April 16, 2021

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

Dear Timothy Chorey:
RE: CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER FOR THE 2020 FISHERIES HABITAT RESTORATION PROJECTS (SWRCB FILE #SB21003IN).

Enclosed please find a Clean Water Act section 401 water quality certification and order (Order), authorized by State Water Resources Control Board Executive Director, Eileen Sobeck. This Order is issued to the California Department of Fish and Wildlife for the 2020 Fisheries Habitat Restoration Projects (Project). Attachments A through F of the Enclosure are also part of the Order.

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

If you require further assistance, please contact me by phone at (916) 341-5462 or by email at Brendan.Reed@waterboards.ca.gov. You may also contact Jessica Nadolski, Chief of the Wetlands Permitting and Enforcement Unit, by phone at (916) 341-5290, or by email at Jessica.Nadolski@waterboards.ca.gov.

Sincerely,

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

Enclosures (1): Order for 2020 Fisheries Habitat Restoration Projects

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

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cc: Continued on next page

cc: (Continued)

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State Water Resources Control Board

WATER QUALITY ORDER WQ 2021-0013-EXEC
CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER

Effective Date: 16 April 2021

Program Type: Restoration

Reg. Meas. ID:	442334
Place ID:	872418
WDID No.:	SB21003IN
USACE No.:	2003-279220

Project Type: Ecological Aquatic/Stream/Habitat Restoration

Project: 2020 Fisheries Habitat Restoration Projects (Project)

Applicant: California Department of Fish and Wildlife

Applicant Contact: Timothy Chorey
Fisheries Restoration Grant Program Statewide Coordinator
California Department of Fish and Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
Phone: (916) 838-0760
Email: Timothy.Chorey@wildlife.ca.gov

Applicant's Agent: Dylan Inskeep
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Environmental Scientist
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Sacramento, CA 95814
Phone: (916) 341-5462
Email: Brendan.reed@waterboards.ca.gov

Water Board Contact Person: If you have any questions, please call State Water Resources Control Board (Water Board) Staff listed above or (916) 341-5478 and ask to speak with the Wetland Permitting and Enforcement Unit Supervisor.

Table of Contents

I. Order

This Clean Water Act (CWA) section 401 Water Quality Certification action and Order (Order) is issued at the request of the California Department of Fish and Wildlife (CDFW) (hereinafter Permittee) for the Project. This Order is for the purpose described in application submitted by the Permittee. The application was received on 16 February 2021. The application was deemed complete on 26 February 2021.

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. 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, including but not limited to administrative and/or civil liability pursuant to Water Code section 13385.

In response to a suspected violation of any condition of this Order, the 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, provided 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.

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.

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 & Wildlife Code, sections 2050-2097) or the federal Endangered Species Act (16 U.S.C. sections 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.

II. Public Notice

The State Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 from 26 February 2021 to 19 March 2021. The State Water Board did not receive any comments during the comment period.

III. Project Purpose

The primary goal of the Project is to maintain and restore natural watershed and river processes that create habitat characteristics favorable to salmonids. The objective of the Project is to enhance the capability of streams to produce wild anadromous salmonids by maintaining, restoring, and improving stream functions essential to salmonid production.

IV. Project Description

The Project is comprised of several individual habitat restoration projects[1] undertaken by grantees. These individual projects are funded by grants approved by the California Legislature to initiate activities that are designed to restore, enhance, and protect salmon and steelhead trout (Oncorhynchus mykiss) habitat in coastal and central valley streams and watersheds. The Project includes Fisheries Restoration Grant Program (FRGP) projects and Forest Land Anadromous Restoration (FLAR) projects.

The individual projects are designed to increase populations of wild anadromous fish in coastal and central valley streams by restoring ecological function to their habitat. Individual restoration projects shall be implemented in accordance with procedures found in the most recent version of the "California Salmonid Stream Habitat Restoration Manual." The Project supports a variety of restoration activities including instream habitat improvements, unanchored large woody debris, fish screens, fish passage at stream crossings, riparian habitat restoration, and watershed and stream bank stability.

The Project consists of 19 individual restoration projects that require certification. Individual project descriptions can be found in Table 5 of Attachment B.

V. Project Location

The proposed Project consists of individual project sites in the following counties: Humboldt, Mendocino, Siskiyou, and Sonoma. A map showing the project locations is in Attachment A of this Order.

VI. Project Impact and Receiving Waters Information

The Project is located within the jurisdiction of the North Coast Regional Water Quality Control Board. Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the applicable water quality control plans (Basin Plan). The plan for the region and other plans and policies may be accessed at the State Water Resources Control Board's Plans and Policies Web page (http://www.waterboards.ca.gov/plans_policies/). The Basin Plan includes 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.

[1] As used in this Order, "Project" refers to all of the 2019 Fisheries Habitat Restoration Projects collectively and "project" refers to the individual restoration projects carried out by the grantees.

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 and Table 3 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) excavation and fill associated with restoration of side-channel/off-channel habitat (3) removal of fish passage barriers; (4) placement of new non-barrier stream crossings; (5) stabilization of stream banks; (6) decommissioning of roads within, or which discharge to, waters of the state; and (7) 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 1 and Table 2. Permanent impacts are categorized as those resulting in a physical loss in area and also those degrading ecological condition.

Table 1: Total Project Fill/Excavation Quantity for Temporary Impacts[2]

Aquatic Resources Type	Acres	Linear Feet
Riparian Zone	18.87	51,839
Stream Channel	4.07	30,438

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

Aquatic Resources Type	Acres	Linear Feet
Riparian Zone	2.55	8,083
Stream Channel	12.35	21,986

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

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

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 F.

IX. Avoidance and Mitigation

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 are required by the Project's Mitigated Negative Declaration (MND) and MMRP, included in Attachment F. The avoidance and minimization measures generally focus on: using existing access routes when practicable, using the smallest work area required to implement the projects, using local materials, preventing wastes from entering waters of the state, preventing degradation of water quality caused by water diversions and construction activities, identifying and preventing harm to aquatic and riparian organisms, preventing channel/riparian instability, and monitoring to prevent pollutant discharges to waters of the state.

No alternatives analysis is required because the Project is an ecological restoration and enhancement project.

X. Compensatory Mitigation

No compensatory mitigation is required for permanent impacts because the Project consists of individual fisheries restoration projects that are designed to result in a net benefit to waters of the state.

XI. California Environmental Quality Act (CEQA)

On November 16, 2020, the California Department of Fish and Wildlife, as lead agency, adopted an initial study/mitigated negative declaration (IS/MND) (State Clearinghouse (SCH) No. 2020099023) for the Project and filed a Notice of Determination (NOD) at the SCH on November 16, 2020. Pursuant to CEQA, the Water Board has made Findings of Facts (Findings) which support the issuance of this Order and are included in Attachment C.

XII. Petitions for Reconsideration

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

XIII. Fees Received

An application fee of $551 was received on 27 January 2021. 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

Specific condition justifications required by Title 40, Code of Federal Regulations (CFR) Part 121.7(d)(1) are provided below each condition, or set of conditions, in *italic text*.

These conditions are generally required to comply with the state's Anti-Degradation Policy (State Board Resolution No. 68-16), which requires that any "activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the state will be maintained." All Regional Board Water Quality Control Plans incorporate the state's Anti-Degradation Policy by reference. The state Anti-Degradation Policy incorporates the federal Antidegradation Policy (40 CFR Part 131.12 (a)(1)), which requires "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected." According to U.S. EPA, dischargers of dredged or fill material comply with the federal Antidegradation Policy by complying with U.S. EPA's section 404(b)(1) Guidelines. The State Water Boards adopted a modified version of U.S. EPA's section 404(b)(1) Guidelines in the Dredge or Fill Procedures (State Supplemental Guidelines).

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

A. Authorization

Impacts to waters of the state shall not exceed quantities shown in Table 1 and Table 2.

This condition protects water quality by ensuring that the impacts to waters are not greater than what is proposed in the application. Larger impacts lead to a greater potential for adverse impacts on water quality. Water Code section 13264 prohibits any discharge that is not specifically authorized in this order.

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 or before July 1.Annual reporting shall continue until the Water Board issues a Notice of Project Complete Letter to the Permittee.

If the Project is not implemented as approved in this Order, then adverse impacts on water quality and beneficial could occur. Monitoring and reporting requirements are authorized by Water Code sections 13267 and 13383.

2. Project Status Notifications

a. Commencement of Construction: The Permittee shall submit a Commencement of Construction Report at least seven (7) days prior to start of initial ground disturbance activitiesand corresponding Waste Discharge Identification Numbers (WDID#) issued under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ; NPDES No. CAS000002) for all individual projects that disturb 1 or more acres of land or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres of land.

This condition protects water quality by ensuring that the Permittee is implementing the Project within the proposed work windows. If the Project is not implemented within the proposed and approved work windows, then adverse impacts on water quality and beneficial uses could occur. Monitoring and reporting requirements are authorized by Water Code sections 13267 and 13383.

b. 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, and no further Project activities will occur. This request shall be submitted to Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request, the 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.

This condition protects water quality by ensuring that the permittee has implemented the Project as proposed and approved, that temporary impact sites have been restored, and the Project area is stable. Monitoring

and reporting requirements are authorized by Water Code sections 13267 and 13383.

3. Conditional Notifications and Reports:

The following notifications and reports are required as appropriate.

a. **Accidental Discharges of Hazardous Materials[3]**

Following an accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material, the following applies (Water Code, Section 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 the Office of Emergency Services' Accidental Discharge Notification Web page (http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill_Booklet_Feb2014_FINAL_BW_Acc.pdf)

ii. Following notification to OES, the Permittee shall notify Water Board, as soon as practicable (ideally within 24 hours). Notification may be delivered via written notice, email, or other verifiable means.

iii. Within five (5) working days of notification to the Water Board, the Permittee must submit an Accidental Discharge of Hazardous Material Report.

These conditions protect water quality by giving the Permittee a series of steps to follow if there is a spill that has the potential to adversely impact water quality and beneficial uses. These steps should help mitigate the damage done by such a spill. Monitoring

[3] "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 & Safety Code, Section 25501.)

and reporting requirements are authorized by Water Code sections 13267 and 13383.

b. **Violation of Compliance with Water Quality Standards:**

i. The Permittee shall notify the Water Board of any event causing a violation of compliance with water quality standards. Notification may be delivered via written notice, email, or other verifiable means.

ii. This notification must be followed within three (3) working days by submission of a Violation of Compliance with Water Quality Standards Report.

These conditions protect water quality by alerting the Water Boards to events that cause violations of water quality standards. Being aware of such events allows the water board to assess the cause of the issue and require remediation if necessary. Monitoring and reporting requirements are authorized by Water Code sections 13267 and 13383.

c. **In-Water Work and Diversions:**

i. The Permittee shall notify the Water Board at least forty-eight (48) hours prior to initiating work in water or stream diversions. Notification may be delivered via written notice, email, 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 Water Board staff.

These conditions protect water quality by alerting the Water Boards when in water work and/or stream diversions will be taking place and requiring the permittee to monitor water quality while those activities are taking place. Monitoring and reporting requirements are authorized by Water Code sections 13267 and 13383.

d. **Transfer of Long-Term BMP Maintenance:**

If maintenance responsibility for post-construction BMPs is legally transferred, the Permittee must submit to the 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 Water Board with a Transfer of Long-Term BMP Maintenance Report at least 10 days prior to the transfer of BMP maintenance responsibility.

This condition protects water quality by ensuring that long term erosion control and water quality measures are being adequately maintained,

even if not by the original permittee. Monitoring and reporting requirements are authorized by Water Code sections 13267 and 13383.

C. Water Quality Monitoring

1. General:

   If surface water is present, continuous visual monitoring shall be conducted during active construction periods to detect accidental discharge of construction related pollutants (e.g. oil and grease, turbidity plume, or uncured concrete).

   This condition protects water quality by requiring the Permittee to visually monitor for obvious signs of water quality degradation. Monitoring and reporting requirements are authorized by Water Code sections 13267 and 13383. The anticipated costs are minimal as the reporting obligations require only visual monitoring.

2. In-Water Work or Diversions

   A water quality monitoring plan shall be approved by 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 that may be affected by the activity, 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.

   This condition protects water quality by requiring the permittee to develop a water quality monitoring plan to be implemented when installing diversions and performing in-water work. If the monitoring finds any degradation of water quality, the cause can be determined, and remediation can be required as necessary. Monitoring and reporting requirements are authorized by Water Code sections 13267 and 13383. The burden of preparing these reports, including costs, are reasonable to the need and benefits of obtaining the reports. The reports confirm that the best management practices required under this order are sufficient to protect beneficial uses and water quality objectives.

3. Accidental Discharges/Noncompliance:

   Upon occurrence of an accidental discharge, the Permittee shall determine whether the discharge includes hazardous materials or will cause or contribute to an exceedance of water quality objectives, and if so, notify the Water Board in accordance with XIV.B.3. Water Board staff may require

additional water quality monitoring based on the discharge constituents and/or related water quality objectives and beneficial uses.

This notification ensures that corrective actions required to minimize the impact or clean up such discharges can be taken as soon as possible. Monitoring and reporting requirements are authorized by Water Code sections 13267 and 13383.

D. Standard Conditions

Each standard condition in Section XIV.D is required to be included in all water quality certifications by California Code of Regulations, title 23, Chapter 28, Section 3860.

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.
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.

E. General Compliance

1. 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 Water Board (collectively Water Boards) water quality control plan or policy. The source of any such discharge must be eliminated as soon as practicable.

   This condition protects water quality by stating that the Project must not violate water quality standards or impair beneficial uses. (State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Dredge or Fill Procedures), Section IV.B.1. See Resolution 2021-0012 and 2019-0015.)

2. The Permittee must, at all times, fully comply with engineering plans, specifications, and technical reports submitted to support this Order; and all subsequent submittals required as part of this Order. The conditions within

this Order and Attachments supersede conflicting provisions within Permittee submittals.

This condition protects water quality by ensuring that the Project is implemented as proposed and approved. (Wat. Code, § 13264.) Deviations from the approved plans and practices could result in adverse impacts to water quality.

3. 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 2019 Fisheries Habitat Restoration Project, Attachment F) which is incorporated herein by reference and any additional measures as outlined in Attachment C, CEQA Findings of Fact.

   This condition protects water quality by requiring that the Permittee ensure that grantees implementing the individual projects adhere to the mitigation measures in the Project's MMRP. These mitigation measures are designed in part to protect water quality and beneficial uses. (Cal. Code of Regs., tit. 14, § 15097.)

4. The Permittee shall ensure that individual projects obtain coverage under NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ; NPDES No. CAS000002), as amended, for discharges comprised of storm water associated with construction activity, including, but not limited to, demolition, clearing, grading, excavation, and other land disturbance activities of one or more acres, or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres.

   This condition protects water quality by ensuring that grantees whose projects meet the size requirements for the Construction General Permit get coverage under that permit. (40 CFR § 122.26(a)(9)(B).)

F. Administrative

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

   This condition is authorized by Water Code section 13267, which requires any person discharging waste that could affects the quality of waters to provide to the Water Boards, under penalty of perjury, any technical or monitoring program reports as required by the Water Boards. The signatory requirements are consistent with 40 C.F.R. section 122.22.

2. The Permittee shall grant Water Board staff, North Coast Regional Water Quality Control Board staff, 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.

These conditions protect water quality by allowing the Water Boards, or a representative, to investigate site conditions to ensure that the Project is compliant with this Order. These conditions are authorized pursuant to the Water Boards' authority to investigate the quality of any waters of the state within its region under Water Code sections 13267 and 13383.

3. A copy of this Order shall be provided to any consultants, contractors, and subcontractors working on the Project. Copies of this Order shall remain at the Project site for the duration of this Order. The Permittee shall be responsible for work conducted by its consultants, contractors, and any subcontractors.

   This condition protects water quality by requiring the Permittee to distribute this Order to all entities working on the Project so that they are aware of the Order conditions and can conduct the work accordingly. (Wat. Code, § 13263.)

4. A copy of this Order must be available at the Project site(s) during construction for review by site personnel and agencies. All personnel performing work on the Project shall be familiar with the content of this Order and its posted location at the Project site.

   This condition protects water quality by requiring that all construction personnel are familiar with the contents of this Order and that the Order must be kept at Project sites for easy access and reference. Being familiar with the Order and having it on site will allow the personnel to complete work in accordance with the conditions of the Order. (Wat. Code, § 13263.)

G. Construction

1. Dewatering

   a. 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.

This condition protects water quality by requiring the Permittee to minimize the Project's footprint in waters. (Dredge or Fill Procedures, Section IV.B.1.)

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

   This condition protects water quality by requiring Permittee to maintain streamflow upstream and downstream of the Project area while diversions are in place. Stream flow is important for maintaining beneficial uses and water quality parameters such as dissolved oxygen and temperature. (Dredge or Fill Procedures, Section IV.B.1.)

c. 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.

   This condition protects water quality by requiring that diversions do not affect flow velocity or rate and do not affect natural sediment transport functions of streams. Sedimentation or erosion related to diversions could cause long term instability of the Project reach and lead to short and long term impacts to water quality and beneficial uses. (Dredge or Fill Procedures, Section IV.B.1.)

d. All dewatering/diversion methods shall be removed as soon as practicable upon completion of dewatering/diversion activities.

   This condition protects water quality by requiring the Permittee to remove dewatering/diversion equipment and structures as soon as practicable after they are no longer needed. The longer that diversions and dewatering equipment are in place, the greater the potential for them to fail, be overwhelmed, or otherwise cause water quality degradation. (Dredge or Fill Procedures, Section IV.B.1.)

e. 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.

   This condition protects water quality by requiring the Permittee to stabilize the streambed behind diversions before they are overwhelmed. If stream flow is allowed over exposed and non-stabilized work areas this would lead to erosion of the site, downstream sedimentation, and long-term instability of the project reach that could lead to further degradation of water quality and beneficial uses. (Dredge or Fill Procedures, Section IV.B.1.)

f. 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.

This condition protects water quality by limiting the use of synthetic materials. Synthetic, non-biodegradable materials used in erosion control products are persistent in the environment. When they do break down, they break down into smaller and smaller pieces of the original material, which can have adverse effects on water chemistry and fauna. Due to their potential effects on water quality and the environment these synthetics should be avoided where not necessary. (Dredge or Fill Procedures, Section IV.B.1.)

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

This condition protects water quality by requiring the permittee to minimize impacts to beneficial uses of waters of the state. Protecting beneficial uses will generally also protect water quality. (Dredge or Fill Procedures, Section IV.B.1.)

2. Fugitive Dust:

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

This condition protects water quality by ensuring that the Permittee does not discharge sediment or other wastes into waters while performing dust suppression activities. (Dredge or Fill Procedures, Section IV.B.1.)

3. Good Site Management “Housekeeping”

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

Removal of vegetation within and adjacent to waters results in a higher water quality degradation through erosion, decreased shading, decreased riparian buffering, decreased allochthonous nutrient and habitat inputs, and other pathways. Limiting this vegetation removal to the minimum necessary to complete the Project is protective of water quality. (Dredge or Fill Procedures, Section IV.B.1.)

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

Vehicles operating within waters that are outside of the approved Project boundary will lead to water quality impacts that were not proposed and which are not authorized by this Order. Water quality is

protected by not allowing this activity. (Wat. Code, § 13264, Dredge or Fill Procedures, Section IV.A.2.d.)

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

The longer equipment and other unneeded materials are left on site the higher the likelihood of a leak, spill, or other unintended impact becomes. Removing these materials from site as soon as they are no longer needed is protective of water quality. (Dredge or Fill Procedures, Section IV.B.1.)

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

Imported rock materials have the potential to harbor unwanted and detrimental invasive species, pathogens, sediments, compounds, etc. Requiring these materials to be washed before being brought to, and used on, site is protective of water quality. (Dredge or Fill Procedures, Section IV.B.1.)

4. Hazardous Materials

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

Equipment can harbor the same detrimental substances as the rock materials noted above. Motorized equipment can also introduce petroleum products and other compounds into waters. Requiring that equipment be cleaned of these detrimental substances before being used in waters is protective of water quality. (Dredge or Fill Procedures, Section IV.B.1.)

b. 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.

Petroleum products and other waste materials that may leak, leach, or fall from equipment may be detrimental to water quality. This condition protects water quality by ensuring that these materials are not discharged to waters of the state when equipment is being used or stored. (Dredge or Fill Procedures, Section IV.B.1.)

c. 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.

Fluids that leak from vehicles and equipment are generally detrimental to water quality. This condition protects water quality by requiring regular inspections of vehicles and equipment and not allowing leaking vehicles and equipment to be used. (Dredge or Fill Procedures, Section IV.B.1.)

d. 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.

   The materials listed above are detrimental to water quality. These materials can either be directly or indirectly, chronically or acutely toxic to aquatic organisms and are generally detrimental to water quality through alteration of water chemistry and general water quality (pH, dissolved oxygen, specific conductance, organic enrichment, dissolved and particulate metals, fine sediment, etc). This condition protects water quality by not allowing these compounds to be discharged into waters. (Dredge or Fill Procedures, Section IV.B.1.)

e. 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.

   Fuels and other petroleum products are detrimental to water quality. This condition protects water quality by requiring equipment to be removed from waters before fueling, or, if that is not possible, for special procedures to be developed to mitigate the risk of fueling equipment in waters. (Dredge or Fill Procedures, Section IV.B.1.)

f. On-site containment for storage of chemicals classified as hazardous shall include secondary containment.

   Hazardous materials are detrimental to water quality. Secondary containment around hazardous material storage sites help ensure that any leaks or spills of such materials do not result in a discharge to waters. (Dredge or Fill Procedures, Section IV.B.1.)

5. Invasive Species and Soil Borne Pathogens

    a. Imported fill and planting materials must be free of pathogens that could harm local plant or animal populations.

    Invasive species can be detrimental to water quality by outcompeting native species, altering soil/water chemistry, causing channel downcutting, lowering groundwater levels, altering allochthonous inputs, altering shading, reducing habitat for native fauna, etc. (Dredge or Fill Procedures, Section IV.B.1.)

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

    Invasive species can be detrimental to water quality by outcompeting native species, altering soil/water chemistry, causing channel downcutting, lowering groundwater levels, altering allochthonous inputs, altering shading, reducing habitat for native fauna, etc. This condition protects water quality by requiring that the Project does not introduce invasive species into Project areas. (Dredge or Fill Procedures, Section IV.B.1.)

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

    Invasive species can be detrimental to water quality by outcompeting native species, altering soil/water chemistry, causing channel downcutting, lowering groundwater levels, altering allochthonous inputs, altering shading, reducing habitat for native fauna, etc. This condition protects water quality by requiring that the project does not introduce invasive species into Project areas. (Dredge or Fill Procedures, Section IV.B.1.)

6. Roads

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

    Unpaved roads are a source of excess sediment delivery to streams throughout California. New roads need not be constructed if existing roads can be used. This condition protects water quality by limiting new sources of excess sediment. (Dredge or Fill Procedures, Section IV.B.1.)

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

Unpaved roads are a source of excess sediment delivery to streams throughout California. If these roads are properly designed and maintained their impact to water quality can be minimized. These roads often fall into disrepair because due to lack of maintenance or repair. This condition protects water quality by requiring that roads used for this Project are, at the very least, left in the condition that they were in before the project used them. (Dredge or Fill Procedures, Section IV.B.1.)

c. Where use of existing roads is not practicable, temporary access routes shall be designed and constructed such that they do not cause a discharge of sediment or other wastes to waters of the state.

Unpaved roads are a source of excess sediment delivery to streams throughout California. This condition protects water quality by requiring necessary new roads to be designed and constructed such that they do not discharge excess sediment or other wastes to waters. (Dredge or Fill Procedures, Section IV.B.1.)

d. Construction of new temporary access roads shall be limited to the minimum number and width necessary to complete the Project.

Unpaved roads are a source of excess sediment delivery to streams throughout California. This condition protects water quality by limiting new sources of excess sediment and other wastes. (Dredge or Fill Procedures, Section IV.B.1.)

7. Stabilization/Erosion Control

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

If erosion control BMPs are not followed then these disturbed areas will likely discharge excess sediment to waters, which will degrade water quality. This condition protects water quality by requiring application of erosion and sediment control BMPs which will reduce the potential for sediment discharge. (Dredge or Fill Procedures, Section IV.B.1.)

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

Disturbed areas can discharge excess sediment to waters, which will degrade water quality. If the erosion and sediment control materials are not applied immediately following the ground disturbing activity there is a window in which preventable erosion and sediment discharges could occur. This condition protects water quality by ensuring that these erosion and sediment control materials are on site

and ready to be installed as soon as the disturbance takes place. (Dredge or Fill Procedures, Section IV.B.1.)

c. Any additional erosion or sediment control materials needed to stabilize an active worksite shall be installed at least forty-eight (48) hours before a predicted rain event.

   Disturbed areas can discharge excess sediment to waters, which will degrade water quality. Disturbed areas often cannot have erosion control materials in place while work is occurring. However, these areas still need to be stabilized before predicted rain events so that excessive erosion and sediment discharge does not occur. This condition protects water quality by ensuring that all disturbed areas are stabilized in advance of predicted rainfall events. (Dredge or Fill Procedures, Section IV.B.1.)

d. Sediment control structures shall be 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.

   Disturbed areas will likely discharge excess sediment to waters, which will degrade water quality. Sediment control structures are often the last line of defense to keep this excess sediment from leaving the Project site. If these structures are not properly maintained, they are prone to failure. This condition protects water quality by ensuring that these sediment control structures are properly maintained and in working order before rainfall events. (Dredge or Fill Procedures, Section IV.B.1.)

e. 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.

   Disturbed areas will likely discharge excess sediment to waters, which will degrade water quality. If these disturbed areas themselves are within a water there is the added risk of creating channel instability that will lead to long term erosion, channel incision, sedimentation, floodplain abandonment, water quality degradation, alteration of local groundwater levels, and aquatic habitat degradation. This condition

protects water quality by requiring that in water work areas are stabilized prior to the onset of rainfall events. (Dredge or Fill Procedures, Section IV.B.1.)

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 to 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.

If temporarily impacted areas are not restored, they could become permanent impact areas and contribute to long term impacts to water quality. This condition protects water quality by requiring temporarily impacted areas to be restored. (Dredge or Fill Procedures, Sections IV.A.2.d, IV.B.1.)

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 Officer that the performance standards have not been met or are not likely to be met within the monitoring period.

Meeting performance measures is required to protect water quality. Monitoring and reporting requirements are authorized by Water Code sections 13267 and 13383.

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.

If temporarily impacted areas are not restored, they could become permanent impact areas and contribute to long term impacts to water quality. The longer the lag time between impact and restoration, the more opportunity there is for water quality degradation stemming from the disturbed areas. This condition protects water quality by ensuring that restoration is initiated in a reasonable amount of time after impacts have occurred. (Dredge or Fill Procedures, Sections IV.A.2.d, IV.B.4-5.)

Table 3: Required Project Mitigation Quantity for Temporary Impacts by Method

Aquatic Resource Type	Mitigation Type	Units	Est.	Re-est.	Reh.	Enh.	Pres.	Unknown
Riparian Zone	Permittee Responsible	Acres			18.87			
Riparian Zone	Permittee Responsible	LF			51,839			
Stream Channel	Permittee Responsible	Acres			4.07			
Stream Channel	Permittee Responsible	LF			30,438			

I. Ecological Restoration and Enhancement

The quantity of waters of the state permanently gained by the Project is shown in Table 4.

Table 4: Total Ecological Restoration and Enhancement Quantity

Aquatic Resource Type	Restoration Type	Units	Est.	Re-est.	Reh.	Enh.
Riparian Zone	Permittee-Responsible	Acres		5.62	21.578	3.21
Riparian Zone	Permittee-Responsible	LF		4,293	56,438	11,911
Stream Channel	Permittee-Responsible	Acres	3.8		128.609	1,228.568
Stream Channel	Permittee-Responsible	LF	4,053		813,693	93,532

XV. Water Quality Certification

I hereby issue the Order for the 2020 Fisheries Habitat Restoration Projects, SB21003IN, 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).

This discharge is also regulated pursuant to 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 (Water Code, section 13000 et seq.).

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

April 16, 2021 For

Date

Eileen Sobeck
Executive Director
State Water Resources Control Board

Attachment A: Project Map
Attachment B: Receiving Waters, Impacts, and Mitigation Information
Attachment C: CEQA Findings of Facts
Attachment D: Report and Notification Requirements
Attachment E: Signatory Requirements
Attachment F: Mitigation Monitoring and Reporting Program For the 2020 Fisheries Habitat Restoration project

Attachment A
Project Maps

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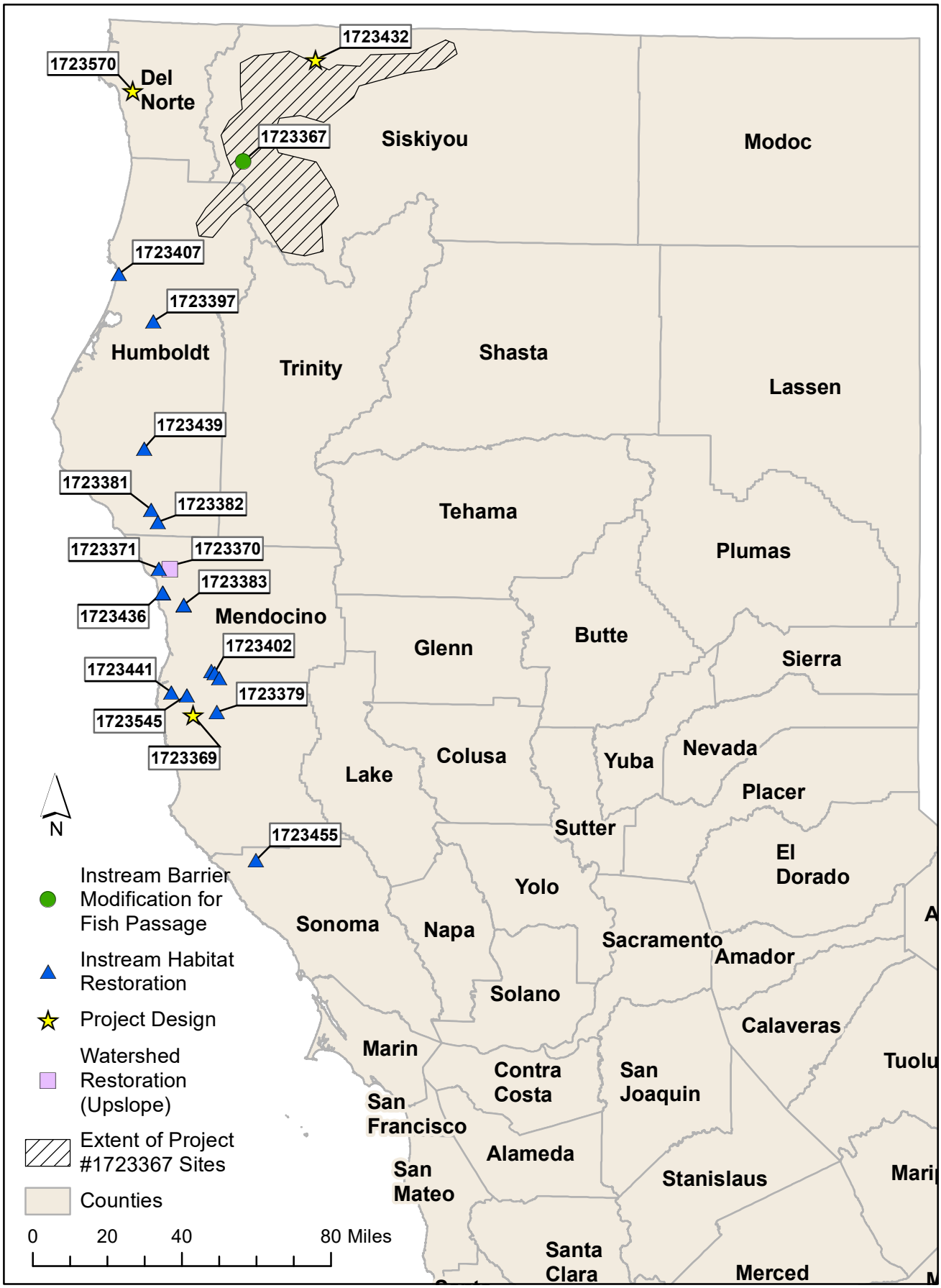

Department of Fish and Wildlife. Watershed Restoration Grants Branch. R. Spell, 20210112

Attachment B
Receiving Waters, Impacts and Mitigation Information

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I. Receiving Waters, Impacts and Mitigation Information

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

Table 1: Receiving Water(s) Information

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723381	Somerville Creek	Stream Channel, Riparian Zone	111.32	Redwood Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Sedimentation/ Siltation, Temperature (water)
1723382	Sproul Creek	Stream Channel, Riparian Zone	111.32	South Fork Eel River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Sedimentation/ Siltation, Temperature (water)
1723383-1	Hollow Tree Creek	Stream Channel, Riparian Zone	111.32	South Fork Eel River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Sedimentation/ Siltation, Temperature (water)
1723383-2	Butler Creek	Stream Channel	111.32	Hollow Tree Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Sedimentation/ Siltation, Temperature (water)
1723436-1	Middle Fork Cottaneva Creek	Stream Channel, Riparian Zone	113.10	Cottaneva Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	None

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723436-2	Unnamed Tributary	Stream Channel	113.10	Middle Fork Cottaneva Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	None
1723402-1	Dewarren Creek	Stream Channel, Riparian Zone	113.20	North Fork Noyo River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	Sedimentation/ Siltation, Temperature (water)
1723402-2	Middle Fork North Fork Noyo River	Stream Channel, Riparian Zone	113.20	North Fork Noyo River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	Sedimentation/ Siltation, Temperature (water)
1723402-3	Gulch Seven	Stream Channel, Riparian Zone	113.20	North Fork Noyo River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	Sedimentation/ Siltation, Temperature (water)
1723379	East Branch North Fork Big River	Stream Channel, Riparian Zone	113.30	North Fork Big River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	Sedimentation/ Siltation
1723407	Little River	Stream Channel, Riparian Zone	108.20	Pacific Ocean	MUN, AGR, IND, PRO, GWR, FRSH, NAV, REC1, REC2, COMM, COLD, WILD, RARE, MAR, MIGR, SPWN, EST, AQUA, CUL	Indicator Bacteria

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723545	Bear Gulch	Stream Channel, Riparian Zone	113.20	South Fork Noyo River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	Sedimentation/ Siltation
1723397	Canon Creek	Stream Channel, Riparian Zone	109.20	Mad River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Sedimentation/ Siltation, Temperature (water), Turbidity
1723441	Hare Creek	Stream Channel, Riparian Zone	113.20	Pacific Ocean	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	None
1723369	Big River	Stream Channel, Riparian Zone	113.30	Pacific Ocean	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, EST, AQUA	Oxygen (Dissolved), Sedimentation/ Siltation, Temperature (water)
1723371	Bear Creek	Stream Channel, Riparian Zone	113.11	Usal Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN	None
1723370	Bear Creek	Stream Channel, Riparian Zone	113.11	Usal Creek	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN	None

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723439	Bull 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	Sedimentation/ Siltation, Temperature (water)
1723455	Buckeye Creek	Stream Channel, Riparian Zone	113.83	Gualala River	MUN, AGR, IND, PRO, GWR, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Sedimentation/ Siltation
1723570	East Fork Mill Creek	Stream Channel, Riparian Zone	103.13	Mill Creek	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA	None
1723432	Seiad Creek	Stream Channel, Riparian Zone	105.33	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Nutrients, Sediment
1723367-1	Merrill Creek	Stream Channel	105.23	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Nutrients
1723367-2	Wooley Creek	Stream Channel	105.22	Salmon River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA, CUL	Temperature (water)

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723367-3	Butler 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)
1723367-4	Nordheimer 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)
1723367-5	Crapo 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)
1723367-6	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)
1723367-7	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)
1723367-8	Indian Creek (South Fork Salmon River 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)

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723367-9	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)
1723367-10	Plummer Creek	Stream Channel	105.24	Salmon River	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Sediment, Temperature (water)
1723367-11	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)
1723367-12	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)
1723367-13	Jones 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)
1723367-14	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)

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723367-15	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)
1723367-16	Kelly 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)
1723367-17	Shiltos 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)
1723367-18	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)
1723367-19	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)
1723367-20	Whites 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)

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723367-21	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)
1723367-22	South Russian Creek	Stream Channel	105.23	North Russian Creek	MUN, AGR, IND, PRO, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, SHELL, AQUA	Temperature (water)
1723367-23	Boulder Creek	Stream Channel	105.42	Scott River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Temperature (water)
1723367-24	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	None
1723367-25	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	None
1723367-26	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	Sedimentation/ Siltation

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723367-27	Aikens Creek	Stream Channel	105.12	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, COLD, WILD, RARE, MIGR, SPWN, AQUA	Nutrients
1723367-28	Beaver 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	Nutrients, Sediment, Temperature (water)
1723367-29	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	Nutrients
1723367-30	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	Nutrients
1723367-31	Cade 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 microsystins, Nutrients, Sediment
1723367-32	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	Nutrients

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723367-33	China 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 microsystins, Nutrients, Sediment
1723367-34	Clear 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 microsystins, Nutrients, Sediment
1723367-35	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 microsystins, Nutrients, Sediment
1723367-36	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	Temperature (water), Nutrients
1723367-37	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	Nutrients
1723367-38	Crawford Creek (Orleans RD)	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	Nutrients

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723367-39	Crawford Creek (Happy Camp RD)	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 microsystins, Nutrients, Sediment
1723367-40	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 microsystins, Nutrients, Sediment
1723367-41	Elk 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 microsystins, Nutrients, Sediment
1723367-42	Fort Goff 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 microsystins, Nutrients, Sediment
1723367-43	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 microsystins, Nutrients, Sediment
1723367-44	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	Nutrients

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723367-45	Horse 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	Cyanobacteria hepatotoxic microsystins, Nutrients, Sediment
1723367-46	Independence 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 microsystins, Nutrients, Sediment
1723367-47	Indian Creek (Mid Klamath River 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 microsystins, Nutrients, Sediment
1723367-48	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 microsystins, Nutrients, Sediment
1723367-49	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 microsystins, Nutrients, Sediment
1723367-50	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 microsystins, Nutrients, Sediment

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723367-51	Little 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 microsystins, Nutrients, Sediment
1723367-52	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	Nutrients, Temperature (water)
1723367-53	Oak Flat 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 microsystins, Nutrients, Sediment
1723367-54	O'Neil 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	Cyanobacteria hepatotoxic microsystins, Nutrients, Sediment
1723367-55	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	Nutrients
1723367-56	Portuguese Creek (Happy Camp RD)	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 microsystins, Nutrients, Sediment, Temperature (water)

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723367-57	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	Nutrients
1723367-58	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 microsystins, Nutrients, Sediment
1723367-59	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 microsystins, Nutrients, Sediment
1723367-60	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 microsystins, Nutrients, Sediment
1723367-61	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 microsystins, Nutrients, Sediment
1723367-62	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	Nutrients

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723367-63	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 microsystins, Nutrients, Sediment
1723367-64	Swillup Creek	Stream Channel	105.23	Klamath River	MUN, AGR, IND, PRO, GWR, FRSH, NAV, POW, REC1, REC2, COMM, WARM, COLD, WILD, RARE, MIGR, SPWN, AQUA, CUL	Cyanobacteria hepatotoxic microsystins, Nutrients, Sediment
1723367-65	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 microsystins, Nutrients, Sediment
1723367-66	Thompson 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 microsystins, Nutrients, Sediment
1723367-67	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 microsystins, Nutrients, Sediment
1723367-68	Titus 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 microsystins, Nutrients, Sediment

Impact Site ID	Waterbody Name	Impacted Aquatic Resources Type	Water Board Hydrologic Units	Receiving Waters	Receiving Waters Beneficial Uses	303d Listing Pollutant
1723367-69	Tom Martin 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	Cyanobacteria hepatotoxic microsystins, Nutrients, Sediment
1723367-70	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 microsystins, Nutrients, Sediment
1723367-71	Ulathorne 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 microsystins, Nutrients, Sediment
1723367-72	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 microsystins, Nutrients, Sediment
1723367-73	Whitmore 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	Nutrients
1723367-74	Wilson 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	Nutrients

II. Individual Direct Impact Locations

The following tables show individual impacts.

1. **Table 2: Individual Temporary Fill/Excavation Impact Information**

Impact Site ID	Latitude	Longitude	Indirect Impact Requiring Mitigation?	Impacted Resource Type	Acres	Linear Feet
1723381	40.102957	-123.891481	No	Stream Channel	0.01	50
1723381	40.102957	-123.891481	No	Riparian Zone	0.27	600
1723382	40.05500	-123.85342	No	Stream Channel	0.1	800
1723382	40.05500	-123.85342	No	Riparian Zone	1.83	10000
1723383-1	39.736697	-123.70701	No	Stream Channel	0.17	250
1723383-1	39.736697	-123.70701	No	Riparian Zone	0.46	2000
1723383-2	39.73782	-123.7066	No	Stream Channel	0.04	50
1723436-1	39.77918	-123.81349	No	Stream Channel	0.01	50
1723436-1	39.77918	-123.81349	No	Riparian Zone	0.2	500
1723436-2	39.78214	-123.8161	No	Stream Channel	0.002	20
1723402-1	39.48436	-123.55384	No	Stream Channel	0.041	669
1723402-1	39.48436	-123.55384	No	Riparian Zone	0.044	936
1723402-2	39.47799	-123.53834	No	Stream Channel	0.061	941
1723402-2	39.47799	-123.53834	No	Riparian Zone	0.089	1317
1723402-3	39.4590100	-123.5138	No	Stream Channel	0.065	1471

Impact Site ID	Latitude	Longitude	Indirect Impact Requiring Mitigation?	Impacted Resource Type	Acres	Linear Feet
1723402-3	39.4590100	-123.5138	No	Riparian Zone	0.066	2011
1723379	39.32625	-123.51935	No	Stream Channel	0.138 02	2004
1723379	39.32625	-123.51935	No	Riparian Zone	0.117	3180
1723407	41.012511	-124.1051	No	Riparian Zone	0.027	45
1723545	39.388717	-123.67147	No	Stream Channel	0.036	707
1723545	39.388717	-123.67147	No	Riparian Zone	0.034	989
1723397	40.834436	-123.91838	No	Stream Channel	1.03	950
1723397	40.834436	-123.91838	No	Riparian Zone	0.16	1400
1723441	39.39784	-123.75092	No	Stream Channel	0.175	1360
1723441	39.39784	-123.75092	No	Riparian Zone	0.056	1639
1723369	39.31183	-123.63774	No	Stream Channel	0.11	320
1723369	39.31183	-123.63774	No	Riparian Zone	0.02	80
1723371	39.875736	-123.83772	No	Riparian Zone	0.47	1389
1723770	39.875736	-123.83772	No	Stream Channel	0.183	1590
1723770	39.875736	-123.83772	No	Riparian Zone	9.432	20304
1723439	40.3395830	-123.93778	No	Stream Channel	0.11	30
1723439	40.3395830	-123.93778	No	Riparian Zone	5.4	4053

Impact Site ID	Latitude	Longitude	Indirect Impact Requiring Mitigation?	Impacted Resource Type	Acres	Linear Feet
1723455	38.7577200	-123.29862	No	Stream Channel	0.085	836
1723455	38.7577200	-123.29862	No	Riparian Zone	0.027	791
1723570	41.7255510	-124.0757	No	Riparian Zone	0.005	5
1723432	41.872025	-123.13359	No	Stream Channel	0.01	40
1723432	41.872025	-123.13359	No	Riparian Zone	0.16	600
1723367-1	41.37933	-123.47355	No	Stream Channel	0.015	200
1723367-2	41.45139	-123.30944	No	Stream Channel	0.075	600
1723367-3	41.33768	-123.40782	No	Stream Channel	0.015	200
1723367-4	41.29663	-123.36278	No	Stream Channel	0.03	300
1723367-5	41.29228	-123.36260	No	Stream Channel	0.015	200
1723367-6	41.24331	-123.29235	No	Stream Channel	0.03	300
1723367-7	41.22246	-123.25005	No	Stream Channel	0.015	200
1723367-8	41.21112	-123.23271	No	Stream Channel	0.015	200
1723367-9	41.20388	-123.22487	No	Stream Channel	0.015	200
1723367-10	41.14994	-123.21356	No	Stream Channel	0.015	200
1723367-11	41.14102	-123.17269	No	Stream Channel	0.015	200
1723367-12	41.15291	-123.11135	No	Stream Channel	0.075	600

Impact Site ID	Latitude	Longitude	Indirect Impact Requiring Mitigation?	Impacted Resource Type	Acres	Linear Feet
1723367-13	41.29893	-123.22715	No	Stream Channel	0.005	100
1723367-14	41.31296	-123.19202	No	Stream Channel	0.005	100
1723367-15	41.31974	-123.17763	No	Stream Channel	0.03	300
1723367-16	41.31536	-123.16914	No	Stream Channel	0.005	100
1723367-17	41.30935	-123.17087	No	Stream Channel	0.005	100
1723367-18	41.30697	-123.16684	No	Stream Channel	0.005	100
1723367-19	41.30241	-123.15829	No	Stream Channel	0.015	200
1723367-20	41.29862	-123.08380	No	Stream Channel	0.015	200
1723367-21	41.32341	-123.06041	No	Stream Channel	0.03	300
1723367-22	41.32661	-123.05688	No	Stream Channel	0.03	300
1723367-23	41.43772	-123.15544	No	Stream Channel	0.015	200
1723367-24	41.66800	-123.10940	No	Stream Channel	0.015	200
1723367-25	41.68111	-123.09741	No	Stream Channel	0.015	200
1723367-26	41.74305	-123.00296	No	Stream Channel	0.03	300
1723367-27	41.22827	-123.65121	No	Stream Channel	0.015	200
1723367-28	41.86932	-122.81735	No	Stream Channel	0.03	300
1723367-29	41.24078	-123.65258	No	Stream Channel	0.03	300

Impact Site ID	Latitude	Longitude	Indirect Impact Requiring Mitigation?	Impacted Resource Type	Acres	Linear Feet
1723367-30	41.28261	-123.57560	No	Stream Channel	0.015	200
1723367-31	41.80737	-123.34900	No	Stream Channel	0.015	200
1723367-32	41.29234	-123.56243	No	Stream Channel	0.03	300
1723367-33	41.79875	-123.31404	No	Stream Channel	0.015	200
1723367-34	41.70986	-123.44835	No	Stream Channel	0.075	600
1723367-35	41.61264	-123.49673	No	Stream Channel	0.015	200
1723367-36	41.88890	-122.54357	No	Stream Channel	0.075	600
1723367-37	41.92926	-122.44329	No	Stream Channel	0.03	300
1723367-38	41.29540	-123.56542	No	Stream Channel	0.005	100
1723367-39	41.64896	-123.46389	No	Stream Channel	0.005	100
1723367-40	41.57631	-123.53923	No	Stream Channel	0.075	600
1723367-41	41.78134	-123.37879	No	Stream Channel	0.075	600
1723367-42	41.86392	-123.25750	No	Stream Channel	0.015	200
1723367-43	41.84180	-123.20762	No	Stream Channel	0.03	300
1723367-44	41.20361	-123.66166	No	Stream Channel	0.015	200
1723367-45	41.82355	-123.00556	No	Stream Channel	0.03	300
1723367-46	41.65811	-123.45307	No	Stream Channel	0.03	300

Impact Site ID	Latitude	Longitude	Indirect Impact Requiring Mitigation?	Impacted Resource Type	Acres	Linear Feet
1723367-47	41.78996	-123.37879	No	Stream Channel	0.075	600
1723367-48	41.46787	-123.49032	No	Stream Channel	0.015	200
1723367-49	41.61845	-123.47220	No	Stream Channel	0.015	200
1723367-50	41.78382	-123.39467	No	Stream Channel	0.015	200
1723367-51	41.78271	-123.31674	No	Stream Channel	0.015	200
1723367-52	41.83556	-122.84313	No	Stream Channel	0.015	200
1723367-53	41.72952	-123.43553	No	Stream Channel	0.015	200
1723367-54	41.81018	-123.11436	No	Stream Channel	0.015	200
1723367-55	41.31202	-123.52513	No	Stream Channel	0.015	200
1723367-56	41.85817	-123.24727	No	Stream Channel	0.015	200
1723367-57	41.25858	-123.60460	No	Stream Channel	0.03	300
1723367-58	41.51222	-123.53059	No	Stream Channel	0.03	300
1723367-59	41.44500	-123.49032	No	Stream Channel	0.015	200
1723367-60	41.48539	-123.51823	No	Stream Channel	0.015	200
1723367-61	41.84298	-123.21141	No	Stream Channel	0.03	300
1723367-62	41.25012	-123.64327	No	Stream Channel	0.03	300
1723367-63	41.47686	-123.51240	No	Stream Channel	0.015	200

Impact Site ID	Latitude	Longitude	Indirect Impact Requiring Mitigation?	Impacted Resource Type	Acres	Linear Feet
1723367-64	41.60816	-123.50086	No	Stream Channel	0.015	200
1723367-65	41.53323	-123.52670	No	Stream Channel	0.005	100
1723367-66	41.86360	-123.30840	No	Stream Channel	0.03	300
1723367-67	41.52553	-123.52909	No	Stream Channel	0.015	200
1723367-68	41.67113	-123.43043	No	Stream Channel	0.015	200
1723367-69	41.78413	-123.04191	No	Stream Channel	0.005	100
1723367-70	41.83643	-123.48455	No	Stream Channel	0.03	300
1723367-71	41.29175	-123.57033	No	Stream Channel	0.005	100
1723367-72	41.83643	-123.17165	No	Stream Channel	0.01	200
1723367-73	41.33508	-123.51173	No	Stream Channel	0.005	100
1723367-74	41.32971	-123.52126	No	Stream Channel	0.005	100

Table 3: Individual Permanent Fill/Excavation Impact Information

Impact Site ID	Latitude	Longitude	Indirect Impact Requiring Mitigation?	Impacted Resource Type	Acres	Linear Feet
1723381	40.102957	-123.891481	No	Stream Channel	0.07	764
1723381	40.102957	-123.891481	No	Riparian Zone	0.01	300
1723382	40.05500	-123.85342	No	Stream Channel	0.31	1290
1723382	40.05500	-123.85342	No	Riparian Zone	0.01	800
1723383-1	39.736697	-123.70701	No	Stream Channel	0.2	1097
1723383-1	39.736697	-123.70701	No	Riparian Zone	0.04	1000
1723436-1	39.77918	-123.81349	No	Stream Channel	0.09	1057
1723436-1	39.77918	-123.81349	No	Riparian Zone	0.01	200
1723402-1	39.48436	-123.55384	No	Stream Channel	0.031	446
1723402-1	39.48436	-123.55384	No	Riparian Zone	0.0001	60
1723402-2	39.47799	-123.53834	No	Stream Channel	0.046	627
1723402-2	39.47799	-123.53834	No	Riparian Zone	0.0002	92
1723402-3	39.4590100	-123.5138	No	Stream Channel	0.053	931
1723402-3	39.4590100	-123.5138	No	Riparian Zone	0.0009	48
1723379	39.32625	-123.51935	No	Stream Channel	0.095	1020

Impact Site ID	Latitude	Longitude	Indirect Impact Requiring Mitigation?	Impacted Resource Type	Acres	Linear Feet
1723379	39.32625	-123.51935	No	Riparian Zone	0.0001	132
1723407	41.012511	-124.1051	No	Stream Channel	0.79	230
1723545	39.388717	-123.67147	No	Stream Channel	0.027	471
1723545	39.388717	-123.67147	No	Riparian Zone	0.00005	24
1723397	40.834436	-123.91838	No	Stream Channel	4.126	3810
1723397	40.834436	-123.91838	No	Riparian Zone	0.03	35
1723441	39.39784	-123.75092	No	Stream Channel	0.05	681
1723441	39.39784	-123.75092	No	Riparian Zone	0.83	2425
1723371	39.875736	-123.83772	No	Stream Channel	1.448	4206
1723371	39.875736	-123.83772	No	Riparian Zone	1.21	1780
1723770	39.875736	-123.83772	No	Stream Channel	0.018	160
1723439	40.3395830	-123.93778	No	Stream Channel	4.97	4778
1723455	38.7577200	-123.29862	No	Stream Channel	0.024	418
1723455	38.7577200	-123.29862	No	Riparian Zone	0.315	1187

III. Restoration Information

The following table(s) show restoration information associated with each impact site.

Table 4: Restoration Information. Several impact sites appear multiple times in this table because they have multiple restoration methods and restored resources associated with them.

Impact Site ID	Latitude	Longitude	Restored Aquatic Resource Type	Restoration Method	Acres Restored	Linear Feet Restored
1723381	40.102957	-123.891481	Stream Channel	Enhancement	0.8	3500
1723381	40.102957	-123.891481	Stream Channel	Rehabilitation	0.01	50
1723381	40.102957	-123.891481	Riparian Zone	Enhancement	0.01	300
1723381	40.102957	-123.891481	Riparian Zone	Rehabilitation	3.1	3500
1723382	40.05500	-123.85342	Stream Channel	Enhancement	10.5	15300
1723382	40.05500	-123.85342	Stream Channel	Rehabilitation	0.03	500
1723382	40.05500	-123.85342	Riparian Zone	Enhancement	0.05	1000
1723382	40.05500	-123.85342	Riparian Zone	Rehabilitation	2	10000
1723383-1	39.736697	-123.70701	Stream Channel	Enhancement	10	10894
1723383-1	39.736697	-123.70701	Stream Channel	Rehabilitation	0.17	250
1723383-1	39.736697	-123.70701	Riparian Zone	Enhancement	0.1	1500
1723383-1	39.736697	-123.70701	Riparian Zone	Rehabilitation	4.6	10000
1723383-2	39.73782	-123.7066	Stream Channel	Enhancement	0.04	50
1723436-1	39.77918	-123.81349	Stream Channel	Enhancement	1.8	4275
1723436-1	39.77918	-123.81349	Stream Channel	Rehabilitation	0.01	50

Impact Site ID	Latitude	Longitude	Restored Aquatic Resource Type	Restoration Method	Acres Restored	Linear Feet Restored
1723436-1	39.77918	-123.81349	Riparian Zone	Enhancement	0.01	200
1723436-1	39.77918	-123.81349	Riparian Zone	Rehabilitation	2	2000
1723436-2	39.78214	-123.8161	Stream Channel	Rehabilitation	0.002	20
1723402-1	39.48436	-123.55384	Stream Channel	Enhancement	0.933	3000
1723402-1	39.48436	-123.55384	Stream Channel	Rehabilitation	0.208	3000
1723402-1	39.48436	-123.55384	Riparian Zone	Rehabilitation	0.0441	996
1723402-2	39.47799	-123.53834	Stream Channel	Enhancement	1.885	4105
1723402-2	39.47799	-123.53834	Stream Channel	Rehabilitation	0.432	4105
1723402-2	39.47799	-123.53834	Riparian Zone	Rehabilitation	0.0892	1409
1723402-3	39.4590100	-123.5138	Stream Channel	Enhancement	1159	4675
1723402-3	39.4590100	-123.5138	Stream Channel	Rehabilitation	0.365	4675
1723402-3	39.4590100	-123.5138	Riparian Zone	Rehabilitation	0.066	2059
1723379	39.32625	-123.51935	Stream Channel	Enhancement	2.75	4995
1723379	39.32625	-123.51935	Stream Channel	Rehabilitation	1.104	4995
1723379	39.32625	-123.51935	Riparian Zone	Rehabilitation	0.118	3312
1723407	41.012511	-124.1051	Stream Channel	Enhancement	26	1525
1723407	41.012511	-124.1051	Riparian Zone	Enhancement	0.223	350
1723545	39.388717	-123.67147	Stream Channel	Enhancement	0.697	3315
1723545	39.388717	-123.67147	Stream Channel	Rehabilitation	0.149	3315

Impact Site ID	Latitude	Longitude	Restored Aquatic Resource Type	Restoration Method	Acres Restored	Linear Feet Restored
1723545	39.388717	-123.67147	Riparian Zone	Rehabilitation	0.004	1013
1723397	40.834436	-123.91838	Stream Channel	Enhancement	8.46	14750
1723397	40.834436	-123.91838	Riparian Zone	Enhancement	0.119	260
1723397	40.834436	-123.91838	Riparian Zone	Rehabilitation	0.16	1400
1723441	39.39784	-123.75092	Stream Channel	Enhancement	1.21	2952
1723441	39.39784	-123.75092	Riparian Zone	Enhancement	0.886	4064
1723369	39.31183	-123.63774	Stream Channel	Rehabilitation	0.11	320
1723369	39.31183	-123.63774	Riparian Zone	Rehabilitation	0.02	80
1723371	39.875736	-123.83772	Stream Channel	Enhancement	3.136	17073
1723371	39.875736	-123.83772	Riparian Zone	Enhancement	1.47	2259
1723770	39.875736	-123.83772	Stream Channel	Rehabilitation	1.067	9303
1723770	39.875736	-123.83772	Riparian Zone	Rehabilitation	9.212	20064
1723770	39.875736	-123.83772	Riparian Zone	Re-establishment	0.22	240
1723439	40.3395830	-123.93778	Stream Channel	Establishment	3.8	4053
1723439	40.3395830	-123.93778	Stream Channel	Enhancement	0.88	1855
1723439	40.3395830	-123.93778	Stream Channel	Rehabilitation	0.4	1630
1723439	40.3395830	-123.93778	Riparian Zone	Re-establishment	5.4	4053
1723455	38.7577200	-123.29862	Stream Channel	Enhancement	0.477	1268

Impact Site ID	Latitude	Longitude	Restored Aquatic Resource Type	Restoration Method	Acres Restored	Linear Feet Restored
1723455	38.7577200	-123.29862	Riparian Zone	Enhancement	0.342	1978
1723570	41.7255510	-124.0757	Riparian Zone	Rehabilitation	0.005	5
1723432	41.872025	-123.13359	Stream Channel	Rehabilitation	0.01	40
1723432	41.872025	-123.13359	Riparian Zone	Rehabilitation	0.16	600
1723367-1	41.37933	-123.47355	Stream Channel	Rehabilitation	1.683	10560
1723367-2	41.45139	-123.30944	Stream Channel	Rehabilitation	1.683	10560
1723367-3	41.33768	-123.40782	Stream Channel	Rehabilitation	1.683	10560
1723367-4	41.29663	-123.36278	Stream Channel	Rehabilitation	1.683	10560
1723367-5	41.29228	-123.36260	Stream Channel	Rehabilitation	1.683	10560
1723367-6	41.24331	-123.29235	Stream Channel	Rehabilitation	1.683	10560
1723367-7	41.22246	-123.25005	Stream Channel	Rehabilitation	1.683	10560
1723367-8	41.21112	-123.23271	Stream Channel	Rehabilitation	1.683	10560
1723367-9	41.20388	-123.22487	Stream Channel	Rehabilitation	1.683	10560
1723367-10	41.14994	-123.21356	Stream Channel	Rehabilitation	1.683	10560
1723367-11	41.14102	-123.17269	Stream Channel	Rehabilitation	1.683	10560
1723367-12	41.15291	-123.11135	Stream Channel	Rehabilitation	1.683	10560
1723367-13	41.29893	-123.22715	Stream Channel	Rehabilitation	1.683	10560
1723367-14	41.31296	-123.19202	Stream Channel	Rehabilitation	1.683	10560
1723367-15	41.31974	-123.17763	Stream Channel	Rehabilitation	1.683	10560

Impact Site ID	Latitude	Longitude	Restored Aquatic Resource Type	Restoration Method	Acres Restored	Linear Feet Restored
1723367-16	41.31536	-123.16914	Stream Channel	Rehabilitation	1.683	10560
1723367-17	41.30935	-123.17087	Stream Channel	Rehabilitation	1.683	10560
1723367-18	41.30697	-123.16684	Stream Channel	Rehabilitation	1.683	10560
1723367-19	41.30241	-123.15829	Stream Channel	Rehabilitation	1.683	10560
1723367-20	41.29862	-123.08380	Stream Channel	Rehabilitation	1.683	10560
1723367-21	41.32341	-123.06041	Stream Channel	Rehabilitation	1.683	10560
1723367-22	41.32661	-123.05688	Stream Channel	Rehabilitation	1.683	10560
1723367-23	41.43772	-123.15544	Stream Channel	Rehabilitation	1.683	10560
1723367-24	41.66800	-123.10940	Stream Channel	Rehabilitation	1.683	10560
1723367-25	41.68111	-123.09741	Stream Channel	Rehabilitation	1.683	10560
1723367-26	41.74305	-123.00296	Stream Channel	Rehabilitation	1.683	10560
1723367-27	41.22827	-123.65121	Stream Channel	Rehabilitation	1.683	10560
1723367-28	41.86932	-122.81735	Stream Channel	Rehabilitation	1.683	10560
1723367-29	41.24078	-123.65258	Stream Channel	Rehabilitation	1.683	10560
1723367-30	41.28261	-123.57560	Stream Channel	Rehabilitation	1.683	10560
1723367-31	41.80737	-123.34900	Stream Channel	Rehabilitation	1.683	10560
1723367-32	41.29234	-123.56243	Stream Channel	Rehabilitation	1.683	10560
1723367-33	41.79875	-123.31404	Stream Channel	Rehabilitation	1.683	10560
1723367-34	41.70986	-123.44835	Stream Channel	Rehabilitation	1.683	10560

Impact Site ID	Latitude	Longitude	Restored Aquatic Resource Type	Restoration Method	Acres Restored	Linear Feet Restored
1723367-35	41.61264	-123.49673	Stream Channel	Rehabilitation	1.683	10560
1723367-36	41.88890	-122.54357	Stream Channel	Rehabilitation	1.683	10560
1723367-37	41.92926	-122.44329	Stream Channel	Rehabilitation	1.683	10560
1723367-38	41.29540	-123.56542	Stream Channel	Rehabilitation	1.683	10560
1723367-39	41.64896	-123.46389	Stream Channel	Rehabilitation	1.683	10560
1723367-40	41.57631	-123.53923	Stream Channel	Rehabilitation	1.683	10560
1723367-41	41.78134	-123.37879	Stream Channel	Rehabilitation	1.683	10560
1723367-42	41.86392	-123.25750	Stream Channel	Rehabilitation	1.683	10560
1723367-43	41.84180	-123.20762	Stream Channel	Rehabilitation	1.683	10560
1723367-44	41.20361	-123.66166	Stream Channel	Rehabilitation	1.683	10560
1723367-45	41.82355	-123.00556	Stream Channel	Rehabilitation	1.683	10560
1723367-46	41.65811	-123.45307	Stream Channel	Rehabilitation	1.683	10560
1723367-47	41.78996	-123.37879	Stream Channel	Rehabilitation	1.683	10560
1723367-48	41.46787	-123.49032	Stream Channel	Rehabilitation	1.683	10560
1723367-49	41.61845	-123.47220	Stream Channel	Rehabilitation	1.683	10560
1723367-50	41.78382	-123.39467	Stream Channel	Rehabilitation	1.683	10560
1723367-51	41.78271	-123.31674	Stream Channel	Rehabilitation	1.683	10560
1723367-52	41.83556	-122.84313	Stream Channel	Rehabilitation	1.683	10560
1723367-53	41.72952	-123.43553	Stream Channel	Rehabilitation	1.683	10560

Impact Site ID	Latitude	Longitude	Restored Aquatic Resource Type	Restoration Method	Acres Restored	Linear Feet Restored
1723367-54	41.81018	-123.11436	Stream Channel	Rehabilitation	1.683	10560
1723367-55	41.31202	-123.52513	Stream Channel	Rehabilitation	1.683	10560
1723367-56	41.85817	-123.24727	Stream Channel	Rehabilitation	1.683	10560
1723367-57	41.25858	-123.60460	Stream Channel	Rehabilitation	1.683	10560
1723367-58	41.51222	-123.53059	Stream Channel	Rehabilitation	1.683	10560
1723367-59	41.44500	-123.49032	Stream Channel	Rehabilitation	1.683	10560
1723367-60	41.48539	-123.51823	Stream Channel	Rehabilitation	1.683	10560
1723367-61	41.84298	-123.21141	Stream Channel	Rehabilitation	1.683	10560
1723367-62	41.25012	-123.64327	Stream Channel	Rehabilitation	1.683	10560
1723367-63	41.47686	-123.51240	Stream Channel	Rehabilitation	1.683	10560
1723367-64	41.60816	-123.50086	Stream Channel	Rehabilitation	1.683	10560
1723367-65	41.53323	-123.52670	Stream Channel	Rehabilitation	1.683	10560
1723367-66	41.86360	-123.30840	Stream Channel	Rehabilitation	1.683	10560
1723367-67	41.52553	-123.52909	Stream Channel	Rehabilitation	1.683	10560
1723367-68	41.67113	-123.43043	Stream Channel	Rehabilitation	1.683	10560
1723367-69	41.78413	-123.04191	Stream Channel	Rehabilitation	1.683	10560
1723367-70	41.83643	-123.48455	Stream Channel	Rehabilitation	1.683	10560
1723367-71	41.29175	-123.57033	Stream Channel	Rehabilitation	1.683	10560
1723367-72	41.83643	-123.17165	Stream Channel	Rehabilitation	1.683	10560

Impact Site ID	Latitude	Longitude	Restored Aquatic Resource Type	Restoration Method	Acres Restored	Linear Feet Restored
1723367-73	41.33508	-123.51173	Stream Channel	Rehabilitation	1.683	10560
1723367-74	41.32971	-123.52126	Stream Channel	Rehabilitation	1.683	10560

IV. Individual Project Information:

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

Table 5: Individual Project Information

Project ID	Project Type	Project Title	Short Description	County	Water Body Name
1723367	HB	Mid-Klamath Tributary Fish Passage Improvement Project	This project improves juvenile and adult salmonid fish passage to over 70 tributaries in the Middle Klamath, Salmon, and Lower Scott River subbasins through manual modification of fish barriers. The project includes habitat assessment, fish presence surveys, and the installation of brush bundles to enhance complexity of coldwater refugia sites.	Humboldt & Siskiyou	Wooley Creek

Project ID	Project Type	Project Title	Short Description	County	Water Body Name
1723369	PD	Big River Salmonid Rearing Habitat and Large Wood Enhancement Project Designs	The project objective is to design Engineered Log Jams (ELJs) in a 3-mile reach of Big River that, once implemented, will develop a complex channel bed with deep pools, physical shelter, promote diversity in flow velocity structure, and locally raise the water surface elevation to increase floodplain connectivity. As feasible, the proposed ELJs will be used to augment tributary off-channel habitat in two tributaries at their confluence with Big River.	Mendocino	Big River
1723370	HU	Bear Creek Sediment Reduction and Salmonid Recovery Project	This project will result in the permanent removal of 3.5 miles of streamside riparian road which represents almost 100% of the streamside road along Bear Creek. Crews will also lightly upgrade 1.53 miles of midslope truck road to provide the only access to the project area. The project will prevent 6,555 cubic yards of future anthropogenic sediment from entering a focal species stream.	Mendocino	Bear Creek
1723371	HI	Bear Creek Instream Habitat Enhancement Project	This project will install 189 key pieces of wood at 50 sites in 1.9 miles of steelhead recovery habitat in Bear Creek. This project will increase stream habitat complexity, pool frequency, pool depth, high-flow refugia, and over-summer rearing habitat for salmonids in an important tributary in the Usal Creek Watershed.	Mendocino	Bear Creek

Project ID	Project Type	Project Title	Short Description	County	Water Body Name
1723379	HI	East Branch North Fork Big River Coho Habitat Enhancement Project - Large Wood (Phase II)	167 pieces of large wood, consisting of 81 key pieces will be utilized to create 54 instream features within 4,995 feet of East Branch North Fork Big River. The addition of large wood will achieve the wood loading target criteria outlined in coho recovery plans. These instream features will increase the quantity, quality, and complexity of salmonid spawning and rearing habitat.	Mendocino	East Branch North Fork Big River
1723381	HI	Somerville Creek Instream Restoration Project	The objective of this project is to construct 28 large wood (LW) features along 0.7 miles of Somerville Creek. These features will contain 131 pieces of LW, including 19 pieces with rootwads attached. The addition of these structures will enhance spawning and rearing habitats for both adult and juvenile salmonids.	Humboldt	Somerville Creek
1723382	HI	Sproul Creek Salmonid Habitat Restoration Project	The objective of this project is to improve the quality of habitat available to salmonids in Sproul Creek. A total of 71 large wood (LW) structures containing 414 pieces of LW, including 117 key pieces will be constructed along 2.9 miles of Sproul Creek. This project will increase the frequency of flood-plain and side channel innudation, increase pool and flatwater shelter, increase pool flatwater depths, provide belocity refugia, sort substrate, and aggrade the channel.	Humboldt	Sproul Creek

Project ID	Project Type	Project Title	Short Description	County	Water Body Name
1723383	HI	Upper Hollow Tree Wood Loading Project	The objective of this project is to construct 76 large wood (LW) features along 2.1 miles of Hollow Tree Creek. These features will contain 271 pieces of LW, including 90 key pieces and 60 pieces with rootwads attached. The addition of these structures will enhance spawning and rearing habitats for both adult and juvenile salmonids.	Mendocino	Hollow Tree Creek
1723397	HI	Canon Creek Instream Habitat Improvement Project	This project will install 221 key pieces of wood in 2.25 miles of core salmonid recovery stream habitat in Canon Creek. This project will increase stream habitat complexity, pool frequency, pool depth, high-flow refugia, and over-summer rearing habitat for salmonids in the watershed.	Humboldt	Canon Creek
1723402	HI	North Fork Noyo River Tributary Complex - Large Wood Habitat Enhancement Project	Large wood features will be constructed in three tributary streams to the North Fork Noyo River to enhance the quality, quantity, and overall complexity of spawning and rearing habitat for Coho salmon. Site 1 - 34 features comprised of 82 pieces of wood within 3,000 feet of Dewarren Creek. Site 2 - 36 features comprised of 112 pieces of wood within 4,105 feet of Middle Fork North Fork Noyo River. Site 3 - 54 features comprised of 146 pieces of wood within 4,675 feet of Gulch Seven.	Mendocino	Dewarren Creek
1723407	HI	Lower Little River Off-Channel Coho Habitat Improvement Project	The objective of this project is to enhance connectivity to the floodplain by creating off-channel pond(s)/channel(s) which enhance winter high-flow refugia and rearing habitat for coho salmon in the lower Little River estuary.	Humboldt	Little River

Project ID	Project Type	Project Title	Short Description	County	Water Body Name
1723432	PD	Seiad Creek at Panther Gulch: Coho Habitat Enhancement Design Plans	The objective of this project is to create a 100% design for a 1/2-mile reach of Seiad Creek near Panther Gulch. The fisheries restoration design will consider instream structures, off-channel features, diversion improvement, and floodplain grading as treatment options.	Siskiyou	Seiad Creek
1723436	HI	Middle Fork Cottaneva Creek Salmonid Habitat Project	The objective of this project is to construct 30 large wood (LW) features along 0.8 miles of Middle Fork Cottaneva Creek. These features will contain 108 pieces of LW, including 63 key pieces and 8 logs with root wads attached. This project will increase habitat complexity, capture woody debris, provide velocity refugia, increase pool and flatwater shelter, increase pool and flatwater depths, sort substrate, and capture sediment.	Mendocino	Middle Fork Cottaneva Creek
1723439	HI	Bull Creek Hamilton Reach Instream and Floodplain Habitat Restoration Project	This project objective is to restore floodplain habitat along the Hamilton Sub-reach of Bull Creek. Design objectives include: (1) remediate legacy effects of sediment aggradation lingering from the catastrophic 1955 and 1964 floods; (2) restore + expand summer (in-channel) and winter (off-channel) rearing habitat; (3) increase large wood + wood jams to promote pool habitat creation and sediment sorting; and, (4) promote riparian forest regeneration to alleviate water temperature impairment.	Humboldt	Bull Creek

Project ID	Project Type	Project Title	Short Description	County	Water Body Name
1723441	HI	Hare Creek Mainstem Instream Habitat Enhancement Project	This project will install 185 pieces of large wood at 97 distinct structure sites in 2.9 miles of CCC coho salmon recovery habitat in Hare Creek. This project will increase stream habitat complexity, pool frequency, pool depth, high-flow refugia, and over-summer rearing habitat for Coho Salmon and steelhead trout.	Mendocino	Hare Creek
1723455	HI	Buckeye Creek Instream Habitat Enhancement	95 pieces of large woody debris will be placed at 37 structure sites in worksite 1 to increase stream complexity, high flow refugia, pool frequency and rearing habitat for salmonids.	Sonoma	Buckeye Creek
1723545	HI	Bear Gulch Coho Stream Habitat Enhancement Project	This project will install 35 structures in over 3,315 feet of Bear Gulch to improve spawning habitat. These structures will consist of 87 pieces of wood, added to 25 existing pieces of wood, to meet the "Very Good" target habitat rating for wood loading as outlined in the Southern Oregon/Northern California Coast Coho Salmon Recovery Plan (2014).	Mendocino	Bear Gulch
1723570	PD	East Fork Mill Creek Floodplain Restoration Design Project	This project will develop all designs required to achieve the restoration objectives including: 1) removing Rock Creek Road and Rock Creek Road Bridge, which constrict the channel of East Fork Mill Creek; 2) relocating the road and bridge onto an old roadbed; and 3) restoring floodplain connectivity and natural channel form and complexity upstream and downstream of the relocated road. Achieving these objectives will improve spawning and rearing habitat for the Smith River coho salmon population.	Del Norte	East Fork Mill Creek

Attachment C
CEQA Findings of Facts

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I. FINDINGS FOR AN ADOPTED INITIAL STUDY/MITIGATED NEGATIVE DECLARATION WHEN THE WATER BOARD IS A RESPONSIBLE AGENCY

A. Environmental Review

On 16 November 2020, the California Department of Fish and Wildlife, as lead agency, adopted an Initial Study/Mitigated Negative Declaration (IS/MND) (State Clearinghouse (SCH) No. 2020099023) for the Project and filed a Notice of Determination (NOD) at the SCH on 16 November 2020. The Water Board is a responsible agency under CEQA (Public Resources Code, section 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 (Public Resources Code, section 21167.3.). The 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 (California Code of Regulations, Title 14, section 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. (Public Resources Code, section 21081.6, subd. (a)(1); California Code of Regulations, Title 14, section 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 the 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://wildlife.ca.gov/Grants/FRGP/MND and the MMRP is Attachment F of this Order.

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

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

C. 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.

1.

a. **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 in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (USFWS). However, the Project will have less than significant effects; the following facts support this finding.

b. **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, National Oceanic and Atmospheric Administration (NOAA) or USFWS. Such an impact will not occur because Project activities are designed to improve and restore stream habitat, and 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 during construction. Mitigation measures to avoid short-term impacts to rare plants and animals are described in the MMRP (Appendix B of the IS/MND, Attachment F 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 would 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 10, 12 through 13, 15, and 16; and IV.C Riparian Revegetation measures 1 through 10. In addition, there are conditions in the Order that require actions to further reduce impacts to biological resources to a less than significant level. Conditions in Order section XIV.G (Construction Conditions) address prevention of erosion, turbidity, and pollutant discharges into waters of the state; conditions in section XIV.C (Water Quality Monitoring) require water quality monitoring to detect pollutant discharges.

2.

a. **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. **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 which 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.VII Geology and Soils measures 1 through 13. Overall, Project implementation and mitigation measures in the MMRP would 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) address prevention of erosion, turbidity, and pollutant discharges into waters of the state; conditions in section XIV.C (Water Quality Monitoring) require water quality monitoring to detect pollutant discharges.

3.

a. **Potential Significant Impact from Hazards and Hazardous Materials:** The Project has the potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and 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.

b. **Facts in Support of Finding:** The potential of 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 will be avoided or reduced to less than significant through implementation of mitigation measures in the MMRP. These measures are described in MMRP section 1.IX Hazards and Hazardous Materials mitigation measures 1 through 9 and 14.

4.

a. **Potential Significant Impact from 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.

b. **Facts in Support of Finding:** The potential of exposing 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, will be avoided or reduced to

less than significant through implementation of mitigation measures in the MMRP. These measures are described in MMRP section 1.IX Hazards and Hazardous Materials mitigation measures 10 through 13.

5.

a. **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.

b. **Facts in Support of Finding:** There is the potential for minor short-term increases in turbidity during the installation or removal of instream structures and 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. Furthermore, the potential to violate of water quality standards or waste discharge requirements, or to otherwise substantially degrading water quality will be avoided or reduced to less than significant through implementation of mitigation measures in the MMRP. These measures are described in MMRP section 1.X Hydrology and Water Quality mitigation measures 1 through 10. Conditions in this Order also require actions to protect water quality: conditions in section XIV.G (Construction Conditions) address prevention of erosion, turbidity, and pollutant discharges into waters of the state; conditions in section XIV.C (Water Quality Monitoring) require water quality monitoring to detect pollutant discharges.

6.

a. **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.

b. **Facts in Support of Finding:** 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 will be avoided or reduced to less than significant through implementation of mitigation measures (in the MMRP and this Order)

listed above in 1 through 5. Project activities overall are designed and implemented to enhance and restore the quality of the environment. Project activities are specifically designed to improve and restore stream habitat; thereby providing long-term benefits to both anadromous salmonids and other fish and wildlife.

D. Determination

The 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. (California Code of Regulations, Title 14, section 15096, subd (h).).

Attachment D
Report and Notification Requirements

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I. Reports and Notification Requirements

A. 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 contact the waterboard staff person overseeing this project and request a copy.

II. Report Submittal Instructions

A. Check the box on the Report and Notification Cover Sheet next to the report or notification you are submitting. (See your Order for specific reports required for your Project)

- **Part A (Annual Report):** This report will be submitted annually by July 1 until a Notice of Project Complete Letter is issued.
- **Part B (Project Status Notifications):** Used to notify the 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.

B. Sign the Report and Notification Cover Sheet and attach all information requested for the Report Type.

C. Electronic Report Submittal Instructions:

- Submit signed Report and Notification Cover Sheet and required information via email to: stateboard401@waterboards.ca.gov and cc: Brendan.Reed@waterboards.ca.gov
- Include in the subject line of the email:
  ATTN: Brendan Reed; Reg Measure ID: 442334 Report

Definition of Reporting Terms

A. 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.

B. Request for Notice of Project Complete Letter:

This request by the Permittee to the 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. 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.

C. 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 Water Board staff. The Post-Discharge Monitoring Period includes continued water quality monitoring or compensatory mitigation monitoring.

D. Effective Date:

The date of order issuance – April 16, 2021

Map/Photo Documentation Information

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

A. 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 (NAD83) 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.

B. 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:	2020 Fisheries Habitat Restoration Projects
Permittee:	California Department of Fish and Wildlife
WDID/File Number:	SB21003IN
Reg. Meas. ID:	442334
Place ID:	872418
Order Effective Date:	April 16, 2021

Report Type Submitted

A. Part A – Project Reporting

Report Type 1 ☐ Annual Report

B. Part B – Project Status Notifications

Report Type 2 ☐ Commencement of Construction
Report Type 3 ☐ Request for Notice of Project Complete Letter

C. Part C – Conditional Notifications and Reports

Report Type 4 ☐ Accidental Discharge of Hazardous Material Report
Report Type 5 ☐ Violation of Compliance with Water Quality Standards Report
Report Type 6 ☐ In-Water Work/Diversions Water Quality Monitoring Report
Report Type 7 ☐ 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.**

Project Reporting - Report Content

A. Report Type 1 - Annual Report

1. **Report Purpose** - Notify the Water Board staff of Project status during both the active discharge and post-discharge monitoring periods.
2. **When to Submit** - Annual reports shall be submitted each year by July 1.Annual reports shall continue until a Notice of Project Complete Letter is issued to the Permittee.
3. **Report Contents** - The contents of the annual report shall include the topics indicated in Section 2.10)a) – 2.10)j) starting on page B-44 of the Project's MMRP, copied below, for each project period.

"*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 duringthe 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 reasonsfor delay.

ii. Map showing general project progress.

iii. Mitigation for temporary impact status

a. Planned date of initiation and map showing locations of mitigation fortemporary impacts to waters of the state and all upland areas of temporary disturbance which could result in a discharge to waters ofthe 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*

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 temporarilyimpacted, and permanently impacted.*

iii. *Pre- and post-photo documentation of all restoration sites, includingrevegetation sites.*

iv. *A report establishing that the performance standards outlined in theindividual 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/orwaters 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*

toensure 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."*

Part B – Project Status Notifications

1. **Report Type 2 - Commencement of Construction**
   a. **Report Purpose** - Notify Water Board staff prior to the start of construction.
   b. **When to Submit** - Must be received at least seven (7) days prior to start of initial ground disturbance activities.
   c. **Report Contents** -
      i. Date of commencement of construction.
      ii. Anticipated date when discharges to waters of the state will occur.
      iii. Project schedule milestones including a schedule for onsite compensatory mitigation, if applicable.
      iv. Construction Storm Water General Permit WDID No.
      v. Proof of purchase of compensatory mitigation for permanent impacts from the mitigation bank or in-lieu fee program, if applicable.
2. **Report Type 3 - Request for Notice of Project Complete Letter**
   a. **Report Purpose** - Notify Water Board staff that construction and/or any post-construction monitoring is complete, or is not required, and no further Project activity is planned.
   b. **When to Submit** - Must be received by Water Board staff within thirty (30) days following completion of all Project activities.
   c. **Report Contents** -
      i. Part A: Mitigation for Temporary Impacts
         - A report establishing that the performance standards outlined in the restoration plan have been met for Project site upland areas of temporary disturbance which could result in a discharge to waters of the state.
         - 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.
      ii. Part B: Permittee Responsible Compensatory Mitigation
         - A report establishing that the performance standards outlined in the compensatory mitigation plan have been met.
         - Status on the implementation of the long-term maintenance and management plan and funding of endowment.

- Pre- and post-photo documentation of all compensatory mitigation sites.
- Final maps of all compensatory mitigation areas (including buffers).

iii. Part C: Post-Construction Storm Water BMPs

- Date of storm water Notice of Termination(s), if applicable.
- Report status and functionality of all post-construction BMPs.

Part C – Conditional Notifications and Reports

1. **Report Type 4 - Accidental Discharge of Hazardous Material Report**
   a. **Report Purpose** - Notifies Water Board staff that an accidental discharge of hazardous material has occurred.
   b. **When to Submit** - Within five (5) working days following the date of an accidental discharge. Continue reporting as required by Water Board staff.
   c. **Report Contents** -
      i. 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.
      ii. 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.
      iii. Locations and construction specifications of any barriers, including silt curtains or diverting structures, and any associated trenching or anchoring.
2. **Report Type 5 - Violation of Compliance with Water Quality Standards Report**
   a. **Report Purpose** - Notifies Water Board staff that a violation of compliance with water quality standards has occurred.
   b. **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 Water Board staff.
   c. **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 Water Board staff.
3. **Report Type 6 - In-Water Work and Diversions Water Quality Monitoring Report**
   a. **Report Purpose** - Notifies Water Board staff of the completion of in-water work.
   b. **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.

c. **Report Contents** - As required by the approved water quality monitoring plan.

4. **Report Type 7 - Transfer of Long-Term BMP Maintenance Report**

   a. **Report Purpose** - Notifies Water Board staff of transfer of long-term BMP maintenance responsibility.

   b. **When to Submit** - At least 10 working days prior to the transfer of BMP maintenance responsibility.

   c. **Report Contents** - A copy of the legal document transferring maintenance responsibility of post-construction BMPs.

Attachment E
Signatory Requirements

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I. SIGNATORY REQUIREMENTS

All Documents submitted in compliance with this Order shall meet the following signatory requirements:

A. All applications, reports, or information submitted to the State Water Resources Control Board (State Water Board) must be signed and certified as follows:

1. For a corporation, by a responsible corporate officer of at least the level of vice-president.
2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
3. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.

B. A duly authorized representative of a person designated in items 1.a through 1.c above may sign documents if:

1. The authorization is made in writing by a person described in items 1.a through 1.c above.
2. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
3. The written authorization is submitted to the Water Board Staff Contact prior to submitting any documents listed in item 1 above.

C. Any person signing a document under this section shall make the following certification:

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

Attachment F
Mitigation Measures, Monitoring and Reporting Program for the 2020 Fisheries Habitat Restoration Project

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APPENDIX B[1]

MITIGATION MEASURES, MONITORING AND REPORTING PROGRAM FOR THE 2020 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 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 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.

[1] This MMRP is Appendix B of the Project's Mitigated Negative Declaration and was copied in full as attachment F of this Order.

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 sandbags and may be sealed with sheet plastic. Upon project completion, sandbags 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 500 contiguous feet.

   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 while 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 § 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 2020 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 2020 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. 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 2019 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 2020 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 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*)**

None of the projects proposed as part of the 2020 FHR project occurs within the range of arroyo toad. While none of the activities proposed for this project will significantly degrade existing habitat, the following measures will be taken to avoid any potential impact to habitat should arroyo toads be found within project sites:

a) The proponent shall retain a biologist who is familiar with arroyo toads to monitor all construction activities and assist the proponent in the implementation of the monitoring program. This person will be approved by the USFWS prior to the onset of ground-disturbing activities. The authorized biologist will be present during all dewatering and relocation efforts.

b) Prior to the onset of construction activities, the proponent shall provide all personnel who will be present on work areas within or adjacent to the project area the following information:

i. A detailed description of the arroyo toad's physical characteristics and life history, including color photographs.

ii. The protection the arroyo toad receives under the Endangered Species Act and possible legal action that may be incurred for violation of the act.

iii. The protective measures being implemented to conserve the arroyo toad and other species during construction activities associated with the proposed project; and

iv. A point of contact if arroyo toads are observed.

c) All trash that may attract predators of the arroyo toad, e.g. food scraps, will be removed from work sites or completely secured at the end of each workday.

d) USFWS-approved biologist(s) who handle arroyo toads 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.

e) A USFWS-approved biologist shall survey the project site at least two weeks before the onset of activities. If arroyo toads 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 arroyo toads.

f) Before any project-related activities, the approved biologist must identify appropriate areas to receive arroyo toads' 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 (e.g. bullfrogs, crayfish) to the best of the approved biologist's knowledge.

g) A USFWS-approved biologist shall be present at the work site until such time as removal of arroyo toads, 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.

h) If arroyo toads are found during construction 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 arroyo toads 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 arroyo toads that are at risk of injury or death by project activities may be moved.

i) 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 arroyo toads 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.

j) Ponded areas shall be monitored for red-legged frogs that may become entrapped. Any entrapped arroyo toad shall be relocated to a pre-determined receiving area by a USFWS-approved biologist.

k) A USFWS-approved biologist will permanently remove, exotic species, such as bullfrogs (*Rana catesbiana),* centrarchid fishes, and non-native crayfish from the project area 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.

l) The CDFW or USACE shall report any observation of arroyo toad incidental take associated with the implementation of the Restoration Program projects

in accordance with RGP-78. 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.

m) Despite term and condition "l)" 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 arroyo toads 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.

n) 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 arroyo toads or their habitat, then project activity at that work site shall be discontinued.

3) **California Freshwater Shrimp (*Syncaris pacifica*)**

Two of the 28 projects proposed as part of the 2020 FHR project occurs within the range of California freshwater shrimp (CFS) (1723425 – Iron Horse Vineyards Fish Screen Implementation Project and 1723563 – Iron Horse Vineyards Lower Green Valley Creek Off-Channel Habitat Enhancement Project – Phase 1) (Appendix A). 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 Opinion (file no. 08ESMF00-2016-F-0874). 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 captures, 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 five years.

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

Of the 28 projects proposed as part of the 2020 FHR project, four projects occur within the range of the California red-legged frog (CRLF). Activities proposed (1723425 – Iron Horse Vineyards Fish Screen Implementation Project, 1723563 – Iron Horse Vineyards Lower Green Valley Creek Off-Channel Habitat Enhancement Project – Phase 1, 1723455 – Buckeye Creek Instream Habitat Enhancement, and 1723442 – Lower Jalama Creek Fish Passage Design) (Appendix A) will not remove or degrade CRLF habitat; however, precautions shall be required at these sites to avoid the potential for take of CRLF while using heavy equipment. The potential for impacts to CRLF will be mitigated by complying with all of the mandatory terms and conditions associated with incidental take authorized by the USFWS, Biological Opinions (file no. AFWO-11B0242-1610058, 08ESMF00-2016-F-0874, 08EVEN00-2016-F-0093, and 2008-F-0441). 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 red-legged frogs 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 frogs 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 (e.g. 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 28 proposed projects in the 2020 FHR project is within the range of the California tiger salamander (1723442 – Lower Jalama Creek Fish Passage Design) (Appendix A). 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 projects proposed as part of the 2020 FHR project could involve instream work in their habitat (Appendix A). In order to avoid any potential for negative impacts to these species, the following measures will be implemented:

a) Project work within the wetted stream shall be limited to the period between June 15 and November 1, or the first significant rainfall, or 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:

a. Temperature: Water temperature shall be similar as the capture location.

b. Habitat: There shall be ample habitat for the captured fish.

c. 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*)**

Twenty-seven of the 28 proposed projects in the 2020 FHR project, are within range of the foothill yellow-legged frog (FYLF). Activities proposed (1723366 – Alliance Redwood Water Conservation Implementation Project, 1723425 – Iron Horse Vineyards Fish Screen Implementation Project, 1723563 – Iron Horse Vineyards Lower Green Valley Creek Off-Channel Habitat Enhancement Project – Phase 1, 1723383 – Upper Hollow Tree Wood Loading Project, 1723397 – Canon Creek Instream Habitat Improvement Project, 1723407 – Lower Little River Off-Channel Coho Habitat Improvement Project, 1723489 – Elk Valley Road Fish Passage Design Project, 1723570 – East Fork Mill Creek Floodplain Restoration Design Project, 1723367 – Mid-Klamath Tributary Fish Passage Improvement Project, 1723432 – Seiad Creek at Panther Gulch: Coho Habitat Enhancement Design Project, 1723455 – Buckeye Creek Instream Habitat Enhancement, 1723370 – Bear Creek Sediment Reduction and Salmonid Recovery Project, 1723371 – Bear Creek Instream Habitat

Enhancement Project, 1723381 – Somerville Creek Instream Restoration Project, 1723435 – Coulborn and Sebbas Creek Salmonid Habitat Assessment and Enhancement Planning and Design Project, 1723436 – Middle Fork Cottaneva Creek Salmonid Habitat Project, 1723444 – South Fork Usal Creek Instream Enhancement Design Project, 1723369 – Big River Salmonid Rearing Habitat Large Wood Enhancement Project Designs, 1723402 – North Fork Noyo River Tributary Complex – Large Wood Enhancement Project, 1723439 – Bull Creek Hamilton Reach Instream and Floodplain Habitat Restoration Project, 1723441 – Hare Creek Mainstem Instream Habitat Enhancement Project, 1723545 – Bear Gulch Coho Stream Habitat Enhancement Project, 1723379 – East Branch North Fork Big River Coho Habitat Enhancement Project – Large Wood (Phase II), 1723382 – Sproul Creek Salmonid Habitat Restoration Project, 1723401 – Off-Channel Salmonid Habitat Design for Freshwater Creek: Phase Two, 1723410 – Sebbas Creek Off-Channel Habitat Planning Project, and 1723515 – Chamberlain Creek Coho Passage Design Project) (Appendix A) 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) 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 28 projects proposed as part of the 2020 FHR project, one project is within the range of the Least Bell's Vireo (1723442 – Lower Jalama Creek Fish Passage Design) (Appendix A). Activities proposed for the project will not remove, degrade, or downgrade suitable Least Bell's Vireo habitat or result in direct injury or mortality. The potential does exist however for noise from heavy equipment work and the harvesting of willow branches for revegetation at these sites to disrupt Least Bell's Vireo nesting. To avoid this potential impact, the following mitigation measures will be implemented:

a) Work shall not begin within one quarter mile of any site with known or potential habitat for the Least Bell's Vireo until after September 15.

b) Harvest of willow branches at any site with potential habitat for the Least Bell's Vireo will not occur between March 1 and September 15.

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) 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.

e) 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 Least Bell's Vireo or their habitat, then activity at that work site will be discontinued.

9) **Marbled Murrelet (*Brachyrampus marmoratus*)**

Eleven of the 28 work sites proposed as part of the 2020 FHR project are in potentially suitable habitat for the Marbled Murrelet. Activities proposed for the sites (1723489 – Elk Valley Road Fish Passage Design Project, 1723570 – East Fork Mill Creek Floodplain Restoration Design Project, 1723367 – Mid-Klamath Tributary Fish Passage Improvement Project, 1723442 – Lower Jalama Creek Fish Passage Design, 1723436 – Middle Fork Cottaneva Creek Salmonid Habitat Project, 1723444 – South Fork Usal Creek Instream Enhancement Design Project, 1723439 – Bull Creek Hamilton Reach Instream and Floodplain Habitat Restoration Project, 1723441 – Hare Creek Mainstem Instream Habitat Enhancement Project, 1723545 – Bear Gulch Coho Stream Habitat Enhancement Project, 1723379 – East Branch North Fork Big River Coho Habitat Enhancement Project – Large Wood (Phase II), and 1723515 – Chamberlain Creek Coho Passage Design Project) (Appendix A) 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*)**

Twenty-four of the 28 work sites proposed as part of the 2020 FHR project are in potentially suitable habitat for the Northern Spotted Owl (1723366 – Alliance Redwood Water Conservation Implementation Project, 1723383 – Upper Hollow Tree Wood Loading Project, 1723397 – Canon Creek Instream Habitat Improvement Project, 1723407 – Lower Little River Off-Channel Coho Habitat Improvement Project, 1723570 – East Fork Mill Creek Floodplain Restoration Design Project, 1723367 – Mid-Klamath Tributary Fish Passage Improvement Project, 1723432 – Seiad Creek at Panther Gulch: Coho Habitat Enhancement Design Project, 1723455 – Buckeye Creek Instream Habitat Enhancement, 1723370 – Bear Creek Sediment Reduction and Salmonid Recovery Project, 1723371 – Bear Creek Instream Habitat Enhancement Project, 1723381 – Somerville Creek Instream Restoration Project, 1723435 – Coulborn and Sebbas Creek Salmonid Habitat Assessment and Enhancement Planning and Design Project, 1723436 – Middle Fork Cottaneva Creek Salmonid Habitat Project, 1723444 – South Fork Usal Creek Instream Enhancement Design Project, 1723369 – Big River Salmonid Rearing Habitat and Large Wood Enhancement Project Designs, 1723402 – North Fork Noyo River Tributary Complex – Large Wood Enhancement Project, 1723439 – Bull Creek Hamilton Reach Instream and Floodplain Habitat Restoration Project, 1723441 – Hare Creek Mainstem Instream Habitat Enhancement Project, 1723545 – Bear Gulch Coho Stream Habitat Enhancement Project, 1723379 – East Branch North Fork Big River Coho Habitat Enhancement Project – Large Wood (Phase II), 1723382 – Sproul Creek Salmonid Habitat Restoration Project, 1723401 – Off-Channel Salmonid Habitat Design for Freshwater Creek: Phase Two, 1723410 – Sebbas Creek Off-Channel Habitat Planning Project, and 1723515 – Chamberlain Creek Coho Passage Design Project) (Appendix A). None of the activities will remove, degrade, or downgrade Northern Spotted Owl 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 28 projects proposed in the 2020 FHR project, none are within the range of the Point Arena mountain beaver.

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

Of the 28 projects proposed in the 2020 FHR project, none are within the range of the San Francisco Garter Snake.

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

One of the 28 work sites proposed as part of the 2020 FHR project are in potentially suitable habitat for the Southwestern Willow Flycatcher (1723442 – Lower Jalama Creek Fish Passage Design) (Appendix A). None of the activities proposed for these sites will significantly degrade existing Southwestern Willow Flycatcher habitat; however, the potential exists for the noise from heavy equipment work or harvesting of re-vegetation material at these sites to disrupt Southwestern Willow Flycatcher nesting. To avoid this potential impact, the following mitigation measures shall be implemented:

a) Heavy equipment work shall not begin within one quarter mile of any site with known or potential habitat for the Southwestern Willow Flycatcher until after September 15.

b) Prior to any work in areas where riparian habitat is present, a qualified biologist shall do a habitat assessment and determine whether the area within 500-feet of the project site is suitable for nesting by Southwestern Willow Flycatchers. If not, work may proceed without further surveys. If the biologist determines that the area is suitable, a qualified biologist must monitor before and during the project to determine the status of the Southwestern Willow Flycatchers within 500-feet of the project site.

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) Harvest of willow branches at any site with potential habitat for the Southwestern Willow Flycatcher shall not occur between May 1 and September 15.

e) 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.

f) If any Southwestern Willow Flycatchers are observed nesting within 500-feet of the project activities, work shall cease temporarily until it is determined that either the birds are not nesting or young have fledged.

g) CDFW shall ensure that the grantee or responsible party is aware of this site-specific condition, and shall inspect the work site pre-, during, and post-completion of the action item.

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 Southwestern Willow Flycatcher or their habitat, then activity at that work shall be discontinued.

14) **Tidewater Goby (*Eucyclogobius newberryi*)**

None of the 28 work sites proposed as part of the 2020 FHR project are listed on the corresponding species lists as in potentially suitable habitat for tidewater goby (Appendix A). Actual work sites are not within the tidal zone and as such will not affect suitable habitat for the tidewater goby.

15) **Willow Flycatcher (*Empidonax traillii)***

Of the 28 work sites proposed as part of the 2020 FHR project, one is located in potential suitable habitat for the Willow Flycatcher (1723367 – Mid-Klamath Tributary Fish Passage Improvement Project) (Appendix A) 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.

16) **Pacific Lamprey (*Entosphenus tridentatus*)**

Of the 28 work sites proposed as part of the 2020 FHR project, 27 are located in potential suitable habitat for the Pacific Lamprey (1723425 – Iron Horse Vineyards Fish Screen Implementation Project, 1723563 – Iron Horse Vineyards Lower Green Valley Creek Off-Channel Habitat Enhancement Project – Phase 1, 1723383 – Upper Hollow Tree Wood Loading Project, 1723397 – Canon Creek Instream Habitat Improvement Project, 1723407 – Lower Little River Off-Channel Coho Habitat Improvement Project, 1723489 – Elk Valley Road Fish Passage Design Project, 1723570 – East Fork Mill Creek Floodplain Restoration Design Project, 1723367 – Mid-Klamath Tributary Fish Passage Improvement Project, 1723432 – Seiad Creek at Panther Gulch: Coho Habitat Enhancement Design Project, 1723455 – Buckeye Creek Instream Habitat Enhancement, 1723370 – Bear Creek Sediment Reduction and Salmonid Recovery Project, 1723371 – Bear Creek Instream Habitat Enhancement Project, 1723381 – Somerville Creek Instream Restoration Project, 1723435 – Coulborn and Sebbas Creek Salmonid Habitat Assessment and Enhancement Planning and Design Project, 1723436 – Middle Fork Cottaneva Creek Salmonid Habitat Project, 1723444 – South Fork Usal Creek Instream Enhancement Design Project, 1723369 – Big River Salmonid Rearing Habitat Large Wood Enhancement Project Designs, 1723402 – North Fork Noyo River Tributary Complex – Large Wood Enhancement Project, 1723439 – Bull Creek Hamilton Reach Instream and Floodplain Habitat Restoration Project, 1723441 – Hare Creek Mainstem Instream Habitat Enhancement Project, 1723545 – Bear Gulch Coho Stream Habitat Enhancement Project, 1723379 – East Branch North Fork Big River Coho Habitat Enhancement Project – Large Wood (Phase II), 1723382 – Sproul Creek Salmonid Habitat Restoration Project, 1723401 – Off-Channel Salmonid Habitat Design for Freshwater Creek: Phase Two, 1723410 – Sebbas Creek Off-Channel Habitat Planning Project, and 1723515 – Chamberlain Creek Coho Passage Design Project) (Appendix A) While most the activities proposed will require instream in their habitat the following documents by the Pacific Lamprey Conservation Initiative and their minimization measures shall be implemented and followed by project proponents in order to avoid any potential for negative impacts to the species:

a) Best Management Guidelines for Native Lampreys During In-water Work Living document, Original Version 1.0 (May 2020)

b) Practical guidelines for Incorporating Adult Pacific Lamprey at Fishways (June 2017)

c) Best Management Practices to Minimize Adverse Effects to Pacific Lamprey (April 2010)

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 three 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. 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.

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, § 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, § 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, § 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, and 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, § 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, § 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.

m) Pursuant to RGP78 and in accordance to 36 C.F.R. § 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.

n) 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. ENERGY

No specific mitigation measures are required to protect energy.

VII. 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 (and/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 seven 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.

VIII. GREENHOUSE GAS EMISSIONS

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

IX. 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 (20 meters) 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.

X. 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 wastewater 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."

XI. LAND USE AND PLANNING

No specific mitigation measures are required for land use and planning

XII. MINERAL RESOURCES

No specific mitigation measures are required for mineral resources.

XIII. 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.

XIV. POPULATION AND HOUSING

No specific mitigation measures are required for population and housing.

XV. PUBLIC SERVICES

No specific mitigation measures are required for public services.

XVI. RECREATION

No specific mitigation measures are required for recreation.

XVII. TRANSPORTATION

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.

XVIII. TRIBAL CULTURAL RESOURCES

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

1) 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 resource surveys shall be conducted using standard protocols to meet CEQA Guideline requirements.

2) If cultural 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 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, § 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, § 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, § 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, and 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, § 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, § 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 with 36 C.F.R. § 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 appropriate USACE archeological staff 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 resources, then activity at that work site shall be discontinued.

XIX. UTILITIES AND SERVICE SYSTEMS

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

XX. WILDFIRE

No specific mitigation measures are required for wildfire due to majority of project activities being conducted within instream and riparian habitats. However, the project will still implement minimization measures as an added safety precaution to further decrease any wildfire risks.

1) Project proponents using mechanized hand tools (e.g. chainsaws) shall have federal- and/or state-approved spark arrestors.

2) Project proponents shall require tree cutting crews to carry one fire extinguisher per chainsaw.

3) Project proponents shall require each vehicle to be equipped with one long-handled shovel and one axe or Pulaski.

4) Parking areas shall be designated and kept free of dry vegetation both before and during construction. Where heavy equipment or generators are used, fire extinguishers shall be made available on, or near such equipment.

5) Smoking shall only be permitted in designated areas that are barren or cleared to mineral soil at least three feet in diameter.

SECTION 2: MONITORING AND REPORTING

CDFW shall implement the following measures to ensure that individual restoration projects authorized annually through the RGP (RGP-12 and RGP-78) 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 three percent 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 counties within the jurisdiction of RGP-12, CDFW shall submit an annual report due by January 31 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 (RGP-78) 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 RGP-78, 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 RGP-78, CDFW shall notify the USACE annually of the year's projects. If the USACE has not issued a Notice to Proceed (NTP) or identified any issues (verbal or written) within 60 days of receive the notifications, CDFW can proceed with project. The NTP may include site specific special conditions to avoid and minimize adverse impacts to waters of the U.S and shall be valid for the duration of the RGP78 unless there is a change in the project's scope of work.