontinued.

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 Volume II, 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 decompacted 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 of the Mitigated Negative Declaration for the 2018 FHR project. Potential for inadvertent impacts will be avoided through implementation of the following mitigation measures:

1) The Grantee 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 of the Mitigated Negative Declaration for the 2018 FHR project.

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) The Grantee shall report any previously unknown historic, archeological, and paleontological remains discovered at a project location to CDFW for reporting 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) The Grantee shall retain the services of a professional archaeologist to immediately examine the finds 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 firefighting 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) 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.

10) 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 stream flows 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 trout. 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.

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* 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 Managers 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 Humboldt, Marin, Mendocino, Siskiyou, , 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 Santa Barbara County, CDFW shall submit an annual report due by 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) The Grantee shall notify CDFW so it can 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 receiving 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.