

122 \$6,000
1997 CALFED BAY-DELTA PROGRAM CATEGORY III
ECOSYSTEM RESTORATION PROJECTS AND PROGRAMS
INQUIRY SUBMITTAL

I-082

a. **Project Title:** Sacramento River Watershed Management, Flood Damage Reduction and Environmental Restoration Plan

Applicant Name: U.S. Army Corps of Engineers, Sacramento District/Point of Contact: Walter Yep, Chief, Planning Division, (916) 557-6699

b. **Project Description and Primary Biological/Ecological Objectives:** A comprehensive Watershed Management Plan is needed to meet environmental restoration goals and address the need to improve flood protection in the Sacramento River basin. The Corps and the State have been managing the Sacramento River Flood Control Project since it was designed in 1910. During its history, the project has prevented more than \$8 billion in damage to urban areas such as the cities of Sacramento, Yuba City, and Marysville and to some 800,000 acres of prime agricultural lands. While the project, coupled with decades of water development, has yielded many benefits, the current ecological condition of the Sacramento River basin is one of increasing concern. Erosion control, bank stabilization, riverbank modification, and changes in land use from natural habitat to agriculture have resulted in significant losses of riparian and wildlife habitat. Declines in fish populations, waterfowl, and species diversity have been significant as well. Other indicators of biological degradation include the loss of riverine and flood plain ecosystems along the river. Riparian forests and associated shaded riverine aquatic cover have declined from as much as 1 million acres (or about one-third of the Sacramento Valley) prior to development of the area to as little as 10,000 acres today. Flow management of the Sacramento River also aids in maintaining the salinity gradient in the Bay-Delta. The major issues the Sacramento River Watershed Management Study will address are:

Flood Damage Reduction

- objective levels of protection
- non-structural floodplain management
- channel geomorphology

Environmental Restoration

- threatened/endangered species
- fish and wildlife habitat
- riparian forests

c. **Approach/Tasks/Schedule:** Initial study efforts will include development of a hydrologic/hydraulic model that can predict effects on the system of environmental restoration measures as well as reservoir reoperations, and non-structural and structural modifications to the flood control project. Early efforts will also entail development of restoration targets and objective levels of flood protection. The study will also include a post-flood assessment of system weaknesses and an updating of system hydrology incorporating recent (1986, 1995, 1997) floods. The post-flood assessment, objectives identification, and model development would be completed in 18 months. It is proposed that the CALFED public involvement process be used to coordinate study efforts.

d. **Justification for Project and Funding by CALFED:** See Item h. The Corps of Engineers will provide 50% of the cost of the development of the watershed management plan.

e. **Budget Costs and Third Party Impacts:** Requested CALFED funds represent up to 50% of the total Sacramento River Watershed Management Plan development costs as follows: \$1 million for hydrologic/hydraulic model development, \$4 million for environmental restoration and flood damage reduction alternative plan development, and \$1 million for post flood assessment.

f. Applicant Qualifications: The Corps of Engineers, Sacramento District, as authorized and directed by Congress, has prepared numerous flood damage reduction and environmental restoration reports for areas throughout the Sacramento River Basin, as well as the adjacent San Joaquin River Basin and the Sacramento River/San Joaquin River Delta. In 1994 a report by the Corps outlined the potential for preserving and restoring fish and wildlife habitat along the upper reaches of the flood control and bank protection projects. In response to the damages that resulted from the floods of January 1997, the Executive Office of the President directed the Office of Management and Budget (OMB) and the Council on Environmental Quality (CEQ) to designate the Corps as the lead of an interagency task force charged with developing a flood disaster recovery plan for the Central Valley. To provide a long-term response to flooding and restoration needs, the comprehensive Sacramento River Watershed Management Plan will ensure a cost-effective approach to flood damage mitigation and floodplain management and the protection of important environmental and natural resource values that are inherent to the floodplain and adjacent lands. Guidance from OMB and CEQ will ensure that all relevant options, including non-structural alternatives, are considered.

g. Monitoring and Data Evaluation: The predictive hydrologic/hydraulic model will enable the evaluation of effects on the system of restoration and flood damage reduction measures throughout the basin. The model will be a valuable tool for documenting the conditions of the existing flood control system, which will constitute the basis for comparison of alternative watershed management plans. A process for monitoring the effects of restoration over time will be developed as an integral element of the plans.

h. Local Support/Coordination with other Programs/Compatibility with CALFED objectives: The need for developing a comprehensive plan for improving and managing the flooding and related environmental resources in the Sacramento River Watershed has long been recognized by the Corps, the State of California, and many other Federal and State agencies and organizations. Resolutions by The Reclamation Board support developing the plan. Support from other interests followed: letters of support were received from The Resources Agency of California, the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, the Sacramento Valley Landowners Association, and the California Central Valley Flood Control Association. The California Water Commission also supports the plan. The Governor's May 1997 Flood Emergency Action Team report reiterated the need for a comprehensive evaluation of the Sacramento Valley. The report recommends proceeding with the development of a master plan to improve flood protection and to restore or enhance the environment in the valley. Development of the Sacramento River Watershed Management Plan would be closely coordinated with CALFED, the State's SB1086 Upper Sacramento River Fisheries and Riparian Habitat Management Plan, and the North American Waterfowl Management Plan. The plan would contribute significantly to developing a long-term solution to problems affecting the Bay-Delta, and would improve and increase aquatic and terrestrial habitats and improve ecological functions throughout the basin to support sustainable populations of diverse and valuable plant and animal species. The plan would be consistent with the CALFED Ecosystem Restoration Program Plan ecological philosophy on ecological functions, processes, habitats, species, and stressors.