



CALIFORNIA CENTRAL VALLEY
FLOOD CONTROL
ASSOCIATION

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March 29, 2012

SENT VIA EMAIL: wmasarwe@water.ca.gov

Mr. Dave Mraz, Chief
Delta Levees and Environmental Engineering
P.O. Box 942236
Sacramento, CA 94236

SUBJECT: BRM Delta Region Integrated Flood Management Comments

Dear Mr. Mraz:

The California Central Valley Flood Control Association (CCVFCA) respectfully submits the following comments on the Draft Background/Reference Memorandum: Delta Region Integrated Flood Management - Key Considerations and Statewide Applications.

The CCVFCA was established in 1926 to promote the common interests of its membership in maintaining effective flood control systems in California's Central Valley for the protection of life, property, and the environment. Our members consist of more than 70 reclamation districts and other flood control entities in the Sacramento-San Joaquin flood control systems.

General Comments

1. Section 1.2, Delta Region, last paragraph, Page 2 – The document states that failures of one levee can increase the risk of other levee failures. It should also be noted that if a failure is not repaired, and an island not reclaimed; in many cases, access to other islands is cut off; therefore, the connectivity of islands is important.
2. Section 2.2.2, Non-Project Levees, 2nd paragraph – States that the economy of construction was a priority; and therefore, was the reason that the levees were originally constructed using the dredge materials and placement methods. The original construction method was used due to the inaccessible location and the location of the borrow material. The technology available at the time (dredging) was really the only choice. Also, in the same paragraph, the document indicates that seepage through and beneath levees is more

significant today due to increased height. This is not correct. Peat levees generally do not have seepage problems, as do levees constructed on sand foundations or constructed of sand.

3. Section 2.2.2, last paragraph – Indicates that the levees shown on Page 38 of DWR’s Sacramento-San Joaquin Delta Atlas, dated 1993, show the non-Project levees. It should be noted that not all of these levees are eligible to participate in the Delta Levees Subventions Program, due to the fact that they have restricted height or are built within floodways. Also note that the actual non-Project levees eligible for rehabilitation do not total over 700 miles.
4. Section 2.3.2, Land Subsidence, 3rd paragraph, Page 8 – The third paragraph of this section indicates that more subsidence is continuing and it will have a continuing effect on levee stability. This phenomenon is very limited in actual practice. The authors should add proof and show geotechnical evaluation based on actual data. In most cases, where subsidence does occur, it is far enough from the levee that it does not affect the levee stability.
5. Section 2.4.1, Historical Levee Failures, Page 13 – Table 2-2, History of Delta and Suisun Flooding, should be modified or another table added, which indicate the failures of non-Project levees only. It should also not include levees that are restricted height or in floodways. A table such as this would give a better idea of the actual situation.
6. Section 2.5.4, Delta Risk Management Strategy (DRMS) - The last sentence of this section should be highlighted that DRMS is outdated due to the fact that additional study has been performed since 2005. It should also be noted that the “business as usual” is not a real scenario since levee districts do not typically ignore levee maintenance or rehabilitation.
7. Section 2.5.5, PPIC Report – It should be noted that this study severely underestimates land values; and therefore, since it has erroneous and outdated information, should not be considered a valid source of information.
8. Section 2.5, Major Delta Levee Studies – It should be noted that a more recent study performed by the Delta Protection Commission “Economic Sustainability Plan for the Sacramento-San Joaquin Delta” was completed in January 2012 and should be included in the Background Reference Memorandum.
9. Section 2.6, Delta Considerations – The first bullet point on Page 16 indicates that most Delta levees hold back water on a daily basis. Due to the fact that a good portion of the Delta is not below sea level, the authors should do an analysis that indicates how much of the approximately 1,100 miles of Delta levees actually hold back water on a daily basis, Since a lot of the Delta is above sea level, it is not the entirety, but specifying how much a percentage of levees that are holding back water on a daily basis would be beneficial.

10. Section 2.6, Delta Considerations – The bullet points that begin on the bottom of Page 17 and run through the middle of Page 18 are good considerations and the document should indicate a need for a study to bring all of these considerations together, since they will be important when evaluating the investment strategy in the Delta.
11. Section 3.3.1, References to Delta Importance – The bullet point that starts at the middle of Page 23 states, “it is difficult to consider one Delta levee independently from others”. This statement should be enforced throughout the document and should be highlighted as a key consideration when establishing investment strategy in the Delta.
12. Section 3.4, Perspective on Individual Levee Importance – The last statement on Page 33 describes the situation shown on Figure 3-10. The statement describes the fact that, “most Delta levees provide some level of benefits of State interest”. Based on observation of Figure 3-10, and description of the bullet point prior to this statement, it probably would be better described that almost all Delta levees provide some level of benefits of State interest.
13. Section 4.3, Delta Levees Maintenance Subventions Program - The first paragraph at the bottom of Page 45 indicates that the State began to recognize the assets protected by Delta levees are State’s interest “over time”. This is not true. Prior to the authorization of the State Water Project, the State had plans to improve levees, knowing that the State Water Project would require levees to be maintained in order to run water through the Delta to the pumping plants in the South Delta. Reference is made to a document, titled *The Delta and the Delta Water Project*, dated January 1960, published by the Department of Water Resources. In this document, it describes improvements to 250 miles of levees, which are termed, “master levees”. It also describes channel control structures that can be opened and closed in order to keep flood flows from certain Delta channels; and therefore, protecting the levees in those channels.
14. Section 4.3.3, Local Participation – This paragraph describes the significant interests the State has in many Delta levees and describes how it contributes up to 75% of maintenance and improvement costs. It may also describe the amount of effort, such as funding that has been contributed by local districts since 1973.
15. Section 5.2.1, Hazard Mitigation Plan (HMP) – The first paragraph describes the initial improvements to HMP. The last sentence in this paragraph indicates that there are still a “significant number that must complete some additional work to fully comply”. This is not true. Almost all levee districts attained HMP at one point. They are now maintaining to that level as required under the HMP.
16. The following paragraph is subtitled HMP Levee Cross-Section – This paragraph indicates that the flood levels used in establishing the HMP freeboard requirement were published by the Corps of Engineers in 1992 and refer to Figure 5-1. Figure 5-1 shows the flood levels that were established by the Corps in December 1986. The paragraph should be modified to reflect this. HMP was established using these flood levels. The 1992 report was drafted by the Corps of Engineers at a later date.

17. The last paragraph, on Page 53 in the same section, indicates that HMP provides for levee cross-section factor of safety against sliding of about 1.0. That is not true. The HMP does not specify any factor of safety.
18. Section 5.2.1, Hazard Mitigation Plan (HMP), Subtitle FEMA/CalEMA MOU – At the top of Page 55, the first paragraph indicates that the old version of the HMP did not apply to some districts. The new version does not change the applicability, so this statement is confusing.

Thank you for the opportunity to comment on the BRM for the Delta Region. Please call if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Melinda Terry". The signature is fluid and cursive, with a large loop at the end of the last name.

Melinda Terry, Executive Director
CA Central Valley Flood Control Association