CALIFORNIA
BAY-DELTA
AUTHORITY

650 Capitol Mall, 5th Floor
Sacramento, CA 95814
916.445.5511 FAX 916.445.7297
http://calwater.ca.gov

January 20, 2006

Salinity-1/31/06
Workshop

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JAN 2006
SWRCB
Executive Ofc.

Ms. Selica Potter
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

RE: COMMENT LETTER – 1/31/06 BOARD WORKSHOP on Salinity

Dear Members of the State Water Resources Control Board and Central Valley Regional Water Quality Control Board:

Thank you for this opportunity to discuss the issue of salinity in the Central Valley and its impacts throughout the state. As you are aware, the State Water Resources Control Board is an implementing agency of the CALFED Bay-Delta Program – specifically the Drinking Water Quality Program, which included salinity in its identification of water quality problems in foundational program environmental documents. The CALFED Bay-Delta Program was established to coordinate state and federal agency efforts to resolve complex water and ecosystem resource problems, and for over two years has been coordinated and overseen by the California Bay-Delta Authority.

Salinity is an issue that effects many beneficial uses, making it the more difficult to quickly resolve. In the past, the need to identify and commit to a full solution up front has stalled efforts to reduce salinity in the San Joaquin Valley. Salinity in the Delta, due to both seawater intrusion and to recycling and concentration of seawater salts in the Central Valley, is a factor in the quality of Delta and Central Valley agriculture, the quality of drinking water for over 20 million Californians (salinity and bromide), and the quality of our estuary as a fish nursery and ecosystem.

Although salinity is monitored more heavily than any other chemical constituent in California, there are no comprehensive databases, assessments, or conceptual models to help shed light on this complicated problem, instead assessments traditionally focus on specific geographic areas or specific project evaluations. In fact, it is quite common to hear that water quality is worsening "in frequency and magnitude" and yet there has been no comprehensive assessment that supports this assertion.

In recent years, significant progress is being made in understanding drinking water quality in the Delta. Numerical modeling has been developed by the Department of Water Resources to understand the relationships between hydrology, hydraulics, and water project operations in the Delta and in the San Joaquin Valley. Most recently, their innovative work has allowed us to better understand the sources of the water being diverted for drinking water supplies – which is highly variable depending on a combination of hydrology, tidal cycles, and water project operations [Figure 1 attached]. Since 2003, the Central Valley Regional Water Quality Control Board (Central Valley Regional Board) has been managing an effort to develop the technical studies in support of a Central Valley Drinking Water Policy. This effort has assembled data, and is working with DWR, the Department of Health Services, the SWRCB, the US Environmental Protection Agency, CBDA staff and a number of stakeholders to develop conceptual models of organic carbon, nutrients, pathogens, and salinity and bromide, as they relate to the beneficial use of drinking water. Preliminary results would suggest that the problem is more than just the San Joaquin Valley. Through the CALFED Bay-Delta Program, numerous smaller projects have been funded to reduce nonpoint sources of salinity as well.

The CALFED Bay-Delta Program has also pursued studies of salinity improvement through operational and physical changes to the Delta, such as the operation of the Delta Cross Channel Gates, construction of a Through-Delta Facility, and the pursuit of a pilot project at Franks Tract. The Franks Tract project holds the most promise as a single project that could significantly change salinity accumulation in the Delta, and it is also teaching us the most about how salinity is transported through and accumulates within the Delta channels. The negotiated Delta Improvements Package, a suite of actions to make balanced progress in the Delta on water supply reliability, water quality, ecosystem, and levee improvements, included the San Joaquin River Water Quality Management effort described in the State Board's staff report.

The Boards' January 31 workshop presents a significant and welcome opportunity to discuss the salinity issue and the status of current efforts to manage salinity. A comprehensive understanding and management of salinity to protect beneficial uses is a laudable goal.

At request of the Boards, additional information on the efforts discussed in this letter can be provided. I would also appreciate an opportunity to be involved in any continuing effort to address salinity in the Central Valley. I can be contacted at (916) 445-0782 or lisah@calwater.ca.gov.

Sincerely,

Lisa M. Holm, P.E.
Drinking Water Quality Program Manager
California Bay-Delta Authority

Attachment: Figure 1, Volume, EC, and DOC fingerprint for Clifton Court Forebay

Ms. Selica Potter, SWRCB
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Attachment

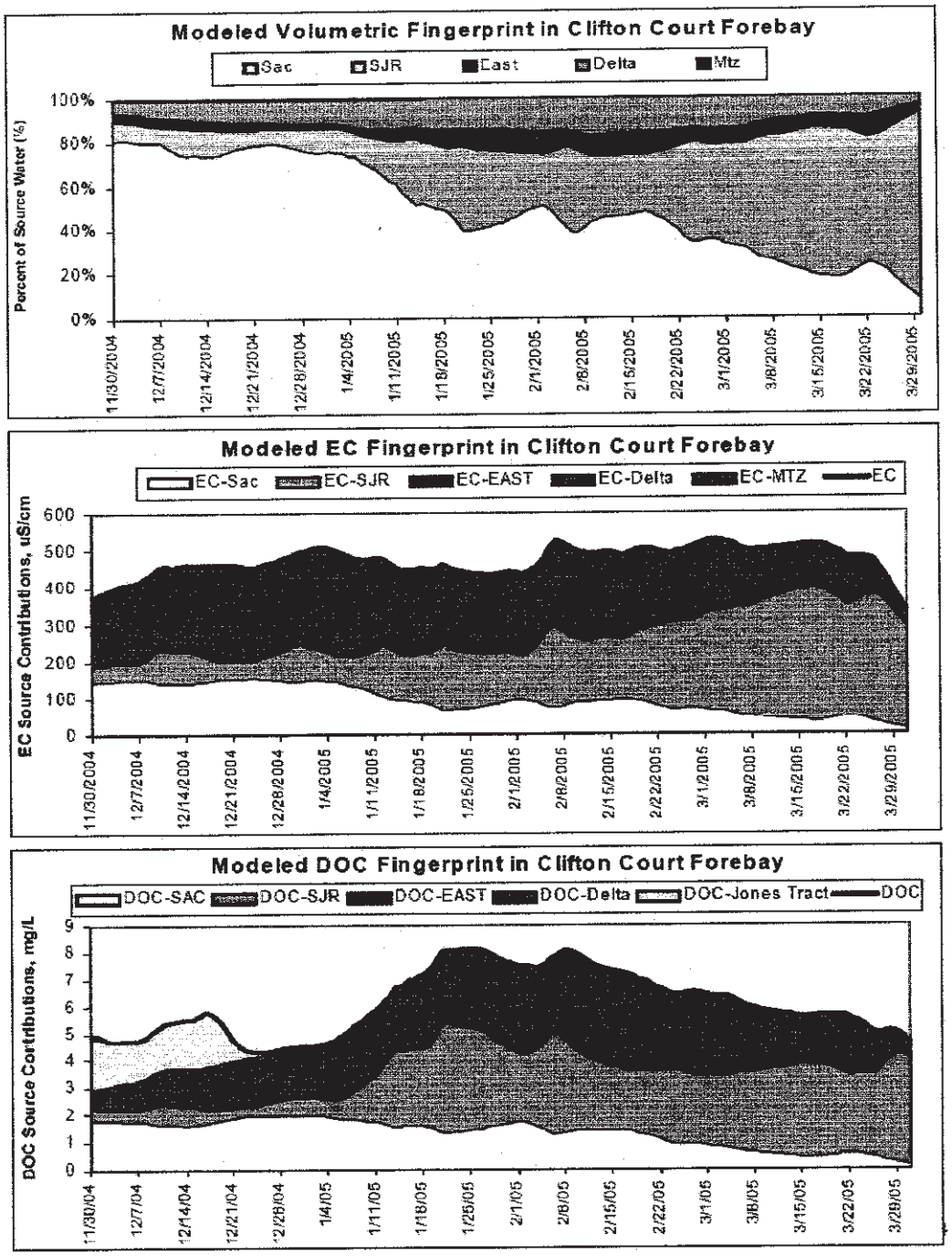

Figure 1. Volume, EC, and DOC fingerprint for Clifton Court Forebay (Nov 2004-Mar 2005) [From DWR's Real Time Data Forecasting Weekly Report Volume 2, Issue 16]