

# Memorandum

2006 Delta Plan  
Deadline: 11/13/06

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](mailto: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.

A handwritten signature in cursive script that reads "Cathy Crothers".

Cathy Crothers  
Staff Counsel

California Department of Water Resources  
Comments on the State Water Resources Control Board  
Draft 2006 Water Quality Control Plan  
For the San Francisco Bay/Sacramento-San Joaquin Delta Estuary

**November 9, 2006**

**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.<sup>1</sup> 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.<sup>2</sup>

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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<sup>1</sup> 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.)

<sup>2</sup> 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.<sup>3</sup> 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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<sup>3</sup> 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~~ 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 Append. 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 exceedence 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 violations 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 WQRP 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 Chipps 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.<sup>4</sup> 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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<sup>4</sup> 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 of ~~that e~~ DWR and USBR attainment of the objectives at stations S-97 and S-35. ~~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 (SRCD), 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 WOMET agencies. If a flow alternative is submitted and approved by WOMET, 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-May15)**

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.