



## MEMORANDUM

March 10, 2011

**TO:** Delta Stewardship Council

**FROM:** Gilbert Cosio, Jr.

**SUBJECT:** **March 10-11, 2011 Stakeholder Workshops**  
**Panel C - Risk Reduction to People Property and State Interests in the Delta**

### Council Members:

In response to your inquiry, following are your questions to consider during the Panel C discussion and my bullet point responses.

My general response to the line of questions can be summarized by the following bullet points:

- Water Code Section 12981 describes the Delta as being “endowed with many invaluable and unique resources and that these resources are of major statewide significance.” Section 12981 further states “the physical characteristics of the delta should be preserved in their present form; and that the key to preserving the delta’s physical characteristics is the system of levees defining the waterways and producing adjacent islands.”
- Bond funding is currently available to significantly reduce risk associated with flooding due to high water, and it can be shown that when overlapping individual benefits of levee districts, almost all levee systems protect significant infrastructure and habitat, and therefore, short-term planning should include use of these available funds on non-project levees in the primary zone of the Delta.
- The recently distributed DWR document titled “FloodSAFE – A Framework for Department of Water Resources Investments in Delta Integrated Flood Management” “FloodSAFE – A Framework for Department of Water Resources Investments in Delta Integrated Flood Management” describes DWR’s highest priority is to invest in levees that protect urban areas and therefore, the Delta Stewardship Council and/or the state legislature will need to direct funding to the Delta levees that protect all the other resources of the Delta.
- Current studies fail to recognize the linkages between levee systems that create a situation where the whole is greater than the sum of its parts, further emphasizing the importance of keeping the Delta in its current configuration as described in Water Code Section 12981.
- Studies should continue defining the levees whose failure pose the highest risk to the state, and plans developed for additional improvements and emergency planning to mitigate the risk. Current studies seem to assume a “one size fits all strategy” which is not compatible with varying stressors and levee conditions across the Delta.

Following are questions posed by your staff and my responses, where I feel qualified to respond, regarding the top three priorities under the sections cited:

*What are the top priorities to reduce risk and prepare for emergencies while balancing conservation and development of Delta land resources?*

- Development of the lands within the Delta is currently controlled by FEMA's current remapping program and the authority of the Delta Protection Commission. When developing future land use strategies, the Delta resident stakeholders and counties will have to be involved to assure development satisfactory to sustainable economies of Delta legacy towns but balanced as to not significantly increase the risk associated with levee failure.
- Alleviating ALL risk will be too expensive to implement. Therefore, a plan must be established to reduce risk, but also mitigate for impacts when disasters occur. Minimum levee standards should be developed (somewhat varying by risk and funding) and rehabilitation conducted to the established standards. Funding should continue for maintenance of the rehabilitated levee system. A funding mechanism, procedures, and recovery plans should be adopted with reclamation districts in planning for disaster preparedness.
- Future land uses that do not encourage land development, but reduce risk and increase habitat values should be encouraged. This could include habitat friendly levee rehabilitation and habitat friendly farming practices. Buffers to control subsidence where it occurs and affects levee integrity should be encouraged. These buffers could be developed into habitat areas.

*What are the priorities in incorporating DSC strategies with other planning efforts such as the State Plan of Flood Control (SPFC)?*

- Establish an agricultural standard for levees in the SPFC. With this standard in mind, fix deficiencies within the SPFC levees that have been known for a long time. Even though non-project levees are not necessarily part of the SPFC, as the downstream end of the Sacramento and San Joaquin flood control systems, they have to assume the stress of flows passing through the systems. Therefore, minimum standards for non-project levees should be established and funded as part of the SPFC.
- Setback levees in the Delta generally do not improve flood capacity due to the overriding effect of the tide, however, along upstream reaches of the Delta, minor setbacks of levees with known deficiencies within the SPFC should be investigated and coordinated with local stakeholders. Minor setback in this case is assumed to be construction of a new levee immediately adjacent to the old levee, with the old levee graded and planted to increase flood carrying capacity at the same time of developing habitat.
- Improvements to the current Sacramento Bypass system and establishment of a San Joaquin River Bypass should be incorporated.

*What are the priorities for addressing sea level rise and the affect it may have on Delta infrastructure?*

- Delta levee districts have already begun planning for sea level rise. It has been found that once a levee system has been rehabilitated, it is feasible within the current state maintenance funding and reclamation district budgets to keep up with sea level rise. As part of the DSC Delta Plan, once levees are rehabilitated to the minimum established standards, maintenance planning and

funding should be established to increase protection accounting for sea level rise conducive to cost sharing ability of the reclamation districts.

- Certain levee systems that protect significant portions of the state's highway system through the Delta should have initial designs incorporated that consider short-term sea level rise, and plans to improve the levee to track long-term sea level rise.
- Significant Delta infrastructure occurs throughout the Delta. It is known which island levee systems protect highways, gas and electrical transmission lines, railroads, etc. However, these levee systems are also protected by neighboring levee systems that should be considered as important to protecting the infrastructure of concern.