

# SWRCB PERIODIC REVIEW OF THE 1995 BAY-DELTA WATER QUALITY CONTROL PLAN

## Supplemental Comments of the State Water Contractors On Workshop Topic 4

Workshop Topic 4 included two topics related to municipal and industrial water quality that the State Water Contractors ("SWC") believe warrant brief supplemental comments.

### 1. Monitoring Location For The 150/250 ppm Chloride Objectives

The SWC is gratified that DWR, USBR, and the Contra Costa Water District ("CCWD") have all finally recognized that the current compliance monitoring location (Pumping Plant No. 1 on the Contra Costa Canal) for the 150 and 250 ppm Chloride objective sometimes makes no sense.

Since the CCWD constructed Los Vaqueros Reservoir and began, at times, using the Old River intake facility to directly serve water users within CCWD, diversions into the Contra Costa Canal have often been very low. When diversions from Rock Slough into the Canal are low, Rock Slough salinity levels increase due to Veale Tract saline drainage and seepage of groundwater into the Canal. Under these circumstances, because Rock Slough is essentially a dead end slough, it becomes very difficult for DWR and the USBR to meet their water quality obligations at Pumping Plant No. 1. Further, under such circumstances, Rock Slough water quality degradation is not caused by operations of the CVP and SWP and it is not appropriate to require DWR and USBR to cure that problem. More properly, the cure should come from fixing the drainage problems that are the primary cause of reduced water quality in the area. That process is underway.

Thus, the SWC supports, and requests that the State Board approve, the recommendation of DWR and the USBR to add a second compliance monitoring station for the 150/250 ppm Chloride objective in Old River at Holland Tract. This element of the total proposal is also supported by CCWD.

Two related issues, however, do remain. DWR and USBR have proposed to operate to water qualities at Holland Tract which they believe will correlate to the 150/250 quality objectives at Pumping Plant No. 1. CCWD has objected and is asking for lower salinity levels at Holland Tract than those recommended by DWR and the USBR. The SWC believes the quality levels proposed by CCWD are unnecessarily low. SWP and CVP operations must include a buffer in all operations designed to meet water quality objectives to ensure that unknowable fluctuations in winds, tides and other factors do not cause technical violations of the applicable water quality objective. Thus, if the water quality objective is 100 ppm chloride, the SWP and CVP will operate to maintain a somewhat lower chloride level. CCWD is seeking a double buffer of protection when it asks for water quality objectives lower than those proposed by DWR and the USBR.

The interested parties have also not reached agreement on the rate of diversion from Rock Slough into the Contra Costa Canal that would eliminate the need to rely on the Holland Tract correlation to determine if the Pumping Plant No. 1 objective is being met. The issue revolves around what pumping rate is needed to flush accumulated local salts through the system before one would resume measuring compliance at Pumping Plant No. 1.

At this time, the SWC is not asking the SWRCB to take any particular action to referee these disagreements. DWR, USBR and CCWD are continuing negotiations to resolve these disputes. If those negotiations are not successful before these Periodic Review proceedings are complete, the SWC will, in its final written submittal, provide specific recommendations with respect to the two outstanding issues.

## 2. Bromide and Organic Compounds

CUWA, CCWD, and other entities interested in high quality source water for drinking water purposes presented statements concerning bromide levels in Delta water, which all recognize contribute to the formation of potential carcinogens when combined with the drinking water disinfection process. These comments referenced conclusions contained in a 1998 "Bay-Delta Water Quality Evaluation" prepared for CUWA, and in the CALFED Record of Decision concerning appropriate bromide levels.

The CALFED ROD included the following language (at page 65) to describe its bromide goal:

...to achieve either: (a) average concentrations at Clifton Court Forebay and other southern and central Delta drinking water intakes of 50 ug/L bromide ... or (b) an equivalent level of public health protection using a cost-effective combination of alternative source waters, source control and treatment technologies.

The key concept here is the alternative "equivalent level of public health protection" language. While not completely clear, CALFED probably included the 50 ug/L bromide goal for drinking water intakes of the central and south Delta as a long term planning target for further evaluation of potential conveyance improvements as part of the CALFED through-Delta conveyance strategy. CALFED's inclusion of the equivalent level of public health protection language represented its recognition that it might be infeasible to reach the goal at Delta drinking water intakes. That is because a 50 ug/L level for bromides equals about 17 mg/L chloride, which, with current Delta conveyance, is impossible to achieve in the Old River area of the Delta (See SWC Exhibit 5). Even if all the dams on the system were removed, even if all of the water now stored in the dams was dedicated to achieving such an instream standard, it could not be done. The twice daily 200,000 cfs of tidal flows simply overwhelm the system at those locations.

For this reason, in the 1950s and 1960s, the Reber and Biemond Plans were considered to construct physical barriers in the lower Delta and upper Suisun Bay to

exclude the tidal flows. For this same reason, in the 1970s and 80s, the Peripheral Canal was planned. For this same reason, the CALFED process had a dual facility alternative that would have included diversions from the Delta near Hood, where the desired level of salinity and bromide could be achieved.

However, when CALFED rejected the dual facility concept, and turned to a "through Delta" approach, it rejected the only alternative that could have made a 50 ug/L in-stream bromide goal in the south Delta feasibly achievable. Thus, today what the municipal agencies are striving for is the "equivalent level of public health protection," known as "ELPH."

The SWC is a strong supporter of the ELPH process. It has supported the Veale Tract drainage improvements, the lining of the Contra Costa Canal, Franks Tract improvements and other efforts to achieve better Delta source water quality, consistent with the need to protect water quantities for the export water users.

Even Contra Costa Water District has not asked the State Board to adopt an instream bromide objective at this time. The presentation by Greg Gartrell on behalf of CCWD described the process that is now underway at CALFED and asked the Board to include language in the water quality control plan that would recognize and give support to that effort. Mr. Gartrell's recommended language included the following:

Consistent with this approach, appropriate actions to improve Delta water quality and treated drinking water quality may include some or all of the following: making maximum use of high-quality uncontrolled flows through off-stream storage, elimination of agricultural drainage in the vicinity of drinking water intakes, relocation of urban drinking water intakes, modification of Franks Tract to reduce intrusion of saltier water into the Delta, source control of wastewater discharges, projects to improve water quality on the San Joaquin River, advanced treatment technology studies, implementation of additional or advanced treatment, and water quality exchanges. (CCWD Exhibit 9, Slide 10)

The SWC supports these actions and believes it would be useful to have the SWRCB recognize and support them. The SWC does not believe, however, that the State Board should go further and make a broad finding that municipal water agencies should strive to achieve a 50ug/L bromide level in the south Delta channels. (See CCWD Exhibit 9, Slide 9.)

Such a broad statement could be read as creating an enforceable objective, and could be interpreted as constituting a finding that water flows or reservoir operations might be reasonable ways of implementing the objective. For the reasons set forth above, attempting to meet a bromide target with flows would not be reasonable. In 1991, the State Board recognized that improvement of in-Delta bromide levels was an important "goal," but specifically added that it was not a WQCP objective. (See CUWA Exhibit 1,

p.2.) If the State Board is going to consider some reference to the 50 ug/L bromide level, this important distinction between a goal and an objective should be included, as it was in 1991.