



State Water Resources Control Board



Linda S. Adams

Secretary for
Environmental Protection

Division of Water Rights

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Arnold Schwarzenegger
Governor

DEC 12 2008

Liv Imset
Pacific Gas & Electric Company
Mail Code N11C
PO Box 770000
San Francisco, CA 94177

Dear Ms. Imset:

APPLICATION FOR A 401 WATER QUALITY CERTIFICATION FOR THE BATTLE CREEK HYDROELECTRIC PROJECT LICENSE AMENDMENT, FEDERAL ENERGY REGULATORY COMMISSION NO. 1121 IN SHASTA COUNTY

The State Water Board Executive Director has issued a Water Quality Certification (Certification) pursuant to section 401 of the Clean Water Act for the Battle Creek Hydroelectric Project License Amendment, Federal Energy Regulatory Commission No. 1121. A copy of the Certification and a copy of the Notice of Determination are enclosed for your records.

If you have any questions, please contact Jeff Parks of the Division of Water Rights at (916) 341-5319 or at jparks@waterboards.ca.gov.

Sincerely,

Leslie F. Grober, Manager
Hearings and Special Programs Section

Enclosures: 401 Water Quality Certification
Notice of Determination

cc: Magalie R. Salas, Secretary
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California Environmental Protection Agency

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Quality Certification for the
BATTLE CREEK SALMON AND STEELHEAD RESTORATION PROJECT
FEDERAL ENERGY REGULATORY COMMISSION PROJECT NO. 1121

SOURCES: Battle Creek

COUNTY: Shasta County

WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

BY THE EXECUTIVE DIRECTOR:

This matter comes before the State Water Resources Control Board (State Water Board) upon Pacific Gas and Electric Company's (PG&E or Licensee) request for water quality certification under section 401 of the Clean Water Act (33 U.S.C. § 1341) to accompany a license amendment that will be issued by the Federal Energy Regulatory Commission (FERC) for the implementation of a portion of the Battle Creek Salmon and Steelhead Restoration Project (Restoration Project or Project). PG&E submitted its application on October 17, 2007, accompanied by its draft FERC license amendment and requisite fee. The Project is a joint proposal by PG&E, the U.S. Department of the Interior, Bureau of Reclamation (Reclamation), California Department of Fish and Game (DFG), U.S. Fish and Wildlife Service (USFWS) and NOAA Fisheries, to reestablish naturally producing salmon and steelhead habitat on Battle Creek and its tributaries.

The Project will reestablish approximately 42 miles of Chinook salmon and steelhead habitat in the north and south forks of Battle Creek, plus an additional 6 miles of habitat on its tributaries. Habitat restoration will restore ecological processes that will allow safe passage for naturally-producing salmonids and facilitate their growth and recovery within the restoration area and the Sacramento River. Restoration will be accomplished primarily through the modification of the existing Battle Creek Hydroelectric Project (Hydroelectric Project, FERC No. 1121) facilities and operations, including instream flow releases. Facility and operational modifications will be on a scale where habitat improvement goals can be met without excessive loss of renewable electric generation. Specifically, the Restoration Project is intended to benefit the Central Valley spring-run Chinook salmon, state and federally listed as threatened; the Sacramento River winter-run Chinook salmon, state and federally listed as endangered; and the Central Valley steelhead, state and federally listed as threatened.

The Project includes modifications to facilities at nine dam sites located on the north and south forks of Battle Creek and its tributaries. This water quality certification covers the incremental improvements to the Hydroelectric Project from the Restoration Project elements only, not the entire Hydroelectric Project. The State Water Board will review the Hydroelectric Project's effects on water quality in 2026 when the current license is set to expire.

Project proponents have decided to implement the Restoration Project in phases, each with independent ecological and environmental benefits. PG&E's application for water quality certification includes only Phase 1, which has since been split into Phase 1A and 1B. PG&E's license amendment application to FERC dated July 18, 2008, addresses only Phase 1A. During Phase 1A, fish passage improvements on the North Fork of Battle Creek will be achieved by: installing fish screens and ladders at the North Battle Creek Feeder and Eagle Canyon Diversion Dams; installing the Eagle Canyon Canal pipeline; removing the Wildcat Diversion Dam and appurtenant conveyance systems; and modifying the Asbury Dam. Phase 1B includes improvements on the lower South Fork of Battle Creek by installing a tailrace connector from Inskip Powerhouse to Coleman Canal and a new Inskip Powerhouse bypass. Certification conditions applicable to Phase 1B of this Order become operable only upon PG&E submitting to FERC, and FERC approving, a license amendment application for that phase of the Project. PG&E will file a separate water quality certification application for Phase 2. Phase 2 includes completion of the remaining Restoration Project improvements including the removal of the Coleman Diversion Dam, Lower Ripley Creek Feeder Diversion Dam, Soap Creek Feeder Diversion Dam, and South Canal/South Diversion Dam. The State Water Board includes its CEQA findings for both phases of the Restoration Project with this Order. Similar to Phase 1B, mitigation measures applicable to Phase 2 activities are not required unless and until PG&E obtains a license amendment for Phase 2 and, additionally, a water quality certification for Phase 2.

1. The federal Clean Water Act (33 U.S.C. §§ 1251-1387) was enacted "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." (33 U.S.C. § 1251(a).) Section 401 of the Clean Water Act (33 U.S.C. §1341) requires every applicant for a federal license or permit which may result in a discharge into navigable waters to provide the licensing or permitting federal agency with certification that the project will be in compliance 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 limitations necessary to ensure compliance with the Clean Water Act and with any other appropriate requirement of state law. Section 401 further provides that state certification conditions shall become conditions of any federal license or permit for the project.

2. The California Regional Water Quality Control Boards have adopted, and the State Water Board has approved, water quality control plans (basin plans) for each watershed basin in the State. The basin plans designate the beneficial uses of waters within each watershed basin and water quality objectives designed to protect those uses. Section 303 of the Clean Water Act requires the states to develop and adopt water quality standards. (33 U.S.C. § 1313.) The beneficial uses together with the water quality objectives that are contained in the basin plans constitute state water quality standards under section 303.
3. The basin plan for the Central Valley-Sacramento/San Joaquin River Basins identifies irrigation, stock watering, power, contact recreation, canoeing and rafting, non-contact recreation, warm and cold freshwater habitat, cold migration, warm and cold spawning, and wildlife habitat as existing beneficial uses of Battle Creek. Protection of the instream beneficial uses identified in the basin plan requires maintenance of adequate instream flows as well as effluent limitations and other limitations on discharges of pollutants from point and non-point sources to Battle Creek and its tributaries.
4. The authority to issue or deny water quality certification is delegated to the Executive Director of the State Water Board. (Cal. Code Regs., tit. 23, § 3838, subd. (a).)
5. The State Water Board analyzed the environmental impacts associated with implementation of the entire Battle Creek Project in the *Battle Creek Salmon and Steelhead Restoration Project Final Environmental Impact Statement/Environmental Impact Report* (July 2005) (State Clearinghouse No. 2000042043) (Final EIS/R). The State Water Board released the Battle Creek Project Draft EIS/R for public review on July 21, 2003. After the close of the comment period and during subsequent reviews, it became evident that significant new information would be added to a portion of the Draft EIS/R. When only a portion of an EIS and/or EIR is revised, that portion alone may be recirculated. (40 CFR 1502.9(c)(1); CEQA Guidelines § 15088.5(f).) On March 1, 2005, Reclamation and the State Water Board released the Draft Supplemental EIS/Revised EIR. After reviewing and considering all of the comments and information, the State Water Board certified the adequacy of the Final EIS/R on September 19, 2006. (*State Water Resources Control Board Certification, Pursuant to the California Environmental Quality Act, of the Final Environmental Impact Report for the Battle Creek Salmon and Steelhead Restoration Project.*) CEQA findings for the Project are detailed in Attachment A of this document. The State Water Board will file a Notice of Determination within five days from the issuance of this order.

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE STATE WATER BOARD CERTIFIES THAT CHANGES TO THE IMPLEMENTATION AND OPERATION OF THE BATTLE CREEK HYDROELECTRIC PROJECT FROM PHASES 1A AND 1B OF THE BATTLE CREEK SALMON AND STEELHEAD RESTORATION PROJECT will comply with sections 301, 302, 303, 306 and 307 of the

Clean Water Act, and with applicable provisions of state law, provided that Pacific Gas and Electric Company complies with the following terms and conditions:

1. Battle Creek Required Minimum Stream Flows

The minimum instream flows specified in Table 1 and Table 2 shall be implemented after completion of construction of the facilities necessary to release and measure the flows.

Table 1: Post Phase 1A Minimum Instream Flow Releases Below Dams in North and South Forks of Battle Creek

	Minimum Instream Flow Releases by Month (cfs)											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
North Fork Battle Creek												
North Battle Creek Reservoir Dam ¹	0	0	0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0
Macumber Reservoir Dam ²	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 ³	3	3	3	3	3	3	3	3	3	3	3	3
North Battle Creek Feeder Diversion Dam ⁴	88	88	88	67	47	47	47	47	47	47	47	88
Eagle Canyon Diversion Dam ⁵	46	46	46	46	35	35	35	35	35	35	35	46
South Fork Battle Creek												
South Diversion Dam ⁶	5	5	5	5	5	5	5	5	5	5	5	5
Inskip Diversion Dam	5	5	5	5	5	5	5	5	5	5	5	5
Coleman Diversion Dam ⁷	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)
Baldwin Creek												
Asbury Diversion Dam	5	5	5	5	5	5	5	5	5	5	5	5

Table 2: Post Phase 1B Minimum Instream Flow Releases Below Dams in North and South Forks of Battle Creek

	Minimum Instream Flow Releases by Month (cfs)											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
North Fork Battle Creek												
North Battle Creek Reservoir Dam ¹	0	0	0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0	0
Macumber Reservoir Dam ²	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 ³	3	3	3	3	3	3	3	3	3	3	3	3
North Battle Creek Feeder Diversion Dam ⁴	88	88	88	67	47	47	47	47	47	47	47	88
Eagle Canyon Diversion Dam ⁵	46	46	46	46	35	35	35	35	35	35	35	46
South Fork Battle Creek												
South Diversion Dam ⁶	5	5	5	5	5	5	5	5	5	5	5	5
Inskip Diversion Dam	5	5	5	5	5	5	5	5	5	5	5	5
Coleman Diversion Dam ⁷	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)	5 (30)
Baldwin Creek												
Asbury Diversion Dam	5	5	5	5	5	5	5	5	5	5	5	5

Notes:

1. To be measured at the existing weir below the dam.
2. Seepage or a controlled release may account for this flow.
3. As this release is made from the canal, it will not be required when flows are not being diverted from North Fork Battle Creek.
4. On occasion the release is not attainable due to the quantity of inflow reaching the dam. Additional flows to the North Battle Creek Feeder Diversion Dam reach are occasionally received from the junction box of the Volta 2 Powerhouse tailrace and Cross-Country Canal a short distance downstream. In the event that the inflow is below the instream flow requirement, the Licensee shall pass all inflow.
5. Release requirement is met by water released from dam and from Eagle Canyon Springs.
6. This requirement is subject to interruption during radial gate operations when the water level above the dam is drawn below the invert elevation of the release point.
7. Minimum instream flow has been temporarily modified from 5 cfs to 30 cfs under the Interim Flow Agreement between PG&E and the Bureau of Reclamation that lasts until 2010. Unless the flows are renegotiated in 2010, the minimum instream flow will revert to 5 cfs.

2. Ramping Rates

To prevent adverse effects of rapid changes in regulated stream flow that are inconsistent with the natural rate of change in stream flow, the Licensee, when returning the North Battle Creek Feeder, Cross Country Canal, Eagle Canyon Canal, and Coleman Canal back to service following forced or scheduled outages where the flow that had been available for diversion into the water conveyance facility had instead been released to the natural stream channel, shall divert water from the natural stream channel back into the water conveyance facility at a target ramping rate in the natural stream channel of 0.1 ft/hour. Compliance with the target ramping rate will be met if at least 75 percent of the actual incremental changes in flow are less than or equal to the specified ramping rate, and all of the actual incremental changes in flow are less than 150 percent of the specified ramping rate.

This ramping rate shall not apply on the South Fork of Battle Creek when flows in the South Fork of Battle Creek are greater than 460 cfs. In addition, with the concurrence of the CDFG, NMFS, and USFWS, the Licensee may establish and submit for approval by the State Water Board Deputy Director for Water Rights (Deputy Director for Water Rights) threshold flows for any of the above-referenced locations at which the ramping rate restriction shall no longer apply.

3. All Minimum Stream Flows are the moving, seven-day average of the mean daily flow. Individual mean daily flows may be less than the required minimum stream flow. The instantaneous, 15-minute stream flow shall be at least 90 percent of the required minimum stream flow. No ramping is required when changing between seasonal required minimum streamflow rates.
4. The Licensee shall provide written notification to the Deputy Director for Water Rights when temporary modifications of the minimum stream flow requirements listed in this certification will occur due to required facility maintenance or modifications. Notification shall be provided at least 30 days prior to implementation of the temporary modifications and shall include information on the type, extent, and duration of the repairs and anticipated effect on minimum stream flows.
5. Flow requirements of this certification are subject to temporary modification if required by equipment malfunction, emergency conditions or law enforcement activity, or critical electric system emergency beyond the control of the Licensee. Prior to any temporary modification, the Licensee shall provide advance notification to the Deputy Director for Water Rights. If advance notification is not possible because an event is unforeseeable, The Licensee shall notify the Deputy Director for Water Rights immediately but no later than 48 hours from the time that any temporary modification has occurred, and shall identify the necessary facility modifications and provide a schedule for facility modification.

6. The conditions and monitoring and reporting requirements detailed in the CEQA findings section (Attachment A) are hereby adopted and incorporated by reference. Licensee, upon implementation of the Restoration Project, shall comply with mitigation measures 1-16, 19-20, 29-33, and 40-42 as applicable to Phases 1A and 1B of the Restoration Project, identified in the CEQA findings and the mitigation monitoring and reporting plan in Attachment A. Licensee shall be responsible for implementation of these mitigation measures even though mitigation measures are directed to the Bureau of Reclamation. Violation of conditions subject Licensee to enforcement actions, including administrative civil liability under Water Code section 13385.
7. In the event it is necessary to conduct dredging activities on the Hydroelectric Project, outside of the dredging already planned for the Restoration Project and the permits already obtained or being processed for Reclamation, the Licensee shall notify the State Water Board and the US Army Corp of Engineers (ACOE) at least 120 days prior to any anticipated dredging to determine if a nationwide or individual Clean Water Act Section 404 Permit (404 Permit) is required. If a 404 Permit is required by the ACOE, the Licensee shall apply to the State Water Board Executive Director for a water quality certification pursuant to section 401 of the Clean Water Act. (33 CFR 330.4(c)(6).)

The Licensee shall develop a dredging plan that addresses potential impacts to Hydroelectric Project affected lands or resources. This plan at a minimum shall include:

- Dredging objectives;
- Description and quantities of dredged material;
- Dredging method and procedures;
- Location and description of temporary and permanent disposal sites;
- Erosion control and stabilization methods and procedures;
- Habitat mitigation measures;
- Description of BMPs; and
- Implementation schedule.

The Licensee shall consult with Reclamation, DFG, US Forest Service, and US Fish and Wildlife Service for proposals that affect other Hydroelectric Project lands or resources and to obtain any necessary approvals needed for plan development. State Water Board approval will be required before implementation of any dredging that affects Hydroelectric Project instream flows, including, but not limited to removal of sediment from dam impoundments, impoundment drawdowns to facilitate repair or maintenance work, or tailrace debris removal and dredging. Documentation of agency consultation and approval shall be filed with FERC prior to implementation of any dredging activity.

8. This certification is contingent on compliance with all applicable requirements of the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as may be modified by the specific conditions of the certification.
9. Licensee must submit any change to the Project, including project operations, that would have a significant or material effect on the findings, conclusions, or conditions of this certification, to the Deputy Director for Water Rights for prior review and written approval.
10. Notwithstanding any more specific conditions in this certification, the Project shall be operated in a manner consistent with all water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act. The Licensee shall take all reasonable measures to protect the beneficial uses of water of Battle Creek.
11. PG&E shall provide State Water Board staff access to Project sites to document compliance with this certification. Where necessary for access to unmanned or otherwise inaccessible project facilities, State Water Board staff will provide at least 72 hours advanced notice.
12. The authorization to operate the Project pursuant to this certification is conditioned upon payment of all applicable fees for review and processing of the application for water quality certification and administering the State's water quality certification program, including but not limited to: timely payment of any annual fees or similar charges that may be imposed by future statutes or regulations for the State's reasonable costs of a program to monitor and oversee compliance with conditions of water quality certification.
13. This certification is not intended and shall not be construed to apply to issuance of any FERC license or FERC license amendment other than the FERC license amendment specifically identified in the Licensee's application for certification described above (as subsequently split into Phases 1A and 1B).
14. This certification does not authorize any act which results in the taking of a threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code §§ 2050 - 2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531 - 1544). If a take will result from any act authorized under this certification or water rights held by the Licensee, the Licensee shall obtain authorization for the take prior to any construction or operation of the Project. The Licensee shall be responsible for meeting all requirements of the applicable Endangered Species Act for the Project authorized under this certification.
15. In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation shall be 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 assure compliance with the water quality standards and other pertinent requirements incorporated into this certification.

16. In response to a suspected violation of any condition of this certification, the State 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.
17. In response to any violation of the conditions of this certification, the State Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.
18. This certification is subject to modification upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330 and California Code of Regulations, title 23, division 3, chapter 28, article 6 (commencing with § 3867).
19. The State Water Board reserves authority to modify this certification if monitoring results indicate that continued operation of the Project would violate water quality objectives or impair the beneficial uses of Battle Creek.
20. The State Water Board may add to or modify the conditions of this certification, as appropriate, to implement any new or revised 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.
21. The State Water Board may add to or modify the conditions of this certification as appropriate to coordinate the operations of this Project and other water development projects, where coordination of operations is reasonably necessary to achieve water quality standards or protect beneficial uses of water.
22. The State Water Board shall provide notice and an opportunity for hearing in exercising its authority under conditions 19, 20, and 21 above.



Dorothy Rice
Executive Director

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