

Date: January 26, 2005

To: BDPAC Drinking Water Subcommittee

From: Lisa Holm, DWQ Program Manager

Subject: Periodic Review of the 1995 Water Quality Control Plan - DRAFT

On January 12, at a State Water Resources Control Board (SWRCB) workshop on the periodic review of the Water Quality Control Plan, the Board indicated their desire to protect drinking water quality, and more specifically offered to include language that would ensure implementation of drinking water quality improvements – provided that it was more concrete than “an equivalent level of public health protection.” I also believe they are looking to affirm a SWRCB commitment to drinking water quality. This offers a unique opportunity to have regulatory incentive to implement the DWQP, as well as a challenge to craft an incentive that is acceptable to all parties and strong enough to gain Board support. This memorandum provides background information on the issue, a summary of the workshops regarding the chloride standard, and some suggestions for responding to the Board.

Background:

The SWRCB is conducting a periodic review to evaluate new information for consideration of new water quality objectives or changes to the objectives specified in the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (1995 Bay-Delta Plan or Plan)¹. The 1995 Plan was adopted by the SWRCB to establish water quality control measures that contribute to the protection of beneficial uses in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. Together, these beneficial uses and the water quality objectives established to protect them are referred to as water quality standards under the terminology of the federal Clean Water Act. The California Water Code and the federal Clean Water Act require, respectively, a periodic and a triennial review of water quality objectives or standards. In accordance with these statutes, the SWRCB is conducting a periodic review of the 1995 Plan.

¹ Water quality control plans identify the beneficial uses of the subject water bodies, specify numeric or narrative objectives that are appropriate for protecting those beneficial uses and specify a program for implementing actions to ensure the specified objectives are met. (Wat. Code, § 13050 (j).)

California Water Code section 13170 authorizes the SWRCB to adopt water quality control plans in accordance with the provisions of Water Code sections 13240 through 13244. Plans adopted by the SWRCB supersede regional water quality control plans for the same waters to the extent of any conflict. Water Code section 13240 requires that water quality control plans be periodically reviewed. The federal Clean Water Act, at section 303 (c) (33 U.S.C. § 1313 (c)), requires a triennial review of state water quality “standards,” as defined in the Act. Adoption of this report marks the completion of the periodic review. Next, the SWRCB will embark on a process that may lead to a revised Plan or amendments to the 1995 Plan.

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Workshops to receive new information related to the periodic review began last fall and are scheduled to continue into March. There are eleven items under consideration, including:

4. Chloride Objectives, Compliance Location at Contra Costa Canal at Pumping Plant #1 (PP#1), and Potential New Objectives

This issue includes consideration of changes to the chloride objectives located at PP#1 and of replacing the chloride objectives with disinfection by-product precursor objectives. Currently, this objective is the only WQCP objective specifically set to protect drinking water quality, although the X2 standard and agriculture standards (also salinity based) also provide drinking water quality protection. In 1991, the Board recognized the need to replace the chloride objective with disinfection by-product precursor objectives, once more was known about the potential replacements.

Due to concerns with DBPs in treated water from the Delta and in keeping with the goal (not objective) of obtaining the best available drinking water, the Board finds that, wherever feasible, municipal water supply agencies should strive to obtain bromide levels of 0.15 mg/l [0.15 mg/l is equal to 150 µg/l] or less (about 50 mg/L chloride in the Delta). Appropriate actions by these supply agencies include encouraging DWR and USBR to work with the SWRCB to ensure development of facilities to make maximum use of uncontrolled flows through off-stream storage, encouraging those agencies to move water supply intakes to better locations, working with the State and Regional Boards to eliminate problem discharges within the Delta, and continuing the development of alternative water treatment technologies.

This information was discussed at the October 22 Drinking Water Subcommittee (DWS) meeting.

The process for the periodic review begins with scoping of the issues, followed by a CEQA-equivalent examination of suggested changes and their impacts, and ending with hearings to allocate responsibility for implementing the changes. This review is currently in the scoping phase.

January 10 and 13 Workshop:

The majority of participants in the workshop stated the need to retain the existing chloride objectives² as ancillary protection of drinking water until it can be replaced by more appropriate objectives. The US Environmental Protection Agency and the Department of Health Services submitted comments supporting the retention of the chloride standards. The Drinking Water Subcommittee submitted comments supporting the standards and proposing a narrative standard which essentially updated the 1991 language. Sacramento Region County Sanitation District commented that the 150 chloride objective is no longer needed and should be removed. The Board agreed that the existing objectives should remain as ancillary protection of drinking water quality.

The location issues was resolved by the Department of Water Resources and the Contra Costa Water District, who agreed on a second location within the Delta at times when DWR cannot improve water quality at PP#1 with the means available to them. Much of this issue should

² Existing objectives are 150 mg/L chlorides at Contra Costa Canal's Pumping Plant #1 for a specified number of days dependent on the hydrologic year type, and 250 mg/L chlorides at all times.

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become moot when the CALFED-funded source improvement projects are completed in 2006. The Board commented that, given the timing of the solution, the WQCP probably did not need to change the location of the standard.

Regarding new objectives, many comments included support of the Central Valley Drinking Water Policy technical studies as a means to provide information on replacement standards. Contra Costa Water District presented information on drinking water treatment and the importance of source water protection. The Board then indicated that it would be taking some action regarding new objectives, giving the example of adopting the ROD targets of 50 ug/L bromide and 3 mg/L total organic carbon, and asked for comments, concluding the workshop. On the 13th, the State Water Contractors presented rough calculations on the water costs of a 50 ug/L bromide (15-20 mg/L chloride) standard:

Chloride Level (mg/L)	Required Delta Outflow (cfs)
150	5500 (330 TAF/month)
250	4000 (250 TAF/month)
50	10,000 – 12,000 (660 TAF/month)
15-20	Not possible (< SJR Cl levels + high outflow cost)

I presented background information on the current Delta and treated water quality, and further explained the “equivalent level of public health protection.” The Board then commented that they would like to do “something” to protect drinking water quality, and to ensure that measures to achieve ELPH are implemented in a timely manner.

Recommendation:

Parties have 45 days to submit written comments following a workshop. Karen Schwinn and I have discussed bringing this issue to the DWS to brainstorm ideas on how to best respond to this request. For example, we could further refine the 1991 language, as suggested in the DWS letter, with specific projects and schedules (like the Central Valley Drinking Water Policy) described, and propose an interim objective and schedule should additional information fail to be developed (for example: 150 ug/L bromide in 2014). One benefit of having a more concrete schedule is that it could result in annual briefings to the Board on progress towards the specific projects that are the alternative to the stricter standard. We should also consider how the actions of the SWRCB contribute to improving drinking water quality, perhaps through a request for an annual evaluation of the source water improvements.