

CALIFORNIA DEPARTMENT OF FISH AND GAME

LETTER OF CONCURRENCE

C - 1 0 2 8 9 4

C-102894

Division of Ecological Services
2800 Cottage Way, Room E-2727
Sacramento, California 95825

August 27, 1982

District Engineer
Sacramento District, Corps of Engineers
650 Capitol Mall
Sacramento, California 95814

Dear Sir:

This is our detailed report on the effects that your selected plan (Incremental Plan), being considered under the Sacramento-San Joaquin Delta Investigation, would have on fish and wildlife in the Sacramento-San Joaquin Delta, California. It has been prepared under the authority, and in accordance with the provisions, of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and is for inclusion in your feasibility report. This report has been prepared in cooperation with the California Department of Fish and Game, and it has the Department's concurrence as indicated by the attached copy of a letter dated _____ from the Director, E.C. Fullerton.

Our analysis of project impacts is based on: (1) planning information provided by the Corps of Engineers prior to June, 1982; (2) an appraisal of existing resources; and (3) a projection of future conditions

/

C - 1 0 2 8 9 5

C-102895

using current information and techniques. The analysis contained in this report will not remain valid if modifications are made in the described selected plan, if the resource base changes, or if anticipated futures are altered.

The plan (Incremental Plan) herein involves providing flood protection to 14 Delta islands and tracts, with each island or tract being analyzed individually to determine the economic feasibility of providing flood protection. All levees would be improved using the stage construction method; i.e., the improvement of enlarged embankments in stages. This method of construction includes the removal of all vegetation from the existing levee slopes; levee enlargement; and, where necessary, additional raising of levees to maintain designed crown elevations. Levee rehabilitation would require about 12 million cubic yards of fill material. Recreational facilities and fish and wildlife plans are included as a project purpose.

The Fish and Wildlife Service supports the Corps of Engineers' selected plan for flood protection contingent upon the Corps' adoption of the following recommendations:

1. To minimize adverse impacts to existing wildlife habitat on and adjacent to the levees, regrading and placement of revetment on waterward slopes should be restricted to levee sections that do not meet project specifications.

2. Biologically sound revegetation standards should be developed which include planting of small shrubs and trees on landside levee berms, using as a guide the California Department of Water Resources Bulletin No. 167, Pilot Levee Maintenance Study, June 1967, and the State Reclamation Board's recently adopted Guide for Vegetation on Project Levees, December, 1981. Development of these standards should be coordinated with the California Department of Fish and Game and the U.S. Fish and Wildlife Service.
3. Borrow sites and temporary fill material storage sites should be located in areas of low wildlife value and not located in wetlands, riparian habitats, or native upland habitats of value. FWS will assist in identifying sites to be avoided. In addition, to minimize adverse impacts on wetland vegetation due to alteration of surface and subsurface runoff patterns, a study of surface and subsurface hydrology should be conducted prior to selection of borrow sites and alteration of the hydrology affecting wetlands and riparian areas. Direct habitat loss or unavoidable alteration of drainage adversely affecting wetlands and riparian habitats should be compensated on a value for value basis.
4. Removal of nesting habitat, i.e., shrubs and trees, should not occur during the avian nesting season. Generally, nesting occurs from April through early June.

5. Staging areas and construction camps should be located away from valuable wildlife habitat and not located in wetlands, riparian areas or native upland habitats of value to wildlife. FWS will assist in identifying sites to be avoided.

6. To compensate for project related wildlife losses, agricultural lands adjacent to rehabilitated levees should be converted from agricultural uses to native riparian vegetation. This could be accomplished either through acquisition of these lands in fee title or by an easement for this purpose. Reestablishment of native vegetation could be allowed naturally or through intensive management.

Under the natural establishment management plan, conversion of 650 acres of agricultural land would be required for compensation of project losses. Agricultural production would cease on selected parcels throughout the project area. The use of fire and herbicides to control vegetative growth, and intrusions by off-road vehicles into the area would be prohibited. Natural establishment and succession of riparian plant species would occur.

With the intensified management plan, 609 acres would be required for compensation of project losses. Similar to the natural establishment management plan, agricultural production would cease on selected parcels throughout the project area; however, management would be intensified. Willow, cottonwood, elderberry and oak slips and seedlings would be planted. Fertilizer and water would be provided to establish and enhance growth of vegetation. Intensive management would significantly reduce the number of years required to attain a mature riparian forest.

Regardless of management intensity, full benefit of establishing riparian vegetation cannot be attained unless the management sites are of appropriate size and shape, and dispersed throughout the project area. Each site should be circular in shape, no smaller than 15 acres, and evenly distributed throughout the project area. Costs associated with acquisition of an easement or in fee title of management sites have not determined. No management costs are required with the natural establishment plan. With the intensive management plan, planting and early maintenance costs are estimated to be \$1,000 per acre; however, this would be contingent upon transportation costs and access problems.

7. In lieu of Recommendation #6, the acquisition and development of other lands would be acceptable for compensation provided at least one-half of all compensation occurs on the project islands receiving levee improvements. Due to the scarcity and importance of riparian vegetation in the project area, development of this vegetation would receive priority. Other vegetation types that could be improved for compensation purposes are oak-woodland and emergent marsh.

Areas identified as compensation sites include Bonetti, Grand, Union, Old River, Quimby, Rhode, Little Mandeville, Mildred, Medford and Widdows Islands, and Shin Kee Tract. Acquisition, development and maintenance costs have not been developed.

8. In addition to Recommendations #6 and #7, measures to compensate project related wildlife losses should include the revegetation of project levees and other disturbed areas with plant species of value to wildlife. For dust and erosion control on well drained soils, plant species such as blando brome (Bromus mollis), lana vetch (Vicia dasycarpia) and rose clover (Trifolium hirtum) should be used. For poorly drained soils,

reed canary grass (Phalaris tuberosa) should be used. Two additional grass species which can be used are pubescent wheatgrass (Agropyron trichophorum) and perla grass (Phalaris tuberosa var. hirtiglumis). Where practical, seed should be mixed. Native coyote bush (Baccharis pilularis) should be planted wherever possible to provide additional and diverse cover.

9. As an enhancement feature, Delta leveed and unleveed islands should be purchased and managed to encourage the growth of wetland vegetation.
 - a. Leveed islands such as Quimby, Little Mandeville, Rhode, Medford, Mildred and Widdows would be acquired and subsequently raised with dredge spoil or other suitable material to allow development of emergent marsh vegetation. Construction of interior dikes would enable incremental filling and breaching, eventually resulting in the creation of approximately 3,414 acres of wetlands. This would result in a significant increase in habitat for aquatic organisms and terrestrial species such as waterfowl, shorebirds, songbirds and many small mammals. Migratory waterfowl use is expected to increase by two million use-days annually. Average annual hunter day use is expected to increase by 12,000 days, valued at \$16.30 a day. Additional benefits would be derived from a reduction in crop depredation by waterfowl and an increase

in use for general recreation. Acquisition, development and maintenance costs have not been developed.

- b. As an alternative to the plan proposed in Section (a), the levee systems on Quimby, Little Mandeville, Rhode, Medford, Mildred and Widdows Islands would be rehabilitated to allow the continuation of farming. Crops beneficial to waterfowl would be grown. Although cultivated crops for waterfowl would be expensive, such management would be extremely productive. It is estimated that the six islands could support at least six million bird use-days annually. Average annual hunter use would increase by 12,000 use days. Similar to the proposal in Section (a), crop predation by waterfowl would decrease and an increase in general recreation use would occur. Acquisition, development and maintenance costs have not been developed.

- c. Approximately 1,525 acres of unleveed Delta islands would be acquired in fee title and protected from future development. This should be implemented in conjunction with enhancement proposals (a) or (b). Islands which would be acquired include an unnamed island in Old River adjacent to Coney Island; the Disappointment Slough channel islands; Eucalyptus Island; Headreach, Fern, Lost Lake and Tule Islands; Middle River and Latham Slough channel islands; Potato Slough channel islands; an unnamed island in Sevenmile Slough; Spud and

Hog Islands; and an unnamed island in the South Fork of the Mokelumne River near Sycamore Slough. Unpermitted structures and eventually all structures would be removed from the islands.

Acquisition of these unveeved islands would benefit most species of Delta fish and wildlife through the protection of reproductive, feeding and resting habitat. This would result in many tangible and intangible economic benefits. Failure to acquire these islands could result in the long-term loss of extremely important natural values. Acquisition, development, and maintenance costs have not been determined at this time.

10. To avoid the loss of wildlife habitat resulting from urbanization of agricultural land in the project area subsequent to project construction, the Corps should acquire binding assurances at the state or county level prohibiting such land use changes.

Please notify us of your actions regarding our recommendations.

Sincerely,

James J. McKevitt
Field Supervisor