

**EXECUTIVE SUMMARY**

Cache Slough Shaded Riverine Aquatic  
Habitat Enhancement Project

JUL 28 1997

Applicant  
Reclamation District No. 2060

Project Description & Primary Biological/Ecological Objectives:

Reclamation District No. 2060 (District) proposes to restore its levee bank where erosion has removed shaded riverine aquatic (SRA) habitat and left a bankline void of vegetation and containing erosion pockets creating scallops in the existing bankline. Instead of utilizing traditional erosion repair of fill and riprap, the District plans to stabilize the bank and encourage revegetation. It is planned to place fill to restore the bankline to its pre-erosion condition, stabilize the fill with rock riprap, fill the riprap voids with soil material, cover the bank with coconut fiber mats, and plant grasses and sedges to revegetate the bankline and re-create lost, valuable SRA habitat.

The project consists of a series of sites located on the Reclamation District No. 2060 levee along the right bank of Cache Slough in Solano County (Fig. 1). The sites begin approximately 1 mile downstream of the Ulatis Creek confluence and are spaced sporadically along the right bank of Cache Slough to its confluence with Wright Cut (Fig. 2). Total bankline to be restored is estimated at 2,000 lineal feet.

The proposed project will address two of the major ecosystem stressor categories: 1) flood plain and marsh plain changes, and 2) channel form changes.

This project will benefit priority habitats — shaded riverine aquatic, instream cover, and tidal perennial aquatic habitats — thus benefiting target priority species including Delta smelt and anadromous fishes that use this area for habitat and migratory corridors. Cache Slough has been designated by the U. S. Fish and Wildlife Service as "critical habitat area" for the Delta smelt.

Approach/Tasks/Schedule:

The project can be completed extremely quickly as soon as funds are available. The only holdup will be the flood season and suggested construction window for in-water work. With the projected timing of the Category III funding, the tasks and schedule are presented, below:

- 1. Engineering, surveys and mapping - Nov. 1997 through Feb. 1998
- 2. Biological surveys of pre-project conditions - Jan. 1998 through May 1998
- 3. Engineering and biological design - Jan. 1998 through Feb. 1998
- 4. Regulatory permitting and CEQA/NEPA documentation - Feb. 1998 through June 1998
- 5. Final engineering design and compilation of contract plans and specifications - April 1988 through May 1998
- 6. Construction - July 1998 through Aug. 1998
- 7. Vegetation planting - October 1998
- 8. Post-project biological monitoring - Sept. 1998 through Sept. 2001

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Justification:

Shaded riverine aquatic (SRA) habitat provides important benefits to fish and wildlife species in the Delta, including the priority species cited previously. Fish species utilize the cover, shade, and food production attributes of SRA as important habitat components. SRA habitat typically provides submerged tree roots, woody debris, and low-velocity areas near the shoreline that can be used for escape cover, spawning, and rearing of many native Delta fishes. SRA also provides benefits for reptiles, amphibians, mammals, and birds, including the migratory bird species cited as a priority under the RFP. Bird species use SRA habitat for nesting, feeding and cover. The proposed project meets an important need for re-creation of SRA habitat within the Delta is an economic alternative to traditional riprap.

Budget Costs:

The estimated budget costs for each phase are as follows:

Phase I	(planning and design)	—	\$ 85,000
Phase III	(construction)	—	\$ 302,000
TOTAL PROJECT COST		—	\$ 387,000

Third Party Impacts:

There are no anticipated third party impacts. The project involves only restoring that which was lost over the last flood seasons.

Applicant Qualifications:

Reclamation District No. 2060 (District) is the public agency responsible for maintenance and rehabilitation of the levees within its jurisdiction. The District is well acquainted with the CEQA processes, bidding laws, contracting for levee work, and in general flooding issues in the North Delta. Murray, Burns and Kienlen (MBK) has consulted to the District and landowner for over twenty years and has guided the District's Board of Trustees in the above activities.

Monitoring & Data Evaluation:

The project will be monitored for success of both bankline and biological improvements to the system. Bankline changes will be documented by completing an as-built survey of the site, and evaluating how well the design acts as bank protection. Biological monitoring will include documentation of botanical, wildlife, and fisheries resources before and after project construction.

Local Support/Coordination With Other Programs/Compatibility with CALFED

The design of the projects will incorporate advice from key State and federal resource management agencies. The project design will minimize adverse impacts to the land and water habitats, and respect key habitats of rare and endangered species in the Delta area. In addition, the project will need permits or approvals from the Corps of Engineers, the Department of Fish and Game, and the Central Valley Regional Water Quality Control Board. It is anticipated that funding will also be available from the Department of Water Resources Delta Levee Subventions Program and the Delta Levee Special Projects Program.