STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Quality Certification for

PACIFIC GAS AND ELECTRIC COMPANY
TIGER CREEK REGULATOR DAM SPILLWAY REPLACEMENT PROJECT

Sources: **Tiger Creek, Tiger Creek Regulator Reservoir**

County: **Amador**

WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

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Abbreviations

Antidegradation Policy	*Statement of Policy with Respect to Maintaining High Quality Waters in California*
Bay-Delta Plan	*Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary*
BIO	*Biological Resources*
Central Valley Basin Plan	*Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin*
Central Valley Regional Water Board	*Central Valley Regional Water Quality Control Board*
CDFW	*California Department of Fish and Wildlife*
CEQA	*California Environmental Quality Act*
certification	*water quality certification*
cfs	*cubic feet per second*
Construction General Permit	*National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities*
Deputy Director	*Deputy Director of the Division of Water Rights*
Dredge or Fill Procedures	*State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*
ESA	*Endangered Species Act*
Executive Officer	*Executive Officer of Central Valley Regional Water Board*
FERC	*Federal Energy Regulatory Commission*
HAZ	*Hazards and Hazardous Materials*
IS/MND	*Initial Study and Mitigated Negative Declaration*
Licensee	*Pacific Gas and Electric Company*
MM	*Mitigation Measure*
NPDES	*National Pollutant Discharge Elimination System*
NTU	*Nephelometric Turbidity Unit*
PG&E	*Pacific Gas and Electric Company*
PMF	*probable maximum flood*
Project	*Tiger Creek Regulator Dam Spillway Replacement Project*
Regional Water Boards	*Regional Water Quality Control Boards*
State Water Board	*State Water Resources Control Board*
USACE	*United States Army Corps of Engineers*
USEPA	*United States Environmental Protection Agency*
Water Boards	*State Water Board and Regional Water Boards, collectively*
WQ	Hydrology and Water Quality

1.0 Project Description

Pacific Gas and Electric Company (PG&E or Licensee) is proposing the Tiger Creek Regulator Dam Spillway Replacement Project (Project) to abandon-in-place Tiger Creek Regulator Dam's aging spillway and construct a new spillway structure that meets dam safety requirements. Tiger Creek Regulator Dam, Tiger Creek Regulator Reservoir, and the spillway are part of the Mokelumne River Hydroelectric Project, Federal Energy Regulatory Commission (FERC) Project No. 137. The Project is located on Tiger Creek, approximately 24 miles northeast of the city of Jackson in Amador County. Project maps can be found in Attachment A: Project Overview Maps.

Tiger Creek Regulator Dam is a 486-foot-long by 110-foot-high concrete slab and buttress dam with a low-level outlet that discharges up to 186 cubic feet per second (cfs), an existing spillway capable of passing 2,750 cfs, and an instream flow release valve with a maximum discharge capacity of 50 cfs. The instream flow release valve is used as the primary outlet for instream flows to Tiger Creek towards compliance with the Mokelumne River Hydroelectric Project's FERC license[1].

Tiger Creek Regulator Dam is categorized as a "High Hazard Potential" structure under FERC and Department of Water Resources Division of Safety of Dams guidelines. The existing spillway's current capacity of 2,750 cfs does not meet FERC requirements for passing a probable maximum flood (PMF) flow of 5,653 cfs without overtopping the dam. Tiger Creek Regulator Dam is not designed to overtop during high flow events, and due to the age and current condition of the dam allowing flows to overtop is not a viable long-term approach. The Project involves construction of a new spillway capable of passing the PMF flow for improved dam safety.

In general, the Project includes: (1) construction of a new spillway near the dam's right abutment with a new 40-foot-wide spillway intake (crest structure) connected to a 240-foot-long concrete chute, flip bucket splitter blocks, and plunge pool approximately 250 feet downstream of the base of Tiger Creek Regulator Dam; (2) construction of a new 2,334-foot-long permanent access road and four temporary bridges; (3) installation of a temporary cofferdam; (4) installation of a new log boom; and (5) abandonment-in-place of the existing spillway near the dam's left abutment. The new spillway will have the capacity to safely pass up to 6,000 cfs. Construction is proposed to take place over two years.

As part of the Project, PG&E is proposing to dewater a portion of Tiger Creek Regulator Reservoir near the right dam abutment by installing a temporary cofferdam and diverting water around the new plunge pool construction area to approximately 250 feet downstream from the Mokelumne River Hydroelectric Project's gage weir (M-76).

[1] FERC issued the new Mokelumne River Hydroelectric Project license on October 11, 2001.

Installation of the cofferdam is expected to occur in the dry[2] to limit potential discharges. PG&E plans to ensure FERC-required instream flows are met throughout the Project.

Project implementation requires an amendment to the Mokelumne River Hydroelectric Project FERC license and a permit from the United States Army Corps of Engineers (USACE). Pursuant to section 401 of the Clean Water Act, a FERC license amendment and USACE permit both require PG&E to obtain a water quality certification (certification) from the State Water Resources Control Board (State Water Board). PG&E submitted a certification application on November 22, 2023. FERC accepted PG&E's December 8, 2023, license amendment application on July 26, 2024. PG&E requested a Regional General Permit 2 (Reservoir Maintenance Activities) from USACE on June 27, 2024. USACE assigned the Project a designation number of SPK-2022-00369. This certification applies to both the FERC license amendment and USACE Clean Water Act section 404 permit for the Project.

2.0 Water Rights

Table A lists Project-related water rights and claimed water rights maintained by PG&E[3].

Table A. PG&E's Project-Related Water Rights

Water Right ID	Priority Date	Face Amount (acre-feet)	Sources/Locations	Purpose of Use
S000983	1855	271,650	Tiger Creek	Power, Domestic, Irrigation
A006737	07/19/1930	54,298.3	Tiger Creek	Power

3.0 Regulatory Authority

3.1 Water Quality Certification and Related Authorities

The federal Clean Water Act (33 U.S.C. §§ 1251-1388) was enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." (33 U.S.C. § 1251(a).) The Clean Water Act relies significantly on state participation and support in light of "the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution" and "plan the development and use" of water resources. (33 U.S.C. § 1251(b).) Section 101 of the Clean Water Act (33 U.S.C. § 1251(g)) requires federal agencies to "co-operate with State and local agencies to develop

[2] PG&E plans to install the cofferdam during its annual spring outage in 2026 such that there will be no inflow to Tiger Creek Regulator Reservoir and construction would occur in dry conditions.

[3] Information is from the State Water Board's electronic Water Rights Information Management System.

comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources." (33 U.S.C. § 1251(g).)

Section 401 of the Clean Water Act (33 U.S.C. § 1341) requires any applicant for a federal license or permit that may result in a discharge into navigable waters to provide the licensing or permitting federal agency with certification that the project will comply with specified provisions of the Clean Water Act, including water quality standards and implementation plans promulgated pursuant to section 303 of the Clean Water Act. (33 U.S.C. § 1313.) Clean Water Act section 401 directs the agency responsible for certification to prescribe effluent limitations and other conditions necessary to ensure compliance with the Clean Water Act and with "any other appropriate requirement of State law." (33 U.S.C. §1341(d).) Section 401 further provides that certification conditions shall become conditions of any federal license or permit for the project. (*Ibid.*)

The State Water Board is the state agency responsible for Clean Water Act section 401 certification in California. (Wat. Code, § 13160.) The State Water Board has delegated authority to act on applications for certification to the Executive Director of the State Water Board. (Cal. Code Regs., tit. 23, § 3838, subd. (a).)

Water Code section 13383 authorizes the State Water Board to "establish monitoring, inspection, entry, reporting, and recordkeeping requirements" and obtain "other information as may be reasonably required" for activities subject to certification under section 401 of the Clean Water Act. For activities that involve the diversion of water for beneficial use, the State Water Board delegated this authority to the Deputy Director of the Division of Water Rights (Deputy Director), as provided for in State Water Board Resolution No. 2012-0029 (State Water Board 2012). In the *Redelegation of Authorities* memo issued by the Deputy Director on April 20, 2023, this authority is redelegated to the Assistant Deputy Directors of the Division of Water Rights (State Water Board 2023a).

3.1.1 Procedure, Application, and Noticing

On November 22, 2023, PG&E filed a certification application with the State Water Board under section 401 of the Clean Water Act. On December 22, 2023, State Water Board staff provided public notice of the application, pursuant to California Code of Regulations, title 23, section 3858, by posting information describing the Project on the State Water Board's website. No comments were received in response to this notice.

On October 16, 2024, State Water Board staff requested comments from the Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board) on a draft certification for the Project. (See Cal. Code Regs., tit. 23, § 3855, subd. (b)(2)(B).) On October 23, 2024, Central Valley Regional Water Board staff provided comments, which State Water Board staff addressed in the development of this certification.

3.2 Water Quality Control Plans and Related Authorities

The State Water Board's certification for the Project must ensure compliance with applicable water quality standards in the Central Valley Regional Water Board's Water

Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin (Central Valley Basin Plan) (Central Valley Regional Water Board 2019) and the *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary* (Bay-Delta Plan). (State Water Board 2018[4].)

Water quality control plans designate the beneficial uses of water to be protected (such as municipal and domestic supply, industry, agriculture, and fish and wildlife habitat), water quality objectives for the reasonable protection of the beneficial uses and the prevention of nuisance, and a program of implementation to achieve the water quality objectives. (Wat. Code, §§ 13241, 13050, subds. (h), (j).) The beneficial uses, together with the water quality objectives contained in the water quality control plans and applicable state and federal antidegradation requirements, constitute California's water quality standards for purposes of the Clean Water Act. In issuing certification for a project, the State Water Board must ensure consistency with the designated beneficial uses of waters affected by the project, the water quality objectives developed to protect those uses, and anti-degradation requirements. (*PUD No. 1 of Jefferson County v. Washington Dept. of Ecology* (1994) 511 U.S. 700, 714-719.)

The California Regional Water Quality Control Boards (Regional Water Boards) have primary responsibility for the formulation and adoption of water quality control plans for their respective regions, subject to State Water Board and United States Environmental Protection Agency (USEPA) approval, as appropriate. (Wat. Code, §§ 13240 et seq.) As noted above, the State Water Board may also adopt water quality control plans, which will supersede regional water quality control plans for the same waters to the extent of any conflict. (Wat. Code, § 13170.) The State Water Board and Regional Water Boards (collectively Water Boards) adopt these plans pursuant to their authorities under the Porter-Cologne Water Quality Control Act (Wat. Code, §§ 13000 et seq.) and the federal Clean Water Act (33 U.S.C. § 1313).

3.2.1 Central Valley Basin Plan

The Central Valley Regional Water Board adopted, and the State Water Board and USEPA approved, the Central Valley Basin Plan. The Central Valley Basin Plan designates the beneficial uses of water to be protected along with the water quality objectives necessary to protect those uses. The Central Valley Basin Plan specifies that the beneficial uses of any specifically identified waterbody generally apply to its tributary streams. The Central Valley Basin Plan identifies existing beneficial uses for sources to Pardee Reservoir (which includes Tiger Creek and Tiger Creek Regulator Reservoir) as: municipal and domestic supply; power; contact recreation; canoeing and rafting; other non-contact recreation; warm freshwater habitat; cold freshwater habitat; warm freshwater migration; warm freshwater spawning; cold freshwater spawning; and wildlife habitat.

[4] Based on the Project's limited scope, duration, and distance from the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, impacts to water quality objectives listed for waterbodies in the Bay-Delta Plan are not anticipated to occur from Project activities.

3.2.2 Antidegradation Policy

The State Water Board's *Statement of Policy with Respect to Maintaining High Quality Waters in California* (Antidegradation Policy)[5] (State Water Board 1968) 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 impact 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 state Antidegradation Policy incorporates the federal Antidegradation Policy (40 C.F.R. § 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." (Id., § 131.12(a)(1).)

3.2.3 Construction General Permit

Coverage under the State Water Board's *National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit)[6] (State Water Board 2022b) is required for activities that disturb one or more acres of soil, or that disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground such as stockpiling or excavation, but do not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. Coverage is required pursuant to Clean Water Act sections 301 and 402 which prohibit certain discharges of stormwater containing pollutants except in compliance with a NPDES permit. (33 U.S.C. §§ 1311, 1342(p); 40 C.F.R. pts. 122, 123, and 124.)

3.2.4 Comprehensive Plan

Section 10(a)(2)(A) of the Federal Power Act requires FERC to consider the extent to which a project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. In March 2019, the State Water Board submitted to FERC the plans and policies included in the state's comprehensive plan for orderly and coordinated control, protection, conservation, development, and utilization of the water resources of the state. On

[5] State Water Board Resolution No. 68-16 and any amendments thereto. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf. Accessed on September 24, 2024.

[6] State Water Board Order No. 2009-0009-DWQ and NPDES No. CAS000002, as amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ, Order No. 2022-0057-DWQ, and any amendments thereto. Available at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/general_permit_reissuance.html. Accessed on October 18, 2024.

August 5, 2024, the State Water Board filed a comprehensive plan supplement to its March 2019 filing which included updated plans and policies for water quality protection. (State Water Board 2024a.) This submission included the Central Valley Basin Plan, the Bay-Delta Plan, the Antidegradation Policy, and other applicable plans and policies for water quality control. FERC included these updates in its List of Comprehensive Plans in April 2024. (FERC 2024.)

3.3 State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Water of the State

The *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Dredge or Fill Procedures)[7] (State Water Board 2019 and 2021[8]) provide California's definition of wetland, wetland delineation procedures, and procedures for submitting applications for activities that could result in discharges of dredged or fill material to waters of the state. The Dredge or Fill Procedures ensure that State Water Board regulatory activities will result in no net loss of wetland quantity, quality, or permanence, consistent with California Water Code, Division 7, Chapter 28, sections 16200-16201.

PG&E must comply with the Dredge or Fill Procedures when conducting dredge or fill activities that may impact waters of the state, including wetlands.

3.4 Clean Water Act Section 303(d) Listing

On January 19, 2022, the State Water Board adopted the *2020-2022 California Integrated Report for Clean Water Act Sections 303(d) and 305(b)*[9] (State Water Board 2022a) and it was approved by USEPA on May 11, 2022. Tiger Creek is not identified as an impaired waterbody.

4.0 California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to discretionary projects that may cause a direct or indirect physical change in the environment. (Pub. Resources Code, § 21000 et seq.) When proposing to undertake or approve a discretionary project, state agencies must comply with the procedural and substantive requirements of CEQA. The State Water Board is the lead agency for the purposes of CEQA. (Pub. Resources Code, § 21000 et seq; Cal. Code Regs., tit. 14, § 15000 et seq.)

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[7] The Dredge or Fill Procedures and any amendments thereto. Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.html. Accessed on September 24, 2024.

[8] Resolution No. 2021-0012 is available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/wrapp/rs2021_0012.pdf. Accessed on September 24, 2024.

[9] The 2020-2022 Integrated Report is available at: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html. Accessed on October 18, 2024.

The State Water Board released a draft Initial Study and Mitigated Negative Declaration (IS/MND) for the Project on January 19, 2024 (State Water Board 2024b). The draft IS/MND public comment period began on January 19, 2024, and concluded on February 23, 2024. Comments on the draft IS/MND were received from the California Department of Fish and Wildlife (CDFW), California Department of Transportation, and the Central Valley Regional Water Board.

Following PG&E's update to the Project to move the concrete batch plant from the Cedar Mills staging area to the Spur 1 stage area and review of public comments, the draft IS/MND was recirculated for public comment on September 27, 2024. The public comment period began on September 27, 2024, and concluded October 28, 2024. Comments on the recirculated IS/MND were received from CDFW.

All comments received were considered in the development of the final IS/MND. The final IS/MND includes mitigation measures to avoid or substantially reduce significant environmental impacts of the Project to less than significant.

CEQA requires the lead agency to adopt a Mitigation Monitoring and Reporting Program (MMRP) for projects where mitigation measures are a condition of project approval. (Cal. Code Regs., tit. 14, § 15091, subd. (d).) The State Water Board included a MMRP in its final IS/MND. (Attachment B: Mitigation Monitoring and Reporting Program.) Water quality protection measures and associated mitigation, monitoring, and reporting requirements are incorporated into the conditions of this certification in accordance with California Code of Regulations, title 23, section 3859, subdivision (a). Table B identifies resource areas in the State Water Board's purview for which the final IS/MND identified mitigation measures for potential impacts, and associated certification conditions with water quality protection, monitoring, or reporting requirements.

This certification has been informed by the environmental information and analysis contained in the final IS/MND for the Project and other information in the record. These documents and other materials that constitute the public record are located at the State Water Board, Division of Water Rights, 1001 I Street, Sacramento, California. The State Water Board will file a Notice of Determination with the Office of Planning and Research within five working days of issuance of this certification. (Cal. Code Regs., tit. 14, § 15094.)

In accordance with CEQA Guidelines section 15074, the State Water Board, through its Executive Director, considered the final IS/MND and finds that it represents the State Water Board's independent judgement and analysis and that there is no substantial evidence that the Project will have a significant effect on the environment. The State Water Board, through its Executive Director, has determined the final IS/MND, with incorporation of the MMRP, is adequate to support approval of the Project, and hereby adopts the final IS/MND.

Table B. IS/MND Mitigation Measures and Corresponding Certification Conditions

Mitigation Measure (MM)	Applicable Certification Condition(s)
Hydrology and Water Quality (WQ)-MM-1: Implement Water Quality Protection Measures and Erosion and Sediment Control Plans	Condition 2 (Water Quality Monitoring) Condition 4 (Erosion and Sediment Control) Condition 5 (Hazardous Materials Management)
WQ-MM-2: Implement Spur 1 Staging Area Water Quality Protection Measures	Condition 4 (Erosion and Sediment Control) Condition 5 (Hazardous Materials Management)
WQ-MM-3: Implement Sediment Control Measures along Downstream Edge of Existing Plunge Pool prior to Rock Slope Protection Placement	Condition 4 (Erosion and Sediment Control)
WQ-MM-4: Develop and Implement a Water Quality Monitoring and Adaptive Management Plan	Condition 2 (Water Quality Monitoring)
Hazards and Hazardous Materials (HAZ)-MM-1: Implement Hazardous Materials Control Measures	Condition 5 (Hazardous Materials Management)
Biological Resources (BIO)-MM-1: Conduct Worker Environmental Awareness Training and Implement General Requirements	Condition 3 (Biological Resources)
BIO-MM-2: Conduct a Preconstruction Survey for Northwestern Pond Turtle at the Cedar Mill Staging Area	Condition 3 (Biological Resources)
BIO-MM-5: Avoid and Minimize Disturbance of Waters of the United States/Waters of the State	Condition 3 (Biological Resources)
BIO-MM-6: Compensate for the Temporary and Permanent Losses of Waters of the United States/Waters of the State	Condition 3 (Biological Resources)
BIO-MM-7: Implement Flow Pumping System and Water Drafting Requirements	Condition 3 (Biological Resources)
BIO-MM-8: Rescue and Relocate Fish from Affected Habitat	Condition 3 (Biological Resources)

5.0 Rationale for Water Quality Certification Conditions

This section of the certification explains that the grant of certification, as conditioned, is warranted and why the conditions in Section 7.0 are necessary to ensure that the Project activities will comply with water quality requirements. This section also includes, as necessary, citations to federal, state, or tribal laws that authorize the conditions and sets forth citations to applicable regulatory authority. Section 3.0 also sets forth citations to applicable regulatory authority. The explanation and citations should be evaluated in the context of the certification as a whole, but the certification conditions are set forth only in Section 7.0.

As explained in this section, the conditions in this certification are generally required pursuant to the Central Valley Basin Plan, as described in Section 3.0, Regulatory Authority.

The Dredge or Fill Procedures, adopted pursuant to Water Code sections 13140 and 13170, authorize approval of dredge or fill projects subject to satisfaction of specified requirements. California Code of Regulations, title 23, section 3830 et seq., set forth state regulations pertaining to certifications. In particular, section 3856 sets forth information that must be included in certification requests, and section 3860 sets forth standard conditions that shall be included in all certification actions.

Water Code sections 13267 and 13383 authorize the Water Boards to establish monitoring and reporting requirements for persons discharging or proposing to discharge waste to navigable waters. Water Code section 1051 additionally authorizes the State Water Board to investigate waters diverted for beneficial use. Moreover, this certification ensures continued monitoring, reporting, and assessment of water quality for the Project activities that may impact waters of the state.

Fish and Game Code section 5937 requires any owner of a dam to allow sufficient water to pass over, around, or through the dam to keep in good condition any fish that may be planted or exist downstream. Section 5937 and requirements to maintain or monitor flow or other water quality characteristics as required to meet section 5937 are appropriate conditions of state law necessary to protect fishery beneficial uses.

In general, the code citations, plans, and policies that support issuance of this certification that are described in Section 3.0 are not duplicated in this section. The conditions in this certification were developed to ensure compliance with water quality standards and water quality requirements established under the Porter-Cologne Water Quality Control Act and the federal Clean Water Act, including requirements in applicable water quality control plans, and other appropriate requirements of state law. The conditions in Section 7.0 of this certification are necessary to protect the beneficial uses of waters of the state identified in water quality control plans, prevent degradation of water quality, and help ensure compliance with state and federal water quality requirements.

When preparing the conditions in this certification, State Water Board staff reviewed and considered the following information:

- PG&E’s certification application, including its attachments (PG&E 2023a).
- PG&E’s revised project description (PG&E 2024a).
- PG&E’s license amendment application to FERC (PG&E 2023b).
- PG&E’s 404 application to USACE (PG&E 2024b).
- Final IS/MND and MMRP (State Water Board 2024).
- Beneficial uses, water quality objectives, and implementation measures and programs described in the Central Valley Basin Plan (Central Valley Regional Water Board 2019).

- Applicable water quality information, permits, policies, objectives, implementation measures, and programs (e.g., Dredge or Fill Procedures, Construction General Permit, etc.).
- Existing water quality conditions.
- Project-related controllable factors.
- Other information in the record.

This certification is issued pursuant to the final 2023 Clean Water Act Section 401 Water Quality Certification Rule (Fed. Reg. 66558-66666 (September 27, 2023) [amending 40 C.F.R. Parts 121, 122, 124]) that went into effect on November 27, 2023 (2023 Rule), but also complies with the previous USEPA Clean Water Act Section 401 Certification Rule, 85 Fed. Reg. 42,210 (July 13, 2020) (2020 Rule) that was in effect for portions of 2020-2023 should it reemerge as a result of litigation or any other reason. To the extent FERC or the USACE considers any certification condition to include requirements outside the substantive scope of the 2020 Rule—including but not limited to 40 C.F.R. §§ 121.1(f) and (n), 121.3, 121.7(d)(1), and 121.9(b)—the 2020 Rule is inconsistent with federal law and controlling case law. The 2023 Rule restores the scope of certification "that is consistent with not only the statutory language and congressional intent but also longstanding [USEPA] guidance and decades of Supreme Court case law." (Fed. Reg. 65591-66606 [Scope of Certification].) Under section 401 of the Clean Water Act, when an activity requiring a federal permit or license "may result in any discharge into the navigable waters," the applicant is required to obtain a certification that states the activity will comply with applicable water quality standards and that also sets forth any "limitations" and "monitoring requirements" necessary to assure that the "applicant" will comply with water quality standards and "any other appropriate requirement of State law." (33 U.S.C. § 1341(a) & (d).) Certification is required for such activity as a whole, not merely for its point-source discharges to waters of the United States. (PUD No. 1, supra, 511 U.S. at pp. 711- 712.) USEPA replaced the 2020 Rule because, among other faults, it "may prevent state and tribal authorities from adequately protecting their water quality," "may result in a state or tribe's certification or conditions being permanently waived as a result of non-substantive and easily fixed procedural concerns," and "may limit the flexibility of certifications and permits to adapt to changing circumstances." (86 Fed. Reg. 29,543-29,544 (June 2, 2021).) As explained in this certification, each certification condition is authorized by applicable state and federal law and is necessary to ensure compliance with such laws. This paragraph is hereby incorporated as part of the explanatory statement for each condition of this certification.

5.1 Rationale for Condition 1: Project Activities and Flows

As described in Section 5.0, this certification is granted based on the application and supporting information submitted, in accordance with the State Water Board's regulations and subject to requirements of the Porter-Cologne Water Quality Control Act. Condition 1 requires PG&E to implement the Project as described in its November 22, 2023, certification application, its revised Project description provided on May 9, 2024, and as modified by conditions of this certification. Condition 1 will help ensure that the Project is implemented in a manner that protects water quality objectives and avoids unreasonable impacts to beneficial uses. Any changes to the

Project description that are inconsistent with the Project application and supplemental information provided to the State Water Board prior to certification issuance could impact the findings, conclusions, and conditions of the certification and may necessitate the filing of a new certification application as well as trigger additional environmental review.

Additionally, Condition 1 requires PG&E to maintain flow requirements of the Mokelumne River Hydroelectric Project's FERC license. Reduced flows could potentially impact water quality and associated beneficial uses of sources to Pardee Reservoir, as identified in the Central Valley Basin Plan. Beneficial uses that may be impacted by reduced flow include but are not limited to: municipal and domestic supply; power; contact recreation; canoeing and rafting; other non-contact recreation; warm freshwater habitat; cold freshwater habitat; warm freshwater migration; warm freshwater spawning; cold freshwater spawning; and wildlife habitat. Further, Fish and Game Code section 5937 requires any owner of a dam to allow sufficient water to pass over, around, or through the dam to keep in good condition any fish that may be planted or exist downstream.

5.2 Rationale for Condition 2: Water Quality Monitoring

Construction of new Project features (spillway, crest structure, notch, chute, flip bucket, splitter blocks, plunge pool, and permanent and temporary access roads), installation and removal of a cofferdam, dewatering of the work area, and water diversion may adversely impact water quality in Tiger Creek and Tiger Creek Regulator Reservoir. Water quality parameters that may be impacted by such activities include temperature, turbidity, pH, dissolved oxygen, and visual pollutants (e.g., oils, grease, fuels, turbidity plumes). Water quality objectives prescribed in Condition 2 are established by the Central Valley Basin Plan. Monitoring requirements in Condition 2 are consistent with the Water Boards' authority to investigate waters of the state, including for quality, and to require necessary monitoring and reporting pursuant to Water Code sections 1051, 13165, 13267 and 13383. These monitoring requirements are necessary to ensure the Project does not substantially impact water quality.

Beneficial uses for sources to Pardee Reservoir that may be impacted by Project-related water quality degradation include: municipal and domestic supply; contact recreation; canoeing and rafting; other non-contact recreation; warm freshwater habitat; cold freshwater habitat; warm freshwater migration; warm freshwater spawning; cold freshwater spawning; and wildlife habitat.

5.3 Rationale for Condition 3: Biological Resources

Project activities, such as dewatering, water diversion, construction, and construction staging, have the potential to adversely impact aquatic species and habitats. The Project could potentially impact northwestern pond turtle (*Actinemys marmorata*) habitat and resident fish. The Project is anticipated to have 0.02 acre of temporary impacts and 0.102 acre of permanent impacts to Tiger Creek Regulator Reservoir. The Project is anticipated to have 0.003 acre of temporary impacts and 0.029 acre of permanent impacts to Tiger Creek. Beneficial uses for sources to Pardee Reservoir that require

biological resource protection measures include: warm freshwater habitat; cold freshwater habitat; warm freshwater migration; warm freshwater spawning; cold freshwater spawning; and wildlife habitat.

Condition 3 requires measures to prevent or minimize impacts to aquatic species and their habitats. These measures include worker environmental awareness training (BIO-MM-1: Conduct Worker Environmental Awareness Training and Implement General Requirements), implementation of protection measures for northwestern pond turtles at the Cedar Mill staging area (BIO-MM-2: Conduct a Preconstruction Survey for Northwestern Pond turtle at the Cedar Mill Staging Area) and general environmental protection (BIO-MM-1 and BIO-MM-7: Implement Flow Pumping System and Water Drafting Requirements), and fish rescue and relocation (BIO-MM-8: Rescue and Relocate Fish from Affected Habitat).

Condition 3 requires measures to avoid, minimize, or compensate for impacts to waters of the state. Condition 3 includes provisions for compliance with the Dredge or Fill Procedures, California Wetlands Conservation Policy (Governor's Executive Order W-59-93 (August 23, 1993)), and other avoidance and minimization measures to account for impacts to waters of the state. Further, Condition 3 requires compensation for impacts to waters of the state. This is necessary to ensure compliance with state and federal antidegradation policies and is consistent with Section IV.B.1.a of the Dredge or Fill Procedures, which requires that the Water Boards will approve a project only after it has been determined that a sequence of actions has been taken to first avoid, then to minimize, and lastly compensate for adverse impacts that cannot be practicably avoided or minimized. (See also California Code of Regulations, section 3856, subdivision (h) [requiring submittal of proposed mitigation and description of steps taken to avoid, minimize, or compensate].)

5.4 Rationale for Condition 4: Erosion and Sediment Control

Condition 4 is required pursuant to Water Code section 13264, which prohibits any discharge that is not specifically authorized in this certification.

Erosion and sedimentation can contribute to degradation of the waters of the state; therefore, it is necessary to implement actions to eliminate or limit such discharges to protect water quality and associated beneficial uses. Project activities that have the potential to cause erosion and increased turbidity in Tiger Creek include: constructing a new spillway; constructing a permanent access road and temporary bridges; and placing rock slope protection around the plunge pool. Increases in erosion and sedimentation can violate water quality objectives (e.g., turbidity) and adversely impact beneficial uses. Condition 4 requires PG&E to implement the Construction General Permit and other measures to protect water quality associated with activities with the potential to cause erosion or result in sediment discharges.

Beneficial uses for sources to Pardee Reservoir that may be impacted Project-related erosion and sedimentation include: municipal and domestic supply; contact recreation; other non-contact recreation; warm freshwater habitat; cold freshwater habitat; warm

freshwater migration; warm freshwater spawning; cold freshwater spawning; and wildlife habitat.

5.5 Rationale for Condition 5: Hazardous Materials Management

The Project involves use of heavy equipment that will require refueling and servicing. Site management requires implementation of best management practices to prevent, minimize, and/or clean up 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 surface water in violation of water quality standards, including the toxicity and floating material water quality objectives. Secondary containment around hazardous materials storage sites helps ensure that any leaks or spills of hazardous materials do not result in a discharge to waters. Condition 5 is required pursuant to Water Code section 13264, which prohibits any discharge that is not specifically authorized in this certification.

The Central Valley Basin Plan includes narrative water quality objectives for oil, grease, and other hazardous materials: “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.” (Central Valley Regional Water Board 2019.) Condition 5 requires implementation of hazardous materials management measures to prevent hazardous material spills into waterways, including containment criteria pursuant to California Code of Regulations, title 27, section 20320.

Beneficial uses for sources to Pardee Reservoir that may be impacted by Project-related releases of hazardous materials include: municipal and domestic supply; contact recreation; canoeing and rafting; other non-contact recreation; warm freshwater habitat; cold freshwater habitat; warm freshwater migration; warm freshwater spawning; cold freshwater spawning; and wildlife habitat.

5.6 Rationale for Condition 6: Dewatering and Water Diversion

The Project involves dewatering and water diversion that may directly impact water quality and beneficial uses in Tiger Creek and Tiger Creek Regulator Reservoir. Specific Project activities that may impact water quality through dewatering and water diversion work include: (1) installation and removal of temporary cofferdam/bladder dam; (2) installation and removal of temporary water bypass system; (3) discharges from water diversion; and (4) stream channel re-watering.

Condition 6 requires PG&E to develop a Dewatering and Diversion Plan to obtain additional information regarding its dewatering and water diversion proposal and ensure the protection of water quality prior its implementation. This will ensure dewatering and water diversion will not substantially impact surface waters. This requirement is consistent with the Water Boards’ authority to investigate waters of the state, including for quality, and to require necessary monitoring and reporting pursuant to Water Code sections 13267 and 13383.

Beneficial uses for sources to Pardee Reservoir that may be impacted by Project-related dewatering and water diversion activities include: municipal and domestic supply; power; contact recreation; canoeing and rafting; other non-contact recreation; warm freshwater habitat; cold freshwater habitat; warm freshwater migration; warm freshwater spawning; cold freshwater spawning; and wildlife habitat

5.7 Rationale for Condition 7: Reporting

Condition 7 requires PG&E to notify Central Valley Regional Water Board and State Water Board staff prior to implementing Project activities, to submit monthly Progress Reports, and to submit a Completion Report to document compliance with the certification requirements. The Progress Reports and Completion Report will inform the Deputy Director of compliance with water quality objectives and protection of beneficial uses during Project implementation.

Reporting requirements of Condition 7 are consistent with the Water Boards' authority to investigate waters of the state, including for quality, and to require necessary monitoring and reporting pursuant to Water Code sections 13267 and 13383. The reporting requirements of Condition 7 are necessary to ensure the Project does not impact water quality and associated beneficial uses.

5.8 Rationale for Conditions 8 through 26

This certification imposes additional conditions regarding Project approvals, monitoring, enforcement, and potential future revisions. This section explains why a condition is necessary to assure that the authorized activities will comply with water quality requirements, and cites to federal, state, or tribal law that authorizes the condition. (40 C.F.R. § 121.7(d)(1).) The statements in this section correspond with the conditions set forth in Conditions 8 through 26. In addition, the code citations, plans, and policies that support issuance of this certification are described in Sections 3.0 and are not duplicated in this section but are incorporated herein. Conditions 8 through 26 are necessary to protect the beneficial uses of waters of the state identified in water quality control plans, prevent degradation of water quality, and help ensure compliance with state and federal water quality requirements.

Condition 8 is necessary to comply with Water Code section 13167 and Conditions 9 through 12 contain important clarifications concerning the scope and legal effect of this certification, as well as other legal requirements that may apply to the Project.

Monitoring, reporting, and assessment actions, and the information developed through such actions, must be readable, shared, and coordinated with other appropriate entities, and accessible to ensure that an activity complies with water quality requirements. Water Code section 13167 requires the Water Boards to ensure that monitoring data and assessment information are available in a single location and that the information is presented in a manner easily understandable by the public. To fulfill this legislative mandate, Condition 8 requires electronic data submittal in a compatible format with existing system specifications. Compliance with this condition enhances the accessibility of data and transparency of regulatory actions. This allows regulatory

agencies and the public to better assess compliance and understand water quality trends or data anomalies by compiling data and making it readily available.

Pursuant to the California Endangered Species Act (Fish & G. Code, §§ 2050 et seq.) and federal Endangered Species Act (16 U.S.C. §§ 1531 et seq.), Condition 9 of the certification does not authorize any act which results in the taking of a threatened, endangered, or candidate species.

An applicant for certification is required to identify other licenses, permits, and agreements in the application. In the event an applicant for certification needs authorization from the state or federal authorities, California Code of Regulations, title 23, section 3856, subdivision (e), requires that the applicant provide copies 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." Water Code section 13160, subdivision (b)(1), allows the State Water Board to issue a certification when there is "reasonable assurance that an activity of any person subject to the jurisdiction of the state board will comply with applicable requirements" of state and federal law. To help ensure the integrity of the certification process and its focus on the protection of water quality and compliance with other applicable state requirements, Condition 10 serves to notify applicants that there may be additional applicable federal, state, or local laws or ordinances with which they must comply.

Because agency organization and authorities change over time, Condition 11 provides direction for continuity of oversight in the event an agency's authority or responsibility is transferred to or subsumed by another agency. The State Water Board is responsible for the water rights, water quality, and drinking water functions of the California state government. (Wat. Code, § 174.) Certain certifications involve an appropriation of water subject to part 2 of division 2 of the Water Code or the diversion of water for certain beneficial uses. (See, e.g., Cal. Code Regs., tit. 23, § 3855, subd. (b)(1)(A).) Condition 12 explains the State Water Board's issuance of this certification is not adjudicating or approving the validity of water rights that may be related to the Project. It also recognizes the State Water Board's authority, independent of its water quality authority, to prevent unauthorized or threatened unauthorized diversions of water. This helps to ensure that an applicant for a federal license or permit that involves a discharge to navigable waters understands that, except as specified in the certification, the certification does not constitute, or excuse the applicant from obtaining any other State Water Board approvals required for the activity.

Conditions 13 through 15 are necessary to assure that any Project activities authorized under the certification will comply with water quality requirements. These conditions are included to comply with California Code of Regulations, title 23, section 3860, which sets forth conditions that must be included in all certifications. Condition 13 is a standard condition that "shall be included as conditions of all certification actions" pursuant to California Code of Regulations, title 23, section 3860, subdivision (a). This condition places the permittee on notice that the certification action may be modified or

revoked following administrative or judicial review. Condition 14 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, subdivision (b). This condition clarifies the scope of the certification’s application and ensures that any applicant for a federal license or permit, which may result in a discharge into navigable waters, is subject to the appropriate State certification. Condition 15 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, subdivision (c). This fee requirement condition is also required pursuant to California Code of Regulations, title 23, section 3833, subdivision (b), which requires payment of fees by project proponents applying for certification. Fees are essential to support the Water Boards certification program, which includes the development of certifications and related inspections to ensure the protection of water quality and beneficial uses that may be impacted by a project.

Conditions 16 through 26 are necessary to ensure that the Project operates to meet water quality standards and other appropriate requirements of state law, or that adjustments are made to ensure continued compliance with water quality standards in light of new information, changes to the Project, or changes to the standards themselves.

This certification requires monitoring, reporting, and analysis as important elements to ensure that Project activities will comply with state and federal water quality requirements and other appropriate requirements of state law. Conditions 16, 17, and 18 provide for extensions of time to comply with requirements, prevention or remedy of violations, and notification of changed conditions to ensure compliance and prevent violations of water quality standards. In the event of non-compliance, modified conditions may be necessary to return the Project to compliance and prevent violation of water quality standards. Conditions 19 and 20 require the applicant to comply with the Central Valley Basin Plan and to take all reasonable measures to protect water quality and beneficial uses, in accordance with plans adopted pursuant to state and federal water laws. Water Code section 13267 authorizes the State Water Board to require any person or entity who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste to furnish, under penalty of perjury, technical or monitoring reports when necessary to investigate the quality of any waters of the state. Condition 21 requires such reports that are necessary to ensure compliance with water quality standards.

Condition 22, related to site access requirements, is authorized pursuant to the Water Boards’ authority to investigate the quality of any waters of the state, including specific site access authorized under Water Code sections 13267 and 13383. Site access is needed to ensure compliance with the certification and associated protection of water quality and beneficial uses. Condition 23 requires site personnel and agencies to be familiar with the content of the certification and availability of the document at the Project site. This condition is required to assure that site personnel are familiar with the conditions needed to protect water quality and any authorized discharge will comply with the terms and conditions of this certification, which requires compliance with water

quality objectives and beneficial uses adopted or approved under sections 13170 or 13245 of the Water Code, and with other appropriate requirements of state law.

Condition 24 requires that PG&E use analytical methods approved by California's Environmental Laboratory Accreditation Program, when available, to ensure that such analyses are done in a consistent manner.

Condition 25 provides that the State Water Board will provide notice and an opportunity to be heard in exercising its authority to add or modify certification conditions.

In the event that any provision of this certification is found invalid, Condition 26 ensures that all other provisions will remain effective and water quality will still be protected. (Wat. Code, § 13160.)

6.0 Conclusion

The State Water Board finds that, with the conditions and limitations imposed by this certification, the Project will be protective of state and federal water quality standards and other appropriate requirements of state law.

7.0 Water Quality Certification Conditions

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE STATE WATER RESOURCES CONTROL BOARD CERTIFIES that implementation of the Tiger Creek Regulator Dam Spillway Replacement Project (Project) by the Pacific Gas and Electric Company (PG&E or Licensee) will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, and with applicable provisions of State law, under the following terms and conditions.

CONDITION 1: Project Activities and Flows

Unless otherwise modified by conditions of this water quality certification (certification), or approved by the State Water Resources Control Board (State Water Board) Deputy Director of the Division of Water Rights (Deputy Director), the Licensee shall implement the Project as described in: (1) PG&E's November 22, 2023, certification application (PG&E 2023a); and (2) PG&E's May 9, 2024, supplemental submission updating Project activities (PG&E 2024a).

Additionally, unless otherwise approved by the Federal Energy Regulatory Commission (FERC) and the Deputy Director, the Licensee shall comply with the flow requirements for below Tiger Creek Regulator Dam as required by the FERC license for the Mokelumne River Hydroelectric Project (FERC Project No. 137) throughout Project implementation.

CONDITION 2: Water Quality Monitoring

The Licensee shall monitor water quality during Project activities with the potential to result in a discharge to surface waters. At a minimum, water quality monitoring shall be performed during dewatering, discharge of seepage water, rewatering, water diversion, in-water work, and any construction activity with the potential to discharge into surface waters (Consistent with Mitigation Measures (MMs) Hydrology and Water Quality (WQ)-MM-1 and WQ-MM-4)[10]. (State Water Board 2024b.)

2(A) Water Quality Parameters

At a minimum, the Licensee shall monitor for turbidity, pH, temperature, dissolved oxygen, and construction-related visible pollutants (e.g., oils, greases, fuels, turbidity plumes).

2(B) Monitoring Frequencies

Monitoring for turbidity, pH, temperature, and dissolved oxygen shall be conducted in 15-minute or more frequent intervals using an automated sensor system. Visual

[10] See Attachment B for the Mitigation, Monitoring, and Reporting Program, which details requirements associated with the mitigation measures identified in the Initial Study and Mitigated Negative Declaration developed for the Project pursuant to the California Environmental Quality Act.

monitoring for visible pollutants shall be conducted continuously throughout active Project work areas with the potential to result in a discharge to surface waters.

2(C) Monitoring Locations

Unless otherwise approved by the Deputy Director, the Licensee shall monitor turbidity, pH, dissolved oxygen, and temperature at the following locations:

- Within Tiger Creek Regulator Reservoir (as appropriate).
- Upstream of the plunge pool diversion.
- No more than 300 feet downstream of the temporary water diversion discharge.

The Licensee shall take a Global Positioning System point and a photograph for each proposed monitoring location and provide them to Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board) and State Water Resources Control Board (State Water Board) staff at least two weeks prior to starting water quality monitoring. The Deputy Director may require the Licensee to use other locations if the Deputy Director determines the submitted locations are inadequate.

The Licensee shall conduct visible pollutant monitoring throughout the entire length of Tiger Creek within or adjacent to any active work areas.

2(D) Water Quality Objectives

The Licensee shall ensure that Project activities comply with the *Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin* (Central Valley Basin Plan) (Central Valley Regional Water Board 2019 and any amendments thereto) water quality objectives. The current water quality objectives for turbidity, pH, temperature, dissolved oxygen, and visible pollutants are as provided below for reference unless updated by an amendment to the Central Valley Basin Plan:

Turbidity. The Licensee shall not increase turbidity to levels that cause nuisance or adversely affect beneficial uses. Increases in turbidity attributable to controllable water quality factors shall not exceed the following limits:

- Where natural turbidity is less than 1 Nephelometric Turbidity Unit (NTU), controllable factors shall not cause downstream turbidity to exceed 2 NTUs.
- Where natural turbidity is between 1 and 5 NTUs, increases shall not exceed 1 NTU.
- Where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent.
- Where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs.
- Where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

In determining compliance with the above limits, an appropriate averaging period, not to exceed 24 hours, may be applied, provided that beneficial uses will be fully protected.

pH. The Licensee shall maintain pH between 6.5 and 8.5.

Temperature. The Licensee shall not allow temperature to rise more than 5° Fahrenheit above the natural receiving water temperature.

Dissolved Oxygen. The Licensee shall not decrease dissolved oxygen below 7.0 milligrams per liter.

Visible Pollutants. Waters shall not contain oils, greases, waxes, suspended sediment material, 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.

2(E) Water Quality Monitoring Reporting

As part of Progress Reports (Condition 7), the Licensee shall submit water quality monitoring information. Monitoring information shall include: (1) monitoring results including raw data; (2) a description of monitoring methods, including equipment, frequency of data collection, quality assurance/quality control protocols; and (3) description of any water quality exceedances or information necessary to understand to results. If determined necessary by the Deputy Director, the Licensee shall consult with State Water Board staff regarding the need for additional site-specific measures to protect water quality and implement any measures determined necessary by the Deputy Director.

2(F) Exceedances of Water Quality Objectives

The Deputy Director and the Central Valley Regional Water Board Executive Officer (Executive Officer) shall be notified promptly, and in no case more than 24 hours, following an exceedance of any water quality objective described in the Central Valley Basin Plan. The notice shall include the cause of the violation, measures taken to correct the violation, and measures the Licensee will implement to prevent future violations. Regardless of when such notification occurs, activities associated with the exceedance shall cease immediately upon detection. Work activities may resume after corrective actions have been implemented, water quality meets the Central Valley Basin Plan water quality objective, and the Deputy Director has provided approval to proceed. The Deputy Director may require additional actions to help prevent similar exceedances in the future.

2(G) Water Quality Monitoring Adaptive Management

Based on monitoring results and environmental conditions, the Licensee may request changes to water quality monitoring requirements in this condition. Changes may be requested by the Licensee following consultation with State Water Board and Central Valley Regional Board staff. The Licensee shall submit the request to the Deputy

Director for review and consideration of approval at least one month prior to the requested start date to implement the proposed changes. The request shall include the proposed changes and supporting rationale. The Deputy Director may require additional changes as part of any approval. The Licensee shall not implement the changes until approved by the Deputy Director.

CONDITION 3: Biological Resources

The Licensee shall implement the following biological resource measures to protect aquatic biological resources and associated habitats, during Project implementation. For the purposes of this condition, a qualified biologist (biologist) is a biologist who is knowledgeable of and experienced with special-status species and their habitats that may be in the Project area.

3(A) Worker Environmental Awareness Training

Consistent with Biological Resources (BIO)-MM-1, the Licensee shall retain a biologist to develop and conduct a mandatory worker environmental awareness training about special-status species and other sensitive resources that could be encountered during Project work (e.g., sensitive natural communities, northwestern pond turtle, foothill yellow-legged frog).

The biologist shall prepare a handout that contains information (including photographs) about how to identify pertinent species, their habitat requirements, and the avoidance and minimization measures to be implemented. All personnel shall receive worker environmental awareness training before conducting Project work and new personnel shall receive the training as they are brought onto the Project. Proof of personnel environmental training shall be kept on file by the Licensee. Each worker shall be provided with a copy of the handout and at least one copy shall remain onsite throughout the duration of the Project.

3(B) General Environmental Protections

Unless otherwise approved by the Deputy Director, the Licensee shall implement the following environmental protection measures consistent with and/or complementary to BIO-MM-1 and BIO-MM-7:

- Before construction begins, the Licensee shall identify sensitive locations to be protected with fencing or other high visibility materials and shall place stakes to indicate these locations. At a minimum, sensitive locations shall include ditches at the Cedar Mill staging area, seasonal and emergent wetlands, ephemeral drainages, and perennial drainages. Fencing shall be installed with a gap between the ground and the bottom of the fence so that small animals do not become trapped inside the fenced area. The fencing or other high visibility materials shall be installed before construction activities are initiated, maintained throughout the construction period, and removed when construction is complete.

- Silt fencing shall be installed along the eastern and southeastern edges of the Spur 1 staging area to prevent wildlife species that use Tiger Creek from entering the staging area. A biologist shall be present during silt fence installation.
- The biologist shall conduct a visual survey for wildlife in the work area prior to the start of work. Wildlife observed during the survey shall be recorded. The results of the survey shall be provided to the Deputy Director as part of the first Progress Report (Condition 7).
- Work crews shall be restricted to designated and clearly defined work areas and access routes. Staging of equipment and material sites shall be restricted to designated areas.
- A biologist shall make regular visits to the Project area to ensure that environmentally sensitive areas continue to remain protected, provide environmental awareness training to new crew members, and determine if general restrictions and guidelines are being followed. After the initial activities of identifying sensitive areas, installing protective fencing, and pre-construction surveys a biologist shall visit the Project area at least weekly during the first two months of active construction, every other week during the next three months of construction, and once a month for the remainder of the work period. Special-status species observed during the site visits shall be recorded.
- Special-status species observed by construction personnel shall be recorded and reported to the biologist and included in the subsequent Progress Report (Condition 7). The report shall include the species (with pictures, if possible) and location of the observed species and any actions taken or other relevant information.
- The biologist shall have the authority to stop work in the immediate vicinity if a special-status species or other sensitive resources may be harmed by Project activities.
- At the end of each workday, an escape ramp shall be placed at each end of any open excavation to allow wildlife that may become trapped with the ability to climb out overnight. The biologist or designated construction personnel shall check excavations, open pipes, and other areas prior to filling, moving, or disturbing to ensure that animals are not trapped or harmed by construction activities.
- Vehicle access across streams and wetlands shall be limited to existing roads and designated crossings.
- Laydown and staging areas shall be located in previously developed or disturbed areas.
- All pump intakes that are placed in Tiger Creek, Tiger Creek Regulator Reservoir, the existing plunge pool, or any other waterbody shall be screened to prevent fish entrainment.

3(C) Preconstruction Survey for Northwestern Pond Turtle Upland Habitat at the Cedar Mill Staging Area

To avoid potential injury or mortality of northwestern pond turtles, the Licensee shall implement the following protection measures consistent with BIO-MM-2:

- Prior to grading in annual grassland at the Cedar Mill staging area, a biologist shall conduct a preconstruction survey for turtle nests or hibernating turtles.
- If a northwestern pond turtle is encountered in the Project area, work in the immediate area shall stop and the turtle shall be allowed to leave the area on its own. The biologist shall be contacted immediately and shall continuously monitor the turtle's movements until it is safely out of the work area. The biologist shall report any northwestern pond turtles in the Project area to the Deputy Director, California Department of Fish and Wildlife (CDFW), and United States Fish and Wildlife Service within one day of the occurrence.

3(D) Wetland and Aquatic Habitat Protections

The Project will result in temporary and permanent impacts to reservoir and stream channel habitats. The Project is anticipated to have 0.02 acre of temporary impacts and 0.102 acre of permanent impacts to Tiger Creek Regulator Reservoir. The Project is anticipated to have 0.003 acre of temporary impacts and 0.029 acre of permanent impacts to Tiger Creek. The Licensee shall notify the Deputy Director of any update to the estimated temporary and permanent impacts if they vary from what is noted in this condition. Additionally, permanent impacts shall be compensated for at a minimum of a 1:1 ratio consistent with the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (Dredge or Fill Procedures) (State Water Board 2019 and 2021) and California Water Code, Division 7, Chapter 28, sections 16200-16201, and any amendments thereto (BIO-MM-6). The Licensee shall provide the Deputy Director with documentation of compliance with this mitigation provision as part of the Completion Report (Condition 7).

Unless otherwise approved by the Deputy Director, the Licensee shall implement the following wetland and aquatic habitat protection measures consistent with BIO-MM-5:

- The Licensee shall avoid temporary impacts to the maximum extent possible where construction activities can be excluded from wetlands and non-wetland waters.
- The Licensee shall avoid construction activities in saturated or ponded natural wetlands and drainages during the wet season (spring and winter) to the maximum extent possible.
- The Licensee shall stabilize streams/drainages immediately upon completion of construction activities. Non-wetland waters of the United States that were vegetated prior to construction shall be restored in a manner that encourages vegetation to re-establish to pre-Project condition and reduces the effects of erosion on the drainage system.
- The Licensee shall remove any debris or soils that are inadvertently deposited below the ordinary high-water mark of the Tiger Creek Regulator Reservoir in a manner that minimizes disturbance of the bed and bank.

3(E) Fish Rescue and Relocation

Consistent with BIO-MM-8, the Licensee shall develop and implement a Fish Rescue and Relocation Plan (Fish Rescue Plan) to capture and relocate fish out of harm’s way

prior to installation of the plywood or steel sheet at the M-76 weir and prior to commencement of Tiger Creek dewatering activities. The Fish Rescue Plan shall be submitted to the Deputy Director for review and consideration of approval at least 60 days before the desired date for initiating cofferdam installation activities.

Unless otherwise approved by the Deputy Director, at a minimum, the Fish Rescue Plan shall include the following:

- A schedule to begin fish rescue and relocation, which shall occur immediately prior to plywood or steel sheet installation and dewatering.
- Protocols to decontaminate all gear and tools (e.g., waders, boots, nets, buckets) to minimize spreading aquatic invasive species and diseases (e.g., chytrid fungus).
- A description of the methods and equipment proposed to collect, transfer, and release all rescued fish.

Only biologists shall lead fish rescue and relocation activities.

After completion of fish rescue and relocation activities, the Licensee shall prepare a report that includes, at a minimum: the date and time of capture and relocation; the method of capture; map of rescue and relocation locations in relation to the Project; the number and species of fish captured and relocated; and the number, species, and cause of any fish mortalities associated with rescue and relocation efforts. The post-relocation report shall be provided to the Deputy Director and CDFW within 14 calendar days of completing each fish rescue and relocation effort.

CONDITION 4: Erosion and Sediment Control

4(A) General Erosion Control Measures

Unless otherwise approved by the Deputy Director, the Licensee shall implement the following erosion and sediment control measures to reduce potential impacts to surface waters:

- Ground disturbance and vegetation removal shall not exceed the minimum amount necessary to complete work at the site (WQ-MM-1).
- Following construction of the new spillway, the Licensee shall implement soil stabilization and revegetation, as appropriate, to ensure bare soils are covered (WQ-MM-1).
- Tiger Creek, and any other aquatic habitats, wetlands, or riparian habitat, shall be protected with silt fences, fiber rolls, erosion control blankets, and other erosion controls as necessary. Erosion controls shall be installed prior to Project construction and maintained throughout the Project. No fill, including vegetation trimmings and debris shall be allowed to enter Tiger Creek or other aquatic habitats, wetlands, or riparian habitat.
- To the extent feasible, work areas shall be returned to pre-existing conditions upon Project completion. Following Project completion, all construction materials,

spoils, or other debris shall be properly disposed of or removed and/or stored in a manner that will not impact surface waters.

- Barriers shall be installed at all laydown sites to ensure construction equipment, workers, and runoff do not enter surface waters (WQ-MM-1).
- A filter shall be installed on the plunge pool excavation dewatering system, as needed, to prevent turbid water from being discharged into surface waters (WQ-MM-1).
- Concrete, solvents, adhesives, fuels, dirt, and gasoline shall not be rinsed or washed into the Tiger Creek Regulator Reservoir, drainages, or wetlands (WQ-MM -1).
- The Licensee shall comply with the *National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit; State Water Board 2022b) and any amendments thereto (WQ-MM-1). If there is any conflict between the conditions of this certification and applicable conditions in the Construction General Permit, the more stringent shall apply.
- The Licensee shall comply with applicable construction best management practices specified in PG&E's Activity Specific Erosion and Sediment Control Plans[11] (WQ-MM-1).

4(B) Spur 1 Staging Area

The Licensee shall implement WQ-MM-2 to minimize water quality impacts to Tiger Creek related to operation of the mobile concrete batch plant and concrete production at the Spur 1 staging area.

4(C) Plunge Pool Erosion Protection

Prior to rock slope protection (e.g., placement of riprap or similar material) on either bank of the existing plunge pool, the Licensee shall install a silt curtain or implement other appropriate sediment control measures around the downstream edges of the plunge pool. Lowering the plunge pool water level by pumping water into water trucks and using it for dust suppression may also be implemented, if needed to ensure water quality protection. Sediment control measures shall not be removed until all associated temporary bridge construction activities are complete (i.e., the rock slope protection is tamped in and the temporary bridge is in place). If a significant summer storm is forecasted that could reengage the existing spillway during rock slope protection placement activities, sediment control measures shall be installed and all construction activity shall immediately stop until the storm has passed and any associated runoff into the existing plunge pool has ceased (WQ-MM-3).

[11] The relevant Activity Specific Erosion and Sediment Control Plans are *Good Housekeeping* from PG&E's Construction Stormwater Group, *Laydown/Staging Area Construction* from PG&E's Storm Water Program Group, *Dirt and Gravel* Access *Road Maintenance—Mountainous Regions* from PG&E's Water Quality Group, and *Stockpile Management* from PG&E's Construction Stormwater Group.

CONDITION 5: Hazardous Materials Management

Unless otherwise approved by the Deputy Director, and consistent with Hazards and Hazardous Materials (HAZ)-MM-1 and WQ-MM-1, the Licensee shall implement the following hazardous materials control measures:

- Construction personnel shall be trained in proper hazardous material management and shall be able to access safety data sheets for all substances used in the Project area.
- Except as specified below, all hazardous materials shall be contained in appropriate spill-proof containers and/or secondary containment areas and stored in designated areas at least 100 feet away from surface waters.
    - This does not include the mobile concrete batch plant, cranes, and associated materials in the Spur 1 staging area. Alternative protection measures for the mobile concrete batch plant shall be implemented as described in Condition 4(b) and WQ-MM-2. Alternative protection measures that shall be implemented for cranes are below.
- Temporary storage of hazardous materials, equipment staging, and servicing and refueling of equipment shall be conducted at designated locations away from surface waters.
- Except for cranes (addressed below) and the mobile concrete batch plant (addressed in Condition 4(b)), refueling shall only take place in designated areas that shall be at least 100 feet away from any waterbodies. Drip pans and/or absorbent pads shall be used during equipment fueling. Absorbent spill clean-up materials and spill kits shall be available in fueling areas. Fuels shall be stored in containment basins.
- Crane refueling shall occur at least 20 feet away from any waterbody, and at least 100 feet away when feasible. Fuel trucks used for crane refueling shall be equipped with an automatic shut-off nozzle to aid in preventing fuel spill and overfilling fuel tanks. Secondary spill containment materials such as absorbent rags and plastic sheeting shall be stored in fuel trucks and used during refueling to prevent fuel from contacting the ground and surface water. In addition, a secondary containment pan shall be placed under the crane’s fuel tank to capture fuel.
- All refueling operations shall be performed by trained personnel.
- Bulk fuel storage tanks shall be double-walled or placed in secondary containment areas.
- Hazardous materials and waste generated onsite shall be placed in proper containers, labeled appropriately, and transported from the job site to an authorized hazardous waste consolidation site.
- Prior to operation, all equipment shall be inspected for fluid leaks and signs of worn or damaged parts that may result in a hazardous material release.
- All power equipment and vehicles shall be free of petroleum residue, kept in good working order, and inspected each day for leaks prior to use. Leaks shall be repaired immediately in an area at least 100 feet away from waterbodies. Problem vehicles or equipment shall be removed from the Project area.

- Small-engine-powered equipment shall be provided with secondary containment areas. Whenever possible, vehicles and equipment with engines supplying motive power shall be parked in designated areas located 200 feet or more from surface waters. Drip pans or other containment measures shall be placed under vehicles and equipment when not in use and within 200 feet of surface waters.
- Equipment shall be staged overnight in secondary containment areas or with other suitable barriers to prevent accidental leakage of fuel, oils, or other liquid from soaking into the soil or being carried to surface waters.
- Appropriate spill containment and clean-up materials shall be available onsite at all times. Any spills shall be cleaned up immediately and shall not be buried or washed with water. Initial containment shall be with absorbent material or, if necessary, the construction of berms. Contaminated soil shall be excavated, contained, and transported to an approved disposal site. All media affected by a spill shall be cleaned up and disposed of offsite in accordance with applicable regulations.
- Hazardous materials permits shall be obtained from Amador County Environmental Health, as needed, for Project locations that store threshold quantities of hazardous materials for 30 days or more. Hazardous materials business plans and spill prevention control and countermeasure plans shall detail hazardous materials inventories, emergency contacts, spill prevention/response, and contingency plans, and shall be updated and implemented as appropriate.
- Concrete, solvents, adhesives, fuels, dirt, and gasoline shall not be rinsed or washed into Tiger Creek or other aquatic habitats, wetlands, or riparian habitat (WQ-MM-1).

The Licensee shall comply with California Code of Regulations, title 27, section 20320 when storing hazardous materials. The Licensee shall submit any hazardous material plans and any permits to the Deputy Director at least 30 days prior to starting Project activities or when the permit(s)/plan(s) are finalized, whichever is later.

Release of Hazardous Materials. If hazardous materials are released with the potential to impact surface waters, the Licensee shall immediately cease any activities that resulted in the release and implement measures to limit and clean up the release. The Licensee shall notify the Deputy Director and Executive Officer promptly, and in no case more than 24 hours, following the release. The notice shall include the type and quantity of material released, cause of the release, corrective measures taken, and measures the Licensee will implement to prevent a future release. The Deputy Director may require additional actions to help prevent similar releases in the future. The Licensee may resume work upon Deputy Director approval.

CONDITION 6: Dewatering and Water Diversion

The Licensee shall develop and submit a Dewatering and Diversion Plan (Dewatering Plan) to the Deputy Director for review and consideration for approval. The Dewatering Plan shall be submitted to the Deputy Director a minimum of 90 days prior to beginning dewatering activities.

Unless otherwise approved by the Deputy Director, the Dewatering Plan shall include:

- Site plan map(s), drawing(s), and/or photo(s) showing the location and length of the dewatered stream segment and discharge location(s).
- Description of work related to dewatering and water diversion activities, including:
    - Equipment and methods used for dewatering and water diversion, including descriptions of installation, operation, maintenance, removal, and rewatering (e.g., inspection and follow-up actions, if applicable).
    - Type of barrier that will be used to isolate construction area from surface waters.
    - List of materials that will be used in or adjacent to the watercourse.
- Schedules for each stage of dewatering and water diversion activities (i.e., equipment installation, dewatering, barrier installation, water diversion, equipment removal, rewatering).
- If applicable, measures to address seepage water and/or groundwater intrusion.
- Measures to avoid potential water quality and beneficial use impacts during dewatering, water diversion, and rewatering activities (e.g., energy-dissipating features at discharge locations to prevent erosion, or reference to applicable certification conditions).

Any changes to the Dewatering Plan shall be submitted to the Deputy Director prior to implementation. The Licensee shall not commence Project dewatering or diversion activities without receipt of Deputy Director approval of the Dewatering Plan. The Licensee shall implement the Dewatering Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

CONDITION 7: Reporting

7(A) Initial Report and Updates to Project Schedule

At least five days prior to starting Project activities, the Licensee shall notify the Central Valley Regional Water Board and State Water Board staff that Project activities are anticipated to begin and provide an anticipated schedule for the Project. Throughout Project implementation the Licensee shall provide staff with updates to any major changes to the Project schedule within five days of the schedule change.

7(B) Progress Reports

Every 60 days following initiation of Project activities and throughout Project activities, the Licensee shall submit Progress Reports to the Division of Water Rights Water Quality Certification Program Manager. The Progress Reports shall include:

- A summary of Project activities performed.
- Documentation of compliance with each condition of this certification and details of any failure to meet the certification requirements.
- Summary of pre-construction surveys for aquatic resources, including any relocated or fenced-off aquatic species or sensitive habitat.

- Details of Project-related adverse impacts to beneficial uses, if applicable.
- Any anticipated activities that would differ from those described in the certification application or required by this certification.

The Licensee may request consultation regarding the need for development and implementation of additional best management practices for water quality protection or approval of additional site-specific construction measures as part of a Progress Report or as part of a separate request if more immediate action is needed to protect water quality. Upon request from the Deputy Director or State Water Board staff, the Licensee shall provide additional information or meet with staff to discuss the Completion Report.

The Deputy Director may require the Licensee to implement additional measures or corrective actions or approve additional measures proposed by the Licensee in response to the information provided in a Progress Report, a request for consultation, new information in the record, or approval of additional measures to protect water quality and beneficial uses.

7(C) Completion Report

Within 60 days of Project completion, the Licensee shall provide the Deputy Director with a Completion Report that comprehensively summarizes:

- Project activities performed.
- Compliance with each condition of this certification and details of any failure to meet the certification requirements.
    - The Project Completion Report may refer to previously submitted Progress Reports.
- Final inspection information with details to ensure the Project area cleanup was satisfactorily completed.
- Details of any environmental protection measure inadequacies found during Project implementation.
- Details of Project-related adverse impacts to beneficial uses, if applicable.

Upon request from the Deputy Director or State Water Board staff, the Licensee shall provide additional information or meet with staff to discuss the Completion Report.

The Deputy Director may require the Licensee to implement corrective actions in response to the information provided in the Completion Report, new information in the record, or as part of approval of additional measures to protect water quality.

CONDITIONS 8 – 26

CONDITION 8. Unless otherwise specified in this certification or at the request of the Deputy Director, data and/or reports shall be submitted electronically in a format accepted by the State Water Board to facilitate the incorporation of this information into public reports and the State Water Board's water quality database systems in compliance with California Water Code section 13167.

CONDITION 9. This certification does not authorize any act which results in the take 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 (ESA) (Fish & G. Code, §§ 2050 – 2097) or the federal ESA (16 U.S.C. §§ 1531 – 1544). If a "take" will result from any act authorized under this certification or water rights held by the Licensee, the Licensee 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 Licensee is responsible for meeting all requirements of the applicable ESAs for the Project authorized under this certification.

CONDITION 10. This certification shall not be construed as replacement or substitution for any necessary federal, state, and local approvals. The Licensee is responsible for compliance with all applicable federal, state, or local laws or ordinances and shall obtain authorization from applicable regulatory agencies prior to the commencement of Project activities.

CONDITION 11. Any requirement in this certification that refers to an agency whose authorities and responsibilities are transferred to or subsumed by another state or federal agency, will apply equally to the successor agency.

CONDITION 12. Nothing in this certification shall be construed as State Water Board approval of the validity of any water rights, including pre-1914 or riparian claims. The State Water Board has separate authority under the Water Code to investigate and take enforcement action, if necessary, to prevent any unauthorized or threatened unauthorized diversions of water.

CONDITION 13. This certification is subject to modification or revocation upon administrative or judicial review, including but not limited to review and amendment pursuant to Water Code section 13330 and California Code of Regulations, title 23, division 3, chapter 28, article 6 (commencing with section 3867).

CONDITION 14. This certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility and requiring a FERC license or an amendment to a FERC license unless the pertinent application for certification was filed pursuant to California Code of Regulations, title 23, section 3855, subdivision (b), and that application for certification specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

CONDITION 15. This certification is conditioned upon total payment of any fee required under California Code of Regulations, title 23, division 3, chapter 28.

CONDITION 16. Notwithstanding any more specific provision of this certification, any plan or report developed as a condition of this certification requires review and approval by the Deputy Director. The State Water Board's approval authority, including authority delegated to the Deputy Director or others, includes the authority to withhold approval or to require modification of a plan, proposal, or report prior to approval. The State Water Board may take enforcement action if the Licensee fails to provide or implement a required item in a timely manner. Notwithstanding any other condition of this

certification, if a time extension is needed to submit an item for Deputy Director approval, the Licensee shall submit a written request for the extension, with justification, to the Deputy Director no later than 15 days prior to the deadline. The Licensee shall not implement any plan, proposal, or report until after the applicable State Water Board approval and any other necessary regulatory approvals.

CONDITION 17. In the event of any violation or threatened violation of the conditions of this certification, including if monitoring results indicate that Project activities could violate water quality objectives or impair beneficial uses, the violation or threatened violation is subject to any remedies, penalties, process, or sanctions as provided for under applicable state or federal law. For the purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to ensure compliance with the water quality standards and other pertinent requirements incorporated into this certification. In response to any violation or threatened violation of the conditions of this certification, the Licensee shall, by a deadline required by the Deputy Director, submit a plan that documents why the violation occurred and steps the Licensee will implement to address the violation. The Licensee shall implement the plan upon approval from the Deputy Director, and the Deputy Director may require modifications as part of any approval.

CONDITION 18. The Licensee shall submit any change to the Project, including, operations, facilities, technology changes or upgrades, or methodology, which could have a significant or material effect on the findings, conclusions, or conditions of this certification, to the State Water Board for prior review and written approval. The State Water Board shall determine significance and may require consultation with other state and/or federal agencies. If the State Water Board is not notified of a change to the Project, it will be considered a violation of this certification.

CONDITION 19. This certification is contingent on compliance with all applicable requirements of the Central Valley Basin Plan.

CONDITION 20. Unless otherwise specified by conditions in this certification, Project activities shall be conducted in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act. The Licensee shall take all reasonable measures to protect the beneficial uses of waters of the state, including Tiger Creek and the Tiger Creek Regulator Reservoir.

CONDITION 21. In response to a suspected violation of any condition of this certification, the State Water Board or Central Valley Regional Water Board may require the holder of any federal permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the State 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. (Wat. Code, §§ 1051, 13165, 13267, and 13383.)

CONDITION 22. Upon request, a construction schedule shall be provided to State Water Board and Central Valley Regional Water Board staff. The Licensee shall provide State Water Board and Central Valley Regional Water Board staff access to Project sites to document compliance with this certification.

CONDITION 23. A copy of this certification shall be provided to any contractor and all subcontractors conducting Project-related work, and copies shall remain in their possession at the Project site. The Licensee shall be responsible for work conducted by its contractor, subcontractors, or other persons conducting Project-related work.

CONDITION 24. The Licensee shall use analytical methods approved by California's Environmental Laboratory Accreditation Program, where such methods are available. Samples that require laboratory analysis shall be analyzed by Environmental Laboratory Accreditation Program-certified laboratories.

CONDITION 25. The State Water Board shall provide notice and an opportunity to be heard in exercising its authority to add to or modify the conditions of this certification.

CONDITION 26. Certification that the Project will be protective of the state and federal water quality standards and other appropriate requirements of state law is dependent upon the conditions and limitations imposed by this certification; however, to ensure the validity of this certification upon any challenge that is not addressed by another condition of this certification, the provisions of this certification are severable. If any provision of this certification is found invalid, affects the validity of the certification, or would result in a determination that the State Water Board has waived its section 401 certification authority for the Project, the remainder of this certification shall not be affected. Upon remand from determination on administrative or judicial review that a provision of this certification is invalid or affects the validity of the certification the State Water Board may adopt an alternative term that addresses the water quality issue while avoiding the invalidity.

_____ November 21, 2024

Eric Oppenheimer Date
Executive Director

8.0 References

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TIGER CREEK REGULATOR DAM SPILLWAY REPLACEMENT PROJECT
WATER QUALITY CERTIFICATION

ATTACHMENT A:
PROJECT OVERVIEW MAPS

Attachment A: Project Overview Maps

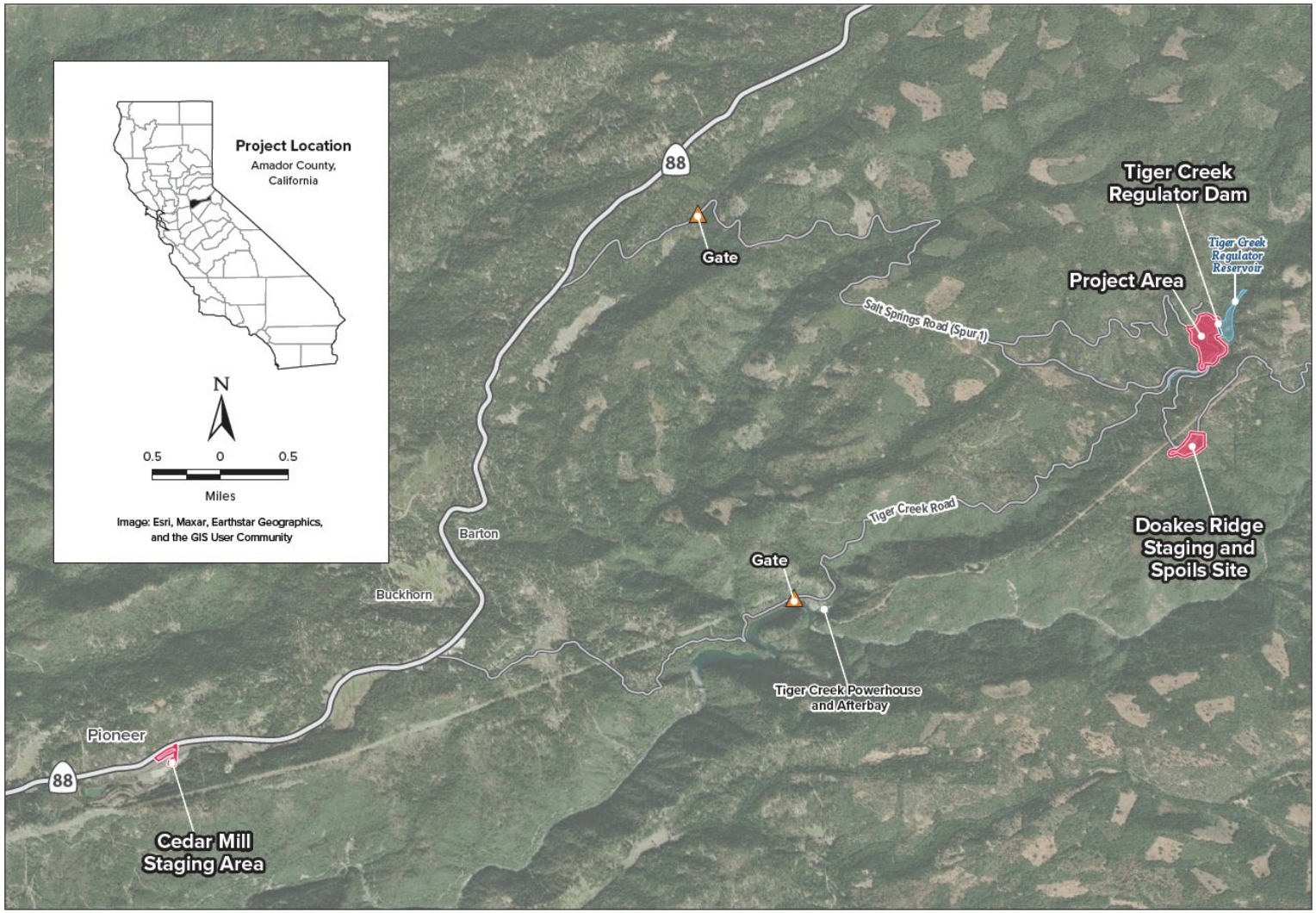

Figure A1. Tiger Creek Regulator Dam Spillway Replacement Project Location (PG&E 2023a)

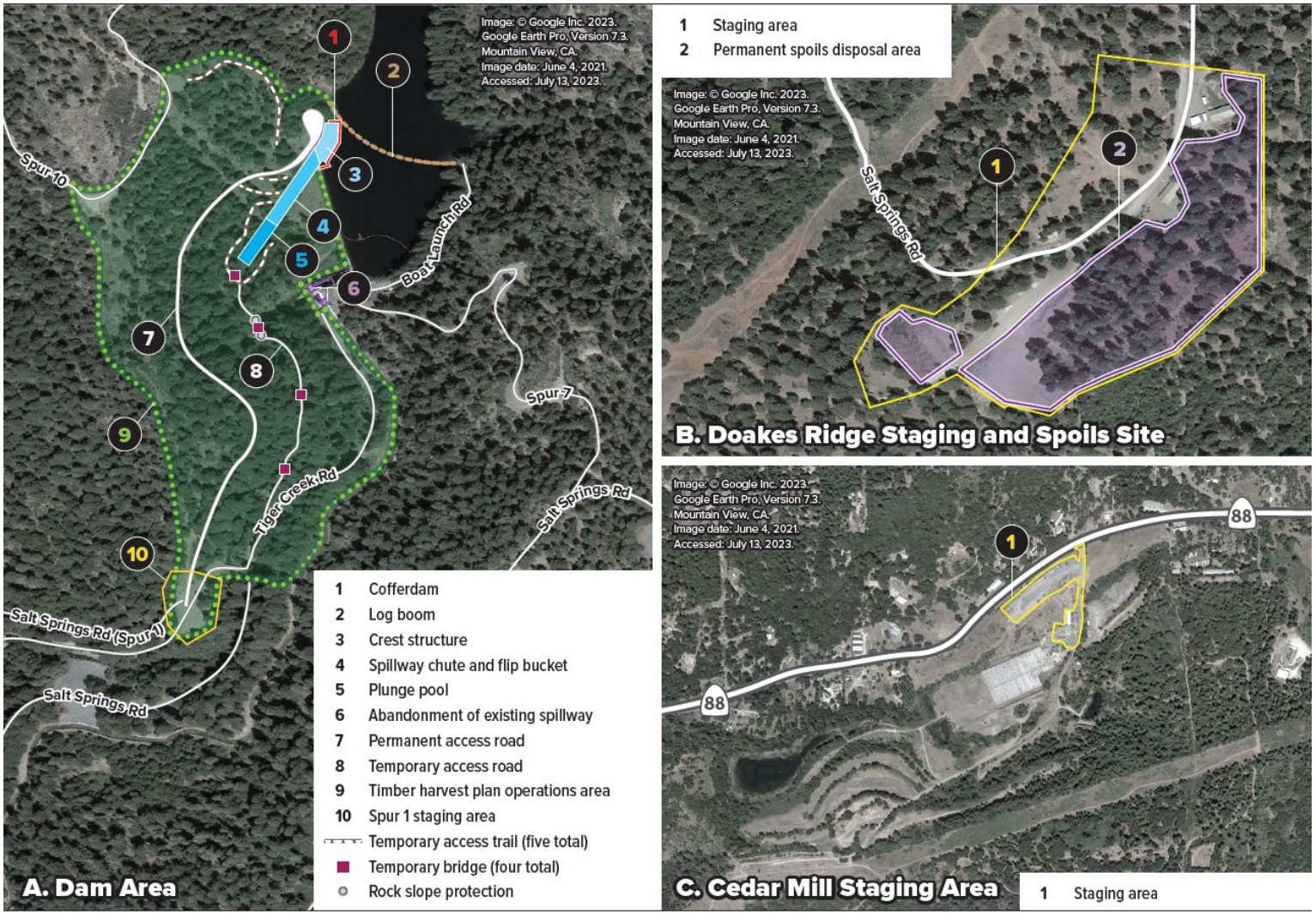

Figure A2. Aerial View of Tiger Creek Regulator Dam Spillway Replacement Project Sites (PG&E 2023a)

TIGER CREEK REGULATOR DAM SPILLWAY REPLACEMENT PROJECT
WATER QUALITY CERTIFICATION

ATTACHMENT B:
MITIGATION MONITORING AND REPORTING PROGRAM FOR THE TIGER CREEK REGULATOR DAM SPILLWAY REPLACEMENT PROJECT

From Appendix G of the final Initial Study/Mitigated Negative Declaration.

Appendix G

Mitigation Monitoring and Reporting Program for the Tiger Creek Regulator Dam Spillway Replacement Project

The State Water Resources Control Board (State Water Board) has developed this Mitigation Monitoring and Reporting Program (MMRP) for the Tiger Creek Regulator Dam Spillway Replacement Project (Proposed Project). The MMRP identifies the mitigation measures that will be implemented for the Proposed Project, the individual or entity responsible for implementation, the schedule for mitigation measure implementation, and relevant mitigation and monitoring details. The State Water Board is the Lead Agency for the Proposed Project.

Table G-1. Mitigation Monitoring and Reporting Program for the Tiger Creek Regulator Dam Spillway Replacement Project

Mitigation Measure	Responsibility for Implementation	Implementation Schedule	Mitigation and Monitoring Details
WQ-MM-1: Implement Water Quality Protection Measures and Erosion and Sediment Control Plans	PG&E and its construction contractor	Prior to, during, and after construction	PG&E shall comply with all applicable construction BMPs specified in PG&E's Activity Specific Erosion and Sediment Control Plans[1], the SWPPP, and any other permit conditions to minimize the introduction of construction-related contaminants and mobilization of sediment into wetlands and other waters in and adjacent to the project area. These BMPs shall address soil stabilization, sediment control, wind erosion control, vehicle tracking control, non-stormwater management, and waste management practices. The BMPs shall be based on the best available technology. In California, the National Pollution Discharge Elimination System (NPDES) program requires that any construction activity disturbing one or more acres comply with the statewide General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit), as authorized by the State Water Board. The General Permit requires elimination or minimization of non-stormwater discharges from construction sites and development and implementation of a SWPPP for the site. The SWPPP shall include the following primary elements: • Description of site characteristics—including runoff and streamflow characteristics and soil erosion hazard—and construction procedures; • Guidelines for proper application of erosion and sediment control BMPs; • Description of measures to prevent and control toxic materials spills; and • Description of construction site housekeeping practices. In addition to these primary elements, the SWPPP shall specify that the extent of soil and vegetative disturbance shall be minimized by exclusionary fencing, erosion control fencing, or other means; and that the extent of soil disturbed at any given time shall be minimized. The SWPPP shall be retained at the construction site. PG&E shall perform routine inspections of the construction area to verify that the BMPs are properly implemented and maintained. These BMPs shall include, but are not limited to the following, as well as those listed in Mitigation Measure HAZ-MM-1: *Implement Hazardous Materials Control Measures*: • At all laydown sites, barriers shall be installed to ensure construction equipment, workers, and runoff do not enter adjacent sensitive resource areas; • A filter shall be installed on the plunge pool excavation dewatering system, as needed, to prevent turbid water from being discharged into Tiger Creek; • PG&E shall monitor turbidity and pH levels at multiple locations within Tiger Creek. These locations shall include, but are not limited to: (1) immediately upstream of the plunge pool diversion and (2) up to 300 feet downstream of the plunge pool diversion; • Concrete, solvents, adhesives, fuels, dirt, and gasoline shall not be rinsed or washed into the Reservoir, drainages, or wetlands; and • Following completion of construction activities, the temporary access road and trails, as well as any other disturbed soils, shall be covered with a combination of temporary cover (mulch) and the means to establish permanent vegetative stabilization (seed, fertilizer, soil amendments, etc.).
WQ-MM-2: Implement Spur 1 Staging Area Water	PG&E and its construction contractor	Prior to and during construction	To minimize the potential for water quality impacts on Tiger Creek related to the operation of the mobile batch plant and concrete production at the Spur 1 staging area, a portion of which is located within 100 feet of Tiger Creek, PG&E and/or the construction contractor shall implement the following BMPs:

Mitigation Measure	Responsibility for Implementation	Implementation Schedule	Mitigation and Monitoring Details
Quality Protection Measures			• All vehicle refueling at the Spur 1 staging area shall occur at least 100 feet from Tiger Creek. This does not include the mobile batch plant. **<u>Mobile Batch Plant Area</u>** • An earthen berm (minimum of 8 feet wide by 3 feet high) and silt fence shall surround the side of the mobile batch plant adjacent to Tiger Creek; • The mobile batch plant generator shall include secondary containment for the attached fuel tank; • Bulk fuel for the mobile batch plant shall be stored at Doakes Ridge staging and spoils site and shall be transported to the Spur 1 staging area, as needed, using fuel and lube trucks. • Material stockpiles shall fully contained within K-rail barriers and, when not in regular use (i.e., when concrete is not being made) and during precipitation events, be covered; • The height of material stockpiles shall be reduced from approximately 12 feet to 6 feet or lower if heavy precipitation is anticipated; • A temporary construction entrance/exit shall be installed at the mobile batch plant area to limit off-site tracking of dirt, sand, concrete, and other related materials. Signage identifying the entrance/exit shall be placed in a visible location and all vehicles entering and exiting the area shall use this entrance/exit; • Cement and fly ash silos shall be fully enclosed and weatherproofed; and • Any excess wet concrete shall be discarded in an above-grade concrete washout container and then disposed of offsite at an approved facility. **<u>Concrete Washout Area</u>** • Signage identifying the concrete washout area shall be placed in a visible location. • The concrete washout area shall be located at least 100 feet from Tiger Creek and contained within an earthen berm surrounded by a silt fence; • Washout of all-terrain concrete mixer vehicles and other concrete-coated equipment shall be performed only within the designated concrete washout area; • To contain washout water and cement waste, all equipment washout shall occur within a roll-off concrete washout container or an above-grade straw bale washout facility. The above-grade washout shall be lined with a minimum of 10-millimeter (0.01-inch) plastic sheeting that is free of holes, tears, and other defects. The sheeting shall be secured via staples to the wire-bound straw bales, which shall be staked in place. If an above-grade washout is used, the lining shall be inspected daily and after each storm event for leaks, and shall be replaced after every cleaning; and • Washout water and material shall be disposed of offsite at an approved facility. If an above-grade washout is used, washout water shall be allowed to evaporate onsite.
WQ-MM-3: Implement Sediment Control Measures along Downstream Edge of Existing Plunge Pool prior to	PG&E and its construction contractor	Prior to and during construction	Prior to rock slope protection (riprap or similar material) placement on either bank of the existing plunge pool, PG&E and/or its contractor shall install a silt curtain or implement other appropriate sediment control measures, such as clean gravel bags or sand bags, around the downstream edges of the plunge pool as a barrier to sediment movement. Lowering the plunge pool's water level by pumping water into water trucks and using it for dust suppression could also be implemented. The sediment control measures shall be determined by PG&E's Water Quality Specialists based on field conditions at the time of construction. The purpose of the silt curtain or other appropriate measures is to contain any sediment dislodged during the placement of rock slope protection within

Mitigation Measure	Responsibility for Implementation	Implementation Schedule	Mitigation and Monitoring Details
Rock Slope Protection Placement			the existing plunge pool perimeter and not allow it to enter Tiger Creek. The sediment control measures shall not be removed until all associated temporary bridge construction activities are complete (i.e., the rock slope protection is tamped in, and the temporary bridge is in place). If a significant summer storm is forecasted that could reengage the existing spillway during rock slope protection placement activities, then sediment control measures, such as plastic sheeting, fiber roll, or erosion control blanket, shall be installed and all construction activity shall immediately stop until the storm has passed and any associated runoff into the existing plunge pool has ceased.
WQ-MM-4: Develop and Implement a Water Quality Monitoring and Adaptive Management Plan	PG&E	Prior to and during construction	PG&E shall develop a Water Quality Monitoring and Adaptive Management Plan (Water Quality Plan) in consultation with Central Valley Regional Water Quality Control Board and State Water Board staff. The Water Quality Plan shall include monitoring protocols to ensure Mitigation Measures WQ-MM-1, WQ-MM-2, and WQ-MM-3 prevent construction activities from violating water quality objectives identified in the SJR/SR Basin Plan. The Water Quality Plan shall also include adaptive management procedures to develop and implement new water quality protection measures with Central Valley Regional Water Quality Control Board and State Water Board staff if construction violates water quality objectives. PG&E shall not commence construction until the State Water Board Deputy Director of the Division of Water Rights approves the Water Quality Plan.
BIO-MM-1: Conduct Worker Environmental Awareness Training and Implement General Requirements	PG&E and its construction contractor	Prior to and during construction	PG&E shall retain a qualified biologist to develop and conduct a mandatory worker environmental awareness training about special-status species and other sensitive resources that could be encountered during Proposed Project work (e.g., sensitive natural communities, northwestern pond turtle, special-status bats). In addition, construction employees shall be educated about the importance of controlling and preventing the spread of invasive plant infestations. The biologist shall prepare a handout that contains information (including photographs) about how to identify pertinent species, their habitat requirements, and the avoidance and minimization measures to be implemented. All personnel shall receive worker environmental awareness training before conducting Proposed Project work and new personnel shall receive the training as they are brought onto the Proposed Project. Proof of personnel environmental training attendance shall be kept on file by PG&E. Each worker shall be provided with a copy of the handout and at least one copy shall remain onsite throughout the duration of the Proposed Project with the construction foreman. General restrictions and guidelines that shall be in the training and followed by Proposed Project personnel are listed below. The Proposed Project foreman shall be responsible for ensuring that crew members adhere to these guidelines and restrictions: • Before construction begins, the construction contractor shall work with the Proposed Project engineer and a biologist to identify sensitive locations to be protected with orange construction fencing or other high visibility materials (e.g., stanchions or pilons and flagging) and shall place stakes to indicate these locations. Sensitive locations shall include ditches at the Cedar Mill staging area, seasonal and emergent wetlands, ephemeral drainages, and perennial drainages. Fencing shall be installed with a one-foot gap between the ground and the bottom of the fence so that small animals do not become trapped in the fence. The fencing or other high visibility materials shall be installed before construction activities are initiated, maintained throughout the construction period, and removed when construction is completed. The protected areas shall be designated as environmentally sensitive areas and clearly identified on the construction plans or resource protection exhibit, which shall be prepared after the site review with the contractor and prior to construction; • Silt fencing shall be installed along the eastern and southeastern edges of the Spur 1 staging area to prevent wildlife species that utilize Tiger Creek from entering the staging area. The fence shall extend 50 feet beyond the southern extent of the staging area and shall be curved or bent back towards the creek on both ends of the fencing to direct any small wildlife back to the creek. A biological monitor shall be present during silt fence installation.

Mitigation Measure	Responsibility for Implementation	Implementation Schedule	Mitigation and Monitoring Details
			• The biological monitor shall conduct a visual survey for wildlife in the work area prior to the start of work. Wildlife observed during the survey shall be recorded. The results of the survey shall be provided to the State Water Board and CDFW. • Work crews shall be restricted to designated and clearly defined work areas and access routes. Staging of equipment and material sites shall be restricted to designated areas; • A biological monitor shall make regular visits to the Project Area to ensure that environmentally sensitive areas continue to remain protected, provide environmental awareness training to new crew members, and determine if general restrictions and guidelines are being followed. After the initial activities of identifying sensitive areas, installing protective fencing and pre-construction surveys a biologist shall visit the Project Area weekly during the first two months of active construction; every other week during the next three months of construction, and once a month for the remainder of the work. The biological monitor shall also check no-work buffers around active bird nests during these visits and shall increase the frequency of the visits if active nests are present in the Project Area. Wildlife observed during the site visits shall be recorded. • The biological monitor shall have the authority to stop work in the immediate vicinity if a special-status species or other sensitive resources may be harmed by Project activities. • Prior to mobilization to the Project Area, all equipment shall be pressure washed clean to ensure noxious weeds are not imported into or out of the Project Area. Equipment shall be considered clean when there is no visible soil or plant parts. • At the end of each workday, an escape ramp shall be placed at each end of any open excavation to allow wildlife that may become trapped to climb out overnight. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle no greater than 30 degrees. The biological monitor or designated construction personnel shall check excavations, open pipes, and other areas prior to filling, moving, or disturbing to ensure that animals are not trapped or harmed by construction activities; • Vehicles shall not exceed a speed of 10 miles per hour when traveling off paved roads; • Vehicle access across streams and wetlands shall be limited to existing roads and designated crossings; • Laydown and staging areas shall be located in previously developed or disturbed areas; • Any erosion control materials required for the project shall be rice straw or come from certified weed-free sources, as practicable (i.e., certified weed free straw wattles, mulch, etc); • Maintain gravel and soil spoil piles free of invasive weeds; • All trash shall be disposed of and removed from the work area daily. Workers shall not feed or otherwise attract fish or wildlife to the work area; • No pets or firearms shall be allowed in the Project Area; • Workers shall look underneath vehicles and other heavy equipment for wildlife before moving vehicles or equipment to ensure that no animals are crushed; • No wildlife species shall be handled and/or removed from the site by anyone except qualified biologists. Wildlife found in work areas shall be allowed to move out of the area on their own. Contact the PG&E biologist if the animal does not move or if further guidance is needed; and • Any worker who inadvertently injures or kills an animal or finds one dead, injured, or entrapped shall immediately report the incident to the Proposed Project foreman, who shall immediately report the incident to the PG&E biologist. Questions about wetlands, protected species, or mitigation measures should also be directed to the PG&E biologist.

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BIO-MM-2: Conduct a Preconstruction Survey for Northwestern Pond Turtle at the Cedar Mill Staging Area	PG&E	Prior to construction	To avoid potential injury or mortality of northwestern pond turtles, PG&E shall ensure that the following steps are taken: • Prior to grading in annual grassland for equipment or materials staging at the Cedar Mill staging area, a qualified biologist (i.e., a biologist familiar with the habitat requirements and biology of northwestern pond turtle) will conduct a preconstruction survey for turtle nests or hibernating turtles; and. • If a northwestern pond turtle is encountered in the work area, work in the immediate area shall stop and the turtle shall be allowed to leave the area on its own. The PG&E biologist shall be contacted immediately, and the biological monitor (or other project personnel) shall continuously monitor the individual's movements until it is safely out of the work area. The PG&E biologist shall report any northwestern pond turtles in the Project Area to the State Water Board, CDFW, and USFWS within one day.
BIO-MM-3: Evaluate Trees for Removal and Implement Protective Measures to Avoid or Minimize Injury or Mortality of Special-status Roosting Bats	PG&E and its construction contractor	Prior to and during construction	Qualified biologists (i.e., biologists with experience with tree roosting habitats and life histories of special-status bats that may occur in the Project Area) shall examine trees for suitable special-status bat roosting habitat (e.g., large tree cavities, basal hollows, loose or peeling bark, larger snags, medium to large deciduous trees that receive at least six hours of daily sun exposure and a nearby water source less than a quarter-mile away) before tree removal. The biologists shall categorize trees for their suitability to support roosting special-status bats (i.e., high, moderate, and low suitability). Trees providing high or moderate bat roosting habitat shall be marked with flagging and identified as habitat. If possible, trees shall be removed between March 1 and April 15 or between September 1 and October 15 to avoid the bat maternity and hibernation periods. Trees with low-quality or no bat roosting habitat can be removed without restrictions. If a bat roost or a tree roosting bat is discovered during the tree assessment, and it is outside of the maternity and hibernation periods, the qualified biologist shall prepare a bat exclusion and avoidance plan for CDFW review and approval. Lights are likely the only feasible and effective roosting deterrent. To avoid or minimize the potential for injury or mortality of tree roosting special-status bats, removal of trees with moderate or high quality bat roosting habitat shall be performed by implementing the following measures: 1. Tree trimming and/or tree removal shall be scheduled when evening temperatures are above 45 degrees Fahrenheit and there has been less than 0.5 inch of rain in the last 24 hours. 2. Trees shall be removed in two steps over a period of two days. On the first day, all branches that do not contain roosting habitat shall be removed. The remaining portion of the tree shall be removed on the second day. All branch removal shall be conducted using chainsaws or similar handheld equipment. If a tree is not safe to remove in two steps over a period of two days, an alternate process shall be used that creates noise and disturbance at the tree base such that roosting bats would experience vibration. This process shall only be implemented in the late afternoon or as close to sunset as possible, unless otherwise determined appropriate by the qualified biologist. Disturbance should be nearly continuous for several minutes. Noise and vibration should be created by performing the following steps: ◦ Running the chain saw and making shallow cuts or pie cuts in the trunk. ◦ Striking the tree base with fallen limbs, tools such as hammers, or heavy equipment such as the arm of an excavator. ◦ Disturbance should be near-continuous for two minutes, then another five minutes should pass with no disturbance to allow bats time to evacuate the tree. Create disturbance for another minute, then wait another minute before felling the tree If an active bat roost is found during tree removal during the bat maternity period (April 15 to August 31) or hibernation period (October 15 to March 1), work shall stop in the immediate area and the qualified biologists shall clearly delineate an appropriate no-disturbance buffer around the bat roost using stakes, flags, and/or rope or cord, and posted signs. The roost shall not be disturbed

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			until the end of the maternity period or hibernation period, or until a qualified biologist determines that the roost is no longer occupied.
BIO-MM-4: Minimize the Introduction and Spread of Invasive Plants	PG&E and its construction contractor	Prior to and during construction	PG&E or its contractor shall take caution to limit the introduction of new invasive plants and the spread of invasive plants previously documented in the Project Area. Accordingly, the following measures shall be implemented during construction: • Prior to mobilization to the Project Area, all equipment shall be pressure-washed clean to ensure noxious weeds are not imported into or out of the Project Area. Equipment shall be considered clean when there are no visible soils or plant parts on the equipment; • Any erosion control measures required for the Proposed Project shall be rice straw or come from certified weed-free sources, as practicable (e.g., certified weed-free straw wattles, mulch); • Gravel and spoil piles shall be maintained free of noxious weeds; • Areas known to be weed-free shall be used for staging and laydown areas; • Prior to use of the Cedar Mill staging area, any vegetated areas proposed for use shall be graded and topsoil shall be removed to minimize the presence and spread of invasive plant material. Existing graded areas at the Cedar Mill staging area shall be prioritized for use to minimize the area needing to be graded; • Topsoil containing invasive plant material shall be placed in plastic garbage bags or under tarps with no viable plant parts (seed or parts that can sprout) protruding and shall be disposed of at an appropriate offsite disposal facility to avoid the spread of invasive plants into natural areas; • Tools, equipment, and vehicles used within vegetated areas at the Cedar Mill staging area shall be cleaned before moving to the Dam area or Doakes Ridge staging and spoils site. Approved methods for cleaning without water include using bristle brushes, brooms, scraper, vacuum, high pressure air device, and hand removal. When feasible, clean equipment and vehicles in graded areas with low or no vegetation; and • Within the Dam area and Doakes Ridge staging and spoils site, minimize surface disturbance to the greatest extent feasible to complete the work.
BIO-MM-5: Avoid and Minimize Disturbance of Waters of the United States/Waters of the State	PG&E and its construction contractor	During construction	To the extent possible, PG&E shall avoid and minimize impacts on waters of the United States and waters of the State by implementing the following measures. These measures shall be incorporated into contract specifications and implemented by the construction contractor: • Avoid temporary impacts to the maximum extent possible where construction activities can be excluded from wetlands and non-wetland waters; • Avoid construction activities in saturated or ponded natural wetlands and drainages during the wet season (spring and winter) to the maximum extent possible; • Stabilize streams/drainages immediately upon completion of construction activities. Non-wetland waters of the United States that were vegetated prior to construction shall be restored in a manner that encourages vegetation to re-establish to pre-Proposed Project condition and reduces the effects of erosion on the drainage system; • Remove any debris or soils that are inadvertently deposited below the OHWM of the Reservoir or perennial drainage in a manner that minimizes disturbance of the bed and bank; and • Complete all activities promptly to minimize their duration and resultant impacts.

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BIO-MM-6: Compensate for the Temporary and Permanent Losses of Waters of the United States/Waters of the State	PG&E and its construction contractor	During and after construction	To compensate for temporary impacts on waters of the United States and waters of the State in Tiger Creek Regulator Reservoir and Tiger Creek, all temporary fill shall be removed and the Reservoir bed and creek bed shall be restored to pre-Proposed Project contours and conditions within 30 days following completion of construction activities. To compensate for permanent loss of approximately 0.14 acre of waters of the United States and waters of the State in Tiger Creek Regulator Reservoir, Tiger Creek, and the existing plunge pool, PG&E shall pay into the National Fish and Wildlife Foundation Sacramento District In-lieu Fee Program to ensure no net loss of wetland functions and values. The compensation ratio shall be a minimum of 1:1 (one acre of habitat credit for every one acre of impact). The actual mitigation ratio and associated credit acreage may be modified based on Clean Water Act section 404 and section 401 permitting, which shall dictate the ultimate compensation for permanent impacts on waters of the United States and waters of the State.
BIO-MM-7: Implement Flow Pumping System and Water Drafting Requirements	PG&E and its construction contractor	During construction	All pump intakes that are placed in Tiger Creek, the Reservoir, existing plunge pool, or any other waterbody to fill water trucks or to lower the plunge pool shall be screened to prevent fish species from being entrained with water being pumped from the creek or reservoir. A round or square screen mesh that is no larger than 2.38 millimeters (0.094 inch) in the narrow dimension, or any other shape that is no larger than 1.75 millimeters (0.069 inch) in the narrow dimension shall be used.

BIO-MM-8: Rescue and Relocate Fish from Affected Habitat	PG&E	Prior to and during construction	A qualified biologist shall develop and implement a fish rescue and relocation plan to capture and relocate any fish out of harm's way prior to installation of the plywood or steel sheet at the M-76 weir and commencement of dewatering in Tiger Creek to facilitate construction of the new spillway, flip bucket, and plunge pool. A qualified biologist is defined as a person who is knowledgeable and experienced in the biology, life stages, natural history, and identification of local fish and wildlife resources present at the Project site. The fish rescue and relocation plan shall be submitted to CDFW for approval at least 60 days before initiating activities to install the cofferdam and a copy of the approved plan shall be available on-site during all Project activities. At a minimum, the plan shall include the following:
			• A requirement that fish rescue and relocation activities commence immediately before plywood or steel sheet installation and that fish rescue and relocation in the affected stream reach shall occur immediately before (to the extent feasible) and as dewatering is occurring until no more fish are captured or the site is completely dewatered, whichever occurs first;
			• A requirement that all gear and tools (e.g., waders, boots, nets, buckets) be decontaminated to minimize and avoid spreading aquatic invasive species and diseases (e.g., chytrid fungus), as briefly summarized below;
			  ○ Soak equipment and gear for 10 minutes in a 7 percent bleach solution: 9 liquid ounces of bleach per gallon of water; or
			  ○ Soak equipment and gear for 30 seconds in 0.015 percent Quat 128: 1/8 teaspoon per gallon of water.
			• A description of the methods and equipment proposed to collect, transfer, and release all rescued fish. Capture methods may include seining, dip netting, and electrofishing, as approved by CDFW. The precise methods and equipment to be used shall be developed cooperatively by CDFW and PG&E; and
			• A requirement that only qualified fish biologists lead the fish rescue and relocation.
			After completion of fish relocation activities, PG&E shall prepare a post-relocation report that includes, at a minimum, the date and time of capture and relocation, the method of capture, map of locations in relation to the Project site, and the number and species of fish captured and relocated. The post-relocation report shall be provided to the State Water Board and CDFW within 14 calendar days of completing each fish relocation activity.

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BIO-MM-9: Conduct a Preconstruction Survey for Nesting Birds and Implement Protective Buffers around Active Nests	PG&E	Prior to and during construction	As work is scheduled to begin in July, which is during the nesting bird season (February 15 to August 31), qualified biologists (i.e., biologists with experience locating and identifying bird nests and nesting behaviors) shall conduct at least one preconstruction survey for nesting birds during the height of the nesting season (March 1 to June 1) to identify potential nest sites in the work area. A follow-up nesting bird survey shall be conducted no more than 5 days before mobilization and the start of vegetation removal. If work does not begin within 14 days of the survey or construction activities stop for 14 days or more during the nesting season, work areas shall be resurveyed for active nests. At the Cedar Mill staging area, the Project Area footprint shall be surveyed. At the Dam area and Doakes Ridge staging and spoils site, the Project Area and a 1,320-foot buffer for raptors and a 75-foot buffer for passerines around the Project Area shall be surveyed, except for at the Spur 1 staging area where a 280-foot buffer shall be surveyed for passerines. If an active nest is found in a tree or other vegetation to be removed, a no-disturbance buffer area shall be established around the tree, and removal of the tree shall be delayed until the biologist has determined that the young have fledged. If other active nests are found in the survey area, no-disturbance buffers shall be established around active nests to limit disturbance until the nests are no longer active. The qualified biologists and the PG&E biologist shall determine the extent of the no-disturbance buffers, which shall be based on the species present and their sensitivity to disturbance, the level of noise or construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species. Monitoring of active nests by a biologist may be required during high disturbance activities (i.e., vegetation removal). Construction crew members shall review a brochure on identifying and avoiding impacts on nesting birds. Should an active bird nest be found in the Project Area during work activities, all work shall cease within 75 feet of the active nest for non-raptors and 300 feet of the active nest for raptors, and the PG&E biologist shall be contacted to establish an appropriate no-work buffer zone.
GEO-MM-1: Educate Construction Personnel in Recognizing Fossil Material	PG&E	Prior to construction	Prior to construction, PG&E shall ensure that all construction personnel receive training provided by a qualified professional paleontologist who is experienced in teaching non-specialists. This training shall ensure that construction personnel can recognize fossil materials in the event any are discovered during construction.
GEO-MM-2: Stop Work if Substantial Fossil Remains are Encountered during Construction	PG&E and its construction contractor	During construction	If substantial fossil remains (particularly vertebrate remains) are discovered during earth-disturbing activities, the construction contractor shall immediately stop activities and wait until a state-registered professional geologist or qualified professional paleontologist can assess the nature and importance of the find and a qualified professional paleontologist can recommend appropriate treatment. Treatment may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection and may also include preparation of a report for publication describing the finds. PG&E shall be responsible for ensuring that recommendations regarding treatment and reporting are implemented.
AQ-MM-1: Implement Fugitive Dust Abatement Measures	PG&E and its construction contractor	During construction	To limit fugitive dust from project activities, PG&E shall implement the following measures: • Vehicle speeds shall be limited to 15 miles per hour when traveling on unpaved roads; • A water truck shall be used full time to control dust on roads and in the laydown areas; • The water truck shall be equipped to provide a focused knockdown spray during excavation activities if excessive dust is created; and • Other emission controls, such as covering stockpiles, shall be used as needed.

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GHG-MM-1: Implement Best Management Practices to Mitigate Tree Loss and Reduce Construction Generated Greenhouse Gas Emissions	PG&E and its construction contractor	During construction	PG&E shall reduce GHG emissions by implementing the following measures. **<u>Tree Removal</u>** PG&E will employ a two-tiered approach to compensate for the GHG emissions impact resulting from tree removal. 1. All trees removed during Proposed Project construction shall be replaced at a 1:1 ratio (for every tree removed, a deepot 40 or similar-sized containerized tree will be planted). Deepot 40 containers generally measure 2.5 inches in diameter and 10 inches deep. Trees may be planted at the construction site, within the Project Area, or throughout PG&E's service territory. PG&E shall prioritize tree plantings of the same species as the trees removed. The final planting location and species shall be selected to maximize tree survivability and growth. 2. Given the number of affected trees, if replacement of all individuals is not desired by PG&E or deemed infeasible by PG&E, PG&E will purchase GHG offsets equal to the number of emissions from lost carbon sequestration of the removed trees. Emissions from lost sequestration from removal of all affected trees over the design life expectancy of the Dam upgrades have been quantified as part of this IS/MND and total 3,733 metric tons CO2. This yields a maximum offset performance standard of 3,733 metric tons CO2. If trees are replaced according to (1) above, PG&E may recalculate the number of required offsets based on the remaining trees that have been removed and will not be replaced. An updated emissions analysis conducted for the Proposed Project will be performed using approved emissions models and methods available at the time of the reanalysis. Consistent with the methodology used in this IS/MND, lifetime emissions from lost sequestration must be quantified over the design life expectancy of the Dam upgrades (100 years). All GHG offsets must be created through a CARB-approved registry. These registries are currently the American Carbon Registry, Climate Action Reserve, and Verra, although additional registries may be accredited by CARB in the future. These registries use robust accounting protocols for all GHG offsets created for their exchange, including the six currently approved CARB protocols. This mitigation measure specifically requires GHG offsets created for the Proposed Project to originate from a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under title 17 of the California Code of Regulations, section 95972. The selected protocol must demonstrate that the reduction of GHG emissions is real, permanent, quantifiable, verifiable, enforceable, and additional, as defined in California Code of Regulations, title 17, section 95802, subdivision (a). GHG offsets from reduction projects in geographies closest to the Proposed Project (i.e., Northern California) will be prioritized before projects in larger geographies (i.e., Southern California, California, United States, internationally). PG&E will inform brokers of the required geographic prioritization for the procurement of GHG offsets. GHG offsets from reduction projects identified in Northern California that are of equal or lesser cost compared to the settlement price of the latest cap-and-trade auction must be included in the transaction. GHG offsets from reduction projects in larger geographies may be purchased if adequate credits cannot be found in Northern California or they exceed the price maximum identified above. All GHG offsets will be verified by an independent verifier accredited by the American National Standards Institute's National Accreditation Board or CARB, or an expert with equivalent qualifications to the extent necessary to assist with the verification. All offsets must be retired before December 31 of the year during which tree removal occurs. Copies of the offset retirement verification must be made available to the public no later than June 30 of the following year.

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			<u>Construction</u> 1. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, section 2485 of CCR). Clear signage shall be provided for construction workers at all access points. 2. Encourage construction contractors to operate vehicles with the highest tier engines commercially available. 3. Prioritize use of alternative fuel (e.g., biodiesel, electric) or renewable diesel in Proposed Project construction vehicles/equipment.
HAZ-MM-1: Implement Hazardous Materials Control Measures	PG&E and its construction contractor	Prior to and during construction	Hazardous materials such as fuel (gasoline/diesel), hydraulic oil, motor oil and other lubricants, and cementitious materials would be used during project construction. To ensure the potential effects of hazardous materials or potential spills are minimized, PG&E shall implement the following measures: • Construction personnel shall be trained in proper hazardous material management and shall be able to access safety data sheets for all substances used on the Project Area by contacting Safetec at 800-704-9215; • All hazardous materials shall be contained in appropriate spill-proof containers and/or secondary containment areas, and stored in a designated area at least 100 feet away from waterbodies, except at the temporary batch plant location in the Spur 1 staging area, a portion of which is within 100 feet of Tiger Creek. For the areas within 100 feet of Tiger Creek, alternative protection measures shall be implemented as part of Mitigation Measure WQ-MM-2: *Implement Spur 1 Staging Area Water Quality Protection Measures*; • Temporary storage of hazardous materials, equipment staging, and servicing and refueling of equipment shall be conducted at pre-designated locations away from waterbodies and shall only be permitted at designated areas; • Except for cranes, which are addressed in the next bullet, and the mobile batch plant, which is addressed in Mitigation Measure WQ-MM-2: *Implement Spur 1 Staging Area Water Quality Protection Measures*, refueling shall only take place in a designated area. Designated refueling areas shall be located greater than 100 feet away from any waterbodies. Drip pans and/or absorbent pads shall be used during equipment fueling. Absorbent spill clean-up materials and spill kits shall be available in fueling areas. Fuels shall be stored in containment basins; • To the extent feasible, crane refueling shall occur greater than 100 feet away from any waterbody, with a minimum of 20 feet. Fuel trucks used for crane refueling shall be equipped with an automatic shut-off nozzle to aid in fuel spill prevention and overfilling of fuel tanks. Secondary spill containment materials such as absorbent rags and plastic sheeting shall be stored in the fuel truck(s) and shall be used during refueling to prevent fuel from contacting the ground. In addition, a secondary containment pan shall be placed under the crane's fuel cell to capture fuel that may run down the sides of the crane fuel cell. • Bulk fuel storage tanks shall be double-walled or shall be placed in secondary containment areas. All refueling operations shall be attended by trained personnel and be conducted in accordance with applicable PG&E policies; • Hazardous waste generated onsite shall be placed in proper containers, labeled appropriately, and transported from the job site to an authorized hazardous waste consolidation site; • Prior to operation, all equipment shall be inspected for fluid leaks and for signs of worn or damaged parts that may result in a hazardous material release; • All power equipment and vehicles shall be free of petroleum residue, kept in good working order, and inspected each day for leaks prior to use. Leaks shall be repaired immediately in an area at least 100 feet away from waterbodies, or problem vehicles or equipment shall be removed from the Project Area;

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			• Small-engine-powered equipment shall be provided with secondary containment areas. Whenever possible, vehicles and equipment with engines supplying motive power shall be parked in designated areas located 200 feet or more from waterbodies. Drip pans or other containment measures shall be placed under vehicles and equipment when not in use and within 200 feet of waterbodies; • Equipment shall be staged overnight in secondary containment areas or with other suitable barriers to prevent accidental leakage of fuel, oils, or other liquid from soaking into the soil or being carried to waterbodies; • Appropriate spill containment and clean-up materials shall be available onsite at all times. Any spills shall be cleaned up immediately and shall not be buried or washed with water. Initial containment would be with absorbent material or, if necessary, the construction of berms. Contaminated soil shall be excavated, contained, and transported to an approved disposal site; and • In accordance with PG&E policy, all hazardous substance releases to the environment shall be reported internally and to the State Water Board. A spill kit shall be maintained onsite to ensure prompt containment in the unlikely event of a release to the environment. All media affected by a spill shall be cleaned up and disposed of offsite in accordance with applicable regulations. Hazardous materials permits shall be obtained from Amador County Environmental Health as needed for project support locations that store threshold quantities of hazardous materials for 30 days or more. Hazardous materials business plans and spill prevention control and countermeasure plans shall detail hazardous materials inventories, emergency contacts, spill prevention/response, and contingency plans.
CUL-MM-1: Conduct Mandatory Cultural Resources Awareness Training for All Project Personnel	PG&E and its construction contractor	Prior to and during construction	Before any ground-disturbing work commences, a qualified archaeologist shall conduct mandatory cultural resources awareness training for all construction personnel. The training shall cover the types of materials that could be encountered and the inadvertent discovery protocol to follow in such an event. If new construction personnel are added to the project, the contractor shall ensure that the new personnel receive the mandatory training before starting work.
CUL-MM-2: Stop Work if Previously Unidentified Archaeological Resources are Encountered until a Qualified Archaeologist Assesses the Find and Native American Consultation Has Been Conducted	PG&E and its construction contractor	During construction	If previously unknown buried archaeological resources, such as chipped or ground stone artifacts, historic debris, or building foundations are inadvertently unearthed during ground-disturbing activities, work shall stop at the location of the find and all areas within 100 feet of the find until a qualified archaeologist can assess the significance of the find. If avoidance is not possible and the resource is determined to be significant, a qualified archaeologist shall develop a treatment plan in consultation with project stakeholders. If the find is Native American in origin, consultation with local Native American representatives shall be reinitiated to determine appropriate treatment of the resource.
CUL-MM-3: Stop Work in Case of Accidental Discovery of Buried Human	PG&E and its construction contractor	During construction	In the event that human remains are discovered, all project-related ground disturbance shall halt within 100 feet of the find and the Amador County coroner shall be notified immediately. If the coroner determines the remains to be Native American in origin, the coroner shall be responsible for notifying the Native American Heritage Commission (NAHC), which shall appoint a most likely descendant (MLD) (Public Resources Code 5097.99). The project applicant and MLD shall make all reasonable efforts to develop

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Remains until Procedures in Public Resources Code Section 5097 have been Completed			an agreement for the dignified treatment of human remains and associated or unassociated funerary objects (CEQA Guidelines 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. The MLD shall have 48 hours after being granted access to the site to make a recommendation (Public Resources Code 5097.98). If the MLD does not agree to the treatment method, the project shall follow Public Resources Code section 5097.98(e), which states, "the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance.
TRAN-MM-1: Implement a Traffic Control Plan	PG&E and its construction contractor	During construction	To avoid potential conflicts between members of the public and construction vehicles, a traffic control plan shall be implemented that contains the following measures: • Warning signs of construction activities and road closures shall be posted along Tiger Creek Road between SR 88 and the Project Area; • Flaggers shall be used for traffic control along the portions of the construction access roads shared with the public as needed or when heavy construction traffic is expected. Alternatively, PG&E-managed roads such as Tiger Creek Road shall be closed to the public as needed; • The construction contractor shall comply with Title 13 of the CCR, which includes idling restrictions on construction vehicles and equipment to no more than 5 minutes; • Construction equipment and vehicles shall be properly tuned and maintained; • All on-street construction traffic shall be required to comply with the local jurisdiction's standard construction specifications; and • To the extent feasible, construction traffic shall be scheduled and routed to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
FIRE-MM-1: Implement Fire Hazard Prevention Measures	PG&E and its construction contractor	Prior to and during construction	During construction, crews shall take appropriate measures to eliminate the potential for fire, including the following: • Construction crews shall follow the safe working practices outlined below and shall abide by all facility programs to prevent and suppress fires in the Project Area. Initial action shall be prompt and shall include the use of all personnel and equipment available in the Project Area. All personnel are expected to take all reasonable action to prevent the occurrence of fires; • Crews shall follow PG&E's latest guidelines described in Utility Standard TC-1464S, Preventing and Mitigating Fires While Performing PG&E Work (Pacific Gas and Electric Company 2022); • For any hot work (welding, cutting, or heating) onsite, fire prevention and suppression tools (e.g., backpack-type water pumps, shovels) shall be made available; • Project vehicles shall be equipped with appropriate fire response equipment and fire prevention and suppression tools; • Construction crews shall have the following equipment: • One shovel, one axe, and one or more UL-rated 4BC extinguishers on each crew truck/vehicle; • One shovel and one five-gallon, water-filled backpack pump with each welder; and • One shovel and one fully charged chemical fire extinguisher at a point not more than 25 feet from the work site for each gasoline-powered tool, including rock drills. • Fire extinguishers shall be placed in easily accessible locations near potential ignition sources (e.g., internal combustion engines). Each vehicle and trailer shall be equipped with a multi-purpose dry chemical extinguisher in a readily accessible location. All internal combustion engines brought onto the job site shall be equipped with a spark arrestor;

Mitigation Measure	Responsibility for Implementation	Implementation Schedule	Mitigation and Monitoring Details
			• All personnel shall perform daily inspections of work areas, laydown areas, and walkways to ensure they are clear of debris and trash and that flammable or combustible materials are not allowed to accumulate. All flammable liquids shall be stored appropriately and at a safe distance from ignition sources. All flammable gas containers shall be secured in an upright position with their valve caps in place at a safe distance from ignition sources; • PG&E's hot work permit process (Pacific Gas and Electric Company 2008) shall be followed before any welding or cutting operations are performed. A fire watch shall be stationed at the location of the hot work activity until at least 30 minutes after the completion of that activity, and shall have either a portable fire extinguisher or water hose with a nozzle immediately available. The fire watch and person that will be performing the hot work shall ensure that the area is safe for hot work before work will be allowed to begin. The hot work permit shall be posted at the job site until hot work is complete; • If there is a need to activate fire hazard response measures, project crews shall be directed to the temporary construction emergency action plan (TCEAP) for response actions developed to respond to a potential fire near the Project Area. The TCEAP shall be developed prior to construction and will provide instructional evacuation orders and procedures.

Notes:

[1] The relevant Activity Specific Erosion and Sediment Control Plans are *Good Housekeeping* (Pacific Gas and Electric Company Construction Stormwater Group 2017a), *Laydown/Staging Area Construction* (Pacific Gas and Electric Company Storm Water Program Group 2011), *Dirt and Gravel Access Road Maintenance—Mountainous Regions* (Pacific Gas and Electric Company Water Quality Group 2013), and *Stockpile Management* (Pacific Gas and Electric Company Construction Stormwater Group 2017b).

References:

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