4.5 PSP Cover Sheet (Attach to the front of each proposal)

Proposal Title: **Habitat Restoration and Natural Processes: Integrating Riparian Restoration with Flood Plain Management**
Applicant Name: Sacramento River Partners
Mailing Address: 261 East 3rd Street, Chico, CA 95928
Telephone: (530)894-3474
Fax: (530)894-1079
Email: sacriver@c-zone.net

Amount of funding requested: $ 2,153,574 for 3 years

Indicate the Topic for which you are applying (check only one box).

- ☐ Fish Passage/Fish Screens
- ☒ Habitat Restoration
- ☐ Local Watershed Stewardship
- ☐ Water Quality
- ☐ Introduced Species
- ☐ Fish Management/Hatchery
- ☐ Environmental Education

Does the proposal address a specified Focused Action? X yes _____ no

What county or counties is the project located in? Butte and Glenn Counties

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

- ☒ Sacramento River Mainstem
- ☐ Sacramento Trib: _____
- ☐ San Joaquin River Mainstem
- ☐ San Joaquin Trib: _____
- ☐ Delta: _____
- ☐ East Side Trib: _____
- ☐ Suisun Marsh and Bay
- ☐ North Bay/South Bay: _____
- ☐ Landscape (entire Bay-Delta watershed)
- ☐ Other: _____

Indicate the primary species which the proposal addresses (check all that apply):

- ☐ San Joaquin and East-side Delta tributaries fall-run chinook salmon
- ☒ Winter-run chinook salmon
- ☒ Late-fall run chinook salmon
- ☐ Delta smelt
- ☐ Splittail
- ☐ Green sturgeon
- ☒ Migratory birds
- ☐ Other: _____
- ☒ Spring-run chinook salmon
- ☒ Fall-run chinook salmon
- ☐ Longfin smelt
- ☒ Steelhead trout
- ☐ Striped bass
- ☒ All chinook species
- ☒ All anadromous salmonids

Specify the ERP strategic objective and target (s) that the project addresses. Include page numbers from January 1999 version of ERP Volume I and II: Ecosystem Strategic Plan Goals (SPG) 2:2(p.100), 4 (p.63), 8 (p.80); Habitat SPG 4: 2 (p.151-158, 162); Priority Group I SPG 1:2,3,4,5 (p.220-222), 6 (p.229):Priority Group II SPG 1: 1 (p.241), 4 (p.252), not specified (p.287); Priority Group III SPG 1:7 (p.314), 8 (p.312), 10 (p.304), 12 (p.307)Priority Group IV SPG 1 1(p.363), not specified (p.366).

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

☐	State agency	☐	Federal agency
☐	Public/Non-profit joint venture	☒	Non-profit
☐	Local government/district	☐	Private party
☐	University	☐	Other: _____

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

☐	Planning	☒	Implementation
☐	Monitoring	☐	Education
☐	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 the 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 2.4) 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.

John Carlon for Sacramento River Partners
Printed name of applicant

Signature of applicant

Title Page

Title of Project: **Habitat Restoration and Natural Processes: Integrating Riparian Restoration with Flood Plain Management**

Organization:	Sacramento River Partners
Primary Contact:	John Carlon
Mailing Address:	261 East 3rd Street Chico, CA 95928
Telephone:	(530) 894-3474
Fax:	(530) 894-1079
e-mail:	sacriver@c-zone.net

Participants and Collaborators

Sacramento River Partners (Partners)
The U.S. Fish and Wildlife Service (USFWS)
California State University, Chico (CSUC)
The Point Reyes Bird Observatory (PRBO)
Parrott Investment Corporation (PIC)

Type of Organization and Tax Status

Sacramento River Partners is a 501(c)(3) nonprofit

Tax Identification Number

94-3302335

Executive Summary

Sacramento River Partners (Partners) is requesting $2,153,571 from the CALFED Bay-Delta Program to restore 8,500 linear feet of shaded riverine aquatic (SRA) habitat and actively reforest 500 acres of flood-prone farmland on the Llano Seco Unit of the Sacramento River National Wildlife Refuge. The proposed project will demonstrate that large-scale riparian restoration within the designated Sacramento River Conservation Area (SB1086) has the potential to provide significant and measurable benefits to wildlife, landowners, and the Princeton-Codora-Glenn and Provident Irrigation Districts.

Key components of the project include planting native grass and under-story species along with approximately 120,000 trees to transform the proposed site into a valley oak woodland and mixed riparian forest. In conjunction with the biological benefits, dense riparian buffers will be planted to decelerate surface and bank erosion. Once the habitat is established, the vegetation-hydraulic interaction will be evaluated for flood-water conveyance, sedimentation, and off-site impacts. A thorough hydraulic assessment will be completed before any portion of the reforestation work begins.

Actively planting a riparian restoration project in a highly managed and controlled system like the Sacramento River has several advantages:

- Provides critical habitat and important biological elements to endangered and threatened species within a three-year timeframe.
- Conforms initial planting patterns, density and species composition to site-specific hydraulic/hydrogeomorphic criteria. Riparian roughness and flow pathways are utilized as tools in the plant design process.
- Demonstrates the ability of riparian vegetation to decelerate bank and surface erosion, trap sediments and floating debris and attenuate flood peaks.
- Engages neighboring landowners in a community-based agricultural approach to riparian restoration.
- Creates high quality habitat and controls non-native species in a cost-effective manner.

Primary Biological/Ecological Objectives

Converting 500 acres of flood-prone agricultural land back into riparian forest at Llano Seco will fill a biological void between two large blocks of existent habitat. Restoring the 8,500 linear feet of SRA (including 2,600 feet of armored bank) will complete this project and establish a riparian corridor stretching 10 river miles and encompassing 12,300 acres of conservation ownership (**Figure 1**). This project meets several CALFED and SB1086 objectives:

- Provides rearing and foraging habitat for Winter-run, Spring-run, Fall-run, and Late-Fall run Chinook salmon by enhancing 8,500 linear feet of shaded riverine aquatic habitat (SRA).
- Increases the area and quality of riparian and SRA habitat, and provides important elements for targeted species (Chinook salmon, steelhead trout, Swainson's hawk, western yellow-billed cuckoo, wood ducks, bank swallows, neotropical migratory birds, and valley elderberry longhorn beetles).
- Promotes ecosystem processes (such as increasing sediment deposition and improving water quality, and decreasing stream temperatures).
- Improves the continuity of the riparian corridor by turning a 500-acre agricultural in-holding into a component of a 2,000 acre contiguous block of habitat.

Cost
Sacramento River Partners is requesting $2,153,571 from CALFED to restore 8,500 linear feet of SRA (including 2,600 feet of armored bank) and actively reforest an additional 500 acres of fallow farmland. This large scale planting will generate economies of scale reducing the upper terrace planting costs to $4,000 per acre (a 20% reduction in cost compared to an earlier Sacramento River restoration proposal-CALFED proposal # 97-N03).

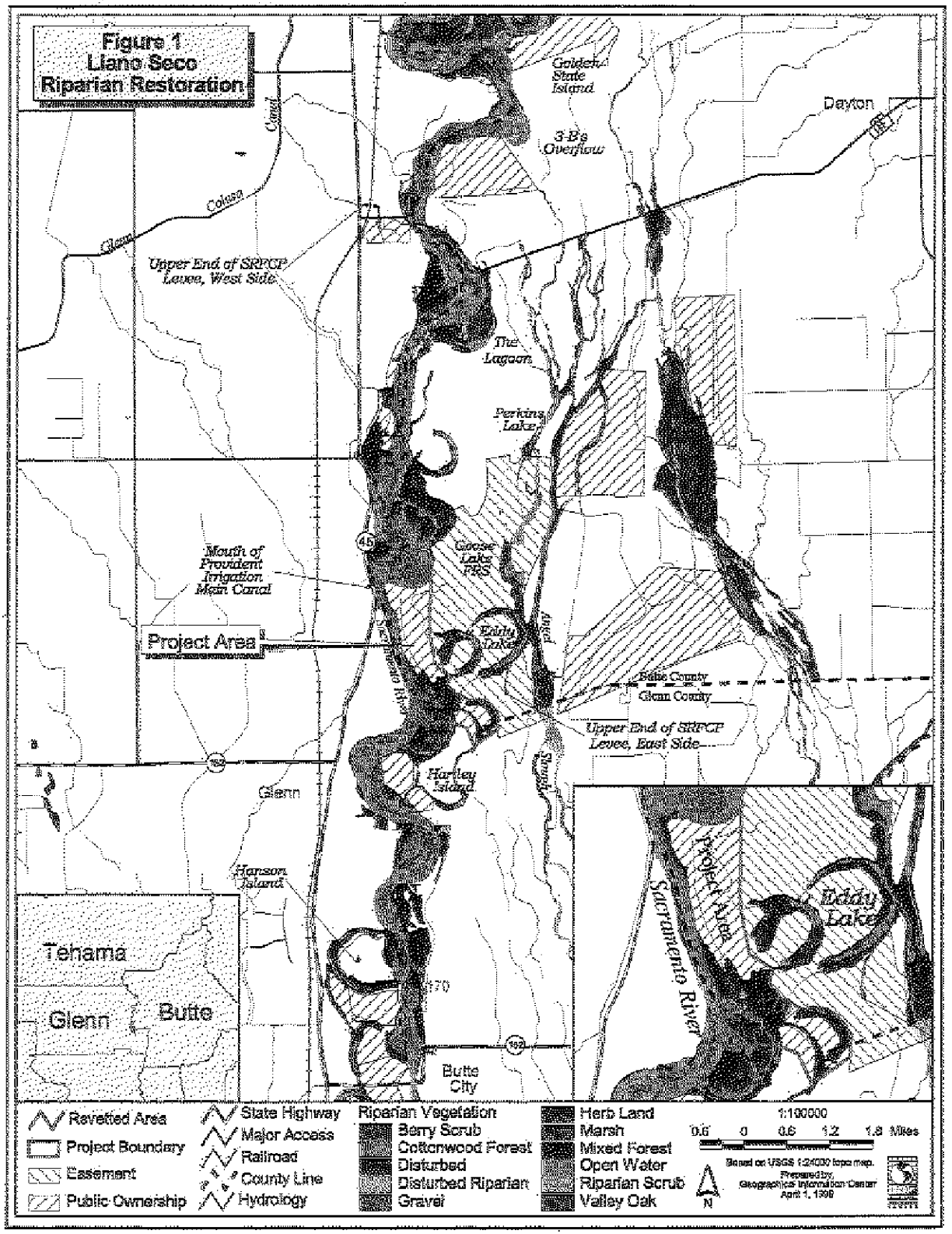
Adverse and Third Party Impacts
At the request of landowners, the initial restoration design has been revised to utilize tree species, density and planting patterns to maximize protection to the across-river pumping plant/fish screen facilities and minimize disruption to the site's present flood flow patterns.

Applicant Qualifications
Sacramento River Partners is a recently incorporated 501(c)(3) nonprofit that works with farmers, landowners, concerned citizens, and government agencies to protect the natural resources of the Sacramento River. This year Partners is in the process of planting 258 acres of flood-prone agricultural land back into riparian forest on both state and federal lands. Long term operations and maintenance of the proposed project will be the responsibility of the Sacramento River National Wildlife Refuge which currently manages over 1,100 acres of restored forest along the river.

Monitoring and Data Evaluation
To complement the organization's strong restoration management abilities, Partners has assembled the following team of experts to help plan and monitor the project; Dr. Tom Griggs - California State University, Chico Research Foundation (Biological), Murray, Burns and Kienlen – Consulting Civil Engineers (Hydraulic), Graham Matthews Consulting (Geomorphic), Point Reyes Bird Observatory (Avian).

Local Support/Coordination with other Programs
The adjoining landowner and local conservation groups support this proposal. This project is also consistent with the goals and objectives of the CALFED Ecosystem Restoration Program Plan, Central Valley Project Improvement Act, SB 1086, Sacramento River Wildlife Area Management Plan, National Fish and Wildlife Foundation, North American Waterfowl Management Plan, Central Valley Habitat and Riparian Joint Ventures, California Riparian Habitat Conservation Program, and the Sacramento River National Wildlife Refuge.

Compatibility with CALFED
The proposed project is consistent with the CALFED ERPP objectives and the Strategic Plan for Ecosystem Restoration and will not prejudice the ultimate decision on the CALFED Long-term Program.



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Project Description

Proposed Scope of Work

The applicant requests $2,153,571 to actively restore 500 acres (including 8,500 linear feet of streambank) of former agricultural land (the "site") to riparian forest at the Llano Seco Unit of the Sacramento River National Wildlife Refuge (**Figure 1**).

The Site

In many respects, Llano Seco offers a glimpse into the Sacramento River's past. The last of California's Spanish Land Grants to be divided, much of Llano Seco was cleared and converted to agriculture over time. However, land-use patterns and the complexity of the local terrain allowed the preservation of fragmented parcels of once-common landforms and habitats. Llano Seco also provides a glimpse into the future of the Sacramento River because of the extraordinary opportunities to reestablish natural ecosystem processes over a large area. In 1991, the US Fish and Wildlife Service acquired the Llano Seco Unit "to protect, enhance, and restore critical habitat and natural communities of native, resident, and migratory wildlife species" (USFWS, 1992).

The site is currently fallow, flood-prone agricultural land (historically, the site was riparian forest). Despite the cessation of agriculture eight years ago, the presence of good soil, the proximity of native vegetation, and the hydrologic connectivity to the Sacramento River non-native species dominate the site's vegetation, and natural regeneration is essentially non-existent (Oswald and Ahart, 1996). Without intervention, non-native species will remain the dominant vegetation on the site. However, with weed control and the active restoration of native species, natural ecological processes will reestablish and set forest succession on a more natural trajectory.

With restoration, the site will fit into a unique mosaic of freshwater wetland, grassland, slough, and riparian forest habitats in the Llano Seco Unit. The project's strategic location provides benefits on multiple levels. The restored site will:

- Provide shaded riverine aquatic habitat along 8,500 linear feet of the Sacramento River.
- Reconnect 500 acres of riparian habitat to 1,500 existing acres of riparian forest.
- Enhance the ecological potential on a component of the 12,000 acres in conservation ownership at Llano Seco.
- Reestablishes a continuous riparian corridor along 10 miles of the Sacramento River (from river mile 174 to river mile 184).

The Approach

This proposed project will complete a well-defined task: the revegetation of 500 contiguous acres of riparian forest and 8,500 linear feet of streambank (including 2,600 linear feet of revetted bank) of land already in the public trust. Several steps will be necessary to achieve the goals for the site. A thorough hydraulic assessment will be completed before any reforestation begins. The hydrologic study will guide the plant design to avoid third party impacts. The site assessment will match native species with appropriate physical conditions. Furthermore, the project will incorporate an experimental configuration to test the role of restored vegetation on natural processes. Such an approach could yield critical information for future restoration projects. For example, experimental plantings of vegetation at varying density,

composition, and pattern will be carefully monitored to evaluate their ability to trap sediment and form natural levees, a feature which could be designed to potentially direct flood flows. The trees will reach sufficient size to begin influencing flows after the completion of this project, at 3 to 5 years old, but this project will provide the necessary baseline data, permanent transects, and develop the protocol to reveal any future erosion or sediment deposition differences across the site.

The project will restore the site using state-of-the-art production agricultural techniques in the main field, which will enable rapid and efficient development of habitat, engagement of local farmers and businesses in ecological restoration, and demonstrates cost-effectiveness for future restoration projects. Willow cuttings will be planted between the rocks to minimize impacts to the revetment and for rapid establishment of habitat. Drip irrigation will limit weed growth and foster the establishment of the planting.

Finally, local involvement and outreach are key aspects of the project, and employing local farmers and businesses to complete key tasks is just one way that interest and capacity for future restoration projects can be built. Approximately, 75% of the requested budget will stay in the local economy as restoration tasks are subcontracted out to local farmers and businesses.

Tasks

Hydrologic Study: Establish baseline physical conditions for long-term monitoring of ecosystem processes, model various planting strategies and develop test areas to evaluate the role of revegetation to natural processes and flood control objectives.

Site Assessment: Develop planting composition and density patterns based on the biologic, edaphic (soil), historic, and hydrologic conditions at the site.

Restoration Plan: Specify the planting, irrigation, and weed control measures for the site. The plan will be based on the results of the site assessment and hydrologic study, and will also incorporate an experimental design for testing the effect of vegetation on natural processes.

Plant Propagation: Collect and/or propagate local plant material needed for restoration.

Field Survey: Establish the site's anchor points (for permanent reference), topography, and boundaries. Layout field for planting.

Field Planting: Field preparation, weed control, and planting of native plants in main portion of site. Plant composition and density will vary to allow future study of the effects of vegetation on deposition and erosion.

Revetment Planting: Plant willow cuttings between the rocks in the revetment portion of the bank to allow for revegetation while minimizing the potential for damage to the revetment.

Native Grass Planting: Plant native grass species in appropriate areas.

Irrigation Installation: Develop, install, and eventually decommission the irrigation system.

Maintenance: Maintain the irrigation system, conduct weed control, and other associated tasks.

Monitoring: Measure project performance, establish baseline conditions, and develop a scientific framework for future assessment of the effects of restored vegetation on geomorphological processes.

Outreach: Develop a plan and implement public outreach, such as project field days, informational videos, and CD-ROM presentations.

Project Management: Sacramento River Partners will manage and administer the project.

Deliverables and Schedule
This project will produce approximately 120,000 trees, 8,500 linear feet of shaded riverine aquatic habitat, and the following deliverables: hydrologic study, site assessment, restoration plan, monitoring plan and reports, PRBO annual bird surveys and reports, planting report, quarterly reports, annual progress reports, and a final report detailing project performance. The project has a three year timeline for completion (**Table 1**). A detailed schedule is presented along with the budget.

Separable Tasks
The complete project will provide the greatest benefits because of economies of scale (for planning, irrigation, weed control, and site preparation)f and the creation of a large contiguous area of riparian forest. If the project cannot be funded completely, funding for a minimum of 250 acres is recommended. The revegetation of the revetment area is not a stand alone project, but can be considered a separable task.

***Location* and/or Geographical Boundaries of the Project**
The project lies within the 100 year flood plain of the Sacramento River in Butte and Glenn Counties between River Mile 176 R and 178.5R (**Figure 1**). The project is located within the Riparian Sanctuary of the Llano Seco Unit at the Sacramento River National Wildlife Refuge. The project's 500 acres are strategically located between existing riparian forest areas and along 8,500 linear feet of streambank.

Table 1

Schedule of Tasks and Deliverables for the Proposed Riparian Restoration Project on the Llano Seco Unit

Item	1999		2000			2001				2002		
	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer
Task												
Hydrologic Study												
Site Assessment												
Restoration Plan												
Plant Collection/Propagation												
Field Survey												
Irrigation Installation												
Field Planting												
Revetment Planting												
Native Grass Planting												
Maintenance												
Monitoring												
Outreach												
Project Management												
Deliverables												
Hydrological Study												
Site Assessment												
Restoration Plan												
Monitoring Plan												
PRBO Surveys/Reports												
Planting Report												
Quarterly Progress Reports												
Annual Progress Reports												
Final Report												

Ecological/Biological Benefits

This project will actively restore 500 acres of riparian forest, and primarily addresses the loss of riparian forests and shaded riverine aquatic habitat along the Sacramento River. Because of the strategic location of the site (**Figure 1**) and the benefits that restoration will provide to ecosystem processes, habitats, and species (especially anadromous fish), this project matches well with the objectives of the CALFED program.

Rationale for Active Restoration

Despite the cessation of agriculture eight years ago, only a few native species, such as mugwort (*Artemisia douglasiana*), mule fat (*Baccharis salicifolia*), and Mexican elderberry (*Sambucus mexicana*) grow on the site. Instead, non-native species such as yellow star-thistle (*Centaurea solstitialis*), bull thistle (*Cirsium vulgare*), and Johnson grass (*Sorghum halepense*), dominate the site vegetation and competitively exclude native species. Except for several edible fig trees (*Ficus carica*) and fragments of giant reed (*Arundo donax*) the rock revetment is mostly devoid of vegetation. A vascular plant survey of the site describe the vegetation as "weedy" and "impenetrable" (Oswald and Ahart, 1996). Native species (especially woody species) are conspicuously absent, even in areas that border native riparian habitat. The lack of recruitment, after nearly a decade, under otherwise optimal conditions, suggests that non-native species prevent ecosystem processes from reestablishing native riparian forest on this site. Actively replanting riparian species will reduce the effects of this stressor and return the site to a more natural trajectory for succession. Once established, restored native vegetation should have a high probability of unaided survival.

Primary Ecological and Biological Benefits

Table 2 lists the CALFED objectives and targets that this project addresses (CALFED, 1999). Specifically, this project will achieve the following ecological and biological goals:

Ecosystem Processes

- Vegetate 8,500 linear feet of riverbank that will provide a continual supply of shaded riverine aquatic habitat for rearing and foraging habitat for all races of Chinook salmon, and reduce the adverse effects of bank stabilization on the site.
- Initiate natural forest succession within the floodplain, by controlling exotic weeds and reintroducing native species.
- Reduce fragmentation, increase vegetative cover, and increase the connectivity of the riparian corridor along the Sacramento River (**Figure 1**).
- Increase inputs and diversity of particulate organic matter into the river, which would incrementally increase the productivity of aquatic food chains.
- Improve water quality through the creation of a filter strip between adjoining agricultural fields and the river.
- Provide a forested area that is "sufficiently large (>50-100 acres) to create air convection currents, which will cool adjacent river water temperatures." (CALFED, 1999).

Habitats

- Restore 500 acres of riparian forest, creating a contiguous block of riparian forest of over 2000 acres along the Sacramento River.
- Provide ecological benefits within a short period of time. For example, measurable benefits to

neotropical migrants may be seen within three years of restoration (Geupel *et al.*, 1997).

- The increased vegetative diversity will increase bird abundance, diversity, and species richness.

Species

- Restore shaded riparian aquatic habitat, provide forest structure, and reinitiate river processes that will benefit a number of key species including: Chinook salmon, steelhead trout, native Cyprinids, Swainson's hawks, western yellow billed cuckoos, wood ducks, neotropical bird guild, and valley elderberry longhorn beetles.
- The site is recognized as important potential bank swallow nesting habitat and the planting design will account for their requirements.

Secondary Benefits

- Enhance the capacity of the Llano Seco Unit to attract various wildlife species.
- Increase the propagule flow of native species to currently unrestored conservation easement areas (which may facilitate the natural regeneration of these areas).
- Transforms public land from low to high quality habitat, which will make future acquisitions more acceptable to the local community.

Third Party Benefits

- Reduce flood damage to downstream structures by decelerating flood velocities and capturing floating debris and sediment.
- Decelerate surface and bank erosion across the channel from the recently constructed Princeton-Codora-Glenn and Provident Irrigation Districts Anadromous Fish Screen Project.
- Provide data on the feasibility of using riparian vegetation to create natural levees and provide non-structural flood control benefits.
- Offer opportunities for farmers and businesses to implement restoration.
- Decrease the spread of non-native species.
- Expands wildlife population on Llano Seco Unit and potentially increase consumptive and nonconsumptive uses of the unit.

Hypotheses

This project revolves around the primary hypothesis that active riparian forest restoration will increase shaded riverine aquatic habitat for anadromous fish, reduce habitat fragmentation, restore complex riparian habitat, decrease the dominance of non-native plant species, increase availability of nesting sites and vegetative cover for the neotropical bird guild, and enhance ecological processes. A secondary hypothesis will explore the relationship between vegetation density, composition, and patterns to erosional and depositional processes.

Project Sustainability

This project will produce long-term sustainable benefits. We anticipate that the site's good soil and proximity to water will allow restored vegetation to successfully grow and reproduce. An appropriate mix of species will provide structural and species diversity and provide for recruitment under a variety of weather and hydrological conditions. To aid long-term success, we will incorporate an adaptive management framework into the project, and will continually examine our protocol and monitoring results to incorporate improvements into the project.

Linkages

The proposed Llano Seco restoration proposal builds on existing conservation programs and is closely linked to the following projects:

Riparian Reforestation

- USFWS – Ord Bend restoration (100 acres), Llano Seco restoration (65 acres) CALFED Proposal # 97-N03 $1,292,500 (300 acres), Sul Norte (400 acres), Packer Island (120 acres)
- U.S. Army Corp of Engineers and Department of Water Resources – Murphy Slough Habitat Restoration Project (300 acres), Murray, Burns and Kienlen Site #29 (90 acres)
- Wildlife Conservation Board and California Department of Fish and Game – Riparian restoration at River Mile 166.5 (27 acres) and River Mile 169.5 (67 acres)
- Private Restoration Projects – Parrott Investment Corporation and The Nature Conservancy (40 acres), California State University, Chico and The Nature Conservancy at Phelan Island (60 acres)

Princeton-Codora-Glenn and Provident Irrigation District's (PCGID-PID) Anadromous Fish Screen Project

- The proposed project will decelerate surface and bank erosion across the channel from the recently constructed fish screens.

Hydraulic and Geomorphic Monitoring

Monitoring will build on both completed and current studies:

- Murray, Burns and Kienlen – Retention of Riparian Restoration (1978)
- Ayres Report – Breach at Road 29 (1997)
- U.S. Army Corp of Engineers – Comprehensive Study (in progress)

SB1086

- "The establishment of a wide continuous riparian and valley oak woodland should be the first option under the reforestation priority." (DWR, 1998).

System-Wide Ecosystem Benefits

- Supports SB 1086 goals for this reach of the river (DWR, 1998)
- Links riparian forests along the Sacramento River. In addition, this project in conjunction with proposed private revegetation to the east of the site will create a corridor between Angel Slough and the Sacramento River.
- Provides critical habitat and conditions for anadromous fish, the neotropical bird guild, and other organisms.
- Increases and diversifies the inputs of particulate organic matter that supply food chains of the Bay-Delta ecosystem.
- Restores the role of vegetation in flood plain processes on 500 acres.
- Demonstrates the relationship between restored vegetation and geomorphology thus improving the design and hydraulic predictability of future restoration projects.

Compatibility with Non-Ecosystem Objectives

- Provides critical data regarding the interaction of vegetation and erosional or depositional processes that will improve the compatibility of future restoration work with flood control objectives.
- Provides for local involvement in restoration projects (builds community capacity).
- Decelerates surface and bank erosion across-channel from the recently constructed PCGID-PID Anadromous Fish Screen Project.
- Improves water quality by capturing sediments from adjoining fields.

Table 2 -Strategic Objectives and Targets from the Ecosystem Restoration Program Plan (February 1999) that the Proposed Project Addresses.

Ecological Process Visions
Strategic Plan Goal (SPG) 2, Objective (Obj) 4 (p. 63): To create flow and temperature regimes in regulated rivers that favor native aquatic species. *SPG 2, Obj 8 (p. 80)*: To increase the extent of freely meandering reaches and other pre-1850 river channel forms. *SPG 2, Obj 2 (p. 100)*: To increase estuarine productivity.
Habitat Visions
SPG 4, Obj 2 (p. 151): To increase the area of riparian and riverine aquatic habitat and an integrated component of restoring large expanses of all major historical habitats in the Central Valley and its rivers. *SPG 4, Obj 2 (p. 158)*: To protect existing and restore and increase the quality of freshwater fish habitat as an integral component of restoring large expanses of all major historical habitat types in the Central Valley and its rivers. *SPG 4, Obj 2 (p. 162)*: To protect existing and restore and increase the quality of essential fish habitat as an integrated component of restoring large expanses of all major historical habitat types in the Central Valley and its rivers.
Species and Species Group Visions
Priority Group I *SPG 1, Obj 2, 3, 4, 5 (p. 220-222)* Winter-run, Spring-Run, Late Fall-Run, Fall-Run Chinook Salmon: To restore self-sustaining Chinook salmon to Central Valley streams and the Bay-Delta estuary. *SPG 1, Obj 6 (p.229)* Steelhead trout: To restore self-sustaining Central Valley steelhead to Central Valley streams and the Bay-Delta estuary.
Priority Group II *SPG 1, Obj 1 (p.241)*: Lamprey Family: To restore anadromous lampreys dependent on the Delta and Suisun Bay. *SPG 1, Obj 4 (p.252)*: Swainson's Hawk: To restore Swainson's hawk populations. *SPG, Obj (not specified) (p. 287)*: Valley Elderberry Longhorn Beetle: To increase and maintain valley elderberry longhorn beetle habitat
Priority Group III *SPG 1, Obj 10 (p. 304), Western Yellow-Billed Cuckoo:* To restore yellow-billed cuckoo throughout its historical range in the Central Valley. *SPG 1, Obj 12 (p. 307), Bank Swallow:* To increase the number of breeding colonies of bank swallow in the Central Valley. *SPG 1, Obj 8 (p. 312), Least Bell's Vireo:* To restore least Bell's vireo to representative habitats throughout its former range. *SPG 1, Obj 7 (p. 314), California Yellow Warbler:* To restore and protect habitats used by neotropical migrant birds for breeding and foraging in the Central Valley.
Priority Group IV *SPG 1, Obj 1 (p. 347), Native Resident Fishes:* To reverse the decline of native resident fishes. *SPG 1, Obj 3 (p. 352), Aquatic Foodweb Organisms:* To restore assemblages of planktonic organisms in the Delta and Suisun Bay to states of increased abundance and greater predictability in composition. *SPG 1, Obj 7 (p. 363), Neotropical Migrant Bird Guild:* To restore and protect habitats used by neotropical migrant birds for breeding and foraging in the Bay-Delta watershed. *SPG not specified (p. 366), Upland Game:* To maintain healthy populations and restore habitats that promote the expansion of populations at levels that can support both consumptive and nonconsumptive uses and provide additional opportunities for those uses.
Stressors
SPG 5, Obj 9 (p. 478): To develop focused control efforts on those introduced species where control is most feasible and of greatest benefit.

Technical Feasibility and Timing

The project complies with NEPA and CEQA requirements. The current proposal stems from the Environmental Assessment on the Proposed Management Plan for the Llano Seco Unit as prepared by the USFWS (1992). The Environmental Assessment considered other alternatives, but determined that complete restoration best met the management objective for an increase in useable habitat. Based on the dominance of non-native species and the lack of natural regeneration, active restoration and weed control is the best option for the site to meet legal and ecological objectives. The Environmental Assessment determined that the project would "improve natural habitat type habitats, which will be beneficial to the needs of man and will have no negative economic impacts," and posed no significant impacts. The project will not require any additional environmental compliance documents. The revetment restoration may require additional permits from Butte County and/or the US Army Corps of Engineers. These permits will be obtained before any work begins. Other than the revetment restoration permits, work can begin immediately.

Monitoring and Data Collection Methodology

The project will develope a monitoring program that quantifies the short-term success of the project, yet meets multiple long-term objectives. One unique feature of the project is that the physical data collected for the planting design will form a framework for answering long term questions regarding the interaction of vegetation and natural processes. Such information reduces the potential conflicts associated with future projects in areas with sensitive flood control concerns, and builds on some of the information already developed for this area (Ayres, 1997; Murray, Burns, and Kienlen, 1978).

This project revolves around the primary hypothesis that active riparian forest restoration will increase shaded riverine aquatic habitat, reduce habitat fragmentation, restore complex riparian habitat, decrease the dominance of non-native plant species, increase availability of nesting sites and vegetative cover for the neotropical bird guild, and enhance ecological processes. A secondary hypothesis will explore relationship between vegetation density, composition, and patterns to erosional and depositional processes.

Monitoring Parameters, Data Collection, and Data Evaluation

Permanent transects will be established (using global positioning systems and permanent field markers), across the site at the start of the project. Elevations will be surveyed to the nearest 0.1 foot along each transect to develop a topographic map. This map will be used to guide the different planting designs (species composition, density, and pattern), and can be incorporated into a computerized Geographical Information System.

Planting survival- At the end of each growing season, we will sample the permanent transects for individual plant survival, and produce an annual report. Data evaluation will be based upon comparisons among soil types and topographic position. Shaded riverine aquatic habitat will be monitored by measuring the linear extent of trees and shrubs along the bank of the project area.

Avian use monitoring - The Point Reyes Bird Observatory will implement season-long monitoring on the site, including point-counts along permanent transects, nest-searches, and vegetation structure around each nest. Species richness and numbers of individuals for the site will be determined each season.

Hydrologic monitoring – During flood events, flow velocities and depths will be compared to predictions generated from a US Army Corps of Engineers hydrologic model for this site.

Vegetation-hydrologic interaction – One of the project's hypotheses is that vegetation can influence site geomorphology for potential flood control applications. Experimental plantings of vegetation at varying densities, composition, and patterns will be carefully monitored to evaluate their ability to trap sediment and form natural levees, which could be designed to direct flood flows. The trees will reach sufficient size to begin influencing flows after the completion of this project, at 3 to 5 years old, but this project will provide the necessary baseline data, permanent transects, and develop the protocol to reveal any future erosion or sediment deposition differences across the site.

Table 3

Monitoring and Data Collection Information for the Llano Seco Riparian Restoration Project

Hypothesis/Question to Be Evaluated	Monitoring Parameters And Data Collection	Data Evaluation Approach	Comments/Data Priority
Implementation Success	Initiation and completion of tasks	Timeline is followed	High priority
Restore 8,500 linear feet of shaded riverine aquatic habitat	Linear Cover by vegetation along bank	Percent of project bank-length with SRA	High priority
Restore complex riparian vegetation	Survival measured as density of each species; herbs as cover of each	Comparisons by soil types and topographic position	High priority
Reduce dominance by non-native species	Cover by weed species	Changes over time	Medium priority
Increase neo-tropical bird	Point-counts and nest surveys	Numbers of species	High priority
Baseline topography	Permanent surveyed transects of elevations	Future changes in elevations reflect	High priority
Sediment deposition	Permanent surveyed transects of elevations	By geographical and topographical location; by plant density	Low priority, but baseline info is important
Woody Debris deposition	Map of areas covered by debris masses	Future comparisons	Low priority
Channel Movement	Surveyed points	Future comparisons	Low priority, but baseline info is important
Hydraulics	Direct measure of flows and depth during floods	Comparison of data with predictions from hydrologic models for this site	High Priority
Vegetation – natural processes interaction	Structure and form of sediment plumes within experimental plantings	Patterns by trees vs. shrubs; by plant density	High priority

Local Involvement

Sacramento River Partners is a local community-based nonprofit. The board of directors, officers, and staff are comprised of farmers and conservationists of the North Valley and are committed to the success of this project. Members of the local community will implement every phase of the proposed restoration work. California State University, Chico will supply the plant material (potted stock), a local irrigation company will subcontract for the well and pump work, and every effort will be made to hire neighboring farmers for custom field operations - land leveling, disking, and pulling irrigation ditches. Direct community participation and management of this project builds local capacity.

The proposed project has the potential to produce outstanding biological benefits and consequently enjoys strong support from the US Fish and Wildlife Service, Point Reyes Bird Observatory, and California State University, Chico.

The adjacent landowner, Richard Thieriot, who owns and farms 6,000 acres of Llano Seco, strongly endorses the proposal and has volunteered to coordinate his private reforestation efforts with the project. Mr. Thieriot has expressed a willingness to plant a riparian buffer across his own private property to link Angel Slough, the project, and the river together.

We have presented our proposal to both the SB 1086 Riparian Habitat Committee and the Advisory Council and they have found it consistent with the program's goals and objectives.

Members of both the Butte and Glenn County Board of Supervisors have attended field days at the proposed project site. Also in attendance on these field days were several local farmers and the general manager of Western Canal Water District. A separate meeting was held to present this proposal to the general manager and officers of the Princeton-Codora-Glenn and Provident Irrigation Districts. At the request of the farmers and irrigation districts, we revised our proposal to utilize tree species, density, and planting patterns to maximize protection to the pumping plant/fish screen facilities and minimize disruption to the site's present flood flow patterns. The landowners and irrigation districts have adopted a neutral position regarding our proposal but are committed to staying involved with the project. The proposed Llano Seco reforestation project has the potential to showcase the common ground between conservation and agricultural interests.

Potential Third Party Impacts

Disruption to adjacent agricultural operations (but the only neighboring landowner strongly endorses the proposal). Increased risk of flooding to downstream landowners (but a through hydraulic assessment will be completed before any portion of the reforestation work begins).

Public Outreach Plan

Throughout the project, Partners plan to work closely with the above organizations and individuals. To extend the outreach efforts to the larger community Partners will:

- Develop a communication plan to meet outreach goals
- Host a field day for interested parties and local community members
- Develop a video presentation of the approach, techniques, and results of this project
- Produce a CD-ROM presentation of the project
- Prepare press releases and arrange tours to increase media coverage of the benefits of restoration activities

Cost

The total amount requested for this project is $2,132,571 (**Table 4**). Quarterly Budget Totals are shown on **Table 5.**

Table 4
Budget for the Proposed Riparian Restoration Project on the Llano Seco Unit

Task	Direct Labor Hours	Direct Salary	Service Contracts	Material Costs	Miscellaneous and other Direct Costs	Overhead and Indirect Costs	Total Cost
Hydrologic Study	160	$ 4,786	$ 35,000	$ -	$ -	$ 1,196	$ 40,982
Site Assessment	287	$ 8,585	$ 2,000	$ 1,000	$ 2,500	$ 2,146	$ 16,231
Restoration Plan	435	$ 13,012	$ 7,000	$ 1,500	$ 3,500	$ 3,253	$ 28,265
Plant Propagation	160	$ 4,786	$ 5,000	$ 125,000	$ 5,000	$ 1,196	$ 140,982
Field Survey/Layout	320	$ 9,572	$ 15,000	$ 1,000	$ 4,500	$ 2,393	$ 32,465
Irrigation Installation	400	$ 11,965	$ 250,000	$ -	$ 2,400	$ 2,991	$ 267,356
Field Planting	953	$ 28,506	$ 330,000	$ 10,000	$ 63,000	$ 7,127	$ 438,633
Revetment Planting	600	$ 17,947	$ 97,000	$ 6,750	$ 15,500	$ 4,487	$ 141,684
Native Grass Planting	430	$ 12,862	$ 75,000	$ 100,000	$ 2,300	$ 3,216	$ 193,378
Maintenance	1205	$ 36,044	$ 75,000	$ 40,000	$ 43,000	$ 9,011	$ 203,055
Monitoring	900	$ 26,921	$ 244,000	$ 3,000	$ 6,000	$ 6,730	$ 286,651
Outreach	390	$ 11,666	$ 15,000	$ 2,000	$ 2,000	$ 2,916	$ 33,582
Project Management	8112	$242,646	$ 21,000	$ -	$ 6,000	$ 60,662	$ 330,308
Totals	**14352**	**$429,297**	**$1,171,000**	**$ 290,250**	**$ 155,700**	**$ 107,324**	**$ 2,153,571**

Cost-Sharing

All cost shares are federal funds provided by the US Fish and Wildlife Service, and include:

- $1,650,000 for the initial acquisition of this property (1991).
- $25,000 in direct matching funds from the Sacramento River National Wildlife Refuge.
- The Sacramento River National Wildlife Refuge will be responsible for the long-term operation and maintenance costs, once the site is established.

Applicant Qualifications

Sacramento River Partners is a non-profit organization dedicated to the protection and restoration of the natural resources of the Sacramento River. Taking a community based approach, the organization builds partnerships with farmers, landowners, other non-profit organizations, and government agencies to ensure that projects succeed with local support. Sacramento River Partners can employ a variety of methods: land acquisition, land management, ecological restoration, and education to achieve its objectives. Sacramento River Partners is building a team of experienced professionals to carry out the tasks on this and other projects on the Sacramento River. Since its incorporation in May 1998 the organization has secured $1,226,000 in federal, state and private money for conservation. This year Partners will plant native riparian species on 258 acres of flood-prone agricultural land along the Sacramento River for the Wildlife Conservation Board and the US Fish and Wildlife Service.

Table 5
Quarterly Budget for the Proposed Riparian Restoration Project on the Llano Seco Unit

Task	Oct-Dec-00	Jan-Mar-00	Apr-Jun-00	Jul-Sep-00	Oct-Dec-00	Jan-Mar-01	Apr-Jun-01	Jul-Sep-01	Oct-Dec-01	Jan-Mar-02	Apr-Jun-02	Jul-Sep-02	Totals
Hydrologic Study	$ 40,982												$ 40,982
Site Assessment	$ 16,231												$ 16,231
Restoration Plan	$ 28,265												$ 28,265
Plant Proprogation	$ 70,491	$ 70,491											$ 140,982
Field Survey/Layout		$ 32,465											$ 32,465
Irrigation Installation			$267,356										$ 267,356
Field Planting			$438,633										$ 438,633
Revement Planting			$141,684										$ 141,684
Native Grass Planting					$193,378								$ 193,378
Maintenance			$ 33,843	$ 33,842	$ 33,842	$ 15,229	$ 15,229	$ 15,230	$ 15,229	$ 13,537	$ 13,537	$ 13,537	$ 203,055
Monitoring			$ 28,665	$ 28,665	$ 28,665	$ 28,665	$ 28,665	$ 28,665	$ 28,665	$ 28,665	$ 28,665	$ 28,266	$ 286,251
Outreach	$ 2,798	$ 2,799	$ 2,798	$ 2,799	$ 2,798	$ 2,799	$ 2,798	$ 2,799	$ 2,798	$ 2,799	$ 2,798	$ 2,799	$ 33,582
Project Management	$ 27,533	$ 27,525	$ 27,525	$ 27,525	$ 27,525	$ 27,525	$ 27,525	$ 27,525	$ 27,525	$ 27,525	$ 27,525	$ 27,525	$ 330,308
Totals	**$186,300**	**$133,280**	**$940,504**	**$ 92,831**	**$286,208**	**$ 74,218**	**$ 74,217**	**$ 74,219**	**$ 74,217**	**$ 72,526**	**$ 72,525**	**$ 72,127**	**$2,153,172**

Brief Biosketches of Staff

John Carlon will serve as the Project Director for the proposed project. Mr. Carlon has been involved with riparian restoration on the Sacramento River for the last six years. Five years as the Program Manager for The Nature Conservancy's Sacramento River Project, and this last year as the project director for Sacramento River Partners.

Barnard Flynn will serve as the Restoration Director. Mr. Flynn is the General Manger of Shasta View Farms in Gerber, California and has successfully implemented 282 acres of riparian restoration over the last five years along the Sacramento River. He has developed several innovative restoration practices including a software program that facilitates field planting and monitoring of species survival.

Daniel Efseaff will serve as the Restoration Manager/Ecologist for the proposed project. Mr. Efseaff has broad experience working for natural resource agencies, consulting firms, and research institutions. Most recently, Mr. Efseaff conducted quantitative site assessments and made restoration recommendations for The Nature Conservancy on five restoration sites encompassing approximately 720 acres along the Sacramento River.

References

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Department of Water Resources (DWR). 1998. Sacramento River Conservation Area Handbook. Draft. Sacramento River Advisory Council under the SB 1086 program. Sacramento, California.

Geupel, G.R., G. Ballard, N. Nur, and A. King. 1997. Population status and habitat associations along riparian corridor of the Lower Sacramento River: Results from 1995 field season and summary of results 1993 to 1995. Point Reyes Bird Observatory. Stinson Beach, California.

Murray, Burns, and Kienlen. 1978. Retention of Riparian Vegetation, Sacramento River, Tisdale Weir to Hamilton City. The Reclamation Board. Sacramento, California.

Oswald, V.H., and L. Ahart. 1996. Vascular Plants of the Llano Seco Unit, Sacramento river National Wildlife Refuge. US Fish and Wildlife Service. Willows, California.

US Fish and Wildlife Service. 1992. Environmental Assessment, Habitat Management Plan, Sacramento River National Wildlife Refuge, Llano Seco Unit. Willows, California.

SACRAMENTO RIVER ADVISORY COUNCIL
c/o CALIFORNIA DEPARTMENT OF WATER RESOURCES
2440 MAIN STREET
RED BLUFF, CALIFORNIA 96080

Denny Bungarz, Chair • (530) 934-7342 • dbungarz@glenncounty.net
Burt Bundy, Sacramento River Conservation Area Coordinator • (530) 528-7411 • burtbundy@snowcrest.net

April 15, 1999

Mr. Lester Snow, Executive Director
CALFED Bay Delta Program
1416 Ninth Street
Sacramento, CA 95814

Ref: Active Reforestation on the Sacramento River

Proponent: Sacramento River Partners

Dear Mr. Snow

Based on the information provided by the project proponent of this project and with the understanding of continued studies and hydrologic and hydraulic review we find that this project is consistent with and furthers the objectives of the Sacramento River Conservation Area (SB1086) as outlined in the SRCA Handbook. An essential part of this effort continues to be close coordination with affected public and private landowners, government agencies, and other groups and individuals. The essence of the Sacramento River Conservation Area (SB1086) process is communication and coordination from a wide variety of interests along the river.

This proposal has been presented to both the Advisory Council and its' Riparian Habitat Committee, and the Council has authorized me to forward its' actions on this proposal.

Thank you for your consideration.

Very truly yours,

Denny Bungarz, Chair
Sacramento River Conservation Area Advisory Council

cc: Sacramento River Partners

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento National Wildlife Refuge Complex
752 County Road 99W, Willows, California 95988

IN REPLY REFER TO:

April 13, 1999

Mr. Lester Snow
Executive Director
CALFED Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

Dear Mr. Snow:

The purpose of this letter is to inform you of my strong support for the proposal submitted by Sacramento River Partners to the CALFED Bay-Delta Program. The proposal requests funding to restore 8,500 linear feet of shaded riverine aquatic (SRA) and 500 acres of riparian habitat on the Llano Seco Unit of the Sacramento River National Wildlife Refuge.

Congress authorized the Sacramento River National Wildlife Refuge in 1989. The project area encompasses over 100 river miles between the cities of Red Bluff and Colusa with a target of 18,000 fee title acres. The purposes for which the Refuge was established are: 1) To protect and provide habitat for threatened and endangered species; 2) To protect and provide habitat for migratory birds; 3) To restore riparian vegetation and habitat; 4) To provide opportunities for management oriented research and monitoring; and 5) To provide the public with opportunities for conservation oriented activities. To date the U.S. Fish and Wildlife has acquired 9,000 acres of land for the Refuge.

The Refuge supports Sacramento River Partners' proposal for several reasons important to accomplishing our conservation and stewardship objectives. Active reforestation of the Llano Seco site will provide critically needed habitat for threatened and endangered species as well as neo-tropical migratory birds. Converting 500 acres of flood-prone agricultural land back into riparian forest will fill a biological void between two large blocks of existing habitat. Restoring the 8,500 linear feet of SRA (including 2,600 feet of armored bank) will complete this project and establish a riparian corridor stretching 10 river miles and encompassing 12,300 acres of conservation ownership.

The U.S. Fish and Wildlife Service welcomes the opportunity to work with Sacramento River Partners, landowners and irrigation districts on this reforestation project. Sacramento River Partners is ideally suited for this task and provides an important link to both environmental groups and the agricultural community. The physical potential of the site combined with a public-private-nonprofit team of collaborators offer all of the components of a model conservation project.

I urge you to support this proposal.

Sincerely,

Gary W. Kramer
Refuge Manager

PARROTT INVESTMENT COMPANY

Richard T. Thieriot
Chairman

Mr. Lester Snow
Executive Director
CALFED Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

April 14, 1999

Dear Mr. Snow,

I am writing to express my support for the proposal submitted by Sacramento River Partners to the CALFED Bay-Delta Program. The proposal requests funding to restore 8,500 linear feet of shaded riverine aquatic (SRA) and 500 acres of riparian habitat on the Llano Seco Unit of the Sacramento River National Wildlife Refuge.

My family has owned the Llano Seco Ranch since 1861. We farmed it until 1991 when we sold portions of the ranch to the U.S. Fish and Wildlife Service. At the time of the sale, our intent was to see this flood-prone farmland returned back to its natural state of riparian forest. I understand that Sacramento River Partner's proposal will reforest this parcel, in its entirety, within a three-year time frame.

As landowners and farmers, we welcome the opportunity to work cooperatively with both Sacramento River Partners and the U.S. Fish and Wildlife Service in this riparian reforestation project. Currently, we are reforesting some of our own flood-prone land on adjacent fields, and are very interested in directing our own reforestation efforts to link up with the proposed project. This would extend the forrested riparian corridor well inland from the river to existing habitat in the middle of the ranch.

44 Montgomery Street, Suite 2030
San Francisco, CA 94104

Tel. 415-777-7222
Fax 415-788-0669

We believe that the proposed project makes sense from a biological, agricultural, economic and flood-damaged reduction perspective.

I urge you to support this proposal.

Sincerely,

Richard Thieriot

California State University, Chico
Chico, California 95929-0515
Biological Sciences
530-898-5356

12 April 1999

To Whom It May Concern:

This letter is in support of the Sacramento River Partners' CALFED proposal to restore 500 acres of riparian communities at the Llano Seco Unit of the Sacramento River NWR. In my ten years of experience studying and restoring Central Valley riparian systems, this proposal will be the first to implement a balanced planting design that designates planting location based upon geomorphic position and attempts to define hydraulic-vegetation interactions.

In 1997, the Army COE funded the development of a hydraulic model for this reach (Ayers Report for RM 174 to RM 194). Under this CALFED proposal the Murray, Burn, Kienlen Corporation will develop a site-specific model that will predict river flows under current (pre-project) topographic and vegetation cover conditions. Subsequent restoration activities will include experimental plantings of different species planted in various configurations. The careful monitoring of survival, growth, and sediment deposition/erosion in the various locations on the floodplain, combined with results from the various planting-patterns, should advance our knowledge of hydraulic-vegetation interactions. These results will be important as starting points for future more refined experimental plantings that will test the use of riparian vegetation to stabilize banks and to accumulate sediments that create low levees or otherwise direct flood-flows in a planned manner. Such results will have system-wide applicability.

Currently this 500 acres is covered by several kinds of non-native plants that appear to be holding their own despite several floods over the past few years. This shows that riparian forest regeneration will be a very long, slow process, possibly requiring many decades to get a foothold. Actively planting this site will be necessary to restore the wildlife habitats that are so sorely needed here. I am confident that Sacramento River Partners will implement this project with the high standards that will be necessary for success.

Sincerely,

F. Thomas Griggs, Ph.D.
Adjunct Professor

Sacramento River Partners

261 East 3rd Street
Chico, CA 95928
Phone (530) 894-3474 Fax (530) 894-1079

April 16, 1999

Tom Parilo
Director
Department of Development Services
7 County Center Drive
Oroville, CA 95965-3334

Re: Sacramento River Partner's CALFED Proposal

Dear Mr. Parilo:

The purpose of this letter is to inform you that Sacramento River Partners is submitting a proposal to CALFED for funding to restore 500 acres of riparian habitat along the Sacramento River. The proposed project site is located on the Llano Seco Ranch and approximately 425 acres of the project is in Butte County.

I have presented the proposed project in detail to Butte County Supervisors Jane Dolan and Curt Josiassen during an on site visit. I have also presented our proposal to both the May SB1086 Riparian Habitat Committee Meeting and the April SB1086 Advisory Council Meeting.

If you have any questions or concerns regarding our proposal please contact me at (530) 894-3474.

Sincerely,

John Carlon
President
Sacramento River Partners

Sacramento River Partners
261 East 3rd Street
Chico, CA 95928
Phone (530) 894-3474 Fax (530) 894-1079

April 16, 1999

John Benoit
Director
Glenn County Resource, Planning and Development
125 S Murdock Avenue
Willows, CA 95988

Re: Sacramento River Partner's CALFED Proposal

Dear Mr. Benoit:

The purpose of this letter is to inform you that Sacramento River Partners is submitting a proposal to CALFED for funding to restore 500 acres of riparian habitat along the Sacramento River. The proposed project site is located on the Llano Seco Ranch and approximately 75 acres of the project is in Glenn County.

I have presented the proposed project in detail to Glenn County Supervisor Keith Hansen during an on-site visit. I have also presented our proposal to both the May SB1086 Riparian Habitat Committee Meeting and the April SB1086 Advisory Council Meeting. As you were in attendance at the Riparian Habitat Committee Meeting and received a copy of our proposal's executive summary I won't continue with further detail. If you have any questions or concerns regarding our proposal please contact me at (530) 894-3474.

Sincerely,

John Carlon
President
Sacramento River Partners

OMB Approval No. 0348-0044

BUDGET INFORMATION - Non-Construction Programs

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. CALFED		$	$	$ 2,153,571	$	$
2.						
3.						
4.						
5. Totals		$	$	$ 2,153,571	$	$

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY (1)	(2)	(3)	(4)	Total (5)
a. Personnel	$	$	$ 317,997	$	$
b. Fringe Benefits			111,299		
c. Travel			30,446		
d. Equipment			50,000		
e. Supplies			290,250		
f. Contractual			1,171,000		
g. Construction			0		
h. Other			75,255		
i. Total Direct Charges (sum of 6a-6h)			2,046,247		
j. Indirect Charges			107,324		
k. TOTALS (sum of 6i and 6j)	$	$	$ 2,153,571	$	$
7. Program Income	$	$	$ 0	$	$

APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

2. DATE SUBMITTED	Applicant Identifier
4/16/99	

1. TYPE OF SUBMISSION:		3. DATE RECEIVED BY STATE	State Application Identifier
Application: ☐ Construction ☒ Non-Construction	Preapplication: ☐ Construction ☒ Non-Construction	4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier

5. APPLICANT INFORMATION

Legal Name:	Organizational Unit:
Sacramento River Partners	

Address *(give city, county, State, and zip code)*:	Name and telephone number of person to be contacted on matters involving this application *(give area code)*
261 E. 3rd St. Chico, CA 95928	John Carlon (530) 894-3474

6. EMPLOYER IDENTIFICATION NUMBER *(EIN)*: 94-3302335

7. TYPE OF APPLICANT: *(enter appropriate letter in box)* N

A. State — H. Independent School Dist.
B. County — I. State Controlled Institution of Higher Learning
C. Municipal — J. Private University
D. Township — K. Indian Tribe
E. Interstate — L. Individual
F. Intermunicipal — M. Profit Organization
G. Special District — N. Other (Specify) Non-profit 501(c)(3)

8. TYPE OF APPLICATION:

☒ New ☐ Continuation ☐ Revision

If Revision, enter appropriate letter(s) in box(es) ☐ ☐

A. Increase Award B. Decrease Award C. Increase Duration
D. Decrease Duration Other *(specify)*:

9. NAME OF FEDERAL AGENCY:

CALFED

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: ☐☐.☐☐☐

TITLE:

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:

Habitat restoration and natural processes: Integrating riparian restoration with flood plain management

12. AREAS AFFECTED BY PROJECT *(Cities, Counties, States, etc.)*:

Butte and Glenn Counties, California

13. PROPOSED PROJECT

Start Date	Ending Date
9/99	10/02

14. CONGRESSIONAL DISTRICTS OF:

a. Applicant: 2nd District

b. Project:

15. ESTIMATED FUNDING:

a. Federal	$ 2,153,571 .00
b. Applicant	$ .00
c. State	$ .00
d. Local	$ .00
e. Other	$ .00
f. Program Income	$ .00
g. TOTAL	$ 2,153,571 .00

16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?

a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:

DATE _____

b. No. ☐ PROGRAM IS NOT COVERED BY E. O. 12372
☐ OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?

☐ Yes If "Yes," attach an explanation. ☒ No

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.

a. Type Name of Authorized Representative	b. Title	c. Telephone Number
John Carlon	President	(530) 894-3474

d. Signature of Authorized Representative	e. Date Signed
	4/16/99

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I -015390

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SECTION C - NON-FEDERAL RESOURCES

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8.	$	$	$	$
9.				
10.				
11.				
12. TOTAL (sum of lines 8 - 11)	$	$	$	$

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	$1,100,071	$ 231,000	$ 369,071	$ 285,000	$ 215,000
14. NonFederal					
15. TOTAL (sum of lines 13 and 14)	1,100,071	231,000	369,071	285,000	215,000

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (Years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16. CALFED	$ 538,400	$ 515,000	$	$
17.				
18.				
19.				
20. TOTAL (sum of lines 16-19)	$ 538,400	$ 515,000	$	$

SECTION F - OTHER BUDGET INFORMATION

21. Direct Charges: $2,046,247

22. Indirect Charges: $107,324 (25% of salary)

23. Remarks:

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.

10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.

11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).

14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.

15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.

16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.

17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
	President
APPLICANT ORGANIZATION	DATE SUBMITTED
Sacramento River Partners	April 16, 1999

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STATE OF CALIFORNIA

NONDISCRIMINATION COMPLIANCE STATEMENT

STD. 19 (REV. 3-95) FMC

COMPANY NAME
Sacramento River Partners

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

OFFICIAL'S NAME
John Carlon

DATE EXECUTED	EXECUTED IN THE COUNTY OF
April 15, 1999	Butte

PROSPECTIVE CONTRACTOR'S SIGNATURE

PROSPECTIVE CONTRACTOR'S TITLE
President

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME
Sacramento River Partners

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