State Water Resources Control Board



Linda S. Adams
Secretary for
Environmental Protection

Division of Water Rights

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JUN 1 7 2009

Chris Nagano
Fish and Wildlife Service
Sacramento Fish and Wildlife Office
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Sacramento, CA 95825-1846

REQUEST TO SUSPEND FLUSHING FLOWS, PIT 1 HYDROELECTRIC PROJECT, FERC #2687

Dear Mr. Nagano:

State Water Resources Control Board (State Water Board) staff received your request to suspend the flushing flows required by the State Water Board's water quality certification for the Pit 1 Hydroelectric Project (FERC #2687) as issued on December 4, 2001. This water quality certification was incorporated in the Federal Energy Regulatory Commission (FERC or Commission) license issued March 19, 2003. Condition 13 of the water quality certification requires the Pacific Gas and Electric Company (PG&E) to release flushing flows to control vegetation growth in the Fall River Pond. The flows are required to be released during one weekend in each of May/June, July, and August. In addition to reducing nuisance aquatic growth and controlling mosquito populations in the Fall River Pond, the releases also provide a whitewater boating opportunity in the Pit 1 bypass reach.

The Shasta crayfish was listed as endangered under both the California and Federal Endangered Species Acts in 1988. In 2003 PG&E formed a technical review committee (TRC) to oversee management activities throughout the range of the crayfish. The United States Fish and Wildlife Service (FWS) formed the Shasta Crayfish Recovery Team that includes a subset of the TRC members. The primary threats to Shasta crayfish are the introduction and expansion of non-native species of crayfish, and fishes and disturbances related to land use practices.

PG&E has monitored Shasta crayfish (*Pacifastacus fortis*) populations at multiple locations within this and the Hat Creek Hydroelectric Projects. The Shasta Crayfish Technical Review Committee Summary Report, May 2009, (Report) includes a summary of surveys that have been conducted on population characteristics. Three locations on the mainstem Pit River within the Pit 1 Project area have been surveyed. No live Shasta crayfish have been found at the Canyon Spring site. In 1978 eight Shasta crayfish were found at Sand Pit, none were found in 2004-2007 surveys, and the site was not surveyed in 2007-2009. The Sand Pit site is subject to daily peaking flows from the Pit 1 Powerhouse. At the Pit River Falls site four Shasta crayfish and many fantail crayfish were observed in 1995, 21 were found in 2004-2007, along with 10 signals and 12 fantail. During the 2008 survey one dead Shasta crayfish was found along with 29 signals and 23 fantail. The Report states that there has been a general decline in Shasta crayfish distribution and abundance at all sites. Introduced Signal crayfish have continued to expand their range and are now abundant through almost all of the Shasta crayfish habitats. Most efforts at recovery have involved measures to exclude invasive crayfish species.

California Environmental Protection Agency

Your letter states that FWS is concerned the flushing flows in the Pit 1 Bypass are facilitating the decline of Shasta crayfish. You are requesting that the flushing/whitewater boating flows be suspended for this summer to prevent further adverse effects and take of Shasta crayfish in the Pit 1 Bypass Reach.

The water quality certification does not contain any specific conditions related to the take of threatened or endangered species. FWS submitted its Biological Opinion (BO) to the Commission on October 25, 2002, including an incidental take statement with terms and conditions to minimize incidental take of Shasta crayfish. The BO concluded that the action, as proposed in the final EA, is not likely to jeopardize the continued existence of the Shasta crayfish. If you now believe the operation of the project is resulting in take, only the Commission has the authority to modify the license, and so FWS and/or PG&E should request that the Commission modify the license to avoid take.

Condition #14 of the water quality certification includes the requirement for PG&E to provide flushing flows, and Condition #15 includes monitoring requirements. If PG&E determines that flushing flows are not necessary to control aquatic vegetation and mosquito production, it should request the State Water Board modify these conditions. If FWS determines that the flushing flows are causing harm to Shasta crayfish, it should alert PG&E and suggest that PG&E request that the State Water Board modify these conditions. A request from PG&E to modify flushing flows must include evidence that flushing flows are not required to control nuisance vegetation and mosquito production, and may include information relating to any additional benefits to Shasta crayfish.

Based on the conclusions in your letter, it seems prudent to increase the monitoring frequency and conduct further studies to determine the exact cause of Shasta crayfish decline at the Pit River sites. The Report is not conclusive that the flushing flows are the cause of the decline at the Pit 1 Canyon Spring location. State Water Board staff recommend the Shasta Crayfish Recovery Team develop a monitoring plan that will more accurately assess the current population and develop recommendations to monitor and protect the existing population.

If you have any questions about this letter you can call Russ Kanz at (916) 341-5341.

Sincerely,

Victoria A. Whitney

Deputy Director for Water Rights

CC:

Kimberly D. Bose, Secretary

Federal Energy Regulatory Commission

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