

Ecosystem Roundtable Informational Staff Report

Date: October 29, 1999

Prepared by: Lauren Hastings and Peter Jacobsen
CALFED Bay-Delta Program
Restoration Coordination Team

Spencer Shepherd
National Fish and Wildlife Foundation

Topic: Quarterly Reports for Fourth Quarter, Federal Fiscal Year 1999

Background: At the close of every quarter, CALFED Bay-Delta Program presents the quarterly reports prepared for the Proposition 204-funded Ecosystem Restoration contracts.

Status: The following quarterly reports are attached to this memorandum:

Project	Title	Programmatic Report	Fiscal Report
97-C01	RD 108 screen construction	None required	✓
97-C02	Princeton Fish screen construction	Project completed	
97-C03	Watershed management planning for Sacramento River Riparian Program	✓	✓
97-C04A	Selected fish screens	✓	✓
97-C05	Effects of wetlands restoration on methyl mercury levels	✓	✓
97-C06	Contaminant effects on smelt	✓	✓
97-C07	Preventing exotic introductions from ballast water	✓	✓
97-C08	San Joaquin River real-time water quality management program	✓	In progress
97-C09	Developing a genetic baseline for San Joaquin salmon	✓	Waived, no work charged
97-C11	Gravel at Basso Bridge	✓	✓
97-C12	Evaluation of alternative pesticide use reduction practices	✓	✓
98-C01	Twitchell Island Subsidence Study	Awaiting DWR budget revision	
98-C02	Culture of Delta Smelt	✓	✓
98-C03	Hamilton wetlands restoration planning	None required	In progress
98-C04/C05	Merced River Ranch acquisition and Basso Bridge land acquisition	✓	✓
98-C06	Water Quality Criteria for Chlorpyrifos and Diazinon	✓	✓
98-C07	Fathead Minnow Toxicity	In progress	
98-C08	Algal Toxicity	In progress	
98-C09	Sediment Water Quality	✓	✓

Project	Title	Programmatic Report	Fiscal Report
98-C10	CMARP	✓	In progress
98-C11	Chinook Salmon Movement in the Lower SJR and South Delta	Project delayed	
98-C15	Biological Assessment of Green Sturgeon in the Sacramento-San Joaquin Watershed	✓	✓
99-C02	Mokelumne River Feasibility Study	✓	Waived, no work charged
97-N01	Assessment and implementation of urban use reduction of Diazinon and Chlorpyrifos (Sacramento County)	✓	✓
97-N02	Sacramento River floodplain acquisition and riparian restoration	✓	✓
97-N03a	Sacramento River acquisition and riparian forest restoration	✓	✓
97-N03b	Sacramento River floodplain acquisition and riparian restoration	✓	✓
97-N04	Sacramento River meander restoration	✓	Being amended
97-N05	Restoration planning (M and N Fork American River, Auburn Ravine, Coon Creek)	✓	✓
97-N06	Butte Creek acquisition and riparian restoration	✓	✓
97-N07	Cottonwood Creek channel restoration planning	✓	✓
97-N08	Lower Mill Creek riparian restoration	✓	✓
97-N09	Monitoring of Delta contaminants	✓	✓
97-N10	Jepson Prairie restoration and conservation plan	✓	Delayed
97-N11	In-Channel Island restoration and demonstration	✓	✓
97-N12	Franks Tract restoration	✓	✓
97-N13	Tyler Island levee protection and habitat restoration pilot project	✓	✓
97-N14	Cosumnes start-up stewardship and restoration	✓	✓
97-N16	Bay Point Shoreline Restoration Plan	✓	✓
97-N18	Cullinan Ranch restoration	No signed task orders	
97-N19	Tolay Creek restoration	✓	✓
97-N20	Implementing programs to reduce the use of pesticides and fertilizers in Sacramento and San Joaquin watersheds	✓	✓
97-N21	Knights Ferry gravel replenishment	✓	✓
98-N01	RD 2035 Fish Screen	Report pending	
98-N02	Expanding California Salmon Habitat to Alter Dams and Diversions	✓	✓
98-N03	Life History and Stock Composition of Steelhead Trout	✓	✓
98-N04	Small Fish Screen Evaluation	Termination of contract recommended	
99-N01	ACID Fish Screen	✓	✓

For additional information on this topic, please contact Lauren Hastings at (916) 653-4647; Peter Jacobsen at (916) 653-3790 or Wendy Halverson Martin at (916) 653-5950.

Title: Positive Barrier Fish Screen Project, Wilkins Slough Pumping Plant
 Applicant: Reclamation District No. 108
 CALFED Project Number: B81569 97-001

Budget year: 1999
 Statement Quarter: 4
 (July-September)

Total Estimated Cost of Phase IV (Construction) and Funding Source:

Funding from Proposition 204 Category III	2,500,000
Funding provided by USBR	5,035,859
Funding provided by Dept. of Fish & Game	2,950,000
Funding provided by RD 108	<u>351,301</u>
	\$10,837,160

Summary of Estimated Construction Cost Items:

Shimmick Construction Co. Inc.	\$7,130,000
Steel sheet piles and H-piles	1,100,828
Sluice gates and maintenance equipment	557,718
Construction engineering and administration	<u>2,048,614</u>
Total	\$10,837,160

Phase IV Schedule - July 1, 1998 through December 31, 1999 (a)

Amounts in dollars

Task - Construction	PHASE IV (4th Quarter Budget)			PHASE IV (FY '99 Budget)			PHASE IV (Three Year Budget)		
	Budget	Accrued Expenditures	Variance	Budget	Accrued Expenditures	Remaining Balance	Budget	Accrued Expenditures	Balance to Complete
Percent Work Complete: 96%									
Shimmick Construction Co. Inc. (b)	100,000	76,637	23,363	2,406,347	1,905,794	500,553	7,130,000	6,629,447	500,553

- (a) Phase IV construction work is scheduled to be completed in November 1999. Preliminary performance testing of the fish screen facility was done in June and final testing will be done in April/May 2000.
- (b) Under the Agreement with CALFED, the \$2,500,000 of Category III funds are only applied to the costs of Shimmick Construction which are shared with the other funding agencies. Category III funds expended through September 30, 1999 (4th quarter) are \$2,256,077. The amount \$30,497 was advanced in excess of 4th quarter requirements for Category III funding and will be carried over into the next fiscal quarter.

Memorandum

Date : October 27, 1999

To : Lauren Hastings, Restoration Coordinator
CALFED Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, California 95814

97-603

From : Department of Water Resources

Subject : Fourth Quarter Report, 1999

Expenditures from June 1, to September 30, 1999 for the Sacramento River Conservation Area Coordinator (Interagency Agreement #B-81570, DWR Contract 165964) are included in the enclosed Fiscal Year 1999 Quarterly Report. A copy of the amended DWR/CSU Chico, Research Foundation subcontract (Contract #B-81382 Amendment #1) is also enclosed.

The first year of this two-year agreement has been highly productive in progressing toward the goal of establishing a nonprofit organization to coordinate conservation and restoration efforts within the Sacramento River Conservation Area. Key to the success of the program at this point is the committed involvement of Riparian Habitat Committee participants, collaboration with CSU Chico, Research Foundation, and the hiring of Burt Bundy as the Sacramento River Conservation Area Coordinator.

Task 1: Finalize MOA

The *Memorandum of Agreement Regarding the Sacramento River Conservation Area* is final and a number of agencies, including three counties, have signed the document. A MOA signing ceremony, including the Resources Agency, Water Resources, and Fish and Game, is tentatively scheduled for November.

Task 2: Finalize Bylaws

A nonprofit organization Formation Committee, composed of MOA signatories is assisting the SRCA Coordinator in developing the bylaws and establishing the initial board of directors for the nonprofit. Although the NPO bylaws have been drafted, they are still subject to comment and legal review.

Task 3: File Papers for NPO

Legal review of the bylaws and assistance in the filing process will be secured through the CSUC Research Foundation. It is anticipated that the filing of documents to formally establish the nonprofit will occur before the end of the calendar year.

Lauren Hastings
October 27, 1999
Page 2

Task 4: Recruit Board of Directors

The Formation Committee, including the coordinator and county representatives, is in the process of establishing uniform procedures and recommendations for the appointment of board members. The seven counties will appoint fourteen (two each) of the fifteen board members. The Secretary for Resources will appoint the fifteenth. Representatives from specified State and federal agencies will fill ex-officio board seats.

Task 5: Outreach Program

A Sacramento River Conservation Area web site, developed in cooperation with DWR, is viewable on the World Wide Web at <http://www.sacramentoriver.ca.gov/>. Maps and other hard copy presentation materials are currently under development by the CSUC Geographic Information Center. The Outreach Subcommittee is continuing to work with the coordinator in developing an outreach strategy and materials for the public.

Task 6: Site-specific Planning

Working Groups have been established to address subreach site-specific planning efforts at both Woodson Bridge State Recreation Area and Hamilton City. In both instances the SRCA Coordinator is acting as facilitator on the behalf of Riparian Habitat Committee. The coordinator continues to play a role in negotiations related to the Bureau of Land Management's proposed conservation easement on a portion of Bloody Island.

Task 7: Administration

No direct charges have been incurred under this task to date.

Task 8: Meetings

The SRCA Coordinator continues to play a central role in the Sacramento River Program (SB1086) and acts as a liaison to other watershed groups and State and federal programs. The Project Manager maintains a weekly log of the coordinator's activities.

Lauren Hastings
October 27, 1999
Page 3

A revised Foundation Estimated Budget, identified as Amendment 2, is included as a proposed change to both the Interagency Agreement and the DWR/CSUC Research Foundation Contract. The revised budget updates fiscal year 1999 to reflect actual expenditures for the year and rolls (by task) unexpended 1999 dollars into fiscal year 2000. The total contract amount would remain unchanged.

Please contact me at (530) 529-7352 if you have any questions regarding the enclosed materials.



Stacy Cepello
Environmental Specialist IV

Enclosures

Sacramento River Conservation Area Coordinator QUARTERLY REPORT

California Department of Water Resources
Contract No. B-81570
Fourth Quarter Federal Fiscal Year 1999*

	Percent Complete	Fourth Quarter 1998-99 Budget			Fiscal Year 1999 Budget			Project Budget (Two Year)		
		Budget	Expenditures	Variance	Budget	Expenditures	Variance	Budget	Expenditures	Variance
<i>CSU, Chico Research Foundation</i>										
Task 1: Finalize MOA	91%	\$15,300	\$13,902	\$1,398	\$15,300	\$13,902	\$1,398	\$15,300	\$13,902	\$1,398
Task 2: Finalize by-laws	86%	\$12,360	\$10,685	\$1,675	\$12,360	\$10,685	\$1,675	\$12,360	\$10,685	\$1,675
Task 3: File papers for non-profit	77%	\$2,940	\$2,278	\$662	\$2,940	\$2,278	\$662	\$2,940	\$2,278	\$662
Task 4: Recruit Board of Directors	47%	\$26,010	\$20,277	\$5,733	\$26,010	\$20,277	\$5,733	\$43,069	\$20,277	\$22,792
Task 5: Outreach Program	21%	\$30,930	\$12,123	\$18,807	\$30,930	\$12,123	\$18,807	\$57,863	\$12,123	\$45,740
Task 6: Site-specific planning	6%	\$2,940	\$2,827	\$113	\$2,940	\$2,827	\$113	\$50,550	\$2,827	\$47,723
Task 7: Administration	0%	\$1,200	\$0	\$1,200	\$1,200	\$0	\$1,200	\$2,200	\$0	\$2,200
Task 8: Attend meetings	34%	\$8,280	\$5,332	\$2,948	\$8,280	\$5,332	\$2,948	\$15,662	\$5,332	\$10,330
Project Total:		\$99,960	\$67,424	\$32,536	\$99,960	\$67,424	\$32,536	\$199,944	\$67,424	\$132,520

*Fourth Quarter Ending September 30, 1999, Cumulative. The following footnotes (by task) presume rollover of unexpended fiscal year 1999 budgeted dollars into fiscal year 2000.

Task 1: Final charges will be incurred First Quarter 2000.

Task 2: Complete, pending legal review.

Task 3: Final charges will be incurred First or Second Quarter 2000.

Task 4: Initial Board will be appointed by Second or Third Quarter 2000.

Task 5: Outreach Subcommittee is still defining outreach products. Anticipate full expenditure of budgeted funds by termination date.

Task 6: Focus of program will shift to site-specific planning in year two of contract.

Task 7: Anticipate full expenditure of budgeted funds by contract termination.

Task 8: Anticipate full expenditure of budgeted funds by contract termination.

QUARTERLY PROGRAMMATIC REPORT

Project Manager: Phil Warner
 California Department of
 Fish and Game

CALFED #: 97-C04A
 DWR Agreement #: B81614
 Quarter: July 1, 1999 to September 30, 1999
 FY: 99/00

Deliverables

	<u>Name of Deliverable</u>	<u>Due Date</u>	<u>% of Work Complete</u>	<u>Date Complete</u>
Task 1				
Subtask A	Screen Priority List	12/31/99	0%	
Subtask B	Install 2 pump Screens	9/30/00	10%	
Subtask C	Hold Meetings	8/31/00	0%	
Task 2				
Subtask A	Mill Creek Screen	12/31/99	40%	
Subtask B	Deer Creek Screen	9/30/00	5%	
Subtask C	Lake Calif. Screen	9/30/00	0%	
Subtask D	Screen rebuilding	8/31/01	0%	

Narrative

Task 1
 Subtask B. Install 2 Small Pump Screens

A draft subcontract is listed as a deliverable due on September 30, 1999. It was decided that it would be more cost effective if both screens were installed by our own personnel from the Red Bluff Fish Habitat Shop. Therefore, no subcontract is needed.

Task 2
 Subtask B Deer Creek Screen

During scoping and planning sessions it was decided that a 60' long by 4' vertical diagonal screen would be built at this site. The screen would be round hole perforated at 3/32" x 5/32" spacing with electric powered cleaning system. The screen would sit slightly inward of the present screen to offer better protection from flood flows. The design plans will be started in October.

No progress on other tasks.

QUARTERLY FISCAL REPORT
July 1, 1999 - September 30, 1999
FY 99/00
CALFED #97-C04A
DWR Agreement # B81614

	A	B	C	D	E	F
1		Quarterly Budget	Accrued Expd.	Annual Budget	Accrued Expd.	Balance
2	Task 1					
3	Subtask A	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4						
5	Subtask B	\$0.00	\$0.00	\$32,993.16	\$0.00	\$32,993.16
6						
7	Subtask C	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
8						
9	Task 2					
10	Subtask A	\$0.00	\$0.00	\$63,002.27	\$0.00	\$63,002.27
11						
12	Subtask B	\$0.00	\$0.00	\$68,722.00	\$0.00	\$68,722.00
13						
14	Subtask C	\$0.00	\$0.00	\$112,456.00	\$0.00	\$112,456.00
15						
16	Subtask D	\$0.00	\$0.00	\$68,722.00	\$0.00	\$68,722.00
17						

Effects of Wetland Restoration on the Production of Methyl Mercury in the San Francisco Bay-Delta System

(CALFED Contract No. 97-C05)

University of California, Davis

Thomas H. Suchanek and Darell G. Slotton *(Principal Investigators)*

QUARTERLY PROJECT SUMMARY *(covering the period of 7/1/99 – 9/30/99)*

- Task 1. Purchase new mercury analyzer system; bring new unit reliably on-line.

and

- Task 2. Catalogue existing and projected wetlands; determine key gradients.

have been completed at this time.

Phase 2 of this project (July 1999 -June 2000) includes the following tasks:

- Task 3. (Continued) Quantify mercury across key gradients in reflooded wetlands /control sites.
- Task 4. (Continued) Mercury methylation experiments.
- Task 5. (Continued) Formulate Conceptual Model.

During the period of June through September 1999, we finished field sampling during the late spring and early summer. Primarily, we worked on mercury analyses of the many hundreds of samples that were archived from fall 98 and spring 99, now that methodological hurdles have been overcome and we are extremely confident of the new unit's analytical capabilities. A Quality Assurance report has been produced, which documents the superb results we are achieving. This report is being forwarded by mail, as it includes charts which cannot be easily transmitted electronically. Sample processing, mercury analysis, and data management/interpretation occupied the bulk of our time until mid September, at which point our intensive fall sampling campaign commenced. We will be sampling multiple days per week through early December. Additionally, we put a substantial effort into developing and performing initial tests of laboratory methylation rate experiments of Delta sediments. A first set of experiments was conducted with sediments from Old Prospect Island, a flooded tract. Analytical results from the contract laboratory (Battelle) were inconclusive. A refined, second set of tests was initiated in September, using sediments from the Cosumnes River and nearby Preserve. We are waiting on analytical results.

Below, we summarize Phase 2/Year 2 plans, from the Phase 2 Task Order:

In Phase 2 / Year 2 of the project, we are moving forward with the work initiated in Phase/Year 1. During this intermediate portion of the project, we are utilizing the knowledge gained to date to guide our ongoing sampling and experimental work. This work in all three tasks will continue through Phase/Year 3. Below, the individual tasks are discussed.

Description of the scope of work to be undertaken in Phase 2.

Task 3. (Continuation) Quantify mercury across key Delta gradients and flooded tracts.

Based on findings to date, we are now pursuing this work in two primary directions. We have one focus on flooded tracts of varying ages and other characteristics. Collections of similar sample types at these various sites will allow us to further determine the features of these tracts that may or may not be linked to methyl mercury production and incorporation into the food chain. However, because the Phase 1 results suggested that other factors, in particular proximity to key mercury sources, may play a dominant role in Delta mercury bioavailability, we are putting a large effort into expanding our geographic coverage during Phase 2, adding numerous additional sites that will help better elucidate the spatial trends in Delta-wide mercury bioavailability and accumulation. Many of the previous sites will be revisited during Phase 2 (as they were in the spring of 1999) to provide a measure of temporal variation, but the additional sites will be equally important. Our goal is to sample over 50 sites in total during the primary (Fall) sampling. New regions we will try to sample include (1) the southern San Joaquin drainage, including Calaveras, Stanislaus, Tuolumne, Merced, and upper San Joaquin Rivers, (2) the south Delta region around Clifton Court Forebay, Old River, Middle River, etc., (3) all major channels in the central Delta, (4) forks of the Mokelumne, (5) sloughs along the east side of the Delta, (6) Sacramento River and channels carrying its water, (7) extensive sampling in the Suisun wetlands and Grizzly Bay regions, and (8) preliminary sampling of lower Napa River/Mare Island and upper San Pablo Bay.

While we will continue to sample most or all numerically abundant small fish species at each site, our focus will be on the species with the widest geographic ranges. In particular, every effort will be made to take strong, replicate samples of inland silversides, which appear to be the most ubiquitous species available for inter-site comparisons. We are collaborating with fisheries researchers at UC Davis to investigate the spatial movements of this species. It was assumed that they wander large regions, but research (including ours) is suggesting that they mainly move inshore and offshore with the tides, not wandering widely (which improves their usefulness as indicators of relative localized mercury conditions). Crayfish will be taken within the regions where they are present (Central, North, and East Delta; absent in South and West), as will *Corbicula* clams. During Phase 2, we will also collect surficial sediment samples at most or all of the sites, for analysis of total mercury and a subset for methyl mercury.

This portion of the project will continue to provide a tremendous amount of data which will constitute the primary information base for our interpretations and management recommendations.

Task 4. (Continuation) Mercury methylation experiments.

During Phase 2, we will continue to refine our experimental techniques to measure relative rates of mercury methylation or methylation potential throughout representative regions of the Delta. Preliminary results from Phase 1 indicate that methylation potential laboratory experiments may be the better tool. Experimental tests of methylation potential measure the relative tendency of a given region's sediment to methylate mercury if it is present. We will perform controlled experiments on bottom sediments from key regions of the Delta in Phase 2 to better understand this process.

Task 5. (Continuation) Formulate Conceptual Model.

This is an ongoing task that will become increasingly refined as we develop more and more data from Tasks 3 and 4, and as we gain knowledge in the field and through interactions with other researchers. The bulk of this work is intended to commence during Phase/Year 3.

Title: The Effects of Wetland Restoration on the Production of Methyl Mercury in the San Francisco Bay-Delta System
Applicant: University of California, Davis (Thomas H. Suchanek and Darell G. Slotton et al.)
CALFED Project Number: 97-C05

Budget year: 1999
Statement Quarter: 3rd A

Total Estimated Cost of Entire Project: \$553,948
Funding from CALFED Prop. 204 Account: 546,171
Any other Funding: 7,777

\$7,777 in matching funds from UC Davis (33.3% x 23,331 cost of new mercury analyzer equipment; Task 1)

Phase 2 Schedule: (7/1/99 - 6/30/00) 1 year

Total Project Estimated Completion Date: (July 2001) 3 years

	PHASE 2 (Quarterly Budget--1st Quarter)			PHASE 2 (FY '00 Annual Budget)			PHASES I-3 (Total Three Year Budget)		
	Budget	Accrued Expenditures	Variance **	Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete **
Task 1: Purchase new Mercury Analyzer Schedule: 10/98 Percent Work Complete for Task 1: 100%	\$0	\$0	\$0	\$0	\$0	\$0	\$15,554	\$15,554	\$0
Task 2: Catalogue Wetlands; determine key gradients Schedule: 7/1/98 through 6/30/99 Percent Work Complete for Task 2: 100%	\$0	\$0	\$0	\$0	\$0	\$0	\$54,535	\$54,535	\$0
Task 3: Quantify mercury levels in Delta field samples Schedule: 7/1/98 through 6/30/01 Percent Work Complete for Task 3: 24%	\$30,514	\$26,670	\$3,844	\$122,056	\$26,670	\$95,386	\$200,068	\$48,412	\$151,656
Task 4: Mercury methylation experiments Schedule: 7/1/98 through 6/30/01 Percent Work Complete for Task 4: 11%	\$32,566	\$17,390	\$15,176 **	\$130,262	\$17,390	\$112,872 **	\$201,615	\$22,982	\$178,633
Task 5: Formulate evaluative model Schedule: 7/1/98 through 6/30/01 Percent Work Complete for Task 5: 5%	\$3,121	\$1,575	\$1,546	\$12,485	\$1,575	\$10,910	\$74,399	\$3,969	\$70,430
Totals:	\$66,201	\$45,635	\$20,566	\$264,803	\$45,635	\$219,168	\$546,171	\$145,452	\$400,719

** Crucial methodological development and testing had to be completed before we could proceed fully with Task 4.

Quarters 2-3 Progress Report Submitted to CALFED

for

Role of Contaminants in the Decline of Delta Smelt in the Sacramento-San Joaquin Estuary

Agreement No. B81650 97-006
October 12, 1999

Investigators: Dr. William A. Bennett (PI), U.C. Davis, Bodega Marine Laboratory (BML), 707-875-2035, wabennett@ucdavis.edu; Dr. Swee J. Teh, UC Davis; Dr. Susan Anderson, BML.

Scope of Project: This report constitutes a summary of work in progress intended as partial fulfilment of the progress report requirements requested by CALFED. The goal of our 2-year project is to evaluate the overall health, condition, and growth rate of delta smelt collected from various habitats encompassed by the Interagency Ecological Program (IEP) monitoring surveys. Our investigation of these samples employs evaluation of: (1) *histopathology biomarkers* of exposure and organ/tissue condition, and (2) *biomarkers of DNA damage*, with (3) *otolith growth rate analyses* of individual smelt. Integration of these state-of-the-art techniques will quantify potential contaminant effects on individuals that can be related to consequences for the delta smelt population.

General Description of Tasks for Year 1: Our initial objective will be to examine the year-class failure in 1996, using samples archived by IEP surveys (Sweetnam), and IEP Entrapment Zone Studies (Bennett). We will (1) develop and apply histopathologic, genetic, and otolith analyses to evaluate potential relationships between tissue or genetic condition and growth rate. We will next (2) coordinate field sampling at key locations/times with DFG/USGS/USBR to obtain specimens for evaluations requiring special fixatives or fresh specimens for specific biomarkers. (3) Depending on the availability of cultured specimens, we will conduct preliminary laboratory experiments exposing young delta smelt to chemicals commonly found in the Bay/Delta system. Cultured specimens will also be evaluated to validate growth rates measured from otoliths.

Progress on Specific Tasks (as described in the Scope of Services):

Task One- Dr. William A. Bennett: Task Responsibilities/Progress.

Subtask 1- Analyses of IEP monitoring data.

Dr. Bennett has completed a variety of analyses into the factors regulating the delta smelt population that we are using to sharpen the focus of our project. Many of these analyses have been presented at several recent CALFED and IEP sponsored workshops. These investigations have continued in the 2nd and 3rd quarters of our project, and the findings are currently being prepared for publication.

Subtask 2- Cataloging of specimens and coordinating field and laboratory research.

Bennett's laboratory has been coordinating with IEP to identify all sources and suitability of archived delta smelt specimens. We are developing a common database to facilitate tracking of

individual specimens during processing in the different tasks. In addition, we have established collaborative efforts with IEP monitoring surveys and culturing projects to obtain appropriate specimens. Thus far, we have catalogued over 3,500 specimens collected at various life stages in 1996, 1998 & 1999. In addition, during 1999 we have been conducting sampling during the Real-time, 20mm, Tow-net survey, and Mid-water Trawl surveys in cooperation with IEP. During these cruises we collected fresh blood samples from juvenile smelt for genetic analyses, and then preserved them for future histopathologic and otolith analyses.

Subtask 3- Preparation and analysis of delta smelt otoliths.

Bennett's laboratory has developed methodology and completed surgical removal of otoliths on over 400 delta smelt specimens, and has prepared over 200 of these otoliths for analysis. For otolith analyses we have recently purchased and are awaiting arrival of a computer assisted imaging system. Overall growth rate has been evaluated on over 50 specimens.

Task 2- Dr. Swee J. Teh: Task Responsibilities/Progress.

Subtask 1- Standard operating procedure (SOP) document

Dr. Teh's laboratory is developing specific methodology for archived delta smelt eggs, larvae and juveniles to be included in the SOP document.

Subtask 2- Sampling, processing, sectioning, and staining of tissues.

Dr Teh has participated in two field sampling cruises, and is currently processing, sectioning, and staining delta smelt tissues. In addition, Dr. Teh has completed a laboratory experiment in which delta smelt eggs and young larvae were exposed to diazinon.

Subtask 3- Histopathologic analysis.

Dr Teh has completed initial processing of over 300 delta smelt liver, gonad, and pancreas samples and is currently completing diagnosis of their condition. Dr Teh has also completed evaluation of specimens from a diazinon exposure experiment, and is currently preparing the findings for publication.

Task 3- Dr. Susan Anderson: Task Responsibilities/Progress.

Subtask 1- Development of anaphase aberration and comet assay techniques.

Dr Anderson's laboratory has completed development of the comet assay, and is currently working on application of the anaphase aberration technique for archived delta smelt eggs, larvae and juveniles.

Subtask 2- Analyze 1996 archived specimens, field sampling, and analysis of blood samples for the comet assay.

Dr Anderson has participated in several field sampling cruises and is currently applying the comet assay to the recently collected blood samples.

Title: CALFED Bay Delta Project
 Applicant: Bennett, William A.
 CALFED Project Number: B-91850 97-606
 Budget year: 1999
 Statement Quarter: 1 & 2

Total Estimated Cost of Project: \$437,328
 Funding from Federal Bay-Delta Account: 437,326
 Any other Funding: 0

(All-Kind Services would be listed here if applicable - note: Detail of the service provide would be included.)

Project schedule: 24 months
 Total Project Estimated Completion Date: 9/30/2000
 YEAR I (6-Month Budget)
 YEAR I (FY '99 Budget)
 TOTAL (Two Year Budget)

Task #	Description	Budget	YEAR I (6-Month Budget)		YEAR I (FY '99 Budget)		TOTAL (Two Year Budget)		Accrued Expenditures	Balance to Complete
			Accrued Expenditures	Variance	Budget	Expenditures	Accrued Expenditures	Balance		
Task 1:	Bennett	\$87,801	\$17,948	\$19,883	\$75,902	\$17,948	\$57,954	\$157,877	\$17,948	\$139,929
Percent Work Complete for Task 1:		11%								
1a	Data Analysis	7,860	1,833	5,727	16,120	1,833	13,287	32,887	1,833	31,054
1b	Cataloguing Specimens	15,121	6,214	8,907	30,242	6,214	24,028	46,102	6,214	39,788
1c	Orkith Preparation	7,980	6,027	1,953	16,120	6,027	9,093	46,102	6,027	39,975
1d	Progress Reports	7,860	2,800	4,960	15,120	2,800	12,520	32,886	2,800	30,286
Task 2:	Sweet Tite	\$19,082	\$1,486	\$37,596	\$74,163	\$1,486	\$76,677	\$159,086	\$1,486	\$156,600
Percent Work Complete for Task 2:		4%								
2a	Standard Operating Procedures	300	164	336	1,000	164	836	41,196	164	41,032
2b	Sampling, Sectioning & Staining Specimens	15,633	567	15,066	31,285	567	30,698	42,847	567	42,280
2c	Quantitative & Qualitative Analyses	15,633	363	15,270	31,285	363	30,902	41,197	363	40,834
2d	Progress Reports	7,816	392	7,424	15,693	392	15,241	42,846	392	42,454
Task 3:	Anderson	\$25,617	\$25,721	(\$104)	\$51,233	\$25,721	\$25,512	\$111,483	\$25,721	\$85,762
Percent Work Complete for Task 3:		23%								
3a	Develop Analyses & Corel Techniques	5,123	9,349	-4,226	10,246	9,349	897	36,688	9,349	28,339
3b	Analyze Samples	15,370	17,131	-1,761	30,740	17,131	13,609	37,899	17,131	20,768
3c	Progress Reports	5,124	1,633	3,491	10,247	1,633	8,614	37,886	1,633	36,253
Phase 1 Total:		\$102,900	\$45,155	\$57,345	\$204,598	\$45,155	\$159,843	\$437,325	\$45,155	\$392,171

We budget to the Sub-task level only if they are active during the Quarter. In question, if a SUBTASK is complete, the SUBTASK cost rolls-up into the Task level.

Please explain significant variances.

Post-It™ brand fax transmittal memo 7671 # of pages: 1

To: Jo Turner
 Co: CalFed
 Dept: BML

From: Laura S.
 Co: BML
 Phone #: 707.875.2204
 Fax #: 916.653.5699

QUARTERLY PROGRAMMATIC REPORT

Program Manager: Jo Turner
Project Manager: Jodi Cassell
CALFED Project #: 97-CO7 (B)
Quarter Ending: October 15, 1999

Phone: 916-653-6059
Phone: 650-871-7559

Deliverables

<u>Deliverable</u>	<u>Due Date</u>	<u>% Complete</u>	<u>Date Deliverable Complete</u>
Task 1: Project Advisory Committee			
<u>Subtask 1: Listing of Committee Members</u>	3/15/99	100%	3/15/99
<u>Subtask 2: Meeting Summaries:</u>			
Meeting 1	5/15/99	100%	5/10/99
Meeting 2	11/15/99	0%	
Meeting 3	5/15/99	0%	
Meeting 4	11/15/99	0%	
Task 2: West Coast Aquatic Nuisance Species Publication Development and Distribution			
<u>Subtask 1: Draft SFEP Contract</u>	3/1/99	100%	3/9/99
<u>Subtask 2: Final SFEP Contract</u>	4/15/99	75%	
<u>Subtask 3: Publication</u>	8/15/99	60%	
<u>Subtask 4: Distribution Listing and Evaluation Information</u>	4/15/00	0%	
Task 3: Video-Conferenced Ballast Forums			
<u>Subtask 1: Summary of Forum Presentations, Discussion, & Evaluations</u>			

<u>Deliverable</u>	<u>Due Date</u>	<u>% Complete</u>	<u>Date Deliverable Complete</u>
Forum 1	9/15/99	80%	
Forum 2	11/15/99	50%	
Forum 3	1/14/00	10%	
Forum 4	2/15/00		
Forum 5	5/15/00		
Forum 6	8/15/00		
Forum 7	10/15/00		
Forum 8	12/15/00		

Task 4: Newsletter Development and Distribution

Subtask 1: Newsletter

Copy and Distribution Listings

Newsletter 1	8/15/99	99%	11/1/99
Newsletter 2	1/15/00		
Newsletter 3	8/15/00		
Newsletter 4	1/15/01		

Subtask 2: Newsletter 5/15/00

Evaluation

Task 5: Web Site Development and Administration

Subtask 1: Site Operational 8/15/99 30%

Subtask 2: Evaluation 2/15/01

Summary

Task 6: General Outreach

Subtask 1: Draft SFEP

Contract 3/1/99 100% 3/9/99

Subtask 2: Final SFEP

Contract 4/15/99 75%

Subtask 3: Summary of Outreach Tasks Completed each Quarter

Quarterly Report (QR) 1	5/15/99	100%	5/28/99
QR 2	8/15/99	100%	7/17/99
QR 3	11/15/99		

<u>Deliverable</u>	<u>Due Date</u>	<u>% Complete</u>	<u>Date Deliverable Complete</u>
QR 4	2/15/00		
QR 5	5/15/00		
QR 6	8/15/00		
QR 7	11/15/00		
QR 8	2/15/01		

Task 7: Formation of Industry Working Group

Subtask 1: List of Committee

Members 2/15/00

Subtask 2: Meeting Summaries

Meeting 1 5/15/00
Meeting 2 8/15/00
Meeting 3 11/15/00
Meeting 4 1/15/01
Evaluation Summary 2/15/01

Task 8: Project Management and Quarterly Report

Subtask 1: Quarterly Reports

Quarterly Report (QR) 1	4/15/99	100%	5/28/99
QR 2	7/15/99	100%	7/15/99
QR 3	10/15/99	100%	10/14/99
QR 4	1/15/00		
QR 5	4/15/00		
QR 6	7/15/00		
QR 7	10/15/00		
QR 8	2/15/01		

Task 9: Final Report

Final Report 2/15/01

Narrative

Activities Performed:

Overall Project: Much of the work during the past quarter centered around development and completion of the first edition of the project newsletter (see below, Task 4), and continuation of work on development of the project publication (see below, Task 2). Although the web site

address (<http://ballast-outreach-ucsgep.ucdavis.edu>) has been established for the project via the University of California server, (Task 5), the site is not yet operational. The current delays in completion of deliverables for these tasks have occurred due to staff time constraints, the inevitable difficulties of first time publication processes (for the newsletter), and project policy to delay work products slightly if additional time and effort will result in a more effective and professional outcome (inasmuch as it is necessary to adhere to a target schedule as much as is possible, this approach is critical in the development of quality outreach materials). We are currently in the process of recruiting for an additional staff member for the project (to replace staff member, Annette Dehalt, who left the project in August) which will bring the project up to full staff and allow us to avoid future delays as much as is possible (see attached job description).

Project Manager, Jodi Cassell, and lead staff member, Karen Hart, continued to coordinate work with and attend meetings for other West coast groups interested in the ballast water issues including the Pacific Ballast Water Group (PWBG) in Olympia Washington (8/99), and Portland, OR (9/99), the Coastal Committee of the Western Regional Panel on Aquatic Nuisance Species (WRP) (10/99), and the San Francisco Regional Water Quality Control Board.

The project also continues to operate in a coordinated fashion with a separate University of California Sea Grant Extension Project (funded by the National Sea Grant College Program) which focuses on ballast water outreach efforts throughout the West Coast and Pacific United States. Through this separate project, the CALFED outreach materials receive a wider audience and will be distributed to a variety of West Coast and international audiences. A recent outcome of the West Coast Project was the hosting of a ballast management forum in Olympia, WA, in association with the PBWG and the National ANS Task Force. For background purposes, the agenda for the Olympia meeting, which focused on two items: 1) development of a West Coast Ballast Management Plan, and 2) use of hydrocyclone technology for treating ballast water, is included as background with this report.

Task 1: Project Advisory Committee

The project advisory committee continued to provide reviews of draft project documents in development, including a project poster and newsletter articles. Select advisory committee members and others also provided draft articles for the newsletter. We continue to expand and refine the advisory committee membership, which is an excellent representation of maritime, ngo, and governmental representatives with an interest in ballast/ANS issues. We are currently in the process of scheduling our second advisory committee meeting for November – we would welcome the participation of any CALFED staff who may have an interest in this meeting.

Task 2: West Coast Aquatic Nuisance Species Publication Development and Distribution

With the assistance of San Francisco Estuary Project (SFEP) staff, who took the lead on this task following Annette Dehalt's departure from the project (Annette was the previous lead on this task) we selected an artist and graphics group to develop the poster and original brochure. Enclosed with this report are some background materials on the design firm, Finger & Smith, which was selected to work on this task (the design group will serve as our contact with the artist, Ed Lindloff, who will provide artwork for the poster and brochure). Both SFEP and

project staff member, Karen Hart, also spent a significant amount of time refining and researching text and illustrations to be included in the publication.

Although this task was delayed due to the loss of a staff member, work has proceeded smoothly following the transfer of this duty to SFEP staff. There is a great deal of interest in the project poster and brochure, and we expect a wide distribution of this material which we are rescheduling for completion as of 1/15/00. Work on the poster and brochure has also been closely coordinated with the US Coast Guard who are producing a more technical brochure for education on ballast management, and we are looking into distributing project publications in coordination with the Coast Guard document.

A draft sub-contract for staff assistance from the SFEP has been submitted to the University of California Contracts and Grants Office, which is in the process of setting up the final contract arrangement with SFEP. Enclosed with this report is a copy of the draft subcontract.

Task 3: Video-Conferenced Ballast Forums

We are currently in the process of planning two future forums, one in Vancouver, B.C., to be held in conjunction with a meeting of the PBWG in December, 1999, and one in Seward, AK, to be held in Spring 2000. These outside of area forums are possible because the Ballast Outreach Project is also funded through the National Sea Grant College Program for work on this issue throughout the West Coast. Our future schedule of educational forums in and outside of the San Francisco Bay-Delta Region will be developed in response to input from our project advisory committee at the November 1999 meeting.

Task 4: Newsletter Development and Distribution and Task 5: Web Site Development and Administration

The first edition of the project newsletter was sent to the printer during the week of October 4, and will be ready for mail out on October 18. The newsletter is 10 pages long and contains articles from authors ranging from local and international, and, being the first newsletter to focus on ballast issues, will most likely receive nationwide and international distribution and attention.

The two month delay in task completion resulted due to the longer lead time necessary for designing, formatting, selecting a printer, and contracting payment for this initial publication. As our topics have already been selected for the ensuing newsletter, and the mechanisms for publication are now in place, we expect to be on schedule for the second newsletter.

Initial work has occurred on website content and format and establishment of a website address. Due to staffing issues (see above), this task is not complete. We expect to hire new staff by November who will focus on this task and have the web-site running during the next quarter (no later than 1/15/00).

Task 6: General Outreach

Project staff continue to research industry publications and develop additional industry contacts.

Task 8: Project Management and Quarterly Report

Project management is proceeding through the University of California Sea Grant Extension and Cooperative Extension Program, and also through the new Central Coast and South Region of the Division of Agriculture and Natural Resources of the University (the DANR was reorganized as of July 1, 1999).

Projected Expenses for the Next Three Months:

Task 1: Project Advisory Committee	\$2,983
Task 2: West Coast ANS Publication	\$9,954
Task 3: Ballast Forums	\$6,234
Task 4: Newsletter	\$5,864
Task 5: Web Site Development	\$2,407
Task 6: General Outreach	\$4,037
Task 7: Industry Working Group	\$267
Task 8: Project Management	\$325
Task 9: Final Report:	\$0

Title Preventing Exotic Introductions from Ballast Water
 Applicant: Jodi Cassell, UC Sea Grant Extension
 CALFED Project Number: 97-C07

Budget year: 1999
 Statement Quarter: 4

Total Estimated Cost of Phase I: \$222,830
 Funding from CALFED Proposition 204 Account 222,830
 Any other Funding 63,885 (in-kind)

(In-Kind Services would be listed here if applicable- note: Detail of the service provide would be included.)

Phase I schedule 1 year
 1 year
 Total Project Estimated Completion Date: 2 years

		PHASE I (Quarterly Budget)			Previous qtr Accrued Expend	PHASE I (FY '99 Budget)			PHASE I (Two Year Budget)		
		Budget	Accrued Expenditures	Variance **		Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete **
		Task 1: Project Advisory Committee, Percent Task Complete:	25.00%	\$2,983		\$2,907	\$76	\$4,495	\$8,950	\$7,402	\$1,548
Task 2: West Coast ANS Publication, Percent Task Complete:	25.00%	\$9,954	\$2,797	\$7,156	\$4,650	\$29,861	\$7,447	\$22,414	\$47,512	\$7,447	\$40,065
Task 3: Ballast Forums, Percent Task Complete:	12.50%	\$6,234	\$2,937	\$3,297	\$2,055	\$18,702	\$4,992	\$13,710	\$60,322	\$4,992	\$55,330
Task 4: Newsletter, Percent Task Complete:	25.00%	\$5,864	\$3,683	\$2,181	\$4,338	\$17,592	\$8,021	\$9,571	\$38,110	\$8,021	\$30,089
Task 5: Web Site Development, Percent Task Complete:	15.00%	\$2,407	\$4,059	(\$1,652)	\$1,263	\$7,220	\$5,322	\$1,898	\$15,153	\$5,322	\$9,831
Task 6: General Outreach, Percent Task Complete:	12.50%	\$4,037	\$3,279	\$758	\$2,200	\$12,112	\$5,479	\$6,633	\$32,564	\$5,479	\$27,085
Task 7: Industry Working Group, Percent Task Complete:	6.25%	\$267	\$287	(\$20)	\$977	\$800	\$1,264	(\$76)	\$2,699	\$1,264	\$1,435
Task 8: Project Management, Percent Task Complete:	25.00%	\$325	\$56	\$269	\$1,817	\$975	\$1,873	\$975	\$2,600	\$1,873	\$2,600
Task 9: Final Report, Percent Task Complete:		\$0		\$0	\$0	\$0		\$0	\$0		\$0
Phase I Total:		\$32,071	\$20,004	\$12,067	\$21,795	\$96,212	\$41,799	\$56,673	\$222,830	\$41,800	\$182,903

We budget to the Sub-task level only if they are active during the Quarter in question. If a SUBTASK is complete, the SUBTASK cost rolls-up into the Task level.

** Please explain significant variance.
Task 2: variance resulted in Task 2 spending due to a delay when a project staff member resigned. We are in the process of filling this position, and are in the process of completing a contract for the publication, so we should be on program and fiscal schedule for the next quarter.
Task 3: there is variance because, due to delays in reporting of accounting, expenses have not yet shown on the ledger for this task
Task 5: I cannot currently explain the overrun on the website subtask - I will review this item and provide a reponse to the program manager within the next several weeks.

California Resources Agency
Department of Water Resources
San Joaquin District
3374 East Shields Avenue
Fresno, CA 93726

97-008

San Joaquin River Real-time Water Quality Management Program

Second Quarterly Report to CalFed
July 1 to September 30, 1999
Contract 165977

October 8, 1999

Prepared by:
Ernest Taylor
Associate Engineer, W.R.
Groundwater Section

Summary of Progress

Status of Overall Work

Officially, work on the San Joaquin River Real-time Water Quality Program (SJRRWQP or *Real-time* for short) began when DWR's contract with CalFed was finalized April 1, 1999. The contract was pre-dated to Jan 1, 1999 to include work done on the Quality Assurance Project Plan (QAPP) prepared by the State Water Resources Control Board (SWRCB). This is the second quarterly progress report. It covers the period of July 1 to September 30, 1999.

Percent of overall work completed for quarter: 90%
 Estimate of money spent:

Status and Summary of Work

Sub-task 1 – Program Management

Program management activities included assigning and scheduling tasks to DWR staff, and reviewing and interpreting results.

Percent of task completed for quarter: 100%
 Estimate of money spent:

Sub-task 2 – Preparation of Subcontracts and Agreements

We've encountered many obstacles attempting to put in place a contract with Lawrence Berkeley National Laboratory (LBNL). The parties involved, DWR, LBNL and DOE, have been negotiating this agreement during the entire quarter. These negotiations have required more staff time than was originally allocated. The contract was still pending at the end of the second quarter. The term of the service authorization with Systech Engineering, Inc. began July 1, 1999 and extends to June 30, 2000.

Percent of task completed for quarter: 50%
 Estimate of money spent:

Sub-task 3 – Prepare QAPP

The QAPP was prepared according to CalFed specifications and was included as part of the original DWR/CalFed contract. The QAPP was prepared by Les Grober, SWRCB.

Percent of task completed for quarter: 100%
 Estimate of money spent: \$0.00

See SWRCB first quarter progress report.

Sub-task 4 – Expand Real-time Water Quality Monitoring Network

Equipment for the Mud Slough at Gun Club Road station was ordered and received during this quarter. Planning for installation of equipment continued. Due to scheduling conflicts with technical staff, equipment installation was pushed back to October 1999. No equipment was installed during this quarter.

Percent of task completed for quarter: 100%

Estimate of money spent:

Equipment costs

Complete station equipment

\$4,700

Sub-task 5 – O&M New and Existing Stations

Only minor problems at real-time stations occurred during this quarter. Most were handled in the office via modem. Estimates of time spent troubleshooting and repairing real-time stations are estimated below.

Percent of task completed for quarter: 100%

Estimate of money spent:

Sub-task 6 – Water Quality Sampling and Analysis

Sampling and analysis of water quality at core sites on and near the lower San Joaquin River was conducted by the SWRCB. These activities were not charged to CalFed grant since the SWRCB subcontract was not in place until June 3, 1999.

Percent of task completed for quarter: 100%

Estimate of money spent:

\$0.00

See SWRCB first quarter progress report.

Sub-task 7 – Modeling and Management Activities

Flow and EC data was downloaded and processed for use in the San Joaquin River Input-Output Daily model. Water resource managers were polled weekly for water release schedule information. DWR, SWRCB and LBNL staff conducted model operations. Weekly forecasts of Vernalis flows and total dissolved solids (TDS) were produced and posted, initially via web page to Memorandum of Understanding co-signors each week. Development of the Real-time web page on DWR's website continued. Since the GUI has yet to be modified to operate on later Windows versions, there has been no workshops or training sessions. LBNL staff is working with Systech to update this software.

Percent of task completed for quarter: 100%

Estimate of money spent:

\$

CalFed Quarterly Report
Ending September 30, 1999

Project Title: San Joaquin River Drainage Fall-run Chinook Salmon Genetic Baseline and Discrimination Evaluation.

CALFED Project: #97-C09 (\$387,003)

CALFED Contract: #B81643

DFG Contract : #FGR8954-R4

Project Manager: Tim Heyne

Department of Fish and Game, SJVSSR
P.O. Box 10, La Grange, California 95329
(209) 853-2533.

Phase 1. Negotiate subcontract with academic institution and collect first year samples:

- (1) Signed contract with academic institution.
- (2) Subcontractor annual report.
- (3) 1999 summary of carcass survey.

The DFG has nearly completed the agreement with Dr. Bernie May of UC Davis. This agreement will cover the entire three years of the contract and has numerous tasks within it. A copy of agreement will be attached to the winter quarterly report. Also an annual report by the subcontractor will be due in September 2000. DFG has made preparations to collect the first year of samples for the genetics assessment in the next quarter. Collection will begin in early October. DFG will analyze the spawning escapement data with particular reference to the distribution of spawning. This will be submitted with the spring 2000 quarterly report. DFG contract manager will write quarterly reports and attended CalFed meetings as needed.

Phase 2. Continue tissue collection and refine choices of genetic .

Deliverables to CALFED:

- (1) Subcontractor annual report.
- (2) 2000 summary of carcass survey.

Work in this phase will be dependent on the results reported from phase 1.

Phase 3. Complete purchase of properties.

Deliverables to CALFED:

- (1) 2001 summary of carcass survey.
- (2) Final report summarizing genetics evaluation with recommendations.

This phase will be completed by June of 2002.

PROGRESS REPORT
OCTOBER 15, 1999
ALTERNATIVE PRACTICES FOR REDUCING
PESTICIDE IMPACTS ON WATER QUALITY
CONTRACT #B-81609

This report summarizes activities and accomplishments since our last progress report on July 15, 1999. Task Orders for Year 1 of the contract are presented together with "REPORT" sections on the status of each task.

TASK ORDERS

October 1, 1998 – September 30, 1999 (Year 1)

Contract No. B81609

97-C12

TASK 1 – MATRIX OF INFORMATION SYNTHESIS – Year 1

Compile the current knowledge of urban and in-season agricultural (stonefruit and almond production) pest management practices that are alternatives to diazinon and chlorpyrifos. Currently fragmented information on these alternatives will be compiled from scientific journals, research reports, and unpublished (anecdotal) investigations primarily found at the U.C. Cooperative Extension county level of ongoing applied research. From the compiled knowledge, produce an information synthesis document, the Alternative Practices Matrix, that will display a comprehensive set of interactive variables relative to alternative practice economics, efficacy, and environmental impact potentials.

Subtask 1. P.I.s will recruit and hire a research assistant with sufficient technical expertise in pest management and aquatic toxicology and demonstrated writing skills. Estimated duration for this task is 2 months beginning October 1, 1998.

Subtask 2. Research assistant will begin compiling information on urban and in-season agricultural (stonefruit and almond production) uses of chlorpyrifos and diazinon.

Subtask 3. Research assistant and P.I.s will identify the uses that suggest the highest potential for impacting surface waters due to their being consistent with observations of seasonal increases in aquatic areas within the CALFED geographic scope. Estimated duration for this task is 6 months.

Subtask 4. Research assistant will begin compiling the literature that addresses alternatives to chlorpyrifos and diazinon for the uses identified in Subtask #3. This task is estimated to begin April 1, 1999 and continue into Year 2.

Subtask 5. Project manager and P.I.s prepare and submit progress reports.

REPORT: The first draft of the in-season matrix of information has been completed and alternative matrices are being developed for the following crops and pests:

stone fruits - oriental fruit moth

plums - San Jose scale, peach twig borer

apricots - peach twig borer

prunes - peach twig borer, San Jose scale

peaches - peach twig borer, San Jose scale

almonds - navel orangeworm, ants, peach twig borer, San Jose scale.

At this point, these are the primary pests but there may be some minor pests that could be added if additional information warrants. Consistent with subtask 4, the development of alternative practices will continue into Year 2.

Development of the urban matrix material has so far focused on the initial steps of defining primary target pests and primary users of chlorpyrifos and diazinon in the urban setting. Although limited by the amount of actual information available, we have identified data sufficient to indicate that ants and fleas are the primary target pests, while spiders, aphids, and lawn pests are also frequently targeted. The alternatives portion of our information matrix will likely have to be separated into two categories consistent with the primary user audiences (residential users, private business and commercial users, public agencies, pet groomers and vets, structural pest control operators, and licensed landscape pest control applicators). We identified residential and SPCO users as the two groups using the largest amounts of these materials. We anticipate building a matrix for each of the primary pests for residential users and matrices for ants and spiders for SPCOs.

As indicated in subtask 4, the process of identifying alternative practices for future outreach efforts will continue into Year 2. We anticipate that the scientific literature and unpublished information in files of UC experts will be our primary sources of information for the urban alternatives matrix.

Several of us continue to attend meetings with the Sacramento River Watershed Program Focus Group as well as maintain communications with other groups with ongoing programs focused on urban education and alternatives development. The flow of information to and from these groups continues to be extremely valuable in the development of our understanding of urban uses of organophosphates.

We estimate the Year 1 goals for Task 1 to be 100% complete. Previous progress reports add substantiation for completion of subtasks not mentioned in this report.

TASK 2 – ALTERNATIVE PRACTICES EDUCATION AND OUTREACH – Year 1

Programs will be developed to provide agricultural producers (stonefruit and almonds) with a detailed assessment of the current knowledge of water quality problems associated with pesticide use while offering substantive alternatives. For urban users of diazinon and chlorpyrifos, the education and outreach component of the project will define the main urban uses of diazinon and chlorpyrifos, establish the most appropriate priority of audiences to address, and identify the most appropriate means of gaining access to these audiences.

The following subtasks generally describe the approach and sequence of work on behalf of both the agricultural and urban components of this project.

Subtask 1. Recruit and hire a county-based (Cooperative Extension) research assistant and a rural sociologist to interact with the P.I.s and Cooperative Extension personnel in the case study area (Modesto region). Estimated duration for this task is 2 months beginning October 1, 1998.

Subtask 2. CE research assistant will begin developing baseline information on current pesticide use practices within the case study area. Estimated to begin December 1, 1998.

Subtask 3. Sociologist will develop questionnaire materials that will allow for measures of the influence education and outreach efforts have on adoption of alternative practices.

Subtask 4. CE research assistant, P.I.s, and project manager will identify local, regional, and state agencies and organizations that are stakeholders in urban and in-season agricultural uses of chlorpyrifos and diazinon.

Subtask 5. CE research assistant, P.I.s, and project manager will create or interact with existing advisory committees involved with education and outreach to the major urban, and in-season users of chlorpyrifos and diazinon.

Subtask 6. CE research assistant, P.I.s, and project manager will establish the most appropriate priority of audiences for directing educational and outreach efforts (e.g. licensed applicators, wholesale/retail nursery distributors, residential users, crop associations). This task is estimated to begin January 1, 1999.

Subtask 7. CE research assistant, sociologist, P.I.s, and project manager will identify the most appropriate means of gaining access to the audiences identified in Subtask #6.

Subtask 8. CE research assistant, P.I.s, and project manager will develop educational materials appropriate for the focal audiences. Sophistication of educational materials will be consistent with the scope of the budget for this project.

Subtask 9. The products of Tasks 6-8 will be submitted to the steering committee and CALFED for review and comment.

Subtask 10. CE research assistant, P.I.s, and project manager will begin implementing education and outreach efforts. This task is estimated to begin February 1, 1999 and continue into Year 2.

Subtask 11. Project manager and P.I.s prepare and submit progress reports.

REPORT: Because of repeated difficulties in hiring and maintaining a county-based research assistant, the goals of this task fell behind schedule and were not able to be fully met as planned for Year 1. Additionally, a streamlining of our overall approach to the outreach portion of the project has caused us to put on hold the involvement of a sociologist in evaluating the efficacy of our efforts.

Our approach has shifted to working much more closely with other organizations that have been identified for their extensive and effective outreach capabilities. We have been overwhelmingly welcomed as the source of unbiased information which these organizations can in turn pass on to their respective constituencies via more familiar formats and vernaculars. The effect is for the important information, the key messages, to be consistently presented regardless of the forum through which they are delivered.

The urban component of our project was quite successful in meeting its goal of identifying potential audiences as mentioned in our current report on Task 1. Our in-season agricultural audience is essentially the same as our dormant audience, however we remain behind schedule in establishing a formal mechanism for differentiating our educational efforts for a separate season of pesticide use. Regardless, we continue to have frequent interactions with various stakeholder groups who are also attempting to increase awareness of issues involving pesticide impacts on water quality. These groups are also involved with field demonstration and research projects, and we have identified a number of opportunities to interact with their efforts.

We estimate Task 2 to be 85-90% complete for Year 1, the deficit primarily being in the actual production of educational materials. Because we are currently entering into more formal cooperative arrangements with various stakeholder groups (e.g. Almond Board, Coalition for Urban/Rural Environmental Stewardship, Sacramento/Feather River O-P Pesticide Management Strategy Development Group) to produce these materials, and because we now have the information at hand, we are extremely confident in our ability to overcome this deficit early in Year 2. Previous progress reports add substantiation for completion of subtasks not mentioned in this report.

TASK 3 – FIELD STUDIES OF ALTERNATIVE PRACTICES – Year 1

Develop a master protocol for monitoring studies that will clearly identify the criteria for selecting a site to simultaneously study the efficacy of an alternative practice relative to pest control and improving water quality. Year 1 efforts will focus primarily on alternatives to dormant sprays. Select study sites and initiate field studies. Water quality monitoring will determine whether reduction of offsite pesticide movement follows adoption of

alternative practices, and whether toxicity to test organisms is also diminished. Pest control monitoring will compare efficacy of diazinon and chlorpyrifos with alternative treatments for control of peach twig borer and scale insects in replicated field trials where the toxicology monitoring will also be conducted. Additionally, develop resident species bioassays as alternatives to the standard EPA test organisms.

Subtask 1. CE research assistant and P.I.s will prepare a draft master protocol that identifies the criteria for selecting sites for studying dormant spray alternative practices relative to pest management efficacy and impacts on surface water quality (e.g. type of irrigation supply, mode of water application, crop, design of hydrology of field for irrigation purposes, slope of land, soil type, surrounding vegetation, and relationship to surface waters).

Additionally, the protocol will define the parameters to be controlled, parameters to be measured or described, the methodology of measurement, and the analytical processes for data production and evaluation. This task is estimated to begin October 1, 1998 and reach full refinement by July 31, 1999 following peer reviews as described below.

Subtask 2. CE research assistant and P.I.s will meet with Cooperative Extension advisors and growers to identify and select areas with history of appropriate pest incidence and consistent with the master protocol criteria for field studies. This task is estimated to begin December 1, 1998 and be finalized with the completion of task #3 by January 1, 1999 for dormant alternative studies.

Subtask 3. Submit draft master protocol and proposed study sites to project steering committee and the CALFED monitoring group for review.

Subtask 4. CE research assistant and P.I.s will refine draft master protocol and site selections according to recommendations of steering committee. The draft master protocol and site selections will also be given to the CALFED monitoring group for their review. This task is estimated to be completed by January 1, 1999.

Subtask 5. Survey proposed sites pre-treatment to establish initial presence of target pests as the final site selection criteria.

Subtask 6. For the purpose of establishing baseline data, CE research assistant and toxicology lab personnel collect water samples from proposed study sites and perform bioassays and chemical detection for definition of pre-alternative pesticide status. Siting and replication of sampling will be consistent with the master protocol. Two of the standardized US EPA test organisms will be used: the fathead minnow (*Pimephales promelas*) and the water flea (*Ceriodaphnia dubia*). In addition, highly selective analytical chemistry and toxicology endpoints will be used to determine presence and concentration of specific agents. To establish number of toxic units present in the sample, dilution tests will be used.

Subtask 7. CE research assistant and growers initiate treatment of field study sites. Replicated treatments may consist of the target organophosphates, alternative conventional pesticides (carbamates, pyrethroids including Ambush and Asana), microbial or other biologically-based pesticides that are generally regarded as "safe" (for example *Bacillus thuringiensis*, Spinosad and pheromones), in season (rather than dormant season) applications of these materials, and reduced rates of application.

Subtask 8. CE research assistant and P.I. begin monitoring pest incidence and damage in each treatment replicate after treatments have been established. Monitor peach twig borer shoot strikes and fruit damage at harvest. Monitor San Jose scale males with pheromone traps and scale populations on wood and fruit.

Subtask 9. CE research assistant and toxicology lab personnel collect water samples from study sites according to master protocol and perform bioassays and chemical detection for pesticide levels.

Subtask 10. Recognizing that chronic bioassays need to be developed which will use indigenous species that can ultimately be related to the three US EPA standard organisms, toxicology lab personnel will select candidate organisms on the basis of their role in the food web of CALFED-identified, endangered, and/or listed fish species. They will collect organisms and establish cultures of 4 resident food web organisms. Estimated to begin August 1, 1998 and be completed by February 1, 1999.

Subtask 11. Toxicology lab personnel will conduct bioassays with native food web organisms (a. benthic midge *Chironomus sp.*; b. cyclopoid copepod; c. cladoceran *Bosmina sp.*; and, d. amphipod (*Corophium sp.*). Rank order as to sensitivity and select one sensitive and one moderately sensitive species for bioassays. Estimated to begin January 1, 1999 and continue into the early part of year 2.

Subtask 12. Toxicology lab personnel will initiate studies and evaluate resident species for use in Toxicant Identification Evaluations. Estimated to begin June 1, 1999 continue into year two as necessary.

REPORT: As mentioned in our last report, the C-18 solid phase extraction method worked fine for analyzing samples for diazinon. However, it ultimately didn't work for the esfenvalerate samples: the recovery was low and inconsistent. Dr. Barry Wilson and Jack

Henderson switched to using a liquid-liquid extraction method. The water samples are filtered to remove particulates (and chemicals bound to them). They are removing the particulates in an attempt to only measure the soluble pesticides, so that correlations can be made with the aquatic toxicity testing in Dr. David Hinton's lab. Sodium chloride and ethyl acetate are combined with the aqueous samples in a separatory funnel. The pesticide is extracted into the ethyl acetate. This fraction is evaporated down under nitrogen to concentrate the sample. The concentrated sample is analyzed on the gas chromatograph. The nitrogen phosphorus detector (NPD) is used to measure diazinon and the electron capture detector (ECD) is used to measure esfenvalerate. This method has given a high and consistent recovery. The lab has started analyzing field samples, but doesn't have the data ready to report yet.

Work continues in Dr. Hinton's lab with development of the alternative test organisms. Several indigenous species were captured in the wild and cultured in the laboratory, and culture and feeding conditions were developed. Specifically, the aquatic toxicology lab collected adult chironomids, *Chironomus spec.*, along the Sacramento River, and bred them in the laboratory to obtain larval stages for testing. Larvae were successfully maintained for 2 months. The cladoceran *Bosmina spec.* was also collected from the Sacramento River and maintained under culture conditions for approx. 2 months. More work is planned to ensure that cultured animals can be reliably maintained. A specialist has been hired to further supply the lab with starter cultures of indigenous species.

Field sites and associated protocols for the upcoming winter studies are well under way. With the help of Bill Krueger, CE Advisor in Glenn County, we will once again be evaluating the effect of orchard vegetation on reducing runoff and associated risk of offsite movement of pesticides at last winter's cooperator site. Roger Duncan, CE Advisor in Stanislaus County, is helping Mike Oliver identify growers who will participate in studies which will allow us to compare the runoff influences of soil type (sandy vs. clay) and vegetative cover vs. bare ground.

Dr. Wes Wallender and graduate student Till Angerman are working very hard to build on last winter's experiences in defining surface flow dynamics. They are developing their methodology to determine the infiltration function, designing and testing portable apparatus for the methodology, and collaborating with contaminant transport modelers.

We estimate Task 3 to be 95% complete for Year 1, the only remaining deficit being the actual completion of analysis of last winter's samples. Previous progress reports add substantiation for completion of subtasks not mentioned in this report.

BUDGET: The following page is a summary of our budget expenditures, variances, and balances through the fourth quarter of the project.

Calfed Quarterly Report
Ending September 30, 1999

Project Title: Spawning Gravel Introduction, Tuolumne River, La Grange River Mile 50.1-50.3

CALFED Project: #97-C11 (\$250,975)

CALFED Contract: #B81641

DFG Contract : #FGR8950-R4

Project Manager: Bill Loudermilk

Department of Fish and Game, SJVSSR

Fresno, California 93710

(559) 243-4005 extension 141

Task 1. Obtain all necessary permits and CEQA Documentation.

Deliverables to CALFED:

- (1) Copies of submitted permit applications. Completed
- (2) Copies of submitted CEQA Negative Declaration. Completed
- (3) Approved permits. Due July 30, 1999. Completed

CEQA documentation (SCH# 90042070) and all necessary permits have been submitted to appropriate agencies for processing. Project personnel were requested by Reclamation Board personnel to complete a historical and archeological search of the project area.

The following permits are in-hand:

- State Lands Lease
- DFG 1600 Agreement
- Regional Water Quality Control Permit
- USCOE Permit
- The Reclamaton Board Permit

Copies of the last three permits are attached to this report as they were completed since the last quarterly report.

Task 2. Complete all bid packages/contracts necessary to purchase construction materials.

Devilerables to CALFED:

- (1) Copy of bid package. Completed
- (2) Draft contract. Completed
- (3) Final Purchase Order contract. Completed

Project personnel met with *Merced Sand and Gravel Incorporated* (Mr. Jon Kelsey) the contractor assigned Purchase Order #54055, and a representative from *Mister Trucker Incorporated*, the sub contractor who will deliver the materials to the project site. A "walk through" inspection of the proposed project was completed. All parties are confident that the material will be delivered as planned, starting 2 August 1999. Project personnel inspected and

tested the spawning gravel mixture for adherence to Purchase Order #54055 specifications on July 16. A copy of the final purchase order contract is attached.

Task 3. Obtain interagency agreement with DWR for project monitoring.

Deliverables to CALFED:

- (1) Monitoring Plan. Completed
- (2) Draft Interagency Agreement. Completed
- (3) Final Interagency Agreement. Completed.

The interagency agreement to monitor gravel movement in the project reach between DFG and DWR was completed. A copy of the agreement is attached. The project monitoring includes pebble counts, tracer gravels, water depth-velocity transects, bulk samples of substrate and a flow model. Department of Fish and Game habitat project personnel worked with Department of Water Resources engineering personnel to collect baseline data for pre-project monitoring. This was completed before August. The first postproject monitoring has been completed (in September) except for the sorting of the bulk samples. That means that 50% of the monitoring contract has been completed.

Task 4. Construct project.

Deliverables: A written summary and short video of the project construction.

Summary:

Project personnel completed approximately 1/4 mile of site access road and two gravel staging/introduction site areas were completed using a bulldozer, articulated wheel loader, and vibratory roller. Pre-project monitoring was completed in July. Rental equipment (2 dozers, 1 water truck) necessary to construct the project were obtained. A pre-construction inspection with appropriate contractors has been completed. Materials delivery and project construction began on August 2, 1999. Habitat personnel rented and operated two bulldozers to place over 9,352 tons of gravel in the active channel. Habitat personnel also rented and operated one water truck to keep the airborne dust under control. In-river project construction was completed on August 19, 1999. The 200 yards of the river were filled such that the water depth over that area averages approximately 1½ feet. DFG carcass survey crews are observing the newly created spawning area for redd construction. At this point salmon have been observed in the area but it is too early for redds to have been constructed. The disturbed areas of the floodplain and riverbank will be reseeded this fall with native grass seed and replanted with willow and cottonwood cuttings this winter to reestablish the riparian vegetation.

Total Estimated Cost of Project : \$250,975
 Funding from CALFED Prop. 204 Account \$250,975
 Any other Funding 0

Note: In-Kind Services listed here as a total amount. Details of the service provided should be included.

Phase I Schedule: 2 years
 Note: If applicable, other phases listed here.
 Total Project Estimated Completion Date: 2 years

		PHASE I (Quarterly Budget)			PHASE I (FY '99 Budget)			PHASE I (Three Year Budget)		
		Budget	Accrued Expenditures	Variance **	Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete **
Task 1:	Obtain all Necessary Permits Schedule: FY '99 Percent Work Complete for Task 1: 100% Note: If applicable, subtasks listed here under tasks.	\$107	\$107	\$0	\$4,213	\$4,213	\$0	\$4,213	\$4,213	\$0
Task 2:	Complete Contracts for Construction Materials Schedule: FY '00 Percent Work Complete for Task 2: 100%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Task 3:	Monitoring Subcontract (DWR) Schedule: FY '00 Percent Work Complete for Task 3: 50%	\$20,000	\$20,000	\$0	\$26,530	\$26,530	\$0	\$41,560	\$20,000	\$21,560
Task 4:	Construct Project Schedule: FY '01 Percent Work Complete for Task 4: 100%	\$191,153	\$191,153	\$0	\$191,153	\$191,153	\$0	\$191,153	\$191,153	\$0
Phase I Total:		\$211,260	\$211,260	\$0	\$221,896	\$221,896	\$0	\$236,926	\$215,366	\$21,560

We budget to the subtask level only if active during the Quarter in question. If a subtask is complete, the subtask cost rolls-up into the Task level.

** Please explain significant variance.

10/31/1999 16:01 2098539017

TUOLUMNE RESTORATION

PAGE 05

E-032614

E-032614

Title Alternative Practices for Reducing Pesticide Impacts on Water Quality
 Applicant: University of California, Davis (UCD)
 CALFED Project Nur B81609 (97-C12)

Budget year: 1999
 Statement Quarter: 4

Total Estimated Cost of Project (phase II): \$957,781
 Funding from Federal Bay-Delta Account \$957,781
 Any other Funding 0

First Year Schedule 1 year

Total Project Estimated Completion Date: 3 years

	PHASE II (Quarterly Budget) REVISED				PHASE II (FY '99 Budget) REVISED			PHASE II (Three Year Budget) REVISED		
	Budget	Accrued Expenditures	Variance **		Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete **
Task 1: Matrix Information Synthesis Schedule: FY '99 through FY '01 Percent Work Complete for Task 1, Yr. 1: 94%	\$7,870	\$12,599	(\$4,729)	1	\$31,481	\$29,516	\$1,965	\$154,847	\$29,516	\$125,331
Task 1	7,870	12,599	-4,279		31,481	29,516	1,965	154,847	29,516	125,331
Task 2: Education and Outreach Schedule: FY '99 through FY '01 Percent Work Complete for Task 2, Yr. 1: 28%	\$6,710	\$0	\$6,710	2	\$26,840	\$7,515	\$19,325	\$183,351	\$7,515	\$175,836
Task 2	6,710	0	6,710		26,840	7,515	19,325	183,351	7,515	175,836
Task 3: Field Studies Schedule: FY '99 through FY '01 Percent Work Complete for Task 3, Yr. 1: 55%	\$38,854	\$24,861	\$13,993	3	\$155,415	\$85,894	\$69,521	\$619,583	\$85,894	\$533,689
Task 3	38,854	24,861	13,993		155,415	85,894	69,521	619,583	85,894	533,689
Phase II Total:	\$53,434	\$37,460	\$15,974	**	\$213,736	\$122,925	\$90,811	\$957,781	\$122,925	\$834,856

We budget to the Sub-task level only if they are active during the Quarter in question. If a SUBTASK is complete, the SUBTASK cost rolls-up into the Task level.

** Please explain significant variance.

TASK 1: At the end of the second quarter, an employee was hired to work on the task. The budget for 99 is for 7 mos. of effort from this employee at 100% time. The 4th quarter is reflecting that these expenses are occurring over 7 mos. time, not the 12-month period of Year 1 of the project.

TASK 2: Employee hired to work on this task after a long recruitment period. Employee left for other employment after a little more than a month of working on the project. Hired replacement for this task beginning 8/1/99.

TASK 3: Carry forward amount represents funds not spent for testing that was unable to be completed during the first year of the project. These funds will be spent during the second and third year as testing accelerates on this task.

Quarterly Report

From: Drs. Joan Lindberg and Serge Doroshov
925-443-2448; lindberg@jps.net; doroshov@ucdavis.edu

To: CALFED Bay-Delta Program

Project: B81581, Delta Smelt Culture, State Water Project site - Byron

98-002

Date: 10/13/99

The objective of this project is to develop methods to culture the threatened fish, delta smelt. Numerous researchers are looking for a supply of smelt for basic and applied research, such as toxicology testing and improved fish screen design work. We are funded by CALFED for the first year of a three year grant. Emphasis in the first year is on improving the physical facilities at our site, optimizing spawn performance and larval culture procedures. Developing methods for the capture of post-larvae from the field for culture will be a minor emphasis this year.

This progress report briefly summarizes the progress from July 98 to present, and indicates the progress made in the current quarter: Jul-Oct 99.

Task 1: COMPLETED. Physical improvements at the site, and development of method to sterilize the delta water; Jul 98 - Jun 99

Initial preparations included converting an empty shipping container to a fish hatchery and live prey culture facility, requiring plumbing, carpentry and installation of water heating, cooling and purification units.

- Disinfected water supply is produced with an ozone generator and liquid oxygen supply (rental equipment) and plumbed to service incubating eggs, larval rearing tanks, post-larval rearing tanks, and rotifer and *Artemia* prey cultures.
- New water chilling unit installed, provides temperature control of ozonated delta water.
- Re-circulating water supply with bio-filtration is built and operable.
- System preparations for rotifer culture complete: system built to circulate warm water (in-line heater) at 15 ppt NaCl through hatchery and back to an outdoor storage tank; incorporates UV sterilization.

Rearing trials with larvae include use of both an ozonated water supply in a flow-through system, and a "mature" re-circulating water supply which is bio-filtered. Use of the mature supply of water has shown advantages with some larval species.

Task 2: COMPLETED. Collection and maintenance of broodfish and initiation of rotifer culture; Nov 98 - Jun 99

Broodfish spawned late this year probably due to the cold spring. Spawning occurred primarily in May and extended to mid July. Rotifer production was extensive to cover our needs. And larval rearing systems were completed.

Broodfish and Rotifer culture:

- Collection of broodstock was accomplished quickly in late October - 360 fish in four field trips; initial transfer mortalities accounted for about 20% of the total. Broodfish were maintained daily since capture. Survival has been good from Jan - Jul (87%).
- Daily maintenance of broodfish includes siphoning, and wiping down of tanks and feeding. Fish are treated twice weekly with an anti-bacterial agent (nitrofurazone) to prevent spread of disease.
- Rotifer culture has been steady at a standing stock of 100-150 million/day since mid-March. Daily harvest ranges from 15-40 million/day. Daily maintenance includes 4 feedings (0800 - 2000h) of Bakers yeast/day, harvesting, straining and washing of rotifers and re-inoculation of one spare tank/day on a rotating schedule. Rotifers counted (#/ml) and inspected daily from all tanks.

Egg Incubation:

- Eggs develop normally in the ozonated delta water.
- Total spawn was more than double last year's spawn, at over 114,000 eggs; hatch was about 30%.

Task 3: COMPLETED. Larval Smelt Rearing Trials and Short-term Feeding Experiments, Apr-Sep '99.

- Larvae were stocked at two densities (40 or 80 larvae/liter) in 20-liter tanks (2 replicates/treatment). There was no negative impact of a higher stocking density. Larvae stocked in the larger (80-liter) tanks were significantly larger at 60 days post hatch than fish in the smaller (20-liter) tanks. Survival was higher at 60 days post hatch in the larger tank (30.6%), compared to the other two treatments (20-liter tank, 40 larvae/liter, 0.4% survival; 20-liter tank, 80 larvae/liter, 3.8% survival).
- The 80-liter tanks were stocked at the lower density of 40 larvae/liter, it will be interesting to stock the 80-liter tanks at a higher density next year to see if growth and survival can be further increased. Best rearing methods include use of the bio-filtered water in the recirculating system.
- Larvae fail to survive beyond about 25 days when reared with the ozone-treated water in a flow-through system. Higher stocking density results in higher growth and survival of fish, perhaps due to removal of excess prey by the larvae thereby improving tank hygiene. Larval feedings: rotifers (density 5/ml) or *Artemia nauplii* (2-3/ml) and algae added four times/day (0800-2000h). Tanks are siphoned 2-3 times/week, and siphon water is inspected for live (returned to tank) and dead larvae.
- A series of short-term larval feeding experiments were conducted to look at the effects of algae level, turbidity, water type, light level, and chemical cues from algae filtrate on the feeding behavior of smelt larvae. Level of algae significantly influenced the feeding incidence when above 3 million cells/ml. Turbid conditions were created using algae and bentonite. There was little or no feeding response in clear water (<5 NTU). Increased turbidity (25 NTU) resulted in a higher incidence of feeding (>60 %). Water type (bio-filtered vs. flow through) had no effect on feeding response. Light level had a significant effect; more larvae fed at the higher light level than at the lower light levels. There was no significant affect of algae filtrate on feeding behavior.

Task 4: COMPLETED. Post-larval Field Collection, Jun-Aug 99.

- Post-larvae were collected from the fish screening operation at the SWP's fish screening facility. These fish (20-30 mm) were collected to evaluate the rearing potential of capturing post-larvae for growout. They experienced good growth (70 mm), but high mortality was experienced the first month after capture.

Task 5: Prepare and Submit Final Report, Due Oct 29, 1999.

- Data have been collected, entered to computer, and graphically depicted.
- Some statistical analysis remains for the larval experiments.
- Most of the report's text has been written.

QUARTERLY REPORT

TITLE: Delta Smelt Culture Project

Total Project Costs Breakdown: \$194,870
 Funding from CALFED: 194,870
 Funding from others: 0

Project Schedule:
 Phase 1 one year
 Phase 2 N/A

Applicant: Doroshov/Lindberg
 CALFED Project No: B-81581
 Budget year: FY 98-99
 Statement Quarter: July-Sept 99

		Quarterly Budget				Annual Budget			
		Budget	Accrued Expenditures	Variance	*	Budget	Accrued Expenditures	Balance to Complete	*
Task 1:	Physical improvements at site	0	0	0		65,826	65,826	0	
Schedule:	Jul 98 - Jun 99								
Percent Work Complete Task 1: 100%									
Task 2:	Broodfish collection and maintenance, rotifer culture	0	0	0		99,214	99,214	0	
Schedule:	Nov 98- Jun 99								
Percent Work Complete Task 2: 100%									
Task 3:	Larval rearing	14,427	14,427	0		23,427	23,427	0	
Schedule:	Apr - Sep 99								
Percent Work Complete Task3: 100%									
Task 4:	Post-larval field collection	4,403	4,403	0		6,403	6,403	0	
Schedule:	June 99*								
Percent Work Complete Task 4: 100%									
Task 5:	Submit final report	0	0	0		0	0	0	
Schedule:	Oct-99								
Percent Work Complete Task 5: 70%*									

One month extension received for final report; due 29 October 1999.

Calfed Quarterly Report
Ending September 30, 1999

Project Title: Basso Bridge Ecological Reserve and Merced River Ranch Land Acquisitions.

CALFED Project: #98-C04/C05 (\$830,500)

CALFED Contract: #B81644

DFG Contract : #FGR8953-R4

Project Manager: Bill Loudermilk

Department of Fish and Game, SJVSSR

Fresno, California 93710

(559) 243-4005 extension 141

Task 1. Contact owners of each property and open formal negotiations.

Deliverables to CALFED:

- (1) Letters of intent to enter formal negotiations from appropriate land owners.

The internal DFG review process for the purchase of all properties has been completed. Agents of the Wildlife Conservation Board (WCB) have been assigned to contacting each property owner and initial contact has started. Continued negotiations between WCB agents and land owners will proceed until final purchase.

Task 2. Obtain necessary appraisals for each property to be purchased.

Deliverables to CALFED:

- (1) Copies of appraisals.

The WCB has started the process of getting all properties appraised. The Merced River Ranch appraisal is expected to be completed in November. The Basso Bridge acquisitions have been complicated by difficulty contacting landowners and the interest of one landowner in a land swap instead of traditional purchase.

Task 3. Complete purchase of properties.

Deliverables to CALFED:

- (1) Copies of each of the final titles.
- (2) A conservation easement or comparable document for each of the properties.

After land owner contacts, property appraisals and final land owner negotiations are completed, WCB agents will present each property purchase to the WCB for approval. If approved property purchases will be completed.

Calfed Quarterly Report
Ending September 30, 1999
Budget Page

Project Title: Basso Bridge Ecological Reserve and Merced River Ranch Land Acquisitions.
 CALFED Project: #98-C04/C05 (\$830,500)
 CALFED Contract: #B81644
 DFG Contract : #FGR8953-R4
 Project Manager: Bill Loudermilk
 Department of Fish and Game, SJVSSR
 Fresno, California 93710
 (559) 243-4005 extension 141

Task to be Completed	Budget	Expenditures Billed this Quarter	Expenditure Billed to Date	Remaining Balance	Projected Next Quarter
1. Basso Purchase	\$135,160	\$0	\$0	\$135,160	\$ 35,160
2. Merced River Ranch Purchase	512,160	0	0	512,160	\$ 35,160
Contingency	183,180	0	0	183,180	0

Total Estimated Cost of Project: \$830,500
 Funding from CALFED Prop. 204 Account \$830,500
 Any other Funding 0

Note: In-Kind Services listed here as a total amount. Details of the service provided should be included.

Phase I Schedule: 2 years
 Note: If applicable, other phases listed here.
 Total Project Estimated Completion Date: 2 years

		PHASE I (Quarterly Budget)			PHASE I (FY '99 Budget)			PHASE I (Three Year Budget)		
		Budget	Accrued Expenditures	Variance **	Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete **
Task 1:	Contact Landowners and Negotiate Schedule: FY '99 Percent Work Complete for Task 1: 75% Note: If applicable, subtasks listed here under tasks.	\$5,000	\$3,750	\$1,250	\$5,000	\$3,750	\$1,250	\$5,000	\$3,750	\$1,250
Task 2:	Obtain Appraisals Schedule: FY '00 Percent Work Complete for Task 2: 25%	\$5,000	\$1,250	\$3,750	\$5,000	\$1,250	\$3,750	\$5,000	\$1,250	\$3,750
Task 3:	Education and Outreach Schedule: FY '01 Percent Work Complete for Task 3: 0%	\$820,500	\$0	\$820,500	\$820,500	\$0	\$820,500	\$820,500	\$0	\$820,500
Phase I Total:		\$830,500	\$5,000	\$825,500	\$830,500	\$5,000	\$825,500	\$830,500	\$5,000	\$825,500

We budget to the subtask level only if active during the Quarter in question. If a subtask is complete, the subtask cost rolls-up into the Task level.

** Please explain significant variance.

10/31/1999 16:01 2098539017

TUOLUMNE RESTORATION

PAGE 02

229230-E

E-032622

October 8, 1999

Ms. Jo Turner, Contract Manager
CALFED Bay-Delta Program
1416 Ninth Street, Room 1155
Sacramento, CA 95814

RE: July-September 1999 Quarterly Progress Report for B81615 (FGR8949OS)

Dear Ms. Turner:

The objective of this project is to provide data necessary for the Regional Water Quality Control Board to promulgate water quality standards for diazinon and chlorpyrifos which are protective of fish and wildlife in the Sacramento-San Joaquin watershed. Missing elements from the toxicity data base for the two organophosphate insecticides and a measure of joint toxicity between the two materials are generated by this project. With these data, the Criterion Maximum Concentration (CMC) and the Criterion Continuous Concentration (CCC) for diazinon and chlorpyrifos will be calculated and used in establishing water quality standards.

Previous work:

Prior to beginning the specific tasks of the contract, a draft Quality Assurance Project Plan (QAPP) was written and submitted to the CALFED peer review panel for review. The comments received were incorporated into the final QAPP that was approved prior to beginning the testing in Tasks 1 and 2. Tests in Tasks 1 and 2 were completed.

I. Task 1A - An acute test with the snail *Physa spp.* on diazinon

The toxicity test report has been completed and sent to CALFED.

II. Task 1B - Acute tests with the cladoceran *Ceriodaphnia dubia* on diazinon, chlorpyrifos, and a mixture of diazinon and chlorpyrifos

The toxicity test reports have been completed and sent to CALFED.

III. Task 2 - A chronic test with the cladoceran *C. dubia* on chlorpyrifos

The toxicity test report has been completed and sent to CALFED.

IV. Task 3 - Assess data and calculate CMC and CCC

Data from Tasks 1 and 2 as well as additional data were reviewed, the CMC and CCC were recalculated, a report describing the revised CMC and CCC was written, and is currently under internal review. The draft report will be sent out for peer-review in early October 1999.

Future work:

A final report, incorporating peer-review comments, modifying the water quality criteria for diazinon and chlorpyrifos will be submitted to CALFED by March 31, 2000.

Sincerely,

Brian Finlayson, Chief
Pesticide Investigations Unit

cc: George Faggella
Aquatic Toxicology Laboratory

Quarterly Report *
Organophosphate Water Quality Criteria

Applicant: Dept. Fish and Game
CALFED Project No. B81615
Budget Year FY 99/00
Statement Quarter Jul-Sep 99

		Quarterly Budget			Annual Budget		
		Budget	Accrued Expenses	Variance	Budget	Accrued Expenses	Balance to Complete
Task 1A:	Acute test w/ snail						
Schedule:	Jul-Sep 99						
Percent Work Complete:	100%						
Task 1B:	Acute test w/ cladoceran						
Schedule:	Jul-Sep 99						
Percent Work Complete:	100%						
Task 2:	Chronic test w/ cladoceran						
Schedule:	Jul-Sep 99						
Percent Work Complete:	100%						
Task 3:	CMC and CCC Calculation	26111	26111	0	26111	26111	0
Schedule:	Jul-Sep 99						
Percent Work Complete:	100%						

*Actual work completed this Quarter. Contract amended for a nine-month extension on the term of the contact.

October 8, 1999

Ms. Jo Turner, Contract Manager
CALFED Bay-Delta Program
1416 Ninth Street, Room 1155
Sacramento, CA 95814

RE: July-September 1999 Quarterly Progress Report for B81715 (FGR8945OS)

Dear Ms. Turner:

The objective of this project is to provide data necessary to develop a Delta Dredging and Reuse Strategy (DDRS) to select goals and an overall approach that can be used later to develop a long-term Delta Dredge Material Management Plan (DDMMP). The California Department of Fish and Game (DFG), Regional Water Quality Control Board, Central Valley Region (CVRWQCB), and the Delta Protection Commission (DPC) jointly are working on this study. Activities of CALFED during the next few decades will affect the development of these plans because several ecosystem restoration projects will require the dredging and reuse of Delta sediments. The DDMMP would have broader applications for all dredging and levee maintenance activities in the Sacramento-San Joaquin Delta and implement those policies of the affected DDRS agencies. The DDMMP will allow the regulatory agencies to expedite project assessment, monitoring requirements and appropriate reuse or disposal.

Previous work:

No previous work associated with this study has been conducted.

I. Task 1 - Select and convene a Technical Advisory Panel

The TAP has been selected by the DPC, and the first meeting is scheduled for November 9, 1999.

II. Task 2 - Attend Technical Advisory Panel meetings

DFG and CVRWQCB - No activity was undertaken on this task in this quarter.

III. Task 3 - Compile and assess proposed delta dredging project information

DFG and CVRWQCB - No activity was undertaken on this task in this quarter.

IV. Task 4 - Collect, organize, and evaluate existing information on Delta sediments

DFG and CVRWQCB - No activity was undertaken on this task in this quarter.

V. Task 5 - Evaluate existing sediment quality data

DFG and CVRWQCB - No activity was undertaken on this task in this quarter.

VI. Task 6 - Comment on Waste Discharge Requirements (WDRs)

DFG and CVRWQCB - No activity was undertaken on this task in this quarter.

VIII. Task 7 - Draft Delta Dredging and Reuse Strategy (DDRS)

DFG and CVRWQCB - No activity was undertaken on this task in this quarter.

IX. Task 8 - Approval of DDRS and WDRs

DFG and CVRWQCB - No activity was undertaken on this task in this quarter.

X. Task 9 - Monitoring Studies

DFG and CVRWQCB - No activity was undertaken on this task in this quarter.

Future Work:

Work associated with Tasks 3 and 4 are expected to be completed in current Fiscal Year. Work associated with Tasks 2, 5, 6, and 9 will be conducted in Fiscal Years 1999/2000 and 2000/2001. Work associated with Tasks 7 and 8 will be conducted in Fiscal Year 2000/2001.

Sincerely,

Brian Finlayson, Chief
Pesticide Investigations Unit

cc: Margit Aramburu, DPC

Tom King, CVRWQCB

Quarterly Report
Delta Dredging and Reuse Strategy

Applicant: Delta Protection Commission, CA Dept. Fish and Game, SWRCB

CALFED Project No. B81715, 98-C09

Budget Year FY 99/00

Statement Quarter Jul-Sep 99

		Quarterly Budget			Annual Budget		
		Budget	Accrued Expenses	Variance	Budget	Accrued Expenses	Balance to Complete
Task 1 :	Convine TAP						
Schedule:	Jul-Sep 99	0			12,000		12,000
Percent Work Complete:	100%						
Task 2:	Attend TAP						
Schedule:	Jul-Sep 99	0			5,060		5,060
Percent Work Complete:	0%						
Task 3:	Assess Project Info						
Schedule:	Jul-Sep 99	0			17,000		17,000
Percent Work Complete:	0%						
Task 4:	Evaluate Delta Info						
Schedule:	Jul-Sep 99	0			86,500		86,500
Percent Work Complete:	0%						
Task 5:	Evaluate Sediment Data						
Schedule:	Jul-Sep 99	0			45,000		45,000
Percent Work Complete:	0%						
Task 6:	Comment on WDR						
Schedule:	Jul-Sep 99	0			30,060		30,060
Percent Work Complete:	0%						
Task 7:	Draft DDRS						
Schedule:	Jul-Sep 99	0			0		0
Percent Work Complete:	0%						
Task 8:	Approval of DDRS/WDR						
Schedule:	Jul-Sep 99	0			0		0
Percent Work Complete:	0%						
Task 9:	Design Monitoring Studies						
Schedule:	Jul-Sep 99	0			60,000		60,000
Percent Work Complete:	0%						

CMARP Progress Report

Comprehensive Monitoring Assessment and Research Program

The CMARP program is progressing on several different fronts. The following are summaries of significant efforts:

- Water Quality Program/CMARP Drinking Water Workshop -- In coordination with the Water Quality Program, CMARP recently held a drinking water workshop on August 26 and 27. A summary of major points, including recommendations for future monitoring, data assessment, information development, and research is being prepared.
- Status and Trends Monitoring Program – Efforts continue to develop a report that describe the baseline monitoring elements of major programs in the estuary. The report will assess the value of the present monitoring network to Stage 1 needs, and provide recommendations for inadequate coverage.
- White Paper Development – CMARP is working with the ERP and Water Quality Program staff to develop white papers that provide a scientific understanding and rationale for ecosystem-related actions, including those being considered in the South Delta Program.
- Management Level Indicator Development – In coordination with the ERP and Water Quality Program, a proposal to develop “management level indicators” for these programs is being prepared through CMARP. Indicators for the other CALFED programs will also be developed as experience is gained through this effort.
- Science Conference – CMARP is in the preliminary stages of organizing a Science Conference scheduled for Fall, 2000. The conference would be used to provide information on the findings/results of selected Category III projects, as well as other scientific issues germane to CALFED programs.
- Geographic Information Systems – CMARP staff are working with other CALFED program staff to identify GIS needs and to recommend a system to meet those needs.
- Data Management – A CMARP proposal for managing Category III project related data was approved by CALFED management last August 30. The data management system called “Bay-Delta Tributary Relational Database” is now being established for CALFED and is in use by the IEP, CAMP, and several stakeholder groups.

QUARTERLY PROGRAMMATIC REPORT

Program Manager Jo Turner Phone: 916-653-6059
Project Manager Joe Cech Phone: 530-752-3103
CALFED Project # 98-C15 (B81738)
Quarter Ending: September 30, 1999

Deliverables

NOTE: The 98-C15 agreement was not fully executed until April, 1999.

<u>Deliverable</u>	<u>Due Date</u>	<u>% Complete</u>	<u>Date Deliverable Complete</u>
Task 1 (Report on temp. tol., tendencies, swim perf., metab. rate, bl. equilib., eval. for managem.)	1-30-00	30	
Task 2 (Report on GS reprod. characteristics, including age-specific devel. & gamete charac's.)	1-30-00	65	
Task 3 (Report on GS' baseline reproductive & stress hormone profiles.)	1-30-00	30	
Task 4 (Report on GS genetic diversity & sturgeon genetic markers.)	1-30-00	50	
Task 5 (Report on GS egg, larval, and adult distributions & abund.; infl. of abiotic factors.)	1-30-00	15	
Task 6 (Develop Biological Monitoring/Research Plan, incorporating a Quality Assurance Plan)	4-15-99	100	
Task 7 (Quarterly fiscal and programmatic reports by the end of the quarter.)	1-30-00	75	

Narrative

Task 1: GS Temperature Tolerance Limits and Behavioral Tendencies, Swim. Performance (J.J. Cech, UC Davis, Task Leader)

Young-of-the-year (YOY) green sturgeon (GS), spawned from Klamath River-collected broodstock GS in May, 1999, in cooperation with the Yurok Tribe (see Tasks 2, 3, 4), were used in a series of respiratory metabolism experiments. "Routine" metabolic rates were determined at 11, 19, and 24°C, and results were plotted against body mass. Results so far show that log metabolism scales in a linear fashion with log body mass with a slope (mass exponent) of approximately 1. Other YOY GS are being raised for upcoming temperature tolerance, dissolved oxygen tolerance, behavioral tendencies, and swimming performance measurements. Subadult/adult GS, previously collected by CDFG (See Task 5) and those raised at UC Davis will be used for upcoming metabolism (acrylic flow-through respirometers described in last quarterly report) and blood-oxygen equilibria measurements.

Task 2: Reproductive Characteristics of Wild GS (S.I. Doroshov, UC Davis, Task Leader)

Body size data, samples of gonads and fin rays have been collected from 14 female and 24 male

adult green sturgeon by our Yurok Tribe collaborators on the Klamath River. Histological processing of gonad samples and preparation of fin ray sections for aging have been completed at UCD. Descriptions and microphotography of the histological sections and scoring the fin ray sections for age will be completed this fall.

Embryos and larvae of the green sturgeon were sampled through metamorphosis and body size measurements, morphometric analysis and photography have been completed. To develop a potential diagnostic technique to distinguish between green and white sturgeon larvae, the same grow-out and sampling protocol was followed for a group of white sturgeon. The comparative analysis between the two species will continue through the fall and winter.

The green sturgeon larvae fed the two diet treatments; a semi-moist diet only and the same trout diet supplemented with live Tubifex worms have done better than anyone would have anticipated; with 40-days posthatch survival rates of 74% and 86%, respectively. The fish continue to grow very well, and have been successfully weaned onto a dry trout chow. At 3-months posthatch the fish weighed, on an average, 40 grams. In comparison with white sturgeon, during the first three months the green sturgeon are growing faster (at a similar age white sturgeon average 20-30 grams at UCD and the nearby commercial farms), and whether or not it is related to the initial larger egg size, for green sturgeon, and the resulting larger posthatch larvae remains to be seen, as we continue to monitor growth during the fall and winter.

Task 3: Assessment of Stress and Its Impact on Reproduction (G.P. Moberg, Task Leader)

Because of Prof. Moberg's tragic, untimely death (via pulmonary embolism) on 8-13-99, Principal Investigator J.J. Cech has prepared this Task 3 report. Fortunately, Prof. Moberg had started his Ph.D. student, Scott Lankford, on the productive series of experiments to determine the age when developing larvae and/or fingerlings are capable of expressing a stress response, as determined by increased synthesis of cortisol. GS larvae hatched from eggs collected on the Klamath River (Task 2) were tested for responsiveness to a single acute stressor of air emersion for 45 seconds during development. At varying times from just before the stressor until 2 hours post-stress, groups of fish were sacrificed in MS-222 anesthetic and frozen for subsequent cortisol determinations. Cortisol analyses on these samples have been completed, and the results are being analyzed. Stress response development will continue to be monitored in the maturing GS fingerlings, including evaluation of the accumulative effects of multiple stressors.

Task 4: Genetic Analysis (B.P. May, Task Leader)

This task has two objectives, (1) to develop species-specific genetic markers for GS and white sturgeon (WS) and (2) to develop intraspecific nuclear genetic markers that could be used in a Phase 2 study to differentiate GS populations. The first objective has been accomplished with two approaches. An mtDNA marker was developed that uses an Ssp1 restriction site presence in cytochrome B in GS that is absent in WS. Amplification and subsequent digestion with Ssp1 yields a single band in WS and two smaller bands in GS. Secondly, amplified fragment length polymorphisms (AFLPs) were examined in GS and WS that showed numerous fixed differences between these species. Several of these bands were cut out of gels and sequenced. Primers were developed for one of these differences that shows a seven-base pair deletion in GS versus WS DNA. We are now in a position to determine the identity of any sized sturgeon, e.g. fry. Insufficient intraspecific differences were seen in AFLPs in GS to justify pursuing our second

objective with AFLPs. Therefore, we have concentrated on the development of highly polymorphic microsatellite markers for GS. During this quarter of Phase I we have been redesigning primers we developed for other sturgeon species to work in GS. We have about six loci that should prove useful for population differentiation analysis in Phase II, and we will continue to develop these markers during the remainder of Phase I. We will provide specific details of primer sequences, amplification conditions, and images of these and the species specific markers in the final report for Phase I.

Task 5: Determination of GS Spawning Habitats and Their Environmental Conditions (R.G. Schaffter and D.W. Kohlhorst, CDFG, Task Leaders)

Final contract approval from the State of California Department of General Services was finally received on 20 September 1999. Thus, all green sturgeon effort during this quarter was restricted to sampling for juvenile green sturgeon incidental to ongoing juvenile white sturgeon surveys in the Sacramento-San Joaquin Estuary. Between July 7 and July 19, we captured 135 juvenile (<117 cm total length) white sturgeon and no green sturgeon in our first summer-fall setline survey between Rio Vista and Carquinez Strait. Between September 20 and 30, 1999, we caught 28 white sturgeon and no green sturgeon from Rio Vista to east San Pablo Bay in a survey hampered by Chinese mitten crabs. The remainder of the calendar year will be spent preparing sampling gear to begin egg and larval sampling in the Feather River in February, 2000.

Task 6: Biological Monitoring/Research and Quality Assurance Plan (J.J. Cech, Task Leader)

Plan was attached to the previous quarterly report.

Task 7: Quarterly Fiscal and Programmatic Reports (J.J. Cech, Task Leader)

This is the second of four quarterly reports.

Projected Expenses for the Next Three Months:

Following is an estimate of costs for the next three months (October - December, 1999)

Month 1: \$16,668 Month 2: \$16,668 Month 3: \$16,668 Total for Quarter: \$50,004

Summary of Expenses (July through Sept., 1999) and to Date (first 8 months of Phase 1):

Task	Q. Budg.	Q.Expen.	Q. Var.	Ph.Budg.	Ph.Expen	Balance	Explan.
Task 1	7484	11535	-4051	30140	26662	3765	Start-up
Task 2	12842	18000	-5158	51169	33000	18370	Start-up
Task 3	7610	5084	2526	30438	5084	25354	Start-up
Task 4	10868	6881	3987	43471	22717	20754	Start-up
Task 5	10957	0	10957	43829	0	43829	Start-up
Task 6	162	162	0	650	162	488	Start-up
Task 7	81	81	0	325	81	244	Start-up



99-C02

JOHN B. LAMPE
DIRECTOR OF WATER AND NATURAL RESOURCES
(510) 287-1127
jlampe@ebmud.comJON A. MYERS
ACTING MANAGER OF NATURAL RESOURCES
(510) 287-1121
myers@ebmud.com

October 19, 1999

Jo Turner
Contract Manager
1416 9th Street, Room 1148
Sacramento, CA 95814Re: CalFed Contract No. B81852; Second Quarterly Report
Mokelumne River Feasibility Study: East Delta Corridor Habitat Study

Dear Jo,

The East Bay Municipal Utility District (EBMUD) has been awarded \$400,000 by CalFed to provide funds and in-kind services to the Corps of Engineers for a feasibility study of ecosystem restoration opportunities (particularly those with flood hazard reduction benefits) on the Mokelumne River. The proposed project will identify, design, and estimate costs for environmental restoration and flood damage reduction opportunities along the lower Mokelumne River below Camanche Dam. The project began in October 1999 and will continue through 2001. We are currently working with the Corps to refine a Project Study Plan (PSP) which will provide a detailed workplan, timeline and budget. It is anticipated that a draft PSP will be submitted to CalFed for review and comment prior to December 31, 1999. The cost for preparation of the PSP is the responsibility of the Corps and EBMUD therefore no quarterly fiscal report or invoice accompanies this narrative report.

Sincerely,

Jon A. Myers, Acting Manager
Natural Resources Department

JAM:JRS:rm

Sacramento County Urban Runoff Diazinon and Chlorpyrifos Toxicity Control Program

Applicant: City of Sacramento
 CALFED Project Number: 97-N01
 City Agreement Number: 98-124

Budget year: 1999
 Statement Quarter: 4

Total Estimated Cost: \$663,500

Funding from Federal Bay-Delta Account \$663,500

In-Kind Services: \$193,000

Professional Staff (\$70/hr) \$116,200
 Technician Staff (\$30/hr) \$35,200
 Laboratory Staff (\$60/hr) \$17,100
 Consultant Contractor (\$100/hr) \$24,500
 ELISA (\$30/test) \$0

Elisa cost being reimbursed by CALFED under materials budget for Task 1.

Total Project Estimated Completion Date: 2.5 years

	(Quarterly Budget)				(FY '99 Budget)			(Total Budget)				
	Budget	Accrued Expenditures	Variance	**	Budget	Accrued Expenditures	Remaining Balance	**	Budget	Accrued Expenditures	Balance to Complete	**
Task 1: Water Quality Monitoring - 1.5 years	\$36,360	\$14,798	\$21,562		\$122,580	\$82,696	\$39,884		\$184,000	\$82,696	\$101,304	
Schedule: FY '99 through FY '00												
Percent Work Complete for Task 1: 45%												
1.I. Execute Tomko Contract	0	0			0	0			0	0	0	
1.II. EMP and QAPP Preparation	0	0			4000	4,198			4,000	4,198	(198)	
1.III. Execute AquaScience Contract	0	0			0	0			0	0	0	
1.IV.A. Monthly River Sampling	340	275			1120	1,095			2,000	1,095	905	
1.IV.B. Storm Runoff Sampling	223	250			1120	1,705			2,000	1,705	295	
1.IV.C. Monthly Runoff Sampling	5380	1,557			17360	16,398			26,000	16,398	9,602	
1.IV.D. Rainfall Sampling	1048	119			3220	1,613			5,000	1,613	3,387	
1.IV.E. Arcade Creek Sampling	11757	4,097			37520	30,410			56,000	30,410	25,590	
1.IV.F. High-Use Site Sampling	773	220			2520	570			4,000	570	3,430	
1.IV.G. WET Tests	4335	605			13720	1,645			20,000	1,645	18,355	
1.IV.H. Flow Through Bioassay	3500	0			10500	0			15,000	0	15,000	
1.V. PM and Reporting	9003	7,675			31500	25,062			50,000	25,062	24,938	
Task 2: Education and Outreach Plan - 2.3 years	\$8,872	\$2,666	\$6,206		\$8,872	\$2,666	\$6,206		\$459,500	\$2,666	\$456,834	
Schedule: FY '99 through FY '02												
Percent Work Complete for Task 2: 1% (Work began September 1, 1999)												
2.I. Execute Dean and Black Contract	0	0			0	0			0	0		
2.II. Review/Evaluate Existing Data	2,560	725			2,560	725			5,120	725		
2.III. Analyze Data/Create Workplan	1,482	0			1,482	0			4,446	0		
2.IV. Identify Other Users	2,302	0			2,302	0			4,605	0		
2.V. Analyze Use	1,237	0			1,237	0			3,711	0		
2.VI. Develop Priority List	0	0			0	0			3,711	0		
2.VII. Design PEAP	0	0			0	0			10,593	0		
2.VIII. Prepare Implementation Plan	0	0			0	0			4,811	0		
2.IX. Implement the PEAP	0	0			0	0			344,253	0		
2.X. Project Management	1,291	1,941			1,291	1,941			34,855	1,941		
2.XI. Prepare Evaluation Reports	0	0			0	0			23,776	0		
Direct Salary and Benefits	0	0			0	0			19,619	0		
Task 4: Evaluation of Effects - 1.0 year	\$12,000	\$8,242	\$3,758		\$20,000	\$11,915	\$8,085		\$20,000	\$11,915	\$8,085	
Schedule: FY '99												
Percent Work Complete for Task 4: 60%												
4.I. Execute Tomko Contract	0	0			0	0			0	0	0	
4.II. SOW for Arcade Creek model	6,000	3,835			10,000	5,210	4,790		10,000	5,210	4,790	
4.III. SOW for Ecological Risk Assessment	6,000	4,407			10,000	6,705	3,295		10,000	6,705	3,295	
Total:	\$57,232	\$25,706	\$31,526		\$151,452	\$97,277	\$54,175		\$663,500	\$97,277	\$566,223	

E-032634

4th QUARTERLY PROGRAMMATIC REPORT

October 14, 1999

Program Manager	<u>Spencer Shepherd</u>	Phone <u>415-778-0999 x 24</u>
Project Manager	<u>Larry Nash</u>	Quarter Ending <u>09/30/99</u>
CALFED Project #	<u>97-N01</u>	Recipient Agreement <u>8/28/98</u>

<u>Name of Deliverable</u>	<u>Deliverables</u> Due Date	<u>% of Work Complete</u>	<u>Date Deliverable Complete</u>
<u>Task 1 (NFWF approval on 10/8/98 with 1st revision approval on 8/4/99)</u>			
Subtask I Draft subcontract	*	100	7/2/98
Final subcontract	*	100	8/3/98
Subtask II Draft EMP and QAAP	9/30/98	100	11/9/98
Subtask III Draft subcontract	9/30/98	100	11/9/98
Final subcontract	1 week after NFWF comments	100	1/12/99
Subtask IV Quarterly Report 1	1/10/99	100	1/10/99
Subtask IV Quarterly Report 2	4/12/99	100	4/12/99
Subtask IV Quarterly Report 3	7/12/99	100	7/12/99
Subtask IV Quarterly Report 4	10/13/99	100	10/14/99
Subtask V Characterization Report	03-01-00 08-01-00	20	-
<u>Task 2 (NFWF approval on 8/4/99)</u>			
Subtask I - Draft subcontract	*	100	6/23/99
Final subcontract	*	100	forthcoming
Subtask VI - Draft Priority Target List/Data Report	11/30/99	1	-
Subtasks VII and VII - Draft PEAP and Implement. Plan	12/23/99	0	-

Name of Deliverable	Deliverables		Date Deliverable Complete
	Due Date	% of Work Complete	
Subtask IX - Outreach Materials	2/1/00	0	-
Subtask X - Quarterly Reports	10 days after Quarter		
Subtask XI - Evaluation Report 1	11/30/00	0	-
- Final Evaluation Report	11/17/01	0	-
<u>Task 4 (NFWF approval on 10/8/98 with 1st revision approval on 8/4/99)</u>			
Subtask I Final subcontract	*	100	8/3/98
Subtask II Prepare Scope for Arcade Creek watershed	04-01-99 11-01-99 12-01-99	60	-
Subtask III Prepare Scope for ERA	04-01-99 11-01-99 12-01-99	60	-

Narrative

1. Description of activities performed during the quarter, by task.

Revised Recipient Agreement No. 97-N01 was submitted to NFWF/Calfed on 7/20/99, and was approved by NFWF and Calfed on 8/4/99 and 8/6/99 respectively.

TASK ORDER 1:

Approval and NTP with Task Order 1 was received from NFWF on 10/8/98.

JULY

- Revised Task Order 1 was submitted to NFWF/Calfed on July 20th.
- Prepared 3rd Quarterly Report.
- Prepared third dry event sampling and QA/QC plan.
- Conducted third dry event sampling on July 20th.
- Completed data input and assessment of third dry event data.
- Developed/updated database of historical diazinon and chlorpyrifos data.

AUGUST

- NFWF and Calfed approved revised Task Order on August 4 and 6 respectively.
- Prepared fourth dry event sampling and QA/QC plan.
- Conducted fourth dry event sampling on August 17th.
- Completed data input and assessment of fourth dry event data.
- Developed/updated historical ceriodaphnia dubia database.
- Prepared Scopes of Work for Ecological Risk Assessment and Arcade Creek Model.

SEPTEMBER

- Prepared fifth dry event sampling and QA/QC plan.
- Conducted fifth dry event sampling on September 21st.

- Completed data input and assessment of fifth dry event data.
- Prepared first storm event sampling plan.
- Troubleshoot secondary standard for chlorpyrifos ELISA.
- Prepared Scopes of Work for Ecological Risk Assessment and Arcade Creek Model and distributed to Technical Review Committee on 9/22.

TASK ORDER 2:

On June 23, 1999 a draft Task Order 2 and draft Consultant Services Agreement with Dean and Black Public Relations was submitted to CALFED and NFWF. This draft Task Order combined the tasks contained within Tasks 2 and 3 of the original Recipient Agreement. On July 20, 1999 a revised draft Task Order No. 2 was submitted to NFWF/Calfed. NFWF/Calfed approved Task Order No. 2 on August 4 and 6 respectively. On August 24, 1999 the Sacramento City Council authorized the city manager to execute a professional services agreement with Dean and Black Public Relations.

SEPTEMBER

- Work underway centers primarily on research and evaluation of other pesticide toxicity and stormwater programs. The approach in writing the plan is to look closely at ideas that worked well with similar programs and then determine which, if any, of those activities are appropriate for the Sacramento area. Careful attention will be paid to the Urban Pesticide Committee Guidelines, and additional research of residential and other users will be conducted, as needed. In designing the PEAP, Deen+Black will be creative, while upholding cost effectiveness.

TASK ORDER 4:

Approval and NTP with Task Order 1 was received from NFWF on 10/8/98.

- Prepared Tier 2 Probabilistic Ecological Risk Assessment on Arcade and distributed to Technical Review Committee on September 22, 1999, with a request for comments by October 15th.

2. Problems and delays encountered by task.

TASK ORDER 1:

- * The first dry weather sampling event occurred on May 18, 1999. Pursuant to the EMP, sampling will continue for 12 months. Hence, the characterization report submittal will be submitted in August 2000.

TASK ORDER 4:

- * The Technical Review Committee is reviewing the Tier 2 Probabilistic Risk Assessment, and comments are requested by October 15th. Therefore, to allow for sufficient time to respond to comments and prepare the final SOWs for CALFED review, the deliverable date for the SOWs has been postponed one month to 12/1/99.

3. Other issues or comments.

- * None.

4. Projected expenses for each of the next three months:

Task Order 1

Month 1 \$ 5,000 Month 2 \$ 21,000 Month 3 \$ 10,000 Total for quarter \$ 36,000

Assumes 1 dry event per month, 1 storm event with ELISA and toxicity data in November (first flush), and 1 storm event in December with ELISA only.

Task Order 2

Month 1 \$ 14,300 Month 2 \$ 9,400 Month 3 \$ 9,600 Total for quarter \$ 33,000.

Task Order 4

Month 1 \$ 4,000 Month 2 \$ 4,085 Month 3 \$ 0 Total for quarter \$ 8,085.

Title Sacramento River Floodplain Acquisition and Riparian Forest Restoration

Budget year: 1999

Applicant: The Nature Conservancy.
CALFED Project Number: 97-N02

Statement Quarter: 4th

Total Estimated Cost of Phase \$9,879,800
Funding from Federal Bay-Delta Account

(In-Kind Services would be listed here if applicable- note: Detail of the service provide would be included.)

Phase I schedule 3 years
Total Project Estimated Comp 3 years

	PHASE I (Quarterly Budget)				PHASE I (FY '99 Budget)			PHASE I (Three Year Budget)			
	Budget	Accrued Expenditures	Variance	**	Budget	Accrued Expenditures	Remaining Balance	**	Budget	Accrued Expenditures	Balance to Complete
Task 1: Administrative Costs - Sacramento River Acquisition											
Schedule: FY '99 through FY '01											
Percent Work Complete for Task 1: 15%											
Subtask 1 Salaries, Benefits, Overhead	25,000	14,100	10,900		93,000	41,374	51,626		465,160	41,374	423,786
Subtask 2 Services	65,000	22,000	43,000		155,000	74,383	80,617		310,000	74,383	235,617
Task 2: Acquisition of Properties											
Schedule: FY '99 through FY '01											
Percent Work Complete for Task 1: 70 %											
2A Acquisition of Kaiser Property	Acquisition completed last quarter				In Task Total			In Task Total			
2B Acquisition of Koehnen Property	Acquisition completed last quarter										
Task 3: Start-up Stewardship: Development of Monitoring & Management Plans											
Schedule: FY '99 through FY '01											
Percent Work Complete for Task 1: 0%											
Task Order Pending	Task Order Pending				Task Order Pending			400,000 0 400,000			
Phase I Total:	\$90,000	\$36,100	\$53,900	**	\$6,299,413	\$6,167,170	\$132,243	**	\$9,879,800	\$6,167,170	\$3,712,630

We budget to the Sub-task level only if they are active during the Quarter in question. If a SUBTASK is complete, the SUBTASK cost rolls-up into the Task level.

** Explanation of Variance in Budget :

** Need FWS and WCB to send in summary of expenses for Calfed reimbursement.

E-032640

QUARTERLY PROGRAMMATIC REPORT

Program Manager	<u>Spencer Shepherd</u>	Phone # <u>415-778-0999 x24</u>
Project Manager	<u>Meghan Mazzoni</u>	Phone # <u>415-281-0432</u>
CALFED Project #	<u>97-N02</u>	
Quarter Ending	<u>September 30, 1999</u>	

Deliverables

NOTE: The 97-N02 agreement was not fully executed until February 10, 1999.

<u>Deliverable</u>	<u>Due Date</u>	<u>% Complete</u>	<u>Date Deliverable Complete</u>
Task 1: Administrative Costs – Sacramento River Acq.			
Subtask 1: Salaries/Benefits		approx. 10%*	
* Need FWS and WCB to submit documentation of overhead expenses			
Subtask 2: Services		approx. 25%	
Deliverable 1: Appraisal cover pages			Ongoing
Deliverable 2: Survey cover pages			Ongoing
Deliverable 3: Haz Mat summaries			Ongoing
Deliverable 4: Escrow closing statements			Ongoing
Deliverable 5: Baseline reports			N/A to date
Deliverable 6: Draft and final subcontracts			Ongoing
Deliverable 7: FWS letter of assurances			Submitted for Kaiser and Koehnen land
Task 2A: Acquisition of Kaiser Property		100%	2/26/99
Deliverable 1: Recorded Deed			9/28/99
Task 2B: Acquisition of Koehnen Property		100%	8/12/99
Deliverable 1: Recorded Deed			9/28/99

Narrative

Activities Performed:

Task 1: Administrative Costs – Sacramento River Acquisition

Negotiation efforts, due diligence duties and project management pertinent to the acquisition of the Koehnen, Gunn Hill, Jensen, Southam and Repanich properties plus 12 other Sacramento River Floodplain properties currently in negotiation were performed by the Project Director and members of the senior staff.

The Koehnen property in Butte County (632 acres planted in walnuts and almonds, plus riparian) closed escrow in August with title vested in the US Fish & Wildlife Service (FWS). The Nature Conservancy (TNC) manages the property under a Cooperative Land Management

Agreement (CLMA) with FWS. TNC is currently negotiating with the Koehnen family for a lease back of the agricultural portion of the property for the crop-years 2000 and beyond. Net lease income will be used to partially offset the cost of restoration as orchard production decreases and/or trees die as a result of age, disease or flood damage. FWS will pay in lieu taxes to Butte County. TNC and the Koehnen family will pay possessory interest taxes.

The Gunn Hill property in Glenn County (54 acres planted to walnuts, 11 acres riparian), the Jensen property in Colusa County (86 acres planted to walnuts, 20 acres riparian), the Southam property in Glenn County (64.85 acres planted to prunes, 7.65 acres riparian), and the Repanich property in Tehama County (220 acres planted to walnuts, 60 acres riparian, plus improvements) are in escrow and are expected to close before the end of calendar year 1999. The Repanich property will be subdivided with the improvements and acreage not required for CALFED objectives resold subject to conservation easements.

Task 2A: Acquisition of Kaiser property

Baseline assessment and preparation of a management plan for the Kaiser property (approximately 666 acres) as an addition to the U.S. Fish & Wildlife Service Sacramento River National Wildlife Refuge are ongoing. Perpetual management will be provided by the FWS as part of its normal refuge operations consistent with CALFED objectives and the management plan. TNC currently manages the Kaiser property under a CLMA with FWS. Approximately 130 irrigated acres have been leased to Loesch Bros. for row crop farming (corn) for crop year 1999; additional acres will be leased for crop year 2000 depending upon the success of current weed control activities on the property. The net income will be used to support restoration activities on refuge lands including those purchased with CALFED funds.

Task 2B: Acquisition of the Koehnen property

The Koehnen property (approximately 632 acres) closed escrow on or about August 9, with title vesting in the United States. Baseline assessment and preparation of a management plan for the Koehnen property as an addition to the U.S. Fish & Wildlife Service Sacramento River National Wildlife Refuge are ongoing. Perpetual management will be provided by the FWS as part of its normal refuge operations consistent with CALFED objectives and the management plan. TNC currently manages the Koehnen property under a CLMA with FWS. Approximately 590 acres of almonds and walnuts will be leased to the Koehnen family for crop years 2000 and beyond. The net income will be used to support restoration activities on refuge lands including those purchased with CALFED funds.

Task 2C (Proposed): Acquisition of the Gunn Hill property

The Nature Conservancy (TNC) signed an option with Gunnar and Hilli Sevelius, dba Gunn Hill Farms, to purchase the Gunn Hill property on the west side of the Sacramento River south of Hamilton City at RM 197. Prior to opening negotiations with Gunnar and Hilli Sevelius, TNC, the United States Fish and Wildlife Service (FWS), the Wildlife Conservation Board (WCB) and the California Department of Fish and Game (DFG) reached consensus agreement to pursue acquisition of the Gunn Hill Farms

Additional Task 2 Acquisition: Southam, Jensen and Repanich properties

TNC, FWS, WCB and DFG also reached consensus agreement to pursue acquisition of the Southam, Jensen and Repanich properties. Each of these properties is currently in agricultural production but each is a conservation priority for river meander potential and restoration to riparian habitat. If CalFed 97-N02 acquisition funds permit, the parties have agreed that TNC will take title to these parcels at close of escrow and manage each for agricultural income compatible with CALFED ecosystem goals and objectives. As agricultural production ceases to be economically viable due to age, disease or flood damage, the properties will be transitioned to appropriate habitat. Net income from agricultural production will partially offset transition and restoration costs. Long-term stewardship to be determined as an element of a long-term management plan.

On September 30, 1999, TNC obtained an option to purchase the Repanich property at the appraised fair market price. Currently, TNC is seeking consensus approval to apply federal CalFed funds to the purchase of the Repanich property.

Projected Expenses for Next Three Months:

Following is an estimate of costs for the next three months (October - December, 1999):

Month 1	\$30,000	Month 2	\$550,000	Month 3	\$625,000	Total for Quarter	\$1,205,000
---------	----------	---------	-----------	---------	-----------	-------------------	-------------

Title **Ecosystem and Natural Process Restoration on the Sacramento River:
Active Restoration of Riparian Forest**

Budget year: 1999

Applicant: The Nature Conservancy.

Statement Quarter: 4th

CALFED Project Number: 97-N03

Total Estimated Cost of Phase I: \$780,000
Funding from Federal Bay-Delta Accr 780,000

The Nature Conservancy project contribution to date:

Salary, Benefits and IDC 15,457
Other costs (eq. Printing) 429
TOTAL 15,886

Phase I schedule 3 years
Total Project Estimated Completion Date: 3 years

	PHASE I (Quarterly Budget)			PHASE I (FY '99 Budget)			PHASE I (Three Year Budget)			
	Budget	Accrued		Budget	Accrued		Remaining Balance	Accrued		Balance to Complete
		Expenditures	Variance		Expenditures	Balance		Expenditures		
Task 1: Rest. of 200 Acres of Riparian Habitat Schedule: FY '98 through FY '01 Percent Work Complete for Task 1: 41%										
1a Site analysis and planning	0	0	0	6,000	3,077	2,923	6,000	3,077	2,923	
1b Site preparation and planting	10,000	10,000	0	400,000	286,760	113,240	690,000	286,760	403,240	
Task 2: Task Order approved 8/23/99										
1a Determine plant survival	0	0	0 **	0	0	0	0	0	0	0
1b Evaluate plant design	0	0	0	0	0	0	34,000	0	34,000	
1c Demonstrate riparian interactions	0	0	0	0	0	0	50,000	0	50,000	
Phase I Total:	\$10,000	\$10,000	\$0	\$406,000	\$289,837	\$116,163 *	\$780,000	\$289,836	\$490,164	

We budget to the Sub-task level only if they are active during the Quarter in question. If a SUBTASK is complete, the SUBTASK cost rolls-up into the Task level.

** Please explain significant variance.

**TNC anticipates that Task 1, Subtask 2 costs will be less than expected.

**Task Order 2 approved 8/23/99 -- work on Task 2 has begun but no actual expenses incurred yet.

Note: TNC is not charging staff time to this award and Task 2 costs will be subcontract costs.

QUARTERLY PROGRAMMATIC REPORT

Program Manager Spencer Shepherd Phone #415-778-0999 x24
Project Manager Meghan Mazzoni Phone #415-281-0432
Calfed Project # 97-N03
Quarter Ending September 30, 1999

Deliverables

NOTE: The 97-N03 agreement was not fully executed until December 8, 1998.

<u>Deliverable</u>	<u>Due Date</u>	<u>% Complete</u>	<u>Date Deliverable Complete</u>
Task 1: Restoration of 200 acres			
Subtask 1: Site analysis and planning		100%	February 3, 1999
Deliverable 1: Site Restoration Plan	2/28/99		
Deliverable 2: Draft and final subcontracts	2/28/99		
Subtask 2: Site preparation and planting			
Deliverable 1: Site tour, as necessary	11/30/99		
Deliverable 2: Draft and final subcontracts	11/30/01		
Task 2: Monitoring			
Deliverable 1: Draft and final monitoring plan	6/30/02		
Subtask 1: Measure Plant Survival			
Deliverable 1: Final restoration report	12/1/01		
Subtask 2: Evaluate Plant Design			
Deliverable 1: Annual report for landbird monitoring	1/31/00,01,02		
Deliverable 2: Evaluation of recruitment potential	6/30/02		
Deliverable 3: Evaluation of site selection and plant design	6/30/02		
Deliverable 4: Draft and final subcontract	6/30/02		

Subtask 3: Measure key connections between river and floodplain

Deliverable 1: Response of nutrient cycling to restoration report
6/30/02

Deliverable 2: Response of groundwater quality to restoration report
6/30/02

Deliverable 3: Soil development following restoration report
6/30/02

Deliverable 4: Draft and final subcontract
6/30/02

Narrative

Task 1: Restoration of 200 acres of riparian habitat

The Nature Conservancy (TNC) and the U.S. Fish and Wildlife Service (FWS) are working together to restore 200 acres of riparian forest on River Vista Unit site VII (River Vista VII). River Vista VII is part of the SB 1086 Conservation Area of the Sacramento River and is located on a flood-prone agricultural unit contiguous with 670 acres of previously restored riparian habitat. The purpose of restoration is to address environmental stressors by increasing the extent of native riparian forest communities along the river. Benefits of riparian habitat restoration include:

1. Increased extent of riparian forest communities to improve vegetative diversity while reducing habitat fragmentation. (Monitored by TNC under Task 2, subtask 1.)
2. Provides structurally complex habitat for neo-tropical migratory birds. River Vista VII provides migration stopover and breeding habitat. This project will enhance migratory corridor and productivity benefits and will provide superior habitat and foraging opportunities. (Monitored by PRBO under Task 2, subtask 2.)
3. Provides shaded riverine aquatic habitat for anadromous and resident fish species to enhance instream habitat. (To be monitored by CSUC under Task 2, subtask 3.)
4. Provides opportunities for local growers, and local irrigation and farm equipment companies. Farmers are valuable assets because they provide skilled restoration work as well as a commitment to and pride in the land. Restoration of riparian forests also improves adjacent farms by providing a filter strip in which flood debris and sediments are trapped. This reduces insurance claims for and dollars spent on flood-related damages. Riparian filter strips also improve water quality by reducing agricultural inputs to the river, and trapping fine sediments improves instream habitat by reducing channel aggradation. (Soil development and groundwater quality to be monitored by CSUC under Task 2, subtask 3.)

Subtask 1: Site analysis and planning

The Nature Conservancy and the U.S. Fish and Wildlife Service (FWS) began site analysis and planning for River Vista VII of the Sacramento River National Wildlife Refuge in the fall of 1998. Site analysis conducted in preparation for the restoration plan includes seven parameters: vegetation on and nearby the site, fish and wildlife usage, soil profile, regional

hydrology, depth to water table at base flow, historic geomorphic conditions and topography. The structure, or appearance, of a riparian forest is dictated by these factors. Some influences of these factors are seen immediately on a restoration site and others are not seen for many years or decades.

Over the past year a vegetation assessment was completed through a subcontract with California State University, Chico (CSUC) and Kyle Keer completed the soil assessment for the site. Point Reyes Bird Observatory (PRBO) provided initial recommendations regarding bird usage for the restoration plan and will continue to monitor bird usage at the site (see Task 2, subtask 2). TNC or FWS staff conducted additional site analyses. The restoration plan for River Vista VII was completed February 3, 1999.

July 1 – September 30, 1999

This last quarter, surveying of the site was initiated and is being conducted by the Geographic Information Center at CSU, Chico using a Geographic Positioning System. Surveying is expected to be completed in October 99.

Subtask 2: Site preparation, planting and maintenance

The Nature Conservancy's Sacramento River Project applies agricultural techniques to restoration planting. Thus, restoration is conducted much like orchard farming. Local farmers and contractors are hired for plant propagation, irrigation design and installation, and site preparation, planting and maintenance.

In the past year, work under the site preparation contract was completed and included removing stumps which had re-sprouted from a previous orchard, preparing the field for planting by clearing debris, grading, disking, and laying out rows and strips. Irrigation design and installation was completed May 24, 1999. Planting and maintenance (irrigation and weed control) was contracted to a local farmer. The first phase of planting was completed June 4, 1999. Container stock was provided through a subcontract with CSUC greenhouse and a purchase from Floral Native Nursery. The Nature Conservancy staff collected cuttings. Irrigation and weed control began during initial planting and will continue through the growing season. The Nature Conservancy completed plant survival monitoring (see Task 2, subtask 1) June 23, 1999, which showed a high mortality of sandbar willow.

July 1 – September 30, 1999

This last quarter, the farmer began replanting dead spots with box elder and elderberry. Replanting is expected to be completed in October.

The second phase of planting involves valley oak, which are planted by direct seeding with acorns. The Nature Conservancy staff will collect acorns this fall when the acorns ripen and the farmer will immediately plant them in spaces left for valley oak. No activity is necessary in the winter months when the plants are dormant. Site maintenance will begin again in spring of 2000. Plant survival monitoring will continue and additional replanting will be scheduled as necessary.

Task 2: Monitoring

Monitoring measures TNC's and its subcontractors' success at meeting the objectives of the 97-N03 Recipient Agreement. It also provides feedback for corrective action, and suggests improvements to the planting design. Monitoring on the Project Site will accomplish three objectives: 1) measure plant survival following revegetation to ensure contract compliance and adherence to the restoration plan developed for the site, 2) measure wildlife response to the plant design and 3) measure key connections between the river and the floodplain. All proposed monitoring subtasks evaluate parameters that support Calfed objectives.

The Nature Conservancy adds value to project monitoring by linking data collection and analysis across multiple projects to provide a comprehensive regional view. Calfed 97-N03 funds will be spent on River Vista VII and at appropriate reference sites only, but will also help complete long-term, larger scale monitoring programs. For example, migratory songbirds provide an indicator of restoration success at River Vista VII, and when added to data collected at additional TNC project sites contribute to assessments of ecosystem health for the Central Valley.

A monitoring plan was drafted collaboratively with TNC staff, Calfed representatives, and California State University, Chico ecology and natural sciences faculty. The draft monitoring plan and Task Order for task two were submitted for review and subsequently signed on August 20, 1999. The monitoring plan includes three subtasks.

Subtask 1: Determine plant survival

Plant density, species composition, growth and mortality are measured regularly to ensure that planting objectives are met. Plant survival is estimated 30 days following initial planting to determine transplant survival. This provides baseline information to evaluate plant performance and determines if plants are needed for fall replanting. Subsequent monitoring is done annually in the fall to evaluate field management practices.

Results of the 30 day post-planting monitoring, conducted in June 1999, estimated that survival for most species was high (Fremont's cottonwood (*Populus fremontii*) 90%, sycamore (*Platanus racemosa*) 100%, California rose (*Rosa Californica*) 98%. However, transplant survival of sandbar willow (*Salix exigua*) was low at only 8%. Willow cutting mortality is most likely attributable to the length of time the cuttings were held in cold storage prior to planting. It was determined from the monitoring that replanting of dead spots should be conducted in the fall of 1999 to ensure the specified planting density of the restoration plan would be met.

Subtask 2: Evaluate plant design

The Nature Conservancy's restoration plan is designed to establish a diverse, healthy riparian forest based on the Project Site's unique physical factors and the elements needed by target species. Four parameters are measured to evaluate how well the restoration plan achieves the restoration objectives for target species use: 1) wildlife use of the revegetation site,

2) recruitment potential for aquatic elements, 3) plant response to the site's physical setting and 4) plant response to flooding. Offsite monitoring is used to establish reference conditions. Under the Task Order, monitoring for wildlife use is done each year and recruitment potential for woody debris and plant responses to environmental conditions will be done near the end of the grant period allowing plants on the restoration site time to show effects from the site conditions. Point Reyes Bird Observatory, an internationally recognized leader in songbird conservation and co-author of the nationwide Partners in Flight program, conducts wildlife use monitoring on TNC's restoration projects.

July 1 – September 30, 1999

In the last quarter, TNC and PRBO staff developed a scope of work, and a monitoring plan was approved. The sub-contract for wildlife use monitoring has been drafted and is being reviewed within TNC. The draft contract will be submitted to Calfed for review. Once final and signed, fieldwork is expected to begin immediately, barring delay by winter rains. Data from River Vista VII will be added to evaluations of wildlife population health along the Sacramento River and within the northern central valley region of California.

Subtask 3: Demonstrate riparian/riverine interactions

The Nature Conservancy will measure indicators for assessing nutrient budgets, nutrient cycling, and transport of organic materials. These ecological attributes function on the Project Site and contribute to a healthy ecosystem. This monitoring demonstrates the link between quality riparian forest and improved instream productivity:

A benefit resulting from planning the monitoring for River Vista VII is the continuing collaboration between Sacramento River Project staff and California State University, Chico.

July 1 – September 30, 1999

In the last quarter, a sub-contract with California State University, Chico Research Foundation for monitoring nutrient cycling, soil development and groundwater quality response to restoration was drafted and is being reviewed within TNC. The draft contract will be submitted to Calfed for review. Once final and signed, fieldwork is expected to begin immediately, barring delay by winter rains.

Following is an estimate of costs for the next three months (October - December, 1999):

Month 1 \$24,600	Month 2 \$102,500	Month 3 \$5,500	Total for Quarter \$132,600
------------------	-------------------	-----------------	-----------------------------

**QUARTERLY PROGRAMMATIC REPORT
4th QUARTER - FEDERAL FISCAL YEAR 1999**

NFWF Program Manager: Spencer Shepherd Phone: 415 778-0999 x 24

WCB Program Manager: Scott Clemons Phone: 916 445-1072

CALFED Project #: 97-NO3B

Quarter Ending: October 10, 1999

	<u>Name of Deliverable</u>	<u>Due Date</u>	<u>% of Work Complete</u>	<u>Date Deliverable Complete</u>
Task 1	Restore and maintain 100 acres of riparian habitat within the Sacramento River Conservation Area	March 2, 2002	27.2% (27.2 acres planted)	June 25, 1999
Task 2	Monitor restoration sites at the completion of planting and at the end of each growing season for the term of the grant award.	March 2, 2002	16.66% (6 months monitoring)	September 30, 1999

Narrative

1. Description of activities performed during the quarter, by task.

Task 1

Sacramento River Partners completed the clearing, cultivation, plant propagation, planting, irrigation, and initial weed control activities on a 27.2 acre state-owned site located in the floodplain of the Sacramento River in Glenn County, California (River Mile 166.5 Right). This included the planting of 5732 native plants, including ten different species of trees and shrubs (valley oak, three species of willow, California wild rose, box elder, cottonwood, sycamore, blackberry and buttonwillow). The plants are arranged in rows that mimic the natural orientation of plants that occur in the active flood plain of the river. The Sacramento River is actively meandering in the reach where this project is being conducted, and the bank of the river at the edge of the subject property is eroding at an unpredictable rate. Therefore, the project sponsors are monitoring this erosion as part of their project management activities. It is unknown at this time if the erosion will encroach into the newly planted area.

Task 2

Point Reyes Bird Observatory staff (under contract to Sacramento River Partners) have done several bird point counts (a means of determining bird use) on both of the sites to be restored (River Mile 166.5 Right and River Mile 169.5 Right). Sacramento River Partners are monitoring bank retreat (channel meander), plant growth, soil moisture, and deer browse impacts.

2. Problems and delays encountered by task.

Task 1

The project experienced a significant delay (approximately 3 months) while project sponsors (WCB, Sacramento River Partners, and California Department of Fish and Game) negotiated terms of a flood control encroachment permit that was required by the California State Reclamation Board. That agency is concerned about the potential cumulative impacts of planned ecosystem restoration projects on flood flows and flood channel capacity in the Sacramento River system. The encroachment permit issues were resolved, and the permit was issued to the California Department of Fish and Game, the managers of the two sites involved in the project (both locations are units of the State's Sacramento River Wildlife Area).

3. Other issues or comments.

None to report at this time.

4. Projected expenses for the next three months

Month 1:	\$20,000.00
Month 2:	\$20,000.00
Month 3:	<u>\$20,000.00</u>

Total for quarter: \$60,000.00

**Title Ecosystem and Natural Process Restoration on the Sacramento River:
A Meander Belt Implementation Project**

Budget year: 1999

Applicant: The Nature Conservancy.

Statement Quarter: 4th

CALFED Project Number: 97-N04

Total Estimated Cost of Phase \$898,700

Funding from Fed. 898,700

(In-Kind Services would be listed here if applicable- note: Detail of the service provide would be included.)

Phase I schedule 3 years

Total Project Estimated Comp 3 years

	PHASE I (Quarterly Budget)			PHASE I (FY '99 Budget)			PHASE I (Three Year Budget)		
	Budget	Accrued Expenditures	Variance **	Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete
Task 1: Acquisition of Flynn property			\$0	\$838,700	\$824,500	\$14,200	\$838,700	\$824,500	\$14,200
Schedule: FY '98 through FY '99	TASK COMPLETE								
Percent Work Complete for Task 1: 100%									
Task 2: 10 ac restoration	741	741	0	741	741	0	60,000	741	59,259
Task order pending									
Schedule: FY'99 through FY'2001									
Phase I Total:	\$741	\$741	\$0	\$839,441	\$825,241	\$14,200	\$898,700	\$825,241	\$73,459

We budget to the Sub-task level only if they are active during the Quarter in question. If a SUBTASK is complete, the SUBTASK cost rolls-up into the Task level.

** Please explain significant variance.

** Task Order 2 delayed until planning completed to determine which acres most appropriate for restoration.

QUARTERLY PROGRAMMATIC REPORT

Program Manager	<u>Spencer Shepherd</u>	Phone # <u>415-778-0999 x24</u>
Project Manager	<u>Meghan Mazzoni</u>	Phone # <u>415-281-0432</u>
Calfed Project #	<u>97-N04</u>	
Quarter Ending	<u>September 30, 1999</u>	

Deliverables

<u>Deliverable</u>	<u>Due Date</u>	<u>% Complete</u>	<u>Date Deliverable Complete</u>
Task 1: Acquisition of 80 acres		100%	
<u>Subtask 1: TNC Service contracts</u>			
Deliverable 1: Appraisal cover page	1/31/99		1/8/99
Deliverable 2: Survey report cover page	1/31/99		1/8/99
Deliverable 3: USFWS Level I report summary	1/31/99		9/4/98
Deliverable 4: Escrow closing statements	1/31/99		1/8/99
<u>Subtask 2: Phase I Assessment</u>			
Deliverable 1: Phase I Assessment	12/31/98		11/13/98
<u>Subtask 3: Capital costs</u>			
Deliverable 1: Copy of recorded deed	1/31/99		1/8/99

Task 2: Restoration of 10 acres – Task Order for task 2 is pending

Task Order delayed pending completion of planning to determine appropriate acres for restoration.

Narrative

Task 1: Acquisition of 80 acres

On December 8, 1998 the acquisition of the Flynn property was completed with title vesting in the United States. The Nature Conservancy provided Calfed funds to the U.S. Fish and Wildlife Service for the purchase under the 97-N04 Recipient Agreement. The property consists of 94.55 acres and was added to the Vincent J. Flynn Unit of the Sacramento River

National Wildlife Refuge. The acquisition also included a levee located on the eastern boundary of the property and rights to an easement to maintain a levee on adjacent property.

Task 2: Restoration of 10 acres

A task order for task 2 is currently being drafted. Restoration planning and site preparation is scheduled to begin as soon as the task order is approved.

Following is an estimate of costs for the next three months (October - December, 1999):

Month 1 \$	Month 2 \$949	Month 3 \$3,551	Total for Quarter \$4,500
------------	---------------	-----------------	---------------------------

Title: Auburn Ravine/Coon Creek (CRMP)
 Applicant: Placer County
 CALFED Project Number: 97-N05

4th QUARTER FEDERAL FY 1999

Total Estimated Cost of Phase I: \$222,530
 Funding from Federal Bay-Delta Account 222,530
 In-Kind Services This Quarter \$0
 Phase I Schedule 1 year
 Total Project Estimated Completion Date: 1 year

	PHASE I (Quarterly Budget)			PHASE I (FY '99 Budget)			PHASE I (Three Year Budget)		
	Budget	Accrued Expenditures	Variance	Budget	Accrued Expenditures	Remaining Balance	Budget	Accrued Expenditures	Balance to Complete
Task 1: "Development of Plan Objectives"	\$114	\$114	\$0	\$570	\$570	\$0	\$570	\$570	\$0
Schedule: FY '98 through FY '99									
Percent Work Complete for Task 1: 100%									
Task 2: "Watersheds Assessment"	\$0	\$0	\$0	\$0	\$0	\$0	\$84,893	\$0	\$84,893
Schedule: FY '98 through FY '99									
Percent Work Completed for Task 2: 30%									
Task 3: "Land Use Analysis"	\$0	\$0	\$0	\$0	\$0	\$0	\$18,344	\$0	\$18,344
Schedule: FY '98 through FY '99									
Percent Work Completed for Task 3: 40%									
Task 4: "Conflict Identification & Resolution Alternatives"	\$0	\$0	\$0	\$0	\$0	\$0	\$42,293	\$0	\$42,293
Schedule: FY '98 through FY '99									
Percent Work Completed for Task 4:									
Task 5: "Prioritization of Restoration Projects"	\$0	\$0	\$0	\$0	\$0	\$0	\$24,045	\$0	\$24,045
Schedule: FY '98 through FY '99									
Percent Work Completed for Task 5:									
Task 6: "Develop Implementation Strategies"	\$0	\$0	\$0	\$0	\$0	\$0	\$7,621	\$0	\$7,621
Schedule: FY '98 through FY '99									
Percent Work Completed for Task 6:									
Task 7: "Monitoring Program"	\$0	\$0	\$0	\$0	\$0	\$0	\$38,222	\$0	\$38,222
Schedule: FY '98 through FY '99									
Percent Work Completed for Task 7:									
Task 8: "Implementation Schedule and Budget"	\$0	\$0	\$0	\$0	\$0	\$0	\$6,542	\$0	\$6,542
Schedule: FY '98 through FY '99									
Percent Work Completed for Task 8:									
Task 9: "General Project Administration"	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Schedule: FY '98 through FY '99									
Percent Work Completed for Task 9:									
Phase I Total:	\$114	\$114	\$0	\$570	\$570	\$0	\$222,530	\$570	\$221,960

QUARTERLY PROGRAMMATIC REPORT NO. 2

Program Manager Spencer Shepherd Phone 415-778-0999 x 24
 Project Manager Loren E. Clark 530-889-7470
 CALFED Project # 97-N05
 Quarter Ending October 10, 1999

Deliverables

	Name of Deliverable	Due Date	% of Work Complete	Date Deliverable Complete
Task 1				
Subtask A	Development of Plan Objectives	April 1999	100%	October 1999
Subtask B	Watershed Assessment	September 1999	30%	Not Complete
Subtask C	Land Use Analysis	June 1999	40%	Not Complete
Subtask D	Conflict Identification	August 1999	0%	Not Complete
Subtask E	Prioritization of Restoration Projects			

Narrative

1. Description of activities performed during the quarter, by task. (see attached)
2. Problems and delays encountered by task. (see attached)
3. Other issues or comments.
4. Please identify your projected expenses for each of the next three months in the following quarter to assist in the timing of State bond sales that fund this project.

Month 1 \$ 570.00 Month 2 \$ 0.00 Month 3 \$ 40,000.00 **Total for quarter \$ 40,570.00**

Narrative Explanations

1. **Quarterly Activities** – One completed activity during this quarter has been the completion of the Plan Objectives with the assistance of the Auburn Ravine/Coon Creek Coordinated Resource Management Plan (CRMP) ad hoc Plan Objectives Committee. Additionally, a revised project description was completed as a consequence of the committee's deliberations.

Ongoing activities include a significant amount of data collection. Most of this data is represented as digital polygons, raster data or point source data. Data tables have also been collected. All of the data is being collected and utilized in a growing Placer County Geographic Information System

The last important task completed during this quarter is the preparation and tentative approval of a Request for Proposals for a subcontractor to work on the Auburn Ravine/Coon Creek ERP scope of work. It is anticipated that this RFP will be in circulation for proposals during the week of October 17, 1999. Once a proposal has been accepted, the County will need to complete negotiations and receive Board of Supervisors approval of a contract

In addition to the above scope-related tasks, a written request was submitted to modify the schedule by up to 4 months in order to have the scope of work in the NFWF contract match the current time frame.

2. **Problems and Delays** – The preparation of the plan objectives required the participation of key stakeholder interests. In that the objectives were developed through consensus, the negotiations have required numerous meetings and discussions in order to agree upon the objectives. Some of these meetings only occurred on a monthly basis and therefore consensus was derived over time.

Additional delays relate to staff time available during the quarter to complete certain mandatory tasks (e.g., preparation of the RFP). This has been alleviated to a significant degree by the hiring of an Associated Planner in the Placer County Planning Department to work full time on natural resource management and planning projects. This employee is under the supervision of the project manager and will be available on an as-needed basis.

Another potential cause of delay will be the procurement process in Placer County. It is necessary to utilize an RFP, the review of the proposals by a committee, the selection of a proposal, the negotiation of a contract and the approval of the contract by the Board of Supervisors. The best-case scenario for this process is 60 days.

LEC/lec

Ref. t:\cmd\cmdp\loren\crmp\arcc.quarter.1

OK

Quarterly Report September 30, 1999

Program Manager: Spencer Shepherd
Bay Delta Contracts Manager, NFWF
Project Director: Donald Holtgrieve
Project Manager: Laura Lukes
Called Project #: 97-NO6
Quarter: Fourth (July - September)

Deliverables

<u>Name of Deliverable</u>	<u>Due Date</u>	<u>% of Work Completed</u>	<u>Date Deliverable Submitted/Complete</u>
Phase I, Task 1 Copy of Appraisal	August 1998	100%	August 26, 1998
Copy of Appraisal to Real Estate Services Div Of the State Department of General Services for review	October 1998	100%	November 1998
Copy of Phase I Environmental Site Assessment for Review by Officials of the Department of Water Resources	December 1998	100%	January 4, 1999
Draft Conservation restrictions and Management Obligations of the Research Foundation of CSU, Chico for the McAmis Acquisition On Butte Creek	September 1999	100%	
Copy of the Title after Escrow Closes	June 1999	100%	
Phase I, Task II Property Analysis Record	September 1999	90%	
Phase II, Task 1 DRAFT of Ecological Preserve Management Plan	April 1999	100%	

Final, CALFED Approved Ecological
Management Plan June 2000 0%

Phase II, Task 2

Written Summary of K-12
Education Program August 1, 2000 25%

Draft Service Contracts December 1999 0%

Final Service Contracts May 2000 0%

ECOS Monitoring System August 2000 0%

Narrative

1. Description of Activities Performed by Quarter, by Task:

Phase I, Task 1 – Property Acquisition: The escrow papers were signed on December 31, 1998.
Phase II, Task 1 – The draft management plan was submitted to the funding agencies on April 30, 1999.

2. Problems and Delays Encountered, by Task:

Phase I, Task 1: Officials from the Department of Water Resources have approved the Phase I Environmental Site Assessment after Hanover, Inc., who performed the service, submitted the requested pictures and explanations of assessment methods.

Phase I, Task II – The Property Analysis Record (PAR) which becomes a part of the final management plan, is software that was developed by the Center for Natural Lands Management. We are unable to get a CNLM representative to train our staff in the use of this software until September of 1999. Accordingly, a hard copy of the product will be delivered September 30, 1999. This is attached to this report.

3. Other Issues or Comments:

Project staff have submitted the management plan for this piece of property. A meeting with adjacent landowners was held April 21, 1999. Adjacent landowners will be encouraged to contribute to the management plan.

Several classes have made field trips to the property for educational purposes. The access gate has been moved back to allow off road parking for one to three cars (or a school bus).

The University community and the community in general are excited about this land acquisition. It offers incredible educational opportunities for people of all ages. The Development Director for the College of Behavioral and Social Sciences is drafting an article about the site, which will be mailed to CSU, Chico alumni. This is the initiation of an effort to establish an endowment for

management in perpetuity. Neighboring landowners will also be invited to be a part of this effort.

Donald Holtgrieve
Donald Holtgrieve, Director

9-29-99
Date

CALFED Project Name: Cottonwood Creek Geomorphic Analysis Bengard Ranch
 Recipient: Graham Matthews & Associates
 CALFED Project # 97-N07

Budget Year: 1999
 Statement Quarter: 4

Total Estimated Cost of Phase I: \$71,000
 Funding from Federal Bay-Delta Account 61,000
 Funding provided by private landowner 10,000

Phase I schedule 1 year
 Projected Phase II schedule 1 year
 Total Project Estimated Completion Date: 2 years

	PHASE I (Quarterly Budget)			PHASE I (FY '99 Budget)			PHASE I (Three Year Budget)		
	Budget	Accrued Expenditures	Variance **	Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete **
Task 1: Geomorphic Analysis	\$7,312	\$7,262	\$50	\$24,267	\$18,951	\$5,316	\$32,000	\$25,084	\$6,916
Schedule: FY '98 through FY '99									
Percent Work Complete for Task 85%									
1a Compile Existing Information	0	0	0	1,200	1,200	0	3,000	3,000	0
1b Channel Geometry	4,212	4,212	0	6,667	6,667	0	10,000	10,000	0
1c Hydrologic Analysis	0	0	0	400	400	0	3,000	1,400	1,600
1d Geomorphic Analysis	3,100	3,050	50	12,000	10,684	1,316 **	12,000	10,684	1,316
1e Report Preparation	0	0	0	4,000	0	4,000 **	4,000	0	4,000
Task 2: Channel / Riparian Restoration Design	\$0	\$0	\$0	\$29,000	\$3,990	\$25,010	\$29,000	\$3,990	\$25,010
Schedule: FY '98 through FY '00									
Percent Work Complete for Task 14%									
2a Detailed Site Mapping	0	0	0	6,000	3,990	2,010	6,000	3,990	2,010
2b Design Development	0	0	0	19,000	0	19,000	19,000	0	19,000
2c Project Implementation Coordination	0	0	0	4,000	0	4,000	4,000	0	4,000
Phase I Total:	\$7,312	\$7,262	\$50	\$53,267	\$22,941	\$30,326	\$61,000	\$29,074	\$31,926

We budget to the Sub-task level only if they are active during the Quarter in question. If a subtask is complete, the subtask cost rolls-up into the Task level.

** Please explain significant variance.

** Explanation of Variance In Budget :

Field work was completed for Task 1 during this quarter, and an extension was granted into FY2000 to prepare the final Task 1 report

QUARTERLY PROGRAMMATIC REPORT

Program Manager Spencer Shepherd Phone 415-778-0999 x 24
 Project Manager Graham Matthews
 CALFED Project # 97-N07
 Quarter Ending 9/30/99

		Deliverables		
	<u>Name of Deliverable</u>	<u>Due Date</u>	<u>% of Work Complete</u>	<u>Date Deliverable Complete</u>
Task 1	Final Report*	02-01-00		
Subtask 1	Compile Existing Information	06-30-99	100%	----
Subtask 2	Channel Survey	09-30-99	100%	----
Subtask 3	Hydrologic Analysis	12-01-99	60%	----
Subtask 4	Geomorphic Analysis	01-01-99	85%	----
Subtask 5	Final Report Preparation	03-01-99	0%	----

* The only deliverable for this task is the final report describing study methods, data collected, data analysis, and conclusions. An extension was requested and received to complete analysis and final report preparation into FY2000.

Task 2				
Subtask 1	Detailed Site Surveying (site maps)	11-01-98	80%	----
Subtask 2	Design Development		0%	----
	Construction drawings	04-15-99		
	Design memorandum	04-15-99		
Subtask 3	Implementation Coordination (Copies of permits applications)	06-30-99	0%	----

Narrative

1. Description of activities performed during the quarter, by task.

TASK 1:

Sub-Task 1: Compile Existing Information

This task was completed in the previous quarter.

Sub-Task 2: Channel Surveys

Our field work has been completed in August and September. Profile surveys were completed upstream of the South Fork Cottonwood confluence and 11 USGS cross sections were resurveyed to evaluate changes since 1983.

Sub-Task 3: Hydrologic Analyses

No work under this sub-task was undertaken in this quarter.

Sub-Task 4: Geomorphic Analyses

We have completed our substrate field data collection. 8 sites were established in the detailed study reach and two bulk samples and one pebble count were collected at each site. Each bulk sample was sub-divided into surface and sub-surface populations. All of the historic aerial photographs and maps have been digitized for comparison of channel changes.

TASK 2:

No additional work was undertaken for this task, as we focussed on completion of our field work in Task 1. We expect to begin design work coincident with preparation of the final report in the first quarter of FY2000.

2. Problems and delays encountered by task.

No problems were encountered this quarter. We were able to finish our field surveys, although this has delayed report preparation into FY2000.

3. Other issues or comments.

4. Please identify your projected expenses for each of the next three months in the following quarter to assist in the timing of State bond sales which fund this project.

Month 1 \$ 2,000 Month 2 \$ 5,000 Month 3 \$ 5,000 Total for quarter \$ 12,000

Title Mill Creek Riparian Restoration Project

Budget year: 2000

Co-applicants: Mill Creek Conservancy and The Nature Conservancy
 CALFED Project Number: 97-N08

Statement Quarter: Sep-99

Total Estimated Cost of Phase I: \$69,000
 Funding from Federal Bay-Delta Account 69,000

(In-Kind Services would be listed here if applicable-note: Detail of the service provide would be included.)

Phase I schedule 3 years

Total Project Estimated Completion Date: 3 years

		PHASE I			PHASE I			PHASE I		
		(Quarterly Budget)			(FY '00 Budget)			(Three Year Budget)		
		Budget	Accrued Expenditures	Variance **	Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete **
Task 1:	Schedule: FY '98 through FY '99									
	Percent Work Complete for Task : 22%									
1a	Site Acquisition	0	0	0	657	657	0	657	657	0
1b	Site Planning	100	73	27	3,727	1,219	2,508	3,727	1,219	2,508
1c	Site Preparation	400	0	400	8,615	966	7,649	8,615	966	7,649
Task 2:	Irrigation installation and planting									
	Schedule: FY '98 through FY '00									
	Percent Work Complete for Task : 20%									
1a	Plant collection and propagation	1,000	59	941	2,770	2,021	749	5,540	2,021	3,519
1b	Irrigation installation	1,000	59	941	5,770	2,021	3,749	11,540	2,021	9,519
1c	Planting	1,000	59	941	6,966	2,021	4,945	13,932	2,021	11,911
Task 3:	Maintenance and Monitoring									
	Schedule: FY '98 through FY '01									
	Percent Work Complete for Task : 11%									
1a	Maintenance and Monitoring	1,500	776	724	9,017	1,377	7,640 **	18,033	1,377	16,656
1b	Monitoring	1,500	776	724	3,478	1,377	2,101	6,956	1,377	5,579
Phase I Total:		\$6,500	\$1,801	\$4,699	\$41,000	\$11,657	\$29,343 **	\$69,000	\$11,658	\$57,342

We budget to the Sub-task level only if they are active during the Quarter in question. If a SUBTASK is complete, the SUBTASK cost rolls-up into the Task level.

** Please explain significant variance.

Not all labor costs have been captured yet for Task 3. TNC also expects to finish under budget because the original budget was based on large-scale project costs and because this project is so small TNC has found unanticipated cost-savings (example: able to use existing well, lower project management costs, more comprehensive use of volunteers). Also, TNC was fortunate to experience good growing conditions.

Quarterly Programmatic Report Mill Creek Restoration Project

Program Manager Spencer Shepard Phone: 415-778-0999
 Project Manager Meghan Mazzoni Phone: 415-281-0432
 CALFED Project # #97-NO8
Quarter Ending - September 1999

Deliverables

Note: The 97-NO8 agreement was not executed until December, 1998

<u>Deliverable</u>	<u>Due Date</u>	<u>% Completion</u>	<u>Date Complete</u>
--------------------	-----------------	---------------------	----------------------

Task 1 - Site Planning & Preparation (due date extended to June 2000)

Subtask 1: Site Acquisition

#1 - Real-estate Option	1/99		1/8/99
#2 - Copy of Deed	3/00		4/12/99
Draft Conservation Easement	3/00		Pending*
#3- Letter of Assurance	3/00		Pending*

Subtask 2: Site Planning

#1 - Site Plan	2/99		2/9/99
----------------	------	--	--------

Subtask 3: Site Preparation

#1 - Completion of Site Prep	3/2000		Pending*
#2 - Draft and final subcontracts	3/2000		Pending*
#3 - Summary report	6/2000		Pending*

*TNC extended deadlines for Task One to provide more time to plant native grass, hopefully in November 1999, depending on weather. Completed deliverables, such as the draft conservation easement, will be submitted as soon as possible.

Task 2 - Planting and Irrigation Installation (due date extended to June 2000)

Subtask Plant collection and propagation

#1 - Plant collection and prop	4/99		3/99
--------------------------------	------	--	------

Subtask 2: Irrigation

#1 - Install Irrigation System 3/99 3/99

Subtask 3: - Planting

#1 - Plant Summary Report
(Include Irrigation Map) 6/99 Pending

Task 3 - Maintenance and Monitoring

Subtask 1 Maintenance

#1 Quarterly report 6/30/01 Pending

Subtask 2 Monitoring

#1 Monitoring protocol 5/99 Draft submitted
#2 Annual monitoring reports 6//01 Pending

NARRATIVE

Task 1 : Site Planning and Preparation

The Nature Conservancy completed acquisition of the site on Dec. 28,1998. The deed was recorded and the draft easement is completed. The site plan was submitted to NFWF on 2/9/99. Task Order One was modified to include planting native grass at the site in November 1999. The grass planting sub-contractor has been selected and a sub-contract is presently being negotiated and will be submitted to CALFED for review.

Task 2 - Planting and Irrigation Installation

Seed collection and propagation by Chico State University was successfully completed in the winter of 1990/99. All of the target species except Valley Oak were obtained.. The site was planted with all species except acorns in spring 1999 by Los Molinos School District and TNC staff. A plant summary report was produced to act as a baseline for monitoring. The irrigation system was successfully installed and watering began in April.

Valley Oak did not produce acorns in 1998 so acorn planting was put off until November fall 1999. The 1999 growing season produced Valley Oak acorns. Acorns were collected from the site and nearby areas in anticipation of planting.

Task 3 - Maintenance and Monitoring

The restoration site was mowed and watered during the past quarter (summer of 1999) using TNC staff from our Sacramento River Project. The site was mowed for weed control twice during this past quarter. Plant establishment was good, however, there was some mortality. Valley Oak acorns will be planted in "free" planting sites this fall.

TNC spent many hours discussing monitoring protocol with CALFED staff during winter 1998/99. A monitoring protocol was produced, and the first round of plant survival monitoring will be implemented this fall. An automated water temperature probe was installed on Mill Creek at the restoration site and temperature for the summer months will be downloaded to a computer file.

Projected expenses for next quarter (October - December 1999):

Month 1 \$5,000	Month 2 \$5,000	Month 3 \$5,000	Total for quarter \$5,000
-----------------	-----------------	-----------------	---------------------------

Title "Restoring Ecosystem Integrity in the Northwestern Delta"
 Applicant: Solano County Farmlands and Open Space Foundation
 CALFED Project Number: #97-N10

Budget year: 1999
 Statement Quarter: 2

Total Estimated Cost of Phase I: \$244,801
 Funding from Federal Bay-Delta Account 244,801

(In-Kind Services would be listed here if applicable- note: Detail of the service provide would be included.)

Total Project Estimated Completion Date: 3 years

Tasks	PHASE I (Quarterly Budget) Quarter 2				PHASE I (FY 98-99 Budget)				PHASE I (Three Year Budget)		
	Budget	Accrued Expenditures	Accrued 10%	Variance **	Budget	Accrued Expenditures	10% Withholding	Remaining Balance	Budget	Accrued Expenditures	Balance to Complete **
Schedule: FY '98 through FY '99		(Q1 Invoice)									
Percent Work Complete for Task:											
1 Administration 50%	2,130	2,704	270		10,400	4,834	483	5,566	5,566	4,834	
2 Material Acquisition 5%	208	1,147	115		22,000	1,355	136	20,645	20,645	1,355	
3 Monitoring Plan 1%	189	292	29		40,950	481	48	40,469	40,469	481	
4 Conservation Plan 0%	0	0	0		31,600	0	0	31,600	31,600	0	
5 Fundraising 95%	1,926	2,490	249		5,000	4,416	442	584	584	4,416	
6 Riparian Restoration 90%	405	5,900	590		7,550	6,305	630	1,245	1,245	6,305	
7 Weed Control, Burning & Euc 20%	1,165	10,566	1,057		42,700	11,731	1173	30,969	30,969	11,731	
Phase I Total:	\$6,024	\$23,099	\$2,310	\$0	\$160,200	\$29,122	\$2,912	\$131,078	\$244,801	\$29,122	\$215,679

We budget to the Sub-task level only if they are active during the Quarter in question. If a SUBTASK is complete, the SUBTASK cost rolls-up into the Task level.

** Explanation of Variance in Budget :

- 1 Administration Now back on schedule, delay due to transition of financial management system.
- 2 Material Acquisition Board requested delay in acquisition until reimbursement system running smoothly.
- 3 Monitoring Plan This TO required a new hire, which was delayed due to transition and concerns about timely reimbursements.
- 4 Conservation Plan This TO required a new hire, which was delayed due to transition and concerns about timely reimbursements.
- 5 Fundraising On schedule.
- 6 Riparian Restoration On schedule.
- 7 Weed Control, Burning & Euc Weed control on schedule.
 Contract removal of eucalyptus delayed until reimbursement system running smoothly.
 Burning program on schedule.

Project # 97-N11
Demo. Proj. for the Protection and Enhancement of Delta In-Channel Islands
Association of Bay Area Governments (ABAG)

Budget year: 1999
 Statement Quarter: 7/99-9/99

Total Estimated Cost of Phase I: \$351,420
 Funding from Federal Bay-Delta Account: 270,270
 Funding provided by ABAG/DC1: 81,150

Phase I schedule: 1 year
 Projected Phase II schedule: 1 year
 Total Project Estimated Completion Date: 2 years

	PHASE I (Quarterly Budget)			PHASE I (FY '98 Budget)			PHASE I (Three Year Budget)		
	Budget	Accrued Expenditures	Variance **	Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete **
Task 1: Organizational	\$9,893	\$9,893	\$0	\$28,800	\$23,036	\$5,764	\$28,800	\$23,036	\$5,764
Schedule: FY '98 through FY '99									
Percent Work Complete for Task 1: 82%									
1a Hire Project Coordinator			0	1,800	1,800	0	1,800	1,800	0
1b Competitive Bid Process for Design Engineers				3,000	3,000	0	3,000	3,000	0
1c Administrative/Technical Support for Work Group	9,893	9,893	0	21,000	18,236	2,764	21,000	18,236	2,764
1d Competitive Bid for Construction Engineers				3,000		3,000	3,000	0	3,000
Task 2: Environmental Review/Permitting	\$8,917	\$8,917		\$108,296	\$103,350	\$4,946	\$108,296	\$103,350	\$4,946
Schedule: FY '98 through FY '99									
Percent Work Complete for Task 2: 96%									
2a Administration and Tech.	3,784	3,784	0	13,096	13,032	64	13,096	13,032	64
2b Obtain Permits	2,304	2,304		22,200	19,393	2,807	22,200	19,393	2,807
2c Environmental Assessment/Documentation	2,829	2,829		73,000	70,924	2,076	73,000	70,924	2,076
Task 3: Design	\$11,253	\$11,253		\$133,174	\$125,448	\$7,726	\$133,174	\$125,448	\$7,726
Schedule: FY '98 through FY '99									
Percent Work Complete for Task 3: 93%									
3a Add. Data Admin & Tech.	6,411	6,411		36,374	33,947	2,427	36,374	33,947	\$2,427
3b Biotechnical Designs	4,505	4,505		76,800	79,308	-2,508	76,800	79,308	(\$2,508)
3c Monitoring Plans	337	337		20,000	12,194	7,806	20,000	12,194	\$7,806
Phase I Total:	\$30,063	\$30,063	\$0	\$270,270	\$251,834	\$18,436	\$270,270	\$251,834	\$18,436

We budget to the Sub-task level only if they are active during the Quarter in question. If a subtask is complete, the subtask cost rolls-up into the Task level.

QUARTERLY PROGRAMMATIC REPORT

Program Manager: Spencer Shepherd Phone 415-778-0999 x 24
 Project Manager: Marcia Brockbank Phone 510-622-2325
 CALFED Project #: 97-N11
 Quarter Ending: October 1, 1999

Deliverables

Name of Deliverable	Due Date	% of Work Completed	Date Completed
Task 1. Organizational			
Subtask a. Hiring project coordinator			
1. Draft interagency agreement	07-01-98	100 %	
2. Final interagency agreement	08-01-98	100 %	01-99
Subtask b. Competitive bids for design engineers			
1. Distribute RFQ	08-01-98	100 %	08-17-98
2. Interview/selection	09-30-98	100 %	09-29-98
3. Draft contract	09-30-98	100 %	
4. Final contract	10-31-98	100 %	03-15-99
Subtask c. Admin and tech support			
1. Work group info	ongoing	90 %	06-30-99
2. Quarterly reports	ongoing	85 %	10/01/99
3. Final report	05-29-00		
4. CALFED meetings	ongoing		
Subtask d. Competitive bid for construction engineers			
1. Draft RFQ	03-31-99	25 %	
2. Final RFQ	06-30-99		
Task 2. Environmental Review/Permitting			
Subtask a. Admin and tech support			
1. Permits	06-30-99	95 %	
Subtask b. Obtain permits			
1. Status report	03-10-99	100 %	03-03-99
2. Research documents	03-15-99	100 %	04-16-99
3. Draft CEQA/NEPA	05-01-99	100 %	06-01-99
4. Final CEQA/NEPA	07-01-99	100 %	09-15-99
Subtask c. Environmental assessment/documentation			
1. Draft topos	02-10-99	100 %	02-10-99
2. Final topos	03-15-99	100 %	03-15-99
3. Draft assessments	03-31-99	100 %	03-31-99
4. Final assessments	04-15-99	100 %	04-16-99

5. Circulate/finalize all documents	06-01-99	100 %	09-15-99
-------------------------------------	----------	-------	----------

Task 3. Design

Subtask a. Admin and tech support/obtain additionally needed data

1. Admin and tech support	ongoing	90 %	
2. Research similar projects	03-15-99	100 %	03-15-99
3. Draft elevations forces report	03-15-99	100 %	03-15-99
4. Final elevations forces report	04-15-99	100 %	04-16-99

Subtask b. Biotechnical designs for four islands

1. Perform geotech exploration on site	02-20-99	100 %	02-20-99
2. Draft biotechnical designs	03-15-99	100 %	03-22-99
3. Final biotechnical designs	04-01-99	100 %	04-16-99
4. Draft vegetation planting designs	04-01-99	100 %	04-16-99
5. Final vegetation planting designs	04-15-99	100 %	04-16-99
6. Draft quantity, cost estimates	04-01-99	100 %	04-16-99
7. Final bid sheet and engineers estimate	04-10-99	100 %	09-16-99

Subtask c. Monitoring plans

1. Draft plans	05-01-99	100 %	
2. Final plans	07-01-99		

NARRATIVE

1. Description of activities performed during the quarter, by task.
2. Problems and delays encountered by task.
3. Other issues or comments.
4. Please identify your projected expenses for each of the next three months in the following quarter to assist in the timing of State bond sales which fund this project.

Month 1 \$ 5,000 Month 2 \$ 5,000 Month 3 \$ 5,000 Total for quarter \$ 15,000

Task I. Organizational

Subtask a. Hiring Project Coordinator: Complete

Subtask b. Competitive Bids for Design Engineers: Complete

Subtask c. Administrative and Technical Support

1. Work Group Information: The DCI Workgroup met July 28 to discuss the effects of the supplemental funding denial from CALFED and to explore alternative funding sources from NFWF and the Wildlife Conservation Board. The Dept. of Water Resources' Delta Levee Flood Protection Program (AB 360) has committed \$370,000 through a Work Agreement to construct and monitor biotechnical erosion control features on Webb Tract Site #3. The DCI Workgroup met September 8 to discuss the steps needed to get construction of Webb Tract # 3 underway this season, the Wildlife Conservation Boards denial of consideration of our project and CALFED's new criteria and decision-making process for selecting projects to be funded. **(Meeting materials and sign-in sheets attached)** DCI submitted a grant application to NFWF requesting funds to construct project features on Little Tinsley Island. DCI continues to pursue project funding from CALFED.

2. Quarterly Report: *Completed and mailed October 1.*

3. Final Report: N/A

4. CALFED Meetings: Workgroup members, including Project coordinator, attended several CALFED Ecosystem Roundtable meetings pertaining to future ERP project funding.

Subtask d. Competitive Bid for Construction Engineers

1. Contractor for Project Construction: ABAG will proceed with the bid package when/if CALFED awards funds for project construction (notification expected October 1999). No further work can be done on this task until then.

2. Construction: DCI has received funding (\$370,000) from the Delta Levee Flood Protection Program to construct the demonstration project on Webb Tract # 3. Construction will take place through an existing work agreement that the local flood control district has with engineering and construction firms. No CALFED fund are being used.

Task 2. Environmental Review/Permitting

Subtask a. Administrative and Technical Support

1. ACOE Permits: The Initial Study and Mitigated Negative Declaration have been submitted to the ACOE in support of the 404/10 permit application, and to the Regional Water Quality Control Board for water quality certification or waiver. Final drawings have been submitted to the State Lands Commission. **(Documents attached)**

2. Admin/Tech Support: ABAG provided administrative, technical and accounting support as needed.

- NFWF granted a contract time extension only to May 29, 2000.

Subtask b. Obtain Permits

1. Final CEQA/NEPA Documentation: The Consultant Team finalized the draft Initial Study and Mitigated Negative Declaration for the project. The documentation has been forwarded through DFG's Habitat Conservation Branch to the State Clearinghouse for a 30-day public review period (October 1, 1999). DFG is the lead CEQA agency. **(Copies of the documents will be sent to NFWF by October 10)**

Subtask c. Environmental Assessment/Documentation: *Complete*

Task 3. Design

Subtask a. Administrative/Technical Support/Obtain Additionally Needed Data

1. Admin/Tech Support: Provide as needed
2. Research Information on Similar Projects: Complete
3. Elevation/Forces Report: Complete

Subtask b. Biotechnical Designs for Islands

1. Geotechnical exploration of islands: Complete
2. Biotechnical Designs for each Island: Complete
3. Vegetation Planting Designs: Complete
4. Quantity/Cost Estimates: Complete
5. Bid Sheets and Engineers Estimate: Complete

Final Bid Sheets and Specs for Construction: Complete. Pending final clearance of permits, construction bids will be solicited for Webb Tract Island #3 only. **(Copies will be sent to NFWF October 30)**

Subtask c. Monitoring Plans

1. Biological Monitoring Designs for Each Island: Kent Nelson, Project Coordinator worked with the Consultant team to prepare the preliminary monitoring plans for submittal to CALFED on February 1. Monitoring plans will not be refined and finalized until/if funding for construction is awarded by CALFED.

In-Kind Services Provided by DCI Members:

1. Administrative and Technical Support

- DCI members developed/distributed (mailing list 150) meeting agenda, materials and summaries (1 meeting – July 28)
 - 2 members: 4 hrs @ \$60hr = \$240
 - 6 members attend and review materials: 18 hrs @ \$60/hrs = \$1080
- DCI members developed/distributed (mailing list 150) meeting agenda, materials and summaries (1 meeting – September 8)
 - 2 members: 4 hrs @ \$60hr = \$240
 - 9 members attend and review materials: 27 hrs @ \$60/hrs = \$1620
- DCI core members met and conferred August 1-13 to prepare the 1999 NFWF grant proposal for project construction on Little Tinsley Island and explored strategy for future Wildlife Conservation Board funding (Marcia Brockbank and Margit Aramburu)
 - 2 members: 30 hrs @ \$60/hr = \$1800
- DCI member “walked” CEQA/NEPA documents through agency/permit process (Ed Littrell)
 - 1 member: 16 hrs @ \$60/hr = 960
- DCI members attended Ecosystem Roundtable Public Meeting August 31
 - 2 members: 12 hrs @ \$60/hr and travel costs (\$60) = \$720
- Brockbank prepared quarterly report
 - 1 member: 16 hrs @ \$60/hr = \$960
- Brockbank prepared for and met with NFWF file audit team August 4
 - 1 member: 6 hrs @ \$60/hr = \$360

- Brockbank conferred with NFWF on products submitted, provided additional backup materials

- 1 member: 3 hrs @ \$60/hr = \$180

No NFWF funds will be used to reimburse the in-kind services described above. The products and tasks required numerous phone calls, e-mails, consultation, discussion, writing, and accounting. Costs for printing, postage, phones, computers, overhead are in addition to the in-kind services reported, approximately \$3000 for the quarter.

Estimated In-Kind Hours Provided by DCI Work group Members

July 1 - September 30: 136 hrs @ \$60/hr = \$8,160 + \$3000 = \$11,160

(\$3000 is overhead costs provided by ABAG and SF Bay RWQCB)

Title **Franks Tract State Recreation Area Wetlands Habitat Restoration**
 Applicant: Moffatt & Nichol Engineers
 CALFED Project Number: 97-N12

Budget year: 1999
 Statement Quarter: 4

Total Estimated Cost of Phase I: \$231,500
 Funding from Federal Bay-Delta Account 231,500
 Any other Funding? 0

Note: (In-Kind Services would be listed here as a total amount. Details of the service provide would be included.)

Task I schedule 1 year
 Task II schedule 1 year
 Total Project Estimated Completion Date: 2 years

		PHASE I (Quarterly Budget) 4th Qtr FY '99			PHASE I (FY '99 Budget)			PHASE I (Three Year Budget)		
		Budget	Accrued Expenditures	Variance **	Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete **
Task 1:	46.60%	\$20,325.00	\$8,534.42	\$11,790.58	\$85,211.00	\$46,725.27	\$38,485.73	\$100,278.00	\$46,725.27	\$53,552.73
	Schedule: FY '98 through FY '99									
	Percent Work Complete for Task 1:									
1a	Prepare Administrative Draft Initial Study	60.10%		\$0.00	\$44,302.00	\$26,623.44	\$17,678.56	\$44,302.00	\$26,623.44	\$17,678.56
1b	Prepare Draft Initial Study	101.64%	\$2,313.77	(\$2,313.77)	\$13,657.00	\$13,881.18	(\$224.17) 1	\$13,657.00	\$13,881.18	(\$224.17) 1
1c	Prepare Mitigation Monitoring Plan	112.63%	\$2,296.45	(\$2,296.45)	\$2,039.00	\$2,296.45	(\$257.44) 1	\$2,039.00	\$2,296.45	(\$257.44) 1
1d	Respond to Public Comments on IS/MND	80.28%	\$3,924.21	(\$3,924.21)	\$4,888.00	\$3,924.21	\$963.79	\$4,888.00	\$3,924.21	\$963.79
1e	Certify CEQA Documents	0.00%	\$5,258.00	\$5,258.00	\$5,258.00	\$0.00	\$5,258.00	\$5,258.00	\$0.00	\$5,258.00
1f	Prepare Permit Applications	0.00%	\$15,067.00	\$15,067.00	\$15,067.00	\$0.00	\$15,067.00	\$30,134.00	\$0.00	\$30,134.00
Task 2:	46.71%	\$23,302.00	\$44,232.12	(\$20,930.12)	\$101,175.00	\$61,294.84	\$39,880.16	\$131,222.00	\$61,294.84	\$69,927.16
	Schedule: FY '98 through FY '99									
	Percent Work Complete for Task 2:									
2a	Prepare Basis of Design - Engineering	99.95%		\$0.00	\$17,072.00	\$17,062.72	\$9.28	\$17,072.00	\$17,062.72	\$9.28
2b	Prepare Plans, Specs & Estimates, 60%	79.49%	\$13,912.00	\$44,232.12	(\$30,320.12)	\$55,647.00	\$44,232.12	\$11,414.88	\$55,647.00	\$44,232.12
2c	Prepare Plans, Specs & Estimates, 90%	0.00%	\$9,390.00	\$9,390.00	\$28,456.00	\$0.00	\$28,456.00	\$28,456.00	\$0.00	\$28,456.00
2d	Prepare Plans, Specs & Estimates, 100%	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$21,020.00	\$0.00	\$21,020.00
2e	Prepare Plans, Specs & Estimates, Final	0.00%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,027.00	\$0.00	\$9,027.00
2f	Write and Manage Subcontracts	n/a	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2g	Quarterly Reporting	n/a	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Task 3:	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39,880.16	\$0.00	\$0.00	\$0.00
	Schedule: FY '98 through FY '99									
	Percent Work Complete for Task 3:									
3a										
Phase I Total:		\$43,627.00	\$52,766.54	(\$9,139.54)	\$186,386.00	\$108,020.11	\$78,365.89	\$231,500.00	\$108,020.11	\$123,479.89

We budget to the Sub-task level only if they are active during the Quarter in question. If a SUBTASK is complete, the SUBTASK cost rolls-up into the Task level.

** Please explain significant variance.

** Explanation of Variance in Budget :

1 Currently negotiating modification to adjust budget between subtasks.

QUARTERLY PROGRAMMATIC REPORT

Program Manager Spencer Shepherd Phone 415-778-0999 x 24
 Project Manager Richard M. Rhoads Phone 925-944-5411
 CALFED Project # 97-N12
 Quarter Ending 9/30/99

Task Order 1	Name of Deliverable	Deliverables		Date Deliverable Complete
		Due Date	% of Work Complete	
<u>Subtask 1.01a Initiate Project</u>				
	Meeting Minutes, 1/12/99	ongoing	100%	03/19/99
	Meeting Minutes, 3/02/99	ongoing	100%	03/31/99
<u>Subtask 1.01b Site Field Review</u>				
	Site Survey and Field Notes	2 weeks	100%	03/19/99
<u>Subtask 1.01c Prepare Project Description</u>				
	CEQA Project Description	03-01-99	100%	03/26/99
<u>Subtask 1.01d Prepare Administrative Draft IS/ND</u>				
	Administrative Draft IS/ND	04-12-99	100%	05/06/99
<u>Subtask 1.02 Prepare Draft IS/MND</u>				
	Draft IS/MND	05-14-99	100%	06/18/99
<u>Subtask 1.03a Prepare Mitigation Monitoring Plan</u>				
	Mitigation Monitoring Plan (Draft)	05-14-99	100%	
<u>Subtask 1.03b Prepare Biological Monitoring Plan</u>				
	Biological Monitoring Plan (Draft)	12-29-99	0%	
<u>Subtask 1.04 Respond to Public Comments on IS/MND and Certification</u>				
	Respond to Comments	05-28-99	100%	
<u>Subtask 1.06 Obtain Clean Water Act Permit</u>				
	Obtain Clean Water Act Permit	12-29-99	0%	

Quarterly Programmatic Report

10/5/99

Page 2 of 4

<u>Name of Deliverable</u>	<u>Due Date</u>	<u>% of Work Complete</u>	<u>Date Deliverable Complete</u>
Task Order 2			
<u>Subtask 1.05 Support for CEQA Documentation</u>			
Management Services for JSA	ongoing	ongoing	n/a
<u>Subtask 1.06 Support for Permit Application</u>			
Drawings and Figures	10-29-99	0%	
<u>Subtask 1.07 Prepare Basis of Design</u>			
Draft Basis of Design	03-02-99	100%	9/13/99
<u>Subtask 1.08 Prepare PS&E, 60%</u>			
Geotechnical Report & PS&E 60%	06-30-99	35%	
<u>Subtask 1.09 Prepare PS&E, 90%</u>			
PS&E 90% Complete	11-01-99	0%	
<u>Subtask 1.10 Prepare PS&E, 100%</u>			
PS&E 100% Complete	11-30-99	0%	
<u>Subtask 1.11 Prepare PS&E, Final</u>			
Final PS&E	12-30-99	0%	
<u>Subtask 1.12 Write and Manage Subcontracts</u>			
Copies of Contracts	01-13-99	100%	03-9-99
<u>Subtask 1.13 Quarterly Progress Reports</u>			
2nd Quarter FY99 Report	04-10-99	100%	04-19-99
3rd Quarter FY99 Report	07-12-99	100%	07-16-99
4th Quarter FY99 Report	10-10-99	100%	10-05-99

Narrative

1. Description of activities performed during the quarter, by task.

During the fourth quarter of FY99 the Franks Tract Team completed the draft Mitigation Monitoring Plan Administrative (Subtask 1.03a) and responded to Public Comments (Subtask 1.04) regarding the Draft Initial Study/Mitigated Negative Declaration (IS/MND). After the thirty-day public comment period closed a request for an informal meeting with Bethel Island residents was received. The purpose of the meeting is to receive comments and feedback from the Bethel Island residents with regards to the proposed project. This meeting is currently scheduled for October 12, 1999. Considering the pending meeting, the Franks Tract Team has elected to not certify the IS/MND pending completion of the 10/12/99 meeting. If significant questions or concerns are identified during that meeting the Franks Tract Team will consider re-opening the public comment period so as to allow the Bethel Island residents an opportunity to comment on the project. Should the discussion resolve any potential concerns or questions the Franks Tract Team intends to continue with certification of the IS/MND immediately following the 10/12/99 meeting.

Also during the fourth quarter, the Franks Tract Team completed the Basis of Design (Subtask 1.07). As discussed in last quarter's update, the Design Team elected to advance the design to the 30% level prior to completing the Basis of Design in order to aid in the development of a more complete and thorough Basis of Design. This included completing the Geotechnical Report that was originally scheduled for completion in the 60% PS&E (Subtask 1.08). This has resulted in a cost overrun for Subtask 1.07. We propose to mitigate this overrun by transferring a portion of the funds available in Tasks 1.08 and 1.09 to Task 1.07. This would result in a no cost contract modification.

2. Problems and delays encountered by task.

The only delay encountered centers on the need to facilitate a meeting with the Bethel Island residents. This resulting delays certification of the IS/MND. The total extent of this delay is unknown as yet pending completion of the 10/12/99 meeting.

In the previous Quarterly Report we identified the need to perform hydrodynamic modeling as part of the overall design effort to assess the erosive potential for the placed material resulting from tidal current forces. This item of work was not anticipated in the original scope of work due to the belief the interior of Franks Tract was relatively isolated by the perimeter levees from high current velocities based on the results of Moffatt & Nichols 1990 design work. However, during our January 1999 site visit it was clearly visible to the Team the existing levees had deteriorated approximately 75% since the 1990 design work was completed. We have prepared a scope and fee proposal and transmitted this to NFWF under separate cover on 10/5/99.

3. Other issues or comments.

To date we have made significant progress on the CEQA process. Based on preliminary discussions with the Bethel Island residents we anticipate relatively minor comments resulting in only a minor schedule delay.

As discussed in previous quarterly reports we have purposefully delayed design efforts so as to allow the CEQA process adequate time to advance thus allowing any potential design issues to arise. Consequently, we have been able to make several design adjustments necessary to address concerns identified by the various regulatory agencies we have met with. Based on this, we have completed the Basis of Design (to 30% design level) and are currently working on the 60% design.

However, we believe that in order to utilize our limited design budget prudently, it is necessary to obtain assurances from CALFED regarding future funding for construction of the project. While we have enough money to continue design forward through final design, to properly complete our design, as well as initiate the permitting process, we must identify a borrow source for the necessary fill materials. In our previously submitted grant requests for construction funding we have identified a companion wetlands project located on Decker Island. However, to date our funding requests have not been approved by CALFED and are pending consideration from Federal funding expected in September/October 1999. We are leery about assuming a specific borrow source for fear that we may be unable to get funding and be forced to utilize alternative source(s). Such a process would then require revising design documents and permit applications for which we have insufficient funding presently. Therefore, we request CALFED's prompt consideration of our pending request thus allowing us to progress beyond the 60% design level in a prudent and cost effective manner.

4. Please identify your projected expenses for each of the next three months in the following quarter to assist in the timing of State bond sales that fund this project.

Month 1 \$ 17,000 Month 2 \$ 36,000 Month 3 \$ 29,000 Total for quarter \$ 82,000

Work Authority # 1469-8513
 Project # 97-A13
 Project Name: Tyler Island Restoration Project

Budget year: 1999
 Statement Quarter: 4

Total Estimated Cost of Phase I: \$885,200
 Funding from Federal Bay-Delta Account: 885,200

Phase I schedule: 3 year

Total Project Estimated Completion Date: 3 years

	PHASE I (Quarterly Budget)			PHASE I (FY '99 Budget)			PHASE I (Three Year Budget)		
	Budget	Accrued Expenditures	Variance **	Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete **
Task 1: Survey and Planning:	\$92,000	\$91,787	\$213	\$135,000	134,568	\$434	\$187,565	187,565	\$0
Schedule: FY '98 through FY '99									
Percent Work Complete for Task 1:	100%								
Task 2A: Implementation and monitoring	190,875	179,797	\$11,078	219,675	176,263	43,412	240,675	176,263	64,412
Schedule: FY '99 through FY '99									
Subtask 1. Project Management	31,599	23,550	8,049	31,599	23,550	8,049	31,599	23,550	8,049
Subtask 2. Construction	57,575	57,575	0	57,575	57,575	0	57,575	57,575	0
Subtask 3. Materials (plants)	34,000	34,000	0	34,000	34,000	0	34,000	34,000	0
Subtask 4. Materials (Biotechnical)	43,401	43,401	0	43,401	43,401	0	43,401	43,401	0
Subtask 5. Equipment and Tools	19,100	16,071	3,029	19,100	16,071	3,029	19,100	16,071	3,029
Subtask 6. Transportation/Rental	2,000	2,000	0	4,000	2,000	2,000	5,000	2,000	3,000
Subtask 7. Monitoring/reporting	3,200	3,200	0	30,000	3,200	26,800	50,000	3,200	46,800
Percent Work Complete for Task 2: 98% complete installation/5% monitoring									
Task 3: Implementation and Monitoring			\$0			\$0	\$312,110	\$0	\$312,110
Schedule: FY '98 through FY '99									
Percent Work Complete for Task 3:									
Task 4: Implementation and Monitoring			\$0				\$144,850		\$144,850
Schedule: FY '98 through FY '99									
Percent Work Complete for Task 4:									
Phase I Total:	\$282,875	\$271,584	\$11,291	\$354,675	\$310,829	\$43,846	\$885,200	\$363,828	\$521,372

We budget to the Sub-task level only if they are active during the Quarter in question. If a subtask is complete, the subtask cost rolls-up into the Task level.
 Task 1 has been completed.
 Task 2 is currently being negotiated.

E-032681

E-032681

QUARTERLY PROGRAMMATIC REPORT

Program Manager Spencer Shepherd Phone 415-778-0999 x 24

Project Manager Jeff Hart

CALFED Project # 97-N13

Quarter Ending: October 15, 1999 (Task Order II is currently being negotiated).

		Deliverables		
Name of	Due	%	of Work	Date
Deliverable	Date	Complete		Deliverable
				<u>Complete</u>
Task 1				
Subtask 1. Project Management				
Quarterly Report	Quarterly	80%		Oct. 15
Subtask 2. Construction				
Photos, tables	Dec. 30	95%		Oct. 15
Subtask 3. Plant Materials				
Photos/tables	Sept.	100%		Oct. 15
Subtask 4. Materials: biotechnical				
Invoices/receipts	Dec. 30	90%		Oct. 15
Subtask 5. Equipment and Tools				
Invoices, receipts	Dec. 30	90%		Nov. 30
Subtask 6. Transportation/Rental				
Invoices	Quarterly			

Narrative

I. Description of activities performed during the quarter, by task.

Subtask 1. Project Management.

Subtask 2. Construction.

Construction was initiated and completed on 33 separate erosion areas along Georgiana Slough and the North Fork of the Mokelumne River, for a total length of 2760 feet. This was 260 feet more than originally proposed for Task II. The construction technique involved the placement of a combination of brush bundles and brush box walls (1321 individual brush bundles), coir biologs (111) and more than

4016 sedge, rush and tule ballast buckets. The purposes of these composite structures are to resist bank erosion, accrete sediment, improve water quality, and improve habitat conditions. These materials appear to have been successfully installed as judged by their performance during the summer boating season.

Subtask 3. Plant Materials.

More than 4016 ballast bucket plantings were successfully propagated and installed.

Subtask 4. Materials: biotechnical

Biotechnical materials purchased included lumber for stakes, twine and rope, coir biologs, and coir matting. The construction of brush bundles, in which coir matting was wrapped around locally collected branches (from orchards) proved to be very cost effective (less than \$3.00 per linear foot compared to at least \$6.00 per linear foot for comparable coir biologs).

Subtask 5. Equipment and Tools.

This budget item included work dock, trailer, and related tools and materials.

Subtask 6. Transportation/Rental.

This item involves costs for vehicular and boat transportation and dock rental space.

II. Problems and delays encountered by task.

III. Other issues or comments.

IV. Please identify your projected expenses for each of the next three months in the following quarter to assist in the timing of State bond sales which fund this project.

Month 1 \$ \$5000 Month 2 \$ 2500 Total for quarter \$\$7500

Title COSUMNES RIVER FLOODPLAIN ACQUISITION AND MANAGEMENT

Budget year: 30-Sep-99

Co-applicants: Nature Conservancy/Wildlife Conservation Board
 CALFED Proj. #: 97N14A

Statement Quarter: 30-Sep-99

Total Estimated Cost of Phase I: \$1,985,100
 Funding from Federal Bay-Delta Account \$1,985,100

(In-Kind Services would be listed here if applicable- note: Detail of the service provide would be included.)

Phase I schedule 3 years

Total Project Estimated Completion Date: 3 years

		PHASE I (Quarterly Budget)			PHASE I (FY '99 Budget)			PHASE I (Three Year Budget)		
		Budget	Accrued Expenditures	Variance **	Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete **
Task 1:	Acq. Of 2,947 Acres - Cosumnes Schedule: FY '98 through FY '02	\$5,000	\$4,811	\$189	\$51,760	\$51,760	\$0	\$51,760	\$51,760	\$0
Task 3:	Mgmt Activities Park, Whaley, Denier, Shaw	25,000	24,491	\$509	25,000	24,491	\$509	522,540	24,491	\$498,049

Phase I Total:	\$30,000	\$29,302	\$698	\$76,760	\$76,251	\$509	\$574,300	\$76,251	\$498,049
----------------	----------	----------	-------	----------	----------	-------	-----------	----------	-----------

We budget to the Sub-task level only if they are active during the Quarter in question. If a SUBTASK is complete, the SUBTASK cost rolls-up into the Task level.

** Explanation of Variance in Budget :

QUARTERLY PROGRAMATIC REPORT

Program Manager Spencer Sheperd Phone 415-778-0999 x24
Project Manager
Calfed Project # 97-N14A
Quarter Ending September 30, 1999

DELIVERABLES

Task #	Deliverable	Due Date	% Complete	Date Complete
Task 1	Acquisition of 2,947 acres in Cosumnes River's lower floodplain		100%	6/99
Task 3	Initial cleanup and repair of 5 properties	12/00		
Task 4	Purchase floodplain linked property			

Task 1: Acquisition of 2,947 acres in the Cosumnes River's lower floodplain.

Acquisitions complete. Final report submitted with last Quarterly Programmatic Report.

Task 3: Initial clean-up and repair of 5 properties and installation or repair of irrigation systems. Conduct initial biological monitoring and archeological surveys.

Task 3, Subtask 1 has been signed Subtask 2 has been sent in for review. Biological monitoring and archeological survey subcontracts have been signed and work has begun. Work to be completed under Subtask 2 has been delayed due to the lack of protocol for handling Public Works Contract.

Task 4: Complete Purchase of additional floodplain and floodplain linked properties, including the Woods property (153 acres).

The Woods property has been purchased protecting seasonal wetlands and grassland habitat. Task Order 4 has been submitted and signed, however due to delays in the signing the Task Order an additional hazardous materials study of the property was required by CALFED before reimbursement could be made.

Delays:

The Recipient agreement was not signed until June 22, 1999 and Task Order 3 was not signed until July 6, 1999. Task 4 was delayed due to delays in signing Task Order 4.

Following is an estimate of costs for the next three months (October – December, 1999)

Month 1 \$5,000
Month 2 \$6,200
Month 3 \$14,000

Bay Point Regional Shoreline Restoration Plan
 Applicant: East Bay Regional Park District
 CALFED Project Number: 97-N16

Budget year: 1999
 Statement Quarter: 4

Total Estimated Cost of Phase I \$238,900
 Funding from East Bay Regional Parks District \$53,900
 Funding provided by CALFED \$185,000

Phase I schedule 8/14/98 to 1/31/01

Task 1: Project Administration 100%
 Schedule: FY '98 through FY '01
 Percent Work Complete for Task 1:

- 1.1 Project goals and objectives summary
- 1.2 Identification of TAC/PAC members
- 1.3 Copy of RFP
- 1.4 Draft subcontract and Final subcontract
- 1.5 Quarterly Reports

Task 2: Subcontract 10%
 Schedule: FY '99 through FY '01
 Percent Work Complete for Task 2: 0%

- 2.1 Site Analysis
 - 2.1.1 Topo maps
 - 2.1.2 Site Condition analysis
 - 2.1.3 Draft Management Objectives Summary
 - 2.1.4 Final Management Objectives Report
- 2.2 Preliminary Wetland Design
 - 2.2.1 Hydro alternatives for restoration
 - 2.2.2 Summary alternatives
 - 2.2.3 TAC/PAC approval
 - 2.2.4 Final Plan Submittal
- 2.3 Permit App. Prep. Processing & Public Participation
 - 2.3.1 Permit approval
- 2.4 Preparation of CEQA and NEPA documentation
 - 2.4.1 CEQA/NEPA

PHASE I (Quarterly Budget)		
Budget	Accrued Expenditures	Variance
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
45,250	0	45,250
6,050	5,735	315
20,500	0	20,500
4,000	0	4,000
700	0	700
10,000	0	10,000
3,500	0	3,500
500	0	500
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
45,250	5,735	39,515

PHASE I (FY '99 Budget)		
Budget	Accrued Expenditures	Remaining Balance
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
58,400	0	58,400
18,300	15,250	3,050
21,400	898	20,502
4,000	0	4,000
700	0	700
10,000	0	10,000
3,500	0	3,500
500	0	500
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
58,400	16,148	42,252

PHASE I (Three Year Budget)		
PHASE I Budget	Accrued Expenditures	Balance to Complete
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
185,000	0	185,000
18,300	15,250	3,050
21,400	898	20,502
7,500	0	7,500
2,700	0	2,700
20,000	0	20,000
13,500	0	13,500
2,000	0	2,000
61,800	0	61,800
25,000	0	25,000
12,800	0	12,800
185,000	16,148	168,852

Phase I Total:

** Explanation of Variance in Budget:

- 1 Due to the revision process of the design contractor, several tasks were unable to proceed as scheduled. With the contractor secured, LSA Associates, Inc., we anticipate being on target within the upcoming quarter.

QUARTERLY PROGRAMMATIC REPORT

Program Manager: Spencer Shepherd Phone 415-778-0999 x 24

Project Managers: Mike Anderson
Binh Nguyen
Susan Williams Phone 510-635-0138 x 2204

CALFED Project # 97-N16

Quarter Ending: September 30, 1999

		Deliverables		
<u>Name of Deliverable</u>	<u>Due Date</u>	<u>% of Work Complete</u>	<u>Date Deliverable Complete</u>	
Task 1 Initial Development of Goals and Objectives				
Subtask 1.1	Project goals and objectives summary	10-31-98	100%	12/24/98
Subtask 1.2	Identification of TAC/PAC members	11-30-98	100%	04/10/99
Subtask 1.3	Copy of RFP	04-30-99	100%	06/01/99
Subtask 1.4	Draft subcontract Final subcontract	04-30-99	99%	
Subtask 1.5	Quarterly Reports	Quarterly	41%	
Subtask 1.6	Topo maps/ Boundary Survey	06-30-99	100%	06/30/99

Task 2 Subcontract addressing project design

Subtask 1	Site analysis			
2.1.1	Topo maps	07-31-99	85%	
2.1.2	Site condition analysis	09-30-99	4%	
2.1.3	Draft Management Objectives Summary	10-31-99	0%	

2.1.4 Final Management Objectives Report 11-30-99 0%

Subtask 2 Preliminary Wetland Design

2.2.1 Hydro alternatives for restoration 01-31-00 0%

2.2.2 Summary alternatives 03-31-00 0%

2.2.3 TAC/PAC approval 05-31-00 0%

2.2.4 Final Plan submittal 07-31-00 0%

Subtask 3 Permit Application Preparation Processing and Public Participation

2.3.1 Permit approval 01-31-01 0%

Subtask 4 Preparation of California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA) documentation

2.4.1 CEQA/NEPA 01-31-01 0%

Narrative

1. Description of activities performed during the quarter, by task.

Subtask 1.4

Selected LSA Associate, Inc. as the contractor to design a plan for the restoration and management. Sub-contract is being finalized.

Subtask 1.5

Four quarterly reports are complete.

Subtask 2.1.1

Topo map assignment in final stages.

Subtask 2.1.2

Site condition analysis project is substantially complete. Level 1 site analysis identified lead in soil which may require unforeseen additional analysis.

2. Problems and delays encountered by task.

None.

3. Other issues or comments.

Due to the revision process of the design contractor, several tasks were behind schedule. We anticipate being on target within the upcoming quarter.

4. Please identify your projected expenses for each of the next three months in the following quarter to assist in the timing of State bond sales which fund this project.

Month 1 \$8,050 ___ Month 2 \$8,050 ___ Month 3 \$8,150 ___ Total for quarter \$24,250

Tolay Creek Restoration Project
 Applicant: Ducks Unlimited
 CALFED Project Number:#97-N19

Budget year: 1999
 Statement Quarter: 4th
 Ending: 30-Sep-99

Total Estimated Cost of Phase I: \$243,000
 Funding from Federal Bay-Delta Account 243,000

Phase I schedule 1 year
 Projected Phase II schedule * 1 year
 Total Project Estimated Completion Date: 2 years

	PHASE I (Quarterly Budget)			PHASE I (FY '99 Budget)			PHASE I (One Year Budget)		
	Budget	Accrued Expenditures	Variance **	Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete **
Task 1: Construction	\$183,000	\$183,000	\$0	\$183,000	\$183,000	\$0	\$183,000	\$183,000	\$0
Schedule: FY '98 through FY '99									
Percent Work Complete for Task 1: 100%									
1a Levee Construction	\$23,000	\$23,000	\$0	\$23,000	\$23,000	\$0	\$23,000	\$23,000	\$0.00
1b Channel Excavation	\$160,000	\$160,000	\$0	\$160,000	\$160,000	\$0	\$160,000	\$160,000	\$0.00
Task 2: Construction Management	\$40,000	\$40,000	\$0	\$40,000	\$40,000	\$0	\$40,000	\$40,000	\$0
Schedule: FY '98 through FY '99									
Percent Work Complete for Task 2: 100%									
2a Construction Management	\$40,000	\$40,000	\$0	\$40,000	\$40,000	\$0	\$40,000	\$40,000	\$0.00
Task 3: Project Management	\$20,000	\$10,100	\$9,900	\$20,000	\$10,100	\$9,900	\$20,000	\$10,100	\$9,900
Schedule: FY '98 through FY '99									
Percent Work Complete for Task 3: 50%									
3a Project Management	\$20,000	10,100	9,900	\$20,000	10,100	9,900	20,000	10,100	9,900
Phase I Total:	\$243,000	\$233,100	\$9,900	\$243,000	\$233,100	\$9,900	\$243,000	\$233,100	\$9,900

We budget to the Sub-task level only if they are active during the Quarter in question. If a Subtask is complete, the Subtask cost rolls-up into the Task level.

E-032690

Quarterly Programmatic Report
TOLAY CREEK RESTORATION PROJECT
CALFED Project No.: 97-N19

Prepared By:

Michael A. Bias, Ph.D.
ECORP Consulting, Inc.
2260 Douglas Boulevard, Suite 160
Roseville, CA 95661

Submitted By:

Ducks Unlimited, Inc.
Western Regional Office
3074 Gold Canal Drive
Rancho Cordova, CA 95670
(916) 852-2000

18 October 1999

Quarterly Programmatic Report

TOLAY CREEK RESTORATION PROJECT
CALFED Project No.: 97-N19

Narrative

The project design for construction activities was completed during April 1998. Agency approvals and permits were obtained and a contractor was hired in mid-May 1998. A Notice to Proceed for the construction activities was issued at the end of May 1998.

Project construction on the site began 18 June 1998 on items other than those funded by Cal-Fed. Following are descriptions of activities performed on the Tolay Creek Restoration Project, CALFED Project No. 97-N19 for the quarter ending 30 June 1999 for Task Order No. 1 - Construction.

Task Order No. 2 - Biological Monitoring is currently being drafted. We are currently awaiting approval, comments, and review of the *Rehabilitation of Tidal Salt Marshes in the Northern San Francisco Bay Region: Cullinan Ranch and Tolay Creek Units of the San Pablo Bay National Wildlife Refuge, Biological Monitoring Plan for Cullinan Ranch and Tolay Creek Units*. This document was submitted 12 January 1999.

Subtask 1.1, Perimeter Levee

This item was funded partially through CALFED. Construction began on 25 June 1998. Land based earthmoving equipment prepared the footprint of the levee, compacted embankment was conditioned and placed, and the levee was trimmed to the design cross section. All work associated with the perimeter levee was completed 18 December 1998. All final deliverables for this subtask were completed under the previous Quarterly Report. Representatives from CALFED and the National Fish and Wildlife Foundation (NFWF) inspected the completed project on 28 January 1999.

Subtask 1.2, Channel Dredging

This item was fully funded by CALFED. Dredging of the channel began on 28 September 1998. Amphibious earthmoving equipment was mobilized, suction dredge discharge pipeline placed, the channel was excavated to the design cross section, and the sediment was discharged to the California Department of Fish and Game lagoon. This subtask was completed by 30 November 1998. All final deliverables for this subtask were completed under the previous Quarterly Report. Representatives from CALFED and the National Fish and Wildlife Foundation (NFWF) inspected the completed project on 28 January 1999.

Subtask 2.0, Construction Management

This item is being partially funded by CALFED. Construction management started on 25 June 1998 and was completed on 18 December 1998. This item consisted of Ducks Unlimited's staff and hired consultants performing construction staking, construction inspection, construction testing, and construction management to insure the construction activities comply with the design. All final deliverables for this subtask were completed under the previous Quarterly Report.

Subtask 3.0, Project Management

This item is partially funded by CALFED. Project management began on 1 May 1998 and is 50 % complete to date. The remaining 50% is reserved for Task Order 2, further project administration and reporting, and Monitoring Task Order, which is being developed. This item consists of Ducks Unlimited's staff coordinating all activities between the funding partners, landowners, and the regulatory agencies involved. This Subtask is on-going through completion of Task Order 2.

Work Authority #1469-85
 Project #97-N20
 Project Name: The BIOS/LFN Strategy - Reduction of Synthetic Pesticides Fertilizers in Five California Counties
 Recipient: Community Alliance with Family Farmers

Budget Year: 1999
 Statement Quarter: 4

Total Estimated Cost of Phase 1 \$1,680,631
 Funding from Federal Bay-Delta Account \$1,680,631

Total Project Estimated Completion Date: 3 years

	PHASE 1 (Quarterly Budget)			PHASE 1 (FY '99 Budget)			PHASE 1 (Three Year Budget) FY '98 - FY '01			
	Budget	Accrued Expenditures	Variance	Budget	Accrued Expenditures	Remaining Balance	Budget	Accrued Expenditures	Balance to Complete	
Task 1: Plan intensive campaign to enlist farmers in CAFF's program	\$0	\$0	\$0	1	\$0	\$0	\$0	\$106,819	\$101,767	\$5,052
Schedule FY '98 through 6/30/99										
Percent Work Complete for Task 1: 100%										
1a Hire Communications Director	\$0	\$0	\$0	\$0	\$0	\$0	\$5,029	\$5,029	\$0	
1b Hire a public relations firm	\$0	\$0	\$0	\$0	\$0	\$0	\$6,124	\$6,124	\$0	
1c Develop targeted outreach strategy	\$0	\$0	\$0	\$0	\$0	\$0	\$31,182	\$29,033	\$2,149	
1d Create and improve outreach materials	\$0	\$0	\$0	\$0	\$0	\$0	\$64,484	\$61,581	\$2,903	
Task 2: Unify CAFF's various databases and purchase network	\$0	\$0	\$0	2	\$0	\$0	\$0	\$80,296	\$72,364	\$7,932
Schedule: FY '98 through 6/30/99										
Percent Work Complete for Task 2: 100%										
2a Hire consulting firm to unify databases	\$0	\$0	\$0	\$0	\$0	\$0	\$40,908	\$29,134	\$11,774	
2b Purchase computer equipment and software for database upgrade	\$0	\$0	\$0	\$0	\$0	\$0	\$93,447	\$97,321	(\$3,874)	
2c Purchase computer equipment and software for Lighthouse Farm Network	\$0	\$0	\$0	\$0	\$0	\$0	\$5,941	\$5,909	\$32	
Task 3: Increase the capacity of the Lighthouse Farm Network	\$0	\$0	\$0	3	\$0	\$0	\$0	\$145,367	\$132,061	\$13,306
Schedule: FY '98 through 6/30/99										
Percent Work Complete for Task 3: 100%										
3a Hire and train two LFN coordinators	\$0	\$0	\$0	\$0	\$0	\$0	\$7,675	\$7,675	\$0	
3b Initiate and hold monthly LFN events in new location	\$0	\$0	\$0	\$0	\$0	\$0	\$10,826	\$8,207	\$2,619	
3c Continue monthly LFN meetings, field days, tours	\$0	\$0	\$0	\$0	\$0	\$0	\$37,296	\$33,334	\$3,962	
3d Develop relationships with local community leaders, farmers	\$0	\$0	\$0	\$0	\$0	\$0	\$46,348	\$43,879	\$2,469	
3e Hold regional planning meetings	\$0	\$0	\$0	\$0	\$0	\$0	\$15,679	\$14,026	\$1,653	
3f Produce monthly LFN newsletter, The Foghorn	\$0	\$0	\$0	\$0	\$0	\$0	\$18,943	\$16,341	\$2,603	
3g Collect and analyze information from LFN farmers	\$0	\$0	\$0	\$0	\$0	\$0	\$8,600	\$8,600	\$0	
Task 4: Reporting	\$14,865	\$14,865	\$0		\$59,459	\$14,864	\$44,595	\$178,375	\$70,266	\$108,109
Schedule: FY '98 through FY '01										
Percent Work Complete for Task 4: 39%										
4a Submit quarterly narrative and financial reports	\$3,230	\$3,230	\$0	\$12,921	\$3,230	\$9,691	\$38,764	\$24,861	\$13,903	
4b Bookkeeping services	\$11,218	\$11,218	\$0	\$44,870	\$11,218	\$33,653	\$134,611	\$41,530	\$93,081	
4c Administrative upgrade	\$417	\$417	\$0	\$1,667	\$417	\$1,250	\$5,000	\$3,875	\$1,125	
Task 5: Biological Farming Promotion	\$43,068	\$43,068	\$0		\$169,612	\$43,068	\$126,543	\$383,721	\$109,992	\$273,729
Schedule: FY '99 through FY '01										
Percent Work Complete for Task 5: 29%										
5a Implement 1999 Biological Farming Production Campaign	\$43,068	\$43,068	\$0	\$86,140	\$43,068	\$43,071	\$157,923	\$109,992	\$47,931	
5b Implement 2000 Biological Farming Production Campaign	\$0	\$0	\$0	\$83,472	\$0	\$83,472	\$166,944	\$0	\$166,944	
5c Implement 2001 (first six months of year three) Biological Farming Production Campaign	\$0	\$0	\$0	\$0	\$0	\$0	\$58,854	\$0	\$58,854	
Task 6: Continue to coordinate BIOS in San Joaquin, Madera and Colusa Counties through the growing season	\$93,041	\$93,041	\$0		\$186,082	\$93,041	\$93,041	\$372,164	\$274,536	\$97,628
Schedule FY '99										
Percent Work Complete for Task 6: 74%										
6a Hold frequent on-farm field days in all three counties, hold the BIOS Farm Tour, use management team to provide grower support, continue	\$93,041	\$93,041	\$0	\$186,082	\$93,041	\$93,041	\$372,164	\$274,536	\$97,628	

	publishing newsletters, conduct survey of grower practices and program eval. and provide weekly orchard monitoring info. to enrolled farmers									
Task 7: Plan the transition of BIOS projects to local leadership		\$11,411	\$11,411	\$0	\$22,823	\$11,411	\$11,411	\$45,645	\$27,449	\$18,196
Schedule FY '99										
Percent Work Complete for Task 7:	60%									
7a	Build relationships with local stakeholders in Colusa, Madera and San Joaquin counties. Develop options for future activities and prepare written transition plan	\$11,411	\$11,411	\$0	\$22,823	\$11,411	\$11,411	\$45,645	\$27,449	\$18,196
Task 8: Evaluate pesticide use changes as a result of the BIOS project		\$9,000	\$9,000	\$0	\$36,000	\$9,000	\$27,000	\$80,000	\$9,000	\$71,000
Schedule: FY '99 through FY '01										
Percent Work Complete for Task 8:	11%									
8a		\$9,000	\$9,000	\$0	\$36,000	\$9,000	\$27,000	\$80,000	\$9,000	\$71,000
Task 9: Use the Lighthouse Farm Network to offer consistent technical support to farmers		\$29,747	\$29,747	\$0	\$118,982	\$29,747	\$39,235	\$237,964	\$29,747	\$208,217
Schedule: FY '99 through FY '01										
Percent Work Complete for Task 9:	13%									
9a	Continue monthly LFN meetings, field days, tours	\$8,948	\$8,948	\$0	\$35,791	\$8,948	\$26,843	\$71,581	\$8,948	\$62,633
9b	Develop relationships with local community leaders, farmers	\$10,627	\$10,627	\$0	\$42,506	\$10,626	\$31,880	\$85,012	\$10,626	\$74,386
9c	Hold regional planning meetings	\$3,457	\$3,457	\$0	\$13,827	\$3,457	\$10,370	\$27,654	\$3,457	\$24,197
9d	Produce monthly LFN newsletter, The Foghorn	\$4,522	\$4,522	\$0	\$18,089	\$4,522	\$13,566	\$36,177	\$4,522	\$31,655
9e	Collect and analyze information from LFN farmers	\$2,193	\$2,193	\$0	\$8,770	\$2,193	\$6,577	\$17,540	\$2,193	\$15,347
Task 10: Implement the transition of BIOS projects to local leadership		\$0	\$0	\$0	\$0	\$0	\$0	\$50,280	\$0	\$50,280
Schedule: FY '00 through FY '01										
Percent Work Complete for Task 10:	0%									
10a		\$0	\$0	\$0	\$0	\$0	\$0	\$50,280	\$0	\$50,280
Phase 1 Total:		\$201,131	\$201,131	\$0	\$592,958	\$201,131	\$391,826	\$1,680,631	\$827,183	\$853,448

EXPLANATIONS OF VARIANCES IN TASK BUDGETS:
 1. Task 1 is 100% complete as of 6/30/99, under budget by \$5,052. This variance will be transferred to Task 5.
 2. Task 2 is 100% complete as of 6/30/99, under budget by \$7931.74. This variance will be transferred to Task 5.
 3. Task 3 is 100% complete as of 6/30/99, under budget by \$13,305.73. This variance will be transferred to Task 9.

CALFED QUARTERLY PROGRAMMATIC REPORT
July, August, September 1999

Program Manager Spencer Shepherd, Bay-Delta Grants Manager
Project Manager Judith Redmond, Director Emeritus, CAFF
CALFED Project # 97-N20
Quarter Ending September 30, 1999

Introduction: This report outlines the progress toward the fulfillment of our agreed objectives over the first quarter of the second year (months July 1, 1999 through September 30, 1999) of the grant period of contract #97-N20.

Task 1: Completed

Task 2: Unification of database

The unification of CAFF's database through software programming changes was done in-house by a staff member, Anh Le. The computer network equipment upgrade to facilitate the smooth functioning of the database was done by consultant Adrienne Webb. CALFED was sent a copy of the subcontract to Ms. Webb during the first reporting quarter. We are enclosing an additional copy of the subcontract to clear up any confusion on this point. Please contact us if there are any questions. CAFF's BIOS, LFN and membership databases are now housed on one server and integrated as one database.

Percent of work completed: 100%

Task 2 Deliverable

Copy of subcontract agreement between CAFF and subcontractor Adrienne Webb

Task 3: Completed

Task 4: Reporting

4.1 Quarterly narrative and financial reports

Percent of work completed: 45%

4.2 Bookkeeping services

Invoices through August 1999 have been submitted to CALFED.

Percent of work completed: 38%

4.3 Administrative upgrade

The Office Manager position (which provides support for the CALFED Biological Farming Campaign) was redefined and a new staff member hired.

This quarter CAFF continued to refine and expand the capabilities of the new reporting system which included training on tracking the actual vs budget component.

Percent of work completed: 87%

Task 4 Deliverables

4.1 Quarterly narrative and financial reports (inclusive)

4.2 Invoices through August 1999 (submitted)

Task 5: Implement 1999 Biological Farming Promotion Campaign

5.1 Campaign strategy planning and evaluation

After completing the campaign launch and first ad flights, media staff assessed the effectiveness of the paid media strategy. On July 1, the communications director and the lead communications consultant held a focus group in Merced County with three almond growers and a university farm advisor. The focus group provided several insights. Chief among them was that the radio-based advertising strategy was not effectively reaching our target audience.

The focus group feedback was taken to the subsequent creative meeting on July 13. There, we decided to refine our message delivery strategy by communicating directly with growers via an informative and attractive direct mail information letter. The result was the premiere issue of *NutNotes*, which was mailed in September to over 4,000 almond growers in the Central Valley. This issue includes a postage-paid business reply card for growers. Farmers who return this card receive a free copy of our *BIOS for Almonds* book and upcoming field day announcements. We will be tracking the grower response to this new tactic and will include results in our next quarterly report.

We are currently working on a full-page ad that will run in the November issue of *Nut Grower* magazine, the most widely read publication in the almond production community. The ad will tout the benefits of eliminating organophosphate dormant sprays and invite growers to attend field days in December that will provide hands-on information about this topic.

Media publicity

To learn about opportunities for free media publicity, we organized a training on July 2. The training focused on message development and delivery. Participants practiced developing and pitching news hooks, and techniques for staying on message during interviews.

Following the training, we conducted media outreach around the release of the *BIOS 1998 Year-End Almond Report*. A press release was followed by phone follow-up. The effort yielded more than a half-dozen TV and print stories throughout the San Joaquin Valley. We also placed a story in the *San Francisco Chronicle* to begin educating urban consumers about biologically grown almonds. The story was planned to coincide with almond harvest. We are working with press contacts, including the *California Heartland* TV program and the *Bee* newspapers, on additional stories and an op-ed about biological farming.

Communications capacity building and Web site

Capacity building continued during this quarter. Our communications director convened a Media Task Force to begin documenting and refining the organization's protocols and expectations for working with the press. The task force's work will culminate with written documentation accompanied by a staff training on how to consistently gain media coverage of our local organizing efforts. This will be delivered in the next quarter's reporting, January 2000.

A staff team consisting of a project manager, content editor and designer have been working on an update of our Web site. An editorial expansion plan, revised homepage design and new host server are ready for implementation.

Finally, we posted a hiring notice for a full-time media and outreach coordinator staff position. This new position will be responsible for carrying forward many of the responsibilities of the consulting team in the coming year.

Calendar of activities for Media campaign

DATE	ACTIVITY	PURPOSE/ACCOMPLISHMENT
July 1	Almond Grower Focus Group	Assess effectiveness of media campaign
July 2	Media Training with Cecilie Surasky	Media publicity training: message development and delivery
July 13	Creative Team meeting	New media strategy: <i>Nut Notes</i>
July 15, 29 August 24	Media Task Force meetings	Document protocols for working with press. Work on improving media strategies
August 25	Post job announcement	Hire Media & Outreach Coordinator
September 21	Campaign Evaluation meeting	Evaluate strategies to date
September 28	Creative Team meeting	Media strategy

Percent of work completed: 73%

Task 5.2 Implement 2000 (year two) activities of the promotion campaign

Percent of work completed: 0%

Task 5.3 Implement 2001 (first six months of year three) activities of the media campaign.

Percent of work completed: 0%

Task 5.1 Deliverables

5.1.1 Master calendar of campaign activities

5.1.2 Written protocols for message development, delivery, maximum impact

- Communications director is actively working on protocols. They will be delivered next quarter (January 2000).

5.1.3 Agenda and minutes of quarterly creative team meetings

- Agenda and minutes from July 13, 1999 Creative Team meeting
- Agendas from Creative Team meetings September 21, 28 (Minutes are still being processed and will be delivered with the next quarterly report.)

5.1.4 Advertising strategy, media kits, press releases

- Advertising strategy and media kits have been delivered.
- Press release (BIOS almond report)
- Story pitch to S.F. Chronicle (subsequently published on 9/29/99)
- Op-Ed draft
- Media contact sheet
- *NutNotes*
- Media training materials
- Event announcements: Sample announcements July 29 and August 4

5.1.5 Evaluation Brief:

- An evaluation brief from this quarter's meeting is being written up by Michael Dimock of Sunshine Strategies. It will be delivered next quarter.
- Focus Group questions and Focus Group results are outcomes of the evaluation meetings.

5.1.6 Results from baseline phone survey

This survey is being funded by Category 3 Bay Delta Accord. The results are being tabulated currently. We will provide a copy to CALFED when they are delivered to CAFF.

5.1.7 Media & Outreach Coordinator job announcement

Task 6: Continue to coordinate BIOS in Madera, San Joaquin and Colusa counties.

6.1 On-farm field days/workshops

The BIOS program continues to provide growers with hands-on techniques and up-to-date information on biological farming methods and issues. Because July, August

and September are extremely busy months for growers, they often do not want meetings to be held during these months.

Calendar of BIOS Field Days

EVENT	COUNTY	DATE
Harvesting Your Almond Orchard	Madera	July 29
BIOS Harvest Field Day at Delta Junior College Farms	San Joaquin	August 4
Series of harvest farm visits	San Joaquin	September 15
Harvest activities	Colusa	No event Aug. or Sept.
Harvest activities	San Joaquin	No event Aug. or Sept.
Cover Crop Planting	Madera	September 30

- July 29: A field day titled "Harvesting Your Almond Orchard" was held in Madera. This meeting featured informative and entertaining speakers from Fresno State University and UC Cooperative Extension (UCCE). This meeting attracted approximately 50 growers and PCAs. A popular feature of the event was the display of equipment that reduces dust when harvesting nuts, an important air quality issue. Also, UCCE Farm Advisor Brent Holtz taught growers about new ant baits that contain 1/500th the amount of chemical in a typical Lorsban spray. After this event, Fox TV interviewed Kerry Washinko, the Project Coordinator, and an article about the event was written up in the *Madera Tribune* (see Deliverables).
- August 4: A BIOS Harvest Field Day was held at Delta Junior College Farm in Manteca, California. Topics included cover crop planting, ant control methods, harvest floor preparation, leaf tissue analysis and boron sampling. With over 50 people in attendance, this was one of our most informative and interesting field days to date. Fred Thomas provided advice gleaned from his years of experience with cover cropping. Steve Foiada and Benny Fouche covered the most provocative topic of ant control for the southern fire ant. Joe Grant discussed leaf tissue analysis and how to interpret results from the laboratory. Joe was adamant that growers not follow recommendations for what the lab calls low, good and high levels. He explained that these levels vary for individual orchard conditions.
- September 15: The BIOS management team conducted a series of harvest farm visits held in San Joaquin County. These visits took place during almond harvest, and growers' questions were answered by the management team. Feedback from the management team on the success of these visits was extremely positive. Growers were overwhelmed with the good quality and quantity of this year's harvest, but somewhat disappointed with the prices and premiums being paid.

- August/September: No Madera field day was held because of harvest activities. On September 30, a field day was held on "Cover Crop Planting." It stressed the importance of cover crops in orchards and ways growers can reduce their herbicide use by planting cover crops.

- August/September: In Colusa, there were no BIOS field days during this quarter. Many farmers in the Colusa program farm other commodities and felt that June through September was a busy period. They wanted to wait until after harvest for their next field day. The next BIOS field day in Colusa is planned for October 21st. This meeting will be in collaboration with the Colusa Resource Conservation District.

BIOS program collaboration activities

BIOS Program Coordinator Marcia Gibbs was invited to speak at the U.S. EPA Pesticide Regulatory Education Program. She presented the BIOS slide show and explained the biological farming practices utilized by BIOS almond growers. The group then traveled to Gil Ramos' BIOS orchard in Colusa County to see how the BIOS system was working and to tour the orchard. On the way, BIOS project Coordinator Mark Cady discussed the diversity of crops growing in this part of California. Since many attending the conference were from urban areas, it was the first time they had seen processing tomatoes, alfalfa, asparagus, walnuts and almonds. In a course evaluation, those attending ranked this portion of the conference as one of the best.

BIOS involvement with Pest Management Alliance (PMA)

Marcia Gibbs continues to play a vital role in both the almond and walnut Pest Management Alliances. These projects help bring biological farming to the attention of farmers in California. The PMAs are well supported by local farm advisors and have been promoted by the media. Their purpose is to help nut growers in California find out about reduced risk alternatives and how to successfully implement them on their farms. Each PMA project has demonstration orchards with comparison blocks where data is collected on management practices and orchard yields. Each of these projects has been funded by the California Department of Pesticide Regulation for a second year.

BIOS staffers Marcia Gibbs and Molly Espley participated in three Walnut Pest Management Alliance field days in August. These were regional meetings designed to help walnut growers better understand the biological control methods available for control of codling moth, a major walnut pest.

BIOS collaboration with Resource Conservation District (RCD)

BIOS staff maintains continuous contact with various RCDs. In Colusa County Ms. Gibbs communicates regularly with Chris Rose who works on the Sand and Salt

Creek Project. The RCD in Colusa lost their director and will have a new director in place soon. BIOS staff will set up a meeting with the new director to discuss the importance of an ongoing relationship with the agency.

Colusa County growers have expressed their desire for the continuation of BIOS activities in their county. They feel that each growing season helps build a stronger case for reduced risk alternatives and that farmers need to continue to see these practices demonstrated before they are willing to make a change. BIOS staff will continue to explore ways to continue funding for Colusa County activities.

BIOS internal staff coordination activities

BIOS staff continues to work with CAFF's communications department to refine the messages and materials being used in the Biological Farming campaign. Both Ms. Espley and Ms. Gibbs have participated in creative meetings and worked extensively on the preparation of the next outreach piece, *NutNotes*, which is an information letter to be sent out to 4,000 almond growers in the state.

For program evaluation purposes, the local BIOS management team meets after each field day. They evaluate grower response to the events and consider improvements. They also plan upcoming events. This is a collaborative effort between the staff project coordinators and the local management team.

BIOS monitoring/technical support to growers

BIOS continues to provide growers with technical support and in season weekly monitoring of 13 BIOS orchards. During this quarter, field scouts continued weekly pest monitoring in walnut orchards. They collected leaf tissue samples in July and sent them to the lab for processing. Growers were mailed their results along with a copy of the Nitrogen Budgeting Worksheet. Monthly reports summarizing monitoring information were sent to growers in July, August and September. Reports included data on pest pressures, cover crop height and presence of flowers, stage of trees and populations of beneficial insects. Visual observations were also included in the report. Finally, we are in the process of collecting 500 nuts per orchard and cracking them out to determine which pests are doing what kind of damage.

In addition to performing this service, BIOS staff encourages growers to monitor their own fields by educating them about the methods and benefits of monitoring. We help growers identify pests and pest levels in the orchards so they can make informed decisions about whether to spray. We have actually reduced pesticide use through our monitoring efforts and by explaining to growers how to assess tolerance levels.

These monitoring and support activities implement CAFF's overall mission as well as furthering the CALFED grant objectives.

BIOS Field Notes and BIOS Update

A widely used tool is the monthly publication *BIOS Field Notes*. This publication presents a compilation of data from field scouts' monitoring and observations of pest and/or beneficial insect populations.

The June/July issue of *BIOS Field Notes* featured an article on leaf tissue sampling and the protocol for collecting leaf tissue samples in almond and walnuts. This technique is valuable for determining the nutrient status of the trees, and the results are necessary to make educated decisions about the amount of nutrients to apply.

The August issue of *BIOS Field Notes* included a detailed article on planning for cover crops. September's issue builds on this information and focuses on cover crop planting. The August issue also contains reminders about harvest timing and how an early harvest can reduce damage by navel orangeworm. Another interesting article discussed a newly registered product for ant control. This product targets pest ants yet significantly reduces the amount of active ingredient.

All three issues of *BIOS Field Notes* during this quarter include field reports from five counties written by independent pest control advisors and field scouts.

BIOS Update is published quarterly. The summer issue went out to 3193 people, and the BIOS database expanded by 34 names during this quarter.

Percent of work completed: 75%

6.2 Provide support for the San Joaquin BIOS walnut project funded by UC SAREP

On August 20, a luncheon was held for the San Joaquin walnut growers in Linden. The project coordinator, Russ Hill, was ill and not able to attend. However, the luncheon was facilitated by Joe Grant and Jeanine Groh. The meeting was attended by ten local growers, four PCAs and eight agency people. Topics included cover crops, an overview of the 1999 monitoring program, possible field meetings for the fall and ideas for expanding the BIOS project in 2000.

The San Joaquin Coordinator continues to support the San Joaquin BIOS/BIFS project by helping with grower meetings, farm visits and management team meetings.

Percent of work completed: 75%

Task 6 Deliverables

6.1 Master calendar of BIOS events

6.1 Field day/workshop fliers

6.1 Management team meeting agendas and notes

6.1 BIOS 1998 Year-end Almond Report and Walnut Report

6.1 *BIOS Field Notes*

6.1 *BIOS Update*

6.1 *Resource News* East Merced Resource Conservation District newsletter

6.2 There were no farm tours/field days for the walnut project this quarter

Task 7: Plan the strategy for transition of BIOS projects in Colusa, Madera, San Joaquin and Yolo/Solano counties

7.1 Build relationships with local stakeholders in Colusa, Madera and San Joaquin and Yolo/Solano counties

- July 9: Mark Cady (BIOS Transition Coordinator), Jill Klein (CAFF Program Director), and Marcia Gibbs (BIOS Program Coordinator) met in Modesto with a group of industry stakeholders including processors, growers, PCAs and agencies to identify issues surrounding the standards, certification and marketing of almonds grown using BIOS production practices. Collaborating industries included Monte Vista Farming Co., California Independent Almond Growers, Blue Diamond and the Almond Board of California.

The discussion centered on marketing options and eco-labels for almonds. Eco-labeling is being widely considered as an incentive to increase the adoption of biological farming practices. An eco-label is seen as highly desirable from both a marketing and an ecological point of view. The stakeholders at the July 9 meeting developed a preliminary list of recommended practices to qualify for the eco-label. These include prohibiting the use of organophosphates, requiring a farm plan, requiring that farmers do a nitrogen budget, etc.

- July 14: CAFF staff attended an Air Quality Trade Show at which they made contacts with San Joaquin Farm Advisors and National Resource Conservation Service staff from San Joaquin Valley. This was a relationship building event involving air quality and environmental regulatory agencies from the area.
- July 26: An internal CAFF staff meeting centered around how to organize LFN and BIOS so that the biological farming outreach effort can continue despite the lack of continuing funding. Future program goals and transition plans were discussed as well as internal organization and structures. Staff members proposed strategies that could be put into place for the ongoing sustainability of these programs.
- August 4: CAFF staff held a meeting with members of the San Joaquin management team regarding the transition process. The team discussed successful strategies to date and provided direction for future events, collaborations and goals for the BIOS program.
- August 11, 13, 19: As a part of the walnut Pest Management Alliance (PMA), CAFF has co-sponsored several meetings on alternative methods of controlling various pests such as codling moth. The purpose of these meetings is to disseminate up-to-date information on methods other than pesticide use to solve orchard pest problems. At each of these events, BIOS staff members forged connections with local agency personnel and with other stakeholders.

7.2 Plan and implement the walnut BIOS transition (Yolo County)

- July 9: Molly Espley met with Yolo County RCD, the Nature Conservancy, the California Grange and the California Waterfowl Association to organize teacher training workshops in collaboration with the organization Food, Land and People. This meeting set groundwork for transferring important information about biological farming practices to teachers, who will use it in developing curriculum for teaching in K-12 classes.
- July 13: Miriam Volat attended the Yolano Chapter Meeting, where she made contact with San Joaquin County farm advisors and NRCS staff from San Joaquin Valley.
- September 1: BIOS Program Coordinator, Marcia Gibbs, attended a meeting at UC Davis with Frank Zalom UC IPM Director, UC Davis researchers Barry Wilson and David Hinton along with Almond Board staff Mark Looker and Susan Hinton, and Parry Klaussen of CURES (Coalition for Urban/Rural Environmental Stewardship). The meeting was to discuss how to work collaboratively to disseminate information from various UC projects on pesticides and water runoff issues that affect growers.
Percent of work completed: 70%

Task 7 Deliverables

- 7.1 Meeting minutes from planning meetings with local stakeholders (August 4)
- 7.1 Field day fliers from collaborative events (PMA meetings August 11, 13, 19)
- 7.1 Written plan for future activities in Colusa, Madera and San Joaquin counties
This will be supplied with the next quarterly report, January 2000.
- 7.1 List of Yolo/Solano advisory team members
This will be supplied with the next quarterly report, January 2000.
- 7.2 Written plan for future activities in Colusa, Madera, and San Joaquin counties.
This will be supplied with the next quarterly report, January 2000.

Task 8: Evaluate pesticide use reduction

CAFF subcontracted with California Institute for Rural Studies (CIRS) for an evaluation of data on pesticide use in BIOS orchards versus conventionally treated orchards. On August 15, 1999 CIRS Director, David Lighthall, presented CAFF with a summary of compiled data to date. The data was primarily in raw form contained in 55 electronic files. Some of the data was summarized in tabular form. However, the way the raw data was analyzed was not useful to CAFF and in some cases was incorrect. As a result, CAFF's staff scientist, Max Stevenson composed a memo to CIRS explaining the difficulties. Subsequently, CAFF met with CIRS staff to discuss protocols for data analysis and to come to an agreement about the way the data would be presented. The newly analyzed data will be delivered to CAFF on their next deliverable deadline, November 15.

Percent of work completed: 11%

Task 8 Deliverables

- 8.1 (CIRS study results are still pending.)
- 8.1 Copy of staff scientist's memo to CIRS explaining difficulties with data (9/2/99)
- 8.1 Copy of one table sent by CIRS to CAFF with inaccurate statistics
- 8.1 List of electronic files that contain raw data from CIRS
- 8.1 CAFF staff scientist's update on status of CIRS report (9/29/99)

Task 9 : Through the Lighthouse Farm Network (LFN), offer consistent technical support to farmers.

- 9.1 Hold LFN monthly meetings, field days, farm tours in Madera, San Joaquin, Merced, Stanislaus and Yolo/Solano counties.

Calendar of LFN events

EVENT	LOCATION	DATE	CAFF STAFF
LFN Vegetation Management for Stink Bug Control	Yolo County	July 16	Miriam Volat
LFN Breakfast meeting Soil and Leaf Testing	Modesto (Stanislaus County)	July 20	Gwen Huff
LFN Breakfast meeting: Agritourism	Livingston (Merced County)	July 22	Gwen Huff
LFN Nematode Management & Plant Nutrition	Madera County	July 27	Kerry Washinko
LFN Breakfast meeting: Cover crops	Stockton (San Joaquin County)	July 27	Russ Hill
LFN Breakfast meeting: Roundtable Discussion	Madera	August 26	Kerry Washinko
LFN Roundtable: Financial health of valley farmers	Stockton (San Joaquin County)	Sept 28	Russ Hill
LFN Meeting: UC Extension programs	Madera County	Sept 28	Kerry Washinko

LFN Meetings

During this quarter, CAFF hosted eight LFN meetings/field days in Madera, Yolo, San Joaquin, Stanislaus and Merced counties.

- July 16: The stink bug is a serious pest of tomato and pepper fruit in the Southern Sacramento Valley. Presenters Les Ehler, UCD Department of Entomology, and Jeannette Wrynski and Paul Robins of Yolo County RCD discussed the stink bug

life cycle, habitat and biological management options. Options include appropriately timed mowing of roadside vegetation and planting of beneficial insect habitat such as native perennial grasses. Participants viewed stink bugs in all stages of growth and saw established grasses along Mike Beeman's fields. Yolo/Solano Farm Advisor Gene Miyao was on hand to answer questions from the farmers in attendance.

- July 20: An LFN breakfast meeting with the topic "Soil and Leaf Testing" was held in Modesto. Dennis Serpa from Harvey Labs discussed procedures and criteria for determining optimal nutrient levels. Growers shared information about results of their leaf and soil samples.

- July 22: The meeting in Livingston focused on agritourism and the passage of CAFF's Farmstay bill (AB 1258). This bill permits farmers to host paying guests without a commercial license, thus allowing for the expansion of agritourism. The next step is to entice visitors with descriptions of farm stays, tours, fruit stands and farm activities.

- July 27: In Madera, "Nematode Management & Plant Nutrition" was presented by Tom Yamashita of Sunburst Plant Disease Labs in Madera County. He taught attending growers that 95% of diseases and some insect problems can be traced back to nutritional imbalances in the soil.

- July 27: San Joaquin's LFN breakfast meeting revolved around a discussion of cover crops. Joe Grant, UCCE Farm Advisor, facilitated the meeting. Growers all over California experienced problems with cover crops last season, but growers agreed that cover crops were worth the trouble and that the benefits outweighed difficulties.

- August 26: In Madera, LFN hosted a breakfast meeting, which took the form of a roundtable discussion. Participants looked at ag newsletters from various organizations and discussed their content, selecting features that were particularly useful to them. They also discussed the farm labor situation and ways of increasing attendance at Lighthouse meeting.

- September 28: An LFN roundtable discussion was scheduled in San Joaquin; however, growers were too busy with harvest to attend. A new meeting will be scheduled for October.

- September 28: An LFN meeting in Madera was given by Ron Vargas, the Madera County Farm Advisor. His focus was the UC Cooperative Extension programs available for growers.

Percent of work completed: 13%

9.2 Develop relationships with local leaders

LFN project coordinators attended the events listed in the "Calendar of outreach activities by LFN staff" (Deliverable 9.2). At those events, staff made contacts with a variety of local leaders and agency personnel.

In addition to forging relationships with agriculture agency staff, project coordinators make links on a grassroots level with growers in their areas. For example, coordinators talk about biological farming with growers at local farmer's markets; they contact organic growers in local counties in order to add them to the LFN mailing list; and they encourage growers attending one program to also attend the other (BIOS and LFN). Also, the Madera County coordinator was invited to attend a local trade show and participated in it during this past quarter.

Highlights:

- On July 14, 1999 Russ Hill, Gwen Huff and Mark Cady attended a San Joaquin Valley Air Quality show hosted by USDA/NRCS of San Joaquin County. This field day took place in Lockeford. The BIOS program hosted a booth at the show, and many field day participants stopped by the booth and asked questions. About 25 people asked to be put on CAFF's mailing list.
- In Madera county, Kerry Washinko, BIOS project and LFN coordinator, has worked with Farm Advisors at all BIOS Field days. Because some of the participants at the field days are also LFN participants, work in this area has a cross-pollination effect. In addition Washinko has attended RCD meetings and has invited RCD staff to attend field days and LFN meetings.
- On July 21, Gwen Huff attended the East Merced RCD meeting. All Board members are local farmers. Discussion focused on a restoration project for Merced River. Also attending were wildlife service personnel and local conservationists from NRCS.

Percent of work completed: 13%

9.3 Regional planning meetings

The previous regional planning meeting was held on April 12 in Turlock. It has been reported on. The next regional planning meeting will be held in June 2000.

Percent of work completed: 33%

9.4 Monthly LFN Newsletter

CAFF produced monthly issues of *The Foghorn*. This newsletter publishes summaries of LFN meetings throughout the state, and announces upcoming meetings. It is distributed to over 900 farmers and others in the Central Valley and 2,050 statewide (see Deliverable 9.4).

Percent of work completed: 13%

9.5 Collect and analyze information

In order to evaluate the success and influence of CAFF's LFN program, a survey was conducted by mail to LFN participants. Details of the results are available in a special CAFF publication insert in the current issue of *The Foghorn* (please see Deliverable 9.5).

Survey respondents were very positive about the LFN and *The Foghorn* newsletter. Approximately 95% of respondents say the LFN has helped them move toward a biologically integrated approach to farming. Also, 94% said they find *The Foghorn* valuable or very valuable as a source of information. In addition approximately 40% of respondents reported adopting new biological farming methods such as compost or other organic matter additions, beneficial insect habitat use, cover cropping and soil building. Furthermore, they reported adopting these methods as a direct result of information they had received through LFN meetings or the newsletter. A detailed ten page version of LFN survey results was distributed to LFN staff and consultants. It provides a comprehensive list of respondents' suggestions for LFN speakers and meeting topics (see Deliverable 9.5).

Percent of work completed: 33%

Task 9 Deliverables

- 9.1 Meeting and field day announcements and sign-in sheets for each county
- 9.2 Calendar of direct outreach activities to local organizations and list of names of community leaders
- 9.3 Annual meeting agenda and sign-in sheet
 - This was previously supplied for the first annual meeting, which took place on April 12, 1999.
- 9.4 Monthly newsletters
 - *The Foghorn* July, August, September and October 1999
- 9.5 Report on program impact
 - The 4 page salmon version was sent out as an insert in *The Foghorn*.
 - The 10 page white version is being used in-house for more detailed analysis.

Task 10: Not yet started.

Projected expenses for the coming quarter:

Month 1: \$55,000	Month 2: \$55,000	Month 3: \$55,000
Total for quarter: \$165,000		

EQIP 98/99 Billing Tracking

Lighthouse Farm Network - EQIP						
Agreement No. 74-9104-8-137						
Contract Period: 8/1/98-9/30/99						
updated 10/7/99						
						LFN Gen'l & CF 3
Inv Date	Inv. Sent	Inv. Amt	Pymt Date	Pymt Amt Rec'd	Balance Due	Match Amt
Aug-98	12/18/98	\$3,579.27	2/16/99	\$3,579.27	\$0.00	\$3,815.35
Sep-98	12/18/98	\$3,670.68	2/16/99	\$3,670.68	\$0.00	\$2,659.97
Oct-98	12/18/98	\$3,589.15	2/16/99	\$3,589.15	\$0.00	\$2,753.45
Nov-98	2/9/99	\$4,828.30	3/1/99	\$4,828.30	\$0.00	\$2,531.08
Dec-98	2/9/99	\$3,823.62	3/1/99	\$3,823.62	\$0.00	\$2,168.03
Jan-99	3/8/99	\$2,663.75	4/27/99	\$2,663.75	\$0.00	\$4,684.67
Feb-99	4/16/99	\$570.51	5/3/99	\$570.51	\$0.00	\$3,570.72
Mar-99	5/4/99	\$1,065.23	6/1/99	\$1,065.23	\$0.00	\$3,026.40
Apr-99	5/28/99	\$438.63	7/12/99	\$438.63	\$0.00	\$2,790.33
May-99	7/6/99	\$422.21	8/13/99	\$422.21	\$0.00	\$0.00
Jun-99	7/28/99	\$564.75	9/15/99	\$564.75	\$0.00	\$0.00
Jul-99	8/18/99	\$551.03			\$551.03	\$0.00
Aug-99	9/20/99	\$876.19			\$876.19	\$0.00
Sep-99	10/8/99	\$1,356.68			\$1,356.68	\$0.00
Total		\$28,000.00		\$25,216.10	\$2,783.90	\$28,000.00
Budget Total		\$28,000.00				\$28,000.00
Bal. Remaining		\$0.00				(\$0.00)

Title **Knights Ferry Gravel Replenishment Project**
 Applicant: Carl Mesick Consultants
 CALFED Project Number: 97-N21

Budget year: 1999
 Statement Quarter: 4

Total Estimated Cost of Phase I: \$633,000
 Funding from Federal Bay-Delta Account \$536,410
 Stockton East Water District \$90,000
 Carl Mesick Consultants In-Kind Services \$6,590
 (Labor & Travel Provided for Task 1)

Phase I schedule 3 years

Total Project Estimated Completion Date: 3 years

	PHASE I (Quarterly Budget)				PHASE I (FY '99 Budget)				PHASE I (Three Year Budget)			
	Budget	Accrued Expenditures	Variance	**	Budget	Accrued Expenditures	Remaining Balance	**	Budget	Accrued Expenditures	Balance to Complete	**
Task 1: Monitoring Plan, Site Approval & Permission, Quarterly Reports	\$0		\$0	1	\$0		\$0	1	\$0		\$0	1
Schedule: FY '98 through FY '99												
Percent Work Complete for Task 1: 98%												
1a Development of Ecological Monitoring Plan												
1b Agreements to Access Project Sites												
1c Site Approval by Agencies												
1d Deliver Quarterly Reports												
1e Draft and Final Subcontract Review												
Task 2: Environmental Documentation and Permitting	\$0	\$0.00	\$0.00		\$25,375	\$25,118.59	\$256.41		\$25,375.00	\$25,118.59	\$256.41	
Schedule: FY '98 through FY '99												
Percent Work Complete for Task 2: 98%												
Task 3: Pre-Project Habitat Evaluations	\$10,750	\$10,578.64	\$171.36		\$28,000.00	\$27,828.50	\$171.50		\$36,000.00	\$27,828.50	\$8,171.50	
Schedule: FY '98 through FY '99												
Percent Work Complete for Task 3: 62% (** 2)												
Task 4: Gravel Placement	\$320,000	\$319,421.69	\$578.31		\$393,000.00	\$388,294.47	\$4,705.53		\$395,100.00	\$388,294.47	\$6,805.53	
Schedule: FY '98 through FY '99												
Percent Work Complete for Task 4: 98%												
Task 5: First Year Post-Project Habitat Evaluations	\$9,300.00	\$9,299.55	\$0		\$9,500.00	\$9,299.55	\$200		\$45,000.00	\$9,299.55	\$35,700	
Schedule: FY '98 through FY '00												
Percent Work Complete for Task 5: 12% (**2)												
Task 6: Second Year Post-Project Habitat Evaluations	\$0	\$0	\$0		\$0	\$0	\$0		\$26,000	\$0	\$26,000	
Schedule: FY '99 through FY '01												
Percent Work Complete for Task 6: 0%												
10% Contingency									\$8,935		\$8,935	
Phase I Total:	\$340,050	\$339,300	\$750		\$455,875	\$450,541	\$5,334		\$536,410	\$450,541	\$85,869	

**** Explanation of the Budget :**

- 1 In-Kind Services: Carl Mesick Consultants is contributing all labor and travel to complete Task 1
- 2 The Task 3 and Task 5 budgets are jointly funded from the State Bay-Delta Account and from the Stockton East Water District and the Percent Work reflects the total budget. The Stockton East Water District budget for Task 3 is \$30,000 for which \$12,883 has been invoiced and their budget for Task 5 is \$30,000 for which no work has been invoiced.

QUARTERLY PROGRAMMATIC REPORT

Program Manager Spencer Shepherd Phone 415-778-0999 x 24
 Project Manager Carl Mesick
 CALFED Project # 97-N21
 Quarter Ending September 30, 1999

	<u>Name of Deliverable</u>	<u>Due Date</u>	<u>% of Work Complete</u>	<u>Date Deliverable Complete</u>
Task 1				
Subtask a	Draft EMP	07-17-98	100%	07-17-98
Subtask a	Final EMP	1 month after receiving comments	100%	10-23-98
Subtask b	Access Agreements	10-20-98	100%	10-23-98
Subtask c	Agency Site Approval	10-20-98	100%	10-23-98
Subtask d	Quarterly Report	01-10-99	100%	01-05-98
Subtask e	Draft EGP Subcontract		100%	08-08-98
Subtask e	Final EGP Subcontract	Prior to beginning Task 4	100%	
Subtask e	Draft MBKCE Subcontract		100%	12-02-98
Subtask e	Final MBKCE Subcontract	Prior to completing Task 2	100%	12-18-98
Task 2				
Subtask 1	Notification of when applications have been submitted	5 months prior to beginning Task 4 Construction	100%	03-31-99
Subtask 2	Notification of when permits have been received	Prior to beginning Task 4 Construction	100%	08/15/99
Subtask 3	Copies of final environmental documentation & permits	Prior to beginning Task 4 Construction	98%	
Task 3				
Subtask 1	Pre-Project Evaluation Report	12-31-99	62%	
Task 4				
Subtask 1	As-built streambed profiles	11-30-99	98%	

		Deliverables		
	<u>Name of Deliverable</u>	<u>Due Date</u>	<u>% of Work Complete</u>	<u>Date Deliverable Complete</u>
Task 5				
Subtask 1	1 st Year Post Project Evaluation Report	06-01-2000	12%	
Task 6				
Subtask 1	2 nd Year Post Project Evaluation Report	06-01-2001	0%	

Narrative

1. Description of activities performed during the quarter, by task.

Task 1. All subtasks, except for the Quarterly Reports, have been completed. Carl Mesick Consultants produces the quarterly reports without charge for this task.

Task 2: Environmental Documentation and Permitting. Copies of the Notice of Determination for the Negative Declaration, Reclamation Board Permit, General Lease from the California State Lands Commission, General Permit Number 8 complying with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act, consultation letters for Section 7 under the Endangered Species Act, the State Reclamation Board Encroachment Permit, the Clean Water Action Section 401 Water Quality Certification, and the Department of Fish and Game Streambed Alteration Notification (Section 1603) were provided to CALFED 15 August 1999. The U.S. Army Corps of Engineers has verbally authorized Carl Mesick Consultants to perform habitat restoration at the Stanislaus River Parks. They may issue a formal license for this authorization, but have yet to begin to process the application which was submitted in March 1999. All other permits and authorizations were issued by 27 July 1999.

Task 3: Pre-Project Habitat Evaluations. The field work for this task was completed on 24 August 1999. The work had to be completed under relatively high flows, 500 to 600 cfs, and so only two to three gravel samples from the streambed could be collected at each site instead of the four per site indicated in the Scope of Work because the water was too deep for the sampling gear to function effectively. To compensate for the reduced number of gravel samples, the number of sites where substrate permeability rates were measured with a Terhune Standpipe was increased from four to six at most of the sites. Efforts to map the streambed elevations before gravel placement at all project and control sites were increased as well. High flows and beavers were altering transect pins placed adjacent to the stream in fall 1998 and so a total station was used to map the entire streambed at each riffle in a 20-foot grid pattern and allow the placement of benchmarks above the normal floodplain in summer 1999. All other measurements, including mapping of the salmon's nests in fall 1998, measuring intragravel dissolved oxygen and vertical hydraulic gradient in fall 1998 and summer 1999, were made according to the task order. The data analyses are proceeding, but because high flows delayed the summer 1999 field work, the draft and final report may be delayed by about one month until January 2000.

Task 4: Gravel Placement. The placement of gravel at the 18 project sites began 4 August 1999 and was completed by 24 September 1999. A total of 13,000 tons of gravel were placed at the 18 project sites as specified in the scope of work. The extra 1,500 tons of gravel that was intended to partially fill two inriver gravel mine pits near two of the project sites was not obtained. This occurred because the manager of the gravel quarry, where the Stanislaus River rock was purchased, would not stockpile the gravel on his property which would have allowed the use of an articulated hauler to transport the gravel across the river directly to seven sites. The 1,500 tons of gravel would have been placed in the river without charge if the articulated hauler could have been used. In addition to placing the gravel, the subcontractor, Esquivel Grading and Paving, Inc., removed many pieces of large debris (e.g., concrete slabs, large metal culverts, and construction timbers) from the river that were a potential danger to rafters, removed exotic vegetation near the river's edge, and repaired roads in the Stanislaus River Parks at the request of the U.S. Army Corps of Engineers. Mapping of the streambed elevations where gravel was placed will be completed by 30 September 1999. A report that describes the construction and includes contour maps of each project site showing the streambed immediately before and after construction will be provided by mid-November 1999.

Task 5: First-year Post-Project Habitat Evaluations. The materials to construct piezometers and 105 thermographs were purchased. The piezometers and thermographs will be installed in the streambed in mid-October and monitoring of spawner use and intragravel conditions will begin in late-October. There should be sufficient flood storage capacity in the upstream reservoirs so that high flows will not disrupt monitoring unless another very wet year occurs.

Task 6: Second-year Post-Project Habitat Evaluations. This task order has not been executed and no work has been done.

2. Problems and delays encountered by task.

Task 2: None

Task 3: None

Task 4: None

Task 5: None

3. Other issues or comments.

4. Please identify your projected expenses for each of the next three months in the following quarter to assist in the timing of State bond sales which fund this project.

Month 1 \$13,000, Month 2 \$10,000, Month 3 \$10,000.

Total for quarter \$33,000.

Expanding California Salmon Habitat through Non-governmental and Nonregulatory Mechanisms to Alter Dams and Diversions

Budget year: 1999
Statement Quarte 4

Applicant: Institute for Fisheries Resources
CALFED Project Number: 98-N02

Total Estimated Cost: \$120,000
Funding from CALFED \$49,000
Funding from NFWF \$40,000
In-kind from IFR \$6,600
Funding from Patagonia \$4,000
Other non-federal \$20,400

Phase I schedule: 17 months
Total Project Estimated Complete
Completion Date: 17 months

	Percent	PHASE I (Quarterly Report)			PHASE I (FY '99 Budget)			PHASE I (Three Year Budget)		
		Budget	Accrued Expenditure	Variance *	Budget	Accrued Expenditures	Remaining Balance **	Budget	Accrued Expenditures	Balance to Complete **
Task 1 Document Opportunity		\$2,168	\$2,168	\$0	\$2,168	\$2,168	\$0	2,168	2,168	\$0
Percent Work Complete for Task	100%									
Task 2 Inventory Sites		2,368	2,368	\$0	2,368	2,368	\$0	2,368	2,368	\$0
Percent Work Complete for Task	100%									
Task 3 Develop Template		8,100	8,100	0	10,000	8,100	1,900	13,668	8,100	5,568
Percent Work Complete for Task	50%									
Task 4 Implementation Mechanism		6,268	6,268	\$0	6,268	6,268	\$0	6,268	6,268	\$0
Percent Work Complete for Task	100%									
Task 5 Demonstrate Mechanism		6,218	6,218	\$0	6,218	6,218	\$0	6,218	6,218	\$0
Percent Work Complete for Task	100%									
Task 6 Workshops		1,485	1,485	0	3,000	1,485	1,515	7,618	1,485	6,133
Percent Work Complete for Task	0%									
Task 7 Advisory Committee		705	705	0	2,300	705	1,595	4,118	705	3,413
Percent Work Complete for Task	35%									
Task 8 Peer Reviews & Workshop		0	0	0	2,100	0	2,100	4,118	0	4,118
Percent Work Complete for Task	15%									
Task 9 Administration & Reporting		2,000	2,000	0	2,000	2,000	0	2,456	2,000	456
Percent Work Complete for Task	25%									
Phase I Total:		\$29,312	\$29,312	\$0	\$36,422	\$29,312	\$7,110	\$49,000	29,312	\$19,688

** Explanation of Variance in Budget: None

QUARTERLY PROGRAMMATIC REPORT

Program Manager: Spencer Shephard Phone: 415-778-0999 x24
Project Manager: Guy Phillips
CalFed Project #: Work Authority #1469-85, Project #98-N02
Quarter Ending: September 30, 1999

Deliverables

<u>Name of Deliverable</u>	<u>Due Date</u>	<u>% of Work Complete</u>	<u>Date Deliverable Submitted/Complete</u>
Task 1: Document the Opportunity	May 1, 1999	100%	September 30, 1999
Task 2: Inventory Sites	July 1, 1999	100%	September 30, 1999
Task 3: Develop Template	Sept. 1, 1999	50%	
Task 4: Implementation Mechanism	Oct. 1, 1999	100%	September 30, 1999
Task 5: Demonstrate Mechanism	Nov. 1, 1999	100%	September 30, 1999
Task 6: Workshops	Dec. 1, 1999	0%	
Task 7: Advisory Committee	Ongoing	35%	
Task 8: Peer Reviews & Workshop	Feb. 1, 2000	15%	
Task 9: Administration & Reporting	Ongoing	25%	

Narrative

1. Description of activities performed during the quarter, by Task.

Task 1: Document the Opportunity: The opportunity has been previously documented (see Appendix 1). But, the full magnitude of the opportunity to actually achieve the level of restoration and protection of salmon habitat through modification or decommissioning of hydroelectric facilities is still unfolding as the owner of the facilities, the Governor's Office, and the State Legislature have engaged in the issue and are presently exploring specific measures to

improve habitat and ensure long term management for the benefit of the California Salmon as part of the divestiture of the ownership of these 174 dams, 360 miles of diversion canals and tunnels, and 140,000 acres of watershed lands.

During this quarter, the Project Manager, Dr. Guy Phillips, provided briefings to the Governor's Office and key members of the Legislature regarding measures to improve fish habitat as part of the PG&E divestiture process. In addition, briefings were provided to CALFED representatives and State agencies.

Task 2: Inventory Sites: Appendix 2 provides a summary of the candidate sites for improvement of salmon habitat through decommissioning of existing dams and diversions as a result of the PG&E hydroelectric divestiture. The inventory was also provided as part of the briefings described above.

Task 3: Develop Template: Information for the template continues to be assembled during this quarter. Information on the legal, engineering, economic, biological, and socio-institutional factors associated with dam decommissioning has been assembled. The material is being organized into a series of filtering "screens" to enable a lay-person to go from "dam decommissioning" as an idea through the complex of technical issues that must be addressed at each stage in a dam decommissioning analysis.

Task 4: Implementation Mechanism: The implementation mechanism developed by Dr. Phillips is the "Consumers' Energy & Environmental Security Authority" (Consumers' Authority), a quasi-publicly owned corporation to purchase the hydro facilities. The Authority is described in greater detail in Appendix 3. The Authority, after purchasing the facilities, would undertake to address all the environmental issues associated with each facility, including fish passage, water releases for fish, water temperature management, and water storage/diversions. As each facility is addressed and the corresponding modifications to the FERC license have been obtained or applied for, the facility would then be sold to the private sector subject to terms and conditions for future operation.

As a direct result of briefings provided by Dr. Phillips, the State Legislature and the Governor's Office have undertaken steps to ensure the mechanism receives full consideration in the present PG&E hydro divestiture requests in the Legislature and at the California Public Utilities Commission (PUC). In particular, the Consumers' Authority has been adopted by Assemblymember and Speaker Pro Tem Mr. Fred Keeley as his preferred alternative for the future ownership and operation of the PG&E hydro assets. Appendix 3 is Dr. Phillips' proposal for the Consumers' Authority which Mr. Keeley has introduced as legislation presently under consideration before the legislature.

Task 5: Demonstrate Mechanism: During this quarter, the Project Manager, Dr. Guy Phillips, provided briefings to the Governor's Office and key members of the Legislature regarding measures to improve fish habitat as part of the PG&E divestiture process. In addition, briefings were provided to CALFED representatives and State agencies. When Mr. Keeley's legislation was presented to the respective policy committees of the Assembly and Senate, the

following agencies and organizations testified that the Authority was consistent with CALFED objectives and the objectives of fish recovery and protection:

- Pacific Coast Federation of Fishermens' Associations
- Sierra Club
- Environmental Defense Fund
- Metropolitan Water District of Southern California
- East Bay Municipal Water District
- Los Angeles Department of Water & Power
- Regional Council of Rural Counties

In addition, the following agencies and organizations were supportive of the fairness of the financing mechanisms for the environmental objectives of the Consumers' Authority, including fish restoration and protection:

- Consumers Union
- TURN (a statewide ratepayer organization)
- Northern California Power Agency

Task 6: Workshops: No action has been taken on this task in this quarter.

Task 7: Advisory Committee: No action has been taken on this task in this quarter.

Task 8: Peer Reviews & Workshop: No action has been taken on this task in this quarter.

Task 9: Administration & Reporting: Ongoing project administration and reporting has been performed as required.

2. Problems and delays encountered by Task.

Task 1: Document the Opportunity: No problems or delays have been experienced in completing this task. There has been a delay in submitting a report to CALFED on the results of this task primarily because of the urgency of PG&E hydro divestiture and the requests for briefings/assistance from the Governor's Office and the State Legislature demanded immediate attention.

Task 2: Inventory Sites: No problems or delays have been experienced in completing this task.

Task 3: Develop Template: No problems or delays have been experienced associated with completing this task. Completion of the task has been delayed to correspond to the "lessons learned" and feedback received in conjunction with completion of other tasks.

Task 4: Implementation Mechanism: No problems or delays have been experienced in completing this task.

Task 5: Demonstrate Mechanism: No problems or delays have been experienced in completing this task.

Task 6: Workshops: No problems or delays are expected in completing this task.

Task 7: Advisory Committee: No problems or delays are expected in completing this task.

Task 8: Peer Reviews & Workshop: No problems or delays are expected in completing this task.

Task 9: Administration & Reporting: No problems or delays are expected in completing this task.

3. Other issues or comments. None.

4. Please identify your projected expenses for each of the next three months in the following quarter to assist in the timing of State bond sales which fund this project.

Month 1: \$ 4,000.00 Month 2: \$ 5,000.00 Month 3: \$ 6,000.00

Total for quarter: \$ 15,000.00

Project Title
QUARTERLY REPORT

Applicant: Yuba County
Water Agency
CALFED Project No: 98-N03
Budget Year: 1999
Statement Quarter: Ending Sept.
30, 1999

	Contracting Agency	Quarterly Budget				Annual Budget				Three-Year Budget			
		Budget	Accrued Expenditures	Variance	**	Budget	Accrued Expenditures	Variance	**	Budget	Accrued Expenditures	Variance	**
Task 1: Coordination Schedule: 9/1/99-8/31/02 Percent Work Complete: 0%	CALFED	\$85	\$0	\$85	1	\$1,021				\$3,064			
Task 2: Fish Trap Design, Construction, and Testing Schedule: 9/1/99 Percent Work Complete: 3%	CALFED AFRP YCWA	\$0 \$0 \$28,633	\$0 \$0 \$740	\$0 \$0 \$27,893	1 1 1	\$0 \$0 \$28,633	\$740		1	\$0 \$0 \$28,633	\$740		1
Task 3: Fish Trapping and Data Collection Schedule: 9/1/99-2/28/02 Percent Work Complete: 0%	CALFED	\$1,824	\$0	\$1,824	1	\$21,891				\$54,728			
Task 4: Scale and Otolith Preparation Schedule: 9/1/99-2/28/02 Percent Work Complete: 0%	CALFED	\$287	\$0	\$287	1	\$3,444				\$8,610			
Task 5: Scale and Otolith Analysis Schedule: 9/1/99-8/31/02 Percent Work Complete: 0%	CALFED	\$877	\$0	\$877	1	\$10,527				\$31,581			
Task 6: Data Storage and Analysis Schedule: 9/1/99-8/31/02 Percent Work Complete: 0%	CALFED	\$209	\$0	\$209	1	\$2,512				\$7,536			
Task 7: Data Summary Schedule: 9/1/99-8/31/02 Percent Work Complete: 0%	CALFED	\$156	\$0	\$156	1	\$1,868				\$5,605			
Task 8: Report Preparation and Presentation Schedule: 9/1/99-8/31/02 Percent Work Complete: 0%	CALFED	\$0	\$0	\$0	1	\$2,959				\$8,876			
Project Total:	CALFED AFRP YCWA	\$3,438 \$3,438 \$29,533	\$0 \$0 \$740	\$3,438 \$3,438 \$28,793		\$44,222 \$44,222 \$40,243	\$740			\$120,000 \$120,000 \$60,000	\$740		

** Explanation of Budget Variance:

1 - Task has been delayed due to unforeseen trap design needs and pending federal and state ESA permits (see quarterly programmatic report)

Total Project Costs Breakdown:

Funding from CALFED \$120,000
Funding from AFRP \$120,000
Funding from YCWA \$60,00

Project Schedule: 9/1/99-8/31/02

QUARTERLY PROGRAMMATIC REPORT

Program Manager Spencer Shepherd Phone 415-778-0999 ext. 24
 Project Manager William T. Mitchell
 CALFED Project 98-N03
 Quarter Ending September 30, 1999

Task	Deliverable	Due Date	% Work Complete	Date Deliverable Complete
Task 1:				
Coordination	1) Draft Subcontract	9/1/99	0% ¹	
	2) Final Subcontract	9/1/99		
Task 2:				
Fish Trap Design, Construction, and Testing	1) Draft Design Drawing	9/1/99	3%	
	2) Final Design Drawing	9/1/99		
Task 3:				
Fish Trapping and Data Collection	1) Draft Memo-Field Protocols	See footnote 2	0%	
	2) Final Memo-Field Protocols	See footnote 2		
Task 4:				
Scale/Otolith Preparation ³			0%	
Task 5:				
Scale/Otolith Analysis ³	1) Draft Memo-Scale Protocols	See footnote 2	0%	
	2) Final Memo-Scale Protocols	See footnote 2		
Task 6				
Data Storage and Analysis	1) Data Available on JSA's Web Site	As developed		
Task 7				
Data Summary	1) Data Summaries	As developed	0%	
Task 8				
Report Preparation and Presentation	1) Quarterly Progress Reports	10/10/99 - 7/10/02	0%	
	2) Annual Presentations	8/31/00, 8/31/01	0%	
	3) Final Report	8/31/02	0%	

¹ No charges were made for subcontract preparation and processing

² To be prepared after permit conditions are established by NMFS and CDFG

³ Task Order to be negotiated after permit conditions are established by NMFS and CDFG

QUARTERLY PROGRAMMATIC REPORT

Activities Performed

Task 1. Coordination - Jones & Stokes Associates (JSA) submitted the subcontract agreement between Yuba County Water Agency (YCWA) and JSA to NFWF as specified under Task 1 (Deliverables 1 and 2).

Task 2. Fish Trap Design, Construction, and Testing - Because steelhead trapping will coincide with the California Department of Fish and Game's (CDFG's) current spring-run chinook salmon monitoring activities at Daguerre Point Dam, JSA consulted with CDFG regarding fish trap design and operation. JSA biologists met with CDFG biologists and engineers at Daguerre Point Dam to discuss design and operation of a fish trap that would accommodate the passage of non-target species (e.g., spring-run chinook salmon) and allow regulation of flows through the fish ladder over a range of river flows. JSA retained the services of Joseph McMichael, P.E., to assist in trap design and preparation of design drawings.

Tasks 3-8 - No activities under these tasks were conducted during this quarter. Regulatory approvals, as described below under *Permitting Activities*, must be received before initiating Tasks 3-8.

Permitting Activities - JSA prepared and submitted applications to the National Marine Fisheries Service (NMFS) requesting authorization under the federal Endangered Species Act (ESA) for "take" of Central Valley steelhead (currently listed as threatened) for scientific purposes. Applications were also submitted to CDFG requesting authorization under the California ESA for incidental "take" of Sacramento spring-run chinook salmon (currently listed as threatened). JSA is also requesting amendments to existing state scientific collecting permits. We are requesting that all permits be issued to JSA by October 29, 1999.

Problems and Delays Encountered

A delay in fish trapping and data collection activities has been encountered because of the unforeseen need to design the trap to regulate flows in the fish ladder over a range of river flows. A hydraulic engineer/fish passage specialist is scheduled to visit the trap site in October to develop a proposed design and prepare conceptual drawings of a trap that will meet fish trapping and flow needs. CDFG biologists and engineers will also be invited to ensure that the proposed design meets the needs of CDFG's ongoing spring-run chinook salmon monitoring program. The proposed conceptual design will be submitted to the CDFG, U.S. Fish and Wildlife Service, NMFS, and U.S. Army Corps of Engineers for review and comment. Following approval of a trap design, final plans will be prepared and submitted to a contractor for trap construction.

In addition, authorization for "take" of steelhead and incidental "take" of spring-run chinook salmon under the federal and state ESAs has not been received yet. Applications for federal and state ESA permits and amendments to existing state scientific collecting permits are still being reviewed by the agencies.

Scope Modifications

No contract amendments or modifications are necessary at this time. The ESA permit applications submitted to CDFG and NMFS contain some modifications to the original scope based on further sampling considerations and discussions with CDFG regarding trap design. We are now proposing to take scale samples from 300-500 adult steelhead per year. We are also requesting authorization to sacrifice up to 30 steelhead per year to obtain otoliths for evaluating life history interpretations based on scales, and up to 60 coded-wire-tagged hatchery steelhead per year to determine the origin, year class, and rearing history of hatchery strays. These totals are subject to further modifications pending review and issuance of research take authorizations by CDFG and NMFS. The fish trap will be designed to accommodate passage of non-target species (e.g., spring-run chinook salmon) and regulate flows through the fish ladder over a range of river flows.

A.C.I.D. FISH PASSAGE IMPROVEMENT PROJECT, PHASE III

Applicant: ACID

CALFED Project 99-NO1 (NFWF)

Cooperative Agreement 1425-99-FC-20-0123 (USBR)

Budget year: FY 1999
Statement Quarter: 4

Total Estimated Cost of Project	\$10,200,000
CALFED/DWR Prop 204 Funds	\$5,100,000
CALFED/USBR Funds	\$5,100,000
Contributed goods & services	\$0

Project schedule 3 years *

Total Project Estimated Completion Date: 3 years *

* Tasks 5 and 7 involve environmental impact mitigation monitoring and USFWS biological monitoring and will continue through 2003 and 2005, respectively

	PROJECT (Quarterly Budget)			PROJECT (FY '99 Budget)			PROJECT (Complete Budget)		
	Budget	Accrued Expenditures	Variance	Budget	Accrued Expenditures	Remaining Balance	Budget	Accrued Expenditures	Balance to Complete
Task 1: Project Management	\$30,000	\$2,966	\$27,034	\$30,000	\$2,966	\$27,034	\$130,000	\$2,966	\$127,034
Schedule: August 1, 1999 through July 31, 2001 (CALFED / USBR)									
Percent Work Complete for Task 1:	10%			10%			2%		
Task 2: Preconstruction Activities	\$40,000	\$0	\$40,000	\$40,000	\$0	\$40,000	\$50,000	\$0	\$50,000
Schedule: August 1, 1999 through November 30, 1999 (CALFED / USBR)									
Percent Work Complete for Task 2:									
Task 3: Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$8,500,000	\$0	\$8,500,000
Schedule: December 01, 1999 through March 31, 2001 (CALFED / USBR)									
Percent Work Complete for Task 3:									
Task 4: Engineering Services During Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$620,000	\$0	\$620,000
Schedule: November 01, 1999 through May 31, 2001 (CALFED / USBR)									
Percent Work Complete for Task 4:									
Task 5: Environmental Impact Mitigation	\$0	\$0	\$0	\$0	\$0	\$0	\$300,000	\$0	\$300,000
Schedule: Nov. 01, 1999 through Dec. 31, 2005 (CALFED / USBR)									
Percent Work Complete for Task 5:									
Task 6: Hydraulic Monitoring	\$12,000	\$0	\$12,000	\$30,000	\$0	\$30,000	\$150,000	\$0	\$150,000
Schedule: March 15, 1999 through October 31, 2001 (CALFED / USBR)									
Percent Work Complete for Task 6:									
Task 7: Biological Monitoring	\$30,000	\$0	\$30,000	\$30,000	\$0	\$30,000	\$250,000	\$0	\$250,000
Schedule: March 15, 1999 through March 31, 2003 (CALFED / USBR)									
Percent Work Complete for Task 7:									
Task 8: Fish Viewing Facility for Public Education	\$0	\$0	\$0	\$0	\$0	\$0	\$200,000	\$0	\$200,000
Schedule: April 01, 2000 through February 29, 2001 (CALFED / USBR)									
Percent Work Complete for Task 8:									
Total	\$112,000	\$2,966	\$109,034	\$130,000	\$2,966	\$127,034	\$10,200,000	\$2,966	\$10,197,034

Draft Date: 10/07/1999

E-032724
E-032723

Quarterly Programmatic Report

Page 1 of 3

Program Manager Spencer Shepherd Phone 415-778-0999 x24
Project Manager Dee E. Swearingen
CALFED Project # 99-N01
Quarter Ending September 30, 1999

Deliverables

<u>Name of Deliverable</u>	<u>Due Date</u>	<u>% of Work Complete</u>	<u>Date Deliverable Complete</u>
Task 1	7/31/01	<1%	
a. Quarterly Programmatic and fiscal progress reports in the CALFED format, as required			
b. Attendance at annual CALFED meetings			
Task 2	11/30/99		
a. NEPA/CEQA Compliance			
b. Permits			
c. Resolving other outstanding Implementation issues			
d. Subcontracting ... breakdown of contractor bids and summary of successful bid; draft and final of construction subcontract; copies of all project plans, diagrams, surveys, and schematics			
Task 3	3/31/01		
a. Completed project facilities			
b. Project inspection and approval by CALFED engineers			
Task 4	5/31/01		
a. Record drawings, if required, and O&M manual			
b. Draft and final of engineering consultant subcontract			
Task 5	12/31/05		
a. Implementation of mitigation measures and monitoring the success of the measures			
b. Plans for maintenance and associated costs			

Program Manager Spencer Shepherd Phone 415-778-0999 x 24
 Project Manager Dee E. Swearingen
 CALFED Project # 99-N01
 Quarter Ending September 30, 1999

Deliverables

	<u>Name of Deliverable</u>	<u>Due Date</u>	<u>% of Work Complete</u>	<u>Date Deliverable Complete</u>
Task 6		10/31/01		
a.	Report summarizing data collection and results of evaluation			
b.	Draft and Final of hydraulic monitoring plan, for CALFED review and approval			
b.	Draft and Final of hydraulic monitoring report in both hard and electronic copies			
Task 7		3/31/03		
a.	Agencies' reports summarizing data collection / results of evaluation			
b.	Draft and Final of Biologic Monitoring plan, for CALFED review and approval			
c.	Draft and Final of Biologic Monitoring report in both hard and electronic copies			
Task 8		02/28/01		
a.	Complete fish viewing facility			
b.	Breakdown of contractor bids and summary of successful bid			
c.	Draft and Final of construction subcontract			
d.	Copies of all project plans, diagrams, surveys, and schematics			
e.	Project inspection / approval of completed construction by CALFED approved engineers identifying conformance of project to plan			

Program Manager Spencer Shepherd Phone 415-778-0999 x 24
Project Manager Dee E. Swearingen
CALFED Project # 99-N01
Quarter Ending September 30, 1999

Narrative

1. Description of activities performed during the quarter, by task.
2. Problems and delays encountered by task.
3. Other issues or comments.
4. Please identify your projected expenses for each of the next three months in the following quarter to assist in the timing of State bond sales which fund this project.

Month 1 \$336,000 Month 2 \$336,000 Month 3 \$336,000 Total for quarter \$1,008,000

Comments: This project was advertised for proposal on September 07, 1999; pre-bid conference was conducted on September 28, 1999; bids will be opened the afternoon of October 13, 1999; the awarding of bids is scheduled for November 01, 1999.