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Acting Secretary for  
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# State Water Resources Control Board

## Division of Water Rights

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**Edmund G. Brown Jr.**  
Governor

June 24, 2011

Terry Macaulay  
Deputy Executive Officer  
Delta Stewardship Council  
980 Ninth Street, Suite 1500  
Sacramento, CA 95814

Dear Ms. Macaulay:

RE: COMMENTS ON FOURTH STAFF DRAFT DELTA PLAN

State Water Resources Control Board (State Water Board), Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board), and San Francisco Bay Regional Water Quality Control Board (San Francisco Bay Regional Water Board) (collectively Water Boards) staff have reviewed the Fourth Staff Draft Delta Plan (Plan) and have several comments and suggestions regarding issues that involve Water Board authorities and actions. For clarification, our comments are presented by chapter and organized in the same format as the Plan.

### Chapter 1: The Delta Plan

#### **Current Conditions: Today's Delta**

The Current Conditions section in the draft Plan states: "Since 1914, the State Water Resources Control Board (SWRCB) has issued permits to water diverters within the Delta, but actual annual diversion amounts are not currently known." (P. 11-12, lines 47-1)

Comment: The State Water Board issues permits to post-1914 appropriators and not all water diverters (pre-1914 appropriators and riparians) in the Delta. Water Board staff recommends adding the word "post-1914 appropriative" before "water diverters," as follows:

"Since 1914, the State Water Resources Control Board (SWRCB) has issued permits to post-1914 appropriative water diverters within the Delta, but actual annual diversion amounts are not currently known."

### Chapter 4: A More Reliable Water Supply for California

#### **Improved Regional Water Self-Reliance**

Water Resources Recommendation (WR R2) states: "The California Department of Water Resources, the State Water Resources Control Board, the California Department of Public Health, and other agencies, in consultation with the Council, should revise State grant and loan ranking criteria by December 31, 2012, to provide additional credit (higher ranking) to water suppliers that include a Water Reliability Element in their adopted Urban Water Management

Plans, Agricultural Water Management Plans, and/or Integrated Regional Water Management Plans that satisfies the requirements of WR P2.” (P. 65, lines 3-8)

Comment: Water Board staff requests adding the phrase “where appropriate” in the first sentence recommending that State grant and loan ranking criteria be revised by December 31, 2012. Many grant and loan programs administered by the Water Boards primarily address pollution control and do not have a direct connection with water supply reliability. Making a connection between pollution control and water supply efficiency could create counter-productive complications for some of these funding programs. Adding the phrase “where appropriate” will give the Water Boards flexibility to insert additional requirements for a specific program that may be more closely aligned with water supply. Water Board staff therefore recommend that the Plan’s language be modified as follows:

“The California Department of Water Resources, the State Water Resources Control Board, the California Department of Public Health, and other agencies, in consultation with the Council, should revise, where appropriate, State grant and loan ranking criteria by December 31, 2012...”

#### **Updated Delta Instream Flow Criteria and the Setting of Flows**

Comment: The State Water Board suggests the following clarifying changes to this section of the draft Plan in underline strikeout: (P. 65, lines 35-42 and P. 66, lines 1-7)

“The State Water Board is in the midst of a phased process to review and amend—or to adopt new—flow objectives for the Delta and its high-priority tributaries<sup>16</sup>. The State Water Board has set a workplan and schedule for developing flow standards for the Delta and its watershed. The first step was taken in ~~2009~~ 2008, when the State Water Board committed to a process to review and potentially modify the current Water Quality Control Plan for the Bay-Delta and its implementation through water rights and other actions (SWRCB 2008a). The State Water Board began that process in 2009 by conducting a periodic review of the Bay-Delta Plan to identify water quality issues that should be addressed through upcoming water quality control planning processes. Currently, the State Water Board is in the process of reviewing the San Joaquin River flow and southern Delta water quality objectives and the program of implementation for those objectives. The State Water Board plans to complete that review by June of 2012.

The State Water Board is taking, or has recently taken, several other actions related to reviewing flow objectives for the Delta and its high-priority tributaries. In 2010, the SWRCB completed its report titled *Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem* (SWRCB 2010a). This study report provides an assessment of the flows needed to protect the Delta and its ecological resources, and but does not include address other public trust considerations. While only the starting point for the broader flow-standard-setting process, the report underscores the importance to California of resolving what those future flow regimes need to be as soon as possible.

~~The SWRCB is in the process of addressing San Joaquin River flows and expects to complete the first phase of this process by June 2012. The SWRCB is coordinating with the DWR in its preparation of the BDCP and may consider environmental documentation developed for BDCP in its proceedings. In December 2010, the SWRCB also completed a prioritized schedule and estimate of costs to complete the instream flow studies for the Delta, in accordance with Water Code section 85087 (SWRCB 2010b). In addition to the above, the State Water Board is also~~

coordinating with DWR in its preparation of environmental documentation for the BDCP and may consider this environmental documentation and other information developed for the BDCP in its proceedings to review flow requirements in the Delta.”

### **Administrative Performance Measures**

The draft Plan states: “SWRCB adopts and implements flow objectives by June 2, 2014, and adopts flow objectives for the major tributary streams to the Delta by June 2, 2018.” (P. 75, lines 35-36)

Comment: Please see comments related to adopting and implementing flow objectives, as outlined in our comments on Ecosystem Restoration Recommendation (ER R1) below.

### **Sustainable Groundwater Management**

The draft Plan states: “Despite the critical nature of this water supply, especially during droughts, California does not have a statewide management program or statutory permitting system for groundwater<sup>21</sup>. (P. 70, lines 6-7)

Comment: The draft Plan should make reference to the Water Boards’ plan to develop a Strategic Workplan for Groundwater (Groundwater Workplan) that will lay out the Water Boards’ plans to protect groundwater. The Groundwater Workplan will likely include actions to: (1) apply the Water Boards’ water quality and water rights authorities to address the problems that have the greatest potential to impact beneficial uses of groundwater; (2) focus resources on the most important problems; and (3) encourage efforts to protect and manage groundwater at the local or regional level. Water Board staff anticipate presenting the Groundwater Workplan to the State Water Board in 2012.

Water Resources Recommendation (WR R8) states: “If local or regional agencies fail to develop and implement these groundwater management plans, the State Water Resources Control Board should take action to determine if the continued overuse of a groundwater basin constitutes a violation of the state’s Constitution Article X, Section 2 prohibition on unreasonable use of water and whether a groundwater adjudication is needed to prevent the destruction of or irreparable injury to the quality of the groundwater.” (P. 73, lines 2-8.)

Comment: Water Board staff recommends that this discussion make reference to the Groundwater Plan discussed above and make reference to and acknowledge the steps that must be taken in order for the State Water Board to initiate a groundwater adjudication. Before the State Water Board may initiate a groundwater adjudication, including an investigation, several steps must be taken including: (1) An investigation by Department of Water Resources (DWR) or some responsible governmental agency, indicating the quality of certain groundwater to be threatened with irreparable injury; (2) A public hearing by the State Water Board; (3) A determination of the necessity of an adjudication for restricting the pumping or for a physical solution; (4) Intervention in any pending adjudicative proceeding, or one in which appropriate jurisdiction has been retained; (5) A determination whether a local public agency overlying all or part of the basin groundwater will undertake the adjudication (if so, the State Water Board will take no further action); and (6) An action filed by the State Water Board, only if no other action is taken. The State Water Board may then file an action in Superior Court. (Wat. Code, § 2100 et seq.)

## **Improved Reporting and Transparency**

Water Resources Recommendation (WR R5) states: “The Department of Water Resources, in coordination with the State Water Resources Control Board, Regional Water Quality Control Boards, the Department of Public Health, U.S. Bureau of Reclamation, U.S. Geological Survey, California Water Conservation Council, and the Delta Council, should complete the proposed Water Planning Information Exchange (Water PIE) by January 1, 2014.” (P. 74, lines 24-28)

Comment: The State Water Board adopted emergency regulations requiring online water use reporting in November of 2010. The emergency regulations apply to all water users, including appropriative, riparian, pre-1914, and groundwater users. The first cycle of online reporting is due June 30, 2011, and then annually or triennially thereafter.

## Chapter 5: Restore the Delta Ecosystem

### **Creating a More Natural Flow Regime**

Ecosystem Restoration Recommendation (ER R1) states: “The State Water Resources Control Board should update the Bay-Delta Water Quality Control Plan objectives and establish flows as follows:” (P. 89, lines 2-7)

- a. “By June 2, 2014, adopt and implement updated flow objectives for the Delta that are necessary to achieve the coequal goals.”
- b. “By June 2, 2018, develop flow criteria for high priority tributaries in the Delta watershed that are necessary to achieve the coequal goals.”

Comment related to a): The Delta Plan should acknowledge that for the State Water Board to both adopt *and* implement flow objectives for the Delta (not just San Joaquin River) by June 2014, the State Water Board would need additional resources or would need to shift priorities and resources in the State Water Board’s Division of Water Rights from processing of water rights applications and petitions to Bay-Delta planning and implementation activities. At a minimum, concurrent adoption and implementation of flow objectives for the Delta by June 2, 2014 would immediately require eight to ten additional full-time staff or, in the absence of additional staff, the redirection of those staff from processing water rights applications and petitions. An additional one to two million dollars of contract resources will also be required. The Delta Plan should therefore recommend that additional resources be made available for the State Water Board to accomplish this work. The Delta Plan should also acknowledge that if these resources are not made available, then it may not be possible for the State Water Board to complete the planning and implementation work by the above time frames. In addition, the Delta Plan should also acknowledge that in order to both adopt and implement updated flow objectives for the Delta, the State Water Board would need to conduct combined planning and water right implementation proceedings which may be more complex and controversial than sequential proceedings.

For context, following is a short summary of the State Water Board’s current flow planning and implementation proceedings. The State Water Board is currently in the process of: (1) establishing narrative flow objectives to support migratory fish populations for the San Joaquin River and tributaries to the San Joaquin River, specifically the Stanislaus, Tuolumne, and Merced Rivers; (2) modifying the program of implementation to achieve the narrative objectives by providing flow conditions that approximate the timing and magnitude of natural flows - that could range from 20 to 60 percent of natural flows, depending on the assessment of the competing uses for water; and (3) proposing an implementation framework that recognizes the need for, and allows use of, adaptive management in order to respond to changing

information on flow needs, and to minimize water supply costs. In concert with its review of the San Joaquin River flow objectives, the State Water Board is also considering potential changes to the water quality objectives for the protection of southern Delta agriculture and the program of implementation for those objectives and potential changes to the monitoring and special studies program included in the Bay-Delta Plan. Following the review of the San Joaquin River flow and southern Delta water quality objectives, the State Water Board plans to complete its review of the remaining elements in the Bay-Delta Plan and undertake any needed activities to implement changes to the water quality objectives and program of implementation.

Comment related to b): This recommendation refers to developing flow “criteria.” However, the performance measures section of the document refers to development of flow “objectives.” The Water Boards assume that the intent of the recommendation is for the State Water Board to develop flow objectives and accordingly recommends that this language be clarified.

In the State Water Board’s April 15, 2011 comment letter on the Second Draft Delta Plan, the State Water Board presented minimum estimates of the time and costs necessary to develop flow objectives for high priority tributaries to the Delta. Adopting flow objectives is anticipated to require at least four person years (PYs) over a period of about one to two years, with a minimum of \$600,000 for each tributary. Personnel needs and costs are expected to be far higher to adopt flow objectives in larger, major tributaries such as the Cosumnes and American Rivers. These major tributaries could require at least eight PYs over one to three years. All flow objective-setting would require compliance with the California Environmental Quality Act (CEQA). At a minimum, adopting flow objectives for only ten major tributaries could require 80 PYs, or approximately 11 staff working for seven years. The State Water Board would also likely need to work with the various Regional Water Quality Control Boards to incorporate flow objectives in the appropriate Water Quality Control Plans (Basin Plans) for the affected regions. Adopting flow objectives for even a small subset of high priority tributaries to the Delta watershed would therefore require the State Water Board to divert Division of Water Rights staff to work on flow objectives instead of processing water rights applications and petitions. Staff from the affected Regional Water Boards would need to be diverted from Water Quality Control Planning activities. An additional five to twenty million dollars of contract resources would also be needed to develop environmental documentation to support the adoption of flow objectives just ten major tributaries. The Delta Plan should therefore recommend that additional resources be made available for the State Water Board and Regional Water Boards to accomplish this work. The Delta Plan should also acknowledge that if these resources are not made available, then it may not be possible for the State Water Board and Regional Water Boards to complete the flow objective-setting work absent substantial redirection from water rights activities at the State Water Board and water quality control planning activities at the Regional Water Boards.

The Plan should also acknowledge that these timeframes and costs do not consider implementation of the associated flow objectives. The costs and time needed to implement flow objectives will also vary by stream. Implementation of objectives will likely involve water rights proceedings that include compliance with CEQA, and conditioning of water rights.<sup>1</sup> Implementation of a flow objective for a single tributary is expected to range from approximately \$200,000 to over \$2 million, depending on factors such as the complexity of the stream and the

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<sup>1</sup> The State Water Board has two different options for implementing flow objectives. The State Water Board could allow Stakeholders to develop implementation measures or the State Water Board could proceed directly with a water right proceeding. Both processes would require significant additional resources.

number of water rights holders. Adopting flow objectives for just ten major tributary streams to the Delta by June 2, 2018, would necessitate diverting virtually all staff from other fee-supported water rights functions, and require additional contract funds. Staff recommends that the Plan acknowledge the additional staffing and contract resources needed to implement this recommendation to adopt flow objectives for major tributaries to the Delta. Staff also recommends that this recommendation not be changed to establish, as a performance measure, the **implementation** of flow objectives for the major tributary rivers to the Delta by June 2, 2018.

### **Administrative Performance Measures**

The draft Plan states: “SWRCB adopts and implements flow objectives by June 2, 2014, and adopts flow objectives for the major tributary streams to the Delta by June 2, 2018.” (P. 98, lines 13-14)

Comment: Please see comments related to adopting and implementing flow objectives, as outlined in our comments on Ecosystem Restoration Recommendation (ER R1) above.

### **Improving Habitat**

Ecosystem Restoration Recommendation (ER R2) states: “The Council acknowledges the importance of expediting habitat restoration in the Delta and its watershed and recommends the prioritization and implementation of habitat restoration projects in the following areas, also shown in Figure 5-4.” (P. 91, line 22-24)

Comment: One of the recommended areas identified for habitat restoration is Suisun Marsh. The Plan should also mention that an additional benefit of habitat restoration in Suisun Marsh would be improved water quality. Suisun Marsh is identified on the Clean Water Act 303(d) list of water quality impaired water bodies for the following impairments: dissolved oxygen/ organic enrichment, metals (mercury), nutrients and salinity. The prioritization of restoration projects should include an emphasis on potential for water quality improvement.

### **Reducing Threats and Stresses**

Water Quality Recommendation (ER R6) states: “The Department of Fish and Game and other appropriate agencies should prioritize and fully implement the list of “Potential Stage 2 Actions for Nonnative Invasive Species” (see sidebar) and accompanying text shown in Appendix E taken from the *Ecosystem Restoration Program’s Conservation Strategy for Stage 2 Implementation for the Sacramento-San Joaquin Delta Ecological Management Zone* (Department of Fish and Game et al. 2010).” (P. 95, lines 6-10)

Comment: This recommendation addresses invasions of non-native species. Water Board staff suggests that the list of potential stage 2 actions for non-native invasive species include an emphasis on prevention of new species introductions. Prevention should focus on vectors, such as boating, aquarium trade related escape/release, live seafood trade, water garden uses as identified in the CAISMP.

Regarding Action 4 of Potential Stage 2 Actions for Non-Native Invasive Species, the draft Plan states: “Continue studies on the effectiveness of local treatment of zebra and quagga mussels using soil bacterium.” (P. 96, sidebar)

Comment: This recommendation is too narrowly phrased. There are likely other treatment options available that should be included. Water Board staff suggests that the Delta Plan

reference the Quagga Zebra Action Plan, adopted by the National Aquatic Nuisance Species (ANS) Task Force, 2010: [http://www.anstaskforce.gov/QZAP/QZAP\\_FINAL\\_Feb2010.pdf](http://www.anstaskforce.gov/QZAP/QZAP_FINAL_Feb2010.pdf).

Regarding Action 8 of Potential Stage 2 Actions for Non-Native Invasive Species, the draft Plan states: “Establish a program to monitor for new invasions of non-native wildlife, and develop responses to quickly contain and control them.” (P. 96, sidebar)

Comment: Water Board staff recommends this action to be one of the high priority actions.

Ecosystem Restoration Recommendation (ER R7) states: “The Delta Science Program, in conjunction with the State Water Resources Control Board, and other relevant agencies and stakeholders, should conduct workshops to develop recommendations to the Council for measures to reduce stressor impacts on the Delta ecosystem that would support and be consistent with the coequal goals by January 1, 2013.” (P. 95, lines 13-18)

Comment: This recommendation should specifically reference participation by the Regional Water Quality Control Boards, the Department of Fish and Game, and the Department of Water Resources in addition to the State Water Board as all of these agencies are intricately involved in different ways in assessing Delta stressors and would be critical participants in this effort.

#### Chapter 6: Improve Water Quality to Protect Human Health and the Environment

##### **Table 6-1 (P. 107)**

##### **TMDLs Approved and Under Development in the Central Valley, Delta, and Suisun Bay**

Comment: Water Board staff recommends that Table 6-1 include a reference to Suisun Marsh. The San Francisco Bay Regional Water Board is in the early stages of developing a TMDL(s) to address the existing 303(d) listings, specifically dissolved Oxygen/Organic Enrichment and mercury in Suisun Marsh.

Water Board staff also recommends that Chapter 6 include a reference to the San Francisco Bay Regional Water Board’s role under the Clean Water Act, section 401 to issue water quality certifications and under Porter-Cologne (Water Code) to issue waste discharge requirements or waivers of waste discharge requirements for projects proposed in Suisun Marsh and Suisun Bay, including projects that involve filling and dredging and physical alteration of habitat, including habitat restoration. There should be a water quality recommendation that states that project proponents of any actions that might potentially affect water quality or beneficial uses in Suisun Marsh should consult with the San Francisco Bay Regional Water Board and obtain all necessary certifications or permits early in the process.\_

##### **Salinity**

The draft Plan states: “There are no policies with regulatory effect included in this section.” Ecosystem Restoration Policy (ER P1) addresses this issue. (P. 110, lines 26-27)

Comment: Related to this issue, in concert with its current review of the San Joaquin River flow objectives, the State Water Board is: (1) reviewing and planning to update the water quality objectives for the protection of southern Delta agriculture and the program of implementation for those objectives in the Bay-Delta Plan by June, 2012; and (2) making any needed changes to water rights and water quality regulation consistent with the program of implementation. Proposed modifications to the Bay-Delta Plan related to salinity include establishing southern Delta salinity objectives and narrative water level and circulation objectives to protect

agricultural uses in the Delta, and a program of implementation to achieve salinity and circulation objectives. Following review of the objectives, the State Water Board will conduct proceedings to implement any new or revised objectives.

### **Drinking Water Quality**

Water Quality Recommendation (WQ R4) states: “The State Water Resources Control Board and Central Valley Regional Water Quality Control Board should require all recipient regions that are supplied water from the Delta or the Delta Watershed or discharge wastewater to the Delta or the Delta Watershed to participate in the Central Valley Salinity Alternatives for Long-Term Sustainability Program (CV-SALTS).” (P. 112, lines 18-21)

Comment: Water Board staff recommend that this statement be revised to say: “The Water Boards should *consider* requiring participation by all water users that are supplied water or discharge wastewater to the Delta or the Delta Watershed in the CV-SALTS Program.” There may be instances where it is not appropriate for a water user or discharger to participate in CV-SALTS. Accordingly, Water Board staff does not recommend that this statement be so broadly applicable.

### **Environmental Water Quality**

Water Quality Recommendation (WQ R5) states: “The State Water Resources Control Board and the San Francisco Bay and Central Valley Regional Water Quality Control Boards are currently engaged in regulatory processes that would improve water quality in the Delta. In order to achieve the coequal goals, it is essential that these ongoing efforts be completed and if possible accelerated, and that the Legislature and Governor devote sufficient funding to make this possible.” (P. 119, lines 8-12)

Comment: Several regulatory actions are included under this recommendation, including developing and implementing TMDLs for pesticides and mercury. Water Board staff agree that it is essential that sufficient funding be devoted to these and other efforts, as many of the efforts outlined in the Plan will need funding beyond what is currently available to be successful. Therefore, Water Board staff recommend that the Plan’s language be modified as follows:

“The State Water Resources Control Board and the San Francisco Bay and Central Valley Regional Water Quality Control Boards are currently engaged in regulatory processes and research and monitoring that is essential to improve water quality in the Delta.”

Regarding WQ R5, the Plan states: “The State Water Resources Control Board and the San Francisco Bay and Central Valley Regional Water Quality Control Boards should develop and adopt objectives, either narrative or numeric, where appropriate, for nutrients in the Delta and Delta watershed by January 1, 2014.” (P. 119, lines 14-17)

Comment: Water Board staff does not believe that adequate information will be available to develop numeric objectives for the Delta by 2014. Regarding development of nutrient objectives and an implementation plan for California, the State Water Board plans to have nutrient objectives developed for Streams and Lakes by the end of 2013 and Estuaries by 2015. However, this may not include the San Francisco Bay and Delta. Working with a Technical Advisory Team and stakeholders to develop a nutrient assessment framework for San Francisco Bay, the State Water Board and the San Francisco Bay Regional Water Board are in

the process of preparing a literature review, data gaps analysis, and workplan. However, the State Water Board has not had the resources to address the Delta at this time. Absent additional resources, the State Water Board anticipates completing nutrient objectives for the San Francisco Bay and Delta by 2017. Accordingly, staff suggests that this recommendation in the Plan be modified to state:

“The State Water Board and Regional Water Boards should develop and adopt objectives, either narrative or numeric, where appropriate, for nutrients in the Delta and Delta watershed by January 1, 2014 a workplan and, if needed, a research plan for establishing numeric objectives for nutrients in the Delta and Delta watershed by January 1, 2017.”

The Plan states: “The State Water Resources Control Board and the San Francisco Bay and Central Valley Regional Water Quality Control Boards prioritize and accelerate the completion of the Central Valley Pesticide Total Maximum Daily Load and Basin Plan Amendment for pyrethroids by January 1, 2016.” (P. 119, lines 21-24)

Comment: The San Francisco Bay Regional Water Board is not involved in the Central Valley TMDL for pyrethroids. Therefore reference to the San Francisco Bay Regional Water Board should be removed from this recommendation. The San Francisco Bay Regional Water Board has developed an Urban Creeks Pesticide TMDL that includes implementation actions to address pyrethroids.

The Plan states: “The San Francisco Bay and Central Valley Regional Water Quality Control Boards should develop and implement Total Maximum Daily Load and Basin Plan Amendments for selenium and methylmercury to address water quality impairment in the Delta, in accordance with the time schedule provided in the 2010 Integrated Report.” (P. 119, lines 25-28)

Comment: The San Francisco Bay Regional Water Board has adopted a mercury TMDL for San Francisco Bay, including all Bay segments. The San Francisco Bay Regional Water Board is also currently working on a selenium TMDL for North San Francisco Bay, which includes the Central Bay, San Pablo Bay, Suisun Bay, Carquinez and Delta segment within the San Francisco Bay Regional Water Board region.

The Central Valley Water Board adopted a methylmercury TMDL for the Delta in April 2010 and the State Water Board approved the TMDL at its June 21, 2011 meeting.

Therefore, Water Board staff suggests that this recommendation be modified to state:

“The San Francisco Bay and Central Valley Regional Water Quality Control Boards ~~should develop and implement~~ have completed Total Maximum Daily Load and Basin Plan Amendments for selenium and mercury/ methylmercury to address water quality impairment in the Delta, ~~in accordance with the time schedule provided in the 2010 Integrated Report~~ and efforts should be coordinated to support their implementation.”

Water Quality Recommendation (WQ R6) states: “The State Water Resources Control Board and Regional Water Quality Control Boards should work collaboratively with the Department of Water Resources, Department of Fish and Game, and other agencies and entities that monitor water quality in the Delta to develop and implement a Delta Regional Monitoring Program that

will be responsible for coordinating monitoring efforts so Delta conditions can be efficiently assessed and reported on a regular basis.” (P. 119, lines 29-34)

Comment: Water Board staff recommend including language to devote sufficient funding for this recommendation. The Water Boards plan to continue this effort as resources permit. Staff continues to work with stakeholders and the Aquatic Science Center to develop a program for regularly compiling, synthesizing, and analyzing monitoring data in a comprehensive manner. With funding by the State Water Board, the first issue of the Pulse of the Delta: Monitoring and Managing Water Quality in the Sacramento – San Joaquin Delta, the new publication of the emerging Delta Regional Monitoring Program (RMP), was released in March 2011. This report is a direct response to Delta RMP stakeholders’ desire for an accessible water quality summary for the Delta that addresses important regional questions. Pulse of the Delta can be found online at:

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/delta\\_water\\_quality/comprehensive\\_monitoring\\_program/2011\\_pulseofthedelta.pdf](http://www.waterboards.ca.gov/centralvalley/water_issues/delta_water_quality/comprehensive_monitoring_program/2011_pulseofthedelta.pdf)

Water Quality Recommendation (WQ R8) states: “The State Water Resources Control Board and Regional Water Quality Control Boards should conduct or require special studies of pollutants including emerging contaminants and causes of toxicity in Delta waters and sediments.” (P. 119, lines 40-42)

Comment: The State Water Board adopted sediment quality objectives in the Water Quality Control Plan for Enclosed Bays and Estuaries in April of 2011. The amendments include narrative sediment quality objectives that protect resident finfish and wildlife from exposure to pollutants in sediment and a process for implementing these narrative objectives, as well as other minor changes to the existing Water Quality Control Plan for Enclosed Bays and Estuaries.

The Delta Plan should include a recommendation for additional resources to enable the State Water Board to continue and expand upon work related to toxicity in Delta waters and sediments.

#### **Administrative Performance Measures**

The draft Plan states: “The SWRCB adopts and implements Delta flow objectives by June 2, 2014.” (P. 120, line 18)

Comment: Please see comments related to adopting and implementing flow objectives, as outlined in our comments on Ecosystem Restoration Recommendation (ER R1) above.

The draft Plan states: “Central Valley RWQCB and SWRCB adopt policies and regulations necessary to increase participation in CV-SALTS.” (P. 120, lines 19-20)

Comment: Please see comments related to requiring participation in CV-SALTS, as outlined in our comments on Water Quality Recommendation (WQ R4) above.

The draft Plan states: “SWRCB and RWQCBs adopt objectives for nutrients in the Delta by January 1, 2014.” (P. 120, line 25)

Comment: Please see comments related to adoption and implementation of nutrient objectives, as outline in our comments on Water Quality Recommendation (WQ R5) above.

The draft Plan states: "Development and implementation of a Delta regional water quality monitoring program within the first five years of the Delta Plan." (P. 120, lines 29-30)

Comment: Please see comment related to Water Quality Recommendation (WQ R6) above.

#### **Driver Performance measures**

The draft Plan states: "Progress toward reducing concentrations of total ammonia in Delta waters to below 4 micromoles per liter (56 parts per billion) in greater than 95 percent of all monitoring samples collected and measured annually." (P. 120, lines 36-38)

Comment: Research has demonstrated that concentrations above 4 micromoles per liter ammonia can cause problems for diatoms in Suisun and Grizzly Bays and the Sacramento River west of Rio Vista. However, a similar conclusion has not been demonstrated in other parts of the Delta. As a result, until further research is done this performance measure should not apply to the entire Delta. Water Board staff suggests that this performance measure be modified to apply in Suisun Bay and Grizzly Bay and that another bullet be added as follows:

"The State and Regional Water Boards should work with other researchers to develop and begin implementing a plan by 2012 to determine what ammonia concentrations are appropriate for protection of aquatic life in all parts of the Delta."

The Plan states: "Progress toward reducing concentrations of inorganic nutrients (ammonium, nitrate, and phosphate) in Delta waters over the next decade." (P. 121, lines 3-4)

Comment: The main driver of nutrient concentrations in most of the Delta is the Sacramento Regional Wastewater Treatment Plant. When upgrades to the plant are completed in about 10 years there will be a significant decrease in nutrient concentrations. It will be a step decrease rather than a trend. Water Board staff recommend that this Driver Performance Measure be rewritten as follows:

"Concentrations of inorganic nutrients in Delta waters will decrease over the next two decades."

The draft Plan states: "Routine annual surveys of emerging pollutants within the Delta will be designed and implemented during the first five years of the Delta Plan." (P. 121, lines 5-6)

Comment: The Delta Plan should clarify who will be implementing these routine annual surveys. If the Water Boards are responsible for this work, the Plan should also recommend that additional resources be made available for this activity.

#### **Outcome Performance Measures**

The draft Plan states: "Trends in body loads of mercury and selenium in top predatory fish in the Delta will be downward over the next decade." (P. 121, lines 9-10)

Comment: There will likely not be measurable decreases in mercury in the next ten years. The Central Valley Water Board's mercury control program for the Delta includes a 7 year study period. During this study period, the goal of the control program is to prevent existing mercury loads from increasing. One significant source of mercury loads from the Stockton Wastewater Treatment Plan has recently been reduced and it is expected that further significant reductions

will result from upgrades to the Sacramento Regional Wastewater Treatment Plant in the next ten years. However, at the same time, Water Board staff is concerned that increased wetland development will increase mercury loads. In addition, mercury in fish in the Delta could change dramatically if there are significant changes in how water is managed in and around the Delta. As a result, Water Board staff suggests that the 10 year performance measure be modified to instead say that fish tissue concentrations of mercury should not increase within the next ten years and should decrease by 2035.

The draft Plan states: "Trends in the occurrence of spring diatom blooms in Suisun Bay and Suisun Marsh will be upward." (P. 121, lines 11-12)

Comment: The Water Boards agree that increased frequency of spring diatom blooms in Suisun Bay is a good outcome performance measure, however the suite of management actions necessary to achieve this outcome still need to be identified.

The draft Plan states: "Harmful algal blooms (HABs) will lessen in severity and spatial coverage in the Delta over the next decade." (P. 121, lines 15-16)

Comment: Water Board staff do not believe that sufficient information is available to support this statement. Accordingly, Water Board staff recommend the following language:

~~"Harmful algal blooms (HABs) will~~ The State and Regional Water Boards should work with researchers to develop and initiate implementation of a study plan by January 2013 to determine how to lessen the severity and spatial coverage of harmful algal blooms in the Delta."

The Water Boards appreciate the opportunity to provide comments on the fourth staff draft Delta Plan. If you have any questions concerning these comments or would like to discuss any other issues associated with the Delta Plan, please contact me at (916) 341-5428 or [lgrober@waterboards.ca.gov](mailto:lgrober@waterboards.ca.gov).

Sincerely,

ORIGINAL SIGNED BY

Leslie F. Grober  
Assistant Deputy Director