

CALFED Bay-Delta Technical Reports
Document Review

Flood Control System Infrastructure - Affected Environment

Page 4, Section 4.2, Paragraph 1 -

What is a "self-cleaning navigation channel"? Is dredging a thing of the past? Please investigate.

Text ignores storage provided by SWP, Section 7 reservoirs, and other flood control reservoirs not associated with the CVP or SWP. Please expand text.

Project levees are not maintained by local "landowners", but by local reclamation districts. Please revise.

Page 6, Section 4.2, Paragraph 2 - The two sentences discussing maintenance of non-project levees contradict each other regarding standards used. One discusses "widely ranging and less stringent standards" for nonproject levees, and the next sentence states that nonproject levees are maintained according the HMP standards. Please Clarify.

Page 6, Section 4.3, Paragraph 3 - I think Mildred Island has been flooded since 1983. Please verify and add to your list if appropriate.

Page 9-12, Section 4.4.1, Paragraph 2 -

Please revise second sentence to say *peak* floodflows.

Also, please verify that the quote of 600,000 cfs includes all inflows into the Delta. I seem to recall that the 600,000 cfs was the peak flow for the Sacramento River system.

The statement about the limited channel capacities in the central and western Delta seems incomplete. The Sacramento and San Joaquin River channels in the western Delta are the biggest in the Delta. The discussion should include a statement about how high stages in this part of the Delta are primarily influences by high tides and to a lesser degree by high flows.

Recommend a map showing the location of the points listed in table 2.

Page 12, Section 4.4.2, Subsidence, Paragraph 1 -

Subsidence rate is quoted as 1-3 inches a year, but the rate is quoted as 2-3 inches a year on page 9. Please be consistent.

The statement that "The cause of levee instability is subsidence ..." should be revised to say that subsidence is "the primary" or "a primary" cause of levee instability. If subsidence is THE cause of levee instability, why address any other factors?

Page 19, Section 4.4.3, bullets - To say how each standards "provides 100-year level of protection" is confusing and misleading. Also, the discussion regarding FEMA is not totally correct. Recommend rewriting as follows:

- None: Little or no freeboard above the 100-year stage;
- Hazard Mitigation Plan (HMP): At least 1 foot of freeboard above the 100-year stage.....;
- National Flood Insurance Program (NFIP): At least 3 feet of freeboard above the 100-year stage. Qualifies land owners for generally lower flood insurance rates and fewer flood plain management restrictions;
- Public Law 84-99: At least 1.5 feet of freeboard above the 100-year stage.....;
- Bulletin 192-82: At least 1.5 feet and 3 feet above the 300-year stage for agricultural and urban lands, respectively.....;

Also, make reference to the cross-section configurations between the various standards.

Flood Control System Infrastructure - Environmental Impacts

Page 4, Section 5.1.1, *Physical Trends*, Paragraph 3 - Given the continued rate of subsidence, reconsider the assumption that the rate of levee failures will be constant through 2020.

Page 5, Section 5.1.1, *Other Flood Control Projects, Folsom Reoperation* - The additional storage is used to control potential winter rain floods, not spring runoff (snow melt). Please revise.

Page 6, Section 5.1.2, *Mitigation Strategy 1* - What are the elements of the proposed monitoring program, and how will it work to reduce the impact to a less that significant level. This may be a very important issue and the document should address it.

Page 8, Section 5.1.2, *Mitigation Strategy 5* - Consider investigation of biotechnical erosion control techniques as part of the proposed action.

Page 9, Section 5.1.2, *Seismic Susceptibility* - The document does not discuss how the alternative would *increase* seismic susceptibility. The discussion focusses on the existing seismic issue. For that reason, the need for mitigation does not seem to be supported. The discussion should be worked out one way or the other.

Flood Management System - Affected Environment

Page 2, Section 4.3 - This section should totally be reworked. The section is incomplete and/or misleading about the entire role and authority of the JOC. Additional coordination is needed with the Corps' Water Control Section regarding the Corps role as the primary water control managers for both the Sacramento and San Joaquin basins. Also, additional coordination is required to accurately discuss emergency operations and post-flood recovery (i.e. PL 84-99 chain of events).

Page 2, Section 4.3, Paragraph 4 - Please change "rule curve" to flood control diagram.

Page 5, Section 4.4.1, Paragraph 2 - The last sentence should be revised to say that the various factors combine to cause high hydrostatic pressure which can lead to piping and stability failures.

Page 8, Section 4.5.1, Paragraph 1 - The discussion on sea-level rise should be reworked. The records regarding sea-level rise date back much further than recent decades. Also, there is nothing to suggest that this long-term trend will stop. Planning efforts should factor the long-term rate into proposed actions. It is recommended that the established observed long-term rate be used as a reasonable assumption for current planning efforts.

Page 9, Section 4.6, Paragraph 1 - Correct reference about snowmelt floods on the San Joaquin River to Sacramento River.

Page 12, Section 4.6.2, Flood Control System Operations, Paragraph 3 -

Although flood peaks are to some degree attenuated as they pass through the system, the bypass system is not a storage system for floodwaters. The bypass system is a conveyance system to move the floodwaters down to the Delta and Bay.

Remove "slowly" from "Water moves slowly south".

Clarify that the volume of groundwater recharge is small compared to the volume of most flood events.

Page 12, Section 4.7, Paragraph 1 -

Include flows from the Kings River in the list of major tributaries to the San Joaquin River.

2nd to last sentence. Change San Joaquin River "region" to "watershed".

Page 12, Section 4.7.1, Paragraph 1 - include flood bypasses in list of system features.

Page 12, Section 4.7.2, Reservoirs - Include Pine Flat Lake in the list of reservoirs.

Page 12, Section 4.7.2, Weirs and Bypasses - Include Chowchilla Bypass in the list of bypasses.+

Page 14, Section 4.7.2, Flood Control System Operations - The document does not, but should, include a discussion of the problems associated with snowmelt floods in the basin.

Flood Management System - Environmental Impacts

General - The format used in the Flood Control System Infrastructure document was easier to follow. Consider using that format.

Page 6, Section 5.1.1, Paragraph 3 - Levee crowns are not dropping from subsidence. Only the Island interiors are subsiding. The levees may be dropping from settlement; however, the instability caused by subsidence is the much bigger problem. Please revise.

Pages 13, Section 5.2.1.1, Ecosystem Restoration Program, Table 3 - Given that the hydraulics of the Delta are greatly influenced by high tidal stages, how was the data in table 3 generated? What were the assumptions regarding starting stages? Increases in channel size will have very little effect on stages in a lot of areas in the Delta. Please verify that the data presented in table 3 is valid.

Page 17, Section 4.7, Conveyance Facilities, Paragraph 1 - The discussion about Holland Tract is flawed. The storage would provide few flood benefits because the flood problem is more related to high tide stages and not to high flows. Please revise.