

Attachment H

COVER SHEET (PAGE 1 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Proposal Title: Lower San Joaquin River Floodplain Protection and Restoration Project (Stanislaus and Merced Counties)

Applicant Name: U.S. Fish & Wildlife Service, San Luis National Wildlife Refuge

Mailing Address: P.O. Box 2176, Los Banos, CA 93635

Telephone: 209-826-3508

Fax: 209-826-1445

Amount of funding requested: \$2,142,500 for 2 years

Indicate the Topic for which you are applying (check only one box). Note that this is an important decision. See the Proposal Solicitation Package for more information.

- Fish Passage Assessment
- Fish Passage Improvements
- Floodplain and Habitat Restoration**
- Gravel Restoration
- Fish Harvest
- Species Life History Studies
- Watershed Planning/Implementation
- Education
- Fish Screen Evaluations - Alternatives and Biological Priorities

Indicate the geographic area of your proposal (check only one box):

- Sacramento River Mainstem
- Sacramento Tributary
- Delta
- East Side Delta Tributary
- Suisun Marsh and Bay
- San Joaquin Tributary Mariposa Slough & Owens Creek**
- San Joaquin River Mainstem**
- Other:
- Landscape (entire Bay-Delta watershed)
- North Bay:

Indicate the primary species which the proposal addresses (check no more than two boxes):

- San Joaquin and East-side Delta tributaries fall-run chinook salmon**
- Winter-run chinook salmon
- Spring-run chinook salmon**
- Late-fall run chinook salmon
- Fall-run chinook salmon
- Delta smelt
- Longfin smelt
- Splittail
- Steelhead trout
- Green sturgeon
- Striped bass
- Migratory birds**

COVER SHEET (PAGE 2 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Indicate the type of applicant (check only one box):

- | | |
|--|---|
| <input type="checkbox"/> State agency | <input type="checkbox"/> Federal Agency |
| <input checked="" type="checkbox"/> Public/Non-profit joint venture | <input type="checkbox"/> Non-profit |
| <input type="checkbox"/> Local government/district | <input type="checkbox"/> Private Party |
| <input type="checkbox"/> University | <input type="checkbox"/> Other: _____ |

Indicate the type of project (check only one box):

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> Planning | <input checked="" type="checkbox"/> Implementation |
| <input type="checkbox"/> Monitoring | <input type="checkbox"/> Education |
| <input type="checkbox"/> Research | |

By signing below, the applicant declares the following:

- (1) the truthfulness of all representations in their proposal;
- (2) the individual signing the form is entitled to submit the application on behalf of the applicant (if applicant is an entity or organization); and
- (3) the person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section IIK) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.


(Signature of Applicant)

(Scott Frazer, Deputy Project Leader; signing
for Gary Zahm, Project Leader)

II. Executive Summary

a. Project Title: LOWER SAN JOAQUIN RIVER FLOODPLAIN HABITAT PROTECTION AND RESTORATION PROJECT (STANISLAUS AND MERCED COUNTIES)

Co-Applicant Names: U.S. Fish and Wildlife Service, San Luis National Wildlife Refuge Complex and Trust for Public Land

b. Project Description and Primary Biological / Ecological Objectives. The objective of this proposal is to acquire lands and restore riparian and other wetland habitats along the San Joaquin River and east-side tributaries for the benefit of numerous species including Aleutian Canada goose, greater sandhill cranes, western yellow-billed cuckoos, raptors such as the Swainson's hawk and bald eagle, riparian brush rabbit, San Joaquin Valley wood rat, giant garter snake, western pond turtle, valley elderberry longhorn beetle, splittail, and San Joaquin tributaries fall-run chinook salmon. In addition, shorebirds, waterfowl, herons, and neotropical migratory songbirds will benefit from habitat protection, restoration and management actions. Lands acquired by the U.S. Fish & Wildlife Service (FWS) in fee title could provide Refuge compatible wildlife-dependent outdoor recreational opportunities such as: wildlife observation, environmental education, photography, and waterfowl hunting.

c. Approach/Tasks/Schedule. Five landowners are involved, all of whom are willing sellers. The proposed project encompasses several components in three distinct phases. This proposal seeks CALFED funding only for Phase I which includes:

- Task A. Acquire 600 acres in fee title (Kelley property, Mapes Ranch [part] using matching funds.
- Task B. Enroll 1,954 acres of private lands (Castle property, Lone Tree Ranch) in conservation easements using matching funds.
- Task C. Restore riparian and wetlands habitat on 2,500 acres of private lands (Lone Tree and San Felipe Ranches) and 300 acres of federal lands (San Joaquin River NWR) using matching funds.
- Task D. Acquire 303 acres in fee title (Arambel & Rose) using grant funds.
- Task E. Acquire 1,242 acres in fee title through purchasing remainder of fee title value of property enrolled in WRP easement (Lone Tree Ranch) using grant funds.
- Task F. Conduct habitat restoration planning, including an engineering study and biological inventories, on newly acquired fee title lands using grant funds.

Phase I (Figures 2 & 3) fee title acquisitions will become part of the immediately adjacent San Joaquin River National Wildlife Refuge, Merced National NWR, and San Luis NWR (as part of the San Luis NWR Complex) and be administered and managed by the FWS. Conservation easements on private lands in Merced County will be administered by FWS as part of the Grasslands Wildlife Management Area; and Wetlands Reserve Program easements on private lands in Merced County will be administered by the USDA-Natural Resources Conservation Service.

The proposed fee title acquisitions and management will allow widening of the flood-plain, provide transient storage of flood waters, facilitate ground water recharge, and allow riparian and wetland habitat restoration thus accomplishing a measure of downstream non-structural flood protection, as well as water quality, wildlife and fisheries benefits. The proposed conservation easements will perpetually preserve existing grassland and wetlands, and will preclude subdivision and development within the floodplain.

d. Justification for Project and Funding by CALFED. The proposed project will allow for large-scale preservation and restoration of riparian and other wetland habitats along the San Joaquin River and its east side tributaries in San Joaquin, Stanislaus and Merced Counties. These habitats, which support some of the greatest biodiversity in the State, have been reduced over 95% from historical levels in the Central Valley.

- If fully funded, Phase I of the proposed project will preserve 6 1/2 miles of existing riparian corridor along the San Joaquin River, adjacent oxbows, and a 6 mile portion of the Mariposa Slough and Owens Creek tributaries.
- High quality habitats would be protected and restored, benefitting priority species such as: Aleutian Canada goose, greater sandhill crane, western yellow-billed cuckoo, raptors such as the Swainson's hawk, red-shouldered hawk and bald eagle, riparian brush rabbit, San Joaquin Valley wood rat, giant garter snake, western pond turtle, valley elderberry longhorn beetle, splittail, and San Joaquin River east-side tributaries fall-run chinook salmon. In addition, shorebirds, waterfowl, herons, and neotropical migratory songbirds will benefit from restoration and protection actions.
- Additional benefits include a measure of non-structural flood protection. Flood prone areas would not be as subject to damages during future floods, and an incremental reduction in peak floods on the San Joaquin will be provided as water is stored temporarily in off stream areas.

e. Budget Costs and Third Party Impacts. Phase I total cost of acquisition, restoration planning and restoration is \$6,921,500. A total \$4,779,000 in funds will be provided from other sources, so **the FWS is requesting \$2,142,500 in CALFED funds.**

Third party impacts have been addressed in this proposal.

f. Applicant Qualifications. The San Luis NWR Complex has a long and successful record of habitat protection, restoration, management and refuge-compatible wildlife-dependent public use. The Sacramento Realty Office of the FWS has acquired property for the 10 major National Wildlife Refuges in California. The Trust for Public Land (TPL) is a national not-for-profit land conservation organization that has successfully assisted public agencies in acquiring lands for over 25 years.

g. Monitoring and data evaluation. Upon acquisition, a preliminary baseline biological inventory will commence. Regular monitoring of habitat restoration projects and compliance checks on easements will be conducted as an operational part of those programs. Reports of progress in acquisition and restoration will be provided to CALFED.

h. Local Support/Coordination with other Programs/Compatibility with CALFED objectives. Overall local support for these kinds of protection, habitat restoration and management of floodplain (riverine and riparian woodlands), fisheries and wildlife habitats is high. These actions fulfill federal directives from the Council of Environmental Quality and Office of Mgmt. and Budget and help meet numerous state and federal agency goals such as non-structural flood protection projects, the Governor's Flood Emergency Action Team (FEAT) report, the San Joaquin River Mgmt. Plan, North American Waterfowl Mgmt. Plan, Central Valley Habitat Joint Venture and the Riparian Habitat Joint Venture, and the Aleutian Canada Goose Recovery Plan.

This proposal is entirely consistent with CALFED Bay-Delta Program non-ecosystem objectives of water quality, water supply reliability, and flood damage reduction.

**LOWER SAN JOAQUIN RIVER FLOODPLAIN HABITAT PROTECTION AND RESTORATION
PROJECT
(Stanislaus and Merced Counties)**

Co-Applicants:

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Andrew Vesselinovitch (Project Manager)
Trust for Public Land
Western Regional Office
116 New Montgomery, 3rd Floor
San Francisco, CA
Phone: (415) 495-5660
Fax: (415) 495-0541

Type of Organization and Tax Status:

The U.S. Fish and Wildlife Service (FWS) is an agency of the United States Dept. of Interior

The Trust for Public Land (TPL) is a national, non-governmental, non-profit 501(c)(3) conservation organization

Participants/Collaborators in Implementation:

U.S. Fish and Wildlife Service - San Luis NWR Complex
U.S. Fish and Wildlife Service - Sacramento Realty Office
Trust for Public Land
USDA-Natural Resources Conservation Service (NRCS)

IV. Project Description

a. Project Description and Approach

Project partners have a long term goal of protecting the riverine corridors and portions of the floodplains of the San Joaquin River and its tributaries in San Joaquin, Stanislaus, and Merced Counties through a combination of conservation easements and fee title acquisitions. Currently, portions of these corridors are protected through programs such as: U.S. Army Corps of Engineers flood easements, NRCS conservation easements, FWS perpetual conservation easements, and California Dept. of Fish and Game easements; as well as public ownership such as National Wildlife Refuges, State Parks and Wildlife Areas, County parks, and city owned lands (Figure 1). However these programs are often limited in authorities, geographic scope, or funding mechanisms. This proposed project would provide an opportunity to protect the entire river corridor and important floodplain areas by pursuing willing seller easements and fee title acquisitions on unprotected lands that lay between existing project boundaries and easements. This approach will both expand upon and augment those existing programs. This proposed project encompasses floodplain management and habitat restoration of individual properties in distinct increments or phases. This proposal seeks CALFED funding for Phase I (See Figures 2 and 3) which includes:

- Task A: Acquire 600 acres in fee title (Kelley property, Mapes Ranch [part]) using matching funds.
- Task B: Enroll 1,954 acres of private lands (Castle property, Lone Tree Ranch) in conservation easements using matching funds.
- Task C: Restore riparian and wetlands habitat on 2,500 acres of private lands (Lone Tree and San Felipe Ranches) and 300 acres of federal lands (San Joaquin River NWR) using matching funds.
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- Task F: Conduct habitat restoration planning, including an engineering study and biological inventories, on newly acquired fee title lands using grant funds.

Phase I fee title acquisitions will become part of the San Luis NWR Complex and be administered and managed by the FWS. Conservation easements on private lands in Merced County will be administered by FWS. Wetlands Reserve Program easements on private lands in Merced County will be administered by the NRCS.

Phase II and subsequent phases will continue to acquire conservation easements and fee-title holdings on unprotected lands along the floodplains of the San Joaquin River and its tributaries in San Joaquin, Stanislaus, and Merced Counties. Numerous landowners have already contacted project partners and have expressed a willingness to sell easements and/or fee title interests on their lands. Current project partners will establish additional partnerships with other agencies, organizations, and individuals to protect and restore lands. Agencies/programs that have already expressed interest in becoming future partners include the FWS Anadromous Fisheries Recovery Program, California Dept. of Fish and Game, Wildlife Conservation Board, Bureau of Reclamation, and the Riparian Habitat Joint Venture.

Figure 1. Proposal Area - San Joaquin River Corridor and Floodplain in Stanislaus and Merced Counties.

SAN JOAQUIN RIVER CORRIDOR

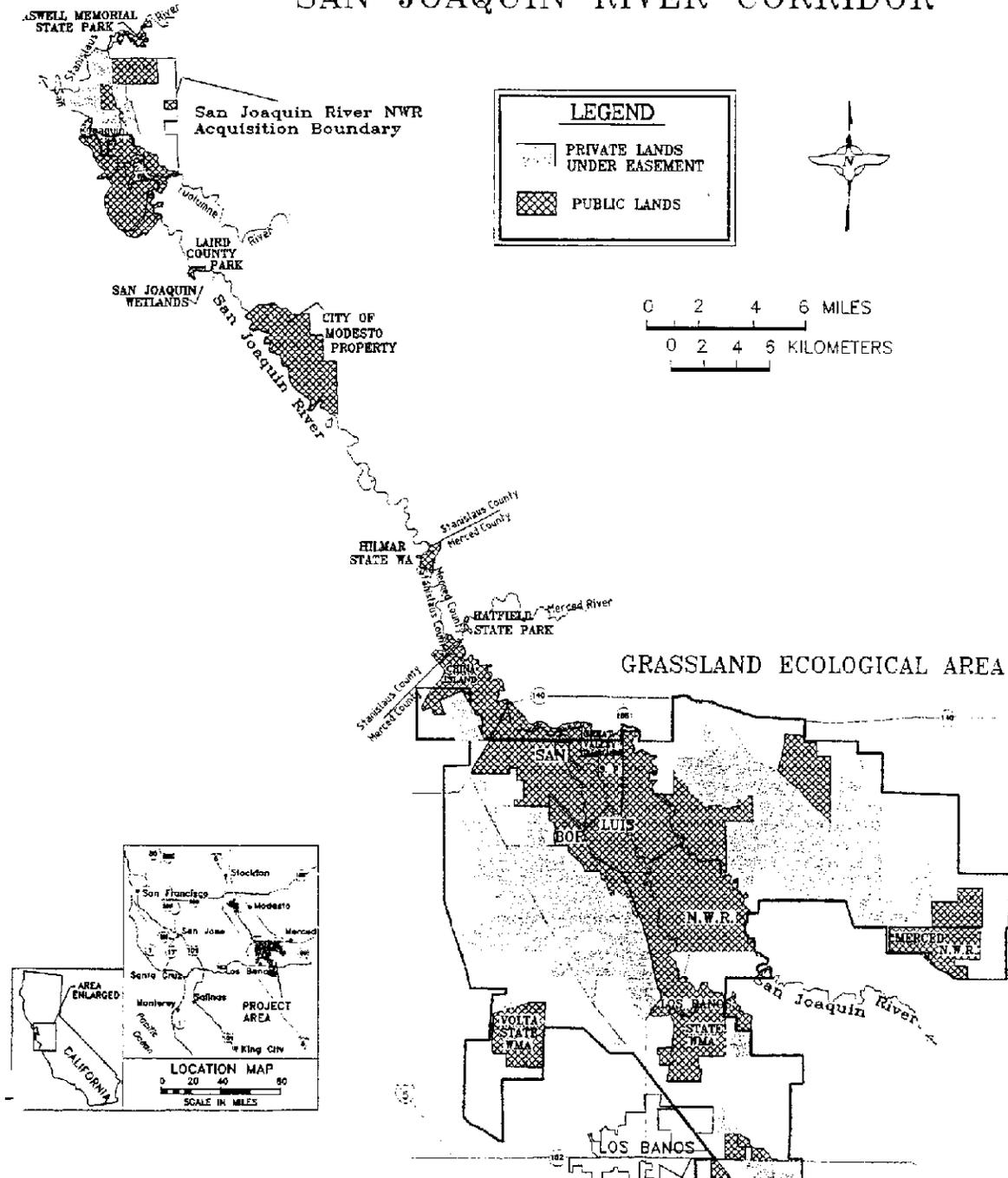


Figure 2. North Portion of Proposal Area (Stanislaus County).

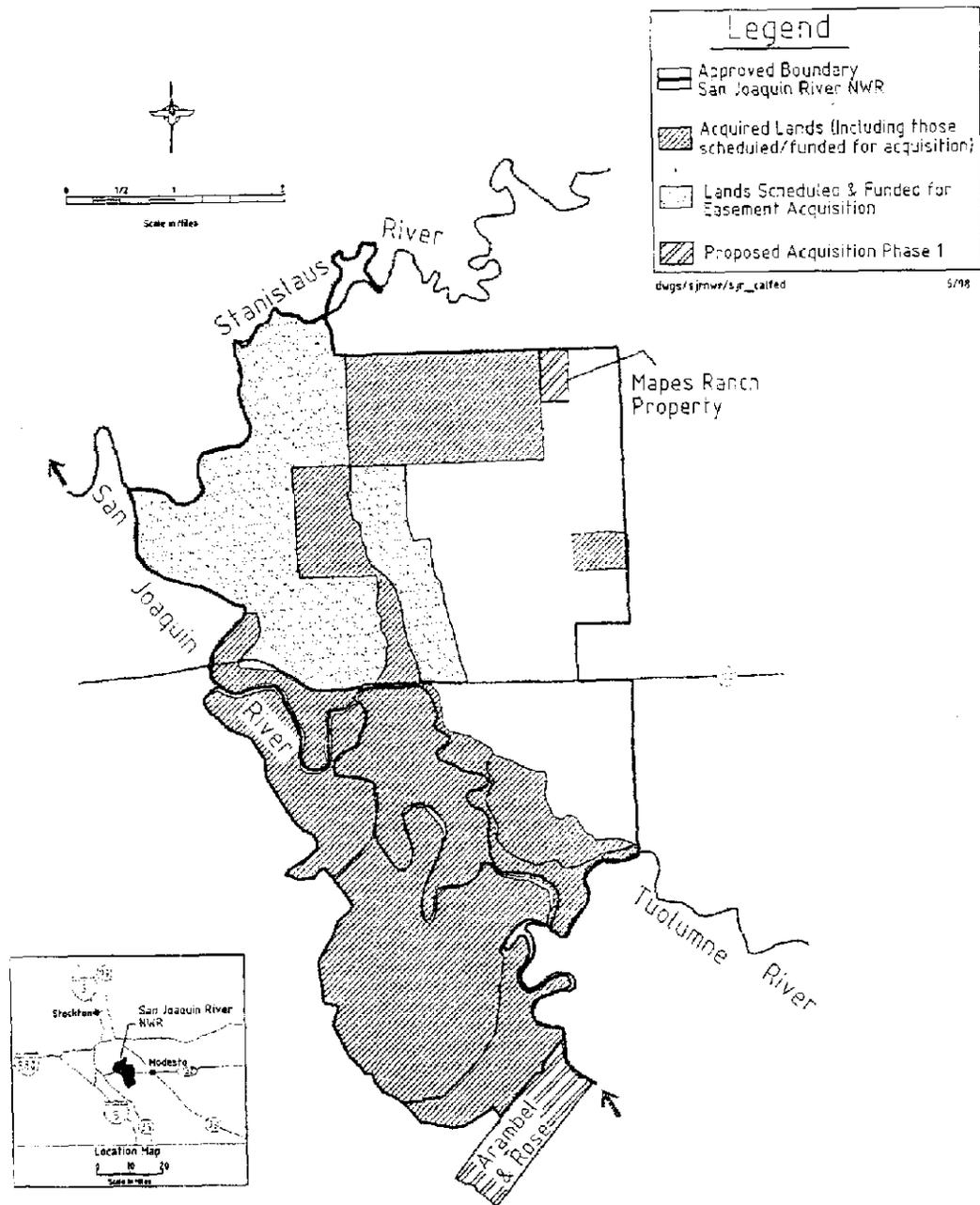
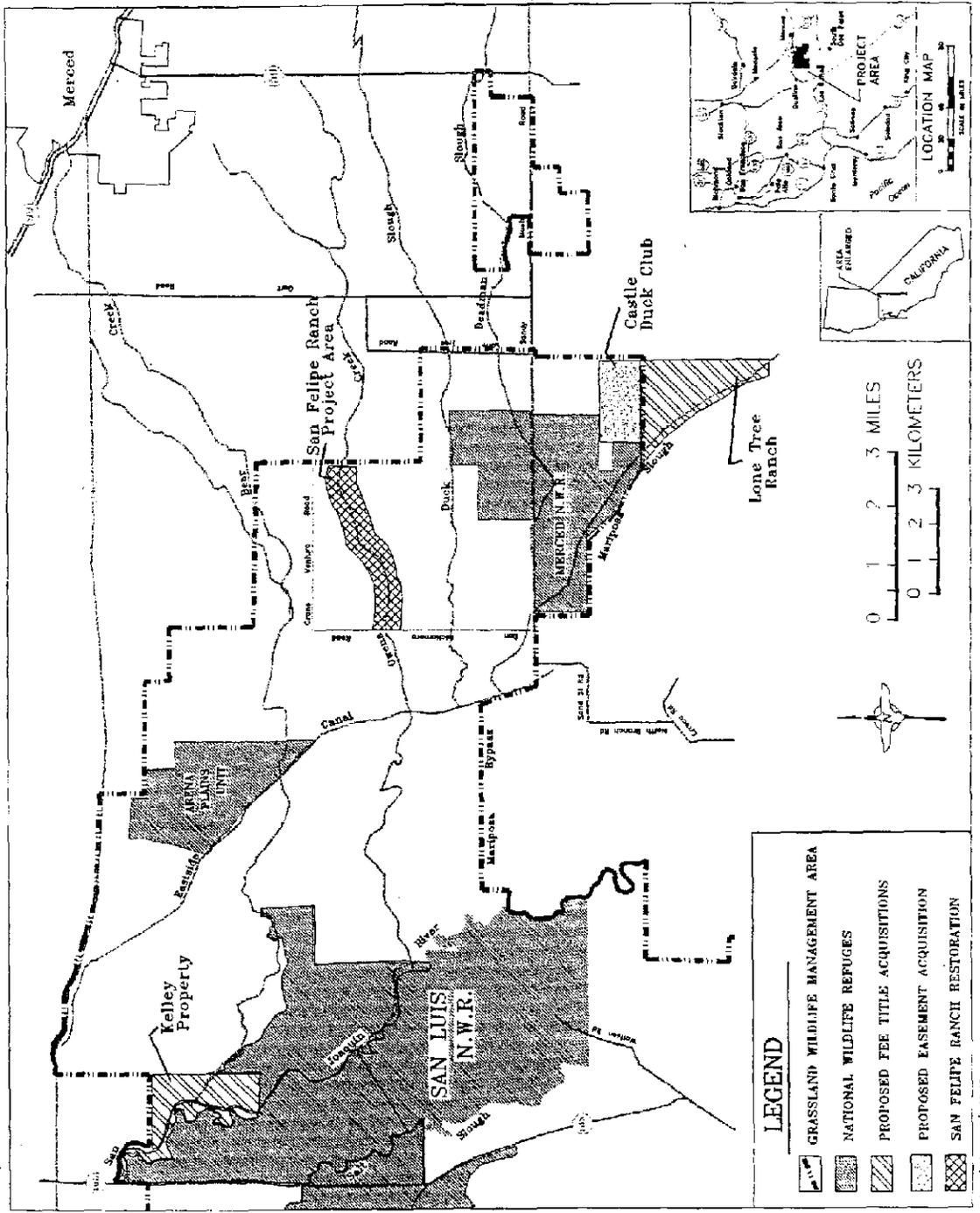


Figure 3. South Portion of Proposal Area (Merced County).



b. Proposed Scope of Work

As detailed in the project description above, completion of the project will be accomplished in multiple phases. Phase I, which includes acquisition, restoration and pre-restoration planning, is the subject of this proposal. Total cost for Phase I is \$6,921,500 of which **\$2,142,500 is requested in this proposal**. Funding for Phases II and beyond will be included in future grant proposals. However, restoration of habitats acquired in this proposal will proceed regardless of whether CALFED subsequently funds Phases II or beyond.

1. *Land Acquisition process* (Tasks A, B, D, and E). For each of the parcels described; whether fee title acquisition or conservation easement enrollment, a specific process will be followed to acquire lands, which includes:

Initial contact with willing seller (Permission to Appraise)	30 days
Preparation of Preliminary Project Proposal	30 days
Appraisal to approved federal standards	90 days
Option for purchase agreement	10 days
Preparation of environmental documentation (when necessary)	120 days
Request for funds	60 days
Title Search	30 days
Survey of property	30 days
Level I contaminant survey (fee title acquisition only)	10 days
Escrow and closing	30 days
Recording of deed and purchase of property	30 days

Many of the above actions will occur concurrently; therefore the actual time to complete acquisitions (fee title or easement interest) may be less than the total time listed above. Acquisitions will be phased, with Tasks A and B underway at this time. Tasks D and E will commence in FY 99.

2. *Floodplain Restoration* (Task C). Active habitat restoration will be conducted on the San Felipe Ranch and Lone Tree Ranch. Work on the San Felipe Ranch will consist of restoring the original Owens Creek channel, natural contours of adjacent floodplain, and woody riparian habitat. Project planning and design has been completed and is not included as a task or as matching funds in this proposal. As part of the proposal, the original creek channel will be excavated (the creek was filled during field leveling operations) back to original grade and configuration, and the existing diversion ditch will be filled. Leveled pasture will be reshaped into a wide floodplain with a series of wetland swales connected by meandering side channels. Riparian habitat along Owens Creek would be restored by planting native trees and shrubs including valley oaks, cottonwood, willow, buttonbush and elderberry. Water to maintain these wetlands will be provided by rerouting pasture irrigation tailwater that currently flows into the Owens Creek diversion channel through the restored wetlands then into Owens Creek. This project will restore 3 miles of Owens Creek and its floodplain totaling 735 acres.

Restoration on the Lone Tree Ranch will proceed after pre-restoration planning (Task F) has been completed. Tentative plans include recontouring leveled lands back to a mosaic of meandering channels, swales, and wetland basins. Native trees and shrubs would be planted to provide corridors of riparian habitat. Water supplies would be provided by using nearby agricultural surface tailwater and existing wells. Long term restoration plans would include incorporating the area into a wide levee set-back (currently being investigated by other agencies).

Restoration at San Joaquin River NWR will consist of recontouring leveled agricultural land into a wetland basin, building loafing islands for migratory birds, developing a water delivery system, and replacing failing water control structures. The project will affect 150 acres.

3. *Restoration Planning* (Task F). FWS will conduct habitat restoration planning on the Kelley, Arambel & Rose, and Lone Tree Ranch properties after those areas are acquired. This will consist of engineering surveys, biological inventories, review of historic conditions, and development of individual site plans with cost estimates. These restoration plans will focus on opportunities to: breach or set-back levees, recontour leveled lands to restore natural channels, swales, and wetland basins; and establish or enhance riparian habitat. These plans will also make considerations for: siting breaches where they have occurred in the past; optimizing circulation of water through the restoration area; reducing entrapment of native fishes; and restoring historical topography. Habitat restoration on the Lone Tree Ranch will be designed to complement the long term goals of eventual levee set-back. Cost estimates will be obtained for construction of this component.

c. Location and/or Geographic Boundaries of Project

The proposed project is within Merced and Stanislaus Counties along the San Joaquin River and east-side tributaries (Owens Creek and Mariposa Slough). All of the acquisitions are adjacent to the San Luis NWR Complex (San Luis NWR, Merced NWR, and San Joaquin River NWR). (Figures 2 and 3).

d. Expected Benefits

This project will provide numerous benefits that are consistent with the goals and objectives of the CALFED program, including:

- Protecting, restoring and managing large acreages of habitats (riparian woodlands, associated oxbow wetlands, seasonal wetlands, shaded riverine habitats) within the San Joaquin River floodplain and east-side tributaries; including approximately 6 ½ miles of San Joaquin River riverine and riparian habitat and 6 tributary miles along Owens Creek and Mariposa Slough (Figures 2 and 3).
- Protecting, restoring and managing high quality habitats which would benefit priority species: splittail, San Joaquin River and east-side tributary fall run-chinook salmon, migratory birds such as greater sandhill cranes, Aleutian Canada geese, Swainson's hawk and bald eagle, as well as giant garter snake, western pond turtle, riparian brush rabbit, San Joaquin Valley wood rat and valley elderberry longhorn beetle. In addition other migratory birds such as shorebirds, waterfowl, wading birds, and neotropical migratory birds will benefit from habitat protection, restoration and management actions.

- An additional benefit will be a reduction in peak floods as water will be stored temporarily in off stream areas; non-ecosystem objectives of flood protection are incrementally benefitted from this project.
- Additional environmental and flood control benefits accrue from reduced need for dredging, clearing and snagging operations, and levee maintenance.
- Water quality will be enhanced by the restored vegetated floodplain by providing sediment traps and nutrient uptake. Water supply needs will be reduced by the decreased need for irrigation. Thus, the CALFED non-ecosystem objectives of water quality improvement and water supply reliability are an additional benefit of this project.

The following ecosystem stressors, as listed in Attachment C., pp. 72-80 of the May 1998 *Proposal Solicitation Package*, will be addressed by this proposed project. Table 1 below lists stressors which are targeted by this proposed project.

Table 1. Summary of benefits accrued by the proposed project. This table lists the ecosystem stressors which would be targeted by the proposed project and describes how the stressors would be reduced.

Species, Habitat, Stressor, or other Benefit Type	Substressor Category	Description of Stressor	Restoration Actions in this proposal which address the stressor	Description of how this Proposal Targets the Specific Stressor
Flood plain and Marshplain Changes	Hydrologic isolation of flood plain or marshplain	Lack of flow over flood plains and marshplains, lack of return flow to main channel	Return flows to portions of flood plain which are isolated.	The proposed action would return lands to the flood plain which are currently isolated by levees, thus allowing a more natural hydrology in these areas.
	Physical isolation of the flood plain	Habitat fragmentation, loss of seasonal and tidal wetlands due to levee construction, or other land use changes.	Create seasonal and oxbow wetlands.	All proposed acquisitions will result in additional seasonal wetlands, through restoration or enhancement actions.
			Breach levees at selected sites.	Lands within the levees will no longer be isolated from the river. Ecosystem and flood protection benefits will accrue
			Expand refuges in the San Joaquin system.	Up to 2,854 acres of lands in fee title or easement would be acquired adjacent to existing refuge lands.
			Encourage river corridor planning	This proposal would reduce development actions in the flood plain, and serve as a template for other nonstructural flood control and habitat restoration projects.
	Land use changes in the flood plain or marshplain	Urbanization, agriculture, grazing	Fund incentives to increase area of natural lands enhanced to provide foraging and nesting habitat to Migratory birds.	This proposal includes an easements on private lands which would preclude development in the San Joaquin River flood plain and maintain grazed pasture, grasslands and wetlands.

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Channel Form Changes	Prevention of channel meander	Channelization, loss of shallow water habitat, channel deepening, lack of flood plain, degradation of instream habitat conditions, loss of lotic conditions	Allow wider meander belt	Acquisition of lands for this proposal would allow channel meander to occur and eliminate need for levee maintenance and armoring, and river dredging, clearing and snagging.
	Alteration of channel form	Loss of shallow water habitat, channel deepening, lack of flood plain	Restore adjacent wetland complexes	Acquisition of lands would allow riverine channels, sloughs, oxbows to be restored to natural contours.
	Isolation or elimination of side channels and tributaries	Loss of woody debris recruitment, loss of rearing and spawning habitat, loss of refuge habitat, decreased food production	Acquire/restore adjacent wetland complexes	Reconnection of restored riparian channels, sloughs, and oxbows adjacent watercourses thus allowing increased allochthonous input to the San Joaquin River system
	Loss of existing riparian zone or lack of regeneration potential	Loss of food supply, loss of SRA habitat, loss of channel complexity	Manage post-flood land use for riparian growth	Floodprone lands would be acquired for riparian restoration along the San Joaquin Rive, Owens Creek and Mariposa Slough
			Riparian Restoration and revegetation projects	This is one of the primary purposes of the proposed acquisition
Land Use	Urbanization	Urbanization of the watershed that leads to loss of riparian habitat, habitat fragmentation, wetland drainage, and other impacts	Identify ways to preserve habitat values on land, but maintain private ownership	Easement acquisitions included in this proposal would allow for habitat values on private lands while providing ecosystem and specific wildlife benefits
			Acquisition of adjacent lands for buffer zones	Easements would buffer adjacent riparian zones, acquisition outside the refuge would buffer the refuge lands.

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<p>Non-Ecosystem Goal:</p> <p>Flood Damage Reduction</p>			<p>Through Executive Order 11988, the Council on Environmental Quality and OMB have directed federal agencies to explore cost-effective, nonstructural flood protection projects.</p>	<p>The proposed acquisition would help reduce flood peaks downstream on the San Joaquin River by allowing peak transient floodwater storage on the acquired lands and slow release back into river, slough and creek channels.</p>

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e. Background and Ecological/Biological/Technical Justification

Floodplain wetlands and riparian habitats have been greatly reduced to less than five percent of historic levels; and much of what remains is often degraded and fragmented. Consequently, fish and wildlife species and populations which utilize these habitats have declined dramatically. Numerous small and large water diversions, elevated water temperatures, channel dredging, waste discharges, low dissolved oxygen, lack of shaded riverine habitat, agricultural runoff and irrigation return flows, and other factors contribute to fisheries decline. Only five of the original native fish species in the San Joaquin drainage are reasonably abundant and widely distributed. Protection and restoration of riparian habitat and wetlands in the San Joaquin Valley is considered to be a high priority by State and Federal resource agencies. (See Attachment I, p. 22)

Most of the lands within Phase I of this proposal were flooded in January 1997 and again partially flooded in the winter, spring and summer of 1998. On lands to be acquired the FWS plans to restore the natural floodplain and hydrologic and ecological processes to these reaches of the San Joaquin River, Owens Creek and Mariposa Slough tributaries. For example, the Kelley property is critical to long range multi-agency plans of breaching San Joaquin River and Eastside Bypass project levees to spread floodwaters onto refuge lands at San Luis NWR. Acquisition of the Lone Tree Ranch will allow diversions off the Eastside Bypass (Mariposa Slough) onto refuge lands at Merced NWR, or eventual levee setbacks as currently being investigated by other agencies. Finally, the small private levees at the Arambel and Rose property could be breached to allow San Joaquin River floodwaters onto the newly acquired refuge lands at San Joaquin River NWR. Flood waters would freely peak and then gradually decrease to lower levels by shallow overland flow back into the river channel. This would allow for natural successional revegetation of floodplain lands to riparian habitat which could be supplemented by selected tree and shrub plantings.

Thus, lands acquired in fee title and easement in both Merced and Stanislaus Counties would allow widening of the San Joaquin River and east side tributary floodplains, provide transient flood water storage, facilitate ground water recharge, and allow for riparian and wetland habitat restoration thus accomplishing a measure of downstream non-structural flood protection, provide shaded riverine habitat as well as water quality, fisheries and wildlife benefits.

After implementation, the proposed project will be self-sustaining in perpetuity. Lands acquired in fee title will be protected as part of the National Wildlife Refuge System and managed under the auspices of the FWS. Some routine maintenance and management will be required. Conservation easements on private lands in Merced County will be administered by FWS and Wetlands Reserve Program easements on private lands in Merced and Stanislaus Counties will be administered by the NRCS.

This proposal expands upon and is immediately adjacent to existing FWS fee title and easement lands along the San Joaquin River and east-side tributaries in Merced and Stanislaus Counties administered as the San Luis NWR Complex (San Joaquin River NWR, Merced NWR, and San Luis NWR and FWS perpetual conservation easements in the Grasslands Wildlife Management Area). In cooperation with other existing agencies and NGOs which have various fee title acquisition, easement, and land protection programs, (e.g., USDA-NRCS, Army Corps of Engineers, California Dept. of

Fish and Game, State Parks and Wildlife Areas, County Parks, and City owned lands) it is hoped a long term vision of protecting, restoring, managing and linking riparian corridors and floodplains along the San Joaquin River and its tributaries in Stanislaus, Merced, and San Joaquin Counties can be accomplished.

This proposed project directly contributes to meeting the goals of multi-agency efforts, including the San Joaquin River Management Plan, California Riparian Habitat Joint Venture, Central Valley Habitat Joint Venture and the CALFED Bay-Delta Program. The proposed additions could provide refuge compatible wildlife-dependent outdoor recreation opportunities for wildlife observation, environmental education, photography, and waterfowl hunting.

This project will address and meet the below listed specific **ERPP objectives** (as listed in document: *CALFED BAY-DELTA PROGRAM, Program Goals and Objectives, Programmatic EIS/EIR Technical Appendix, February 1998*. Pp. A-I through A-28).

Section: Ecosystem Quality Objectives (Pages A-8 through A-13)

- A. Improve and Increase Aquatic Habitats
 - 1. Increase Amount of High Quality Shallow Riverine Habitat
 - a. Increase Amount of Quality Riverine Edge Habitat
 - 2. Increase Amount of High Quality Shaded Riverine Habitat
 - a. Increase Amount of Quality Riparian Woodland Habitat
 - b. Increase Amount of Large, Woody Debris
 - c. Increase Amount of Shaded Riverine Habitat
 - 7. Improve the Productivity of the Bay-Delta Aquatic Habitat Food Web
 - d. Increase the Input of Nutrients from wetland and riparian habitats to aquatic habitats
 - 8. Reduce Concentrations of Toxic Constituents and Their Bioaccumulation
 - a. Reduce the Concentrations of Pesticide Residues in water and sediments.

- B. Improve and Increase Important Wetland Habitats
 - 2. Increase the Amount of High Quality Freshwater Marsh Habitat (in the San Joaquin Valley)
 - b. Increase Areal Extent of freshwater marsh habitats
 - c. Improve the Connectivity among freshwater marsh habitats
 - 3. Increase the Amount of High Quality Riparian Woodland Habitat
 - a. Increase Amounts of Riparian Habitat Structure
 - b. Reduce the Fragmentation of Riparian Woodland Habitat
 - c. Increase the Areal Extent of Riparian Woodland Habitats
 - d. Improve the Connectivity between Riparian Woodlands and their supporting habitats
 - 4. Increase the Amount of Breeding Waterfowl Habitat
 - a. Increase the Amount of High Quality Brood Habitat
 - b. Increase the Amount of High Quality Nesting Habitat
 - 5. Increase the Amount of Wintering Wildlife Habitat
 - b. Increase the amount of Resting Areas near foraging areas
 - c. Increase the amount of high quality Foraging Areas e.g. freshwater marsh

- d. Reduce the Vulnerability of some existing wintering wildlife habitats to levee failure
- 6. Increase the Amount of Managed Permanent Pasture Habitat to better support wintering crane populations.
 - a. Increase the amount of Foraging Habitat in proximity to roosting habitat
 - b. Increase the amount of Roosting Habitat in proximity to foraging habitat
- 7. Increase Flood Plains and Associated Riparian Habitat to improve diversity and sizes of fish and wildlife populations
 - a. Increase suitable flood plains to improve the availability of Temporary Flooded spawning Habitat for fish
 - b. Improve narrow restricted channels to Reduce the Risk of Catastrophic Losses of wildlife from levee failure

C. Increase population health and population size

- 1. Contribute to the recovery of threatened, endangered or species of special concern
- 2. Increase populations of economically important species
- 3. Increase populations of food species

Section: Water Quality Objectives (Pages A-23 and A-24)

- A. Provide good quality water in Delta water
 - 1. Reduce the level of water quality parameters of Concern to Human Health
 - 2. Reduce the water quality parameters that cause Aesthetic Effects
 - 5. Improve Raw Water Quality
- B. Provide good Delta water quality for Agricultural use
- C. Provide good Delta water quality for Industrial use
- D. Provide good Delta water quality for water Recreational use
 - 1. Reduce Health Risk to recreationists
 - a. Reduce Health Risk Associated with Body Contact
 - b. Reduce Health Risk Associated with Consuming Fish
 - 2. Improve Aesthetic Conditions in the Delta
- E. Provide improved Delta water quality for Environmental needs

f. Monitoring and Data Evaluation

During Phase I, baseline biological surveys will be conducted in differing habitat types at the acquisition sites so habitat development and wildlife use prior to and subsequent to restoration can be determined. The data will be used to evaluate success of restoration efforts and to determine wildlife diversity and population response in various habitat types and successional stages on the refuges.

Monitoring on acquired lands will be conducted as part of refuge operations. Evaluation as to how well project construction accomplishes design specifications; how well wetland and riparian habitats are establishing; subsequent habitat use by fish and wildlife; and long-term development of habitats will be determined through monitoring of the site and analysis of monitoring data. Fish and wildlife habitat use will be monitored to ascertain the effectiveness of the project. Habitats will be mapped and subsequent measures of habitat changes documented. Data will be compiled, summarized, analyzed, and results presented in annual reports. Results will be submitted to the CALFED technical review committee.

g. Implementability

CEQA and NEPA compliance for acquisition of lands within the Grasslands Wildlife Management Area and San Joaquin NWR were completed in 1974 and 1987 respectively. NEPA compliance for land acquisition outside the approved boundary on the south side of the San Joaquin River NWR will be implemented. Consultation under Section 7 of the Endangered Species Act will be conducted with endangered species staff of the FWS.

Local support for the project is high. Several public meetings concerning non-structural flood control have been held. All landowners involved are willing sellers, or are willing to have easements purchased on their lands. All tasks listed in this project are components of the 1995 San Joaquin River Management Plan. The project has received support of Stanislaus Audubon Society, California Audubon Society, Sierra Club, Environmental Defense Fund, Riparian Habitat Joint Venture, faculty and students at Stanislaus State University and Modesto Junior College, and numerous local citizens. This proposed project is of a type specifically recommended by the California State Governor's Flood Emergency Action Team in their report dated May 10, 1997.

V. Costs and Schedule to Implement Proposed Project

a. Budget Costs

Table 2 summarizes the cost breakdown for each task. A description of each task is provided in the Proposed Scope of Work above.

Matching funds and total CALFED request. This proposal will be partially funded by FWS, USDA-NRCS, and TPL. The FWS will provide \$3,053,000 of FY98 and FY99 Migratory Bird Conservation Act, Land and Water Conservation Fund, and basic operations funding for acquisition, restoration and related costs/services (Tasks A,B,C). The USDA-NRCS will provide \$1,576,000 of Wetlands Reserve Program and Habitat Restoration funds for easements and restoration (Tasks B & C). FWS and USDA-NRCS matching funds are specifically obligated for Tasks A-C. TPL will provide \$150,000 for services related to acquisition. A total of \$4,779,000 will be provided by project partners for Phase 1. **THUS OUR REQUEST TO CALFED IS FOR \$2,126,500.**

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Table 2. Budget Costs

Project Task	Direct Salary And Benefit Costs	Indirect Costs (Gen. Admin)	Service Contracts	Estim. Cost/Acre	Estimated Acquisition Cost	Materials & other direct costs	Total Cost
Task A: Acquire Kelly & Mapes parcels in fee	\$ 8,000 (Match)	\$25,000 (Match)	\$57,000 (Match)	\$3,200	\$1,823.00 (Match)		\$1,913,000
Task B: Acquire easement: Castle Duck Club & Lone Tree Ranch	\$ 8,000 (Match)	\$25,000 (Match)	\$57,000 (Match)	\$ 950	\$1,800,000 (Match)		\$1,890,000
Task C: Restore Habitat on San Felipe, Lone Tree Ranches, and San Joaquin River NWR	\$20,000 (Match)		\$906,000 (Match)				\$926,000
Task D: Acquire Arambel and Rose in fee title	\$ 4,000 (Grant)	\$42,000 (Grant)	\$16,000 (Grant) \$25,000 (Match)	\$3,800	\$ 1,060,500 (Grant)		\$1,147,900
Task E: Acquire Lone Tree Ranch in fee title	\$ 4,000 (Match)	\$35,200 (Grant)	\$16,000 (Grant) \$25,000 (Match)		\$ 876,000 (Grant)		\$ 956,200
Task F: Plan floodplain restoration, including biological inventories	\$ 65,000 (Grant)	\$ 3,400 (Grant)	\$10,000 (Grant)			\$10,000 (Grant)	\$88,400
Total	\$ 109,000	\$131,000	\$ 1,122,000		\$5,559,500	\$10,000	\$6,921,500

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b. Schedule Milestones

- Task A: (Acquisition of Kelley property and Makes Ranch parcel): Appraisals and negotiations are currently underway. Acquisition is expected to be completed by or before March 1999.
- Task B: (Enrollment of the Castle property and Lone Tree Ranch): Appraisals are completed and negotiations are underway. Acquisition is expected to be completed by or before December 1998.
- Task C: (Riparian and Wetlands Restoration): Active restoration work at the San Felipe Ranch will be initiated by USDA - NRCS and its cooperators September 1998 and continue through 1999. The restoration work at San Joaquin River NWR will be accomplished by FWS during September - October 1998. Restoration at Lone Tree Ranch will commence after final acquisition (Task E) and completion of restoration planning (Task F). Anticipated start up of habitat restoration is summer 1999.
- Task D: (Acquisition of Arambel and Rose): Appraisal and negotiations will commence upon approval and funding of this proposal. If funded, acquisition is expected to be completed by August 1999.
- Task E: (Acquire remainder of fee title value of Lone Tree Ranch): Appraisals are completed and negotiations underway. Enrollment of property in WRP easement is expected by December 1998 (Task B) and payment of remainder of fee-title value, thus converted the land to a fee-title acquisition would be made as soon as CALFED funds are available.
- Task F: (Habitat Restoration Planning): Biological inventories and engineering studies will begin as soon as new lands are acquired. Data will be evaluated to formulate restoration strategies, and restoration plans will be completed within 12 months.

Biological monitoring will be ongoing, either as regular refuge operations or as mandated compliance checks on easement agreements. Quarterly and Project Completion reports will be submitted.

c. Third Party Impacts

There are no apparent off-refuge or off-easement impacts resulting from implementation of this proposed project.

VI. Applicant Qualifications

The FWS Sacramento Realty Office will have the primary responsibility for coordinating and implementing land acquisitions. This office has acquired property for the 10 major National Wildlife Refuges in California. Since its establishment in 1992, the Office has acquired over 189,237 acres in fee or easement. The Office presently has a staff of six highly qualified specialists with a combined experience of over 100 years in the areas of realty, appraisal, and environmental protection. The office will coordinate and seek assistance from the Service's Regional Office in Portland, Oregon. Certain portions of the work may be contracted, depending upon priorities and existing workloads of staff members.

Howard Stark is the Chief of the FWS Sacramento Realty Office. He manages the FWS land acquisition program which ranges from \$7-40 million annually throughout the California Central Valley and San Francisco Bay Area. He has over eleven years of federal agency experience as a Supervisory Realty Specialist, Appraiser, Office Manager, and Environmental Planner.

The San Luis NWR Complex was established in 1951 and currently consists of four units administering over 37,000 acres of fee title and 67,000 acres of perpetual easement lands. It is considered a flagship refuge within FWS Region 1. The refuge staff will be responsible for implementing the habitat restoration at San Joaquin River NWR and Lone Tree Ranch, conducting biological inventories and restoration planning on newly acquired lands, and subsequently managing those acquired lands.

Dennis Woolington is the Supervisory Wildlife Biologist for the San Luis NWR Complex. His responsibilities are Complex-wide and include overseeing a biological program with up to twelve personnel. Facets include wetland/upland management, operation surveys, special studies/research, interagency coordination, and large-scale habitat restoration planning. Mr. Woolington earned a M.S. degree in Wildlife Management at Humboldt State University, California in 1980, and has over twenty-five years experience with state and federal resource agencies.

Bruce Barbour is a Wildlife Biologist for the San Luis NWR Complex. His primary duties focus on the San Joaquin River NWR where he supervises two biologists conducting biological inventories, participates in the acquisition process, oversees endangered species/migratory bird management, coordinates habitat management, and is conducting habitat restoration planning. Mr. Barbour earned a M.S. degree in Zoology in 1977 at the University of South Florida and has twenty-two years of experience in state, federal and private resource agencies and organizations.

The Trust for Public Land (TPL) is a national non-profit 501(c)(3) land conservation organization. For over twenty-five years, TPL has assisted landowners, public agencies, land trusts and others with the acquisition of land for protection as habitat and open space. TPL and the FWS have worked together to protect thousands of acres of critical habitat lands throughout the country, including Grasslands WMA (Sunrise Ranch).

TPL will work with the FWS towards the completion of the habitat acquisition and restoration goals described in the CALFED request by 1) purchasing willing seller option agreements; 2) purchasing and holding of properties until sufficient funding is available for acquisition by FWS; and 3) assisting in the pursuit of additional funding sources (private and public) to leverage the CALFED grant. Through these services, TPL will provide in-kind contributions including costs related to the land acquisition transactions (e.g., environmental assessments and appraisal fees) and significant staff time.

Andrew Vesselinovich is a Field Representative for TPL's Western Region Office. He has worked for TPL for five years and successfully completed several land acquisition and exchange transactions as part of the Western Region's Rivers Program.

Jennifer Greeves is Director of Conservation Funding for TPL. She has worked for TPL for eight years and has secured public funding sources for numerous habitat land acquisition projects.

The Natural Resources Conservation Service (NRCS), through its Merced County Office, will be responsible for acquiring a Wetland Conservation Program easement on the Lone Tree Ranch and overseeing habitat restoration at the San Felipe Ranch.

Allan Forkey is the State Wetlands Biologist for NRCS. His primary duties focus on technical assistance to the statewide Wetlands Reserve Program and Farm Bill issues.

Allan Forkey is the State Wetlands Biologist for NRCS. His primary duties focus on technical coordination and leadership of the statewide Wetlands Reserve Program and Farm Bill issues. Mr. Forkey has *nineteen* years experience with NRCS and holds a B.S. degree in Fisheries Management (1973) and Wildlife Management (1978) from the University of Arizona.

There are no known conflicts of interest with parties involved with this project.

VII. Compliance with Standard Terms and Conditions

This proposal is being submitted by the U.S. Fish and Wildlife Service on behalf of a group of stakeholders. FWS is not required to complete Form DI-2010. Any consultants and subcontractors will be hired according to state and federal regulations and requirements for all government agencies.

ATTACHMENT I

**Non-Structural Floodplain Protection & Restoration Project
San Joaquin River & East Side Tributaries
(Merced & Stanislaus Counties)**

Historically, the San Joaquin River and tributaries, following winter rains and Sierra snow melt, would regularly over-top their banks and inundate the natural floodplain. The system was dynamic: depositing rich alluvium; creating and cutting streambanks; creating riparian forests; changing the river's course and creating oxbow lakes and backwaters; clearing debris and streambeds; exposing and depositing gravel and sand; and creating salmonid spawning habitat.

Water storage/flood control dams were built on the San Joaquin River and its major tributaries, and water diversions were made for agricultural, industrial and metropolitan uses. Levees were constructed along the river's course to contain and greatly narrow the floodplain. The river was tamed, providing a false sense of safety and security. Homes, businesses, farm buildings and entire communities were unwisely built in the floodplain. But 100 year, 200 year, etc. flood events do and will occur. Inevitably dams are over-topped, levees break, and river waters seek their natural place, covering the floodplain.

The 1997 California floods killed 9 people, damaged or destroyed almost 20,000 homes and caused an estimated \$2 billion in property damages. Given these ever-present dangers and costs to life and property and the associated flood protection costs (dam and levee construction, long-term maintenance and repairs) the federal government is seeking more cost-effective ways in dealing with potential flooding along the nation's dynamic river systems. The Council for Environmental Quality and the Office of Management and Budget have directed (via Executive Order 11988) the Army Corps of Engineers and other federal agencies to explore cost-effective, non-structural flood protection projects.

In support of this mandate, the U.S. Fish & Wildlife Service has proposed non-structural flood protection demonstration projects through fee title and easement acquisitions of flood-prone, floodplain properties. This has grown into a multi-agency effort whose partners include the National Resource Conservation Service, Corps of Engineers, Bureau of Reclamation and California Department of Water Resources. The lands to be acquired are adjacent to the San Luis National Wildlife Refuge Complex in Merced and Stanislaus Counties. (See enclosed project proposal maps.)

Subsequent to fee title acquisition, the properties will be restored to their historic floodplain function by removing or modifying existing flood control levees, restoring historic floodplain width, and restoring wetlands and riparian forests. These actions will allow flood waters to spread over the natural floodplain, thus reducing downstream flood peaks, flooding of private property, and damage to existing downstream levees. In addition fish and wildlife habitat will be improved, biodiversity increased, and water quality improved. These resource benefits directly contribute to meeting the goals of multi-agency efforts such as the San Joaquin River Management Plan, California Riparian Habitat Joint Venture, Central Valley Habitat Joint Venture and the California/Federal - Bay/Delta Program. Additionally, newly purchased land will provide compatible wildlife-dependent outdoor recreational opportunities (wildlife observation, environmental education, waterfowl hunting, etc).

Because of the magnitude of the San Joaquin River flooding problems, this project will be only part of a larger watershed/riverine floodplain program to manage floodplains in a more long-term, cost-effective, and environmentally sensitive manner.