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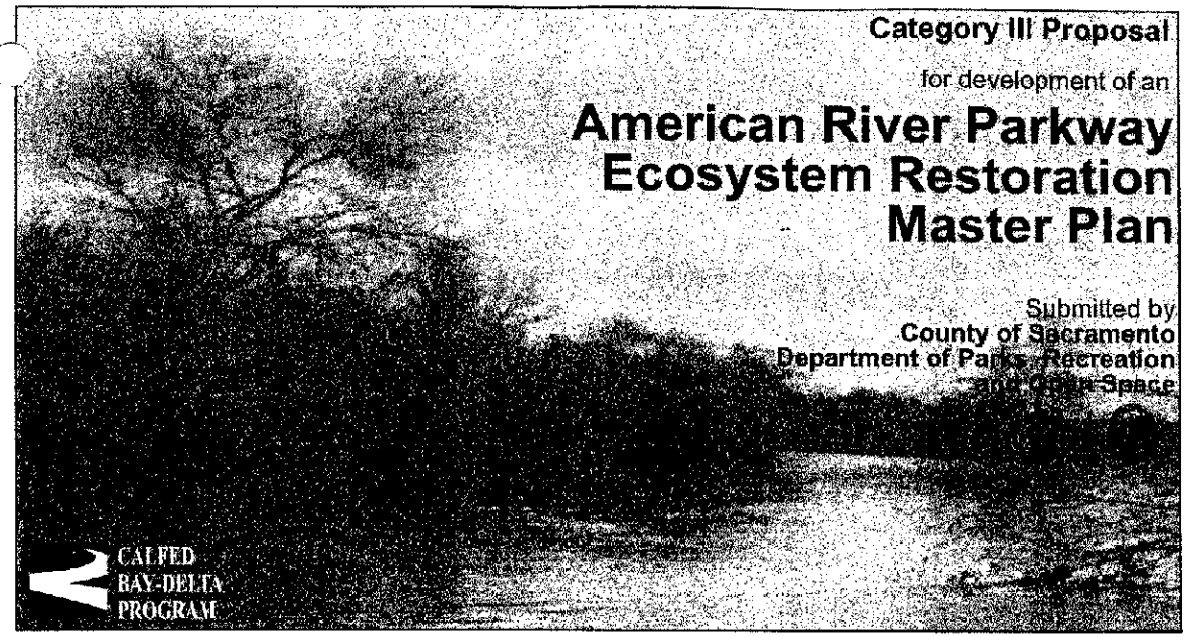


I. EXECUTIVE SUMMARY

a. Project Title and Applicant Name:

American River Parkway Ecosystem Restoration Master Plan
Sacramento County Department of Regional Parks, Recreation & Open Space
Gene Andal, Director

b. Project Description and Primary Biological/Ecological Objectives

The American River Parkway (Parkway) is host to 4 million users a year. It is one of Sacramento's most used recreational sites and it has started to show the effects of the continued use. Within the Parkway, the primary stressors on fish, wildlife, and riparian resources include loss of shallow water habitats, degradation of instream habitat conditions, loss of lotic conditions, and increases in contaminant and nutrient levels from point and non-point source discharges, undesirable species intrusion, and occurrence of wildfire. The Master Plan will provide a long-term comprehensive adaptive management plan to improve the ecological health of the Lower American River Watershed and contribute to the ecological and water quality improvement of the Bay-Delta Region.

Efforts of habitat restoration, water quality management, fire management and floodway management which are proposed to be conducted along the Parkway will benefit terrestrial and aquatic wildlife communities which rely on the Parkway for their survival, and contribute to overall quality of aquatic systems within downstream reaches of the Sacramento River and Delta Region.

The Parkway supports habitats considered by CALFED as priority habitats in need of restoration. These include seasonal wetland and aquatic habitats, instream aquatic habitat and shaded riverine aquatic habitat. Restoration of these aquatic habitats and surrounding terrestrial habitats to their natural state will ultimately benefit various priority species (identified by CALFED), including the fall-run chinook salmon (*Oncorhynchus tshawytscha*), steelhead trout (*Oncorhynchus mykiss*), splittail (*Pogonichthys macrolepidotus*); secondary priority species such as the striped bass (*Morone saxatilis*); and many species of migratory birds. In addition to priority species identified by CALFED, several other plants and wildlife species with federal and state special-status would benefit greatly from the ecosystem restoration of the Parkway.

c. Approaches/Tasks/Schedule

The American River Parkway Ecosystem Restoration Master Plan (Master Plan) will be based on the result of collection and assimilation of existing data and additional field surveys, all of which are to be integrated into a single Geographic Information System (GIS) database and a comprehensive Master Plan document. The Master Plan includes in-depth evaluations and planning of four major components: (1) habitat restoration; (2) water quality management; (3) fire management; and (4) floodway management. The habitat restoration, water quality management, and fire abatement goals can be achieved through:

- Erosion control, bank stabilization, riparian and oak woodland restoration;
- Exotic plant species removal;
- Identifying all point-source contributions through NPDES and stormwater discharge records and field inspection along the river banks, and through examining the extent of impacts on water quality by taking water samples and analyzing the key water quality parameters (biochemical oxygen demand, suspended solids, ammonia and phosphorus, and temperature)

immediately downstream of those point-source discharges. For those discharges affecting the water quality, the cause will be investigated and sources identified.

- Investigating the feasibility of establishing Best Management Practices (BMPs), including stormwater wetlands and grassed swales, etc., along the Parkway area to collect and treat the stormwater from non-point sources.
- Maintaining clear zones and fire breaks, and evaluating the feasibility of applying the concept of compartmentalizing the area through vegetation control to prevent the spread of fire hazards.
- Public awareness, education and volunteer programs.

The Master Plan will be carried out in the following incremental tasks with specific deliverables, including: production of GIS Parkway Base Map (3 months); compilation and assimilation of existing data on all components (concurrently with Task #1, 3 months); field survey/inventory/mapping of habitat restoration, water quality management, and fire management (3 months); Identification/design/prioritization of the Habitat Restoration Plan, Water Quality Management Plan, and Fire Management Plan (6 months); incorporation of SAFCA Flood Management Plan (one month); development of monitoring plans for each component (one month); production of final GIS Ecosystem Restoration Master Plan Map (2 months); and production of final Ecosystem Restoration Master Plan Document (2 months).

d. Justification for Project and Funding by CALFED

The proposed Master Plan contains the following three functional components that are responsive to the CALFED BAY-DELTA PROGRAM, 1997 Category III Ecosystem Restoration Projects and Programs: (1) aquatic and terrestrial habitat restoration; (2) water quality management; and (3) monitoring, assessment and reporting.

e. Budget Costs and Third Party Impacts

The budget for the proposed project is $179,350. There are no negative third party impact.

f. Applicant Qualifications

The County Department of Regional Parks, Recreation and Open Space is a public agency. The County is responsible for the management of the 23 miles of Parkway along the American River Parkway.

g. Monitoring and Data Evaluation

Appropriate monitoring techniques will be incorporated and implemented upon completion of the Master Plan and the implementation of subsequent priority projects.

h. Local Support/Coordination with other Programs/Compatibility's with CALFED Objectives

The proposed Master Plan has the support of the American River Parkway Foundation and other local community groups along the Parkway boundaries. The proposed Master Plan contains the following three functional components that are responsive to and meeting the goals of the CALFED BAY-DELTA PROGRAM, 1997 Category III Ecosystem Restoration Projects and Programs:

- Aquatic and terrestrial habitat restoration
- Water quality management
- Monitoring, assessment and reporting

II. TITLE PAGE

a. Title of Project:

American River Parkway Ecosystem Restoration Master Plan.

b. Name of applicant/principal investigator(s); address; phone/fax/e-mail; organizational, institutional or corporate affiliations of applicant/principal investigator:

Department of Regional Parks, Recreation and Open Space
County of Sacramento
Gene Andal, Director
3711 Branch Center Road
Sacramento, California 95827
(916) 875-6170
(916) 875-6050 (fax)

c. Type of Organization and Tax Status:

Local Government: County

d. Tax Identification Number and/or Contractor license:

Tax I.D. #94-6000-529

e. Technical and Financial Contact Person(s), address, phone/fax/E-Mail:

Same as Above.

f. Participants/Collaborators of Implementation

The County proposes to carry out this project in cooperation with the American River Parkway Foundation, SAFCA, the LAR Task Force, and the California Department of Forestry and Fire Protection.

g. RFP Project Group Type(s):

Group 3: Other Services

III. PROJECT DESCRIPTION

a. Project Description and Approach

The Parkway is one of Sacramento's most used recreational sites. Over the years it has had ever increasing and intensive use and has started to show the effects of this continued use. The primary stressors on fish, wildlife, and riparian resources include loss of shallow water habitat, degradation of instream habitat conditions, loss of lotic conditions, and increases in contaminant and nutrient levels from point and non-point source discharges, undesirable species intrusion, and occurrence of wildfire. The Master Plan will provide a long-term comprehensive adaptive management plan to improve the ecological health of the Lower American River Watershed and contribute to the ecological and water quality improvement of the Bay-Delta Region.

The proposed Master Plan contains the following three functional components that are responsive to the CALFED BAY-DELTA PROGRAM, 1997 Category III Ecosystem Restoration Projects and Programs:

- Aquatic and terrestrial habitat restoration
- Water quality management
- Monitoring, assessment and reporting

The Master Plan will be based on the result of collection and assimilation of existing data and additional field survey, all of which are to be integrated into a single Geographic Information System (GIS) database, from which a comprehensive ecosystem restoration plan will be developed. The Master Plan includes in-depth evaluations and planning of four major components:

- Habitat restoration
- Water quality management
- Fire management
- Floodway management

1. Habitat Restoration

The priority habitats associated with the Parkway include:

- Seasonal wetland and aquatic habitat
- Instream aquatic habitat
- Shaded riverine aquatic habitat

In addition to utilizing the existing data, field surveys will be conducted to identify all habitat areas and other biological resources, which are to be integrated into a single Geographic Information System (GIS) database. AutoCAD and Softdesk (DCA) software allow the GIS biotic/wetland database to be supplemented by digital U.S. Geologic Survey information and satellite imagery. With the above technique, an ecosystem restoration and enhancement plan, including, seasonal wetlands, perennial marshes, riparian zones, and woodlands can be created.

Specifically, the habitat restoration can be achieved through:

- Erosion control, bank stabilization, riparian and oak woodland restoration;
- Exotic plant species management; and
- Public awareness, education and volunteer programs.

2. Water Quality Management

Water quality can be affected by increases in chemical contaminants, nutrients, particulates, and changes in water temperature, mostly through urban runoff, other point or non-point pollution sources, and erosion along the bank. Data from Regional Water Quality Control Board shows that there are 3 (NPDES) and 27 stormwater point-source discharges along the Parkway. In addition, there are numerous non-point sources that may contribute pollutants to the river.

Thus, the approaches to improve the water quality are to:

- Identify all point-source contributions through NPDES and stormwater discharge records and field inspection along the river banks, and through examining the extent of impacts on water quality by taking water samples and analyzing the key water quality parameters (biochemical oxygen demand, suspended solids, ammonia and phosphorus, and temperature) immediately downstream of those point-source discharges. For those discharges affecting the water quality, the cause will be investigated and sources identified.

- Investigate the feasibility of establishing Best Management Practices (BMPs), including stormwater wetlands and grassed swales, etc., along the Parkway area to collect and treat the stormwater from non-point sources.

- Identify the areas of excessive erosion along the banks and take proper remedial actions.

Applying the GIS technique, the point and potential non-point source discharge areas and the proposed BMPs for water quality control will be mapped and used in overall remedial planning and monitoring.

3. Fire Management

To prevent brush fire that may occur, periodic clearing of dry brush along the Parkway will be conducted to maintain clear zones and fire breaks. Evaluation will be made on the feasibility of applying the concept of compartmentalizing the area through vegetation control to prevent the spread of fire hazards. In addition, educational and volunteer programs will be developed to address the importance of maintaining the natural environment of the Parkway. Several programs designed to teach, inform and recruit people to help with the fire management will be established in collaboration with local school districts and local community based groups. The fire prevention program used in national and state forests will be adopted to help eliminate fire hazards.

Having knowledge of the locations, types and magnitudes of assets at risk to fire is critical to fire protection planning. An initial assessment of fuel loading, fuel arrangement, land use patterns, and fire history along the Parkway will be conducted. The information will be input into a Geographic Information System (GIS) database. This database will be used to assess the high risk areas and develop fire prevention, vegetation management, land-use planning and forest health programs.

It is the intention of the County to work in conjunction with the California Department of Forestry and Fire Protection in developing and implementing the Fire Management Plan.

4. Floodway Management Plan

The Sacramento Area Flood Control Agency (SAFCA) is submitting a separate grant proposal for a Floodway Management Plan (FMP) for the Lower American River (LAR). The purpose of the FMP is to provide a framework for the management, protection and restoration of natural resources located within the LAR floodway. The goals of the FMP will be to:

1. Describe and clarify the roles of all the jurisdictional authorities involvement in floodway management along the LAR.

2. Provide a planning mechanism to be used by SAFCA and the LAR Task Force to coordinate flood control and environmental management activities with local, state and federal agencies.

3. Provide guidelines and criteria for the current and future use, operation, and maintenance of the floodway and levee system of the LAR.

4. Develop additional information about the status and management needs of natural resources along the LAR, to protect, conserve and restore these resources, consistent with maintaining the capacity and integrity of the flood control system.

5. Establish a process for monitoring and evaluating the success of the FMP.

It is the intention of this submittal that the information gathered for the FMP of the LAR be incorporated into the proposed Master Plan.

b. Location and/or Geographic Boundaries of the Project

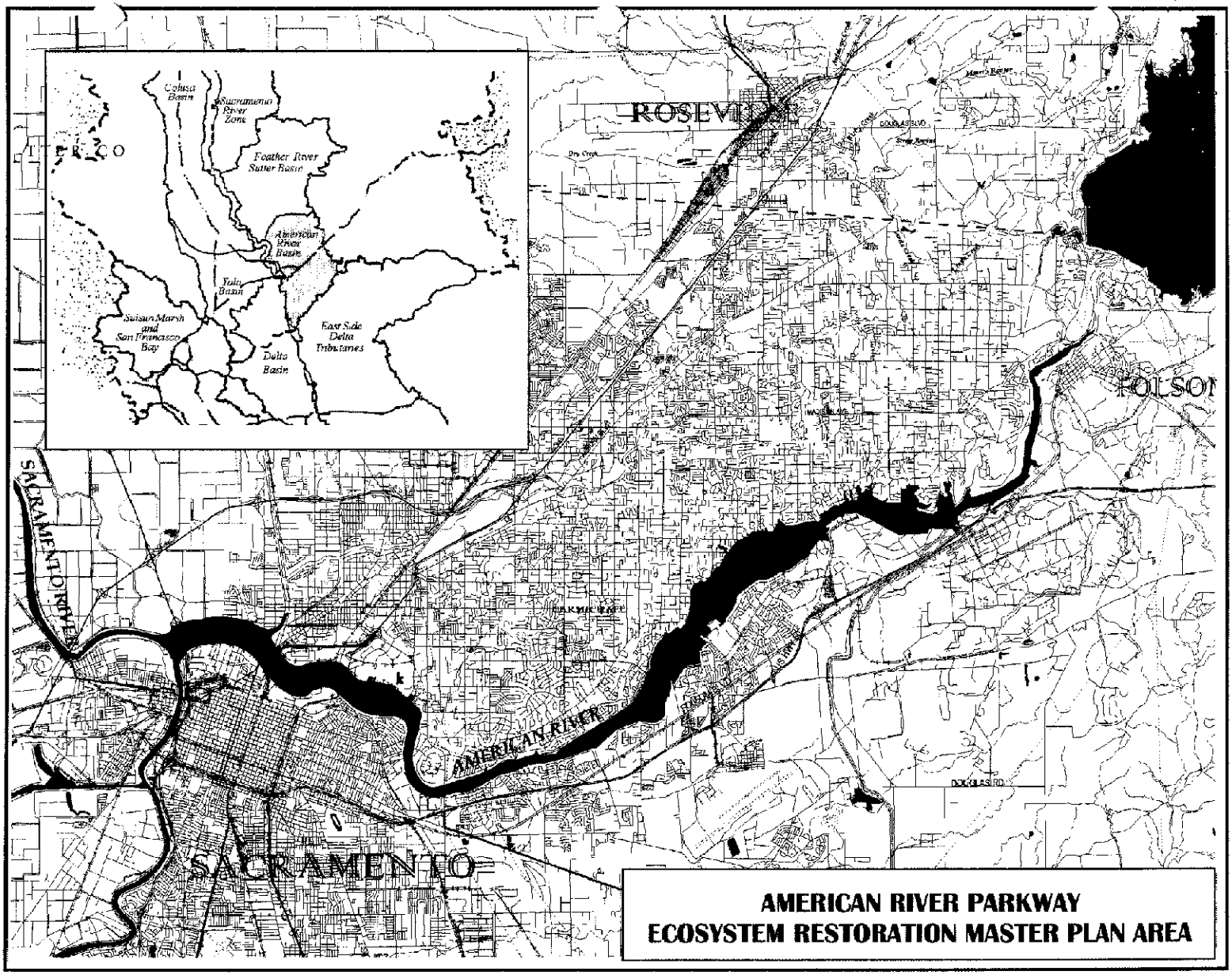
The American River Parkway is located in Sacramento County and within the American River Basin. It is an open space greenbelt which extends approximately 23 miles from Nimbus Dam at the northeast to the American River's confluence with the Sacramento River at the southwest, which is illustrated in the attached map. The Lower American River, which has a watershed of 598 square miles, is classified as a "Recreation" river within the State and Federal Wild and Scenic River Systems. The river is the center focus of the Parkway which provides valuable wildlife habitat and affords enjoyment to residents and visitors of the Sacramento region.

c. Expected Benefits

The primary stressors on fish, wildlife, and riparian resources, which are the focus of the project, include loss of shallow water habitat, degradation of instream habitat conditions, loss of lotic conditions, and increased in contaminant and nutrient levels from point as well as non-point source discharges into the river, undesirable species interactions, and the occurrence of uncontrolled wildfire.

Efforts of habitat restoration, water quality management, and fire management that are to be conducted along the Parkway will benefit several native species of plants and animals which rely on the Parkway for their survival, and both terrestrial and aquatic wildlife communities, and contribute to overall quality of aquatic systems within downstream reaches of the Sacramento River and Delta Region.

The Parkway supports habitats considered by CALFED as priority habitats in need of restoration. These include seasonal wetland and aquatic habitats, instream aquatic habitat and shaded riverine aquatic habitat. Restoration of these aquatic habitats and surrounding terrestrial habitats to their natural state will ultimately benefit the various priority species (identified by CALFED) including the fall-run chinook salmon (*Oncorhynchus tshawytscha*), steelhead trout



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(*Oncorhynchus mykiss*), splittail (*Pogonichthys macrolepidotus*); secondary priority species such as the striped bass (*Morone saxatilis*); and many species of migratory birds. In addition to priority species identified by CALFED, several other plants and wildlife species with federal and state special-status would benefit greatly from restoration of the Parkway. Table 1 lists various special-status plants and wildlife species known or expected to occur within the Parkway, that would be benefited by implementing the proposed Ecosystem Restoration American River Master Plan.

d. Background and Biological/Technical Justification

The Parkway is one of Sacramento most used recreational features, offering hundreds of thousands of people a way to enjoy nature on an up close and local basis. The Parkway over the years has had an ever increasing and intensive use, and it has started to show the effects of this continued use. Degraded stream banks due to trampling of the vegetation, unauthorized vehicle use in numerous locations, and degradation to riparian/oak woodland areas, all lead to excessive soil erosion. The invasion of exotic species throughout the Parkway continues to be a problem pushing out native species unable to compete with the exotics.

1. Habitat Restoration

Habitat restoration is to be accomplished through erosion control, bank stabilization, riparian and oak woodland restoration; exotic plant species removal; and public awareness and education/volunteer programs.

Erosion control will help to keep sediments, the primary detriment to spawning habitat, out of the river thus preserving the integrity of the riverine system. By restoring riparian woodlands along the rivers edges and interior buffer zones, erosion will be curbed and bank stabilization will be increased thus helping to control sediment loads during high flows in the winter. It would also help to buffer the river from the external influences that presently affect it. The reduction of erosion and bank degradation will help to preserve spawning habitat for various anadromous fish species (e.g., chinook salmon, and steelhead trout). Increased riparian woodland habitat would offer better thermal protection and added cover along the banks of the river benefiting the juvenile anadromous fish species and adding protection to spawning habitat as well. Nesting and feeding habitat for both resident and migratory birds would be increased due to the increase of the riparian buffer areas. Overall habitat value to native species and the aesthetic value of the Parkway would increase with time as the habitat matured and increased.

Programs designed to help combat and remove introduced species would allow the Parkway to return to a native state. The removal of exotic plant species (e.g., yellow start thistle [*Centaurea solstitialis*], tree of heaven [*Ailanthus altissima*]) and the establishment of native plant species would foster the establishment of native flora and fauna. Native plants established would allow for natural recruitment by riparian and oak woodland species all ready present in the Parkway.

Public awareness programs and educational pamphlets describing the importance of the restoration efforts and providing participation programs are vital to the overall improvement of the Parkway. Public interest, awareness and a sense of ownership are fundamental components to a restoration project of this size. Several programs designed to teach, inform and recruit people into helping with the restoration efforts could be established on a voluntary basis. Voluntary programs established at local school districts and local community based groups can help to educate and increase awareness of the importance of the Parkway. In areas which lend themselves to replanting programs, appropriate species would be planted and maintained by these community groups with little or no cost associated with the programs.

Table 1 -- Special-Status Species Possibly Found in the American River Parkway

Common Name	Scientific Name	Federal Status	State Status	CNPS	Habitat Description
Plants					
Dwarf downingia	*Downingia pusilla*	-	-	2	vernal pool/wetlands
Stinkbells	*Fritillaria agrestis*	-	-	4	cismontane woodland, valley/foothill grassland (clay/serpentine)
Sanford's arrowhead	*Sagittaria sanfordii*	FSC	-	1B	marsh, creeks, ditches
Invertebrates					
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	FT	-		elderberry shrubs
Fish					
Sacramento splittail	*Pogonichthys macrolepidotus*	FPT	CSC		backwater sloughs
Chinook salmon (winter run)	*Oncorhynchus tshawytscha*	FE	CE		streams, rivers
Central Valley steelhead	*Onchorynchus mykiss*	FPE	-		undammed rivers, streams, creeks
Reptiles					
Northwestern pond turtle	*Clemmys marmorata marmorata*	FSC	CSC		creeks, ponds
California horned lizard	*Phrynosoma coronatum frontale*	FSC	CSC		open, sandy areas, varied habitats
Birds					
Double-crested cormorant	*Phalacrocorax auritus*	-	CSC		open water, riparian
Barrow's goldeneye	*Bucephala islandica*	-	CSC		streams, creeks
Osprey	*Pandion haliaetus*	-	CSC		open water w/woodland
White-tailed kite	*Elanus leucurus*	-	CFP		woodland, grassland
Bald eagle	*Haliaeetus leucocephalus*	FT	CE, CFP		lakes, reservoirs w/woodland
Sharp-shinned hawk	*Accipiter striatus*	-	CSC		woodland
Cooper's hawk	*Accipiter cooperii*	-	CSC		woodland
Swainson's hawk	*Buteo swainsoni*	-	CT		grassland, riparian
Merlin	*Falco columbarius*	-	CSC		woodland, grassland
American peregrine falcon	*Falco peregrinus anatum*	FE	CE, CFP		cliffs, rocky outcrops
California gull	*Larus californicus*	-	CSC		large reservoirs
Western burrowing owl	*Speotyto cunicularia hypugea*	FSC	CSC		grassland
Long-eared owl	*Asio otus*	-	CSC		riparian
Purple martin	*Progne subis*	-	CSC		riparian
Bank swallow	*Riparia riparia*	-	CT		stream banks
Loggerhead shrike	*Lanius ludovicianus*	-	CSC		grassland, woodland
Yellow warbler	*Dendroica petechia*	-	CSC		riparian
Yellow-breasted chat	*Icteria virens*	-	CSC		riparian
Tricolored blackbird	*Agelaius tricolor*	FSC	CSC		marsh, grassland
Mammals					
Townsend's big-eared bat	*Plecotus townsendii townsendii*	FSC	CSC		structures, woodland
Pallid bat	*Antrozous pallidus*	-	CSC		structures, woodland
Ringtail	*Bassariscus astutus*	-	CFP		rock outcrops, riparian
American badger	*Taxidea taxus*	-	CSC		annual grassland

Table 1 -- Special-Status Species Possibly Found in the American River Parkway --- *Continued.*

Status Codes:

FE - Federally listed, Endangered.
FT - Federally listed, Threatened.
FPE - Formally Proposed for federal listing as Endangered.
FPT - Formally Proposed for federal listing as Threatened.
FC - Taxa for which the Service has on file enough substantial information on biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species.
FSC - U.S. Fish and Wildlife Service Species of Concern
CE - California listed, Endangered.
CT - California listed, Threatened.
CR - California listed, Rare.
CCE - California candidate for listing as Endangered.
CCT - California candidate for listing as Threatened.
CFP - California Department of Fish and Game Fully Protected Species (§3511-birds, §4700-mammals, §5050-reptiles/amphibians).
CSC - California Department of Fish and Game Species of Special Concern.
1B - California Native Plant Society/Rare or Endangered in California and elsewhere.
2 - California Native Plant Society/Rare or Endangered in California, more common elsewhere.
4 - California Native Plant Society/Plants of Limited Distribution.

2. Water Quality Management

Water quality can be affected by increases in chemical contaminants, nutrients, particulates, and changes in water temperature, mostly through urban runoff, agricultural runoff, other point or non-point pollution sources, and erosion along the bank. Remedial actions proposed begin with identification of all point as well as non-point source discharges to the river and follow with developing remedial measures for rectifying water quality problems, including working with NPDES dischargers, implementing BMPs for stormwater quality control, and controlling erosion along the bank. The improvement in water quality will ultimately benefit the various priority species (identified by CALFED) including the fall-run chinook salmon (*Oncorhynchus tshawytscha*), steelhead trout (*Oncorhynchus mykiss*), splittail (*Pogonichthys macrolepidotus*); and secondary priority species such as the striped bass (*Morone saxatilis*) and many species of migratory birds.

3. Fire Management

The County proposes to develop a Fire Management Plan for the Parkway. The primary purpose of this Plan will be to protect a wide range of assets within the Parkway, including human life and safety; timber; recreation; water and watershed resources; air quality; cultural and historic resources; unique scenic areas; buildings; and wildlife, plants, and ecosystem health. Fire management will benefit wildlife habitats, result in improved water quality by reducing bank erosion, and protect adjacent properties.

4. Floodway Management

It is covered in a separate proposal submitted by SAFCA.

c. Proposed Scope of Work

The Master Plan and its implementation of habitat restoration, water quality management, and fire management will be carried out in the following incremental tasks with specific deliverables:

1. Production of GIS Parkway Base Map (3 months).
2. Compilation and assimilation of existing data on all components (concurrently with Task #1, 3 months).
3. Field survey/inventory: habitat
   Field survey/inventory: water quality
   Field survey/inventory: fire management
   (following Tasks #1 and #2, 3 months).
4. Development of existing conditions GIS Map (one month).
5. Identification/design/prioritization: Habitat Restoration Plan
   Identification/design/prioritization: Water Quality Management Plan
   Identification/design/prioritization: Fire Management Plan
   (following Tasks #3 and 4, 6 months).
6. Incorporation of SAFCA Flood Management Plan, (following the completion of FMP, one month).
7. Development of monitoring plans for each component (concurrently with Task #6).
8. Production of final GIS Ecosystem Restoration Master Plan Map (following Tasks 6 and 7, 2 months).
9. Production of final Ecosystem Restoration Master Plan Document (following Task #8, 2 months).

All tasks are to be completed in 18 months.

f. Monitoring and Data Evaluation

This proposal is for development of a comprehensive American River Parkway Ecosystem Restoration Master Plan. Funding for the implementation and monitoring of the subsequent projects will be included in a future proposal. Those tasks are briefly delineated in the following.

Annual monitoring will be conducted to evaluate the habitat restoration and enhancement efforts within the American River Parkway. Depending on the restoration plans and enhancements developed, appropriate monitoring and data evaluation plans and schedule will be developed in the Master Plan and implemented. Success criteria will be established to monitor the performance of each habitat element, and periodic evaluation will occur to ensure that success criteria will be met. Monitoring will include: annual tree surveys, periodic mammal surveys (i.e., trapping and spotlighting), yearly fish surveys (i.e., seining), periodic bird surveys (i.e., mist-netting, nest surveys, point count), and vegetation sampling of revegetated areas. Methods and result from this study can be compared with other restoration and enhancement studies that are taking place on similar riparian habitats within the state.

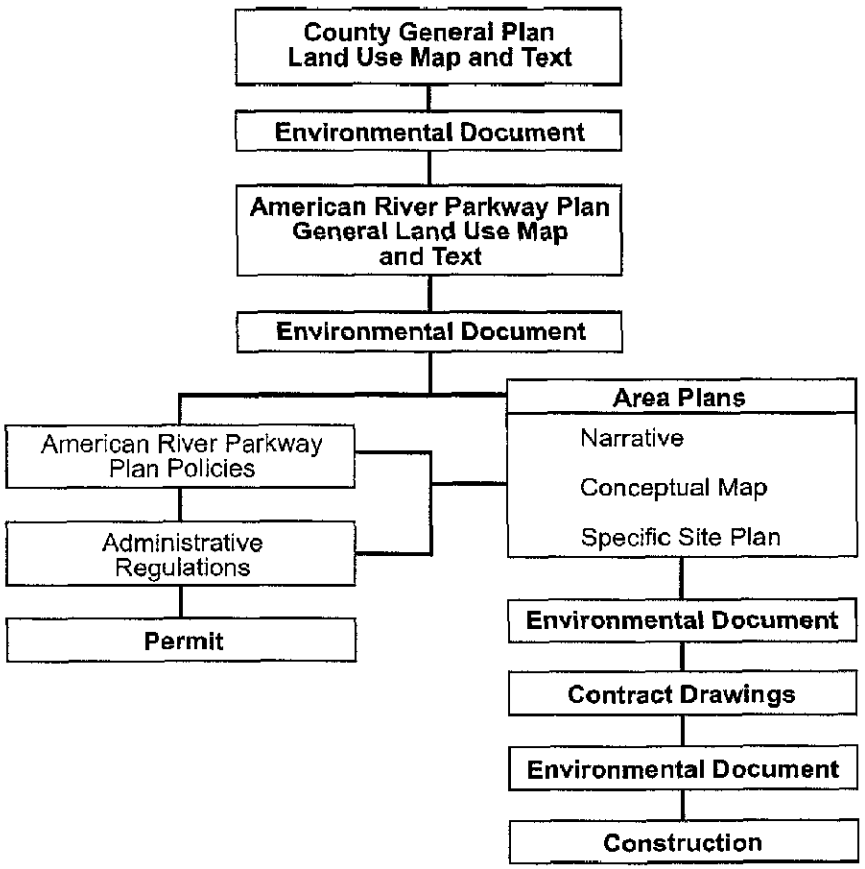
g. Implementability

The master Plan will be in compliance with all appropriate laws and regulations. The County proposes to carry out this project in cooperation with the American River Parkway Foundation, SAFCA, the LAR Task Force, and the California Department of Forestry and Fire Protection

The logic process for planning and implementation of the Master Plan is illustrated in Table 2.

TABLE 2: AMERICAN RIVER PARKWAY ECOSYSTEM RESTORATION MASTER PLAN

- IMPLEMENTATION PROCESS



IV. COSTS AND SCHEDULE TO IMPLEMENT PROPOSED PROJECT

a. Budget Costs

Project Phase and Task	Direct Labor Hours	Direct Salary and Benefits	Overhead Labor (General, Admin and fee)	Service Contracts	Material and Acquisition Contracts	Misc. and other Direct Costs	Total Cost
			3,000				3,000
Task 1	204	1,700		10,000			11,700
Task 2	120	1,000		6,000			7,000
Task 3	547	4,350		26,500			30,850
Task 4	170	500		9,600			10,100
Task 5	1249	16,950		54,800			71,750
Task 6	52	250		3,000			3,250
Task 7	150	1,500		8,000			9,500
Task 8	300	1,500		16,200			17,700
Task 9	250	2,500		12,000			14,500
					TOTAL COSTS:		**179,350**

b. Schedule Milestones

Tasks	Start up Date	Completion Date
1. Production of GIS Parkway Base Map	September 1997	November 1997
2 Compilation of existing data on all components	September 1997	November 1997
3. Field Survey/inventory: habitat; Field Survey/inventory: water quality; Field Survey/inventory: fire management;	December 1997	February 1998
4. Development of existing conditions GIS map	March 1998	March 1998
5. Identification /design/prioritization: Habitat Restoration Plan Identification/design/prioritization: Water Quality Plan Identification/design/prioritization: Fire Management Plan	April 1998	September 1998
6. Incorporation of SAFCA Floodway Management Plan	October 1998	October 1998
7. Development of monitoring Plans for each component	October 1998	October 1998
8. Production of Final GIS Ecosystem Restoration Master Plan	November 1998	December 1998
9 Production of Final Ecosystem Restoration Master Plan Document	January 1999	February 1999

c. Third Party Impacts

No negative impacts to a third party.

V. APPLICANT QUALIFICATIONS

The Master Plan will be managed by the County of Sacramento, Department of Regional Parks, Recreation and Open Space

County of Sacramento, Department of Regional Parks, Recreation and Open Space Staff

Roy Imai, L.A., Deputy Director: Mr. Imai is a planner and landscape architect with 32 years experience in community development, natural resource planning, park/open space/recreation planning, landscape architecture, urban design, grant application process, and public participation in planning. As Deputy Director of the Park Planning Division for over seven years, Mr. Imai has worked closely with staff to ensure accurate and timely grant billings and progress payments.

Registration: Landscape Architect, Ca #1194

Laura Brean, Project Manager: Ms. Brean has been involved in park operations both as a professional and volunteer for the past 14 years. She has played a key role in resolving complex resource issues involving multiple agencies and diverse public interest groups, fundraising, and coalition building. Ms. Brean has approximately 12 years extensive administrative experience in coordination and financial management of projects.

Thomas Oliver, Deputy Director: Mr. Oliver is Deputy Director of Park Maintenance and Operations, and has worked for the Department for 29 years. Mr. Oliver's park career included service as a wildlife interpreter and ranger.

George Quinday, Park Maintenance Supervisor: Mr. Quinday has 29 years experience in park maintenance and planning, with the County of Sacramento. He assisted in the design of the 23 mile American River Parkway bicycle trail.

Subcontractors

Sugnet & Associates has collaborated with the County in assemblying this proposal and has offered to assist in the preparation of the Habitat Restoration Plan, Water Quality Management Plan, and Fire Management Plan, to conduct the analysis and provide the Geographic Information System (GIS) database and mapping components, and assist in the integration and development of the Master Plan. The County may use other specialty subcontractors as required.

Sugnet & Associates is an environmental engineering and restoration firm, and is headquartered in Roseville, California. Sugnet & Associates has 10 years of experience in the inventory, analysis, design, mitigation and monitoring of special-status species and their habitat; the design, construction, and monitoring of wetlands; the design of detention basins; water quality analysis and planning; and, GIS database systems and their usage. Biosketches of Sugnet & Associates key personnel are listed below:

Bjorn Gregersen, Restoration Specialist: Mr. Gregersen serves as Director of Natural Resources and Project Manager for wetland mitigation design projects for Sugnet & Associates. He manages implementation of wetland habitat mitigation plans by coordinating work between biological field studies, mitigation design staff and GIS/CAD staff to produce clear, concise project summary reports and technical reports that support permit applications. Mr. Gregersen's expertise includes Section 404 permitting, Endangered Species Act consultation, and mitigation planning, implementation and monitoring. Mr. Gregersen has worked with the American River Parkway Foundation and the Sacramento County, Department of Regional Parks, Recreation and

Open Space on projects within the American River Parkway. He has also successfully managed a number of large scale restoration throughout the Central Valley.

Edward Schmit, P. E, Senior Hydrologist: Mr. Schmit has over 25 years of experience in water resources planning, hydrology, hydrologic modeling, hydraulics and geomorphic analysis of streams. Subsequent to joining Sugnet & Associates, he served as the State Hydrologist for the U.S. Natural Resource Conservation Service (NRCS), California office. Mr. Schmit is proficient in the use of hydraulic models used for flow analysis of rivers. These include the U.S. Army Corps of Engineers ACOE) programs HEC2, HEC-RAS, and HEC6. He has taken short courses in stream mechanics and geomorphic analysis of streams from NRCS, University of California at Berkeley and Colorado State University at Fort Collins. Mr. Schmit served as the project manager and lead hydrologist on the $13 million Upper Penitencia Watershed Plan project and the lead hydrologist on the Lower Silver and Llagas Creeks plan revisions for the Section 404 permitting. He also prepared the stream bank stabilization design for Zapato Creek in southern Fresno County.

Registration : Civil Engineer, No. C19754, State of California

Jerry Huang, Ph.D., P.E., Water Quality Engineer: Dr. Huang is a Water Quality Engineer with more than 25 years of professional engineering and construction experience. His specialties include applying innovative and conventional technologies to the remediation of contaminated river water, river sludge, groundwater, and industrial and municipal wastewater. He participated in the assessment of water quality in a major river basin in the State of Iowa and in numerous assessments of river water quality effected by the agricultural and feedlot runoff in Wisconsin and Illinois

Registration: Civil Engineer, No. C27446, State of California
Sanitary Engineer, No. 6589, State of Iowa

Pete Balfour, Wildlife Biologist: Mr. Balfour is a wildlife biologist specializing in aquatic entomology and herpetology. He has conducted numerous determinate and assessment level surveys for both state and federally-listed special-status plant and wildlife species throughout California. Mr. Balfour has conducted surveys numerous sensitive wildlife species including various reptiles [e.g. giant garter snake (*Thamnophis gigas*), Alameda whipsnake (*Masticophis lateralis euryxanthus*), and northwestern pond turtle (*Clemmys marmorata*), various amphibians (e.g., California red-legged frog (*Rana aurora draytonii*)], California tiger salamander (*Ambystoma californiense*) and western spadefoot toad (*Scaphiopus hammondii*), , and invertebrates [e.g. various species of fairy shrimp, tadpole shrimp, and Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)]. He has prepared Habitat Mitigation Plans, Compensation Plans, and Biotic Resource Assessment reports.

Mr. Balfour is certified by the U.S. Fish and Wildlife Service in the Habitat Evaluation Procedure (HEP), by the Society of Wetland Scientists as a Professional Wetland Scientist (Certificate No. 000426), and certified as an Arborist by the International Society of Arboriculture (Certificate No. WC 3289).

Chadd Santerre, Fisheries Biologist: Mr. Santerre is a Fisheries Biologist specializing in waterfowl, fisheries biology, and ecology of wetland and drainage habitats. Mr. Santerre has conducted numerous biological assessments which include waterbird censuses, special-status species surveys, general biotic inventories, wetland assessments, and hydrologic, photographic, and biodiversity monitoring of created, restored, and existing wetland and woodland habitats. He has conducted wintering waterfowl surveys at the Consumnes River Preserve; conducted a study to determine the level of waterbird use of enhanced agriculture lands within the Sacramento/San Joaquin River Delta; participated in a study which monitored the loss of Chinook salmon and

other non-target species due to water diversion pumps in the Sacramento River; participated in an inland stream evaluation on the American River, which included the assessment of Chinook Salmon habitat with the Instream Flow Incremental Methodology (IFIM); and, participated in a California Department of Fish and Game Chinook salmon spawning survey along the American River.

VI. COMPLIANCE WITH STANDARD TERMS AND CONDITIONS

The County has read and agrees to comply with the Standard Terms and Conditions specified in the RFP. The relevant forms are attached.

Item 8

NONDISCRIMINATION COMPLIANCE STATEMENT

NAME
County of Sacramento Department of Regional Parks, Recreation and Open Space

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
Laura Brean

DATE EXECUTED
July 25, 1997

EXECUTED IN THE COUNTY OF
Sacramento

PROSPECTIVE CONTRACTOR'S SIGNATURE

PROSPECTIVE CONTRACTOR'S TITLE
Project Manager

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME
County of Sacramento Department of Regional Parks, Recreation and Open Space

I-000769