

September 7, 1993

Mr. Steve Yaeger
Bay-Delta Oversight Council
1416 Ninth Street, Suite 1306-3
P.O. Box 942836
Sacramento, CA 94236-0001

SUBJECT: Comments on BDOC's Briefing Paper on Delta Levee
Stability and DWR's Review of Seismic Stability
Issues for Sacramento-San Joaquin Delta Levees

Dear Mr. Yaeger:

Thank you for requesting our comments on the Bay-Delta Oversight Council's draft "Briefing Paper on Delta Levees" and the Department of Water Resources' draft "Review of Seismic Stability Issues for Sacramento-San Joaquin Delta Levees." The East Bay Municipal Utility District (EBMUD or District) has attached a Perspective Paper which describes the importance of Delta levee security to EBMUD's water supply and would like to offer the following comments with respect to the two documents.

Comments on BDOC's Briefing Paper (August 1993)

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Liquefaction from seismic forces should be listed as one of the levee failure mechanisms under the section entitled "Main Design Areas." Under the subsection entitled "Seepage Control," potential methods of seepage remediation, such as grouting, should be included.

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The section entitled "Design Procedures and Methods," should include an additional procedure, namely, the use of aerial photographs to delineate the location of historic river channels. Delineation of these historic channels would be useful in assessing areas with an accumulation of poorly consolidated to unconsolidated sediments resulting from cycles of deposition and erosion. These areas with poorly consolidated sediments may be sites for future levee failures.

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Comments on DWR's "Review of Seismic Stability Issues for Sacramento-San Joaquin Delta Levees" (July 1993)

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The "Executive Summary" refers to the use of upstream reservoir releases in diluting and flushing out the intruded saline water in the event of Delta levee failures and inundation of islands. The report should note that there may be insufficient water stored in upstream reservoirs to dilute Delta waters in the event of earthquake-induced levee failures during low river flow conditions. In the event of an earthquake of that magnitude, municipalities would need the water stored in upstream reservoirs for drinking and fire-fighting, and it may not be feasible to plan on reservoir releases to dilute the Delta.

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EBMUD concurs with the probabilistic risk analysis performed by the Department of Water Resources. The District commissioned several seismic studies resulting in approximately the same peak rock acceleration (PRAs) within similar probabilities and exposure periods cited in the report.

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Figure 12 illustrates the summary of Liquefaction Analyses, commissioned by EBMUD, which graphically represent the estimated probabilities of exceedance for the onset of liquefaction within the region of the Mokelumne Aqueduct. It should be noted that this onset of liquefaction, as further defined in the report, appears to represent the Low to Moderate range of levee damage susceptibilities listed on page 25 of BDOC's briefing paper.

EBMUD appreciates the opportunity to comment on these reports and looks forward to receiving copies of the final version.

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Please find attached to this letter a brief perspective paper for your consideration. If you have any questions or need additional information, please contact me at (510) 287-1121.

Respectfully submitted,


Jon A. Myers
Managers of Resources Planning

Attachment

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