



**State & Federal Contractors  
Water Agency**

1121 L Street, Suite 806, Sacramento, CA 95814

September 30, 2011

Mr. Phil Isenberg, Chair  
Delta Stewardship Council  
980 Ninth Street, Suite 1500  
Sacramento, CA 95814

Re: Chapter 7, Fifth Draft Delta Plan

Dear Mr. Isenberg:

Recognizing the substantial infrastructure and economic disruptions resulting from natural disasters such as Hurricane Katrina, the California Department of Water Resources (DWR) and United States Army Corps of Engineers (Corps) have worked closely with water stakeholders to address the consequences of catastrophic Delta levee failures. Water supplies for two-thirds of Californians and a vast segment of our agricultural and urban economies are at risk. Remedies to a “Katrina-like” earthquake emergency in the Delta have emerged, reducing potential export outages from several years down to and expected six months by implementation of an emergency freshwater pathway plan. We have grave concerns that the Fifth Draft of the Delta Plan (Draft) does not acknowledge the substantial efforts of DWR and the Corps in advancing these emergency preparedness and response plans near the point of completion. Specifically, the comments we’ve provided on these issues in previous draft Delta Stewardship Council (DSC) Delta Plans remain unaddressed.

In the Draft, references to emergency preparedness and response plans have been generalized. Any reference to the definitive plans under way through DWR and the Corps has been omitted. Further, the proposed addition of a DSC working group to “develop and evaluate emergency response recommendations” duplicates the substantial efforts of responsible flood emergency response agencies to plan and deploy the better-organized and more-effective strategies which we now see underway. We believe the DSC has a clear guidance and review role in this regard, but not at the expense of inhibiting the advancement of these much needed plans.

The new Draft does not recognize that economically-based risk reduction be performed on an island-by-island basis and that policies for the eventual conversion of some islands to habitat be developed before major investments are made in levee improvements. The Draft does not address the fact that habitat restoration land costs will be higher, with unacceptably high stranded costs, if plans and policies coordinating restoration with levees are not developed. It also has not addressed subsidence costs, which are essential to understanding a sustainable Delta. Finally, the Draft continues to propose the

*Directors*

**James M. Beck**  
*Kern County Water  
Agency*

**Jeff Kightlinger**  
*Metropolitan Water  
District of Southern  
California*

**Bill Harrison**  
**Dan Nelson**  
**Jason Peltier**  
*San Luis & Delta-  
Mendota Water  
Authority*

**Beau Goldie**  
*Santa Clara Valley  
Water District*

**Steve Robbins**  
**Jill Duerig**  
*State Water Project  
Contractors  
Authority*

**Tom Birmingham**  
*Westlands Water  
District*

creation of a new Assessment Authority to tax the water projects without the proper analyses.

In summary, the risk reduction plan, including emergency response efforts, presented in Chapter 7 is flawed. As presented, it is not in California's greater public interest. There is little evidence that progressive changes are being considered by the DSC that must be made to put the Delta on a course of sustainability.

While there are major organizational changes to Chapter 7 in the new Draft, the issues we raised in our previous detailed comments substantially remain unaddressed.

Suggested changes to text in Chapter 7 of the 5<sup>th</sup> Draft DSC Delta Plan are detailed by Page and Line # and are underlined as follows:

Throughout Chapter 7 - Replace flood management with "economically-based risk reduction" where appropriate.

Page 161 and Lines #21 through #26 - Replace with new text - Preventing floods is impossible, but prudent planning and organization of flood management activities can significantly reduce vulnerabilities and risk. The portfolio of economically and ecologically based risk-reduction strategies for the Delta must consider urban and rural communities as well as agricultural lands during the process of identifying, evaluating, and prioritizing investments in the levee system. Risks can be reduced through an emergency preparedness, response, and recovery system; appropriate land uses; land acquisition and conversion to ecosystem functions; subsidence reversal strategies; and strategic levee improvements.

Page 163 and Line #6 - Comment - No, this is false and misleading statement. It is a myth that is perpetuated to falsely claim that all Delta levees are important to protecting water supplies. Water supplies are not typically interrupted during flood events, but rather may be impacted during the breaching of a Delta island during non-flood periods.

Page 166 and Line #11 - Comment - Prior to the initiation of "appropriate dredging", a new Delta sediment budget needs to be completed to determine the safe yield of material to be dredged from Delta channels. Studies show that the Delta may now be in a sediment deficit state, which makes sediment budgeting all the more critical.

Page 166 and Lines #34 through #42 - Replace with new text - While the Delta Protection Commission's land use plan covers the Primary Zone of the Delta, there is no such comprehensive flood-risk policy governing land use in the Secondary Zone. However, current engineering knowledge indicates that flood hazards in the Delta cannot be eliminated, and the safety of residents cannot be guaranteed without the expenditure of substantial and sustained funding for flood protection. The impacts of on-going subsidence, earthquake risk and climate change—especially rising sea levels and increased precipitation and runoff patterns—will only exacerbate future threats to public safety associated with residential development in the Delta. Therefore, to be assured consistency with the Delta Plan, future land use decisions should not permit or encourage construction of significant numbers of new residences in the Delta in the face of the flood hazards.

Page 166 and Lines #19 through #25 - Replace with new text - Although levees were constructed in the Delta to reduce the risk of flooding, the historical performance of many levees in the Delta has been mixed. Many levee failures have been attributed to high flood flows, and some levees have failed in the absence of any type of flood. If a significant earthquake does occur on faults in or near the west Delta, one or more levees could fail (DWR 2009a). Figure 7-3 illustrates a potential flood scenario in which a 6.5-magnitude earthquake causes a 20-island failure. With this in mind, it is more important than ever that the levees in the Delta are designed, constructed, and maintained to provide the level of flood risk reduction commensurate with the economic and ecological resource uses they protect on an island-by-island basis.

Page 168 and Lines #2 through #8 - Add new text - The level of flood protection provided by levees should be related to an acceptable risk for the types of land use located behind the levee (Delta Vision Blue Ribbon Task Force 2008). During the last few decades, state and federal agencies have developed various levee guidance and standards. These were designed to either establish minimum criteria that would make the levees and the properties protected eligible for FEMA grants or USACE rehabilitation funds, or set minimum criteria that would allow development behind the levees. While there is a significant history associated with these standards, none are economically based. Nor do they consider the ecological goals for tidal marsh restoration. Hence, new standards need to be developed expeditiously by the federal and state agencies. Currently, the four most prominent existing island levee standards are listed below; they are ordered from lowest to highest level of flood protection.

Page 170 and Line #14 - Question - Since the existing standards do not consider economic consequences, what is the DSC proposed remedy?

Page 173 and Lines #8 through #10 – Add new text - The status of many Delta levees condition to meet economic, social and ecological public needs cannot be assessed until further analyses are completed and a new levee classification system is established.

Page 178 and Lines #11 and #12 - Add new text - To promote strategic state investments in levee operations, maintenance, and improvements in the Delta, a Delta-wide prioritization framework is needed. Once a new levee classification system has been established, actions occurring after an established date conform to the classifications defined in Table 7-1.

Page 178 and Lines #27 and #28 - Add new text - Define state interests related to flood and levee management in the Delta through a strategic risk reduction investment plan that will identify potential improvements with the greatest public benefits, is economically and ecologically sustainable, and contributes to the achievement of the co-equal goals. These state interests should, at a minimum, include:

Page 178 and before Line #37 - Insert three new bullets - (1) Evaluate investment in alternative risk reduction strategies, comparing levee upgrade to flood-proofing, acquisition and conversion to habitat; subsidence reversal; relocation of infrastructure, and flood insurance. (2) Evaluate long-term drivers of change and economic sustainability before establishing funding priorities. (3) Integrate risk reduction investments with the co-equal goals through the coordinated evolution of some islands to habitat.

Page 179 and Lines #17 through #20 - Add new text - To effectively and reliably reduce risks to people, property, and state interests in the Delta, a multifaceted strategy of coordinated emergency preparedness, appropriate land use planning, and prioritized investment in flood protection

infrastructure is necessary. Delta levees not only protect life and property, but also a few select levees play a large role in protecting vital infrastructure, including the state's water conveyance system and major elements of the state and regional transportation system.

Page 179 and Lines #40 through #43 - Add new text - Levee failures and flooding can and will place human life and property in danger, and can have potentially significant implications for the state's water supply and infrastructure and the health of the Delta ecosystem. Currently, no coordinated Delta-wide emergency response plan exists to address the potential for levee failures and flooding. Current land use activities which exacerbate land subsidence and increase the forces on levees further increase the probability and damages associated with levee failure.

Page 180 and after Line #19 - Insert new bullet - The Department of Water Resources should complete their Delta Flood Emergency Preparedness, Response and Recovery Program addressing a wide range of flood emergency response strategies, including a Middle River emergency freshwater pathway, in response to a catastrophic multi-island failure in coordination with the Corps of Engineers, local entities and water stakeholders.

Page 180 and Lines #24 through #28 - Replace with new text - In consultation with local agencies, the Department of Water Resources should expand its emergency stockpiles to make them regional in nature and usable by a larger number of agencies in accordance with Department of Water Resources' plans and procedures. The Department of Water Resources, as a part of this plan, should evaluate the potential of creating stored material sites while improving levee stability through addition of landside fill to selected Delta levees.

Page 180 and Lines #33 through #37 - Replace with new bullet - The Delta Stewardship Council should convene a working group to facilitate review the Department of Water Resources' "Delta Flood Emergency Preparedness, Response, and Recovery Program". The working group should include the California Emergency Management Agency, Department of Water Resources, U.S. Army Corps of Engineers, the five local counties, Delta Protection Commission, appropriate Operational Areas and other state and local partners and other interested parties, and the review and recommendations should be completed by January 1, 2013.

Page 182 and Line #35 - Comment- On a long-term basis, only certain specific levee breaches which are left open to the tides can also have potentially significant implications for the state's water supply and may help the health of the Delta ecosystem.

Page 182 and before Line #37 - Add new bullet - Develop Expected Annual Damage estimates which must include a comparative analyses of losses from on-going subsidence, water quality degradation and foregone ecosystem opportunities associated with maintaining the existing plan form versus a more economically sustainable form.

Page 182 and Lines #25 through #27 - Add new text - Financing of local levee operations, maintenance, and related data collection and reporting efforts need improvement and a high degree of coordination in order to provide for a more functional, regional-based approach to Delta flood risk management. The economic justification has not yet been conducted to support the continued public funding of all local levee operations, maintenance, and improvements. Once economically based risk reduction priorities are established, a coordinated plan and effort to achieve a reduction in losses needs to be developed.

Page 183 and Line #17 and #18 - Add new text - Identify and assess critical water supply and *freshwater* emergency corridor levee operations, maintenance, and improvements.

Page 183 and Lines #31 through #34 - Replace new text - Today, much of the central Delta is below sea level, with some islands commonly 12 to 15 feet and as much as 30 feet below sea level, requiring levees that are 20 to 25 feet high or higher to hold back water every day. As subsidence progresses, levees must be continually maintained, strengthened, and periodically raised to support the increasing hydraulic stresses being placed upon them.

Page 184 and Line #3 - Add new text - Deep subsidence has led to increasing stress on Delta levees. Although subsidence has slowed or halted in many areas, some regions of the Delta continue to subside, causing a significant increase in risks and damages to public interests. The costs associated with both historic and current subsidence have not been born by the beneficiaries or those responsible for these costs.

Page 183 and after Line #8 - Insert new bullet - Perform a beneficiary pay analysis for on-going anthropogenic changes which are increasing economic and ecological risks;

Page 183, Lines #17 and #18 - Add new text - Identify and assess critical water supply and freshwater emergency corridor levee operations, maintenance, and improvements.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Byron M. Buck". The signature is fluid and cursive, with a long horizontal stroke at the end.

Byron M. Buck  
Executive Director