

**STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD**

In the Matter of Water Quality Certification for

**PACIFIC GAS AND ELECTRIC COMPANY AND
UNITED STATES BUREAU OF RECLAMATION**

BATTLE CREEK HYDROELECTRIC PROJECT: PHASE 2 NO REGRETS

FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 1121

SOURCE: BATTLE CREEK

COUNTIES: SHASTA AND TEHAMA

WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

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Abbreviations

<i>2020-2022 California Integrated Report Applicant</i>	<i>2020-2022 California Integrated Report for Clean Water Act Sections 303(d) and 305(b)</i>
<i>Antidegradation Policy</i>	<i>United States Bureau of Reclamation Statement of Policy with Respect to Maintaining High Quality Waters in California</i>
<i>Bay-Delta Plan</i>	<i>Water Quality Control Plan for the San Francisco Bay/ Sacramento-San Joaquin Delta Estuary</i>
<i>CDFW</i>	<i>California Department of Fish and Wildlife</i>
<i>Central Valley Basin Plan</i>	<i>Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin</i>
<i>Central Valley Regional Water Board</i>	<i>Central Valley Regional Water Quality Control Board</i>
<i>CEQA certification</i>	<i>California Environmental Quality Act water quality certification</i>
<i>cfs</i>	<i>cubic feet per second</i>
<i>Construction General Permit</i>	<i>National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities</i>
<i>Deputy Director</i>	<i>Deputy Director of the Division of Water Rights</i>
<i>Dewatering Plan</i>	<i>Dewatering and Diversion Plan</i>
<i>Dredge or Fill Procedures</i>	<i>State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State</i>
<i>EIS/EIR</i>	<i>Battle Creek Salmon and Steelhead Restoration Project Final Environmental Impact Statement/Environmental Impact Report</i>
<i>Erosion Plan</i>	<i>Erosion and Sediment Control Plan</i>
<i>ESA</i>	<i>Endangered Species Act</i>
<i>Executive Officer</i>	<i>Executive Officer of the Central Valley Regional Water Board</i>
<i>FERC</i>	<i>Federal Energy Regulatory Commission</i>
<i>FYLF</i>	<i>foothill yellow-legged frog</i>
<i>Hydroelectric Project</i>	<i>Battle Creek Hydroelectric Project</i>
<i>Licensee</i>	<i>Pacific Gas and Electric Company</i>
<i>MIF</i>	<i>minimum instream flow</i>
<i>MMRP</i>	<i>mitigation monitoring and reporting program</i>
<i>MOU</i>	<i>Memorandum of Understanding</i>
<i>MW</i>	<i>megawatt</i>
<i>NMFS</i>	<i>National Marine Fisheries Service</i>
<i>NPDES</i>	<i>National Pollutant Discharge Elimination System</i>

<i>NTU</i>	<i>Nephelometric Turbidity Unit</i>
<i>PG&E</i>	<i>Pacific Gas and Electric Company</i>
<i>Project</i>	<i>Battle Creek Hydroelectric Project: Phase 2 No Regrets</i>
<i>Project Proponents</i>	<i>Pacific Gas and Electric Company and United States Bureau of Reclamation</i>
<i>QA/QC</i>	<i>quality assurance and quality control</i>
<i>Reclamation</i>	<i>United States Bureau of Reclamation</i>
<i>Regional Water Boards</i>	<i>Regional Water Quality Control Boards</i>
<i>Restoration Project</i>	<i>Battle Creek Salmon and Steelhead Restoration Project</i>
<i>SERP</i>	<i>Statutory Exemption for Restoration Projects</i>
<i>SPPP</i>	<i>Spill Pollution Prevention Plan</i>
<i>State Water Board</i>	<i>State Water Resources Control Board</i>
<i>TMDL</i>	<i>total maximum daily load</i>
<i>USACE</i>	<i>United States Army Corps of Engineers</i>
<i>USEPA</i>	<i>United States Environmental Protection Agency</i>
<i>USFWS</i>	<i>United States Fish and Wildlife Service</i>
<i>Water Boards</i>	<i>State Water Board and Regional Water Boards, collectively</i>

1.0 Project Description

The Pacific Gas and Electric Company (PG&E or Licensee) currently owns and operates the Battle Creek Hydroelectric Project (Hydroelectric Project; Federal Energy Regulatory Commission [FERC] Project No. 1121)¹. The Hydroelectric Project is located on North Fork Battle Creek and South Fork Battle Creek in Shasta and Tehama Counties, California. The Hydroelectric Project is currently operated under a license issued by FERC in 1976 that expires on July 31, 2026. In 1999, PG&E entered into a Memorandum of Understanding (MOU)² with the United States Bureau of Reclamation (Reclamation), California Department of Fish and Wildlife (CDFW), United States Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS) to restore fish habitat on Battle Creek and its tributaries through modification of Hydroelectric Project facilities and operations. This effort was named the Battle Creek Salmon and Steelhead Restoration Project (Restoration Project).

The Restoration Project is intended to restore and improve 42 miles of aquatic habitat in Battle Creek and six miles of habitat in its tributaries by removing or retrofitting Hydroelectric Project facilities and changing operations to benefit the following species listed on the California Endangered Species Act (ESA) (Fish & G. Code, §§ 2050 – 2097) and/or the federal ESA (16 U.S.C. §§ 1531 – 1544):

- Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha*; federally and state-listed as threatened);
- Sacramento River winter-run Chinook salmon (*O. tshawytscha*; federally and state-listed as endangered); and
- Central Valley steelhead (*O. mykiss*; federally listed as threatened). (CDFW 2024.)

The Restoration Project is also intended to improve existing critical habitat for Central Valley spring-run Chinook salmon and Central Valley steelhead (70 FR 52488), and essential fish habitat, as defined by the Magnuson Stevens Fishery Conservation and Management Act, for Sacramento River winter-run Chinook salmon and Central Valley spring-run Chinook salmon. (State Water Resources Control Board [State Water Board] and Reclamation 2005.)

Pursuant to the MOU, PG&E is responsible for the FERC license amendment process and Hydroelectric Project operations; Reclamation is responsible for the United States Army Corps of Engineers (USACE) permitting process and Restoration Project construction.

¹ The Hydroelectric Project license expires in 2026. PG&E will need to file a license surrender application with FERC detailing how it plans to decommission the Hydroelectric Project.

² Memorandum of Understanding. (National Marine Fisheries Service 1999.)

The Restoration Project is being implemented in three phases:

- Phase 1A: Installation of a fish barrier, fish screens, and fish ladders at Hydroelectric Project dams on North Fork Battle Creek and its tributaries (completed 2013);
- Phase 1B: Construction of the Inskip penstock bypass and tailrace connector (completed 2012); and
- Phase 2 No Regrets (covered by this water quality certification): Decommissioning of South Canal and removal of the following Hydroelectric Project dams from South Fork Battle Creek and its tributaries: (1) Coleman Diversion Dam; (2) Lower Ripley Creek Feeder Diversion Dam; (3) Soap Creek Feeder Diversion Dam; and (4) South Diversion Dam.

PG&E and Reclamation are seeking water quality certification (certification) for the Battle Creek Hydroelectric Project: Phase 2 No Regrets (Project)³ and this certification applies to both PG&E and Reclamation’s requests for certification, as described further below and in Section 3 of this certification.

As background, the State Water Board issued certifications to PG&E for Phases 1A and 1B on December 9, 2008. A separate certification was issued to Reclamation on December 12, 2008, for the construction elements of the Restoration Project. Certification for the original Phase 2 project was issued to PG&E on June 10, 2016. PG&E’s original certification has expired.

On October 23, 2020, PG&E announced that it does not intend to relicense the Hydroelectric Project. (PG&E 2020.) Following PG&E’s decision not to relicense the Hydroelectric Project, PG&E revised the Phase 2 project description and submitted a certification application for the Project’s FERC license amendment on February 2, 2023. (PG&E 2023.) The Project FERC license amendment is similar to the original Phase 2 project except that it eliminates: construction of a fish screen and fish ladder at Inskip Diversion Dam⁴, construction of a South Powerhouse Tailrace Connector Tunnel, and removal of the South Canal.

Additional information about Hydroelectric Project operations, Restoration Project implementation, and Project construction is included in Attachment A.

2.0 Water Rights

Table A lists PG&E’s water right permit and claims associated with the Project⁵.

³ Reclamation refers to the Project in its application as “Battle Creek Salmon and Steelhead Restoration Project – Phase 2.”

⁴ PG&E applied for a separate FERC license amendment and certification to remove Inskip Diversion Dam on October 28, 2022, and on March 8, 2023, respectively.

⁵ Information is from the State Water Board’s Electronic Water Rights Information Management System.

Table A. PG&E’s Water Rights Related to the Project

Water Right ID	Priority Date	Point of Diversion	Place of Use	Purpose of Use
A002754	1922	North Fork Battle Creek	Coleman Powerhouse	Power
S000837	1910	South Fork Battle Creek	South, Inskip, and Coleman Powerhouses	Power
S000838	1910	Soap Creek	South, Inskip, and Coleman Powerhouses	Power
S000848	1907	Ripley Creek	Inskip Powerhouse	Power
S000841	1910	South Fork Battle Creek	Coleman Powerhouse	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 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

PG&E submitted a certification application for the Project's FERC license amendment on February 2, 2023. (PG&E 2023.) Reclamation submitted a certification application for the Project's USACE nationwide permits on January 8, 2024. (Reclamation 2024.) Reclamation is seeking the following nationwide permits for this Project: 27, Aquatic Habitat Restoration, Enhancement, and Establishment Activities; and 33, Temporary Construction, Access and Dewatering. State Water Board staff provided public notices of PG&E's and Reclamation's applications on February 16, 2023, and January 10, 2024, respectively, 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 these notices. This certification is issued for both the Project's FERC license amendment and USACE nationwide permits.

On January 17, 2024, State Water Board staff requested comments on the certification conditions for the Project from the Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board). (See Cal. Code Regs., tit. 23, § 3855, subd. (b)(2)(B).) Central Valley Regional Water Board staff had no material comments.

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)⁶.

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 anti-degradation 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

⁶ Based on the nature of the Project, impacts to water quality objectives listed for waterbodies in the Bay-Delta Plan are not anticipated to occur from Project activities.

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 the 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).

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 the 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. This submission included the Central Valley Basin Plan, the Bay-Delta Plan, the Antidegradation Policy discussed below, and other applicable plans and policies for water quality control. (FERC 2020.)

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 Battle Creek as: irrigation; stock watering; hydropower generation; water contact recreation; canoeing and rafting; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; cold water migration; warm water spawning, reproduction, and/or early development; cold water spawning, reproduction, and/or early development; and wildlife habitat.

3.2.2 Bay-Delta Plan

The Bay-Delta Plan establishes water quality objectives to protect beneficial uses of water in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and tributary watersheds, including drinking water supply, irrigation supply, and fish and wildlife. The State Water Board adopted the Bay-Delta Plan pursuant to its 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). The beneficial uses in the Bay-Delta Plan are: municipal and domestic supply; industrial service supply; industrial process supply; agricultural supply; groundwater recharge; navigation; water contact recreation; non-contact water recreation; shellfish harvesting; commercial and sport fishing; warm

freshwater habitat; cold freshwater habitat; migration of aquatic organisms; spawning, reproduction, and/or early development; estuarine habitat; wildlife habitat; and rare, threatened, or endangered species. In 2018, the Bay-Delta Plan was updated to adopt new and revised Lower San Joaquin River flow objectives and revised southern Delta salinity objectives.

The State Water Board is developing Bay-Delta Plan amendments focused on the Sacramento River and its tributaries, Delta eastside tributaries, Delta outflows, and interior Delta flows. This effort is referred to as the Sacramento/Delta Update to the Bay-Delta Plan. Protection of the Bay-Delta ecosystem and its native aquatic species requires an integrated approach to effectively connect upstream suitable cold water nursery habitat, floodplains, tidal marshland, and turbid open water habitats in the Delta and Bay and to connect those environments to the ocean. Accordingly, the Sacramento/Delta Update to the Bay-Delta Plan would provide for a flow regime that supports a connected and functioning ecosystem linking and integrating inflow, cold water habitat, Delta outflow, and interior Delta flow measures with complementary physical habitat restoration and other nonflow measures. Changes are proposed to the water quality objectives and the program of implementation for those objectives, as well as changes to monitoring, reporting, and assessment requirements. Water users on Bay-Delta tributaries would bear responsibility for achieving flow and other flow-based objectives. (State Water Board 2023b.)

3.2.3 Antidegradation Policy

The State Water Board's [*Statement of Policy with Respect to Maintaining High Quality Waters in California*](#) (Antidegradation Policy) (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."

3.3 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) (State Water Board 2022) 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 Action 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.) The Project will require coverage under the Construction General Permit. Reclamation's application for certification notes it plans to develop and implement a Stormwater Pollution Prevention Plan for the Project.

3.4 State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters 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) (State Water Board 2019 and 2021) 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, compliant with the *California Wetlands Conservation Policy*, Executive Order W-59-93. PG&E and Reclamation must comply with the Dredge or Fill Procedures when conducting dredge or fill activities that may impact waters of the state, including wetlands.

3.5 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\(b\)](#) (2020-2022 California Integrated Report) (State Water Board 2022) and it was approved by USEPA on May 11, 2022. The 2020-2022 California Integrated Report lists South Fork Battle Creek as impaired for pH.

Section 303(d) of the Clean Water Act requires total maximum daily loads (TMDLs) for impaired waterbodies. TMDLs are control programs that define the maximum amount of a pollutant that a waterbody can receive without exceeding water quality standards and establish waste load allocations and load allocations for point and nonpoint sources of pollution, respectively. TMDL requirements for South Fork Battle Creek are expected to be completed in 2035.

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 purpose of compliance with CEQA (Pub. Resources Code, § 21000 et seq.) and the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.).

The State Water Board determined that the Project qualifies for the statutory exemption for restoration projects (SERP). (Pub. Resources Code, § 21080.56, subd. (e).) On

December 11, 2023, the State Water Board requested SERP concurrence from the Director of CDFW. On January 26, 2024, the Director of CDFW provided SERP concurrence consistent with Public Resources Code section 21080.56, subdivisions (a) to (e), inclusive. The State Water Board will file a Notice of Exemption with the State Clearinghouse within 48 hours of issuing this certification.

On July 29, 2005, the State Water Board and Reclamation issued a joint *Battle Creek Salmon and Steelhead Restoration Project Final Environmental Impact Statement/ Environmental Impact Report* (EIS/EIR) for Phases 1A, 1B, and 2. (State Water Board and Reclamation 2005.) 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 adopted a MMRP as part of the final EIS/EIR. Given the similarities between Phase 2 and the Project, water quality protection measures and associated mitigation, monitoring, and reporting requirements from the MMRP are incorporated into 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 EIS/EIR identified mitigation measures for potential impacts, and associated certification conditions with water quality protection, monitoring, or reporting requirements.

Table B. Mitigation Measures and Corresponding Certification Conditions

Mitigation Measure	Applicable Certification Condition(s)
Mitigation Measure 1: Develop and Implement a Worker Environmental Education Program	Condition 8 (Environmental Compliance and Reporting)
Mitigation Measure 2: Designate Work and Exclusion Zones	Condition 4 (Biological Resource Protections)
Mitigation Measure 3: Identify Anadromous Fish Spawning Exclusion Areas	Condition 4 (Biological Resource Protections)
Mitigation Measure 4: Remove Debris in the Stream Channel	Condition 2 (Erosion and Sediment Control Measures) Condition 5 (Dam Decommissioning)
Mitigation Measure 5: Implement Environmental Timeframes	Condition 4 (Biological Resource Protections)
Mitigation Measure 6: Develop and Implement a Stormwater Pollution Prevention Plan	Condition 2 (Erosion and Sediment Control Measures)
Mitigation Measure 7: Develop and Implement a Spill Pollution Prevention Plan	Condition 3 (Hazardous Materials Management)
Mitigation Measure 8: Develop and Implement an Environmental Compliance Construction Monitoring Program	Condition 8 (Environmental Compliance and Reporting)
Mitigation Measure 9: Develop and Implement a Construction Area Fish Management Program	Condition 4 (Biological Resource Protections)
Mitigation Measure 10: Develop and Implement an Erosion and Sediment Control Plan in Coordination with the Central Valley Regional Water Quality	Condition 1 (Water Quality) Condition 2 (Erosion and Sediment Control Measures)

Mitigation Measure	Applicable Certification Condition(s)
Control Board that will include Measures to Avoid Impacts on the Aquatic System	
Mitigation Measure 11: Remove Diversion Dams During Low-flow Season and Construct Pilot Channels	Condition 5 (Dam Decommissioning)
Mitigation Measure 12: Implement a Fish Rescue Operation	Condition 4 (Biological Resource Protections)
Mitigation Measure 14: Implement a Habitat Compensation Approach	Condition 4 (Biological Resource Protections)
Mitigation Measure 15: Develop and Implement a Comprehensive Habitat Mitigation and Monitoring Plan	Condition 4 (Biological Resource Protections)
Mitigation Measure 16: Avoid and Minimize the Removal and Disturbance of Riparian Habitat, Avoid Long-Term Impacts on Woody Riparian Vegetation and Associated Habitat, and Compensate for the Loss of Any Such Habitat	Condition 4 (Biological Resource Protections)
Mitigation Measure 19: Implement an Erosion and Sediment Control Plan in Coordination with the Central Valley Regional Water Quality Control Board That Will Include Measures to Avoid Impacts on Soils	Condition 2 (Erosion and Sediment Control Measures)
Mitigation Measure 20: Avoid and Minimize Construction Activities Adjacent to Jurisdictional Waters, Compensate for Loss of Waters of the United States, and Revegetate Lost Habitat	Condition 4 (Biological Resource Protections)
Mitigation Measure 23: Avoid and Minimize the Disturbance of Foothill Yellow-legged Frogs	Condition 4 (Biological Resource Protections)
Mitigation Measure 24: Avoid and Minimize the Disturbance of Northwestern Pond Turtles	Condition 4 (Biological Resource Protections)
Mitigation Measure 29: Implement Measures Designed to Avoid or Minimize Hazardous Spills	Condition 3 (Hazardous Materials Management)
Mitigation Measure 40: Reduce Construction-related Impacts on Recreational Activities Offered by Oasis Springs Lodge	Condition 7 (Recreation)
Mitigation Measure 41: Implement Measures to Reduce Construction-related Impacts on Recreational Activities near the Restoration Project Area	Condition 7 (Recreation)
Mitigation Measure 42: Reduce Construction-related Impacts on Access to Public and Private Recreational Areas	Condition 7 (Recreation)

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 and its discharges 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, sections 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 discharges 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 and Reclamation’s certification applications (PG&E 2023 and Reclamation 2024);
- PG&E’s final FERC license amendment application (PG&E 2022);
- Reclamation’s nationwide permit applications (Reclamation 2023a, 2023b, and 2023c);
- MOU (NFMS et al. 1999);
- Final EIS/EIR, including the MMRP (State Water Board and Reclamation 2005);
- Beneficial uses, water quality objectives, and implementation measures and programs described in the Central Valley Basin Plan (Central Valley Regional Water Board 2019);
- CDFW’s *Special Animals List* (CDFW 2024);
- Applicable water quality information, permits, policies, objectives, implementation measures, and programs (e.g., Dredge or Fill Procedures, Construction General Permit, etc.);
- Project-related controllable water quality factors; and
- 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 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 consider any certification condition to include requirements outside the substantive scope of USEPA’s *Clean Water Act Section 401 Certification Rule*, 85 Fed. Reg. 42,210 (July 13, 2020) (2020 Rule), 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)—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 has 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: Water Quality Monitoring

The Project includes dewatering and other in-water and water-adjacent construction work that may result in discharges that have direct impacts to water quality in Battle Creek and its tributaries. Water quality parameters that may be impacted by such activities include turbidity, pH, dissolved oxygen, and visual pollutants. Project activities that may impact water quality include, but are not limited to: (1) erosion control and bank stabilization activities; (2) dewatering the work areas; and (3) removal of Hydroelectric Project facilities. Monitoring requirements of Condition 1 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. The monitoring requirements of Condition 1 are necessary to ensure water quality is not impacted.

Existing beneficial uses in Battle Creek that may be impacted by the Project's impacts on water quality include: stock watering; water contact recreation; canoeing and rafting; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; cold water migration; warm water spawning, reproduction, and/or early development; cold water spawning, reproduction, and/or early development; and wildlife habitat.

5.2 Rationale for Condition 2: Erosion and Sediment Control

Condition 2 requires the development and implementation of an Erosion and Sediment Control Plan (Erosion Plan) that includes measures for preventing or minimizing erosion and sedimentation during Project construction, including measures identified in Mitigation Measures 6, 10, and 19 of the MMRP. Erosion and sedimentation can contribute to degradation of the waters of the United States and 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, including stockpiling, fill and excavation work, gravel slope protection placement, and other ground disturbing activities, have the potential to cause erosion of riparian habitat and increased sedimentation in Battle Creek. Increases in erosion and sedimentation can exceed water quality objectives (e.g., turbidity) and impact beneficial uses. Condition 2 will help ensure water quality standards are met during Project construction.

Beneficial uses of Battle Creek that may be impacted by increased erosion and sedimentation include: stock watering; hydropower generation; water contact recreation; canoeing and rafting; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; cold water migration; warm water spawning, reproduction, and/or early development; cold water spawning, reproduction, and/or early development; and wildlife habitat.

5.3 Rationale for Condition 3: Hazardous Materials Management

Hazardous materials management is essential to ensure hazardous materials are properly stored, transported, and managed in the Project area to avoid the discharge of hazardous materials to surface waters. Such discharges could result in impacts to beneficial uses, including impacts to aquatic resources and their habitats. Condition 3 requires a Spill Pollution Prevention Plan that includes hazardous materials management measures, including measures from Mitigation Measures 7 and 29 of the MMRP.

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 3 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 3 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.

Existing beneficial uses in Battle Creek that may be impacted by hazardous materials include: irrigation; stock watering; water contact recreation; canoeing and rafting; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; cold water migration; warm water spawning, reproduction, and/or early development; cold water spawning, reproduction, and/or early development; and wildlife habitat.

5.4 Rationale for Condition 4: Biological Resource Protections

Project activities, such as dam removal, dredging, and construction staging, have the potential to adversely impact aquatic species and their habitats. The Project area houses special-status species, such as foothill yellow-legged frogs (FYLFs; *Rana boylei*), western pond turtles (*Actinemys marmorata*), steelhead, and Chinook salmon, and sensitive aquatic habitat, such as critical habitat, essential fish habitat, and riparian habitat.

The Project will result in the following impacts to South Fork Battle Creek stream channel and riparian habitats:

- Temporary impacts to 6.65 acres of stream channel habitat;
- Permanent impacts to 3.82 acres of stream channel habitat; and
- Temporary impacts to 0.855 acre of riparian habitat.

Condition 4 requires implementation of biological resource protection measures to avoid unreasonable construction impacts to water quality and beneficial uses related to aquatic species and their habitats. Condition 4 includes provisions for compliance with the Dredge or Fill Procedures and California Wetlands Conservation Policy (Governor's Executive Order W-59-93 (August 23, 1993)) to account for impacts to stream channel and riparian habitats and ensure no net loss of wetlands. Further, Condition 4 requires compensation for impacts to riparian habitat, wetlands, and other waters of the state by implementing the Riparian Restoration Plan (Mitigation Measure 16) and Habitat Mitigation and Monitoring Plan (Mitigation Measure 20). 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].) These compensatory mitigation conditions are also consistent with Executive Order W-59-93, commonly referred to as California's "No Net Loss" Policy for wetlands. The objective of the No Net Loss Policy is to ensure no overall net loss of and a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California. Further, compensatory mitigation requirements must comply with Subpart J of the Supplemental State Guidelines. Mitigation requirements related to financial assurances are also required to ensure that compensatory mitigation will be provided. (Dredge or Fill Procedures, § IV.B.5.f.)

Existing beneficial uses in Battle Creek that require biological resource protection measures include: warm freshwater habitat; cold freshwater habitat; cold water migration; warm water spawning, reproduction, and/or early development; cold water spawning, reproduction, and/or early development; and wildlife habitat.

5.5 Rationale for Condition 5: Project Decommissioning

Project facilities decommissioning may result in the downstream movement of the sediment that has built up behind the dams and the potential for debris in the stream channel. Condition 5 requires a Project Decommissioning Plan that identifies actions that will be implemented to improve sediment transport and ensure any leftover debris does not impact anadromous fish.

Sediment transport will benefit anadromous fish by providing spawning gravels to historic spawning habitat downstream of the dams. To facilitate downstream sediment distribution, PG&E will construct pilot channels to ensure built-up spawning gravels

move downstream faster after dam removal. The Project Decommissioning Plan will include the design and methods for constructing the most effective pilot channels.

Debris left in the stream channel can impact anadromous fish by impairing flows, blocking fish passage, and inhibiting spawning. The Project Decommissioning Plan will include protocols to ensure leftover debris is removed or located such that it will not harm anadromous fish or their habitat.

Existing beneficial uses in Battle Creek that could be impacted by Project decommissioning include: warm freshwater habitat; cold freshwater habitat; cold water migration; warm water spawning, reproduction, and/or early development; cold water spawning, reproduction, and/or early development; and wildlife habitat.

5.6 Rationale for Condition 6: Dewatering and Diversion

The Project includes dewatering and water diversion that may directly impact water quality and beneficial uses in South Fork Battle Creek and its tributaries. Specific Project activities that may impact water quality through dewatering and water diversion work include: (1) installation and removal of cofferdams; (2) installation and removal of temporary water bypass systems; (3) discharges from water diversions; and (4) stream channel re-watering.

Water quality parameters that may be impacted by such activities include turbidity, dissolved oxygen, and pH. Existing beneficial uses that may be impacted include: stock watering; warm freshwater habitat; cold freshwater habitat; cold water migration; warm water spawning, reproduction, and/or early development; cold water spawning, reproduction, and/or early development; and wildlife habitat.

A Dewatering and Diversion Plan will provide information on specific activities that could impact water quality and beneficial uses. Water quality monitoring (Condition 1) will help ensure these activities are implemented in a manner that complies with the Central Valley Basin Plan and other appropriate requirements of state law.

5.7 Rationale for Condition 7: Recreation

South Fork Battle Creek provides for public and private recreational activities, including fishing, swimming, kayaking, and rafting, consistent with the designated recreation beneficial uses (water contact recreation, canoeing and rafting, and non-contact water recreation). Project decommissioning activities could impact recreationists by blocking access to recreation and displacing fish.

Condition 7 requires notification to the Oasis Springs Lodge and recreationists of the Project's decommissioning schedules to lessen impacts to water-based recreation. This supports California Constitution, Article X, section 2 requiring reasonable use and the use of water for multiple purposes in the state, as determined by the State Water Board pursuant to Water Code section 100, and is in the public interest, under Water Code section 105.

5.8 Rationale for Condition 8: Reporting

Condition 8 requires monthly Project Activities Progress Reports (Progress Reports) during Project decommissioning to document Project status and compliance with certification requirements. Additionally, Condition 8 requires a Project Completion Report following Project completion to document compliance with certification requirements. The Progress Reports and Project 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 8 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 8 are necessary to ensure the Project does not impact water quality and associated beneficial uses.

5.9 Rationale for Condition 9: Flows

Minimum instream flows (MIFs) directly affect water quality and support beneficial uses, provide for improved ecosystem function that protects water quality and beneficial uses, and provide habitat for fish and wildlife. Beneficial uses that rely on MIFs for protection include: warm freshwater habitat; cold freshwater habitat; cold water migration; warm water spawning, reproduction, and/or early development; cold water spawning, reproduction, and/or early development; and wildlife habitat. 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. Ensuring MIFs do not greatly differ from naturally unimpaired instream flows provides protection of biodiversity and water quality.

The MIFs in this certification are consistent with the flows proposed by PG&E, Reclamation, CDFW, USFWS, and NMFS in the MOU. Operational provisions of the MOU were included in PG&E's Project certification and support protection of water quality and beneficial uses.

5.10 Rationale for Condition 10: Ramping Rates

Rapid changes in streamflow and stream stage that are outside the natural range of variability may strand or otherwise impact aquatic species. This certification requires ramping rates to facilitate flow fluctuations in a gradual, stepwise manner.

Rapid cessation of large flows can strand FYLF egg masses, tadpoles, and juveniles during their breeding season, April 16 through July 15. An assessment by Lind and Yarnell (2011) concluded that a ramp down rate of four inches over seven days during the FYLF breeding season is likely to prevent stranding of FYLF egg masses. A technical report by Hunter (1992) concluded that a year-round ramp down rate of 0.10 foot per hour is likely to prevent stranding of Chinook salmon and steelhead.

The 0.10 foot per hour ramping rate in this certification is consistent with the ramping rates proposed by PG&E, Reclamation, CDFW, USFWS, and NMFS in the MOU and support protection of water quality and beneficial uses. The four feet over seven days ramping rate in this certification was not included in the MOU as the MOU predates the Lind and Yarnell assessment. Condition 10 allows PG&E to request modifications to the FYLF breeding season ramping rate if existing facilities are unable to implement down-ramping of four feet over seven days. Condition 10 does not require PG&E to modify or add facilities capable of implementing this ramping rate given this Project is a decommissioning effort and PG&E plans to decommission rather than relicense the broader Hydroelectric Project when its FERC license expires in 2026.

5.11 Rationale for Condition 11: Gaging

Streamflow measurement is necessary to monitor compliance with the conditions of this certification and for water management. Condition 11 requires PG&E to operate and maintain the existing streamflow gages and modify or install new gages, as necessary, to ensure compliance with MIF and ramping rate requirements included in Condition 9 and Condition 10, respectively. Condition 11 also requires PG&E to provide annual hydrology summary reports to the United States Geological Survey to ensure the information is properly evaluated for quality assurance and quality control.

5.12 Rationale for Conditions 12 through 30

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 discharge will comply with water quality requirements, and cites 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 12 through 30. 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 12 through 30 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 12 is necessary to comply with Water Code section 13167 and Conditions 13 through 16 contain important clarifications concerning the scope and legal effect of this certification, and 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 a discharge 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 12 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 and federal ESAs, Condition 13 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 14 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 15 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 right, 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 16 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 17 through 19 are necessary to assure that any discharge 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 17 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 18 is a standard condition that “shall be included as conditions of all water quality certification actions” pursuant to California Code of Regulations, title 23, section 3860(b). This condition clarifies the scope of the certification’s application 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 19 is a standard condition that “shall be included as conditions of all water quality certification actions” pursuant to California Code of Regulations, title 23, section 3860(c). This fee requirement condition is also required pursuant to California Code of Regulations, title 23, section 3833(b), which requires payment of fees by those 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 20 through 30 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 the Project activities will comply with state and federal water quality requirements and other appropriate requirements of state law. Conditions 20, 21, and 22 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, additional actions may be necessary to return the Project to compliance and prevent violation of water quality standards. Conditions 23 and 24 require compliance with the Central Valley Basin Plan and Bay-Delta Plan and implementation of 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 25 requires such reports that are necessary to ensure compliance with water quality standards.

Condition 26, 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 section 13267 and 13383. Site access is needed to ensure compliance with the certification and associated protection of water quality and beneficial uses. Condition 27 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 28 requires that the Licensee use analytical methods approved by California's Environmental Laboratory Accreditation Program, when available, to ensure that such analyses are done in a consistent, approved manner.

Condition 29 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 30 ensures that the certification 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 Battle Creek Hydroelectric Project: Phase 2 No Regrets (Project) by the Pacific Gas and Electric Company (PG&E or Licensee) and the United States Bureau of Reclamation (Reclamation or Applicant) (together “Project Proponents”) 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. Water Quality Monitoring

The Project Proponents shall monitor water quality during in-water and water-adjacent work 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, installation and removal of cofferdams, and removal of Battle Creek Hydroelectric Project (Hydroelectric Project) facilities.

At a minimum, the Project Proponents shall monitor turbidity (Mitigation Measure 10, as identified in the Mitigation Monitoring and Reporting Program [MMRP]⁷), pH, dissolved oxygen, temperature, and construction-related visible pollutants (e.g., oils, greases, fuels, turbidity plumes). Monitoring for turbidity, pH, dissolved oxygen, and temperature shall be conducted in 15-minute intervals using an automated sensor system. Monitoring for visible pollutants shall be conducted continuously throughout Project activities.

Water Quality Objectives: The Project Proponents are responsible for complying with the applicable water quality objectives established in the Central Valley Regional Water Quality Control Board’s (Central Valley Regional Water Board) *Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin* (Central Valley Basin Plan) and any amendments thereto. (Central Valley Regional Water Board 2019.)

Turbidity: The Project Proponents shall not increase turbidity to levels that cause nuisance or adversely affect beneficial uses. Increases in turbidity attributed to Project activities 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 NTU;
- 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;

⁷ This and other references to the MMRP refer to the MMRP developed by the State Water Resources Control Board for the joint *Battle Creek Salmon and Steelhead Restoration Project Final Environmental Impact Statement/Environmental Impact Report*. (State Water Board and Reclamation 2005.)

- Where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs; and
- Where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

Turbidity shall be measured using a maximum 48-hour averaging period.

pH: The Project Proponents shall not depress pH below 6.5 nor raise it above 8.5. If the natural pH level is below 6.5 or above 8.5, the Project Proponents shall provide the Deputy Director of the Division of Water Rights (Deputy Director) information establishing and supporting the natural pH level at least one week in advance of commencing any Project construction activities beyond monitoring. The Deputy Director may require use of the pH range 6.5 to 8.5 if the Deputy Director determines the supporting information is insufficient for use of a natural pH level outside of the 6.5 to 8.5 range. Additionally, if the natural pH level is below 6.5, the Project Proponents shall not depress pH below the natural level. If the natural pH level is above 8.5, the Project Proponents shall not raise pH above the natural level.

Dissolved Oxygen: The Project Proponents shall not decrease dissolved oxygen below seven milligrams per liter.

Temperature: The Project Proponents shall not increase water temperature in the Project area five degrees Fahrenheit above the natural receiving water temperature.

Visual 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.

Monitoring Locations: The Project Proponents shall monitor turbidity, pH, dissolved oxygen, and temperature at the following general locations:

- Upstream of each active work area, outside the influence of the Project; and
- No more than 500 feet downstream of each work area.

The Project Proponents shall take a global positioning system point and a photograph for each proposed monitoring location and provide them to 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 Project Proponents to use other locations if the submitted locations are inadequate.

The Project Proponents shall conduct visual pollutant monitoring throughout the entire length of South Fork Battle Creek and applicable tributaries within or adjacent to an active work area.

Reporting: The Project Proponents shall submit monthly water quality monitoring reports to State Water Board staff. The reports shall include: (1) monitoring results with all original data; (2) a description of monitoring methods, including equipment, frequency of data collection, and quality assurance/quality control (QA/QC) protocols; and (3) any water quality objective violations or other information necessary to interpret the results. The Project Proponents shall submit the first report to State Water Board staff as part of the first progress report (Condition 8) following the start of monitoring and every progress report thereafter for the remainder of in-water and water-adjacent work.

Reporting Exceedances of Water Quality Objectives: In the event of an exceedance of turbidity, pH, dissolved oxygen, temperature, or visual pollutant water quality objectives, the Project Proponents shall immediately cease any activities that may have resulted in the exceedance and implement corrective measures. The Project Proponents shall notify the Deputy Director and the Executive Officer of the Central Valley Regional Water Board (Executive Officer) promptly, and in no case more than 24 hours, following an exceedance of any water quality objective. The notice shall include the cause of the exceedance, measures taken to correct the exceedance, and measures the Project Proponents will implement to prevent a future exceedance. The Deputy Director may require additional actions to help prevent similar exceedances in the future. The Project Proponents may resume work upon Deputy Director approval.

Modifications to Water Quality Monitoring Requirements: The Project Proponents may request modifications to water quality monitoring requirements in this condition. The Project Proponents shall submit the request to the Deputy Director for review and consideration of approval at least two weeks prior to: (1) starting water quality monitoring; or (2) the desired start date of modified water quality monitoring. The request shall include the proposed modifications and supporting rationale. The Deputy Director may require modifications as part of any approval. The Project Proponents shall not implement the modifications until approved by the Deputy Director.

CONDITION 2. Erosion and Sediment Control

The Project Proponents shall develop and submit an Erosion and Sediment Control Plan (Erosion Plan) to the Deputy Director for review and consideration for approval. The Erosion Plan shall be submitted to the Deputy Director a minimum of 90 days prior to commencement of Project construction and decommissioning activities. The Deputy Director may require modifications as part of any approval. The Project Proponents shall not commence ground disturbing activities until the Erosion Plan is approved by the Deputy Director.

The Erosion Plan shall include measures that will be implemented to prevent or minimize erosion and sedimentation during Project construction. The Project Proponents shall develop the Erosion Plan in consultation with the National Marine Fisheries Service (NMFS), United States Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), Central Valley Regional Water Board, and State Water Board staff.

At a minimum, the Erosion Plan shall include:

- Monitoring protocols that will be implemented to ensure erosion and sediment control measures are implemented effectively, consistent 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 2022) and any amendments thereto;
- Identification of erosion and sediment control measures the Project Proponents will implement during and after construction, including applicable measures from Mitigation Measures 6, 10, and 19 of the MMRP, and the *United States Forest Service's National Best Management Practices for Water Quality Management on National Forest System Lands* (United States Forest Service 2012);
- Map of access roads that will be used, including identification of roads that will be improved;
- Maps and/or drawings of proposed revegetation;
- Protocols for removing debris from stream channels in a manner that will not impair flows, fish passage, or spawning (Mitigation Measure 4 of the MMRP);
- Emergency erosion and sediment control measures that will be implemented and protocols for providing notice to the Deputy Director in the event of an emergency;
- Monitoring, reporting, and actions that will be performed to ensure post-decommissioning erosion and sediment control measures (e.g., site restoration, revegetation) are effective;
 - Monitoring protocols and/or erosion and sediment control measures that will require follow-up monitoring following completion of Project construction and decommissioning activities, and performance metrics for assessing effectiveness;
 - Actions the Project Proponents will take if the performance metrics are not met;
 - Identification of applicable sites and locations that will be assessed at least one year after completing Project construction and decommissioning activities. Assessment shall include locations where pre- and post-photos will be taken to document revegetation and restoration effectiveness.
 - A report to the Deputy Director no more than 18 months following completion of Project construction and decommissioning activities, including revegetation and restoration work, that assesses the revegetation and restoration actions one year following Project completion. The report shall include an (a) an assessment of the effectiveness of implemented measures that include pre- and post-revegetation and restoration efforts at key locations, (b) identification of any potential concerns, and (c) proposed actions the Project Proponents will implement to address concerns or Project-related impacts, if necessary. The Deputy Director may require implementation of additional monitoring or other actions in response to the information provided in the report or in the Project record; and

- Documentation of consultation with NMFS, USFWS, CDFW, Central Valley Regional Water Board, and State Water Board staff, including comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

The Project Proponents shall implement the Erosion Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

The Project Proponents shall comply with the Construction General Permit. To the extent of any conflict between the Erosion Plan and applicable conditions in the Construction General Permit, the more stringent shall apply.

Modifications to the Erosion Plan: The Project Proponents may request modifications to the submission timeline or approved Erosion Plan. The Project Proponents shall submit the request to the Deputy Director for review and consideration of approval at least one month prior to: (1) starting ground-disturbing activities; or (2) the desired start date of modified erosion and sediment control measures. The request shall include the proposed modifications and supporting rationale. The Deputy Director may require modifications as part of any approval. The Project Proponents shall not implement the modifications until approved by the Deputy Director.

CONDITION 3. Hazardous Materials Management

The Project Proponents shall develop and submit a Spill Pollution Prevention Plan (SPPP) to the Deputy Director for review and consideration for approval. The SPPP shall be submitted to the Deputy Director a minimum of 90 days prior to commencement of Project construction. The Deputy Director may require modifications as part of any approval. The objective of the SPPP shall be to: (1) identify measures for the storage and disposal of hazardous materials⁸ that will be implemented to avoid discharge and impacts to water quality and beneficial uses; and (2) identify protocols that will be implemented to promptly and effectively address any spills or releases of hazardous materials during Project activities. The Project Proponents shall develop the SPPP in consultation with Central Valley Regional Water Board and State Water Board staff. At a minimum, the SPPP shall include:

- Protocols for training construction personnel prior to starting work, including:
 - Requirements of applicable environmental laws and regulations, including hazardous materials spill prevention and response measures that will be implemented for the Project;
 - How to identify hazardous material or waste-related water quality impairments (e.g., oily sheens); and
 - On-site spill response and reporting protocols;

⁸ Hazardous materials include, but are not limited to, petroleum products, pesticides, fuels, lubricants, oils, hydraulic fluids, raw cement, concrete, asphalt, paint, coating material, drilling fluids, contaminated wash water, or other substances potentially hazardous to water quality and beneficial uses.

- Measures that will be used to manage, remediate, and dispose of hazardous and non-hazardous waste that the Project Proponents will implement, including, but not limited to, applicable measures from Mitigation Measures 7 and 29 of the MMRP, and the *National Best Management Practices for Water Quality Management on National Forest System Lands* (United States Forest Service 2012);
- Locations and protocols as defined in California Code of Regulations, title 27, section 20320 for storing hazardous materials during Project construction and decommissioning activities, which, at a minimum, shall not be stored in or near a floodplain;
- Identification of all hazardous materials to be used during Project construction and decommissioning activities;
- Identification of all on-site spill response materials, including those in spill kits, and their locations and potential uses. At a minimum, hazardous materials spill kits shall be maintained onsite and in vehicles for small spills for the duration of Project activities. These kits shall include oil-absorbent material and tarps to contain and control any minor releases. During Project activities, emergency spill supplies and equipment shall be kept adjacent to all work and staging areas and shall be clearly marked;
- Protocols to limit, control, and clean up spills, which shall include, as applicable, use of bermed storage areas, regular equipment inspections, and fueling/refueling procedures. At a minimum the measures listed below shall be implemented:
 - Before entering the Project area, vehicles and equipment shall be inspected for leaks (e.g., fuel, oil, hydraulic fluids) and repaired, if necessary, prior to entering the Project area. Fueling, lubrication, maintenance, storage, and staging of vehicles and equipment shall not result in a discharge to any waters of the United States and/or state and shall be located outside of waters of the United States and/or state in areas where accidental spills will not affect such waters. At a minimum, storing, fueling, and maintenance of vehicles and equipment shall not occur in wetlands, surface waters, riparian areas, or on slopes above and adjacent to these features; and
 - Equipment and materials shall be stored in existing disturbed parking areas or at least 100 feet from waterways;
- Identification of where Project-related debris will be temporary stored and permanently disposed. All Project-related waste, including trash and litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials (including equipment lubricants, solvents, and cleaners), shall be removed to an appropriate waste facility permitted or otherwise authorized to treat, store, or dispose of such materials;
 - Hazardous materials or other materials that can affect water quality shall not be disposed of or released onto the ground, the underlying groundwater, or any surface water. If necessary, containment berms shall be constructed to prevent spilled materials from reaching surface waters; and

- Documentation of consultation with Central Valley Regional Water Board and State Water Board staff, including comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

The Project Proponents shall implement the SPPP upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

Modifications to the SPPP: The Project Proponents may request modifications to the submission timeline or the Deputy Director-approved SPPP. The Project Proponents shall submit the request for modifications to the SPPP to the Deputy Director for review and consideration of approval at least one month prior to the desired start date of the proposed modifications. The request shall include the proposed modifications and supporting rationale. The Deputy Director may require modifications as part of any approval. The Project Proponents shall not implement the modifications until approved by the Deputy Director.

Release of Hazardous Materials: If hazardous materials are released, the Project Proponents shall immediately cease any activities that resulted in the release and implement measures to limit and clean up the release. The Project Proponents shall notify the Deputy Director, Executive Officer, and other relevant agencies and entities (e.g., Coleman National Fish Hatchery) 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 Project Proponents will implement to prevent a future release. The Deputy Director may require additional actions to help prevent similar releases in the future. The Project Proponents may resume work upon Deputy Director approval.

CONDITION 4. Biological Resource Protections

Biological Resources: The Project Proponents shall implement the following plans and measures to protect aquatic biological resources during Project implementation:

- Implement the Worker Environmental Education Program (Mitigation Measure 1 of the MMRP);
 - A qualified biologist shall conduct the Worker Environmental Education Program for construction personnel, including contractors, prior to any construction activities. If needed, the training shall be provided in languages other than English;
- Conduct preconstruction surveys and create exclusion areas for anadromous fish spawning gravels (Mitigation Measure 3 of the MMRP) in consultation with NMFS and USFWS;
 - A qualified biologist shall survey potential anadromous fish habitat near work areas for spawning gravels at least two months prior to starting construction or decommissioning activities;
 - If suitable spawning gravels are identified, and if NMFS and USFWS determine it is necessary, the Project Proponents shall armor spawning

- gravels at least two months prior to starting construction or decommissioning activities; and
- The Project Proponents shall remove all armoring devices after construction and decommissioning activities in the work area are complete; and
- Conduct in-water work during periods of low streamflow, May through October (Mitigation Measure 5 of the MMRP);
- Implement the Environmental Compliance Monitoring Program (Mitigation Measure 8 of the MMRP);
 - A qualified biologist shall monitor in-water and water-adjacent work areas daily for special-status species, including foothill yellow-legged frogs (FYLFs) and western pond turtles. Any specimens shall be removed to suitable habitat outside the active work area and outside exclusion fencing, if applicable. The construction monitor may halt construction activities if take⁹ has occurred or is likely to occur. The Project Proponents shall notify CDFW and USFWS if take occurs or any specimens are moved;
- Implement the Construction Area Fish Management Program (Mitigation Measure 9 of the MMRP) to protect anadromous fish and their habitat during in-water and water-adjacent work;
- Implement the Fish Rescue Operation (Mitigation Measure 12 of the MMRP) to relocate any isolated fish due to dewatering;
- Conduct preconstruction surveys, create barrier fencing, and relocate, if necessary, FYLF and western pond turtles (Mitigation Measures 23 and 24 of the MMRP);
 - A qualified biologist shall conduct FYLF and western pond turtle surveys no more than two weeks prior to starting construction at each work area;
 - If any life stage of FYLF or western pond turtles are found, the Project Proponents shall construct barrier fencing in the work area four days prior to starting construction;
 - A qualified biologist shall survey the work area for three days prior to starting construction and move any FYLF or western pond turtles within the barrier fencing to the nearest suitable habitat outside the work area. The Project Proponents shall notify CDFW and USFWS if any FYLF or western pond turtles are moved;
 - The Project Proponents shall construct exclusion fencing if FYLF or western pond turtles are found in previously unoccupied areas; and
 - The Project Proponents shall remove all fencing and restore disturbed habitat after construction and decommissioning activities in the work area are complete.

⁹ “Take” as defined by either the California Endangered Species Act (Fish & G. Code, §§ 2050 – 2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531 – 1544).

Aquatic Habitat: The Project Proponents shall implement the following plans and measures to protect aquatic habitat during construction:

- Designate exclusion and work zones to protect sensitive aquatic habitat (riparian and wetlands) (Mitigation Measure 2 from the MMRP);
- Implement the Habitat Compensation Approach (Mitigation Measure 14 from the MMRP) that describes how Project Proponents will address temporary and permanent impacts to sensitive habitat;
- Implement the Comprehensive Habitat Mitigation and Monitoring Plan (Mitigation Measure 15 from the MMRP) that describes steps necessary for implementing mitigation where ground-disturbing activities may affect sensitive habitat;
- Implement the Riparian Restoration Plan (Mitigation Measure 16 from the MMRP) to provide off-site compensatory mitigation for impacted riparian habitat;
- Implement the Habitat Mitigation and Monitoring Plan (Mitigation Measure 20 from the MMRP) to provide on-site restoration and off-site compensatory mitigation for impacted wetlands and other waters of the state.
- The Project Proponents shall notify the Deputy Director of any updates to the estimated temporary and permanent impacts to stream channel, riparian, and wetland habitats if they vary from what is noted in the Project certification applications;
- The Project Proponents shall restore temporarily impacted habitats to as close to pre-Hydroelectric Project conditions as possible; and
- The Project Proponents shall compensate for permanent impacts at a minimum of a 1:1 ratio and shall comply 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), the California Wetlands Conservation Policy (Governor's Executive Order W-59-93 (August 23, 1993)), and any amendments thereto. The Project Proponents shall provide the Deputy Director with documentation of compliance with this mitigation provision and its compliance with the Dredge or Fill Procedures and California Wetlands Conservation Policy as part of the Project Completion Report (Condition 8).

Modifications to Biological Resource Protections: The Project Proponents may request modifications to approved plans or measures specified in this condition. The Project Proponents shall submit the request to the Deputy Director for review and consideration of approval at least one month prior to implementing proposed modifications. The request shall include the proposed modifications and supporting rationale. The Deputy Director may require modifications as part of any approval. The Project Proponents shall not implement the modifications until approved by the Deputy Director.

CONDITION 5. Project Decommissioning

The Project Proponents shall develop and submit a Project Decommissioning Plan to the Deputy Director for review and consideration for approval (Mitigation Measures 4 and 11 from the MMRP). The Project Proponents shall develop the Project Decommissioning Plan in consultation with CDFW, NMFS, USFWS, Central Valley Regional Water Board, and State Water Board staff. The Project Decommissioning Plan

shall be submitted to the Deputy Director a minimum of 90 days prior to commencement of Project construction unless another timeline is approved by the Deputy Director. The Deputy Director may require modifications as part of any approval. At a minimum, the Project Decommissioning Plan shall include:

- Overview of the Project decommissioning actions that will be implemented;
- Timeframe(s) with specific milestones for decommissioning of each Project facility;
- Technical specifications for decommissioning dams and appurtenant structures. At a minimum, these shall include:
 - Maps and/or drawings of decommissioning methods and temporary construction structures (e.g., concrete guide walls, gates/supporting structures);
 - Identification of demolition equipment that will be used in decommissioning activities;
 - Specific steps for removing each dam and appurtenant structures; and
 - Specific information for the decommissioning of structures that will be left in place;
- Sediment management measures that will be implemented. This includes measures to stabilize work areas during and after decommissioning activities are complete (e.g., natural drainage path protection, slope recontouring, revegetation) and may include reference to actions that will be implemented per Condition 2 (Erosion and Sediment Control) and Condition 4 (Biological Resource Protections);
- Methods and design specifications for constructing pilot channels to facilitate downstream sediment distribution;
- Protocols for ensuring any material left in the stream channel or surrounding area will not impair flows, fish passage, or spawning, and proper disposal of any materials removed from the stream channel or surrounding area; and
- Documentation of consultation with CDFW, NMFS, USFWS, Central Valley Regional Water Board, and State Water Board staff, including comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

The Project Proponents shall implement the Project Decommissioning Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

Modifications to the Project Decommissioning Plan: The Project Proponents may request modifications to the Deputy Director-approved Project Decommissioning Plan. The Project Proponents shall submit the request to the Deputy Director for review and consideration of approval at least one month prior to implementing proposed modifications. The request shall include the proposed modifications and supporting rationale. The Deputy Director may require modifications as part of any approval. The Project Proponents shall not implement the modifications until approved by the Deputy Director.

CONDITION 6. Dewatering and Diversion

The Project Proponents shall develop and submit a Dewatering and Diversion Plan (Dewatering Plan) to the Deputy Director for review and consideration for approval. The Project Proponents shall develop the Dewatering Plan in consultation with Central Valley Regional Water Board and State Water Board staff. The Dewatering Plan shall be submitted to the Deputy Director a minimum of 90 days prior to commencement of Project decommissioning activities unless another timeline is approved by the Deputy Director. The Deputy Director may require modifications as part of any approval.

The Dewatering Plan shall include procedures for dewatering and diversion. This includes a description of the installation, operation, and maintenance (e.g., inspection and follow-up actions) of dewatering systems, as well as the locations, quantity, and timing of dewatering and diversion activities. At a minimum, the Dewatering Plan shall include:

- Site plan map(s) and/or drawing(s);
- Description of in-water work, including work related to dewatering and water diversion activities at each work area, including:
 - Location and length of dewatered stream segments;
 - Equipment and methods used for dewatering and water diversion;
 - Discharge locations;
 - Cofferdams or other barriers that will be used to isolate construction area(s) from surface waters;
 - List of materials that will be used in or adjacent to the watercourse. Any imported riprap, rocks, and gravels shall be pre-washed;
- Schedules for each stage of dewatering and water diversion activities (i.e., equipment installation, dewatering, barrier installation, water diversion, equipment removal, rewatering);
- Measures to address seepage water and 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);
- Measures to restore stream channels to their original conditions after work is complete, which may refer to actions identified in Condition 2 (Erosion and Sediment Control) and Condition 4 (Biological Resource Protections);
- As necessary, any measures necessary to protect aquatic biological resources (e.g., fish rescue and relocation), which may refer to Condition 4 (Biological Resource Protections); and
- Documentation of consultation with Central Valley Regional Water Board and State Water Board staff, including comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

The Project Proponents shall implement the Dewatering Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

Lower Ripley Creek Dewatering: If dewatering of Lower Ripley Creek is deemed necessary, the Project Proponents shall include in the original Dewatering Plan or revise the Dewatering Plan to include dewatering and diversion procedures for Lower Ripley Creek consistent with this condition. If such dewatering is necessary, the Project Proponents shall not commence decommissioning activities in Lower Ripley Creek until a Dewatering Plan with inclusion of dewatering provisions for Lower Ripley Creek is approved by the Deputy Director.

Modifications to the Dewatering Plan: The Project Proponents may request modifications to the Deputy Director-approved Dewatering Plan. The Project Proponents shall submit the request to the Deputy Director for review and consideration of approval at least one month prior to implementing proposed modifications. The request shall include the proposed modifications and supporting rationale. The Deputy Director may require modifications as part of any approval. The Project Proponents shall not implement the modifications until approved by the Deputy Director.

CONDITION 7. Recreation

The Project Proponents shall notify the Oasis Springs Lodge, nearby landowners, and the public of the anticipated start date, duration, and type of Project activities that may impact water-based recreation (e.g., kayaking, fishing). To the extent feasible, the Project Proponents shall minimize or avoid Project decommissioning activities during high-use recreation periods (Mitigation Measures 40, 41, and 42 from the MMRP).

CONDITION 8. Reporting

Progress Reports: The Project Proponents shall submit a Project Activities Progress Report (Progress Report) to the Deputy Director monthly following initiation of Project decommissioning activities and throughout Project implementation. The first report and each subsequent report shall be due on the 15th of the month and cover the preceding month. 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; and
- Any anticipated activities (e.g., decommissioning, dewatering, or diversion) that would differ from those described in the certification application or required by this certification.

The first Progress Report shall also include qualifications for the construction monitors, environmental resource monitors, and other individuals responsible for documenting compliance with the Project certification.

The Deputy Director may require the Project Proponents to implement corrective actions or approve additional measures proposed by the Project Proponents in response to the information provided in a progress report, new information in the record, or as part of approval of additional measures to protect water quality.

Project Completion Report: Within 60 days of Project completion, the Project Proponents shall provide the Deputy Director with a Project Completion Report. The purpose of the Project Completion Report is to ensure compliance with the certification and ensure the protection of water quality and associated beneficial uses. The Project Completion Report shall include the following:

- 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. The Project Completion Report may refer to previously submitted Progress Reports;
- Details of Project-related adverse impacts to beneficial uses, if applicable; and
- Post-Project conditions and photo documentation of Project implementation taken before, during, and after Project decommissioning at appropriate locations (i.e., each dam site, removed facility site, removed sections of South Canal, and left-in-place sections of South Canal).

Upon a request from the Deputy Director or State Water Board staff, the Project Proponents shall provide additional information or meet with staff to discuss a progress report or the Project Completion Report.

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

CONDITION 9. Flows

Minimum Instream Flows: No later than 30 days after completing in-water decommissioning activities, the Licensee shall implement the minimum instream flows (MIFs) described in Table 1.

MIFs shall be measured in two ways: (1) instantaneous flow; and (2) the moving seven-day average of the mean daily flow. Instantaneous flow shall be measured in 15-minute or more frequent increments. Mean daily flow shall be the average of the incremental readings of instantaneous flow from midnight of one day to midnight of the next day over a seven-day period.

Individual mean daily flows may be less than the required MIF as long as: (a) the instantaneous flow is at least 90 percent of the required MIF; and (b) the moving seven-day average meets or exceeds the required MIF. Instantaneous flow data shall be made available as noted in Condition 11 (Gaging).

Table 1. Post-decommissioning MIFs (in cubic feet per second)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
North Fork Battle Creek												
North Battle Creek Reservoir Dam ¹⁰	0	0	0	0.3	0.3	0.3	0.3	0.3	0.3	0	0	0
Macumber Reservoir Dam ¹¹	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Al Smith Diversion Dam	3	3	3	3	3	3	3	3	3	3	3	3
Keswick Diversion Dam ¹²	3	3	3	3	3	3	3	3	3	3	3	3
North Battle Creek Feeder Diversion Dam ¹³	88	88	88	67	47	47	47	47	47	47	47	88
Eagle Canyon Diversion Dam ¹⁴	46	46	46	46	35	35	35	35	35	35	35	46
South Fork Battle Creek												
Inskip Diversion Dam ^{15,16}	86	86	86	61	40	40	40	40	40	40	40	86
Baldwin Creek												
Asbury Diversion Dam	5	5	5	5	5	5	5	5	5	5	5	5

¹⁰ Measured at the existing weir below the dam.

¹¹ Seepage or a controlled release may account for this flow.

¹² MIFs are not required when flows are not being diverted from North Fork Battle Creek as this release is made from Keswick Canal.

¹³ If inflow is less than the MIF requirement, the Licensee shall pass all inflow from upstream and, when possible, supplement with water from the Volta 2 Powerhouse tailrace junction box to meet the MIF.

¹⁴ Release requirement may be met by water released from Eagle Canyon Diversion Dam and Eagle Canyon Springs.

¹⁵ If inflow is less than the MIF requirement, the Licensee shall pass all inflow through the dam.

¹⁶ MIF requirements for Inskip Diversion Dam shall no longer be in effect if the dam is removed. The Licensee applied to the State Water Board for a separate certification to remove Inskip Diversion Dam on March 8, 2023.

Planned Temporary Flow Modifications: The Licensee may request temporary MIF modifications for non-emergency facility construction, modification, or maintenance. Non-emergency modification requests shall be submitted to the Deputy Director for consideration of approval as far in advance as possible, but no less than two months in advance of the desired effective date. The Licensee shall notify Reclamation, NMFS, USFWS, and CDFW of the proposed temporary MIF variance in advance of submitting the request to the Deputy Director. The request shall include: a description of the proposed construction, modification, or maintenance that requires the flow modification; the planned duration and magnitude of the MIF variance; documentation of notification to Reclamation, NMFS, USFWS, and CDFW, and any comments received; measures that will be implemented to protect water quality and beneficial uses; and a schedule for the proposed construction, modification, or maintenance. The Deputy Director may require modifications as part of approval.

Unplanned Temporary Flow Modifications: The MIFs and/or ramping rates (Condition 10) may be temporarily modified if required by equipment malfunction reasonably beyond the control of the Licensee, as directed by law enforcement authorities, or in emergencies. For the purposes of this condition, an “emergency” is defined as an unforeseen event that is reasonably out of the control of the Licensee and requires the Licensee to take immediate action, either unilaterally or under instruction by law enforcement or other regulatory agency staff, to prevent imminent loss of human life or substantial property damage. An emergency may include, but is not limited to: natural events, such as landslides, storms or wildfires; malfunction or failure of Project works; and recreation accidents. Extremely dry conditions, including a drought for which the Governor of the State of California declares a drought emergency, shall not be considered an emergency for purposes of this condition.

To the extent possible, the Licensee shall notify the Deputy Director prior to any unplanned temporary MIF and/or ramping rate modifications. In all instances, the Licensee shall notify the Deputy Director within 48 hours of the beginning of any unplanned temporary MIF and/or ramping rate modifications. Within 96 hours, the Licensee shall provide the Deputy Director with an update of the conditions associated with the modifications and an estimated timeline for returning to the required MIFs and/or ramping rates.

Within 30 days of any unplanned temporary MIF and/or ramping rate modifications, the Licensee shall provide the Deputy Director with: (1) a written description of the modification and reasons for its necessity; (2) photo documentation of the incident and any resulting impacts; (3) a timeline for ending the modification and returning to the required MIF and/or ramping rate, if ongoing; and (4) a plan to prevent a similar incident in the future or, if a similar incident cannot be avoided, a reason why such an incident cannot be avoided.

CONDITION 10. Ramping Rates

The Licensee shall implement the following ramping rates when returning flows to the natural stream channel following an outage to North Battle Creek Feeder Diversion Dam, Cross Country Canal, Eagle Canyon Canal, Inskip Canal¹⁷, or Coleman Canal:

- June 16 through April 15: 0.1 foot per hour; and
- April 16 through June 15: 4 feet over 7 days.

Ramping rates shall not apply to Inskip Canal or Coleman Canal when flows in South Fork Battle Creek are greater than 460 cubic feet per second.

At least 75 percent of instantaneous flow (i.e., 15-minute or more frequent) incremental changes over the moving seven-day average shall be less than or equal to the specified ramping rate. All incremental changes shall be less than 150 percent of the specified ramping rate.

Modifications to Ramping Rates: The Licensee may submit, to the Deputy Director for review and consideration of approval, new threshold flows at which the ramping rates would not apply for any of the aforementioned locations. The request shall include the proposed threshold flows, supporting rationale, and documentation of consultation with Reclamation, NMFS, USFWS, CDFW, and State Water Board staff. The Deputy Director may require modifications as part of any approval. The Licensee shall not implement the modifications until approved by the Deputy Director.

The Licensee may request modifications to the April 16 through June 15 ramping rate requirement if existing facilities are unable to meet this requirement. The request shall include the proposed ramping rate(s), supporting rationale, and documentation of consultation with Reclamation, NMFS, USFWS, CDFW, and State Water Board staff. The proposed ramping rate(s) shall be no faster than 0.1 foot per hour, which is consistent with the Memorandum of Understanding (NMFS et al. 1999). The Deputy Director may require modifications as part of any approval of modified ramping rates. The Licensee shall not implement the modifications until approved by the Deputy Director.

CONDITION 11. Gaging

Within six months of issuance of the Federal Energy Regulatory Commission (FERC) Hydroelectric Project license amendment for this Project, the Licensee shall develop and submit a Gaging Plan to the Deputy Director for review and consideration for approval. The Deputy Director may require modifications as part of any approval. The Licensee shall develop the Gaging Plan in consultation with Reclamation, State Water

¹⁷ Ramping rate requirements for Inskip Diversion Dam shall no longer be in effect if the dam is removed.

Board, and appropriate gaging agency or entity (e.g., United States Geological Survey, Department of Water Resources) staff. At a minimum, the Gaging Plan shall include:

- Schedule for modifying or installing gages necessary to determine compliance with MIF requirements (Condition 9), if necessary;
- Locations of existing and proposed gages;
- Descriptions of existing and proposed gages, including gage types and operations and maintenance schedules;
- Frequency and manner of data collection;
- Information on how the Licensee will provide gaging data to the public, including protocols for posting real-time flow data to the California Data Exchange Center, United States Geological Survey, or other online location approved by the Deputy Director. Flow data shall be posted as close to real-time as possible but no later than 24 hours after measurement unless otherwise approved by the Deputy Director. Real-time data may be posted as provisional and shall be updated as appropriate once QA/QC of the flow data are complete;
- QA/QC protocols for flow data. Flow data shall be reviewed by hydrographers at least annually as part of the QA/QC protocol. Upon completion of the QA/QC process, the data shall be catalogued and made available to the United States Geological Survey at least annually; and
- Documentation of consultation with Reclamation, State Water Board, and appropriate gaging agency or entity (e.g., United States Geological Survey, Department of Water Resources) staff, including comments and recommendations made in connection with the plan, and a description of how the plan incorporates or addresses the comments and recommendations.

The Licensee shall implement the Gaging Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

Modifications to the Gaging Plan: The Licensee may request modifications to the submission timeline or approved Gaging Plan. The Licensee shall submit the request to the Deputy Director for review and consideration of approval at least one month prior to implementing proposed modifications. The request shall include the proposed modifications and supporting rationale. The Deputy Director may require modifications as part of any approval. The Licensee shall not implement the modifications until approved by the Deputy Director.

CONDITIONS 12 – 30

CONDITION 12. 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 13. 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 Project Proponents, the Project Proponents must obtain authorization for the take prior to any Project activities or operation of the portion of the Project that may result in a take. The Project Proponents are responsible for meeting all requirements of the applicable ESAs for the Project authorized under this certification.

CONDITION 14. This certification shall not be construed as replacement or substitution for any necessary federal, state, and local approvals. The Project Proponents are 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 15. Any requirement in this certification that refers to an agency whose authorities and responsibilities are transferred to or subsumed by another local, state, or federal agency, will apply equally to the successor agency.

CONDITION 16. 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 17. 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 18. 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 19. This certification is conditioned upon total payment of any fee required under California Code of Regulations, title 23, division 3, chapter 28.

CONDITION 20. 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 Project Proponents fail 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 Project Proponents shall submit a written request for the extension, with justification, to the Deputy Director no later than 15 days prior to the deadline. The Project Proponents shall not implement any plan, proposal, or report until after the applicable State Water Board approval and any other necessary regulatory approvals.

CONDITION 21. 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 Project Proponents shall, by a deadline required by the Deputy Director, submit a plan that documents why the violation occurred and steps the Project Proponents will implement to address the violation. The Project Proponents shall implement the plan upon approval from the Deputy Director, and the Deputy Director may require modifications as part of any approval.

CONDITION 22. The Project Proponents 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 23. This certification is contingent on compliance with all applicable requirements of the Central Valley Basin Plan and *Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary*.

CONDITION 24. 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 Project Proponents shall take all reasonable measures to protect the beneficial uses of waters of the state, including Battle Creek.

CONDITION 25. 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, & 13383.)

CONDITION 26. Upon request, a construction schedule shall be provided to State Water Board and Central Valley Regional Water Board staff. The Project Proponents shall provide State Water Board and Central Valley Regional Water Board staff access to Project sites to document compliance with this certification.

CONDITION 27. A copy of this certification shall be provided to any contractors and subcontractors conducting Project-related work, and copies shall remain in their possession at the Project site. The Project Proponents shall be responsible for work conducted by their contractors, subcontractors, or other persons conducting Project-related work.

CONDITION 28. The Project Proponents 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 Lab Accreditation Program-certified laboratories.

CONDITION 29. 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 30. 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. 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.



Eric Oppenheimer
Executive Director

February 1, 2024

Date

8.0 References

- California Department of Fish and Wildlife. January 2024. [Special Animals List](#). Available at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline>. Accessed on January 24, 2024.
- Central Valley Regional Water Quality Control Board. 2019. [Water Quality Control Plan \(Basin Plan\) for the California Regional Water Quality Control Board Central Valley Region the Sacramento River Basin and San Joaquin River Basin](#). Available at: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201902.pdf. Accessed on January 2, 2024.
- Federal Energy Regulatory Commission. 2020. [List of Comprehensive Plans](#). Available at: <https://www.ferc.gov/sites/default/files/2020-07/ListofComprehensivePlans.pdf>. Accessed on January 10, 2024.
- Hunter, Mark A. 1992. Hydropower Flow Fluctuations and Salmonids: A Review of the Biological Effects, Mechanical Causes, and Options for Mitigation. State of Washington Department of Fisheries. Technical Report no. 119.
- Lind, A., and S. Yarnell. 2011. Assessment of Risks to Sierra Nevada Populations of Foothill Yellow-Legged Frogs (*Rana boylei*) Under Varying Snow-Melt Hydrograph Recession Rates in Rivers. Placer County Water Agency.
- National Marine Fisheries Service, United States Bureau of Reclamation, United States Fish and Wildlife Service, California Department of Fish and Game, and PG&E. 1999. [Memorandum of Understanding](#). Available at: <https://www.usbr.gov/mp/battlecreek/docs/mou.pdf>. Accessed on January 5, 2024.
- Pacific Gas and Electric Company (PG&E). 2020. [Notice to Not File a Notice of Intent or Pre-Application Document for the Battle Creek Hydro Project of Pacific Gas and Electric Company under P-1121](#). Available at: https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20201023-5073&optimized=false. Accessed on January 5, 2024.
- PG&E. 2022. Battle Creek Hydroelectric Project (FERC No. 1121) Application for Amendment of License Phase 2 No Regrets.
- PG&E. 2023. Battle Creek Phase 2 No Regrets 401 Application.
- State Water Resources Control Board (State Water Board). 1968. [Statement of Policy with Respect to Maintaining High Quality Waters in California](#). Resolution No. 68-16. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf. Accessed on January 2, 2024.

State Water Board. 2003. [Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have received State Water Quality Certification \(General WDRs\)](https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf). Water Quality Order No. 2003-0017-DWQ. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf. Accessed on January 2, 2024.

State Water Board. 2022. [National Pollutant Discharge Elimination System \(NPDES\) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities \(General Permit\)](https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/general_permit_reissuance.html). Water Quality Order No. 2022-0057-DWQ and NPDES No. CAS000002 and any amendments thereto. Available at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/general_permit_reissuance.html. Accessed on January 22, 2024.

State Water Board. 2012. [Delegation of Authority to State Water Resources Control Board Members Individually and to the Deputy Director for Water Rights](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0029.pdf). Resolution No. 2012-0029. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0029.pdf. Accessed on January 2, 2024.

State Water Board. 2019. [State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State](https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.html). Resolution No. 2019-0015 and any amendments thereto. Available at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.html. Accessed on January 2, 2024.

State Water Board. 2021. [Confirmation That the “State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State” \(1\) Are in Effect as State Policy for Water Quality Control for All Waters of The State and \(2\) Shall be Applied via the Inland Surface Waters and Enclosed Bays and Estuaries Plan to only Waters of The United States](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2021/rs2021-0012.pdf). Resolution No. 2021-0012. Available at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2021/rs2021-0012.pdf. Accessed on January 2, 2024.

State Water Board. 2022. [2020-2022 California Integrated Report for Clean Water Act Sections 303\(d\) and 305\(b\)](https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html). Available at: https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html. Accessed on January 2, 2024.

State Water Board. 2023a. *Redelegation of Authorities Memorandum*. April 20, 2023.

State Water Board. 2023b. [Sacramento/Delta Update to Bay-Delta Plan](https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/comp_review.html). San Francisco Bay/Sacramento – San Joaquin Delta Estuary (Bay-Delta) Program. Available at: https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/comp_review.html. Accessed on January 5, 2024.

State Water Board and United States Bureau of Reclamation. 2005. [Battle Creek Salmon and Steelhead Restoration Project EIS/EIR](#). Available at: https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=99. Accessed January 5, 2024.

United States Bureau of Reclamation (Reclamation). 2023a. Clean Water Act Section 404 Nationwide Permit Preconstruction Notification Package for the Lower Ripley Creek Feeder Diversion Dam Project. SPK-2007-00453.

Reclamation. 2023b. Clean Water Act Section 404 Nationwide Permit Preconstruction Notification Package for the Soap Creek Feeder Diversion Dam Removal Project. SPK-2007-00453.

Reclamation. 2023c. Clean Water Act Section 404 Nationwide Permit Preconstruction Notification Package for the South Diversion Dam/South Canal Removal Project. SPK-2007-00468.

Reclamation. 2024. Battle Creek Salmon and Steelhead Restoration Project (Restoration Project) – Clean Water Act (CWA), Section 401 Water Quality Certification (WQC) Request.

United States Environmental Protection Agency. 2023. [Final 2023 CWA Section 401 Water Quality Certification Improvement Rule](#). Available at: <https://www.epa.gov/cwa-401/final-2023-cwa-section-401-water-quality-certification-improvement-rule>. Accessed on January 2, 2024.

United States Forest Service. 2012. [National Best Management Practices for Water Quality Management on National Forest System Lands](#). Volume 1: National Core BMP Technical Guide (FS-990a). April 2012. Available at: https://www.fs.usda.gov/sites/default/files/FS_National_Core_BMPs_April2012_sb.pdf. Accessed on January 4, 2024.

**BATTLE CREEK HYDROELECTRIC PROJECT: PHASE 2 NO REGRETS
WATER QUALITY CERTIFICATION**

**ATTACHMENT A:
EXISTING PROJECTS AND PROJECT DESCRIPTION**

Attachment A: Existing Projects and Project Description
Battle Creek Hydroelectric Project: Phase 2 No Regrets
Water Quality Certification

This attachment describes Pacific Gas and Electric Company's (PG&E's) Battle Creek Hydroelectric Project (Hydroelectric Project) operations, Battle Creek Salmon and Steelhead Restoration Project (Restoration Project) implementation, and proposed Battle Creek Hydroelectric Project: Phase 2 No Regrets (Project).

A.1. Battle Creek Hydroelectric Project

The Hydroelectric Project consists of five developments:

Volta 1 Development

- Powerhouse: Volta 1 (9-megawatt [MW] generating capacity, 120-cubic feet per second [cfs] hydraulic capacity);
- Diversion Dams: Al Smith, Keswick, North Battle Creek Feeder;
- Reservoirs: Lake Grace, Lake Nora, McCumber, North Battle Creek; and
- Canals: Al Smith (64-cfs hydraulic capacity), Keswick (64-cfs hydraulic capacity).

Volta 2 Development

- Powerhouse: Volta 2 (1-MW generating capacity, 128-cfs hydraulic capacity);
- Diversion Dams: North Battle Creek Feeder, Upper Ripley; and
- Canals: Cross Country (150-cfs hydraulic capacity) and Upper Ripley Creek Feeder.

South Development

- Powerhouse: South (7-MW generating capacity, 190-cfs hydraulic capacity);
- Diversion Dams: South (85-cfs hydraulic capacity), Soap Creek Feeder;
- Canals: Union (250-cfs hydraulic capacity), South (100-cfs hydraulic capacity), Soap Creek Feeder; and
- Penstock: South Powerhouse.

Inskip Development

- Powerhouse: Inskip (8-MW generating capacity, 270-cfs hydraulic capacity);
- Diversion Dams: Eagle Canyon, Lower Ripley, Inskip;
- Canals: Inskip (222-cfs hydraulic capacity), Eagle Canyon (70-cfs hydraulic capacity). Lower Ripley Creek Feeder; and
- Penstock: Inskip.

Attachment A: Existing Projects and Project Description
Battle Creek Hydroelectric Project: Phase 2 No Regrets
Water Quality Certification

Coleman Development

- Powerhouse: Coleman (13-MW generating capacity, 380-cfs hydraulic capacity);
- Diversion Dams: Wildcat, Asbury, Coleman;
- Reservoir: Coleman Forebay;
- Canals: Coleman (340-cfs hydraulic capacity), Wildcat (18-cfs hydraulic capacity), Pacific Power (15-cfs hydraulic capacity); and
- Pipeline: Asbury Pump (35-cfs hydraulic capacity).

Movement of Water: Generally, water is diverted from the North and South Forks of Battle Creek and tributaries through natural drainages and downstream to mainstem Battle Creek via a system of powerhouses, canals, and penstocks. North Fork Battle Creek diversions are made at North Battle Creek Feeder, Eagle Canyon, and Wildcat Diversion Dams. South Fork Battle Creek diversions are made at South, Inskip, and Coleman Diversion Dams. Diversions from Battle Creek tributaries are made at Soap Creek Feeder Diversion Dam on Soap Creek, Upper and Lower Ripley Creek Feeder Diversion Dams on Ripley Creek, and Asbury Diversion Dam on Baldwin Creek.

Water in the Hydroelectric Project is conveyed as follows:

- North Fork Battle Creek and upper Ripley Creek water from the Volta 1 and Volta 2 Developments is diverted into the Cross Country Canal. The Cross Country Canal meets South Canal near South Fork Battle Creek to form Union Canal;
- South Fork Battle Creek and Soap Creek water from the South Development is diverted into South Canal and then Union Canal, where North Fork Battle Creek, South Fork Battle Creek, and tributary waters mix;
- This mixed water is discharged from South Powerhouse and rediverted into Inskip Canal. South Fork Battle Creek and lower Ripley Creek water from the Inskip Development is also diverted into Inskip Canal;
- Water from Inskip Canal is discharged into South Fork Battle Creek from Inskip Powerhouse;
- Water discharged by Inskip Powerhouse, as well as water from Wildcat Canal on North Fork Battle Creek and Asbury Pump Pipeline on Baldwin Creek in the Coleman Development, is rediverted to Coleman Forebay via Coleman Canal; and
- Water from Coleman Forebay is discharged into mainstem Battle Creek from Coleman Powerhouse.

Figure 1 shows Hydroelectric Project facilities and movement of water.

Attachment A: Existing Projects and Project Description
 Battle Creek Hydroelectric Project: Phase 2 No Regrets
 Water Quality Certification

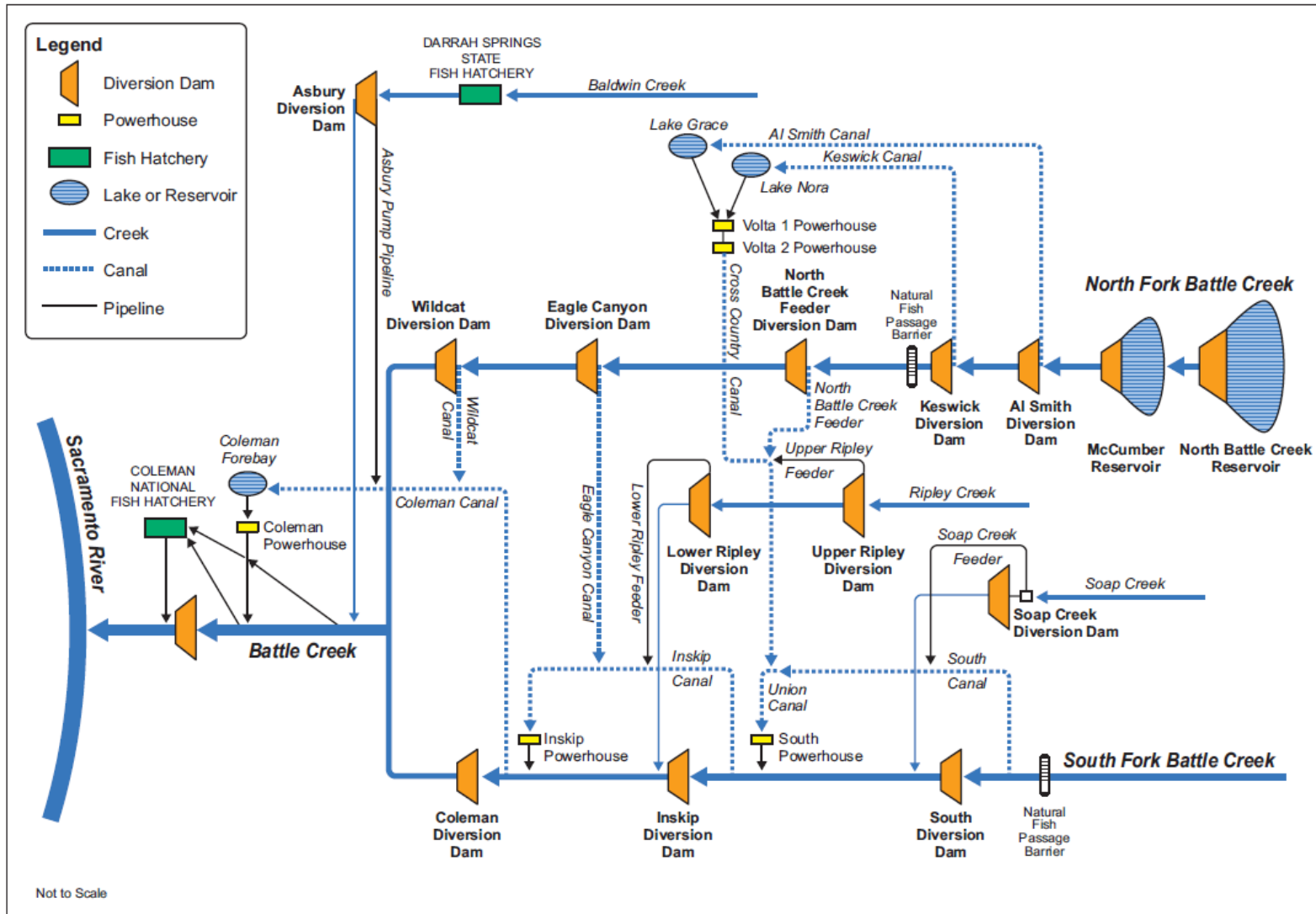


Figure 1. Hydroelectric Project Schematic Diagram

Attachment A: Existing Projects and Project Description
Battle Creek Hydroelectric Project: Phase 2 No Regrets
Water Quality Certification

A.2. Battle Creek Salmon and Steelhead Restoration Project

The Restoration Project is being implemented in three phases:

- Phase 1A: Installation of a fish barrier¹⁸, fish screens, and fish ladders¹⁹ at Hydroelectric Project dams (North Battle Creek Feeder Diversion Dam and Eagle Canyon Diversion Dam) on North Fork Battle Creek and its tributaries (completed 2013);
- Phase 1B: Construction of the Inskip penstock bypass and tailrace connector (completed 2012); and
- Phase 2 No Regrets (*the project covered by this water quality certification*): Decommissioning of South Canal²⁰ and removal of the following Hydroelectric Project facilities from South Fork Battle Creek and its tributaries: (1) Coleman Diversion Dam; (2) Lower Ripley Creek Feeder Diversion Dam; (3) Soap Creek Feeder Diversion Dam; and (4) South Diversion Dam.

Figures 2, 3, and 4 show Hydroelectric Project facilities before and after Restoration Project implementation.

The original Phase 2 of the Restoration Project, also included constructing a fish screen and fish ladder at Inskip Diversion Dam, constructing a South Powerhouse Tailrace Connector Tunnel, and removing all of South Canal. The South Powerhouse Tailrace Connector Tunnel would have diverted mixed water from South Powerhouse to mainstem Battle Creek instead of it discharging directly into South Fork Battle Creek. However, in 2018, the PG&E decided it would not relicense the Hydroelectric Project and would instead remove Inskip Diversion Dam, decommission South Canal²⁰, and not add new infrastructure (e.g., no fish screen and fish ladder at Inskip Diversion Dam and no South Powerhouse Tailrace Connector Tunnel are proposed as part of this Project). (PG&E 2020.) Following this decision, PG&E applied for a separate Federal Energy Regulatory Commission license amendment and water quality certification to remove Inskip Diversion Dam on October 28, 2022, and on March 8, 2023, respectively.

The updated Phase 2 No Regrets (i.e., the Project) is described in Section A.3. below.

¹⁸ The fish barrier was installed to protect the Darrah Springs State Trout Hatchery from disease introduced by wild salmonids.

¹⁹ The fish screens and ladders were completed in 2012 but modifications were later needed to meet updated National Marine Fisheries Service (NMFS) gate opening criteria. NMFS approved the modified gate designs and operations in 2022. However, as of 2023, there were failures with gate automation that PG&E is working to fix.

²⁰ Parts of South Canal will be decommissioned and/or protected in place instead of removed.

Attachment A: Existing Projects and Project Description
 Battle Creek Hydroelectric Project: Phase 2 No Regrets
 Water Quality Certification

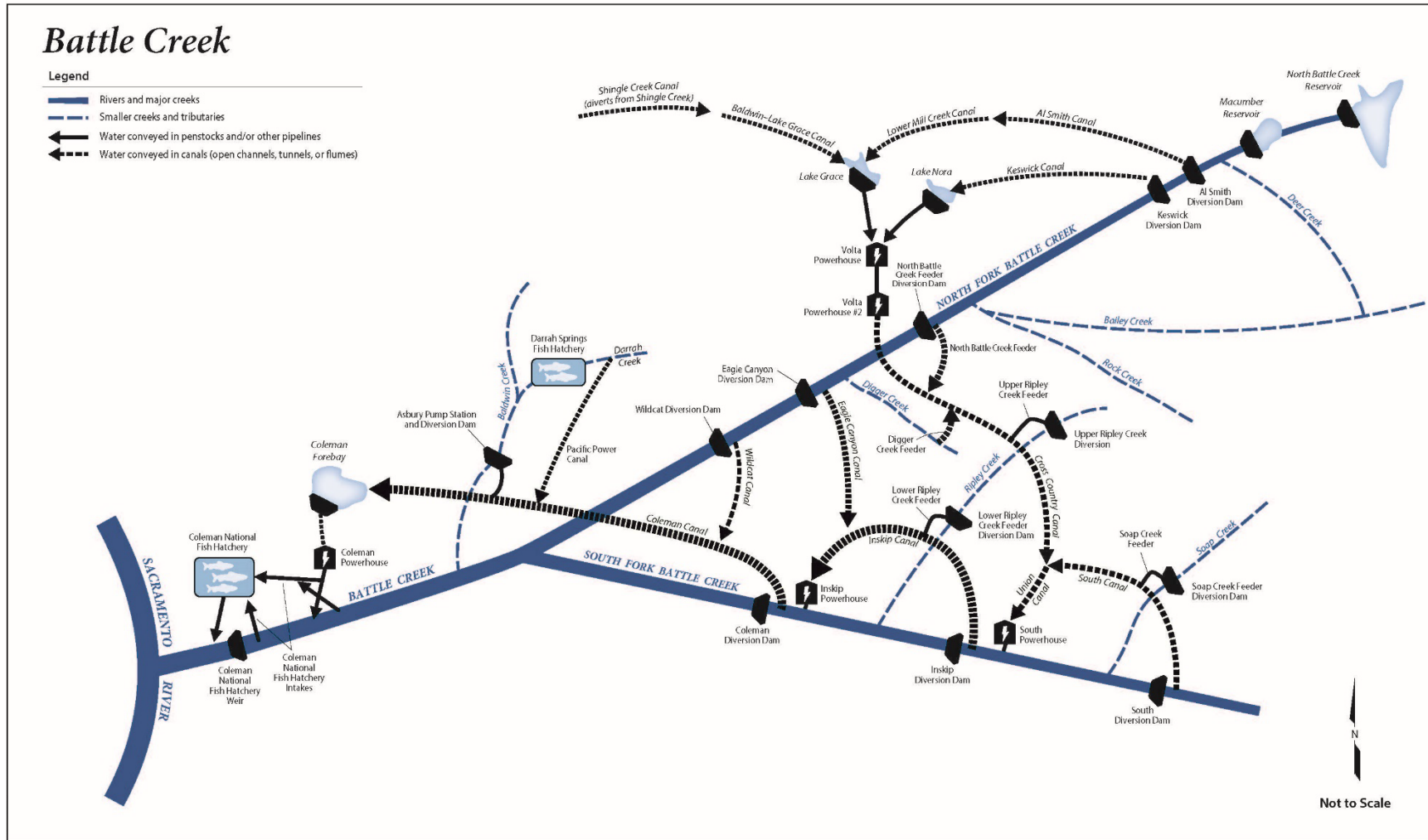


Figure 2. Hydroelectric Project Facilities before Restoration Project Implementation

Attachment A: Existing Projects and Project Description
 Battle Creek Hydroelectric Project: Phase 2 No Regrets
 Water Quality Certification

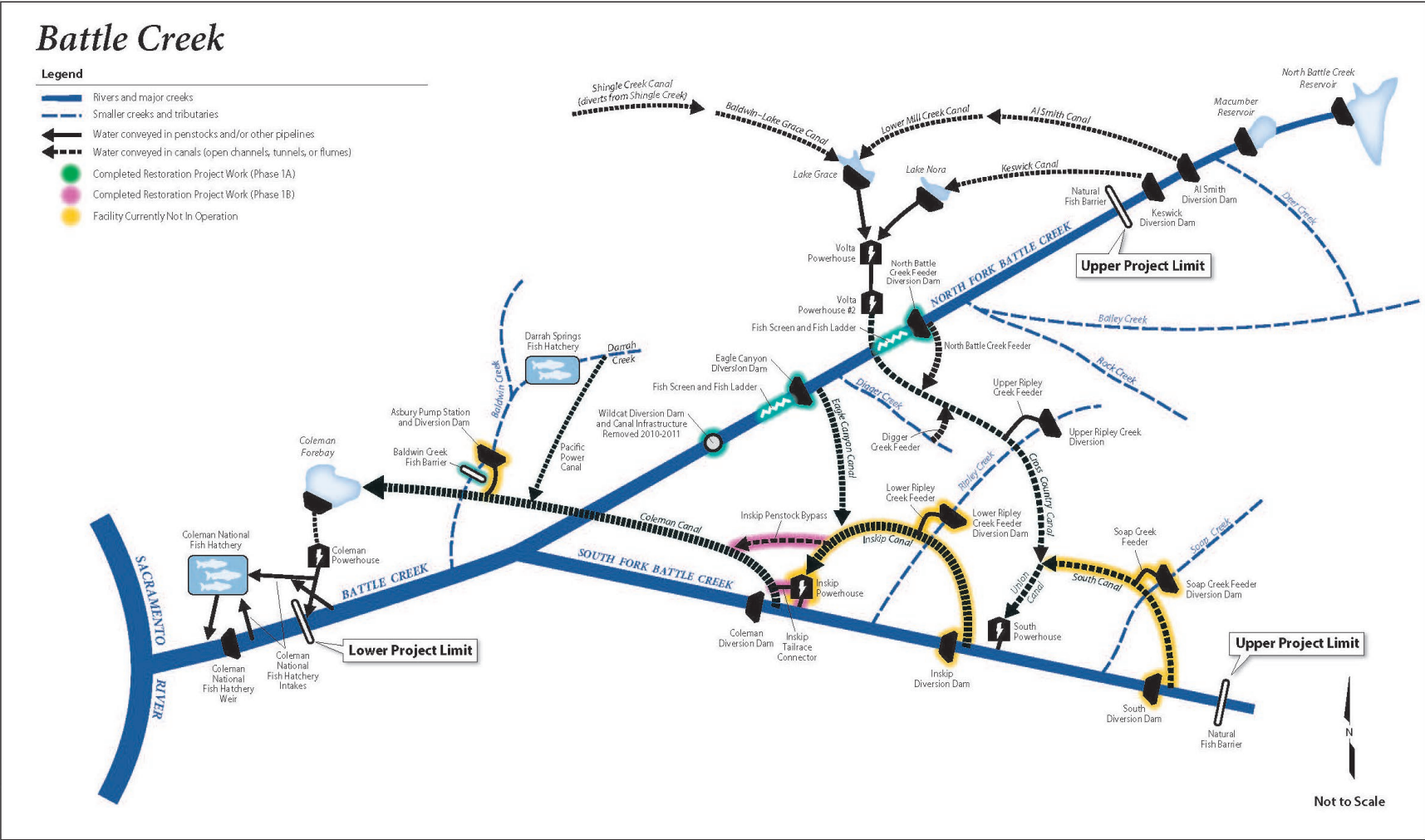


Figure 3. Hydroelectric Project Facilities after Restoration Project Phases 1A and 1B (completed)

Attachment A: Existing Projects and Project Description
 Battle Creek Hydroelectric Project: Phase 2 No Regrets
 Water Quality Certification

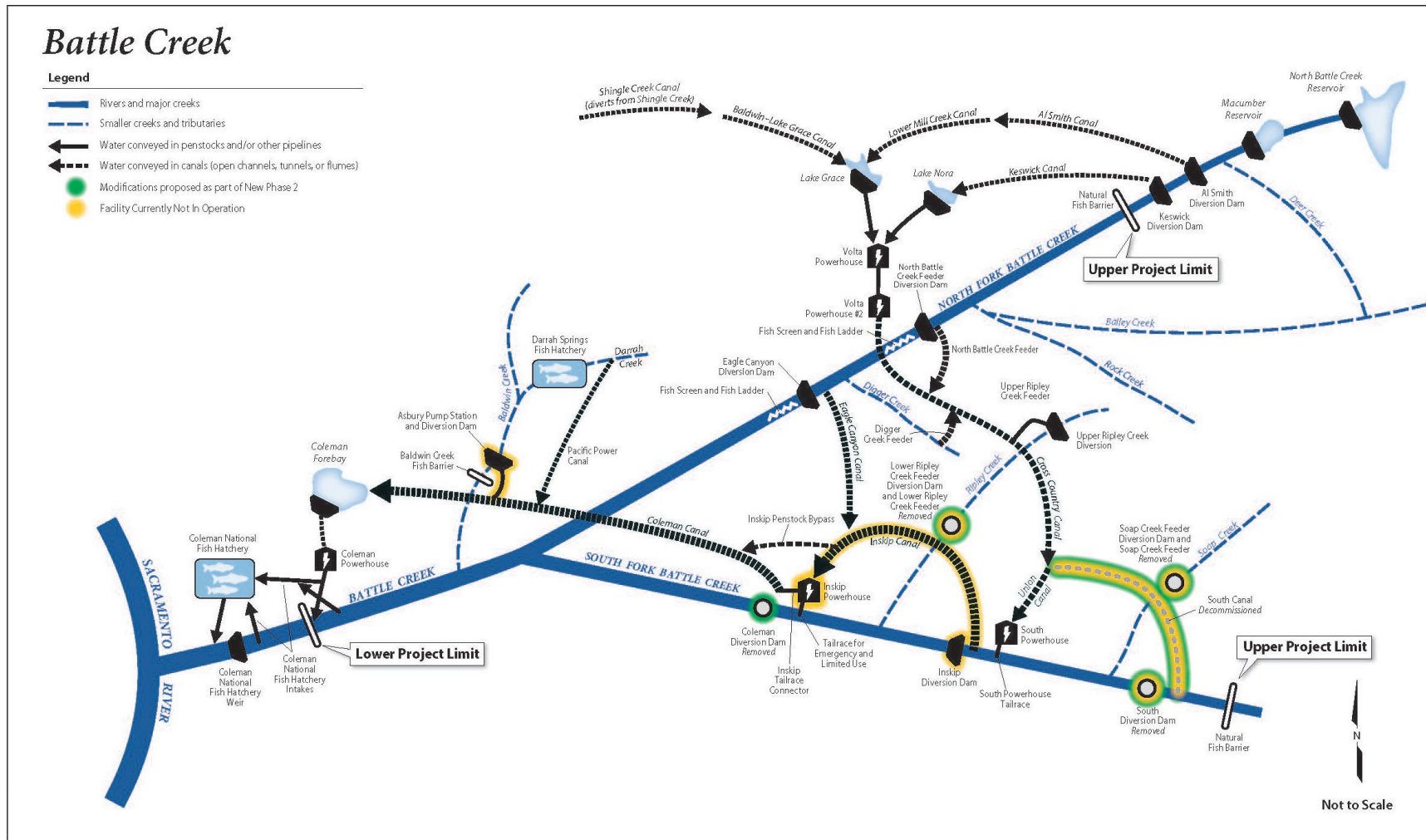


Figure 4. Hydroelectric Project Facilities after Project Decommissioning (covered by this water quality certification)

Attachment A: Existing Projects and Project Description
Battle Creek Hydroelectric Project: Phase 2 No Regrets
Water Quality Certification

A.3. Battle Creek Hydroelectric Project: Phase 2 No Regrets

The United States Bureau of Reclamation (Reclamation) is responsible for Project construction. Reclamation plans to start construction, including decommissioning activities, in January 2025 and finish in September 2026.

Coleman Diversion Dam

Work at the Coleman Diversion Dam site will include:

- Construct Eagle Canyon Canal overflow wasteway;
- Construct Inskip Powerhouse bypass facility and tailrace connector;
- Remove Coleman Diversion Dam and appurtenant facilities (radial pass-through gate, fish ladders, reinforcing steel); and
- Construct pilot channel for sediment management.

Construction will require dewatering a section of South Fork Battle Creek. Water diversions in Eagle Canyon Canal and Coleman Canal will continue during construction to facilitate dewatering. If necessary, cofferdams will be installed to isolate work areas.

Lower Ripley Creek Feeder Diversion Dam

Work at the Lower Ripley Creek Feeder Diversion Dam site will include:

- Improve existing service road;
- Demolish and remove Lower Ripley Creek Feeder Diversion Dam and appurtenant facilities (overflow channel/wooden flashboards, slide gate, weir, weir plate);
- Restore Ripley Creek channel gradient and banks;
- Fill and decommission Lower Ripley Creek Feeder Canal; and
- Protect-in-place the Inskip Canal overflow structure and plug inlet wall.

Lower Ripley Creek is expected to be dry during the in-channel construction period. As such, Reclamation does not anticipate dewatering or water diversions at this site.

Soap Creek Feeder Diversion Dam

Work at the Soap Creek Feeder Diversion Dam site will include:

- Divert Soap Creek flows;
- Demolish and remove Soap Creek Feeder Diversion Dam;
- Decommission and remove appurtenant facilities (elevated pipeline, saddle supports, and junction box at the South Canal diversion); and
- Manage accumulated sediment.

Attachment A: Existing Projects and Project Description
Battle Creek Hydroelectric Project: Phase 2 No Regrets
Water Quality Certification

Construction will require lowering the reservoir and dewatering a section of Soap Creek. The sluice gate will remain open before and during construction to lower the reservoir and facilitate water diversion. Reclamation plans to install a berm and diversion pipelines to isolate work areas.

South Diversion Dam and South Canal

Work at the South Diversion Dam and South Canal sites will include:

- Improve existing service roads;
- Demolish and remove South Diversion Dam and appurtenant facilities (conduit, gates, walkways, fish ladder, handrails);
- Construct pilot channel for fish passage and sediment management; and
- Fill and decommission South Canal.

Demolition and removal of South Diversion Dam will require dewatering a section of South Fork Battle Creek. Approximately half of the channel will be dewatered at a time for phased removal. Reclamation plans to use cofferdams to isolate work areas and pipes for water diversion. South Canal is currently permanently dewatered and will not require additional dewatering or water diversion.