

# Summary Information

California Department of Fish and Game

*Juvenile anadromous salmonid emigration monitoring on the Sacramento River at the Glenn–Colusa Irrigation District (GCID) Fish Screen Bypass Channel*

Amount sought: \$90,072

Duration: 36 months

Lead investigator: Ms. Diane Coulon, California Department of Fish and Game

## Short Description

This project will continue an existing California Department of Fish and Game (CDFG) juvenile salmonid monitoring project located at the Glenn Colusa Irrigation District (GCID) diversion on the Sacramento River near Hamilton City. The project has, and continues to provide short–term monitoring specifically related to restoration actions (including Delta operations), and long–term monitoring to detect annular and cyclic population changes.

## Executive Summary

This proposal seeks funding to continue an existing California Department of Fish and Game (CDFG) juvenile salmonid monitoring project located at the Glenn Colusa Irrigation District (GCID) diversion on the Sacramento River near Hamilton City. The project has, and continues to provide short–term monitoring specifically related to restoration actions (including Delta operations), and long–term monitoring to detect annular and cyclic population changes. The Sacramento River system is the principal producer of Chinook salmon caught in the State’s ocean fisheries, and sustains four distinct runs of Chinook salmon (*Onchorynchus tshawytscha*): fall– (FRCS), late fall– (LFRCS), winter– (WRCS), and spring–run Chinook salmon (SRCS); as well as Central Valley steelhead (*Onchorynchus mykiss*). WRCS, SRCS and steelhead are listed under the respective state and federal endangered species acts. The GCID site lies below the majority of upper Sacramento River salmon and steelhead populations, including WRCS, and two of the three remaining, self–sustaining SRCS populations, as well as being upstream of the major Sacramento River flood overflow structures (Moulton, Colusa and Tisdale weirs). The site also monitors juvenile emigration of other species, including green sturgeon (*Acipenser medirostris*), American shad (*Alosa sapidissima*), and splittail (*Pogonichthys macrolepidotus*).

Consistent year-round monitoring at the site has been conducted since 1991, with less systematic monitoring since 1929. Based in part on juvenile emigration monitoring at GCID, multiple restoration projects have been identified and implemented in the upper Sacramento River and subsequently incorporated into the CALFED Ecosystem Restoration Program (1998). The various projects include the GCID gradient stabilization and fish screen upgrade in 2002, as well as other fish screens/ladders, land acquisition, riparian restoration projects, flow acquisition and monitoring programs, gravel restoration projects, and stakeholder coordination programs.

The project is also providing key input to several recovery and management efforts including: 1) NOAA Fisheries led Central Valley Technical Recovery Team effort developing status and recovery plans for Central Valley SRCS, 2) Interagency Ecological Program Delta Operations Group Sacramento River Spring-run Chinook Salmon Protection Plan, and 3) NOAA Fisheries led workgroup developing management goals and recommendations to the Pacific Fishery Management Council for potential amendments to the Pacific Coast Salmon Plan. Due to the longevity and consistency of the data, this site provides the most complete data set on the entire river, the value of which increases over time as a research and reference tool. Monitoring is effective at GCID because of its protected location off the main river channel, which allows the ability to operate rotary screw traps at high flows; and the downstream proximity of this site to critical salmon and steelhead spawning areas. With completion of the GCID gradient stabilization and fish screen upgrade in 2002, the site is now an even more hydraulically and structurally efficient, cost-effective juvenile trapping and monitoring facility.

## **A. Project Description: Project Goals and Scope of Work**

### **1. Problems, Goals and Objectives –**

With the significant decline in Central Valley salmon and steelhead populations beginning in the late 1960's, juvenile emigration monitoring became a key assessment tool to help identify and implement remedial actions to forestall further decline and effect restoration. State and federal restoration plans were developed to address the problem including the California Department of Fish and Game (CDFG), Restoring Central Valley Streams: A Plan for Action (1993), and the U.S. Fish and Wildlife Service, Draft Anadromous Fish Restoration Plan (AFRP) (1995). Based in part on juvenile emigration monitoring at the Glenn-Colusa Irrigation District (GCID) Sacramento River diversion site (Figure 1), multiple restoration projects were identified in the upper Sacramento River, and subsequently incorporated into the CALFED Ecosystem Restoration Program Plan (ERPP) (1998). These restoration projects are currently key to the subsequent CALFED Strategic Plan for Ecosystem Restoration Program (2000) goal, to ***“Achieve recovery of at-risk native species ...”***.

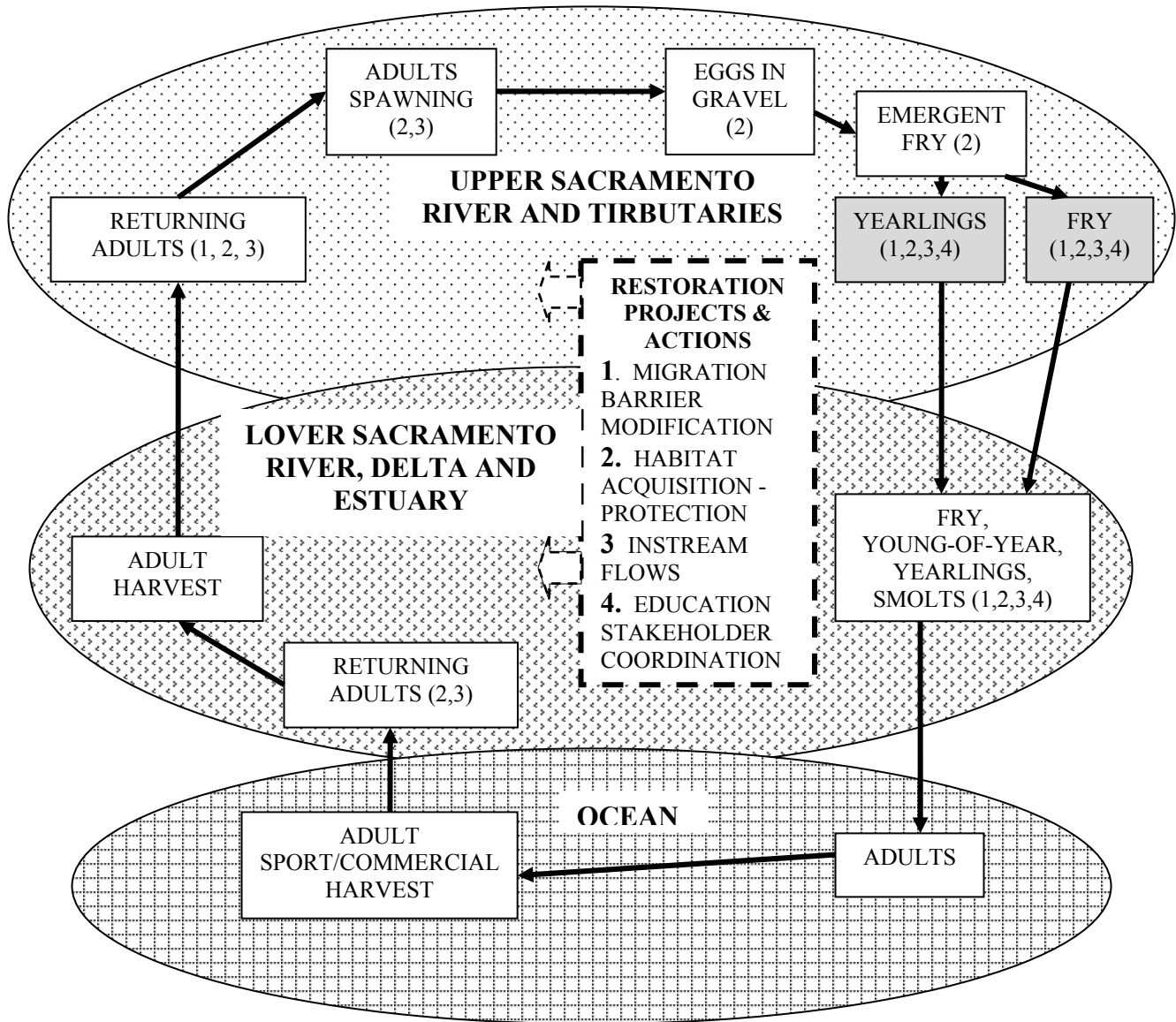
The upper Sacramento River and the tributaries above the Feather River produce a significant number of Central Valley Chinook salmon and steelhead. Included is the only population of the state and federally listed winter-run Chinook salmon (WRCS), two of the remaining self-sustaining populations of the state and federally listed spring-run Chinook salmon (SRCS), and various populations of the federally listed steelhead. Multiple restoration actions have been implemented that directly or indirectly focus on these populations, some of which are listed in the CALFED table of previously-funded ERPP restoration actions included within this grant process (CALFED PSP Tools). The various projects include multiple fish screens/ladders, land acquisition, riparian restoration, flow acquisition and monitoring projects, gravel restoration, education programs, and stakeholder coordination. Additionally, and not included in the CALFED table, was the reconstruction of the GCID diversion to include river gradient stabilization and fish screen modification meeting current CDFG and NOAA Fisheries screen criteria.

Each of the projects mentioned above was implemented in part based upon juvenile monitoring at GCID (Figure 1), which helped to identify the onset and duration of migration times, size(s) at migration, racial composition, relative abundance, and population trends.

### **2. Justification –**

The following diagrammatic conceptual model (Figure 2) details key life-history stages of the various Central Valley anadromous fish populations. Each restoration project/action has a potential discrete measure of success. However, meeting the CALFED Strategic Plan for Ecosystem Restoration Program (2000) goal to ***“Achieve recovery of at-risk native species ...”*** requires a broad metric that encompasses all restoration actions/projects. The single most effective overall and long-term metric is the annual adult escapement estimate. A secondary, and equally important metric is the measure of juvenile emigration which likely provides a more responsive short-term glimpse of production and habitat condition, and a long-term measure of cyclic changes. This project will continue a juvenile baseline monitoring project at the GCID site that has been consistently conducted since 1991, and which has been variously implemented since the 1920's (CDFG, 1929). This provides a benchmark for comparison and evaluation of long-term trends.

**Figure 2. GCID Juvenile Monitoring Project Conceptual Model**



**Hatched ovals represent the key geographical areas.**  
**Restoration projects/actions are categorized by type of activity.**  
**Boxes connected by arrows represent discrete life stage by location, with potential affect of restoration action(s).**

### 3. Previously Funded Monitoring --

Juvenile monitoring at the GCID diversion has been funded by various grant programs since installation of the rotary drum fish screen in the early 1970's. Recent studies and project implementation have been funded through the CVPIA Section 3406(b)(20) as well as direct funding from CDFG. Performance testing of the gradient restoration and the fish screen is currently funded through the Bureau of Reclamation, GCID, and the State of California, and is separate from this juvenile monitoring proposal.

Project results have been summarized in monthly reports started in September 1996, and a draft annual report for the years 2000 and 2002. (Coulon, Dixon, 2004, unpublished). Key findings to date include:

#### Migration

- This monitoring site was the first to document WRCS migration as fry starting as early as mid-July.
- WRCS migration usually peaks the end of September and ends in April.
- SRCS migration starts November/December, usually peaks in April and ends in May.
- Steelhead are generally present all months of the year.
- Green sturgeon (*Acipenser medirostris*) juveniles usually appear in May and continue as late as November.
- Sacramento splittail (*Pogonichthys macrolepidotus*) are seen at this site April through June.
- American shad (*Alosa sapidissima*) are captured from May through January.
- Lamprey (*Lampetra spp*) are usually present all months of the year.

### 4. Approach and Scope of Work –

**Location of Project:** This project is located in Glenn County, California approximately four miles north of Hamilton City at the GCID Sacramento River diversion (39.789770° N/ 122.050000° W), River Mile 205.5 (Figure 1).

**Approach:** Project will provide funding for field technicians to operate sampling site.

#### **Task 1. Project Management-**

Quarterly and final reports will be provided by the Principal Investigator for this project. The reports will summarize the ongoing progress of the project, address pertinent project management issues relating to the oversight of the project, and provide invoices as required.

#### **Task 2. Juvenile Monitoring -**

The primary purpose of this project is monitoring of juvenile Chinook salmon and is focused upon WRCS and SRCS. The GCID trap is the first monitoring site in the upper Sacramento River that lies below the majority of salmon and steelhead spawning habitat, including all of the WRCS habitat and

two of the key SRCS habitats (Deer and Mill creeks). This proposal will continue juvenile monitoring for three additional years, using one 8-foot diameter rotary screw trap manufactured by EG Solutions (Eugene, Oregon), located in an oxbow off the mainstem Sacramento River downstream from the GCID fish screen structure. The trap is attached to an overhead steel high-line suspended across the channel and anchored on opposite banks to secured tower structures. The trap will be adjusted daily, and more often as needed, to allow for safe operation and access as well as to maximize trapping efficiency. The trap will be fished 24 hours per day, 7 days per week and 365 days per year, except during periods of excessive debris or high flows. The trap will be checked a minimum of once per day, with more frequent checks as necessary. All fish will be netted from the trap live-well and immediately placed in buckets of fresh river water. A sub-sample of approximately 50 salmonids from each race will be measured individually to the nearest mm fork length. Salmon race is determined using size-at-time criteria (Johnson et al., 1992). After the initial sub-sample of 50 juvenile salmon is measured, the remaining salmon are visually sorted by race and counted. All ad-clipped or marked salmon are recorded. The first ten of each non-salmonid fish species are measured to the nearest mm fork length, and the remainder counted. All species captured are recorded. After processing, all fish are transported downstream by boat and released into the mainstem Sacramento River at approximate River Mile 205.

GCID juvenile migration monitoring is a component of the Interagency Ecological Program (IEP) Delta Operations Group Sacramento River Spring-run Chinook Salmon Protection Plan. All data will continue to be entered into the IEP database and exported weekly for use by the appropriate agencies.

## **5. Feasibility --**

This proposal continues the existing GCID juvenile monitoring project which as previously described provides short-term monitoring specifically related to restoration actions (including Delta operations), and long-term monitoring to detect annular and cyclic change. With completion of the GCID gradient stabilization and the fish screen upgrade in 2002, the site is now hydraulically and structurally a very effective juvenile trapping/monitoring facility. The site lies below the majority of all upper Sacramento River salmon and steelhead populations, including WRCS, and two of the SRCS populations, as well as being upstream of the major Sacramento River flood overflow structures (Moulton, Colusa and Tisdale weirs). Due to the site location along the river and the recent hydraulic/structural modifications, sampling costs have also been minimized. Sampling will only be interrupted dependent upon high water, excessive debris, and the potential for injury to personnel or damage to sampling gear.

Project activities are currently authorized under a NOAA Fisheries 4(d) rule for two affected ESU's: SRCS and Central Valley Steelhead. Additionally, the project submitted an application on October 1, 2003 for a NOAA Fisheries Section 10(a)(1)(A) Research Permit that will provide coverage through November 2008.

## **6. Expected Outcomes and Products --**

CDFG's project manager will prepare and submit quarterly progress reports. Progress reports will be submitted to CALFED by the 10<sup>th</sup> day of the month following the end of the quarter. Quarterly reports will include project fiscal information, progress toward achieving the Tasks stated in this proposal, and any problems and/or delays encountered. If needed, a description of any modifications to the project

contract will be outlined. Annual reports will be prepared and submitted by the end of the first quarter of the subsequent year. A project final report will be prepared and submitted.

CDFG project staff will regularly make presentations at meetings, science conferences, workshops, and educational programs. CDFG project staff are also participants in the Salmon Escapement Project Work Team, the Juvenile Monitoring Project Work Team and the Technical Oversight Committee for the GCID fish screen project and gradient facility.

**7. Data Handling, Storage and Dissemination –**

Field sampling data are entered into a Microsoft relational database located in the Hamilton City field office located at the GCID sampling site. All data are exported weekly to the IEP server in Sacramento. Once per week, a backup is made of all databases on a removable media. The backup is stored at a site remote from the GCID field office. Original data sheets are kept at the CDFG’s Hamilton City field office and photocopies are kept in a remote location away from that office.

**8. Public Involvement and Outreach –**

Public involvement has been achieved through CDFG project staff participation in educational and public tours of the GCID fish screen facility and educational workshops. Public outreach will continue with CDFG staff conducting tours for the public and other agencies, attendance of local public and stakeholder meetings, and presentations made at school classrooms and workshops.

**9. Work Schedule -**

The proposed work schedule by task and deliverables is presented in Table 1.

**Table 1. – Task description, start month and end month of juvenile salmonid emigration monitoring at GCID.**

<b>Task #</b>	<b>Task</b>	<b>Start Month</b>	<b>End Month</b>	<b>Deliverable</b>
1	Project Management	1	36	Quarterly reports Annual reports Final report
2	Juvenile Monitoring	1	36	Daily monitoring data worksheet Monthly summary reports Annual summary reports

**B. Applicability to CALFED Bay-Delta Program ERP Goals, the ERP Draft Stage 1 Implementation Plan, and CVPIA Priorities**

## **1. ERP and CVPIA Priorities --**

This research project and proposal directly addresses ERP Draft Stage 1 Implementation Plan and Ecosystem Restoration Plan, Goal 1, Recovery of At-risk Species. Additionally, specific applications of the CALFED Science Program Goals included in the Draft Stage 1 Implementation Plan are addressed to include: adaptive management, monitoring, interdisciplinary knowledge of critical unknowns, improving scientific basis of water management, and broad communication of scientific knowledge and scientific activities. WRCS, SRCS, steelhead, and green sturgeon are among species designated “R” in the Multi-Species Conservation Strategy (MSCS) that establishes a goal to recover those species within the CALFED ERPP ecological management zones. This project provides baseline population metrics addressing MSCS conservation measures for those species relative to emigration onset, duration, abundance, size, and racial identification. Various CVPIA AFRP Upper Sacramento River actions and evaluations are also addressed in part to include 1) Action #7, implement structural and operational modifications at GCID diversion, 2) Evaluation # 6, identify and maintain flows for white and green sturgeon, 3) Evaluation #7, identify and maintain flows for American shad, and 4) Evaluation #9, identify entrainment of juvenile sturgeon.

## **2. Relationship to Other Ecosystem Restoration Actions, Monitoring Programs, or System-wide Ecosystem Benefits --**

This research project is providing baseline data for recovery/restoration and management of all upper Sacramento River anadromous fish populations including green sturgeon. Monitoring data are provided to and utilized by: 1) NOAA Fisheries led Central Valley Technical Recovery Team effort developing status and recovery plans for Central Valley WRCS and SRCS, 2) IEP Delta Operations Group Sacramento River Spring-run Chinook Salmon Protection Plan, and 3) NOAA Fisheries led workgroup developing management goals and recommendations to the Pacific Fishery Management Council for potential amendments to the Pacific Coast Salmon Plan.

## **C. Qualifications**

CDFG, Sacramento Valley Central Sierra Region Chico office, will implement and oversee this project. CDFG Regional Manager and Senior Fisheries Staff will provide guidance and support to insure that the project is completed in a timely and professional manner.

### Project Management and Oversight

Mr. John Nelson, Senior Environmental Scientist and Principal Investigator will provide overall project management and oversight. Mr. Nelson has been involved in anadromous fishery management, research, and restoration for over 25 years. Mr. Nelson’s position is funded by the CDFG and is not supported by CALFED funds. Ms. Diane Coulon, CDFG Environmental Scientist and Project Field Lead, will conduct and oversee all field work and data management. Ms. Coulon has led anadromous fisheries research and monitoring activities for 5 years with CDFG. Ms. Coulon is funded by CDFG and is not supported by CALFED funds. Ms. Coulon has co-authored a draft project report. Several field technicians will be hired and funded by CALFED as shown in attached budget. Education and/or experience in a related field are requirements for these positions.



## **D. Cost**

### **1. Budget - Attached**

### **2. Cost Sharing -**

Cost share, although not tracked by this project, will include CDFG personnel providing project management and oversight, and associated support facilities and equipment. Mr. John Nelson is providing the project management and oversight, and Ms. Diane Coulon will dedicate 100% of her time for field lead duties.

### **3. Long-term Funding Strategy --**

Juvenile monitoring objectives are expected to change as CALFED related restoration actions are implemented and as anadromous fish populations begin to recover. Short-term monitoring specifically related to restoration action is anticipated to be necessary for at least the next five years. Long-term monitoring to detect annular and cyclic change is expected to continue for an indefinite period. The GCID monitoring site is ideally situated for the long-term monitoring since with the recent restoration of the site it is hydraulically and structurally configured to efficiently capture juvenile anadromous fish emigrating from the upper Sacramento River. Unlike most other sample sites, it is located immediately below the majority of the upper Sacramento River anadromous spawning areas, and above the major Sacramento River flood bypasses or overflow structures (Moulton, Colusa, and Tisdale weirs).

## **E. Compliance with Standard Terms and Conditions**

Applicants agree to comply with the terms of standard ERP grant agreements, as described in current PSP attachment.

## **F. Literature Cited**

CDFG, 1929. Division of Fish and Game, Department Natural Resources. Seining Operations Below Glenn-Colusa Irrigation District Headgates. Report No. 106 Glenn Colusa Canal, August 1929. 13 pp.

Coulon, D.M., and Dixon, R. 2004. Monitoring of Juvenile Anadromous Salmonid Emigration in the Sacramento River Near Hamilton City, California, July 2000 through June 2002. Draft Calif. Dept. of Fish and Game, Inland Fisheries Admin. Report (unpublished). 21pp.

Johnson, R.R., F.W. Fisher, and D.D. Weigand. 1992. Use of growth data to determine the spatial and temporal distribution of four runs of juvenile Chinook salmon in the Sacramento River, California. U. S. Fish and Wildlife Service, Report AFF-FRO-92-15, Red Bluff, California.



**Figure 1. Map of Upper Sacramento River showing proposal project area.**

# Tasks And Deliverables

*Juvenile anadromous salmonid emigration monitoring on the Sacramento River at the Glenn–Colusa Irrigation District (GCID) Fish Screen Bypass Channel*

<b>Task ID</b>	<b>Task Name</b>	<b>Start Month</b>	<b>End Month</b>	<b>Deliverables</b>
I	Project Management	1	36	Quarterly reports Final report Periodic invoices
II	Juvenile Monitoring	1	36	Daily monitoring data distribution Monthly monitoring summary reports Annual monitoring summary reports

## Comments

If you have comments about budget justification that do not fit elsewhere, enter them here.

# Budget Summary

## Project Totals

Labor	Benefits	Travel	Supplies And Expendables	Services And Consultants	Equipment	Lands And Rights Of Way	Other Direct Costs	Direct Total	Indirect Costs	Total
\$58,164	\$10,062	\$0	\$0	\$0	\$0	\$0	\$0	\$68,226	\$21,846	\$90,072

Do you have cost share partners already identified?

**Yes.**

If yes, list partners and amount contributed by each:

The California Department of Fish and Game(CDFG)provides the salary, benefits and overhead for one full-time Project Field Lead position (Environmental Scientist) for this project. The cost is \$40,000 per year plus benefits and overhead. The CDFG also provides supplies and expendables for this project (approximately \$1,000 per year).

Do you have potential cost share partners?

**No.**

If yes, list partners and amount contributed by each:

Are you specifically seeking non-federal cost share funds through this solicitation?

**No.**

*Juvenile anadromous salmonid emigration monitoring on the Sacramento River at the Glenn-Colusa Irrigation District (GCID) Fish Screen Bypass Channel*

*Juvenile anadromous salmonid emigration monitoring on the Sacramento River at the Glenn-Colusa Irrigation District (GCID) Fish Screen Bypass Channel*

## Year 1 ( Months 1 To 12 )

Task	Labor	Benefits	Travel	Supplies And Expendables	Services And Consultants	Equipment	Lands And Rights Of Way	Other Direct Costs	Direct Total	Indirect Costs	Total
I: project management (12 months)	0	0	0	0	0	0	0	0	\$0	0	\$0
II: Juvenile Monitoring (12 months)	19388	3354	0	0	0	0	0	0	\$22,742	7282	\$30,024
<b>Totals</b>	<b>\$19,388</b>	<b>\$3,354</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$22,742</b>	<b>\$7,282</b>	<b>\$30,024</b>

## Year 2 ( Months 13 To 24 )

Task	Labor	Benefits	Travel	Supplies And Expendables	Services And Consultants	Equipment	Lands And Rights Of Way	Other Direct Costs	Direct Total	Indirect Costs	Total
I: project management (12 months)	0	0	0	0	0	0	0	0	\$0	0	\$0
II: Juvenile Monitoring (12 months)	19388	3354	0	0	0	0	0	0	\$22,742	7282	\$30,024
<b>Totals</b>	<b>\$19,388</b>	<b>\$3,354</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$22,742</b>	<b>\$7,282</b>	<b>\$30,024</b>

## Year 3 ( Months 25 To 36 )

Task	Labor	Benefits	Travel	Supplies And Expendables	Services And Consultants	Equipment	Lands And Rights Of Way	Other Direct Costs	Direct Total	Indirect Costs	Total
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I: project management (12 months)	0	0	0	0	0	0	0	0	0	\$0	0	\$0
II: Juvenile Monitoring (12 months)	19388	3354	0	0	0	0	0	0	0	\$22,742	7282	\$30,024
<b>Totals</b>	<b>\$19,388</b>	<b>\$3,354</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$22,742</b>	<b>\$7,282</b>	<b>\$30,024</b>

# Budget Justification

*Juvenile anadromous salmonid emigration monitoring on the Sacramento River at the Glenn–Colusa Irrigation District (GCID) Fish Screen Bypass Channel*

## Labor

Year 1. Task II: 1,556 Scientific Aide hours. Compensation rate: \$12.46 per hour Year 2. Task II: 1,556 Scientific Aide hours. Compensation rate: \$12.46 per hour Year 3. Task II: 1,556 Scientific Aide hours. Compensation rate: \$12.46 per hour

## Benefits

The Scientific Aide benefit rate is 17.3% of the salary of \$12.46 per hour.

## Travel

There are no travel costs for this project. Any Travel expenditures are considered a cost share by the California Department of Fish and Game.

## Supplies And Expendables

There are no supplies or expendables proposed for this project. Any Supplies And Expendables are considered a cost share by the California Department of Fish and Game.

## Services And Consultants

There are no service or consultant fees assessed to this project.

## Equipment



There are no equipment costs for this project. Any Equipment expenditures are considered a cost share by the California Department of Fish and Game.

## **Lands And Rights Of Way**

All right of way requirements have been secured through a Memorandum Of Understanding (MOU) between the Glen Colusa Irrigation District (GCID) and the California Department of Fish and Game (CDFG).

## **Other Direct Costs**

No direct costs.

## **Indirect Costs/Overhead**

The overhead amount is 32.02% of the salary and benefits combined.

## **Comments**

# Environmental Compliance

*Juvenile anadromous salmonid emigration monitoring on the Sacramento River at the Glenn–Colusa Irrigation District (GCID) Fish Screen Bypass Channel*

## CEQA Compliance

Which type of CEQA documentation do you anticipate?

none

- negative declaration or mitigated negative declaration
- EIR
- categorical exemption

If you are using a categorical exemption, choose all of the applicable classes below.

- Class 1. Operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. The types of "existing facilities" itemized above are not intended to be all-inclusive of the types of projects which might fall within Class 1. The key consideration is whether the project involves negligible or no expansion of an existing use.
- Class 2. Replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced.
- Class 3. Construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure. The numbers of structures described in this section are the maximum allowable on any legal parcel, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.
- Class 4. Minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.
- Class 6. Basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies. These may be strictly for information

gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded.

– Class 11. Construction, or placement of minor structures accessory to (appurtenant to) existing commercial, industrial, or institutional facilities, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.

Identify the lead agency.

Is the CEQA environmental impact assessment complete?

If the CEQA environmental impact assessment process is complete, provide the following information about the resulting document.

**Document Name**

**State Clearinghouse Number**

If the CEQA environmental impact assessment process is not complete, describe the plan for completing draft and/or final CEQA documents.

## **NEPA Compliance**

Which type of NEPA documentation do you anticipate?

none

– environmental assessment/FONSI

– EIS

– categorical exclusion

Identify the lead agency or agencies.

If the NEPA environmental impact assessment process is complete, provide the name of the resulting document.

If the NEPA environmental impact assessment process is not complete, describe the plan for completing draft and/or final NEPA documents.

Successful applicants must tier their project's permitting from the CALFED Record of Decision and attachments providing programmatic guidance on complying with the state and federal endangered species acts, the Coastal Zone Management Act, and sections 404 and 401 of the Clean Water Act.

Please indicate what permits or other approvals may be required for the activities contained in your proposal and also which have already been obtained. Please check all that apply. If a permit is *not* required, leave both Required? and Obtained? check boxes blank.

<b>Local Permits And Approvals</b>	<b>Required?</b>	<b>Obtained?</b>	<b>Permit Number (If Applicable)</b>
<b>conditional Use Permit</b>	-	-	
<b>variance</b>	-	-	
<b>Subdivision Map Act</b>	-	-	
<b>grading Permit</b>	-	-	
<b>general Plan Amendment</b>	-	-	
<b>specific Plan Approval</b>	-	-	
<b>rezone</b>	-	-	
<b>Williamson Act Contract Cancellation</b>	-	-	
<b>other</b>	-	-	

<b>State Permits And Approvals</b>	<b>Required?</b>	<b>Obtained?</b>	<b>Permit Number (If Applicable)</b>
<b>scientific Collecting Permit</b>	-	-	
<b>CESA Compliance: 2081</b>	-	-	
<b>CESA Compliance: NCCP</b>	-	-	
<b>1602</b>	-	-	
<b>CWA 401 Certification</b>	-	-	
<b>Bay Conservation And Development Commission Permit</b>	-	-	
<b>reclamation Board Approval</b>	-	-	
<b>Delta Protection Commission Notification</b>	-	-	
<b>state Lands Commission Lease Or Permit</b>	-	-	

<b>action Specific Implementation Plan</b>	-	-	
<b>other</b>	-	-	
<b>Federal Permits And Approvals</b>	<b>Required?</b>	<b>Obtained?</b>	<b>Permit Number (If Applicable)</b>
<b>ESA Compliance Section 7 Consultation</b>	-	-	
<b>ESA Compliance Section 10 Permit</b>	x	-	
<b>Rivers And Harbors Act</b>	-	-	
<b>CWA 404</b>	-	-	
<b>other</b>	-	-	
<b>Permission To Access Property</b>	<b>Required?</b>	<b>Obtained?</b>	<b>Permit Number (If Applicable)</b>
<b>permission To Access City, County Or Other Local Agency Land Agency Name</b>	-	-	
<b>permission To Access State Land Agency Name</b>	-	-	
<b>permission To Access Federal Land Agency Name</b>	-	-	
<b>permission To Access Private Land Landowner Name</b>	x	x	
<b>Glenn Colusa Irrigation District</b>			

If you have comments about any of these questions, enter them here.

This project has authorization under the 4(d)rule for Take Coverage for Anadromous Fish Research and Monitoring Activities through December 2005. Application for Permit for Scientific Purposes under the Endangered Species Act Compliance Section 10 for this project for the period of October 2003 through November 2008 was submitted to NOAA on October 10, 2003.

Permission to access Glenn Colusa Irrigation District (GCID) property has been obtained through a Memorandum Of Understanding (MOU) between GCID and the California Department of Fish and Game (CDFG).

# Land Use

*Juvenile anadromous salmonid emigration monitoring on the Sacramento River at the Glenn–Colusa Irrigation District (GCID) Fish Screen Bypass Channel*

Does the project involve land acquisition, either in fee or through easements, to secure sites for monitoring?

No.

Yes.

How many acres will be acquired by fee?

How many acres will be acquired by easement?

Describe the entity or organization that will manage the property and provide operations and maintenance services.

Is there an existing plan describing how the land and water will be managed?

No.

Yes.

Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal?

No.

Yes.

Describe briefly the provisions made to secure this access.

**The Glenn Colusa Irrigation District (GCID) owns the property requiring access to accomplish monitoring activities at this site. A Memorandum Of Understanding (MOU) between GCID and the California Department of Fish and Game (CDFG) was entered into on June 27, 2000 stating GCID is to provide the office space, shop space, and access to the site to CDFG in exchange for the monitoring performed by CDFG.**

Do the actions in the proposal involve physical changes in the current land use?

No.

- Yes.

Describe the current zoning, including the zoning designation and the principal permitted uses permitted in the zone.

Describe the general plan land use element designation, including the purpose and uses allowed in the designation.

Describe relevant provisions in other general plan elements affecting the site, if any.

Is the land mapped as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance under the California Department of Conservation's Farmland Mapping and Monitoring Program?

No.

- Yes.

Land Designation	Acres	Currently In Production?
<b>Prime Farmland</b>		-
<b>Farmland Of Statewide Importance</b>		-
<b>Unique Farmland</b>		-
<b>Farmland Of Local Importance</b>		-

Is the land affected by the project currently in an agricultural preserve established under the Williamson Act?

No.

- Yes.

Is the land affected by the project currently under a Williamson Act contract?

No.

- Yes.

Why is the land use proposed consistent with the contract's terms?

Describe any additional comments you have about the projects land use.