



IN REPLY REFER TO:

# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office  
 3310 El Camino Avenue, Suite 130  
 Sacramento, California 95821-6340

November 26, 1997

Mr. Lester A. Snow, Executive Director  
 CALFED Bay-Delta Program  
 1416 Ninth Street, Suite 1155  
 Sacramento, California 95814

Subject: Review of Draft Delta Levee System Protection Plan

Dear Mr. Snow:

The U.S. Fish and Wildlife Service (Service) thanks CALFED for the opportunity to review the Draft Long-Term Levee System Protection Plan (LSPP) of the Delta Levee System Integrity Program. We commend the efforts of CALFED staff in developing this plan for the CALFED program. Service comments and recommendations on LSPP follow.

### General Comments

The plan should include some assessment of overall feasibility based on economic, engineering, and environmental constraints. The plan includes the difficult to reach goal of building all Delta levees up to PL84-99 standards. However, no estimates of costs for the entire plan are provided. Based upon the cost estimates provided for the Base Level Protection Plan, improvements to all substandard Delta levees may be prohibitively expensive.

Furthermore, levee improvements generally result in a net loss of habitat to fish and wildlife resources, even in instances where some habitat components are being preserved or created as part of the levee design. The net loss of habitat results from the fact that levees were typically constructed at the land-water interface, and protection of the levees typically includes rock revetment in this area. Habitat losses will generally require some additional offsite compensation to offset project impacts. The LSPP should include these measures in future project planning.

Given that the LSPP levee improvement measures would generally result in net losses of habitat value, CALFED documentation should be improved to address the inherent conflict between the LSPP and the Ecosystem Restoration Program Plan (ERPP). The LSPP goals of Delta-wide levee improvements may preclude ERPP actions of habitat restoration along Delta channels.

Furthermore, it should be stressed by CALFED that the ERPP is not intended to provide mitigation for any other programs. If mitigation is required for LSPP actions, it should be provided as part of the LSPP and not by ERPP actions.

### **Specific Comments**

Page 1, Vision. The Vision section could be improved by better defining the relationship between levee system integrity and habitat restoration. The section alludes to the integration of the LSPP with the ERPP, but states that the focus of the Levee System Integrity Program is to “supplement and improve Delta levee maintenance and emergency management practices.” We believe that projects, such as setback levees, waterside habitat improvements, or management of certain Delta islands as wildlife habitat areas, will contribute to resolving many problems associated with both flood control and ecosystem restoration. However, the ERPP is not the mechanism used for compensating adverse impacts of the LSPP; mitigation should be a component of the LSPP conducted in accordance with the goals of the ERPP. The linkage between the two programs should be more explicitly stated within the text.

Page 2, First Paragraph. Seven different resources are listed as being protected by the Delta levee system. Explanations of *how* they are protected are provided for only two of the resources. Provide more detailed explanations of how *all* the resources listed here are protected in this section.

It should also be acknowledged in this section that most Delta levees do not protect all the resources listed, and the relative importance of each of the resources differs among islands. Perhaps the text should refer to Attachment 1 of Appendix C, which provides information supporting this statement.

Page 2, Background. This section should include documentation of the relationship between habitat and Delta levees to enable the reader (who may likely know only the flood control aspects of levees) to understand the significance of habitat on or near Delta levees. Briefly, the discussion should include descriptions of: (1) conditions prior to levee construction, where natural levees provided nearshore shallow-water habitat and associated riparian and emergent wetland vegetation for Delta native fishes and wildlife species, (2) losses of such habitat and reductions in fish and wildlife populations associated with levee construction and maintenance, (*i.e.*, the vast majority of remaining nearshore aquatic habitat in the Delta is associated with levees), and (3) the consequent importance of providing habitat on or adjacent to levees to minimize adverse effects of LSPP projects and to contribute to ERPP success.

Page 10, Implementation, 4th Paragraph. We question whether it is economically feasible or desirable within CALFED to provide PL84-99 performance standards on all levees within the Delta. Depending upon which islands (and their levees) are slated for restoration priorities under the ERPP, and how conveyance alternatives which may affect localized Delta hydrology and water quality, it is likely that the need to enhance protection of some Delta islands will be reduced. Therefore, PL84-99 standards on all federal and non-federal are not likely to be the outcome of full implementation of the LSPP.

Furthermore, the document needs an analysis to show whether it is economically, engineeringly, or environmentally realistic to expect to build out all levees to PL84-99 standards. Before setting this as the goal of the LSPP, some evaluation of feasibility of this goal should be conducted. This feasibility level of analysis should be accomplished for the PEIS.

Page 10, Program Elements. Five elements are listed, but the CALFED Phase II Alternative Descriptions document lists four additional approaches (Levee-Associated Habitat, Reuse of Dredge Material, In-Channel Islands, Levee-Associated Recreation), which should also be considered elements of this plan and included in this discussion.

Page 17, Bottom Discussion. Emergency management activities should include standardized methodologies designed to avoid, reduce, minimize, and compensate for impacts to fish and wildlife. During the Corps of Engineers' emergency flood response and levee rehabilitation in the Central Valley following the January floods, the Service provided methods to avoid or minimize impacts, yet these were often not incorporated into construction specifications. The Emergency Management Plan should include processes so that all environmental concerns are addressed and implemented.

Page A-4, Objective, First Paragraph, Last Sentence. Streamlining or consolidation of regulatory processes is addressed as though it is a means to attaining the objective of levee system integrity. We concur that consolidation of regulatory processes is a worthy and useful mechanism to facilitate implementation of the LSPP. However, regulatory consolidation should be an endpoint of the planning process for the Levee System Integrity Program, in which regulatory agency concerns should be fully addressed. In other words, if all regulatory actions are integrated into the overall plan, the permitting process would consist of a "rubber stamp", and would thus be streamlined. The paragraph should be modified to reflect this viewpoint.

Page B-2, Integration of Levee Construction and Ecosystem Restoration. It should be recognized that the designs shown in Figures B-2 through B-5 may result in a net decrease in habitat values for aquatic species due to the placement of rock revetment at the land-water interface, and thus this work would likely not be fully "self-mitigating." It is therefore likely that offsite mitigation of habitat values will also be necessary. Offsite

mitigation can be accomplished in a number of ways including improving existing revetted banks by adding environmental features. Revetment of natural banks reduces habitat quality for species such as delta smelt, splittail, and chinook salmon. Quantifying the net effect of levee improvements on these aquatic species can be accomplished when baseline habitat values are known.

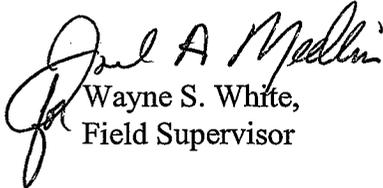
Page G-1, Assumptions, Second Item. It does not appear appropriate to attribute costs of the Base Level Protection Plan environmental features to the ERPP. Levee improvements typically result in net adverse impacts to fish and wildlife. Environmental features included in the levee improvements help offset these adverse impacts, and thus are a form of mitigation and should not be considered restoration. The Base Level Protection Plan levee improvements, even with incorporated environmental features, may result in a net loss of habitat value, which would require offsite compensation paid for through levee improvement project funding sources.

It is our understanding that the ERPP is not intended to be a mechanism by which mitigation should be accomplished. For the levee improvements, a habitat accounting system should be set up in which habitat value changes may be quantified. Net losses of habitat values should be mitigated using levee improvement project funds. Conversely, if there are net gains in habitat value resulting from levee improvements, the ERPP would be an appropriate funding source for habitat values gained above those needed to fulfill mitigation requirements.

Furthermore, at this time the ERPP has not targeted or prioritized areas within the Delta to be restored. It is quite possible that the ERPP and LSPP will not prioritize the same levees for flood control and restoration actions. Therefore, we believe it is premature to allocate and prioritize restoration funding for areas that require levee improvements.

Thank you for the opportunity to review the LSPP and provide these comments. We look forward to working with CALFED staff to continue to develop and implement the LSPP. If you have any questions about these comments, please contact Michael Fris of my staff at (916) 979-2107.

Sincerely,

  
Wayne S. White,  
Field Supervisor