



State Water Resources Control Board

WATER QUALITY ORDER NO. [XXXX-XXXX-DWQ] WASTE DISCHARGE REQUIREMENTS AND CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION

Effective Date:	Date Signed	Reg. Meas. ID:	428347
Expiration Date:	Expiration Date	Place ID:	855396
Program Type:	Fill/Excavation	WDID No:	SB21039IN
Project Type:	Utilities	USACE No:	

Project: Pacific Gas and Electric Company Bay Area Operations and Maintenance Program (Project)

Applicant: Pacific Gas and Electric Company

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I. Summary

This Order for Waste Discharge Requirements and Clean Water Act section 401 Water Quality Certification (Order), which includes Attachments A through F, provides Clean Water Act Section 401 Water Quality Certification for projects that require authorization from the U.S. Army Corps of Engineers (Corps) under Clean Water Act Section 404 and Rivers and Harbors Act of 1899 Section 10 and Section 14 (33 U.S.C. § 408, known as “Section 408”) and is issued at the request of Pacific Gas and Electric Company (hereinafter Permittee).

This Order covers operations and maintenance activities conducted by the Permittee related to natural gas pipelines and electric transmission and distribution line dredge, fill, excavation and associated activities that directly and indirectly discharge waste into waters and or impact water quality and beneficial uses in the nine counties surrounding the San Francisco Bay (Project Area Map—Attachment A). The categories of eligible operations and maintenance activities covered under this Order are listed in section V.

This Order is for the purpose described in application and supplemental information submitted by the Permittee. The application was received on January 10, 2019, and determined complete on December 20, 2021. Prior to receiving a complete application, Water Board staff issued multiple incomplete application notices and the Permittee provided supplemental information that clarified and modified the original application. Additionally, Water Board staff issued a Denial Without Prejudice on July 2, 2019.

II. Findings

- A.** This Order is adopted pursuant to section 401 of the Clean Water Act and the California Porter-Cologne Water Quality Control Act (Wat. Code §§ 13000, et seq.). Notwithstanding any determinations made by the U.S. Army Corps or other federal agency pursuant to 40 C.F.R. section 121.9, dischargers must comply with the entirety of this Order because the Order also serves as waste discharge requirements in accordance with State Water Board Water Quality Order No. 2003-0017-DWQ. Discharges to waters of the state are prohibited except when authorized in accordance with Water Code section 13264.
- B.** Failure to comply with any condition in this Order shall constitute a violation of the Porter-Cologne Water Quality Control Act and the Clean Water Act. The discharger may then be subject to administrative and/or civil liability pursuant to Water Code section 13385.
- C.** 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.

- D.** In response to a suspected violation of any condition of this Order, the Water Board may require the Permittee to furnish, under penalty of perjury, any technical or monitoring reports the Water Board deems 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 the permitted dischargers and activities comport with any applicable effluent limitations, water quality standards, and/or other appropriate requirement of state law.
- E.** This Order and all of its conditions contained herein continue to have full force and effect regardless of the expiration or revocation of any license or permit issued for the project.
- F.** This Order does not provide coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ or 2022-0057-DWQ; NPDES No. CAS000002) (Construction General Permit).
- G.** This Order does not authorize any act which results in the taking of a threatened, endangered or candidate species, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and G. Code, §§ 2050-2097) or the Federal Endangered Species Act (16 U.S.C. §§ 1531-1544). If a “take” will result from any act authorized under this Order, the Permittee must obtain authorization for the take prior to any construction or operation of the portion of the project that may result in a take. The Permittee is responsible for meeting all requirements of the applicable endangered species act for the project authorized under this Order.
- H.** This Order includes monitoring and reporting requirements pursuant to Water Code sections 13383 and 13267. The burden of preparing these reports, including costs, are reasonable to the need and benefits of obtaining the reports. The reports are intended to ensure that the best management practices required under this Order are sufficient to protect beneficial uses and water quality objectives. The reports related to accidental discharges also ensure that corrective actions that are necessary to prevent and minimize the impact of the discharge are taken as soon as possible. The anticipated costs are minimal as the reporting obligations require only visual monitoring and notification reporting.
- I.** The Water Board has satisfied the outreach requirements set forth in Water Code section 189.7 by conducting outreach in affected disadvantaged and tribal communities.
- J.** This Order authorizes future operation and maintenance activities throughout nine Bay Area counties. These activities may impact water quality in

disadvantaged and tribal communities. Pursuant to Water Code section 13149.2, the Water Board makes the following findings regarding anticipated water quality impacts and environmental justice concerns within the Board's authority in disadvantaged or tribal communities resulting from the issuance of this Order:

1. Based on readily available information, the Water Board anticipates that the issuance of this Order will result in limited water quality impacts and environmental justice concerns within the scope of the Board's authority. This Order authorizes work near and within Bay Area surface waters, including wetlands, tidal waters, and stream channels. The activities covered by this Order are limited to operation and maintenance of existing facilities, and most impacts will be temporary and last for less than one year. The temporary impacts will generally be related to site access and staging areas. For example, there could be temporary impacts to water quality where a staging area is adjacent to a water or when a project is located in waters (e.g., a utility pole replacement) and the area must be dewatered to conduct maintenance activities. The types of wastes associated with temporary impacts are largely the same as the wastes associated with construction: sediment and oil and grease. Permanent impacts, with a permanent loss of a portion or all of a water, may be authorized under this Order. Because only permanent impacts related to an existing facility would be covered by this Order, any permanent impacts are expected to be small. For example, an existing culvert may be replaced with a larger culvert.
2. The Water Board identified several conditions within the scope of its authority to address the permitted activity impacts. Those conditions are set forth in Order section IX. Even work within waters for a short duration can impact water quality in disadvantaged and tribal communities. For example, stream channel access may be temporarily blocked during utility pole replacement. To reduce impacts, this Order requires PG&E to restore impact sites as soon as possible after work occurs. Additionally, a sequence of actions must be taken before any impacts to waters may occur: impacts must be avoided (moved away from waters), minimized (through implementation of best management practices and design alternatives) and mitigated (with a beneficial project). Before any work is authorized under this Order, Water Board staff will review site-specific information to confirm that this sequence of actions has been taken. Implementation of these measures

will ensure that impacts will be minimal. For permanent impacts, compensatory mitigation is required. Generally, mitigation should be provided within the impacted watershed. Compensatory mitigation shall provide a minimum of a one-to-one mitigation to impact ratio, and this ratio is subject to increase at Water Boards staff discretion depending on factors such as distance between the impact site and mitigation site; uncertainty associated with the successful creation of a mitigation site; and whether the mitigation is in-kind or out-of-kind from the impacted aquatic resource(s).

III. Pacific Gas and Electric Company's Bay Area Operation and Maintenance Program

The Pacific Gas and Electric Company's Bay Area Operation and Maintenance Program consists of activities required to maintain safe and operable electrical and gas utility infrastructure, including operation and maintenance of the Permittee's gas and electrical transmission and distribution systems and minor new construction (e.g., inspecting and testing valves, enclosures, and other components; repairing and replacing facilities, structures, and access roads; electrical transmission and distribution reconductoring projects; gas pipeline replacement; and emergency repair and replacement). Notification shall be provided to the appropriate Regional Water Board before commencement of each activity.

IV. Project Location and Receiving Waters Information

An individual project authorized under this Order may occur at any of the Permittee's gas and electric transmission and distribution facilities, facility rights-of-way, access to the facilities, and mitigation areas located within the Operations and Maintenance Program Area, including all or portions of the nine Bay Area counties of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Sonoma, and Solano. A map showing the Project area is found in Attachment A of this Order.

The nine-county service area is within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board, the Central Valley Regional Water Quality Control Board, the Central Coast Regional Water Quality Control Board, and the North Coast Regional Water Quality Control Board (collectively Regional Water Boards). Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the applicable water quality control plan or policy. Statewide and regional water quality control 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/). Water quality control plans and policies, including 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, are issued in accordance with Water Code sections 13140, 13240 and 13170.

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 not to exceed maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use.

V. Description of Direct Impacts to Waters of the State

Individual projects eligible for coverage under this Order include a wide variety of activities that require a permit and may result in temporary impacts to waters of the state or may result in a permanent loss of waters of the state, including:

- A. Internal pipeline inspection and repair:** Inspection of pipelines for anomalies in accordance with the Pipeline Safety Act. If an anomaly is found, vegetation will be removed, the pipeline will be excavated, repaired and backfilled. Typical repairs include sleeve repairs involving sandblasting and welding.
- B. Valve recoating and replacement:** Replacement or recoating of malfunctioning or worn valves. To coat the entire valve to the connection point, vegetation will be removed, the valve must be excavated to expose the pipe and then backfilled once work is complete.
- C. Pipeline cathodic protection:** Installation of a type of anode (e.g., horizontal anode bed, flex anode, deep well anode) parallel and adjacent to the existing pipeline. The anode installation involves vegetation removal, trenching, backfilling, and recontouring upon completion.
- D. Pipeline lowering and replacement:** Replacement of pipeline segments due to damage caused by construction projects, acts of nature, or aging and corrosion. Replacement involves clearing vegetation and grading the rights-of-way, trenching and excavating the existing pipeline, and installing the new pipeline parallel and adjacent to the existing pipeline. The minimum length of pipe replaced is typically 40 feet (for one joint of pipe), though up to 1 mile could be replaced.
- E. Pipeline recoating and replacement:** Pipeline to be recoated is excavated (after vegetation is removed) and old coating is removed from the pipeline by jetting, scraping, or sandblasting. The surface of the pipe is prepared for the new coating by running a self-contained grit or shot-blasting machine over the area. Following repairs, the area is backfilled.
- F. Substation maintenance:** Accessing substations to perform maintenance tasks, which may require use of station property or adjacent property for construction staging and materials storage, which might require vegetation removal and/or fill to develop safe temporary work areas for equipment and crews, which may affect waters of the state.
- G. Transmission tower maintenance:** Conducting routine tower replacement and tower foundation repair, which involves work on tower foundations located in waters of the state. Depending on the topography of the site, any of the

following methods may be used to gain access to the site and/or stage materials: vegetation removal, rubber mats placed at footings, temporary boardwalk constructed, barges or helicopter. Cofferdams are installed for repairs to foundations submerged in water.

- H. Boardwalk maintenance: Repairs and maintenance related to boardwalks that service transmission facilities in the vegetated margins, mudflats, and open water around San Francisco Bay. All repair and replacement activities are completed manually and require the use of generators and handheld equipment. Access and staging to support boardwalk maintenance may require vegetation removal. Some work may be completed from barges and/or from the mudflat during low tide.
- I. Site-specific erosion solutions: Installation and maintenance of site-specific solutions such as biodegradable jute netting, riprap, or rock fill to remediate scouring and erosion that occurs within waterways resulting in pipe exposure and prevent further damage to the pipeline. Site preparation for site-specific erosion solutions may include vegetation removal.
- J. Water diversion techniques: Installation of a diversion structure (e.g., a dam or weir and a pump or headgate) to divert water through a temporary ditch or pipe to convey the water around a section of pipeline to be repaired. These techniques are employed to repair pipeline crossings within water features that have flowing water to minimize impacts to water quality and create a safe work area. Site preparation for water diversion may include vegetation removal.
- K. Power pole maintenance: Reinforce poles by installing trusses to existing poles, or fiber-wrapping the pole with preservative material to reduce rate of deterioration. Steel trusses are driven to pre-define depths and secured with high-strength steel banding. Remove poles that cannot be repaired and replace with new wood poles or light-duty steel poles, which may require the installation of guy wires and anchors, which could consist of a screw or a concrete structure, and the removal of vegetation.
- L. Line reconductoring: Replacing existing conductors with new conductors along the line. This may require staging areas, work areas, temporary guard structures, and pull sites (temporary construction areas) within waters of the state. Reconductoring is typically completed in 2- to 3-mile sections with the use of pull sites. Vegetation mowing and minor grading may be required to prepare pull sites. Mats or gravel may also be used in wet locations. Guard structures are typically standard wood poles across which temporary netting is strung; in some cases, specifically equipped boom trucks are used instead of poles.
- M. Site access development and maintenance: Routine operations and maintenance activities may require routine access road maintenance such as blading, moving or establishing berms, vegetation or debris clearing and making functional drain inlets to culverts, culvert repair, establishing

waterbars, repairing over-side drains, and the repair or replacement of storm water diversion devices. Protective security fencing is sometimes installed around pipeline facilities, which requires digging holes to install fence posts using an auger.

- N. Minor New Construction: Construction of facilities adjacent to existing facilities and/or in utility or road rights-of-way would be limited to new gas pressure limiting stations with an impact of up to 1 acre of natural vegetation, electrical substation expansions with up to 3 acres of impacts on natural vegetation, and underground electric lines.
- O. Other Activities: Additional operation and maintenance activities include natural gas line and electrical patrols and inspections, compressor station upgrades and maintenance, pipeline electric test system installations, telecom site maintenance, insulator washing or replacement, outage repairs, facility installations, and others. In the course of conducting these other activities, vegetation impacts may occur.
- P. Restoration and Mitigation Activities: In the course of implementing on-site permittee responsible mitigation for impacts resulting from activities covered under this Order, additional impacts to waters of the state may occur. This Order covers restoration and mitigation activities (e.g. native plantings, water crossing removal and restoration, and wetland enhancement) that result in up to one half (0.5) acre of aquatic resource impacts associated with the habitat management, monitoring, and enhancement activities carried out by the Permittee or by independent land managers providing mitigation for the Permittee to offset enrolled project impacts. This Order does not cover large scale, multi-acre, mitigation projects that offset impacts from several impact sites. Site-specific restoration or mitigation plans must comply with Order section IX. G and H conditions and be approved by the Water Board before any discharge may occur; remaining applicable Order conditions also apply.

Pacific Gas and Electric Company will describe all proposed project features, including those potentially offsite and/or adjacent to waters of the state which could result in impacts to waters of the state, in the Notice of Intent (NOI- Attachment B), which must be completed for authorization under this Order.

VI. Description of Indirect Impacts to Waters of the State

The Water Board recognizes the potential for indirect impacts to waters of the state associated with the Project. Indirect impacts may include, but are not limited to, sediment-laden stormwater runoff from bare surfaces exposed by operation and maintenance projects, spills of chemicals (fuels, lubricants, paints, etc.) used in operation and maintenance projects, and loss of shade to streams associated with impacts to riparian habitat. Impacts to waters of the state and their designated beneficial uses could potentially result from Project activities that are within or adjacent to the Project area. These potential indirect impacts are expected to be short term, and the expected severity of these impacts are adequately reduced

through adherence to this Order and the Mitigation Measures described in the Pacific Gas and Electric Company Bay Area Operations and Maintenance Incidental Take Permit Environmental Impact Report.

VII. Avoidance and Minimization

Projects that receive Water Board authorization must demonstrate that impacts to waters of the state are first avoided, and then minimized, to the greatest extent practicable. The avoidance and minimization measures in the Permittee's Bay Area Operations and Maintenance Habitat Conservation Plan and the Permittee's most current "Good Housekeeping Activity Specific Erosion and Sediment Control Plan" are incorporated by reference and shall be conducted during project activities. Additional activity-specific avoidance and minimization measures will be required for each project authorized by this Order.

VIII. Compensatory Mitigation

As determined by the appropriate Regional Water Board, the Permittee is required to provide compensatory mitigation to compensate for permanent, temporary, direct and/or indirect impacts as described in sections IX.G and H.

IX. Conditions

Compliance with conditions of this Order provides reasonable assurance that projects authorized under this Order will comply with state and federally approved water quality requirements. The Water Boards will independently review any project proposed for authorization under this Order to analyze impacts to water quality and designated beneficial uses within the applicable watershed(s). If the eligibility requirements set forth in this Order are not met, the Water Boards will not authorize the proposed project under this Order and instead require the project proponent to apply for an individual authorization or authorization under another order. In accordance with this Order, the Permittee may proceed with an authorized project under the following terms and conditions:

A. 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 C, including specifications for photo and map documentation during the Project. Written reports and notifications must be submitted using the Reporting and Notification Cover Sheet located in Attachment C, which must be signed by the Permittee or an authorized representative.

- 1. Request for Authorization:** The Permittee shall submit a complete NOI for authorization under this Order at least 45 days before any project activity. The NOI shall describe all proposed project impacts to waters of the state and project design steps taken to first avoid, and then minimize, impacts to waters of the state to the maximum extent practicable. The NOI shall also include a

delineation of waters of the state within impact sites. The NOI must provide all information requested in NOI Attachment B. The NOI must be provided on the NOI form found in Attachment B until an electronic application form is available on the State Water Board's webpage, at which time electronic submission will be required. An application fee must be provided with each NOI. The application fee amount is determined as required by the California Code of Regulations, title 23, sections 3833(b)(3) and 2200(a)(3).

2. The Water Boards shall determine whether the activity is eligible for Order coverage. The Water Boards will require the Permittee to apply for individual or general authorization where the activity would not comply with an applicable water quality control plan or policy even if coverage would otherwise be authorized by this Order. The Permittee may choose to apply for an individual water quality authorization.

3. Project Status Notifications

- a. **Commencement of Construction:** If required by the Regional Water Board, the Permittee shall submit a Commencement of Construction Report at least seven (7) days prior to start of initial ground disturbance activities and, if applicable, corresponding Waste Discharge Identification Number (WDID) issued under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ or 2022-0057-DWQ; NPDES No. CAS000002).
- b. **Project Reporting:** The Permittee shall submit a Quarterly or an Annual Report as required by the Water Board. Project reporting shall continue until the Water Board issues a Notice of Project Complete Letter to the Permittee.
- c. **Request for Notice of Project Complete Letter:** The Permittee shall submit a Request for Notice of Project Complete Letter when construction and any post-construction monitoring is complete, mitigation performance criteria have been achieved, and no further project activities will occur. This request shall be submitted to Water Board staff within thirty (30) days following completion of all project activities. Upon approval of the request, the Water Board staff shall issue a Notice of Project Complete Letter to the Permittee which will end associated annual fees. Completion of post-construction monitoring shall be determined by Water Board staff and shall be contingent on successful attainment of restoration and mitigation performance criteria.

4. Conditional Notifications and Reports:

The following notifications and reports are required as appropriate.

a. Accidental Discharges of Hazardous Materials¹

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:
 1. First call – 911 (to notify local response agency)
 2. Then call – Office of Emergency Services (OES) State Warning Center at: (800) 852-7550 or (916) 845-8911
 3. Lastly, follow the required OES procedures as set forth in the [Office of Emergency Services' Accidental Discharge Notification Web Page](https://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill_Booklet_Feb2014_FINAL_BW_Acc.pdf) (https://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill_Booklet_Feb2014_FINAL_BW_Acc.pdf)
- ii. Following notification to OES, the Permittee shall notify the appropriate Water Board, as soon as practicable (ideally within 24 hours). Notification may be delivered via written notice, email, or other verifiable means.
- iii. Within five (5) working days of notification to the Water Board, the Permittee must submit an Accidental Discharge of Hazardous Material Report.

b. Violation of Compliance with Water Quality Standards:

- i. The Permittee shall notify the Water Board of any event causing a violation of compliance with water quality standards. Notification may be delivered via written notice, email, or other verifiable means.
- ii. This notification must be followed within three (3) working days by submission of a Violation of Compliance with Water Quality Standards Report.

¹ "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. (Health & Saf. Code, § 25501.)

c. In-Water Work and Diversions:

- i. If required by the Water Board, the Permittee shall notify the Water Board at least forty-eight (48) hours prior to initiating work in water or installation of stream diversions. Notification may be delivered via written notice, email, or other verifiable means.
- ii. If required by the Water Board, within seven (7) working days following completion of in-stream water work or stream diversions, an In-Water Work/Diversions Water Quality Monitoring Report must be submitted to Water Board staff.

d. Modifications to Project:

The Permittee shall give advance notice to Water Board staff if project implementation as described in the NOI 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. Project modifications that may prevent compliance with this Order are prohibited.

e. Transfer of Property Ownership:

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

- i. The Permittee must notify the 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 Water Board at least 10 days prior to the transfer of ownership.
- 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 Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer or designer specifications. The Permittee must provide such notification to the Water Board with a Transfer of Long-Term BMP Maintenance Report at least 10 days prior to the transfer of BMP maintenance responsibility.

B. Water Quality Monitoring

1. **General:** If surface water is present, continuous visual monitoring shall be conducted during active construction to detect accidental discharge of

construction related pollutants (e.g., oil and grease, turbidity plume, or uncured concrete).

- 2. In-Water Work or Diversions:** For projects involving planned in-stream water work or stream diversions, an in-water work/stream diversion and water quality monitoring plan shall be submitted with the NOI. Water quality monitoring shall be conducted in accordance with the approved plan.
- 3. Accidental Discharges/Noncompliance:** If an accidental discharge occurs, the Permittee shall determine whether the discharge includes hazardous materials or will cause or contribute to an exceedance of water quality objectives, and if so, notify the Water Board in accordance with IX.A.4.a. Water Board staff may require additional water quality monitoring based on the discharge constituents and/or related water quality objectives and beneficial uses.
- 4. Post-Construction:** For activities that result in exposed soil in or on the banks of waters and that have not received a Notice of Project Complete Letter, the Permittee will visually inspect the project site as required in the approved restoration plan between October 30 and April 15 following each rain event that results in 0.5 inch of rainfall or more within a 48 hour period, until the Permittee demonstrates that applicable erosion control Best Management Practices are properly installed and the site is stabilized to prevent future erosion. The Permittee must demonstrate that excessive erosion, stream instability, and other water quality pollution is not occurring in or downstream of the project site. If water quality pollution is occurring, contact the Water Board staff member overseeing the project within three (3) working days. The Water Board may require the submission of a Violation of Compliance with Water Quality Standards Report.

C. Standard Conditions

- 1.** This action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330, and California Code of Regulations, title 23, chapter 28, Article 6 commencing with section 3867.
- 2.** This Order is not intended and shall not be construed to apply to any activity involving hydroelectric facility requiring a Federal Energy regulatory Commission (FERC) license or an amendment to a FERC license, unless pertinent certification application was filed pursuant to subsection 2855(b) of chapter 28, title 23 of the California Code of Regulations, and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
- 3.** This Order is conditioned upon total payment of any fee required under title 23 of the California Code of Regulations.

D. General Conditions

1. Permitted actions must not cause a violation of any applicable water quality standards, including impairment of designated beneficial uses for receiving waters as adopted in the Basin Plans by any applicable Regional Water Board, or any applicable Water Board water quality control plan or policy. The source of any such discharge must be eliminated as soon as practicable.
2. The Permittee must conform to the engineering plans, specifications, and technical reports submitted with the application materials. Water Code section 13264 prohibits any discharge that is not specifically authorized in this Order.
3. The Permittee shall adhere to all requirements in the mitigation monitoring and reporting program (MMRP) (Pacific Gas and Electric Bay Area Operation and Maintenance Incidental Take Permit Mitigation Monitoring and Reporting Program, July 2022) which is incorporated herein by reference and any additional measures as outlined in Attachment E, CEQA Findings of Fact.
4. **Cumulative Impacts:** Activities permitted under this Order shall not result in impacts that are significant when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects.
5. **Avoidance and Minimization:** Projects authorized under this Order shall be designed to avoid and minimize impacts to waters of the state to greatest practicable extent.

E. Administrative

1. Signatory requirements for all document submittals required by this Order are presented in Attachment D of this Order.
2. **Site Access:** The Permittee shall grant Water Board staff, Regional 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 compliance.

3. The Permittee shall be responsible for work conducted by its consultants, contractors, and any subcontractors. A copy of this Order shall be provided to any consultants, contractors, and subcontractors working on the project. Copies of this Order and the project's Notice of Applicability shall remain at the project site for the duration of the project. All personnel performing work on the project shall be familiar with the content of this Order and the project's Notice of Applicability and its posted location at the project site.
4. **Lake and Streambed Alteration Agreement:** The Permittee shall submit a signed copy of the California Department of Fish and Wildlife's Lake or Streambed Alteration Agreement (LSAA) to the Water Board prior to any discharge to waters of the state that requires an LSAA.

F. Construction Conditions

1. All materials and supplies necessary for implementing these construction conditions must be on-site and ready for use at the start of the construction activity and must remain in supply and ready for implementation throughout the construction process. All non-structural best management practice materials (e.g., training documents, compliance tracking procedures) must be ready for use at the start of construction.
2. All personnel who engage in construction activities or their oversight at the Project site (superintendent, construction manager, foreman, crew, contractor, biological monitor, etc.) must attend trainings on the conditions of this Order and how to perform their duties in compliance with those conditions. Every person shall attend an initial training within five working days of their start date at the Project site. Trainings shall be conducted by a qualified individual with expertise in 401 Water Quality Certification conditions and compliance.
3. Construction material, debris, rubbish, spoils, soil, silt, sawdust, rubbish, steel, welding slag, welding rods, waste material, waste containers, other organic or earthen material, or any other substances which could be detrimental to water quality or hazardous to aquatic life that is discharged as a result of project related activities shall be prevented from entering waters of the state. Spoils from excavations shall not be stored in waters of the state.
4. Environmentally sensitive areas and environmentally restricted areas, including any avoided waters of the state, must be clearly identified in the field for exclusion prior to the start of construction. Such identification must be properly maintained until construction is completed and the soils have been stabilized. Equipment, materials, or any other substances or activities that may impact waters of the state outside of the limits of project disturbance are prohibited.

5. Bridges, culverts, dip crossings, or other structures must be installed so that water and in-stream sediment flow is not impeded. Project design practices and materials which appropriately minimize impacts to waters must be used in areas where access roads intersect waters of the state.
6. 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.
7. 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 crossing structure.
8. Vegetation removal shall be limited to the minimum necessary to complete the proposed operation and maintenance activities as listed in this section. This Order does not allow vegetation management removal as a standalone activity.
9. Unless authorized for restoration, material excavated to prepare a site for placement of the permitted fill material must be properly disposed of in an upland area. The disposal site must be located at a sufficient distance away from flowing or standing water such that the excavated material does not erode or move in any way into any water of the state. The disposal area shall be identified in the project NOI.
10. **Topsoil:** For any excavation, including utility line trenches, the top 6 to 12 inches of topsoil shall be removed and stockpiled separately during construction. Following installation, the topsoil shall be replaced and restored to preexisting conditions.
11. Any structure, including but not limited to, culverts, pipes, piers, and coffer dams, placed within a stream where fish (as defined in 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.

12. Dust Abatement: Dust abatement chemicals added to water can be hazardous to wildlife and, if allowed to enter streams, 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 Water Board staff.

13. Use of Mechanized Equipment: Activities permitted under this Order shall be conducted in a manner that minimizes ground disturbance, soil compaction, rutting and other mechanical impacts. Equipment shall be operated and maintained in a manner that reduces the risk of spills or the accidental exposure of fuels or hazardous materials to water bodies or wetlands. Appropriate project specific BMPs shall be specified by the Permittee and shall be approved by Water Board staff prior to Project discharges.

14. Piers or Piles: Piers or piles placed in the stream channel to support a linear transportation structure over a creek channel must be aligned parallel with the direction of flow to prevent erosive eddies.

15. Access Routes

- a. The number of access routes, number, and size of staging areas, and the total area of the ground disturbance shall be limited to the minimum necessary to achieve the project goal.
- b. Access routes that are intended for seasonal deactivation² or permanent decommissioning³ shall be decommissioned as soon after use as possible, as follows:
 - i. Access routes shall be in a condition that enables long-term, disconnected and maintenance-free drainage.
 - ii. Drainages shall be fortified to endure the duration of planned decommissioning and prevent direct flows into waters.

² "Seasonal deactivation" is the temporary decommissioning of a road to encourage disconnected drainage, stabilized soils, and prevent vehicle travel during the rainy season.

³ "Permanent decommissioning" is the decommissioning of a road, in a location is no longer intended for vehicle travel, soils are stabilized, watercourse crossings are removed or stabilized, and the area's natural drainage patterns are restored.

- iii. Where feasible, a permanently decommissioned stream crossing shall be excavated to exhume the original, stable, stream bed and channel side-slopes, and then banks must be stabilized with materials including, but not limited to, mulch, seeding, replanting, and rock armoring, if anticipated flows may erode vegetated creek banks.
 - iv. Soils exposed during seasonal deactivation or permanent decommissioning shall be stabilized or removed to prevent spoils erosion and sedimentation.
 - v. Permanent access route decommissioning requires the restoration of natural drainage patterns and implementation of the approved restoration plan.
- c. Access routes shall be constructed using full bench construction and incorporate drainage structures with enough frequency to prevent saturated soils and erosion of access routes at the spacings specified in Table 1. If the spacings specified in Table 1 are infeasible for the work area, an explanation of the infeasibility must be provided, and an alternative means to preventing erosive discharges to waters of the state must be provided within the NOI.

Table 1. Drainage Structure Spacing Requirements (in feet) Depending on Road Grade and Erosion Hazard Rating⁴

Estimated Erosion Hazard Rating	Road Grade Less Than 10 % Feet	Road Grade 11-25% Feet	Road Grade 25-50% Feet	Road Grade Greater than 50% Feet
Extreme	100	75	50	50
High	150	100	75	50
Moderate	200	150	100	75
Low	300	200	150	100

Note: Estimated Erosion Hazard Rating evaluation procedures specified in California Code of Regulations, title 14, § 912.5.

⁴ California Department of Forestry and Fire Protection Resource Management, Forest Practice Program. 2021. California Forest Practice Rules

16. Watercourse Crossings

- a. Rock ford or rock armored fill crossings shall be installed instead of culverts on watercourses in locations where watercourse crossings have a higher risk of failure due to their landscape position (e.g., in areas prone to debris flows or landslides) or in areas that lack seasonal access or in remote areas.
- b. Remove or stabilize watercourse crossings as follows:
 - i. Fills shall be excavated to form a channel as close as feasible to the natural watercourse grade, and that is wider than the natural channel upstream and downstream of the crossing to be removed;
 - ii. Any resulting cut bank shall not exceed a grade of 65% from the outside edge of the channel to prevent slumping and prevent erosion; and
 - iii. Where it is not feasible to remove a watercourse crossing on a road proposed for abandonment, the NOI must identify how erosion and sedimentation will be avoided and minimized.

17. Culvert Construction or Maintenance

- a. Cured in Place Pipe (CIPP) is prohibited in the absence of formulation specific toxicity data that establishes that it will not cause detrimental physiological responses to human, plant, animal, or aquatic life, or cause discharges to waters of the state that do not comply with water quality objectives or goals.
- b. Replacement of culverts acting as grade control structures is not authorized under this Order. A vertical gap between the outlet of the culvert and the immediate downstream invert of the stream channel indicates that the culvert likely functions as a grade control structure.
- c. Projects proposing to replace culverts must design and implement a fluvial geomorphically appropriate channel stabilization project to prevent any existing scour or headcutting from migrating upstream. Repairs may include, but are not limited to, fill of scour holes with appropriately sized rock riprap or the construction of rock weirs with appropriately sized rock that are keyed well into the channel banks to minimize the risk of flanking.
- d. The replaced or maintained culvert shall be in alignment with the stream channel upstream and downstream of the culvert.

- e. Any replacement culvert or culvert that is to be left in place by a repair or maintenance project must be placed at a gradient and orientation that will not result in erosional scour at the outlet.
- f. Replacement of a culvert with a similarly sized culvert is allowable only where there is no visual indication that the existing culvert is undersized. Visual indications of undersized culverts include, but are not limited to: sediment aggradation upstream of the culvert; evidence of flow over the top of the culvert (e.g., erosional rills in dirt road surfaces or erosion of shoulders adjacent to paved road surfaces), erosion of the fill cell between the culvert and the road surface, scour pools at the culvert outlet, or erosion of creek banks immediately downstream of the culvert.
- g. Unless infeasible, replacement culverts must be sized to convey a 100-year flow event with debris, without pressurizing flow passing through the culvert. The 100-year flow event should be modeled under climate change projections, if available.
- h. Deep fills (deeper than a backhoe can reach from the roadbed) with undersized culverts or culverts with high plugging potential must be fitted with an emergency overflow structure to accommodate 100-year floods.
- i. Culvert inlets shall have low plug potential (debris barriers or deflectors are installed where needed, as long as they will not create a barrier to passage in fish bearing creeks).
- j. Culverts shall be installed at the base of the fill and in line with the natural channel.
- k. Replaced or maintained culverts shall be in upstream and downstream alignment with the stream channel.
- l. Extend culvert outlets to length that prevents erosion and sediment discharges into waters of the state at levels that exceed water quality objectives or impairs beneficial uses.
- m. The Permittee shall first consider using arch culverts or free-span bridge alternatives to solid bottom culverts (e.g., cylindrical culverts or box culverts) during culvert installation and replacement.
- n. New culverts must not be located in a meander bend of the stream channel. If a failed culvert is within a meander bend of the stream, the replacement culvert should be placed away from the meander bend.

- o. Plastic culverts are prohibited from being installed in high-threat fire areas as mapped by CAL FIRE's Fire and Resource Protection Program⁵.

18. Road Surface Drainages

- a. To the extent feasible, road surfaces and ditches shall be hydrologically disconnected from streams and stream crossings. Road surface runoff must be designed to disperse flows to appropriate upland areas, rather than concentrating flows to waters of the state.
- b. Sediment contributions from roads, cutbanks, and ditches shall be minimized by utilizing the appropriate closures depending on site activity and incorporating the following surface drainage structures: berm removal, road surface shaping (outsloping, insloping or crowning), rolling dips, ditch relief culverts, waterbars and other designs. Where feasible, access route construction and reconstruction shall outslope the access route to facilitate natural drainage patterns.
- c. Disconnected drainage structures shall be installed upslope of and in close proximity to watercourse crossings. The disconnected drainage structure should be installed according to the spacing requirements in Table 1.
- d. Dischargers shall prioritize locating the outflow of the road surface drainage structures towards stable areas with effective filter strips containing a high infiltration capacity, dense vegetation, or obstructions. Road surface drainage structure outflow shall not directly discharge to waters of the state or significant existing or potential erosion sites. Road surface drainage shall be managed to prevent erosion.
- e. Functional ditch relief, including culverts, rolling dips, and crossroad drains, shall be spaced with enough frequency to prevent saturated soils and erosion of access routes.
- f. All sediment and other material disturbed during blading and other road construction activities shall be contained and removed or stabilized with effective engineered sediment and erosion control practices. Cut or bladed sediment or other material shall not be pushed off the roadway and left uncontrolled and un-stabilized.

19. Toxic and Hazardous Materials

⁵ California Department of Forestry and Fire Protection. 2022. Fire and Response Assessment Program (FRAP). Accessed May 2022. Available at: <https://frap.fire.ca.gov/>

- a.** Activities permitted under this Order shall not discharge toxic substances in concentrations that produce detrimental physiological responses to human, plant, animal, or aquatic life. CIPP formulations that have not been appropriately tested to demonstrate that they are not toxic to aquatic life that is likely to be present in the local watershed shall not be used in culvert rehabilitation projects.
- b.** Discharge of unset cement, concrete, grout, slurry, damaged concrete spoils, concrete dust, or water that has contacted uncured concrete or cement, or related washout to surface waters, ground waters, or land is prohibited. If concrete washout is necessary at the site, washout containment shall be used to prevent any discharge. Wastewater may only be disposed by delivery to a sanitary wastewater collection system/facility (with authorization from the facility's owner or operator) or a properly licensed disposal or reuse facility.
- c.** Appropriate BMPs must be implemented throughout project activities to prevent and control potential leaks/spills/drainage of potentially hazardous materials such as: non-petroleum hydraulic fluid; epoxies; paints and other protective coating materials; cement concrete or asphalt concrete; and washings and cuttings thereof.
- d.** Activities permitted under this Order shall not discharge waste classified as "hazardous" as defined in California Code of Regulations title 22, section 66261 and Water Code section 13173. Appropriate BMPs for hazardous substances shall be specified by the Permittee and shall be approved by Water Board staff prior to project discharges. These BMPs shall include, at a minimum:

 - i.** All personnel handling fuels and other hazardous materials shall be properly trained.
 - ii.** Adequate spill prevention and cleanup equipment and materials shall be present on site at all times during project implementation.
 - iii.** All mechanized equipment shall be maintained in good operating order and inspected on a regular basis.
 - iv.** All on-site fuel trucks or fuel containers shall be stored in an area where risk of contamination of water bodies by leaks or spills is minimized.
 - v.** All equipment shall be fueled, maintained, and/or parked overnight in an upland area at least 100 feet from any delineated waters of the state.

- vi. Hazardous materials, including chemicals, fuels, and lubricating oils, shall not be stored within 100 feet of any delineated waters of the state, and shall be stored in appropriate containers with appropriate secondary containment.
 - vii. Pumps or other stationary equipment operating within 100 feet of a waterbody or wetland shall utilize appropriate secondary containment systems to prevent spills.
 - viii. Any spills or leaks of hazardous materials, chemicals, fuels, lubricants or any other potential pollutants shall be promptly and completely treated using appropriate materials and equipment.
 - ix. Spill containment supplies shall be on site in all work areas in sufficient quantities to allow immediate remediation of fuel, oil, hydraulic fluid or similar leaks and spills.
 - x. Staging area for equipment and vehicle fueling and storage shall be designated at least one-hundred (100) feet away from waters of the state, in a location where accidental discharges of fluids or fuels cannot flow into waters of the state. Whenever not feasible, as when staging is from barges, secondary containment around fuels and other fluids, such as lubricants and secondary fuels, shall be implemented.
- e. Projects that create new wetlands or affect existing wetlands shall be designed to include features or management measures that reduce the production of methylmercury in the wetland, including minimizing the repeated wetting and drying of soils by keeping wetlands flooded. In addition, sediment control measures shall be implemented to reduce the transport of total mercury or methylmercury out of the wetland.

20. Invasive Species and Soil Borne Pathogens

- a. The Permittee is responsible for ensuring that all project personnel follow proper weed control practices, and that appropriate weed prevention measures are included in project plans.
- b. Any straw, hay or other unprocessed plant material used for any purpose must be certified or documented as being weed free.

- c. To prevent the spread of soil borne pathogens⁶, equipment must be cleaned prior to entering the site. Any equipment leaving the project area shall be thoroughly cleaned using methods appropriate for the known pathogen before leaving the project area, unless the Permittee documents that no known soil borne pathogen infestations are present within the project area. If equipment is to be cleaned on site, the cleaning station must be identified in the NOI and cannot be located within one-hundred feet of any waters of the state.

21. Work in Delineated Waters of the State

- a. Work in waters of the state must not cause or contribute to an exceedance of water quality objectives in the receiving waters. Work in delineated waters commences at the onset of the regulated activity and continues until the activity is finished and all restoration of the affected work area is complete. The term “work” means any ground disturbing activities in any delineated waters of the state that are permitted under this Order, regardless of the presence or absence of flowing or standing water.
- b. All temporary dewatering activities are subject to the work-in-water reporting and monitoring conditions presented in the Water Quality Monitoring Section of this Order.
- c. Temporary diversions or impoundments of water, cofferdams, or similar structures installed for the purpose of temporary dewatering work areas shall be performed according to the In-water Work/Stream Diversion and Water Quality Monitoring Plan provided by the Permittee, and approved by the appropriate Regional Water Board, including appropriate monitoring for water quality upstream and downstream of diversion structures as required in the Water Quality Monitoring section of this Order.
- d. All surface waters, including ponded waters, shall be diverted away from areas undergoing grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to waters of the state.

⁶ Soil borne pathogens are any nematodes, or any bacterial, protozoan, viral or fungal pathogens that can cause disease or death to native plants, agricultural crops or ornamental plants (e.g., *Phytophthora ramorum*, the cause of sudden oak syndrome, and *Phytophthora lateralis*, the cause of Port Orford cedar root disease). The fungus that causes Valley Fever, *Coccidioides* spp., is not considered a soil borne pathogen in this Order.

- e. Except for the following conditions, equipment must not be operated in standing or flowing waters without site specific approval from Water Board staff:
 - i. All construction activities must be effectively isolated from water flows to the greatest extent possible. This may be accomplished by working in the dry season or dewatering the work area. When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be contaminated by construction activities. All open flow temporary diversion channels must be lined with filter fabric or other appropriate liner material to prevent erosion. Structures used to isolate the in-water work area and/or diverting the water (e.g., coffer dam, geotextile silt curtain) must not be removed until all disturbed areas are stabilized.
 - ii. If groundwater dewatering is required for the project, the Permittee shall consult with the Water Board to determine if additional permits are required (e.g., some Water Boards have NPDES permits that specify monitoring and treatment requirements for discharged groundwater that is extracted in the vicinity of plumes of contaminated groundwater). If additional Water Board permits relating to dewatering are required, the designated Water Board staff contact must be notified and copied on pertinent correspondence pertaining to those other required permits.
 - iii. All temporary dewatering and stream diversion methods shall be designed to have the minimum necessary impacts to waters of the state. All stream diversion methods shall be installed such that natural flow is maintained upstream and downstream of the diversion area. Any temporary dams or diversions shall be installed such that the diversion does not cause sedimentation, siltation, or erosion upstream or downstream of the diversion area. Diverted flows must be of sufficient quality and quantity, and of appropriate temperature, to support existing fish and other aquatic life both above and below the diversion. Pre-project flows must be restored to the affected surface water body upon completion of work at that location. All dewatering and stream diversion methods shall be removed immediately upon completion of activities for which dewatering or diversions are needed.

22. Stormwater

If the project is required to obtain coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ or 2022-0057-DWQ;

NPDES No. CAS000002) (Construction General Permit), the Permittee shall comply with the requirements in the Construction General Permit. Generally, coverage under the Construction General Permit is required for construction activity resulting in a land disturbance of one acre or more, or less than one acre but is part of a larger common plan of development or sale that results in a land disturbance of one acre or more. Covered activities are described with additional detail in the Construction General Permit.

Compliance with the Construction General Permit constitutes compliance with Erosion and Sediment Control Conditions a and b below.

a. Erosion and Sediment Control

- i. No later than 24 hours prior to the start of a likely precipitation event, the Permittee shall ensure that disturbed areas that drain to waters of the state are protected with correctly installed erosion and sediment control measures (e.g., jute, straw, coconut fiber erosion control fabric, coir logs, straw wattles, silt fence) or revegetated with propagules (e.g., seeds, cuttings, divisions) of locally collected native plants. Erosion control measures that contain monofilament mesh shall not be used. The likely precipitation event is defined as any weather pattern that is forecast to have a 50 percent or greater probability of producing precipitation in the project area. The Permittee shall maintain a daily record of precipitation forecast information which can be provided to the Water Board upon request.
- ii. The timing for installation of the post-construction stormwater BMP subdrains, soils, mulch, and plants shall be scheduled to ensure that the installed bioretention areas do not receive runoff from exposed or disturbed areas that have not been landscaped. The constructed post-project stormwater BMPs shall not receive site runoff until all project landscaping is planted, and effective erosion control measures implemented to ensure that the stormwater features are protected from sediment accumulation.

b. Storm Water Management

- i. Disturbed areas in delineated waters of the state and adjacent areas that drain to waters of the state must be temporarily stabilized to prevent erosion and accidental discharges into waters of the state at least 24 hours prior to any likely precipitation event. A likely precipitation event is any weather pattern that is forecast to have a 50 percent probability of producing precipitation in the project area, as predicted by a reliable weather forecast. If commencement of a precipitation event is predicted to begin less

than 24 hours after the forecast is issued, temporary stabilization of the disturbed in-water work areas must begin immediately.

- ii. No individual construction activity that could discharge sediment or other pollutants may be initiated if that activity and its associated erosion control measures cannot be completed prior to the onset of precipitation. After any rain event, the discharger shall inspect all sites currently under construction and all sites scheduled to begin construction within the next 72 hours for erosion and sedimentation problems and take corrective action as needed.

23. Directional Drilling

Because Horizontal Directional Drilling (HDD) and similar drilling operations may affect water quality, the following conditions shall apply to all drilling operations under waters of the state:

- a. The discharge of bentonite, drilling muds, lubricants, or any drilling compounds into waters of the state is prohibited. A draft HDD or drilling plan shall be prepared at least 30 days before drilling activities under waters of the state. No HDD or other drilling operations under waters of the state shall commence until the HDD plan is approved by Water Board staff.
- b. Release of bentonite, drilling muds, lubricants, or any drilling compounds through fractures in the streambed or bank substrate during drilling is referred to as a "frack-out." Because of the potential for frack-outs to occur, the HDD drilling plan shall include a frack-out response plan. The frack-out response plan shall specify all measures to be initiated if frack-outs should occur during HDD operations.
- c. For all HDD and other drilling sites, a means of containment (e.g., damming, fluming) or screen capable of capturing all of the potential discharge shall be described in the HDD drilling plan. The downstream end of any such containment structure shall be capable of containing all bentonite or other drilling muds or debris that may be released during boring or drilling. Any drilling mud, spoils, etc. must be completely removed from the streambed prior to removal of the containment structures (e.g., dam, flume, and screen).
- d. An environmental monitor shall provide monitoring for compliance with the HDD or drilling plan throughout drilling operations under waters of the state.
- e. Any HDD or other drilling operation shall be designed and directed in such a way as to minimize the risk of discharging spoils or other materials,

including the frack-out release of drilling lubricants through fractures in the streambed or bank substrates, to waters of the state. In substrates where frack-outs are likely to occur, HDD contractors shall employ all reasonable means and methods available to minimize potential for frack-out.

- f. All drilling muds or compounds will be contained and properly disposed of after drilling activities are completed.
- g. If bore pits are excavated to support drilling operations, spoils shall be stored a minimum of 25 feet from the top of the bank of streams or wetland/riparian boundary, where feasible; if site specific conditions warrant storing spoils less than 25 feet from the top of the bank of streams or wetland/riparian boundary this request must be provided in the HDD or drilling plan submitted to the Water Board prior to any drilling activities with potential impacts to waters of the state. Spoils shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (e.g., tackifiers, mulch, or detention).

G. Restoration and Mitigation for Temporary Impacts

1. The Permittee shall restore all areas of temporary impacts to waters of the state and all project site upland areas of temporary disturbance which could result in a discharge to waters of the state as described in a restoration plan approved by the appropriate Regional Water Board.

The restoration plan shall be submitted to the appropriate Regional Water Board for review and approval with the NOI. The restoration plan shall provide the following: a schedule; plans for grading of disturbed areas to pre-project contours; a planting palette with plant species native to the project area; seed collection location; invasive species management; performance standards; and maintenance requirements (e.g., watering, weeding, and replanting).

2. In cases where implementation actions in the restoration plan cannot be reasonably conducted within one year of impacts to waters of the state, or where the adverse temporary impacts result in temporary loss of aquatic resource function(s), the Permittee may be required to provide compensatory mitigation to offset temporal loss of waters of the state. Examples of additional mitigation include, but are not limited to, enhancement activities such as increasing the presence of native species and reducing dominance of non-native/invasive species, native willow staking, planting of native riparian vegetation, and trash removal.
3. The Water Board may extend the monitoring period beyond requirements of the restoration plan upon a determination by Water Board staff that the performance standards have not been met or are not likely to be met within the monitoring period.

H. Mitigation for Permanent Impacts

1. Compensatory mitigation is required to offset permanent impacts to waters of the state, unless the Permittee has demonstrated that the project authorized by this Order will restore or improve the ecological function of the impacted aquatic resource. Generally, compensatory mitigation shall take place within the same watershed as the impact site, but the permitting Water Board may approve compensatory mitigation in a different watershed or programmatic mitigation across one or multiple watersheds. Mitigation that occurs outside of the impacted watershed may require additional mitigation. When compensatory mitigation is required, the Permittee shall provide the following:
 - a. A draft compensatory mitigation plan at a level of detail sufficient to accurately evaluate whether compensatory mitigation offsets the adverse impacts attributed to the project considering the overall size and scope of impact.
 - b. Compensatory mitigation shall provide a minimum of a one-to-one mitigation to impact ratio, measured in area and length for mitigation banks, advanced mitigation, and in-lieu fee programs. Mitigation is required to ensure compliance with Executive Order W-59-93 that requires no net loss of the structure or function of California's wetland resources.⁷ Mitigation should be in kind as much as is feasible. If mitigation is out-of-kind, the amount of mitigation should be increased. When mitigation is constructed, enhanced, or preserved offsite, the amount of mitigation should be increased to account for the distance between the impact site and the mitigation site. The amount of mitigation should also account for the uncertainty associated with the successful creation of a mitigation site. The Water Board will require a higher overall mitigation ratio where necessary to ensure replacement of lost aquatic resource functions and for permittee responsible mitigation conducted concurrently with impacts, subject to approval by the appropriate Regional Water Board.
 - c. Subject to approval by the appropriate Water Board, mitigation may be satisfied using any of the following compensatory mitigation methods: restoration, enhancement, and/or establishment.
 - d. No discharge of dredged or fill material to waters of the state shall occur prior to Water Board approval of a final mitigation plan covering the impacted site. The mitigation plan may be provided in advance of the

⁷ Includes temporary direct impacts to waters of the state and does not include upland areas of temporary disturbance which could result in a discharge to waters of the state. Temporary impacts, by definition, are restored to pre-project conditions and therefore do not include a physical loss of area or permanent degradation of ecological condition.

identification of specific projects subject to Regional Water Board approval.

X. Public Notice

The State Water Board provided public notice of the application and draft certification pursuant to California Code of Regulations, title 23, section 3861 from July 12, 2022, to August 26, 2022. The State Water Board did not receive any comments during that comment period. In addition, the State Water Board noticed the draft order in accordance with Water Code section 13167.5 beginning on [date] and ending on [date].

XI. California Environmental Quality Act (CEQA)

On June 21, 2022, the California Department of Fish and Wildlife, as lead agency, certified an environmental impact report State Clearinghouse No. 2017122028 for the Project and filed a Notice of Determination (NOD) at the State Clearinghouse on July 7, 2022. Pursuant to CEQA, the Water Board has made Findings of Facts (Findings) which support the issuance of this Order and are included in Attachment E.

XII. Petitions for Reconsideration

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

XIII. Water Quality Certification and Waste Discharge Requirements

I hereby issue the Order for the Pacific Gas and Electric Company Bay Area Operations and Maintenance Program, SB21039IN, 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).

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.

Date

Karen Mogus
Deputy Director
Division of Water Quality

DRAFT