Response to Comments, Appendix 3 to the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary

November 29, 2006
Introduction
On September 29, 2006, the State Water Resources Control Board (State Water Board) released for public review, a draft amended version of the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (draft 2006 Plan). The draft 2006 Plan was developed after the State Water Board held a public workshop to receive information regarding amendment of the current Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, adopted in May of 1995 (1995 Plan).

The State Water Board’s water quality planning process is an exempt regulatory program under the California Environmental Quality Act. The State Water Board, however, is required to prepare a written report that identifies the proposed activity, reasonable alternatives, and any mitigation to minimize significant effects of the activity. (Cal. Code Regs., tit. 23, § 3777.) The Plan Amendment Report, Appendix 1, satisfies the requirement of a written report. The State Water Board also is required to prepare written responses to any comments it receives on the report that raise significant environmental points. (Cal. Code Regs., tit. 23, § 3779.)

On November 13, 2006, the State Water Board held a hearing to consider adoption of the draft 2006 Plan, and interested parties submitted oral and written comments regarding the draft 2006 Plan. The State Water Board has reviewed these comments, prepared responses to the comments on the draft 2006 Plan, and, where appropriate, made revisions to the draft 2006 Plan and its appendices. The revisions to the draft 2006 Plan and its appendices are hereinafter referred to as the revised draft 2006 Plan. This appendix to the 2006 Plan contains the State Water Board’s responses to comments received regarding the draft 2006 Plan.

Comments
Most parties submitted both oral and written comments. Two parties, the Committee to Save the Mokelumne and the California Sport Fishing Alliance, submitted only oral comments. Parties that submitted both oral and written comments generally summarized their written comments, and accordingly, the State Water Board has responded to these parties’ written comments. Where parties only submitted oral comments, the State Water Board has responded to the oral comments. Additionally, the Department of Fish and Game submitted two comment letters, and these comments are addressed separately. For reference, the comment letters and oral comments have been numbered as follows:

1. Contra Costa Water District
2. Delta Wetlands
3. Environmental Defense
4. National Marine Fisheries Service
5. Northern California Water Association
7. California Department of Fish and Game (November 8 letter)
8. California Department of Water Resources
9. County of San Joaquin
10. Glenn-Colusa Irrigation District
11. Kern County /State Water Contractors
12. United States Department of the Interior
13. San Luis Delta Mendota Water Authority
14. Bay Institute
15. Stockton East Water District
16. Suisun Resource Conservation District
17. San Joaquin River Group Authority
18. San Joaquin Audubon Society
19. California Urban Water Agency
20. California Department of Fish and Game (November 17 letter)
21. Committee to Save the Mokelumne*
22. California Sport Fishing Protection Alliance*

* Oral comments only.

Responses to Comments
This appendix includes copies of each of the comment letters reproduced in their entirety, except for attachments and enclosures included with comment letters. Attachments and enclosures are available on the web at:


Comment letters in this appendix are annotated with comment numbers. Written responses to comments refer to these numbered comments. Comment 3-4, for example refers to the fourth comment in comment letter three.

As described in the September 29, 2006 Notice of Public Hearing to consider this amendment of the 1995 Plan, the purpose of the hearing was to receive comments and recommendations regarding the draft 2006 Plan, specifically the timeline to address emerging issues and the changes from the 1995 Plan. Many of the comments recommended changes to provisions of the 1995 Plan that are not changed in this update. These comments will, however, be considered in future updates to the Plan. Interested parties are encouraged to update and resubmit these comments particularly during the upcoming series of workshops scheduled for 2007 and described in the draft 2006 Plan. To be of greatest use to the Board, comments should, when resubmitted, include specific proposed amendments to objectives and be accompanied by substantial evidence to support the proposed amendment. For this Plan update, however, response to such comments in many cases is limited to “comment noted-- this comment does not address the environmental effects of a change in the Plan; the comment and any recommendations will be considered during future updates to the Plan.” Page numbers in the response to comments refer to pages in the November 29, 2006 revised draft Plan and revised draft Plan Amendment Report.
<table>
<thead>
<tr>
<th>Letter - Comment Number</th>
<th>Commenter</th>
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<tr>
<td>1-1</td>
<td>CCWD</td>
<td>Drinking water protections</td>
<td>Comment noted-- this comment does not address the environmental effects of a change in the Plan; the comment and any recommendations will be considered during future updates to the Plan. The State Water Board is actively involved in the Central Valley Drinking Water Policy (CVDWP) and (through its Division of Water Quality) has commented on its development. The CALFED Drinking Water Quality Program has initiated a process that may result in suggested numerical salinity objectives. That process, however, is in its initial stages developing a conceptual model for salinity in the Delta. The State Water Board is actively monitoring these processes and may, depending on the information developed, hold future public workshops to consider proposed amendments (or additions) to the objectives for the protection of municipal and industrial beneficial uses.</td>
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<tr>
<td>2-1</td>
<td>Delta Wetlands</td>
<td>Export limits</td>
<td>Comment noted-- this comment does not address the environmental effects of a change in the Plan; the comment and any recommendations will be considered during future updates to the Plan. The State Water Board intends to schedule a public workshop in response to the pelagic organism decline (POD) in Spring 2007. During this workshop the State Water Board will receive information regarding the POD and recommendations for amendment of objectives to protect fish and wildlife beneficial uses. The State Water Board will consider proposed amendments to the Export Limits objective at this public workshop.</td>
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<tr>
<td>3-1</td>
<td>Environmental Defense</td>
<td>Policy</td>
<td>Comment noted-- this comment does not address the environmental effects of a change in the Plan; the comment and any recommendations will be considered during future updates to the Plan. The State Water Board has not received any information to support the addition of new objectives to provide a level of protection equivalent to the programs mentioned, and has not conducted appropriate environmental review to support mandating these protections.</td>
<td>x</td>
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<tr>
<td>3-2</td>
<td>Environmental Defense</td>
<td>Delta outflow</td>
<td>The State Water Board intends to schedule a public workshop in response to the POD in Spring 2007. During this workshop the State Water Board will receive information regarding the POD and recommendations for amendment of objectives to protect fish and wildlife beneficial uses. The State Water Board will consider proposed amendments to the Delta Outflow objective at this public workshop.</td>
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<td>3-3</td>
<td>Environmental Defense</td>
<td>Salmon Objective</td>
<td>As stated in the 2004 Staff Report and the draft 2006 Plan Amendment Report, the geographic scope of the salmon narrative objective has not at this time been expanded to include the watersheds and tributaries that feed into the Delta. This geographic limitation in the Plan could be changed in a future update to the plan.</td>
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<td>3-4</td>
<td>Environmental Defense</td>
<td>San Joaquin River Flow objectives</td>
<td>Per Chapter IV, Section A3 of the draft Plan, “Certain water right holders in the San Joaquin Basin are authorized under their water rights licenses to provide the experimental flows specified in the SJRA until December 31, 2011, or until the SJRA is terminated, whichever occurs first. After the SJRA terminates, the State Water Board will use the information gained from the VAMP study and other pertinent information to determine what, if any, changes are needed to the pulse flow objectives. The State Water Board will hold a workshop likely in summer of 2007 in order to further evaluate the San Joaquin River Spring Flow and Pulse Flow Objectives (p. 6 of the draft Plan). At that time, the State Water Board will evaluate DFG’s San Joaquin River salmon escapement model and DFG’s recommended changes to the objectives and any other recommendations. Following the workshop, the State Water Board will determine what if any changes should be made to the objectives. Also see response to DFG Comment 7-1.</td>
<td>x x</td>
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<td>4-1</td>
<td>NMFS</td>
<td>Fisheries</td>
<td>The State Water Board requests that NOAA Fisheries provide more information to the Board regarding the water quality requirements for the listed Green Sturgeon and Steelhead species. This item will be reviewed at the upcoming emerging issue workshop for the POD and during the requested biennial meetings to receive current fishery information.</td>
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<td>4-2</td>
<td>NMFS</td>
<td>Fisheries</td>
<td>The State Water Board requests that NOAA Fisheries, DFG and other interested parties increase population-sampling studies in order to provide the State Water Board the information needed to establish in-Delta water quality requirements for the protection of these species, and to assist in determining a reachable goal for estimating population goals. This information should be provided to the State Water Board at one of the upcoming workshops for the narrative objective for salmon doubling.</td>
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<td>4-3</td>
<td>NMFS</td>
<td>San Joaquin River flow objectives</td>
<td>See response to DFG comment 7-1.</td>
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<td>5-1</td>
<td>NCWA</td>
<td>Program of Implementation</td>
<td>Comment noted. The State Water Board acknowledges NCWA's efforts on these programs.</td>
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<td>5-2</td>
<td>NCWA</td>
<td>Program of Implementation</td>
<td>Comment noted. The State Water Board cannot prejudge potential actions to assign water right responsibilities prior to holding a water rights hearing on a matter. Accordingly, the program of implementation for the 2006 Plan will not be changed.</td>
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<td>6-1</td>
<td>SDWA/CDWA</td>
<td>Salinity</td>
<td>The SDWA states that it agrees with the State Water Board conclusion that there is at present time insufficient evidence to change the salinity objectives in the southern Delta. The State Water Board will commence a workshop in January 2007 to gather additional information pertaining to this matter and to initiate new studies regarding salinity in the southern Delta. As stated in the Notice for the workshop, the State Water Board may, upon submission of adequate information, develop and manage a thorough study or studies of the sources, concentrations, loads, and effects of salinity, and methods for its control in the southern Delta. Results from these studies could be used by the State Water Board to consider changing the agricultural salinity objectives for the southern Delta, or the program of implementation of these objectives.</td>
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<td>6-2</td>
<td>SDWA/CDWA</td>
<td>Export limits</td>
<td>SDWA submitted similar comments requesting the deletion of the third sentence from footnote 18 of Table 3 of the 2006 Plan during the Periodic Review and Plan Review Workshops. SDWA did not provide substantial evidence supporting the change. Accordingly, the third sentence from footnote 18 of Table 3 of the 2006 Plan was not deleted. See also response to comment 2-1.</td>
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<td>6-3</td>
<td>SDWA/CDWA</td>
<td>Salinity</td>
<td>Comment noted, see also response to comment 6-1.</td>
<td>x</td>
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<tr>
<td>7-1</td>
<td>DFG</td>
<td>SJR Spring Flow and Pulse Flow objectives</td>
<td>The State Water Board agrees that the Spring Flow and Pulse Flow Objectives for the San Joaquin River should be added to the list of emerging issues and scheduled for workshop later in 2007. The State Water Board will schedule a workshop after revisions are made in response to the peer review of DFG’s salmon escapement model (see p. 6 of the draft Plan, and pgs. 57 &amp; 62 of Appx. 1). Upon completion of the workshop, the State Water Board will determine what, if any, additional changes may be needed.</td>
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<td>to the objectives or their implementation. The State Water Board may determine that changes in the objectives are not appropriate until completion of the Vernalis Adaptive Management Plan (VAMP) experiments have been completed. However, it is still important to begin gathering new information now in order to facilitate the review process.</td>
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<td>7-2</td>
<td>DFG</td>
<td>Suisun Marsh</td>
<td>Comment noted.</td>
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<tr>
<td>7-3</td>
<td>DFG</td>
<td>Recommendations to Other agencies</td>
<td>Comment noted. The recommendation in the Program of Implementation is to review existing regulations; it does not suggest that greater regulation is necessary. The State Water Board recognizes that harvest regulation is one factor which affects salmon abundance. These recommendations have been carried over from the 1995 Plan. The State Water Board recognizes its obligation to regulate water quality and water use.</td>
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<td>7-4</td>
<td>DFG</td>
<td>Recommendations to Other agencies</td>
<td>Comment noted; the State Water Board encourages DFG to continue to carefully evaluate the impact of its hatchery operations.</td>
<td></td>
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<tr>
<td>7-5</td>
<td>DFG</td>
<td>San Joaquin River Pulse Flow</td>
<td>The State Water Board agrees that hydrodynamic/particle tracking models are useful for evaluating the effects of pulse flows on the movement of fish eggs and very small larvae. Field experiments, however, are useful in evaluating the impact of pulse flows on larger larval forms that exhibit positive behavior with respect to these pulse flows.</td>
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<td>7-6</td>
<td>DFG</td>
<td>Suisun Marsh</td>
<td>Comment noted.</td>
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<td>7-7</td>
<td>DFG</td>
<td>San Joaquin River Pulse Flow Objectives</td>
<td>See response to comment 7-1, above. The competing demands of Delta fisheries (POD) and anadromous fish on barrier operation and flows will be considered at the upcoming workshops on emerging issues.</td>
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<td>7-8</td>
<td>DFG</td>
<td>San Joaquin River Pulse Flow Objectives</td>
<td>Comment noted. The State Water Board is aware of this problem. Issues regarding San Joaquin River flows will be addressed at the upcoming workshop described in the response to comment 7-1, above.</td>
<td>x</td>
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<td>8-1</td>
<td>DWR</td>
<td>Plan Review Process</td>
<td>The State Water Board has scheduled a workshop to be held January 16, 2007 regarding southern Delta salinity. Workshops are also planned for 2007 regarding climate change, the POD, and San Joaquin River flows. These workshops may result in focused amendments to the 2006 Plan, as appropriate.</td>
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<tr>
<td>8-2</td>
<td>DWR</td>
<td>Municipal &amp; Industrial</td>
<td>Page 26 of the draft 2006 Plan and Page 39 of Appendix I to the draft 2006 Plan have been modified in response to this comment.</td>
<td>x</td>
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<tr>
<td>8-3</td>
<td>DWR</td>
<td>Salinity</td>
<td>The State Water Board has added language to the Program of Implementation concerning the January 2007 workshop. This language is to be found most prominently under the heading State Regulatory Action, Chapter IV as well as numerous other places.</td>
<td>x</td>
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<td>8-4</td>
<td>DWR</td>
<td>Salinity</td>
<td>The Program of Implementation is revised in response to this comment.</td>
<td>x</td>
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<tr>
<td>8-5</td>
<td>DWR</td>
<td>Salinity</td>
<td>The Program of Implementation is revised in response to this comment. The upcoming January 2007 workshop could result in focused amendments to the 2006 Plan, which could include the concept of phased implementation.</td>
<td>x</td>
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<tr>
<td>8-6</td>
<td>DWR</td>
<td>Salinity</td>
<td>The State Water Board discusses the need for such a study under the heading Recommended Projects, Studies and Action, section ii. This subject will be considered in the January 2007 workshop.</td>
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<tr>
<td>8-7</td>
<td>DWR</td>
<td>Salinity</td>
<td>The State Water Board will commence a workshop in January 2007 to gather additional information regarding salinity in the southern Delta. As stated in the Notice for the workshop, the State Water Board will, upon submission of adequate information, develop and manage a thorough study or studies of the sources, concentrations, loads, and effects of salinity, and methods for its control in the southern Delta. Results from these studies could be used by the State Water Board to consider changing the</td>
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<td>agricultural salinity objectives for the southern Delta, or the program of implementation of these objectives. Additional language to this effect has been added (as subsection iv) in Section B.1 of the Program of Implementation. Information received during and subsequent to the January 2007 workshop could be used to support reallocation of responsibility for the southern Delta salinity objectives.</td>
<td>Draft Plan</td>
</tr>
<tr>
<td>8-8</td>
<td>DWR</td>
<td>Salinity</td>
<td>The draft Plan is revised on p. 31 in response to the comment.</td>
<td>Draft amendment report</td>
</tr>
<tr>
<td>8-9</td>
<td>DWR</td>
<td>Salinity</td>
<td>The draft Plan is revised in response to the comment.</td>
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<tr>
<td>8-10</td>
<td>DWR</td>
<td>Salinity</td>
<td>The draft Plan is revised in response to the comment.</td>
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<tr>
<td>8-11</td>
<td>DWR</td>
<td>Salinity</td>
<td>This comment will be addressed at the January 2007 workshop.</td>
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<tr>
<td>8-12</td>
<td>DWR</td>
<td>Salinity</td>
<td>Appendix 1 is revised on p. 72 in response to the comment.</td>
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<tr>
<td>8-13</td>
<td>DWR</td>
<td>Salinity</td>
<td>Appendix 1 is revised on p. 72 in response to the comment.</td>
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<td>8-14</td>
<td>DWR</td>
<td>Proposed Plan language</td>
<td>The draft Plan is revised on pages 27 and 36.</td>
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<tr>
<td>8-15</td>
<td>DWR</td>
<td>Proposed Plan language</td>
<td>The objective was not deleted in D-1641, but no responsibility was assigned for achieving the objective. The monitoring stations are a condition of DWR’s and USBR’s water rights as provided in Table 5 of D-1641, on page 193. A time schedule in the program of implementation, Chapter IV in Section B.5 “Numeric Objectives for Suisun Marsh” is added for implementation of the objective. The draft Plan is revised on page 36.</td>
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<tr>
<td>8-16</td>
<td>DWR</td>
<td>Proposed Plan language</td>
<td>The draft Plan is revised on page 36.</td>
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<tr>
<td>8-17</td>
<td>DWR</td>
<td>Proposed Plan language</td>
<td>The draft Plan is revised on page 36.</td>
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<td>8-18</td>
<td>DWR</td>
<td>Proposed Plan language</td>
<td>The draft Plan is revised on page 36.</td>
<td>x</td>
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<tr>
<td>8-19</td>
<td>DWR</td>
<td>Suisun Marsh</td>
<td>The draft plan is revised on p. 15 in response to the comment by adding a footnote to the objectives for the Eastern Suisun Marsh and for the Western Suisun Marsh. Appendix 1 is revised on p. 21.</td>
<td>x</td>
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<tr>
<td>8-20</td>
<td>DWR</td>
<td>Proposed Plan language</td>
<td>The draft plan is revised on pages 40-41.</td>
<td>x</td>
</tr>
<tr>
<td>8-21</td>
<td>DWR</td>
<td>Delta Outflow/temporary change</td>
<td>The findings required for approval of a petition for temporary change are delineated in Water Code sections 1435 through 1442 and in sections 1725 through 1732. These findings may not be changed by modifications to the program of implementation for a water quality control plan. The objectives currently include some flexibility within the averaging provisions, reducing the potential need for temporary changes. Additionally, the State Water Board must base its approval of petitions for temporary change on the circumstances present at the time the petition is filed and must not prejudge potential actions. Accordingly, no changes are made in the program of implementation for the 2006 Plan.</td>
<td>x</td>
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<tr>
<td>8-22</td>
<td>DWR</td>
<td>Pulse Flow</td>
<td>The suggested footnote is not necessary. Implementation issues for the Pulse Flow objective are adequately discussed in the Program of Implementation.</td>
<td>x</td>
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<tr>
<td>8-23</td>
<td>DWR</td>
<td>Format</td>
<td>Table 7 has been revised on p. 44 of the draft Plan in response to the comment.</td>
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<td>9-1</td>
<td>Co. of San Joaquin</td>
<td>Salinity</td>
<td>The State Water Board intends to hold a proceeding commencing January 16, 2007 to consider the southern Delta salinity objectives. The current objectives were developed as part of the 1978 water quality planning process and were based on certain assumptions as to cropping patterns in the region. The State Water Board has no information on current cropping patterns and will revisit the issue. Depending on the information it receives or develops as a result of future studies, the State Water Board could elect</td>
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<td>Draft Plan</td>
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<td>9-2</td>
<td>Co. of San Joaquin</td>
<td>Salinity</td>
<td>In the upcoming proceeding, the State Water Board needs to consider all possible means for meeting the objectives.</td>
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<tr>
<td>9-3</td>
<td>Co. of San Joaquin</td>
<td>Salinity</td>
<td>Design, construction and operation of infrastructure to control salinity is a difficult and expensive process, and it is likely to take many decades. It would be desirable for this to be accomplished in a shorter period of time.</td>
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<tr>
<td>9-4</td>
<td>Co. of San Joaquin</td>
<td>Salinity</td>
<td>The State Water Board will review the need for an updated independent investigation of irrigation salinity needs in the Delta during the January 2007 salinity workshop.</td>
<td>x</td>
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<td>9-5</td>
<td>Co. of San Joaquin</td>
<td>Export limits</td>
<td>The State Water Board intends to hold a public workshop in response to the POD in Spring of 2007. During this workshop the State Water Board will: 1) receive information regarding the POD; and 2) consider recommendations to amend objectives to protect fish and wildlife beneficial uses. The State Water Board will also consider information received on recommended amendments to the Export Limits objective at this public workshop.</td>
<td>x</td>
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<td>9-6</td>
<td>Co. of San Joaquin</td>
<td>Salinity</td>
<td>Comment noted. This issue should be raised in a future proceeding such as the upcoming salinity workshop.</td>
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<tr>
<td>9-7</td>
<td>Co. of San Joaquin</td>
<td>Flow and Water level objectives for agriculture</td>
<td>Comment noted-- this comment does not address the environmental effects of a change in the Plan; the comment and any recommendations will be considered during future updates to the Plan. This issue was addressed in the Staff Report on Periodic Review of the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary adopted by State Water Board Resolution 2004-0062 (see pages 31 and 32). That report stated that the State Water Board would not consider setting minimum flow or water level objectives for agriculture at that time and that a more appropriate forum to address these types of issues would be a water right proceeding. Accordingly, the State Water Board did not consider this issue during the Plan amendment workshop and did not receive any information on this subject on which to base changes to any such objectives.</td>
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<td>Draft Plan</td>
<td>Draft amendment report</td>
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<tr>
<td>10-1</td>
<td>GCID</td>
<td>Joins in NCWA comments</td>
<td>Comment noted.</td>
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<td>10-2</td>
<td>GCID</td>
<td>Support of draft Plan</td>
<td>Comment noted.</td>
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<tr>
<td>11-1</td>
<td>Kern County/State Water Contractors</td>
<td>Suggested Plan revisions</td>
<td>The State Water Board has reviewed Kern County/State Water Contractors proposed language. Where appropriate, changes were made to the 2006 Plan on pages 1, 3, 5, 6, 11, and 23 through 30; and to Appendix I of the 2006 Plan on pages 64, 67, 71 and 72.</td>
<td>x</td>
</tr>
<tr>
<td>12-1</td>
<td>DOI</td>
<td>Fisheries</td>
<td>The Board will continue to work towards reaching the goal of the salmon narrative objective. Board staff recommends that NOAA Fisheries, DFG and other interested parties conduct additional population-sampling studies in order to provide the Board the information needed to establish a numeric objective for salmon, and in-Delta requirements for the protection of listed Green Sturgeon and Steelhead, and to assist in determining a reachable goal for estimating population goals. This information should be provided to the Board at one of the upcoming workshops for the narrative objective for salmon doubling. Additionally, the State Water Board intends to hold a workshop on the San Joaquin River Spring Flow and Pulse Flow objectives following completion of DFG’s salmon escapement model. This workshop will be focused on San Joaquin River flow issues, but will consider the interaction of other objectives, including the salmon doubling objective and the southern Delta salinity objectives. The State Water Board will use the information it receives in the workshop to consider what, if any, changes may be needed to the objectives and the Program of Implementation for these objectives.</td>
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</tr>
<tr>
<td>12-2</td>
<td>DOI</td>
<td>Chlorides</td>
<td>Page 26 of the draft 2006 Plan and Page 39 of Appendix I to the draft 2006 Plan have been modified in response to this comment.</td>
<td>x</td>
</tr>
<tr>
<td>12-3</td>
<td>DOI</td>
<td>Delta Outflow</td>
<td>The scope of a water quality control plan does not typically include restatement of the procedures that may be used to initiate and conduct a</td>
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<td>water right proceeding to obtain relief from a condition in a water right. Permit or license. The findings required for approval of a petition for temporary change are delineated in Water Code sections 1435 through 1442 and in sections 1725 through 1732. These findings may not be changed by modifications to the program of implementation for a water quality control plan. The objective currently includes some flexibility within the averaging provisions, reducing the potential need for temporary changes. Additionally, the State Water Board must base its approval of petitions for temporary change on the circumstances existing at the time the petition is filed and must not prejudge potential actions. Accordingly, so as not to prejudge potential actions, the program of implementation for the 2006 Plan will not include the language proposed by DOI.</td>
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<tr>
<td>12-4</td>
<td>DOI</td>
<td>Rio Vista Flow</td>
<td>The scope of a water quality control plan does not typically include restatement of the procedures that may be used to initiate and conduct a water right proceeding to obtain relief from a condition in a water right. Permit or license. The findings required for approval of a petition for temporary change are delineated in Water Code sections 1435 through 1442 and in sections 1725 through 1732. These findings may not be changed by modifications to the program of implementation for a water quality control plan. Additionally, the State Water Board must base its approval of petitions for temporary change on the circumstances existing at the time the petition is filed and must not prejudge potential actions. Accordingly, so as not to prejudge potential actions, the program of implementation for the 2006 Plan will not include the language proposed by DOI.</td>
<td>x</td>
</tr>
<tr>
<td>12-5</td>
<td>DOI</td>
<td>San Joaquin River Spring Flows</td>
<td>The scope of a water quality control plan does not typically include restatement of the procedures that may be used to initiate and conduct a water right proceeding to obtain relief from a condition in a water right. Permit or license. The State Water Board intends to schedule a workshop to receive additional evidence on the San Joaquin River Flow and Pulse Flow Objectives following completion and peer review of the San Joaquin River salmon escapement model anticipated for summer of 2007. However, the State Water Board has not modified the Program of Implementation to include the recommended language regarding the filing of a temporary urgency change petition. The findings required for approval of a petition for temporary change on the circumstances existing at the time the petition is filed and must not prejudge potential actions. Accordingly, so as not to prejudge potential actions, the program of implementation for the 2006 Plan will not include the language proposed by DOI.</td>
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<td>Letter - Comment Number</td>
<td>Commenter</td>
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<td>Response</td>
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<tr>
<td>12-6</td>
<td>DOI</td>
<td>San Joaquin River Pulse Flow</td>
<td>The State Water Board does not agree that supplemental environmental analyses are necessary for the changes made to the Program of Implementation for the Pulse Flow Objectives. The changes reflect current environmental conditions. Consequently, there is no physical change in the environment requiring environmental review.</td>
<td>Draft Plan</td>
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<tr>
<td>12-7</td>
<td>DOI</td>
<td>Southern Delta salinity</td>
<td>The State Water Board does not intend to supplement the environmental analysis in the D-1641 EIR as suggested. The State Water Board will commence a workshop in January 2007 to further address southern Delta salinity issues. In this proceeding, the State Water Board will consider phased implementation of the objectives and the possibility of assigning partial responsibility to parties who contribute to the problem other than the CVP and SWP. The workshop could result in focused Plan amendments. If this is the case, detailed CEQA analysis will be required at that time. Numerous changes have been made to the draft Plan in response to the DWR and others, many of which will address Interior’s concerns.</td>
<td>Draft Plan</td>
</tr>
<tr>
<td>12-8</td>
<td>DOI</td>
<td>Suisun Marsh</td>
<td>See response to DWR comments 8-1, 8-2, 8-3, and 8-4. The draft Plan, on pages 36 and 40, is revised in response to these comments.</td>
<td>Neither</td>
</tr>
<tr>
<td>12-9</td>
<td>DOI</td>
<td>DO</td>
<td>The Program of Implementation for the Dissolved Oxygen (DO) objective does address aeration as an alternative to address the DO in the San Joaquin River. The Plan states “…the responsible entities should complete their investigations into the feasibility of operating an aeration facility in the Stockton DWSC [Deep Water Ship Channel] to assist in achieving the</td>
<td>Draft amendment report</td>
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Temporary urgency change are delineated in Water Code sections 1435 through 1442. These findings may not be changed by modifications to the program of implementation of a water quality control plan. USBR and DWR may petition the State Water Board for a temporary urgency change regarding the San Joaquin River Spring Flow Objective (or any other objective in the 2006 Plan) regardless of any statement in the program of implementation for the 2006 Plan. Additionally, the State Water Board must base its approval of petitions for temporary change on the circumstances existing at the time the petition is filed and must not prejudge potential actions. Accordingly, so as not to prejudge potential actions, the program of implementation for the 2006 Plan will not include the language proposed by DOI.
objectives. If the pilot project and other information demonstrates that permanent installation and operation of aeration devices is feasible and would not have immitigable adverse impacts on fish, wildlife, water quality and other resources, DWR, CALFED, and the other implementing agencies should pursue operation of such a facility with operation assistance from the State Water Contractors (SWC), the Port of Stockton, San Luis Delta-Mendota Water Authority, the San Joaquin River Group Authority (SJRGA), and other appropriate agencies.” (Draft 2006 Plan, p. 31.)

13-1 SLDMWA Process The draft Plan on page 11is revised to remove unnecessary verbiage and correct the noted statements. The comment suggests that the objectives must be readopted in each plan. This is not correct. The applicable laws require that objectives that were adopted in the 1995 Plan or earlier remain in effect in each successive Plan unless the State Water Board specifically changes the objectives based on the evidence and after an extensive analysis. In the absence of an evidentiary basis for changing the objectives, the objectives are not changed.

13-2 SLDMWA Process The Program of Implementation in the draft Plan is revised to remove unnecessary information. It continues, however, to report on the status of implementation and identifies the entities that have been assigned responsibilities through other proceedings. It is appropriate in a program of implementation to report on the current implementation as well as planning for future changes in implementation.

13-3 SLDMWA Chloride Page 26 of the draft 2006 Plan and Page 39 of Appendix I to the draft 2006 Plan have been modified in response to this comment.

13-4.1 SLDMWA Delta outflow Comment noted. This recommendation will be considered during a future update to the Plan. At the State Water Board workshop on the POD planned for Spring, 2007, the State Water Board will consider proposed amendments to the Delta Outflow objective. Proposed amendments to objectives should be accompanied by substantial evidence to support the proposed amendment and to disclose its impacts to other beneficial uses.

13-4.2 SLDMWA Delta outflow The State Water Board appreciates the detail of SLDMWA’s proposal on adding flexibility to the Delta Outflow objective. However, as stated in Appendix I, the WOMT has withdrawn its recommendation to add flexibility
<table>
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<th>Letter - Comment Number</th>
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<td>to the Delta Outflow objective due to concerns regarding the POD. The State Water Board intends to schedule a public workshop in response to the POD in Spring 2007. During this workshop the State Water Board will receive information regarding the POD and recommendations for amendment of objectives to protect fish and wildlife beneficial uses. The State Water Board will consider proposed amendments to the Delta Outflow objective at this public workshop. Proposed amendments to objectives should be accompanied by substantial evidence to support the proposed amendment and to disclose its impacts to other beneficial uses.</td>
<td>Draft amendment report</td>
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<tr>
<td>13-5</td>
<td>SLDMWA</td>
<td>Salinity</td>
<td>The Program of Implementation makes clear that the southern Delta salinity objectives will be implemented through a combination of water rights and water quality authorities. Though these objectives are currently assigned to the DWR and the USBR, this assignment could change in the future as a result of a future proceeding.</td>
<td>x</td>
</tr>
<tr>
<td>14-1</td>
<td>Bay Institute</td>
<td>Numeric &amp; Narrative objectives</td>
<td>Comment noted.</td>
<td>x</td>
</tr>
<tr>
<td>14-2</td>
<td>Bay Institute</td>
<td>Export limits</td>
<td>Comment noted-- this comment does not address the environmental effects of a change in the Plan; the recommendation will be considered during future updates to the Plan. The State Water Board intends to schedule a public workshop in response to the POD in Spring 2007. During this workshop the State Water Board will receive information regarding the POD and recommendations for amendment of objectives to protect fish and wildlife beneficial uses. The State Water Board will consider information received on amendment to the Export Limits objective at this public workshop. Proposed amendments to objectives should be accompanied by substantial evidence to support the proposed amendment and to disclose its impacts to other beneficial uses.</td>
<td>x</td>
</tr>
<tr>
<td>14-3</td>
<td>Bay Institute</td>
<td>Process</td>
<td>Comment noted. The Board cannot require any additional water right user fees without appropriate review and fiscal analysis. The procedure the State Water Board must follow to obtain information is determined by the California Water Code and the California Code of Regulations.</td>
<td>x</td>
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<td>Letter - Comment Number</td>
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<td>14-4</td>
<td>Bay Institute</td>
<td>Process</td>
<td>As part of a continuing review of the Water Quality Control Plan, the State Water Board has a workshop scheduled to begin on January 16, 2007 to review the southern Delta water quality objectives for salinity. Other workshops scheduled for 2007 include workshops on the Pelagic Organism Decline and climate change. The State Water Board will identify specific information needs at these workshops and determine if revisions to the Plan should be considered.</td>
<td>x</td>
</tr>
<tr>
<td>15-1</td>
<td>SEWD</td>
<td>San Joaquin River Flows</td>
<td>The State Water Board acknowledges that coupling San Joaquin River flow to X2 position can potentially harm the San Joaquin basin when local conditions are dry and the Sacramento basin is experiencing a wet year. The State Water Board will add the San Joaquin flow and fishery problems as an emerging issue and schedule a workshop to consider potential Water Quality Control Plan amendments. See response to DFG’s comment 1 (7-1). As indicated in the response to DFG, the State Water Board will hold a further workshop to consider whether there should be changes to the San Joaquin River Spring Flow and Pulse Flow Objectives. At that time, the State Water Board will consider any proposals for modification of the San Joaquin River Flow objectives, including the association with the Delta Outflow Objectives.</td>
<td>x, x</td>
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<tr>
<td>15-2</td>
<td>SEWD</td>
<td>Salinity</td>
<td>See response to County of San Joaquin, 9-3.</td>
<td>x</td>
</tr>
<tr>
<td>16-1</td>
<td>Suisun RCD</td>
<td>Suisun Marsh</td>
<td>Page 35, Section B.4 of the draft 2006 Water Quality Control Plan was revised.</td>
<td>x</td>
</tr>
<tr>
<td>16-2</td>
<td>Suisun RCD</td>
<td>Suisun Marsh</td>
<td>Comment noted.</td>
<td>x</td>
</tr>
<tr>
<td>16-3</td>
<td>Suisun RCD</td>
<td>Delta Outflow</td>
<td>The Draft 2006 Plan proposes no changes to the Delta outflow objectives. Should such changes be proposed in the future, the potential impacts on Suisun Marsh will be analyzed.</td>
<td>x</td>
</tr>
<tr>
<td>16-4</td>
<td>Suisun RCD</td>
<td>Suisun Marsh</td>
<td>Item 4, page 44, of the draft 2006 Plan does not state that a complete set of environmental documents for the Suisun Marsh Plan have been issued. On page 44, the draft Plan states “In March 2006 the Plan was undergoing</td>
<td>x</td>
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<td>Letter - Comment Number</td>
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<td>California Environmental Quality Act (CEQA)/National Environmental Policy Act review. The final CEQA document will be released in December 2008.”</td>
<td>Draft Plan</td>
</tr>
<tr>
<td>16-5</td>
<td>Suisun RCD</td>
<td>Suisun Marsh</td>
<td>Footnote 12 on page 74 of Appendix 1 was revised as follows: The Suisun Marsh Charter Group Principals agencies include Suisun Resource Conservation District, DFG, DWR, USBR, CBDA, NMFS, and USFWS.</td>
<td>x</td>
</tr>
<tr>
<td>17-1</td>
<td>SJRGA</td>
<td>Salmon Protection</td>
<td>Comment noted-- this comment does not address the environmental effects of a change in the Plan; the recommendation will be considered during future updates to the Plan.</td>
<td>x</td>
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<tr>
<td>17-2</td>
<td>SJRGA</td>
<td>Dissolved Oxygen</td>
<td>SJRGA comments about the DO objective during the July through August period. However, the Draft Plan does not include a DO objective during that time frame. The comments appear to pertain to the Central Valley Regional Water Quality Control Board’s recent Basin Plan Amendment for the Sacramento River and San Joaquin River Basins. This issue should be addressed in that forum.</td>
<td>x</td>
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<tr>
<td>18-1</td>
<td>Audubon</td>
<td></td>
<td>Comment noted. Commencing in the Spring of 2007 the Board will conduct a more detailed workshop geared specifically towards investigating the causes and action that can be implemented to reduce the decline of Pelagic Organisms in the Delta. The procedure the State Water Board must follow to obtain this information is determined by the California Water Code, the California Code of Regulations, and the California Environmental Quality Act.</td>
<td>x</td>
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<tr>
<td>18-2</td>
<td>Audubon</td>
<td>SJR Pulse Flow Objectives</td>
<td>The flow objectives have not been changed. The Program of Implementation allows for the staged implementation of the San Joaquin River Pulse Flow Objectives through conduct of the Vernalis Adaptive Management Plan (VAMP) until 2011. The State Water Board has not received sufficient evidence that: 1) supports making changes to the VAMP experiment at this time; or 2) VAMP flows are causing species declines in the San Joaquin River. The State Water Board believes that completion of the VAMP experiment will lead to a strengthening of the objectives by providing additional scientific information on which to base long term objectives. However, as indicated in the response to DFG comment 1 (7-1), the State Water Board will hold a workshop after the San Joaquin River</td>
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<td>Line 20, page 68 of the transcript:</td>
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<td>Comment: Workshop comments submitted under Deltakeeper are also submitted under CSPA, Committee to Save the Mokelumne and San Joaquin Audubon.</td>
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<td>Response: Comment noted</td>
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<tr>
<td>21-2</td>
<td>Committee to Save the Mokelumne</td>
<td>VAMP</td>
<td>Lines 10-17, page 73 of the transcript:</td>
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<td>Comment: Commenter urges the State Water Board to conduct an environmental review of the VAMP before putting it into a Water Quality Control Plan.</td>
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<td>Response: The State Water Board conducted an environmental review of the VAMP prior to authorizing it in D-1641. The VAMP is the current condition and therefore no further environmental review is necessary.</td>
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<td>22-1</td>
<td>CSPA</td>
<td>Clarification</td>
<td>Lines 11-13, page 77 of the transcript:</td>
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<td>Comment: Commenter confirms that the evidence listed in Appendix 2 is also the evidence for CSPA.</td>
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<td>Response: Comment noted. Appendix 2 will be amended to reflect this comment.</td>
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November 6, 2006

Song Her, Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812

Subject: Comments on the Amended Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary

Dear Ms. Her:

The Contra Costa Water District (CCWD) appreciates the opportunity to provide comments to the State Water Resources Control Board (State Water Board) regarding the amended Water Quality Control Plan (the Plan) for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (September 2006). CCWD played an active role in the development, implementation, and review of the 1995 Plan and will continue to actively engage in issues to protect water quality in the Delta.

Throughout this review process, CCWD's concern has been to protect water quality. CCWD appreciates the State Water Board’s evaluation of the evidence provided by CCWD and other agencies and incorporation of CCWD’s recommendations into the amended Plan so that current water quality protections are maintained. In any future consideration of modifications to the Plan, we look forward to working with the State Water Board to ensure that any changes are in accord with the State Water Board’s anti-degradation policy and the principle that protecting drinking water quality is of paramount importance.

Although the State Water Board took no direct action, CCWD will continue to advocate the establishment of an objective to protect drinking water and public health. As the CALFED Water Quality Program and the Central Valley Drinking Water Policy develop additional information regarding drinking water protections, CCWD encourages the State Water Board to reconsider amending the Plan with numerical objectives targeting precursors to disinfection byproducts.

With respect to compliance of the chloride objective at the Contra Costa Canal Pumping Plant No. 1, CCWD agrees that adequate information to date has not been provided to warrant changing the objective. As described in CCWD’s 2005 letter (CCWD-EXH-021):
CCWD requests that the compliance location remain at Pumping Plant #1. However, CCWD is willing to entertain the concept of a reasonable monitoring agreement based on Holland Tract EC, as discussed in its January 10, 2005 letter (CCWD-EXH-014):

The Pumping Plant #1 compliance location (C-5) must remain unchanged at the Contra Costa Canal Pumping Plant #1 to ensure water diverted by CCWD from Rock Slough is at or better than the 150 mg/l and 250 mg/l M&I chloride objectives. These objectives provide protection against salinity intrusion to all M&I diversion points in the southern and central Delta, and are necessary to ensure water quality protection at those Delta M&I diversion points, including CCWD’s Old River intake.

In the near future, the circumstances in which local degradation leads to exceedances of water quality objectives in Rock Slough will be minimized by three factors, discussed at length during the presentation of Dr. David Briggs on January 10, 2005. (Reporter’s Transcript 569:24-585:23; CCWD-EXH-07.) These factors are Veale Tract improvements, Contra Costa Canal Encasement, and in the longer term, increased use of Pumping Plant No. 1 to meet increases in CCWD demands. … The objective needs to remain where the beneficial uses can best be protected.

However, as stated in CCWD’s March 8, 2005 letter (CCWD-EXH-19), in the event that there is an exceedence of either chloride objective and the 3-day running average diversion rate at the Contra Costa Canal is less than 30 cubic feet per second, CCWD would be willing consider such an exceedence beyond the control of the State Water Project and Central Valley Project, provided the the daily EC at Holland Tract, measured three days previously, was 0.94 mS/cm or less (in the case of the 250 mg/l chloride objective) or 0.56 mS/cm or less (in the case of the 150 mg/l chloride objective).

The above description underscores the difference between moving the compliance location and identifying and accounting for conditions that are beyond the responsibility of the State Water Project (SWP) and Central Valley Project (CVP), while maintaining the objective at Pumping Plant #1.

Working collaboratively with other stakeholders, CCWD has made substantial progress in reducing local water quality degradation. The CALFED Rock Slough Water Quality Improvement Project was completed in January 2006, and eliminated drainage from Veale Tract into Rock Slough and reduced the impact of local agricultural drainage. Additionally, CCWD is proceeding with the first phase of the Contra Costa Canal Replacement Project that eliminates the biggest source of salinity in the westernmost
part of the Canal. Finally, CCWD and the Department of Water Resources (DWR) are working to secure funding and develop methods to eliminate seepage from the Dutch Slough Property (owned by DWR) into the Canal.

As the progress from these local source water improvement programs is evaluated, CCWD will continue to work collaboratively with other stakeholders on determining when conditions exist that are beyond the control and obligations of the SWP and CVP, with the objective of improving the efficiency of the SWP and CVP while at the same time protecting CCWD’s water quality and water quality in the south Delta.

If you have any questions, please call me at (925) 688-8073.

Sincerely,

David A. Briggs  
Water Resources Manager

DAB\DS:wec

cc: Carl Nelson (BPMNJ)
November 6, 2006

Song Her, Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Subject: Preliminary Comments on 2006 Bay-Delta Water Quality Control Plan

Dear Ms. Irvin:

At the last periodic review workshop for the Bay-Delta Water Quality Control Plan, Delta Wetlands Properties (Delta Wetlands), the developer of the in-Delta storage project commonly referred to as the Delta Wetlands Project, asked the State Water Resources Control Board to address the application of the E/I ratio to in-Delta storage in the Export Limits objective. Specifically, Delta Wetlands requested that releases from in-Delta storage be included in the Delta inflow calculation of the E/I ratio, because in-Delta storage was not contemplated during preparation of the 1995 WQCP.

Although Delta Wetlands is disappointed that the Board will not consider this recommendation in the 2006 Water Quality Control Plan, we strongly urge the Board to consider this simple addition at the proposed quarterly workshops on emerging issues to commence in January 2007.

If you have any questions, please contact me at (925) 932-0251.

Sincerely,

David A. Forkel
Assistant General Manager
Delta Wetlands Project

cc: Cathy Crothers (DWR)
    Steve Roberts (DWR)
    Andy Moran (DW)
    Peter Kiel (ESH)
November 6, 2006

Tam Doduc, Chair
State Water Resources Control Board
P. O. Box 100
Sacramento, CA 95812-0100

Re: Consideration of an Amended Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary

Dear Ms. Doduc:

The current Water Quality Control Plan, adopted in 1995 and enforced by a series of water rights orders, has not provided sufficient protection for estuarine or anadromous fish species. This is illustrated in the recent sharp decline of pelagic organisms in the Delta, which has been well documented\(^1\). Failure to respond quickly to improve Delta conditions may result in the irreversible decline of Delta fisheries and lead to extinction of some species. The plan has also failed to meet its objectives for doubling salmon populations. The State Board should swiftly complete and implement an amended plan that will, at a minimum:

- Guarantee a supply of environmental water equal to Tiers 1, 2 and 3, as described in the CALFED Record of Decision (2000),
- Revise the criteria for implementing X2 standards to prevent upstream impacts, including "three ways to win",
- Assign specific stream-by-stream objectives for doubling the natural production of salmon populations, and
- Broaden the period for springtime San Joaquin River pulse flows, while requiring that the plan's objectives are actually met.

\(1\) For example, see Interagency Ecological Program Synthesis of 2005 Work to Evaluate the Pelagic Organism Decline (POD) in the Upper San Francisco Estuary, Interagency Ecological Program, 2005.
Environmental Defense Comments regarding Consideration of an Amended Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary November 6, 2006
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The San Francisco Bay/Sacramento-San Joaquin Delta Estuary was already in significant decline in the years preceding the adoption of the current Water Quality Control Plan. The current plan was adopted in 1995 after a wide variety of affected parties negotiated and signed the Bay-Delta Accord. The Accord was an agreement with two principle parts. First, the Accord included a set of interim standards for protection of the Bay-Delta estuary that would be in place for only three years as longer-term standards were developed. Second, the Accord established the CALFED Bay-Delta Program to develop a long-term plan for the Delta.

To date, the State Board has implemented only the interim standards and no longer-term standards. Instead, the CALFED Bay-Delta Program completed an Environmental Impact Report/Statement and Record of Decision in 2000 that was intended to provide additional protective criteria. These criteria are designed to provide protection to the estuarine and anadromous fish that depend on the Delta, including but not limited to compliance with obligations of the State and federal water projects under the State and federal Endangered Species Acts. The level of protection provided to the Delta by the CALFED Decision is intended to include:

- Full use of 800,000 acre-feet supply of water pursuant to Section 3406(b)(2) of the CVPIA in accordance with Interior’s October 5, 1999 Decision,
- An Environmental Water Account with an average annual supply of 380,000 acre-feet, and
- A “Tier 3” supply to provide additional protection if needed.

Since 2002, much of this water intended for environmental use in the Delta has not been available. Rules governing implementation of B2 supplies have been changed by both federal court and Interior policy. “Operational assets” expected to accrue to the Environmental Water Account have not been available. And funding for the EWA has not been sufficient to supply the amount of water set forth in the CALFED Decision. During the period 2002-2004, the dedication of environmental water for B2 and the EWA was short by 420,000 to 460,000 acre-feet annually. (For documentation of this shortfall, see Attachment 1, Finding the Water: New Water Supply Opportunities to Restore the San Francisco Bay-Delta Ecosystem, Environmental Defense, 2005.)

As part of its obligation to provide for the beneficial use of water for fish that live in and depend on the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, the State Board should, at a minimum, mandate the level of protection in an amended Water Quality Control Plan, including the supply of CVPIA B2 water, the Environmental Water Account, and Tier 3 assets, that is described in the CALFED Decision.

It is true that the use of B2 water and the EWA differ from the “prescriptive standards” traditionally implemented by the State Board. B2 and EWA supplies are reserved for use in providing additional flows or export reductions to provide protection for fish when it is
most needed. Because the estuary is a dynamic and unpredictable ecosystem, it is not known in advance when these environmental supplies will provide the greatest benefit. In contrast, most State Board standards have in the past been designed to provide minimum flow volumes or maximum export rates that are pre-specified. There is no reason, however, that the State Board cannot require water projects to provide environmental water under adaptively managed conditions.\(^2\)

The simplest way for the State Board to implement additional protections through adaptive management would be to require the Central Valley Project and State Water Project to provide operational flexibility in close cooperation with fishery agencies.\(^3\) Environmental Defense suggests that State Water Project be required to provide the 380,000 acre-feet of EWA supplies and the Central Valley Project be required to provide 800,000 acre-feet in B2 supplies, consistent with its 1999 policy, that are included in the CALFED Decision. The accounting for these supplies can still be performed by the Department of the Interior and the Department of Water Resources, but should be overseen by the State Board.

The Central Valley Project and State Water Project, or their contractors, would of course be able to make up for any loss of water by investing in groundwater or water use efficiency, or by buying water on the open market as the Environmental Water Account does currently. Environmental Defense believes that the project agencies and their customers should determine how to meet their own needs rather than to require the Environmental Water Account to make up for forgone supplies that should never have been permitted.

Revise the criteria for implementing X2 standards to prevent upstream impacts, including "three ways to win".

Environmental Defense continues to support X2 objectives from February through June to enhance estuarine habitat. The statistical relationship between Delta outflow during this period and fish and other organisms continues to be strong.\(^4\)

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3 The Environmental Water Account was in fact developed as a more efficient way of implementing prescriptive standards. In 1999, the U.S. Fish and Wildlife Service considered more protective "prescriptive" standards, but agreed to an Environmental Water Account that was intended to provide the same level of protection while allowing for greater volumes of water to be exported from the estuary. Environmental Defense agrees that the flexibility provided by the Environmental Water Account is an efficient way to provide protection and should be retained.

4 Environmental Defense does believe that the State Board should strongly consider requiring other “local” projects to supply water to protect fisheries that depend on the Bay-Delta. Such requirements should be included under the baseline "prescriptive inflow requirements, such as those in the 1995 Water Quality Control Plan, rather than as part of the Environmental Water Account.

5 See letter from The Bay Institute to Chairman Baggett, Re: Bay-Delta Plan Periodic Review/Delta Outflow, January 12, 2005.
In two instances, however, upstream actions to meet X2 objectives at Port Chicago have had negative impacts on target fish populations. The most egregious impacts occurred in February 2003, when a sudden decrease in reservoir releases resulted in the stranding of thousands of anadromous fish. While the increased communication between fishery agencies and water project agencies has helped avoid recurrences of this unfortunate event, the State Board should play a role in ensuring that the X2 objective provides the benefits originally intended.

There are several ways that improved implementation of X2 could be achieved. The “three ways to win” criteria could be modified to reduce opportunities for reservoir managers to sharply reduce releases. Alternatively, the State Board could build criteria into the X2 standard, so that any reservoir releases required to meet the Port Chicago objective would ramp down gradually, rather than suddenly, as the objective is relaxed to allow X2 to move upstream.

Assign specific stream-by-stream objectives for doubling the natural production of salmon populations.

The draft plan includes only a “narrative” standard for doubling the natural production of salmon (above 1967-1991 averages). It does not include specific objectives, by run or by stream, or any way to ensure that the objectives are met.

The California Department of Fish and Game maintains comprehensive estimates of the number of salmon spawning on many Central Valley Rivers and streams. We believe that the State Board should begin by assigning objectives for each salmon run and stream. Additionally, the State Board should assign responsibility for meeting the doubling objectives to both the agencies that manage the streams where spawning takes place, as well as any other projects, upstream or downstream, that significantly affect salmon populations through their operations. For each stream, the State Board should consider criteria that would increase requirements for those agencies to provide reservoir releases and/or funding for habitat restoration if sufficient progress toward meeting the objective is not made over time.

Broaden the period for springtime San Joaquin River pulse flows, while requiring that the plan’s objectives are actually met.

The draft plan again includes a 31-day spring outflow pulse on the San Joaquin River at Vernalis. These flows have not actually been required. Instead, these objectives have been

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partially met by additional flows that have been provided through the Vernalis Adaptive Management Program. It has been necessary to pay water agencies to release water to meet these VAMP objectives, even though those flow levels are significantly less than has been proposed in the Water Quality Control Plan.

Outmigrating San Joaquin River salmon face more challenges than their counterparts in the Sacramento River basin. First, the smolts must pass much closer to the Delta export facilities where they are more likely to be subject to entrainment and predation. Second, for its smaller size, the San Joaquin basin is more heavily developed and its natural hydrology more affected.

Consequently, it has proven more difficult to restore fall-run chinook populations in the San Joaquin basin than on the Sacramento basin. Attachment 3 compares salmon populations for principal San Joaquin basin streams to the 1967-1991 baseline.

Environmental Defense believes State Board flow objectives on the San Joaquin River should be met. Further, the period during which additional San Joaquin River flow is provided to assist outmigrating fall-run salmon should be extended. With improved outflows and increased opportunities to reduce the effects of the Delta export pumps, it should be possible to reach restoration objectives on San Joaquin River tributaries.

Summary

The State Board has broad responsibility and authority to protect fisheries that live in or depend on San Francisco Bay/Sacramento-San Joaquin Delta Estuary. Given the alarming decline of pelagic species and the lack of progress in restoring salmon, especially in the San Joaquin basin, the State Board must take timely decisive action. Simply reissuing the 1995 Water Quality Control Plan is not sufficient.

Thanks you for the opportunity to provide these comments.

Spreck Rosekrans
Senior Analyst

* See letter from the Bay Institute to Chairman Baggett, Re: Bay-Delta Plan Periodic Review/Vernalis Flows, March 21, 2005.
Tam M. Doduc  
Chair, State Water Resources Control Board  
P.O. Box 100  
Sacramento, California 95812

Dear Mr. Doduc:

This letter provides comments from NOAA’s National Marine Fisheries Service (NMFS) concerning the draft amended 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (WQCP). NMFS was actively involved in the periodic review of the WQCP, providing 18 separate letters or sources of information (see draft Referenced Documents, Appendix 2 to the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, September 2006. State Water Resources Control Board) regarding topics related to Water Quality Objectives for Fish and Wildlife Beneficial Uses. For detailed information concerning NMFS authorities and jurisdiction related to the periodic review, we refer you to previous exhibits submitted by NMFS during the periodic review (NOAA-01, and 14).

Our general comments related to the draft amended WQCP follow:

- **Southern Distinct Population Segment of North American Green Sturgeon.** NMFS informed you of the proposed listing of the Southern Distinct Population Segment (DPS) of North American green sturgeon during the periodic review and in a submitted letter (NOAA-01). Since this time, NMFS listed the Southern DPS as threatened under the Endangered Species Act (71 FR 17757, April 7, 2006) and are currently in the process of developing take prohibitions. NMFS was prompted to list the species based on a severely reduced range (spawning populations now limited to the Sacramento River only), and the persistence of severe threats impacting the population. Key threats include the presence of impassible barriers such as Keswick and Shasta dams, migration barriers, insufficient instream flows, water diversions, and increased water temperatures. NMFS is available to provide the State Water Resources Control Board (Board) with additional information related to this species if necessary.

- **Salmon Doubling Narrative.** NMFS is available to provide the Board with updated status information related to Federally listed species under our jurisdiction. We also understand the Board’s desire to keep the salmon narrative protection objective consistent with the Federal Central Valley Project Improvement Act. The Federal natural production goals for anadromous fish (DOI-16C) specify production targets for all races of Chinook.
salmon, and for steelhead, American shad, white sturgeon, and green sturgeon. NMFS recommends including Federally listed green sturgeon and steelhead in the narrative objective. The draft Plan Amendment Report indicates the expansion of the objective to include steelhead trout (page 35) is not recommended due to lack of information regarding the population abundance, however, the existing salmon narrative is primarily qualitative, and relies on the Federal doubling effort to determine Chinook doubling. It would be appropriate to also rely on the Federal doubling effort to determine doubling goals of steelhead and sturgeon. In addition, the absence of population abundance information should be indicated and population sampling measures should be recommended in the WQCP, in a similar manner to required sampling for water quality.

February-April 14 and May 16-June San Joaquin River Flow and 31-day April 15-May 15 San Joaquin River Pulse Flow Objectives. In light of the decline of Chinook salmon and Central Valley steelhead in the San Joaquin basin (DFG-10, NOAA-17), and the additional scientific information indicating the positive relationship between Vernalis flow and adult escapement (DFG-09, DFG-10, NOAA-17), NMFS recommends including these two objectives on the emerging issues list. We believe the evidence relating flow to juvenile salmon survival and resultant escapement and production in the San Joaquin basin provides sufficient evidence warranting revisions to these objectives. We are apprised of California Department of Fish and Game’s recent modeling work regarding this topic.

We appreciate the opportunity to provide the Board with comments related to draft WQCP and look forward to future workshops and topics. If you have any questions regarding this correspondence or if NMFS can provide further assistance, please contact Mr. Jeff McLain in our Sacramento Area Office, 650 Capitol Mall, Suite 8-300, Sacramento, CA 95814. Mr. McLain may be reached by telephone at (916) 930-5648, or by Fax at (916) 930-3629.

Sincerely,

Michael E. Aceituno
Supervisor, Sacramento Area Office

cc: Copy to File - #151422SWR2004SA9238
NOAA Fisheries-PRD, Long Beach CA
Joe Dillon - Santa Rosa Area Office, CA
Bruce Herbold, EPA WTR-3, 75 Hawthorne Street, San Francisco, CA 94105
Carloyn Yale, EPA WTR-3, 75 Hawthorne Street, San Francisco, CA 94105
November 6, 2006

Via Electronic and U.S. Mail

Tam Doduc, Chair
Members of the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812
commentletters@waterboards.ca.gov

Subject: Comments Regarding 2006 November 13, 2006 Public Hearing to Consider Amended Bay-Delta WQCP

Dear Chair Doduc and Members of the Board:

Thank you for providing this opportunity to comment on the proposed amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta WQCP). The Northern California Water Association (NCWA)\(^1\) supports the State Water Resources Control Board’s (State Board) decision not to establish, through the Bay-Delta WQCP, “the quantities of water that any particular water right holder or group of water right holders may be required to release or forego to meet the objectives in this plan.” (Bay-Delta WQCP, p. 3; see also State Water Resources Control Board Cases (2006) 136 Cal.App.4th 674.) Further, the State Board appropriately determined that, at this time, there is no need to initiate a water rights

\(^1\) NCWA represents seventy water suppliers and individual landowners that rely upon the waters of the Sacramento, Feather, and Yuba rivers, smaller tributaries, and groundwater to irrigate more than 900,000 acres of farmland in the Sacramento Valley. Many of our members also provide water supplies to state and federal wildlife refuges, and much of this land serves as important seasonal wetlands for migrating wildlife, shorebirds and other wildlife. Membership also includes local governments and the business leadership in the region.
proceeding to implement the Bay-Delta water quality objectives, particularly in light of all the other activities being undertaken throughout the Central Valley.

NCWA members have played an active role in the activities undertaken to improve water quality and habitat conditions in the upstream tributaries of the Bay-Delta. These efforts have significantly contributed to the high numbers of fish, waterfowl and shorebirds that are now returning to the Sacramento Valley.

More specifically, NCWA was a signatory to the Sacramento Valley Water Management Agreement and, working closely with its members, has been a leader in the numerous efforts to improve fish passage and related habitat. The winter flooding of rice fields and the improvement of other managed wetlands has also created significant habitat for migrating waterfowl and other birds. As the Board knows, the Sacramento Valley Water Management Agreement led to your Order WR 2001-05 dismissing the Phase 8 Bay-Delta water rights proceedings.

Additionally, the Sacramento Valley Water Quality Coalition ("Coalition") was formed in 2003 to enhance and improve water quality in the Sacramento River. The Coalition’s Regional Plan for Action ("Plan") (See http://www.svwqc.org/pdf/swvqc.pdf) was submitted to and accepted by the Regional Board to meet the newly adopted water quality requirements associated with discharges from irrigated lands. The Plan and an executed Memorandum of Agreement (MOA) serve as a road map for the Coalition to work with ten subwatershed groups to undertake an aggressive water quality monitoring and reporting program throughout the region. In areas where water quality exceedances are detected, the Coalition and subwatersheds either have management plans or a management practices action plan to address the constituents of concern. The Coalition also has signed a memorandum of agreement with the California Rice Commission to coordinate the respective programs in the Sacramento River Basin and is pursuing partnerships with municipalities and urban areas in the region that are developing stormwater management plans.

To build on these programs, NCWA is working with water right holders, counties, cities, and conservation organizations to further develop and refine an Integrated Regional Water Management Plan (IRWMP) for the Sacramento Valley.
(See http://www.norcalwater.org/int_program/irwmp.shtml.) Through the IRWMP, water users have committed to identify water management strategies to enhance and improve water supplies and the ecosystem in this region. This integrated management program centers upon the sustained, long-term commitment to water quality and ecosystem improvements throughout the Sacramento Valley. These efforts are intended to further federal restoration goals (Central Valley Project Improvement Act, § 3405(b), Pub. L. 102-575) and the State Board narrative salmon doubling standard contained in table 3 of the Bay-Delta WQCP.
NCWA respectfully suggests that the State Board should recognize the above-described activities within the context of the Bay-Delta WQCP. NCWA supports similar efforts on the San Joaquin River, such as those described in the Bay-Delta WQCP, but urges the State Board to ensure that implementation of the Bay-Delta water quality objectives shall not result in any increased flow objectives for the Sacramento River and its tributaries or any increased allocation of responsibility among water right holders in the Sacramento Valley.²

In closing, NCWA supports the State Board’s decision not to change the water quality objectives within the Bay-Delta WQCP for the Sacramento River and its tributaries. NCWA also encourages the State Board to pursue its efforts to find alternative solutions for the Bay-Delta water quality issues. (See e.g., Bay-Delta WQCP, p. 36 [“[i]solated and through-Delta water conveyance and storage facilities in the Delta. . . . The State Water Board will conduct these planning activities in conjunction with the Delta Vision Process to develop a sustainable use and protection plan for the Delta, Suisun Bay, and Suisun Marsh”].)

Thank you for your consideration of these comments.

Sincerely yours,

David J. Guy
Executive Director

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² NCWA agrees that, though the United States Environmental Protection Agency (US EPA) has authority to approve of the Bay Delta WQCP and objectives, US EPA does not have authority to adopt flow standards. As stated within the Bay Delta WQCP, the federal promulgation of standards affecting water supply and distribution in the Central Valley would “fundamentally interfere with the State’s water allocation authority under section 101(g) of the Clean Water Act.” (WQCP, p. 4.)
BEFORE THE STATE WATER RESOURCES CONTROL BOARD

CONSIDERATION OF AMENDED WATER QUALITY CONTROL PLAN FOR THE BAY-DELTA

SOUTH DELTA WATER AGENCY AND CENTRAL DELTA WATER AGENCY
COMMENTS TO DRAFT WATER QUALITY CONTROL PLAN SEPTEMBER 2006

The South Delta Water Agency ("SDWA") and CENTRAL DELTA WATER AGENCY ("CDWA") submit the following comments to the Draft Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ("Draft Plan").

The Draft Plan is the result of a review process begun in December of 2003 to determine if there is any basis for changing the 1995 Water Quality Control Plan. Certainly many things have transpired since the adoption of the 1995 Plan; however, the relevant questions pertain to whether there is any basis for changing the objectives previously set to protect identified beneficial uses.

As in the past, SDWA’s concerns and comments relate to those objectives which affect South Delta agriculture; specifically the salinity objectives and the export limitations under the fish and wildlife objectives.

SALINITY OBJECTIVES

Appendix 1 to the Draft Plan gives a comprehensive overview of the various parties’
evidence and recommendations with regard to the Southern Delta salinity objectives. In addition, it provides an accurate analysis of the evidence and testimony submitted, resulting in a recommendation to not make any changes to those objectives. The SDWA fully supports the Staff's recommendations.

As discussed in SDWA No. 9, page 15, et seq., the development of the current salinity standards took many years. Literally thousands of man-hours were expended and almost every interested party contributed to the effort. Existing studies and new studies were reviewed, and the Board determined what was necessary to protect the agricultural beneficial uses in the Southern Delta. Once developed (first in 1978) and later adopted, no party objected to these standards or litigated their appropriateness.

After numerous false starts, the 1995 Plan sought to immediately implement the Vernalis and Brandt Bridge objectives, and have the Middle River at Old River and Tracy Blvd. Bridge at Old River standards implemented no later than December 31, 1997. Again, no party objected to or litigated these standards or time lines.

D-1641 implemented the Vernalis Standard, but the other three were delayed until April of 2005. Again, no party objected to or litigated either the standards or the time frame for implementation.

Once 2005 approached, we suddenly heard a hoist of objections. Those objections included: The objectives were not really enforceable against DWR and the Bureau; Salinity needs more study; 0.7 EC was not needed; 1.0 EC or higher was sufficient; Reservoirs would have to be drained to meet the objectives; It was too big a burden to meet these objectives. However, in trying to support these objections, the parties failed to provide any real evidence.

DWR presented a report by Mr. John Letey which purported to show that 1.0 EC was protective and thus 0.7 not needed. This evidence/testimony was subject to cross-examination at the Cease and Desist Order hearing. In that cross-examination, we heard:

Q. By Mr. Nomellini: Mr. Letey, based on your testimony, am I correct you are not offering any testimony with regard to the impact of salinity in the water on agricultural operations in the Delta?
A. My testimony is generic, not specific to any location. (October 25, 2005 transcript, 167:11-17.)

Why could Mr. Letey’s “study” not be relied upon to support change to the Southern Delta standards? The explanations were given by SDWA’s expert witness at the CDO Mr. Terry Prichard who clarified three errors of Mr. Letey. (See CDO transcript, November 21, 2005, 4:6-11; 5:2-12; 22:20-21; and 23:2-11.) First, Mr. Letey assumed a soil permeability associated with a sandy soil whereas the South Delta has over 70 soil types including significant areas of very low permeability. Second, Mr. Letey wrongly assumed different root zones will take in water at different rates. It was clarified that pervious data and studies contradict this new assumption by Mr. Letey.

Third, Mr. Letey looked at three possible rainfall scenarios in order to estimate the effect of rainfall on soil leaching without considering the other and numerous variables associated with actual effective rainfall. Again, Mr. Prichard clarified why Mr. Letey’s approach did not yield information relative to the situation in the South Delta.

Importantly, no party offered any evidence, testimony, or cross-examination to contradict Mr. Prichard’s analysis or refute his factual assertions.

The other evidence submitted to support changing the South Delta salinity standards was submitted by San Joaquin River Group Authority (“SJRGA”), and it was quite voluminous. Tellingly, this evidence was also listed for submittal in the CDO hearing but when the time came, SJRGA chose to not submit it or provide its authors for cross-examination. Notwithstanding this, SDWA addressed the SJRGA’s incorrect assumptions and concerns through its Exhibits 4, 5, 6, 7, 8, and 9A. Page 68 of Appendix 1 of the Draft Plan is Staff’s brief summary of how SDWA pointed out why some of the SJRGA evidence was not supportive of changes to the Southern Delta Salinity objectives. It is important to note that no witness and no evidence was submitted to address the specifics of the situation which exists in the South Delta. That situation

1 The documents for the CDO hearing are found at http://www.waterrights.ca.gov/Hearings/usbr_exhibits.html. SDWA submitted all of its document in that proceeding as evidence in this review process.

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is that with the numerous soil types, many of which have extremely low permeability, it is not possible to adequately leach the salts out of the soil profile unless water with a quality of 0.7 EC is available. Again, none of the contrary evidence submitted addressed this low permeability issue as it relates to the ability to remove salts from the soils.

SDWA also put on other evidence supporting the current objectives. This evidence included such things as how farming practices limit leaching opportunities (SDWA 7) and the ongoing damage to crops which each year adversely impacts Delta farmers (CDO Testimony of Bill Salmon designed SDWA-3 therein). In addition, SDWA put on extensive evidence at the CDO showing the significant monetary impacts to San Joaquin County and the Delta resulting from changes in the objectives (CDO Testimony of Sean Snaith, PhD, designated SDWA-6 therein). None of this was refuted.

Hence, we are left with only one conclusion at this time, the conclusion Staff reached which is, “[T]he State Water Board does not have adequate evidence on which to base substantive changes to the Southern Delta EC (salinity) objectives for the protection of agricultural beneficial uses at this time.” (See Appendix 1, page 70.)

SDWA also supports staff’s clarification set forth on page 9 of the draft Plan. That clarification notes that although we have three distinct compliance locations in the Southern Delta, the 0.7/1.0 EC standard applies generally throughout the area. Though helpful, it should go without saying that good water quality is needed throughout the South Delta, not just at certain points.

**EXPORT LIMITS**

Table 3 of the Draft Plan sets forth certain water quality objectives for fish and wildlife beneficial uses, and includes “export limits” as one of the measures necessary for protecting those beneficial uses.

Footnote 18 of that Table sets a limit on exports during the April 15 - May 15 pulse flow period. That pulse flow is to assist out migrating smolts in their journey to the ocean and is intended to assist them in moving past the effects of the export pumps. Footnote 18's limits on exports during this period are 1,500 CFS or 100 percent of the San Joaquin River flow at
Vernalis.

First with regard to this, SDWA submits that the purpose of the pulse flow is frustrated if
the export projects can export all of the Vernalis pulse flow. That is to say, if all of the flow can
be exported, there is no pulse to move the smolts past the export pumps.

Second, the footnote also provides that variations in the maximum export rate are
authorized and that this “flexibility is intended to result in no net water supply cost annually
within the limits of the water quality and operational requirements of this plan.”

An “intent” to protect net exports may or may not be desirable, but it has nothing to do
with protecting fish and wildlife beneficial uses. Not being able to export at times when fisheries
can be harmed protects fish, but being allowed additional exports at other times does not address
the protection of fisheries. Similarly, the current Biological Opinion for Delta smelt limits
exports at this time anyway. SDWA is aware of nothing in the Record which suggests that
allowing additional exports during a time when a Biological Opinion precludes them would
somehow protect fish and wildlife beneficial uses. There is no reason to allow exports in excess
of what current regulations specify as the upper limits of what is necessary to protect those
fisheries.

The subject footnote should set a limitation on exports which allows for the specific pulse
flows of the plan to provide their benefits by transporting out migrating smolts past the pumps
and the “no net loss” provision should be removed.

OTHER

As previously provided, SDWA believes that the 0.7 EC standard should be expanded to
include other months. We hope that the upcoming workshops beginning in January will examine
this issue as well as the other issues specifically described.

Also as previously stated, SDWA believes that the protection of agricultural beneficial
uses requires minimum flows into the Delta and minimum water levels. The flows are necessary
for numerous reasons, such as having sufficient flow for the temporary and permanent barriers to
operate and perform efficiently and to provide necessary water levels in those areas no longer
affected by the Delta tides.
Levels are necessary to allow senior water right holders and parties protected by the Delta Protection and Area of Origin Acts the ability to exercise their rights. Without such minimum levels, portions of the Delta may have only a small flow of good quality but insufficient for agricultural or other uses. For example, at the times when Middle River goes dry in most years, that channel provides not only no water for local agricultural diverters, but also no protection for fish and wildlife beneficial uses. We hope the Board will promptly address these issues.

Dated: November 6, 2006

JOHN HERRICK, Attorney for SOUTH DELTA WATER AGENCY and CENTRAL DELTA WATER AGENCY
November 8, 2006

Ms. Tam M. Doduc, Chair
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Subject: Department of Fish and Game’s Comments on the State Water Resources Control Board’s Draft Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary.

The Department of Fish and Game has reviewed the 2006 Draft Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Draft 2006 WQCP) and appendices issued by the State Water Resources Control Board (the State Board). In addition, we reviewed Attachment 1 of your transmittal notice identifying three emerging issues which your staff believes warrant further investigation, consultation, and consideration. In accordance with our statutory authority and trustee responsibilities to protect California’s fishery resources, we are providing comments on the Draft Plan, its recommendations, portions of the appended supporting information, and proposed future process. Our recommendations are divided into two areas: San Joaquin River flow objectives and the need to conduct a future workshop on emerging San Joaquin River issues; and, comments on specific sections of the Draft 2006 WQCP.

I. Recommendations Regarding San Joaquin River – Vernalis flow Objectives in the Spring Months

During your 2005 workshops, DFG presented written and oral evidence concerning the status and trends of Chinook salmon populations within the San Joaquin Basin (DFG exhibits 07, 08, 09, 10). We noted, and the Draft Plan acknowledges, that salmon populations in the basin are below State and Federal “population doubling objectives” and, rather than increasing, are in fact declining. Further, the “equivalent fishery protection” standard, assumed to be achieved by the VAMP Agreement and the State Water Board’s adoption, remains unsatisfied. In your workshop, we and others presented substantial science-based evidence that these tributary salmon population long-term declines are directly related to magnitude, frequency, and duration of flow in the San Joaquin River during the spring. We also presented preliminary modeling of the salmon escapement based on spring Vernalis flow conditions. We concluded modification of the objective during the spring months, both in seasonal duration and in magnitude, is needed in order to: (i) remedy the salmon decline, and (ii) gather additional scientific information, particularly at the upper range of flow. We submitted for your record a San Joaquin River Chinook Salmon Population Escapement Model (Model) (DFG 08), and at the Board’s request, appeared again to clarify the relationships between flow and salmon.
escapement and explain the scientific basis for the flow-salmon escapement Model (DFG 10). We also asked for the Board's assistance in obtaining the range of VAMP study flows and durations necessary to obtain the data required to calibrate our population Model at the higher flow ranges.

We acknowledge that the Model presented at the Periodic Review workshops had not yet been subjected to scientific peer review. And while the Department is confident in the scientific validity of the Model and the conclusions we have drawn from it, we recognize the value of peer review. Therefore, we took two steps. First, we held a technical briefing on October 14, 2005 and provided the Model to the San Joaquin River Group and others. Then, we submitted the Model to a formal "blind" peer review process, facilitated through California Bay Delta Authority. We recently received the outcome of that review and are in the process of determining how to modify the Model, as appropriate, based on reviewers' feedback. We expect to complete these improvements and have a revised version of the Model and associated documentation available by mid-summer, 2007.

We believe that there are several evolving circumstances related to spring flow objectives for the San Joaquin River that the State Water Board will want to consider in the near term. The State Water Board has used the term "emerging issues" to describe three other topic areas (Pelagic Organism Decline (POD), Climate Change, Central Valley Salinity) for which it intends to regularly solicit information and take further actions as appropriate, including potentially amending the Bay-Delta Water Quality Control Plan. Workshops are scheduled or are planned in 2007. Because new information will be available, and the water management context on the San Joaquin River is changing, we strongly recommend that the State Water Board identify San Joaquin River flows, and related beneficial uses, as a fourth "emerging issue". By doing so, the State Water Board can provide a forum where new information on the following interrelated topics may be presented and the implications for the Bay-Delta Water Quality Control Plan can be discussed and considered publicly by the State Water Board, its staff, and others:

- **DFG's peer reviewed salmon escapement/flow model**
  By the late summer 2007, DFG will be prepared to present this model at a workshop and share our view of its implications for the needs of San Joaquin basin salmon.

- **VAMP status**
  The original intent of VAMP was to first evaluate conditions at the extremes of the experimental design. Yet, with only five years remaining, no salmon survival evaluations have been conducted at the upper range of the original design's flows (7,000 cfs) with a barrier at the head of Old River. Instead, salmon survival has
been evaluated at the low end of the flow range (3,200 cfs) for three years, and at 4,450 cfs and 5,700 cfs in one year each. The last two years were extremely wet and spring flows were greater than 10,000 cfs. Unless several evaluations are completed at 7,000 cfs and at each of the two export pumping rates, it seems certain that the VAMP study results will be inconclusive and, with over 40 million dollars spent, the VAMP will have failed to produce the information VAMP participants and the State Water Board sought to obtain.

- **San Joaquin basin salmon smolt survival without a barrier at the head of Old River**
  The Head of Old River barrier is intended to help improve out-migrating juvenile salmon survival. However, adverse effects on delta smelt due to hydrodynamic conditions in south Delta channels may at times preclude spring operation of this barrier. In the absence of the barrier, more spring Vernalis flow will be necessary to achieve the same level of smolt survival protection as the with-barrier condition.

- **Relevance of San Joaquin River inflows for Delta habitat and species**
  New information from the ongoing investigation into the causes of the Pelagic Organism Decline (POD) suggests several hypotheses linking flow from the San Joaquin River to critical environmental conditions and processes affecting biological productivity and fish survival in the Delta/Estuary.

- **Federal Court Settlement Agreement in NRDC v. Rodgers**
  Implementation of the settlement will cause changes in the lower San Joaquin River and Delta. The presence of other anadromous fish species, (e.g., spring-run Chinook salmon) as well as new water management actions within the basin will need to be integrated into the spring flow planning and the VAMP study program in order to avoid confounding effects on experimental outcomes. Water released from Friant Dam will have to be incorporated into studies of Delta operations and assessment of effects on anadromous fishes targeted for restoration and the species included in the ongoing POD investigations.

We could welcome an opportunity to work with your staff and others collaboratively on emerging San Joaquin River issues including the development and use of the salmon escapement Model and other tools to aid the State Water Board in better understanding the need for, and impacts associated with, changes in the Vernalis water quality and flow objectives.
II. Comments Regarding Specific Sections of the Draft 2006 WQCP Program of Implementation

The Department respectfully submits comments on the following portions of the Program of Implementation found in Chapter IV of the Draft 2006 WQCP.

With regard to Section B., "Measures Requiring a Combination of State Water Board Authorities and Actions by Other Agencies," the Department fully supports the State Water Board's following proposed action:

5. Suisun Marsh: Narrative and Numeric objectives (Page 33)

In particular, we fully support the State Water Board using the results of the final PEIS/EIR and the resulting Suisun Marsh Plan currently being prepared by the Suisun Marsh Charter Group to determine whether and how to convert the narrative objective to a numeric objective for the Brackish Tidal Marshes and to determine the objectives at stations S-97 and S-35.

With regard to the measures listed under Section C, "Actions Recommended to Other Agencies," we concur that actions both within and outside the Estuary are needed on the part of the State Water Board and other agencies in order to recover anadromous fish populations to levels which meet the doubling objective and provide equivalent protection, pursuant to the VAMP agreement. In addition, we are providing the following specific comments, which correspond by number to actions listed under Section C. We consider these recommendations to pertain to programs or actions with a special relationship to the Department's mission, authorities, and expertise:

1. Review, and modify if necessary, existing commercial and sport fishing regulations (Page 34)

The regulations referred to in this recommendation are reviewed and modified on a regular basis by the entities with jurisdiction. We note that dramatic declines in anadromous fish populations have typically occurred following construction of dams and new water diversions and from habitat degradation related to water quality and other environmental stressors. We note that when specific salmon stocks have been heavily impacted by habitat stressors and their abundance dropped to very low levels, fishery managers have tightened harvest regulations to assist with recovery. Examples include changes in the fishing regulations in the 1990s to reduce the inland and ocean harvest of winter-run Chinook initially and later spring-run Chinook salmon. These regulations remain in place today. Most recently in spring 2006, additional regulation changes were promulgated in
response to depressed abundance of Klamath River salmon stocks caused by inriver habitat problems.

All of these stocks occur together in the ocean and all should experience some reduction in fishing mortality from the stricter regulations. Yet salmon returns to the San Joaquin River tributaries have not increased in recent years, despite these increasing restrictions on ocean harvest put in place to help threatened or endangered salmon stocks from other watersheds. Our analyses indicate this is because adult salmon escapement to the San Joaquin tributaries is being driven primarily by low juvenile salmon production resulting from inadequate magnitude, duration and frequency of spring flow and poor survival of outmigrating juvenile salmon.

The Department shares the responsibility with other agencies to manage fisheries in a responsible manner. We believe that this obligation is being carried out satisfactorily. We discourage the State Water Board from adopting a view progressively diminishing salmon fishing opportunities is the key to restoration where the real problem is degradation of aquatic habitat for spawning, rearing and migration that needs to be addressed through regulation of water quality and water use, among other factors.

4. Improve hatchery programs for species of concern (Page 35)

There is a significant body of literature on both sides of the debate over hatchery programs. Much of the literature critical of hatcheries pre-dates the institution of hatchery Genetics Management Plans presently required by the NOAA National Marine Fisheries Service (NMFS) for all anadromous hatchery facilities. These plans incorporate state-of-the-art knowledge and technology to minimize or eliminate effects of hatchery operation on native stock genetics.

From annualized salmon escapement data, it appears that hatchery production is a viable method to maintain individual tributary populations through drought conditions, even in the face of increased water diversions during the dry years. As such, the Department views hatcheries, when they are properly sited and their operations properly managed and regulated, as one important tool for fishery management and restoration.
7. Develop an experimental study program on the effects of pulse flows on fish eggs and larvae in the Delta (Page 36)

Free floating life stages (eggs for some fish species, newly hatched larvae of even more) move with the water and thus are completely vulnerable to the hydrodynamic effects of water management. These effects have been studied using Delta hydrodynamic/particle tracking models. Lower trophic level organisms (phytoplankton, zooplankton) may be similarly affected. Flow patterns also may influence the migration of swimming life stages, however, behavioral preferences come increasingly into play. Sampling eggs and small larvae in the field is challenging and detecting changes in their distribution over time with reasonable levels of effort is problematic. Models may represent our best method for increasing our understanding of how flow pulses may be useful for improving fish survival.

9. Suisun Marsh soil and channel water salinity objectives (Page 37)

The Department believes that the recommendation for a water and soil salinity study has been completed. A comprehensive review of Suisun Marsh monitoring data, including soil salinity, was completed in 2001 by DWR with support from the Suisun Resource Conservation District and technical review by the Department, University of California at Davis, and NMFS. Correlations between channel water salinity and soil salinity were difficult to determine due to the high variability in field conditions and obstacles to collecting samples in a consistent manner. The conclusion was that soil specific conductance (SC) did not appear to be directly tied to the monthly channel water SC values, but the SC of channel water during fall flood-up of the managed wetlands often did influence the soil SC through the rest of the year. Other factors, such as water management, have a more direct and immediate effect on soil SC.

10. San Joaquin River Spring Flow Objectives (Page 38)

This recommendation appears to put the burden of changing the Vernalis objective upon the State and Federal fish agencies by requesting that these agencies, in combination with interested parties, compile information and conduct studies to determine what changes should be made to protect SJR salmon and steelhead as well as POD organisms. In particular, the agencies are asked to conduct analyses to evaluate if it is appropriate to revise the methodologies used to determine when higher spring flow objectives should apply (to better reflect hydrological conditions in the SJR basin) and to determine the water costs of
various flow proposals. We agree we have a key role to play in this process. However, we also believe the State Water Board has ultimate responsibility for ensuring that the water quality objectives for fish and wildlife beneficial uses include sufficient San Joaquin River spring flows.

The Department has presented information that demonstrates the existing spring pulse flow objectives at Vernalis to protect SJR salmon and steelhead are inadequate. We provided to the State Water Board a preliminary spring pulse flow schedule intended to help address the adverse effects of water operations and to protect SJR salmon and steelhead. As stated above, we are now requesting the State Water Board include this as an “emerging issue” and schedule a public workshop focused on the San Joaquin River in order to hear new information, evaluate the science, and determine whether or not to revise the proposed spring Vernalis flow objectives. This approach would enable the VAMP study to be amended to include a revised Vernalis spring flow schedule that allows for i) substantively improved out-migration conditions for juvenile SJR salmon and steelhead; and ii) additional information to be collected regarding the influence of spring pulse flow magnitude, and duration, in combination with Delta exports levels, on juvenile salmon survival.


This recommendation urges DWR to establish procedures enabling installation of the Head of Old River barrier at flows in excess of 5,000 cfs during the pulse flow period. Presently, flow must be less than 5,000 cfs to safely construct the barrier, although once constructed it can function at higher flow. This flow-related barrier construction constraint has not been a factor so far, however it makes it less likely that the 7,000 cfs VAMP experiments will be accomplished with the barrier in place because a relatively specific and uncommon scenario must occur. Because the 7,000 cfs tests are critical to completing the VAMP program we concur with the intent of this recommendation. However, we must point out that installing/operating southern Delta barriers in the spring is becoming more complicated due to their effect on southern Delta hydrodynamics and adverse impacts on delta smelt. This circumstance raises the question of how suitable out-migration conditions will be provided for salmon when considerations for other species preclude having a barrier at the head of Old River.

In closing we would like to highlight our interrelated roles: the State Water Board has statutory responsibility to protect Delta Estuary water quality for all beneficial uses, including fish and wildlife, and we have specific statutory responsibility for the fish and wildlife public trust resources that rely on adequate water quality and other features of the
Delta and San Joaquin River Basin for their survival. As such, we view our role as one of assisting the State Water Board in obtaining the information needed to make effective and scientifically based resource management decisions. We look forward to working with you and your staff on developing the best available information on which to base water quality objectives and other critical resource decisions.

We appreciate this opportunity to provide comments on the Draft 2006 WQCP. If you have any questions, please contact Jim White, Water Branch, Resource Management and Policy Division, 1416 Ninth Street, Sacramento, CA 95814. Mr. White can be reached by phone at (916) 653-3540.

Sincerely,

L. RYAN BRODDRICK
Director

cc: Bill Loudermilk - Fresno
    Chuck Armor - Stockton
    Tina Cannon - Legal
Memorandum

Date: November 9, 2006

To: Song Her, Clerk to the Board
State Water Resources Control Board
Post Office Box 100
Sacramento, California 95812

Via electronic mail to: commentletters@waterboards.ca.gov

From: Office of the Chief Counsel
Department of Water Resources

Subject: Comments on Draft Amended Bay-Delta Water Quality Control Plan

The Department of Water Resources submits the attached comments on the State
Water Resources Control Board Draft Amended Bay-Delta Plan for the San Francisco
Bay/Sacramento-San Joaquin Delta Estuary.

As requested in the Hearing Notice, DWR also will be submitting 15 paper copies and
an original copy with signature and will bring additional copies to the SWRCB hearing
on November 13, 2006.

Please contact me at (916) 653-5613 if you have any questions.

Cathy Crothers
Staff Counsel

DWR 9045 (Rev. 4/02)
I. INTRODUCTION

The State Water Resources Control Board (SWRCB) has prepared a 2006 Draft Water Quality Control Plan (Draft WQCP) to establish water quality control measures that can be implemented in part or in whole by assigning responsibility to water right holders and water users to mitigate for the effects on the beneficial uses of their diversions and use of water.\(^1\) This Draft WQCP is the result of a three-year review process consisting of many workshops and comments by water right holders and interested parties.\(^2\)

The Department of Water Resources appreciates the considerable time and effort of the SWRCB and staff in conducting this periodic review and revision of the 1995 Bay-Delta WQCP. DWR notes that the SWRCB recognizes in the Draft WQCP the complexity of the Delta issues and that not all issues will be resolved nor objectives updated at this time, even after the dedicated efforts of many over the last three years. DWR supports the SWRCB plans to conduct future workshops on these issues, such as the January 2007 workshop on the southern Delta agricultural salinity objective.

Process Used to Periodically Review the WQCP

Consistent with the upcoming process on the southern Delta salinity objectives, DWR recommends that the SWRCB modify its past practice of noticing a periodic update of the entire WQCP and instead notice specific objectives for review and

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\(^1\) The SWRCB has described this as the purpose of a water quality control plan, which consists of beneficial uses that are reasonably protected by water quality objectives and implemented through a program of actions by the SWRCB and other entities, public or private. (See Draft WQCP, p. 3; Water Code Section 13240 et seq.)

\(^2\) In December 2003, the SWRCB first noticed the commencement of a periodic review of the 1995 Bay-Delta Water Quality Control Plan (1995 WQCP). In 2004, the Board held workshops to obtain comments on issues that should be considered in a revision to the 1995 WQCP. On November 30, 2004, the Board adopted the SWRCB Staff Report on Periodic Review of the 1995 WQCP. Based on the Staff Report, the Board commenced workshops, occurring from October 2004 to July 2005, to obtain information on potential changes to some of the objectives in the 1995 WQCP. With the SWRCB September 29, 2006 notice, the Draft 2006 WQCP became available for review and comment.
update. After each narrow review, the SWRCB could amend the WQCP in areas related to only that review, as appropriate. The result of each review would update the WQCP, which SWRCB could submit to the U.S. Environmental Protection Agency as required by the Clean Water Act.

This approach is different from what is suggested in the Draft WQCP that proposes to address the many unresolved issues in the next periodic review of the WQCP. For example, the SWRCB suggests in the Draft Plan to review the Suisun Marsh objectives in a subsequent periodic review after obtaining a report from the Suisun Marsh Charter Group. Instead of waiting for the next periodic review of the entire WQCP, the SWRCB could notice a review on only the Suisun Marsh objectives which could result in a revision to that portion of the WQCP related to the Suisun Marsh.

DWR believes that the SWRCB traditional periodic review process is highly complex with the potentially affected parties having to address multiple issues which requires several years. In this last review, despite the days of workshops attended by many parties, the SWRCB staff found that it did not obtain sufficient facts to support changes to objectives, such as changes to the chloride objectives for M&I beneficial uses. A possible reason for the apparent limited data and unsupportable revisions of the WQCP may be due to having too many issues to address during a process that covered the entire WQCP. Therefore, DWR suggests that a more effective and meaningful review of the Bay-Delta WQCP would be to narrow the focus of each review to a specific objective or separable set of objectives. The review would require potentially affected parties to provide comments and information on possible changes to that portion of the WQCP related to the existing objective, including whether the WQCP provides the most recent description of beneficial uses to be protected and feasible methods of implementing the objective. With a more concentrated effort, the parties and the SWRCB could use their time and resources to have the appropriate in-depth study and analysis of the issues that the SWRCB can use in considering possible changes. DWR proposes this modification in the WQCP periodic review process to improve the timeliness of SWRCB decision-making on critical issues in the Delta.

Draft 2006 WQCP and Draft Plan Amendment Report

DWR reviewed the Draft WQCP and Draft Plan Amendment Report (Draft Report) and agrees with many of the suggestions for changes in the WQCP. Below are DWR’s general and specific comments on the noticed topics, identified by the WQCP objective or topic heading used during the workshops.

In general, DWR understands that many of the changes to the Program of Implementation (POI) have been made to improve readability and consistency with recent changes in water rights from the Decision 1641 hearing. However, DWR finds that the focus in the POI Section A, describing measures for
implementing objectives over which the SWRCB has direct authority is written too narrowly and has the appearance of a water rights decision rather than a water quality plan for implementing objectives. The content of Section A is generally accurate but the descriptions of implementation should be broader so that the plan may form a basis for considering methods of implementation in future water right hearings. Specific examples of language are provided below to demonstrate how the POI could contemplate future actions and proceedings and avoid the need to update the plan before specific implementation measures are adopted. In addition, DWR suggests changes to the POI to clarify language that may suggest the SWRCB has prematurely determined implementation measures where evidence is not available to support such measures.

Finally, DWR recommends changes in the WQCP to recognize the importance of flexibility in implementing protective objectives. During the last several years, resource management agencies and water project agencies have improved real time monitoring of the Delta ecosystem. This monitoring allows fishery and project agencies to propose alternative operations based on actual conditions, resulting in better protection of fishery resources. Flexibility in implementing Delta objectives should be included as a potential measure by the SWRCB in the POI to better protect Delta beneficial uses.

II. COMMENTS ON DRAFT 2006 WQCP AND DRAFT REPORT

A. OBJECTIVES FOR MUNICIPAL AND INDUSTRIAL USES

1. Chloride Objectives For M&I

General Comments

The Draft 2006 WQCP makes no changes to the water quality objectives for Municipal and Industrial (M&I) beneficial uses found on Table 1. DWR agrees with not changing these objectives at this time. However, DWR recommends that the SWRCB consider holding future workshops to review and possibly update requirements for implementing these objectives after additional monitoring data is collected from Rock Slough and vicinity.

DWR’s specific comments on the status of issues raised during the January 2005 workshops and proposed changes to Appendix 1 of the Draft 2006 WQCP are provided below and identified by the topic listed at the workshop.

Specific Comments

a. Description of 150 mg/l Chloride Objective at Rock Slough

The SWRCB has decided to not change the method for calculating compliance with the 150 mg/L chloride objective at Rock Slough from a calendar year basis.
to a water year basis in the draft 2006 Plan. DWR believes that both methods have merit. Use of the water year would remove the uncertainty associated with compliance in the fall, which could result in more efficient water management decisions made the previous spring and summer. On the other hand, the fall salinity conditions are probably more connected with the hydrologic conditions in the preceding nine months (as is the case in 2006) than being a driver for conditions for the following nine months. Although DWR feels a change in methodology should be considered in future reviews, it does not feel there is a strong argument to recommend any change at this time.

b. Chloride Objectives Compliance Location - Pumping Plant Number 1

During the January 10, 2005 workshop discussing whether the compliance location for the M&I Chloride objective should be modified, DWR and USBR presented evidence that water quality degradation occurred in Rock Slough and the Contra Costa Water District (CCWD) Canal due to agricultural drainage and ground water seepage. These impacts to water quality are not caused by the SWP or CVP, and DWR and USBR cannot reasonably control water quality at Pumping Plant #1 (PP#1) under low-flow conditions in Rock Slough. DWR, USBR, and CCWD presented proposals on an alternative approach to complying with the Chloride objectives, based on the pumping rate at CCWD PP#1 and on the Electrical Conductivity in Old River at Holland Tract. CCWD did not agree with the values proposed by DWR and USBR, so the agencies did not present a final proposal to the SWRCB.

Since 2005, CCWD, with DWR and the CALFED Program, have implemented source control projects in and near Rock Slough that have reduced the drainage into the Slough. Also, CCWD has begun the first phase of its canal replacement project which will eliminate a main source of salinity in the western part of the system. Future monitoring of the Rock Slough and vicinity should help determine the effect of the drainage control projects on achieving the objectives at PP#1. 3 Because these projects are changing conditions in Rock Slough, it is premature at this time to determine the most reasonable method of implementing the objective at PP#1. Therefore DWR requests that SWRCB revisit this objective to include a different compliance location or method of implementation in a future update of the WQCP, after additional monitoring data is obtained.

Although DWR agrees with the SWRCB conclusion to not make changes to the M&I objectives at PP#1 at this time, DWR does recommend changes to the Draft Plan Amendment Report (Appendix 1) to clarify the process on future changes to the WQCP. DWR believes that the SWRCB should assign responsibility for

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3 DWR recently installed a new monitoring station at the mouth of Indian Slough to track the "new Veal Tract" drainage and to monitor that a reverse flow would not effect the salinity within Rock Slough. By this spring, DWR should have data to show the effects of the Veal Tract drainage relocation on the Rock Slough. CCWD is monitoring effects of the lining of the Contra Costa Canal. DWR and CCWD are coordinating the collection of monitoring data in the area.
implementing water quality objectives based on a water user's effect on the beneficial uses from their diversion and use of water. The SWRCB should not assign full responsibility to implement an objective to a party where other intervening users cause degradation and interfere with obtaining an objective as this can result in an unreasonable use of water. DWR recommends that the SWRCB include options of identifying other users who impact water quality and propose methods through which these other users can help implement the objectives. The discussion in the Draft Appendix 1 regarding chloride objective compliance location discusses the role of DWR and USBR under their water rights but does not discuss potential means to better implement objectives through other agencies.

DWR recommends revising the language in Append. 1, at page 39, as follows:

In a water right proceeding, the State Water Board considers the responsibilities of all water right holders who divert water from the watershed when determining responsibility for implementing an objective. cannot partially relieve the Projects of responsibility for implementing the objective without either having changed the objective in a water quality control plan amendment or ensuring that another responsible party will meet the objective. (See Wat. Code, § 13247; State Water Resources Control Board Cases (2006) 136 Cal.App.4th 674, 725-735.) The Board has not identified no other potentially responsible water right holders, entity has been identified that should be required to meet the objective at PP#1. Further, the State Water Board has not received adequate documentation, including documentation that would form the basis for an environmental analysis, to justify revising the water quality control plan by moving the objective to Holland Tract during certain periods. Accordingly, if the Projects wish to seek a change in their water right obligations without amending the objective, they must file a petition to change their water right permits and also provide a basis for assigning some responsibility for the objective to another entity—for the otherwise-unmet part of the responsibility. Alternatively, the Projects or other parties could provide adequate documentation to support modifying the water quality control plan and request that to allow the State Water Board to amend the objective or the program of implementation by identifying to specify a different compliance point during certain periods or recommending actions by other agencies to implement the objective.

2. New Water Quality Objectives For M&I

The SWRCB has decided to not amend the M&I objectives for other constituents such as bromide and Total Organic Carbon (TOC) at this time. DWR supports the SWRCB decision not to amend the objectives.
B. WATER QUALITY OBJECTIVES FOR AGRICULTURAL USES

1. Southern Delta Water Quality Objectives

General Comments

A substantial amount of information regarding the numerous factors contributing to southern Delta Salinity, the limited impact of State Water Project (SWP) operations and the narrow range of options currently available to assist in meeting the objectives, particularly in dry and critical years, has been provided to the SWRCB during previous water rights proceedings. These include the review of the 1995 Bay-Delta Water Quality Control Plan, the D-1641 water rights hearings and the recent hearings related to the Cease and Desist Order WRO 2006-006 (CDO). DWR and USBR have proposed constructing permanent operable gates in the south Delta, in lieu of the existing rock barrier program, to provide improvements in water management related to water levels and circulation patterns. This improved water management would assist in meeting the southern Delta salinity objectives. However, the Permanent Operable Gates alone will not be sufficient to meet the objectives in all year types, particularly at the Brandt Bridge compliance location (C-6). The SWRCB recognizes this in D-1641, stating "The construction of the permanent barriers alone is not expected to result in attainment of the water quality objectives." (D1641, p.88). DWR submitted information in the recent hearings on the CDO demonstrating the limited impact of SWP export operations on southern Delta salinity (DWR Exhibit 20-20C). Releases from the SWP reservoir upstream of the Delta, Lake Oroville, and reductions in exports were shown to be unreliable ways to control south Delta salinity. Salinity at south Delta stations is primarily dependent on salinity in the San Joaquin River and local Delta discharges. In the January 2007, at the SWRCB workshops on the southern Delta objectives, DWR intends to present the above information to assist in developing a scope of work for studies needed on the objectives.

The southern Delta salinity objectives in the Draft 2006 WQCP contain no provision for staged implementation or relaxation of the objectives in dryer year types. There is no recognition of the limited capability to meet 0.7 EC or reasonableness of requiring substantial releases during dry and critical years in an attempt to meet the objective. The salinity objectives for the Western and Interior Delta vary by year type and provide for a relaxation in drier year types. The southern Delta salinity objectives should also contain a provision to allow a relaxation to 1.0 EC, the objective in place prior to April 1, 2005, during dry and critical years similar to the flexibility contained in the objectives for the Suisun Marsh and the Interior Delta. Alternatively, a provision should include staged implementation of the standard pending completion of the permanent operable gates, the study of southern Delta salinity requirements, and the completion of water rights hearings to equitably allocate responsibility for implementing the objectives. Even with the gates, additional releases would be required in dry and
critical year types to meet the 0.7 EC objective when available storage is often very limited. In D-1641, the SWRCB considered this an unreasonable use of water (D-1641 p.10).

D-1641 contains a provision that replaces the 0.7 EC objective with 1.0 EC at the three southern Delta compliance locations when the Permanent Operable Gates are in place. The draft 2006 WQCP is not consistent with this provision of D-1641. The writ of mandate issued in the Central Delta Case (Central Delta Water Agency v SWRCB, Case No. 311502, July 5, 2006) requires that the SWRCB commence proceedings either to assign responsibility for meeting the southern Delta salinity objective of 0.7 EC or to amend the water quality control plan. The SWRCB has the opportunity in these proceedings to modify the POI in the draft 2006 WQCP to include language that is consistent with that contained in D-1641, and allow the flexibility to incorporate any recommendations resulting from the proposed study of southern Delta salinity requirements. The SWRCB should modify the POI, at this time to either provide for a phased implementation of the objective or at a minimum include a discussion of the 2007 workshops and intent to continue review of the objective and reasonable implementation measures.

Specific Comments

a. Program of Implementation, Southern Delta Agricultural Salinity Objectives

i. Measures Within SWRCB Authority

The SWRCB workshops in January 2007 will provide an opportunity to evaluate and develop appropriate measures to protect southern delta agricultural beneficial uses. In anticipation of the upcoming review, the southern Delta objectives are not revised in the Draft 2006 WQCP. DWR believes, however, that changes in the POI describing implementation by measures within the SWRCB authority should be revised. In this section, the SWRCB discusses implementation of objectives through conditions on licenses and permits of water right holder. DWR believes that the revisions in the POI mischaracterize the implementation of the southern Delta objectives required by DWR under the water rights conditions in D-1641. This description states that implementation of the southern Delta objectives is by DWR and USBR. However, it also states that the implementation requires actions taken by other agencies. The subsequent section then describes many actions taken that help implement the objective. In order to clarify that other measures besides water rights are helping to implement the southern Delta objective, DWR recommends revising the statement on page 25 of the draft WQCP regarding DWR and USBR water rights as follows:

"The DWR and the USBR currently have conditions are responsible under their water right permits and licenses that define their responsibilities for implementation of the Southern Delta objectives to protect agricultural beneficial uses."
ii. Measures Requiring a Combination of SWRCB Authorities and Actions by Others

DWR recommends changing the POI to recognize phased implementation of the southern delta salinity objectives. The SWRCB could change the POI to include a phased implementation of the southern delta objectives, similar to the phasing proposed for implementing the San Joaquin River fish flow objective through the VAMP and San Joaquin River Agreement. The POI could recognize implementation of the agricultural objectives in an initial phase that requires achieving 1.0 EC at the southern Delta compliance locations. The second phase of implementation would be to achieve the 0.7 EC through actions by the SWRCB, Regional Water Quality Control Board, and other entities to reduce discharges and local drainage that degrades the water quality in the southern Delta. The POI describes programs, as part of the actions taken by other agencies that could implement this second phase (see draft WQCP POI, p. 26-31). The POI should describe as a possible approach to implementing the southern Delta objectives a phased implementation so that any future water right decisions or water quality discharge permits could be made consistent with the Draft 2006 WQCP.

DWR agrees with the discussion in the POI that elevated salinity in the southern Delta is caused by many factors. DWR disagrees, however, with the statement that one of these factors is "salts imported in irrigation water by the State and federal water projects." (Draft WQCP, POI, p. 26). DWR interprets this phrase as describing salinity that comes from irrigation return water from agriculture in the Central Valley. If this interpretation is correct, the SWP should not be included as a source of the irrigation water since an insignificant amount of the water that SWP exports drains into the south Delta or the San Joaquin River.

DWR recommends revising this sentence because pumping SWP water by DWR under its water right permits does not contribute any measurable quantities of salt to the San Joaquin River system. A broader statement that more generally describes the basis for salinity conditions in the southern delta is recommended as more appropriate to a planning document where specific data on sources of salinity has not been identified. Therefore, DWR recommends the first sentence of this section, page 26, be changed as follows (as well as a similar sentence in the last paragraph of Appendix 1, page 62):

"Elevated salinity in the southern Delta is caused by low flows; salts imported to the San Joaquin Basin in irrigation water by upstream water users, the State and federal water projects, municipal discharges, subsurface accretions from groundwater; tidal actions; diversions of water by the SWP, CVP, and local water users; channel capacity; and discharges from land-derived salts, primarily from agricultural drainage."
iii. State Regulatory Actions (p. 27)

In the POI, DWR and the USBR are the only parties identified as responsible for implementing the South Delta salinity objectives. The subsection i., on page 27 under "State Regulatory Actions," states that the SWRCB could require releases from other non-SWP/CVP reservoirs. The SWRCB has been provided information demonstrating that DWR has only a minor influence on southern Delta salinity. The POI should contain a commitment by the SWRCB to commission a study of the relative contributions of various parties to southern Delta salinity degradation and to open a water rights hearing to allocate responsibility through measures that can reasonably meet southern Delta salinity by those contributing to the degradation. The POI should be proposing a plan that clarifies that the SWRCB will implement the objectives through mitigation from other entities who cause increased salinity in the southern Delta. As currently written, the POI only identifies responsibility for mitigation from the SWP and CVP, despite the SWRCB’s recognition in D-1641 that the USBR and DWR only have partial responsibility for the objective.

DWR supports the SWRCB recommendation in subsection ii., that “The CVRWQCB shall impose discharge controls on In-Delta Discharges of salts by agricultural, domestic, and municipal dischargers.” (POI subsection ii, p. 27.)

DWR recommends that this action can be broadened to include the regulatory actions described in subsection iii. Irrigators within the Delta should implement water management measures as means of controlling salinity within the Delta Channels. In addition, in-Delta dischargers governed by NPDES permits should be required to comply with the 0.7 EC objective. Any relaxation for municipal discharges contributes to in-Delta degradation and could contribute to an exceedance of the objectives requiring the Projects to take additional steps to mitigate those impacts of other parties. The SWRCB should include language in the POI that provides for reallocation of responsibility for meeting the objective following completion of the workshops on South Delta Salinity discussed under Recommended Studies (page 30) to more equitably reflect the other parties that are contributing to salinity problems in the South Delta.

iv. Current Projects and Actions by Other Agencies (p.28)

The last sentence of the first paragraph on page 28 states that the listed projects could make additional regulatory measures by the SWRCB and Regional Water Board unnecessary. The possible benefits to water quality from implementation of the various listed projects and actions may result in improvements in San Joaquin River water quality. To achieve such benefits downstream of Vernalis, the SWRCB should consider mechanisms that will assure that the benefits reach the southern delta. Regardless of effectiveness of listed actions, the SWRCB should initiate water rights proceedings following completion of the salinity
workshops and studies to equitably allocate responsibility for complying with objectives to those contributing to salinity problems. DWR should not be considered to have the full responsibility for the southern delta objective when it has a minor contribution, if any, to degradation and which primarily results from the activities on the San Joaquin River.

Subsection ii., West Side Regional Drainage Plan: The first sentence of the last paragraph is inaccurate in suggesting that all the parties implementing the West Side Drainage Plan are responsible for compliance of a water right objective at Vernalis. The sentence should be revised as follows: "When fully implemented, the parties implementing the plan expect to assure achievement of the compliance with salinity objectives at Vernalis and reduce the frequency of exceedences of objectives at Brandt Bridge by 71 percent over a 73-year hydrology."

Subsection vi., South Delta Improvements Program: Change "barriers" to gates. Any other mention of the permanent "barriers" in the WQCP and appendices should have this change made as well.

Subsection v., San Joaquin River Real-time Water Quality Management Program: Many local, State and Federal agencies have made significant investments in establishing real time monitoring stations to collect flow, salinity, and other data at many key locations within the lower San Joaquin River and its tributaries, and have prepared models that forecast salinity conditions at key stations. DWR recommends that the SWRCB encourage and promote the use of the data to support compliance with established water quality objectives.

vi. Recommended Projects, Studies, and Actions (p.30)

Subsection ii., pages 29-30, of the POI notes the need for an independent scientific investigation of irrigation salinity needs in the southern Delta. The SWRCB noticed a January 2007 workshop regarding the Southern Delta Salinity Objectives. The stated purpose of the workshop is to receive information and conduct discussions on the salinity objectives to determine if there is sufficient justification to develop and manage a study of the salinity requirements for the southern Delta. The POI should note the scheduled workshop and commit to conducting a study of the issues related to southern Delta salinity objectives. The SWRCB currently has sufficient information in its files to support the need for the additional study. As early as January 1982, in the final report of the committee formed to evaluate irrigation water quality requirements for the South Delta, the authors stated that the parties could not decide on an adequate water quality standard in the South Delta and that a more extensive study should be commissioned. (Hoffman, Prichard, Meyer)(SDWA Exhibit 08) Information presented at the upcoming workshop can assist in focusing the proposed study.
An effort should be undertaken to locate, identify, and characterize each diversion and discharge point in the Southern Delta. A plan for monitoring the major discharges should be developed. This could be an element of the salinity study needs noted in subsection ii.

b. Draft Plan Amendment Report, Appendix 1, Southern Delta Electrical Conductivity Objectives for the Protection of Agricultural Beneficial Uses (Section III.C.10.)

The discussion of southern Delta salinity in the Draft Plan Amendment Report, Appendix 1 (Append. 1), attributes elevated salinity in the southern Delta to a number of sources including salts imported by the SWP and diversions by the SWP (Append. 1, p. 62). Some parties point out that the SWP is allowed to convey water for the federal CVP under Joint Point of Diversion (JPOD), and that these CVP agricultural water uses in the Central Valley cause drainage flows into the San Joaquin River. The discussion in this section should be clarified to note that the contribution to southern Delta salinity as a result of return flows from water diverted at the Banks Pumping Plant (SWP facility) are a result of pumping by the USBR utilizing JPOD operations authorized under D-1641 rather than DWR pumping SWP water under its water rights permits (D-1641, 10.2.1.1, 10.2.1.2). Therefore, SWP contractors do not contribute any measurable quantities of salt to the San Joaquin River system. In addition, impacts to southern Delta salinity due to SWP diversions are very limited as was demonstrated in DWR’s exhibits presented at the hearings on the Cease and Desist Order, WRO 2006-006 (DWR 20-20C). To avoid misstating the sources of water quality degradation in the southern Delta channels and to recognize that pumping SWP water by DWR under its water rights permits does not contribute any measurable quantities of salt to the San Joaquin River system, DWR recommends changing this description as follows:

“Elevated salinity in the southern Delta is caused by low flows, salts imported to the San Joaquin Basin in irrigation water by upstream water users the State and federal water projects; municipal discharges; subsurface accretions from groundwater; tidal actions; diversions of water by the SWP, CVP, and local water users; channel capacity; and discharges from land-derived salts, primarily from agricultural drainage.” (Id.)

Another listed factor of elevated salinity in the southern Delta is “discharges of land-derived salts, primarily from agricultural drainage.” (Append. 1, p. 62). It should be recognized that there are discharges to the San Joaquin River downstream of Vernalis and upstream of Old River that result in degradation to water quality of about eight percent (8%) between Vernalis and Brandt Bridge, that make it impossible to meet the objective at Brandt Bridge if Vernalis water quality is near the objectives (Delta Salinity Draft CDO and WORP Hearing, DWR Exhibit DWR-20). Consequently, the factor should be revised to insert
“local” in this sentence, as follows: “local discharges of land-derived salts, primarily from agricultural drainage.”

In the discussion section regarding southern Delta objectives, “the Central Valley Regional Water Board stated that none of the evidence presented during the workshop adequately refutes the State Water Board’s previous findings that an EC of 0.7 is protective of all crops on all soil types in the southern Delta.” (Append. 1, p. 69.) The CVRWB’s statement was purportedly in response to the argument by various witnesses that higher levels of irrigation water salinity can be tolerated if additional water is applied to increase the leaching fraction. The issue is whether 1.0 EC is protective of all crops on all soil types in the southern Delta, not if the more stringent 0.7 EC is protective. Those parties who recommend that a 1.0 EC objective would be sufficiently protective of crops would not dispute the notion that 0.7 EC is protective of all crops on all soil types in the southern Delta. They would assert, however, that 0.7 EC is overly protective of south Delta crops.

The SWRCB states that “the scientific analyses of irrigation crop salinity needs presented by various parties cannot be correlated to conditions in the southern Delta without further field studies to verify such results.” (Appendix 1, p. 69.) DWR strongly agrees that there needs to be a study of south Delta salinity, and feels that the SWRCB should lead this effort. There is additional information needed regarding both the sources of the salinity and the appropriateness of the objectives for the protection of agriculture. DWR suggests the following elements be included in a work plan for any south Delta salinity study:

1) Install additional electrical conductivity gaging stations to identify sources of salinity along the San Joaquin River, particularly between Vernalis and Brandt Bridge;

2) Perform irrigation studies specific to the south Delta area (using south Delta soils and crops), to determine the leaching fraction and maximum EC for the most salt-sensitive stages of crops regularly grown in the south Delta.

The SWRCB invites DWR and USBR to pursue a petition to change their water right obligations or petition to add other responsible parties to share in the burden of meeting the objectives, if warranted (Append. 1, p. 70). If the Draft 2006 WQCP implementation program provides a broad basis to allow implementation by others during a water rights hearing, then the SWRCB could use the information from the first element listed above to determine how the burden of implementation should reasonably be shared. For example, if data shows identifiable sources of degradation between Vernalis and Brandt Bridge, then the SWRCB could use these facts to determine appropriate responsibility for mitigating the degradation through either a water rights hearing petitioned by
DWR and USBR, or waste discharge requirements issued by the Regional Water Board.

As an option, rather than petition for changes in the objective, DWR believes that the SWRCB could, in this draft WQCP or in a future revision of the WQCP after the 2007 workshop, provide for a staged implementation of the south Delta salinity objectives, similar to the staged implementation of the spring-time pulse flows on the San Joaquin River Flows at Vernalis (VAMP flows). (See POI, p. 61.) As part of the staged implementation, the SWRCB could recognize that DWR and USBR have met their share of responsibility of the objective by achieving 1.0 EC. Others, through additional actions such as reducing salt loads into the southern delta channels, could provide other stages of implementation by reducing south Delta salinity lower than 1.0 EC.

One such additional action could be for the Central Valley Regional Water Quality Control Board (CVRWQCB) to extend the Total Maximum Daily Load (TMDL) requirement for San Joaquin River dischargers downstream of Vernalis at least to Brandt Bridge. The CVRWQCB might even need to consider incorporating a TMDL for Old and Middle Rivers.

Another possible action would be installing drain tiles in south Delta agricultural areas that suffer from poor drainage. SDWA has cited root aeration problems caused by soaking for high leach as justification for lowering the EC objective. Drain tiles have the potential to solve the root soaking problem and reduce the salt build-up on south Delta lands.

The SWRCB discusses the limitations of the operational gates and the assignment of responsibility for meeting the objectives to DWR and the USBR in D-1641 (Append. 1, p. 70 (first paragraph)). The description of DWR responsibility under its water rights condition in D-1641 is missing an important element of the condition and as a result mischaracterizes the scope of the SWP responsibility for the southern Delta salinity objectives. The SWRCB recognized in D-1641 the limited role of the SWP in southern Delta salinity degradation and the limited options available to it for improving salinity. As a result, a special term was included in the condition implementing the southern Delta salinity objectives when the objective is exceeded. If an exceedence occurs, DWR must provide a report to the SWRCB demonstrating that the exceedence was beyond the control of DWR and the SWRCB then considers this information to determine if enforcement is appropriate (D1641, p159, condition 6). To better represent the water right permit condition implementing the southern Delta objectives, DWR recommends changing this description as follows:

"The State Water Board considered these issues when it issued D-1641 and placed water right responsibility on DWR and USBR for meeting southern Delta EC objectives by including a special enforcement process"
that recognizes that at times achieving the objective may be beyond their control and, as such, enforcement may not be warranted."

i. Cease and Desist Order

The inclusion of a discussion of the Cease and Desist order adopted February 15, 2005 should be deleted. It is not an appropriate element of the POI for the Water Quality Control Plan and should not be a part of the SWRCB’s planning document.

C. WATER QUALITY OBJECTIVES FOR FISH AND WILDLIFE USES

1. Suisun Marsh

General Comments

Table 3 of the Draft 2006 WQCP contains salinity objectives, measured in Electrical Conductivity (EC), for protection of beneficial uses for fish and wildlife in the Eastern and Western Suisun Marsh. It also includes a narrative objective for protection of the Brackish Tidal Marshes of Suisun Bay. For the reasons given below, DWR recommends changes in the POI to more accurately reflect current status of the programs being implemented by DWR, USBR, DFG, and the Suisun Resources Conservation District (SRCD) for protection of beneficial uses in the Suisun Marsh. In addition, DWR recommends deleting the references to the Van Sickle and Chippis Islands water supply intakes from Table 3 and Table 7 because these references are inaccurate and unnecessary.

In 2003, when the SWRCB commenced the periodic review and workshops for revising the Bay-Delta Water Quality Control plan, the parties to the Suisun Marsh Preservation Agreement (SMPA) had not yet signed the proposed amendments to the SMPA. On June 20, 2005 the Revised SMPA and accompanying Mitigation and Monitoring agreements were executed by the DWR, USBR, DFG, and SRCD. These agreements were revised, in part, to address changes resulting from the 1995 SWRCB WQCP and to implement actions that would provide equivalent or better protection than channel water salinity standards at Suisun Marsh stations S-35 (Morrow Island) and S-97 (Ibis). During the hearings on Decision 1641, the SWRCB received evidence on the proposed SMPA amendments and concluded that these revisions would provide equivalent protection. The revisions included establishing a Water Manager Program, Portable Pumps Program, Drought Response Program, funding to improve Roaring River Distribution System Turnouts, and converting S-35 and S-97 from compliance stations to monitoring stations.

DWR notes that existing objectives, such as the Net Delta Outflow Index, in the 1995 WQCP provide ancillary benefits for Suisun Marsh and were, in part, one
reason for changes incorporated in the Revised Suisun Marsh Preservation Agreement. Therefore, any proposed changes to those objectives should consider the potential effects on Suisun Marsh.

Specific Comments

a. Changes to the POI Regarding Salinity Objectives at S-97 and S-35

In the SWRCB September 2004 Staff Report on the Periodic Review of the 1995 WQCP, the staff recommended not changing Table 3 salinity objectives at S-97 and S-35 during the periodic review because the CALFED Suisun Marsh Charter Group evaluation would not be completed in time for the workshops. (See the 2004 Staff Report Issue # 8 for summary and comments on the western marsh salinity objectives at S97 and S-35, p. 40-42.)

DWR agrees with the SWRCB staff recommendation to not change the S-97 and S-35 western marsh salinity objectives in Table 3 for the reasons given in the Staff Report. However, DWR does object to changes in the POI that suggests that DWR and USBR will be required to meet the existing objectives at S-97 and S-35 if new salinity objectives are not determined by January 1, 2015. DWR believes that the substantial evidence received by the SWRCB during the D-1641 hearings and provided in the 2001 Comprehensive Review of Suisun Marsh Monitoring Data indicate that, under the Revised SMPA, DWR and USBR have mitigated impacts of the SWP and CVP operations on the managed wetlands and that meeting those objectives with outflow would constitute an unreasonable use of water. In 2005, the Revised SMPA was signed and SRCD began implementing actions funded by DWR and USBR that will provide equivalent protection to the western marsh managed wetlands. For the reasons discussed below, it is inappropriate in the POI to assign future responsibility for these numeric objectives to DWR and USBR.

i. Decision 1641

In D-1641, the SWRCB found that substantial evidence in the record showed that the proposed amended SMPA would provide protection equivalent to the numeric objectives for the managed wetlands. (D-1641, p. 54.) During the hearings on D-1641, USFWS expressed concern, however, that the numeric salinity objectives may not protect the full range of biological resources in the Marsh.⁴ USFWS was concerned that implementing the western marsh objectives may freshen the Marsh more than is appropriate for certain species of a brackish marsh. USFWS and the parties of the SMPA recommended that the two western compliance

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⁴ During the 1998 hearing for Decision 1641 (D-1641), DWR, DFG, USBR, and Suisun Resources Conservation District (SRCD) presented information to the SWRCB regarding their agreement on solutions to mitigate impacts of the SWP and CVP operations on the managed wetlands in the Suisun Marsh. These solutions are being implemented through the Revised Suisun Marsh Preservation Agreement, signed in June 2005 (Revised SMPA).
stations S35 and S97 not be implemented. (Id. P. 54.) The Board concluded that "implementation of the objectives at these stations using fresh water would require an unreasonable amount of water and might freshen the western part of the Marsh more than is appropriate for certain species that required a brackish marsh." (Id. p.54-55.) The SWRCB deleted the requirement that DWR and USBR implement S-35 and S-97 and instead required that they maintain the locations as monitoring stations. Id. The SWRCB recommended that these objectives be evaluated during future reviews of the Bay-Delta water quality control plan. DWR recommends changes to the Draft 2006 WQCP POI that delete DWR and USBR responsibility for these objectives so the WQCP will be consistent with D-1641.

ii. Comprehensive Review of SM Monitoring Data

In 2001, DWR with support from the SRCD, and technical review by the DFG, University of California at Davis, and National Marine Fisheries Service, completed the “Comprehensive Review of Suisun Marsh Monitoring Data, 1985-1995” (March 2001). A conclusion from the review was that soil water specific conductance (SC) did not appear to be directly tied to the monthly channel water SC values, but the SC of channel water during fall flood-up of the managed wetlands often did influence the soil water SC throughout the year. Other factors, such as water management, have a more direct and immediate effect on soil water SC. The report is available for review on the internet at: http://iep.water.ca.gov/suisun/dataReports/reports/ComprehensiveReview.pdf

iii. Suisun Marsh Charter Group

In the 1995 WQCP, the SWRCB recommended the establishment of a Suisun Ecological Workgroup (SEW) to evaluate beneficial uses and water quality objectives in the Suisun Bay and Marsh and identify specific measures to implement the narrative objective for the tidal brackish marsh. In 2001, SEW prepared its report to the SWRCB that made various conclusions but no common recommendation for numeric objectives. In 2001, as part of the CALFED Bay Delta Program, a Suisun Marsh Charter Group was established to develop and agree on a long-term plan for the Marsh and tidal wetlands. The SM Charter Group is preparing a Habitat Management, Preservation, and Restoration Plan for Suisun Marsh (Suisun Marsh Plan). The final Suisun Marsh Plan will include recommendations for water quality objectives for salinity and other parameters for Suisun Marsh, as needed. Although current numeric salinity standards include some variation for drought conditions from December through May, the current narrative and numeric standards may need to be revised for the protecting the biodiversity of aquatic and wetland habitat while balancing the salinity requirements of managed wetlands and the SWP and CVP operations. The DFG, the CEQA lead agency, recently executed a contract for preparing the Programmatic Environmental Impact Statement/Report for the Suisun Marsh Plan. The Plan and associated environmental documents will be available for the
SWRCB to use during a subsequent review of the Bay-Delta WQCP and any determination regarding appropriate objectives and method of implementation. Until the SWRCB reviews the Suisun Marsh Plan, it is premature to assign in the POI responsibility to a specific entity, such as DWR or USBR, to implement objectives that are tentative at this time.

In summary, the actions being funded by DWR and USBR under the Revised SMPA, the SWRCB conclusions made in D-1641, and the future recommendations of the SM Charter Group to be considered in the next periodic review, support DWR's recommendation to delete from the POI a requirement that DWR and USBR implement S-97 and S-35 in 2015. DWR proposes changing two sections in the Draft 2006 WQCP POI as follows:

1) At Page 25, Chapter IV, Section A.6.ii, revise as follows:

   ii. Fish and Wildlife in Suisun Marsh: The DWR and the USBR currently are responsible implement as a condition under their water right permits and licenses to meet the numeric salinity objectives for Suisun Marsh at stations C-2, S-64, S-49, S-21, and S-42 (Figure 5). Due to evidence showing that using fresh water would require an unreasonable amount of water that might freshen the western part of the Suisun Marsh more than is appropriate for certain species, a potential for the objectives at stations S-97 and S-35 to cause harm to the beneficial uses they are intended to protect the State Water Board in Decision 1641 (D-1641) did not require that DWR and USBR attainment of the objectives at stations S-97 and S-35 in these two stations. Implementation of the salinity objectives at these two stations is discussed in section B.5.

2) At Page 33, Chapter IV, Section B.5, revise as follows:

   **Numeric Objectives for Suisun Marsh**

   State Water Board staff will use the results of the final PEIS/EIR and the resulting Suisun Marsh Plan currently being prepared by the Suisun Marsh Charter Group (SMCG) in its next periodic review. Information from the Suisun Marsh Plan will be used to evaluate and, to determine the appropriate salinity objectives at stations S-97 and S-35, if needed, and possible numeric objectives for the brackish tidal marshes of Suisun Bay. The objectives at S-97 and S-35 may be amended and/or implemented in stages, as appropriate, and shall be implemented no sooner than either January 1, 2015, or an earlier date, after if a further review of this plan determines that the objectives at S-97 and S-35 are needed, y should be implemented, or amends the objectives. If new salinity objectives at stations S-97 and S-35 are not determined by January 1, 2015, the DWR and USBR will be required to meet the existing objectives. Other measures to control Suisun Marsh soil and channel water salinities are discussed in section C9.
b. Changes to Table 3 and Table 7.

i. Delete References to Van Sickle Island and Chipps Island Water Supply Intakes

Table 3 of the Draft WQCP includes two locations for measuring the Western Suisun Marsh salinity objectives at the water supply intakes for waterfowl management on Van Sickle Island and Chipps Islands. These locations are in the Eastern Marsh near the confluence with the Sacramento River, not the western marsh. As a result of the natural salinity gradient in the marsh, the salinity at these islands would be protected by other existing slough stations further west, downstream, and therefore monitoring is unnecessary on Van Sickle and Chipps Islands. These two stations are listed in Table 4 of the 1995 WQCP as baseline monitoring stations using a continuous recorder, however, no instrumentation was ever established at these locations. The locations are not a site under the Environmental Monitoring Program of the Interagency Ecological Program. These stations are not included in Table 3 of D-1641 (D-1641 p. 183). DWR believes the reference to these stations is not accurate, nor appropriate, and recommends that the SWRCB remove the references to monitoring stations at Van Sickle and Chipps Islands from the draft WQCP in Table 3 and Table 7 (Water Quality Compliance and Baseline Monitoring) to avoid further confusion regarding monitoring at these locations. This deletion would be consistent with D-1641.

ii. Variability in Achieving Objective during Full Gate Operation

The Board reviewed the salinity modeling evidence by DWR and USBR presented during the D-1641 hearing. The modeling showed that even with full operation of the Suisun Marsh Salinity Control Gate, under certain infrequent conditions, small exceedence of the numeric objectives could occur. The Board concluded that some variability in meeting the salinity objectives in the Marsh would be allowed. (Id. p. 55, 154, and 158.) The draft 2006 WQCP should be revised to be consistent with these findings and conclusions made during the D-1641 hearings. DWR recommends adding a new footnote to Table 3 to recognize some variability may occur during full SM Gate operations when meeting the Marsh salinity objectives. Such a footnote could be attached to the values associated with Eastern and Western Suisun Marsh and could state the following:

"Under certain infrequent conditions, small exceedence of the numeric objectives may occur when the Suisun Marsh Salinity Control Gates are operating to the maximum extent. If any numeric salinity objectives in the Eastern or Western Suisun Marsh are exceeded at a time when the Suisun Marsh Salinity Control Gates are operating to the maximum extent, then permittee implementing the objective should submit a detailed..."
operations report to the SWCB Executive Director with a certification that
the gates were operated to the maximum extent possible."

c. Other Changes to POI to Update Information on Suisun Marsh Programs.

The Draft 2006 WQCP indicates, two of three recommendations under the POI
from the 1995 WQCP have been fulfilled; namely the formation of the SEW and
implementation of amended SMPA. The third recommendation for a water and
soil salinity study has also been completed with the report on the Comprehensive
Review of Suisun Marsh Monitoring Data, 1985-1995. DWR recommends
changes to the first paragraph of Section C.9 to provide this update, as follows:

At page 37, Chapter IV, Section C.9, revise as follows:

Suisun Marsh soil and channel water salinity objectives
In addition to the formation of the SEW discussed above, the 1995 Plan
recommended three measures to be implemented to control Suisun Marsh
soil and channel water salinities (1995 WQCP p. 40). The first two
measures, calling for continuation of the actions identified for
implementation in the Suisun Marsh Preservation Agreement (SMPA) has
been carried forward in the Revised Suisun Marsh Preservation
Agreement executed on June 25, 2005. Two additional actions that may
be incorporated in a later amended SMPA are being evaluated in the
Suisun Marsh Plan by the SM Charter Group. A second measure calling
for and conducting of a study to determine the relationship between
channel water salinity and soil water salinity under alternative
management practices, are being evaluated in the Suisun Marsh Plan was
completed in 2001 by DWR with the Comprehensive Review of Suisun
Marsh Monitoring Data, 1985-1995. The third action that requires that
DWR, USBR, DFG, and Suisun Resource Conservation District (SRCSD),
together with the property owners in Suisun Marsh, employ a watermaster
has been fulfilled through implementation of the Water Manager Program
under the Revised SMPA.

The Department supports the SWRCB's statement that it will use the results of
the Suisun Marsh Plan to convert the narrative objective for Brackish Tidal Marsh
in Suisun Marsh to a reasonable numeric objective, as appropriate. However,
Page 33, Section B.4 implies that the Suisun Marsh Charter Group (SMCG) was
initiated as a result of the Suisun Ecological Workgroup effort being unable to
recommend a single numeric objective to replace the narrative objective, which is
not accurate. The descriptions on page 44, Section E.4 and on page 72 of
Appendix 1 provide a more accurate description on the formation of the SMCG.

At page 33, Chapter IV, Section B.4, revise the first paragraph as follows:
Narrative Objective for Brackish Tidal Marshes of Suisun Bay

In the 1995 Plan, the State Water Board recommended that DWR convene a Suisun Marsh Ecological Work group (SEW) consisting of representatives from various State, federal and private agencies and other interested parties. The SEW was assigned eight tasks, one of which was to determine a numeric objective to replace the narrative objective for tidal brackish marshes of Suisun Bay. However, the SEW was unable to determine a single numeric objective for the tidal marshes. As a result the Suisun Marsh Charter Group (SMCG10) was formed to develop a plan to balance the competing needs in Suisun Marsh. In 2001, the SMCG was formed to resolve issues of amending the SMPA, obtain a Regional General Permit, implement the Suisun Marsh Levee Program, and recover endangered species. The SMCG principal agencies are USFWS, USBR, DFG, DWR, Suisun Resource Conservation District, and NOAA Fisheries. The SMCG is currently preparing a Programmatic Environmental Impact Statement/Environmental Impact Report (PEIS/EIR) for the Habitat Management, Preservation, and Restoration Plan for the Suisun Marsh (Suisun Marsh Plan). The proposed Suisun Marsh Plan would be consistent with the goals and objectives of the Resources Agency’s Bay-Delta Program, and would balance them with the SMPA, federal and State Endangered Species Acts and other management and restoration programs within the Suisun Marsh in a manner responsive to the concerns of all stakeholders and based upon voluntary participation of private landowners. In the preparation of the Suisun Marsh Plan, the principal Suisun Marsh agencies are evaluating Plan alternatives with a tidal wetland habitat restoration component ranging from 3,000 to 36,000 acres.

2. Delta Outflow

a. X2 Flexibility

The SWRCB made no changes to the Delta Outflow objective described by X2 in the 2006 Draft WQCP, noting that Water Operations Management Team (WOMT) recommended postponing the X2 flexibility proposal until the causes of the Pelagic Organism Decline (POD) are better understood. (Append 1, p. 44.) The SWRCB noted in the POI that study results of the POD may be used to determine whether flexibility should be made part of the Delta Outflow Objective. (Draft WQCP, p. 44.) DWR and the other WOMT agencies believe, however, that the update to the WQCP should acknowledge that, given the current status of pelagic organisms and ongoing management practices and authorities by both State and Federal agencies, it would be reasonable to find that there may be overlapping and competing needs to protect aquatic species. DWR, therefore, recommends that the SWRCB add to the WQCP POI that, under certain conditions, it would be appropriate for water right holders to request temporary
urgency changes to their water rights to address protection of aquatic species to permit flexible implementation of the Delta Outflow objective.

An example of this need is demonstrated in the objective governing the movement and location of the two part per thousand isohaline location (the X2 standard) during Spring and Summer months (February through June) and Fall months requirements for minimum Rio Vista flow (September through December).

It is fairly common for fishery agencies to establish upstream flow requirements on Delta tributaries. Significant fluctuations in upstream flows during spawning and migration periods for sensitive species, and maintenance of upstream minimum storage levels for cold water reserves are actions which may be recommended or mandated for fish protection, even though they may be at odds or in direct competition with water project operational requirements for X2 flows and Rio Vista flows. If in the future when situations arise where water resources face competing fishery needs, DWR and Reclamation would work with Federal and State fishery agencies and submit a flow alternative for SWRCB consideration under a temporary urgency petition (Water Code Section 1435). Prior to forwarding the proposal to the SWRCB, such an alternative would be considered and deemed appropriate by all of the WOMT agencies. If a flow alternative is submitted and approved by WOMT, DWR believes that the SWRCB should give due consideration to the urgency petition describing the alternative given relevant Bay-Delta hydrologic and fishery conditions at that time.

DWR recommends this proposed process be included in the Program of Implementation under Delta Outflow.

3. San Joaquin River Spring Pulse Flow (VAMP April 15-May 15)

DWR recommends that the SWRCB add a new footnote to Table 3 to recognize staged implementation of the spring pulse flows. A footnote 24 could be inserted after Footnote 15 on Table 3. The new footnote would describe the VAMP as a staged implementation of the San Joaquin River Flows at Airport Way Bridge, Vernalis, as follows:

"[24] Stage implementation of this objective under the VAMP replaces these flows with the flows shown in Table 5 of the Program of Implementation."

4. Export Limits

a. Export / Inflow Ratio Calculation

During the workshop on Export Limits, DWR provided information on revising Footnote 23 of Table 3 in the 1995 WQCP, now Footnote 19 of Table 3 in Draft WQCP, to clarify when to use a 14-day average and when to use a 3-day
average to calculate the Export/Inflow Ratio. The SWRCB decided not to make changes to the Footnote at this time, citing the lack of information until POD studies are completed in 2007. Although DWR believes that its arguments in favor of clarification are supportable, this issue may need additional discussion and can be deferred until a later WQCP review on this issue.

b. Delta Inflow Formula

The SWRCB received comments at the January 18, 2005 workshop on modifying the calculation of the Delta inflow formula to add a new term representing In-Delta storage releases. DWR recommends that the SWRCB review this formula in the future, when appropriate.

D. Environmental Monitoring Program

a. Changes to EMP

DWR staff reviewed the Draft WQCP Table 7 and compared it to D-1641 Table 5, which specifies the Environmental Monitoring Program (EMP) required in DWR and USBR water rights. The SWRCB did not add any new water quality objectives to the Draft Plan. The Program of Implementation, Section D (Monitoring and Special Studies Program) was modified to make changes to the Water Quality Compliance and Baseline Monitoring Program as shown in Table 7. Changes to Table 7 of the Draft Plan (which was Table 4 of the 1995 WQCP) include the addition of GIS coordinates for each location, addition and deletion of stations, and other changes proposed by DWR. During the workshops reviewing the 1995 WQCP, DWR recommended additional monitoring elements for a number of stations as part of the EMP (station S-42 is an example). These elements now appear in Table 7 of the 2006 draft plan. However, official approval from the SWRCB was never given for these additional elements, so DWR and USBR have not yet implemented the additional monitoring elements.

Additional information about the EMP, including the report on the EMP Review (2001-2002), may be obtained at the Interagency Ecological Program EMP website: http://www.iep.water.ca.gov/emp

b. WQCP Table 7, pages 41 and 42, Typographical Error

The Footnotes 4 and 5 are placed in the incorrect columns of Table 7. These Footnotes should be moved to the right one column.
The COUNTY OF SAN JOAQUIN ("County") submits its comments on the Draft Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ("Draft Plan").

The comments of the County of San Joaquin relate to issues of concern to the County as a whole in this proceeding, namely, the southern Delta salinity objectives and export limitations under the water quality objectives for fish and wildlife beneficial uses set forth in the 1995 Bay-Delta Plan.

SALINITY OBJECTIVES

1) Salinity Objectives for the Southern Delta Should Not be Changed. The southern Delta salinity objectives, originally set forth in the 1978 Delta Plan, were developed in order to protect southern Delta agricultural uses from the effects of elevated salinity. The objectives set an electrical conductivity value of 0.7 mmhos/cm electrical conductivity ("EC") for the three interior monitoring sites specifically Brandt Bridge on the San Joaquin River, Old River near Middle River, and Old River at Tracy Road Bridge, as well as Vernalis from April through August.

These objectives are the product of many years of extensive research, in which numerous studies were performed and in which a majority of interested parties were involved. The studies and research determined that a standard of 0.7 EC was needed because the wide variety of soil conditions
(more than 70 types) in the region have different permeability qualities and many require low salinity irrigation water to prevent crop damage from salt. The County feels strongly that any relaxation of the current standard of 0.7 EC would adversely affect agricultural practices and production in the southern Delta. Therefore, it is the County’s position that the current salinity objectives remain unchanged.

2) Salinity Objectives Should be Met By Using Water From Multiple Sources, and Not Overburden New Melones. The Draft Plan indicates that salinity objectives can be met by releasing dilution water from New Melones Reservoir (Draft Plan at p. 27). Releases from New Melones are currently used to meet salinity objectives at Vernalis. San Joaquin County fully supports meeting the current salinity standards for the southern Delta but San Joaquin County strongly objects to the current level, or any increased reliance on New Melones for dilution.

The reason for San Joaquin County’s objection to the use of water at the present level or an increased level for dilution is that the use of New Melones water for dilution results in a decrease in the amount of water the Bureau of Reclamation (“Bureau”) can furnish to the Central San Joaquin Water Conservation District and the Stockton East Water District under the contracts of those Districts with the Bureau. Much of Eastern San Joaquin County, including the City of Stockton, is located over a severely overdrafted groundwater basin which presently cannot be replenished because of a lack of water supply. The overdraft is critical and results in the movement of saline water from under the Delta into the basin. The inability of the Bureau of Reclamation to deliver water to its two customers Central San Joaquin Water Conservation District and Stockton East Water District directly exacerbates the groundwater overdraft in the eastern San Joaquin County ground water basin.

Therefore, it is the County’s position that salinity objectives should be met by utilizing numerous sources, and not relying on New Melones water to carry out this responsibility.

3) The Time Period Designated for Implementation of the Plan is Excessive.

According to the Draft Plan, full implementation of the Salinity Management Plan is expected to take between 40 and 50 years (Draft Plan at p. 6). It is the County’s position that the period for implementation is excessive in light of the research already conducted and work already performed.
in furtherance of this objective. An implementation schedule that meets a 10 to 20 year time period
is more appropriate.

4) There is No Need For Additional Research Regarding Salinity Needs in The Southern
Delta. The Draft Plan states “[T]here is a need for an updated independent scientific investigation of
irrigation salinity needs in the southern Delta.” (Draft Plan at p. 30). Extensive research
regarding water quality needs of significant crops grown in the south Delta has already been
performed, which supported the salinity objectives set forth in the 1978 Delta Plan (Plan Amendment
Report, Appendix 1 to the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-
San Joaquin Delta Estuary at p. 63). It is the County’s position that any additional research
regarding water quality needs of crops in the southern Delta area would be redundant, and cause
unnecessary expense and delay in implementing the Salinity Management Plan.

EXPORT LIMITS

1) Current Export Limits Should Remain Intact or Decrease. The current regulations specify
the upper limits for flows and exports that are necessary to protect fisheries. Higher flows and lower
exports provide greater protection for fisheries. It is the County’s position that exports should not
exceed the existing limits and should decrease.

OTHER

1) 0.7 EC Salinity Objective Period Should Be Expanded. The County supports expanding
the months which the 0.7 EC standard should be imposed. The standard is currently in place April
through August. The County is in favor of expanding the period from March 1 through September
30.

2) Minimum Flows Into the Delta and Minimum Water Levels Should Be Maintained To
Protect Agricultural Beneficial Uses. Minimum flows are necessary to maintain sufficient flow to
operate temporary and proposed permanent barriers, and to provide necessary water levels in areas
no longer subject to Delta tides.

Further, minimum water levels are necessary to protect agricultural diverters and fish and
wildlife in areas of the Delta, such as the Middle River. Portions of the Delta, including Middle
River, have extremely low flows or even go dry at certain times of the year. This precludes senior
water right holders and parties protected by the Delta Protection and Area of Origin Acts from exercising their water rights. The County supports the establishment of minimum flows and minimum water levels to protect these water rights, fish and wildlife and all other beneficial uses.

Dated: November 7, 2006

NEUMILLER & BEARDSLEE
A PROFESSIONAL CORPORATION

By: THOMAS J. SHEPHARD, SR.

Attorneys for County of San Joaquin
November 8, 2006

Via Electronic and U.S. Mail

Song Her, Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812
comments@waterboards.ca.gov

Re: Comments Regarding November 13, 2006 Public Hearing to Consider Amended Bay Delta WQCP

Dear Chairperson Doduc, Members of the Board, and Ms. Her:

As General Counsel for Glenn-Colusa Irrigation District (GCID), we have reviewed the proposed amendments to the Bay Delta Water Quality Control (WQCP) and the comments submitted to you from the Northern California Water Association (NCWA). GCID hereby joins in the NCWA comments.

Summarily, GCID generally supports the proposed Bay Delta WQCP because the proposed amendments: (1) do not change the water quality objectives within the Bay Delta WQCP for the Sacramento River and its tributaries; (2) do not establish specific quantities of water that any particular water right holder may be required to release or forego to meet the water quality objectives; (3) do not initiate a water rights proceeding to implement the Bay Delta water quality objectives; and (4) encourage efforts to find alternative solutions for Bay Delta water quality issues.

Thank you for your consideration of these comments.

Sincerely,

[Signature]

Stuart L. Somach
Attorney

cc: Thaddeus Bettner
Donald Bransford
David Guy
November 8, 2006

Song Her, Clerk to the Board
State Water Resources Control Board
1001 I Street
Sacramento, CA 95812

Re: State Water Contractors and Kern County Water Agency’s Comments on the Draft 2006 Water Quality Control Plan

Dear Ms. Her:

Enclosed is an original and 15 copies of State Water Contractors’ and Kern County Water Agency’s Comments on the Draft 2006 Water Quality Control Plan. Should you have any questions, please do not hesitate to contact Clifford W. Schulz at 321-4500.

Very truly yours,

[Signature]

Lorraine Lippolis
Secretary to Clifford W. Schulz

Enclosures
STATE WATER RESOURCES CONTROL BOARD –
PERIODIC REVIEW OF THE 1995 WATER QUALITY CONTROL PLAN FOR THE
SAN FRANCISCO BAY’S SACRAMENTO-SAN JOAQUIN DELTA ESTUARY

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COMMENTS BY THE KERN COUNTY WATER AGENCY AND THE STATE WATER
CONTRACTORS ON THE DRAFT 2006 WATER QUALITY CONTROL PLAN

Throughout the two-year process that preceded public distribution of the State Water Board’s September 2006 draft “Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary,” (“2006 Plan”) representatives of the State Water Contractors organization and individual State Water Project (“SWP”) contractors, including the Kern County Water Agency, presented technical information and policy recommendations related to the proposed 2006 Plan. This paper will summarize our reactions to the draft 2006 Plan and suggest revisions needed to make it more consistent with the current state of the Delta and Judge Robie’s decision in the State Water Resources Control Board Cases (2006) 136 Cal.App.4th 674.

For ease of presentation and to assist the Board and its staff in understanding the SWP contractors’ issues, we have attached to this statement pertinent redlined pages of the draft 2006 Plan and Appendix 1 showing the changes we believe should be made before the Plan is approved by the State Water Board. These proposed changes fall into several broad categories, some of which are discussed below.

Purpose and Applicability:

At page three, the draft 2006 Plan states:

The purpose of this plan is to establish water quality control measures that can be implemented in part or in whole by assigning responsibility to water right holders and water users to mitigate for the effects on the beneficial uses of their diversion and use of water.

The SWP contractors support this statement and believe it represents an important policy that should be applied to all aspects of the 2006 Plan’s program of implementation. The SWP contractors have always recognized that the SWP should mitigate the impacts that it has on the Delta water quality needed to reasonably protect beneficial uses. Our consistent position, however, has also been that the SWP should not be required to modify its operations to mitigate for the impacts on water quality caused by local waste dischargers, whether they be municipal or agricultural.

In SWP contractors view, this quoted language does not establish a new policy. We have always believed and argued that this mitigation concept was built into the 1995 Delta Plan and water rights Decision 1641, particularly with respect to the southern Delta agricultural salinity objectives. This was our position in the CDO proceedings and in the workshops that preceded
issuance of this draft 2006 Plan. Many of the SWP contractors' proposed changes are related
directly or indirectly to this mitigation of impacts policy, which at various places in the plan and
its appendix seems to have been forgotten.

References to Water Rights Decision 1641:

There are many statements in the draft 2006 Plan that infer, if not directly aver, that the SWP
"has an ongoing obligation to comply" with various water quality objectives (see, for example,
draft 2006 Plan, p. 21). The SWP contractors' proposed changes try to remove all such
"responsibility characterizations" that attempt to interpret Decision 1641. In many instances we
disagree with these interpretations. Nevertheless, we have not tried to substitute our
interpretations, as our basic position is that they are unnecessary in a water quality control plan.
They cannot change what Decision 1641 requires and they simply raise unnecessary issues that
could cloud whether the State Water Board intends to follow the 2006 Plan's mitigation policy set out
in the quotation above.

Somewhat related to this responsibility characterization issue, is the inconsistent use of the words
"implement" and "meet" in the draft 2006 Plan. The statutory language in the Porter-Cologne
Act for Plan objectives is "implement." The two terms are not synonyms and the SWP
contractors believe that the statutory terms need to be consistently used, particularly given the
decision in the State Water Resources Control Board Cases. Directory words and phrases, such as
"meet," "comply with," and "shall be maintained," are best left for water rights orders so that
there is a clean and clear distinction between what is being done through a quasi-legislative
planning document such as the 2006 Plan and what is being ordered in a regulatory, quasi-
judicial process such as a water rights hearing. There is no place in the 2006 Plan for language
that can be interpreted as ordering language that must await completion of a properly noticed
regulatory hearing.

South Delta Salinity Objectives:

All of the concerns broadly described above come starkly into focus when, at pages 25-26 of the
draft 2006 Plan and page 70 of the Appendix, the salinity objectives for the protection of South
Delta agricultural beneficial uses are discussed. Here the draft 2006 Plan specifically states that
the SWP is responsible for "meeting" those objectives, an issue that is related to the CDO
dispute, and a topic that is irrelevant to how the southern Delta salinity objectives should be
implemented in the future.

This water quality control plan revision is being approved by the SWRCB less than two months
before the Board begins workshops to consider whether to revise the southern Delta salinity
objectives, or whether to implement those objectives in a different matter. A detailed discussion
of the CDO hearing, of what happened in the past, and of how the State Water Board's staff
interprets the Decision 1641 seems gratuitous and an effort by the Board's staff to create a
document that, by its adoption, could be used to support its interpretation of Decision 1641 in
other forums. The SWP contractors proposed changes, again, do not substitute our interpretation
for that of the Board's staff. They delete what we consider to be inflammatory statements and
substitute neutral characterizations that recognize that additional studies and workshops will
further consider how to implement southern Delta salinity standards in the future. These changes
are vital to developing a way to best meet the southern Delta objectives outside of a courtroom and through a deliberative process.

Other Issues:

The SWP contractors have worked with the Department of Water Resources in this review of the draft 2006 Plan. We agree with, and incorporate as our comments, those comments of DWR, particularly relating to Suisun Marsh and salinity issues related to Rock Slough and the Contra Costa Canal.

Conclusion:

The draft 2006 Plan and Appendix 1 should be significantly modified before the State Water Board is asked to approve it and submit it to EPA. Primarily it needs to be reviewed by Board staff in light of the State Water Resources Control Board Cases, the comments made by all parties, and the upcoming proceedings on the southern Delta salinity objectives. Most importantly it needs to become more of a pure water quality control plan and less of a hybrid document that includes regulatory words, concepts, and arguments.
Chapter I. Introduction

A. Background

The San Francisco Bay/Sacramento-San Joaquin River Delta Estuary (Bay-Delta Estuary or Estuary) (Figure 1) is important to the natural environment and economy of California. The watershed of the Bay-Delta Estuary provides drinking water to two-thirds of the State’s population and water for a multitude of other urban uses, and it supplies some of the State’s most productive agricultural areas, both inside and outside of the Estuary. The Bay-Delta Estuary itself is one of the largest ecosystems for fish and wildlife habitat and production in the United States. Historical and current human activities (e.g., water development, land use, wastewater discharges, introduced species, and harvesting), exacerbated by variations in natural conditions, have degraded the beneficial uses of the Bay-Delta Estuary, as evidenced by the declines in populations of many biological resources of the Estuary. Most recently, populations of Delta smelt and other pelagic organisms have exhibited significant declines, leading to investigations as to the possible causes of the degradation of the health of the Delta.

The State Water Resources Control Board (State Water Board) has previously adopted water quality control plans and policies to protect the water quality and to control the water resources that affect the beneficial uses of the Bay-Delta Estuary. These plans and policies were adopted consistent with section 13000 et seq. of the California Water Code and pursuant to the authority contained in section 13170. This plan supersedes the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary adopted in May 1995 (1995 Bay-Delta Plan or 1995 Plan) as well as the preceding plans that the 1995 Plan superseded. The State Water Board periodically will review this plan pursuant to Water Code section 13240 to ensure that it provides reasonable protection for the designated adequately protects beneficial uses.¹ The State Water Board’s measures to implement this plan primarily will consist of the regulation amendment of existing water rights, but also may include other regulatory measures to protect water quality that are within the Board’s jurisdiction, and recommendations to other entities.

Appendix 1 of this plan, titled “Plan Amendment Report,” explains the State Water Board’s considerations in developing this Water Quality Control Plan. Appendix 1 provides the reasoning for any changes to the 1995 Plan, as well the environmental

¹ The federal Clean Water Act, at section 303 (c), also requires a review of federal “standards,” as defined in the Act, contained in state water quality control plans. (33 U.S.C. § 1313 (c).) The review under section 13240 ordinarily is combined with a review of any federal standards in a state water quality control plan.
analysis for those changes. Documents used to develop this amendment of the 1995 Plan are listed in Appendix 2, titled “Referenced Documents”. Appendix 3, titled “Responses to Comments,” contains the State Water Board’s responses to comments received in conjunction with the public hearing held to solicit feedback on this plan.

B. Purpose and Applicability

The purpose of this plan is to establish water quality control measures that can be implemented in part or in whole by assigning responsibility to water right holders and water users to mitigate for the effects on the beneficial uses of their diversions and use of water and in part by other actions. Like all water quality control plans, this plan consists of: (1) beneficial uses to be protected; (2) water quality objectives for the reasonable protection of beneficial uses; and (3) a program of implementation for achieving the water quality objectives. Together, the beneficial uses and the water quality objectives established to reasonably protect the beneficial uses are called water quality standards under the terminology of the federal Clean Water Act.

For the geographic area of the Bay-Delta Estuary, this plan is complementary to the other water quality control plans adopted by the State and Regional Water Quality Control Boards (Regional Water Boards) and State policies for water quality control adopted by the State Water Board. This plan provides reasonable protections for the Estuary’s beneficial uses that require control of salinity (caused by saltwater intrusion, municipal discharges, and agricultural drainage) and water project operations (flows and diversions). This plan supersedes the regional water quality control plans to the extent of any conflict between this plan and the regional water quality control plans. The other plans and policies establish water quality objectives and requirements for parameters such as toxic chemicals, bacterial contamination, and other parameters which have the potential to impair beneficial uses or cause nuisance.

Most of the objectives in this plan are being implemented by assigning responsibilities to water right holders because the parameters to be controlled are primarily impacted by flows and diversions. This plan, however, is not to be construed as establishing the responsibilities of water right holders. Nor is this plan to be construed as establishing the quantities of water that any particular water right holder or group of water right holders may be required to release or forego to meet the objectives in this plan. The State Water Board will consider, in a future water rights proceeding or proceedings, the nature and extent of water right holders’ responsibilities to meet these objectives. If necessary after a water rights proceeding, this plan will be amended to reflect any changes that may be needed to ensure consistency between the plan and the water right decision.

C. Legal Authority

The State Water Board has prepared this Water Quality Control Plan under the Porter-Cologne Act. The Regional Water Boards have primary responsibility for
D. Emerging Issues

This Water Quality Control Plan is primarily a planning document that serves to identify the water quality objectives and the beneficial uses to be protected. At the time of this 2006 update to the Plan there are a number of emerging issues that this Plan does not currently regulate. Those emerging issues are identified here. In addition to the activities described in Program of Implementation Chapter, the State Water Board will immediately begin a process to evaluate and prioritize water quality control planning activities to address the following emerging issues:

1. Pelagic Organism Decline (POD)
2. Climate Change
3. Delta and Central Valley Salinity

The State Water Board will conduct these planning activities in conjunction with the Delta Vision Process to develop a sustainable use and protection plan for the Delta, Suisun Bay, and Suisun Marsh. The Delta Vision Process, an interagency effort and outgrowth of the Little Hoover Commission’s review of CALFED, was just commencing at the time of this Bay-Delta Plan update. Consistent with this process, the State Water Board recognizes that planning for and management of the Delta’s multiple uses, resources, and ecosystem should occur in cooperation with elected officials, government agencies, stakeholders, academia, and affected Delta and California communities.

1. Pelagic Organism Decline
There is a marked decline in numerous pelagic fishes in the Sacramento-San Joaquin Delta Estuary and Suisun Bay. Currently, the Interagency Ecological Program (IEP), through its POD work team, is conducting studies to evaluate the potential causes of these declines. Some of the possible causes that are being considered include invasive species, water project operations, and toxins. The results of the POD studies will be available in 2007. At that time, the State Water Board will review the study results and may amend portions of this Plan to improve habitat conditions in the Estuary.

2. Climate Change
A growing body of information suggests that climate change could result in: 1) sea level rise that would adversely impact levees, water quality, and conveyance of water supplies through the Delta; 2) decreased snowmelt in the Sierra Nevada that would reduce effectiveness of existing water storage facilities; 3) increased rainfall that could exacerbate flooding; and 4) adverse biological effects from changes in flow and water quality. Water quality control planning must begin to address these possible effects. Future State Water Board activities therefore should consider the impacts of climate change and include requirements and recommendations to implement measures to offset adverse impacts of climate change. In addition, the State Water Board will need to provide timely response and guidance to water resources agencies, consistent with the Water Quality Control Plan, as they submit plans and requests to process
applications for water conveyance facilities and flow control structures such as the current South Delta Improvements Project or future conveyance structures such as a Delta peripheral canal.

3. Delta and Central Valley Salinity
A joint State and Regional Board Workshop on Central Valley Salinity Issues held in January 2006 resulted in broad stakeholder support for development of a Salinity Management Plan for the Central Valley and Delta (Salinity Management Plan) to protect beneficial uses of both surface waters and ground waters. Development and full implementation of the Salinity Management Plan is expected to take 40 to 50 years and to reduce the economic hardship related to managing salinity. The State Water Board will develop regulations and provide regulatory encouragement to ensure that infrastructure is developed that improves and maintains Central Valley and Delta salinity while providing certainty to local and regional planners, municipalities, agriculture, water suppliers, food processors, and others.

The State Water Board will continue to coordinate updates of the Bay-Delta Plan with on-going development of this comprehensive Salinity Management Plan. As part of this larger planning effort, the State Water Board has noticed intends to conduct a workshop and initiate further proceedings commencing in January 2007 to review: 1) the salinity requirements of the beneficial uses of water in the southern Delta; 2) the causes of salt loading in the southern Delta; 3) practices that could reduce salt loading from Delta sources; 4) flow and salt load reduction measures to implement the salinity objectives; and 5) the timeline for implementation of these measures. The State Water Board intends to develop and manage a study of salinity in the southern Delta as part of this effort. This process could result in amendments to the Bay-Delta Plan, further changes in water rights, or changes in both the Plan and water rights.
B. Water Quality Objectives for Agricultural Beneficial Uses

The water quality objectives in Table 2 provide reasonable protection of the beneficial use AGR, from the effects of salinity intrusion and agricultural drainage in the western, interior, and southern Delta. These objectives are unchanged from the 1991 Bay-Delta Plan.

C. Water Quality Objectives for Fish and Wildlife Beneficial Uses

The water quality objectives in Table 3 provide reasonable protection of fish and wildlife beneficial uses in the Bay-Delta Estuary including EST, COLD, WARM, MIGR, SPWN, WILD, and RARE. Protection of these fish and wildlife beneficial uses also provides protection for the beneficial uses of SHELL, COMM, and NAV. The parameters to be regulated under Table 3 are dissolved oxygen, salinity (expressed as electrical conductivity), Delta outflow, river flows, export limits, and Delta Cross Channel gate operation. Information available in 1995 indicated that, unlike water quality objectives for parameters such as dissolved oxygen, temperature, and toxic chemicals, which have threshold levels beyond which adverse impacts to the beneficial uses occur, there were no defined threshold conditions that could be used to set objectives for flows and project operations. Instead, available information at that time indicated that a continuum of protection exists and that higher flows and lower exports provided greater protection for the bulk of estuarine resources up to the limit of unimpaired conditions. Therefore, these objectives were set based on a subjective determination of the reasonable needs of all the consumptive and nonconsumptive demands on the waters of the Estuary. Upon completion of the POD studies, the State Water Board will reevaluate the available information.
Chapter IV. Program of Implementation

The Porter-Cologne Water Quality Control Act states that a water quality control plan consists of a designation or establishment of beneficial uses to be protected, water quality objectives, and program of implementation needed for achieving water quality objectives. [Wat. Code section 13050(j)]. The implementation program shall include, but not be limited to:

1. A description of the nature of actions which are necessary to achieve the objectives, including recommendations for appropriate action by any entity, public or private;
2. A time schedule for the actions to be taken; and
3. A description of surveillance to be undertaken to determine compliance with the objectives (Wat. Code section 13242).

This program of implementation for the Water Quality Control Plan for the Bay Delta Estuary consists of five general components: (1) implementation measures within State Water Board authority; (2) measures requiring a combination of State Water Board authorities and actions by other agencies; (3) recommendations to other agencies; (4) a monitoring and special studies program; and (5) other studies that are being conducted by other entities but may provide information relevant to future proceedings. The specific actions identified within these components include time schedules for implementation, if appropriate. No time schedule is included for actions that have already been implemented.

The DWR's and USBR's have water rights permits contain terms and conditions that define their responsibilities an ongoing responsibility to implement comply with the municipal and industrial, agricultural, and fish and wildlife objectives, pursuant to the terms and conditions in their permits and licenses. As discussed above, these objectives are unchanged in this plan. Under their water right permits and license, the DWR and the USBR currently are required to comply with these objectives on an interim basis until the State Water Board adopts a further decision re-assigning responsibility for meeting these objectives. Based on this program of implementation, the State Water Board will determine whether any changes should be made to the DWR and USBR water rights permits and whether other water rights actions should be taken to implement the objectives.

A. Implementation Measures within State Water Board Authority

Under its water rights and water quality authority, the State Water Board will continue, as necessary and appropriate, to determine the contributions from water right permit and license holders needed to implement the objectives in this Plan that the State Water Board determines should be implemented through water project operations. This may be accomplished by conducting a water right proceeding at which the Board will take into consideration the requirements of the Public Trust Doctrine and the California Constitution, article X, section 2. The State Water Board will also continue, as necessary and appropriate, to use its Clean Water Act section 401 water quality certification authority to implement objectives in this Plan. Specifically, the following water quality objectives are currently, or may in the future be, implemented, in whole or in part, using water rights authority:
1. Delta Outflow
2. River Flows: Sacramento River at Rio Vista
3. River Flows: San Joaquin River at Airport Way Bridge, Vernalis
4. Export Limits
5. Delta Cross Channel Gates Operation
6. Salinity

The first five are flow-based objectives that rely upon water rights authorities to implement. Salinity, though a water quality objective, is still implemented, in part, through the State Water Board's water rights authorities.

The State Water Board may require compliance with these objectives in stages or may shift responsibility for meeting an objective among water right holders and other entities based on evidence it receives in a water right proceeding or in a water quality proceeding such as the one scheduled to begin in January 2007.

1. Delta Outflow Objective
The Delta Outflow Objective will be implemented through water rights actions. The objective requires a minimum amount of outflow, measured in cubic feet per second (cfs) as defined in footnote 10 of Table 3. Currently, Water Rights Decision 1641 and the so-called “Phase 8 Agreement” establish the responsibilities for implementing. The DWR and the USBR currently are responsible under their permits and license to meet the Delta Outflow Objective on an interim basis until the State Water Board adopts a water right decision or order that assigns permanent responsibility for meeting the Delta Outflow Objective. This water right decision or order would follow a water right proceeding after a request for such a proceeding by the DWR or USBR.

2. River Flows: Sacramento River at Rio Vista
This objective will be implemented through water rights actions. Currently Water Rights Decision 1641 and the Phase 8 Agreement establish the responsibilities for implementing. The DWR and the USBR currently are responsible under their water right permits and license to meet the flow objectives at Rio Vista on the Sacramento River on an interim basis until the State Water Board adopts a decision that assigns permanent responsibility for meeting the Sacramento River at Rio Vista flow objectives. This water right decision would follow a water right proceeding after a request for such a proceeding by the DWR or USBR.

3. River Flows: San Joaquin River at Airport Way Bridge, Vernalis
This objective will be implemented through water rights actions and will include a timetable for implementation. Flow objectives for the San Joaquin River at the Airport Way Bridge near Vernalis have been established for three time periods:

- Spring flow objectives, February through April 14 and May 16 through June;
- Spring pulse flow objectives, April 15 through May 15; and
- Fall pulse flow objectives in October

The USBR is assigned responsibility under its water right permits, on an interim basis until the Board assigns permanent responsibility, to comply with all of these objectives. The USBR is authorized, however, during the Spring pulse flow period in
April and May while the San Joaquin River Agreement (SJRA5) is in effect, to meet the experimental target flows in the VAMP will be implemented in lieu of meeting the Spring flow objectives for the April-May period. After the SJRA terminates, the State Water Board may review the objectives in a water quality proceeding or immediately conduct a water right proceeding to decide whether and to what extent how to assign responsibility to various other parties for implementing meeting these objectives, and may review the objectives. In the interim, the State Water Board expects USBR to use all measures available to meet these objectives including reservoir releases, purchased water releases, and recirculation of water if it is found to be environmentally and operationally feasible.

Additional data and scientific analyses are needed to either support or modify the current spring flow objectives. These data and analyses are described in the ‘Recommendations to Other Agencies’ section of this chapter.

The USBR is assigned responsibility under its water right permits and license to comply with the Spring pulse flow objectives by no later than December 31, 2011. Before that date, however, the USBR is authorized under its water right permits, while the SJRA is in effect, to meet flow requirements that differ from the pulse flow objectives. This is an interim condition in the USBR’s New Melones water storage permits; once the SJRA expires or is terminated, the Board will commence a proceeding to determine the responsibilities of various water right holders for meeting the pulse flow objectives.

The staged implementation of the Spring pulse flow objectives, with the first stage consisting of variations on the objectives, allows additional scientific investigation into flow needs on the San Joaquin River during the pulse flow period. In the first stage of implementation, the USBR and other parties are conducting a 12-year study referred to as the Vernalis Adaptive Management Plan (VAMP). The VAMP is designed to protect juvenile chinook salmon migrating down the San Joaquin River and to evaluate the effects of varying the San Joaquin River flow and the State Water Project (SWP) and Central Valley Project (CVP) water exports at times when the head of Old River flow barriers is restricting the flow of water into Old River, on the survival of marked juvenile chinook salmon migrating through the Sacramento-San Joaquin Delta.

The VAMP study has been ongoing for seven years, but the study has not yet yielded conclusive results regarding needed changes to the Spring pulse flow objectives. The completed study will provide critical data about flow needs on the San Joaquin River during the Spring pulse flow period.

Until no later than December 31, 2011, or until the SJRA is terminated, if earlier, the following interim Spring pulse flow objectives shall be implemented maintained on the San

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5 The SJRA is a settlement agreement among numerous parties to the water rights hearing resulting in D-1641 to meet the San Joaquin River portions of various flow-dependent water quality objectives in the 1995 Plan.

6 The purpose of the head of Old River barrier is to reduce the downstream movement of juvenile San Joaquin River chinook salmon into the southern Delta via Old River where fish mortality increases due to predation and higher levels of exposure to export facilities and agricultural diversions.
Joaquin River at Vernalis during the 31-day April and May pulse period in order to obtain additional scientific information concerning flow needs on the San Joaquin River during the pulse flow period. The target flow should be based on the existing flow, as defined in table 5.
December 31, 2011, or until the SJRA is terminated, whichever occurs first. After
the SJRA terminates, the State Water Board will use the information gained from the
VAMP study and other pertinent information to determine what, if any, changes
are needed to the pulse flow objectives. The State Water Board will then make any
appropriate changes to the Water Quality Control Plan and through a water rights proceeding,
assign, as appropriate, long-term responsibility for meeting the pulse flow objectives to water
right holders whose water diversions impact the flow of water.

4. Export Limits
This objective will be implemented through water rights actions. The DWR and the USBR are
responsible under their water right permits and licenses to meet the objectives for export
pumping as they are only directed towards the CVP and SWP pumping operations.

5. Delta Cross Channel Gates Operation
This objective will be implemented through water rights actions. The USBR, as the owner and
operator of the Gates, is solely responsible under its water right permits and licenses for
implementing to meet the Delta Cross Channel Gates Closure objectives.

6. Salinity Control
Salinity objectives are implemented through a mix of water rights actions (flow) and salinity
control measures depending on the location and beneficial use affected. Salinity objectives
and their implementation fall into the following broad categories:

i. Municipal and Industrial Uses: These objectives will be implemented through water rights
actions (flow), as the. The DWR and the USBR currently are
responsible under their water right permits and licenses for implementation of
chloride objectives are primarily to protect municipal and industrial uses from ocean derived
chlorides.

ii. Fish and Wildlife in Suisun Marsh: This objective will be implemented through water rights
actions, as the salinity levels are primarily provided by flows or a combination of flows and
control structures. The DWR and the USBR currently are responsible under their water right
permits and licenses for implementation of the Water Rights Decision 1641 establishes the current obligations to
implement meet the numeric salinity objectives for Suisun Marsh at stations S-21, and S-42
(Figure 5). Due to evidence showing a potential for the objectives at stations S-97 and S-35 to
cause harm to the beneficial uses they are intended to protect, the State Water Board in
Decision 1641 (D-1641) did not require of the DWR and USBR attainment of the objectives at
these two stations. Implementation of the salinity objectives at these two stations is discussed in
section B.5.

iii. Fish and Wildlife in The San Joaquin River: This objective will be implemented through water
rights actions. The DWR and the USBR currently are D-1641 establishes the current
responsibilities under their water right permits and licenses for implementation of the San
Joaquin River Salinity objective to protect fish and wildlife uses.

iv. Agriculture in the Western Delta, Interior Delta, and Export Area: These objectives will be
implemented through water rights actions. The DWR D1641 establishes the current
and the USBR currently are responsibilities under their water right permits and
licenses for implementation of the Western Delta, Interior Delta, and Export
Area salinity objectives to protect agricultural uses.

v. Agriculture in the Southern Delta: DWR and the USBRD1641 establishes the current water
rightsly are responsibilities under their water right permits and licenses for implementation of

25
the Southern Delta salinity objectives to protect agricultural beneficial uses. Implementation of salinity objectives in the southern Delta requires a mix of salt load control and flow related measures. It is therefore discussed in section B of the Program of Implementation: ‘Measures Requiring a Combination of State Water Board Authorities and Actions by Other Agencies.’

B. Measures Requiring a Combination of State Water Board Authorities and Actions by Other Agencies

Implementation of the following water quality objectives will require water rights and water quality measures by the State Water Board, in concert with actions taken by other agencies:

Implementation of these objectives can be accomplished through a combination by one or all of the following: dedicated water flows for dilution flows, regulation of water diversions, pollutant discharge controls, best management practices to control the amount of waste produced, and improvements in water circulation. In addition to describing the actions taken, or to be taken, by the State Water Board, this section describes the actions taken, and that should be taken, by other agencies to implement these objectives. The State Water Board will use its authority, as needed and appropriate, under section 13165 of the California Water Code to require that studies are conducted.

1. Southern Delta Agricultural Salinity Objectives

Elevated salinity in the southern Delta is caused by a variety of factors: low flows, salts imported in irrigation water by the State and federal water projects, municipal discharges; subsurface accretions from groundwater; tidal actions; diversions of water by the SWP, CVP, and local water users; channel capacity; and discharges from land derived salts, primarily from agricultural drainage have all been considered as causal factors. These salinity objectives currently are implemented through a mix of water right actions permits and salinity control. D1641 establishes the current water rights actions. The USBR is responsible under its water rights for implementing meeting the salinity objectives on the San Joaquin River at Vernalis and DWR and USBR are both responsible under their water right permits and license for meeting the salinity objectives at the other three southern Delta stations (San Joaquin River at Brandt Bridge, Old River at Middle River and Old River at Tracy Road Bridge (interior southern Delta stations)). Salinity objectives on the San Joaquin River at Vernalis are also being implemented through non-water rights actions, including the San Joaquin River Salinity Control Program in the Central Valley Regional Water Quality Control Board’s (Regional Water Board) Water Quality Control Plan for the Sacramento and San Joaquin River Basins. In October of 2005, the State Water Board approved an Amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins. The amendment consists of a Control Program for Salt and Boron Discharges into the Lower San Joaquin River and other actions to implement salinity objectives in the SJR at Vernalis. The salt and boron basin plan amendment includes implementation measures and a timeline for implementation of salt load allocations.
The salinity objectives at Vernalis can be attained by releasing dilution water from New Melones and other sources, completing a drain to remove the salts generated by agricultural drainage and municipal discharges from the San Joaquin Valley, and conducting measures in the San Joaquin Valley such as the measures discussed below for controlling salinity in the interior southern Delta. The salinity objectives for the interior southern Delta can be implemented by measures that include state regulatory actions, state funding of projects and studies, and long-term implementation of management practices to control saline discharges.

State Regulatory Actions

i. The State Water Board has allocated responsibility to some water right holders to release dilution flows. Currently, D1641 establishes water right actions directed to USBR to implement USBR is required to meet the Vernalis objectives, and directed to USBR and DWR to implement both are required to meet the interior southern Delta objectives. The State Water Board could also require releases from other non-SWP/CVP reservoirs after notice and an opportunity for a hearing. In lieu of some water releases, water right holders such as USBR and DWR should use measures that affect circulation of water in the southern Delta (including permanent barriers or operational gates).

ii. The Central Valley Regional Water Board shall impose discharge controls on in-Delta discharges of salts by agricultural, domestic, and municipal dischargers.

iii. The Central Valley Regional Board shall implement the Total Maximum Daily Load (TMDL) for the San Joaquin River at Vernalis, develop and adopt a basin plan amendment and TMDL for areas upstream of Vernalis, and implement the TMDL and Water Quality Control Plan to reduce salinity and other pollutants reaching the southern Delta.

It is the intent of the State Water Board to implement the southern Delta salinity objectives by utilizing water rights actions to the extent needed to mitigate water right holders’ effects on salinity in the southern Delta and to utilize water quality actions and recommendations to other entities to reduce saline discharges and other pollutants reaching the southern Delta. The hearings scheduled to begin in January 2007 will provide a forum to receive information related to the impacts of water right holders, discharges, and other factors on southern Delta salinity.

State Funding of Programs

i. The State Water Board has various financial assistance programs under which it can contribute funding for programs that will help meet the salinity objectives or to improving understanding about salinity conditions in the southern Delta (primarily the San Joaquin River upstream of Vernalis). To date, it has funded tens of millions of dollars worth of projects and studies for such programs. The State Water Board provides funds through the State Revolving Fund Loan Program, the Agricultural Drainage Loan Program, the Agricultural Drainage Management Loan Program, Proposition 13, 40, and 50 grant funding through the Nonpoint Source Pollution Control Programs and Watershed Protection Programs.
10. Southern Delta Electrical Conductivity Objectives for the Protection of Agricultural Beneficial Uses

During the Plan Review, the State Water Board received information as to whether it should modify the Southern Delta Electrical Conductivity Objectives for the Protection of Agricultural Beneficial Uses set forth in Table 2 of the Plan, and whether the program of implementation should be modified. Elevated salinity (measured as EC) in the southern Delta is caused by a multitude of factors, including: low flows; salts imported in irrigation water by the State and federal water projects; municipal discharges; subsurface accretions from groundwater; tidal actions; diversions of water by the SWP, CVP, and local water users; channel capacity; and discharges of land-derived salts, primarily from agricultural drainage have all been viewed as contributing factors. Some of these factors listed above contribute to salinity at each of the four Southern Delta compliance locations to varying degrees depending on location, flow conditions, and other factors. The southern Delta EC objectives are intended to protect southern Delta agricultural uses from these effects.
The Prop. 13 Nonpoint Source Pollution Control Program provides grant funding for projects that protect the beneficial uses of water throughout the state through the control of nonpoint source pollution. Loans are available to local public agencies and nonprofit organizations formed by landowners to prepare and implement local nonpoint source plans. Sixty percent of the funds will be allocated to projects in the Counties of Los Angeles, Orange, Riverside, San Diego, San Bernardino, and Ventura. Forty percent of the funds are to be allocated to projects in the remaining counties.

Discussion

The State Water Board received information from several parties concerning the southern Delta agricultural salinity objectives. Some of that information concerned potential changes to the objectives or the program of implementation, while much of the information was related to other matters or proceedings outside of the scope of the review of the objectives. The SJRGA advocated increasing the salinity objectives at Vernalis to 1.0 mmhos/cm throughout the year and eliminating the objectives during August, September, and October of below normal, dry, and critically dry years. The San Joaquin River Water Authority Exchange Contractors (SJECA) also argued for increasing the 0.7 mmhos/cm southern Delta EC objectives to 1.0 mmhos/cm or higher. DWR and SWC did not recommend any specific changes to the salinity objectives; however, they did recommend that additional analyses be conducted to determine the appropriateness of the objectives. DWR also recommended various changes to the program of implementation to delay implementation of the 0.7 EC objective at the interior southern Delta sites until various actions occur. SWC also recommended a review of DWR’s responsibility for implementing the objectives at Brandt Bridge. SDWA opposed increasing the salinity objectives and advocated increasing the effective period of the 0.7 EC objective from March 1 through September 30. CCWD, the Central Valley Regional Water Board, and the USEPA recommended that no changes be made to the southern Delta agricultural EC objectives.

The SJRGA provided a variety of scientific, economic, and policy testimony and exhibits in support of its recommendations to change the salinity objective at Vernalis.9 The SJRGA submitted evidence indicating that the current Vernalis water quality objective of 0.7 mmhos/cm EC during the irrigation season is not necessary to protect agricultural beneficial uses at Vernalis (including irrigation for beans, alfalfa, and corn). The SJRGA presented evidence that when considering rainfall, irrigation water salinities of 1.1 EC are adequate to provide 100 percent crop yields of beans and other crops grown in the southern Delta and thus a year round EC objective of 1.0 would conservatively protect all crops. The SJRGA pointed out that the original studies upon which the objectives were based, were conducted in pots without considering natural leaching by rainfall, using sub-irrigation of organic soils, which are rare in the southern Delta. The SJRGA argued that poor soil conditions, shallow water tables, and poor groundwater quality in the southern Delta along with

9 The SJRGA did not comment specifically regarding the objectives at the other three southern Delta locations.
of irrigation water salinity can be tolerated if additional water is applied to increase the leaching fraction, the Central Valley Regional Water Board stated that none of the information presented during the workshop adequately refutes the State Water Board’s previous findings that an EC of 0.7 is protective of all crops on all soil types in the southern Delta. The Central Valley Regional Water Board stated that the conclusions reached by the various witnesses would require special cropping or water management, which would shift the costs from the dischargers to the water users. Regarding the paper titled An Approach to Develop Site-Specific Criteria for Electrical Conductivity to Protect Agricultural Beneficial Uses that Accounts for Rainfall submitted by the SJRGA (SJRG-03), the Central Valley Regional Water Board pointed out that the study only covers soil, rainfall, and other conditions specific to the Davis area. The Central Valley Regional Water Board stated that there is no new science to justify changing the objectives or to discount the science on which the objectives were originally based. (RB5-02 and 03.)

The USEPA commented that they do not believe there is sufficient scientific or technical evidence at this time to support changes in the EC objectives because, in addition to other reasons, information from the crop studies is not specific to conditions in the Delta. (USEPA-04.)

While the SJRGA and the SJEC submitted evidence to indicate that a salinity objective of 0.7 EC is not necessary to protect southern Delta agriculture, that information was not specific to the southern Delta. Given the unique soil conditions in the southern Delta and other complicating factors discussed by SDWA, the scientific analyses of irrigation crop salinity needs presented by various parties cannot be correlated to conditions in the southern Delta without further field studies to verify such results. Further, other factors may also alter irrigation salinity needs such as irrigation practices and depth to water table that would need to be investigated before considering changes to the objectives. In addition, adequate information is not available to support expanding the effective period of the 0.7 mmhos/cm EC objectives to apply during March and September at this time. As a result, additional field analyses are needed to confirm any recommendations for changes in the salinity objectives before any modifications are made to the objectives. As discussed, the State Water Board recommends conducting an independent scientific investigation (similar to the investigation on which the objectives are based) to review the issues raised during this review in greater detail. While parties recommended changes to the objectives based on testimony and evidence from various sources, that evidence was not specific to conditions for crops grown in the southern Delta. However, the State Water Board may consider making changes to the southern Delta EC objectives in the future based on additional analyses concerning the irrigation water quality needs of crops grown in the southern Delta. The State Water Board has scheduled will convene a workshops beginning in January 2007 to discuss, among other topics, undertaking an independent scientific investigation of irrigation salinity needs in the southern Delta (similar to the investigation on which the objectives are based). The purpose of the scientific investigation will be to review the issues raised during this review in greater detail and to provide a foundation for supporting the objectives or
making changes to the objectives in the future based on studies specific to the southern Delta.

The State Water Board recognizes that permanent barriers (or operational gates) have not been installed in the southern Delta to assist in achieving the southern Delta EC objectives and that even when the barriers are installed, they may not always be adequate to fully meet the objectives at the Old River sites and will not assist in achieving the objectives at Brandt Bridge on the San Joaquin River. Accordingly, a revised additional program of implementation measures may be needed to achieve full implementation. The State Water Board considered these issues when it issued D-1841 and placed water right responsibility on DWR and USBR for meeting southern Delta EC objectives. If DWR or USBR believe that changes in this responsibility are warranted they may pursue a petition to change their water right obligations or petition to add other responsible parties to share in the burden of meeting the objectives at any time. Some of those revisions may occur through water rights actions, while others may be actions under the Board’s water quality authority or by other entities. A revised program of implementation should be incorporated into the Bay-Delta water quality control plan, with time schedules for full implementation, as appropriate; as pursuant to Justice Robie’s decision in the State Water Resources Control Board Cases, it is important that any future water rights implementation decision by the State Water Board be consistent with the program of implementation set forth in the water quality control plan. The proceedings scheduled for January 2007 will provide an appropriate forum for considering modifications to the program of implementation for the southern Delta salinity objectives.

Central Valley Salinity

As a result of a joint State Water Board and Regional Water Board workshop on salinity issues in the Central Valley in January of 2006, the State Water Board directed creation of a joint panel of Regional and State Water Board staff to develop a plan to address salinity issues in the Central Valley. The panel is currently preparing a report for the State Water Board with its findings and recommendations.

Cease and Desist Order

On February 15, 2006, the State Water Board adopted a Cease and Desist Order against DWR and USBR for threatened violation of the 0.7 EC objective at the interior southern Delta compliance locations. The order puts USBR and DWR on a time schedule, with reporting requirements, to implement measures to obviate the threat of non-compliance with the 0.7 southern Delta agricultural EC objective in their permits and license at the three interior southern Delta compliance stations. DWR and USBR have indicated that they will have difficulty meeting the 0.7 EC objective during drier years at the Old River sites without installation of permanent barriers in the southern Delta and that they will have difficulty meeting the 0.7 EC objective at Brandt Bridge without additional measures to reduce saline discharges.

Conclusion

The State Water Board does not have adequate evidence on which to base substantive changes to the southern Delta EC (salinity) objectives for the protection of agricultural beneficial uses at this time. Therefore, these objectives remain unchanged in the 2006 Plan. The Board will receive additional evidence on this matter beginning in January 2007 and will also consider modifications to the program of implementation.

Footnote 5 of Table 2 of the 1995 Plan states that the 0.7 mmhos/cm EC objective will be implemented at the two Old River sites by December 31, 1997. The 2006 Plan deletes this footnote because it is obsolete. Currently, DWR and USBR are
United States Department of the Interior

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November 9, 2006

Song Her
Clerk to the Board
State Water Resources Control Board
1001 "I" Street, 2nd Floor
Sacramento, CA 95814

Subject: 2006 Bay-Delta WQCP Hearing

Dear Ms. Her:

Enclosed please find comments by the U.S. Department of the Interior, regarding the 2006 Bay-Delta WQCP Hearing. We are submitting one electronic copy, one original hard copy, and 15 paper copies as requested in the Notice of Public Hearing.

Please feel free to call either Amy Aufdemarbege, (916) 978-5688 or Kaylee Allen, (916) 978-5686 if you have any questions or require any additional information.

Sincerely,

[Signature]

Daniel G. Shillito
Regional Solicitor

Enclosures

cc: Kirk Rodgers, Bureau of Reclamation
    David Harlow, U.S. Fish and Wildlife Service
    Roger Givinee, U.S. Fish and Wildlife Service
    Ron Milligan, Bureau of Reclamation
    Ray Sahlberg, Bureau of Reclamation
United States Department of the Interior

Comments Regarding the California State Water Resources Control Board’s Consideration of an Amended Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary

November 9, 2006

The United States Department of the Interior (Interior) generally supports the State Water Resources Control Board’s (SWRCB or “the Board”) Draft Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, September 2006 (Draft Plan), with a few key exceptions. Over the last decade, since the 1995 Water Quality Control Plan for the Bay-Delta (1995 Plan) was first adopted, and since the implementation of that plan through Decision 1641 (D-1641) in 2000, Interior’s experience in operating the Central Valley Project (CVP) through its Bureau of Reclamation (Reclamation), and in protecting Delta fish and wildlife resources through its Fish and Wildlife Service (FWS), has provided important data, new information, and a valuable perspective on the Delta’s water supplies and water quality. The Draft Plan purports to make no substantive changes to the 1995 Plan objectives or beneficial uses. Yet, Interior believes that important facts have changed since the 1995 Plan, especially with respect to salinity in the southern Delta. These changes impact the underlying assumptions of the San Joaquin objectives and the environmental analyses of those objectives. In addition, consistent with Interior’s comments to the Board during the 2004-05 workshops for the periodic review of the 1995 Plan, Interior believes that flexibility should be built into some of the objectives and their respective programs of implementation to account for potential conflicts between competing upstream and downstream fishery objectives, and the limited supplies to meet those objectives in some years.

Interior has reviewed the Draft Plan and the Draft Plan Amendment Report, Appendix 1 to the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Draft Plan Report). Interior’s new information and experience indicate that while many of the water quality objectives in the 1995 Plan have worked well to achieve a balance of competing demands for fishery and water quality flow needs and other consumptive, beneficial uses of water, there may be problems with the achievability of all of the objectives on the San Joaquin in certain conditions. These problems are exacerbated by the recent developments in the Board’s implementation of the Southern Delta Salinity Objectives. However, Interior has reviewed each of the issues outlined in the Draft Plan Report and offers the following more specific comments for the Board’s consideration in adopting an amended plan.

1. Changes to Water Quality and Baseline Monitoring Program

Interior believes that the changes made to the Water Quality and Baseline Monitoring Program are appropriate given the evidence that was provided at the workshop. Interior makes
no further recommendations regarding the Water Quality and Baseline Monitoring Program at this time.

2. Delta Cross Channel Gate Closure

Interior makes no further recommendations regarding the Delta Cross Channel Gate Closure at this time.

3. Narrative Objective for Salmon Protection

Interior supports the Board in maintaining the Narrative Objective for Salmon Protection in the 2006 Draft Plan. This objective is important in assisting Interior with meeting the anadromous fish doubling goals included in the Central Valley Project Improvement Act (CVPIA) and the Final Anadromous Fish Restoration Program (AFRP) Plan developed pursuant to CVPIA. Because accomplishment of the Narrative Objective for Salmon Protection requires a watershed or basin-wide approach, efforts in the Delta and upstream must continue to be actively coordinated to ensure that these actions are effective and consistent with the ongoing recovery processes for listed winter-run Chinook salmon, spring-run Chinook salmon, and Central Valley steelhead.

In the Program of Implementation for the Narrative Objective for Salmon Protection, the Board notes that actions of other agencies are necessary to meet the Narrative Objective for Salmon Protection if implementation of the flow-dependent objectives does not result in meeting the Narrative Objective for Salmon Protection. While Interior agrees that actions of other agencies are needed, Interior believes that the Board can do more to facilitate the coordination of actions among agencies to ensure that the Narrative Objective for Salmon Protection is met. Interior proposed these actions in testimony presented at the public workshop in October 2004 (Ex. DOI-09, DOI-22, incorporated herein) and reiterates the recommendations below.

In order to implement the Narrative Objective for Salmon Protection and provide protection for threatened Central Valley steelhead, Interior recommends, again, that the Board coordinate with state and federal agencies when either Delta or upstream actions, including determination of flow and water quality objectives to address Chinook salmon doubling, are undertaken by the Board regarding the Plan so that such actions meet overall goals and do not conflict with each other. In addition, the Board should consider the overall goal of doubling of Chinook salmon in any other actions that come before the Board, as well as consider the specific protection needs of Central Valley steelhead and the recently listed Green Sturgeon in any actions that the Board undertakes. The Board should also provide the coordination and assistance required to improve water quality and biological monitoring and mitigation for anadromous fish populations in the Sacramento-San Joaquin Rivers/San Francisco Bay-Delta watershed.

1 Unless otherwise stated, all exhibit references are from the “Draft Referenced Documents, Appendix 3 to the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary” dated September 2006.
Based on current monitoring programs, the natural production of all races of salmon in the Sacramento Valley Basin appears to be stable (and in some notable instances has improved) since the passage of the 1995 Plan. However, Interior is concerned that the natural production of fall-run Chinook salmon in the San Joaquin Basin continues to decline. In the last six years natural production estimates for the Stanislaus, Tuolumne, and Merced rivers (combined) have steadily declined from an estimated 79,000 Chinook in the year 2000 to approximately 12,000 Chinook in 2005 (data from FWS ChinookProd spreadsheet). This does not appear to be a one-year phenomenon; the five-year average production for 2001-2005 is approximately 25,000 Chinook, representing a 69 percent decrease from the year 2000. FWS is concerned because: (1) smolt survival through the south Delta has been low in the past few years; (2) the timing of installation and operation of the Head of Old River barrier is uncertain, and (3) dredging of the Port of Stockton’s ship channel may result in increased salmon smolt mortality.

Interior continues to recommend the Narrative Objective for Salmon Protection be addressed through an interactive and collaborative process between state and federal agencies (including the Board) responsible for these public trust resources. The San Joaquin Chinook salmon model developed in 2005 by the California Department of Fish and Game (DFG) has been peer reviewed and revisions/improvements to the model will be incorporated in the spring of 2007. Interior anticipates that this model will prove useful in examining the relationship between San Joaquin spring flows and salmon production in subsequent years.

Interior has made operational changes to New Melones releases in an effort to meet all 1995 Plan requirements (including the Narrative Objective for Salmon Protection) as well as the needs of other beneficial uses. However, under the current regulatory requirements, releases from New Melones alone are not sufficient to meet all the flow and salinity requirements in the 2006 draft Plan. It is Interior’s position that the Board should conduct a coordinated review of all the elements of the Plan that relate to the broader realities in the San Joaquin Basin, including the Narrative Objective for Salmon Protection, as well as the Vernalis Spring Flow Objectives, Vernalis Pulse Flow Objectives and Southern Delta Salinity Objectives.

The Board now has access to new information in the form of CALSIM II and the updated San Joaquin basin planning hydrology. The availability of the new information means that the D-1641 FEIR must be supplemented with new environmental analyses of the San Joaquin. The need for a new analysis of the San Joaquin Basin is critical because the Draft Plan fails to recognize the water supply issues with achieving the Vernalis Spring Flow Objectives, and fails to recognize the relationships among the Narrative Objective for Salmon Protection, the Vernalis Spring Flow Objectives, and the Southern Delta Salinity Objectives.

**Recommendation.** Based on the recent low fry/smolt survival estimates and the continued decline in natural production of Chinook salmon, Interior strongly recommends that the Board re-examine the entire suite of 2006 draft Plan flow and salinity objectives that pertain to the San Joaquin Basin in light of recent developments in San Joaquin Basin hydrology and the newly-revised San Joaquin Chinook salmon model. This recommendation is consistent with Interior’s recommendation for a workshop regarding the Vernalis Spring Flow Objective, discussed below. Furthermore, Interior recommends that the Board conduct this workshop in the summer of 2007.
4. Chloride Objectives

Interior strongly recommends that the Board recognize in the Chloride Objectives Program of Implementation that the Projects can only control and achieve objectives related to ocean based salinity intrusion near the Holland Tract station. The Board heard testimony during the workshops from all parties that the Holland Tract salinity information best represents the Projects’ influence on salinity intrusion. In order for the Draft Plan to provide for reasonable and achievable objectives, the Draft Plan should be amended to recognize the fact that the Projects can only have meaningful influence of Chloride Objectives at the Holland Tract station. The Board claims it does not have enough information to change the compliance location from PP#1 to the Holland Tract station. Yet, the Board can provide in its Program of Implementation for the Projects to achieve the Chloride Objectives at the Holland Tract station, while keeping the PP#1 objective in place, and implemented by other reasonable and achievable means.

Interior strongly disagrees with the Board’s analysis in the Draft Plan Report, p. 39, that the Projects must petition for a water rights hearing and point to other responsible parties before the Board can provide for partial responsibility of a water quality objective. The Board can make such provisions in a program of implementation for any water quality objective in a water quality control plan, especially in a case such as the Chloride Objectives, where the evidence shows, and the parties agree, that CVP operations can only have a limited influence on chloride concentrations at specific locations. Otherwise, the Board would be implementing objectives through certain water rights that are not achievable through those water rights. Such is the case with the Draft Plan with respect to the Chloride Objectives. The Projects only have meaningful influence over salinity intrusion at the Holland Tract station. The Chloride Objectives in the Draft Plan may well be illusory under the Draft Plan’s Program of Implementation.

5. Delta Outflow Objective

Interior supports the determination of the Board in the Draft Plan to not amend the numeric values established for the Delta Outflow Objective in the 1995 Plan. A decade ago, the Board adopted the Delta Outflow Objective to protect beneficial uses of Delta waters by the State’s fishery resources. The Delta Outflow Objective formed the foundation for one of the major new concepts in the 1995 Plan. Over the last 10 years, implementation of this Objective has, in general, improved environmental conditions for a number of fish species, particularly those listed as threatened or endangered pursuant to the federal Endangered Species Act (ESA). Compliance with the Delta Outflow Objective provides important protection for the Delta’s fishery resources and contributes to maintenance of Delta habitat.

During the 2004-05 periodic review workshops, Interior requested that the Board adopt further flexibility in the implementation of the Delta Outflow Objective. Interior incorporates its exhibits from the workshops by reference (Ex. DOI-23, DOI-24). Interior appreciates the Board’s acknowledgement that flexibility may be appropriate and added in the future through the Program of Implementation.

**Recommendation.** As articulated in exhibits provided for the workshops, under certain circumstances, meeting the Delta Outflow Objective may be in conflict with and create
operational challenges in meeting upstream reservoir management objectives for fishery purposes, such as maintaining the coldwater pool or reducing reservoir release fluctuations. While the potential for such conflict is fairly limited, Interior believes it is important for the Board to acknowledge the potential for conflict between upstream and downstream fishery objectives and outline a process in the Program of Implementation to address these competing needs and develop specific operational recommendations in a timely manner.

Interior proposes an amendment to the language in the Program of Implementation acknowledging the potential for conflict under specific conditions between meeting the Delta Outflow Objective and upstream reservoir management objectives for fishery purposes. Further, Interior requests that the Board outline the process to be followed in the event such a conflict between upstream and downstream fishery objectives occurs. Interior believes that the appropriate process should be the filing of a temporary urgency change petition with the Board. The petition would contain a proposal to address significant competing needs and develop specific operational recommendations that would be supported by all agencies on the Water Operations Management Team (Reclamation, FWS, National Marine Fisheries Service, California DFG and the California Department of Water Resources).

In order to address the potential for conflict between upstream and downstream fishery objectives, Interior is proposing the following change to the Program of Implementation section of the Draft Plan. This paragraph would follow the existing paragraph under “1. Delta Outflow Objective” on page 22 of the Draft Plan:

**The State Water Board recognizes that under certain limited circumstances achieving the Delta Outflow Objective may be in conflict with the Projects’ ability to meet upstream fishery objectives for threatened and endangered salmonids in the upper Sacramento River, Feather River and lower American River. If DWR or USBR determines that such a conflict exists and creates an unacceptable risk of harm to threatened or endangered species, DWR or USBR may petition for a temporary urgency change order pursuant to Cal. Water Code § 1435 et seq., and the Board’s regulations, to temporarily allow the Projects to implement the Delta Outflow Objective in a flexible manner to address competing needs of upstream and downstream fishery objectives. The temporary urgency change petition, in addition to the requirements for approval set forth under Cal. Water Code § 1435, shall include specific operational alternatives to address the competing needs of upstream and downstream fishery objectives, and shall be supported by all agencies on the Water Operations Management Team (U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Game and the California Department of Water Resources). It is the intent of the Board that the Board, or its authorized delegate, will act on such a petition for temporary urgency change within five (5) days of its receipt.**

Interior believes that acknowledging the potential for conflicts between upstream and downstream fishery objectives, and the potential need for temporary urgency changes, in the Program of Implementation is essential for reasonable implementation of the Delta Outflow Objective. While the potential for conflict exists, Interior finds that the circumstances of such conflict are sufficiently limited so as to not warrant an amendment to the Delta Outflow Objective.
Objective. However, in the event that competing needs between upstream and downstream fishery objectives occur, Interior believes that the statutory temporary urgency change process can be an appropriate tool for flexibility, as originally requested by Interior, provided that Interior has some assurance that such a petition will be acted upon in a timely manner.

Interior supports the Board’s decision to not amend the numeric values established for the Delta Outflow Objective. Interior recommends that the Board recognize the potential for conflicts between implementation of the Delta Outflow Objective and upstream reservoir management objectives for fisheries, and provide for timely resolution of such competing needs through the use of a temporary urgency change petition. Recognition of the potential conflicts between upstream and downstream fishery objectives in the Draft Plan will allow the Board to issue a temporary urgency change order, under the appropriate circumstances, consistent with the Program of Implementation for the Delta Outflow Objective.

6. Export Limits

Interior makes no further recommendations regarding the Export Limits Objectives at this time.

7. River Flows: Sacramento at Rio Vista

Interior supports the determination of the Board in the Draft Plan to not amend the numeric values established for the Sacramento River at Rio Vista Flow Objectives in the 1995 Plan. The Sacramento River at Rio Vista Flow Objectives were adopted in the 1995 Plan to protect beneficial uses of river and Delta waters by the State’s fishery resources. The Sacramento River at Rio Vista Flow Objectives apply to the fall months and are primarily intended to maintain sufficient net downstream flow in the lower Sacramento River to facilitate adult Chinook salmon upstream migration. The salmon objective reflects the minimum flows that the California DFG believes would be suitable for adult salmon migration (Bay-Delta WQCP, August, 1978). The Sacramento River at Rio Vista Flow Objectives provide concurrent benefits for federally listed adult steelhead during their upstream migration through the Delta to their spawning habitat in several Central Valley streams. Further, federally listed juvenile winter-run, and spring-run Chinook salmon, as well as late fall-run Chinook salmon, migrate downstream toward the ocean in the fall and winter months. The Sacramento River at Rio Vista Flow Objectives contribute flows for these species’ downstream migration.

While Interior recognizes the benefits of the Sacramento River at Rio Vista Flow Objectives, under certain circumstances, achieving the Sacramento River at Rio Vista Flow Objectives may be in conflict with other upstream fishery objectives. Evidence of this conflict was presented at the 2004-05 periodic review workshops. Interior incorporates its exhibit from the workshops by reference. (Ex. DOI-25). Under certain dry fall conditions, meeting the Sacramento River at Rio Vista Flow Objectives may result in greater than desired flow fluctuations in the upper Sacramento River, Feather River and lower American River during the fall salmon spawning period. An alternative to meeting the Sacramento River at Rio Vista Flow Objectives by flow releases is to close the Delta Cross Channel gates. However, closure of the gates in dry fall conditions creates other conflicts, primarily a likely increase in salinity in the
Southern Delta. This option could be exercised only for short periods of time and possibly balanced with export reductions to maintain water quality objectives.

The Sacramento River at Rio Vista Flow Objectives may also affect the upstream reservoirs' fall cold-water reserves. Such conflict can arise because in order to meet the Sacramento River at Rio Vista Flow Objective, the Projects may be required to make storage releases, or to bypass flows that would otherwise be diverted into storage. Such releases, or bypasses, may result in the additional depletion of limited cold-water resources during the fall. In extreme circumstances, these releases and lowered reservoir levels may affect the Projects' ability to achieve temperature objectives for anadromous fish in the following year, including threatened or endangered salmon species. These temperature objectives have been set by the Board, and are included in the Biological Opinion issued by the National Marine Fisheries Service regarding the effects of Central Valley Project/State Water Project operations on listed salmonids. Failure to meet the temperature requirements in the Biological Opinion triggers reinstitution of Endangered Species Act (ESA), Section 7, consultation, which allows for NMFS to consider whether the failure to meet temperature requirements will cause jeopardy to the continued existence of listed species or whether additional measures are needed to minimize take. This process provides protection for species when hydrologic conditions are such that it is not possible to meet the operations analyzed in the Biological Opinion for CVP operations.

**Recommendation.** While the potential for such conflict between upstream and downstream fishery objectives is fairly limited to dry fall conditions, Interior believes it is important for the Board to acknowledge the potential for conflict in the Program of Implementation of the Sacramento River at Rio Vista Flow Objectives. Therefore, Interior proposes an amendment to the language in the Program of Implementation acknowledging the potential for conflict under specific conditions between meeting the Sacramento River at Rio Vista Flow Objective and other upstream fishery objectives, including requirements in the Biological Opinions for CVP operations. Interior requests that the Board outline a process to be followed in the event such a conflict between upstream and downstream fishery objectives occurs. Interior believes that the appropriate process should be the filing of a temporary urgency change petition with the Board. The petition would contain one or more proposals to address the significant competing needs and develops specific operational recommendations that would be supported by all agencies on the Water Operations Management Team (Reclamation, FWS, National Marine Fisheries Service, California DFG and the California Department of Water Resources).

In order to address the potential for conflict between meeting the upstream and downstream fishery objectives, Interior is proposing the following change to the Program of Implementation section of the Draft Plan. This paragraph would follow the existing paragraph under “2. River Flows: Sacramento River at Rio Vista” on page 22 in the Draft Plan:

**The Board recognizes that under certain limited circumstances during dry fall conditions, achieving the Sacramento River at Rio Vista Flow Objective may be in conflict with the Projects’ ability to meet upstream fishery objectives for threatened and endangered salmonids in the upper Sacramento River, Feather River and lower American River. If USBR, or DWR, determines that such a conflict exists and creates an**
unacceptable risk of harm to threatened or endangered species, USBR, or DWR, may petition for a temporary urgency change order pursuant to Cal. Water Code § 1435 et seq., and the Board’s regulations, to temporarily allow the Projects to implement the Sacramento River at Rio Vista Flow Objective in a flexible manner to address competing needs of upstream and downstream fishery objectives. The temporary urgency change petition, in addition to the requirements for approval set forth under Cal. Water Code § 1435, shall include specific operational alternatives to address the competing needs of the upstream and downstream fishery objectives, and shall be supported by all agencies on the Water Operations Management Team (U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Game and the California Department of Water Resources). It is the intent of the Board that the Board, or its authorized delegate, will act on such a petition for temporary urgency change within five (5) days of its receipt.

Interior believes that acknowledging the potential for conflicts between upstream and downstream fishery objectives, and the potential need for temporary urgency change orders in the Program of Implementation is essential for reasonable implementation of the Sacramento River at Rio Vista Flow Objective. While the potential for conflict between upstream and downstream fishery objectives exists, Interior finds that the circumstances of such conflict are sufficiently limited so as to not warrant an amendment to the Sacramento River at Rio Vista Flow Objectives. However, in the event of those competing needs between upstream and downstream fishery objectives, Interior believes that the statutory temporary urgency change process can be an appropriate tool for flexibility, as originally requested by Interior, provided that Interior has some assurance that such a petition will be acted upon in a timely manner.

Interior supports the Board’s decision to not amend the numeric values established for the Sacramento River at Rio Vista Flow Objectives. Interior recommends that the Board recognize the potential for operational challenges and ESA conflicts between implementation of the Rio Vista Flow Objectives and upstream fishery objectives, and provide for timely resolution of such competing needs through the use of a temporary urgency change petition. Recognition of the potential conflicts between upstream and downstream fishery objectives in the Draft Plan will allow the Board to issue a temporary urgency change order, under the appropriate circumstances, consistent with the Program of Implementation for the Sacramento River at Rio Vista Flow Objectives.

8. February-April 14 and May 16-June San Joaquin River Flow Objectives (Spring Flow Objectives);  
9. 31-Day April 15-May 15 San Joaquin River Pulse Flow Objectives (Pulse Flow Objectives); and  
10. Southern Delta Electrical Conductivity Objectives for the Protection of Agricultural Beneficial Uses (Southern Delta Salinity Objectives)

Interior would like to consolidate its comments on issues 8, 9, and 10 (the San Joaquin Spring Flow and Pulse Flow Objectives, and the Southern Delta Salinity Objectives), because while each merit individual comment, set forth below, the objectives all depend on water from the San Joaquin Basin. Interior believes that the Vernalis Spring and Pulse Flow objectives
provide important protection for emigrating salmonids and federally listed delta smelt. However, as Reclamation and FWS have previously acknowledged, compliance with the San Joaquin flow objectives may create reservoir operational challenges, fishery flow management challenges and potential conflicts with federal ESA obligations. These conflicts can be exacerbated by the fact that the formula for the San Joaquin Spring Flow Objectives is largely influenced by hydrology of the Sacramento Basin, and not the San Joaquin Basin. In addition, these conflicts are exacerbated by the “new” Southern Delta Salinity Objectives being imposed upon the CVP, as further discussed below.

While Interior believes that the Vernalis Spring and Pulse Flow Objectives are necessary to protect fish, the history is that Reclamation has agreed to be responsible, to the best of its ability, for the Vernalis Spring Flow (or baseflow) Objectives, generally for the term of the San Joaquin River Agreement (SJRA). While the Board has interpreted Reclamation’s promise on this point much more broadly than intended, Reclamation has not challenged the Board’s interpretation in an effort to keep the SJRA in place and to achieve comity in the San Joaquin Basin. However, as originally predicted by Reclamation, there are questions of reasonableness and achievability of the Vernalis Spring Flow Objectives in dry years, in light of the entire responsibility falling on Reclamation, and especially in connection with the “new” Southern Delta Salinity Objectives, discussed below. The Board often cites to the fact that Reclamation is not required to meet either the Spring Flow or Southern Delta Salinity Objectives solely from New Melones storage water. Yet the reality remains: there is not enough water in the Basin, from purchase, from storage, from recirculation, or otherwise, to meet the Vernalis Spring Flow Objectives, and the Southern Delta Salinity Objectives, in all conditions.

Reclamation has sought temporary urgency change orders from the Board in all years from 2002-2005, to get flexibility in implementing the Vernalis Spring Flow Objectives due to dry conditions. In 2005, Reclamation’s temporary urgency change petition was denied. The order denying the petition (Order WRO 2005-0010, at page 6) states, “Delaying until a violation is imminent does not create an urgent need for a change, although it may well create an urgent need to take enforcement action.” This statement does not recognize the need for Reclamation to respond in real-time to operational conditions and conflicts between upstream and downstream fishery objectives that may change daily. Such a statement places the Board and Interior in adversarial positions. Interior believes that such adversarial approaches are not productive.

The Board has often relied on this periodic review process as the appropriate opportunity for Reclamation to achieve flexibility to deal with the operational challenges and difficulties with implementing the Vernalis Spring Flow objectives and upstream fishery objectives, yet the Draft Plan includes no such flexibility. The flexibility requested by Interior during the periodic review workshops has not been seriously considered or analyzed in the Draft Plan Report. The need for flexibility is increased due to the Southern Delta Salinity Objectives. Interior is, therefore, concerned about the future implementation of these three related objectives. However, Interior believes that if the Board acknowledges the potential for certain conflicts between upstream and downstream fishery objectives, and the Southern Delta Salinity Objectives, in the Programs of Implementation and the potential need for temporary urgency change orders, such

\[\text{See D-1641, p. 45, footnote 35.}\]
acknowledgment in the Draft Plan will go a long way toward working together to resolve conflicts in the San Joaquin and Southern Delta inherent in the Board’s objectives.

A. Vernalis Spring Flow (Baseflow) Objectives. The Board is well aware that Reclamation has a history of not fully achieving the Vernalis Spring Flow Objectives in dry conditions. (Order WRO 2005-0010, p. 4). When the objectives were originally adopted in the 1995 Plan, it was known that the Vernalis Spring Flow Objectives would be difficult for Reclamation to achieve in dry conditions. In the hearings for D-1641, Reclamation testified, as it did before the Board in 1995, that, “it may not be possible or prudent to meet all the standards under all conditions, but we will make our best effort to do so.” (See D-1641, p. 45, citing to USDI 4, p. 4, Testimony of Lowell Ploss, citing 1995 testimony of Roger Patterson). Now that Reclamation has over six years of experience implementing the Vernalis Spring Flow Objective, it is clear that Reclamation’s initial concerns are coming to bear, as evidenced by the history of requests for temporary urgency change orders seeking flexibility in implementing the Vernalis Spring Flow Objectives filed by Reclamation.

Reclamation sought temporary urgency change orders on March 13, 2002, (DOI Exhibit A, attached hereto and incorporated herein), on May 16, 2003 (DOI Exhibit B, attached hereto and incorporated herein), on January 30, 2004, (DOI Exhibit C, attached hereto and incorporated herein), and again on February 1, 2005 (DOI Exhibit D, attached hereto and incorporated herein). Reclamation sent a letter to the Board’s Executive Director on November 18, 2004, detailing Reclamation’s difficulties with achieving the Vernalis Spring Flow Objectives during dry conditions. (DOI Exhibit E, attached hereto and incorporated herein). The November 18, 2004, letter also describes Reclamation’s difficulties in achieving the Vernalis Spring Flow Objectives through other means than New Melones storage water, including purchases, recirculation, south of Delta storage releases, and finally Reclamation requests flexibility in implementing the objective. In addition, Reclamation has submitted to the Board a “Summary of 1997 Analysis of PROSIM and SANJASM Results Demonstrating Instances of Failure to Meet Vernalis Base Flow Required for X2 Compliance.” (DOI Exhibit F, attached hereto and incorporated herein). This document further details Reclamation’s experience with implementing the Vernalis Spring Flow Objectives.

However, as previously stated, Interior believes that the Vernalis Spring Flow Objectives are important and necessary to protect fish and wildlife beneficial uses. The Vernalis Spring Flow Objectives benefit juvenile fall-run Chinook salmon, and federally listed adult steelhead during their downstream migration, and federally listed adult delta smelt during spawning, as well as larval and juvenile delta smelt. The fishery benefits afforded by the Vernalis Spring Flow Objectives are especially important in light of the recent pelagic organism decline (POD) in the Delta and the continuing decline in San Joaquin basin salmon production. Therefore, Reclamation stands by its promise to meet the Vernalis Spring Flow Objectives, to the best of its ability. However, neither Interior nor the Board should continue to ignore Reclamation’s difficulties in achieving the objectives during dry conditions. Interior believes that providing flexibility in implementing the Vernalis Spring Flow Objectives will prevent further adversarial positions between Interior and the Board. At the very least, Interior believes that the Board should recognize in the Draft Plan that the Vernalis Spring Flow Objectives, during this time that they are implemented solely through water rights for the CVP, may conflict and create
operational challenges with upstream fishery objectives, and the Southern Delta Salinity Objectives, and may be difficult, if not impossible, to achieve in certain dry conditions.

**Recommendation.** Interior believes that the language similar to that suggested for the Delta Outflow Objective and the Sacramento River at Rio Vista Flow Objectives will also help with the San Joaquin Spring Flow issue, as follows:

*The State Water Board recognizes that under certain limited circumstances during dry conditions, there are limited water resources available in the San Joaquin Basin to achieve the San Joaquin Vernalis Spring Flow Objectives, and the Objectives may be in conflict with upstream fishery objectives, and Southern Delta Salinity Objectives. If USBR determines that such circumstances exist, USBR may file a temporary urgency change petition, pursuant to Cal. Water Code § 1435 et seq., and the Board’s regulations, to temporarily allow Reclamation to implement the Vernalis Spring Flow Objectives in a flexible manner to address competing needs of upstream and downstream fishery objectives, or salinity objectives. The temporary urgency petition, in addition to the requirements for approval set forth under Cal. Water Code § 1435, shall include specific operational alternatives to address the competing needs, and shall be supported by all agencies on the Water Operations Management Team (U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Game and the California Department of Water Resources). It is the intent of the Board that the Board, or its authorized delegatee, will act on such a petition for temporary urgency change within five (5) days of its receipt.*

Interior believes that this recognition of the limited water supply of the San Joaquin Basin during dry conditions, and the potential for operational challenges and conflicts between upstream and downstream fishery objectives and the Southern Delta Salinity Objectives in the Program of Implementation for the San Joaquin Spring Flow Objectives is critical to reasonable and achievable implementation of the objectives.

In making the above recommendation, Interior acknowledges that conflicts between the Vernalis Spring Flow Objectives and the Southern Delta Salinity Objectives (further discussed below) may occur only in certain dry conditions, and that the use of a temporary urgency petitions process is appropriate for the short-term. However, there continues to be a need for a long-term solution to the over-allocation of San Joaquin Basin water. Therefore, Interior strongly recommends that the Board re-examine, in a workshop, the Vernalis Spring Flow Objectives in light of recent developments in San Joaquin Basin hydrology, as well as the newly revised San Joaquin Chinook salmon model. Interior recommends that the Board conduct this focused workshop in the summer of 2007, or alternatively, broaden the scope of the January, 2007, workshop on Southern Delta Salinity Objectives recently noticed by the Board.

**B. Vernalis Pulse Flow Objectives (April 15-May 15).** Interior supports the Draft Plan’s changes to the Program of Implementation for the Vernalis Pulse Flow Objectives. The Program of Implementation now has provisions allowing a staged implementation of the Vernalis Pulse Flow Objectives until December 31, 2011. Until that time, the objectives will be implemented as set forth in the Vernalis Adaptive Management Plan (VAMP) experiment, and as
set forth in the SJRA. Interior notes that the Draft Plan commits the Board to holding a water right hearing immediately following the termination of the SJRA. Interior supports this commitment by the Board.

While Interior has no issue with the Draft Plan being made consistent with D-1641 for the Vernalis Pulse Flow Objectives, Interior strongly disagrees that the Board can rely on the Final Environmental Impact Report for Implementation of the 1995 Water Quality Control Plan (D-1641 FEIR) as adequate analyses of the environmental impacts of the Vernalis Pulse Flow Objectives. The D-1641 FEIR’s analysis with respect to the San Joaquin River flows is fundamentally flawed. The analysis is not based upon accurate hydrologic conditions or supplies of the San Joaquin Basin. The analysis assumes water is added to the basin to meet particular objectives (the “add water” analysis), but does not account for where this water would actually come from in the Basin. The analysis is based on the DWRSIM model. The Board now has access to new information in the form of CALSIM II and the updated San Joaquin basin planning hydrology. The availability of the new information, and the need to correct the faulty assumption of the D-1641 FEIR “add water” analysis, means that the D-1641 FEIR must be supplemented with new environmental analyses of the San Joaquin. The need for new analyses of the San Joaquin Basin is critical because the Draft Plan fails to recognize the water supply issues with meeting the Vernalis Spring Flow Objectives, and fails to recognize the relationship between the Vernalis Spring Flow Objectives and the Southern Delta Salinity Objectives, as discussed below.

Recommendation. While Interior supports the changes in the Program of Implementation for the Vernalis Pulse Flow Objectives, Interior recommends that the Board supplement its analysis in the D-1641 FEIR before relying upon that analysis to support the new Program of Implementation for the Vernalis Pulse Flow Objectives.

C. Southern Delta EC Objectives for Agricultural Uses (Southern Delta Salinity Objectives). Interior fundamentally disagrees with the Board’s approach in the Draft Plan that no changes have been made to the Southern Delta Salinity Objectives, or the Program of Implementation, and, therefore, the Draft Plan represents the status quo. Under the Board’s “status quo” approach, no additional environmental analysis is required. However, the reality is that much has changed with respect to the Program of Implementation for the Southern Delta Salinity Objectives since the 1995 Plan. When the Southern Delta Salinity Objectives were adopted in the 1995 Plan, it was anticipated that a water rights hearing would set forth the responsibilities of water right holders concerning the objectives. That hearing was held and resulted in D-1641.

In D-1641, because of evidence showing that a permanent operable barrier program could improve salinity conditions in the Southern Delta, but still not achieve full compliance with the Southern Delta Salinity Objectives (D-1641, p. 88), the Board imposed a relaxed objective on the water rights of the CVP and SWP with respect to Southern Delta salinity. The Board found that the projects were “partially” responsible for salinity degradation in the Southern Delta. The Board imposed an objective of 1.0 EC, instead of the 0.7 EC called for in the 1995 Plan. (D-1641, p. 88). This made sense, because of the numerous other causes for salinity degradation in the Southern Delta (D-1641, p. 86), and because the Board had anticipated achieving the 0.7 EC
through its authority over other programs of implementation, such as non-point source regulation and discharge permits. (1995 Plan, pp. 29-33).

However, the Board made clear that it supported the barrier program discussed by DWR during the D-1641 hearings, and, in effect, made the water rights of the CVP and SWP conditioned upon construction of the permanent operable barriers. The Board did not directly require the barrier program, but provided an incentive to DWR and Reclamation to construct the barrier program in footnote 5, of Table 3 in D-1641. In that footnote, the Board linked Reclamation and DWR with a salinity objective of 1.0 EC (consistent with the findings in D-1641, D-1641 p. 88), until April 1, 2005. If, as of April 1, 2005, the barriers were not constructed, Interior and DWR were assigned an objective of 0.7 EC at the three Southern Delta stations below Vernalis. After the barriers are constructed, the objective, as implemented in D-1641, returns to 1.0 EC. In 2000, the Board, DWR, and Interior, were all optimistic that progress could be made on the barrier program and footnote 5 was not an issue, even throughout the 2004-05 workshops for periodic review. However, the barriers were not constructed by April 1, 2005, and now DWR and Reclamation are subject to the “new” 0.7 EC objective. The Board cannot now transform the incentive in footnote 5 into a factual finding of full responsibility on the part of the Projects.

In the D-1641 FEIR, the Board only analyzed the environmental impacts of achieving the Southern Delta Salinity Objectives in context of the barrier program. The Board has never analyzed the impacts of the 0.7 EC objective being implemented by Reclamation and DWR without the barriers. However, as we know the realities of today, the barrier program has experienced delays beyond the control of either DWR or Reclamation (February 14, 2005, Petition to Temporarily Change Effective Date of Condition Imposed in Water Right Decision 1641, pp. 5-7), and the barriers are not yet constructed.

The Board’s D-1641 FEIR never analyzed the impacts of DWR and Reclamation being fully responsible for the Southern Delta 0.7 EC objectives. The FEIR analysis assumes that Reclamation achieves the Vernalis salinity objective of 0.7 EC with dilution flows, and then shows that the permanent operable barriers improve salinity at the two Old River stations, but has little impact on the Brandt Bridge station. (D-1641 FEIR, Chapter IX, Figures IX-21 through IX-26). Evidence presented at the Delta Salinity Draft Cease and Desist Order (CDO) and Water Quality Response Plan (WQRP) Hearing shows that the degradation between Vernalis and Brandt Bridge (a distance of approximately 25 river miles) is approximately eight percent (8%) (Delta Salinity Draft CDO and WQRP Hearing, Exhibit DWR-20, p. 4). Reclamation has no

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1 This omission is further complicated by the fact that the analysis for the south Delta salinity objectives in the FEIR is also flawed in that it does not accurately represent the true water supplies of the San Joaquin basin. The analysis adds water to the basin without analysis of where that water may derive.

2 In order for Reclamation to comply with a requirement to construct a project as a condition to a water right, it must have Congressional authorization for the project, Congress must fund the project, the project must, among other legal requirements, undergo federal Endangered Species Act consultation, National Environmental Policy Act procedures, as well as achieve all necessary approvals for construction, such as a 404 permit granted by the U.S. Army Corps of Engineers. Reclamation, as a bureau within a single executive branch agency, has little control over each of these processes.

3 entitled, “Investigation of the Factors Affecting Water Quality at Brandt Bridge, Middle River at Union Point, and Old River at Tracy, by Tara Smith.”
facilities or means of control over water or circumstances between Vernalis and Brandt Bridge. The only feasible means for Reclamation to have a meaningful impact on water quality in the southern Delta, without the permanent operable barriers, is through dilution flow. Reclamation’s only practical reservoir of water for dilution flows, at this time, is New Melones.

Recirculation or use of San Luis water could be problematic because of potential adverse impacts to fishery resources. Reclamation is conducting a feasibility study pursuant to P.L. 106-361, however, early indications are that recirculation could also be problematic due to funding for such a program, redirected impacts to other water supplies and water rights, and because the water quality dilution value of recirculation water is several fold less than the quality of New Melones water and, therefore, would require several fold quantity of water supplies to have similar dilution effectiveness. Purchase of water is difficult because Reclamation would generally need to purchase water only in times of dry conditions, and Reclamation cannot ensure agreement with any willing sellers, or Congressional appropriations to fund those agreements, at any given time.

The Board has relied solely on the barrier program on its analysis of the Southern Delta Salinity Objectives and does not include the Southern Delta Salinity Objectives in its analysis of flow, or water supply-related, objectives in the D-1641 FEIR. (D-1641 FEIR, compare Chapters V, VI, and IX). The D-1641 FEIR includes a faulty analysis of dilution flows to achieve the Vernalis Salinity Objectives, but has never analyzed the water supply impacts of the Southern Delta Salinity Objectives being implemented through dilution flows. Yet, the Board cannot point to a single feasible method of implementation by Reclamation (considering the reality that the permanent barrier program is delayed) other than dilution flows from New Melones storage water. The Board often takes refuge in the fact that it has not required Reclamation to satisfy its Southern Delta salinity obligations solely with dilution flows from New Melones. However, Reclamation has often explained why purchase, recirculation and other conceptual methods of compliance are difficult, controversial, and worse: they do not result in decreased salinity, on a real-time basis, in the southern Delta, especially in dry years. Yet, the Board has yet to acknowledge these realities. (DOI Exhibit E, attached hereto, and WRO 2005-0010).

Because the reality is that the barriers are not constructed, and because the Board cannot currently point to a reasonable, achievable, implementation method other than dilution flows, the Board must analyze this new circumstance in a supplemental analysis of its D-1641 FEIR. The Draft Plan, states at page 27, “The State Water Board has allocated responsibility to some water right holders to release dilution flows.” The Board has never analyzed the environmental impacts of dilution flows for the Southern Delta Salinity Objectives. (D-1641 FEIR, Chapter IX). In addition, this objective must be analyzed in connection with the other San Joaquin flow objectives. A water rights phase would then be required to determine the responsibility of water right holders in the Basin, for the Southern Delta Salinity Objectives.

At page 63 of the Draft Plan Report, the Board states that, “Releases from reservoirs on tributaries to the San Joaquin for fish and wildlife protection, pursuant to the flow requirements

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6 Evidence presented at the Delta Salinity Draft CDO and WQRP Hearing shows that export pumping has only negligible impact on salinity in the Southern Delta, and under certain conditions, may actually improve salinity in the Southern Delta. (Delta Salinity Draft CDO and WQRP Hearing, Exhibit DWR-20, pp. 9-13).
on the San Joaquin River at Vernalis currently contribute to achieving the salinity objectives in the southern Delta.” This statement reveals a fundamental difference in the views of Interior and the Board on this issue. From Interior’s perspective, the Vernalis Spring Flow Objectives and the Southern Delta Salinity Objectives actually compete. The more flow needed in the spring for the Spring Flow Objective, the less flow available for the April through August Southern Delta Salinity Objectives. Because the Board has not analyzed the Southern Delta Salinity Objectives as a flow objective, in concert with the other demands it has, in fact, made on New Melones, the Board does not have a full understanding of the implications of the Southern Delta Salinity Objectives on the water supplies of the San Joaquin. For example, a preliminary analysis using CALSIM II data shows that a small, incremental change in the salinity objective at Brandt Bridge (as measured by “overshooting” the 0.7 EC objective at Vernalis) can result in a need for approximately double the volume of water required for dilution flows.

The Draft Plan states, at page 22, that, “Salinity, though a water quality objective, is still implemented, in part, through the State Water Board’s water rights authorities.” (Emphasis added). In the Draft Plan, the Board continues a Program of Implementation for Southern Delta Salinity Objectives that includes more than just water rights. The Board plans to implement the objectives through water rights, discharge permits, Total Maximum Daily Load (TMDL) programs, funding of financial assistance programs, and other projects and actions implemented by other agencies. (Draft Plan, pp. 27-31). Interior supports this approach. However, the difficulty is that the Board has taken the position in the past that now that the barriers are not constructed, the Southern Delta Salinity Objectives are now fully implemented through Reclamation and DWR’s water rights.

The Board has taken this position despite language in D-1641 that the Projects are only “partially” responsible and language holding Reclamation and DWR responsible only for exceedances within their control (D-1641, pp. 88 and 161). In addition, the Board granted a waiver of the Southern Delta Salinity Objectives to the City of Manteca through Order WQ 2005-0005. The City of Manteca, a discharger, was granted a waiver from its effluent limitation of 0.7 EC to a 1.0 EC in March of 2005, near the same time that Reclamation and DWR were issued a draft CDO, Order WR 2006-0006, for “threatening” to violate Southern Delta Salinity Objectives. There apparently is no incentive to implement the Southern Delta Salinity Objectives through other Board programs, as called for in the Program of Implementation, so long as the Board’s view is that the objectives are fully implemented through the water rights of Reclamation and DWR.

**Recommendation.** The Board must supplement its analysis in the D-1641 FEIR to sufficiently analyze the impacts, and reasonableness and achievability, of the Southern Delta Salinity Objectives without the barriers. Interior supports the Board’s multi-programmatic approach to implementing the Southern Delta Salinity Objectives. However, Reclamation does not cause, and has little control over salinity degradation below Vernalis. While construction of the operable barriers would improve Delta salinity conditions, they would not consistently achieve a 0.7 EC objective at the three stations below Vernalis. The reality is that the barriers are not constructed. Dilution flows are currently a feasible means of achieving the objectives, but such may cause an unreasonable use of water. (D-1641, p. 10). Therefore, Interior proposes that the Board consider a phased implementation of the 0.7 EC objective in the Southern Delta.
The Plan should provide that Reclamation and DWR will not cause or contribute to an exceedance of 1.0 EC year round, consistent with the numerous other causes of salinity degradation below Vernalis, with their "partial" responsibility, and consistent with the Board's findings in D-1641. The April through August 0.7 EC objective should be phased in the Plan until a date that the Board expects other programs in the Draft Plan's Program of Implementation, such as discharge controls and TMDL programs, to be fully implemented.

1. Additional issues regarding the 1995 Plan

a. Suisun Objectives

1) Numeric Objectives for Suisun Marsh

The Draft Plan outlines numeric objectives (measured as EC) for protection of fish and wildlife beneficial uses in the eastern and western Suisun Marsh. As outlined below, Interior recommends changes in the Draft Plan to more accurately reflect the current status of actions being implemented by Reclamation, DWR, DFG, and the Suisun Resource Conservation District (SRCD) for protection of beneficial uses in Suisun Marsh. These four agencies are the signatories to the Suisun Marsh Preservation Agreement (SMPA), which was executed in 1987. A Revised SMPA was executed by the agencies in 2005.

During the 2004-05 periodic review workshops for the 1995 Plan, the SMPA signatories were in the process of completing an amendment to the SMPA. On June 20, 2005, the agencies executed the amendment, in the form of a Revised SMPA and its companion Revised Mitigation and Monitoring Agreements. These three agreements were revised, in part, to address changes resulting from the 1995 Plan and to implement actions that would provide equivalent or better protection than channel water salinity standards at Suisun Marsh stations S-35 (Morrow Island) and S-97 (Ibis).

During hearings on D-1641, the Board received information on the then-proposed amendment to the SMPA and concluded that actions identified for the amendment would provide equivalent protection. Such actions were incorporated in the Revised SMPA (June 20, 2005) and include: establishment of a Water Manager Program, Portable Pumps Program, and Drought Response Program; funding to improve Roaring River Distribution System turnouts; and conversion of stations S-35 and S-97 from compliance stations to monitoring stations.

Interior also recommends revisions to update sections of the draft Plan that describe the Suisun Marsh Charter Group (SMCG), including current efforts of the involved agencies to prepare a programmatic EIS/EIR for the Habitat Management, Preservation, and Restoration Plan for the Suisun Marsh (Suisun Marsh Plan).

The work of the SMCG was originally noted in the Board's September 2004 Staff Report on the Periodic Review of the 1995 Plan. As outlined on page 42 of the 2004 report, the staff recommendation was to defer changes to numeric objectives at stations S-35 and S-97 to the next period review of the Plan, with the expectation that the Suisun Marsh Plan would be completed by that time.
The Suisun Marsh Plan (being developed via the programmatic EIS/EIR) has not been completed. Accordingly, implementation of numeric objectives at S-35 and S-97 should be deferred until completion of the Suisun Marsh Plan. While Interior supports the intent of the Board to use the results of the programmatic EIS/EIR for the Suisun Marsh Plan in its next periodic review, information from the completed Suisun Marsh Plan should be used to evaluate and to determine appropriate objectives at stations S-35 and S-97, if needed.

Interior does not agree that DWR and Reclamation should be required to meet existing objectives at S-35 and S-97 if new salinity objectives at these stations have not been determined by January 1, 2015. The SMPA was revised, in part, to address changes resulting from the 1995 WQCP and to implement actions that would provide equivalent or better protection than channel water salinity standards at stations S-35 and S-97. The Revised SMPA was executed in June 2005, and the SRCD began implementation of actions (funded by DWR and Reclamation) to provide equivalent protection. Based upon implementation of these actions, supported by the substantial evidence received by the SWRCB during the D-1641 hearings and the review provided in the DWR report “Comprehensive Review of Suisun Marsh Monitoring Data, 1985-1995” (March 2001), we believe that DWR and Reclamation have mitigated for the impacts of the SWP and CVP operations on the managed wetlands.

**Recommendation.** Interior recommends that the second sentence in paragraph 6.ii. on page 25 be revised to read:

*DUE TO EVIDENCE SHOWING THAT IMPLEMENTATION OF THE OBJECTIVES AT S-35 AND S-97 WOULD REQUIRE AN UNREASONABLE AMOUNT OF WATER AND MIGHT FRESHEN THE WESTERN PART OF THE SUISUN MARSH MORE THAN IS APPROPRIATE FOR CERTAIN SPECIES THAT REQUIRE A BRACKISH MARSH, THE SWRCB IN DECISION 1641 (D-1641) DID NOT REQUIRE RECLAMATION OR DWR TO MEET THE OBJECTIVES AT THESE STATIONS (D-1641, PP. 54-55).*

Interior further recommends that the Narrative Objectives for Western Suisun Marsh should be amended to remove S-97 and S-35 as compliance points for measuring EC in the Marsh. This change is consistent with D-1641 and consistent previous evidence presented to the Board. Interior believes that the Board is correct that the results of the Programmatic EIS/EIR are important to this process, and thus Interior recommends that S-97 and S-35 be removed as compliance points until analysis is completed that supports use of those stations as compliance points.

2) Narrative Objective for Brackish Tidal Marshes of Suisun Bay

Interior supports the statement that the Board will use the results of the Suisun Marsh Plan to convert the narrative objective for the brackish tidal marshes of Suisun Bay to a numeric objective, as appropriate. However, Interior believes that any changes must be based on the analysis currently being worked on in the Suisun Marsh Plan. Waiting until the Plan is completed will allow for a comprehensive strategy for addressing water quality in the Suisun Marsh and Brackish Tidal Marshes of Suisun Bay.
**Recommendation.** The first paragraph on page 33 incorrectly states that the Suisun Marsh Charter Group was formed as a result of the inability of Suisun Marsh Ecological Workgroup (SEW) to determine a single numeric objective for the tidal marshes. To help correct this mischaracterization, Interior recommends that the first paragraph end with the sentence: "However, the SEW was unable to determine a single numeric objective for the tidal marshes."

A suggested revision of the balance of the first paragraph is:

The Suisun Marsh Charter Group (SMCG) was formed in 2001 to develop a plan to balance the competing needs in Suisun Marsh. The principal agencies of the SMCG are the U.S. Fish and Wildlife Service, National Marine Fisheries Service, U.S. Bureau of Reclamation, California Bay-Delta Authority, Department of Fish and Game, Department of Water Resources, and Suisun Resource Conservation District. The SMCG is currently preparing a programmatic EIS/EIR for the Habitat Management, Preservation, and Restoration Plan for the Suisun Marsh (Suisun Marsh Plan). In preparation of the programmatic EIS/EIR, the agencies are evaluating plan alternatives with a tidal wetland habitat restoration component ranging from 3,000 to 36,000 acres.

b. Dissolved Oxygen Objective (San Joaquin River between Turner Cut & Stockton).

As stated in the Draft Plan Report, the purpose of the Dissolved Oxygen (DO) Objective at 6.0 mg/l is to protect migrating fall-run Chinook salmon in the San Joaquin River. However, all potential solutions and impacts should be evaluated using the best available science with supporting data.

The Draft Plan Report identifies three main factors (upstream nutrient loading, channel geometry, and flow) contributing to the DO impairment and further describes in detail the impacts of each contributing factor. The report did not discuss an alternative solution (such as aeration) to resolve the dissolved oxygen impairment.

A multi-agency public stakeholder process has been ongoing since the initial development of the DO TMDL and the aeration solution is the preferred stakeholder alternative. A pilot aeration study has been funded by CALFED, and construction of the aeration units will be completed by the end of 2006. The evaluation of the effectiveness of the new aeration units should begin in early 2007. Interior believes that the Board should continue to allow the stakeholder process to evaluate the effectiveness of the aeration solution.

**Closing**

Thank you for the opportunity to comment on the 2006 Draft Plan. Interior generally supports the Board's 2006 Draft Plan, with the exceptions noted above, and appreciates the opportunity to provide specific recommendations on certain objectives contained in the Plan. Interior looks forward to the opportunity to provide additional comments and evidence at future
workshops on Central Valley Salinity, Pelagic Organism Decline, Climate Change and San Joaquin Basin issues.
November 13, 2006

Song Her, Clerk
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Re: Comments of the San Luis & Delta-Mendota Water Authority on the Draft 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary

Dear Ms. Her:


The Authority, formed in 1992, consists of 32 member public agencies,¹ each of which

¹ The member agencies of the Authority are: Banta-Carbona Irrigation District; Broadview Water District; Central California Irrigation District; Centinella Water District; City of Tracy; Columbia Canal Company; Del Puerto Water District; Eagle Field Water District; Firebaugh Canal Water District; Fresno Slough Water District; Grassland Water District; James Irrigation District; Laguna Water District; Mercy Springs Water District; Oro Loma Water District; Pacheco Water District; Pajaro Valley Water Management Agency; Panoche Water District; Patterson Water District; Plain View Water District; Pleasant Valley Water District; Reclamation District 1606; San Benito County Water District; San Luis Canal Company; San Luis Water District; Santa Clara Valley Water District; Tranquility Irrigation District; Turner Island Water District; West Side Irrigation District; West Stanislaus Irrigation District; Westlands Water District; and Widren Water District.
contracts with the United States Department of the Interior, Bureau of Reclamation ("Reclamation"), for supply of Central Valley Project ("CVP") water. (See Appendix 2 to the Draft Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ("Appendix 2"), Exhibits SLMD-07.)\(^2\) The Authority's member agencies are entitled to approximately 2.5 million acre-feet of water for agricultural lands within the western San Joaquin Valley, San Benito County, and Santa Clara County, California. (Id.) Authority members also supply water for municipal and industrial uses, including the delivery of approximately 150,000 and 200,000 acre-water to the Silicon Valley, and provide approximately 250,000 to 300,000 acre-feet of water for waterfowl and wildlife habitat in the San Joaquin Valley. (Id.) In addition, the Authority operates and maintains certain CVP facilities under contract with Reclamation. (Id.) Two such facilities are the Tracy Pumping Plant, located in the southern portion of the Delta, near the city of Tracy, and the Delta-Mendota Canal, which is used to deliver water from the Tracy Pumping Plant to the Authority's member agencies. (Id.)

For the past several years, the Authority participated in and presented recommendations during the workshop that followed the periodic review of the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ("1995 Bay-Delta Plan").\(^3\) Although the Draft 2006 Bay-Delta Plan reflects some of the Authority's recommendations, several significant proposals made by the Authority were dismissed. With this letter, the Authority presents two general comments on the Draft 2006 Bay-Delta Plan and respectfully requests that the State Water Board reconsider the decisions to dismiss those certain recommendations made by the Authority. These comments are intended to complement, not supplant, prior comments of the Authority.

**General Comments**

1. **Basis For Objectives**

   The Draft 2006 Bay-Delta Plan relies heavily upon statements made and the objectives established in the 1995 Bay-Delta Plan. It, however, provides little support for those statements and few bases for the conclusions that the objectives remain necessary to

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\(^2\) All references to exhibits, unless otherwise noted, are to the exhibits referenced in Appendix 2.

\(^3\) The Authority attaches hereto copies of exhibits referenced in Appendix 2 that are most relevant to the comments presented in this letter.
“ensure the reasonable protection of beneficial uses and the prevention of nuisance.”
(Water Code, § 13241.) For example, the Draft 2006 Bay-Delta Plan states:

Unlike water quality objectives for parameters such as dissolved oxygen, temperature, and toxic chemicals, which have threshold levels beyond which adverse impacts to the beneficial uses occur, there are no defined threshold conditions that can be used to set objectives for flows and project operations. Instead, available information indicates that a continuum of protection exists. Higher flows and lower exports provide greater protection for the bulk of estuarine resources up to the limit of unimpaired conditions. Therefore, these objectives are set based on a subjective determination of the reasonable needs of all the consumptive and nonconsumptive demands on the waters of the Estuary.

(Draft 2006 Bay-Delta Plan, p.10.) Those statements are taken directly from the 1995 Bay-Delta Plan. (1995 Bay-Delta Plan, pp.14-15.) If those statements are not changed to reflect the fact that they are based on information available in 1995, the administrative record for the Amended Bay-Delta Plan must include information to support them. That is true for all statements made and all objectives adopted in the Amended Bay-Delta Plan. By this comment, the Authority does not suggest data or policy necessarily supports changes. Instead, if the Amended Bay-Delta Plan includes statements or objectives unchanged from those contained in the 1995 Bay-Delta Plan, the State Water Board must explain why those statements and objectives, and presumably data and policy used to support them, remain relevant.

2. Clear Program of Implementation

The Program of Implementation established in the Draft 2006 Bay-Delta Plan contains extensive amounts of superfluous information. In particular, much of the Program of Implementation discusses how the 1995 Bay-Delta Plan has been implemented. (See Draft 2006 Bay-Delta Plan, pp. 21–end.) For example, the Draft 2006 Bay-Delta Plan provides:

The DWR and USBR have an ongoing responsibility to comply with the municipal and industrial, agricultural, and fish and wildlife objectives pursuant to the terms and conditions in their permits and licenses. Under their water right permits and license, the DWR and the USBR currently are required to comply with these objectives on an interim basis
until the State Water Board adopts a further decision re-assigning responsibility for meeting these objectives.

(Draft 2006 Bay-Delta Plan, p. 21.) 4 Those types of statements are not relevant to the Program of Implementation and will only cause confusion if and when the Amended Bay-Delta Plan is implemented and/or requires interpretation. As section 13242 of the Water Code provides: "The program of implementation for achieving water quality objectives shall include, but not be limited to: (a) A description of the nature of actions which are necessary to achieve the objectives, including recommendations for appropriate action by any entity, public or private; (b) A time schedule for the actions to be taken; (c) A description of surveillance to be undertaken to determine compliance with objectives." (Water Code, § 13242.) The Program of Implementation in the Amended Bay-Delta Plan should be so focused.

Specific Comments

1. Chloride Objectives

During the workshop that preceded the Draft 2006 Bay-Delta Plan, the Authority, the State Water Contractors ("SWC"), Reclamation, and the Department of Water Resources ("DWR"), each requested that the State Water Board add a new compliance location in Old River, near Holland Tract. 5 The Authority did not nor does it here request the addition of a compliance point because it necessarily objects to the chloride objectives established in the 1995 Bay-Delta Plan. Rather, an additional compliance point in Old River, near Holland Tract is proposed to provide greater options to the State Water Board when implementing the Draft 2006 Bay-Delta Plan.

Currently, a compliance point for the chloride objectives exists at the end of Rock Slough, at Pumping Plant No. 1 on the Contra Costa Canal. (Appendix 1 to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ("Appendix 1", p. 37.) The State Water Board adopted the chloride objectives and established that compliance point in or before 1978. (Exhibit DWR-13, p. 2.) At the time, the Contra Costa Water District ("CCWD") relied heavily on water diverted at Pumping Plant No. 1. (Id.) Therefore, water quality at Pumping Plant No. 1 was

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4 Notwithstanding their relevance, those statements, and others contained in the Draft 2006 Bay-Delta Plan, inaccurately characterize how the State Water Board implemented the 1995 Bay-Delta Plan.

5 See Exhibits SLDM-06A, pp. 2-6, and SDLM-07, pp. 41-43, SWC-11, pp. 11-12, and DWR-13, pp. 3-9.
generally the same as water quality at the confluence of Old River and Rock Slough. Reclamation and DWR were thus assigned responsibility for meeting the chloride objective at the Rock Slough compliance point. (State Water Board Decision 1641 ("D-1641"), p. 146.)

Since 1978, however, many changes have occurred in the Delta. (Exhibit DWR-13, p. 2.) The most relevant change is the construction of the Los Vaqueros Reservoir. (Id; SWC-11, p. 11.) As a result of that action, CCWD changed the way it takes water from the Delta, including water pumped at Pumping Plant No. 1. (Exhibit SWC-11, p. 11.) More specifically, since construction of the Los Vaqueros Reservoir, CCWD has reduced its Rock Slough diversions, such that at times Rock Slough essentially becomes a dead-end channel, and water in the Slough becomes stagnant. (Id.; Exhibit DWR-13, pp. 4-5.) The stagnation impairs water quality. That problem is exacerbated by poor quality drainage water entering Rock Slough from Veale Tract and other neighboring Delta islands, and seepage into the Contra Canal that is unrelated to CVP or SWP operations. (Exhibit SWC-11, p. 11.)

When those conditions exist, CVP and SWP operations cannot effectively maintain quality water at the Rock Slough compliance point. (Exhibit DWR-13, pp. 5-6.) Indeed, as reflected in Appendix 1 to the 2006 Draft Bay-Delta Plan, CCWD, Reclamation, and DWR all agreed that during low flow periods in the Rock Slough ("Appendix 1"), DWR and Reclamation have limited ability to control chloride concentration at Pumping Plant No. 1. (Appendix 1, p. 39.) For these reasons, there appears no legal or policy rationale that could explain why Reclamation or DWR should be solely responsible for maintaining the chloride objective at Rock Slough under those conditions.

The Authority recognizes that there are two ways to more equitably allocate responsibility. One approach is the addition of a compliance location in Old River, near Holland Tract. The additional compliance point would allow the State Water Board in a subsequent proceeding to allocate responsibility for compliance (1) at the new location to Reclamation and DWR, and (2) at the Rock Slough compliance point to Reclamation and DWR when they are able to control water quality at that location (sufficient pumping at Pumping Plant No. 1), and to other entities, such as CCWD, whose actions affect water quality between Old River, near Holland Tract and the end of Rock Slough, at Pumping Plant No. 1 on the Contra Costa Canal. The other approach is to not add a compliance point Old River, near Holland Tract, but in a subsequent proceeding allocate the responsibility for compliance with the chloride objectives to more then just Reclamation and DWR – again other entities whose actions contribute to the
As part of the request made by the Authority during the workshop that preceded the Draft 2006 Bay-Delta Plan, the Authority supported means of allocating responsibility at the Rock Slough compliance point and the recommended new compliance point in Old River near Holland Tract. (See Exhibit DWE-13, p. 39, and CWD-07, p. 11). The Authority recognizes that the request on how responsibility should be allocated must be set for the water rights proceeding that will follow.

Water quality control measures that can be implemented in part or in whole by assigning responsibility to water right holders and water users to mitigate for the effects of their diversions and use of water.

Notwithstanding, if the State Water Board is not inclined to add a compliance point in Old River near Holland Tract, it should state explicitly in the Program of Implementation Plan or (2) during the water rights proceeding that follows adoption of an amended Bay-Delta Plan, the Authority is not inclined to add a compliance point in Old River near Holland Tract, it should state explicitly the role of the State Water Board in the Program of Implementation Plan.

The Authority recommended that the State Water Board follow the former approach. Through the issuance of the Draft 2006 Bay-Delta Plan, the Authority’s recommendation was rejected. Appendix 1 first explains that the additional compliance point could not be included because the State Water Board had not received adequate documentation, including documentation that would form the basis for environmental analysis. Appendix 1 then explains that, even if that documentation were provided, the addition could not be made because no other entity had been identified which should be recouped to meet the objective at the existing Rock Slough compliance point. (Appendix 1, p. 39) Both of these responses are insufficient. It is not the role of the Authority or any other person or entity recommending changes to the 1995 Bay-Delta Plan to prepare environmental report or analysis required that the State Water Board may assign responsibility for helping achieve the chloride objectives.

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2. Flexing For Delta Outflow Objectives And Export Limits

A. The Need To Avoid Over-Compliance And Allow For Flexing Of The Delta Outflow Objective

The Authority proposes changes to the Delta outflow objectives that would not require any change in the protections they afforded to fish and wildlife. (Exhibit SLDM-16B; Exhibit SLDM-18, pp. 4-5, 12.)

i. Avoidance of Over-Compliance

The Delta outflow objectives are expressed generally as a number of days in a particular month in which the maximum daily average electrical conductivity of 2.64 mmhos/cm must be maintained at a specified location. (Draft 2006 Bay-Delta Plan, p. 20.) The Delta outflow objectives were established as “habitat indicators”, based primarily upon average multi-month data concerning species/outflow relationships. The State Water Board has assigned responsibility for the Delta Outflow objectives to Reclamation and DWR. (D-1641, p. 146.)

The ability of Reclamation and DWR to precisely meet the number of days in a particular month of an electrical conductivity of 2.64 mmhos/cm at the specified location is extremely difficult. (Exhibit SLDM-18, p. 2.) This is so because the electrical conductivity at a specified location is dependant upon numerous variables, including weather conditions, tides, winds, and other natural elements. (Id. at 2-3.) Thus, because of the risk of enforcement actions if the Delta outflow objectives are exceeded, Reclamation and DWR operate the CVP and SWP, respectively, very conservatively. (Id. at 3.) They often achieve the electrical conductivity of 2.64 mmhos/cm at the specified location on more days in a particular month then required. (Id.)

This over-compliance with the Delta outflow objectives cost the CVP and SWP many thousands of acre-feet of stored water, a result that is particularly disturbing given the “indicator” nature of the Delta outflow objectives and the Delta outflow objectives being based upon average multi-month data concerning species/outflow relationships. (Id.)7 To avoid that unnecessary water cost, the Authority proposes a modification of the

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7 The waste of water is made more alarming by the fact that since the Delta outflow objective was established in 1995, recent data shows that many of the relationships used to support the objectives were unfound or not as strong as once thought. (See SDLM-07, p. 18.)
means in which the Delta outflow objectives are implemented. The Authority proposes that the Amended Bay-Delta Plan provide a compliance buffer that authorizes monthly compliance to occur within the month or within a certain number of days after the end of the month.

ii. Flexing

The Authority also requests that the State Water Board amend the Delta outflow objectives to increase their flexibility. Analyses performed during the workshop that preceded the Draft 2006 Bay-Delta Plan suggest that flexibility, if exercised, could "produce" ten of thousands if not hundreds of thousands of acre-feet of water, with the real potential to increase protections for beneficial uses. (Exhibit SLDM-16B.) And while the 1995 Bay-Delta Plan established the concept that allowed for flexing of the Delta outflow objectives in limited circumstances, the concept was principally applied to the Export Limit objectives. (1995 Bay-Delta Plan, p. 21, fn. 22.) Below, the Authority presents again its proposal for a process to guide flexing of the Delta outflow objectives. The process is designed to allow for flexing only when the United States Fish and Wildlife Service, the National Oceanic and Atmospheric Administration National Marine Fisheries Service, and the California Department of Fish and Game ("federal and state fishery agencies") and the State Water Board find that the flex would not cause significant harm to the intended beneficial uses protected by the Delta outflow objectives.

B. The Need For A Strong Process To Guide Export Limits Flexing

The Draft 2006 Bay-Delta Plan would allow for flexing of the Export Limit objectives similar to the existing authority under the 1995 Bay-Delta Plan. As set forth in footnote 18 to Table 3 in the Draft 2006 Bay-Delta Plan, variations to the export limits could occur if the federal and state fishery agencies agree. Short-term variations would also be authorized for the purpose of facilitating a study of the feasibility of recirculating export water into the San Joaquin River to meet flow objectives. (Draft 2006 Bay-Delta Plan, pp. 15-16.) The conditions imposed on the flexibility would be: (1) an expressed intent that it result in no net water loss supply cost annually within the limits of the water quality and operational requirements of the Draft 2006 Bay-Delta Plan, and (2) the Executive Director of the State Water Board's veto power over any variations. The Authority supports the continued authority to flex, but believes the process could be improved.
C. Process For Flexing

The Authority proposes that the State Water Board impose a process that guides the consideration of flexing the Delta outflow objectives and Export Limits objectives.\(^8\) The process is explicitly science-based, and provides a final product that supports a decision to either allow or deny flexing. The ultimate result of the process is more transparency and greater accountability. The process is as follows:

1. The federal and state fishery agencies, Reclamation, and DWR (collectively, the "Agencies") shall meet to determine whether a variation or flex of the Delta outflow or Export Limit objectives should be considered:

   A. Immediately before the relevant objective begins controlling Delta operations, and
   B. If, during the time a particular objective is controlling Delta operations, there is a change in the fishery of hydrologic conditions that existed at the time the objective became controlling.

   Full consideration of a flex will be initiated if, during any consultation, any one of the Agencies requests it.

2. When full consideration is initiated, the Agencies shall:

   A. Develop an alternative or alternatives for how the objective could flex ("Action Alternative(s)").
   B. Consider for each Action Alternative how the water that would otherwise be necessary to meet the objective ("saved water") would be subsequently used. Saved water shall revert to the CVP and SWP for authorized uses, unless the Management Agencies can provide a scientific basis showing a need by fish and/or wildlife for additional water, in which case no more then 50 percent of the saved water can be used for that (those) purpose(s).
   C. In determining how saved water will be used, provide for multiple use of the saved water whenever possible.
   D. Provide science-based evaluations of a "no-action" alternative and each Action Alternative developed, including: (i) quantified estimates of population level effects on fishery resources; (ii) quantitative estimates of

\(^8\) As the Authority previously presented, this process could also apply to the Rio Vista objective.
effects on water supply and water quality; and (ii) quantitatively estimates of effects on water supply and water quality; and (iii) quantified estimates of uncertainty for both population level, water supply, and water quality effects.

E. Not propose an Action Alternative that:
   i. During the February through June period (other than during a VAMP flow/pumping restriction), and for the export objective, would cause an increase in the E/I ratio of more than ten percent (i.e., 35% to 45%).
   ii. During the VAMP 31-day pulse period, and for export objective, would cause pumping to exceed 200% of 3-day running average of San Joaquin River flow at Vernalis.
   iii. During the July through January period and for the export objective, would cause an increase in the E/I ratio of more than ten percent (i.e., 65% to 75%).
   iv. For the outflow objective, would (a) occur when the Port Chicago standard is not triggered, (b) cause Delta overflow to fall below 20,000 cfs, or (c) cause the February through June average location of X2 to move more than one kilometer further upstream from the Golden Gate Bridge.
   v. For any objective, would impair the ability of Reclamation or DWR to meet their respective contractual obligations.
   vi. For any objective, would cause a significant adverse environmental effect.

3. If the Agencies agree on a single Action Alternative, the Agencies shall immediately notify the Executive Officer of the State Water Board of the decision. The Agencies shall, within 24 hours of reaching the decision, provide the Executive Officer with a written description of the Action Alternative and the reason for the decision. The Agencies may begin implementing the Action Alternative 24 hours after the Agencies notified the Executive Officer. If the Executive Officer does not object to the decision within 5 days, the decision by the Agencies will remain in effect. If the Action Alternative is implemented 24 hours after the Agencies provided the Executive Officer notice, but the Executive Officer objects to the decision within the 5-day period, the State Water Board shall consider the CVP and SWP in compliance with the objective during any under-compliance that results directly or indirectly from implementing the Action Alternative.
4. On or before January 1 of each year, the Agencies shall prepare and transmit to the Executive Officer of the State Water Board a report summarizing flexing activities, accounting for the changed water use, describing how the saved water was allocated among beneficial uses of flexing over the course of the prior year, consistent with the requirements under paragraph 2. The report shall provide the information required under paragraph 2 for each occasion when full consideration of a flex was initiated, whether or not the Agencies agreed on an Action Alternative. For instances when full consideration of a flex was initiated but agreement not reached, a majority and minority report may be included in the report. As soon as possible, the Executive Officer shall make the report available for public review.

5. The Agencies shall include one State Water Board staff member who may participate in, but not vote on, all deliberations required to reach a decision on an Action Alternative. The funding for this staff member shall be provided by the Agencies. The staff member shall:

   A. Participate in all actions required under paragraphs 2 and 4;
   B. Assist the Executive Officer of the State Water Board in determining whether or not to object to an Action Alternative; and
   C. Assist in developing and amendments or supplements to this Decision Tree.

This process was rejected in the Draft 2006 Bay-Delta Plan for the for the following reasons: (1) a failure to provide analysis that demonstrates a flex will protect the beneficial uses; (2) an unwillingness to accept the process until causes of the pelagic organism decline are understood; and (3) a failure by the proponents of the process to provide sufficient studies, modeling, and environmental analysis of the impacts of the process. (Appendix 1, p. 43.) None of those reasons are sufficient to reject the process.

Inherent in the rationale for rejecting the proposal is the underlying assumption that introducing the ability to flex the Delta outflow objectives and applying a process to guide all flexing decisions (outflow and exports) would somehow lead to further harm of

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9 The Authority would also support a requirement that the Agencies provide the State Water Board with a report after each flex consideration.
pelagic organisms or impair protections currently afforded to fish and wildlife. This is not true. The Authority and others specifically designed the flexing process so that flexing would not occur if the federal and state fishery agencies and the State Water Board believed it was inappropriate. Under the proposal, any one of those agencies has the power to preclude a proposal for flexing. Additionally, the need for additional studies, modeling, and environmental analysis is beyond the scope of the Authority's role in this process and should not form the basis for the proposal being rejected.

In conclusion, the Authority's proposals for flexing would provide a mechanism that could solve several important problems with the current Delta outflow and Export Limits objectives. It would ensure that decisions on flexing were science-based and well reasoned, thus improve both consistency and transparency of decisions. It could also produce water that would be available for subsequent beneficial use, including for fish and wildlife.

4. Southern Delta Agricultural Salinity Objectives

The Authority does not object at this time to the southern Delta objectives. Instead, the Authority objects to the extensive and often times conflicting discussion of the southern Delta objectives, particularly in the Program of Implementation.

The Draft 2006 Bay-Delta Plan states clearly that concerns for salinity in the southern Delta result from low flows; salts imported in irrigation water by the State and federal water projects; municipal discharges; subsurface accretions from groundwater; tidal actions; diversions of water by the SWP, CVP, and local water users; channel capacity; and discharges from land-derived salts, primarily from agricultural discharge. (Draft 2006 Bay-Delta Plan, p. 26.) Each of those factors affect salinity differently (if at all) at the four southern Delta compliance locations: San Joaquin River at Airport Way Bridge, Vernalis, San Joaquin River at Brandt Bridge, Old River near Middle River, and Old River at Tracy Road Bridge. Thus, the Draft 2006 Bay-Delta Plan should explain (1) if each factor affects salinity at the different compliance location, and (2) when necessary, how the State Water Board will address each of those factors at the different compliance locations to ensure the southern Delta objectives are not exceeded. It fails to do that.

10 As used in the Draft 2006 Bay-Delta Plan, “southern Delta”, includes locations (1) in the San Joaquin River at Airport Way Bridge, Vernalis, (2) in the San Joaquin River at Brandt Bridge, (3) in Old River near Middle River, and (4) in Old River at Tracy Road Bridge. (See e.g., Draft 2006 Bay-Delta Plan, pp. 12, 26.)
Currently, the Draft 2006 Bay-Delta Plan improperly merges the Program of Implementation for all of the southern Delta objectives, (See Draft 2006 Bay-Delta Plan, p. 27), and relies upon an unlawful interpretation of D-1641 – one which seeks to impose sole responsibility on Reclamation and/or DWR. (See Draft 2006 Bay-Delta Plan, p. 26.) By merging the Program of Implementation for the southern Delta objectives and relying upon an unlawful interpretation of D-1641, the Draft 2006 Bay-Delta Plan presents a Program of Implementation that is unclear and may not result in the State Water Board or other agencies implementing the objectives in a lawful manner.

At a minimum, based on the factors presented above, the Program of Implementation must state clearly and emphatically that the southern Delta objectives will be implemented through the State Water Board’s water rights and water quality authorities, including regulation of water diversions, pollutant discharge controls, best management practices to control the amount of waste produced, and improvements in water circulation. (Draft 2006 Bay-Delta Plan, p. 26.) Indeed, such a statement may be required to advance the stated purpose of the Amended Bay-Delta Plan, which, as quoted above, is to achieve the objectives by requiring “water rights holders and water uses to mitigate for the effects on the beneficial uses of their divisions and use of water.” (Draft 2006 Bay-Delta Plan.)

For these reasons, the Authority respectfully requests that the State Water Board revise the Draft 2006 Bay-Delta Plan to:

- Include a new compliance point in Old River, near Holland Tract,

- Allow for greater flexibility of the Delta outflow objective,

- Include a process to guide the decision-making for flexing the Delta outflow and Export Limit objectives, and

- Refine the statements concerning the southern Delta salinity objectives to make plain that the State Water Board will implement those objectives, through exercise of water rights and water quality authorities,
and in a manner that causes those affecting salinity levels because of their divisions and use of water to mitigate for their impacts.

Thank you for your consideration of these comments.

Very truly yours,

DIEPENBROCK HARRISON
A Professional Corporation

By

Jon D. Rubin
Attorneys for the San Luis & Delta-Mendota Water Authority

cc: Daniel Nelson
    Thomas Birmingham
by email and hand delivery

November 12, 2006

Tam Doduc, Chair
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95814

RE: DRAFT BAY-DELTA PLAN AMENDMENTS

Dear Chairwoman Doduc,

This letter is submitted as the comments of the Bay Institute regarding the September 2006 draft amended Water Quality Control Plan (WQCP) for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary.

We strongly disagree with the Board’s findings in the draft Plan Amendment Report that insufficient information exists to revise the numeric objectives in the WQCP. Furthermore, considering the clear evidence that the WQCP’s current objectives are failing to protect fish and wildlife beneficial uses – as demonstrated by the recent and ongoing population collapse of Delta pelagic fish species and the fact that a number of salmonid populations in the Central Valley are not on a trajectory to doubling – we are astounded that the Board has failed to take any substantive action to improve the level of protection provided by the WQCP. By adopting the draft WQCP in its current form the Board would plainly and simply be refusing to adequately discharge its federal and state Clean Water Act obligations.

We urge the Board to reconsider its proposed, minor changes to the WQCP and instead adopt stronger, more protective numeric objectives for Delta outflows, river flows, and export controls, including those described in our earlier submittals. If the Board is not prepared to do so, however, we recommend as an
alternative that it adopt the following measures – which do not involve developing new numeric objectives – in order to improve protection of fish and wildlife beneficial uses:

1. **Delete the “no net water supply impacts” language from Footnote 18 (also referenced in Footnote 20) to Table 3, Water Quality Objectives for Fish and Wildlife Beneficial Uses.** The 1995 WQCP replaced an export criterion that has a weak correlation to biological effects (QWEST) with a criterion that has absolutely no correlation at all (the Export/Inflow, or E/I, Ratio). No party seriously argues that the E/I Ratio has any biological basis as an objective for fish and wildlife beneficial uses. Furthermore, both the magnitude of the seasonal shift in Delta export pumping and the magnitude of related effects on Delta fish species was grossly underestimated at the time the 1995 WQCP was adopted. Recent investigations into the collapse of Delta pelagic fish populations indicate significant correlations between export pumping levels during the December – March period and delta smelt take and abundance (see W.A. Bennett, et al; and P.E. Smith et al; in CALFED, 2006). The ability to reduce export pumping levels during this period is likely to be critical to the survival of delta smelt and other pelagic species. To date, tragically, export modifications of the scale necessary to protect the beneficial use have been constrained by the language in the third sentence of Footnote 18 (referenced in the second sentence of Footnote 20) which is generally interpreted as a prohibition on variations in the E/I ratio that result in net annual water supply impacts. The Central Valley Project and the State Water Project currently modify export operations to the extent that the CALFED Environmental Water Account (EWA) is able to provide replacement water supplies. Unfortunately, the EWA has been consistently under-resourced and under-utilized since its inception. More importantly, the primary source of EWA assets is export pumping to south-of-Delta storage, which may be contributing to the very decline of the species the EWA is intended to benefit. Deleting the third sentence of Footnote 18 would allow more frequent, larger and experimental variations in the E/I ratio in order to respond to emergency conditions for Delta pelagic fish species even if such variations result in net annual water supply impacts. Clearly, the CVP and SWP would modify operations to offset and reduce these impacts, but they should not be constrained from causing such impacts in the first place, in order to ensure that beneficial uses are not degraded beyond repair. Adopting this proposed amendment would not involve the development of any new numeric objectives.

2. **Establish a Bay-Delta Protection Fund.** In lieu of adopting new numeric objectives, the Board could require water rights permit holders to make payments into a special Bay-Delta Protection Fund to support adaptive management actions to increase protection of beneficial uses. Actions
implemented using the Fund could include water acquisitions, habitat restoration, invasive species control, toxics loading reductions, and other projects, to be administered by the Board or a designated resource agency such as the California Department of Fish and Game. Payments by CVP water users into the CVPIA Restoration Fund could be credited against new Bay-Delta Protection Fund requirements. A description of such a fund should be included in the Plan of Implementation, Section A, Implementation Measures within State Water Board Authority.

3. Require that data collection efforts and analyses necessary to improve WQCP protection are conducted. In a number of places, the draft Plan Amendment Report states that insufficient information exists to revise specific objectives. Our disagreement with these findings notwithstanding, surely the Board must recognize that sufficient information exists to show that fish and wildlife beneficial uses are not being adequately protected, and that additional protections should be developed and adopted. Rather than simply inviting other regulatory agencies and water rights permit holders to present information on a voluntary basis, the Board should require that specific information needs are addressed on a set schedule as part of a continuing review of the WQCP, with the aim of revising particular objectives by a date certain. We recommend that Board consider the use of a neutral institution, such as the University of California or the U.S. Geological Survey, to conduct and coordinate these investigations, in conjunction with and funded by relevant agencies and permit holders. In the Plan of Implementation, Section A, Implementation Measures within State Water Board Authority, the Board should more fully describe its specific information needs, most importantly for revisions to the WQCP's current export criteria and San Joaquin River flow objectives, and numeric criteria to complement the narrative salmon protection objective.

In conclusion, we urge the Board to adopt more protective numeric water quality objectives, or, failing that, the alternative WQCP amendments recommended above that will allow the Board to more adequately fulfill its obligation to protect fish and wildlife beneficial uses. Please contact me if you have any questions regarding these comments.

Sincerely,

Gary Bobker
Program Director
415-506-0150
bobker@bay.org
Reference:

COMMENTS OF STOCKTON EAST WATER DISTRICT

CONSIDERATION OF AN AMENDED WATER QUALITY CONTROL PLAN FOR THE SAN FRANCISCO BAY/SACRAMENTO-SAN JOAQUIN DELTA ESTUARY

Stockton East Water District (SEWD) submits the following comments on the State Water Resources Control Board’s (State Water Board) Consideration of an Amended Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. SEWD will address two issues: (1) San Joaquin River Flows, Vernalis: February – April 14 and May 16 – June, and (2) Emerging Issues identified by the State Water Board.

San Joaquin River Flows, Vernalis: February - April 14 and May 16 – June

The State Water Board accepted considerable testimony regarding the San Joaquin River at Airport Way Bridge, Vernalis, for February through April 14 and May 16 through June (collectively referred to as “San Joaquin River Flow Objective”) in the Water Quality Objectives for Fish and Wildlife Beneficial Uses (Table 3 of the 1995 Plan). The Plan Amendment Report – Appendix 1 provides a comprehensive summary of the evidence submitted. Unfortunately, the State Water Board has effectively ignored the evidence submitted supporting revisions to the San Joaquin River Flow Objective in favor of additional study. SEWD believes based on the evidence submitted that elimination or modification of the San Joaquin River Flow Objective is required as there is no scientific or biological basis for the existing objectives.

Stockton East Water District supports modification of the San Joaquin River Flow Objective because it is not supported by any scientific or biological basis.

The San Joaquin River Flow Objective should be eliminated because there is no scientific or biological basis for the established objectives. The existing objective is a negotiated political solution via the Principles for Agreement, not an objective based on sound scientific documentation. Both the San Joaquin River Group Authority and SEWD submitted evidence supporting eliminating or, at a minimum, reducing the San Joaquin River Flow Objectives.
In developing the San Joaquin River Flow Objective, which is the San Joaquin River contribution to the Delta Outflow, the parties to the negotiated agreement arbitrarily set the San Joaquin Flow Objective at either 10%, 20% or 30% of the surrogate X2 Delta Outflow at either Collinsville or Chipps Island. No biological assessment or other scientific justification supported these figures; the parties simply picked a percentage.

Significant information since adoption of the 1995 Plan, all of which supports elimination of the San Joaquin River Flow Objective for the following reasons:

- The required San Joaquin River flows contribute little to Delta outflow. The majority of San Joaquin River flow is exported by the SWP and CVP at the pumps with 0.1% of San Joaquin River flow making up Delta Outflow at Martinez.

- Tidal flows overwhelm net flows in the Delta and more strongly affect Delta smelt movements and distribution, so only very high Vernalis flows are likely to affect Delta smelt transit times significantly. This significantly reduces the value of making San Joaquin River flows for the protection of Delta smelt.

- Recent evidence suggests that intermediate to high late winter and spring flows in the San Joaquin River attract spawning adult Delta smelt into the South Delta, potentially leading to increased entrainment.

- Evidence supports elimination of the May 16 through June flow objectives as these flows are not needed for the protection of out-migrating salmon smolts as most salmon smolts have left the San Joaquin River system by late May and the temperature levels in the San Joaquin River may be lethal at times. (See SEWD-01, SJRG-19)

Instead of considering this evidence, the State Water Board has requested Federal, State and interested agencies to conduct specific studies to determine whether and what changes should be made to the Spring Flow Objectives, including the San Joaquin River Objective. What is completely ironic, frustrating and frankly nonsensical about this request is that there are no such similar studies done originally to justify these objectives, but instead
were established by negotiated agreement, but now, the State Water Board will not modify these objectives until adequate study has been completed.

The State Board should not tie the San Joaquin Flow Objective to Delta Outflow Objectives

The San Joaquin River Flow Objective during February through April 14 and May 16 through June is improperly tied to hydrologic conditions in the Sacramento River basin. While, Table 3 – Footnote 13 states that the water year classification for the San Joaquin River flow objectives are established based on San Joaquin Valley Water Year Hydrologic Classification at the 75% exceedence level, a higher level of flow is triggered if X2 is at or west of Chipps Island. Location of X2 is highly dependent on Sacramento River flow conditions.

Two of the past four years illustrate why a change is needed. In both 2003 and 2004, the higher flow value was triggered because of Sacramento River flow moving X2 west of Chipps Island, while conditions in the San Joaquin River Basin were dry.

There is no scientific or biological justification for the flow objectives on the San Joaquin River, let alone the higher flows triggered by the placement of X2. Moreover, there is insufficient justification for the higher flow objectives on the San Joaquin River and tying it to Sacramento River hydrology. The State Water Board recognized this dilemma, but made no changes and instead recommended additional investigation of whether changes are justified to better represent hydrological conditions in the San Joaquin River Basin. (Appendix 1, page 57) We disagree with the State Water Board recommendation. SEWD believes the lower flow value currently contained in the 1995 Plan should be the controlling flow objective during the February through June period and the reference to X2 in Footnote 13 deleted. Any additional flow necessary to meet the existing X2 objective should be borne by the Sacramento River Basin.
We recommend Table 3 be modified as follows:

<table>
<thead>
<tr>
<th>Outflow/ Water-Year Type</th>
<th>Wet</th>
<th>Above Normal</th>
<th>Below Normal</th>
<th>Dry</th>
<th>Critical Dry</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Joaquin River at Airport Way Bridge, Vernalis</td>
<td>2130 cfs</td>
<td>2130 cfs</td>
<td>1420 cfs</td>
<td>1420 cfs</td>
<td>710 cfs</td>
</tr>
</tbody>
</table>

Emerging Issue #3 – Central Valley Salinity

As a result of a joint State and Regional Board workshop on Central Valley Salinity issues held in January 2006, the State Water Board supports development of a Salinity Management Plan for the Central Valley and Delta to protect the beneficial uses of both surface water and groundwater. While SEWD is supportive of such a plan, SEWD does not believe that it will take 40 to 50 years to implement. Salinity issues in the Central Valley and in particular in the San Joaquin River are not new issues. There have been dozens of studies prepared over the years that illustrate the problem and offer solutions; unfortunately, the only solution that has been implemented to date regarding salinity in the San Joaquin River has been to require releases of high quality dilution water from New Melones Reservoir, which has significantly impacted water deliveries to SEWD. We suggest that the stakeholder group take a hard look at the existing studies, findings and reports to develop the plan which can and should be implemented in short order.

Finally, SEWD wants to ensure that on-going processes will not be postponed or delayed awaiting the Salinity Management Plan. In specific, the State Water Board since 1995 has directed the Central Valley Regional Water Quality Control Board to adopt salinity objectives upstream of Vernalis on the San Joaquin River. In D-1641, the State Water Board once again directed the Regional Board to adopt salinity objectives upstream of Vernalis. And, most recently, at the January 2006 workshop, the State Water Board again directed the Regional Board to adopt objectives upstream of Vernalis and return these
objectives to the State Water Board by November of this year. The Regional Board has failed all of these mandates by the State Water Board and is now projecting salinity objectives by September 2007. We respectfully request the State Water Board not allow development of the Salinity Management Plan to slow down in any way development and adoption of salinity objectives upstream of Vernalis.

Conclusion

We appreciate the opportunity to provide written comments on the Consideration of an Amended Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary.

Respectfully Submitted,

HERUM CRABTREE BROWN
A Professional Corporation

KARNA E. HARRIGFELD
Attorney for Stockton East Water District
November 6, 2006

Via Facsimile and U.S. Mail


Dear Chairman Doduc and Honorable Board Members:

Suisun Resource Conservation District (SRCD) is a conservation district created by special legislation (Public Resources Code §§ 9962 et seq.), and has the primary responsibility for regulating and improving water management practices on privately owned lands within Suisun Marsh. SRCD actively participated in the development of the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (1995 Plan), and is party to the Suisun Marsh Preservation Agreement (SMPA) and related agreements. SRCD is also a principal agency in the formation of the Habitat Management, Preservation and Restoration Plan for Suisun Marsh (Suisun Marsh Plan).


1. SRCD supports the SWRCB’s intention to use the Suisun Marsh Plan and its associated environmental documents to address the narrative objective for Brackish Tidal Marsh in Suisun Marsh, as appropriate. However, page 33, Section B.4 implies that the Suisun Marsh Charter Group (SMCG) was initiated as a result of the Suisun Ecological Workgroup effort being unable to recommend a single numeric standard to replace the narrative standard. This characterization of the reasons for forming the SMCG is inaccurate, and the descriptions on page 44, Section E.4 and on page 72 of the Appendix provide more accurate descriptions of SMCG’s formation. SRCD requests that the SWRCB amend the Appendix to include only the more accurate description of SMCG’s formation.

2. SRCD supports the course of action described on page 33 of the Draft 2006 Plan regarding “Numeric Objectives for Suisun Marsh.” In particular, SRCD supports the approach of allowing until
2015 to implement the suite of actions necessary to achieve “equivalent or better” protection to the water quality of the Suisun Marsh as measured at the S-35 and S-97 stations. Setting a deadline of 2015 allows sufficient time for implementation of the necessary actions, but also provides an added incentive to perform these actions in a timely manner. Many of the actions to address Suisun Marsh water quality have already been planned or committed to in the Revised SMPA and related agreements. Key actions remain outstanding, however, SRCD and the other parties are committed to their inclusion in the final Suisun Marsh Plan. Again, the 2015 compliance date provides a deadline that will encourage all parties to proceed with planning and implementing the Suisun Marsh Plan.

3. The Draft 2006 Plan proposes changes to Delta outflow. Existing objectives, such as the net Delta outflow index found in the 1995 Plan, provide ancillary benefits for the Suisun Marsh and were, in part, one reason for changes incorporated in the Revised SMPA. SRCD requests, therefore, that any proposed changes to Delta outflow objectives should consider the potential effects on Suisun Marsh.

4. There is an error in Item 4, page 44, of the Draft 2006 Plan. Item 4 suggests that a complete set of environmental compliance documents for the Suisun Marsh Plan has been issued. This is incorrect. To date, only the scoping report has been issued. The parties are now preparing the Programmatic Environmental Impact Statement/Programmatic Environmental Impact Report for the Suisun Marsh Plan.

5. On page 72 of the Appendix, the Principal Agencies in the SMCG are listed as two conflicting footnotes, 10 and 11. The SMCG includes an extensive array of agencies; all of which have interests (regulatory or other) in Suisun Marsh. An accurate list of the Principal Agencies is: SRCD, Department of Fish and Game, Department of Water Resources, U.S. Bureau of Reclamation, California Bay-Delta Authority, National Marine Fisheries Service, and U.S. Fish and Wildlife Service.

SRCD appreciates your consideration of these comments. Please do not hesitate to contact me if you have any questions.

Yours Very Truly,

Steven Chappell
Executive Director
November 11, 2006

Tam Doduc, Chairperson
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Dear Chairperson Doduc:

These comments are submitted on behalf of the San Joaquin River Group Authority. Our comments will follow the Draft Staff Report.

3. **Salmon Protection.**

   The SJRGA suggests the SWRCB require CDFG to tag all fish released from CDFG hatcheries.

4. **Dissolved Oxygen Objective.**

   The timing and duration of the DO objective should be addressed by CDFG, NOAA, USFWS and interested shareholders. The standard is set to protect Fall Run Salmon. Fall Run Chinook Salmon are not present at the DWSC in July and August. There may be a need for a DO standard in that time period, but it would not be for migrating adult SJR Fall Run Chinook Salmon.

**CONCLUSION:**

We appreciate the Board's consideration of the South Delta EC standard, the February – June flow objectives and the April – May pulse objective. The SJRGA reserves its rights to challenge these standards when the VAMP experiment is completed. The SJRGA agrees with the SWRCB to take a cautious approach to setting standards based on sound science. The SJRGA will therefore not renew its lawsuit against the SWRCB on the 1995 Bay-Delta WQCP at this time.

Very truly yours,

O’LAUGHLIN & PARIS LLP

By: [Signature]

TIM O’LAUGHLIN

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Public Workshop Comments
Draft Water Quality Control Plan
for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary
State Water Resources Control Board
November 13-14, 2006

Comments of San Joaquin Audubon Society,
Marin Audubon Society and Golden Gate Audubon Society
INTRODUCTION

San Joaquin Audubon Society, Marin Audubon Society and Golden Gate Audubon Society appreciate the opportunity to provide input to the State Water Resources Control Board’s Board review of its Draft Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary dated September 2006. These three Audubon Society chapters have participated in the Board’s water quality and water rights allocation reviews for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary for more than twenty years. Most recently, these Audubon Society chapters sought and secured judicial review of the Board’s Water Right Decision 1641 (D-1641) in order to assure that water rights to the San Joaquin River were allocated in a manner consistent with the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary adopted in May 1995 (1995 Plan).

That litigation resulted in a ruling from the Third District Court of Appeal overturning D-1641 because it failed to implement the Vernalis Pulse Flow Objective in the 1995 Plan while the San Joaquin River Agreement (SIRA) is in effect, and failed to implement the 1995 Plan’s southern Delta salinity objectives. State Water Resources Control Board Cases (2006) 136 Cal.App.4th 674, 777, 844. The Court of Appeal remanded D-1641 to this Board to conduct further proceedings to “either assign responsibility for meeting the Vernalis Pulse Flow Objective and the southern Delta salinity objectives or to modify those objectives.” 136 Cal.App.4th at 844. In response, the Board has circulated its Draft Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Draft Plan) for public review. Accordingly, the Audubon Society chapters submit these comments.

The Draft Plan falls far short of achieving the salmon doubling objective required by state and federal law. We respectfully object to the Draft Plan, and request significant strengthening of its water quality standards, in the following respects:

DISCUSSION

1. The Draft Plan Fails to Acknowledge the Impending Collapse of the Bay-Delta Ecosystem, and the Utter Failure of Existing Regulatory Controls.

As required by state and federal law, the 1995 Plan directed, in its Salmon Protection Table 3 Water Quality Objectives, that “[w]ater quality conditions shall be maintained together with other measures in the watershed, sufficient to achieve a doubling of natural production of chinook salmon from the average production of 1967-1991, consistent with the provisions [of] State and Federal law.” Contrary to this primary water quality objective, after adoption of the 1995 Plan the average escapement of fall-run chinook salmon in the San Joaquin River has continued to plummet. The average escapement from 1967 to 1991 was 18,211, yielding a doubling goal of 36,422 salmon. But instead of moving salmon production upward toward this goal, the Board’s weak and ineffective resource management policies have caused the average escapement to fall. Between 1992 and 2004, escapement averaged only 13,855 fall run chinook salmon, a 24 percent decline in escapement from 1967-1991 levels.
Instead of acknowledging the utter failure of its regulatory programs, and resolving to adopt the substantial reforms necessary to reverse the impending collapse of the Bay-Delta ecosystem, the Draft Plan proposes more of the same failed policies. Accordingly, we recommend the following improvements.

II. The Draft Plan’s Substitution of VAMP Target Flows for the Substantial Flow Increases Necessary to Restore Salmon Populations Must Be Rejected.

The Draft Plan proposes to further relax the already deficient Plan Flow Standards by supplanting the Spring Pulse Flow Requirements of the 1995 Plan with the less stringent VAMP experimental target flows through December 31, 2011 (or the termination of the SJRA, whichever occurs first). Draft Plan at 21-25. By thus further weakening, rather than strengthening, spring pulse flow objectives for the San Joaquin River, the Draft Plan becomes the problem rather than its solution, driving a final nail in the fall run Chinook’s coffin.

Instead the State Water Board should institute the flow reform measures recommended by the Department of Fish and Game in its March 2005 Public Workshop Comments on Issue 8 (Spring Pulse Flows in the San Joaquin River at Vernalis). The Board should also adopt the recommendation of hydrologist Arve R. Sjovold (attached, and discussed separately by the California Sportfishing Protection Alliance and others) documenting the need to substantially reduce exports from the Banks pumping facility during the months of December, January, February and March. These recommendations are summarized below.

III. The Magnitude and Duration of the VAMP Target Flows Are Too Low.

In its March 2005 Public Workshop Comments on Issue 8, the California Department of Fish and Game (CDFG) noted that “even with the flow objectives in the 1995 Plan, SJR [San Joaquin River] salmon populations are showing a declining trend.” Id. at p. 2. CDFG concluded that the 1995 Plan’s Spring Pulse Flow Objectives were inadequate because their duration was too short and their minimum flows were too low. Id. at p. 3. CDFG observed that “about 50% of salmon smolts out-migrate before Mid-April or after Mid-May and thus do not receive protection from conditions provided during the VAMP window.” Id. at p. 6. CDFG concluded that “prolonging the VAMP window of protection from April 1 to May 31, and changing the frequency of Standard Minimum Flow Levels” would result in “substantial gains in adult salmon escapement.”

In particular, CDFG’s review of applicable data demonstrated that “if the Delta Inflow Standard target flow levels to protect SJR salmon ... were changed in terms of increased magnitude, prolonged duration, and reduction in re-occurrence interval of the lowest Standard Year Type, then substantial gains in SJR adult salmon are possible.” Id. at p. 20. For example, CDFG estimated that these improvements could increase SJR chinook salmon
escapement to nearly 32,000 salmon, just 4,000 salmon short of the 1995 Plan's Narrative Salmon Doubling Goal of 36,000 SJR adult fall-run Chinook salmon. *Id.* CDFG pointed out that its recommended increase in the duration and minimum flow during the spring pulse period would also result in a substantial increase in steelhead trout smolt populations. *Id.* at p. 25.

IV. Increasing Spring Pulse Flows Will Reduce Excessively Warm Water Temperatures for Salmon and Steelhead Smolts.

CDFG’s comments also noted that “excessively warm water temperatures for salmon and steelhead smolts after the VAMP window time period (e.g., after May 15)” were due to substantial drops in post-VAMP flows at Vernalis. This reduction in flows in late May resulted in a significant increase in water temperature at Vernalis, approaching the 68 degrees Fahrenheit daily average lethal limit for salmon smolts. *Id.* at p. 26. CDFG pointed out that “[d]ata collected in the last 10 years suggest that if flows at Vernalis remain elevated (e.g., to approximately 4,000 cfs) during the May 16 through May 31 time frame, . . . then water temperatures from Vernalis to Jersey Point (e.g., interior Delta) should remain under the lethal limit (68 degrees Fahrenheit daily average) for salmon smolts outmigrating past Mossdale during the warmer air temperature time periods.” *Id.* at p. 26. Noting that “the existing body of scientific evidence . . . suggests that there is a strong correlation between the number of out-migrating smolts passing Middaugh and subsequent returns of adult salmon,” CDFG recommended “an expanded window with higher Vernalis flow objectives for increased protection of fry.” *Id.* at p. 27.

V. The Draft Plan Should Substantially Reduce Pumping from the Banks Facility During December, January, February and March.

Substantially increased State Water Project pumping during the winter appears to be a primary cause of the Bay-Delta’s ecological collapse. Winter pumping at the Banks pumping facility during the last four years of the 1990’s averaged only 573,000 acre feet. During the next five years, average State Water Project diversions during these four winter months more than doubled, to 1,331,000 acre feet. Non-Table-A diversions likewise increased dramatically from the late 1990’s to the early 2000’s. From 1996 through 1999, non-Table-A diversions averaged 257,000 acre feet. During the next five years, the non-Table-A diversions nearly doubled, to 473,000 acre feet.

Yet State Water Project releases from the Oroville dam decreased dramatically from the late 1990’s to the early 2000’s. Between 1996 and 1999, Oroville releases during these four winter months averaged 2,132,000 acre feet. During the following five years, from 2000 to 2004, however, Oroville releases averaged only 855,000 acre feet, less than half the pre-2000 level of releases.
This severe disparity between State Water Project inflow at the Oroville dam, and outflow at the Banks pumping facility, looms as the single most significant and fundamental change in management of the Bay-Delta system during the past decade. This dramatic increase in winter diversions relative to inflow appears to be a significant factor in the ongoing collapse of the Bay-Delta ecosystem. Accordingly, we strongly urge the Board to curtail Delta diversions during the winter months in order to restore much-needed balance to this obviously over-taxed ecosystem.

CONCLUSION

For the foregoing reasons, we urge the Board to reject the Draft Plan and to make the significant modifications we outline above.

Thank you for considering our comments on this important matter.

Stephan C. Volker
Attorney for San Joaquin Audubon Society, Marin Audubon Society and Golden Gate Audubon Society

November 13, 2006

Song Her, Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812

(Sent via email to: sher@swrcb.ca.gov)

These comments are in reply to the September 29, 2006 Draft Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. California Urban Water Agencies (CUWA) has been engaged in the Bay-Delta Water Quality Control Plan and related activities for many years. CUWA represents major statewide drinking water utilities that support progressive water management, protection of drinking water quality, and support for credible and sound science as a basis for addressing difficult water issues. Our comments on this proposed amendment to the existing Water Quality Control Plan relate to several emerging issues noted in the draft.

We appreciate the detailed attention the draft gives to the Pelagic Organism Decline (POD), climate change and Central Valley salinity. All three are important in the context of the Bay-Delta estuary, and activities in each area could have implications in the future to provisions of the Water Quality Control Plan. It is important to stay current on the state of scientific understanding on the POD and climate change studies, particularly since both areas are subject to a great deal of scientific study and investigations. We appreciate the leadership that the State Water Resources Control Board and the Central Valley Regional Board have taken to provide greater attention to salinity in the Central Valley.

CUWA is pleased the Board has acknowledged the Central Valley Drinking Water Policy in Chapter IV, Section E.2. of the Draft Water Quality Control Plan, as an important collaborative process that will provide information on the development of potential new water quality objectives to protect the municipal and industrial beneficial use. CUWA urges the Board staff to remain engaged in the Central Valley Drinking Water Policy process, and supports the Board’s plan to convene a workshop to consider new water quality objectives that may be adopted as part of the Central Valley Drinking Water Policy.

CUWA is working closely with the Central Valley Regional Water Quality Control Board, U.S. Environmental Protection Agency, California Department of Health Services, California Bay-Delta Authority and interested stakeholders on the development of the drinking water policy. Current work to support drinking water policy development includes conducting technical studies on sources of drinking water constituents of concern and evaluation of potential control strategies to protect drinking water quality. To support the development of the drinking water policy, there is a need for additional monitoring in the Delta of both the volume of agricultural discharges from Delta islands and the concentrations of drinking water constituents of concern (i.e., organic carbon, salinity, bromide and nutrients) in Delta agricultural discharges. This
information is needed to better understand the effects of discharge volume and quality on the municipal and industrial beneficial use. CUWA requests that the SWRCB consider including this monitoring need in Section C. Recommendations to Other Agencies, as a recommendation to the Central Valley RWQCB to include monitoring of volume and quality of Delta agricultural discharges in the implementation of the Irrigated Lands Conditional Waiver Program.

Thank you for the opportunity to provide comments. Please call me at (916) 552-2929 if there are any questions regarding our comments.

Sincerely,

Steve Macaulay
Executive Director
November 17, 2006

Ms. Tam M. Doduc, Chair  
State Water Resources Control Board  
P.O. Box 100  
Sacramento, CA 95812-0100

Subject: Department of Fish and Game clarification regarding its position on the proposed flexing of the Delta Outflow Objective presented to the Board during the hearing on the draft 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary

Dear Chair Doduc:

I appeared before the Board during the November 13, 2006, hearing on the Water Quality Control Plan. I am submitting this letter in order to clarify an issue which was raised with reference to the Department during that hearing. It concerns both potential flexing of the Delta Outflow Objective, commonly referred to as “X2,” and potential flexing of the flow objective for the Sacramento River at Rio Vista in the fall months.

On June 3, 2005, the CALFED Bay Delta Program Water Operations Management Agencies (WOMT) sent a joint letter to the State Water Board regarding a suggested revision to the 1995 Water Quality Control Plan (1995 WQCP) to consider “implementing the Delta Outflow objective at Port Chicago in a flexible manner to provide equivalent overall fishery protection benefits.” (WOMT Comments on X2 Delta Outflow at p. 2.) The WOMT agencies are: the Department; the Department of Water Resources; the U.S. Fish and Wildlife Service (USFWS); the NOAA National Marine Fisheries Service (NMFS); and, the U.S. Department of the Interior, Bureau of Reclamation. Most importantly, the joint WOMT proposal suggested a “flexing” of X2 which would incorporate all of the following considerations: It would be 1) limited to the objective at Port Chicago; 2) only for the purpose of balancing overall benefits/impacts between downstream and upstream fish; 3) requested through a process which guaranteed that Department, USFWS and NMFS were already in agreement that such flexing would benefit fish; and, 4) only allowed to create assets used later for ecosystem and fishery benefits.

At a January 18, 2005 workshop, the Department objected to adding flexibility to the Sacramento River at Rio Vista flow objective. The objective is minimally protective for upstream migrating adult salmon and already specifies a substantially lower flow objective in October – December following critically dry years.

Conserving California’s Wildlife Since 1870
As the WOMT letter states in part:

“If full consensus of WOMT agencies is that upstream ecosystem concerns must be addressed, then formulate and implement alternative project operations to balance fish needs and determine how water that is saved would be used later for delta ecosystem and upstream fishery beneficial uses.”

(WOMT June 3, 2005 letter at p. 3.)

Thereafter, with the precipitous decline of pelagic organisms in the Bay Delta Estuary, the WOMT agencies sent a follow up letter advising “the WOMT agencies now recommend that the SWRCB postpone final development of the proposal for flexibility for the X2 objective until the scientists working in the Bay-Delta have a better understanding of the pelagic organism decline.” (WOMT letter to the State Water Board (August 29, 2005) at p. 1.) Instead, the WOMT suggested the State Water Board add “a footnote to Table A of the WQCP, indicating the intent to further consider flex of X2 when a better understanding of the cause(s) of the fish decline emerges from the ongoing intensified Pelagic Organism Decline investigations and if the WOMT agencies conclude it is appropriate to again pursue the flex.” (WOMT August 29, 2005 letter at p. 2.)

Because some of the “WOMT” agencies approached the State Water Board during the November 13, 2006 to suggest various flexing proposals, the Department would like to clarify that such flexing proposals do not necessarily have the support of the Department and therefore are not being made after WOMT consensus. Moreover, it is unclear if such proposals were drafted to be clearly consistent with the principles articulated above.

In conclusion, the Department reiterates its intention to oppose any proposal for flexing the flow objective at Rio Vista. If the State Water Board were to consider a flexing proposal related to X2 on a case by case basis under a temporary urgency change petition, the only concept that could be supported by the Department is one that is wholly consistent with the principles outlined in the WOMT letter of June 3, 2005.

Thank you for your consideration.

Sincerely,

TINA R. CANNON
Staff Counsel