



Water Resources ♦ Flood Control ♦ Water Rights

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Mr. Phil Isenberg, Chair  
Delta Stewardship Council  
980 9th Street, Suite 1500 (15th floor)  
Sacramento, CA 95814

**Subject: Delta Plan Scoping Comments – Flood Risk**

Dear Mr. Isenberg and Council Members:

Thank you for the opportunity to provide these comments to your scoping process for development of the Delta Plan (Plan). The following comments pertain to levees in the Delta, more specifically, non-Project levees. In addition, most of the following comments pertain to short-term planning. Short-term planning is key because funding is currently available to significantly lower the risk due to flooding.

Bond Funding

Propositions 84 and 1E designated \$775 million to the Delta. Although over \$150 million have either been spent, or earmarked, for Delta levee projects, there are no concrete plans on how the remainder of the money will be spent. In addition, there have been no published accounts of how much of the original \$775 million is remaining. Since the bonds have limited time under which they can be spent, we recommend that the Delta Plan provide input on how and where the money should be spent.

It is our understanding that concerns have been raised on prioritizing spending through a plan to be developed by DWR. Based on cost estimates from CALFED, about 89% of approximate \$1 billion to rehabilitate all non-Project levees to the PL-99 standard will be spent on levees “important” to the State, as shown below:

Eight Western Islands	18%
State and Federal Highway Protection	25%
North-South Conveyance and Stockton Ship Channel	30%
EBMUD Aqueduct Protection	7%
Government Investment and Habitat Islands	9%
	<hr/>
	89%

As you can see from the above, the priority of spending has already been set. Investment in these islands would not come under extensive scrutiny due to the fact that they all provide important benefits. In addition, reclamation districts are currently developing five-year plans that will refine the levee rehabilitation cost estimates. These plans will be complete before your Plan final draft is complete.

### Investigate Linkages

The two main studies to date that have been used to develop the Delta Stewardship Council Flood Risk White Paper, (DRMS and PPIC), take a very high level look at the levees and risks posed by failure of individual islands. Although each island has its own importance beyond farming, the islands also protect neighboring islands due to the fact that without them, access could be limited or they protect neighboring islands from extensive wind fetch and seepage stressors. This linkage is very important because it ties together important islands with somewhat less important islands. For instance, one less important island might provide access to three or four additional islands. Without that less important island, the islands that rely on it to gain access would essentially shut down their operations. In addition, it has been shown during historic breaches of levees that neighboring islands experience seepage. Some of this seepage has been significant enough to cause levee instabilities. In addition, if islands are not reclaimed, the long-term prognosis is that the remaining levees will eventually erode; thus leaving neighboring islands exposed to wide expanses of water and subject to wind-wave fetch damage. The Delta has been deemed important to the State. In our mind, the whole is greater than the sum of its parts and we request the Plan acknowledge this.

### Corps of Engineers CALFED Levee Stability Program

As originally envisioned, the Corps of Engineers CALFED Levee Stability Program was authorized to spend \$192 million on Delta levees. The Corps of Engineers has been progressing slowly in developing projects under this program. One of the issues that is holding up some projects is the inability of reclamation districts to cost share under Federal guidelines. The Delta Plan should look at utilizing existing State funding from Propositions 84 and 1E, and whether it would be sensible to parlay some of that money as local cost share in order to obtain the Federal funding.

### Future Designs

Much has been said about the inability of the current levee system to handle sea level rise and seismic activity. To date, it does not appear that a whole lot of money is being invested in science to develop strategies to define improvements that must be made to levees in order to alleviate or reduce the risk due to these stressors. Local reclamation districts have been performing some of this work as part of the Delta Levees Program. However, it does not appear that the Council has had access to these studies. The Plan should investigate the existing designs for sea level and seismic risk; and also, utilize your consultants to develop additional information that could define and compile strategies to reduce the risk due to these two stressors and to mitigate for impacts due to damage caused by these stressors.

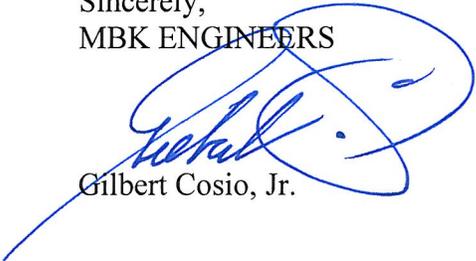
Since the environment is one of the co-equal goals, the Plan should look into habitat development incorporated into levee design. Several projects have been constructed utilizing minor setbacks of levees and using the abandoned part of the levee as a medium to provide channel margin habitat. This type of project has multiple benefits in that it provides habitat where none may exist. In addition, it moves the levee landward onto better materials and abandons possibly some of the weaker materials that cause instability. Plant growth rates in the Delta are astronomical and this type of project would not only reduce the flood risks significantly; but also, increase habitat values without major purchases of land. Attached is a plate showing an example of how fast vegetation grows in the Delta. The project is on Canal Ranch along Beaver Slough. A bench was built on the waterside of the levee to serve as a planting medium. This design keeps the plants and the roots out of the structural levee section. After habitat has established itself, it provides significant habitat along the channel.

### Long-Term Planning

There are a lot of unknowns in regard to levee design for future stressors. The Plan should continue to refine the currently published studies to adequately define which levees in the Delta should be rehabilitated to substantially reduce risk due to forces such as seismic. In addition, the Plan should continue investigating designs that could be constructed to mitigate seismic damage.

Thank you for the opportunity to provide these comments. We are looking forward to working with the council in the future as the Delta Plan is completed and implemented.

Sincerely,  
MBK ENGINEERS



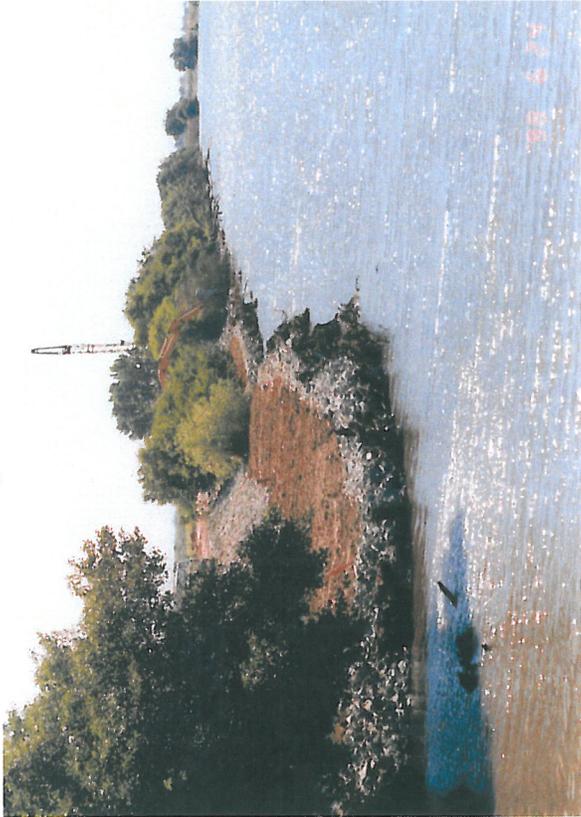
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cc: California Central Valley Flood Control Association



July 1998



May 2005



Canal Ranch Beaver Slough Habitat Improvement Project