



**State Water
Resources
Control Board**

Mailing Address:
P.O. Box 2000
Sacramento, CA
95812-2000

901 P Street
Sacramento, CA
95814
(916) 657-2208
FAX (916) 657-1485



Pete Wilson
Governor

**AMENDMENT TO THE WATER QUALITY CERTIFICATION FOR FEDERAL
PERMIT OR LICENSE FOR THE KERN 1 HYDROELECTRIC PROJECT
(FERC 1930)**

BY THE EXECUTIVE DIRECTOR:

1. The Southern California Edison Company (SCE) has applied to the Federal Energy Regulatory Commission (FERC) for a license under the Federal Power Act (16 USC §791(a), et seq.) to operate an existing major hydroelectric power project (FERC 1930 Kern 1) in Kern County.
2. The State Water Resources Control Board (SWRCB) is the agency responsible for water quality certification in California (section 13160 of the California Water Code); and has delegated this function to the Executive Director by regulation (section 3838 of Title 23 of the California Code of Regulations (CCR)).
3. SCE applied to the SWRCB for Water Quality Certification under section 401 of the Clean Water Act (33 USC §1341) on May 2, 1994. On May 1, 1995, the SWRCB issued a water quality certification to SCE for the Kern River No.1 Project (Attachment 1). The SWRCB certified that the Kern 1 would comply with sections 301, 302, 303, 306 and 307 of the Clean Water Act, and with applicable provisions of state law provided, SCE complied with the terms and conditions of the certification.
4. The California Regional Water Quality Control Boards (RWQCB) have adopted, and the SWRCB has approved, Water Quality Control Plans (Basin Plans) for each watershed basin in accordance with provisions of section 303 of the Clean Water Act, related to the establishment of water quality standards and planning (33 USC §§1313). Basin Plans identify beneficial uses of the waters within each Region and water quality objectives to protect those beneficial uses.

5. The Basin Plan for the Tulare Lake Basin has been modified since the issuance in May of 1995 of the water quality certification for the Kern 1 Hydroelectric Project (Basin Plan revisions adopted August 1995). The surface water beneficial use of the Kern River is designated as COLD¹ from Lake Isabella to the powerhouse of the Kern 1 Hydroelectric Project. The Tulare Lake Basin Plan water quality objective for COLD waters (at Page III-6) states:

Natural temperature of waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.

Elevated temperature wastes shall not cause the temperature of waters designated COLD or WARM to increase by more than 5°F above natural receiving water temperature.

In determining compliance with the above limits, the Regional Water Board may prescribe appropriate averaging periods provided that beneficial uses will be fully protected.

6. The Executive Director is now amending the terms and conditions of the Water Quality Certification to reflect the current Tulare Lake Basin water quality objective for temperature.
7. Term 1 and Conditions a-d of the May 1, 1995 water quality certification is hereby modified as follows:

Natural temperature of waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.

Elevated temperature wastes shall not cause the temperature of waters designated COLD or WARM to increase by more than 5°F above natural receiving water temperature.

In order to demonstrate the attainment of the COLD beneficial use and compliance with the Basin Plan temperature objective for the Kern River, as

¹ Cold Freshwater Habitat (COLD) – Uses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.

defined in the Tulare Lake Basin Water Quality Control Plan (5D), from the SCE Kern River No. 1 Powerhouse upstream to Democrat Dam, SCE shall:

- a. Conduct the temperature monitoring and modeling study (for period not to exceed five years) as described in the "Kern River No.1 Hydroelectric Project Water Temperature Study Plan" (Plan) submitted by SCE to the SWRCB on December 2, 1997 (Attachment 2). The specific conditions of the Plan are hereby incorporated into this modification to the water quality certification by reference.
- b. An annual progress report shall be prepared and submitted to the Chief of the Division of Water Rights of the SWRCB and the Director of the California Department of Fish and Game by the following March 1 after each year of temperature monitoring. The progress report will summarize data collected, initial analyses, if any, and results of model calibration, when appropriate. The progress report will include any recommendations for changes to the monitoring program, and when appropriate will recommend conclusion of monitoring. Cessation of monitoring before the completion of five years of monitoring shall occur only upon approval of the Executive Director of the SWRCB.
- c. A final summary report shall be prepared within six months of the conclusion of temperature monitoring. The summary report will provide the results of model calibration, validation, and simulations. This will include an accurate description of the model, the data used for calibration and validation, and the measured performance of the model. The results of the temperature simulation model will be tables and plots of simulated longitudinal temperatures, which can be interpolated to estimate stream temperatures for project release flows. The report will summarize the effect of natural warming, the effect of project-related warming, and the likelihood that the project will maintain the COLD beneficial use and the thermal objective of the Basin Plan.
- d. If, based on modeling and as determined by the Executive Director of the SWRCB, the results suggest that project operations may not maintain the COLD beneficial use and/or the thermal objective for the conditions evaluated, SCE shall prepare an operations plan for approval by the Executive Director of the SWRCB. The operations plan will indicate what controllable water quality factor actions need to be taken to achieve the temperature objective for protection of the COLD water beneficial use for that section of the Kern River. Upon review of the final report of the temperature monitoring and modeling study described in "Kern River No. 1 Hydroelectric Project

Water Temperature Study Plan”, the SWRCB will utilize the operations plan to determine what additional terms and conditions may be necessary, if any, to maintain the COLD beneficial use. SCE shall implement any additional terms and conditions established by the SWRCB.

ORIGINAL SIGNED BY:

Walt Pettit
Executive Director

Date: **JANUARY 12 1998**