June 27, 2008

In the Matter of

Water Quality Certification

For

Ms. Jody Spooner
CALPINE GEYSERS POWER COMPANY LLC
BIG SULPHUR CREEK FISH LADDER PROJECT
Calpine Geysers Power Company LLC
Big Sulphur Creek Fish Ladder Project
WDID No. 1B006024WNSO

APPLICANT: Jody Spooner, Calpine Geysers Power Company LLC
RECEIVING WATER: Big Sulphur Creek, Russian River
HYDROLOGIC AREA: Sulphur Creek Hydrologic Sub Unit No. 114.26
COUNTY: Sonoma County
FILE NAME: Big Sulphur Creek Fish Ladder and Water Extraction Facilities Project

BY THE EXECUTIVE OFFICER:

1. On March 7, 2006, Ms Jody Spooner, of the Calpine, Geysers Power Company LLC (Calpine) (Applicant), filed an application for Water Quality Certification under Section 401 of the Clean Water Act (33 U.S.C. § 1341) with the California Regional Water Quality Control Board, North Coast Region (Regional Water Board) for activities associated with the Big Sulphur Creek Fish Ladder and Water Extraction Project (Project). A fee in the amount of $500.00 was received on March 20, 2006. The Regional Water Board provided public notice of the application pursuant to title 23, California Code of Regulations, section 3858 on June 6, 2008, and posted information describing the Project on the Regional Water Board’s website. No comments were received.

2. The purpose of the project is to improve fish passage by removal of a barrier to upstream migration of steelhead. The project is located on Big Sulphur Creek on lands operated by Calpine in northern Sonoma County (APN No’s. 117-160-014 and 141-020-023). The latitude and longitude is 37˚ 47’ 30” N and -122˚ 47’ 30” W. Earlier in project planning, the fish ladder was a component of a larger effort that
included maintenance and improvements to two water infiltration facilities, known as BSC1 and BSC2. Exploratory work in the summer of 2007 revealed reduced need for that project component. Although project documents prepared before fall of 2007 describe the infiltration gallery work, the project now consists solely of the fish ladder. Project construction is scheduled to occur between July 1 and October 15, 2008.

The proposed project will cause permanent impacts to approximately 200 feet of streambed within the Russian River, Sulphur Creek Hydrologic Sub Unit No. 114.26. At present, there is an existing triple-bay concrete box culvert beneath Geysers Road at the downstream site (BSC1). The entire structure spans 42 feet of stream channel. Mike Love & Associates of Hydrologic Engineering Solutions evaluated the project site for fish passage conditions in 2002. Based on this evaluation, the current box culvert prevents fish passage during virtually all flow regimes throughout the year due to the lack of channel roughness and high velocities. Big Sulphur Creek is known habitat for Central California Coast ESU steelhead, a federally-listed as threatened salmonid. To improve fish passage through the culvert, a fish ladder will be installed, which will restore one-half mile of steelhead spawning and rearing habitat to the headwaters of Big Sulphur Creek. The fish ladder will be installed on top of portions of the existing box culvert structure and on the up and downstream aprons. A slot will be cut in a portion of the downstream apron in order to achieve the proper slope for the ladder. Work on the fish ladder will be conducted in mid-summer during low flow conditions. A dewatering and species protection plan has been developed for the project and will be implemented under the guidance of the California Department of Fish and Game (CDFG) and National Marine Fisheries Service (NOAA Fisheries) to ensure that aquatic species and surrounding sensitive biological resources are protected.

A biological resources evaluation of the project sites was conducted by Prunuske Chatham, Inc. (PCI) in November 2004 (wildlife) and June 2005 (plants). The purpose of the surveys was to determine whether or not suitable habitat for special-status plants and animals is present in the project area. In addition to steelhead at the project site, one other special-status animal species, foothill yellow-legged frog, was observed. Habitat for several special-status species was identified within the project area and surrounding habitats. To ensure impacts to special-status species and sensitive resources are avoided or minimized during project activities, recommendations were provided in the report (PCI 2004-05). These include pre-construction surveys for special-status aquatic species and relocation activities by a qualified, permitted biologist. To protect nesting birds, pre-construction surveys will be conducted, and, if found, a buffer area will be created around the nest site until nesting is complete. These and other recommendations in PCI’s report are incorporated into the Dewatering and Species Protection Plan for the project.

The Project is considered beneficial to water quality beneficial uses and additional compensatory mitigation will not be required. Removal of some trees is required to provide access to the site. These trees will be replaced at a 3:1 ratio.

At a minimum, the following construction Best Management Practices (BMPs) will be incorporated into the final project plans as appropriate in order to reduce and control soil erosion: work in and around waterways will be conducted during the dry season; installation of construction barrier fencing to preclude equipment entry into sensitive
areas; installation of silt fencing or fiber rolls to prevent sediment loss from immediate work area; topsoil salvage and reapplication; and seeding and mulching.

6. On December 17, 2007, the Applicant adopted a Mitigated Negative Declaration (State Clearinghouse number 2007-09-2012) for the Project in order to comply with the California Environmental Quality Act (CEQA). The Regional Water Board has considered the environmental document and any proposed changes incorporated into the Project or required as a condition of approval to avoid significant effects to the environment.

7. The applicant has applied for a California Department of Fish and Game 1600 Streambed Alteration Agreement, on December 11, 2007, Notification No. 1600-2005-0724-3.

8. Applicant has received United States Army Corps of Engineers Clean Water Act Section 404 Permit, File Number 29911N.

Receiving Water: Big Sulphur Creek, Russian Sulphur Creek Hydrologic Sub Unit No. 114.26

Filled or Excavated Area: 200 ft. of permanent impacts to waters of the United States/State.

Latitude/Longitude: 37° 47' 30" N and -122° 47' 30" W

Expiration: October 15, 2010

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE REGIONAL WATER BOARD CERTIFIES THAT THE CALPINE BIG SULPHUR CREEK FISH LADDER PROJECT (FACILITY NO. 1B006024WNSO), as described in the application will comply with sections 301, 302, 303, 306 and 307 of the Clean Water Act, and with applicable provisions of state law, provided the Applicant complies with the following terms and conditions:

1. This Order is subject to modification or revocation upon administrative or judicial review; including review and amendment pursuant to Water Code section 13330 and title 23, California Code of Regulations, section 3867.

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

3. This Order is conditioned upon total payment of any fee required under chapter 28, title 23, California Code of Regulations, and owed by the Applicant.
4. This discharge is also regulated under State Water Resources Control Board Order No. 2003-0017-DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification", which requires compliance with all conditions of this certification (Enclosed).

5. Applicant shall construct the Project in accordance with the conditions described in the application and the findings above, and shall comply with all applicable water quality standards.

6. The Applicant shall provide Regional Water Board staff access to the Project site to document compliance with this Order.

7. Any change to the operation of the Project that would have a significant or material effect on the findings, conclusions, or conditions of this Order shall be submitted to the Executive Officer of the Regional Water Board for prior review and written approval.

8. Applicant shall provide a copy of this Order and attachments to the contractor and all subcontractors conducting the work, and require that copies remain in their possession at the work site. The Applicant shall be responsible for work conducted by its contractor or subcontractors.

9. All conditions required by this Order shall be included in the Plans and Specifications prepared by the Applicant for the contractor. In addition, the Applicant shall require compliance with all conditions included in this Order in the bid contract for this Project.

10. All mitigation activities shall be completed as proposed in the application.

11. 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 constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Order. In response to a suspected violation of any condition of this Order, the Regional Water Board may require the holder of any federal or state permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the Regional 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. In response to any violation of the conditions of this certification, the Regional Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.

12. The Regional Water Board may add to or modify the conditions of this Order, 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.

13. This Order is not transferable. In the event of any change in control of ownership of land presently owned or controlled by the Applicant, the Applicant shall notify the
successor-in-interest of the existence of this Order by letter and shall forward a copy of the letter to the Regional Water Board. The successor-in-interest must send to the Regional Water Board Executive Office a written request for transfer of this certification to discharge dredged or fill material under this Order. The request must contain the following:

a. requesting entity’s full legal name
b. the state of incorporation, if a corporation
c. address and phone number of contact person
d. description of any changes to the Project or confirmation that the successor-in-interest intends to implement the Project as described in this Order.

14. Except as may be modified by any preceding conditions, all Orders are contingent on: a) the discharge being limited and all proposed mitigation being completed in strict compliance with the Applicant’s Project description, and b) compliance with all applicable requirements of the Water Quality Control Plan for the North Coast Basin (Basin Plan).

15. The authorization of this Order for any dredge and fill activities expires on October 15, 2010. Conditions and monitoring requirements outlined in this Order are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

16. If construction dewatering is found to be necessary, the Applicant shall use a method of water disposal other than disposal to surface waters (such as land disposal) or the Applicant shall apply for coverage under the General Construction Dewatering Permit and receive notification of coverage prior to discharge to surface waters.

17. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or concrete washings, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, other than that authorized by this Order, shall be allowed to enter into or be placed where it may be washed by rainfall into waters of the State.

18. When operations are complete, any excess material or debris shall be removed from the work area and disposed of properly.

19. Fueling, lubrication, maintenance, storage and staging of vehicles and equipment shall be outside of waters of the State and United States. Fueling, lubrication, maintenance, storage and staging of vehicles and equipment shall not result in a discharge or a threatened discharge to any waters of the State or the United States. At no time shall the Applicant use any vehicle or equipment which leaks any substance that may impact water quality.

20. BMPs for erosion, sediment and turbidity control shall be implemented and in place at commencement of, during and after any ground clearing activities, construction activities, or any other project activities that could result in erosion or sediment discharges to surface water.

21. If, at any time, an unauthorized discharge to surface water (including wetlands, rivers or streams) occurs, or any water quality problem arises, the associated
project activities shall cease immediately until adequate BMPs are implemented. The Regional Water Board shall be notified promptly and in no case more than 24 hours after the unauthorized discharge or water quality problem arises.

Please contact Stephen Bargsten of our staff at (707) 576-2653 if you have any questions or need to report any violation of this Order.

Catherine Kuhlman
Executive Officer

Enclosure: State Water Resources Control Board Order No. 2003-0017-DWQ

Original sent to: Ms. Jody Spooner, Calpine, Geysers Power Company LLC, 10350 Socrates Mine Road, Middletown, CA 95461

Copies sent to: Mr. Bill Orme, SWRCB, 401 Program Manager, Clean Water Act Section 401 Certification and Wetlands Unit Program

Ms. Kim Niemeyer, SWRCB, Office of the Chief Counsel

Ms. Jane Hicks, U.S. Army Corps of Engineers, Regulatory Functions, 1455 Market Street, San Francisco, CA 94103-1398

Mr. Dan Wilson, California Department of Fish and Game, P.O. Box 47, Yountville, CA 94599