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September 21, 2005

Ms. Debbie Irvin, Clerk to the Board  
Executive Office  
State Water Resources Control Board  
1001 I Street, 14<sup>th</sup> Floor  
Sacramento, California 95814

Dear Ms. Irvin:

Final Comments for the State Water Resources Control  
Board Workshop Regarding Delta Outflow and X2 Objective

The Department of Water Resources (DWR) and the U.S. Bureau of Reclamation (Reclamation) provide these final comments to the State Water Resources Control Board (SWRCB) regarding the workshops on Delta Outflow and proposed changes to the X2 objective. In the prior comments, DWR and USBR submitted comments jointly with the fish agencies from the Water Operations Management Team (WOMT). The comments submitted herein are from DWR and USBR because the focus of the comments are State Water Project and Central Valley Project (Project) operations. However, DWR and USBR continue to support the prior WOMT comments and offer these comments as a clarification of Project operations that were portrayed during the last workshop.

At the August Workshop on X2, the presentation made by representatives of the Bay Institute grossly oversimplified project operations and the decisions that are made. It ignored the uncertainties associated with operations such as precipitation forecasts, and ignored other factors such as winds and tides, which also affect salinity and the X2 position.

In its presentation, the Bay Institute criticized the DWR and the Reclamation for their operations in February 2003 and April 2004, stating that the Projects "waited until the last minute to comply with the X2/outflow objective." In reality, DWR and Reclamation coordinated continuously, both with each other and with the fishery agencies, to determine the most efficient means of ensuring compliance with the outflow objective, while balancing the needs for flood control and tributary habitat. The Project operators used all of the tools that were available to them, including substantial export reductions, to comply with the standard at that time.

DWR and Reclamation operators strive to balance a number of issues, interests, and uses every day. Moreover, operational decisions are made based on the best available information at the time.

In February 2003, 25 days of X2 compliance were required at Port Chicago. The Port Chicago compliance location was "triggered" because of high Delta inflows following substantial rains in December 2002 and into January 2003. However, in spite of having triggered the objective on January 31<sup>st</sup>, February was a dry month, receiving only one-third the normal amount of precipitation.

The X2 objective was met by means of outflow for the first six days of February, and by EC at Port Chicago for the next six days. Delta outflows continued to decrease because runoff from the earlier storms diminished—not because of notable changes to upstream releases. During that time, operators were diligently assessing the most efficient means of compliance. Releases from Folsom Reservoir (American River), Oroville Reservoir (Feather River), and Shasta Reservoir (Sacramento River) take one, three, or five days, respectively, to reach the Delta. Furthermore, forecasts in the first weeks of February had been consistently predicting substantial rain in subsequent weeks. In the meantime, both State and federal exports were cut on February 14<sup>th</sup> and 15<sup>th</sup> to a combined 4,300 cfs and 4,100 cfs, respectively. The storms came shortly thereafter and, together with increased releases from Folsom for flood control, augmented outflow. By February 17<sup>th</sup>, Delta outflow reached 34,000 cfs. Still, to ensure compliance, DWR cut exports again on February 26<sup>th</sup>, 27<sup>th</sup>, and 28<sup>th</sup>.

In February 2003, the Projects released more than 350,000 acre-feet of water to meet the Delta outflow standard (CVP - approximately 160,000 acre-feet from Shasta and just under 30,000 acre-feet from Folsom; SWP - over 200,000 acre-feet from Oroville). This effort to meet the Port Chicago standard caused flow fluctuations in the rivers below Project reservoirs, creating a conflict because, at that same time, Reclamation also was trying to minimize flow fluctuations to aid and protect spawning steelhead, a species listed under the Endangered Species Act (ESA).

Subsequent analysis by DWR staff and SWP contractors concluded that from a water use perspective the operations of February 2003 were as proficient as could be expected given the system uncertainties. Earlier releases would have necessitated greater volumes to achieve the same compliance outcome.

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In April 2004, 16 days of X2 compliance were required at Port Chicago. Reservoir releases at least doubled at the three upstream reservoirs within the first week of the month from Shasta, Oroville, and Folsom. In April 2004, the Projects released more than 400,000 acre-feet of water (CVP - over 140,000 acre-feet from Shasta and over 80,000 acre-feet from Folsom; SWP - over 200,000 acre-feet from Oroville) to meet the Delta outflow standard at Port Chicago. In mid-April, exports were cut for the VAMP period.

Later in the year, Reclamation had difficulties with upstream temperature control, and after nearly exhausting the cold-water pool, had to consult with NOAA Fisheries twice to move the temperature compliance point for winter-run Chinook salmon, an ESA listed species in the Sacramento River. Given this experience, Reclamation and DWR believe that increased emphasis on upstream temperature protection when implementing the Water Quality Control Plan (WQCP) may provide benefits to a broader range of salmonids.

Although DWR and Reclamation believe that a flexing process in the future could provide for multiple beneficial uses, the concern with the current pelagic organism decline in the Delta continues to be of utmost importance. Therefore, DWR and Reclamation, as part of the WOMT, support our prior comment to the SWRCB providing for later implementation of an X2 flex proposal.

Sincerely,

for  9-21-05  
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Carl A. Torgersen, Chief  
SWP Operations Control Office  
California Department of Water Resources  
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Date  
Ron Milligan  
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cc: (See attached list.)

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