



Memorandum

Date: August 7, 2000

To: CALFED Management Group

From: Steven R. Ritchie
Acting Executive Director 

Subject: Suisun Marsh Levee Investigation and Levee Restoration Funding

This memo covers two related Issues:

1. CALFED's Suisun Marsh Levee Investigation; and
2. Levee maintenance during the Suisun Marsh Levee Investigation

Suisun Marsh Levee Investigation

Both the SWRCB D-1641 and the Suisun Marsh Preservation Agreement require DWR and USBR to meet salinity standards in the Marsh or SWP and CVP operations could be curtailed. Therefore, floods not only threaten the salinity control and monitoring facilities, but if levees fail, salinity standards may not be met and Project operations impacted. Also, the floods threaten large DFG refuges in the Marsh.

The Suisun Marsh area received heightened attention in February 1998, when 11 exterior levee breaches resulted in inundation of over 22,000 acres and threatened the integrity of DWR and USBR salinity control and monitoring facilities in the Suisun Marsh. DWR and USBR provided \$1.1 million dollars for emergency repairs of private levees. DFG property and private properties also sustained extensive damage during this event.

The Suisun Marsh Levee Investigation began in January 1999 at the request of the CALFED Policy Group to determine how management of Suisun Marsh levees would contribute to the following CALFED objectives:

CALFED Agencies

California

- The Resources Agency
- Department of Fish and Game
- Department of Water Resources
- California Environmental Protection Agency
- State Water Resources Control Board
- Department of Food and Agriculture

Federal

- Environmental Protection Agency
- Department of the Interior
- Fish and Wildlife Service
- Bureau of Reclamation
- U.S. Geological Survey
- Bureau of Land Management
- U.S. Army Corps of Engineers

- Department of Agriculture
- Natural Resources Conservation Service
- U.S. Forest Service
- Department of Commerce
- National Marine Fisheries Service
- Western Area Power Administration



1. Ecosystem Restoration

CALFED's objective is to recover 15 bird, fish, and plant target species in the Marsh. The Ecosystem Restoration Program Plan established three goals to recover the 15 target species:

- Establish 1,500 acres of Shallow Water Habitat
- Establish 5,000 - 7,000 acres of Tidal Marsh
- Protect 40,000 to 50,000 acres of existing Managed Wetlands

2. Delta Water Quality

Reduce Delta salinity for water users.

3. Improve Water Supply Reliability

Improve the reliability of California's water supply within the context of unpredictable hydrology and the competing needs of fish and water users.

CALFED formed the Suisun Marsh Investigation Team to determine how CALFED's objectives could be achieved simultaneously. The following people are on the Team: Rob Cooke, CALFED; Gwen Knittweis, CALFED; Chris Enright, DWR (Modeling); Kamyar Guivetchi, DWR (Modeling); Terry J. Mills, CALFED (Ecosystem Restoration); Jim Starr, DFG (Ecosystem Restoration) Gilbert Cosio, MBK (Engineering and Cost Estimates); Steven Chappell, SRCD Curt Schmutte, DWR; Dave Gore, Reclamation; Arnold Lenk, Local landowner representative and SRCD Board Member; Bruce Wickland, SRCD; Bob Batha; BCDC. FWS was unable to attend.

The Team's biologists developed tidal marsh conversion scenarios in the Marsh that would achieve ERP acreage goals. Models were run to determine which scenario would significantly change salinity. The modeling provided the following preliminary findings:

- Controlled breaching of Marsh levees significantly decreases Delta salinity;
- Uncontrolled breaching of Marsh levees significantly increases Delta salinity;
- Salinity response is sensitive to breach location and size; and,
- It is possible to simultaneously achieve CALFED ERP objectives in the Marsh, reduce Delta salinity, and improve Water Supply Reliability.

Recognizing that the success of any proposed Suisun Marsh Levee Program hinges on willing landowner participation, public outreach is being highly stressed in the Investigation effort. The Suisun Marsh Levee Investigation Team conducted two public

outreach workshops in March and July 2000. This Program has been formulated as a levee maintenance and ecosystem restoration program with significant water quality and water supply reliability benefits. Stakeholder response has been very positive.

The draft Suisun Marsh Investigation Report cost about \$150,000 and will take about 21 months to complete. A final Report is scheduled to be completed in October 2000. We are asking for your comments on this draft Report by September 20, 2000.

The Framework document includes \$180 million in Stage 1 to pursue CALFED's goals in the Suisun Marsh. The next step will be to develop an Implementation Plan outlining how we can utilize these funds to achieve the stated goals.

While the Suisun Marsh Levee Investigation is underway, there are two significant considerations:

- Coordination with other ongoing efforts; and,
- Levee maintenance during the Suisun Marsh Levee Investigation.

Coordination with other ongoing efforts

The FWS is currently in consultation with USBR and USACE to amend the Suisun Marsh Preservation Agreement and renew the SRCD/DFG Regional General Permit for maintenance activities. The purpose of the Suisun Marsh Preservation Agreement is to mitigate for any adverse impacts from the CVP, SWP, and other upstream diverters on managed wetlands. The purpose of Amendment #3 is, among other things, to update required salinity standards in the Marsh and implement management actions in lieu of constructing large-scale facilities to meet SMPA objectives. Work on Amendment #3 has been going on for 5 years.

The consultation process is nearing completion and the FWS has asked the Project proponents to add several measures to the Project Description.

CALFED's goals in the Marsh would go a long way to satisfying the FWS measures being requested. CALFED staff should work with the parties to help bridge the gap.

Levee maintenance during the Suisun Marsh Levee Investigation

As the Suisun Marsh Investigation proceeds it is very important to ensure that levees in strategic locations in the Suisun Marsh are maintained. Adequately maintained levees will ensure that conversion to tidal wetlands will not be due to levee failure, but instead, will be planned with consideration of species recovery plans, Delta water quality, water supply reliability, and landowner support. Also, ensuring the integrity of the

exterior levees in the Marsh is critical to sustaining seasonal wetland values provided by the Marsh's managed wetlands.

Specific Levee Project Information

CALFED received a request for financial assistance from Reclamation District 1607 to help maintain levees on Van Sickle Island located on Honker Bay. Modeling indicates that salinity in the western Delta would significantly increase if these levees fail.

Upon receiving this request, DWR prioritized levee maintenance work in the Marsh to determine the greatest need. This funding will fix the levees found to have the highest priority (Van Sickle Island). It is felt that these levees will not survive a normal winter.

Reclamation District 1607 is the responsible lead agency for the preparation of all necessary environmental documentation and DWR provides oversight through the AB 360 Program. SRCD's Regional General Permit covers levee maintenance and the Corps of Engineers is the permitting agency. The Corps has issued a permit to do this work through a letter dated July 11, 2000. DWR indicates that there won't be any work in the water and the work won't affect any species of concern.

Reclamation District 1607 has prepared a cost estimate (see letter to CALFED). CALFED staff is recommending a 90% CALFED -10% Reclamation District cost sharing formula. This is consistent with the cost sharing formula being recommend for the Delta and is the formula used by the Corps of Engineers for flood control projects.

The work being requested is the type of work that CALFED's Suisun Marsh Levee Program would fund when CALFED implementation begins. This is viewed as a very high leverage activity to preserve this island during planning. It will be very expensive to reclaim this island to reverse the in-Delta water quality degradation caused by levee failure. DWR is administering this effort.

The USBR is reviewing their authority and available funds to fund this project through their operations and maintenance budget.

CALFED Management Group

August 8, 2000

Page 5

Recommendation

CALFED staff recommendations:

- Management Group should provide comments on the CALFED Suisun Marsh Levee Investigation Report by September 20, 2000.
- CALFED staff should work with FWS, DWR, USBR, DFG and SRCD to determine how CALFED actions can help meet FWS proposals in the Marsh
- CALFED Management Group should concur with this expenditure as a necessary step in preserving a critical Suisun Marsh island during CALFED's Suisun Marsh planning effort.