

**DEPARTMENT OF WATER RESOURCES**CENTRAL DISTRICT  
3251 S STREET  
SACRAMENTO, CA 95816-7017

Mr. Lester Snow  
CALFED  
1416 Ninth Street, Suite 1155  
Sacramento, California 95814

Dear Mr. Snow:

**Decker Island Habitat Development/Levee Improvement Category III Proposal**

Attached for your consideration is a unique and valuable Category III proposal with the following distinctive attributes:

- The project will provide significant habitat benefits in a relatively short period of time. This project will provide a very near term opportunity to illustrate to high ranking funding decision makers the progress being made towards successful ecosystem restoration.
- The project will provide a "win-win" for CALFED by meeting not only ecosystem restoration but levee system integrity goals and objectives. Consequently, this multi-objective project captures one of the critical themes of CALFED.
- The project is ideally situated to maximize aquatic habitat for the Sacramento River fall-run chinook salmon, winter-run salmon, spring-run salmon, Delta smelt, splittail, striped bass, steel head trout, and migratory birds.
- The project is truly unique since it achieves these aquatic and terrestrial benefits by utilizing lands that currently have very limited habitat values. The project area is a weedy upland dredged disposal area which will be restored to habitat types which existed on this site prior to 1917.

We hope you find this proposal as exciting as we do. Thank you in advance for your consideration.

Sincerely,

A handwritten signature in black ink that reads "Curt Schmutte".

Curt Schmutte, Chief  
Flood Protection and Geographic  
Information Branch

Enclosure

cc: Ed Littrell, DFG  
Chris Neudeck, KSN  
Frank Wernette, DFG

## EXECUTIVE SUMMARY

### DECKER ISLAND HABITAT DEVELOPMENT/LEVEE IMPROVEMENT PROJECT

Applicant: Department of Water Resources

#### Project Description and Primary Biological/Ecological Objectives & Justification for Project and Funding by CALFED

The Decker Island Habitat Development/Levee Improvement Project offers a unique opportunity to provide levee reinforcement material necessary to meet CALFED Delta levee system integrity goals while restoring habitat that existed prior to dredging of the Sacramento Deep Water Shipping Channel. This project will be implemented through cost-sharing of Category III and Delta Flood Protection Funds (SB34/AB360) to restore twenty acres of priority species habitat and provide approximately 600,000 cubic yards of material necessary to reduce risk of Delta levee failure. Due to advanced planning and design, project construction can begin as early as winter of 1997 and be completed in 1998 to demonstrate immediate benefits for priority species.

Decker Island is currently approximately 20' above sea level due to dredge spoils that were deposited on the island when the Sacramento River was dredged (1917-1937). The primary biological/ecological objective of this project is to restore habitat by excavating meandering waterways and midchannels through the northern tip of the island. The goal is to recreate tidal system function and thereby a diversity of aquatic, wetland, riparian and upland habitat complexes sought by CALFED's ERPP. The project will restore tidal perennial aquatic habitat, seasonal wetland and aquatic habitat, instream aquatic habitat, shaded riverine aquatic habitat, and midchannel islands and shoals habitat. The priority species which will benefit from the project include San Joaquin River fall-run chinook salmon, winter-run salmon, spring-run salmon, Delta smelt, splittail, striped bass, steelhead trout, and migratory birds.

#### Approach/Tasks/Schedule

SB34/AB360 currently has funding to excavate and place 300,000 cubic yards of material on Delta levees for maintenance while creating ten acres of habitat (Phase I). Category III funding of \$1.5 million dollars will allow the project size to double, allowing for removal of 600,000 cubic yards of material for levees while creating twenty acres of habitat (Phase II). Currently, applications for permits with the Department of Fish and Game (use of land and 1601 Agreement), U.S. Corps of Engineers (404 Letter of Permission), U.S. Fish and Wildlife Service (Section 7 consultation), and the Regional Water Quality Control Board (401 Waiver of Certification) are being submitted for Phase I of the Project. Construction is scheduled to begin November 1997, with plantings to be made at the optimal time in fall 1998. If Category III funds are awarded, all agreements and permits will be amended or resubmitted during Spring 1998 to allow expansion of the project. Construction of Phase II would begin during the summer of 1998.

### Applicant Qualifications

The Department of Water Resources and the Department of Fish and Game staff are taking the lead on this project to ensure that project objectives are met. Curt Schmutte, DWR, will act as project manager. He managed more than \$30 million of Delta flood control and habitat development projects. Additionally, he was formerly the program manager of the Levee System Integrity Component of CALFED. Mr. Schmutte will be coordinating with Ed Littrell (DFG) to ensure that the project objectives will be met. Mr. Littrell has experience in waterfowl research, environmental impact review, and managing a program to preserve fish and wildlife habitat in the Sacramento-San Joaquin Delta.

### Monitoring and Data Evaluation

The Inter-Agency Ecological Program (IEP), DWR, and DFG will provide technical services for the biological monitoring and design assistance. IEP maintains the expertise and equipment to perform all the necessary aquatic and benthic monitoring which will be needed for this project. DWR and DFG will perform all the necessary water quality, vegetation and terrestrial monitoring. Since DWR is an integral part of the IEP, and IEP is submitting a Category III proposal for monitoring associated with CALFED restoration projects, a partnership with IEP is a natural component of this project.

Since this project may establish procedures and methodologies for recreating pre-existing tidal wetlands in the Delta, it is important that the monitoring plan evaluate the project's technological and environmental merits. Ultimately, the monitoring plan will correlate the physical and biological elements to explain and support the ecological function and benefits of the resultant project.

### Local Support/Coordination

This project is supported with the Department of Fish and Game. DFG will play an active role in the planning, design, and construction of the project to ensure that the project goals are met. Additionally, this project is consistent with SB34/AB360 and CALFED levee System Integrity Program and habitat restoration goals in the Delta. The vegetation on Decker Island will be planted by the California Conservation Corps. This will provide an opportunity for youth to learn about the Delta's importance, as well as how to plant and grow vegetation native to the area. This project is also fully supported by the Sherman Island and Twitchell Island Reclamation Districts because it provides an alternative, cost effective method for stabilizing their levees.

DECKER/TWITCHELL/SHERMAN ISLAND  
HABITAT DEVELOPMENT/LEVEE IMPROVEMENT PROJECT

Applicant:

CURT SCHMUTTE, Chief, Flood Protection and Geographic Information Branch  
Central District, Department of Water Resources  
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(916) 227-7567, fax 227-7600, e-mail [schmutte@water.ca.gov](mailto:schmutte@water.ca.gov)

The Department of Water Resources is a state agency, Tax Identification Number 52-1692634

Technical and Financial Contact Person:

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(916) 227-7567, fax 227-7600, e-mail [schmutte@water.ca.gov](mailto:schmutte@water.ca.gov)

RFP Project Group Type: Construction



### III PROJECT DESCRIPTION

#### a. Project Description and Approach

The project will excavate, transport, and place 600,000 cubic yards of dredge spoil material (silty sands, and clays) that is currently stockpiled on Decker Island. As seen in the aerial photograph on the cover page of this proposal, Decker Island is currently 20' above sea level and has very little habitat value since it consists mainly of non-native weeds and grasses. The material removed will be barged from Decker Island to Sherman Island, Twitchell Island, and other Delta Islands in need of material for levee integrity. Upon removal of material, the excavated areas on Decker Island will be graded to elevations which support targeted habitats. These elevations will be determined based on results of completed habitat development projects in the Delta and consultation with DFG, USFWS, and NMFS. Ed Littrell will be the lead on development of a planting plan for the project site, and plantings will be placed by the California Conservation Corps staff. Once project funding is available, a detailed monitoring program will be developed by DWR and DFG staff in consultation with IEP, USFWS, and NMFS.

The soils removed will be used to improve levees on Delta Islands. Due to subsidence of Delta islands, many are in need of material for levee maintenance and improvement projects. The Decker Island dredge spoils will be ideal for maintenance and improvement projects to help meet the goals and objectives of the CALFED levee system integrity common program.

#### b. Location of Project

The project will be constructed in the northern tip of Decker Island in the Sacramento-San Joaquin Delta. See attached map.

#### c. Expected Benefits

As mentioned above, the project will: (1) provide significant habitat benefits in a relatively short period of time; (2) provide a "win/win" for CALFED by meeting ecosystem restoration and levee system integrity goals and objectives; (3) maximize aquatic habitat for priority species; and (4) utilize land that currently has limited environmental benefits.

The proposed project will restore habitat similar to what existed prior to dredging of the Sacramento River, and will provide material necessary for protection of Sherman and Twitchell Islands. The project design has focused on creating the following habitats which provide the broadest ecosystem benefits to priority species:

- tidal perennial aquatic habitat (shallow water)
- seasonal wetland and aquatic habitat
- instream aquatic habitat
- shaded riverine aquatic habitat
- midchannel island and shoals habitat

Priority species benefitting from the habitat created include:

- San Joaquin River fall-run chinook salmon
- winter-run salmon
- spring-run salmon
- delta smelt
- splittail
- striped bass
- steelhead trout
- migratory birds

d. Background and Biological/Technical Justification

The northern tip of Decker Island is ideal for habitat development for several reasons: (1) the Department of Fish and Game currently owns the 32.5 acre parcel where the habitat will be developed; (2) the island currently has very low habitat value; (3) the SB34 and Category III partnership will allow for a large area of habitat creation; and (4) sediment removed for habitat creation will be used for levee maintenance on Delta islands in the vicinity.

e. Proposed Scope of Work

Pending permit approvals, Phase I of the Project is scheduled to begin construction in during the winter of 1997. CALFED funding will be used for construction of Phase II, providing a means to double the size of the project. Construction of Phase II would begin during the summer of 1998. The SB34/AB360 program will provide funding for planning, design, and necessary permits. Monthly updates on planning, design, and construction will be provided. Copies of the design and permits will also be submitted.

f. Monitoring and Data Evaluation

Since this project has no predetermined or mandated ecological results, the monitoring plan is oriented toward examining overall ecological function without specific success criteria. The goal is to recreate tidal system function and thereby a diversity of aquatic, wetland, riparian and upland habitat complexes sought by CALFED's ERPP. Since this project may establish procedures and methodologies for recreating pre-existing tidal wetlands in the Delta, it is important that the monitoring plan evaluate the projects technological and environmental merits. Ultimately, the monitoring plan will correlate the physical and biological elements to explain and support the ecological function and benefits of the resultant project.

The physical aspects of the project will substantially determine the quality and distribution of the biological elements. Therefore the monitoring plan will include annual surveys of the following:

1. Upland elevations and channel bathymetry
2. Water quality in the created channels and sloughs
3. Erosion or accretion at the mouth of the new channels

Biological information from the project site will be collected through field sampling. The development and distribution of plant communities, and their use by wildlife, can be directly measured through field observations and data collection. Three plant transects will be established, including photomonitoring stations, for data collection. Wildlife use will be determined by measuring the extent and quality of suitable shallow water and emergent marsh habitat throughout the entire project area. These shallow waters and emergent marshes are known to provide important feeding, reproductive and escape cover habitat for priority fish species living or migrating through the Delta. Essentially, the habitat will act as a surrogate indicator of potential fisheries use in the project area. At the end of the monitoring period (3 years), direct fisheries sampling will be performed in the spring and fall to determine the variety and intensity of fisheries use.

The following biological elements will be monitored once per year, with three exceptions; 1) surveys for threatened and endangered plants which may require seasonal monitoring during their flowering cycle, 2) surveys for bird use as migratory species seasonally move through the area, and 3) direct fisheries sampling in the spring and fall of the third year of monitoring:

1. Vegetation identification and distribution
2. Plant species richness
3. Threatened or endangered plant species
4. Non-native, exotic pest plant species
5. Verification of plant communities diversity
6. Bird and wildlife use
7. Threatened or endangered wildlife species
8. Distribution of shallow water and emergent marsh habitat to indicate potential fisheries use
9. Direct fisheries sampling

The monitoring plan will continue for three years. All aspects of the monitoring plan will be coordinated with DFG, USFWS, NMFS and other interested parties. The monitoring plan will be coordinated with the Sherman Island Category III project as appropriate.

#### g. Implementability

DWR is currently requesting approval from various agencies to allow construction of the habitat for Phase I. This includes a formal agreement with DFG to create habitat on Decker Island, U.S. Army Corps of Engineers 404 Letter of Permission, DFG 1601 Agreement, U.S. Fish and Wildlife Section 7 consultation, Regional Water Quality Control Board 401 Certification or Waiver, and approval from the State Lands Commission. If Phase II is selected for funding, all permits/agreements will be modified or resubmitted to allow for expansion of the project.



# Decker Island

HABITAT RESTORATION PROJECT

EXISTING CONDITION

Sacramento River

Decker Island

AFTER CONSTRUCTION

Sacramento River

#### IV. COSTS AND SCHEDULE TO IMPLEMENT PROPOSED PROJECT

##### a. Budget Costs

A specific breakdown of project costs can be seen on the table on the following page. SB34/AB360 will provide funding for implementation of Phase I of the Project. SB34/AB360 will also cost-share \$2 million for planning, permitting, design, and levee maintenance/improvements associated with the completion of Phase II. However, no funds are available for excavation, construction, and monitoring of the habitat restoration portion of Phase II. Therefore, the total request for Category III funding is \$1.5 million, for the cost of excavation, construction, and monitoring of the habitat restoration.

##### b. Schedule Milestones

<u>MILESTONE/ACTIVITY</u>	<u>DURATION</u> (Months)	<u>TOTAL</u>	<u>START DATE</u>
Start of Construction	0.0	0.0	June 1, 1998
Contractor Mobilization	0.5	0.5	June 1, 1998
Excavation	4.0	4.5	June 15, 1998
Final Grading	1.0	5.5	Oct 15, 1998
Plantings	1.0	6.5	Nov 15, 1998

##### c. Third Party Impacts

The project is proceeding with the approval of the Department of Fish and Game, which owns the land, and the associated reclamation districts. There will be no third party impacts.

# Decker Island Habitat Development / Levee Improvement Project

Prepared for: CALFED  
Submitted: July 28, 1997

Item	Direct Labor (hours)	Direct Salary and Benefits (\$)	Overhead Labor (Gen. Admin and Fee) (\$)	Service Contracts (\$)	Material and Acquisition Contracts (\$)	Miscellaneous and Other Direct Costs (\$)	Total Cost (\$)
Solicit Bids				\$6,000			\$6,000
Award Contract				\$3,000			\$3,000
<b>Construction</b>							
Excavation				\$1,034,762			\$1,034,762
Final Grading				\$300,000			\$300,000
Plantings				\$100,000			\$100,000
Subtotal:							\$1,434,762
<b>Monitoring (per year)</b>							
Vegetation Transects	48	\$1,212	\$583	\$0	\$100	\$500	\$2,395
Prepare Whole Site Map	48	\$1,212	\$583	\$0	\$100	\$200	\$2,095
Bird and Wildlife Surveys	64	\$1,615	\$777	\$0	\$0	\$100	\$2,492
Topographic Measurements	64	\$1,615	\$777	\$0	\$200	\$100	\$2,692
Water Quality	96	\$2,423	\$1,165	\$0	\$0	\$200	\$3,788
Work Up Data / Produce Report	40	\$1,010	\$486	\$0	\$0	\$0	\$1,496
Direct Fisheries Sampling	96	\$2,423	\$1,165	\$0	\$0	\$200	\$3,788
Per Year Subtotal:							\$18,746
Monitoring (2 additional years)							\$37,492
<b>PROJECT TOTAL:</b>							<b>\$1,500,000.00</b>

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## V. APPLICANT QUALIFICATIONS

The project manager will be Curt Schmutte, DWR. He will manage this project in consultation with Ed Littrell, DFG. Under Curt Schmutte's guidance, Sherman Island Reclamation District, and Twitchell Island Reclamation District, and other district engineers will be completing levee maintenance and improvement project design, and construction. Kjeldson, Sinnock, and Neudeck, Inc., will be providing assistance in completing the design, plans and specs, and construction activities.

Curt Schmutte previously led the System Integrity component of the CALFED program and has implemented difficult Delta levee, habitat and barrier projects. As program manager he was responsible for successfully developing the vision, plan, organization, process and schedule of the CALFED Levee and Channel Technical Team. As manager of DWR's SB34 program, he has managed over \$30 million in Delta levee improvement projects including difficult mitigation elements. Mr. Schmutte has also managed subsidence studies and pilot projects with the long-term Management Strategy program to study the viability of using San Francisco Bay dredged material on Delta levees. He has given numerous presentations to the public and has a thorough knowledge of the Delta, Delta related issues, regulatory requirements, and interested parties. His project success has involved: (1) budgeting; (2) directing and coordinating engineering/environmental consultants, contractors, and numerous Department staff; (3) maintaining project schedules; (4) obtaining all necessary project permits and environmental documentation (CEQA, ESA, USACE 404 Permits, RWQCB 401 Certificates, DFG 1601 Agreements, monitoring programs, and SMARA plans); (5) presentations to water agencies, management, and the public; (6) extensive public meetings, tours, briefings, media presentations. He is currently managing two Category III habitat development/restoration projects, the Lower Sacramento River Project and the Sherman Island Project.

Ed Littrell has twenty-seven years experience as a biologist with increasing responsibilities and technical expertise. Experience includes waterfowl research, environmental impact review, investigations into the effects of pesticides on wildlife, and managing a program to preserve fish and wildlife habitat in the Sacramento-San Joaquin Delta. Currently, Mr. Littrell is the DFG manager/leadperson for the SB34 program.

Kjeldson, Sinnock, and Neudeck, Inc. has been providing civil engineering and surveying services to public and private clients throughout the California Central Valley for the past 37 years. They have extensive experience in the development of commercial, institutional and municipal projects in the Stockton and San Joaquin areas and are capable of handling all phases of project development, from initial planning and site surveying, through construction and into the operation and maintenance of the completed facility. They also serve as the City/District Engineer for the City of Escalon, City of Isleton, Woodbridge Sanitary District, and San Andreas Sanitary District. In addition, the firm also currently provides consulting services to twenty-four Reclamation Districts throughout the Sacramento-San Joaquin Delta.

## VI. COMPLIANCE WITH STANDARD TERMS AND CONDITIONS

DWR is able to comply with the Terms and Conditions of the Category III Proposal, as laid out in Appendix D of the Request for Proposals.