

Memorandum

To : Mr. Frank Piccola
CALFED Bay-Delta Program

Date : September 29, 1997

From : Department of Fish and Game

Subject : Affected Environment and Environmental Impacts: Vegetation & Wildlife Draft Technical Report

The Department of Fish and Game (DFG) has reviewed the subject documents and offers the following comments to assist the CALFED Bay-Delta Program in its efforts to analyze the impacts of the alternatives and to describe the affected terrestrial environment.

Affected Environment - Vegetation & Wildlife

General Comments

Discussion regarding the affected areas (e.g. the Central Valley, the Delta, the Sacramento Valley) is confusing. We recommend that the technical report include maps for all geographic areas mentioned and that these maps need to be detailed and clearly identify each area specifically referred to in the text.

Discussions regarding affected or important species are sometimes confusing, inconsistent with regard to detail, and too general. The appendices of affected species should include accurate, complete lists of affected species, including both scientific and common names. The term wildlife has many definitions; the preferred one includes plants. We recommend that the Technical Report arrange the affected species in a more concise phylogenetic manner. Consider this as a possibility: protozoans, plants, aquatic invertebrates, terrestrial invertebrates, fishes, amphibians, reptiles, birds, and mammals.

Regarding the tables of affected species, when initiating the discussion of any given CALFED region-habitat type combination, include a table of all the affected taxa. The technical report needs to be consist in the discussion of affected species. Too often one group of organisms, usually birds or mammals, receives noticeably more discussion. We recommend that when introductory paragraphs mention several types of organisms, subsequent paragraphs elaborate on each group previously mentioned rather than a selective few previously mentioned.

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The Technical Report discusses the historical range and quantity of acreage and historical loss of the different types of habitat covered by the CALFED Bay-Delta Program. However, the computations relating the historical versus present acreage are not correct in some places, and in other places are difficult to confirm (e.g. page 7, computations regarding woody riparian habitat; page 9, computations regarding freshwater emergent wetlands and permanent wetlands). The appropriate improvements should be made in the next draft.

In the tables of habitats, we recommend that a set of tables be included that illustrate historical acreage by habitat and by CALFED regions, and present acreage by habitat and by CALFED region. We recommend that a set of maps be included that would illustrate historical acreage and range of habitat types. The maps could either focus on the habitat type or the CALFED area, or preferably both. When including numbers of acres, either at more than one point in time for the same habitat type or for the same habitat type scattered over more than one area, the text should be written so the reader can verify the calculations.

Many of the included citations are not listed in the references section and review of the report was hampered due to the omissions. Also, in several instances the sole citations were inserted at the end of the paragraph. It was hard to determine if the citation referred only to the sentence that included the citation or the entire paragraph (e.g. page 7, paragraph 2). Lastly, some statements and paragraphs addressing data, making conclusions, or dealing with scientific or management premises, lacked any citations. It is recommended that an intensive review be conducted when it is released for public comments to ensure all citations are included in the Citations section, the citations support the content of the Technical Report, and statements of fact or interpretation are sufficiently cited.

Specific Comments

Page 1, Introduction, Sentence 3:

This sentence should be clarified. There is nothing contained in this sentence or after to justify the statement that, in fact, the "detail" included in the appendix is the "appropriate" detail.

Page 1, Introduction, Paragraph 2, Sentence 3:

Justification for this variation in detail is not given. It is believed that the same level of detail is appropriate for a technical document, especially because land management actions are going to take place in all the regions, and prioritization is going to have to be made and justified by data and analyses.

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Page 1, Historical Perspective, Paragraph 2, Sentence 4:

Explain how the existing and 1945 habitat acreages were correlated. For instance, it should state whether this means that existing habitat classifications were lumped to equate with the broader habitats.

Page 3, Paragraph 1:

Elaborate on WHR, e.g. California Statewide Wildlife Habitat Relationships System, Department of Fish and Game, etc.

Page 3, Plant Communities and Associated Wildlife:

The Department of Forestry and Fire Protections' Forest and Rangeland Resources Assessment Program (FRRAP) is now the Fire and Resource Assessment Program (FRAP).

Page 3, Column 2, Paragraph 1:

Was Landsat imagery used only for urban and agricultural areas? If not, this needs to be stated.

Page 3, Column 2, Paragraph 3, Riparian and Wetland Habitats:

The use of "unpublished data" does not aid the reader in reviewing or verifying information in the Technical Report.

Page 4, Special-Status Species:

Re-insert the paragraph that was dropped from the draft report. This paragraph reads:

"Plants listed or proposed for listing by the State of California as threatened or endangered under the California ESA (14 California Code of Regulations [CCR 670.5])"

There are several "special status" designations that do not appear to be included in CALFED's considerations: DFG's Species-of-Special-Concern (animals), DFG's Special Plants, and some federal agencies sensitive species (U.S. Forest Service and Bureau of Land Management). Some of these designations are quite important for environmental consideration and review under the California Environmental Quality Act and the National Environmental Protection Act. It is recommended that either

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CALFED expand its efforts to consider additional species or justify why such inclusion is not necessary or appropriate.

Page 5, Overview of Historical Trends, Paragraph 1, Sentence 1:

The changes in the natural landscape that began soon after Spaniards first settled in California during the 1770s were changes in the aquatic environment. The terrestrial changes (perennial grasses/grasslands) did not become notable until the 1850s when there was an increase in the number of livestock and in agricultural land use.

Page 6, Section B, Column 2, Paragraph 3:

The transition from the second sentence to the third is somewhat confusing. Consider making it clear that this area includes all the tributaries as well as the Sacramento and San Joaquin rivers.

Page 11, Column 1, Paragraph 4:

The loss of grasslands dominated by native bunchgrasses has been much greater; only a few small remnants of this type remain. It is recommended that this be quantified and a reference cited.

Page 11, Column 1, Paragraph 4:

The degradation of grassland quality has also continued, especially on heavily grazed rangelands. This conclusion needs to be supported by 1) more elaboration, 2) quantification, and 3) citation(s).

Page 15, Table IV-2:

The total acreage included in the *All* column does not equal the totals included in the other corresponding columns.

Page 21, Column 1, Paragraph 3:

Consider discussing specialized species such as bats to the great diversity of wildlife species.

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Page 38, Table IV-3 and Page 39-40, Table IV-4 and Table IV-5:

The number of special-status species may not be meaningful in and of itself. Additionally, Table IV-3 note states: *Many species have a federal and state status. However, in this table, each species was assigned to the highest-ranked category of legal protection (federally listed = highest, state-listed = lowest) and counted only once.* This statement suggests a misunderstanding of the differences between the federal and state acts. The acts give different levels and types of protection to different types of organisms. We recommend that the authors consult with the DFG and U.S. Fish and Wildlife Service staff knowledgeable about the acts to assist in clarifying this issue.

Page 46, Nonnative Species Populations:

"...212 species of nonnative invertebrates (69%, fish and other vertebrates (15%), vascular plants (12%), and protists..." After this beginning there is no follow-up discussions of invertebrates, fishes, or protists. Include a discussion of all organisms mentioned as non-native species populations affecting native species.

Page 50, Section 4, Sentence 1:

It is stated that 70% of the waterfowl on the Pacific Flyway move through the Bay while on page 48 it states that 60% occur in the Delta. This needs to be clarified.

Page 59, Waterfowl and Shorebirds, Paragraph 2, Sentence 2:

It states that approximately 55% of the waterfowl that winter in the Central Valley use Sacramento Valley wetlands. On page 48, it states that 60% use the Delta. This needs to be clarified.

Vegetation and Wildlife: Environmental Impacts Technical Report

General Comment

The DFG continues to object to the Ecosystem Restoration Program Plan (ERPP) being represented as providing mitigation for temporary or permanent impacts from construction of any of the alternatives such as conveyance facilities or the other common programs such as the Levee System Integrity Program. One, of many, examples of this can be found on page 5-14, Mitigation 1.1 which lists *implementing the ERPP* as a mitigation strategy for the temporary losses of wetland or riparian communities. This issue should be resolved and the needed changes made before the next draft of this technical report is released.

Specific Comments

Page 3-1, Assessment Methods, Paragraph 1, Sentence 3:

This reference is too vague as written. It should be redrafted to reference the specific author, use Sawyer & Keeler-Wolf or delete sentence.

Page 3-3, Section 3.2.1, Sentence 2:

This reference is too vague as written. It should be redrafted to reference the specific author, use Sawyer & Keeler-Wolf or delete sentence.

Page 4-1, Significance Criteria:

The text should clarify whether those items will be determined to be significant on an area-by-area basis, on whether they affect the entire Delta, or a geographic region.

Page 4-1, Paragraph 2:

This section needs to be expanded to include a better description of the context of the proposed action. For example, explain the sensitivity of the Delta and the importance of restoring the Delta to achieve the Program's goals. Unmitigated adverse impacts would be inconsistent with the goal of the Program.

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Page 5-9, Table 5.1.1:

The number of species that are adversely affected should be shown separately from those that benefit.

Page 5-10, Table 5-4:

Eliminate the words *that Improve Conveyance for* and replace with *in*.

The origins of the acres for the created habitat should be presented and the text clarified if these acres are from the agricultural or nonagricultural habitats.

The sums of nonagricultural and agricultural habitats do not always add up to equal the total (last column).

Page 5-17 and page 5-26, Impact 1.6:

The whole foundation of ERPP is based upon protection, enhancement, and restoration. Currently many habitats are severely fragmented and efforts will be to rejoin these patches. It is not clear how this going to result in the loss of habitat. It may be more accurate to state that the actions of the Levee System Integrity Program would result in these losses. Additionally, impact 1.7 states that fragmentation of riparian habitats will occur following implementation of the Levee System Integrity Program; there is no mention of the ERPP causing this loss.

Page 5-18, Benefit 1.6:

Care must be taken when discussing the reduction of non-native plants. Not all non-natives should be removed; one example of a non-native species providing benefit can be found with stands of eucalyptus trees which provide nesting habitat for great blue herons and great egrets.

Page 5-20, Summary of Significant Unavoidable Impacts:

This paragraph states that, *"Assuming that the aforementioned mitigation strategies are implemented, no significant unavoidable impacts are identified for Alternative 1."* However, the impacts discussed earlier in the text repeatedly state, *"This impact is considered to be significant."* Clarify by stating the if the strategies are implemented, the impacts will be mitigated.

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Page 5-25, Impact 1.3:

The first sentence reads that the impact would be the same as under Alternative 2. This should read *as Alternative 1*.

Page 5-27, Benefit 1.6:

Care must be taken when discussing the reduction of non-native plants. Not all non-natives should be removed; one example of a non-native species providing benefit can be found with stands of eucalyptus trees which provide nesting habitat for great blue herons and great egrets.

Page 5-29, Paragraph 2, Sentence 2:

The sentence reads, "*Agricultural land currently protected by levees would be converted to aquatic habitat...*" It needs to be clarified that not all agricultural lands will be converted.

Pages 5-66 and 5-68, Impact 2.3, Loss of Foraging Habitat for Special-Status Species:

The white-tailed kite and burrowing owl are mentioned as species that utilize agricultural lands and may lose foraging habitat with implementation of the ERP. Earlier in the document (e.g. page 5-24) the Swainson's hawk is given as an example of a species that may lose foraging habitat. It is recommended that the species given is consistent throughout the document.

Page 5-67, Alternative 1 and Alternative 2, Summary of Significant Unavoidable Impacts:

This paragraph states that, "*Assuming that the aforementioned mitigation strategies are implemented, no significant unavoidable impacts are identified for Alternative 1.*" However, the impacts discussed earlier in the text repeatedly state, "*This impact is considered to be significant.*" Clarify by stating that if the strategies are implemented, the impacts will be mitigated.

Page 5-68, Benefit 2.7, Increase in Habitats for Special-Status Species:

This requires clarification. It currently reads as of the Water Quality Program and the Water Use Efficiency Program will expand or improve riparian and grassland habitats.

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Page 5-68, Alternative 3, Summary of Significant Unavoidable Impacts:

This paragraph states that, *"Assuming that the aforementioned mitigation strategies are implemented, no significant unavoidable impacts are identified for Alternative 1."* However, the impacts discussed earlier in the text repeatedly state, *"This impact is considered to be significant."* Clarify by stating the if the strategies are implemented, the impacts will be mitigated.

Pages 5-74 & 5-75, Table 5-12 and Page 5-97 & 5-98, Table 5-15:

Explain the meaning of the symbols 0, ++, -, --.

Page 5-81, Benefit 3.6, Increase in Habitats for Special-Status Species:

A benefit in the form of increased riparian habitat due to new surface storage is claimed in this paragraph. Current surface storage facilities do not result in new riparian vegetation either downstream or on the edges of reservoirs due to the management and fluctuating water levels.

That concludes our comments at this time. Thank you for the opportunity to provide our input. If you have any questions, please contact Mr. Frank Wernette of our Bay-Delta Division, 4001 N. Wilson Way, Stockton, California 95205-2486, (209) 948-7800.



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