

DWR WATERHOUSE

97 JUL 28 PM 3:18

I. EXECUTIVE SUMMARY

- a. **Project Title:** Refuge Land Acquisitions for Sacramento River, San Pablo Bay, and Stone Lakes National Wildlife Refuges

Applicant Name: U.S. Fish and Wildlife Service (Service)

- b. **Project Description and Primary Biological/Ecological Objectives**

A total of \$12 million is requested to acquire lands for the long term preservation and protection of fish and wildlife habitat within the Sacramento River, San Pablo Bay, and Stone Lakes National Wildlife Refuges (NWRs). The mission of the National Wildlife Refuge System is "To preserve a national network of lands and waters for the conservation and management of fish, wildlife, and plants of the United States for the benefit of present and future generations". Consistent with the mission of the CALFED Bay-Delta Program and the long term NWR goals, these acquisitions target areas with high existing natural resource values or restoration potential for riparian, tidal salt marsh, seasonal wetland, and other habitats. The objective of the acquisition is to protect such lands from development and to maximize opportunity for future restoration efforts. Protection and restoration would increase aquatic and terrestrial habitats and improve the quality, and ecological function of these habitats. This would directly benefit anadromous salmonids, migratory waterfowl, shorebirds, and key fish and wildlife species, including the endangered winter-run salmon, California clapper rail, and giant garter snake.

- c. **Approach/Tasks/Schedule**

The approach used for acquisition would be purchase of fee title, or a combination of fee title and conservation easement, from willing sellers. Owners of all properties have been identified as willing sellers, and formal negotiations and closing would be completed as early as June 1998 through the summer of 1999.

- d. **Justification for Project and Funding by CALFED**

The proposed acquisitions are aimed towards the protection and restoration of CALFED's priority habitats, in particular: seasonal wetlands in the Central Valley, riparian and shaded riverine aquatic habitats along the Sacramento River, and saline emergent wetland and seasonal wetland habitat in the North San Francisco Bay. The CALFED priority species which would benefit from such acquisition would be winter-run chinook salmon, steelhead trout, green sturgeon, striped bass, and migratory birds.

- e. **Budget Costs and Third Party Impacts**

The total projected cost of the project is \$12,000,000. Anticipated third party impacts to the local tax base by withdrawal of private lands would be off-set through the Refuge Revenue Sharing Act and appropriate payment in lieu of taxes would be reimbursed to the communities annually.

f. Applicant Qualifications

The Service currently manages over 670 square miles of habitat within the Refuge system in California. The Service has an ongoing land acquisition program that covers 16 Refuges and Wildlife Management Areas within the Central Valley and San Francisco bay area. Although 6 of these Refuge units have been completed, another 224 square miles of habitat remains unprotected in non-federal ownership within approved boundaries. The staff of eight has over 150 years of combined experience in the areas of reality, appraisal, and environmental protection. Full-time managers and technical staff present at each refuge are experienced in developing and implementing habitat restoration programs and land management. The Service is uniquely qualified to identify, acquire and manage these lands in perpetuity.

g. Monitoring and Data Evaluation

Monitoring of the acquired lands would be incorporated into existing refuge management operations, and would be accomplished by Service personnel.

h. Local Support/Coordination with other Programs/Compatibility with CALFED objectives

The following agencies support the Service's purchase and restoration programs: U.S. Bureau of Reclamation, U.S. Army Corps of Engineers, California Department of Water Resources, California Department of Fish and Game, Wildlife Conservation Board, the Sacramento-Yolo Port Authority, Solano Irrigation District, Metropolitan Water District, The Nature Conservancy, and The Trust for Public Lands.

Coordination with Other Programs

Refuge acquisition and restoration complements CALFED objectives and these programs and plans:

- Recovery Plan for Sacramento, San Joaquin Native Fishes
- Goals of U.S. Fish and Wildlife Service Central Valley San Francisco Bay Ecoregion
- Central Valley Joint Venture of the North American Waterfowl Management Plan
- USFWS Concept Plan for Waterfowl Wintering Habitat Preservation
- Aleutian Canada Goose Recovery Plan

Compatibility with CALFED objectives

Wetland restoration and levee recontouring will help satisfy three of four CALFED objectives:

- CALFED: Improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta to support sustainable populations of diverse and valuable plant and animal species;
- CALFED: Reduce the risk to land use and associate economic activities, water supply, infrastructure, and the ecosystem from catastrophic failure of Delta levees; and
- CALFED: Provide good water quality for all beneficial uses.

II. Title Page

a. **Project Title:** Refuge Land Acquisitions for Sacramento River, San Pablo Bay, and Stone Lakes National Wildlife Refuges

b. **Name of applicant/principle investigator(s), address, phone/fax/E-mail:**

U. S. Fish and Wildlife Service, Sacramento Realty Office,
Howard Stark, Chief (principal contact)
2233 Watt Avenue Suite #375,
Sacramento CA 95825-0509
Phone/Fax/E-mail: (916) 979-2085/(916) 979-2092/Howard_Stark@fws.gov

Sacramento River National Wildlife Refuge
Gary Kramer, Refuge Manager
Route 1, Box 311,
Willows, CA 95988
Phone: (916) 934-2801

San Francisco Bay National Wildlife Refuge
Marge Kolar, Refuge Manager
1 Marshlands Road,
Fremont, CA 94536
Phone: (415) 792-0222

Stone Lakes National Wildlife Refuge
Tom Harvey, Refuge Manager
2233 Watt Avenue Suite #375,
Sacramento CA 95825-0509
Phone: (916) 979-2085

c. **Type of Organization and Tax Status**

Federal Agency/ Tax-exempt

e. **Technical and Financial Contact persons (see II.b., above)**

f. **Participants/Collaborators in Implementation**

Natural Resource Conservation Service
The Nature Conservancy
Trust for Public Lands

g. **RFP Project Group Types**

Acquisition

III. Project Description

a. Project Description and Approach

A total of \$12 million is requested to acquire private lands for the long term preservation and protection of fish and wildlife habitat within three National Wildlife Refuges (NWRs). Of this, \$4.6 million would be used for acquisitions within the Sacramento River NWR, \$4.4 million would be used for acquisitions to expand the San Pablo Bay NWR, and \$3.0 million would be applied to purchase properties for Stone Lakes NWR. Acquisition would protect these lands from future development and provide opportunities for restoration of habitat and ecosystem functions.

The steps that have already been accomplished include identification of the properties as high priority for acquisition, and determining that they are available for purchase from willing sellers. Additional appraisal work, boundary surveys, and negotiations need to be accomplished. Acquisitions would be completed as early as June 1998 through the summer of 1999.

b. Location and/or geographic boundaries of project

The Sacramento River NWR encompasses 18,000 acres bordering both sides of nearly 100 miles of the Sacramento River between the cities of Red Bluff and Colusa (Fig. 1). About 8,171 acres have been acquired to date, with the remainder in private ownership. The properties specifically designated for acquisition within this area include about 250 acres near the Glenn and Colusa county borders, and about 950 acres near the crossing of State Route 32 north of Big Chico Creek.

The San Pablo Bay NWR includes a 20,313 acre project area along the north shore of San Pablo Bay in Sonoma and Solano Counties, between the Petaluma and Napa Rivers (Fig. 2). About 13,190 acres have been acquired, and the remainder is privately owned. The property which would be acquired through funding of this proposal would be a 1,450 acre parcel surrounded by Sonoma Creek, and Second and Third Napa Sloughs.

Stone Lakes NWR is located South of the city of Sacramento just east of Franklin, extending from Freeport in the north, to just above Locke in the south (Fig. 3). Of a total project area of 18,212 acres, 830 acres have been acquired thus far. The property which would be acquired through funding of this proposal would about 1,250 acres located in the east-central portion of the refuge boundary.

c. Expected benefit(s)

Sacramento River NWR: The Sacramento River supports an abundance of fishes targeted as priorities by CALFED, including salmon, steelhead, striped bass, American shad and sturgeon, as well as federally-listed wildlife such as the bald eagle, peregrine falcon, least Bell's vireo, and valley elderberry longhorn beetle. As the most important chinook salmon stream in California, nearly a third of the Sacramento River's salmon spawning occurs in the portion of the river within the NWR (mainly above Chico Landing). Salmon spawning occurs where bank erosion and meandering processes are active and gravel is available, however, these processes have been muted by bank protection of agricultural development adjacent to the river.

The purpose of acquiring such lands is to preserve riparian zones for endangered species, waterfowl and other migratory birds, anadromous fish, other wildlife, and to restore and enhance degraded areas. In combination with future acquisitions, completion of the Sacramento River NWR project could permit natural channel meander processes to be restored. This would provide for increased Shaded Riverine Aquatic habitat along the river, increased channel complexity, and improved gravel recruitment. Shaded Riverine Aquatic habitat not only provides cover and forage, but also moderates excessive water temperatures which adversely impact salmonid reproduction. Just outside the river interface, riparian vegetation could be restored that would provide important forage, cover and nesting habitat for a river-associated wildlife fauna that includes 151 bird, 65 mammal and 33 reptile and amphibian species. Species of concern within the riparian corridor which would benefit include the Swainson's hawk, wood duck, and several heron and egret species. Backwaters and sloughs which could be formed by natural river processes also provides nesting and rearing habitat for a variety of waterfowl species.

The three properties proposed here for acquisition currently have at least 344 acres of existing riparian habitat that provides these important benefits. Another 200 acres of the property is subject to frequent flooding from a surrounding slough and has outstanding potential for riparian and wetland restoration.

Without acquisition of these and other properties, natural meandering of the river will continue to be disrupted, limiting gravel recruitment necessary for anadromous salmonid reproduction. In a recent report completed by the American Farmland Trust, the Central Valley will see 2.5 million acres of such agricultural and open space land converted irretrievably to urban development within the next 20 years. Forty percent of this urban growth is projected to be along the streams and rivers thus, without protection, there is a high potential for parcels within the NWR target boundaries to be converted, leading to secondary impacts such as sedimentation, pesticide contamination, and flooding over current levels. Acquisition would prevent and potentially reduce these impacts.

San Pablo Bay NWR: The property proposed for purchase is currently farmed, providing minimal seasonal wetland benefits to birds during the winter migration season, and aquatic benefits in the surrounding sloughs. The purpose of the refuge is to protect and enhance wildlife habitat, and manage seasonal wetlands in a way that would optimize habitat quality for waterfowl, shorebirds, and endangered species. The habitats within the refuge include uplands, open water, mudflats, tidal sloughs and salt marshes, and provide a key wintering area for the Pacific Flyway canvasback population and migration staging area for other species. The federally-endangered California clapper rail and salt marsh harvest mouse are priority species which could benefit from this acquisition. These and other wildlife often move from feeding areas during incoming tides onto seasonally flooded wetlands such as the proposed acquisition area. The sloughs support typical marine fishes such as smelt, perch, sculpin, and bass, and are a nursery area for juvenile striped bass, and food organisms such as shrimp. All juvenile anadromous salmonids in the Central Valley have the potential to utilize fringe marshes and sloughs as forage areas during their outward migration. Acquisition would protect this property and its wildlife from development in perpetuity, increase the buffer around existing NWR lands, and is an integral element of the overall effort to complete the refuge.

After acquisition the property proposed for purchase could be managed in several ways to greatly increase benefits to wildlife. One possibility would be to manage it as a seasonal wetland, allowing

controlled, shallow inundation with freshwater during the late fall and winter season. Such management will allow freshwater marsh and scrub vegetation to establish within a few years, that would serve as refuge and forage areas for wintering migratory shorebirds and waterfowl during high tide and low. Another management scenario would be to breach the levees and allow natural recovery to a tidal salt marsh. Because the land is subsided 5-7 feet, recovery to tidal salt marsh would be more gradual and dependent on sediment accrual, but would ultimately result year-round benefits the salt marsh harvest mouse and California clapper rail, which prefer tidal marsh vegetation.

Stone Lakes NWR: To purchase land within Stone Lakes NWR, \$3.0 million would be applied to acquiring a combination of fee title and conservation easements for 4 properties totaling about 1,250 acres. The purpose of this acquisition is to preserve and enhance resident wildlife and migratory bird habitat. Presently, the refuge encompasses important remnants of the Central Valley's historically vast complex of permanent and seasonal wetlands, riparian forests, oak woodlands, and annual grasslands. The refuge provides habitat for up to 40 sensitive and special interest plants and animals, including the giant garter snake, tricolored blackbird, and white-faced ibis. The riparian forests represent a third of the refuge area and currently support a wide variety of mammalian and avian wildlife. Other areas are managed to support migratory waterfowl. Lands acquired for refuge expansion could be restored to a variety of habitats, including riparian forest, oak woodland, seasonal wetland or perennial grassland. These centrally located properties are a critical element towards the completion of the refuge goal of 18,000 acres.

The areas to be acquired, as with many other privately-owned parcels within the identified boundary for Stone Lakes NWR, are under several threats of development that would be incompatible with wildlife resource needs. Recent years have seen dramatic increases in conversion of open space in the Central Valley between Sacramento and Stockton into residential, commercial, and vineyard. These developments reduce the quantity and quality of available habitat, while introducing secondary impacts such as urban and pesticide runoff into local waters. Fragmentation by development imposes a human disturbance element which can permanently limit the potential of the surrounding habitat.

The central location of the proposed acquisitions establishes them as priority areas needed to preclude habitat fragmentation.

d. Background and Biological/Technical Justification

Since 1850, California has witnessed a loss of 91% of its wetlands, with only about 379,000 acres remaining out of an original 4,000,000 acres. Waterfowl populations have progressively declined, especially over the last 20 years, reflecting losses of wintering foraging sites and breeding habitats in the Central Valley and San Francisco Bay regions. This has resulted from conversion of lands to urban and agricultural developments, together with extensive water development projects on the Sacramento River, its tributaries, and in the Bay-Delta region. Expanses of riparian, permanent wetland, seasonal wetlands adjacent to the Sacramento River and comprising much of the Bay-Delta region have been "reclaimed", the banks of channels cleared of vegetation and hardened with riprap, and the marshes drained. The hydrologic regime which supported the floodplain and fluvial river processes through spring flooding has been radically altered by upstream dams. The highly productive and diverse community of fishes, including anadromous salmonids and unique native fishes, water birds, and large mammals which depended on this riverine and wetland habitat have been severely impacted. An increasing number of species, such as the endemic winter-run salmon, delta

smelt, and giant garter snake, have declined to the point that Federal listing is needed to prevent extinction.

Establishment and completion of the National Wildlife Refuge projects identified in this proposal represent an several important long term function needed to reverse the chronic decline in California's environmental quality and preservation of its species and native habitat for the future. As part of long term goals to complete each refuge, the ultimate benefit of such acquisitions will be increased habitat quantities, enhanced natural ecosystem functions, increased and more stable fish and wildlife populations (including listed species), reduced fragmentation, and greater buffering from agricultural and residential developments. Acquisition through fee or easement is the only practical, publicly acceptable alternative for eliminating development threats and is a necessary prelude to restoration efforts. It is a proven, non-adversarial approach which has resulted in the successful transfer to Federal ownership of over half the acreage needed to complete the 14 refuges and management areas in California.

e. Proposed Scope of Work

The scope of work for this proposal would be limited to activities related to acquisition, including negotiations with willing sellers, boundary surveys, and any necessary title and closing work.

f. Monitoring and Data Evaluation

Monitoring of the acquired lands or easement areas would be incorporated into existing refuge management operations, and would be accomplished by Service personnel.

g. Implement ability

All issues relating to compliance have been addressed in the Environmental Impact Statements or Environmental Assessments prepared for the *designation of each refuge*. All acquisitions would be done on a willing seller basis.

IV. Costs and Schedule to Implement Proposed Project

a. Budget Costs

Direct Salary	\$60,000
Appraisals	\$40,000
Boundary Surveys	\$30,000
Title Costs	\$30,000
Fees and Easements	\$11,840,000
Total	\$12,000,000

b. Schedule Milestones

Appraisals completed-	July 1997- June 1998
Negotiations -	April-November 1998
Closings -	July 1998 - June 1999

c. Third Party Impacts

Anticipated third party impacts to the local tax base due to withdrawal of private lands would be offset through the Refuge Revenue Sharing Act and appropriate payment of lost taxes would be made to affected entities.

V. Applicant Qualifications

The Service currently manages over 670 square miles of habitat within the Refuge system in California. The Service has an ongoing land acquisition program that covers 16 Refuges and Wildlife Management Areas within the Central Valley and San Francisco bay area. Although 6 of these Refuge units have been completed, another 224 square miles of habitat remains unprotected in non-federal ownership within approved boundaries. The staff of eight has over 150 years of combined experience in the areas of reality, appraisal, and environmental protection. Full-time managers and technical staff present at each refuge are experienced in developing and implementing habitat restoration programs and land management. The Service is uniquely qualified to identify, acquire and manage these lands in perpetuity. There are no known conflicts of interest with parties involved in this project.

VI. Compliance with standard terms and conditions

As required (at or before signing of the final contract), the U.S. Fish and Wildlife Service will submit and comply with the interagency agreement standard clause requirements as outlined in Item 3, Table D-1 of the Request for Proposals.

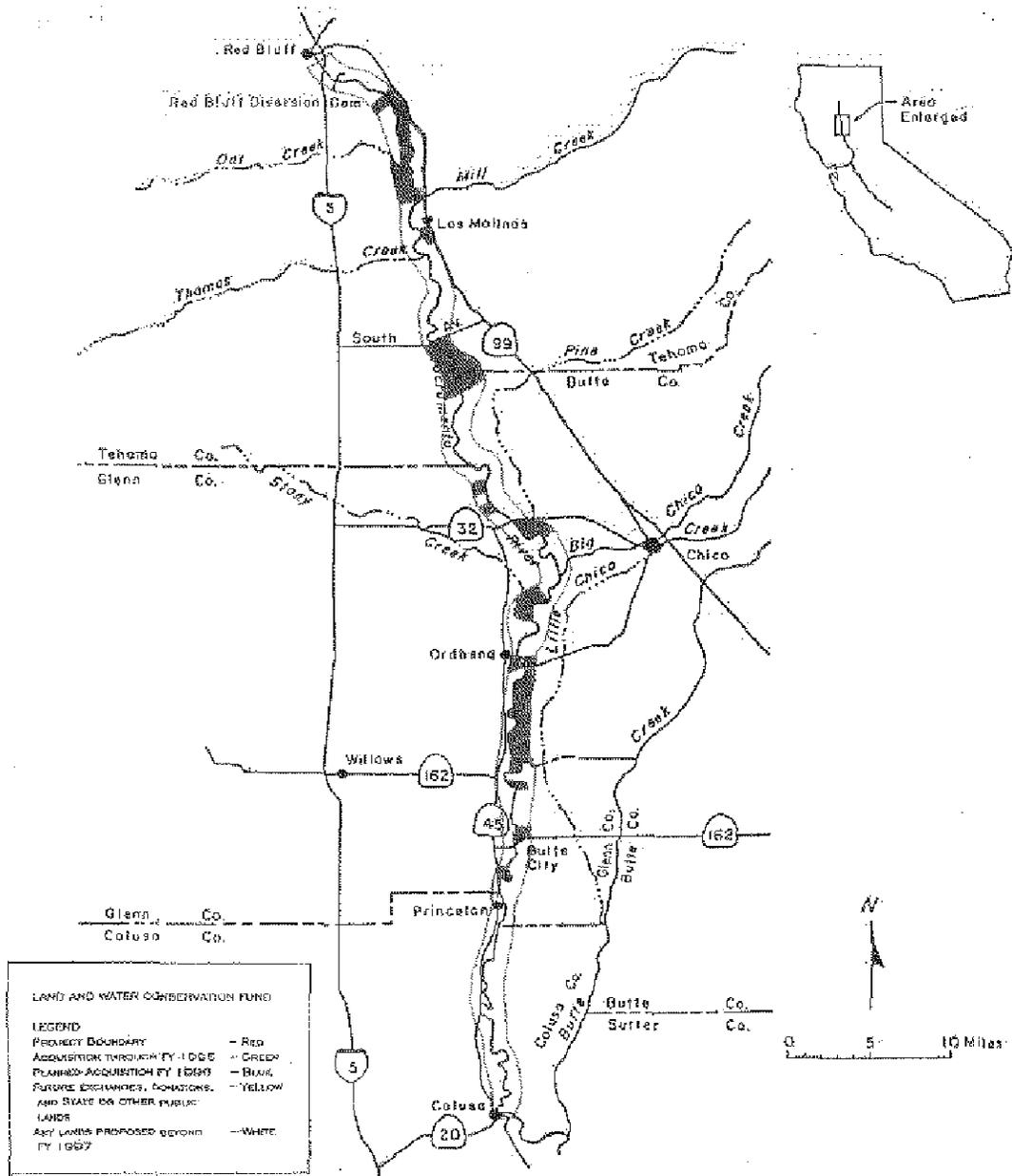
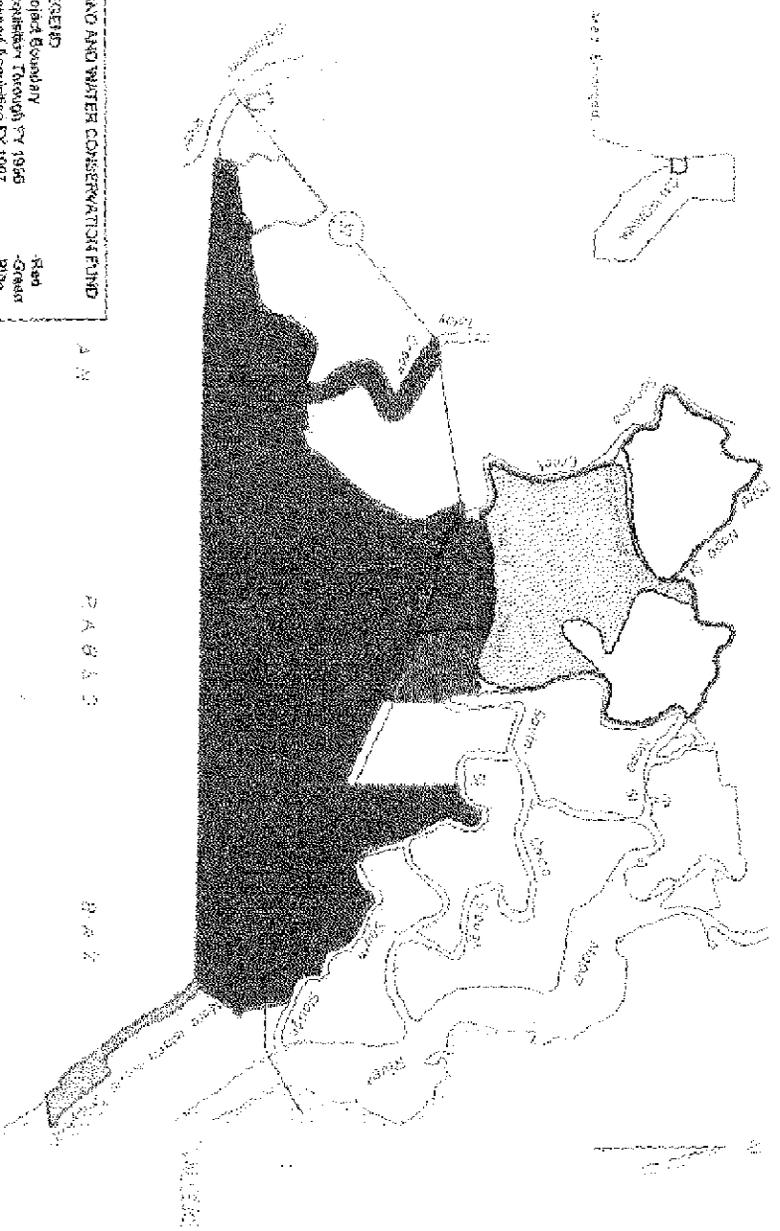


FIGURE 1
SACRAMENTO RIVER NATIONAL WILDLIFE REFUGE



LAND AND WATER CONSERVATION FUND

LEGEND

Project Boundary	-Red
Acquired Through FY 1966	-Black
Planned Acquisition FY 1997	-Stippled
Proposed Acquisition FY 1999	-Horizontal
Private Exchanges, Conversions, And State or Public Lands	-Vertical
Any Lands Proposed Beyond FY 1998	-Yellow

FIGURE 2
San Pablo Bay National Wildlife Refuge

