

Central Valley Regional Water Quality Control Board

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER

Effective Date: 24 October 2025

Expiration Date: 23 October 2030

Program Type: Fill/Excavation

Reg. Meas. ID:	461947
Place ID:	902283
WDID No.:	5B55CR00189
USACE No.:	Non Reporting NWP 3

Project Type: Channel Construction and Maintenance

Project: Hetch Hetchy Junction Culvert Replacements: HHJCCV-0.00M, HHJCCV-0.7M (0.78), Culvert 025 Project (Project)

Applicant: San Francisco Public Utilities Commission

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I. Order

This Clean Water Act (CWA) section 401 Water Quality Certification action and Order (Order) is issued at the request of San Francisco Public Utilities Commission (SFPUC) (hereinafter Permittee) for the Project. This Order is for the purpose described in application submitted by the Permittee. The application was received on 18 June 2025. The application was deemed complete on 22 August 2025. Prior to receiving a complete application, Central Valley Water Board staff issued a notice of incomplete application and the Permittee responded to the request for application information on the following date(s):

Date of Notice of Incomplete Application:	19 August 2025
Date all requested information was received:	20 August 2025

II. Public Notice

The Regional Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 from 1 August 2025 to 22 August 2025. The Central Valley Water Board did not receive any comments during the comment period.

III. Project Purpose

The purpose of the Project is to replace degraded culverts in order to maintain access to the Permittee's critical utility infrastructure.

IV. Project Description

The Project will replace 3 existing culverts on single lane, native surfaced water transmission pipeline access roads within the Rydberg Creek-Dry Creek watershed. The culvert crossings are located on unnamed intermittent streams and/or culverts.

All replacement culvert configurations will retain the existing culvert configurations as follows: The culvert will lay so that the bottom is in contact with compacted 1-inch minus base rock bedding material. The channel grade at the crossing is two percent slope and the culvert will be aligned vertically to the existing grade. The existing culvert is accurately aligned horizontally, and the replacement culvert will be placed at the same orientation.

The type of culvert pipe will change from straight corrugated metal to dual walled high density polyethylene corrugated pipe with a smooth inner surface. The pipe dimensions will remain the same for each project.

Implementation Sequence:

1. Surface stream flows will be confirmed to be absent.
2. A pre-construction biological survey will be performed by a qualified biologist prior to commencement of construction activities.
3. Erosion and sediment control measures will be installed on the boundary of the

project area.

4. All staging and operation of equipment will occur within existing roads and road pullouts.
5. The areas on the lateral sides of the new culvert will be excavated using an excavator, allowing access to remove existing culvert pipe. Equipment will operate from outside of the waterway and channel, which will be identified with flagging.
6. The new culvert bed will be prepared. If excavated native fills are found to be unsuitable, then weed-free, compactible aggregate will be imported to prepare the culvert bed. If required, the culvert area will be dewatered to a well-vegetated upland area with no downstream connectivity to the culvert or other waterways.
7. The new culvert will be placed on the prepared culvert bed.
8. The culvert trench fill and road surface will be re-established, compacted and graded using previously excavated and imported fill. Weed-free, imported fill may be required to backfill the culvert trench if excavated material is deemed unusable. Excess or unusable fill will be off-hauled or spread on stable, upland locations away from where the materials may enter any nearby waterways.
9. Geotextile fabric will be placed on the upstream and downstream fill slopes and stream banks to stabilize the culvert inlet and outfall.
10. Final erosion control measures will be installed as needed to protect water quality, including silt fence, straw wattles, or weed-free mulch.

V. Project Location

Address: Approximately 0.1 to 0.8 mile south of the Hetch Hetchy Aqueduct and 0.6 to 1.3 miles east of La Grange Rd (Route 59)

County: Tuolumne

Assessor's Parcel Number(s): 063-200-018, 063-200-017, 063-220-004

Nearest City: Oakdale

Section 36 and 1, Township 1 and 2 South, Range 13 East, MDB&M.

Latitude: 37.805075, 37.8041, and 37.7966° and Longitude: -120.488958, -120.483, and -120.493°

Maps showing the Project location are found in Attachment A of this Order.

VI. Project Impact and Receiving Waters Information

The Project is located within the jurisdiction of the Central Valley Water Board. Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fifth Edition, February 2019 (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/)

(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.

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

VII. Description of Direct Impacts to Waters of the State

Total Project fill/excavation quantities for all impacts are summarized in Table 1.

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

Aquatic Resources Type	Acres	Cubic Yards	Linear Feet
Stream Channel	0.01	179	85

VIII. Description of Indirect Impacts to Waters of the State

The Central Valley Water Board recognizes the potential for indirect impacts to waters of the state associated with the Project. The culvert replacements have a low potential for indirect impacts. The culvert fills are approximately the same as the previous culvert. Work will occur over a short period of time during dry periods when no flows are present. Erosion control measures will be implemented to stabilize the site during and following construction. Any discharge of project-related sediment will not be significant, and will be within Basin Plan requirements.

IX. Avoidance and Minimization

To minimize the potential effects of construction on water quality and resources, the Permittee shall implement all measures required as described in the Order. According to the Permittee, the following measures will be in place during

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

construction activities to avoid, reduce, and minimize impacts to waters of the state:

Direct Impact Avoidance and Minimization

The Permittee's culvert projects follow Standard Construction Measures (SCMs) to avoid impacts to waters of the state (WOTS). Best Management Practices (BMPs) that are specific to water quality are identified in Measure #3, Water Quality, which will prevent sediment delivery to the watercourse during and after construction:

3. WATER QUALITY: All projects will implement erosion and sedimentation controls to be tailored to the project site such as fiber rolls and/or gravel bags around storm drain inlets, installation of silt fences, and other such measures sufficient to prevent discharges of sediment and other pollutants to storm drains supply reservoirs, wetlands, swales, and streams. As required based on project location and size, a Stormwater Control Plan (in most areas of San Francisco) or a Stormwater Pollution Prevention Plan (outside of San Francisco and in certain areas of San Francisco) will be prepared. If uncontaminated groundwater is encountered during excavation activities, it will be discharged in compliance with applicable water quality standards and discharge permit requirements.

In addition to the above SCM, site-specific BMPs to avoid and minimize impacts to waters of the state include:

- Stockpile Management: Stockpiled materials will be staged in the road and existing turnouts, outside of potentially jurisdictional boundaries, and sufficiently far away from waterways to minimize risk to water features from stockpiled materials and/or equipment. Stockpiled soils will be covered until replaced and stabilized.
- Imported fills and erosion control materials will be clean, weed free, and free of contaminants.
- Equipment will be clean and free of leaks and will be serviced/refueled outside of waterway or culvert areas.

X. Compensatory Mitigation

No compensatory mitigation was required for permanent impacts because all impacts are temporary in nature. No permanent impacts to water quality or resources will occur as a result of Project activities.

XI. California Environmental Quality Act (CEQA)

On 14 December 2010, the City and County of San Francisco, as lead agency, adopted an Initial Study/Mitigated Negative Declaration (IS/MND) (State Clearinghouse (SCH) No. 2010082008) for the Project and filed a Notice of Determination (NOD) at the SCH on 20 December 2010. Pursuant to CEQA, the Central Valley 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 State Water Board to reconsider this Order in accordance with California Code of Regulations, title 23, section 3867. A petition for reconsideration must be submitted in writing and received within 30 calendar days of the issuance of this Order.

XIII. Fees

A. An application fee of \$4,212.00 was received on 27 June 2025. 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 A - Fill & Excavation Discharges (fee code 84) with the dredge and fill fee calculator.

B. Annual Fees: This Certification is subject to annual billing based on the fee schedule in effect at the time of billing. Annual billing will continue until the Project, including monitoring, is complete and the Water Board receives an acceptable request for a Notice of Project Complete Letter (see Attachment D). Invoices are usually sent out at the end of each calendar year.²

To stop annual billing, the Permittee must request a Notice of Project Complete Letter from the Water Board. Water Board staff will verify if the conditions of the Certification are met and may conduct a site visit to confirm compliance.

For more information on fees, visit the [State Water Board's Water Quality Fees website](https://www.waterboards.ca.gov/resources/fees/water_quality/) (https://www.waterboards.ca.gov/resources/fees/water_quality/), under Water Quality Certification (WQC) Program Fees.

XIV. Conditions

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

A. Authorization

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

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

² Annual invoices are issued for projects active for any amount of time in the current fiscal year (1 July – 30 June).

Attachment D, which must be signed by the Permittee or an authorized representative.

The Permittee must submit all notifications, submissions, materials, data, correspondence, and reports in a searchable Portable Document Format (PDF). Documents less than 50 MB must be emailed to:

centralvalleysacramento@waterboards.ca.gov.

In the subject line of the email, include the Central Valley Water Board Contact, Project Name, and WDID No. Documents that are 50 MB or larger must be transferred to a disk and mailed to the Central Valley Water Board Contact.

1. Project Reporting

- a. **Monthly Reporting:** The Permittee must submit a Monthly Report to the Central Valley Water Board on the 1st day of each month beginning the month after the submittal of the Commencement of Construction Notification. Monthly reporting shall continue until the Central Valley Water Board issues a Notice of Project Complete Letter to the Permittee.
- b. **Annual Reporting:** Not Applicable

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 activities.
- b. **Request for Notice of Completion of Discharges Letter:** The Permittee shall submit a Request for Notice of Completion of Discharges Letter following completion of active Project construction activities, including any required restoration and permittee-responsible mitigation. This request shall be submitted to the Central Valley Water Board staff within thirty (30) days following completion of all Project construction activities. Upon acceptance of the request, Central Valley Water Board staff shall issue a Notice of Completion of Discharges Letter to the Permittee which will end the active discharge period.
- c. **Request for Notice of Project Complete Letter:** The Permittee shall submit a Request for Notice of Project Complete Letter when construction and/or any post-construction monitoring is complete, and no further Project activities will occur. Completion of post-construction monitoring shall be determined by Central Valley Water Board staff and shall be contingent on successful attainment of restoration and mitigation performance criteria. This request shall be submitted to Central Valley Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request, the Central Valley Water Board staff shall issue a Notice of Project Complete Letter to the Permittee which will end the post discharge monitoring period.

3. Conditional Notifications and Reports:

The following notifications and reports are required as appropriate.

a. Accidental Discharges of Hazardous Materials³:

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) (http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill_Booklet_Feb2014_FINAL_BW_Acc.pdf).
- ii. Following notification to OES, the Permittee shall notify Central Valley 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 Central Valley Water Board, the Permittee must submit an Accidental Discharge of Hazardous Material Report.

b. Violation of Compliance with Water Quality Standards:

The Permittee shall notify the Central Valley 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.

- i. This notification must be followed within three (3) working days by

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.)

submission of a Violation of Compliance with Water Quality Standards Report.

c. In-Water Work and Diversions:

- i. The Permittee shall notify the Central Valley 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 Central Valley Water Board staff.

d. Modifications to Project:

Project modifications may require an amendment of this Order. The Permittee shall give advance notice to Central Valley Water Board staff if Project implementation as described in the application materials is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority by submitting a Modifications to Project Report. The Permittee shall inform Central Valley Water Board staff of any Project modifications that will interfere with the Permittee's compliance with this Order. Notification may be made in accordance with conditions in the certification deviation section of this Order.

e. Transfer of Property Ownership:

This Order is not transferable in its entirety or in part to any person or organization except after notice to the Central Valley Water Board in accordance with the following terms:

- i. The Permittee must notify the Central Valley Water Board of any change in ownership or interest in ownership of the Project area by submitting a Transfer of Property Ownership Report. The Permittee and purchaser must sign and date the notification and provide such notification to the Central Valley Water Board at least 10 days prior to the transfer of ownership. The purchaser must also submit a written request to the Central Valley Water Board to be named as the permittee in a revised order.
- ii. Until such time as this Order has been modified to name the purchaser as the permittee, the Permittee shall continue to be responsible for all requirements set forth in this Order.

f. Transfer of Long-Term BMP Maintenance:

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

C. Water Quality Monitoring

1. General:

If surface water is present continuous visual surface water monitoring shall be conducted during active construction periods to detect accidental discharge of construction related pollutants (e.g. oil and grease, turbidity plume, or uncured concrete). Sampling is not required in a wetland where the entire wetland is being permanently filled, provided there is no outflow connecting the wetland to surface waters. The Permittee shall perform surface water sampling:

- a. when performing any in-water work;
- b. during the entire duration of temporary surface water diversions;
- c. in the event that the Project activities result in any materials reaching surface waters; or
- d. when any activities result in the creation of a visible plume in surface waters.

2. Accidental Discharges/Noncompliance:

Upon occurrence of an accidental discharge of hazardous materials or a violation of compliance with a water quality standard, Central Valley Water Board staff may require water quality monitoring based on the discharge constituents and/or related water quality objectives and beneficial uses.

3. In-Water Work or Diversions

During planned in-water work, dewatering activities, or during the installation of removal of temporary water diversions, any discharge(s) to waters of the state shall conform to the following water quality standards:

- a. Waters shall not contain oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses.
- b. Activities shall not cause turbidity increases in surface water to exceed:
 - i. where natural turbidity is less than 1 Nephelometric Turbidity Units (NTUs), controllable factors shall not cause downstream turbidity to exceed 2 NTU;
 - ii. where natural turbidity is between 1 and 5 NTUs, increases shall not

exceed 1 NTU;

- iii. where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent;
- iv. where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs;
- v. where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected. Averaging periods may only be used with prior permission of the Central Valley Water Board Executive Officer.

Sampling during in-water work or during the entire duration of temporary water diversions shall be conducted in accordance with Table 2 sampling parameters.⁴ The sampling requirements in Table 2 shall be conducted upstream out of the influence of the Project, and approximately 300 feet downstream of the work area.

The sampling frequency and/or monitoring locations may be modified for certain projects with written approval from Central Valley Water Board staff. An In-Water Work and Diversion Water Quality Monitoring Report, as described in Attachment D, shall be submitted within two weeks on initiation of in-water construction, and every two weeks thereafter. In reporting the data, the Permittee shall arrange the data in tabular form so that the sampling locations, date, constituents, and concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the Project complies with Order requirements. The report shall include surface water sampling results, visual observations, and identification of the turbidity increase in the receiving water applicable to the natural turbidity conditions specified in the turbidity criteria in XIV.C.3.

If no sampling is required, the Permittee shall submit a written statement stating, "No sampling was required" within two weeks on initiation of in-water construction, and every two weeks thereafter.

⁴ Pollutants shall be analyzed using the analytical methods described in 40 Code of Federal Regulations Part 136; where no methods are specified for a given pollutant, the method shall be approved by Central Valley Water Board staff. Grab samples shall be taken between the surface and mid-depth and not be collected at the same time each day to get a complete representation of variations in the receiving water. A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring shall be maintained onsite.

Table 2: Sample Type and Frequency Requirements

Parameter	Unit of Measurement	Type of Sample	Minimum Frequency
Turbidity	NTU	Grab	Every 4 hours
Visible construction related pollutants ⁵	Observations	Visual Inspections	Continuous throughout the construction period

4. Post-Construction:

Visually inspect the Project site during the rainy season for one year following completion of active Project construction activities to ensure excessive erosion, stream instability, or other water quality pollution is not occurring in or downstream of the Project site. If water quality pollution is occurring, contact the Central Valley Water Board staff member overseeing the Project within three (3) working days. The Central Valley Water Board may require the submission of a Violation of Compliance with Water Quality Standards Report. Additional permits may be required to carry out any necessary site remediation.

D. Standard

1. This Order is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330, and California Code of Regulations, title 23, Chapter 28, article 6 commencing with sections 3867-3869, inclusive. Additionally, the Central Valley Water Board reserves the right to suspend, cancel, or modify and reissue this Order, after providing notice to the Permittee, if the Central Valley Water Board determines that: the Project fails to comply with any of the conditions of this Order; or, when necessary to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act (Water Code, section 13000 et seq.) or federal Clean Water Act section 303 (33 U.S.C. section 1313). For purposes of Clean Water Act section 401(d), the condition constitutes a limitation necessary to assure compliance with water quality standards and appropriate requirements of state law.
2. This Order is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent certification application was filed pursuant to subsection 3855(b) of chapter 28, title 23 of the California Code of Regulations, and that application

⁵ Visible construction-related pollutants include oil, grease, foam, fuel, petroleum products, and construction-related, excavated, organic or earthen materials.

specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

3. This Order is conditioned upon total payment of any fee required under title 23 of the California Code of Regulations and owed by the Permittee.
4. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under state and federal law. For purposes of Clean Water Act, section 401(d), the applicability of any state law authorizing remedies, penalties, processes, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Order.

E. General Compliance

1. Failure to comply with any condition of this Order shall constitute a violation of the Porter-Cologne Water Quality Control Act and the Clean Water Act. The Permittee and/or discharger may then be subject to administrative and/or civil liability pursuant to Water Code section 13385.
2. Permitted actions must not cause a violation of any applicable water quality standards, including impairment of designated beneficial uses for receiving waters as adopted in the Basin Plans by any applicable Regional Water Board or any applicable State Water Board (collectively Water Boards) water quality control plan or policy. The source of any such discharge must be eliminated as soon as practicable.
3. In response to a suspected violation of any condition of this Order, the Central Valley 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. The additional monitoring requirements ensure that permitted discharges and activities comport with any applicable effluent limitations, water quality standards, and/or other appropriate requirement of state law.
4. The Permittee must, at all times, fully comply with engineering plans, specifications, and technical reports submitted to support this Order; and all subsequent submittals required as part of this Order. The conditions within this Order and Attachments supersede conflicting provisions within Permittee submittals.
5. This Order and all of its conditions contained herein continue to have full force and effect regardless of the expiration or revocation of any federal license or

permit issued for the Project. For purposes of Clean Water Act, section 401(d), this condition constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements of state law.

6. The Permittee shall adhere to all requirements in the mitigation monitoring and reporting program (MMRP) (include title and date of MMRP) which is incorporated herein by reference and any additional measures as outlined in Attachment C, CEQA Findings of Fact.

7. Construction General Permit Requirement: Not Applicable

F. Administrative

1. Signatory requirements for all document submittals required by this Order are presented in Attachment E of this Order.
2. This Order does not authorize any act which results in the taking of a threatened, endangered or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & 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 comply with the California Endangered Species Act and federal Endangered Species Act prior to any construction or operation of the portion of the Project that may result in a take. The Permittee is responsible for meeting all requirements of the applicable endangered species act for the Project authorized under this Order.
3. The Permittee shall grant Central Valley Water 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.
4. 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.

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

6. Lake or Streambed Alteration Agreement

The Permittee shall submit a signed copy of the California Department of Fish and Wildlife's Lake or Streambed Alteration Agreement to the Central Valley Water Board immediately upon execution and prior to any discharge to waters of the state.

G. Construction

1. Dewatering

- a. The Permittee shall develop and maintain on-site a Surface Water Diversion and/or Dewatering Plan(s). The Plan(s) must be developed prior to initiation of any water diversions. The Plan(s) shall include the proposed method and duration of diversion activities and include water quality monitoring conducted, as described in section XIV.C.3, during the entire duration of dewatering and diversion activities. The Plan(s) must be consistent with this Order and must be made available to the Central Valley Water Board staff upon request.
- b. For any temporary dam or other artificial obstruction being constructed, maintained, or placed in operation, sufficient water shall at all times be allowed to pass downstream, to maintain beneficial uses of waters of the state below the dam. Construction, dewatering, and removal of temporary cofferdams shall not violate section XIV.C.3.
- c. The temporary dam or other artificial obstruction shall only be built from clean materials such as sandbags, gravel bags, water dams, or clean/washed gravel which will cause little or no siltation. Stream flow shall be temporarily diverted using gravity flow through temporary culverts/pipes or pumped around the work site with the use of hoses.
- d. If water is present, the area must be dewatered prior to start of work.
- e. Dewatering will occur within the Project area.
- f. This Order does not allow permanent water diversion of flow from the receiving water. This Order is invalid if any water is permanently diverted as a part of the project.

2. Directional Drilling- Not Applicable

3. Dredging- Not Applicable

4. Fugitive Dust

Dust abatement activities can cause discharges of sediment to streams and uplands through application of water or other fluids. Dust abatement chemicals added to water can be hazardous to wildlife and, if allowed to enter streams, are detrimental to water quality. Therefore, dust abatement activities shall be conducted so that sediment or dust abatement chemicals are not discharged into waters of the state. Dust abatement products or additives that are known to be detrimental to water quality or wildlife shall not be used, unless specific management needs are documented, and product-specific application plans are approved by Central Valley Water Board staff.

5. Good Site Management “Housekeeping”

- a. The Permittee shall develop and maintain onsite a project-specific Spill Prevention, Containment and Cleanup Plan outlining the practices to prevent, minimize, and/or clean up potential spills during construction of the Project. The Plan must detail the Project elements, construction equipment types and location, access and staging and construction sequence. The Plan must be made available to the Central Valley Water Board staff upon request.
- b. Refueling of equipment within the floodplain or within 300 feet of the waterway is prohibited. If critical equipment must be refueled within 300 feet of the waterway, spill prevention and countermeasures must be implemented to avoid spills. Refueling areas shall be provided with secondary containment including drip pans and/or placement of absorbent material. No hazardous materials, pesticides, fuels, lubricants, oils, hydraulic fluids, or other construction-related potentially hazardous substances should be stored within a floodplain or within 300 feet of a waterway. The Permittee must perform frequent inspections of construction equipment prior to utilizing it near surface waters to ensure leaks from the equipment are not occurring and are not a threat to water quality.
- c. All materials resulting from the Project shall be removed from the site and disposed of properly.

6. Hazardous Materials

- a. The discharge of petroleum products, any construction materials, hazardous materials, pesticides, fuels, lubricants, oils, hydraulic fluids, raw cement, concrete or the washing thereof, asphalt, paint, coating material, drilling fluids, or other substances potentially hazardous to fish and wildlife resulting from or disturbed by project-related activities is prohibited and shall be prevented from contaminating the soil and/or entering waters of the state. In the event of a prohibited discharge, the Permittee shall

comply with notification requirements in sections XIV.B.3.a and XIV.B.3.b.

- b. No wet concrete will be placed into aquatic resources habitat.

7. Invasive Species and Soil Borne Pathogens

Prior to arrival at the project site and prior to leaving the project site, construction equipment that may contain invasive plants and/or seeds shall be cleaned to reduce the spread of noxious weeds.

8. Post-Construction Storm Water Management- Not Applicable

9. Roads

- a. The number of access routes, number and size of staging areas, and the total area of the activity must be limited to the minimum necessary to achieve the project goal. Routes and work area boundaries must be clearly demarcated.
- b. Bridges, culverts, dip crossings, or other structures must be installed so that water and in-stream sediment flow is not impeded. Appropriate design criteria, practices and materials must be used in areas where access roads intersect waters of the state.
- c. Temporary materials placed in any water of the state must be removed as soon as construction is completed at that location, and all temporary roads must be removed or re-contoured and restored according to approved re-vegetation and restoration plans.
- d. Any structure, including but not limited to, culverts, pipes, piers, and coffer dams, placed within a stream where fish (as defined in California Fish and Game Code section 45) exist or may exist, must be designed, constructed, and maintained such that it does not constitute a barrier to upstream or downstream movement of aquatic life, or cause an avoidance reaction by fish due to impedance of their upstream or downstream movement. This includes, but is not limited to, maintaining the supply of water and maintaining flows at an appropriate depth, temperature, and velocity to facilitate upstream and downstream fish migration. If any structure results in a long-term reduction in fish movement, the discharger shall be responsible for restoration of conditions as necessary (as determined by the Water Board) to secure passage of fish across the structure.
- e. A method of containment must be used below any temporary bridge, trestle, boardwalk, and/or other stream crossing structure to prevent any debris or spills from falling into the waters of the state. Containment must be maintained and kept clean for the life of the temporary stream crossing structure.

10. Sediment Control

- a. Except for activities permitted by the United States Army Corps of Engineers under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act, soil, silt, or other organic materials shall not be placed where such materials could pass into surface water or surface water drainage courses.
- b. Silt fencing, straw wattles, or other effective management practices must be used along the construction zone to minimize soil or sediment along the embankments from migrating into the waters of the state through the entire duration of the Project.
- c. The use of netting material (e.g., monofilament-based erosion blankets) that could trap aquatic dependent wildlife is prohibited within the Project area.

11. Special Status Species

The following Special Status Species have the potential to occur near or within the Project area: California Red-Legged Frog, California Tiger Salamander, Foothill Yellow-Legged Frog, and Western Spadefoot.

12. Stabilization/Erosion Control

- a. All areas disturbed by Project activities shall be protected from washout and erosion.
- b. Hydroseeding shall be performed with California native seed mix.

13. Storm Water

- a. During the construction phase, the Permittee must employ strategies to minimize erosion and the introduction of pollutants into storm water runoff. These strategies must include the following:
 - i. An effective combination of erosion and sediment control Best Management Practices (BMPs) must be implemented and adequately working prior to the rainy season and during all phases of construction.

H. Site Specific- Not Applicable

I. Total Maximum Daily Load (TMDL)- Not Applicable

J. Mitigation for Temporary Impacts

1. The Permittee shall restore all areas of temporary impacts, including Project site upland areas, which could result in a discharge to waters of the state to pre-construction contours and conditions upon completion of construction activities in accordance with the response to the Notice of Incomplete Application dated 19 August 2025 and incorporated herein by reference.

2. The Central Valley Water Board may extend the monitoring period beyond requirements of the restoration plan upon a determination by Executive Officer that the performance standards have not been met or are not likely to be met within the monitoring period.
3. If restoration of temporary impacts to waters of the state is not completed within 90 days of the impacts, compensatory mitigation may be required to offset temporal loss of waters of the state.

K. Compensatory Mitigation for Permanent Impacts: Not Applicable

L. Certification Deviation

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

XV. Water Quality Certification

I hereby issue the Order for the Hetch Hetchy Junction Culvert Replacements: HHJCCV-0.00M, HHJCCV-0.7M (0.78), Culvert 025 Project, WDID # 5B55CR00189, 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 State Water Board Water Quality Order No. 2003-0017-DWQ which authorizes this Order to serve as Waste Discharge Requirements pursuant to the Porter-Cologne Water Quality Control Act (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.

Original Signed by Anne Walters for:

For Patrick Pulupa, Executive Officer
Central Valley Regional Water Quality Control Board

Attachment A: Project Maps
Attachment B: Receiving Waters and Impacts
Attachment C: CEQA Findings of Facts
Attachment D: Report and Notification Requirements
Attachment E: Signatory Requirements
Attachment F: Certification Deviation Procedures
Attachment G: Compliance with Code of Federal Regulations

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Attachment A – Project Maps

Figure 1: Culvert Replacement Locations

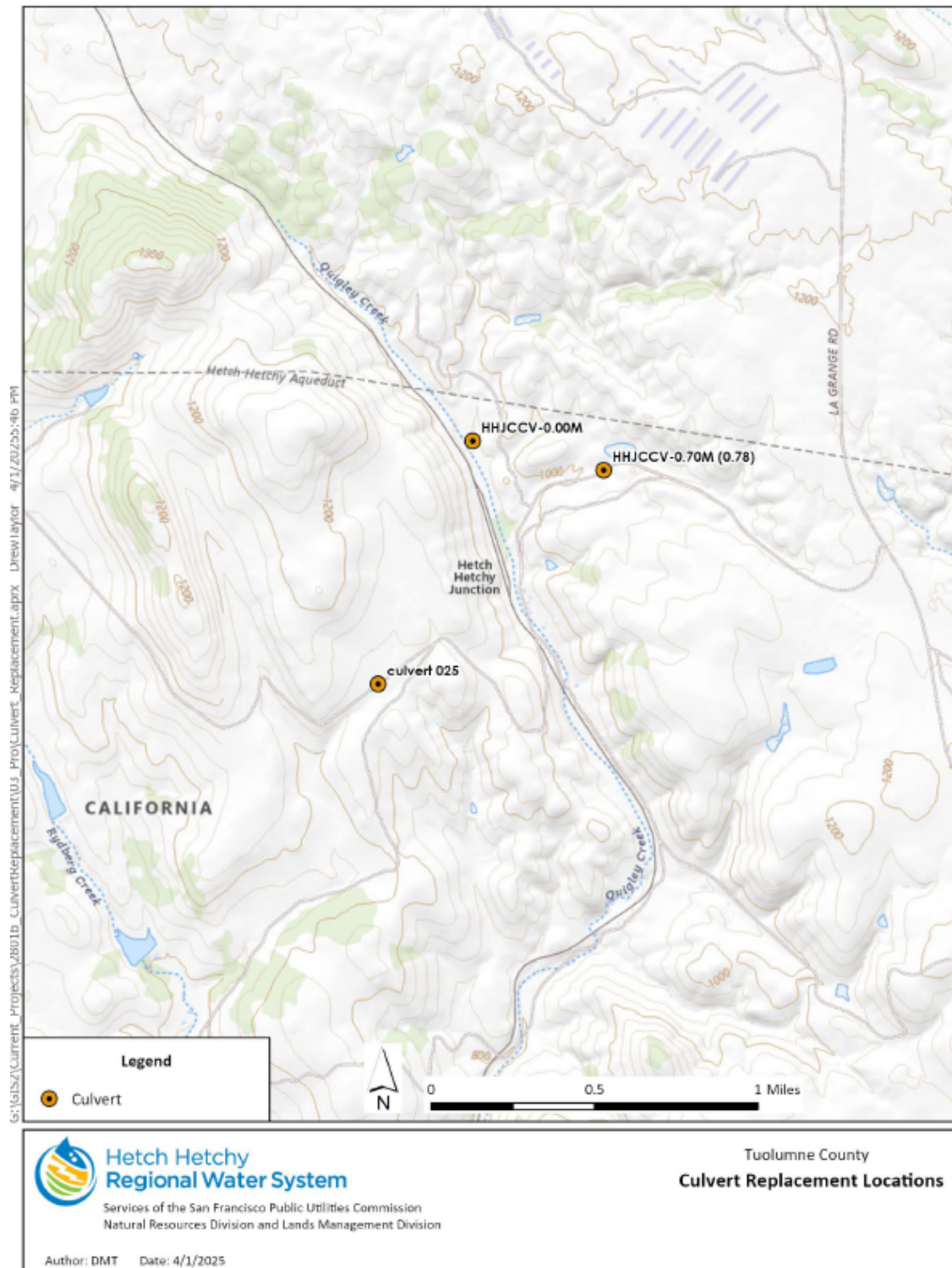


Figure 2: Project 1- HHJCCV-0.00M Culvert Replacement

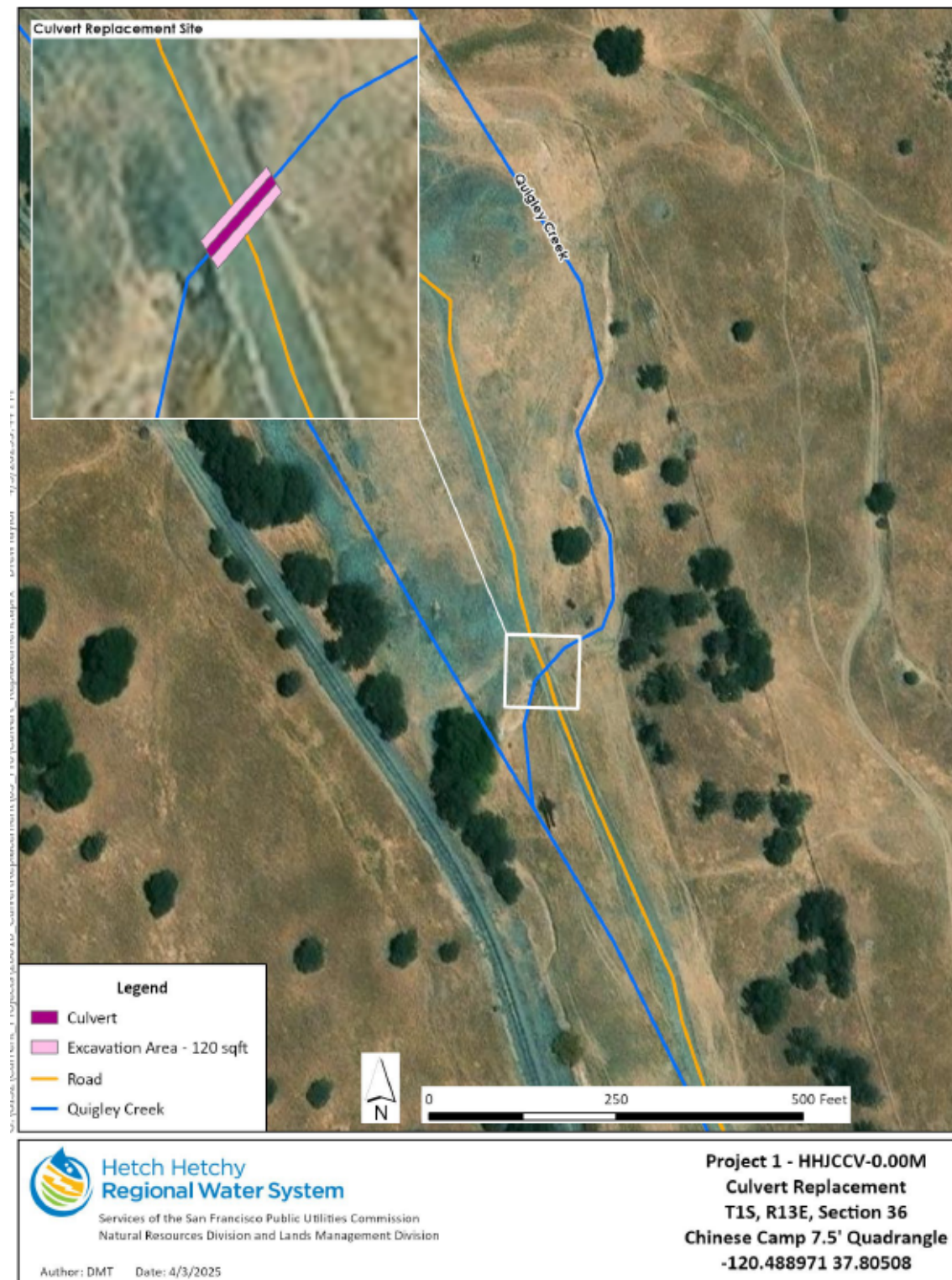
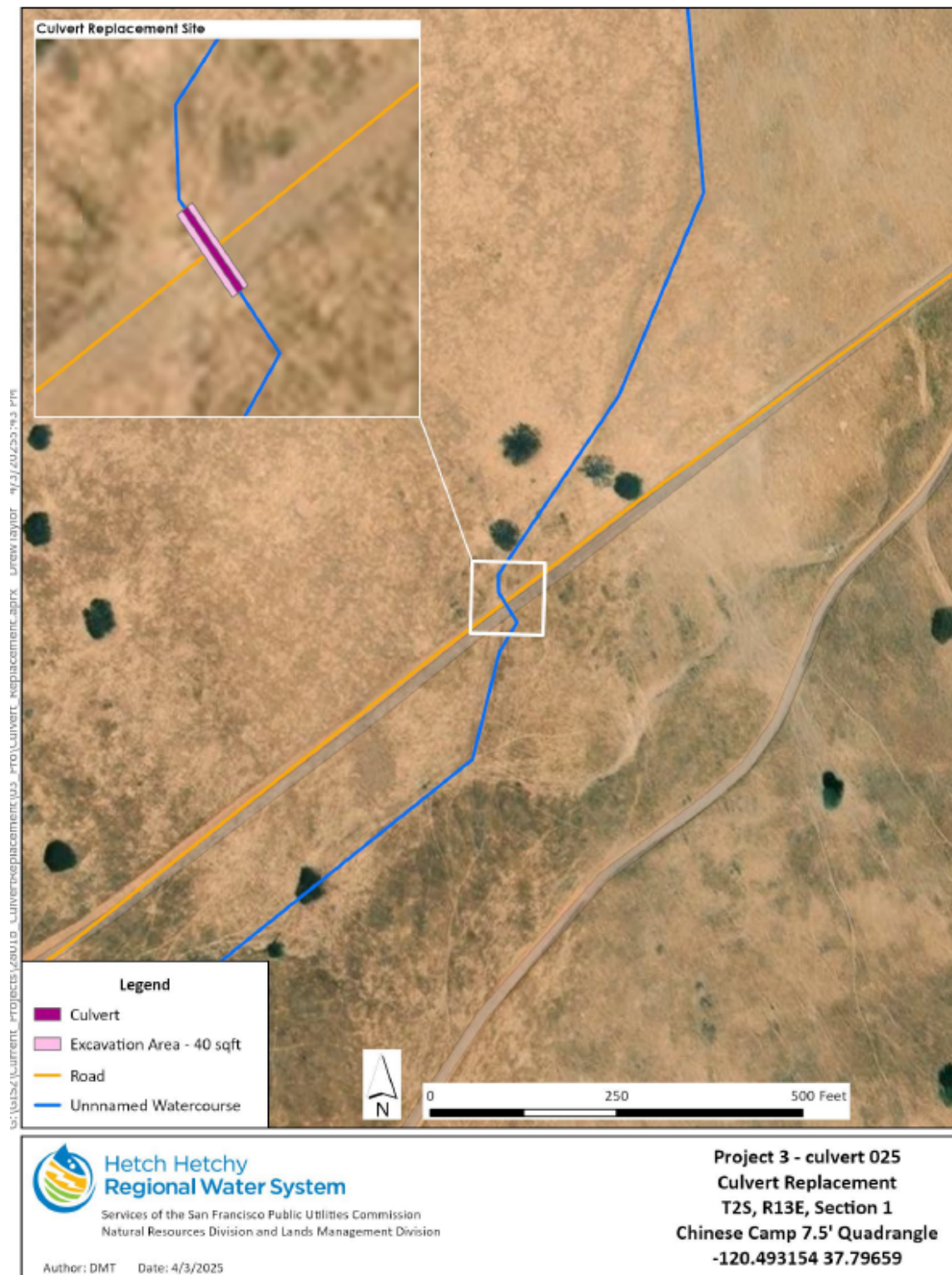


Figure 3: Project 2- HHJCCV-0.7M (0.78) Culvert Replacement



Figure 4: Project 3- Culvert 25 Culvert Replacement



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Attachment B – Receiving Waters and Impacts

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	California Rapid Assessment Method (CRAM) ID
Project 1 - HHJCCV-0.00M	Quigley Creek to Dry Creek	Stream Channel	535.	Dry Creek			
Project 2 - HHJCCV-0.7M (0.78)	Unnamed Channel to Dry Creek	Stream Channel	535.	Dry Creek			
Project 3 - Culvert 025	Unnamed Channel to Dry Creek	Stream Channel	535.	Dry Creek			

Individual Direct Impact Locations

The following tables show individual impacts.

Table 2: Individual Temporary Fill/Excavation Impact Information

Impact Site ID	Latitude	Longitude	Indirect Impact Requiring Mitigation?	Acres	Cubic Yards	Linear Feet
Project 1 - HHJCCV-0.00M	37.805075	-120.488958	No	0.003		
Project 2 - HHJCCV-0.7M (0.78)	37.8041	-120.483	No	0.006		
Project 3 - Culvert 025	37.7966	-120.493	No	0.001		

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Attachment C – CEQA Findings of Fact

A. Environmental Review

On 14 December 2010, the City and County of San Francisco, as lead agency, adopted an Initial Study/Mitigated Negative Declaration (IS/MND) (State Clearinghouse (SCH) No. 2010082008) for the Project and filed a Notice of Determination (NOD) at the SCH on 20 December 2010. The Central Valley Water Board is a responsible agency under CEQA (Public Resources Code, section 21069) and in making its determinations and findings, must presume that City and County of San Francisco's adopted environmental document comports with the requirements of CEQA and is valid. (Public Resources Code, section 21167.3.) The Central Valley Water Board has reviewed and considered the environmental document and finds that the environmental document prepared by City and County of San Francisco 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 City and County of San Francisco 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.

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: [SCH Number 2010082008](https://ceqanet.lci.ca.gov/Project/2010082008) (<https://ceqanet.lci.ca.gov/Project/2010082008>).

Requirements under the purview of the Central Valley 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.

Having considered the whole of the record, the Central Valley Water Board makes the following findings:

Mitigation measures have been required in the Project which avoid or mitigate to a less than significant level the potentially significant

environmental effect as described in the IS/MND.

a.i. Less than Significant with Mitigation Incorporated:

- With proposed mitigation measures, the project is unlikely to cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code.

a.ii. Facts in Support of Finding:

- Article 10 and Article 11 of the San Francisco Planning Code pertain to individual city landmarks and historic districts, and to conservation districts located in the city's downtown core area, respectively. Because the project does not propose improvements in San Francisco, and there are no designated city landmarks or districts in the project area or vicinity, Article 10 and Article 11 would not apply to the project.
- Two archaeological resources were identified within the confines of the SJPL ROW. Both of these resources are situated within the boundaries of the Oakdale Portal but outside of the footprint for the project. One of these resources has not been formally evaluated for either NRHP or CRHR eligibility. Lacking formal evaluation, the site should be considered a historical resource and/or a unique archaeological resource for CEQA purposes.

Maintenance of Access Roads, Transmission Towers, and Culverts

Archaeological Resources

- No previously recorded NRHP- and/or CRHR-eligible archaeological sites have been identified within the area affected by these maintenance activities. As described for Repair/Replacement activities, construction activities within undisturbed soils have the potential to inadvertently expose and therefore affect previously unknown archaeological resources, including those that may be NRHP- and/or CRHR-eligible. This would cause a substantial adverse change in the significance of a historical resource and would be a potentially significant impact. For construction activities within Oakdale Portal, Mitigation Measures M-CP-1: Archaeological monitoring, M-CP-2: Accidental discovery measures and treatment of human remains, and M-CP-3: Demarcation of significant (or unevaluated) resources with safety fencing, would be required. For all other areas of the project area, Mitigation Measure M-CP-2 would be required. With implementation of these mitigation measures, impacts to archaeological resources from inadvertent damage or exposure causing a substantial adverse change in the significance of a historical resource would be less than significant with mitigation incorporated.

Mitigation Measure M-CP-1: Archaeological Monitoring

- This mitigation measure would be required for ground-disturbing construction activities within Oakdale Portal (MP 49.84 to MP 50.05).
- All archaeological documentation required by this mitigation measure will be reviewed and approved by the San Francisco Planning Department's Archeologist or Designee. For those projects that require a federal permit and compliance with the National Historic Preservation Act, Section 106, the San Francisco Planning Department's Environmental Review Officer (ERO) will review the State Historic Preservation Officer (SHPO)-approved requirements in the permit conditions and consider protective approaches that limit undue duplication of efforts.
- Based on the findings of the project's Historic Context and Archaeological Survey Report and the determination of the San Francisco Planning Department's Archaeologist or Designee, the SFPUC will retain the services of a qualified archaeologist (i.e., an archaeologist who meets the professional qualifications standards of the Secretary of the Interior) to undertake, as necessary, the archaeological investigations described below.
- *Archaeological Monitoring Plan.* Prior to the start of construction, the qualified archaeologist will consult with the San Francisco Planning Department's Archaeologist or Designee to determine if an Archaeological Monitoring Plan (AMP) will be required, considering the sensitivity of the project area. The purpose of the AMP will be to ensure that important, previously unrecorded archaeological resources that are discovered during construction are identified, evaluated, and treated appropriately. The AMP will be reviewed and approved by the San Francisco Planning Department's Archaeologist or Designee before it is implemented.
- In the event that any indication of an archaeological resource is encounter during soil-disturbing activity within the Oakdale Portal, the SFPUC will implement the following measures.
- *Archaeological Evaluation Plan.* If an archaeological resource cannot be avoided by project activities, the archaeologist will prepare an Archaeological Evaluation Plan (AEP). The AEP will create a program to determine the potential of the expected resource to meet the CRHR criteria—particularly Criterion 4, the resource's potential to address important research questions identified in the AEP—and the archaeologist will submit this plan

to the ERO for approval. The archaeologist will then conduct an evaluation consistent with the ERO-approved AEP. The methods and findings of the evaluation will be presented in an Archaeological Evaluation and Effects Report (AEER), which will be submitted to the ERO for review upon completion.

- *Archaeological Data Recovery and Treatment Plan.* Based on the conclusions of the AEER, the San Francisco Planning Department's Archaeologist or Designee will determine if the project adversely affects a CEQA-significant archaeological resource. If the project will have an adverse effect on such a resource, an Archaeological Data Recovery and Treatment Plan (AD RTP) will be prepared by the archaeologist and submitted to the ERO. Once approved by the ERO, a data-recovery investigation and/or other treatment, consistent with the AD RTP, will be conducted by the archaeologist.
- *Archaeological Data Recovery Report.* The archaeological consultant will submit a draft Archaeological Data Recovery Report (ADRR) to the ERO that describes the archaeological and historical research methods employed in the archaeological evaluation/monitoring/data recovery program(s) undertaken, and presents, analyzes, and interprets the recovered data. Information that may put any archaeological resource at risk will be provided in a separate removable insert within the final report. Once approved by the ERO, copies of the ADRR will be distributed as follows: the relevant California Historical Resources Information System Information Center will receive one (1) copy and the ERO will receive a copy of the transmittal of the ADRR to the Information Center. The SFPUC's Major Environmental Analysis Division will receive three (3) copies of the ADRR, along with copies of any formal site recordation forms (CA Department of Parks and Recreation 523 series) and/or documentation for evaluation under NRHP/CRHR criteria. The SFPUC will receive copies of the ADRR in the number requested. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

Mitigation Measure M-CP-2: Accidental Discovery Measures and Treatment of Human Remains

- To avoid any potential adverse effect from the project on accidentally discovered buried historical resources as defined in CEQA Guidelines Section 15064.5(a)(c), the project sponsor will distribute the Planning Department's archaeological resource

“ALERT” sheet to the project prime contractor; to any project subcontractor firms (including demolition, excavation, grading, foundation, or pile driving, etc.); and/or utilities firm involved in soil disturbing activities within the project site. Prior to any soil-disturbing activities being undertaken, each contractor is responsible for ensuring that the “ALERT” sheet is circulated to all field personnel including machine operators, field crew, pile drivers, supervisory personnel, etc. The project sponsor will provide the ERO with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) confirming that all field personnel have received copies of the “ALERT” sheet.

- Should any indication of an archeological resource be encountered during any soil-disturbing activity of the project, the project sponsor will immediately notify the ERO and will immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.
- If the ERO determines that an archaeological resource may be present within the project site, the project sponsor will retain the services of a qualified archaeological consultant. The archaeological consultant will advise the ERO as to whether the discovery is an archaeological resource that retains sufficient integrity and is of potential scientific/historical/cultural significance. If an archaeological resource is present, the archaeological consultant will identify and evaluate the archaeological resource. The archaeological consultant will make a recommendation to the ERO as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the project sponsor.
- Measures might include: preservation in situ of the archaeological resource, an archaeological monitoring program, or an archaeological evaluation program. The ERO may also require that the project sponsor immediately implement a site security program if the archaeological resource is at risk from vandalism, looting, or other damaging actions.
- The project archaeological consultant will submit an accidental discovery ADRR to the ERO that will include an evaluation of the historical significance of any discovered archaeological resource, and describes the archaeological and historical research methods employed in the archaeological monitoring/data recovery program(s) undertaken, and presents,

analyzes, and interprets the recovered data. Information that may put at risk any archaeological resource will be provided in a separate removable insert within the final report.

- Once approved by the ERO, copies of the ADRR will be distributed as follows: the relevant California Historical Resources Information System Information Center will receive one (1) copy and the ERO will receive a copy of the transmittal letter of the ADRR to the Information Center. Major Environmental Analysis Division will receive three copies of the ADRR along with copies of any formal site recordation forms (California Department of Parks and Recreation 523 series) and/or documentation for evaluation under NRHP/CRHR criteria. The SFPUC will receive copies of the ADRR in the number requested. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.
- *Human Remains and Associated or Unassociated Funerary Objects.* The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity will comply with applicable state laws. This will include immediate notification of the coroner of the county within which the project is located and, in the event of the coroner's determination that the human remains are Native American, notification of the California State Native American Heritage Commission, who will appoint a Most Likely Descendant (MLD) (Public Resource Code [PRC] Sec. 5097.98). The archaeological consultant, project sponsor, and MLD will make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects, with appropriate dignity (CEQA Guidelines Sec. 15064.5[d]). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. California PRC allows 48 hours to reach agreement on these matters. If the MLD and the other parties do not agree on the reburial method, the project will follow Section 5097.98(b) of the California PRC, which states, "the landowner or his or her authorized representative will re-inter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."

Mitigation Measure M-CP-3: Demarcation of Significant (or Unevaluated) Resources with Safety Fencing

- SFPUC will erect safety fencing around the archaeological resources identified as CA-TUO-5030 and CA-TUO-5031H to protect the resources during construction activities near the Oakdale Portal. The fencing will notify contractors that these areas have been determined “sensitive” and that they will be avoided by all project activities. SFPUC will delineate the exclusion zones on project construction maps that coincide with the safety fencing. Alternatively, the SFPUC will erect safety fencing around the limits of the construction area to restrict construction activities and vehicles from disturbing the sensitive area at the Oakdale Portal; this fencing will be delineated on project construction maps. The safety fencing that is erected either around the archaeological resources or around the limits of construction will be maintained during construction activities and removed after construction is complete.

b.i. Less than Significant with Mitigation Incorporated:

- With proposed mitigation measures, the project is unlikely to cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.

b.ii. Facts in Support of Finding:

- In addition to assessing impacts to archaeological resources meeting the requirements for listing as historical resources, impacts to unique archaeological resources are also considered under CEQA, as described in §15064.5, as well as under PRC 21083.2. If an archaeological site does not meet the criteria for inclusion on the CRHR (as described under Response to 4a) but does meet the definition of a unique archaeological resource as outlined in PRC 21083.2, it is entitled to special protection or attention under CEQA. A unique archaeological resource implies an archaeological artifact, object, or site about which it can be clearly demonstrated that—without merely adding to the current body of knowledge—there is a high probability that it meets one of the following criteria:
 - The archaeological artifact, object, or site contains information needed to answer important scientific questions, and there is a demonstrable public interest in that information;
 - The archaeological artifact, object, or site has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
 - The archaeological artifact, object, or site is directly associated

with a scientifically recognized important prehistoric or historic event or person.

- A non-unique archaeological resource indicates an archaeological artifact, object, or site that does not meet the above criteria. Impacts to nonunique archaeological resources and resources that do not qualify for listing on the CRHR receive no further consideration under CEQA.
- No previously recorded unique archaeological resources have been identified within the footprint of the proposed project. Potential impacts to previously unidentified unique archaeological resources causing a substantial adverse change in the significance of a historical resource as defined in §15064.5 would be the same as described under Response to 4a, potentially significant, and Mitigation Measures M-CP-1: Archaeological monitoring (at Oakdale Portal), and M-CP-2: Accidental discovery measures and treatment of human remains (at Oakdale Portal and areas west of Oakdale Portal), would be required. Impacts would be less than significant with mitigation incorporated for most work. In addition, potential impacts to the known resources (CA-TUO-5030 and CA-TUO-5031H) at Oakdale Portal from construction activities east of MP 50.05 would be the same as described under Response to 4a, potentially significant, and Mitigation Measure M-CP-3: Demarcation of significant (or unevaluated) resources with safety fencing, would be required. Impacts causing a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the CEQA Guidelines would be less than significant with mitigation incorporated.
 - M-CP-1, M-CP-2, and M-CP-3 See Attachment C, Section C.(1)a.ii. above

c.i. Less than Significant with Mitigation Incorporated:

- With proposed mitigation measures, the project is unlikely to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

c.ii. Facts in Support of Finding:

- Baseline conditions for paleontological resources within a portion of the SJPL ROW east of Emery Road and west of the San Joaquin River are described in the SJPL System Project Environmental Impact Report (San Francisco Planning Department, 2009). Supplemental archival review was conducted for this Initial Study to assess baseline conditions between Emery Road and the western side of the San Joaquin River. These additional efforts included a record search of files housed at the University of California Museum of Paleontology (UCMP), as well as a review of the geology underlying the project

area. Each geologic unit within the SJPL ROW has been assigned a Paleontological Assessment Rating of High, Medium, or Low, based on its likelihood to yield paleontologic resources.

- The Mesozoic basement geologic unit underlies the SJPL ROW to the east of MP 52.00 (approximately east of Willms Road) and is a non-fossil-bearing formation. All other areas of the SJPL ROW overlie geologic units with high paleontological sensitivity ratings.
- In addition, the archival review at the UCMP revealed that the Tesla Portal is underlain by geologic units from which fossil remains have been recovered. The UCMP records indicate that in 1933, an ancient camel skull of the genus *Camelops* was recovered from the “Hetch Hetchy Tunnel” (i.e., the Coast Range Tunnel) by C. Stock. The specimen is stored in the UCMP under Field Number 989. Two additional identified paleontological sites exist within 1 mile of the SJPL ROW. One is located near the Tesla Portal, and the other is adjacent to the Union Pacific Railroad and Highway 99 ROW, approximately 0.9 mile southeast of the SJPL ROW at MP 76.32.

Maintenance of Access Roads, Transmission Towers, and Culverts

- Access roads, transmission towers, and culverts west of MP 52.00 are located within areas overlying rock units exhibiting high paleontological sensitivity. For the reasons described for Repair/Replacement activities, ground-disturbing construction activities within undisturbed areas have the potential to inadvertently expose and therefore directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. This would be a potentially significant impact. Implementation of Mitigation Measures M-CP-7: Paleontological resources training, and M-CP-8: Preconstruction assessment, resource avoidance and/or salvage, and construction monitoring for paleontological resources, would reduce this impact to a less-than significant level. With implementation of these mitigation measures, impacts relating to directly or indirectly destroying a unique paleontological resource or site or unique geologic feature would be less than significant with mitigation incorporated.

Mitigation Measure M-CP-7: Paleontological Resources Training

- Prior to the initiation of any site preparation or start of construction in areas of the SJPL ROW with a high sensitivity for paleontological resources (i.e., areas west of MP 52.00) and where site-specific evaluations indicate that construction activities could occur in previously undisturbed areas, the SFPUC will ensure that all construction forepersons and field supervisors receive training overseen by a qualified professional paleontologist or a California Registered Professional Geologist

(RPG) with appropriate paleontological expertise as defined by the Society of Vertebrate Paleontology (SVP)'s Conformable Impact Mitigation Guidelines Committee (SVP, 1995), who is experienced in teaching non-specialists, to ensure that forepersons and field supervisors can recognize fossil materials in the event that any are discovered during construction. Training on paleontological resources will also be provided to all other construction workers, but may include videotape of the initial training and/or the use of written materials rather than in-person training by a paleontologist. Training will include an explanation of which portions of the project (i.e., excavation in undisturbed soils as identified by M-CP-8) possess a high sensitivity for paleontological resources based on the information in the environmental documentation already prepared for the project.

Mitigation Measure M-CP-8: Preconstruction Assessment, Resource Avoidance and/or Salvage, and Construction Monitoring for Paleontological Resources

- Prior to construction, the SFPUC will implement the following:
 - A literature review will be conducted by a California RPG with appropriate paleontological expertise or a qualified professional paleontologist, as defined by the SVP 1995 Guidelines, to ensure the geologist/paleontologist is familiar with the latest data on fossil localities within the previous documentation prepared for the project, and the latest data on fossil localities within the formations in the project area (SVP, 1995).
 - A reconnaissance-level field assessment of the highly sensitive areas where ground disturbance (grading or excavation) activities are planned will be conducted. The field assessment will be limited to identifying potentially significant features at the surface. In areas of thick ground cover, this assessment may need to be conducted after vegetation clearing.
 - The results of the field assessment will be documented in a technical memorandum to be submitted for review and approval by the ERO or designee prior to the start of construction, which will include recommendations for appropriate and feasible procedures to avoid or minimize damage to any paleontological resources expected to be present. In the event that the memorandum identifies recommendations for monitoring, it will include

information on where, when, and how this monitoring will be conducted. The ERO or designee will review and approve the memorandum in consultation with the SFPUC.

- If the evaluation and field assessment result in the discovery of a paleontological resource exposed at the surface, or confirm the potential for impacts on significant paleontological resources, then avoidance and/or salvage and monitoring will also be implemented as described below.
- If a significant paleontological resource is discovered at the ground surface as a result of the preconstruction assessment and cannot be avoided through exclusion of the area from project disturbance (e.g., through a project change or the installation of exclusion fencing), the SFPUC will retain a qualified professional paleontologist to salvage and treat the resource prior to construction activity in the immediate vicinity of the find. Salvage of the resource will include recovering the item and properly documenting, preparing, and curating the find. Recommendations for any treatment that is required will be consistent with SVP 1995 Guidelines and currently accepted scientific practice. If required, treatment of the resource may include preparation and recovery of fossil materials for housing in an appropriate museum or university collection, and may also include preparation of a report for publication describing the find. If no report is required, the SFPUC will ensure that information on the nature, location, and depth of all finds is available to the scientific community through university curation or other appropriate means. No construction activities at the location of the find will be allowed until the salvage operation is completed and authorization is provided by the ERO or designee.
- If determined necessary by the ERO or designee after review of the preconstruction assessment memorandum, a qualified professional paleontologist, as defined by the SVP 1995 Guidelines will conduct periodic monitoring during ground-disturbing activities (e.g., grading and excavation) within previously undisturbed soils at sites where paleontological resources are confirmed or likely to be present (i.e., areas west of MP 52.00). The paleontologist will also be retained on-call by the SFPUC and its contractor throughout ground-disturbing activities.
- Paleontological monitoring, if required, will consist of periodically

inspecting disturbed, graded, and excavated areas. The monitor will have authority to divert grading or excavation away from exposed areas temporarily to examine disturbed areas more closely, and/or recover fossils. The monitor will coordinate with the construction manager so that monitoring is thorough but does not result in unnecessary delays.

- If potential fossils are discovered during construction, all earthwork or other types of ground disturbance within 50 feet of the find will stop immediately until a qualified professional paleontologist, as defined by the SVP 1995 Guidelines can assess the nature and importance of the find and recommend appropriate salvage and treatment (as described above). Once the monitor has assessed the find, the monitor may propose modifications to the stop-work radius based on the nature of the find, site geology, and the activities occurring on the site. The monitor's recommendations will be subject to review and approval by the ERO or designee. The SFPUC will be responsible for ensuring that the recommendations of the paleontological monitor regarding treatment and reporting are implemented, and reported to the San Francisco Planning Department.

d.i. Less than Significant with Mitigation Incorporated:

- With proposed mitigation measures, the project is unlikely to disturb any human remains, including those interred outside of formal cemeteries.

d.ii. Facts in Support of Finding:

- Section 15064.5 of CEQA assigns special importance to human remains, and specifies procedures to be used when Native American remains are discovered. These procedures are detailed under PRC Section 5097.98.
- No previously recorded archaeological sites likely to contain human remains have been identified within the project area. Although it is possible to inadvertently expose unknown archaeological resources during construction, it is unlikely, given the highly disturbed nature of the SJPL ROW, that human remains are present and undiscovered within the project area. Construction activities within undisturbed soils, however, have the potential to inadvertently expose and therefore affect previously unknown archaeological resources that potentially contain human remains. The inadvertent exposure of previously unidentified human remains would be a potentially significant impact. Implementation of Mitigation Measures M-CP-1: Archaeological monitoring, within Oakdale Portal (i.e., MP 49.84 to MP 50.05), and M-

CP-2: Accidental discovery measures and treatment of human remains, for construction activities throughout the project area, would reduce this impact to a less-than-significant level. With implementation of these mitigation measures, impacts relating to disturbance of human remains would be less than significant with mitigation incorporated.

- Two known archaeological resources—CA-TUO-5030 and CA-TUO-5031H—have been identified within the Oakdale Portal. It is unknown whether these resources contain human remains. While outside of the footprint of project activities, these sites could be inadvertently disrupted by ancillary activities, including, but not limited to, vehicle parking and/or break period use, and thus impacted by construction activities that occur within the vicinity of the Oakdale Portal. This would be a potentially significant impact. Implementation of Mitigation Measure M-CP-3: Demarcation of significant (or unevaluated) resources with safety fencing, would reduce potential impacts from construction within the vicinity of the Oakdale Portal (i.e., east of MP 50.05) to a less-than-significant level. With implementation of this mitigation measure, impacts relating to disturbance of human remains would be less than significant with mitigation incorporated.

- M-CP-1 and M-CP-2 See Attachment C, Section C.(1)a.ii. above

e.i. Less than Significant with Mitigation Incorporated:

- With proposed mitigation measures, the project is unlikely to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

e.ii. Facts in Support of Finding:

- Based on this review, 67 special-status plant species, 15 special-status bird species, 8 special-status mammal species, 5 special-status amphibian species, 7 special-status reptile species, 10 special-status fish species, and 5 special-status invertebrate species are known to occur within the 36-quadrangle project vicinity. URS Corporation (URS) reviewed available literature, including the life history accounts and range maps of the California Wildlife Habitats Relationships System (CDFG, 2009b), to identify the habitat requirements and distribution of each these species. Based on a qualitative assessment of habitats within the action area and the results of focused field surveys, URS evaluated the potential for each special-status species to occur in the project area.

Maintenance of Access Roads, Transmission Towers, and Culverts

- System Maintenance includes the periodic repair or replacement of approximately 80 culverts within the project area. Culverts are manmade structures that convey water beneath roads or other utilities. Culverts within the project area convey water associated with a variety of wetlands and aquatic habitats, including seasonal streams and seasonal wetlands that may be used by special-status species. Culverts generally would be replaced every 20 years. Excavation, removal of culverts, and backfilling could have direct impacts on these habitats, including placement of fill, disruption of hydrology, and degradation of water quality. Excavation around culverts may also result in the injury or mortality of special-status species using underground refugia. In addition, repair and/or replacement of culverts may have impacts on special-status mammals and birds that den or nest in the vicinity of the culverts. Noise and visual disturbance as a result of these maintenance activities may result in the disruption of breeding activity and cause the mortality of eggs and hatchlings. All of these impacts would be potentially significant.
- Implementation of Mitigation Measures M-BI-1a through M-BI-10, M-BI-12 through M-BI-19, M-BI-21, M-BI-22, and M-HY-1 listed in Table 20 would reduce potentially significant impacts to less-than-significant levels by substantially avoiding or minimizing potential for individual mortality or destruction and degradation of habitats. Therefore, project-related impacts on special-status species and their habitats would be less than significant with mitigation incorporated.

Mitigation Measure M-BI-1a: Annual Environmental Awareness Training

- On an annual basis, a qualified biologist or workers under direct supervision of a qualified biologist will conduct Environmental Awareness Training for SFPUC maintenance staff who are assigned to work on this project to ensure that all individuals on site involved in daily and routine maintenance activities, including reconnaissance and testing activities, have been fully informed of potential biological resources present and the mitigation measures in place for their protection. A training video may also be made to facilitate consistent and thorough environmental awareness among individuals coming on site at various times throughout the year. The training session will be required of all new construction/maintenance personnel before they are allowed to access the project site. At a minimum, the training will include a description of the special-status species and sensitive habitats present or expected to be present within the construction area and instruction regarding the importance of preventing the spread of invasive weeds. The training will

also include a description of all measures that will be implemented to avoid or minimize impacts on these species and habitats, the penalties for noncompliance, and the boundaries within which the project must be accomplished. The instruction will include guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.

Mitigation Measure M-BI-1b: Project-Level Environmental Awareness Training

- Prior to initiation of any site preparation and/or construction activities, a qualified biologist or workers under direct supervision of a qualified biologist will oversee a continuous program of environmental awareness training to ensure that all individuals on site throughout the project implementation have been fully informed of biological resources present and the mitigation measures in place for their protection. A training video may also be made to facilitate consistent and thorough environmental awareness among individuals coming on site at various times during the construction period. The training session will be required of all new construction/maintenance personnel before they are allowed to access the construction project site. At a minimum, the training will include a description of the special-status species and sensitive habitats present or expected to be present within the construction area and instruction regarding the importance of preventing the spread of invasive weeds. The training will also include a description of all measures that will be implemented to avoid or minimize impacts on these species and habitats, the penalties for noncompliance, and the boundaries within which the project must be accomplished. The instruction will include guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.

Mitigation Measure M-BI-2: General Construction and Maintenance Guidelines and Restrictions

- The SFPUC will implement the following measures throughout the entire project area:
 - The number and size of access routes and staging areas and the total area of the construction activity will be limited to the minimum necessary to achieve the project objectives.
 - Before work begins in any area, the project personnel will clearly delineate (e.g., stake, fence, or flag) the construction area boundaries, which include all areas

used for construction staging and laydown, and prohibit any off-road traffic outside of these boundaries.

- Confine all equipment to designated work zones (including access roads and staging areas) within the construction area.
- To prevent possible resource damage from hazardous materials such as motor oil or gasoline, project personnel will not service vehicles or equipment outside of designated access roads or the SJPL ROW. Vehicle service or refueling will be done at least 100 feet away from any identified sensitive habitat (i.e., riparian habitat and water bodies) to provide a sufficient buffer to prevent runoff or groundwater seepage of a spilled material to the resource before cleanup occurs.
- Project personnel will be instructed to exercise caution when commuting within special-status species habitats at the construction site. A 15-mile-per-hour speed limit will be observed on all unpaved access roads within the construction area.
- Provide closed garbage containers for the disposal of food-related trash items (e.g., wrappers, cans, bottles, and food scraps). Garbage will be removed daily from the construction site. Construction personnel will not feed or otherwise attract fish or wildlife to the construction area. Where required by project mitigation measures (see Mitigation Measures M-BI-4, M-BI-13, and M-BI-16), the work area will be secured with fencing or other means of deterring wildlife entry to the work area.
- No pets will be allowed in the construction area.
- No firearms will be allowed in the construction area.
- Rodenticides and herbicides at all project areas will be used in such a manner to prevent primary or secondary poisoning of any listed species, and the depletion of prey populations of these species. Rodenticides and herbicides used will comply with the San Francisco Reduced Risk Pesticide List (San Francisco Department of Environment, 2007b) and will be applied following restrictions mandated by the U.S. Environmental Protection Agency (U.S. EPA), California Department of Pesticide Regulation, and any other applicable state and federal regulations, in accordance with the label

instructions.

- To minimize disturbance of nocturnal and/or crepuscular wildlife, work will begin no sooner than 15 minutes after sunrise and will cease no later than 15 minutes before sunset. If after-hours work becomes necessary, adequate lighting must be provided for the safety of drivers and pedestrians, and to avoid disturbance, injury, or damage to wildlife and sensitive habitats.
- All fencing, flagging, debris, trash, and materials from work areas and access roads will be removed following completion of construction and habitat restoration activities.
- To protect sensitive species and their prey, erosion control materials will be constructed of natural fibers and will not include plastic monofilament netting that can trap or injure small animals, including listed species. Acceptable alternatives include burlap wrapped straw wattles, jute or coconut coir matting, and tackified hydroseeding. Silt fencing fabric need not be constructed of natural fibers as long as it is of a tight weave and maintained in good condition, so as not to potentially snare or injure small animals, and is removed following completion of work and stabilization of upslope surfaces.
- Take measures to minimize fugitive dust and dirt emissions resulting from the construction, and implement measures to minimize any construction effects on nearby aquatic and other sensitive habitats.

Mitigation Measure M-BI-3: Invasive Weed Controls

- To avoid or minimize the introduction or spread of invasive weeds into uninfested areas, SFPUC will incorporate the following measures into the construction plans and specifications of all construction activities:
 - Construction equipment will arrive at the construction area clean and free of soil, seed, and plant parts to reduce the likelihood of introducing new weed species.
 - Any imported fill material, soil amendments, gravel etc., required for construction and/or restoration activities placed within the upper 12 inches of the ground surface shall be free of vegetation and plant material.
 - Weed-free erosion-control materials shall be used at all

times. The SFPUC shall use erosion control materials that are certified as weed-free, if available.

- The environmental awareness training program shall include orientation regarding the importance of preventing the spread of invasive weeds.
- To reduce the movement of invasive weeds into uninfested areas, the contractor shall stockpile topsoil removed during excavation of trenches or test pits, which shall be subsequently replaced during reestablishment of disturbed construction areas.
- Implementation of these measures during construction and site restoration will be verified by a qualified biological or environmental monitor.

Mitigation Measure M-BI-4: Avoidance, Minimization, and Compensation Measures for Special-Status Plant Species

- Protocol-level special-status plant surveys were conducted within the project area during 2006-2008; however, it is possible that the presence/absence and distribution of special-status plant species within the project area could change during the 20-year lifetime of the project.
- Protocol-level special-status plant surveys at a given location will be valid for 5 years, after which additional surveys will be required prior to ground-disturbing activities. Special-status plant surveys will be conducted in accordance with CDFG guidelines (CDFG, 2009c); guidelines include walking the construction area during peak bloom times of special-status plants that have the potential to occur within the survey area.
- In areas where special-status plants have been identified by surveys, such as between MP 82.56 and MP 85.83, where an existing population of brittlescale (*Atriplex depressa*), a CNPS List 1B.2 species (CDFG) was identified during the 2006-2008 surveys, the SFPUC will implement the following measures prior to ground-disturbing activities.
 - Within 14 days prior to ground-disturbing activities (such as trenching, grading, or excavating) where the presence of special-status plant species has been confirmed, a qualified biologist(s) will perform a preconstruction survey of the construction area for special-status plants that have the potential to occur (i.e., brittlescale).
 - The locations of special-status plants will be clearly

marked using flagging or fencing.

- A 50-foot exclusion zone will be established around the plants.
- If construction activities must occur within the 50-foot exclusion zone, the following avoidance and minimization measures will apply:
 - Timing of construction: If the observed plants are annuals, construction activities will be delayed until after the plants set seed. The precise timing will depend on the species observed and will be verified by a qualified biologist prior to ground disturbance.
 - Seed collection: Prior to the start of ground-disturbance activities, a qualified biologist will collect seeds from all plants within the work area and the 50-foot exclusion zone after plants have set seed. These seeds will be properly stored until after all construction activities are complete. During the revegetation of construction areas during the fall or before the first rain event (see Mitigation Measure M-BI-5), the collected seeds will be included in the seed mix of native grasses and forbs, which will be applied to all sensitive special status plant areas that have been disturbed by the project.
 - Seedbank preservation: During excavation, the topsoil will be removed first and stockpiled separately from subsoil (see Mitigation Measure M-BI-5: Restoration of construction areas) to preserve the seedbank.
- In the event that construction must occur before annual special-status plants have set seed for the season or must occur where perennial special-status plants are present, mitigation or compensation for impacted plants will be provided. Mitigation or compensation for lost plants will be developed through consultation with CDFG and/or USFWS, as appropriate, prior to any ground disturbance. Mitigation or compensation may include measures such as the translocation of individual plants, or offsite habitat preservation/restoration. Mitigation must be implemented at a minimum 1:1 ratio of mitigation or compensation for loss, and the final compensation ratio will be determined by CDFG and/or the USFWS. If translocation of plants is implemented, the site proposed for translocation must be evaluated for suitability for the specific plant species before translocation occurs. The mitigation or compensation developed in consultation with CDFG and/or USFWS will address

replacement ratios and success criteria, including any necessary ongoing management or monitoring, all of which may differ depending on the plant species affected. Mitigation or compensation also may be satisfied by payment to a mitigation bank. Impacts to state or federally listed plant species will require consultation and/or a permit from CDFG or the USFWS.

Mitigation Measure M-BI-5: Restoration of Construction Areas

- A qualified biologist, workers under direct supervision of a qualified biologist, or restoration specialist will prepare vegetation specifications for all natural habitat areas, which exclude agricultural or urban/developed lands impacted by construction activities. Restoration specifications will include, at a minimum, the following:
 - During initial ground-disturbing activities, topsoil (minimum 4 inches) will be removed first and stockpiled separately from subsoil.
 - If it becomes necessary to stockpile soil or other materials from trenching or other activities in or immediately adjacent to sensitive habitats, such as wetlands or special-status plant populations, a permeable barrier will be placed to preserve the topsoil and seedbank beneath the stockpile area. Stockpiled soil will be removed in a manner that preserves the integrity of the original soil surface and the associated topsoil.
 - Following completion of construction activities, soil layers will be replaced in the same order they were removed (i.e., stockpiled topsoil will be replaced last).
 - Following completion of construction activities, the natural grade and contours of the site will be restored.
 - A seed mix of native grasses and forbs will be applied to all areas that have been disturbed by the project except wetlands, confirmed special-status plant locations, and agricultural areas. Seed will be applied in late fall to improve germination. If more than 30 days would elapse before the application of the seed mix, a temporary soil stabilizer will be applied to disturbed soils except in wetlands or in agricultural areas.
 - Establishment of vegetation cover in disturbed areas will be monitored at the end of the first full growing season. The seed mix will be reapplied in the fall if adequate cover (total vegetation cover at least 30 percent) is not

achieved by the end of the first growing season.

- All reseeded areas shall be covered with a stabilizing (i.e., tackified) mulch or weed-free hay material.
- All stabilizing or tackifier materials will be nontoxic.
- Disturbed areas will be protected with correctly installed erosion control measures (jute, straw, coconut fiber erosion control fabric, fiber rolls, straw).

Mitigation Measure M-BI-6: Avoidance and Minimization Measures for Tricolored Blackbird and Yellow-Headed Blackbird

- The following mitigation measures will be implemented for all project activities in or adjacent to freshwater marsh habitat throughout the project area (MP 61.12 to MP 61.38; MP 84.00 to MP 84.20; and MP 85.48 to MP 85.60):
- To avoid disrupting nesting colonies of the tricolored blackbird (*Agelaius tricolor*) and yellow-headed blackbird (*Xanthocephalus xanthocephalus*), both California species of special concern (CDFG), construction and maintenance activities will occur outside of the nesting season (March 1 to August 31) if feasible. If construction and maintenance activities must occur during the nesting season, the SFPUC will implement the following measures:
 - Preconstruction surveys shall be conducted for nesting birds in suitable nesting habitat within 500 feet of the construction area, where access is permitted. Surveys shall be conducted by a qualified biologist or workers under direct supervision of a qualified biologist within 14 days prior to the start of construction.
- If an active nest is located, work activities will be delayed within 500 feet of the nest location until avoidance measures have been implemented. Appropriate avoidance measures shall include the following:
 - If it is determined that construction and maintenance activities will not affect an active nest, activities may proceed without restriction.
 - A no-disturbance buffer may be established around the nest location to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified wildlife biologist determines that the young have fledged.
 - The extent of no-disturbance buffers will be determined

by a qualified wildlife biologist in consultation with the CDFW and will depend on the level of noise or disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.

- These measures may be further developed and implemented in consultation with the CDFW.

Mitigation Measure M-BI-7: Avoidance and Minimization Measures for Western Burrowing Owls

- Measures to avoid and minimize impacts on the western burrowing owl (*Athene cunicularia*), a California species of special concern (CDFW), will be implemented throughout the entire project area, including along the edges of agricultural fields and orchards. This measure was developed from guidance published in CDFW's Staff Report on Burrowing Owl Mitigation (CDFG, 1995) and the California Burrowing Owl Consortium's Burrowing Owl Survey Protocol and Mitigation Guidelines (CBOC, 1993) as summarized below:
 - Breeding Season Surveys. Where construction is planned during the owl's breeding season (February 1 to August 31), a qualified biologist or workers under direct supervision of a qualified biologist will survey for burrows and burrowing owls during the breeding season immediately preceding construction. Surveys will be conducted within 500 feet of the construction area boundary (access permitting). Burrows will be inspected for signs of owl activity (tracks, pellets, feathers, etc.). The locations of burrowing owl sightings, occupied burrows, and burrows with signs of owl activity will be marked on a map of the construction area at a scale sufficient to accurately show the distance of active burrows to the limits of construction. Surveys will be conducted on at least four separate dates during the breeding season in areas where suitable burrows are present. If possible, surveys will be conducted during the peak of the burrowing owl breeding season, generally between 15 April and 15 July.
 - If occupied owl burrows are found within the survey area, a determination will be made by a qualified biologist or workers under direct supervision of a qualified biologist, in consultation

with the CDFW, as to whether work will affect the occupied burrows or disrupt reproductive behavior.

- If it is determined that construction will not affect occupied burrows or disrupt breeding behavior, construction will proceed without any restriction or mitigation measure.
 - If it is determined that construction will physically affect occupied burrows or disrupt reproductive behavior during the breeding season (1 February through 31 August), then avoidance is the only mitigation available. Construction will be stopped within 250 feet of occupied burrows until it is determined that the subject owls are not nesting or until a qualified biologist or workers under direct supervision of a qualified biologist determines that juvenile owls are self-sufficient or are no longer using the natal burrow as their primary source of shelter.
- Winter Surveys. If birds are not observed during breeding season (1 February to 31 August) surveys, or if breeding season surveys are infeasible due to project scheduling, or if construction will occur during the wintering season, a winter survey will be conducted to identify nonbreeding residents of the construction area. Winter surveys will be conducted within 500 feet of the construction area (access permitting) during the period when wintering owls are most likely to be present (1 December to 31 January). The locations of burrowing owl sightings, occupied burrows, and burrows with signs of owl activity will be marked on a map of the construction area at a scale sufficient to accurately show the distance of active burrows to the limits of construction.
 - If occupied owl burrows are found within the survey area, a determination will be made by a qualified biologist or workers under direct supervision of a qualified biologist, in consultation with the CDFW, as to whether work will affect the occupied burrows.
 - If it is determined that construction will not affect occupied burrows, construction will proceed without any restriction or mitigation measure.

- If it is determined that construction will affect occupied burrows, the subject owls will be passively relocated from the occupied burrow(s) using one-way doors prior to the onset of breeding season. Owls will be encouraged to relocate to alternate burrows that are at least 160 feet from the construction limits. At least two alternate natural or artificial burrow for each burrow excavated will be in place at least 7 days before one-way doors are installed on occupied burrows. One-way doors will be in place for a minimum of 48 hours before burrows are excavated.
- For each pair or unpaired resident bird that is passively relocated from an occupied burrow, the alternate burrows described above will be provided within or contiguous to 6.5 acres of foraging habitat.
- For each pair or unpaired resident bird that is passively relocated from an occupied burrow within an area that will be permanently impacted by the construction of a project facility, 6.5 acres of suitable habitat will be set aside. The 6.5 acres of suitable habitat will be contiguous with known occupied burrowing owl burrows. The mitigation land will be protected in perpetuity, and the area will be managed as a conservation easement.
- Fall Surveys. If surveys must be conducted between 1 September through 30 November (which is outside of the time windows specified above), a qualified biologist or workers under direct supervision of a qualified biologist will conduct a survey for burrows and burrowing owls no more than 30 days prior to ground-disturbing activity. If necessary, resident owls will be passively relocated from occupied burrows, as above. Winter surveys will be conducted during December and January if construction activities are still ongoing beyond 30 November.
- These measures may be further developed and implemented in consultation with the CDFW.

Mitigation Measure M-BI-8: Avoidance and Minimization Measures for Nesting Swainson's Hawks

- The following measure applies to construction and maintenance activities that occur throughout the project area. To avoid

disrupting nesting Swainson's hawks (*Buteo swainsoni*), a state-listed Threatened species (CDFG), construction activities at known nesting locations will occur prior to the nesting season (1 March through 15 September). If construction activities must take place during the nesting season, a qualified biologist or workers under direct supervision of a qualified biologist will conduct a preconstruction survey no more than 14 days before the start of construction and report whether there are nesting Swainson's hawks within 1,320 feet of any project (access permitting). If an active Swainson's hawk nest is observed within 1,320 feet of the construction area, construction activities within 1,320 feet of the nest site will be delayed until after breeding season (September 15), or until an alternate avoidance strategy that provides equally effective protection has been approved by the CDFW. Unless otherwise approved by CDFW, all construction activity within 1,320 feet of an active Swainson's hawk nest will be delayed until the juvenile hawks are foraging independently.

- If an active Swainson's hawk nest is discovered during nesting raptor surveys (see Mitigation Measure M-BI-9: Avoidance and minimization measures for nesting raptors and migratory birds), the same restrictions as above will apply.

Mitigation Measure M-BI-9: Avoidance and Minimization Measures for Nesting Raptors and Migratory Birds

- To avoid disrupting nesting raptors, construction and maintenance activities will occur prior to the raptor nesting season (1 March through 31 August) if feasible. If construction activities must occur during the nesting season, the following measures will apply throughout the entire project area:
 - Preconstruction surveys shall be conducted for active raptor nests in suitable nesting habitat within 500 feet of the construction area. Surveys shall be conducted by a qualified biologist or workers under direct supervision of a qualified biologist within 14 days prior to the start of construction and/or maintenance. The qualified biologist or workers under direct supervision of a qualified biologist will determine the appropriate level of survey required to determine whether nesting birds are present. In some instances, more than 1 day of nest surveys may be required.
 - In consultation with CDFW and/or USFWS, trees with unoccupied raptor nests (stick nests or cavities) may only

be removed between 1 September and 28 February.

- Active raptor nests located within 500 feet of the construction area will be identified and mapped, to the extent allowed by access.
- If an active raptor's nest is located, work activities will be delayed within 300 feet of the nest location until avoidance measures have been implemented. Appropriate avoidance measures will include the following:
 - If it is determined that construction and maintenance activities will not affect an active nest or disrupt breeding behavior, activities may proceed without restriction.
 - A no-disturbance buffer may be established around the nest location to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified wildlife biologist determines that the young have fledged (usually late July through August).
 - The extent of no-disturbance buffers will be determined by a qualified wildlife biologist in consultation with the applicable resource agencies (i.e., USFWS and/or CDFW) and will depend on the level of noise or disturbance, line of site between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.
- These measures may be further developed and implemented in consultation with the USFWS and/or CDFW.
- To avoid impacts to nesting migratory birds, construction and maintenance activities will occur prior to the migratory bird nesting season (1 March through 31 August), if feasible. If construction activities must take place during the nesting season, the following measures will apply throughout the entire project area:
 - Preconstruction surveys shall be conducted for active migratory bird nests within 100 feet of the construction area. Surveys will be conducted by a qualified biologist or workers under direct supervision of a qualified biologist in potentially suitable nesting habitat within 14 days prior to the start of construction and/or maintenance. The qualified biologist or workers under direct supervision of a qualified biologist will determine the appropriate level of survey required to determine whether nesting birds are

present. In some instances, more than 1 day of nest surveys may be required.

- If an active migratory bird's nest is located, work activities will be delayed within 100 feet of the nest location until avoidance measures have been implemented. Appropriate avoidance measures will include the following:
 - If it is determined that construction and maintenance activities will not affect an active nest, activities may proceed without restriction.
 - A no-disturbance buffer may be established around the nest location to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified wildlife biologist determines that the young have fledged.
 - The extent of no-disturbance buffers will be determined by a qualified wildlife biologist in consultation with the applicable resource agencies (i.e., USFWS and/or CDFW) and will depend on the level of noise or disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.
- These measures may be further developed and implemented in consultation with the USFWS and/or CDFW.

Mitigation Measure M-BI-10: Avoidance and Minimization Measures for Riparian Wildlife Species in the San Joaquin River National Wildlife Refuge

- Due to the USFWS' ongoing restoration effort at the San Joaquin River NWR, portions of the project area between MP 85.48 and MP 86.51 are bordered by early-succession riparian willow habitat. Special-status species including the least Bell's vireo (*Vireo bellii pusillus*), federally and state-listed Endangered (USFWS/CDFG), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), a federal Candidate species and state-listed Endangered (USFWS/CDFW), riparian woodrat (*Neotoma fuscipes riparia*), federally listed Endangered (USFWS), and riparian brush rabbit (*Sylvilagus bachmanii riparius*), federally and statelisted Endangered (USFWS/CDFW), have been introduced by the USFWS (Forrest, 2009) or have colonized this area (least Bell's vireo) (Forrest, 2009). Measures to avoid and minimize impacts to

these species will be implemented between MP 85.48 and MP 86.51, as described below. These measures may be further developed and implemented in consultation with the CDFW and USFWS during a Section 7 consultation.

- One month prior to project work between MP 85.48 and MP 86.51, a qualified biologist or workers under direct supervision of a qualified biologist will conduct a habitat assessment of the construction area within the boundaries of the San Joaquin River NWR. The habitat assessment will include a vegetation community assessment to determine the status and success of habitat restoration and species relocation efforts, and correspondence with the USFWS and other knowledgeable parties to identify new special-status species records within the San Joaquin River NWR.
- If western yellow-billed cuckoo or least Bell's vireo are observed on site or confirmed nesting in the refuge, Mitigation Measure M-BI-9: Avoidance and minimization measures for nesting raptors and migratory birds, shall apply.
- If riparian woodrat or riparian brush rabbit individuals or their diagnostic sign (i.e., woodrat sticknests, rabbit runways, or fecal droppings) are observed or have been reported on site, if reintroduction efforts have been initiated at the San Joaquin River NWR, or suitable habitat for these species is identified, measures to avoid and minimize impacts to these species will be implemented as described below:
 - A qualified biologist will conduct preconstruction surveys for signs of riparian brush rabbit and riparian woodrat, including footprints, scat, and nests, where the project footprint is within 300 feet of riparian habitat near the San Joaquin River NWR 2 weeks prior to the commencement of construction activities;
 - SFPUC will implement best management practices to prevent sediment from entering riparian brush rabbit and riparian woodrat habitat, including but not limited to silt fencing or temporary berms;
 - A USFWS- and CDFW-approved biologist will be on site during ground-disturbing activities near

riparian brush rabbit and riparian woodrat habitat. The biologist will check daily for signs of riparian brush rabbit, including footprints and scat in the construction area. The biologist will have the authority to stop any work that may result in take of listed species. The biologist will remain on call, but is not required to be present onsite, during non-ground-disturbing construction near the San Joaquin River NWR;

- To prevent inadvertent entrapment of riparian brush rabbits, all excavated, steep-walled holes or trenches more than 1 foot deep will be covered at the close of each working day or provided with one or more escape ramps constructed of earth fill or wooden planks. The excavations will be inspected for trapped animals before being filled. If at any time a trapped animal is discovered, a USFWS- and CDFW-approved biologist will passively relocate the animal, if possible, and the USFWS will be notified; and
- During the breeding season (December through May), construction activities will avoid active riparian brush rabbit and riparian woodrat nests within a 300-foot buffer. The construction area will be delineated with temporary exclusion fencing to limit the contractor to the work area. Additional buffers will be installed in coordination with USFWS and CDFW if an active nest is identified.

Mitigation Measure M-BI-12: Avoidance and Minimization Measures for American Badger

- Measures for avoiding and minimizing impacts to the American badger (*Taxidea taxus*), a California species of special concern (CDFW), between MP 49.84 and MP 61.50 and between MP 92.55 and MP 97.26 shall include the following:
 - Preconstruction surveys shall be conducted for American badger dens in suitable habitat within 200 feet of the construction area (access permitting). Surveys shall be conducted by a qualified biologist or workers under direct supervision of a qualified biologist 14 to 30 calendar days prior to commencement of ground disturbance. If occupied dens are located on a construction area, then dens shall be monitored to determine whether they are

occupied by an adult badger only or if they are natal dens.

- If a den is occupied by an adult only, the den may be destroyed when the adult has moved or is temporarily absent, as verified by a qualified biologist or workers under direct supervision of a qualified biologist. The American badger may enter a torpid state during the winter months and not leave the den for days or weeks. For this reason, the destruction of badger dens shall be avoided during the months of December through February. If dens must be destroyed during these months, they must be verified as unoccupied by a biologist scoping the burrow for occupants. Badgers may partially block the entrance to their den during these periods of inactivity.
- If the den is a natal den, a buffer zone of 200 feet shall be maintained around the den until a qualified biologist or workers under direct supervision of a qualified biologist determines that den has been vacated.
- A qualified biologist or workers under direct supervision of a qualified biologist shall be present when a badger den is excavated. After excavation, the soil shall be compacted to ensure that the animal cannot return to the den.
- The CDFW will be notified prior to the destruction of any American badger den.
- These measures may be further developed and implemented in consultation with the CDFW.

Mitigation Measure M-BI-13: Avoidance and Minimization Measures for San Joaquin Kit Fox

- Measures for avoiding and minimizing impacts to the San Joaquin kit fox, (*Vulpes macrotis mutica*), federally listed Endangered and state-listed Threatened (USFWS/CDFW), between MP 88.90 and MP 97.26 shall include the following; These measures may be further developed and implemented in consultation with the USFWS and/or CDFW during a Section 7 consultation:
 - Preconstruction surveys shall be conducted for San Joaquin kit fox dens, in suitable habitat within 250 feet of construction areas, by a qualified biologist or workers under direct supervision of a qualified biologist 14 to 30

days prior to the start of construction and/or maintenance.

- When surveys identify potential dens, typically identified as those dens 4 inches in diameter or greater to a depth of 2 feet or greater, the den entrances shall be dusted for three calendar days to register track of any San Joaquin kit fox present. If no San Joaquin kit fox activity is identified, potential dens may be destroyed.
- When surveys identify potential dens (potential dens are defined as burrows at least 4 inches in diameter that open up within 2 feet), potential den entrances shall be dusted for 3 calendar days to register track of any San Joaquin kit fox present. If no San Joaquin kit fox activity is identified, potential dens within the project footprint (an area that will be directly affected by construction equipment) may be destroyed. If San Joaquin kit fox activity is identified, then dens shall be monitored to determine whether they are occupied by an adult fox only or if they are natal dens (natal dens usually have multiple openings). If the den is occupied by an adult only, the den may be destroyed when the adult fox has moved or is temporarily absent. If the den is a natal den, a buffer zone of 250 feet shall be maintained around the den until the biologist determines that the den has been vacated.
- Where San Joaquin kit fox and/or their dens are identified, the provisions of the *Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS, 1999a) shall apply (except that preconstruction survey protocols shall remain as established in this measure). These standards include provisions for educating construction workers regarding the San Joaquin kit fox, keeping heavy equipment operating at safe speeds, checking construction pipes for San Joaquin kit fox occupation during construction, and similar low or no-cost activities.
- To prevent accidental entrapment of San Joaquin kit fox or other animals during construction, all excavated or steep-walled holes or trenches deeper than 2 feet will be covered at the end of each workday by plywood or similar materials, provided with escape routes constructed of earth fill or wooden planks, or enclosed within wildlife exclusion fencing. Escape ramps will not be required in

holes or trenches having less than a 2:1 slope on at least one wall. Holes and trenches with walls steeper than 2:1 (horizontal to vertical) will be thoroughly inspected for trapped animals before they are filled.

- San Joaquin kit foxes are attracted to den-like structures such as pipes and may enter stored pipe and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at construction areas overnight for one or more nights will be thoroughly inspected for San Joaquin kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved.

Mitigation Measure M-BI-14: Hazardous Material Spill Prevention, Control, and Countermeasures

- Prior to construction, the SFPUC will require its contractors to prepare a Hazardous Material Spill Prevention, Control, and Countermeasure Plan. This plan will minimize the potential for and the effects of spills of hazardous, toxic, or petroleum substances. SFPUC will review and approve the Hazardous Materials Spill Prevention, Control, and Countermeasure Plan before construction begins. The plan will be implemented throughout the entire project area and will include, at a minimum, the following:
 - The plan will describe storage procedures and construction area housekeeping practices and will identify the parties responsible for monitoring and spill response.
 - Hazardous material spill cleanup kits will be on hand at all active work sites.
 - Fueling and maintenance of vehicles will occur at least 100 feet from any riparian habitat or water body to provide a sufficient buffer to prevent runoff or groundwater seepage of a spilled material to the resource before cleanup occurs.
 - The current federal reportable spill quantity for petroleum products as defined by the U.S. EPA (40 Code of Federal Regulations 110) is any oil spill that (1) violates applicable water quality standards; (2) causes a film or sheen upon or discoloration of the water surface or adjoining shoreline; or (3) causes a sludge or emulsion to be deposited beneath the surface of the water or

adjoining shorelines. If a spill of petroleum products is of a quantity that is required by law to be reported, the contractor's superintendent will immediately notify the proper city and county authorities and the California Department of Toxic Substances Control, which have spill response and clean-up ordinances and regulations to govern emergency spill response. A written description of reportable releases will be submitted to the Central Valley Water Board. This submittal will include the type of material released, an estimate of the amount spilled, the date of the release, an explanation of why the spill occurred, and a description of the steps taken to prevent and control future releases. The releases will be documented on a spill report form.

- If a reportable spill has occurred and results determine that project activities have adversely affected surface water or groundwater quality in excess of water quality standards, a detailed analysis will be performed by a qualified professional to identify the likely cause of contamination. This analysis will include recommendations for reducing or eliminating the source or mechanisms of contamination. Based on this analysis, SFPUC and/or its contractors will identify and implement measures to control contamination, with a performance standard that water quality is returned to conditions existing prior to the spill.
- SFPUC will routinely inspect the construction area to verify that the measures specified in the plan are properly implemented and maintained. SFPUC will immediately notify the contractor if there is a noncompliance issue and will require compliance.

Mitigation Measure M-BI-15: Avoidance, Minimization, and Compensation Measures for Wetlands and Other Waters of the United States and the State

- The following measure shall apply throughout the entire project area. During project design, SFPUC will consult maps of existing wetland and other waters of the United States and state in the project area. Project construction and maintenance shall avoid direct and indirect impacts to wetlands and other waters of the United States and the state, wherever feasible. Where the project cannot avoid disturbance, the SFPUC will employ measures to minimize direct and indirect impacts to wetlands and other waters of the United States and the state. These

measures will be developed in consultation with the Central Valley Water Board and the USACE and will include, but are not limited to, the following:

- Prior to the start of construction, a qualified wetland scientist will identify all avoidable and unavoidable wetlands and other waters within project limits. Identification will be based on final engineering specifications and existing maps of all wetlands and waters within the study area.
- All wetlands and other waters identified for avoidance will be clearly marked in the field throughout construction. Under the direction of a qualified wetland scientist, the contractor shall install fencing (silt fencing or orange construction barrier fencing) along the edge of all construction areas within 100 feet of wetlands and other waters identified for avoidance. The contractor shall install erosion and sediment control measures (e.g., silt fence or straw wattles) along the edge of all construction areas that are upslope and within 100 feet of wetlands and other waters to control soil erosion and prevent sediment from flowing into these sensitive aquatic habitats. If wetlands or other waters encroach into the construction area and can be avoided, the contractor shall fence these areas above the ordinary high water mark. Mitigation for areas that cannot be avoided and that cannot be restored will take place off site, as discussed below.
- The SFPUC will ensure that construction contract specifications contain clear language stating that construction-related activities, vehicle operation, material and equipment storage, and other surface-disturbing activities are prohibited within the fenced environmentally sensitive area.
- If direct impacts to wetlands and other waters of the United States and the state are unavoidable, the SFPUC will compensate for such impacts by implementing wetland restoration, creation, or enhancement, or a combination of these measures, to ensure no net loss of wetland extent or function. Prior to the start of construction, the SFPUC will prepare a restoration and compensation plan that will include, but is not limited to, the following:
 - All disturbed wetlands and other waters will be restored

on site, to the greatest extent feasible.

- All habitats that are restored, enhanced, or created off site will be similar to the functions and values of the affected wetland habitats.
- Plans for restored, enhanced, or created habitats will meet regulatory requirements and will include a description and schedule of maintenance and management activities to ensure the continued viability of the habitats once initial construction is completed, and will include the time period and other parameters to measure the success and viability of the restoration, enhancement or creation.
- Compensation will result in no net loss of habitat functions and values and will be provided at a minimum ratio of 1:1 for permanent impacts to sensitive habitats depending on the relative functions and values of the impacted area to the proposed mitigation site as confirmed by the applicable resource agencies, including USFWS, USACE, Central Valley Water Board, and CDFW in accordance with appropriate regulatory requirements.

Mitigation Measure M-BI-16: Avoidance and Minimization Measures for California Tiger Salamander and Western Spadefoot

- The following mitigation measures for avoiding and minimizing impacts to the California tiger salamander (*Ambystoma californiense*), federally and state-listed Threatened (USFWS/CDFW), will be implemented for all construction activities throughout the entire project area, as described below. These measures may be further developed and implemented in consultation with the USFWS and CDFW during a Section 7 consultation.
- Because the California tiger salamander and western spadefoot (*Spea* (= *Scaphiopus*) *hammondi*), a California species of special concern (CDFW), have similar habitat requirements and life cycles, the following measures will also apply to potential impacts to the western spadefoot.
 - Where feasible, construction activities in potential habitat will be timed to occur during the dry season (nonbreeding season for California tiger salamander and western spadefoot) (15 April to 15 October) to minimize impacts to dispersing salamanders and toads.

- Where construction is necessary during the breeding season (15 October to 15 April) in areas with known salamander or toad populations, the SFPUC will employ measures to minimize potential adverse effects during construction activity. These measures will be developed in consultation with USFWS and CDFW and will include exclusion and/or relocation of animals, as necessary and as discussed below.
 - Construction areas where potential habitat has been identified will be fenced with temporary exclusion fencing made of silt fence material. Prior to the start of construction, a qualified biologist or workers under direct supervision of a qualified biologist will survey burrows and other areas within the exclusion fencing for salamanders and toads, and relocate any individuals outside the fence.
- Ponds, natural drainages, and wetlands in the construction area shall be avoided to the greatest extent practicable so that California tiger salamander and western spadefoot breeding habitats are not impacted by the project. If avoidance of aquatic habitat is infeasible, aquatic surveys will be conducted to determine whether California tiger salamander or western spadefoot eggs or larvae are present in the construction area during the breeding season. If California tiger salamander or western spadefoot eggs or larvae are found in a construction area, or downstream of pipeline discharge locations, work activities will be delayed until appropriate avoidance and minimization measures have been developed in consultation with the USFWS. Such measures may include relocation of egg masses and larval salamanders or toads to suitable undisturbed habitat.
- Upland habitats that are potentially suitable aestivation or refugia habitat for California tiger salamanders or western spadefoot toads (i.e., those within 1.24 miles of potential breeding sites) will be surveyed prior to construction to identify burrows or other potential sites that might be occupied by this species. To the extent feasible, potentially occupied burrows will be temporarily fenced and avoided.
- At locations where potential aestivation or refugia habitat

cannot be avoided, burrows may be inspected using a specialized camera scope prior to construction. If individual animals are observed, occupied burrows may be excavated by hand and the individuals moved to a natural or artificial burrow constructed of polyvinyl chloride pipe within 0.25 mile of the construction site.

- Depending on the number of burrows identified within the construction area, it may not be feasible to inspect all potentially occupied burrows using a camera scope. Where potentially occupied burrows cannot be avoided or inspected for the presence of aestivating amphibians, a qualified biologist or workers under direct supervision of a qualified biologist will be present while trenches and pits are excavated in potential habitat. Prior to the start of each working day, a qualified biologist or individual under the direct supervision of a qualified biologist will examine any open trenches or pits. Any sensitive species found in an open trench or pit will be relocated out of the work area by a qualified biologist or workers under direct supervision of a qualified biologist.

Mitigation Measure M-BI-17: Avoidance and Minimization Measures for California Red-Legged Frog and Foothill Yellow-Legged Frog

- This mitigation measure for avoiding and minimizing impacts to the California red-legged frog (*Rana draytonii* [=aurora draytonii]), federally listed as Threatened, and a California species of special concern (USFWS/CDFW), shall be implemented between MP 49.84 and MP 55.15, between MP 96.52 and MP 97.26, and at MP 49.84 for the foothill yellow-legged frog (*Rana boylei*), a California species of special concern (CDFW). All potential foothill yellow-legged frog habitat is also considered potential habitat for California red-legged frog. Therefore, the following measures will also protect the foothill yellow-legged frog:
 - The name and credentials of a biologist qualified to act as a construction monitor will be submitted to the USFWS for approval at least 15 days prior to commencement of work.
 - The USFWS-approved biologist will survey potentially suitable habitat site 14 days prior to the onset of work activities and immediately prior to commencing work. If frog adults, tadpoles, or eggs are found, the approved biologist will contact the USFWS to determine whether

relocating any life stages is appropriate.

- The methods of the capture and relocation effort will be developed in consultation with USFWS. Potential capture methods include dip-netting, seining, or minnow trapping.
- Any California red-legged frogs and foothill yellow-legged frogs captured shall be relocated to protected mitigation preserves or suitable habitat that will not be impacted by the project.
- If construction activities occurring during the rainy season have the potential to disrupt redlegged frog migration routes, site monitoring will occur with sufficient frequency to relocate animals to prevent predation on or take of individuals.
- If worksites in potentially occupied habitat for special-status amphibians require dewatering during the breeding season, the intakes will be screened with a maximum mesh size of 5 millimeters.
- These measures may be further developed and implemented in consultation with the CDFG and/or USFWS during a Section 7 consultation.

Mitigation Measure M-BI-18: Avoidance and Minimization Measures for Western Pond Turtle

- In addition to measures described for California red-legged frog, which will also serve to protect western pond turtles (*Actinemys marmorata*), a California species of special concern (CDFW), the following measures will minimize adverse effects to western pond turtles at aquatic habitats throughout the entire project area (excluding vernal pools, swales, and seeps):
 - To the extent practicable, all aquatic habitats and upland areas within 500 feet of aquatic habitats will be avoided.
 - If avoidance is infeasible, preconstruction surveys in suitable habitat will be conducted to determine if the western pond turtle could be affected by construction activities. To determine presence or absence, three diurnal surveys will be conducted between the months of June and August. During these months, pond turtles are typically identified basking on logs, creek banks, or pond edges.
 - If pond turtles are found in an aquatic feature that will be

affected by the project, or if the uplands within 500 feet of this aquatic feature will be affected by the project, a wildlife biologist will be present during excavation.

- If nesting areas for pond turtles are identified, a no-disturbance buffer will be established around the nest location to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified wildlife biologist determines that the hatchlings have emerged (the period from egg laying to emergence of hatchlings is normally April to November). The extent of no-disturbance buffers will be determined by a qualified wildlife biologist in consultation with the CDFW.
- If any aquatic habitat must be dewatered, a qualified biologist or workers under direct supervision of a qualified biologist will be present during dewatering, and will attempt to salvage turtles. Any captured turtles will be relocated out of the construction zone to a safe environment suitable for occupation by turtles. Since pond turtles will submerge themselves in the wet mud during pond draining, the biologist will be present throughout the draining, and will thoroughly inspect the mud for turtles.

Mitigation Measure M-BI-19: Avoidance and Minimization Measures for San Joaquin Whipsnake and California Horned Lizard

- The following measure will be applied between MP 49.84 to MP 51.56 and between MP 96.50 and MP 97.26 to minimize adverse effects to the California horned lizard (*Phrynosoma coronatum frontale*), a California species of special concern (CDFW), and at MP 97.26 for the San Joaquin whipsnake (*Masticophis flagellum ruddocki*), a California species of special concern (CDFW):
 - A qualified biologist or workers under direct supervision of a qualified biologist will conduct preconstruction surveys for the California horned lizard and San Joaquin whipsnake in suitable habitat within the construction area. These surveys will be conducted between April and October when the species are most active and juveniles are likely to be present.
- If San Joaquin whipsnakes or California horned lizards are observed within the construction area, appropriate avoidance measures will be determined by a qualified biologist or workers under direct supervision of a qualified biologist, and shall

include the following measures:

- Construction activities in occupied habitat will be timed to occur during the species' active season (April to October) to minimize the potential for take of hibernating individuals.
- In coordination with CDFW, individuals observed during construction may be relocated to suitable habitat adjacent to the construction area. Individuals may be excluded from the work area, if feasible.
- These measures may be further developed and implemented in consultation with the CDFW.

Mitigation Measure M-BI-21: Avoidance, Minimization, and Compensation Measures for Vernal Pool Branchiopods and Designated Critical Habitat

- The following mitigation measure will apply to Conservancy fairy shrimp (*Branchinecta conservatio*), longhorn fairy shrimp (*Branchinecta longiantenna*), vernal pool tadpole shrimp (*Lepidurus packardii*), all federally listed Endangered (USFWS), and vernal pool fairy shrimp (*Branchinecta lynchi*), federally listed Threatened (USFWS), for ground-disturbing activities between MP 49.84 and MP 60.13 and between MP 82.45 and MP 85.36.
- Prior to construction, and with USFWS approval, surveys will be conducted to establish whether listed invertebrates may be present within the construction area. Suitable habitat for vernal pool invertebrates will be avoided, minimized, and compensated for according to Mitigation Measure M-BI-15: Avoidance, minimization, and compensation measures for wetlands and other waters of the United States and the state.
- Measures for avoiding and minimizing impacts to vernal pool branchiopods and vernal pool branchiopod critical habitat will include the following measures. These measures may be further developed and implemented in consultation with the USFWS during a Section 7 consultation.
 - Prior to project implementation, the SFPUC will supply the USFWS with a map that delineates the construction areas and vernal pool habitat contained within this area and a 250-foot buffer.
 - Impacts to vernal pools will be avoided to the greatest extent feasible. No ground-disturbing construction

activities will occur within 250 feet of vernal pools in all directions.

- If feasible, work will be timed to occur during the dry season (1 May through 15 October) when branchiopod habitat is less likely to be indirectly affected by erosion or sedimentation.
 - If construction activities must occur during the wet season, every effort will be made to avoid erosion or sedimentation effects or disruption of normal vernal pool hydrology.
 - Prior to construction, a qualified biologist or workers under direct supervision of a qualified biologist will determine buffer zones 250 feet from the wetland margins of all vernal pools that have the potential to be indirectly disturbed during construction, and clearly mark these zones as sensitive areas.
 - All ground-disturbing activities will be excluded from the buffer zone for the duration of construction. Only rubber-tired vehicles will be allowed within the buffer zone. No vehicles or personnel will be allowed within the wetland boundaries of the vernal pools to protect special-status plants and the cysts of listed vernal pool branchiopods.
 - Straw wattles or silt fences will be used outside of or at the edge of the buffer zone, as needed, to prevent sediment from nearby disturbed areas from reaching pools during rainy periods.
 - Upon completion of construction, all areas outside the buffer zone that have been temporarily impacted by the project will be restored generally to preconstruction conditions (e.g., topography, hydrology, and vegetation). It is anticipated that these measures will be sufficient to avoid impacts to vernal pool habitats and listed vernal pool branchiopods in the construction area. If impacts to vernal pools habitats are avoided, no compensatory mitigation will be required.
- If habitat is avoided (preserved) on site, then a USFWS-approved biologist will inspect any construction-related

activities at the construction area to ensure that no unnecessary take of listed species or destruction of their habitat occurs. The qualified biologist or workers under direct supervision of a qualified biologist will have the authority to stop all activities that may result in such take or destruction until appropriate corrective measures have been completed. The SFPUC will also be required to immediately report any unauthorized impacts to USFWS.

- If avoidance of vernal pool habitat is infeasible, impacts will be mitigated in consultation with the USFWS and shall be similar to the methods described in the Programmatic Biological Opinion (PBO) for vernal pool invertebrates, issued by the USFWS Sacramento Field Office (USFWS, 1996). The 1996 PBO describes the following conservation recommendation for directly impacted vernal pools:
 - “The uppermost layer of soil in seasonally ponded habitat may contain cysts of listed branchiopods as well as seeds of vernal pool plants. Therefore, before these wetlands are filled or graded, the top layer of soil should be made available to any vernal pool creation bank that requests it, with USFWS approval, for inoculating newly created pools. Soil stockpiled for this purpose or for onsite mitigation should be shielded from rain with a water-proof cover to ensure that it remains completely dry.”
- If compensatory mitigation for directly and indirectly impacted vernal pools is required, one of the two options below shall be employed, with the selected option subject to approval by USFWS.
- Preservation component. “For every acre of habitat directly or indirectly affected, at least two vernal pool credits will be dedicated within a USFWS approved ecosystem preservation bank, or, based on USFWS evaluation of site specific conservation values, 3 acres of vernal pool habitat may be preserved on the construction area or on another nonbank site as approved by the USFWS.”
- Creation component. “For every acre of habitat directly affected, at least one vernal pool creation credit will be dedicated within a USFWS-approved habitat mitigation bank, or, based on USFWS evaluation of site-specific conservation values, 2 acres of vernal pool habitat will be created and monitored on the construction area or on another nonbank site as approved by the Service.”

Mitigation Measure M-BI-22: Avoidance, Minimization, and
Compensation Measures for Valley Elderberry Longhorn Beetle

- The following mitigation measure for valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), federally listed Threatened (USFWS), will apply for brush and vegetation clearing activities at MP 67.30, MP 73.04, and MP 85.48 to MP 86.51, excluding the removal of orchard trees:
 - Prior to tree or brush clearing, a qualified biologist or workers under direct supervision of a qualified biologist will survey within the construction area for elderberry bushes, the host plant of the Valley elderberry longhorn beetle. Any located bushes will be flagged, and disturbance to Valley elderberry longhorn beetles shall be avoided by ensuring all activities take place 100 feet from the drip line of all elderberry shrubs, wherever feasible.
 - In areas where the 100-foot buffer must be encroached upon, a minimum 20-foot buffer zone shall be maintained from the drip line of the shrub at all times. Prior to encroachment into the 100-foot buffer, staking or flagging at the 20-foot zone shall establish a temporary barrier. Any areas of soil disturbance or vegetation clearing within 100 feet of an elderberry bush that are not agricultural areas will be restored and planted with native plant species.
 - When construction encroaches on the 100-foot buffer zone, an onsite biological monitor shall be present to ensure there is no encroachment into the 20-foot buffer zone and no damage occurs to any identified Valley elderberry shrubs, except with written permission from USFWS. Construction personnel will be briefed by a qualified biologist or workers under direct supervision of a qualified biologist on the need to avoid damaging elderberry plants and the possible penalties for not complying with these avoidance measures, consistent with FESA Section 9, 1973, as amended.
 - No insecticides, herbicides, fertilizers, or other chemicals that might harm the Valley elderberry longhorn beetle or its host plant will be used within 100 feet of any elderberry shrub with stems measuring 1 inch or greater in diameter at ground level.
 - Vehicles shall not exceed 15 miles per hour on nonpaved access roads within 200 feet of elderberry shrubs (as

marked on maps or in field) from April through June, to prevent dust from interfering with active adult Valley elderberry longhorn beetle.

- In the event that ground disturbance or vegetation clearing must occur within 20 feet of an elderberry bush, or that the removal of an elderberry bush becomes necessary, suitable avoidance measures will be applied, as described in the Conservation Guidelines for the Valley Elderberry Longhorn Beetle (USFWS, 1999b). Such measures may include preconstruction surveys for the presence of Valley elderberry longhorn beetles, relocation of elderberry bushes, and habitat restoration.

Mitigation Measure M-HY-1: Stormwater Pollution Prevention Plan

- Consistent with the requirements of the State Water Resources Control Board General Permit for Stormwater Discharges Associated with Construction Activity, the SFPUC shall undertake the proposed project in accordance with a project-specific SWPPP. The Central Valley Water Board, the primary agency responsible for protecting water quality within the project area, is responsible for reviewing and ensuring compliance with the SWPPP. This review is based on the general permit issued by the State Water Board.
- The recommended best management practices subject to review and approval by the Central Valley Water Board, include the measures listed below. However, the measures themselves may be altered, supplemented, or deleted during the Central Valley Water Board's review process, because the Central Valley Water Board has final authority over the terms of the SWPPP.
 - Existing vegetation will be preserved, where feasible.
 - Access roads will be maintained throughout the construction period, and will include seasonal, weather-related cleanup along the access roads.
 - Temporary roads and construction entrances will be stabilized, using non-toxic materials, to minimize tracking of mud and dirt.
 - Erosion and sedimentation controls will be tailored to the site and project.
 - Berms, ditches, or other structures may be used to divert natural surface runoff from entering the construction

areas.

- Straw-bale barriers or sediment fences will be installed along drainage channels to prevent movement of soils into creeks.
- Stockpiled soils will be protected from wind and rain.
- Biodegradable erosion control measures will be used whenever possible.
- Silt fences, check dams, ponds, basins, mulches, hydro-mulches, fiber rolls, drainage ditches, erosion control fabrics, and other necessary erosion control devices will be properly installed and maintained.

f.i. Less than Significant with Mitigation Incorporated:

- With proposed mitigation measures, the project is unlikely to have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.

f.ii. Facts in Support of Finding:

- Habitats in the study area include agriculture, blue oak woodland, California annual grassland, developed and landscaped land, riparian forest scrub, ruderal grassland, and wetlands including vernal pools. For the purposes of this analysis, sensitive natural communities include riparian habitats and natural communities identified as sensitive in the CNDDDB (CDFG, 2003). Wetlands and vernal pools are discussed in Response to 13c. Sensitive natural communities within the study area include riparian forest/scrub and blue oak woodland.

Maintenance of Access Roads, Transmission Towers, and Culverts

- Replacement of culverts and maintenance of transmission towers and access roads may require ground-disturbing activities within portions of the SJPL ROW containing sensitive natural communities, and could require trimming or removal of vegetation. This would be a potentially significant impact.
- Implementation of Mitigation Measures M-BI-1a, M-BI-2, M-BI-3, M-BI-5, and M-BI-24 would reduce potentially significant impacts to less-than-significant levels by substantially avoiding or minimizing potential for disturbance to these communities. Therefore, project-related impacts on sensitive natural communities from Maintenance of Access Roads, Transmission Towers, and Culverts would be less than significant with mitigation incorporated.
 - M-BI-1a, M-BI-2, M-BI-3, and M-BI-5, See Attachment C,

Section C.(1)e.ii. above

Mitigation Measure M-BI-24: Replacement of Native Trees

- SFPUC will replace any mature native tree (defined as a native tree that is at least 6 inches in diameter at breast height) removed from the project area or substantially trimmed during construction, excluding nonnative, ornamental, and agricultural trees such as those planted in orchards, parks, and private residences. The SFPUC will adhere to the following guidelines:
 - Prior to the start of construction, a qualified professional (e.g., biologist, forester, or arborist) will identify and measure all trees that must be removed or substantially trimmed within the dripline above- or below-ground as part of the project. The number, species, and size of impacted trees will be used to develop a tree replacement plan.
 - Replacement trees will be the same species as those removed.
 - Trees will be planted at a ratio of 6:1 to replace affected trees with diameter at breast height less than 12 inches and at a ratio of 10:1 to replace affected trees with a diameter at breast height greater than 12 inches.
 - Replacement trees shall be grown from locally collected seeds or cuttings; no rooted trees will be collected for planting purposes.
 - Selection of replacement sites and installation of replacement plantings will be supervised by a qualified professional (e.g., arborist, horticulturist, or restoration specialist).
 - Initial tree replacement will occur in the first year after project construction at a favorable period, as determined by the qualified professional.
 - If specific trees to be removed are designated as heritage trees (or similar local designation), then SFPUC will replace the trees, consistent with requirements in local ordinances.
 - To the extent feasible, trees will be planted outside of the ROW or in locations that will not affect the buried pipelines, in close proximity to removal sites in suitable habitat for the replacement species.
 - Protection from grazing and rodent damage, such as

biodegradable tubes surrounding the planting and underground wire mesh, will be installed with tree plantings.

- Irrigation of trees during the initial establishment period will be provided as determined necessary by a qualified professional.
- The qualified professional will monitor newly planted trees at least once a year for 5 years. Each year, any trees that do not survive will be replaced. Trees planted as remediation for failed plantings during the first 3 years following construction will be included in meeting the 5-year performance standard. The performance standard shall be survival of at least 25 percent of all plantings after 5 years. If the performance standard is not met after 5 years, SFPUC shall implement additional plantings as necessary until 25 percent of all plantings have survived for at least 5 years.

g.i. Less than Significant with Mitigation Incorporated:

- With proposed mitigation measures, the project is unlikely to have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

g.ii. Facts in Support of Finding:

- Any activity that fills, destroys, degrades the water quality or disturbs the natural hydrology of a wetland or other water of the United States and the state would be a potentially significant impact.

Maintenance of Access Roads, Transmission Towers, and Culverts

- System Maintenance would include the periodic repair or replacement of the approximately 80 culverts within the project area. Culverts are manmade structures that convey water beneath roads or other utilities. Culverts the project area convey water associated with a variety of jurisdictional wetlands and other waters, including seasonal streams, seasonal wetlands, and canal/ditches. Excavation, removal of culverts, and backfilling would have direct impacts on jurisdictional waters, including placement of fill, disruption of hydrology, and degradation of water quality. This activity would be a potentially significant impact.
- Implementation of Mitigation Measures M-BI-1a, M-BI-2, M-BI-14, M-BI-15, and M-HY-1 would reduce potentially significant impacts to less-than-significant levels through avoiding or minimizing the potential for

disturbance to wetlands and other waters of the United States and the state, or by providing compensation for unavoidable impacts. Thus, impacts to wetlands and other waters of the United States and the state would be less than significant with mitigation incorporated.

- M-BI-1a, M-BI-2, M-BI-14, M-BI-15, and M-HY-1, See Attachment C, Section C.(1)e.ii. above

h.i. Less than Significant with Mitigation Incorporated:

- With proposed mitigation measures, the project is unlikely to violate any water quality standards or waste discharge requirements.

h.ii. Facts in Support of Finding:

Maintenance of Access Roads, Transmission Towers, and Culverts

- Ground-disturbing activities would be performed periodically and on an as-needed basis along access roads, at the base of transmission towers, and at culverts along the SJPL ROW; and along access roads outside of the SJPL ROW. These activities have the potential to degrade water bodies that receive surface-water runoff from construction sites by increasing the amount of suspended sediment, turbidity, toxins, or chemicals in the construction stormwater discharge. This would be considered a potentially significant impact; however, the SFPUC would implement site-specific best management practices to reduce erosion for all project ground-disturbing activities. These practices could include placement of straw rolls around stormwater inlets, installation of silt fences, and covers on soil stockpiles. For these small construction sites (less than 1 acre), these practices would reduce the potential for erosion and sedimentation to impact water quality. Culvert replacement and some transmission tower work would require small-scale excavation that could also require dewatering of the excavated area. Depending on the location of the work, groundwater would be discharged either to land, in compliance with the Statewide General Waste Discharge Requirements for Discharges to Land with Low Threat to Water Quality, Order Number 2003-0003-DWQ; or to surface waters, in compliance with NPDES General Permit Order No. R5-2008-0081, NPDES No. CAG995001, Waste Discharge Requirements General Order for Dewatering and Other Low Threat Discharges to Surface Waters. Given the nature of the work, the potential for water quality and waste discharge violations is relatively low, but if they were to occur, such violations may result in potentially significant impacts to water quality. Implementation of Mitigation Measure M-HY-2: Excavation dewatering and groundwater management plan, and M-HY-3: Flood flow protection measures, would reduce impacts to a less-than-significant level by ensuring that, before discharge, groundwater would meet applicable water quality

and waste discharge objectives, and would restrict stockpiling of soils, storage of hazardous materials, or storage of construction equipment within the flood zone or floodway. Therefore, impacts related to water quality and waste discharge violations would be less than significant with mitigation incorporated.

Mitigation Measure M-HY-2: Excavation Dewatering and Groundwater Management Plan

- In areas where groundwater dewatering would be required, the SFPUC will, prior to construction, conduct a site-specific investigation of the groundwater quality and conditions to develop a site-specific and discharge specific dewatering plan. This effort will include data collection and analysis to evaluate treatment, handling, and disposal options of the groundwater, in compliance with applicable local standards and permit requirements.
- The SFPUC will ensure that the contractor will prepare and implement a dewatering plan before discharge, to ensure that the discharge water will meet applicable water quality and waste discharge objectives in the Basin Plan and General Permit, and will meet other requirements specified in the SWPPP.

Mitigation Measure M-HY-3: Flood Flow Protection Measures

- The SFPUC will prohibit the stockpiling of soil, storage of hazardous materials, and stockpiling of construction materials in flood zones, where practical. Where construction occurs in areas of the flood zone, making it impractical to implement this requirement (i.e., too far from the edge of a large flood zone), the SFPUC will implement measures to protect stockpiled soil, sources of hazardous materials, and stockpiled construction materials from exposure to flood waters. These measures will consist of erosion control measures, such as covering stockpiles and securing hazardous materials, in construction contract specifications or the SWPPP prepared for the project.

i.i. Less than Significant with Mitigation Incorporated:

- With proposed mitigation measures, the project is unlikely to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion of siltation on- or off-site.

i.ii. Facts in Support of Finding:

Maintenance of Access Roads, Transmission Towers, and Culverts

- Minor ground-disturbing activities would be performed periodically and on an as-needed basis on access roads, at the base of transmission towers, and at culverts during maintenance activities. Culverts are regularly maintained and sometimes replaced, which involves excavating, removing the existing culvert, and installing a new culvert. These activities would not substantially or permanently alter site drainage patterns or alter the course of a stream or river; however, construction activities could temporarily alter site drainage patterns or the course of a stream. The SFPUC would implement site-specific best management practices to reduce erosion for all project excavation activities. These practices could include placement of straw rolls around stormwater inlets, installation of silt fences, and covering soil stockpiles. For small construction sites (less than 1 acre) these practices would reduce the potential for erosion and sedimentation from alteration of existing drainage patterns or alteration of the course of a stream or river. However, for larger projects with more ground disturbance and earthwork, there would be a greater potential for erosion and sedimentation. This would be considered potentially significant. The SFPUC would implement Mitigation Measure M-HY-1: Stormwater pollution prevention plan, which requires the SFPUC to prepare an SWPPP for clearing, grading, stockpiling, and excavation activities that result in disturbance of 1 acre or more. The SWPPP would describe the specific best management practices that will be used during construction to prevent the discharge of pollutants into stormwater runoff, such as use of soil binders during construction to prevent water-induced erosion of exposed soils.
- In addition, in areas where construction activities cross streams and water bodies, the SFPUC would implement Mitigation Measures M-BI-5: Restoration of construction areas; and M-BI-15: Avoidance minimization, and compensation measures for wetlands and other waters of the United States and the state. These measures require the SFPUC to restore the construction site to generally preconstruction conditions (including regrading and replanting of vegetation), and to restore all disturbed wetlands and habitats on site once construction is complete.
- Therefore, impacts from alteration of existing drainage patterns or alteration of the course of a stream or river resulting in erosion and sedimentation would be less than significant with mitigation incorporated.
 - M-BI-5, M-BI-15, and M-HY-1, See Attachment C, Section C.(1)e.ii. above

j.i. Less than Significant with Mitigation Incorporated:

- With proposed mitigation measures, the project is unlikely to create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

j.ii. Facts in Support of Finding:

Maintenance of Access Roads, Transmission Towers, and Culverts

- Minor ground-disturbing activities would be performed periodically and on an as-needed basis on access roads, at the base of transmission towers, and at culverts along the SJPL ROW, as well as along access roads outside of the SJPL ROW. Therefore, maintenance of access roads, transmission towers, and culverts would not increase the quantity of stormwater runoff volume. The construction activities that could temporarily affect stormwater quality (i.e., excavation, operation of construction equipment) would be as described under Response to 15a. These impacts would be potentially significant. Implementation of Mitigation Measures M-HY-2: Excavation dewatering and groundwater management plan, and M-HY-3: Flood flow protection measures, would reduce impacts to a less-than-significant level. Therefore, as described for Response to 15a, impacts from stormwater runoff associated with construction activities would be *less than significant with mitigation incorporated*.
 - M-HY-2 and M-HY-3, See Attachment C, Section C.(1)h.ii. above

k.i. Less than Significant with Mitigation Incorporated:

- With proposed mitigation measures, the project is unlikely to place within a 100-year flood hazard area structures that would impede or redirect flood flows.

k.ii. Facts in Support of Finding:

Maintenance of Access Roads, Transmission Towers, and Culverts

- Minor ground-disturbing activities are performed periodically on access roads, transmission towers, and culverts along the SJPL ROW, and also along access roads outside of the pipeline route, as needed. For the reasons described for Repair/Replacement, should maintenance activities be required within the FEMA-designated 100-year floodplain or State-Designated Floodway, impacts to the flood flows would be potentially significant. Implementation of Mitigation Measure M-HY-3: Flood flow protection measures, would reduce construction-related impacts to a less-than-significant level. In addition, for the same reasons described for Repair/Replacement, construction of new

facilities (e.g., culverts or transmission tower foundations) in the floodplain or State-Designated Floodway would be potentially significant. Implementation of Mitigation Measure M-HY-5: Site-specific design measures, requires that repaired/replaced structures be designed so as not to impede or redirect flood flows. Therefore, impacts would be less than significant with mitigation incorporated.

- M-HY-2 and M-HY-3, See Attachment C, Section C.(1)h.ii. above

Mitigation Measure M-HY-5: Site-Specific Design Measures

- Where components of the SJPL System are repaired or replaced within the FEMA-designated 100-year flood zone (MP 83.11 to MP 86.69) or State-Designated Floodway (MP 85.54 to MP 86.48), the SFPUC will design and install improvements almost entirely beneath the ground surface and riverbed so as to not impede or redirect flood flows once constructed. Project features will be designed to withstand flood flows and pass the floodwaters without significant flood-flow impedance or increase in erosion/siltation. For work within the State-Designated Floodway, the SFPUC will obtain any required encroachment permit(s) from CVFPB prior to the start of construction activities within the floodway and on levees. The application for an encroachment permit must include a description with drawings of the activities that will be performed within the floodway and on levees; an estimate of the quantity of material to be excavated (if any) and the proposed excavation methods; and a description of how materials will be stockpiled on the site, how debris and sediment will be handled, and how the site will be restored once work has been completed.

D. Determination

The Central Valley 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).) The Central Valley Water Board will file a NOD with the SCH within five (5) working days from the issuance of this Order. (California Code of Regulations, title 14, section 15096, subd. (i).)

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Attachment D – Reports and Notification Requirements

I. Copies of this form

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

- A. [Central Valley Regional Water Quality Control Board's Adopted Orders Web page](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/401_wqcerts/)
(https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/401_wqcerts/)
- B. Find your Order based on the County, Permittee, WDID No., and/or Project Name.

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 (Monthly Reports):** This report will be submitted monthly until a Notice of Project Complete Letter is issued.
 - **Part B (Project Status Notifications):** Used to notify the Central Valley 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: centralvalleysacramento@waterboards.ca.gov and cc: Carter.Cook@waterboards.ca.gov.
 - Include in the subject line of the email:
ATTN: Carter Cook; Project Name; and WDID No. 5B55CR00189.

III. 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 Completion of Discharges Letter:

This request by the Permittee to the Central Valley Water Board staff pertains to projects that have post construction monitoring requirements, e.g. if site restoration was required to be monitored for 5 years following construction. Central Valley Water Board staff will review the request and send a Completion of Discharges Letter to the Permittee upon approval. This letter will initiate the post-discharge monitoring period.

C. Request for Notice of Project Complete Letter:

This request by the Permittee to the Central Valley 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. Central Valley 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.

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

E. Effective Date:

24 October 2025

IV. 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.

V. Report and Notification Cover Sheet

Project: Hetch Hetchy Junction Culvert Replacements: HHJCCV-0.00M, HHJCCV-0.7M (0.78), culvert 025 Project

Permittee: San Francisco Public Utilities Commission

WDID: 5B55CR00189

Reg. Meas. ID: 461947

Place ID: 902283

Order Effective Date: 24 October 2025

Order Expiration Date: 23 October 2030

VI. Report Type Submitted

A. Part A – Project Reporting

Report Type 1 ☐ Monthly Report

Report Type 2 ☐ Annual Report- Not Applicable

B. Part B – Project Status Notifications

Report Type 3 ☐ Commencement of Construction

Report Type 4 ☐ Request for Notice of Completion of Discharges Letter

Report Type 5 ☐ Request for Notice of Project Complete Letter

C. Part C – Conditional Notifications and Reports

Report Type 6 ☐ Accidental Discharge of Hazardous Material Report

Report Type 7 ☐ Violation of Compliance with Water Quality Standards Report

Report Type 8 ☐ In-Water Work/Diversions Water Quality Monitoring Report

Report Type 9 ☐ Modifications to Project Report

Report Type 10 ☐ Transfer of Property Ownership Report

Report Type 11 ☐ Transfer of Long-Term BMP Maintenance Report

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

Print Name¹

Affiliation and Job Title

Signature

Date

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

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

Permittee's Signature

Date

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

A. Part A – Project Reporting

1. Report Type 1 - Monthly Report

- a. Report Purpose** - Notifies Central Valley Water Board staff of the Project status and environmental compliance activities on a monthly basis.
- b. When to Submit** - On the 1st day of each month after the submittal of the Commencement of Construction Notification until a Notice of Project Complete Letter is issued to the Permittee.
- c. Report Contents -**
 - i. Construction Summary

Describe 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). Best Management Practices (BMPs) is a term used to describe a type of water pollution or environmental control. If construction has not started, provide estimated start date.
 - ii. Event Summary

Describe distinct Project activities and occurrences, including environmental monitoring, surveys, and inspections.
 - iii. Photo Summary

Provide photos of Project activities. For each photo, include a unique site 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.
 - iv. Compliance Summary
 - List name and organization of environmental surveyors, monitors, and inspectors involved with monitoring environmental compliance for the reporting period.
 - List associated monitoring reports for the reporting period.
 - Summarize observed incidences of non-compliance, compliance issues, minor problems, or occurrences.
 - Describe each observed incidence in detail. List monitor name and organization, date, location, type of incident, corrective action taken (if any), status, and resolution.

2. Report Type 2 - Annual Report- Not Applicable

B. Part B – Project Status Notifications

1. Report Type 3 - Commencement of Construction

- a. Report Purpose** - Notify Central Valley 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.

2. Report Type 4 - Request for Notice of Completion of Discharges Letter

- a. Report Purpose** - Notify Central Valley Water Board staff that post-construction monitoring is required and that active Project construction, including any mitigation and permittee responsible compensatory mitigation, is complete.
- b. When to Submit** - Must be received by Central Valley Water Board staff within thirty (30) days following completion of all Project construction activities.
- c. Report Contents** -
 - i. Status of storm water Notice of Termination(s), if applicable.
 - ii. Status of post-construction storm water BMP installation.
 - iii. Pre- and post-photo documentation of all Project activity sites where the discharge of dredge and/or fill/excavation was authorized.
 - iv. Summary of Certification Deviation discharge quantities compared to initial authorized impacts to waters of the state, if applicable.
 - v. An updated monitoring schedule for mitigation for temporary impacts to waters of the state and permittee responsible compensatory mitigation during the post-discharge monitoring period, if applicable.

3. Report Type 5 - Request for Notice of Project Complete Letter

- a. Report Purpose** - Notify Central Valley 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 Central Valley Water Board staff within thirty (30) days following completion of all Project activities.

c. Report Contents -

i. Part A: Mitigation for Temporary Impacts

- 1) 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.
- 2) A report establishing that the performance standards outlined in the restoration plan have been met for restored areas of temporary impacts to waters of the state. Pre- and post-photo documentation of all restoration sites.

ii. Part B: Permittee Responsible Compensatory Mitigation

- 1) A report establishing that the performance standards outlined in the compensatory mitigation plan have been met.
- 2) Status on the implementation of the long-term maintenance and management plan and funding of endowment.
- 3) Pre- and post-photo documentation of all compensatory mitigation sites.
- 4) Final maps of all compensatory mitigation areas (including buffers).

iii. Part C: Post-Construction Storm Water BMPs

- 1) Date of storm water Notice of Termination(s), if applicable.
- 2) Report status and functionality of all post-construction BMPs.
- 3) Dates and report of visual post-construction inspection during the rainy season as indicated in XIV.C.4.

C. Part C – Conditional Notifications and Reports

1. Report Type 6 - Accidental Discharge of Hazardous Material Report

- a. Report Purpose** - Notifies Central Valley Water Board staff that an accidental discharge of hazardous material has occurred.
- b. When to Submit** - Within five (5) working days of notification to the Central Valley Water Board of an accidental discharge. Continue reporting as required by Central Valley 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 7 - Violation of Compliance with Water Quality Standards Report

- a. **Report Purpose** - Notifies Central Valley 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 Central Valley 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 Central Valley Water Board staff.

3. Report Type 8 - In-Water Work and Diversions Water Quality Monitoring Report

- a. **Report Purpose** - Notifies Central Valley Water Board staff of the start and completion of in-water work. Reports the sampling results during in-water work and during the entire duration of temporary surface water diversions.
- b. **When to Submit** – At least forty-eight (48) hours prior to the start of in-water work. Within three (3) working days following the completion of in-water work. Surface water monitoring reports to be submitted two (2) weeks on initiation of in-water construction and during entire duration of temporary surface water diversions. Continue reporting in accordance with the approved water quality monitoring plan or as indicated in XIV.C.3.
- c. **Report Contents** - As required by the approved water quality monitoring plan or as indicated in XIV.C.3.

4. Report Type 9 - Modifications to Project Report

- a. **Report Purpose** - Notifies Central Valley Water Board staff if the Project,

as described in the application materials, is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority.

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

5. Report Type 10 - Transfer of Property Ownership Report

- a. Report Purpose** - Notifies Central Valley Water Board staff of change in ownership of the Project or Permittee-responsible mitigation area.
- b. When to Submit** - At least 10 working days prior to the transfer of ownership.
- c. Report Contents** -
 - i. A statement that the Permittee has provided the purchaser with a copy of this Order and that the purchaser understands and accepts:
 - 1) the Order's requirements and the obligation to implement them or be subject to administrative and/or civil liability for failure to do so; and
 - 2) responsibility for compliance with any long-term BMP maintenance plan requirements in this Order. Best Management Practices (BMPs) is a term used to describe a type of water pollution or environmental control.
 - ii. A statement that the Permittee has informed the purchaser to submit a written request to the Central Valley Water Board to be named as the permittee in a revised order.

6. Report Type 11 - Transfer of Long-Term BMP Maintenance Report

- a. Report Purpose** - Notifies Central Valley 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.

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Attachment E – 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 Central Valley Water Quality Control Board (Central Valley 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 Central Valley 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.”

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Attachment F – Certification Deviation Procedures

I. Introduction

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

II. Process Steps

A. Who may apply:

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

B. How to apply:

By letter or email to the Water Quality Certification staff designated as the contact for this Order.

C. Certification Deviation Request:

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

1. Describe the Project change or modification:
 - a. Proposed activity description and purpose;
 - b. Why the proposed activity is considered minor in terms of impacts to waters of the state;
 - c. How the Project activity is currently addressed in the Order; and,
 - d. Why a Certification Deviation is necessary for the Project.
2. Describe location (latitude/longitude coordinates), the date(s) it will occur, as well as associated impact information (i.e., temporary or permanent, federal or non-federal jurisdiction, water body name/type, estimated impact area, etc.) and minimization measures to be implemented.
3. Provide all updated environmental survey information for the new impact area.
4. Provide a map that includes the activity boundaries with photos of the site.
5. Provide verification of any mitigation needed according to the Order conditions.
6. Provide verification from the CEQA Lead Agency that the proposed changes

or modifications do not trigger the need for a subsequent environmental document, an addendum to the environmental document, or a supplemental EIR. (Cal. Code Regs., tit. 14, §§ 15162-15164.)

D. Post-Discharge Certification Deviation Reporting:

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

E. Annual Summary Deviation Report:

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

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**Attachment G - Compliance with Code of Federal Regulations,
Title 40, Section 121.7, Subdivision (d)**

The purpose of this Attachment is to comply with Code of Federal Regulations, title 40, section 121.7, subdivision (d), which requires all certification conditions to provide an explanation of why the condition is necessary to assure that any discharge authorized under the certification will comply with water quality requirements and a citation to federal, state, or tribal law that authorizes the condition. This Attachment uses the same organizational structure as Section XIV of the Order, and the statements below correspond with the conditions set forth in Section XIV. The other Order Sections are not “conditions” as used in Code of Federal Regulations, title 40, section 121.7.

I. General Justification for Section XIV Conditions

Pursuant to Clean Water Act section 401 and California Code of Regulations, title 23, section 3859, subdivision (a), the Central Valley Water Board, when issuing water quality certifications, may set forth conditions to ensure compliance with applicable water quality standards and other appropriate requirements of state law. Under California Water Code section 13160, the State Water Resources Control Board is authorized to issue water quality certifications under the Clean Water Act and has delegated this authority to the executive officers of the regional water quality controls boards for projects within the executive officer’s region of jurisdiction. (California Code of Regulations, title 23, section 3838.)

The conditions within the Order are generally required pursuant to the Central Valley Water Board’s Water Quality Control Plan for the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fifth Edition, February 2019 (Basin Plan)., which was adopted and is periodically revised pursuant to Water Code section 13240. 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. For instance, the Basin Plan includes water quality objectives for chemical constituents, oil and grease, pH, sediment, suspended material, toxicity and turbidity, which ensure protection of beneficial uses.

The State Water Board’s Antidegradation Policy, “Statement of Policy with Respect to Maintaining High Quality Waters in California,” Resolution No. 68-16, requires that the quality of existing high-quality water be maintained unless any change will be consistent with the maximum benefit to the people of the state, will not unreasonably affect present or anticipated future beneficial uses of such water, and will not result in water quality less than that prescribed in water quality control plans or policies. The Antidegradation Policy further requires best practicable treatment or control of the discharge necessary to assure that pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of the state will be maintained. The Basin Plan incorporates this Policy. The state Antidegradation

Policy incorporates the federal Antidegradation Policy (40 C.F.R. section 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."

The State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Dredge or Fill Procedures), adopted pursuant to Water Code sections 13140 and 13170, authorize approval of dredge or fill projects only if the demonstrations set forth in Section IV.B.1 of the Dredge or Fill Procedures have been satisfied.

California Code of Regulations, title 23, sections 3830 et seq. set forth state regulations pertaining to water quality certifications. In particular, section 3856 sets forth information that must be included in water quality certification requests, and section 3860 sets forth standard conditions that shall be included in all water quality certification actions.

Finally, Water Code sections 13267 and 13383 authorize the regional and state boards to establish monitoring and reporting requirements for persons discharging or proposing to discharge waste.

II. Specific Justification for Section XIV Conditions

A. Authorization

Authorization under the Order is granted based on the application submitted. The Permittee is required to detail the scope of project impacts in a complete application pursuant to California Code of Regulations, title 23, section 3856, subdivision (h). Pursuant to Water Code section 13260, subdivision (c), each person discharging waste, or proposing to discharge waste shall file a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge. Pursuant to Water Code section 13264, subdivision (a), the Permittee is prohibited from initiating the discharge of new wastes, or making material changes to the character, volume, and timing of waste discharges authorized herein without filing a report required by Water Code section 13260 or its equivalent for certification actions under California Code of Regulations, title 23, section 3856.

B. Reporting and Notification Requirements

1. Project Reporting

2. Project Status Notifications

The reporting and notification conditions under Sections B.1 and B.2 are required to provide the Central Valley Water Board necessary project information and oversight to ensure project discharges are complying with applicable Basin Plan requirements. These monitoring and reporting requirements are consistent with the Central Valley Water Board's authority to

investigate the quality of any waters of the state and require necessary monitoring and reporting pursuant to Water Code sections 13267 and 13383. Water Code section 13267 authorizes the regional boards to require any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste to provide technical or monitoring program reports required by the regional board. Water Code section 13383 authorizes the regional boards to establish monitoring, inspection, entry, reporting, and other recordkeeping requirements, as authorized by Water Code section 13160, for any person who discharges, or proposes to discharge, to navigable waters.

3. Conditional Notifications and Reports

a. Accidental Discharges of Hazardous Materials

Conditions under Section B.3.a related to notification and reporting requirements in the event of an accidental discharge of hazardous materials are required pursuant to section 13271 of the Water Code, which requires immediate notification of the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the state toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.16) of Chapter 7 of Division 1 of Title 2 of the Government Code. "Hazardous materials" is defined under Health and Safety Code section 25501. These reports related to accidental discharges ensure that corrective actions, if any, that are necessary to minimize the impact or clean up such discharges can be taken as soon as possible.

b. Violation of Compliance with Water Quality Standards

c. In-Water work and Diversions

Conditions under Section B.3.b and B.3.c related to monitoring and reporting on water quality standard compliance and in-water work and diversions are required to provide the Central Valley Water Board necessary project information and oversight to ensure project discharges are complying with applicable water quality objectives under the Basin Plan. These monitoring and reporting requirements are consistent with the Central Valley Water Board's authority to investigate the quality of any waters of the state and require necessary monitoring and reporting pursuant to Water Code sections 13267 and 13383. Water Code section 13267 authorizes the regional boards to require any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste to provide technical or monitoring program reports required by the regional board. Water Code section 13383 authorizes the regional boards to establish monitoring, inspection, entry, reporting, and other recordkeeping requirements, as

authorized by Water Code section 13160, for any person who discharges, or proposes to discharge, to navigable waters.

d. Modifications to Project

Authorization under this Order is granted based on the application and supporting information submitted. Conditions under Section B.3.d are necessary to ensure that if there are modifications to the project, that the Order requirements remain applicable. The Permittee is required to detail the scope of project impacts in a complete application pursuant to California Code of Regulations, title 23, section 3856, subdivision (h). Pursuant to Water Code section 13260, subdivision (c), each person discharging waste, or proposing to discharge waste shall file a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge. Pursuant to Water Code section 13264, subdivision (a), the Permittee is prohibited from initiating the discharge of new wastes, or making material changes to the character, volume, and timing of waste discharges authorized herein without filing a report required by Water Code section 13260 or its equivalent for certification actions under California Code of Regulations, title 23, section 3856.

e. Transfer of Property Ownership

f. Transfer of Long-Term BMP Maintenance

Authorization under this Order is granted based on the application information submitted, including identification of the legally responsible party. Conditions under Sections B.3.e and B.3.f are necessary to confirm whether the new owner wishes to assume legal responsibility for compliance with this Order. If not, the original discharger remains responsible for compliance with this Order. Pursuant to Water Code section 13260, subdivision (c), each person discharging waste, or proposing to discharge waste shall file a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge. Pursuant to Water Code section 13264, subdivision (a), the Permittee is prohibited from initiating the discharge of new wastes, or making material changes to the character, volume, and timing of waste discharges authorized herein without filing a report required by Water Code section 13260 or its equivalent for certification actions under California Code of Regulations, title 23, section 3856.

C. Water Quality Monitoring

Conditions under Section C related to water quality monitoring are required to confirm that best management practices required under this Order are sufficient to protect beneficial uses and to comply with water quality objectives to protect

those uses under the Basin Plan. Applicable water quality objectives and beneficial uses are identified in the Order. These monitoring requirements are consistent with the Central Valley Water Board's authority to investigate the quality of any waters of the state and require necessary monitoring and reporting pursuant to Water Code sections 13267 and 13383. Water Code section 13267 authorizes the regional boards to require any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste to provide technical or monitoring program reports required by the regional board. Water Code section 13383 authorizes the regional boards to establish monitoring, inspection, entry, reporting, and other recordkeeping requirements, as authorized by Water Code section 13160, for any person who discharges, or proposes to discharge, to navigable waters.

D. Standard

1. This Order is subject to modification or revocation

This is a standard condition that "shall be included as conditions of all water quality certification actions" pursuant to California Code of Regulations, title 23, section 3860(a). This condition places the permittee on notice that the certification action may be modified or revoked following administrative or judicial review.

2. This Order is not intended and shall not be construed to apply to any activity involving a hydroelectric facility

This is a standard condition that "shall be included as conditions of all water quality certification actions" pursuant to California Code of Regulations, title 23, section 3860(b). This condition clarifies the scope of the certification's application.

3. This Order is conditioned upon total payment of any fee

This is a standard condition that "shall be included as conditions of all water quality certification actions" pursuant to California Code of Regulations, title 23, section 3860(c). This fee requirement condition is also required pursuant to California Code of Regulations, section 3833(b).

E. General Compliance

1. Failure to comply with any condition of this Order

The condition under Section E.1 places the Permittee on notice of any violations of Order requirements. Pursuant to Water Code section 13385, subdivision (a)(2), a person who violates any water quality certification issued pursuant to Water Code section 13160 shall be liable civilly.

2. Permitted actions must not cause a violation of any applicable water quality standards

Conditions under Section E.2 related to compliance with water quality objectives and designated beneficial uses are required pursuant to the Central Valley Water Board's Basin Plan. The Basin Plan's water quality standards 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. The Antidegradation Policy requires that the quality of existing high-quality water be maintained unless any change will be consistent with the maximum benefit to the people of the state, will not unreasonably affect present or anticipated future beneficial uses of such water, and will not result in water quality less than that prescribed in water quality control plans or policies. The Antidegradation Policy further requires best practicable treatment or control of the discharge necessary to assure that pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of the state will be maintained. Applicable beneficial uses and water quality objectives to protect those uses include the Chemical Constituents (Basin Plan, Section 3.1.3), Oil and Grease (Basin Plan, Section 3.1.10), pH (Basin Plan, Section 3.1.11), Sediment (Basin Plan, 3.1.15), Suspended Material (3.1.17), Toxicity (Basin Plan, 3.1.20), and Turbidity (Basin Plan, Section 3.1.21) water quality objectives.

3. In response to a suspected violation of any condition of this Order, the Central Valley Water Board may require

Conditions under Section E.3 related to monitoring and reporting are required to provide the Central Valley Water Board necessary project information and oversight to ensure project discharges are complying with applicable Basin Plan requirements. These monitoring and reporting requirements are consistent with the Central Valley Water Board's authority to investigate the quality of any waters of the state and require necessary monitoring and reporting pursuant to Water Code sections 13267 and 13383. Water Code section 13267 authorizes the regional boards to require any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste to provide technical or monitoring program reports required by the regional board. Technical supports submitted pursuant to Water Code section 13267 are required to be submitted under penalty of perjury. Water Code section 13383 authorizes the regional boards to establish monitoring, inspection, entry, reporting, and other recordkeeping requirements, as authorized by Water Code section 13160, for any person who discharges, or proposes to discharge, to navigable waters.

4. The Permittee must, at all times, fully comply with engineering plans, specifications, and technical reports

Authorization under the Order is granted based on the application and supporting information submitted. The Permittee is required to detail the project description in a complete application pursuant to California Code of Regulations, title 23, section 3856, subdivision (h). Pursuant to Water Code section 13260, subdivision (c), each person discharging waste, or proposing to discharge waste shall file a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge. Pursuant to Water Code section 13264, subdivision (a), the Permittee is prohibited from initiating the discharge of new wastes, or making material changes to the character, volume, and timing of waste discharges authorized herein without filing a report required by Water Code section 13260 or its equivalent for certification actions under California Code of Regulations, title 23, section 3856. Finally, compliance with conditions of the Order ensures that the Project will comply with all water quality standards and other appropriate requirements as detailed herein. (California Code of Regulations, title 23, section 3859, subdivision (a).)

5. This Order and all of its conditions herein continue to have full force and effect

This condition ensures continued compliance with applicable water quality standards and other appropriate requirements of state law. Notwithstanding any determinations by the U.S. Army Corps or other federal agency pursuant to 40 C.F.R. section 121.9, the Permittee must comply with the entirety of this certification because, pursuant to State Water Board Water Quality Order No. 2003-0017-DWQ, this Order also serves as Waste Discharge Requirements pursuant to the Porter-Cologne Water Quality Control Act.

6. The Permittee shall adhere to all requirements in the mitigation monitoring and reporting program

This condition ensures mitigation measures required to lessen the significance of impacts to water quality identified pursuant to California Environmental Quality Act review are implemented and enforceable. Pursuant to California Code of Regulations, title 14, section 15097, subdivision (a), a public agency shall adopt a program for monitoring and reporting on mitigation measures imposed to mitigate or avoid significant environmental effects to ensure implementation.

7. Construction General Permit Requirement- Not Applicable

F. Administrative

1. Signatory requirements for all document submittals

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

2. This Order does not authorize any act which results in the taking of a threatened, endangered, or candidate species

Pursuant to the California Endangered Species Act (Fish & Wildlife Code, sections 2050 et seq.) and federal Endangered Species Act (16 U.S.C. sections 1531 et seq.), the Order does not authorize any act which results in the taking of a threatened, endangered, or candidate species. In the event a Permittee requires authorization from the state or federal authorities, California Code of Regulations, title 23, section 3856(e), requires that copies be provided to the Central Valley Water Board of "any final and signed federal, state, and local licenses, permits, and agreements (or copies of the draft documents, if not finalized) that will be required for any construction, operation, maintenance, or other actions associated with the activity. If no final or draft document is available, a list of all remaining agency regulatory approvals being sought shall be included."

3. The Permittee shall grant Central Valley Water Board staff

The condition related to site access requirements is authorized pursuant to the Central Valley Water Board's authority to investigate the quality of any waters of the state within its region under Water Code section 13267 and 13383. Water Code section 13267, subdivision (c) provides that "the regional board may inspect the facilities of any person to ascertain whether the purposes of this division are being met and waste discharge requirements are being complied with." Water Code section 13383 authorizes the regional boards to establish monitoring, inspection, entry, reporting, and other recordkeeping requirements, as authorized by Water Code section 13160, for any person who discharges, or proposes to discharge, to navigable waters.

4. A copy of this Order shall be provided to any consultants, contractors, and subcontractors

This Condition ensures any agent of the Permittee is aware of Order requirements. Such conditions within the Order are necessary to ensure that all activities will comply with applicable water quality standards and other appropriate requirements (33 U.S.C. section 1341; California Code of Regulations, title 23, section 3859, subdivision (a)) and cannot be adhered to

if the Permittees' agents are unaware of applicable requirements. These conditions are necessary to ensure compliance with applicable water quality objectives and protection of beneficial uses found in the Basin Plan, adopted pursuant to Water Code section 13240, and detailed in the Order.

5. A copy of this Order must be available at the Project site(s) during construction . . .

This Condition ensures any agent of the Permittee is aware of Order requirements. Such conditions within the Order are necessary to ensure that all activities will comply with applicable water quality standards and other appropriate requirements (33 U.S.C. section 1341; California Code of Regulations, title 23, section 3859, subdivision (a)) and cannot be adhered to if the Permittees' agents are unaware of applicable requirements. These conditions are necessary to ensure compliance with applicable water quality objectives and protection of beneficial uses found in the Basin Plan, adopted pursuant to Water Code section 13240, and detailed in the Order.

6. Lake or Streambed Alteration Agreement

This condition is required pursuant to California Code of Regulations, title 23, section 3856, subdivision (e), which requires that copies be provided to the Central Valley Water Board of "any final and signed federal, state, and local licenses, permits, and agreements (or copies of the draft documents, if not finalized) that will be required for any construction, operation, maintenance, or other actions associated with the activity. If no final or draft document is available, a list of all remaining agency regulatory approvals being sought shall be included."

G. Construction

1. Dewatering

Conditions related to dewatering and diversions ensure protection of beneficial uses during construction activities. Work in waters of the state and temporary diversions must not cause exceedances of water quality objectives; accordingly, these conditions require implementation of best practicable treatments and controls to prevent pollution and nuisance, and to maintain water quality consistent with the Basin Plan and Antidegradation Policy. Further and consistent with the Dredge or Fill Procedures, section IV.A.2.c, water quality monitoring plans are required for any in-water work. Finally, dewatering activities may require a Clean Water Act section 402 permit or separate Waste Discharge Requirements under Water Code section 13263 for dewatering activities that result in discharges to land.

Conditions related to water rights permits are required pursuant to California Code of Regs, title 23, section 3856(e), which requires complete copies of

any final and signed federal, state, or local licenses, permits, and agreements (or copies of drafts if not finalized) that will be required for any construction, operation, maintenance, or other actions associated with the activity.

Conditions related to monitoring and reporting are required to provide the Central Valley Water Board necessary project information and oversight to ensure project discharges are complying with applicable Basin Plan requirements. These monitoring and reporting requirements are consistent with the Central Valley Water Board's authority to investigate the quality of any waters of the state and require necessary monitoring and reporting pursuant to Water Code sections 13267 and 13383. Water Code section 13267 authorizes the regional boards to require any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste to provide technical or monitoring program reports required by the regional board. Water Code section 13383 authorizes the regional boards to establish monitoring, inspection, entry, reporting, and other recordkeeping requirements, as authorized by Water Code section 13160, for any person who discharges, or proposes to discharge, to navigable waters.

2. Directional Drilling- Not Applicable

3. Dredging- Not Applicable

4. Fugitive Dust

This condition is required to assure that the discharge from the Project will comply with water quality objectives established for surface waters, including for chemical constituents and toxicity. (Basin Plan, Sections 3.1.3 & 3.1.20.) Chemicals used in dust abatement activities can result in a discharge of chemical additives and treated waters to surface waters of the state. Therefore, dust abatement activities shall be conducted so that sediment or dust abatement chemicals are not discharged into waters of the state and do not adversely affect beneficial uses. (Basin Plan, Section 2.1; Dredge or Fill Procedures, Section IV.B.1.)

5. Good Site Management "Housekeeping"

Conditions related to site management require best practices to prevent, minimize, and/or clean up potential construction spills, including from construction equipment. For instance, fuels and lubricants associated with the use of mechanized equipment have the potential to result in toxic discharges to waters of the state in violation of water quality standards, including the toxicity and floating material water quality objectives. (Basin Plan, Sections 3.1.7 & 3.1.20.) This condition is also required pursuant to Water Code section 13264, which prohibits any discharge that is not specifically authorized in this Order. Among other requirements, Section IV.B.1 of the

Dredge or Fill Procedures requires that Project impacts will not cause or contribute to a degradation of waters; or violate water quality standards.

6. Hazardous Materials

Conditions related to toxic and hazardous materials are necessary to assure that discharges comply with applicable water quality objectives under the Basin Plan, adopted under section 13240 of the Water Code, including the narrative toxicity and chemical constituents water quality objectives. (Basin Plan, Sections 3.1.3, 3.1.20.) Further, conditions related to concrete/cement are required pursuant to the Basin Plan's pH water quality objective. (Basin Plan, Section 3.1.11.)

7. Invasive Species and Soil Borne Pathogens

Conditions related to invasive species and soil borne pathogens are required to ensure that discharges will not violate any water quality objectives under the Basin Plan, adopted under Water Code section 13240 of the Water Code. Invasive species and soil borne pathogens adversely affect beneficial uses designated in the Basin Plan, such as rare, threatened, or endangered species; wildlife habitat; and preservation of biological habitats of special significance. (See Basin Plan, Section 2.1.) Among other requirements, Section IV.B.1 of the Dredge or Fill Procedures requires that Project impacts will not contribute to a net loss of the overall abundance, diversity, and condition of aquatic resources; cause or contribute to a degradation of waters; or violate water quality standards.

8. Post-Construction Storm Water Management- Not Applicable

9. Roads

These conditions are required to assure that discharges will comply with water quality standards within the Basin Plan. Specifically, activities associated with road maintenance have the potential to exceed water quality objectives for oil and grease, pH, sediment, settleable materials, temperature, and turbidity. (Basin Plan, Sections 3.1.10, 3.1.11, 3.1.15, 3.1.16, 3.1.19, 3.1.21.) Further, these conditions are required to assure that they do not result in adverse impacts related to hydromodification or create barriers to fish passage and spawning activities. Among other requirements, Section IV.B.1 of the Dredge or Fill Procedures requires that Project impacts will not contribute to a net loss of the overall abundance, diversity, and condition of aquatic resources; cause or contribute to a degradation of waters; or violate water quality standards.

10. Sediment Control

Conditions related to erosion and sediment control design requirements are required to sustain fluvial geomorphic equilibrium. Improperly designed and

installed BMPs result in excess sediment, which impairs surface waters, adversely affect beneficial uses, and results in exceedance of water quality objectives in the Basin Plan, including for sediment and turbidity. (Basin Plan, Sections 3.1.15 & 3.1.21.) Among other requirements, Section IV.B.1 of the Dredge or Fill Procedures requires that Project impacts will not contribute to a net loss of the overall abundance, diversity, and condition of aquatic resources; cause or contribute to a degradation of waters; or violate water quality standards.

11. Special Status Species

See F.2 above.

12. Stabilization/Erosion Control

Conditions related to erosion and sediment control design requirements are required to sustain fluvial geomorphic equilibrium. Improperly designed and installed BMPs result in excess sediment, which impairs surface waters, adversely affect beneficial uses, and results in exceedance of water quality objectives in the Basin Plan, including for sediment. (Basin Plan, Section 3.1.15.) Among other requirements, Section IV.B.1 of the Dredge or Fill Procedures requires that Project impacts will not contribute to a net loss of the overall abundance, diversity, and condition of aquatic resources; cause or contribute to a degradation of waters; or violate water quality standards.

13. Storm Water

Post-rain erosion and sedimentation problems can contribute to significant degradation of the waters of the state; therefore, it is necessary to take corrective action to eliminate such discharges in order to avoid or minimize such degradation. Implementation of control measures and best management practices described in the condition will assure compliance with water quality objectives including chemical constituents, floating material, sediment, turbidity, temperature, suspended material, and settleable material within the Basin Plan. (Basin Plan, Sections 3.1.1, 3.1.7, 3.1.15, 3.1.16, 3.1.17, 3.1.19, 3.1.21.) Among other requirements, Section IV.B.1 of the Dredge or Fill Procedures requires that Project impacts will not cause or contribute to a degradation of waters or violate water quality standards.

H. Site Specific- Not Applicable

I. Total Maximum Daily Load (TMDL)- Not Applicable

J. Mitigation for Temporary Impacts

The conditions under Section J require restoration of temporary impacts to waters of the state. Conditions in this section related to restoration and/or mitigation of temporary impacts are consistent with the Dredge or Fill

Procedures, which requires “in all cases where temporary impacts are proposed, a draft restoration plan that outlines design, implementation, assessment, and maintenance for restoring areas of temporary impacts to pre-project conditions.” (Dredge or Fill Procedures section IV. A.2(d) & B.4.) Technical reporting and monitoring requirements under this condition are consistent with the Central Valley Water Board’s authority to investigate the quality of any waters of the state and require necessary reporting and monitoring pursuant to Water Code sections 13267 and 13383.

K. Compensatory Mitigation for Permanent Impacts- Not Applicable

L. Certification Deviation

- 1. Minor modifications of Project locations or predicted impacts**
- 2. A Project modification shall not be granted a Certification Deviation if it warrants or necessitates**

Authorization under the Order is granted based on the application and supporting information submitted. Among other requirements, the Permittee is required to detail the project description in a complete application pursuant to California Code of Regulations, title 23, section 3856, subdivision (h). Pursuant to Water Code section 13260, subdivision (c), each person discharging waste, or proposing to discharge waste shall file a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge. Pursuant to Water Code section 13264, subdivision (a), the Permittee is prohibited from initiating the discharge of new wastes, or making material changes to the character, volume, and timing of waste discharges authorized herein without filing a report required by Water Code section 13260 or its equivalent for certification actions under California Code of Regulations, title 23, section 3856. Project deviations may require additional or different Order conditions as authorized by law to ensure compliance with applicable water quality standards and other appropriate requirements (33 U.S.C. section 1341; California Code of Regulations, title 23, section 3859, subdivision (a)) and may result in impacts to water quality that require additional environmental review (California Code of Regulations, title 14, sections 15062-15063).