

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

Proposal Title: Butte Creek/ Sanborn Slough Bifurcation Project
 Applicant Name: California Waterfowl Assn.
 Mailing Address: 4630 Northgate Blvd., Suite 150
 Telephone: (916) 648-1406
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 Email: robcap@inreach.com

Amount of funding requested: \$ 880,000 ok / ~~960,000~~ for 3 years

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

- | | |
|---|---|
| <input checked="" type="checkbox"/> Fish Passage/Fish Screens | <input type="checkbox"/> Introduced Species |
| <input type="checkbox"/> Habitat Restoration | <input type="checkbox"/> Fish Management/Hatchery |
| <input type="checkbox"/> Local Watershed Stewardship | <input type="checkbox"/> Environmental Education |
| <input type="checkbox"/> Water Quality | |

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

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

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

- | | |
|---|---|
| <input type="checkbox"/> Sacramento River Mainstem | <input type="checkbox"/> East Side Trib: _____ |
| <input checked="" type="checkbox"/> Sacramento Trib: <u>Butte Creek</u> | <input type="checkbox"/> Suisun Marsh and Bay |
| <input type="checkbox"/> San Joaquin River Mainstem | <input type="checkbox"/> North Bay/South Bay: _____ |
| <input type="checkbox"/> San Joaquin Trib: _____ | <input type="checkbox"/> Landscape (entire Bay-Delta watershed) |
| <input type="checkbox"/> Delta: _____ | <input type="checkbox"/> Other: _____ |

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

- | | |
|--|---|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon | <input checked="" type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Winter-run chinook salmon | <input type="checkbox"/> Fall-run chinook salmon |
| <input type="checkbox"/> Late-fall run chinook salmon | <input type="checkbox"/> Longfin smelt |
| <input type="checkbox"/> Delta smelt | <input checked="" type="checkbox"/> Steelhead trout |
| <input type="checkbox"/> Splittail | <input type="checkbox"/> Striped bass |
| <input type="checkbox"/> Green sturgeon | <input type="checkbox"/> All chinook species |
| <input type="checkbox"/> Migratory birds | <input type="checkbox"/> All anadromous salmonids |
| <input type="checkbox"/> Other: _____ | |

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:

Develop a cooperative program to improve upstream passage of adult spring-run chinook salmon and steelhead in Butte Creek (ERP Vol II; page 272)

Butte Creek / Sanborn Slough Bifurcation Structure Upgrade Project

Applicant:

California Waterfowl Association

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Contact: Rob Capriola
Telephone: 530/934-9182

with participation from

U.S. Fish and Wildlife Service

Type of Organization: Non-profit Organization
Tax Identification Number: 94-1149574

RFP Project Group Type: Fish Passage

April 16, 1999

EXECUTIVE SUMMARY

The Butte Creek / Sanborn Slough Bifurcation Structure Upgrade Project (Bifurcation Project) is designed to improve fish passage for anadromous fish in Butte Creek, a tributary to the Sacramento River. This site has been identified in numerous publications as a significant migration barrier to adult salmon and steelhead. The Bifurcation Project will replace the deteriorated culverts and spillway on Butte Creek at Sanborn Slough with a modern structure that ensures adequate fish passage and enhances water control at the split between the two waterways.

The new structure will have state-of-the-art fish ladder, flow-control devices, and associated measuring gages. The fish ladder will enhance passage of salmon and steelhead by reducing delay and injury to the fish, which have difficulty passing through the present gated culverts. The flow-control devices will ensure delivery of dedicated fish flows down Butte Creek and delivery of additional water to over 10,000 acres of critical wetland habitat, including the Butte Sink National Wildlife Refuge and Butte Sink Wildlife Management Area. This structure is essential for maintaining managed wetlands and flooded agricultural habitats required by the large numbers of wintering waterfowl, shorebirds, and wetland-dependent threatened and endangered species that inhabit Butte Creek, the Butte Sink and associated agricultural lands.

The U.S. Fish and Wildlife Service (USFWS) has secured one million dollars toward the replacement and upgrade of this structure, and has contracted with California Waterfowl Association (CWA) to deliver the project in the years 1999 and 2000. CWA's Wetland Department has extensive experience in managing construction projects relating to water resources and wetland habitat developments in California. With an annual operating budget exceeding \$4,000,000 per year and a staff of 30 individuals, CWA is well qualified to handle multi-task habitat projects.

Preliminary engineering design has been completed by the California Department of Water Resources (DWR), and costs for final design engineering and construction are estimated at \$1,600,000. We are requesting \$880,000 to cover the un-funded portion of the tasks needed to complete the project and monitor it for fish passage for two hydrologic cycles.

Monitoring and data collection will provide the data necessary to evaluate the effectiveness of the new Bifurcation Structure in reducing any fish passage problems at the site. Monitoring plans will generally need to include the following items: target species and life stages; sampling season; sampling gear; parameters measured; sampling design and locations; data processing and analyses; and data storage and presentation.

California Water Association, the Nature Conservancy, Ducks Unlimited, the Butte Sink Waterfowl Association, Foraker Properties, and Reclamation District 1004 have worked closely together over the past two years in planning the upgrade of the Bifurcation Structure with state and federal resource agencies. Easements have been negotiated with landowners at the site and access is guaranteed and documented. An operations agreement for the structure has been in

place since 1995, and an updated operations agreement to accommodate dedicated fish flows is being developed among the parties to the original agreement.

The project objectives are consistent with the following ERPP fish passage objective: *"Develop a cooperative program to improve the upstream passage of adult spring-run chinook salmon and steelhead on Butte Creek "* (ERPP Volume II, page 272). The proposed project is also consistent with the a ERPP high priority Stage 1 Action for Butte Creek: *"STAGE I ACTION: Improve fish passage at diversion dams either by providing alternative diversion structures that will allow removal of existing dams or by upgrading fish ladders and diversion screens."* (ERPP Volume II, page 272). The Sanborn Slough Bifurcation Structure on Butte Creek, with its two dysfunctional gated culverts is one of the prime structures targeted for upgrade by the USFWS Anadromous Fish Restoration Program and CDFG.

PROJECT DESCRIPTION

The Butte Creek / Sanborn Slough Bifurcation Structure Upgrade Project (Bifurcation Project) is designed to improve fish passage for anadromous fish in Butte Creek, a tributary to the Sacramento River. This site has been identified in numerous publications as a significant migration barrier to adult salmon and steelhead. The Bifurcation Project will replace the deteriorated culverts and spillway on Butte Creek at Sanborn Slough with a modern structure that ensures adequate fish passage and enhances water control at the split between the two waterways. The new structure will have state-of-the-art fish ladder, flow-control devices, and associated measuring gages (see attached design drawings). The fish ladder will enhance passage of salmon and steelhead by reducing delay and injury to the fish, which have difficulty passing through the present gated culverts. The flow-control devices will ensure delivery of dedicated fish flows down Butte Creek and delivery of additional water to over 10,000 acres of critical wetland habitat, including the Butte Sink National Wildlife Refuge and Butte Sink Wildlife Management Area. This structure is essential for maintaining managed wetlands and flooded agricultural habitats required by the large numbers of wintering waterfowl, shorebirds, and wetland-dependent threatened and endangered species that inhabit Butte Creek, the Butte Sink and associated agricultural lands.

Proposed Scope of Work

The project will be the final phase of development for this site within the Lower Butte Creek Project. The Lower Butte Creek Project is a stakeholder-driven, grassroots effort that has focused on developing mutually beneficial and acceptable alternatives to improving fish passage while maintaining the viability of agriculture, seasonal wetlands, and other habitats. All diversions and fish passage barriers on the creek are being evaluated and solutions implemented by CWA, Ducks Unlimited (DU), USFWS, California Department of Fish and Game (DFG), Bureau of Reclamation (BOR), DWR, and local stakeholders.

Task 1. Preliminary Engineering and Environmental Review

The USFWS has contracted with DWR to provide site characterization and preliminary engineering data necessary for permits for a flow control structure and fish ladder on Butte Creek at the Sanborn Slough bifurcation. Cost estimates were also prepared to allow CWA to solicit funding for the project. Specific subtasks include: 1) gather topographic data and develop a contour map of the site and associated waterways; 2) work with the established stakeholder committee to develop a design for a fish ladder and flow control structure at the site; 3) prepare preliminary engineering design and cost estimates for the selected alternative; 4) evaluate environmental issues and start the permit process; and 5) prepare a technical report that covers items 1 through 4. Items 1 through 4 have been completed, and item 5 is underway and scheduled for completion by May 31, 1999.

Task 2. Project Management, Coordination, and Facilitation

CWA has been contracted by the USFWS to deliver the Bifurcation Upgrade Project. Specific subtasks include: 1) ensure stakeholder involvement in the decision-making process via coordination and facilitation of meetings with the stakeholders, DWR, DFG, and USFWS; 2)

hire consultants and contractors to complete the project design, permitting, construction, and monitoring for the project; 3) coordinate reimbursement for work completed with funding agencies and service providers; 4) develop access and operations agreements among the stakeholders; and 5) provide interim and final reports to the stakeholders and funding agencies on the project. A CWA staff person is proposed to manage the project at varying degrees of intensity over the life of the project. The project coordinator will plan, schedule, over-see, and document all project activities, including contract services support and oversight. The coordinator will also guarantee the preparation of all communications, reports, and deliverables for the project. This task was initiated in October 1998 and is contracted to continue through December 2000, but may be extended as necessary to oversee monitoring for CALFED.

Task 3. Final Design, Permitting, and Construction

CWA will contract with a consultant to complete the final design, permitting, and construction of the project during the summer of 1999. Subtasks include: 1) perform engineering services required for final design of the control structure and fish ladder; 2) complete all permitting requirements for the project; 3) provide a fixed bid for the construction and hiring of subcontractors to build the structure; and 4) perform construction management and oversight of subcontractors. This task is scheduled to begin on May 1, 1999 and continue through December 1999.

Task 4. Monitoring and Evaluation

CWA will contract with a fisheries consultant to monitor fish passage at the structure. Subtasks include: 1) develop a monitoring and evaluation plan in coordination with stakeholders; 2) monitor flows at the completed structure to determine that proper flows are maintained for fish passage; 3) assess the effectiveness of the structure for adult passage; 4) provide interim and final reports to stakeholders. This task is schedule to begin in October 1999 and be completed by April 1, 2002.

Task 5. Contingency (10% of construction costs)

Task 5 includes the need for unforeseen activities or expansion of earlier tasks. This will provide the project with funds to cover costs unaccounted for in the preliminary analysis and design, or if weather conditions interrupt or delay the project. Similar projects within the watershed have experienced cost overruns on construction due to problems with de-watering, obtaining easements for construction, dewatering, and materials.

Table 1. Summary of task schedules including start/completion dates and deliverables

Task	Start Date	Completion Date	Deliverables
Task 1 Preliminary Engineering	Nov. 1, 1998	May 31, 1999	Topographic maps Engineering Design Cost Estimate Environmental Review
Task 2. Project Coordination and Facilitation	Oct. 1, 1998	March 31, 2002	Facilitate Stakeholder involvement, Prepare Request for Proposals, Hire consultants, secure access and operations agreements, ensure deliverables under other tasks are completed
Task 3. Final Design, Permitting and Construction	May 1, 1999	Dec. 31, 1999	Final engineered design, securing of all necessary permits, construction of project.
Task 4. Monitoring and Evaluation	Oct. 1, 1999	March 31, 2002	Contracting with a fisheries consultant, developing a monitoring plan, Conducting the monitoring, and producing interim and final reports.
Task 5 Contingency	Oct. 1, 1999	Dec. 31, 1999	Constructed project

Location and/or Geographic Boundaries of the Project (see attached location map)

The Bifurcation Project is located on Butte Creek, the boundary between Colusa and Butte Counties, just downstream of the Gridley-Colusa Highway at the junction of Sanborn Slough and Butte Creek (Figure 1). The location is the northern entrance to the Butte Sink. Water flowing down Butte Creek splits and enters Butte Sink via both Sanborn Slough and Butte Creek. Sanborn Slough flows for several miles before emptying into Cherokee Canal, which flows south along the eastern edge of the Sink. Water is diverted from Butte Creek, Sanborn Slough, and Cherokee Canal to managed wetlands and agricultural (primarily rice) lands.

ECOLOGICAL/BIOLOGICAL BENEFITS

Ecological/Biological Objectives

The proposed project has the following objectives:

1. Improve adult spring-run and fall-run chinook salmon and steelhead passage at the site.
2. Provide more effective water management and monitoring of flows dedicated to fish, migratory birds, and wetland-dependent wildlife utilizing Butte Creek and the Butte Sink.

Project Need

Flows in lower Butte Creek are split between Sanborn Slough and Butte Creek. The flow split under low flow conditions has been controlled by manipulating gates on two culverts on Butte Creek. Historically, the culvert gates were partially closed in the fall and winter to aid in delivering water supplied to the Butte Sink by Western Canal Company via Butte Creek and Sanborn Slough. Adult salmon and steelhead have difficulty moving upstream through the culverts, particularly during low flow conditions, causing delay and possible injury to the fish.

More recently, the USFWS and local stakeholders have worked together to operate gates on the culverts to help salmon and steelhead move upstream whenever they are observed at the site. Despite these concerted and cooperative efforts, all passage problems have not been alleviated. Stakeholders and agencies have worked together over the past two years to evaluate the problem and identify acceptable solutions.

Linkages

The proposed project would provide benefits that are consistent with the goals and objectives of (1) the CALFED Ecosystem Restoration Program Plan and Conservation Strategy; and (2) the CVPIA-Anadromous Fish Restoration Program. Goals and objectives of these programs addressed by the proposed project include the following:

- Restore anadromous fish populations of Butte Creek.
- Reduce stressors on fish and wildlife and their habitats.
- Develop community awareness of the linkage between agricultural viability and natural resource protection.
- Develop alternatives to protect and restore floodplain resources and reduce stressors.
- Develop alternatives to maintain and enhance agricultural economic viability in concert with habitat and floodplain restoration activities.
- Provide technical information and flood control consistency analysis methods that can be applied to other similar areas.

Fish Passage: The project objectives are consistent with the following ERPP fish passage objectives:

"Develop a cooperative program to improve the upstream passage of adult spring-run chinook salmon and steelhead on Butte Creek " (ERPP Volume II, page 272).

The proposed project is also consistent with the a ERPP high priority Stage 1 Action for Butte Creek:

“ STAGE I ACTION: Improve fish passage at diversion dams either by providing alternative diversion structures that will allow removal of existing dams or by upgrading fish ladders and diversion screens.” (ERPP Volume II, page 272). The Sanborn Slough Bifurcation Structure on Butte Creek with its two dysfunctional gated culverts was one of the prime structures targeted for upgrade by the USFWS Anadromous Fish Restoration Program and CDFG.

“Restore Priority Species: Restore priority species including chinook salmon, steelhead, and splittail” (ERPP Vol. 1, page 177). The proposed monitoring program will document the benefit of the project to adult spring-run and fall-run chinook salmon and steelhead.

System-Wide Ecosystem Benefits

The proposed project will allow adult salmon and steelhead improved fish passage over that provided at the present culverts. With a ladder to accommodate flows allocated to Butte Creek for fish passage, fish passage problems should be eliminated. The project will improve adult survival by reducing delay and injury.

The new structure and gaging stations will allow more effective management and control of instream flows dedicated for fish and wildlife, specifically the 40 cfs acquired for instream use in Butte Creek from the M&T water exchange agreement. The control structure will also improve operations and maintenance and reduce long-term costs to the USFWS refuge and private wetland managers responsible for the operations of the Bifurcation Structure.

The increased water management capabilities will enhance the habitat values of over 15,000 acres of managed wetland and agricultural habitats essential to a multitude of migratory and resident waterfowl, wading birds and other wetland-dependent wildlife. These lands include the Butte Sink National Wildlife Refuge, Butte Sink Wildlife Management Area, and numerous private wetlands and agricultural lands managed to provide food, cover, and refuge for wildlife.

Compatibility with Non-Ecosystem Objectives

This project does not conflict with other CALFED objectives and programs including water quality, water supply reliability, and levee system integrity.

TECHNICAL FEASIBILITY AND TIMING

Several alternatives were evaluated for the Bifurcation Structure during the Lower Butte Creek Project planning effort. (1) Repair existing culvert screw gate. (2) Replace culverts with modern screw-gate culverts. (3) Replace the existing structure and culverts with a modern structure with remotely controlled screw gates. (4) An option to screen the structure was also considered. The proposed structure was deemed superior to other alternatives because it significantly improved the passage for adult and juvenile salmon and steelhead and provided for more efficient water management. A screen was deemed infeasible given high capital costs and difficulties in maintaining a screen at that location.

The USFWS is presently in the process of preparing a programmatic EIR/EIS for the Lower Butte Creek Fish Passage Program that will cover the Bifurcation Structure as well as other proposed fish passage projects along Butte Creek. A site-specific Environmental Assessment is also being prepared to address issues unique to the site not covered in the programmatic EIR/EIS.

Task 3 outlines remaining contracting and permitting efforts for the summer of 1999. Various permits and agreements will be required to complete the project including a Colusa County encroachment permit. Access agreements have been secured and additional agreements are being negotiated to accommodate the installation of power lines and construction staging areas. Construction of the project is anticipated to begin during 1999.

MONITORING AND DATA COLLECTION METHODOLOGY

Monitoring and data collection will provide the information to evaluate the effectiveness of the Bifurcation Structure in reducing any fish passage problems at the site. Monitoring plans will generally need to include the following items: target species and life stages; sampling season; sampling gear; parameters measured; sampling design and locations; data processing and analyses; and data storage and presentation. Objectives and approach are summarized below.

Biological/Ecological Objectives. There are two primary objectives of the monitoring task:

- 1) Determine if adult chinook salmon and steelhead are blocked or hindered in their upstream migration past the upgraded Bifurcation Structure and fish ladder.
- 2) Determine if design and operation of the Bifurcation Structure meet proposed hydraulic standards for fish passage.

Related questions, hypotheses, assumptions, issues, and limitations include:

- Do adult salmon and steelhead build up in large numbers below the new fish ladder?
- Are approaches to the ladder constructed so as to allow confident approach and detection of the ladder entrance by the fish?
- What are the optimal settings for structure controls under various flows that increase fish passage capabilities at the structure.

Monitoring Parameters and Data Collection Approach. Monitoring will consist of two components: adult salmon and steelhead passage and hydraulic assessment.

Adult Passage: Adult passage monitoring will consist of observations during key migration times of the year under normal or controlled flow conditions when the structures are functional. (There is no need or capability to monitoring during flooding conditions.) Key times will be winter when spring-run chinook and steelhead ascend the river, late spring (usually in late May and early June) when late spring-run and early fall run appear in numbers, and in the fall (October into December) when fall-run chinook salmon ascend the river. Observations will consist of visual notes of concentrations of fish at the ladder and downstream of the ladder, and how effectively the fish appear to approach and ascend the ladder with particular attention on their ability to detect the entrance to the ladder

Hydraulic Assessment: Hydraulic assessment will consist of observations during key migration times of the year under controlled flow conditions. Parameters will include velocity and flow measurements on the downstream side of the structure taken at various stage heights and structure configurations.

Data Evaluation Approach.

Adult Fish Passage: Visual observations of fish passage will be recorded in note books and

summarized by event, season, hydrology conditions, and operation conditions. Rate of travel past the structure and success of travel will be the primary parameters compared between unimpeded sections of the river and the project reach. Data/progress reports will be prepared for each year of the study, and one overall adult fish passage report will be prepared at the completion of the study.

Hydraulic Assessment: Velocity and flow measurements gathered under various controlled-flow conditions will be compared with standard fish passage criteria for similar structures and correlated with observations of adult fish passage. These comparisons will allow the managers of the structure to configure the fish ladder and controls to optimize conditions for fish passage. Data/progress reports will be prepared for each year of the study, and one overall hydraulic assessment report will be prepared at the completion of the study.

Table 2. Summary of Monitoring and Data Collection Information

1) Biological/Ecological Objectives: Reduce or eliminate delay and injury to Butte Creek adult salmon and steelhead at the Bifurcation Structure.			
Hypothesis/ Question to be Evaluated	Monitoring Parameter(s) and Data Collection Approach	Data Evaluation Approach	Comments/ Data Priority
Is adult salmon and steelhead passage hindered by the Bifurcation Structure?	Rate of passage of adult salmon and steelhead by observations of adult fish at the Bifurcation Structure and in unimpeded reaches.	Compare rate of migration of salmon and steelhead adults at Bifurcation Structure with unimpeded reaches.	Priority for sampling spring-run adults in late winter and early spring.
What hydraulic conditions and structure configurations significantly increase adult salmon and steelhead passage at the Bifurcation Structure?	Measure flow and velocities at various stage heights and structure configurations.	Compare velocities to published standards and structure configurations and correlate with rates of adult salmon steelhead passage.	Priority for sampling spring-run adults in late winter and early spring.

LOCAL INVOLVEMENT

The Bifurcation Structure is the first project to be implemented under the Lower Butte Creek Project. The approach of the entire project is to make the solutions to fish passage problems in Butte Creek "owned" by the local stakeholders. The landowners and water users will likely be the owners and operators of upgraded structures and will be entirely responsible for higher operation and maintenance costs associated with ensuring adequate fish passage. By designing solutions to minimize these costs and accommodate landowners' water management needs we can increase the likelihood of maintaining fish passage within the system.

With this consideration in mind, the planning and implementation of this project has involved all adjacent landowners and downstream stakeholders directly affected by water management at the site. California Water Association, the Nature Conservancy, Ducks Unlimited, the Butte Sink Waterfowl Association, Foraker Properties, and RD 1004 have worked closely together over the past two years in planning the upgrade of the Bifurcation Structure with state and federal resource agencies. Easements have been negotiated with landowners at the site and access is guaranteed and documented. An operations agreement for the structure has been in place since 1995, and an updated agreement to accommodate dedicated fish flows is being developed among the parties. Preliminary engineering design has been completed by local DWR engineers familiar with the Butte Creek System and fish passage criteria for salmonids. Coordination with state, federal, and local governments will continue through all aspects of this project.

CWA and Ducks Unlimited regularly publish articles on the progress of the Lower Butte Creek Project in their respective magazine publications and attend meetings of watershed and natural resource user groups within the project vicinity.

COSTS

Budget : The CALFED request is primarily for construction contracts to upgrade the structure and monitor its effectiveness. CWA will require some funds for project management and oversight, contract administration, technical support, and facilitation.

Table 3 Budget (CALFED only)

Task	Direct Labor Hours	Direct Salary and Benefits	Service Contracts	Material and Acquisition Costs	Misc and other Direct Costs	Overhead and Indirect Costs	Total Cost
Task 1 Preliminary Engineering							
Task 2 Project Coordination	320	8,000			2,000		10,000
Task 3 Final Design & Construction			675,000				675,000
Task 4 Monitoring and Evaluation			35,000				35,000
Task 5 Contingency			160,000				160,000
Totals	320	\$8,000	\$870,000		\$2,000		\$880,000

Table 4. Quarterly Budget (1st two quarters combined in years 2000 and 2001)

Task	Oct-Dec 1999	Jan-Jun 2000	Oct-Dec 2000	Jan-Jun 2001	Oct-Dec 2001	Jan-Mar 2002	Total Budget
Task 1.							
Task 2.	3,000	2,000	1,000	2,000	1,000	1,000	10,000
Task 3.	675,000						675,000
Task 4.	3,000	10,000	5,000	10,000	5,000	2,000	35,000
Task 5.	160,000						160,000
Totals	\$850,000	6,000	6,000	6,000	6,000	6,000	880,000

COST-SHARING

The total cost of building and monitoring this project is estimated at \$1,947,000. The US Fish and Wildlife Service has acquired \$1,000,000 from the 1997 Flood Appropriations Bill for the project, and has contracted with CWA to deliver the project. Of this \$1million, approximately \$925,000 will go into acquiring easements and paying costs of construction, and \$75,000 will be used for project coordination and facilitation by CWA. An additional \$67,000 of USFWS Anadromous Fish Restoration Program funds have been spent by DWR on the preliminary engineering and design of the project. The project is seeking \$880,000 from CALFED for completion of Tasks 2 through 5.

APPLICANT QUALIFICATIONS

CWA is the project manager for the Bifurcation Structure and chairs the Butte Sink Action Committee for the Lower Butte Creek Project. The Habitat Department of CWA has extensive experience in managing construction projects relating to water resources and wetland habitat developments in California. With an annual operating budget exceeding \$4,000,000 per year and a staff of 30 individuals, CWA is well qualified to handle multi-task habitat projects. Staff in the Wetland, Waterfowl, Government Affairs, and Finance Departments are available to support this project and bring it to completion.

Project Management:

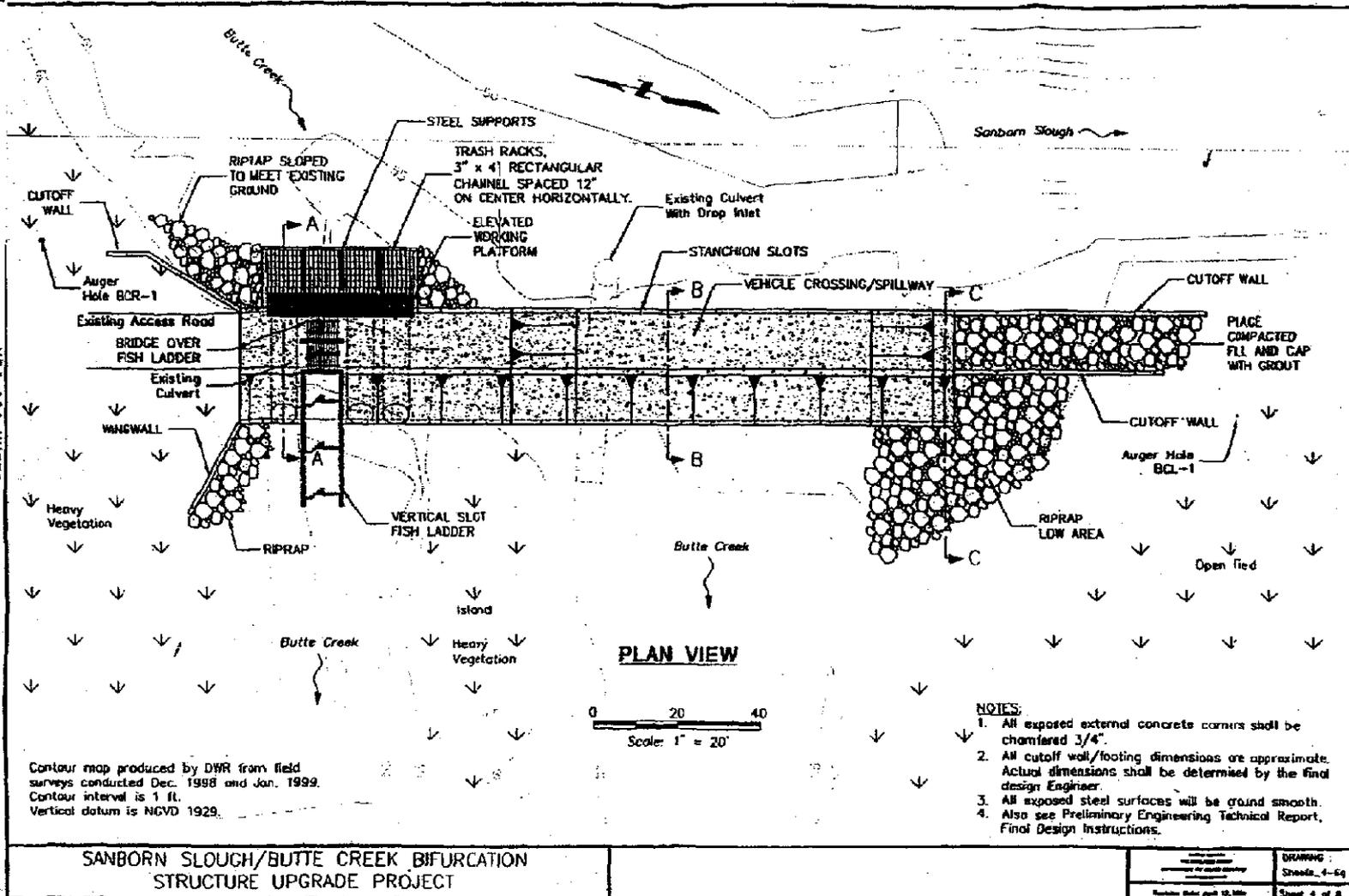
Rob Capriola, Assistant Director of Wetland Programs, California Waterfowl Association

Mr. Capriola came to work for the California Waterfowl Association (CWA) as a waterfowl habitat biologist in the spring of 1997, and has been coordinating the restoration and enhancement of wetlands on federal and state wildlife areas and duck clubs throughout the north Central Valley including lands within the Butte Sink and Sutter Bypass. Mr. Capriola came to CWA with six years of experience in fisheries and wetland project management and a Masters Degree in Natural Resource Management from Humboldt State University. Prior to his work with CWA, Mr. Capriola worked as a wetland biologist for Humboldt Bay National Wildlife Refuge, and was President and Co-founder of Pacific Coast Restoration, a private non-profit organization that implements fisheries and wetland restoration and enhancement projects on the north coast of California. He has been involved in the Lower Butte Creek Project since its inception in 1997, and is currently the Program Manager for the project for CWA.

Mr. Capriola will be responsible for all Project Management, Coordination, and Facilitation duties listed under Task 2. Specific subtasks include: 1) ensure stakeholder involvement in the decision-making process via coordination and facilitation of meetings with the stakeholders, DWR, DFG, and USFWS; 2) hire consultants and contractors to complete the project design, permitting, construction, and monitoring for the project; 3) coordinate reimbursement for work completed with funding agencies and service providers; 4) develop access and operations agreements among the stakeholders; and 5) provide interim and final reports to the stakeholders and funding agencies on the project. As project manager, he will plan, schedule, over-see, and document all project activities, including contract services support and oversight. This task was initiated in October 1998 and is contracted to continue through December 2000, but may be extended as necessary.

Design and Construction: Experienced engineering design consultants will be selected from a competitive bid process that is already underway. Consultants will be chosen based on their experience and track record in carrying out similar projects awarded in the past three years, budget and fee schedule, and description of key staff and subconsultants who will be assigned to the project.

Monitoring: A qualified monitoring contractor(s) will be selected from a competitive process upon award of a CALFED grant. Contractor(s) will be chosen based on their experience and track record in carrying out similar projects awarded in the past three years, budget and fee schedule, and description of key staff and subconsultants who will be assigned to the project.



SANBORN SLOUGH/BUTTE CREEK BIFURCATION
STRUCTURE UPGRADE PROJECT

DRAWING: Sheets 4-64 Revision Block with 02/10/00	DRAWING: Sheets 4-64 Sheet 4 of 8
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NONDISCRIMINATION COMPLIANCE STATEMENT

STD. 19 (REV. 3-95) FMO

COMPANY NAME

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 <i>M. Robert McLandress</i>	
DATE EXECUTED <i>4/16/1999</i>	EXECUTED IN THE COUNTY OF <i>Sacramento</i>
PROSPECTIVE CONTRACTOR'S SIGNATURE <i>M. Robert McLandress</i>	
PROSPECTIVE CONTRACTOR'S TITLE <i>President</i>	
PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME <i>California Waterfowl Association</i>	

**STANDARD CLAUSES --
SMALL BUSINESS PREFERENCE AND CONTRACTOR IDENTIFICATION NUMBER**

NOTICE TO ALL BIDDERS:

Section 14835, et. seq. of the California Government Code requires that a five percent preference be given to bidders who qualify as a small business. The rules and regulations of this law, including the definition of a small business for the delivery of service, are contained in Title 2, California Code of Regulations, Section 1896, et. seq. A copy of the regulations is available upon request. Questions regarding the preference approval process should be directed to the Office of Small and Minority Business at (916) 322-5060. To claim the small business preference, you must submit a copy of your certification approval letter with your bid.

Are you claiming preference as a small business?

_____ Yes* X No

*Attach a copy of your certification approval letter.

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET.
SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

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 <i>M. Robert McLandrum</i>	TITLE <i>President</i>
APPLICANT ORGANIZATION <i>California Waterfowl Association</i>	DATE SUBMITTED <i>4/16/99</i>

Standard Form 424B (Rev. 7-97) Back

**APPLICATION FOR
FEDERAL ASSISTANCE**

OMB Approval No. 0348-0043

1. TYPE OF SUBMISSION: <input type="checkbox"/> Application <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction		2. DATE SUBMITTED 4/16/99	Applicant Identifier
<input type="checkbox"/> Preapplication <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction		3. DATE RECEIVED BY STATE	State Application Identifier
		4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier

5. APPLICANT INFORMATION
Legal Name: California Waterfowl Association **Organizational Unit:**

Address (give city, county, State, and zip code):
 4630 Northgate Blvd. Ste 150
 Sacramento, CA 95834

Name and telephone number of person to be contacted on matters involving this application (give area code)

6. EMPLOYER IDENTIFICATION NUMBER (EIN):
 94 - 1149574

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

8. TYPE OF APPLICATION:
 New Continuation Revision

9. NAME OF FEDERAL AGENCY:

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER:
 [] [] - [] [] []

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:

9. NAME OF FEDERAL AGENCY:

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER:
 [] [] - [] [] []

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:

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

13. PROPOSED PROJECT		14. CONGRESSIONAL DISTRICTS OF:	
Start Date 10/99	Ending Date	a. Applicant	b. Project

15. ESTIMATED FUNDING:		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. <input type="checkbox"/> PROGRAM IS NOT COVERED BY E. O. 12372 <input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW
a. Federal	\$ 960,000.00	
b. Applicant	\$.00	
c. State	\$.00	
d. Local	\$.00	
e. Other	\$.00	
f. Program Income	\$.00	
j. TOTAL	\$ 960,000.00	17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT? <input type="checkbox"/> Yes If "Yes," attach an explanation. <input type="checkbox"/> 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.

i. Type Name of Authorized Representative M. Robert McLandress	b. Title President	c. Telephone Number (916) 648-1406
f. Signature of Authorized Representative M. Robert McLandress		e. Date Signed 4/16/99