

State of California  
Memorandum

Public Comment TUC  
Sonoma Co. Water Agency  
Deadline: 4/24/09 by 5:00 p.m.

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STATE WATER RESOURCES  
CONTROL BOARD

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Date: April 20, 2009

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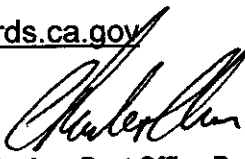
2009 APR

To: Ms. Victoria Whitney, Chief  
State Water Resources Control Board  
Division of Water Rights  
Post Office Box 2000  
Sacramento, CA 95812  
Via e-mail: [VWHITNEY@waterboards.ca.gov](mailto:VWHITNEY@waterboards.ca.gov)

DIVISION OF WATER RIGHTS  
SACRAMENTO

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SAC

From: Charles Armor, Regional Manager  
Department of Fish and Game – Bay Delta Region, Post Office Box 47, Yountville, California 94599



Subject: Notice of State Water Resources Control Board, Division of Water Rights Order Approving a Temporary Urgency Change Petition by Sonoma County Water Agency Regarding Permits 12947A, 12949, 12950, and 16596 (Applications 12919A, 15736, 15737, 19351)

The California Department of Fish and Game (DFG) has reviewed Sonoma County Water Agency's (SCWA) petition to your agency for a temporary urgency change in their water rights permits. We have also reviewed the State Water Resources Control Board's (SWRCB) Order WR 2009-0027-DWR (Order). SCWA is requesting temporary changes to their water right permits because the combination of low precipitation during this past winter and the reductions in diversions from the Eel River at the Potter Valley Project (PVP) have resulted in low reservoir storage in Lake Mendocino. According to the Order, SCWA is requesting a reduction in flow from Lake Mendocino to the Russian River in order to "prevent depletion of storage which would severely impact threatened or endangered Russian River fish species, create serious water supply impacts in Mendocino County and in Sonoma County's Alexander Valley, and harm Lake Mendocino and Russian River recreation."

On April 6, the SWRCB issued the Order approving a Temporary Urgency Change Petition (TUCP) dated April 6, 2009, prepared by SCWA to temporarily reduce the Russian River instream flow requirements as follows:

1. From April 6 through June 30, 2009, instream flow requirements for the upper Russian River (from its confluence with the East Fork of the Russian River to its confluence with Dry Creek) be reduced from 185 cubic feet per second (cfs) to 75 cfs, and the requirements for the lower Russian River (downstream of its confluence with Dry Creek) be reduced from 125 cfs to 85cfs; and
2. Dry Year Criteria. From July 1 through October 2, 2009, instream flow requirements for the upper Russian River be reduced from 185 cfs to 75 cfs, and the requirements for the lower Russian River be reduced from 125 cfs to 85 cfs, if during the period from April 1 through June 30 total inflow to Lake Mendocino is greater than 25,000 acre feet; or

3. **Critically Dry Year Criteria.** From July 1 through October 2, 2009, instream flow requirements be further reduced to 25 cfs for upper Russian River and 35 cfs for the lower Russian River, if during the period from April 1 through June 30 total inflow to Lake Mendocino is less than or equal to 25,000 acre feet.

The Order cites a document prepared by SCWA titled "Hydrologic Analysis of Lake Mendocino Storage Under Dry 2009 Conditions" (Hydrologic Analysis) dated April 2009. The Hydrologic Analysis projects that Lake Mendocino will go dry by early October 2009 if no action is taken to reduce the instream flow requirements. The order also states that it is uncertain if water could be released from Lake Mendocino to the East Fork Russian River if water levels dropped below 10,000 acre feet.

In 2007 DFG supported SCWA's petitioning to temporarily change SCWA's water right permits due to low water storage levels in Lake Mendocino as well as reduced diversions from the Eel River at the PVP. DFG supported the petition because reducing flows to 75 cfs provided a sufficient quantity of cold water in Lake Mendocino to achieve a substantial benefit for Chinook salmon. The 2009 water year is different than previous years as reservoir storage in Lake Mendocino is approximately 20,000 acre feet less than what it was at this time in 2007. In addition, in the *Dry Year* and *Critical Dry Year Criteria*, the Hydrologic Analyses' projections of amount of water remaining in the Lake Mendocino this fall depend on assumptions that are uncertain. These assumptions include: 1) inflow from Lake Pillsbury, which does not appear to be a proven supply, and 2) water conservation restrictions that SCWA will impose on water users that are not within their jurisdiction and/or within their service area (e.g., agricultural users and other water districts).

The difference between current conditions and 2007 conditions may be significant. This year, the amount of water available may not be sufficient to sustain cold water enhancement flows throughout the Chinook spawning season. A substantial reduction in cold water flow after the start of fall migration could result in high mortality of Chinook due to a combination of pathogens, high water temperatures, adverse water quality, and high fish densities. Similar conditions resulted in the 2002 fish kill in the Klamath River. This occurred when an above average number of Chinook salmon entered the Klamath River in the early fall. During this time river flow and the volume of water in the fish-kill area were atypically low. Combined with the above average run of salmon, these low flows and river volumes resulted in high fish densities. Fish passage may have also been impeded by low flow depths over critical riffles or lack of cues for fish to migrate upstream. Warm water temperatures in the river created ideal conditions for pathogens to infect salmon. The presence of a high density of hosts and warm temperatures caused rapid amplification of pathogens, which ultimately results in the mortality event.

DFG makes the following recommendations that we believe SWRCB should condition as Temporary Changes in SCWA's water rights permits:

- 1) The Order mandates the change from the Dry Year Criteria to the Critically Dry Year Criteria on July 1 be based on 25,000 acre-feet of inflow to Lake Mendocino

from the PVP. The Order provides no justification for using the amount of inflow to Lake Mendocino as a metric for switching to the Critically Dry Year Criteria. If the switch from a Dry Year Criteria to a Critically Dry Year Criteria is to "bank" water in Lake Mendocino for Chinook salmon, then it would be prudent to use water storage in Lake Mendocino as the metric for switching or not switching from the Dry Flow Criteria on July 1.

2) SCWA shall consult with DFG and NMFS while developing and implementing a temperature monitoring plan and a water quality monitoring plan with the Regional Water Quality Control Board and Division of Water Rights.

3) The tributaries to the Russian River are generally the principal spawning and nursery areas for steelhead and coho salmon. This year, late rain fall resulted in limited connectivity of Russian River tributaries to the mainstem during the typical spawning season for steelhead. Consequently, rather than spawning in the tributaries, substantial numbers of adult steelhead may have spawned in the mainstem Russian River. If spawning was successful, we would suspect that juvenile steelhead may be rearing in the mainstem Russian River. Monitoring juvenile salmonids (i.e., age 0 and age 1) rearing in the Russian River will provide important information when considering revisions to D1610. No later than June 1, SCWA shall install, maintain and operate an out-migrant trap in the Russian River in the vicinity of the Healdsburg above the Healdsburg Memorial Dam to monitor juvenile salmonid emigration in mainstem Russian River. The trap should be employed until at least July 15. Trapping results for all species shall be included in a report that shall be submitted to DFG and NMFS by December 31, 2009.

4) SCWA shall conduct habitat mapping surveys in the mainstem Russian River that map riffle-pool continuity, riffle depth, temperature stratification in pools, and other habitat variables.

5) If flows are converted from Dry Year Criteria to Critically Dry Year Criteria, flow in the East Fork Russian River immediately below the Coyote Valley Dam shall not be reduced by more than 10% of the flow per hour.

6) Copies of all reports and plans that are required by this Order shall be provided to DFG.

7) Condition 1(d) should be revised to include other variables to consider besides Chinook salmon counts when increasing releases from Lake Mendocino. Variables such as results from water quality monitoring, temperature monitoring, and water storage level in Lake Mendocino should be evaluated in addition to Chinook salmon counts before increasing flows to 125 cfs. We recommend that SCWA consult with NMFS and DFG by September 1 to evaluate these variables to determine if flows should be increased to 125 cfs.

8) The expiration date for this Order is October 2; however, Lake Mendocino may not get sufficient recharge by October 2 to provide sustained adequate flow throughout the spawning season for Chinook salmon. Consequently, outflow from Lake Mendocino, beyond the expiration date of the Order, may need to be adaptively managed depending on the results of the required monitoring.

9) The SCWA is still required to comply with Fish and Game Code 5937 which states that the "owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam." Water quality conditions during the Critically Dry Year Criteria are uncertain, and such low flows may cause or exacerbate pathogens in fish populations residing in the Russian River, which in turn could spread to migrating Chinook salmon. The Order should include an assessment of overall condition of health in fish collected in representative reaches of the Russian River. If samples of fish appear to be in poor health, these fish shall be collected and tested for pathogens that maybe associated with poor water quality conditions.

Thank you for considering our comments. DFG staff is available to assist the SWRCB and SCWA in managing and monitoring the anadromous and resident fisheries in the Russian River. If you have any questions or wish to initiate consultation with DFG, please contact Eric Larson, Biological Programs Manager, at (707) 944-5528.

cc: See Next Page

Ms. Victoria Whitney, Chief

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April 20, 2009

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