

## INFORMATIONAL REPORT ON PROGRAM TRACKING AND PERFORMANCE MEASURES

**Agenda Item: 5**  
**Meeting Date: February 11, 2004**

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**Summary:** This report provides information on how the CALFED Program currently tracks program performance and the process established to develop new performance measures needed to explain how CALFED has affected the Bay-Delta system.

**Recommended Action:** This is an informational item only. No action will be taken.

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### **Background**

The California Bay-Delta Authority is charged with comprehensively tracking Program progress and evaluating performance across all program areas, departments, agencies, and fund sources associated with implementation of the CALFED Program. Current performance is measured and tracked by Authority staff using task-based schedules, detailed fiscal information, and a small set of programmatic performance measures (examples attached). A detailed strategy and template for developing and using additional performance measures to provide more information on precisely how projects are affecting the Bay-Delta system has been developed. Work to develop these new performance measures is underway within the agencies and the Authority.

### **Program Tracking – Administrative Performance Measures**

The implementing agencies and the Authority staff currently track the administrative performance of the entire Program, using task-based schedules and funding information across all Program elements, departments, and fund sources. Detailed information on expenditures, schedules, and accomplishments is kept by the implementing agencies. Summaries of detailed information are provided by the implementing agencies and compiled by the Authority several times a year. This information is then made available to the public. Program-wide tracking information can be found in the Authority's Tracking Report which is prepared in the first quarter of the calendar year, the cross cut budget, the Multi-year Program Plans, and the Annual Report, all of which are available on the Authority's website.

The Authority's comprehensive tracking of fiscal and schedule information, and the providing of this information to the public on a regular basis is unprecedented in government. Public access to Program information provides transparency and allows better decision making relative to Program adjustments and future priorities.

### **Performance Measures That Track Change in the System**

The immense scale of the CALFED Bay-Delta Program requires that information beyond administrative program details be developed and provided to the public. Documenting and describing whether and what kind of changes have been brought about by program actions--whether sensitive species populations are recovering; whether Delta water quality is improving--are the true, long-term test of CALFED. Developing and using these substantive performance measures is a monumental undertaking and one that is new in many government and private industry circles. The Program currently has a few substantive performance measures, but many more are needed to accurately track the effects of CALFED across the local, regional, and system-wide scale. The status of this larger effort and vision for what it will take to systematically implement is described in more detail below.

Performance measures must be sufficiently robust in the early stages of the Program to allow managers to assess progress and refine their actions as the plan proceeds. The development of performance measures for the CALFED Program is an iterative process, where the initial and prototype performance measures are evaluated for effectiveness, and new performance measures are added as knowledge of the Program increases and data becomes available.

The Science Program is responsible for overseeing the development of performance measures for the overall CALFED Program. Since the ROD, the Science Program has:

- evaluated existing pre-ROD performance measures efforts,
- reviewed performance assessment in other programs, ranging from sustainable development programs in private industry, to other environmental management efforts like those being undertaken in the Chesapeake Bay,
- created a strategic plan for performance measures development that addresses the scale and complexity of the Bay-Delta program,
- developed guidance and templates to support the development and use of performance measures for individual program elements,
- in coordination with the implementing agencies, developed prototype performance measures for three of the four major program goals,
- created a process for the Independent Science Board to review draft performance measures.

In the CALFED Program, performance measures take several forms and indicate progress at several levels. These different types of performance measures form a

hierarchy of increasingly complex information and environmental response. Performance measures and their corresponding data can be grouped into three basic levels:

Level 1 - Simple quantitative measures which indicate the level of activity in a particular program area, including items such as: the number of dollars spent and the number of projects funded.

Level 2 - Simple program accomplishments, which provide basic information on what the investments made in a particular program area have achieved. Examples of this type of performance measure would include: acre feet of conserved or stored water, acres of habitat purchased or protected, number of fish screens, miles of unobstructed stream for fish passage.

Level 3 - Complex or system-wide performance measures that evaluate the environmental or resource response to a series of actions. These performance measures are the ones that are the most difficult to select and develop, and most closely linked to determining the long-term success of the Program. Examples of this type of performance measure would include: population responses of important species-organized both geographically and system-wide, long-term sustainability of desirable ecological processes, levee system reliability, and reduction in damages from flooding and compliance with water quality standards.

The administrative performance being compiled in the Program Tracking system is a robust and effective process that fully meets Level 1 needs. As the implications of actions accumulate, Level 2 performance measures record increasingly detectable local responses. Most program elements within CALFED currently track a number of Level 2 performance measures, but no program has a complete set of Level 2 performance measures being systematically tracked for all program element goals. Level 3 performance measures which indicate that program goals are being achieved may take years to develop and may be difficult to interpret in isolation. A handful of Level 3 performance measures exist. The Level 3 performance measures being used by the Program are prototypes for 3 of the 4 major program objectives. They were developed by the Science Program in collaboration with implementing agency staff, some of which have been used in previous Annual Reports (<http://science.calwater.ca.gov/scitools/wideperfmeasures.shtml>).

The Science Program's goal is to have a portfolio of performance measures for each program element that include Level 1, 2, and 3 performance measures. Such a portfolio will address the need to explain progress and benefits at the project scale, local and regional scales, program levels, and across all programs. Performance measures within program elements must measure how specific projects and actions are affecting the immediate environment. Program-wide performance measures must track how the system as a whole is changing in order to link actions to broad program goals.

## **Further Development of Program Performance Measures**

The Science Program has developed a template to guide performance measure selection and development for the CALFED Program. This template is based not only on what has been developed to date for the CALFED Program, but also on what has worked and not worked in other programs throughout the country. Development and use of performance measures includes the following steps:

- **Narrow the list of potential performance measures** - At present, most program elements have a list of candidate performance measures. The Science Program has provided guidance to narrow down the lists of potential performance measures by assessing each potential performance measure for the following characteristics:
  - Does the performance measure use available, measurable data?
  - Does the performance measure reflect environmental and system properties that are both directly relevant to specific CALFED Program goals and what we expect to change as a result of CALFED actions?
  - Is the performance measure described in value-neutral language and terms, with explicit descriptions of its strengths and weaknesses and the information needed to fully develop and use it across program activities?
- **Establish a Monitoring Program** - Once a more narrow set of performance measures has been selected, monitoring must be undertaken to provide the desired information. In some cases, existing monitoring programs can be used or modified, in others, new monitoring efforts will be necessary. The CALFED Program is in the unique position of having environmental monitoring in place for some program areas since the 1950's. Although additional data needs remain, the historic data provides baseline information about the status of the system before the CALFED Program began.
- **Analyze Data** - In addition to monitoring, resources need to be set aside for a planned analysis of both new and historic data. This is often the missing link in monitoring efforts and needs to be incorporated up front. Much of the historic data that has been collected to date has not been compiled and analyzed, and, therefore, is not useful in establishing a baseline or evaluating program performance. Analysis of existing historical data is a priority for the Science Program.
- **Apply the Results** - Performance measures can provide useful information that can improve decision-making. Scheduling periodic reviews of program actions using collected and analyzed data is an important step in the implementation of the CALFED Bay-Delta Program.

A more complete description of the Science Program's efforts relative to performance measures can be found on their web site at [http://science.calwater.ca.gov/sci\\_tools/performance\\_measures](http://science.calwater.ca.gov/sci_tools/performance_measures). Attached are examples of prototype performance measures being used by the CALFED Program.

### **Business Performance Measures**

The California Bay-Delta Authority has been working intensively to implement improved government business practices since February 2001. At that time, the CALFED Program began a pilot project with the Governor's Office for Innovation in Government to improve administrative efficiency in government business practices.

As a result of the project undertaken by CALFED and the Governor's Office for Innovation in Government, the Authority has begun collecting data and developing business performance measures. Several of these important performance measures relate to contract delivery. By keeping accurate records on the time for each step of contract development process, the Authority has been able to target those areas under its control where improvement could be achieved. Recently, the Authority has brought on-line a database to track contract development. Over time, as data on new contracts is entered, staff will be able to instantly assess progress on individual contracts.

Other business performance measures in use or under development by the Authority include vacancy rates for positions, retention rates for employees, time to execute contracts, invoice payment time, and number of invoices subject to late penalties.

Attached are examples of business performance measures in use or under development by the Authority, including an example of contract delivery data organized by type of contract. In the past, this information had to be collected manually and plotted on a spreadsheet. The Authority's new contract database will allow easier evaluation of contract process data.

### **Fiscal Information**

Not applicable

### **List of Attachments**

- Attachment 1 - Examples of Program Performance Measures (Bound Separately)
- Attachment 2 - Program Tracking (Bound Separately)
- Attachment 3 - Grant Projects by Region (Bound Separately)

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**Contact**

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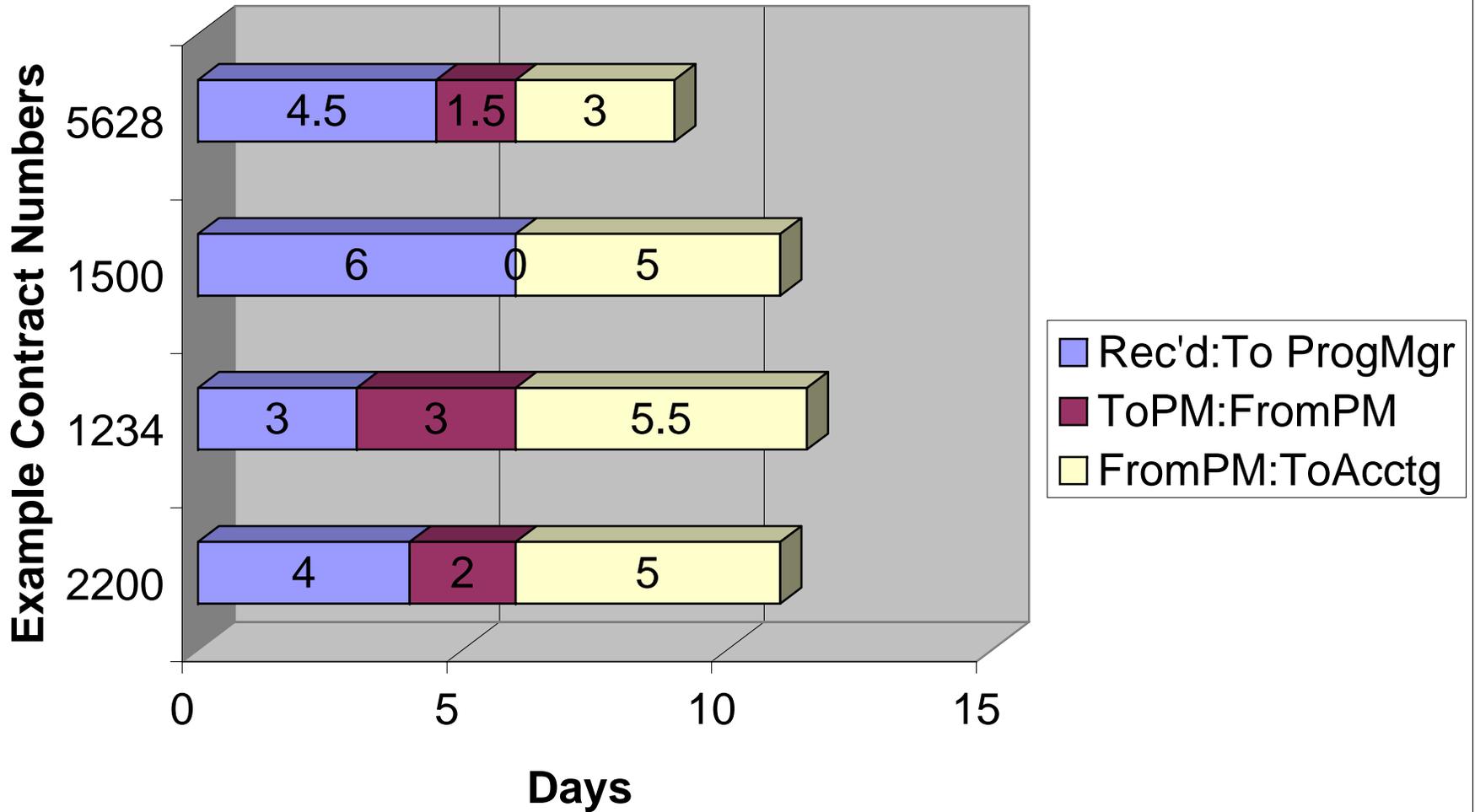
Kim Taylor  
Deputy Director for Science

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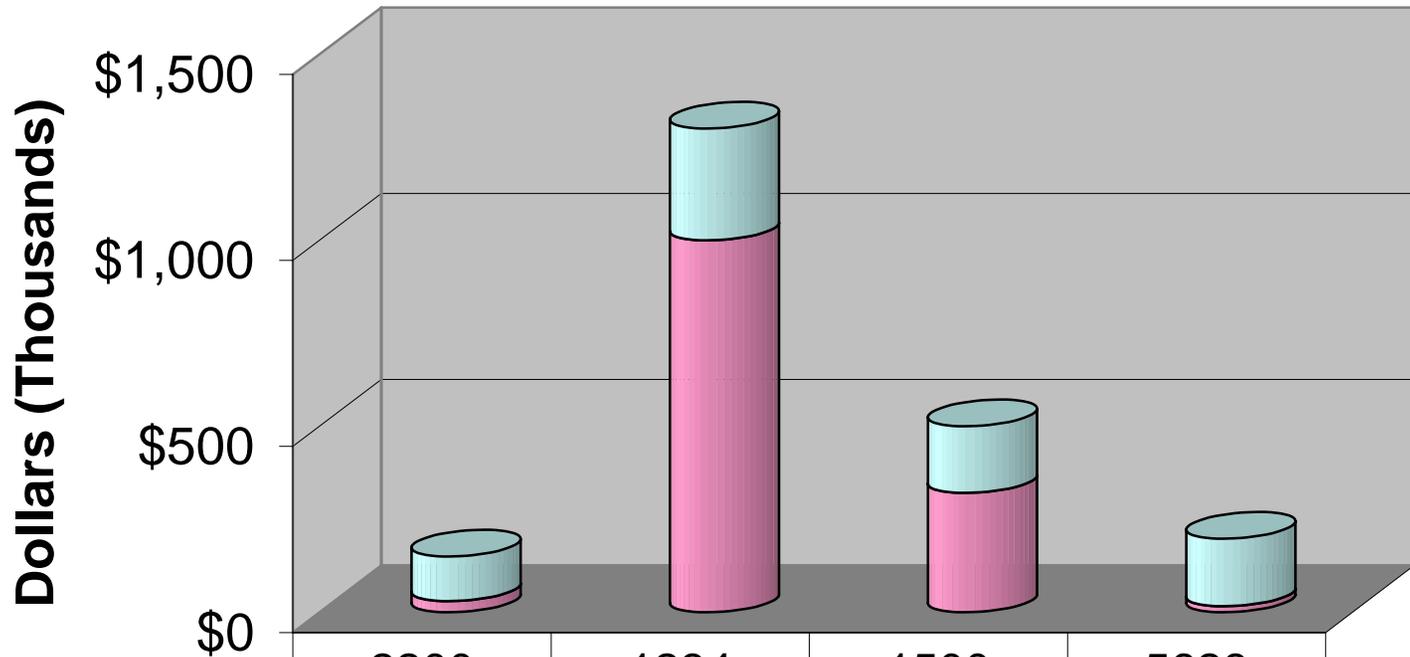
**Agenda Item 5  
Attachment 1**

**Examples of Program  
Performance Measures**

## Contract Invoice Processing (Average Number of Days/Contract)



## Remaining Capacity by Contract

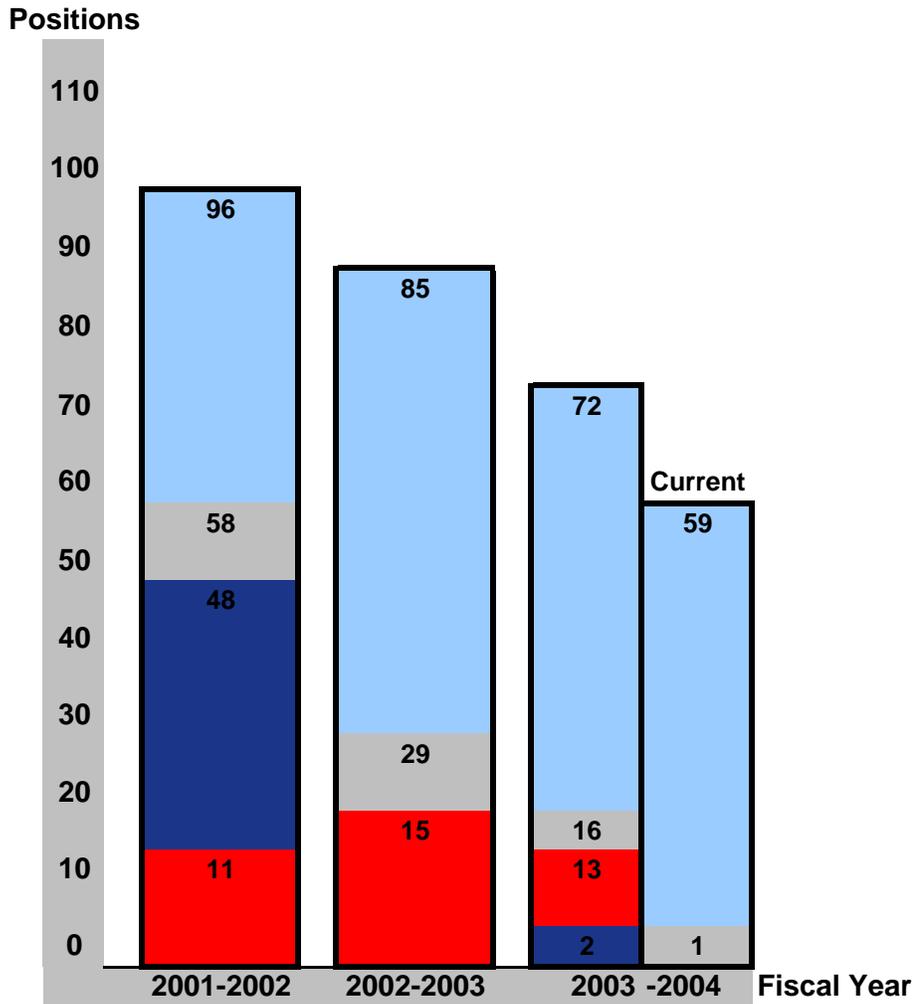


	2200	1234	1500	5628
Remaining Capacity	\$120	\$300	\$179	\$181
PaidToDate	\$30	\$1,000	\$321	\$17

**Example Contract Numbers**

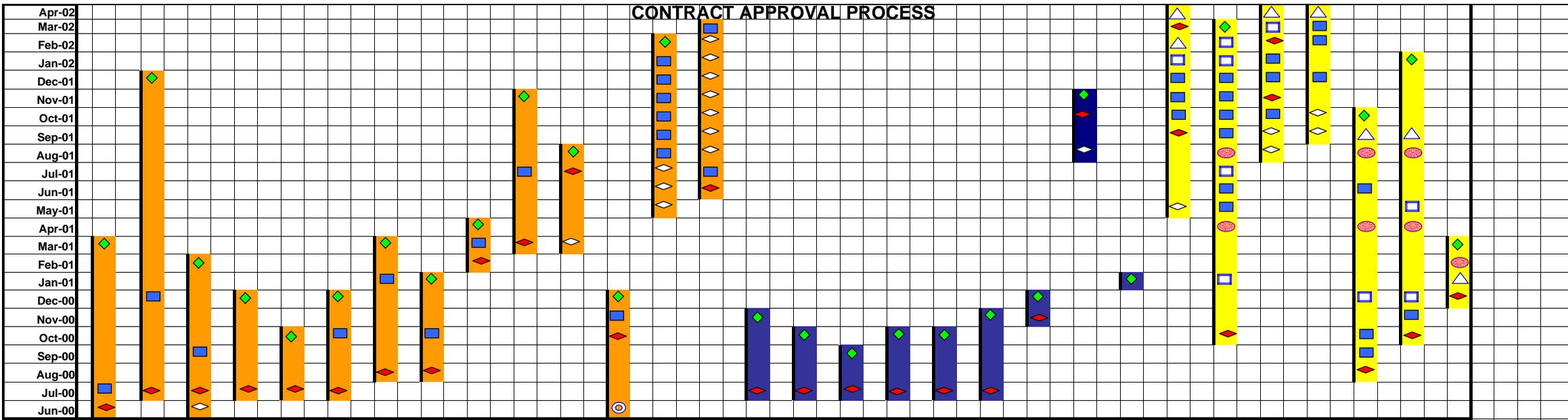
# CALIFORNIA BAY-DELTA AUTHORITY

Total Positions  
With Vacancies and Cuts  
As of January 2004



- Total positions at beginning of fiscal year
- Maximum amount of vacancies during the fiscal year
- BCP Positions
- Total cuts during the fiscal year

# CONTRACT APPROVAL PROCESS

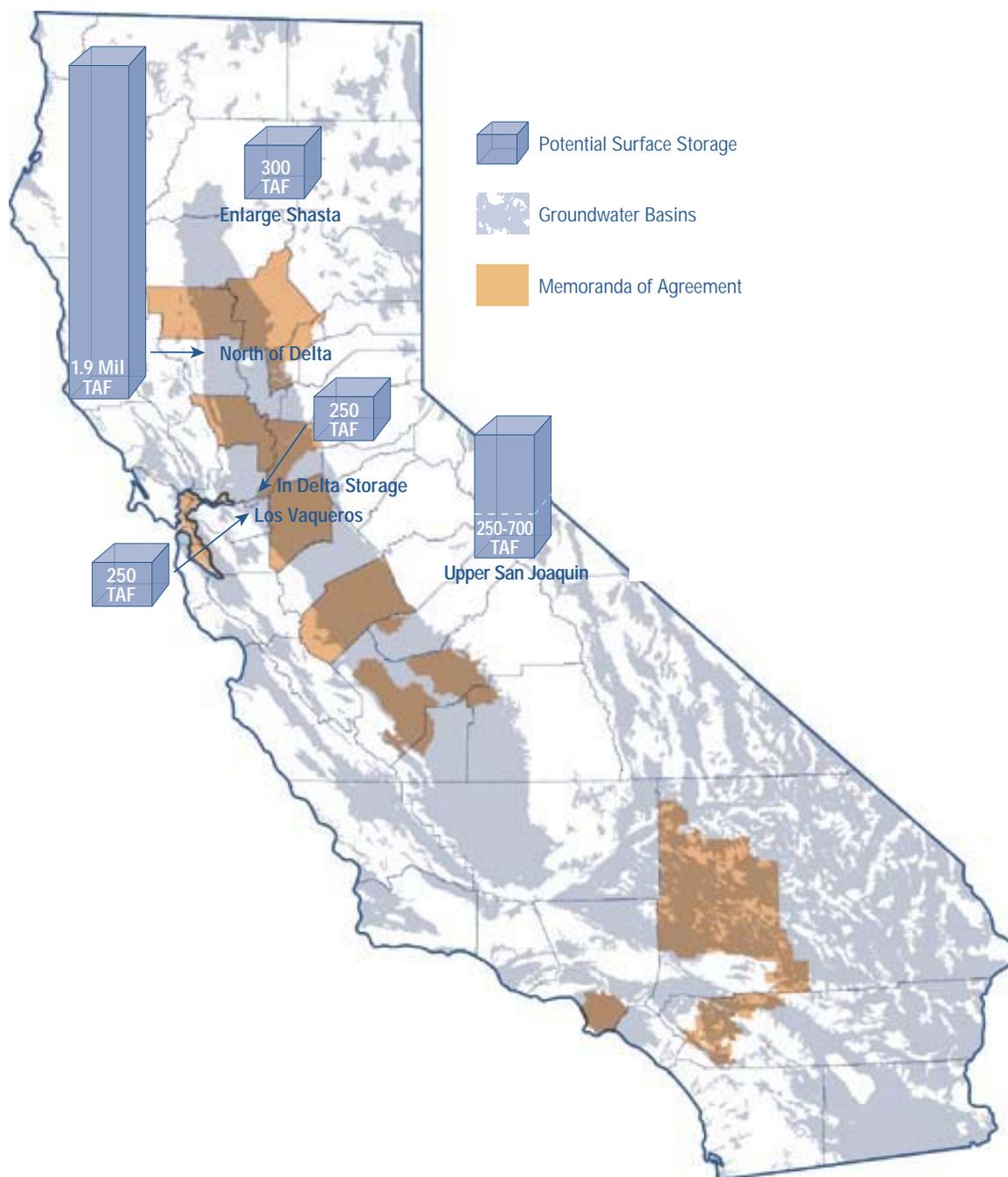


LEGEND	
	Contract Executed
	To Contractor for Signing
	Contractor Request Revisions
	To DGS Legal for Approval/DWR legal
	Revisions Requested
	Contract Package Lost
	Contract Submitted to Contract Office
	Sent for Pre-Review
	State Contracts
	CALFED Fed Contracts
	Initiated by USBR



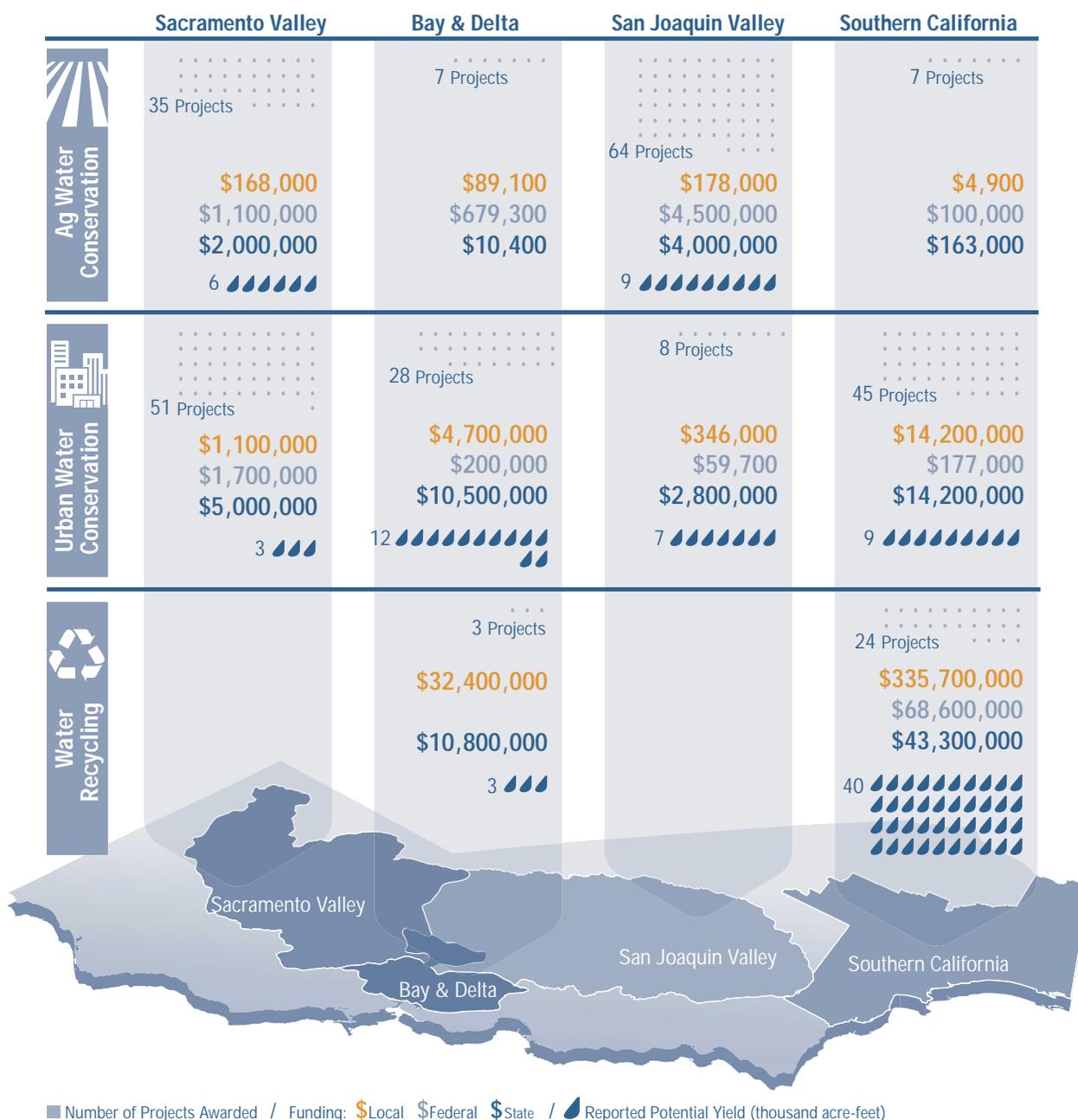
## Groundwater and Potential Surface Water Storage

- Continued studies on the 5 potential surface storage projects.
- Signed agreements for 16 groundwater partnerships and Memoranda of Agreement.
- Invested \$131 million in 104 groundwater projects with a potential yield of 210,000 acre-feet.



## Water Use Efficiency Accomplishments

Through the Water Use Efficiency Program, CALFED agencies are making targeted investments in cost-effective, local water conservation and recycling programs throughout the state. Funding grants and loans in such areas as agricultural water conservation, urban water conservation and water recycling helps meet the Bay-Delta Program's water supply reliability, water quality, and ecosystem restoration objectives.





## Levee System Integrity Accomplishments by Region

### Delta Region

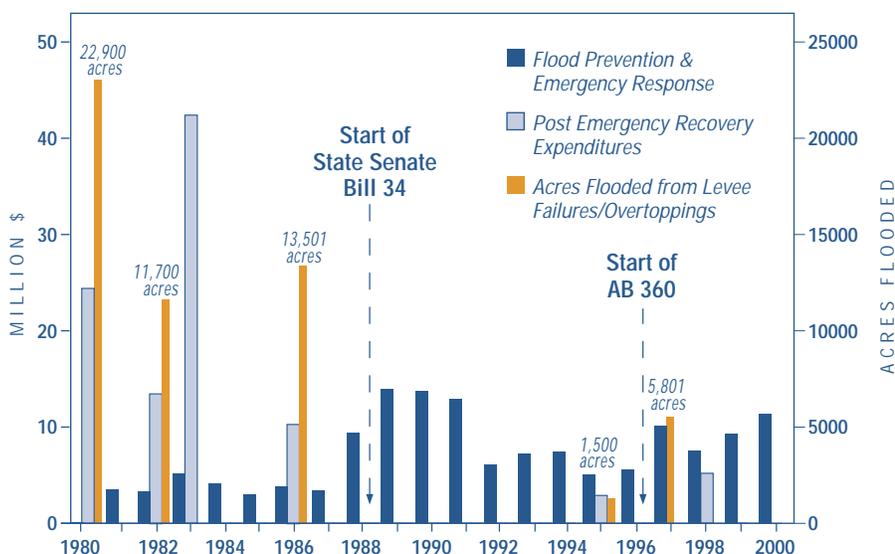
- Provided funding to improve 40 miles of Delta levees up to the PL 84-99 limit, including projects on Sherman, Bradford and Jersey Islands and Webb Tract.
- Successfully reused more than 324,000 cubic yards of dredged material to increase levee stability while enhancing habitat.
- Significant progress made on levee subsidence studies with a demonstration project launched on Twitchell Island and a strategic framework developed for addressing subsidence.
- Emergency response capabilities improved through draft Multi-Agency Emergency Response Plan, improved coordination and acquisition of flood fight materials.
- Studies initiated to analyze seismic risk to Delta levees.
- Suisun Marsh Levee Investigation completed and efforts launched to develop a long-term plan for levee protection consistent with regulatory requirements and endangered species protection.

### Cross-regional Benefits

Though the Levee System Integrity Program is focused on the Delta region, investments there benefit other regions and the state as a whole. Examples include:

- Levee improvements protect water quality for millions of Californians who rely on the Delta for all or part of their water supplies.
- Projects that stabilize levees while enhancing habitat help restore the Bay-Delta ecosystem, which in turn improves conditions for key species and increases water supply reliability for cities and farms in the Bay Area, San Joaquin Valley and Southern California.
- Reducing the risk of levee failures improves water supply reliability for water users in all regions.

### Delta Levee Flood Prevention Costs *Post Disaster Assistance Costs and Acres Flooded*

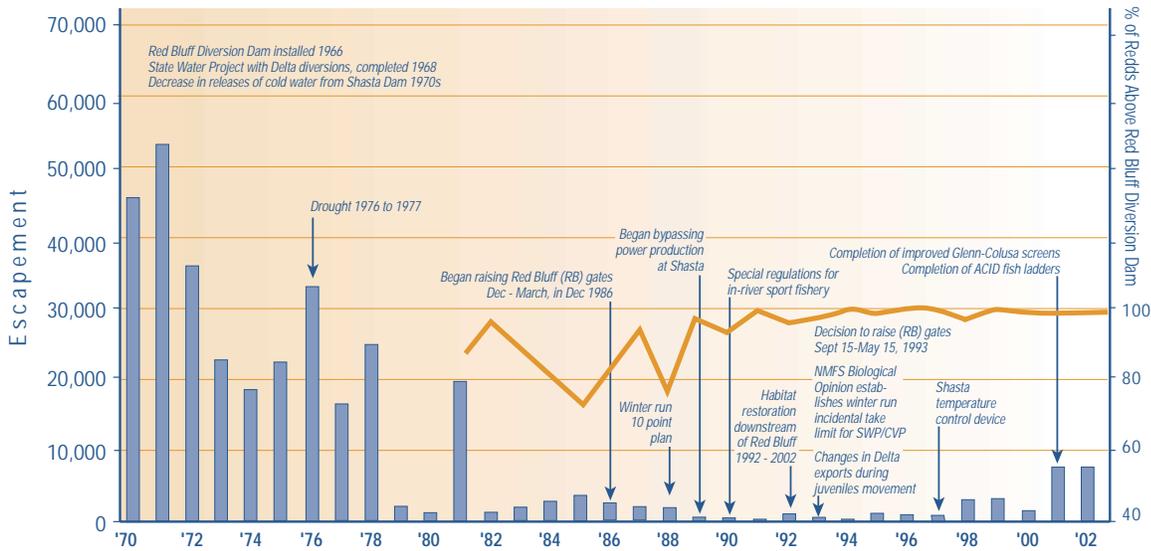


*This indicator measures the number of acres in the Delta flooded each year. Flooding can cause significant damage, especially to agriculture, but to other land uses as well. Levees are also important for the control of salinity at key points in the Delta, and flooding at certain locations can thus threaten fresh water supplies crucial to a wide range of agricultural, urban, and ecosystem uses.*

# ECOSYSTEM RESTORATION & WATERSHEDS

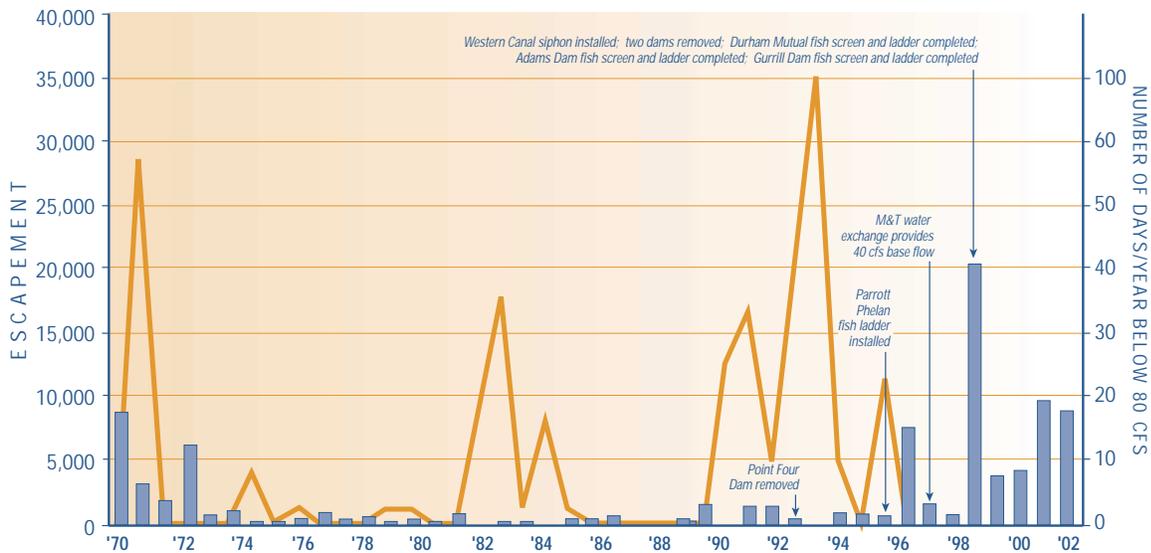
## Ecosystem Restoration Performance Measures

### Sacramento River Winter Run



This performance measure reports the escapement (the number of adult salmon escaping mortality and successfully returning each year to spawn) of adult winter-run Chinook salmon, an endangered species under the state and federal Endangered Species acts, on the Sacramento River. The Sacramento River population is the only remaining population of winter-run Chinook salmon.

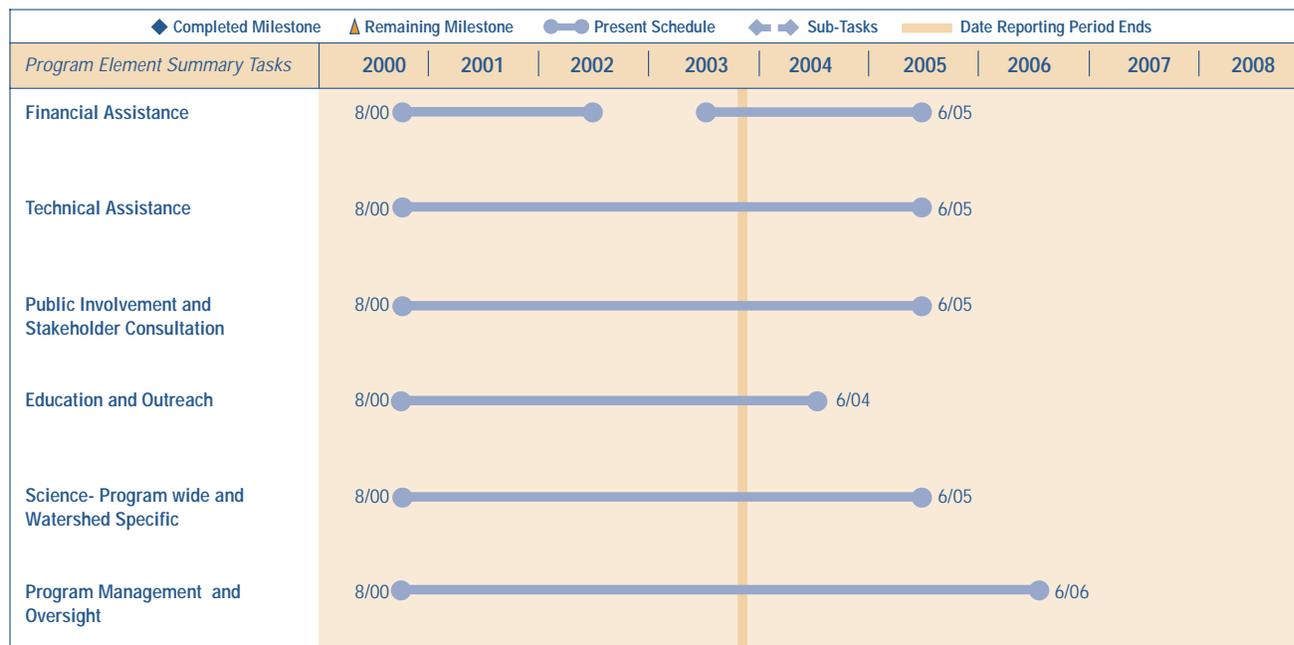
### Spring Run Escapement for Butte Creek



This performance measure reports the escapement (the number of adult salmon escaping mortality and successfully returning each year to spawn) of adult spring-run Chinook salmon, a threatened species under the state and federal Endangered Species acts, on Butte Creek. The Butte Creek population is one of the few remaining self-sustaining populations of spring-run Chinook salmon in the Central Valley. The spring-run in Butte Creek has been affected by significant impediments to upstream passage of adults stemming from dams, inoperative fish ladders, and reduced flows as a result of water diversions. Since 1995, restoration actions have included dam removal, installation and/or repair of fish ladders and fish screens, and improvements to base flow.



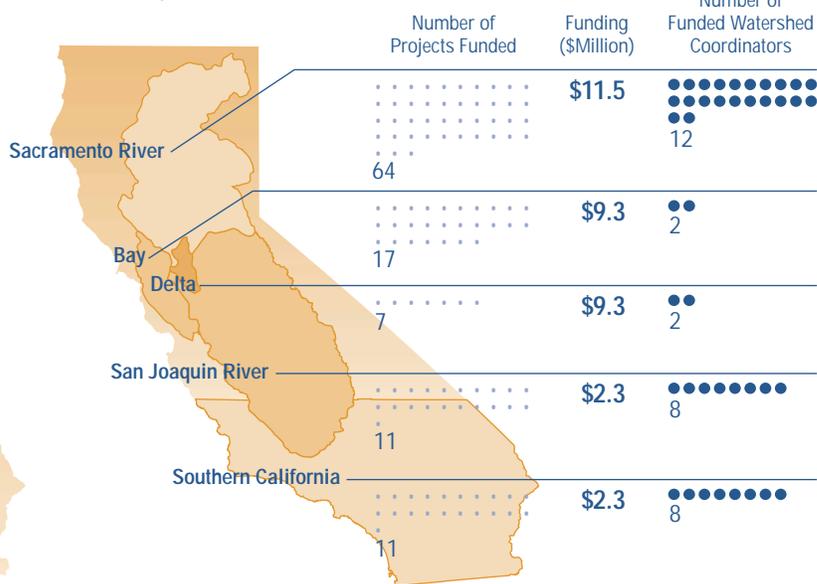
## WATERSHEDS



### Watersheds with Funded Grant Projects



### Watershed Accomplishments



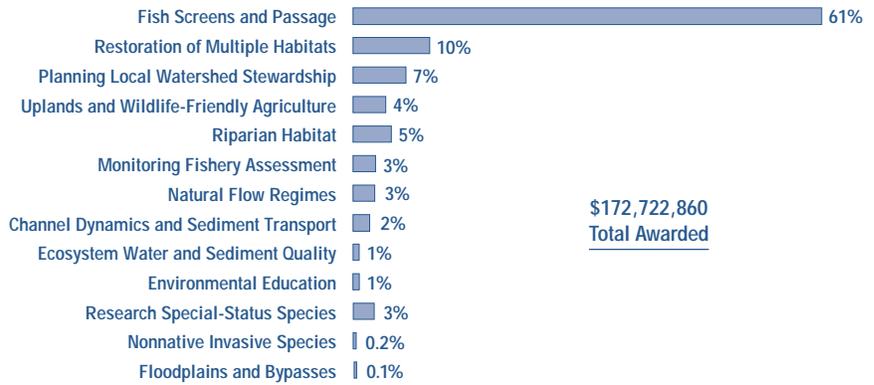
# ECOSYSTEM RESTORATION

More than \$476 million has been awarded to date for more than 400 Ecosystem Restoration projects. Ecosystem Restoration efforts continue to improve habitat and address the needs of key species. Accomplishments include:

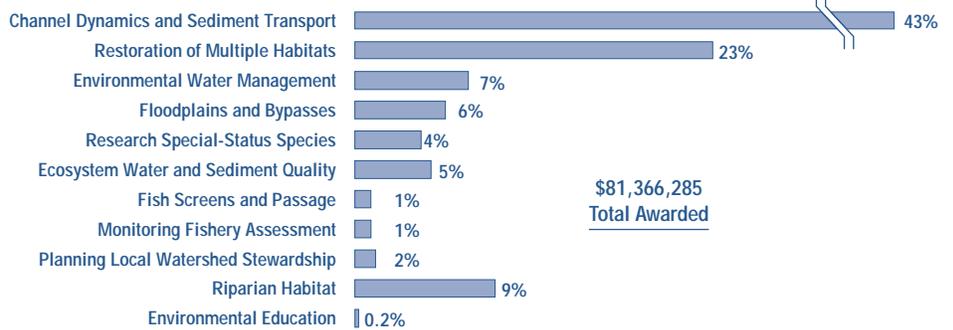
- Single blueprint approach
- 100,000 acres of habitat protected or restored
- 68 new or improved fish screens
- 23 comprehensive scientific studies
- Contributed to meeting regulatory commitments for all Program elements

## Regional Spending

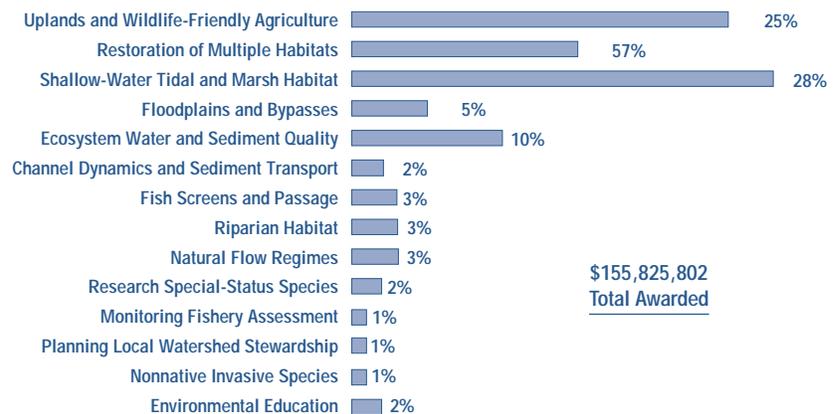
### Percent of total spent on Sacramento Region ERP Actions



### Percent of total spent on San Joaquin ERP Actions

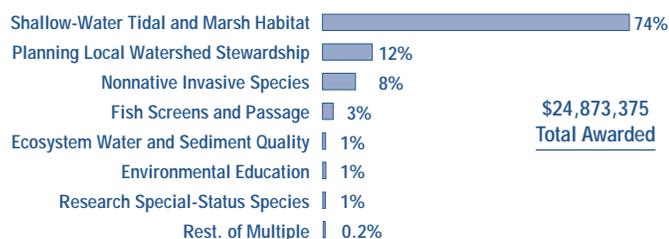


### Percent of total spent on Delta and Eastside Tributaries Region ERP Actions

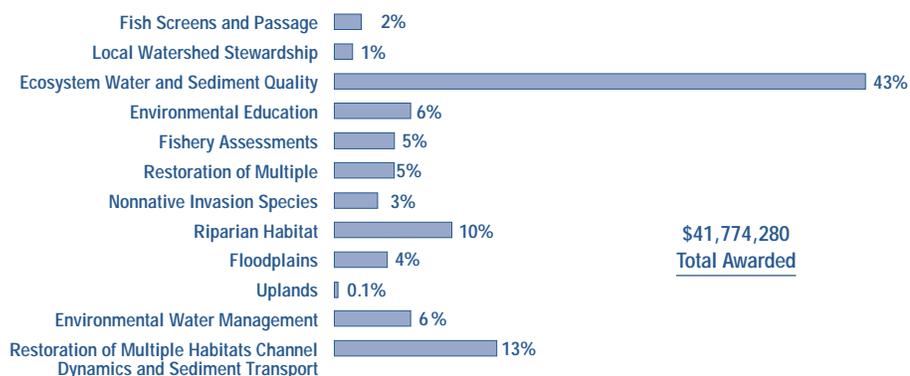


## Regional Spending (cont.)

### Percent of total spent on Bay Region ERP Actions



### Percent of total spent on ERP Actions with cross-regional benefits

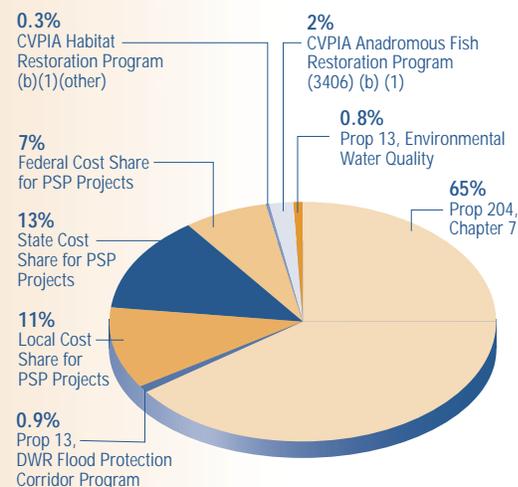


## Total Spending

### Types and number of restoration projects funded by the ERP



### Fund sources and amount of funding to support the selection of projects through the 2002 PSP including directed actions in 2003



**Agenda Item 5  
Attachment 2**

**Program Tracking**

Date: January 30, 2003  
To: CALFED Agencies and California Bay-Delta Public Advisory Committee  
From: Patrick Wright, Director  
Subject: CALFED Program Tracking Report

The Tracking Report provides years 1 through 3 summary information for each Program Element:

1. Progress overview.
2. Table and a graph depicting cost estimates, approved funding and expenditures/encumbrances/obligations by task (except Science).
3. Graph comparing funding and expenditures/encumbrances/obligations by funding source.
4. Schedule for each task (except Oversight and Coordination).

A Program Element contact is identified and available to provide additional information. The report concludes with a table depicting funding for each Program objective by funding source.

The CALFED Bay-Delta Program made significant progress in its second year of implementation. CALFED made advancements in every program area, particularly those supported by state bond funds such as groundwater storage, ecosystem restoration and water recycling. CALFED agencies provided technical assistance and more than \$340 million in funding for local projects to improve water quality, restore habitats, expand storage and boost water use efficiency.

Funding remains a critical challenge. When actual dollars are compared with budget levels identified in the Bay-Delta Plan, programs such as water quality, levees, agricultural water use efficiency, and science have been under-funded. Progress in other key areas, including surface storage studies, conveyance, and water use efficiency has been delayed due to funding constraints, lack of federal authority to participate and other factors.

Attachments: January Program Tracking Report for: Science, Oversight and Coordination, Storage, Conveyance, Water Use Efficiency, Water Transfers, Ecosystem Restoration, Environmental Water Account, Watershed, Drinking Water Quality, and Levee System Integrity.

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## Synopsis of Program Element Tables, Charts, and Summary Schedules

This synopsis outlines the information in the following tables, charts, and schedules for the eleven program elements. Each Program Element includes the information following the first and third bullets. All elements, except Science, contain the information noted after the second bullet:

- Progress overview
- A Cost Tracking Summary Table and a Summary Bar Chart provide, by task: ROD Program Cost Estimates; Revised Program Cost Estimates; State, Federal, and Local Funding Years 1 through 3; and State, Federal, and Local Encumbrances/Expenditures/Obligations Years 1 and 2 (except Science).
- A Bar Chart comparison which provides a comparison of State, Federal, and Local Funding for Years 1, 2, and 3 vs. the State, Federal, and Local Encumbrances/Expenditures/Obligations for Years 1 and 2.

In addition to the tabular and graphical presentations, each of the Program Elements, except Oversight and Coordination, includes a Schedule Summary. The schedule identifies, by task, current schedule and related Bay-Delta Plan milestones. The schedule is color-coded to show the status of the tasks and milestones (see legend in the lower right corner of each schedule). The following information defines the various lines and diamonds displayed on the schedule:

- The horizontal maroon bar is the current schedule for all of the Program Element Tasks.
- The vertical red line indicates the reporting date. This report reflects data collected through and including October 1, 2002.
- The horizontal green bar is the current schedule for each Program Element Task.
- The horizontal dashed blue bar indicates a Program Element Task that is composed of multiple sub-tasks.
- Bay-Delta Plan milestones are shown as “diamonds”. The blue diamonds indicate milestones that have been accomplished, while the red diamonds indicate remaining milestones.



# CALFED BAY- DELTA PROGRAM

## Science

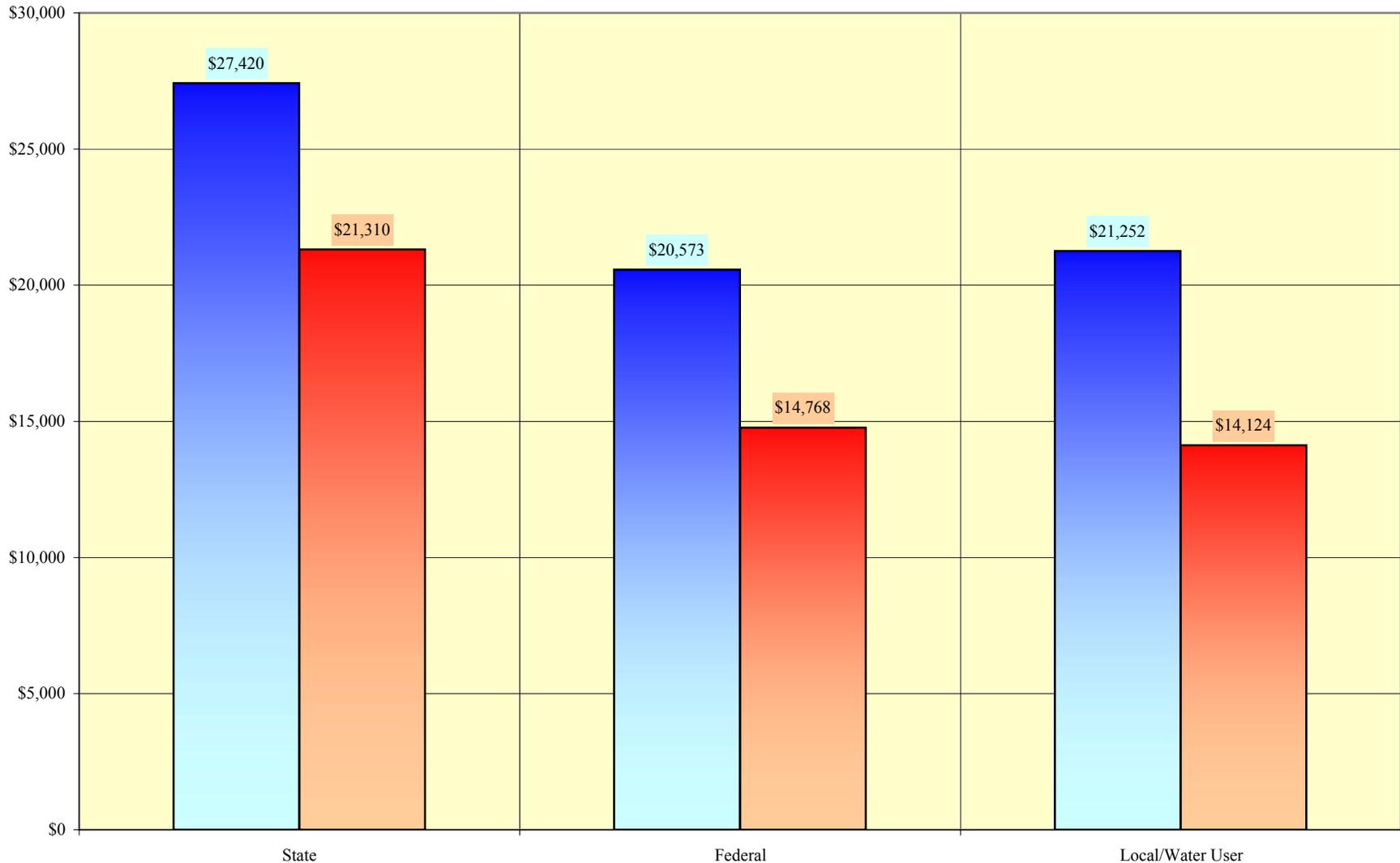
### **Science Program Element Overview**

Significant progress has been made in defining scientific issues associated with water project operations and the Bay-Delta environment. Peer review and technical assistance is being provided to each program element, and work continues to develop performance measures for program areas as well as CALFED as a whole. The Science Program, with the help of the Science Consortium, initiated a new on-line technical journal, and the Consortium is enhancing collaboration on Bay-Delta science activities. Though many projects and studies have been constrained by contracting and funding issues, passage of Proposition 50 will allow several key programs to move ahead.

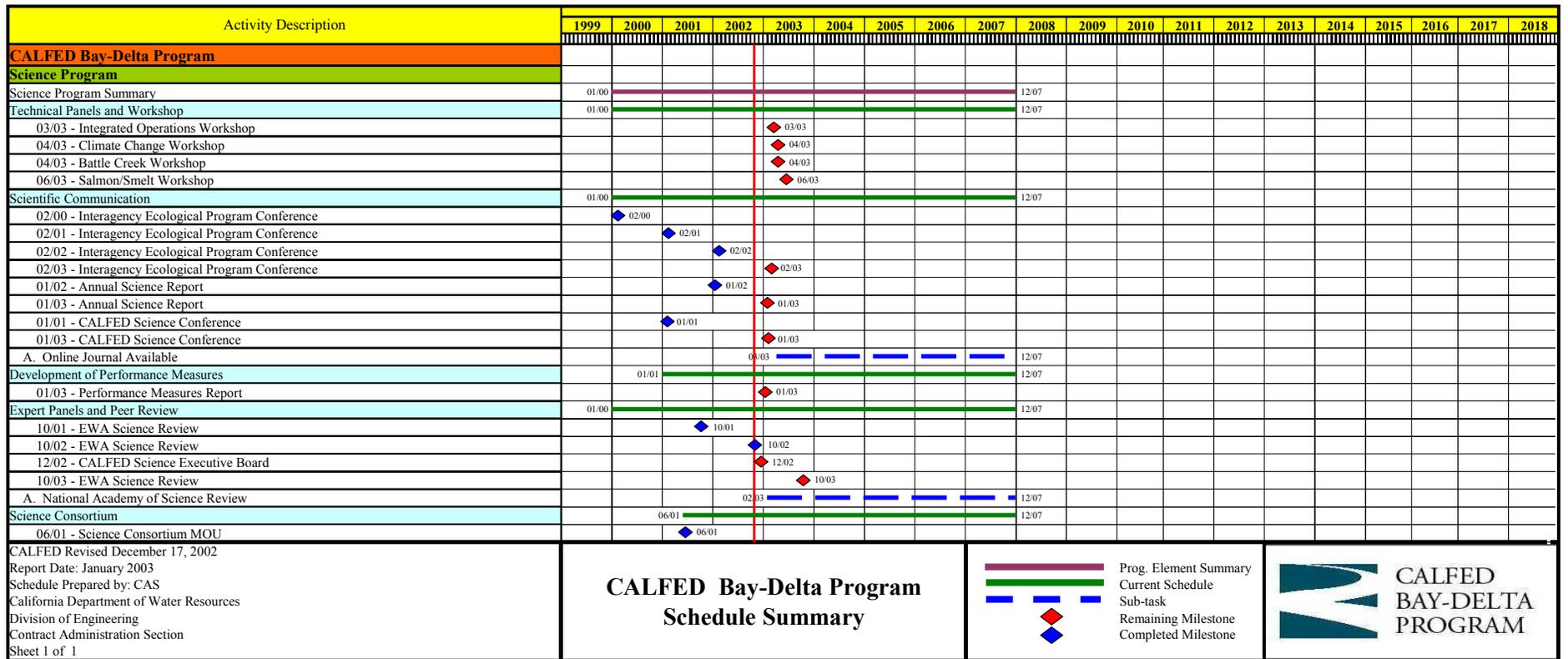
### **Program Contact**

Kim Taylor – CALFED Bay-Delta Program  
Telephone Number (916) 654-4841, e-mail address [kimt@water.ca.gov](mailto:kimt@water.ca.gov)

**CALFED - Science Program Element Bar Chart Comparison**  
**Funding for Years 1, 2, & 3 vs. Encumbrances/Expenditures/Obligations Years 1 & 2**  
**(dollars in thousands)**

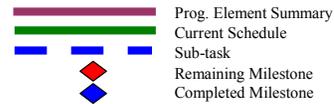


■ Funding (Years 1, 2, & 3)
 ■ Encumbrances/Expenditures/Obligations (Years 1 & 2)



CALFED Revised December 17, 2002  
 Report Date: January 2003  
 Schedule Prepared by: CAS  
 California Department of Water Resources  
 Division of Engineering  
 Contract Administration Section  
 Sheet 1 of 1

### CALFED Bay-Delta Program Schedule Summary





# CALFED BAY- DELTA PROGRAM

## Oversight and Coordination

### **Oversight and Coordination Program Element Overview**

Key accomplishments in 2002 included development and passage of state legislation and establishing the California Bay-Delta Authority, a permanent governance structure for CALFED. In addition, a new Bay-Delta Public Advisory Committee was created, continued refinements were made to the program-wide tracking system, regional coordination efforts were expanded, the CALFED website was updated, and the award winning Annual Report was released.. Lack of state and federal funding has impeded progress on CALFED's water management and finance plans, tribal coordination and environmental justice activities.

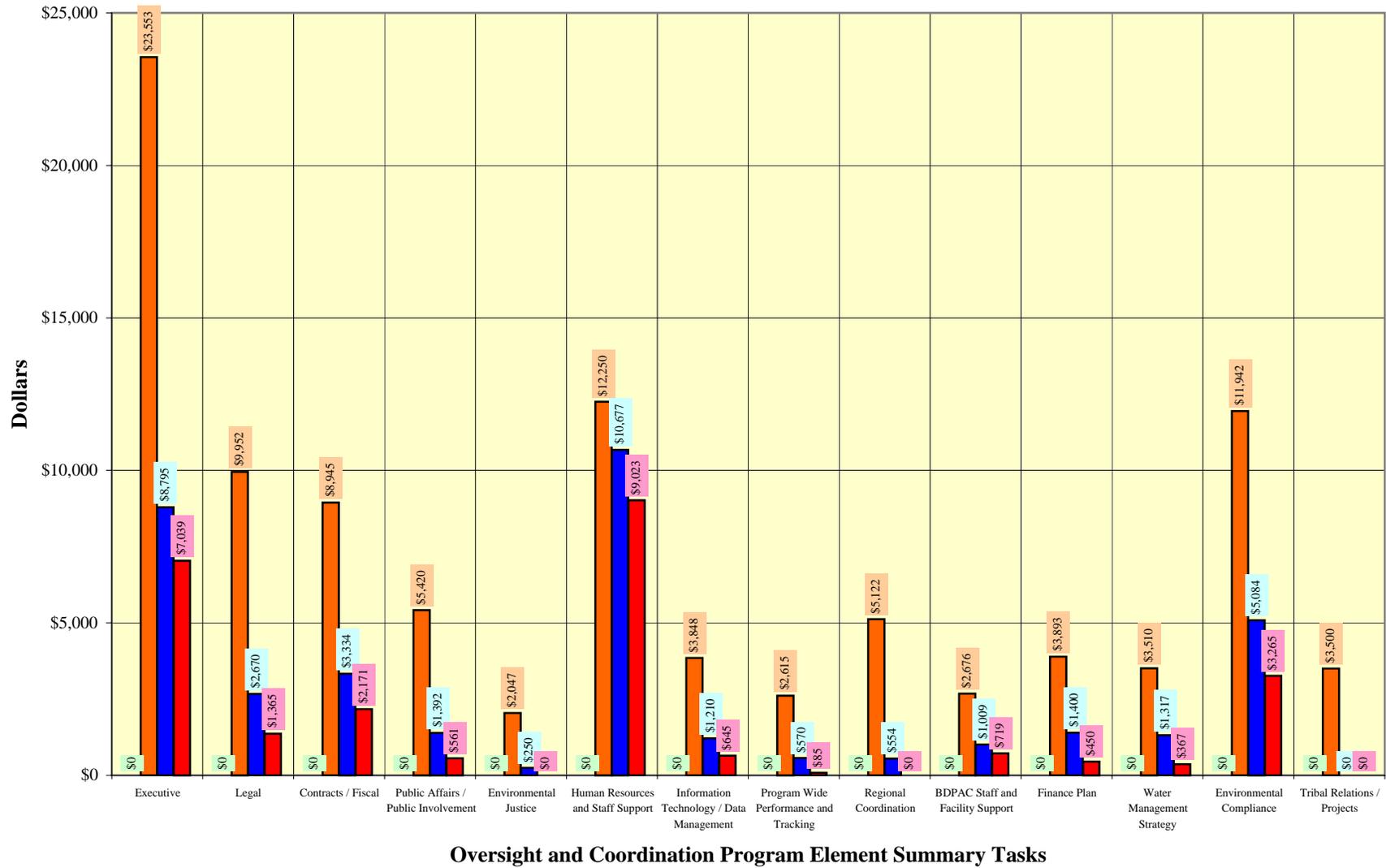
### **Program Contact**

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Nan Yoder – Bureau of Reclamation  
Telephone number (916) 978-5523, e-mail address [nyoder@mp.usbr.gov](mailto:nyoder@mp.usbr.gov)

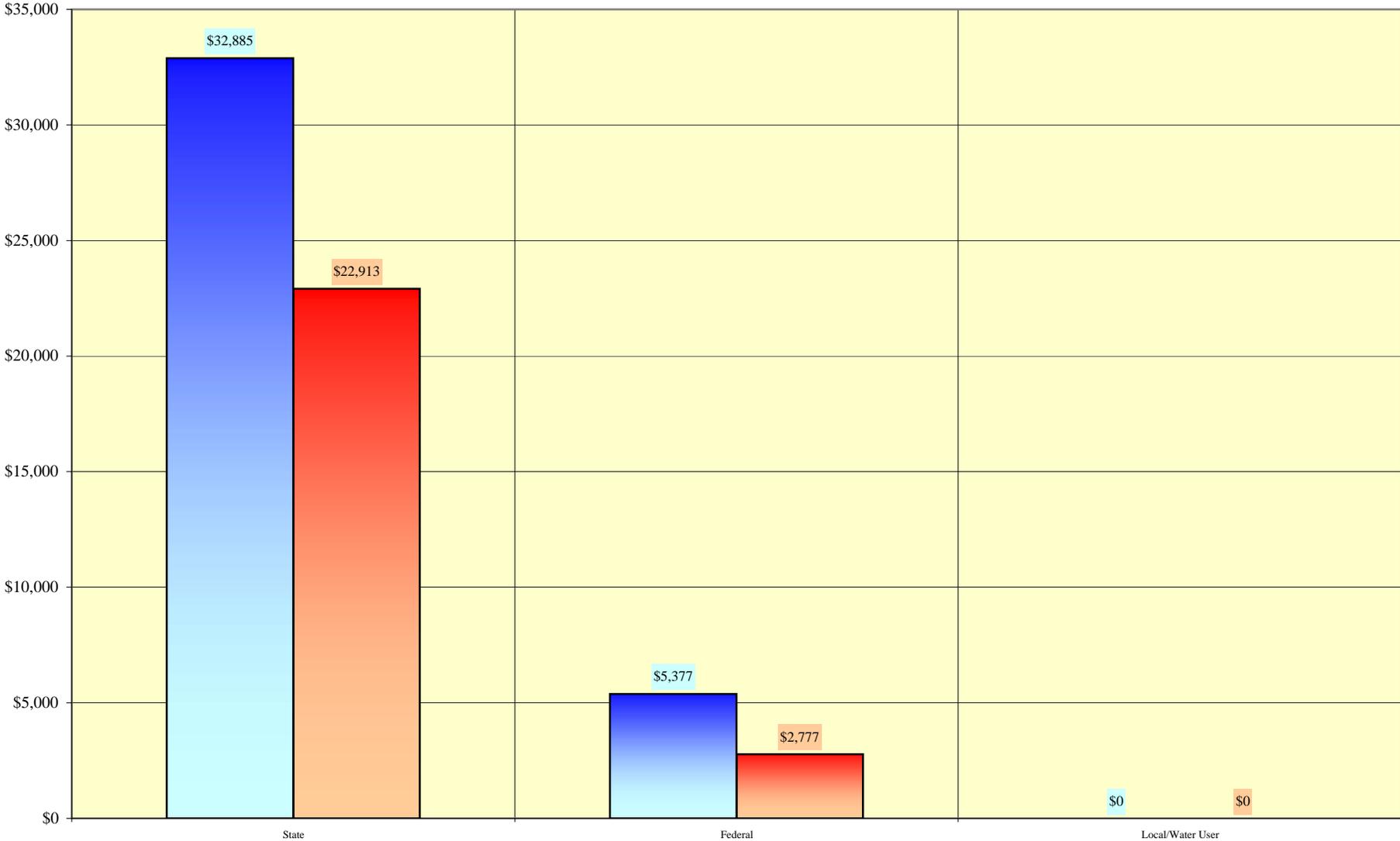
Oversight & Coordination		STAGE I COST ESTIMATES		APPROVED FUNDING THROUGH YEAR 3			ENCUMBRANCES / EXPENDITURES / OBLIGATIONS				
Program Element Summary Tasks		ROD Program Cost Estimates	Revised Program Cost Estimates	FUNDING* YEARS 1-3	STATE	FEDERAL	LOCAL/ WATER USER	ACTUALS** YEARS 1&2	STATE	FEDERAL	LOCAL/ WATER USER
1	Executive	\$0	\$23,553	\$8,795	\$7,308	\$1,487	\$0	\$7,039	\$6,097	\$942	\$0
2	Legal	\$0	\$9,952	\$2,670	\$2,060	\$610	\$0	\$1,365	\$1,060	\$305	\$0
3	Contracts / Fiscal	\$0	\$8,945	\$3,334	\$2,894	\$440	\$0	\$2,171	\$1,951	\$220	\$0
4	Public Affairs / Public Involvement	\$0	\$5,420	\$1,392	\$1,042	\$350	\$0	\$561	\$386	\$175	\$0
5	Environmental Justice	\$0	\$2,047	\$250	\$250	\$0	\$0	\$0	\$0	\$0	\$0
6	Human Resources and Staff Support	\$0	\$12,250	\$10,677	\$10,677	\$0	\$0	\$9,023	\$9,023	\$0	\$0
7	Information Technology / Data Management	\$0	\$3,848	\$1,210	\$1,140	\$70	\$0	\$645	\$610	\$35	\$0
8	Program Wide Performance and Tracking	\$0	\$2,615	\$570	\$400	\$170	\$0	\$85	\$0	\$85	\$0
9	Regional Coordination	\$0	\$5,122	\$554	\$554	\$0	\$0	\$0	\$0	\$0	\$0
10	BDPAC Staff and Facility Support	\$0	\$2,676	\$1,009	\$859	\$150	\$0	\$719	\$644	\$75	\$0
11	Finance Plan	\$0	\$3,893	\$1,400	\$500	\$900	\$0	\$450	\$0	\$450	\$0
12	Water Management Strategy	\$0	\$3,510	\$1,317	\$637	\$680	\$0	\$367	\$137	\$230	\$0
13	Environmental Compliance	\$0	\$11,942	\$5,084	\$4,564	\$520	\$0	\$3,265	\$3,005	\$260	\$0
14	Tribal Relations / Projects	\$0	\$3,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
17		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>		<b>\$0</b>	<b>\$99,273</b>	<b>\$38,262</b>	<b>\$32,885</b>	<b>\$5,377</b>	<b>\$0</b>	<b>\$25,690</b>	<b>\$22,913</b>	<b>\$2,777</b>	<b>\$0</b>
Comments: *Funding = State encumbrances / expenses and Federal obligations (Years 1 & 2 plus approved budget for year 3) **Actuals = State encumbrances / expenses and Federal obligations for years 1 & 2. State fiscal years 07/01/00 to 06/30/02 & Federal fiscal years 10/01/00 to 09/30/02.											

## CALFED - Oversight and Coordination Program Element Summary Bar Chart by Tasks (dollars in thousands)



■ ROD Program Cost Estimates (Stage 1, Years 1 - 7)   
 ■ Revised ROD Program Cost Estimates (Stage 1, Years 1 - 7)   
 ■ Funding (Years 1 - 3)   
 ■ Encumbrances/Expenditures/Obligations (Years 1 - 2)

**CALFED - Oversight and Coordination Program Element Bar Chart Comparison  
 Funding for Years 1, 2, & 3 vs. Encumbrances/Expenditures/Obligations Years 1 & 2  
 (dollars in thousands)**



■ Funding (Years 1, 2, & 3)
 ■ Encumbrances/Expenditures/Obligations (Years 1 & 2)



## CALFED BAY- DELTA PROGRAM Storage

### **Storage Program Element Overview**

Grant and loan awards for groundwater storage and conjunctive water management are on schedule, but funding constraints have delayed grant administration and technical support for local partnerships. Progress is being made on surface storage investigations, but lack of funding or federal authority to participate in feasibility studies has pushed back the schedules for all five surface storage projects. The target date for completion of draft environmental documents on several of the projects has been pushed back to the end of 2004.

### **Program Contacts**

State: Stephen Roberts – Department of Water Resources  
Telephone Number (916) 651-9249, e-mail address [sroberts@water.ca.gov](mailto:sroberts@water.ca.gov)

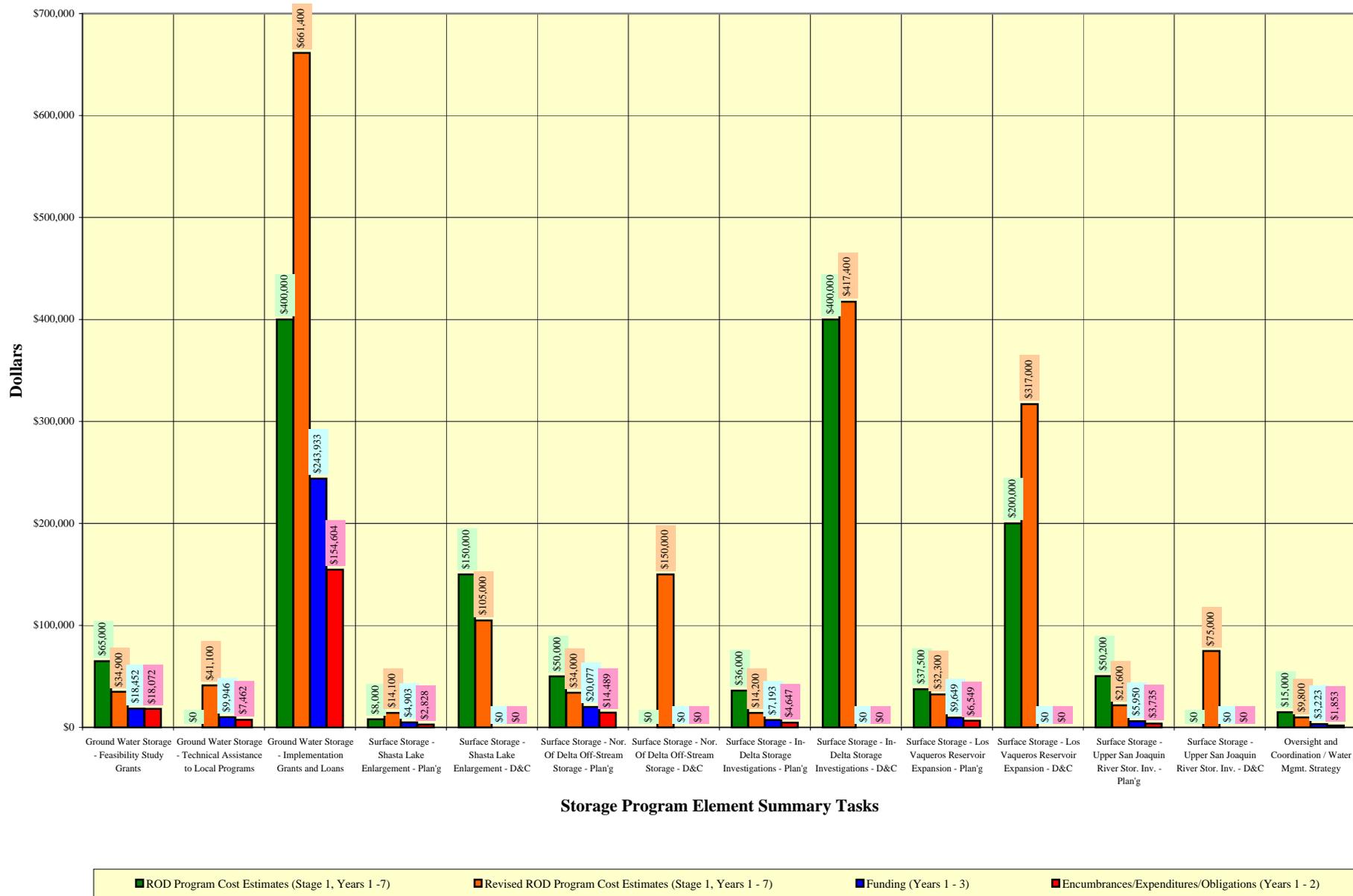
Federal: Nan Yoder – Bureau of Reclamation  
Telephone Number (916) 978-5523, e-mail address [nyoder@mp.usbr.gov](mailto:nyoder@mp.usbr.gov)

Storage		STAGE I COST ESTIMATES		APPROVED FUNDING THROUGH YEAR 3			ENCUMBRANCES/ EXPENDITURES/ OBLIGATIONS				
Program Element Summary Tasks		ROD Program Cost Estimates	Revised Program Cost Estimates	FUNDING* YEARS 1 -3	STATE	FEDERAL	LOCAL/ WATER USER	ACTUALS** YEARS 1&2	STATE	FEDERAL	LOCAL/ WATER USER
1	Ground Water Storage - Feasibility Study Grants	\$65,000	\$34,900	\$18,452	\$18,452	\$0	\$0	\$18,072	\$18,072	\$0	\$0
2	Ground Water Storage - Technical Assistance to Local Programs	\$0	\$41,100	\$9,946	\$9,946	\$0	\$0	\$7,462	\$7,462	\$0	\$0
3	Ground Water Storage - Implementation Grants and Loans	\$400,000	\$661,400	\$243,933	\$243,933	\$0	\$0	\$154,604	\$154,604	\$0	\$0
4	Surface Storage - Shasta Lake Enlargement - Plan'g	\$8,000	\$14,100	\$4,903	\$127	\$4,776	\$0	\$2,828	\$52	\$2,776	\$0
5	Surface Storage - Shasta Lake Enlargement - D&C	\$150,000	\$105,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Surface Storage - Nor. Of Delta Off-Stream Storage - Plan'g	\$50,000	\$34,000	\$20,077	\$18,645	\$1,432	\$0	\$14,489	\$13,557	\$932	\$0
7	Surface Storage - Nor. Of Delta Off-Stream Storage - D&C	\$0	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Surface Storage - In-Delta Storage Investigations - Plan'g	\$36,000	\$14,200	\$7,193	\$6,693	\$500	\$0	\$4,647	\$4,397	\$250	\$0
9	Surface Storage - In-Delta Storage Investigations - D&C	\$400,000	\$417,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10	Surface Storage - Los Vaqueros Reservoir Expansion - Plan'g	\$37,500	\$32,300	\$9,649	\$3,375	\$6,274	\$0	\$6,549	\$2,275	\$4,274	\$0
11	Surface Storage - Los Vaqueros Reservoir Expansion - D&C	\$200,000	\$317,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12	Surface Storage - Upper San Joaquin River Stor. Inv. - Plan'g	\$50,200	\$21,600	\$5,950	\$1,294	\$4,656	\$0	\$3,735	\$829	\$2,906	\$0
13	Surface Storage - Upper San Joaquin River Stor. Inv. - D&C	\$0	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14	Oversight and Coordination / Water Mgmt. Strategy	\$15,000	\$9,800	\$3,223	\$3,223	\$0	\$0	\$1,853	\$1,853	\$0	\$0
15				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>		<b>\$1,411,700</b>	<b>\$1,927,800</b>	<b>\$323,326</b>	<b>\$305,688</b>	<b>\$17,638</b>	<b>\$0</b>	<b>\$214,239</b>	<b>\$203,101</b>	<b>\$11,138</b>	<b>\$0</b>

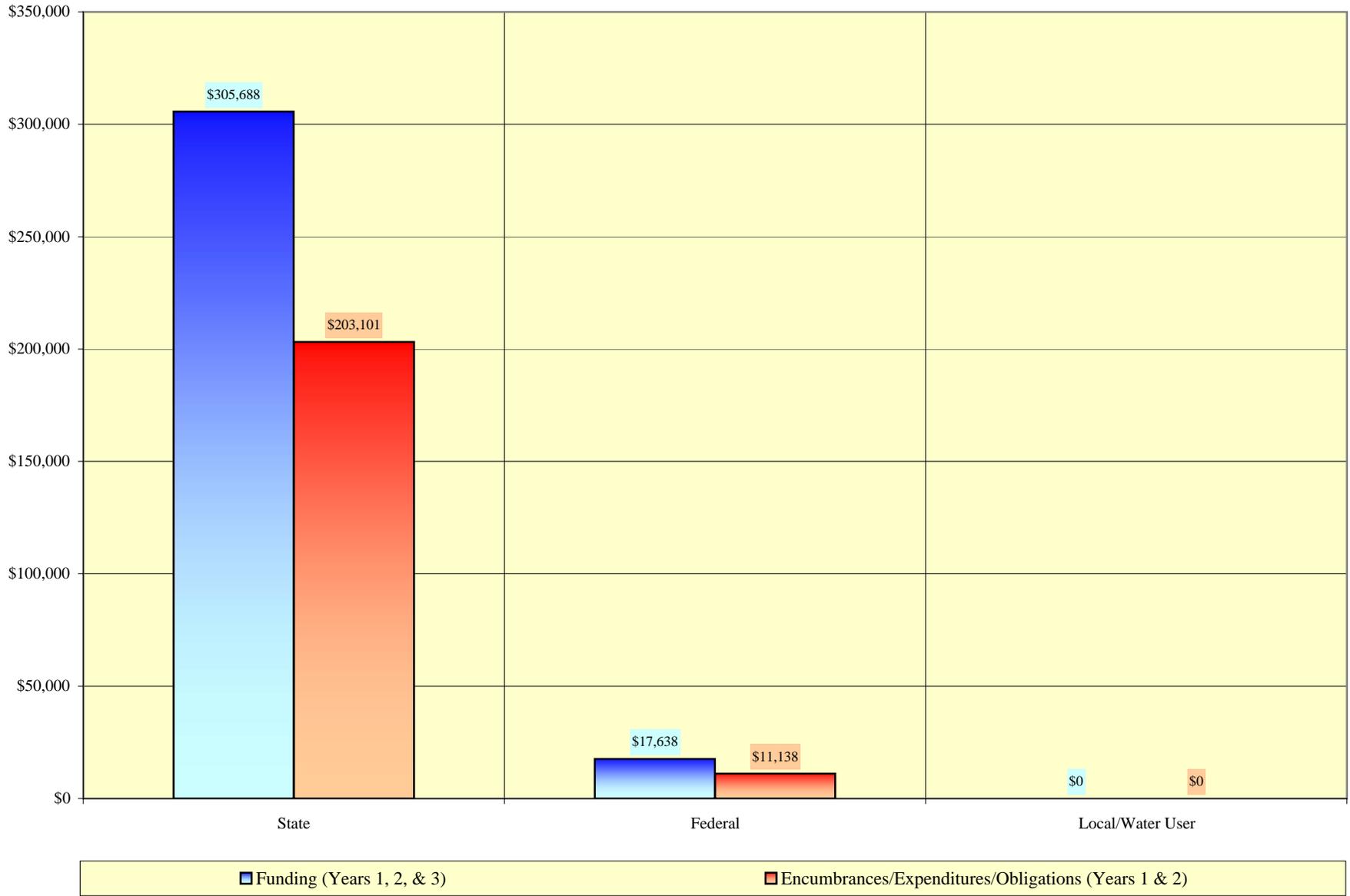
Comments: \*Funding = State encumbrances / expenses and Federal obligations (Years 1 & 2 plus approved budget for year 3)

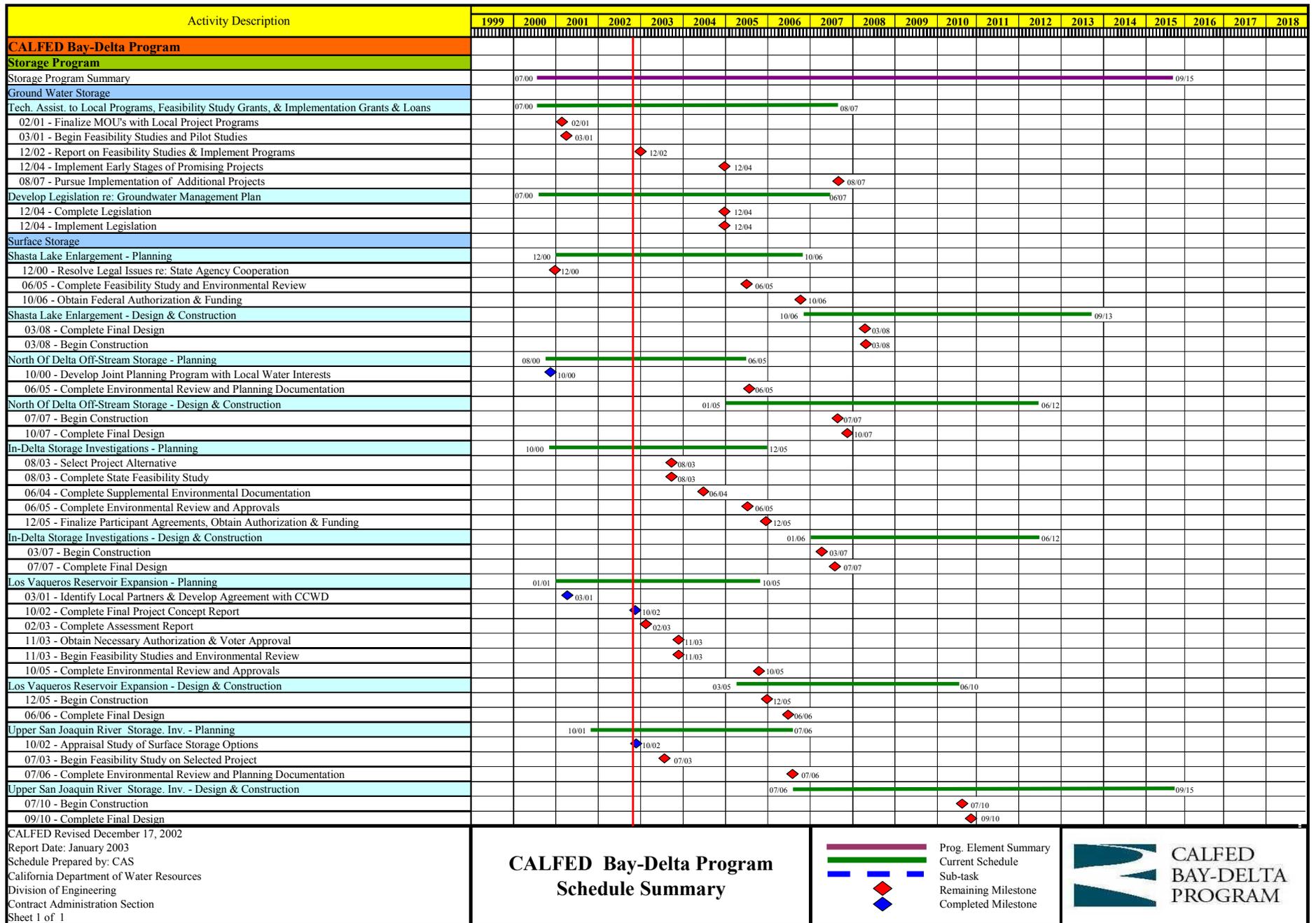
\*\*Actuals = State encumbrances / expenses and Federal obligations for years 1 & 2. State fiscal years 07/01/00 to 06/30/02 & Federal fiscal years 10/01/00 to 09/30/02.

### CALFED - Storage Program Element Summary Bar Chart by Tasks (dollars in thousands)



**CALFED - Storage Program Element Bar Chart Comparison**  
**Funding for Years 1, 2, & 3 vs. Encumbrances/Expenditures/Obligations Years 1 & 2**  
 (dollars in thousands)





CALFED Revised December 17, 2002  
 Report Date: January 2003  
 Schedule Prepared by: CAS  
 California Department of Water Resources  
 Division of Engineering  
 Contract Administration Section  
 Sheet 1 of 1

### CALFED Bay-Delta Program Schedule Summary

-  Prog. Element Summary
-  Current Schedule
-  Sub-task
-  Remaining Milestone
-  Completed Milestone





## CALFED BAY- DELTA PROGRAM Storage

### **Storage Program Element Overview**

Grant and loan awards for groundwater storage and conjunctive water management are on schedule, but funding constraints have delayed grant administration and technical support for local partnerships. Progress is being made on surface storage investigations, but lack of funding or federal authority to participate in feasibility studies has pushed back the schedules for all five surface storage projects. The target date for completion of draft environmental documents on several of the projects has been pushed back to the end of 2004.

### **Program Contacts**

State: Stephen Roberts – Department of Water Resources  
Telephone Number (916) 651-9249, e-mail address [sroberts@water.ca.gov](mailto:sroberts@water.ca.gov)

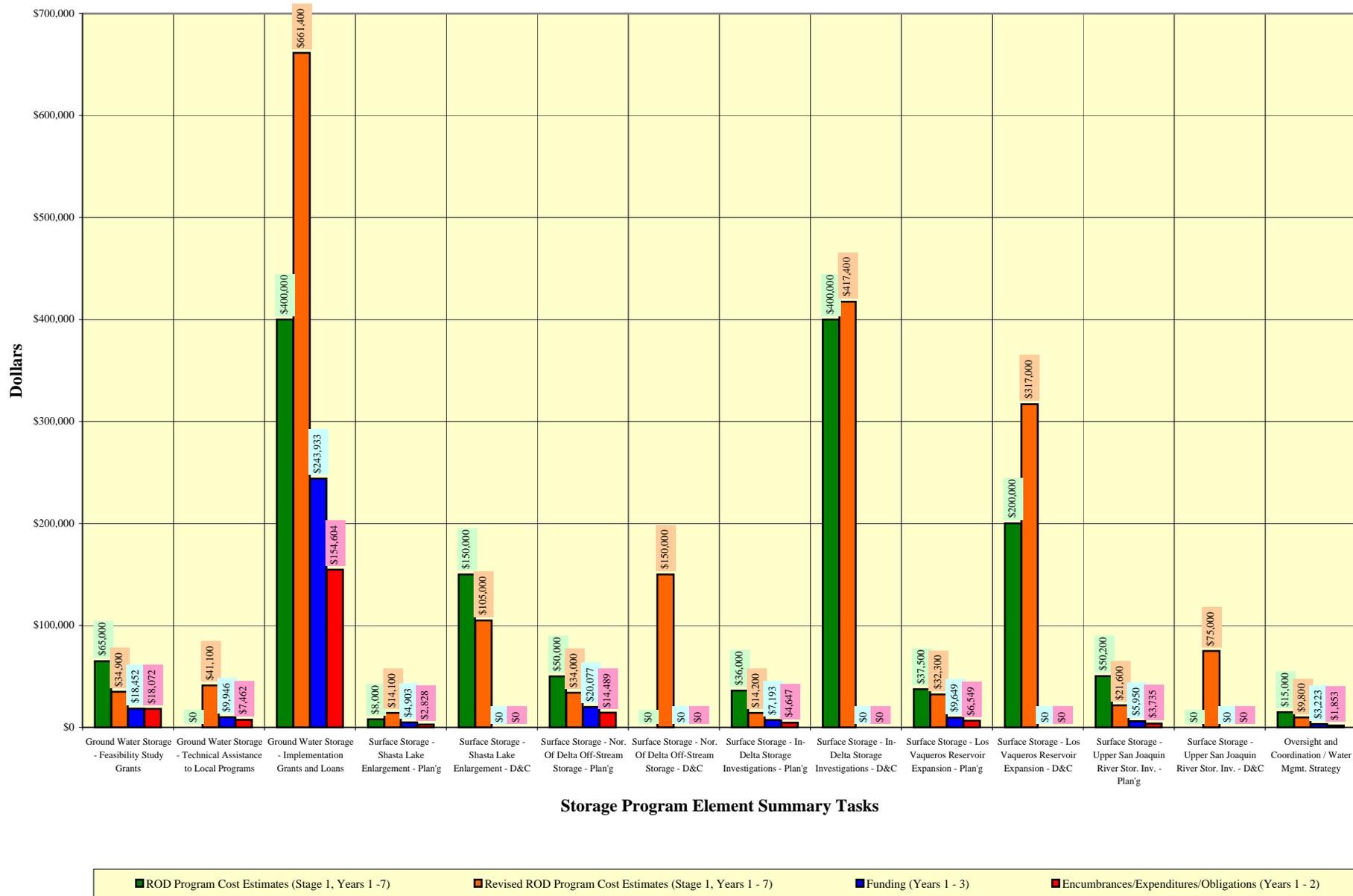
Federal: Nan Yoder – Bureau of Reclamation  
Telephone Number (916) 978-5523, e-mail address [nyoder@mp.usbr.gov](mailto:nyoder@mp.usbr.gov)

Storage		STAGE I COST ESTIMATES		APPROVED FUNDING THROUGH YEAR 3			ENCUMBRANCES/ EXPENDITURES/ OBLIGATIONS				
Program Element Summary Tasks		ROD Program Cost Estimates	Revised Program Cost Estimates	FUNDING* YEARS 1 -3	STATE	FEDERAL	LOCAL/ WATER USER	ACTUALS** YEARS 1&2	STATE	FEDERAL	LOCAL/ WATER USER
1	Ground Water Storage - Feasibility Study Grants	\$65,000	\$34,900	\$18,452	\$18,452	\$0	\$0	\$18,072	\$18,072	\$0	\$0
2	Ground Water Storage - Technical Assistance to Local Programs	\$0	\$41,100	\$9,946	\$9,946	\$0	\$0	\$7,462	\$7,462	\$0	\$0
3	Ground Water Storage - Implementation Grants and Loans	\$400,000	\$661,400	\$243,933	\$243,933	\$0	\$0	\$154,604	\$154,604	\$0	\$0
4	Surface Storage - Shasta Lake Enlargement - Plan'g	\$8,000	\$14,100	\$4,903	\$127	\$4,776	\$0	\$2,828	\$52	\$2,776	\$0
5	Surface Storage - Shasta Lake Enlargement - D&C	\$150,000	\$105,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Surface Storage - Nor. Of Delta Off-Stream Storage - Plan'g	\$50,000	\$34,000	\$20,077	\$18,645	\$1,432	\$0	\$14,489	\$13,557	\$932	\$0
7	Surface Storage - Nor. Of Delta Off-Stream Storage - D&C	\$0	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Surface Storage - In-Delta Storage Investigations - Plan'g	\$36,000	\$14,200	\$7,193	\$6,693	\$500	\$0	\$4,647	\$4,397	\$250	\$0
9	Surface Storage - In-Delta Storage Investigations - D&C	\$400,000	\$417,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10	Surface Storage - Los Vaqueros Reservoir Expansion - Plan'g	\$37,500	\$32,300	\$9,649	\$3,375	\$6,274	\$0	\$6,549	\$2,275	\$4,274	\$0
11	Surface Storage - Los Vaqueros Reservoir Expansion - D&C	\$200,000	\$317,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12	Surface Storage - Upper San Joaquin River Stor. Inv. - Plan'g	\$50,200	\$21,600	\$5,950	\$1,294	\$4,656	\$0	\$3,735	\$829	\$2,906	\$0
13	Surface Storage - Upper San Joaquin River Stor. Inv. - D&C	\$0	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14	Oversight and Coordination / Water Mgmt. Strategy	\$15,000	\$9,800	\$3,223	\$3,223	\$0	\$0	\$1,853	\$1,853	\$0	\$0
15				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>		<b>\$1,411,700</b>	<b>\$1,927,800</b>	<b>\$323,326</b>	<b>\$305,688</b>	<b>\$17,638</b>	<b>\$0</b>	<b>\$214,239</b>	<b>\$203,101</b>	<b>\$11,138</b>	<b>\$0</b>

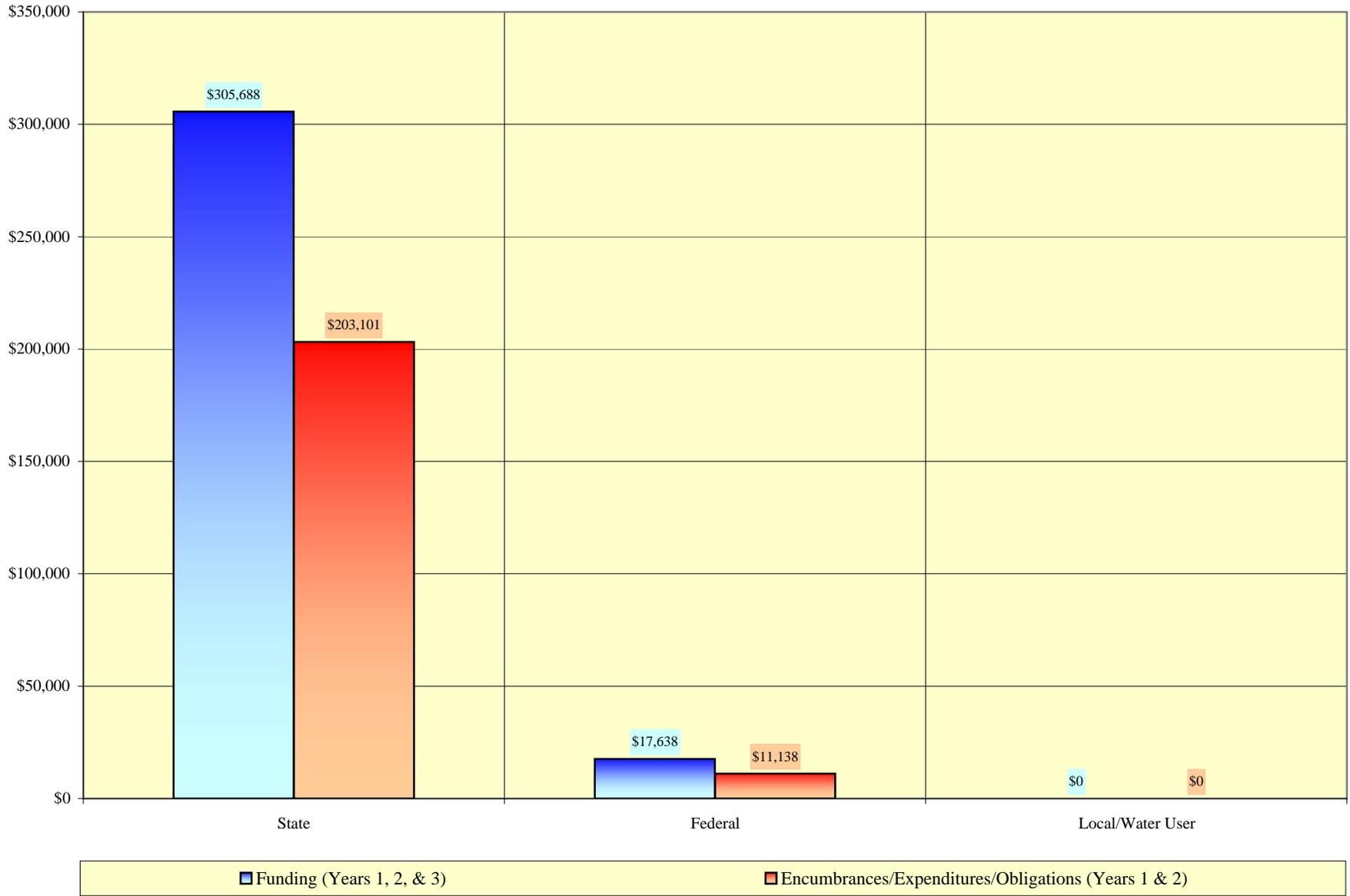
Comments: \*Funding = State encumbrances / expenses and Federal obligations (Years 1 & 2 plus approved budget for year 3)

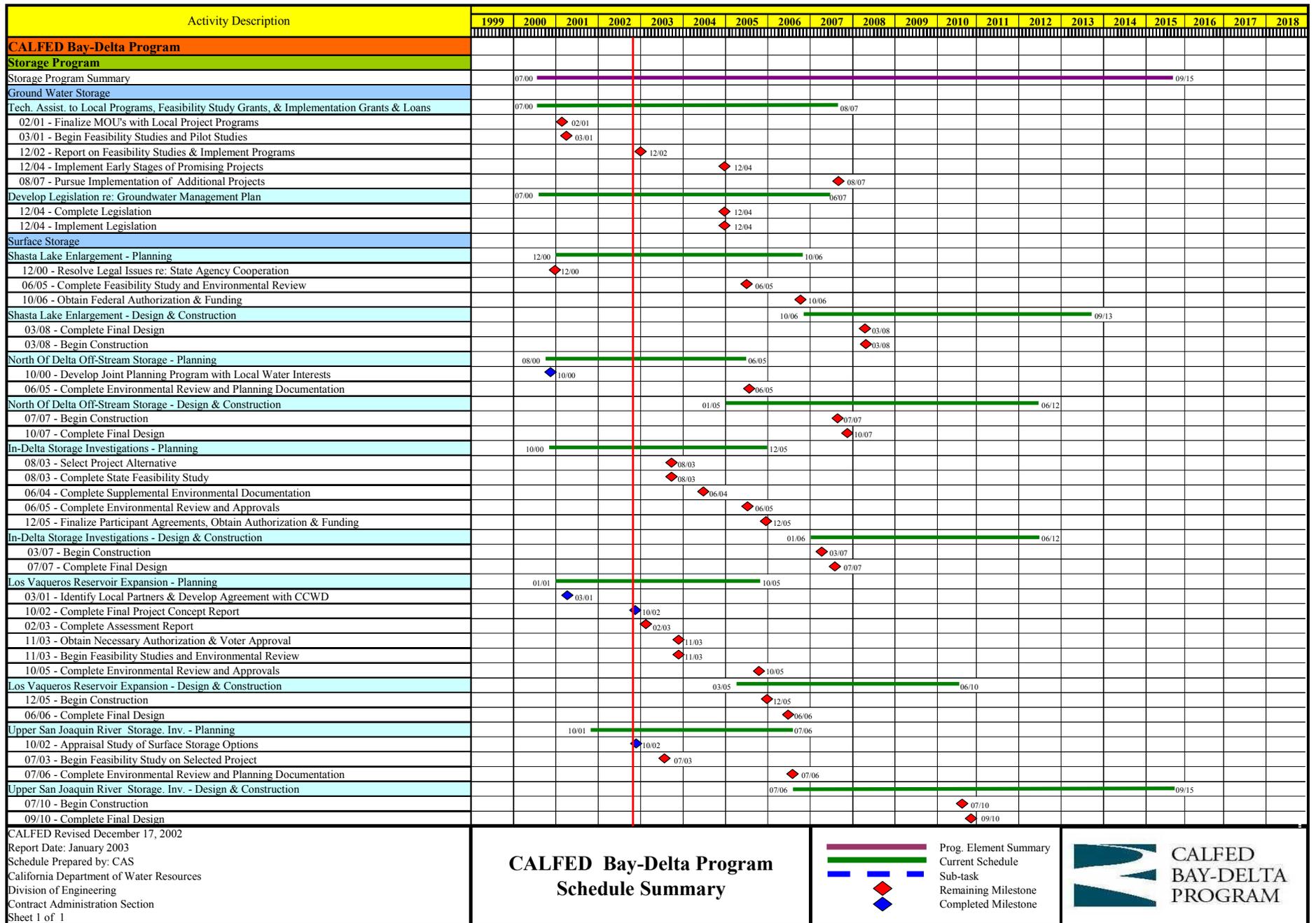
\*\*Actuals = State encumbrances / expenses and Federal obligations for years 1 & 2. State fiscal years 07/01/00 to 06/30/02 & Federal fiscal years 10/01/00 to 09/30/02.

### CALFED - Storage Program Element Summary Bar Chart by Tasks (dollars in thousands)



**CALFED - Storage Program Element Bar Chart Comparison**  
**Funding for Years 1, 2, & 3 vs. Encumbrances/Expenditures/Obligations Years 1 & 2**  
 (dollars in thousands)





CALFED Revised December 17, 2002  
 Report Date: January 2003  
 Schedule Prepared by: CAS  
 California Department of Water Resources  
 Division of Engineering  
 Contract Administration Section  
 Sheet 1 of 1

### CALFED Bay-Delta Program Schedule Summary

-  Prog. Element Summary
-  Current Schedule
-  Sub-task
-  Remaining Milestone
-  Completed Milestone





# CALFED BAY- DELTA PROGRAM

## Conveyance

### **Conveyance Program Element Overview**

The public scoping process has begun for increasing South Delta pumping to 8,500 cfs and a draft impact analysis has been completed for construction of permanent barriers, but the schedule for both projects has been delayed one year to 2004. Funding constraints and related technical issues have led to delays and a reevaluation of the Tracy Fish Test Facility and screening of Clifton Court Forebay. The schedule for San Luis Low Point has been revised due to expansion of scope, while environmental review of North Delta Flood Protection and Ecosystem Restoration Project has been delayed due to lack of funding and staff.

### **Program Contacts**

State: Donald Kurosaka – Department of Water Resources,  
Telephone number (916) 653-6636, e-mail address - donk@water.ca.gov

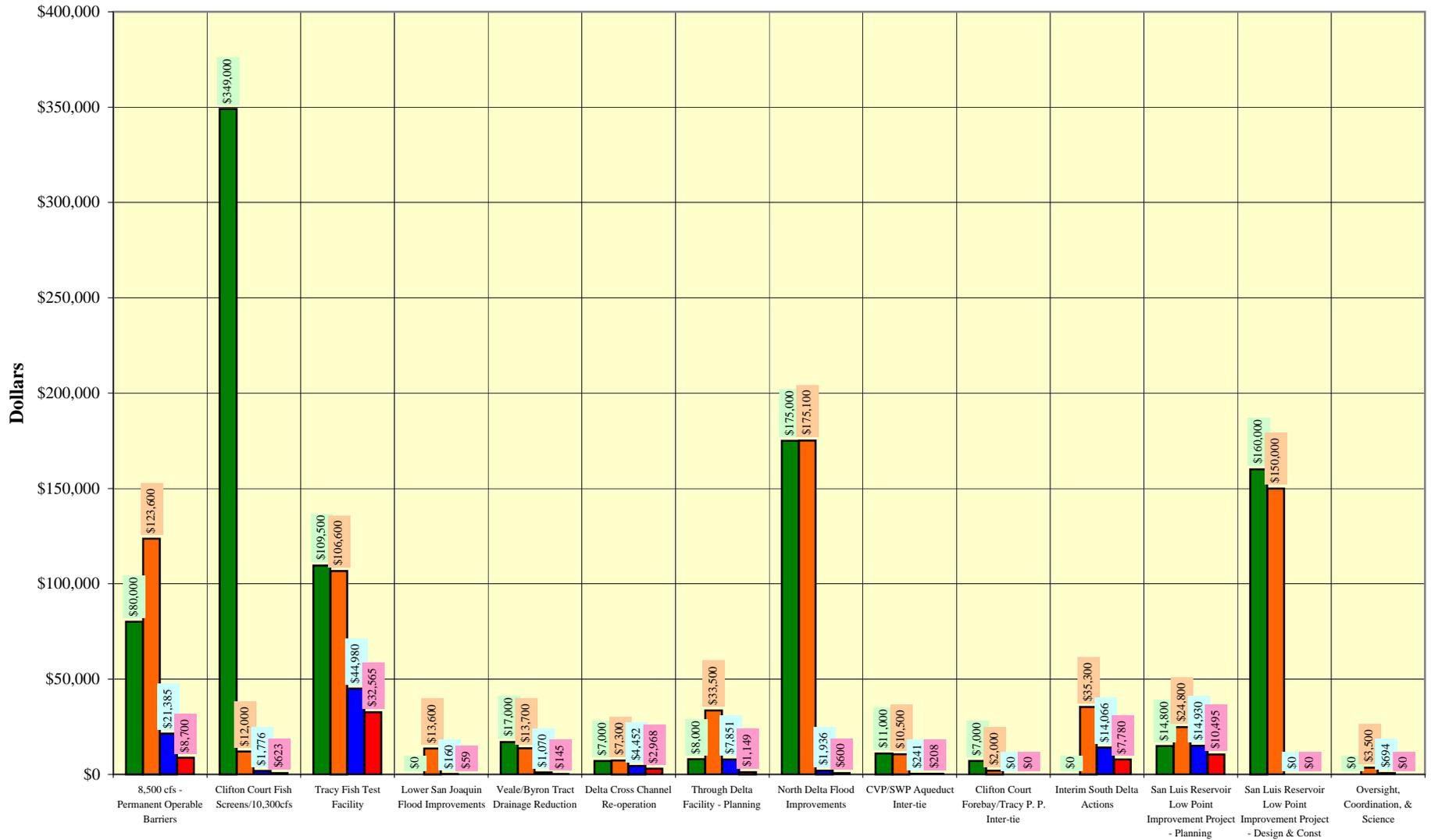
Federal: Nan Yoder – Bureau of Reclamation,  
Telephone number (916) 978-5523, e-mail address nyoder@mp.usbr

Conveyance		STAGE I COST ESTIMATES		APPROVED FUNDING THROUGH YEAR 3			ENCUMBRANCES/ EXPENDITURES/ OBLIGATIONS				
Program Element Summary Tasks		ROD Program Cost Estimates	Revised Program Cost Estimates	FUNDING* YEARS 1 -3	STATE	FEDERAL	LOCAL/ WATER USER	ACTUALS** YEARS 1&2	STATE	FEDERAL	LOCAL/ WATER USER
1	8,500 cfs - Permanent Operable Barriers	\$80,000	\$123,600	\$21,385	\$75	\$0	\$21,310	\$8,700	\$0	\$0	\$8,700
2	Clifton Court Fish Screens/10,300cfs	\$349,000	\$12,000	\$1,776	\$193	\$0	\$1,583	\$623	\$78	\$0	\$545
3	Tracy Fish Test Facility	\$109,500	\$106,600	\$44,980	\$29,093	\$5,346	\$10,541	\$32,565	\$23,678	\$3,346	\$5,541
4	Lower San Joaquin Flood Improvements	\$0	\$13,600	\$160	\$160	\$0	\$0	\$59	\$59	\$0	\$0
5	Veale/Byron Tract Drainage Reduction	\$17,000	\$13,700	\$1,070	\$706	\$0	\$364	\$145	\$145	\$0	\$0
6	Delta Cross Channel Re-operation	\$7,000	\$7,300	\$4,452	\$4,080	\$150	\$222	\$2,968	\$2,818	\$150	\$0
7	Through Delta Facility - Planning	\$8,000	\$33,500	\$7,851	\$6,935	\$0	\$916	\$1,149	\$1,149	\$0	\$0
8	North Delta Flood Improvements	\$175,000	\$175,100	\$1,936	\$1,936	\$0	\$0	\$600	\$600	\$0	\$0
9	CVP/SWP Aqueduct Inter-tie	\$11,000	\$10,500	\$241	\$33	\$208	\$0	\$208	\$0	\$208	\$0
10	Clifton Court Forebay/Tracy P. P. Inter-tie	\$7,000	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Interim South Delta Actions	\$0	\$35,300	\$14,066	\$200	\$0	\$13,866	\$7,780	\$0	\$0	\$7,780
12	San Luis Reservoir Low Point Improvement Project - Planning	\$14,800	\$24,800	\$14,930	\$14,811	\$94	\$25	\$10,495	\$10,401	\$94	\$0
13	San Luis Reservoir Low Point Improvement Project - Design & Const	\$160,000	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14	Oversight, Coordination, & Science	\$0	\$3,500	\$694	\$650	\$0	\$44	\$0	\$0	\$0	\$0
15				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
17				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>		<b>\$938,300</b>	<b>\$711,500</b>	<b>\$113,541</b>	<b>\$58,872</b>	<b>\$5,798</b>	<b>\$48,871</b>	<b>\$65,292</b>	<b>\$38,928</b>	<b>\$3,798</b>	<b>\$22,566</b>

Comments: \*Funding = State encumbrances / expenses and Federal obligations (Years 1 & 2 plus approved budget for year 3)

\*\*Actuals = State encumbrances / expenses and Federal obligations for years 1 & 2. State fiscal years 07/01/00 to 06/30/02 & Federal fiscal years 10/01/00 to 09/30/02.

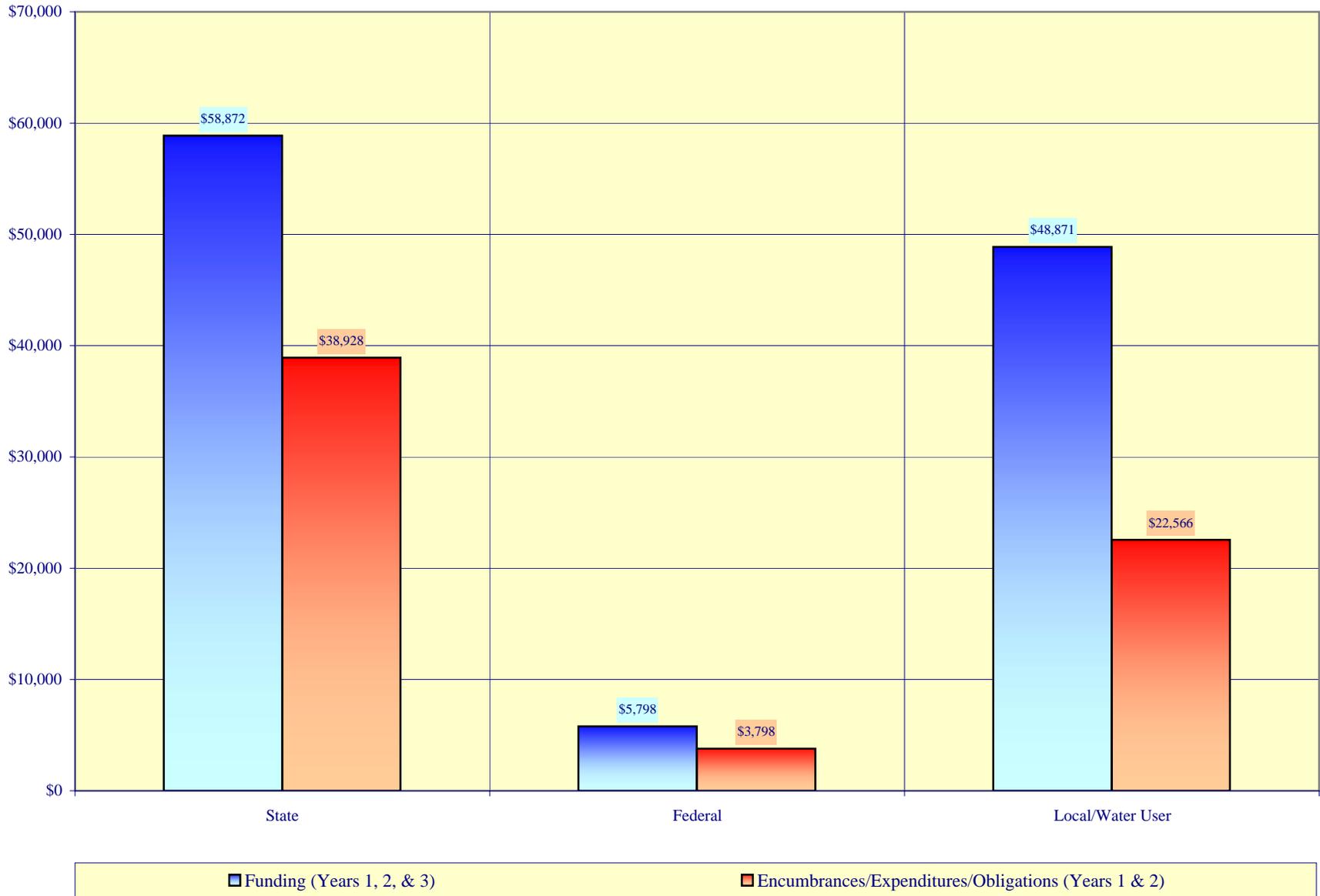
## CALFED - Conveyance Program Element Summary Bar Chart by Tasks (dollars in thousands)

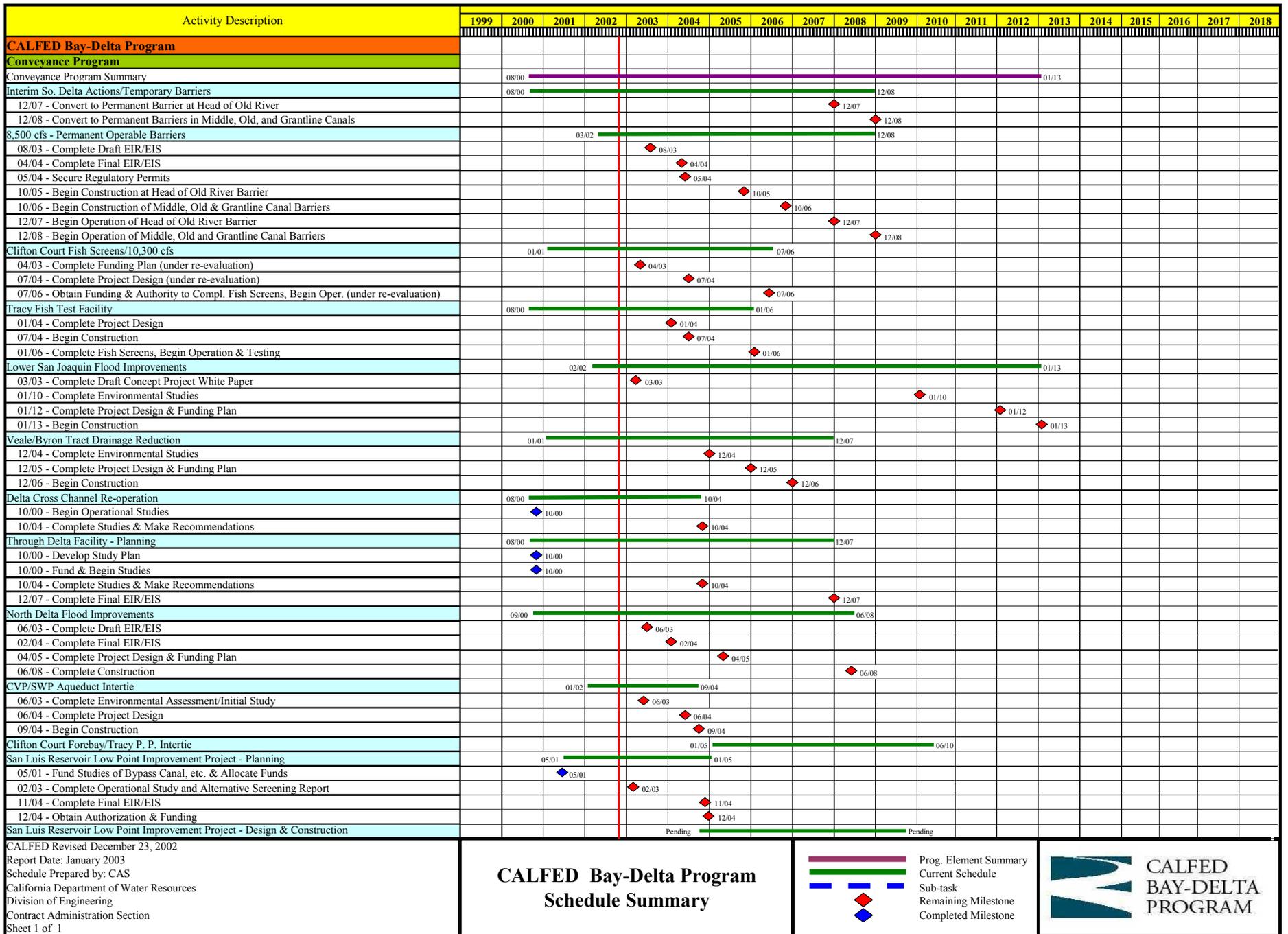


**Conveyance Program Element Summary Tasks**

■ ROD Program Cost Estimates (Stage 1, Years 1 - 7)    
 ■ Revised ROD Program Cost Estimates (Stage 1, Years 1 - 7)    
 ■ Funding (Years 1 - 3)    
 ■ Encumbrances/Expenditures/Obligations (Years 1 - 2)

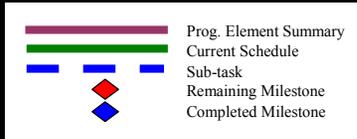
**CALFED - Conveyance Program Element Bar Chart Comparison**  
**Funding for Years 1, 2, & 3 vs. Encumbrances/Expenditures/Obligations (Years 1 & 2)**  
 (dollars in thousands)





CALFED Revised December 23, 2002  
 Report Date: January 2003  
 Schedule Prepared by: CAS  
 California Department of Water Resources  
 Division of Engineering  
 Contract Administration Section  
 Sheet 1 of 1

## CALFED Bay-Delta Program Schedule Summary





# CALFED BAY-DELTA PROGRAM

## Water Use Efficiency

### **Water Use Efficiency Program Element Overview**

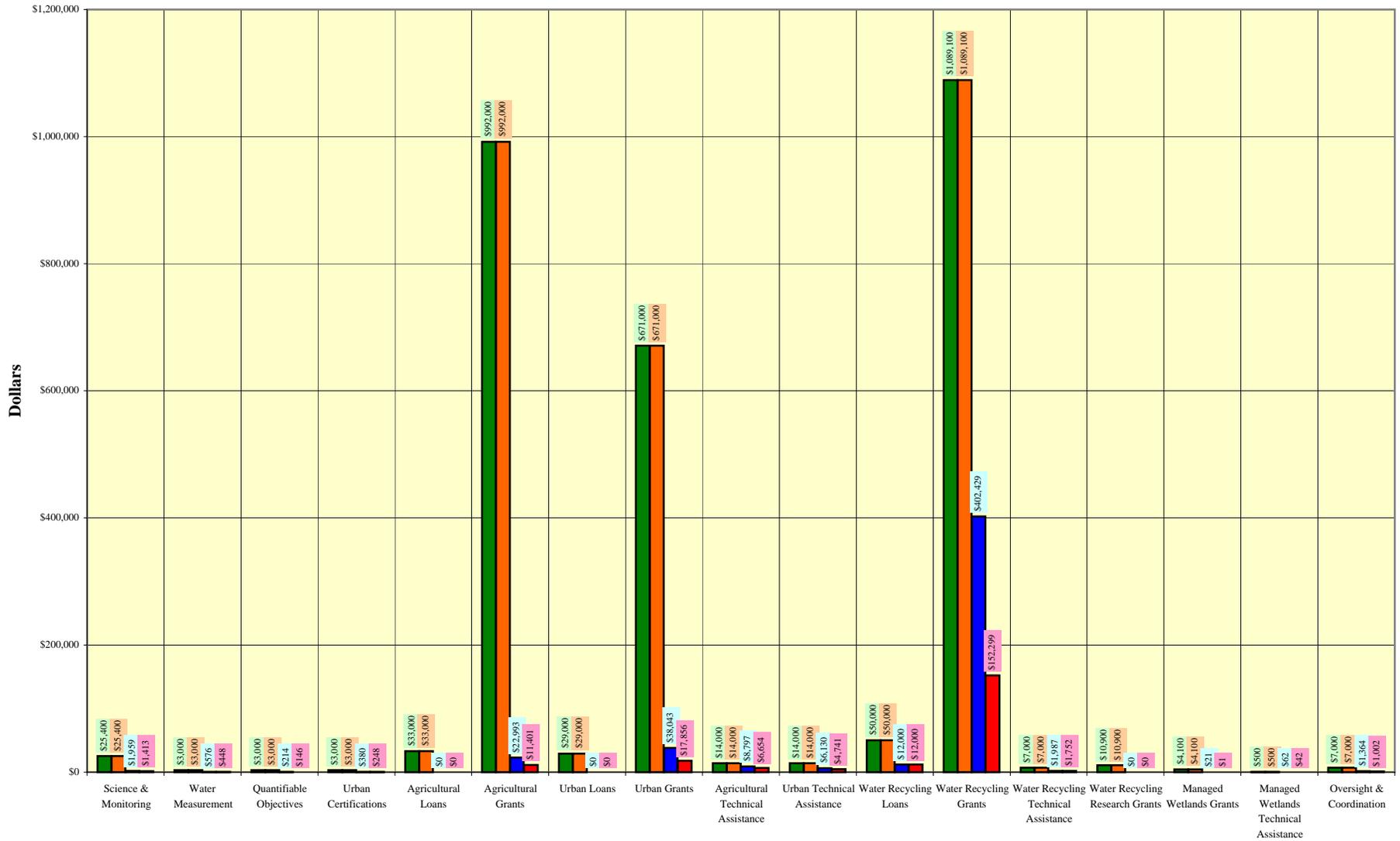
CALFED Agencies provided more than \$10 million in grants, in 2002, for 37 agricultural and urban water conservation projects. In addition, more than \$140 million in grants and loans were awarded for 30 local water recycling projects that will increase statewide recycling by 36,000 acre-feet per year. To assure the public of high water use efficiency, CALFED agencies are investing in scientifically-based performance measures including agricultural quantifiable objectives. Contracting delays and a lack of resources have affected awarding of some grants for defining performance measures and monitoring local water use efficiency projects. Grant funding in Year 3, is expected to fall below levels identified in the Bay-Delta Plan in Year 2003.

### **Program Contact**

Tom Gohring – CALFED Bay-Delta Program  
Telephone number (916) 651-7102, e-mail address [gohring@water.ca.gov](mailto:gohring@water.ca.gov)

Water Use Efficiency		STAGE I COST ESTIMATES		APPROVED FUNDING THROUGH YEAR 3			ENCUMBRANCES/ EXPENDITURES/ OBLIGATIONS				
Program Element Summary Tasks		ROD Program Cost Estimates	Revised Program Cost Estimates	FUNDING* YEARS 1 -3	STATE	FEDERAL	LOCAL/ WATER USER	ACTUALS** YEARS 1&2	STATE	FEDERAL	LOCAL/ WATER USER
1	Science & Monitoring	\$25,400	\$25,400	\$1,959	\$1,584	\$375	\$0	\$1,413	\$1,042	\$371	\$0
2	Water Measurement	\$3,000	\$3,000	\$576	\$406	\$170	\$0	\$448	\$286	\$162	\$0
3	Quantifiable Objectives	\$3,000	\$3,000	\$214	\$202	\$12	\$0	\$146	\$142	\$4	\$0
4	Urban Certifications	\$3,000	\$3,000	\$380	\$356	\$24	\$0	\$248	\$236	\$12	\$0
5	Agricultural Loans	\$33,000	\$33,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Agricultural Grants	\$992,000	\$992,000	\$22,993	\$18,703	\$2,092	\$2,198	\$11,401	\$8,844	\$1,092	\$1,465
7	Urban Loans	\$29,000	\$29,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Urban Grants	\$671,000	\$671,000	\$38,043	\$35,129	\$1,449	\$1,465	\$17,856	\$16,041	\$839	\$976
9	Agricultural Technical Assistance	\$14,000	\$14,000	\$8,797	\$7,473	\$1,324	\$0	\$6,654	\$5,544	\$1,110	\$0
10	Urban Technical Assistance	\$14,000	\$14,000	\$6,130	\$5,675	\$455	\$0	\$4,741	\$4,386	\$355	\$0
11	Water Recycling Loans	\$50,000	\$50,000	\$12,000	\$12,000	\$0	\$0	\$12,000	\$12,000	\$0	\$0
12	Water Recycling Grants	\$1,089,100	\$1,089,100	\$402,429	\$12,725	\$62,258	\$327,446	\$152,299	\$225	\$46,358	\$105,716
13	Water Recycling Technical Assistance	\$7,000	\$7,000	\$1,987	\$1,827	\$160	\$0	\$1,752	\$1,752	\$0	\$0
14	Water Recycling Research Grants	\$10,900	\$10,900	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15	Managed Wetlands Grants	\$4,100	\$4,100	\$21	\$0	\$21	\$0	\$1	\$0	\$1	\$0
16	Managed Wetlands Technical Assistance	\$500	\$500	\$62	\$0	\$62	\$0	\$42	\$0	\$42	\$0
17	Oversight & Coordination	\$7,000	\$7,000	\$1,364	\$1,364	\$0	\$0	\$1,002	\$1,002	\$0	\$0
<b>Totals</b>		<b>\$2,956,000</b>	<b>\$2,956,000</b>	<b>\$496,955</b>	<b>\$97,444</b>	<b>\$68,402</b>	<b>\$331,109</b>	<b>\$210,004</b>	<b>\$51,500</b>	<b>\$50,346</b>	<b>\$108,158</b>
Comments: *Funding = State encumbrances / expenses and Federal obligations (Years 1 & 2 plus approved budget for year 3)											
**Actuals = State encumbrances / expenses and Federal obligations for years 1 & 2. State fiscal years 07/01/00 to 06/30/02 & Federal fiscal years 10/01/00 to 09/30/02											

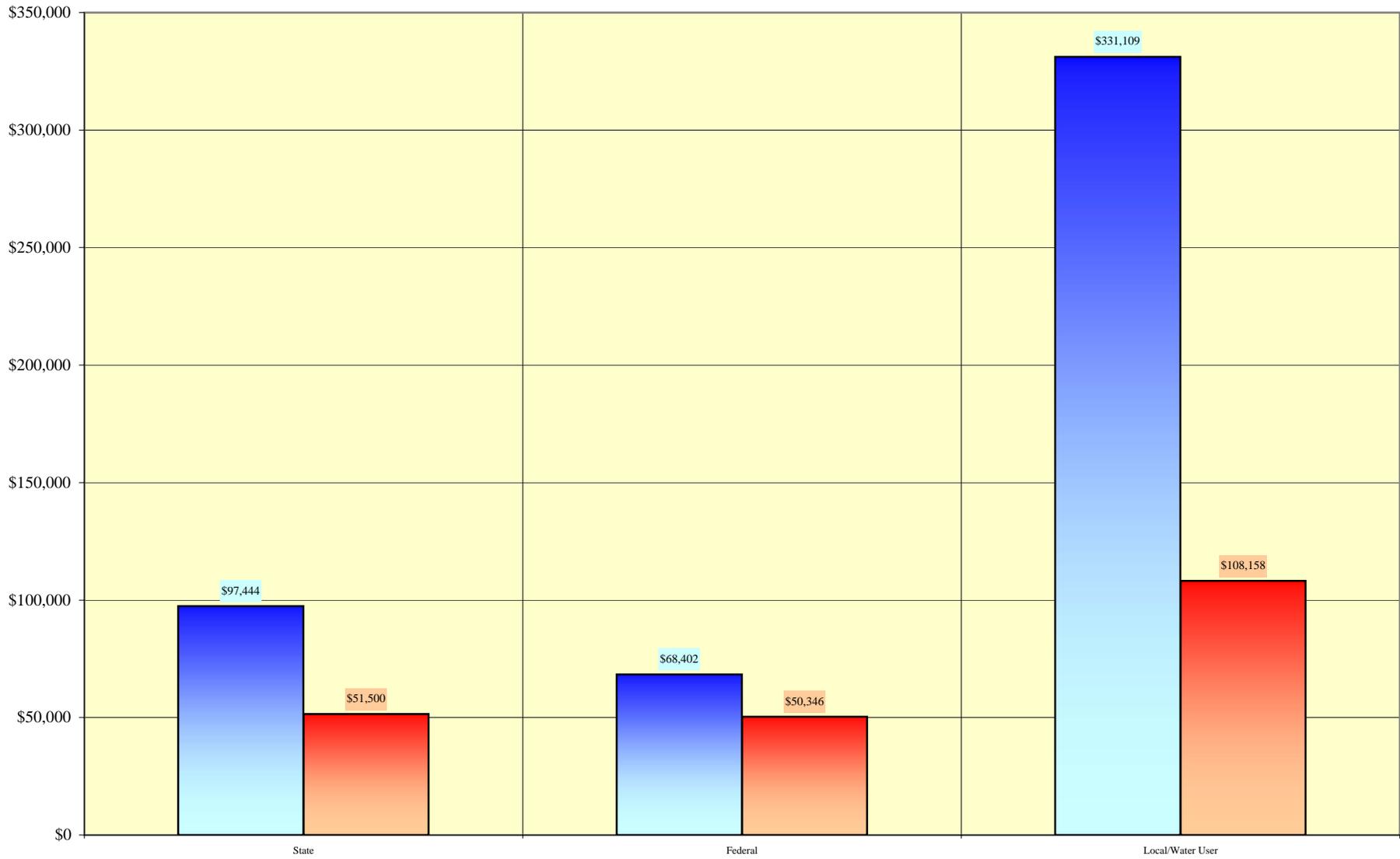
### CALFED - Water Use Efficiency Summary Bar Chart by Tasks (dollars in thousands)



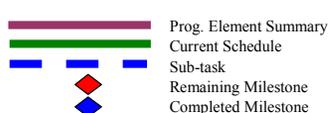
**Water Use Efficiency Program Element Summary Tasks**

■ ROD Program Cost Estimates (Stage 1, Years 1 - 7)    
 ■ Revised ROD Program Cost Estimates (Stage 1, Years 1 - 7)    
 ■ Funding (Years 1 - 3)    
 ■ Encumbrances/Expenditures/Obligations (Years 1 - 2)

**CALFED - Water Use Efficiency Program Element Bar Chart Comparison**  
**Funding for Years 1, 2, & 3 vs. Encumbrances/Expenditures/Obligations Years 1 & 2**  
 (dollars in thousands)



■ Funding (Years 1, 2, & 3)
 ■ Encumbrances/Expenditures/Obligations (Years 1 & 2)

Activity Description	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>CALFED Bay-Delta Program</b>																				
<b>Water Use Efficiency Program</b>																				
Water Use Efficiency Summary																				
Science & Monitoring																				
12/03 - Develop Performance Indicators																				
Water Measurement																				
12/01 - Definition of Appropriate Measurement																				
07/03 - Draft Agricultural/Urban Water Measurement Definition																				
12/03 - Draft Water Measurement Legislation																				
Quantifiable Objectives																				
06/02 - Refine Quantifiable Objectives																				
06/03 - Draft Quantifiable Objectives Report																				
Urban Certifications																				
12/02 - Implement Urban Certification Process																				
Agricultural and Urban Loans and Grants																				
08/00 - Establish Loan & Grant Program																				
11/02 - Establish Grant Criteria																				
05/03 - Select Grants																				
Agricultural and Urban Technical Assistance																				
05/03 - Determine Technical Assistance Needs																				
07/03 - Draft Technical Assistance Plan																				
Water Recycling Loans & Grants, Including Research Grants																				
08/00 - Establish Loan & Grant Program																				
Water Recycling Technical Assistance																				
Managed Wetlands Grants																				
08/00 - Establish Loan & Grant Program																				
Managed Wetlands Technical Assistance																				
Oversight & Coordination																				
08/00 - Establish Agricultural Milestones																				
12/00 - Prepare Program Implementation Plan																				
12/00 - Establish Advisory Committee																				
07/01 - Develop Stage 1 Finance Proposal																				
12/04 - Determine Funding Needs & Update Finance Plan																				
Remove Landowner Transfer Incentives (Milestone) - No Date Specified																				
12/04 - Comprehensive 4 Year WUE Evaluation																				
CALFED Revised December 17, 2002 Report Date: January 2003 Schedule Prepared by: CAS California Department of Water Resources Division of Engineering Contract Administration Section Sheet 1 of 1	<b>CALFED Bay-Delta Program Schedule Summary</b>																			



# CALFED BAY-DELTA PROGRAM

## Water Transfers

### **Water Transfers Program Element Overview**

All Program deadlines have been met to date. A Water Transfers Information Clearinghouse has been established and white papers on transfers and related issues have been published. A panel of interested stakeholders has prepared and submitted a water transfers issues report for consideration. The On Tap web site is operational, but refinement will continue into Year 3 due to contracting issues. Development of in-stream water tracking protocols has been pushed back due to delays in the Environmental Water Program.

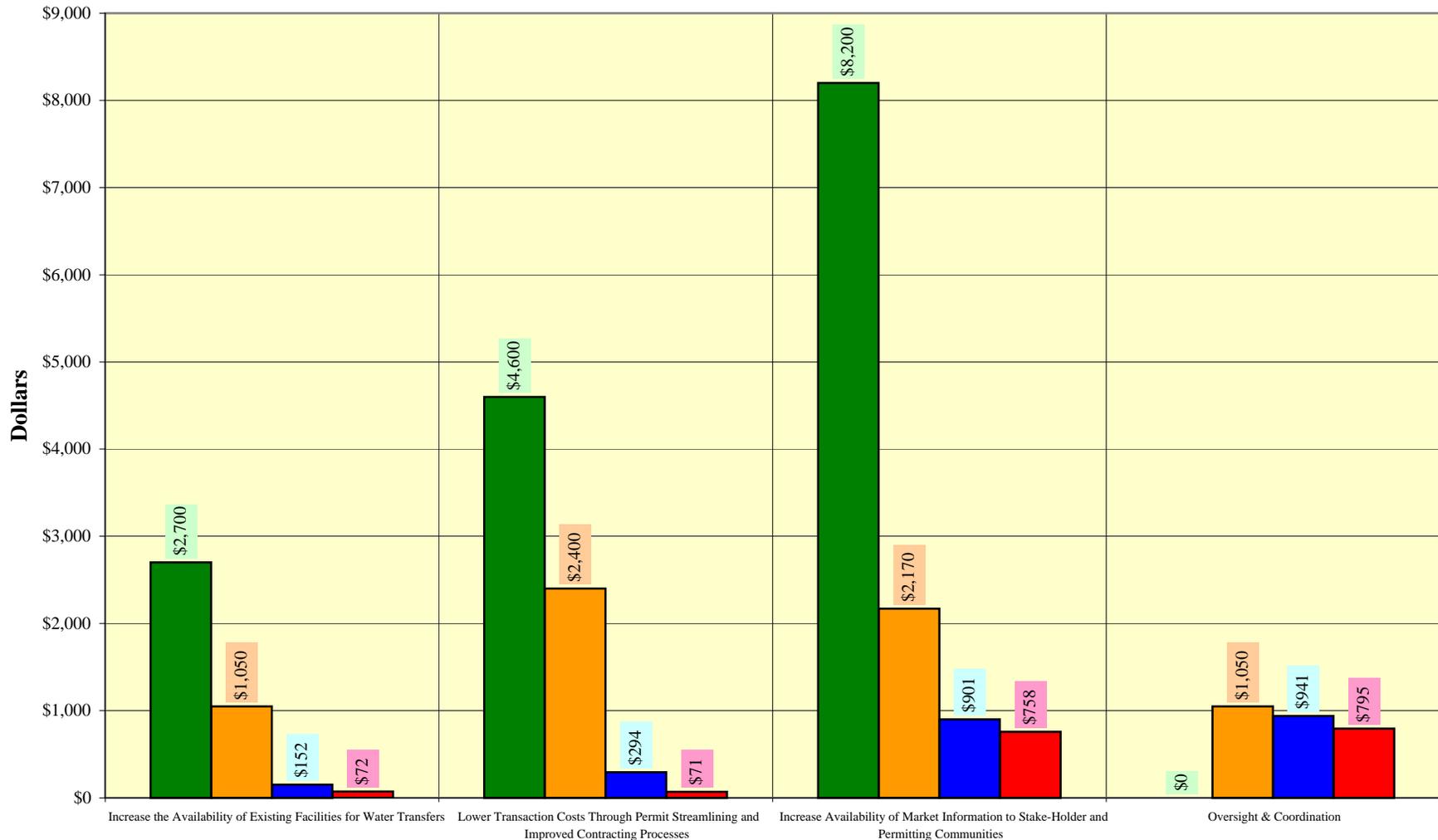
### **Program Contact**

Richard Hunn – CALFED Bay-Delta Program  
Telephone number (916) 651-9851, e-mail address [rhunn@water.ca.gov](mailto:rhunn@water.ca.gov)

WATER TRANSFERS		STAGE I COST ESTIMATES		APPROVED FUNDING THROUGH YEAR 3			ENCUMBRANCES/ EXPENDITURES/ OBLIGATIONS				
Program Element Summary Tasks		ROD Program Cost Estimates	Revised Program Cost Estimates	FUNDING* YEARS 1 -3	STATE	FEDERAL	LOCAL/ WATER USER	ACTUALS** YEARS 1&2	STATE	FEDERAL	LOCAL/ WATER USER
1	Increase the Availability of Existing Facilities for Water Transfers	\$2,700	\$1,050	\$152	\$152	\$0	\$0	\$72	\$72	\$0	\$0
2	Lower Transaction Costs Through Permit Streamlining and Improved Contracting Processes	\$4,600	\$2,400	\$294	\$294	\$0	\$0	\$71	\$71	\$0	\$0
3	Increase Availability of Market Information to Stake-Holder and Permitting Communities	\$8,200	\$2,170	\$901	\$684	\$217	\$0	\$758	\$541	\$217	\$0
4	Oversight & Coordination	\$0	\$1,050	\$941	\$941	\$0	\$0	\$795	\$795	\$0	\$0
5				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
17				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>		<b>\$15,500</b>	<b>\$6,670</b>	<b>\$2,288</b>	<b>\$2,071</b>	<b>\$217</b>	<b>\$0</b>	<b>\$1,696</b>	<b>\$1,479</b>	<b>\$217</b>	<b>\$0</b>

Comments: \*Funding = State encumbrances / expenses and Federal obligations (Years 1 & 2 plus approved budget for year 3)  
\*\*Actuals = State encumbrances / expenses and Federal obligations for years 1 & 2. State fiscal years 07/01/00 to 06/30/02 & Federal fiscal years 10/01/00 to 09/30/02.

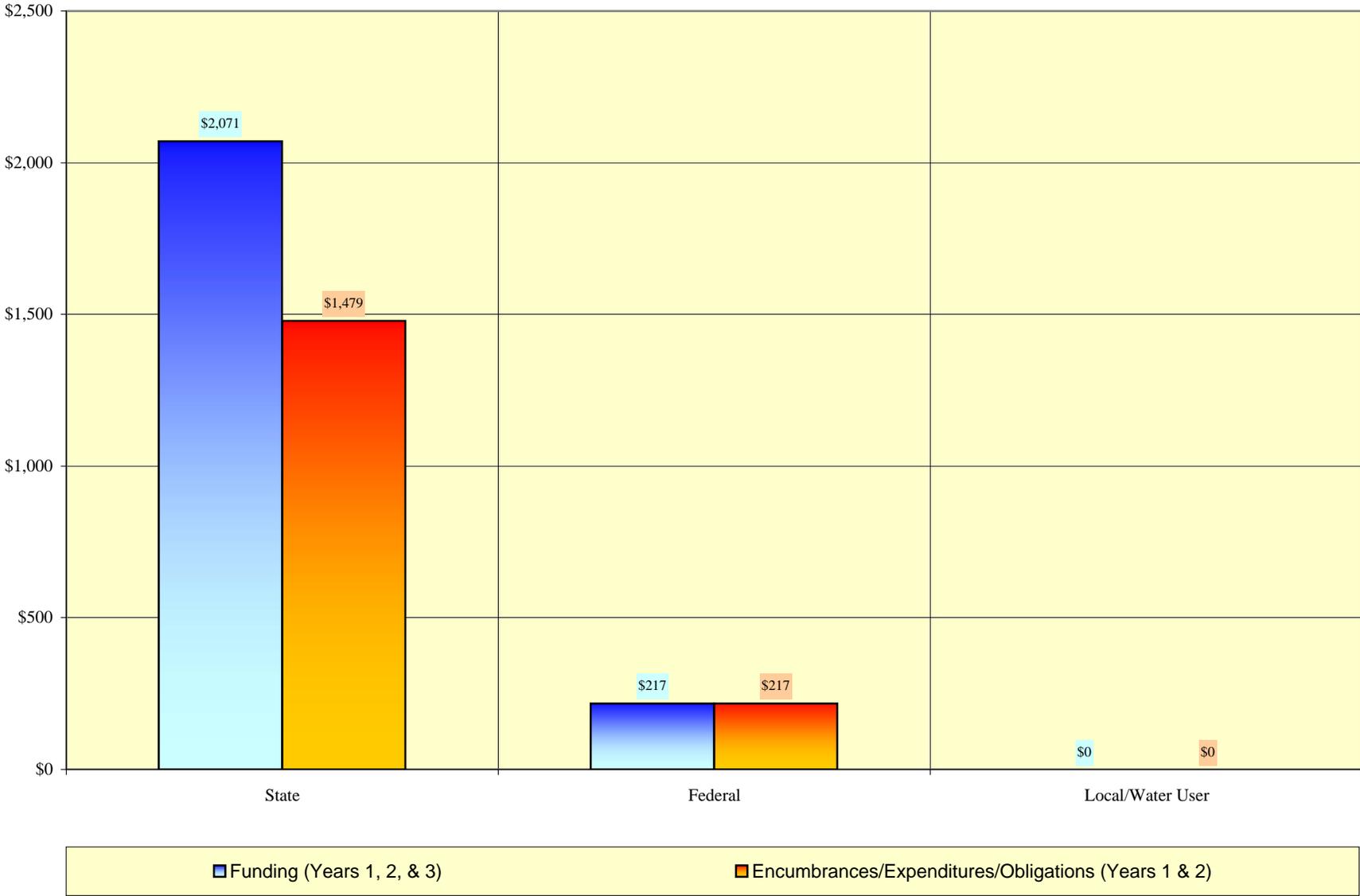
## CALFED - Water Transfers Program Element Summary Bar Chart by Tasks (dollars in thousands)

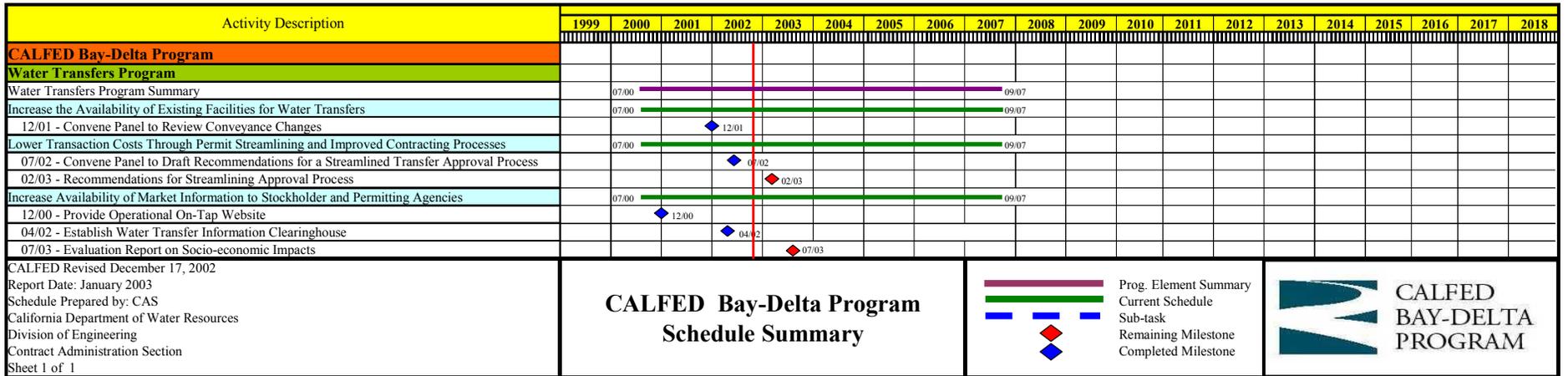


**Water Transfers Program Element Summary Tasks**

ROD Program Cost Estimates (Stage 1, Years 1 - 7)
  Revised ROD Program Cost Estimates (Stage 1, Years 1 - 7)
  Funding (Years 1 - 3)
  Encumbrances/Expenditures/Obligations (Years 1 - 2)

**CALFED - Water Transfers Program Element Bar Chart Comparison  
 Funding for Years 1, 2, & 3 vs. Encumbrances/Expenditures/Obligations Years 1 & 2  
 (dollars in thousands)**







# CALFED BAY- DELTA PROGRAM

## Ecosystem Restoration

### **Ecosystem Restoration Program Element Overview**

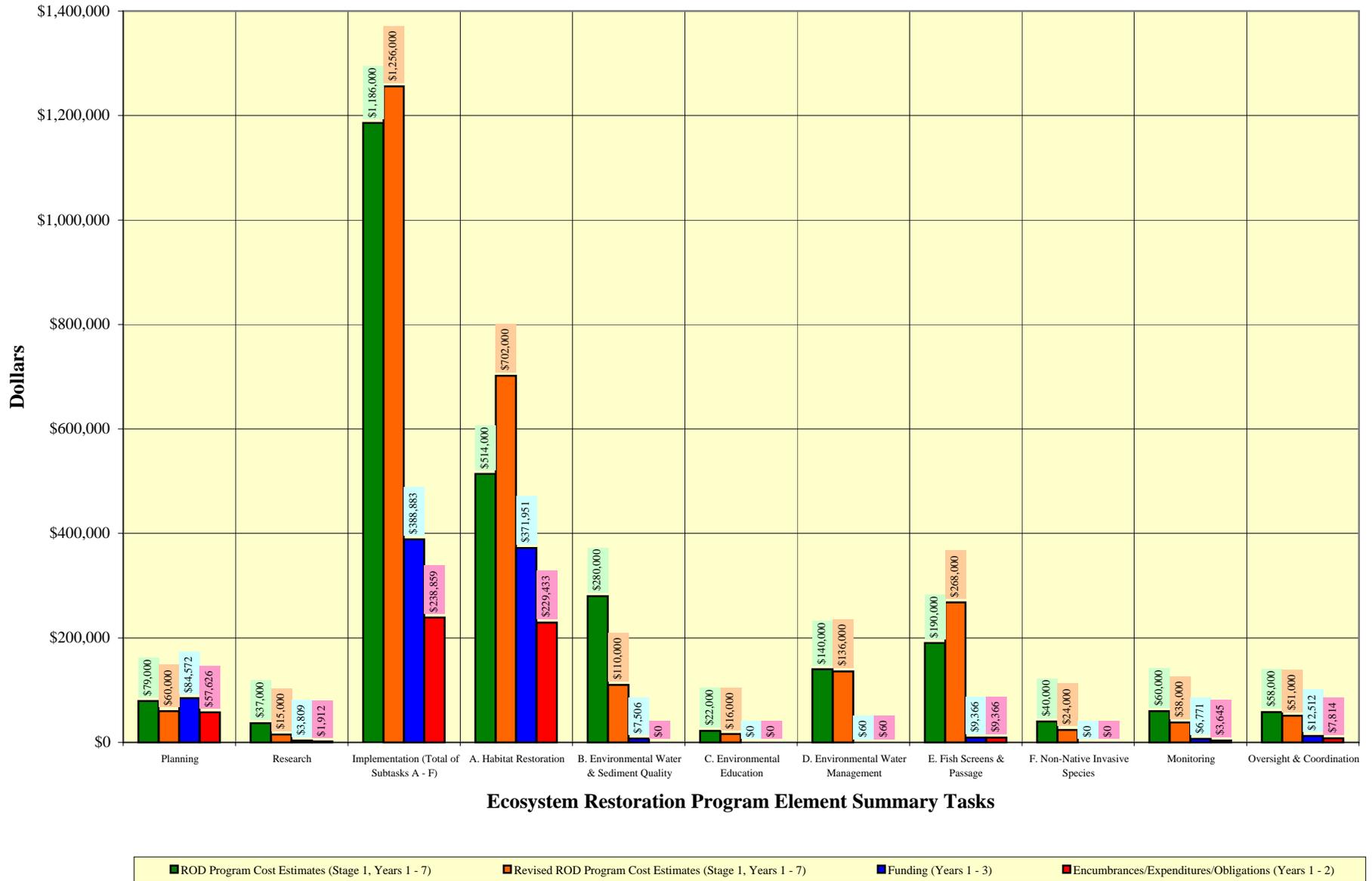
More than \$63,000,000 in funding for ecosystem restoration projects was awarded in 2002. Progress is being made on the Environmental Water Program, Upper Yuba River Studies Program and other ongoing activities, but delays are expected in Year 3 due to funding and contracting issues. Resource and contracting constraints have delayed preparation of a Delta-wide Ecosystem Restoration Plan and the Single Blueprint for restoration activities.

### **Program Contact**

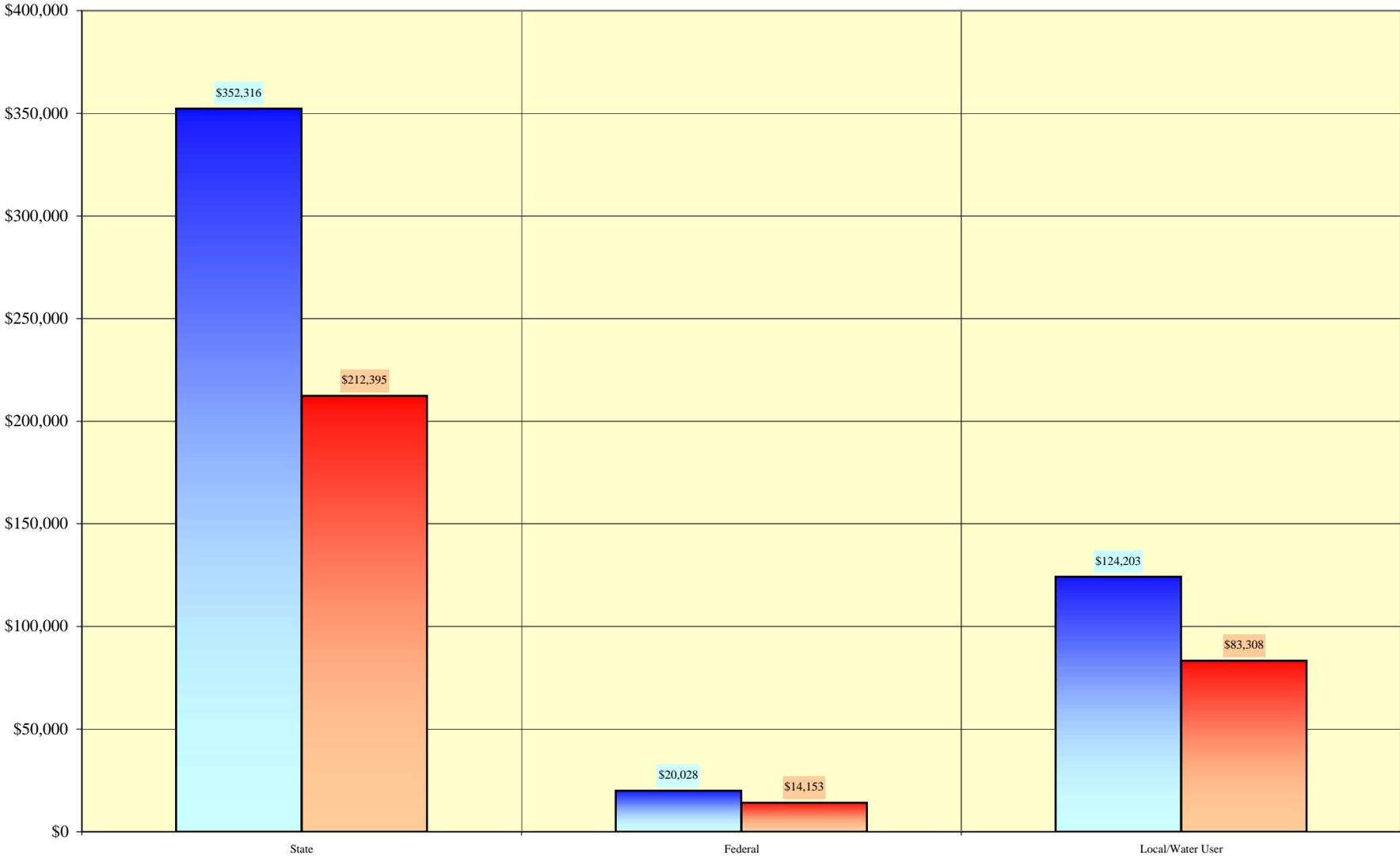
Dan Castleberry – CALFED Bay-Delta Program  
Telephone Number (916) 657-7102, e-mail address [dcastleb@water.ca.gov](mailto:dcastleb@water.ca.gov)

ECOSYSTEM RESTORATION		STAGE I COST ESTIMATES		APPROVED FUNDING THROUGH YEAR 3			ENCUMBRANCES / EXPENDITURES / OBLIGATIONS				
Program Element Summary Tasks		ROD Program Cost Estimates	Revised Program Cost Estimates	FUNDING* YEARS 1 -3	STATE	FEDERAL	LOCAL/ WATER USER	ACTUALS** YEARS 1&2	STATE	FEDERAL	LOCAL/ WATER USER
1	<b>Planning</b>	\$79,000	\$60,000	\$84,572	\$19,649	\$600	\$64,323	\$57,626	\$9,830	\$600	\$47,196
2	<b>Research</b>	\$37,000	\$15,000	\$3,809	\$2,864	\$945	\$0	\$1,912	\$1,542	\$370	\$0
3	<b>Implementation</b> (Total of Subtasks A - F)	\$1,186,000	\$1,256,000	\$388,883	\$310,520	\$18,483	\$59,880	\$238,859	\$189,564	\$13,183	\$36,112
	<i>A. Habitat Restoration</i>	\$514,000	\$702,000	\$371,951	\$293,798	\$18,273	\$59,880	\$229,433	\$180,348	\$12,973	\$36,112
	<i>B. Environmental Water &amp; Sediment Quality</i>	\$280,000	\$110,000	\$7,506	\$7,506	\$0	\$0	\$0	\$0	\$0	\$0
	<i>C. Environmental Education</i>	\$22,000	\$16,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	<i>D. Environmental Water Management</i>	\$140,000	\$136,000	\$60	\$0	\$60	\$0	\$60	\$0	\$60	\$0
	<i>E. Fish Screens &amp; Passage</i>	\$190,000	\$268,000	\$9,366	\$9,216	\$150	\$0	\$9,366	\$9,216	\$150	\$0
	<i>F. Non-Native Invasive Species</i>	\$40,000	\$24,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	<b>Monitoring</b>	\$60,000	\$38,000	\$6,771	\$6,771	\$0	\$0	\$3,645	\$3,645	\$0	\$0
5	<b>Oversight &amp; Coordination</b>	\$58,000	\$51,000	\$12,512	\$12,512	\$0	\$0	\$7,814	\$7,814	\$0	\$0
6				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>		<b>\$1,420,000</b>	<b>\$1,420,000</b>	<b>\$496,547</b>	<b>\$352,316</b>	<b>\$20,028</b>	<b>\$124,203</b>	<b>\$309,856</b>	<b>\$212,395</b>	<b>\$14,153</b>	<b>\$83,308</b>
Comments: *Funding = State encumbrances / expenses and Federal obligations (Years 1 & 2 plus approved budget for year 3)											
**Actuals = State encumbrances / expenses and Federal obligations for years 1 & 2. State fiscal years 07/01/00 to 06/30/02 & Federal fiscal years 10/01/00 to 09/30/02											

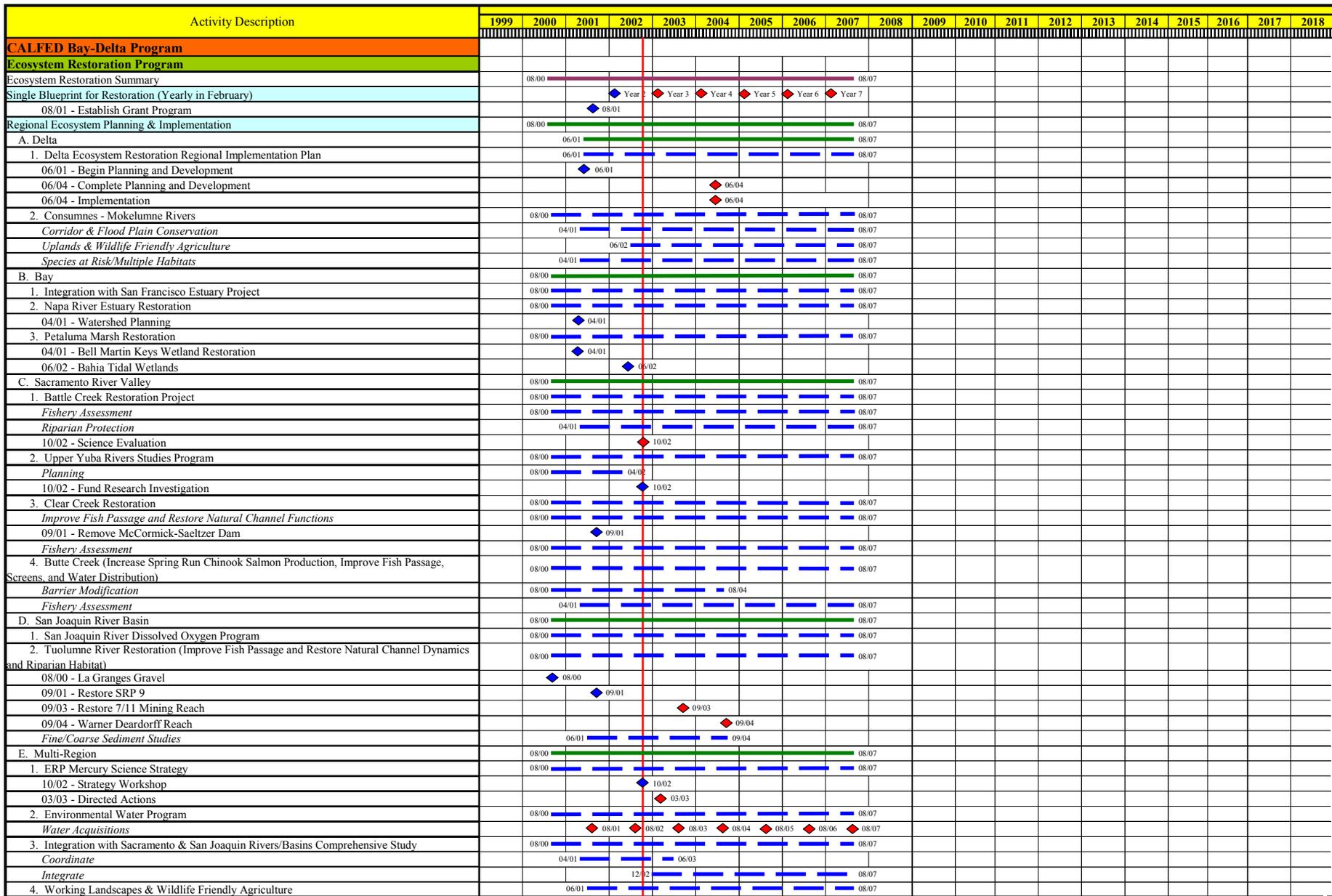
## CALFED - Ecosystem Restoration Element Summary Bar Chart by Tasks (dollars in thousands)



**CALFED - Ecosystem Restoration Program Element Bar Chart Comparison**  
**Funding for Years 1, 2, & 3 vs. Encumbrances/Expenditures/Obligations Years 1 & 2**  
 (dollars in thousands)

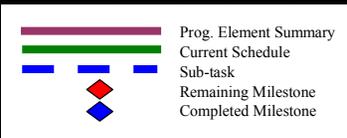


■ Funding (Years 1, 2, & 3)
 ■ Encumbrances/Expenditures/Obligations (Years 1 & 2)



CALFED Revised December 17, 2002  
 Report Date: January 2003  
 Schedule Prepared by: CAS  
 California Department of Water Resources  
 Division of Engineering  
 Contract Administration Section  
 Sheet 1 of 1

## CALFED Bay-Delta Program Schedule Summary





# CALFED BAY- DELTA PROGRAM

## Environmental Water Account

### **Environmental Water Account Program Element Overview**

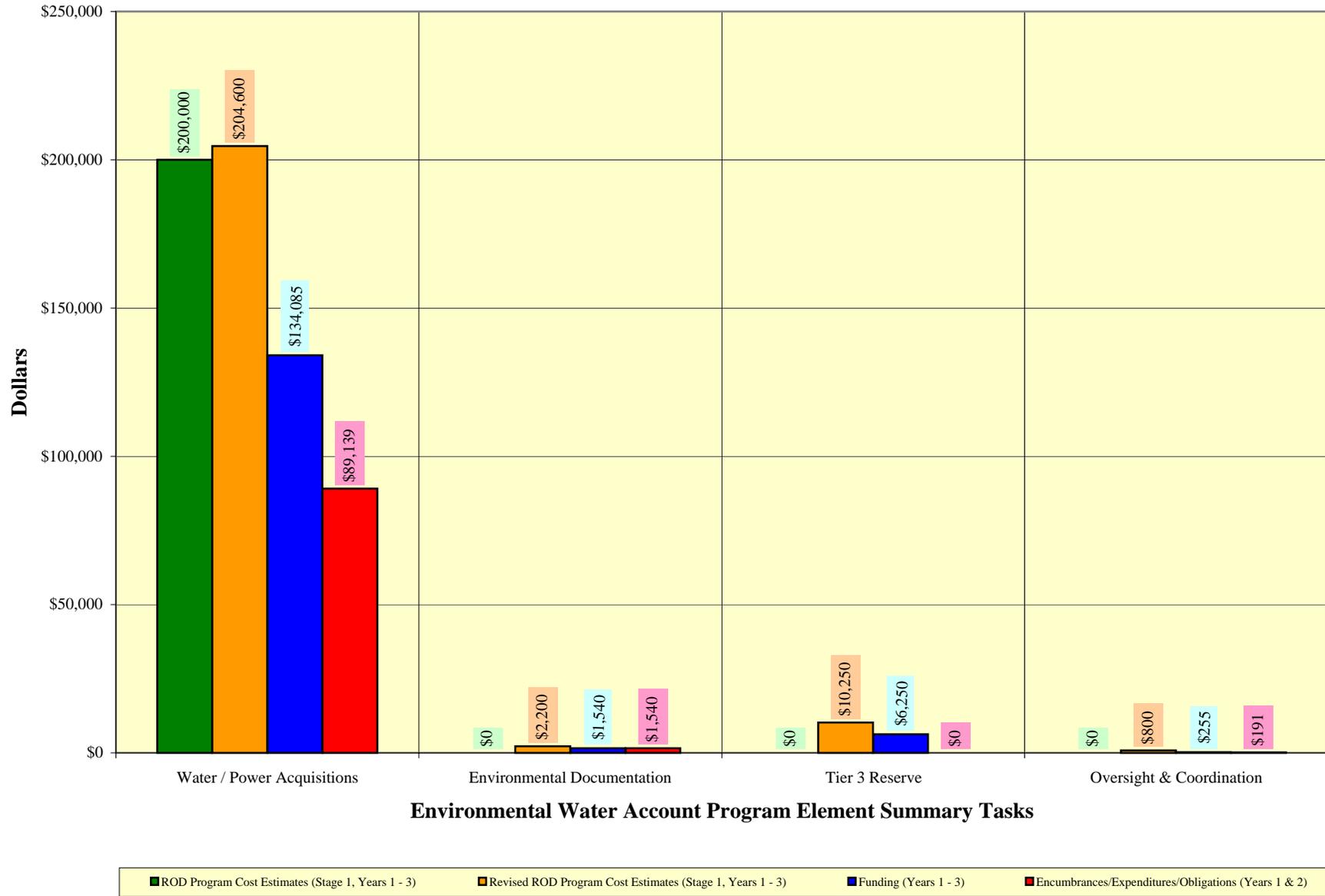
Fish protection and water supply reliability benefits were achieved in 2002, despite a second consecutive dry year. An environmental review process for the EWA has been initiated, with completion expected in May 2003. The second annual science review was held in 2002, and CALFED agencies are working to integrate EWA activities into the 2002-03 water operations plan. Tier 3 water assets are expected to be operational in 2003.

### **Program Contact**

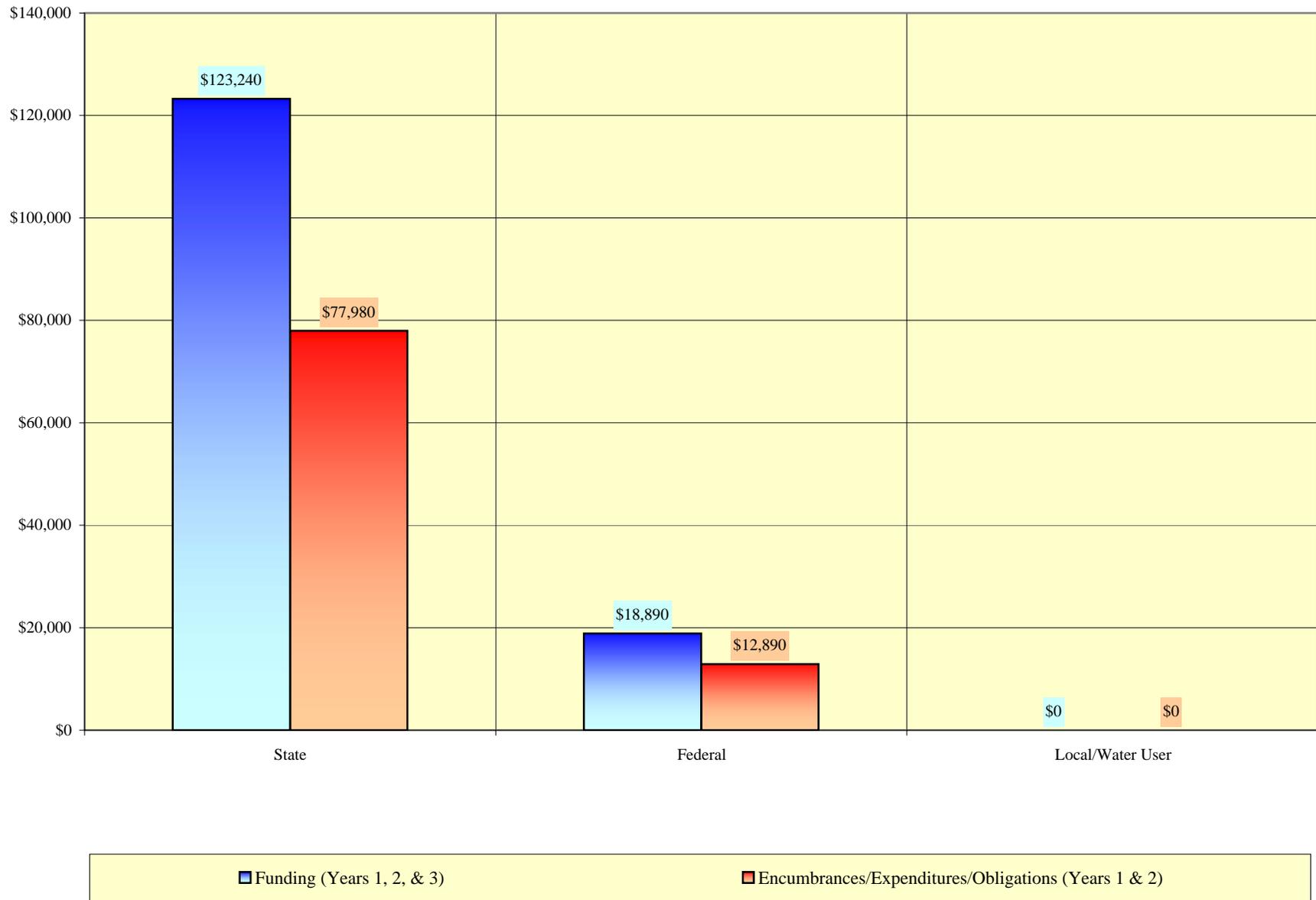
Jerry Johns – CALFED Bay-Delta Program  
Telephone Number (916) 651-7051, e-mail address [jjohns@water.ca.gov](mailto:jjohns@water.ca.gov)

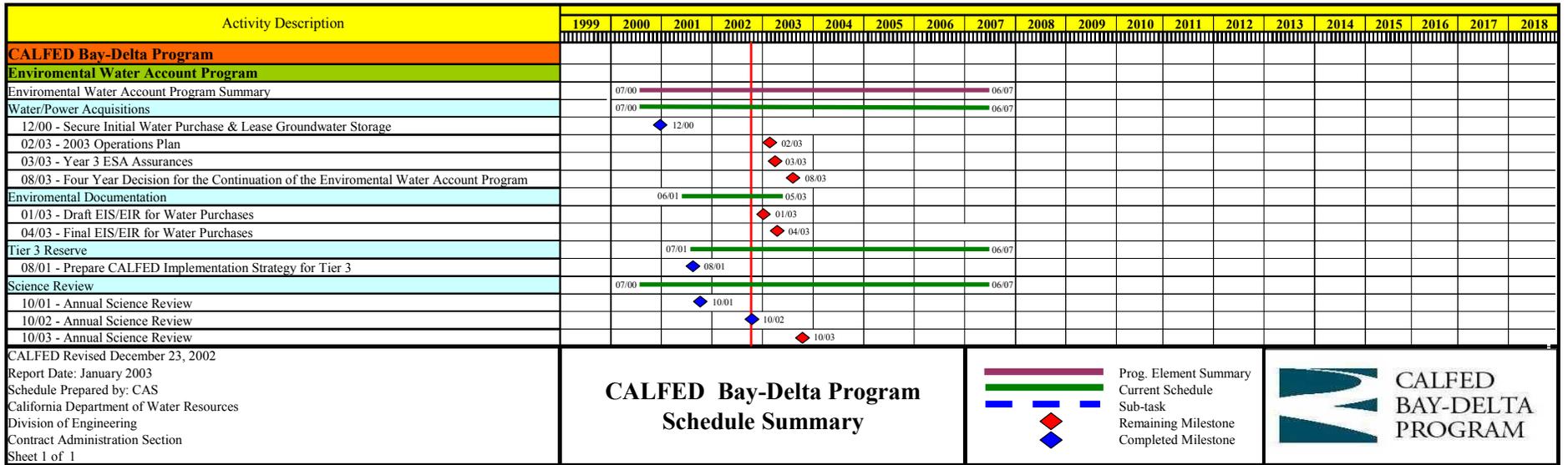
Environmental Water Account		STAGE I COST ESTIMATES		APPROVED FUNDING THROUGH YEAR 3***			ENCUMBRANCES/ EXPENDITURES/ OBLIGATIONS				
Program Element Summary Tasks		ROD Program Cost Estimates	Revised Program Cost Estimates	FUNDING* YEARS 1 -3	STATE	FEDERAL	LOCAL/ WATER USER	ACTUALS** YEARS 1&2	STATE	FEDERAL	LOCAL/ WATER USER
1	Water / Power Acquisitions	\$200,000	\$204,600	\$134,085	\$115,195	\$18,890	\$0	\$89,139	\$76,249	\$12,890	\$0
2	Environmental Documentation	\$0	\$2,200	\$1,540	\$1,540	\$0	\$0	\$1,540	\$1,540	\$0	\$0
3	Tier 3 Reserve	\$0	\$10,250	\$6,250	\$6,250	\$0	\$0	\$0	\$0	\$0	\$0
4	Oversight & Coordination	\$0	\$800	\$255	\$255	\$0	\$0	\$191	\$191	\$0	\$0
5				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16				\$0				\$0			
17				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>		<b>\$200,000</b>	<b>\$217,850</b>	<b>\$142,130</b>	<b>\$123,240</b>	<b>\$18,890</b>	<b>\$0</b>	<b>\$90,870</b>	<b>\$77,980</b>	<b>\$12,890</b>	<b>\$0</b>
Comments: *Funding = State encumbrances / expenses and Federal obligations (Years 1 & 2 plus approved budget for year 3) **Actuals = State encumbrances / expenses and Federal obligations for years 1 & 2. State fiscal years 07/01/00 to 06/30/02 & Federal fiscal years 10/01/00 to 09/30/02. *** Stage I Estimates Include Only 4 Years for EWA											

## CALFED - Environmental Water Account Program Element Summary Bar Chart by Tasks (dollars in thousands)



**CALFED - Environmental Water Account Program Element Bar Chart Comparison**  
**Funding for Years 1, 2, & 3 vs. Encumbrances/Expenditures/Obligations Years 1 & 2**  
 (dollars in thousands)







# CALFED BAY- DELTA PROGRAM

## Watershed Management

### **Watershed Management Program Element Overview**

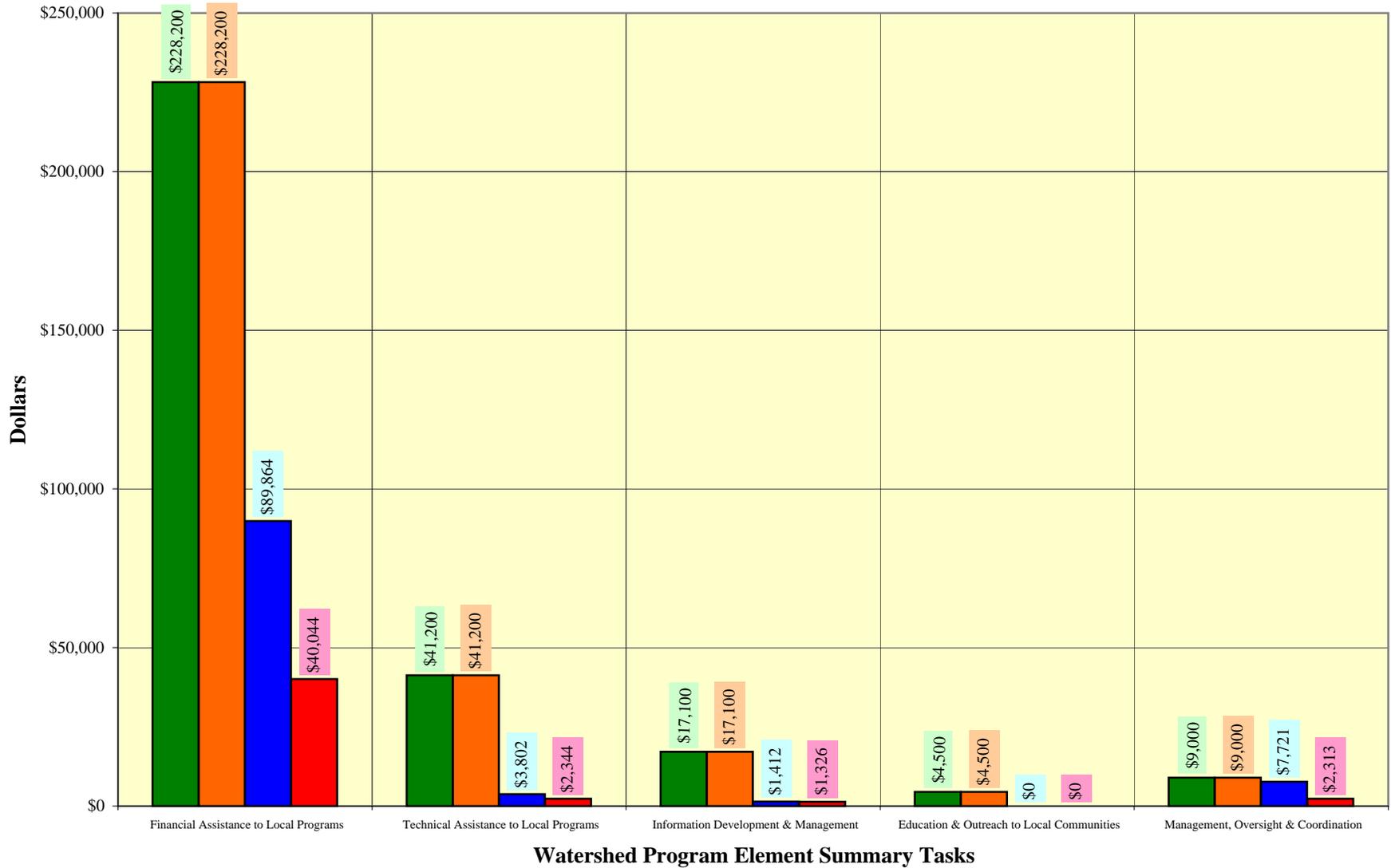
Contracts have been finalized and work initiated on 51 of 84 local watershed projects funded in the first two years of the program. The Year 3 grant funding process is under development by the State Water Resources Control Board and will be completed in 2003. Contracting delays have put implementation of some projects behind schedule, and lack of authority for federal agencies to implement the watershed program has affected staffing, technical assistance, science and outreach efforts.

### **Program Contact**

John Lowrie – CALFED Bay-Delta Program  
Telephone Number (916) 651-7087, e-mail address [lowrie@water.ca.gov](mailto:lowrie@water.ca.gov)

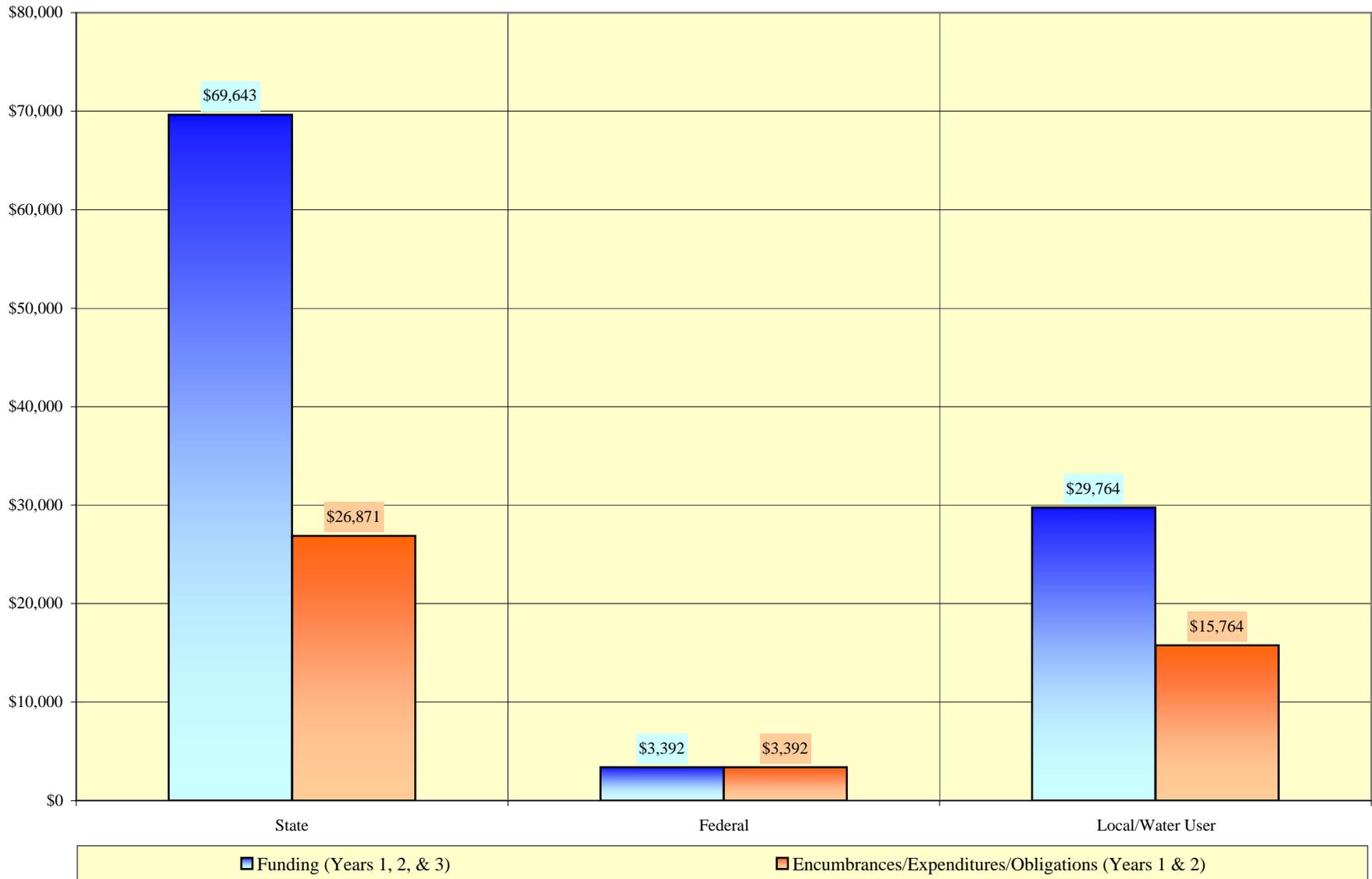
Watershed Management		STAGE I COST ESTIMATES		APPROVED FUNDING THROUGH YEAR 3			ENCUMBRANCES/ EXPENDITURES/ OBLIGATIONS				
Program Element Summary Tasks		ROD Program Cost Estimates	Revised Program Cost Estimates	FUNDING* YEARS 1 -3	STATE	FEDERAL	LOCAL/ WATER USER	ACTUALS** YEARS 1&2	STATE	FEDERAL	LOCAL/ WATER USER
1	Financial Assistance to Local Programs	\$228,200	\$228,200	\$89,864	\$56,708	\$3,392	\$29,764	\$40,044	\$20,888	\$3,392	\$15,764
2	Technical Assistance to Local Programs	\$41,200	\$41,200	\$3,802	\$3,802	\$0	\$0	\$2,344	\$2,344	\$0	\$0
3	Information Development & Management	\$17,100	\$17,100	\$1,412	\$1,412	\$0	\$0	\$1,326	\$1,326	\$0	\$0
4	Education & Outreach to Local Communities	\$4,500	\$4,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Management, Oversight & Coordination	\$9,000	\$9,000	\$7,721	\$7,721	\$0	\$0	\$2,313	\$2,313	\$0	\$0
6				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
17				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>		<b>\$300,000</b>	<b>\$300,000</b>	<b>\$102,799</b>	<b>\$69,643</b>	<b>\$3,392</b>	<b>\$29,764</b>	<b>\$46,027</b>	<b>\$26,871</b>	<b>\$3,392</b>	<b>\$15,764</b>
Comments: *Funding = State encumbrances / expenses and Federal obligations (Years 1 & 2 plus approved budget for year 3) **Actuals = State encumbrances / expenses and Federal obligations for years 1 & 2. State fiscal years 07/01/00 to 06/30/02 & Federal fiscal years 10/01/00 to 09/30/02.											

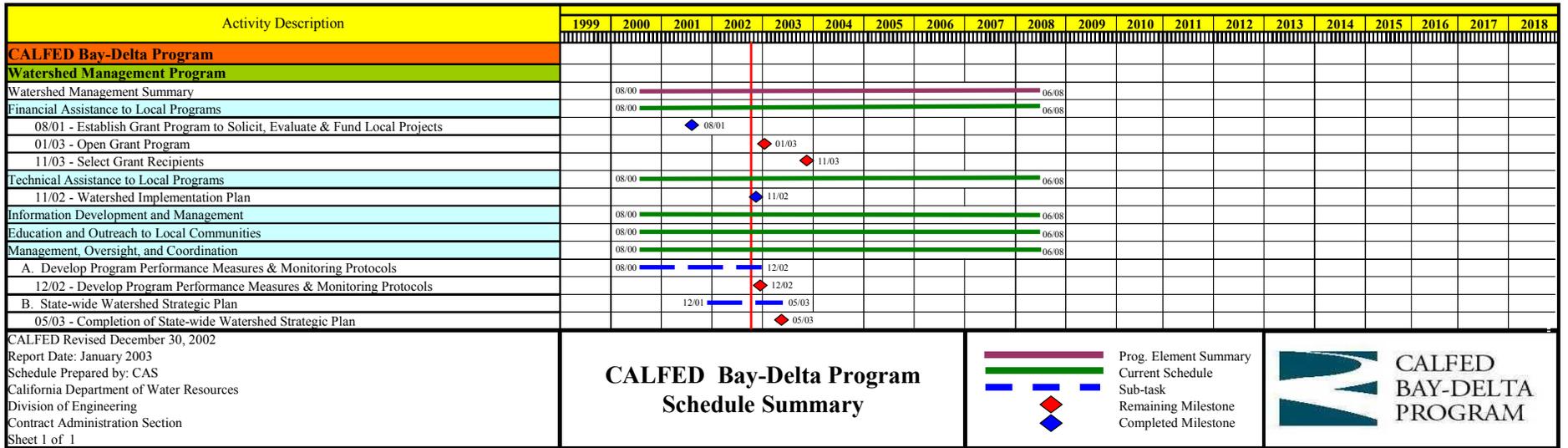
## CALFED - Watershed Management Program Element Summary Bar Chart by Tasks (dollars in thousands)



■ ROD Program Cost Estimates (Stage 1, Years 1 - 7)
 ■ Revised ROD Program Cost Estimates (Stage 1, Years 1 - 7)
 ■ Funding (Years 1 - 3)
 ■ Encumbrances/Expenditures/Obligations (Years 1 - 2)

**CALFED - Watershed Management Program Element Bar Chart Comparison**  
**Funding for Years 1, 2, & 3 vs. Encumbrances/Expenditures/Obligations Years 1 & 2**  
**(dollars in thousands)**







# CALFED BAY- DELTA PROGRAM

## Drinking Water Quality

### **Drinking Water Quality Program Element Overview**

The program awarded \$15 million in 2002 for 28 water quality projects in the areas of source water improvements, agricultural pollution control and drainage, and treatment technology. Lack of funding and contracting issues have affected implementation of projects. Delays in assessing options to reduce bromide and total organic carbon impacts could have implications for other areas of the CALFED Program.

### **Program Contact**

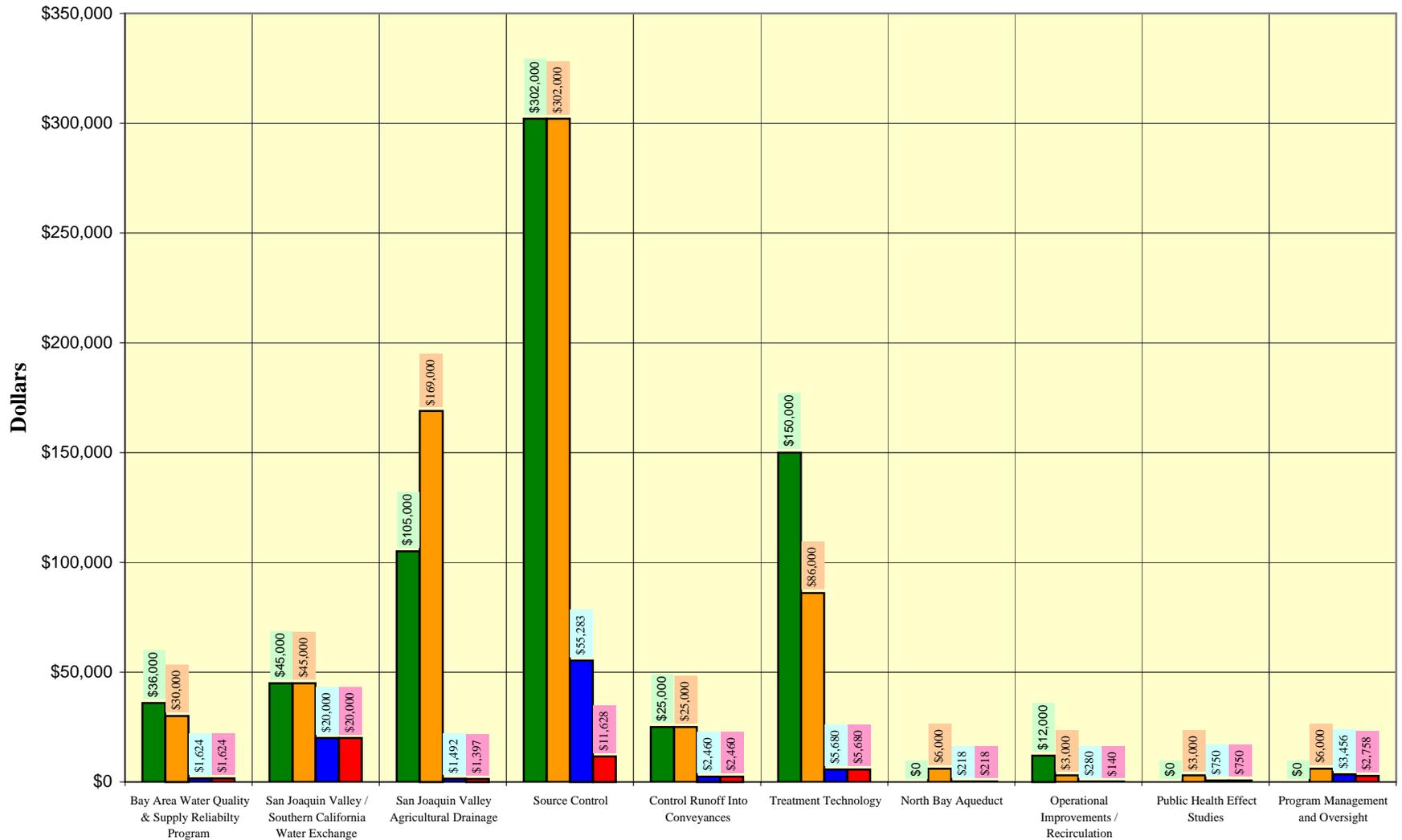
John Andrew – CALFED Bay-Delta Program  
Telephone Number (916) 653-9715, e-mail address [jandrew@water.ca.gov](mailto:jandrew@water.ca.gov)

DRINKING WATER QUALITY		STAGE I COST ESTIMATES		APPROVED FUNDING THROUGH YEAR 3			ENCUMBRANCES / EXPENDITURES / OBLIGATIONS				
Program Element Summary Tasks		ROD Program Cost Estimates	Revised Program Cost Estimates	FUNDING* YEARS 1-3	STATE	FEDERAL	LOCAL/ WATER USER	ACTUALS** YEARS 1&2	STATE	FEDERAL	LOCAL/ WATER USER
1	Bay Area Water Quality & Supply Reliability Program	\$36,000	\$30,000	\$1,624	\$1,624	\$0	\$0	\$1,624	\$1,624	\$0	\$0
2	San Joaquin Valley / Southern California Water Exchange	\$45,000	\$45,000	\$20,000	\$20,000	\$0	\$0	\$20,000	\$20,000	\$0	\$0
3	San Joaquin Valley Agricultural Drainage	\$105,000	\$169,000	\$1,492	\$1,130	\$0	\$362	\$1,397	\$1,035	\$0	\$362
4	Source Control	\$302,000	\$302,000	\$55,283	\$54,434	\$780	\$69	\$11,628	\$10,779	\$780	\$69
5	Control Runoff Into Conveyances	\$25,000	\$25,000	\$2,460	\$1,569	\$841	\$50	\$2,460	\$1,569	\$841	\$50
6	Treatment Technology	\$150,000	\$86,000	\$5,680	\$5,225	\$0	\$455	\$5,680	\$5,225	\$0	\$455
7	North Bay Aqueduct	\$0	\$6,000	\$218	\$189	\$0	\$29	\$218	\$189	\$0	\$29
8	Operational Improvements / Recirculation	\$12,000	\$3,000	\$280	\$280	\$0	\$0	\$140	\$140	\$0	\$0
9	Public Health Effect Studies	\$0	\$3,000	\$750	\$750	\$0	\$0	\$750	\$750	\$0	\$0
10	Program Management and Oversight	\$0	\$6,000	\$3,456	\$3,456	\$0	\$0	\$2,758	\$2,758	\$0	\$0
11				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>		<b>\$675,000</b>	<b>\$675,000</b>	<b>\$91,243</b>	<b>\$88,657</b>	<b>\$1,621</b>	<b>\$965</b>	<b>\$46,655</b>	<b>\$44,069</b>	<b>\$1,621</b>	<b>\$965</b>

Comments: \*Funding = State encumbrances / expenses and Federal obligations (Years 1 & 2 plus approved budget for year 3)

\*\*Actuals = State encumbrances / expenses and Federal obligations for years 1 & 2. State fiscal years 07/01/00 to 06/30/02 & Federal fiscal years 10/01/00 to 09/30/02.

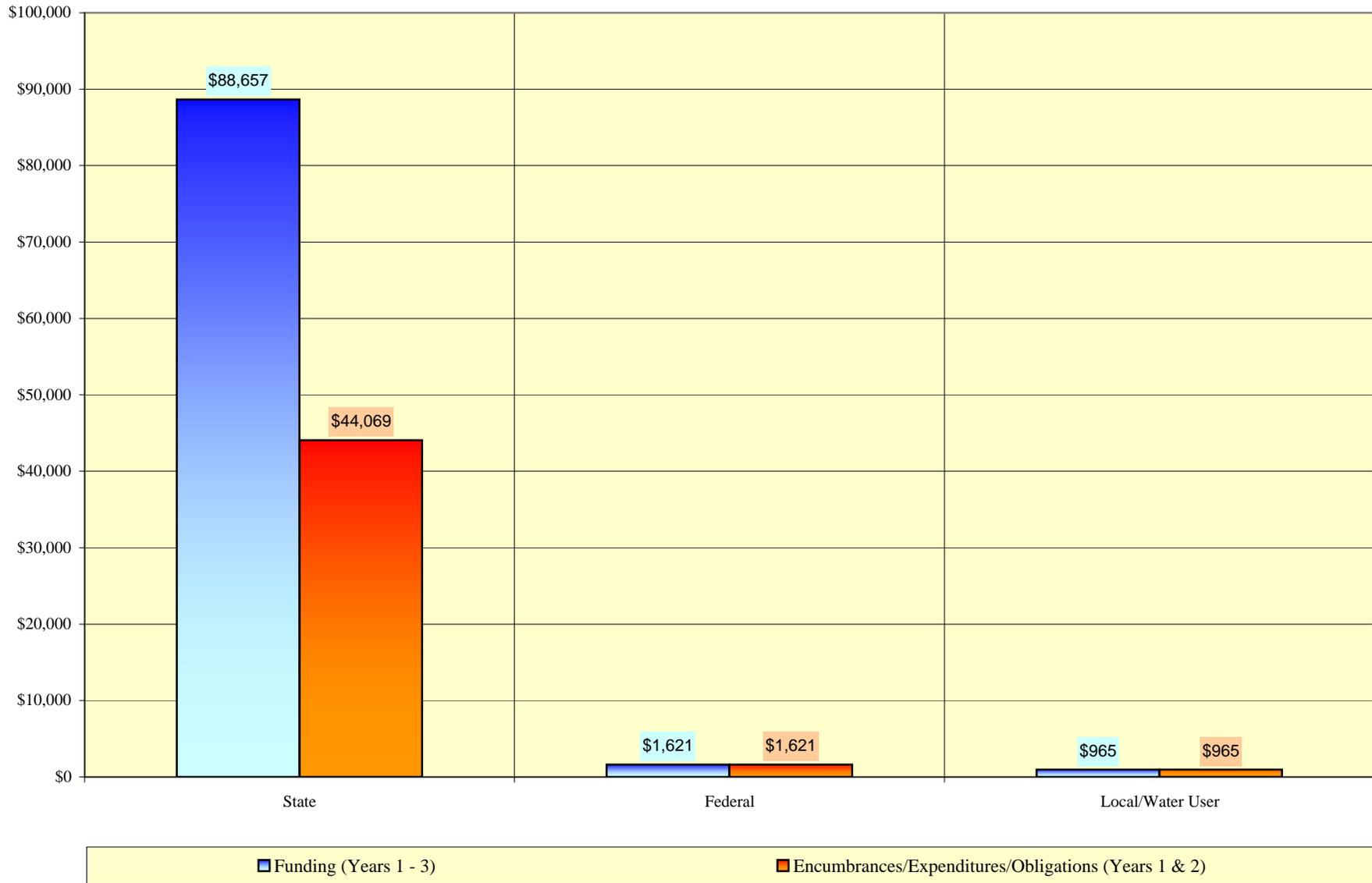
## CALFED - Drinking Water Quality Program Element Summary Bar Chart by Tasks (dollars in thousands)

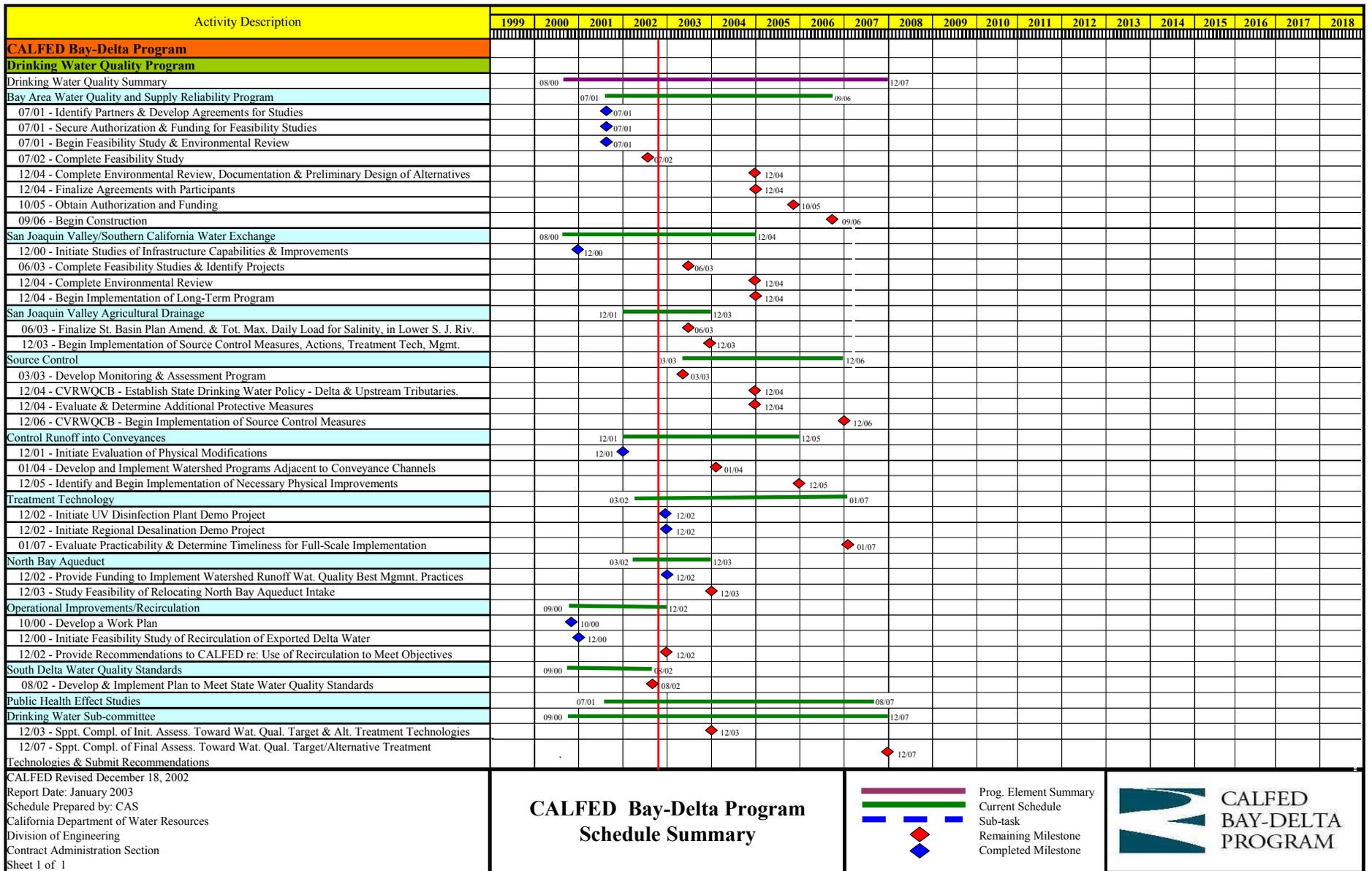


**Drinking Water Quality Program Element Summary Tasks**

ROD Program Cost Estimates (Stage 1, Years 1 - 7)
  Revised ROD Program Cost Estimates (Stage 1, Years 1 - 7)
  Funding (Years 1 - 3)
  Encumbrances/Expenditures/Obligations (Years 1 & 2)

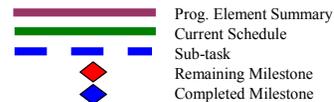
**CALFED - Drinking Water Quality Program Element Bar Chart Comparison  
Funding for Years 1, 2, & 3 vs. Encumbrances/Expenditures/Obligations Years 1 & 2  
(dollars in thousands)**





CALFED Revised December 18, 2002  
 Report Date: January 2003  
 Schedule Prepared by: CAS  
 California Department of Water Resources  
 Division of Engineering  
 Contract Administration Section  
 Sheet 1 of 1

### CALFED Bay-Delta Program Schedule Summary





# CALFED BAY- DELTA PROGRAM

## Drinking Water Quality

### **Drinking Water Quality Program Element Overview**

The program awarded \$15 million in 2002 for 28 water quality projects in the areas of source water improvements, agricultural pollution control and drainage, and treatment technology. Lack of funding and contracting issues have affected implementation of projects. Delays in assessing options to reduce bromide and total organic carbon impacts could have implications for other areas of the CALFED Program.

### **Program Contact**

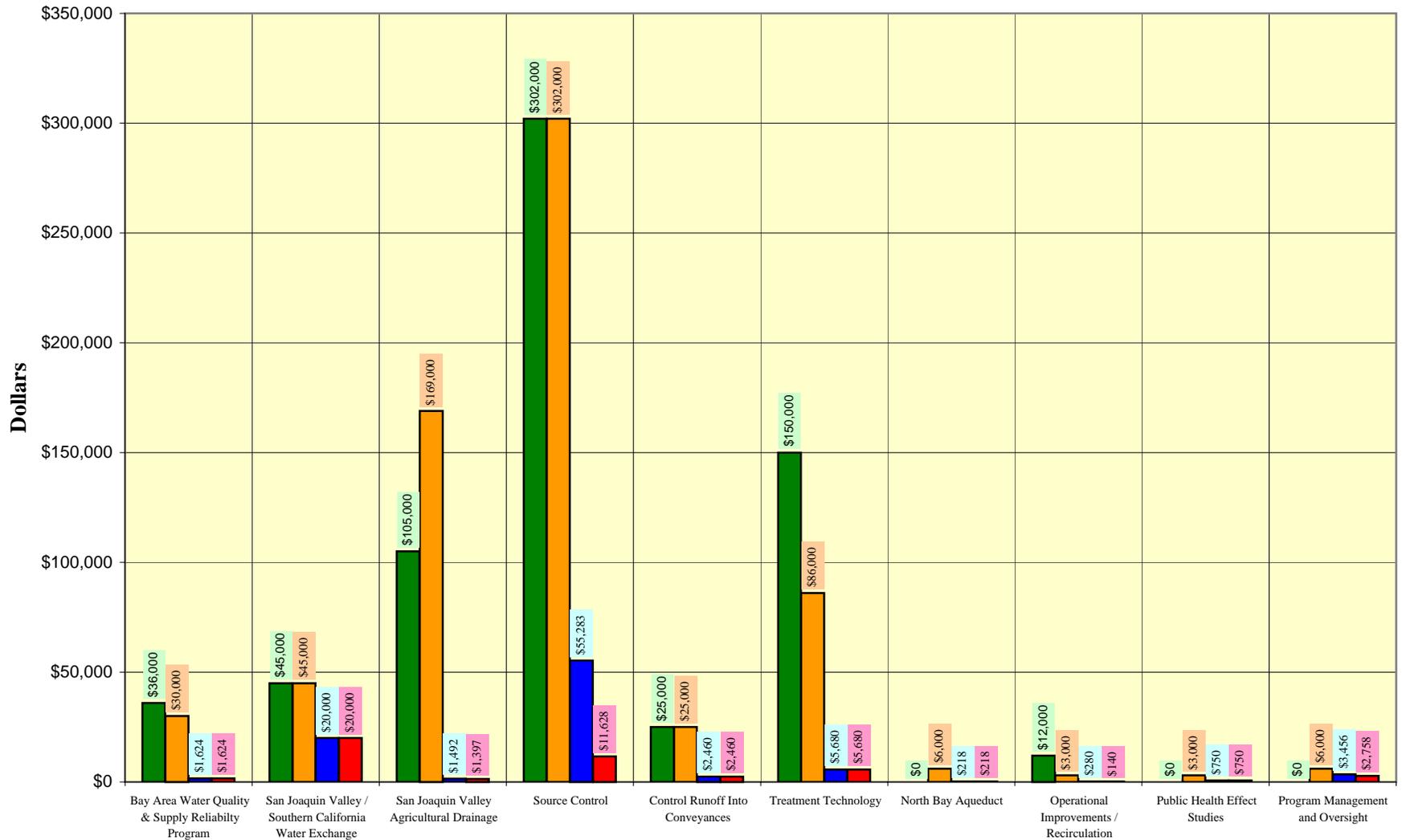
John Andrew – CALFED Bay-Delta Program  
Telephone Number (916) 653-9715, e-mail address [jandrew@water.ca.gov](mailto:jandrew@water.ca.gov)

DRINKING WATER QUALITY		STAGE I COST ESTIMATES		APPROVED FUNDING THROUGH YEAR 3			ENCUMBRANCES / EXPENDITURES / OBLIGATIONS				
Program Element Summary Tasks		ROD Program Cost Estimates	Revised Program Cost Estimates	FUNDING* YEARS 1-3	STATE	FEDERAL	LOCAL/ WATER USER	ACTUALS** YEARS 1&2	STATE	FEDERAL	LOCAL/ WATER USER
1	Bay Area Water Quality & Supply Reliability Program	\$36,000	\$30,000	\$1,624	\$1,624	\$0	\$0	\$1,624	\$1,624	\$0	\$0
2	San Joaquin Valley / Southern California Water Exchange	\$45,000	\$45,000	\$20,000	\$20,000	\$0	\$0	\$20,000	\$20,000	\$0	\$0
3	San Joaquin Valley Agricultural Drainage	\$105,000	\$169,000	\$1,492	\$1,130	\$0	\$362	\$1,397	\$1,035	\$0	\$362
4	Source Control	\$302,000	\$302,000	\$55,283	\$54,434	\$780	\$69	\$11,628	\$10,779	\$780	\$69
5	Control Runoff Into Conveyances	\$25,000	\$25,000	\$2,460	\$1,569	\$841	\$50	\$2,460	\$1,569	\$841	\$50
6	Treatment Technology	\$150,000	\$86,000	\$5,680	\$5,225	\$0	\$455	\$5,680	\$5,225	\$0	\$455
7	North Bay Aqueduct	\$0	\$6,000	\$218	\$189	\$0	\$29	\$218	\$189	\$0	\$29
8	Operational Improvements / Recirculation	\$12,000	\$3,000	\$280	\$280	\$0	\$0	\$140	\$140	\$0	\$0
9	Public Health Effect Studies	\$0	\$3,000	\$750	\$750	\$0	\$0	\$750	\$750	\$0	\$0
10	Program Management and Oversight	\$0	\$6,000	\$3,456	\$3,456	\$0	\$0	\$2,758	\$2,758	\$0	\$0
11				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>		<b>\$675,000</b>	<b>\$675,000</b>	<b>\$91,243</b>	<b>\$88,657</b>	<b>\$1,621</b>	<b>\$965</b>	<b>\$46,655</b>	<b>\$44,069</b>	<b>\$1,621</b>	<b>\$965</b>

Comments: \*Funding = State encumbrances / expenses and Federal obligations (Years 1 & 2 plus approved budget for year 3)

\*\*Actuals = State encumbrances / expenses and Federal obligations for years 1 & 2. State fiscal years 07/01/00 to 06/30/02 & Federal fiscal years 10/01/00 to 09/30/02.

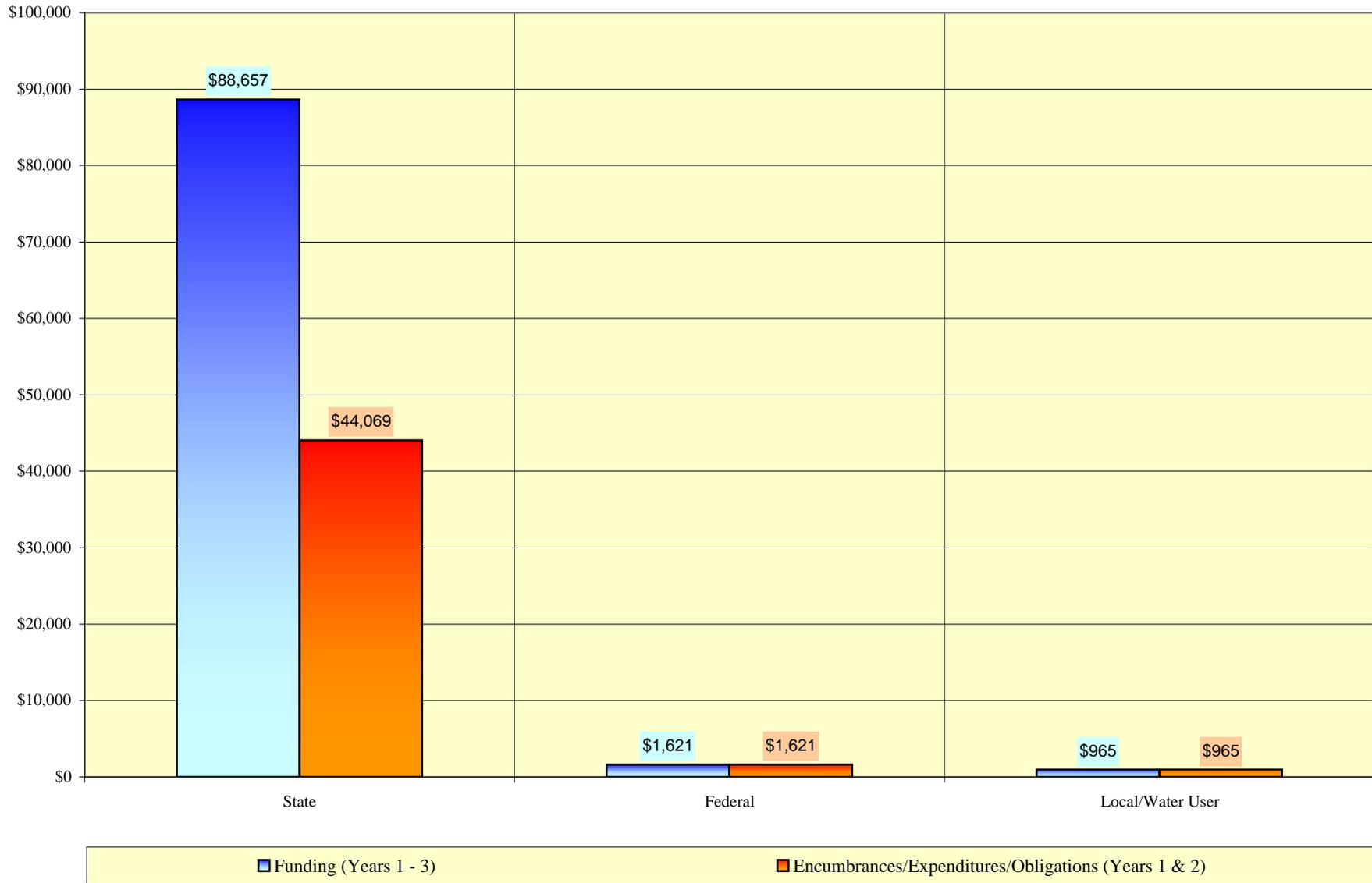
## CALFED - Drinking Water Quality Program Element Summary Bar Chart by Tasks (dollars in thousands)

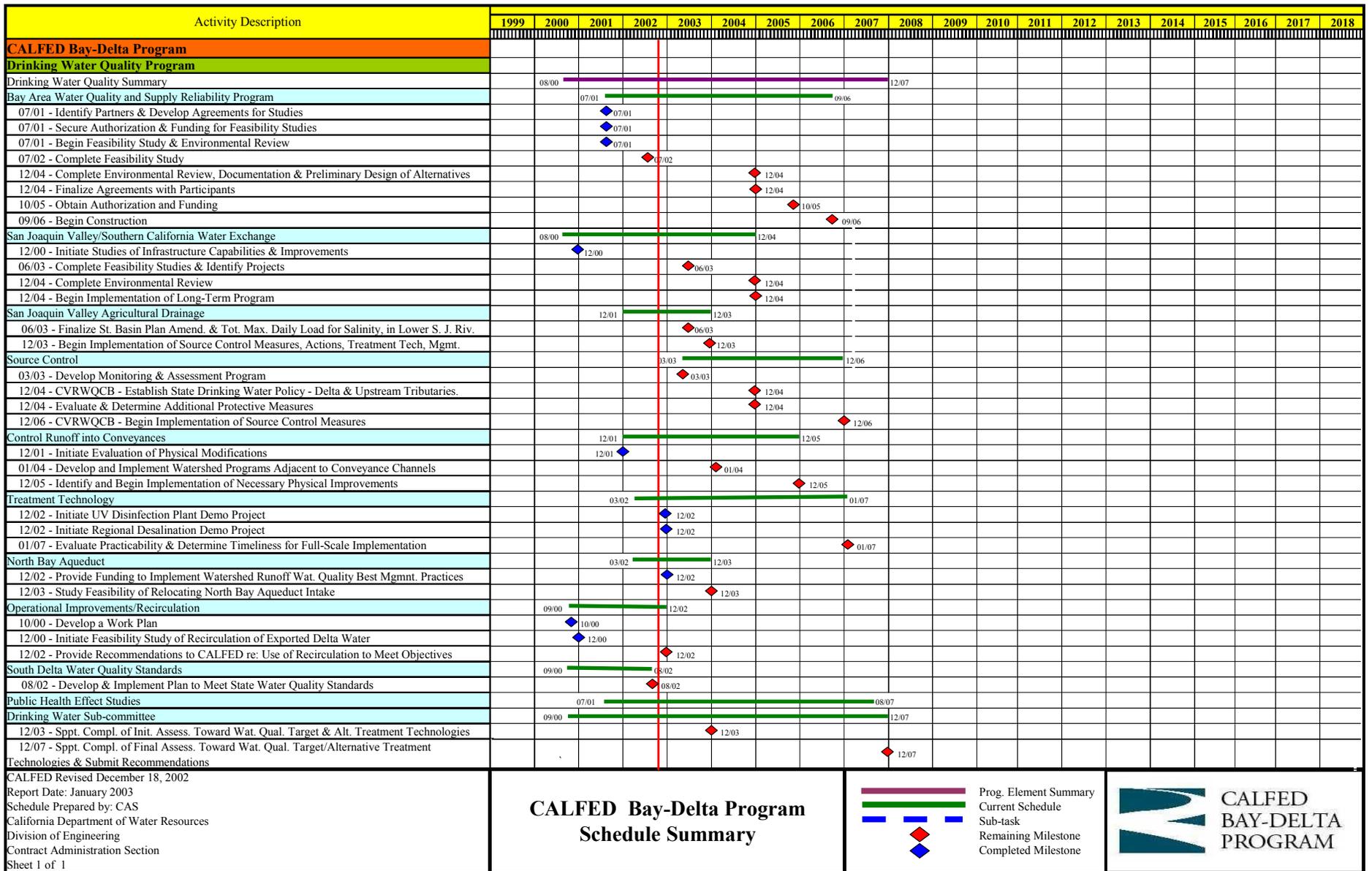


**Drinking Water Quality Program Element Summary Tasks**

ROD Program Cost Estimates (Stage 1, Years 1 - 7)
  Revised ROD Program Cost Estimates (Stage 1, Years 1 - 7)
  Funding (Years 1 - 3)
  Encumbrances/Expenditures/Obligations (Years 1 & 2)

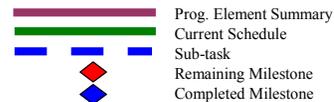
**CALFED - Drinking Water Quality Program Element Bar Chart Comparison  
Funding for Years 1, 2, & 3 vs. Encumbrances/Expenditures/Obligations Years 1 & 2  
(dollars in thousands)**





CALFED Revised December 18, 2002  
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 Sheet 1 of 1

### CALFED Bay-Delta Program Schedule Summary





# CALFED BAY- DELTA PROGRAM

## Levee System Integrity

### **Levee System Integrity Program Element Overview**

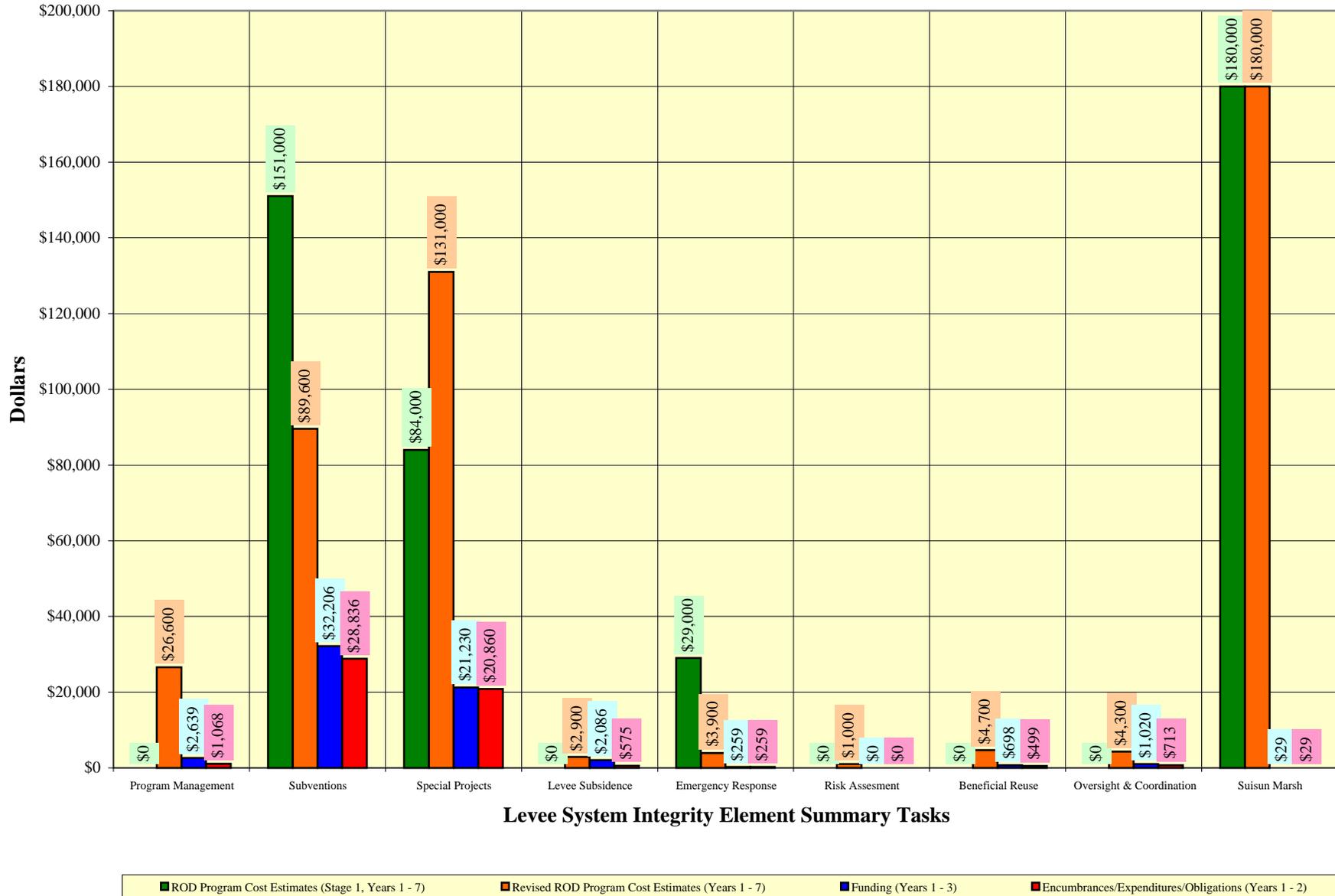
Year 2 projects improved 5.7 miles of Delta levees, and progress is being made on another 47 levee stability and habitat projects. Though requests totaling more than \$31 million were received, the program was able to fund only \$4.5 million in levee maintenance and repair projects in 2002. CALFED agencies improved emergency response capabilities in the Delta by enhancing coordination and acquiring flood fight materials. All aspects of the program have been delayed by funding reductions.

### **Program Contact**

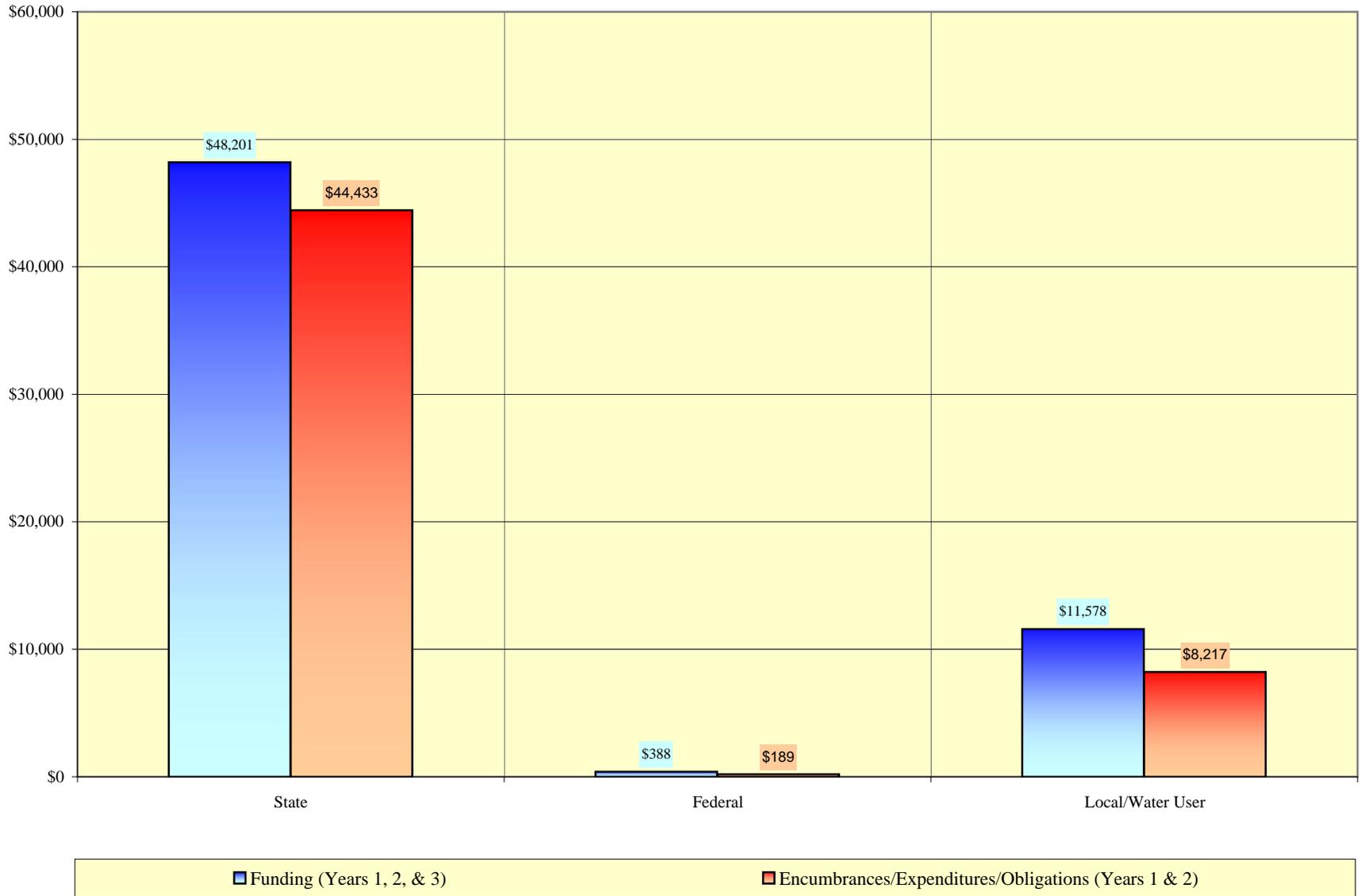
Curtis Schmutte – CALFED Bay-Delta Program  
Telephone Number (916) 651-7016, e-mail address [schmutte@water.ca.gov](mailto:schmutte@water.ca.gov)

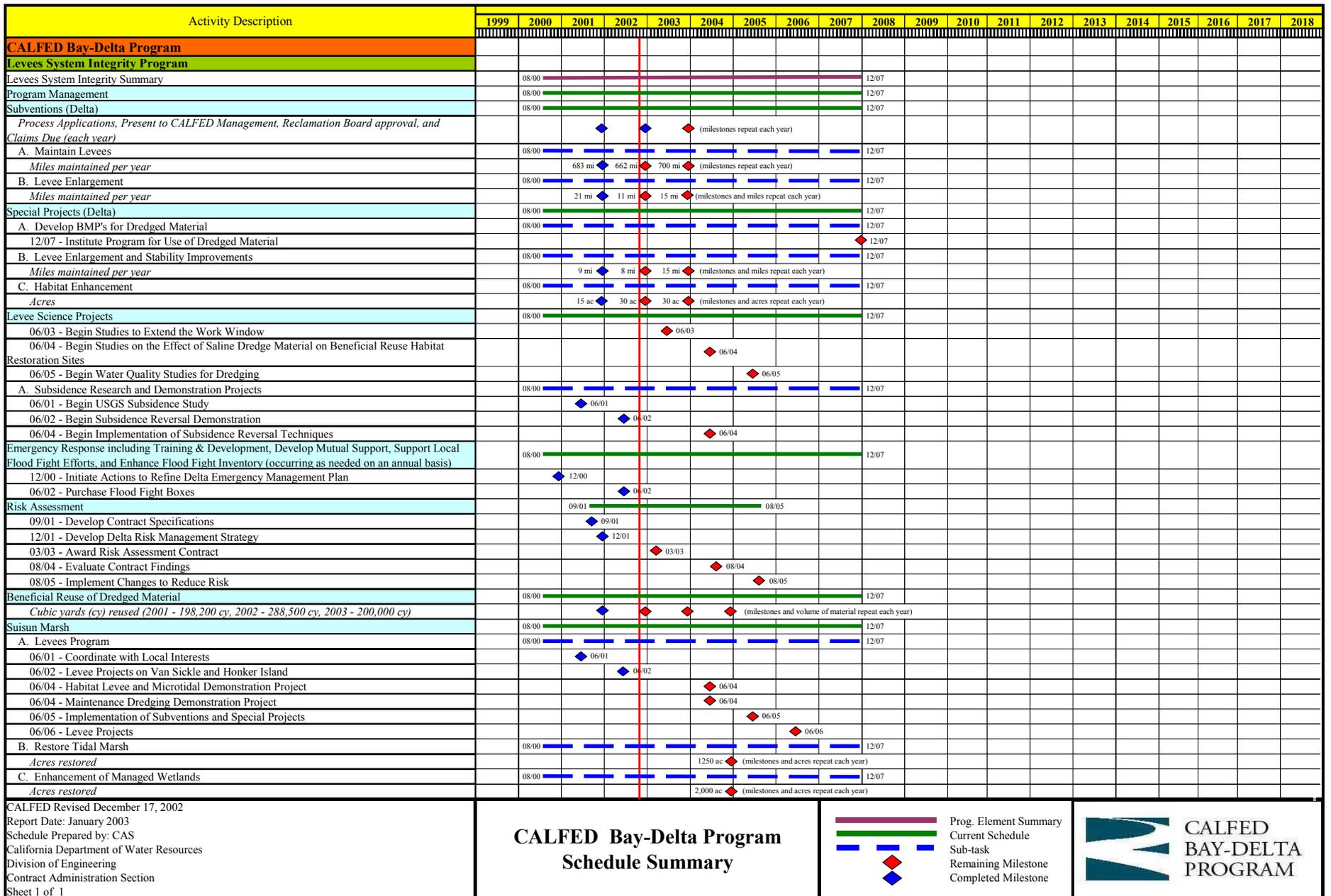
LEVEE SYSTEM INTEGRITY		STAGE I COST ESTIMATES		APPROVED FUNDING THROUGH YEAR 3			ENCUMBRANCES/ EXPENDITURES/ OBLIGATIONS				
Program Element Summary Tasks		ROD Program Cost Estimates	Revised Program Cost Estimates	FUNDING* YEARS 1 -3	STATE	FEDERAL	LOCAL/ WATER USER	ACTUALS** YEARS 1&2	STATE	FEDERAL	LOCAL/ WATER USER
1	Program Management	\$0	\$26,600	\$2,639	\$1,561	\$0	\$1,078	\$1,068	\$351	\$0	\$717
2	Subventions	\$151,000	\$89,600	\$32,206	\$21,706	\$0	\$10,500	\$28,836	\$21,336	\$0	\$7,500
3	Special Projects	\$84,000	\$131,000	\$21,230	\$21,230	\$0	\$0	\$20,860	\$20,860	\$0	\$0
4	Levee Subsidence	\$0	\$2,900	\$2,086	\$2,086	\$0	\$0	\$575	\$575	\$0	\$0
5	Emergency Response	\$29,000	\$3,900	\$259	\$259	\$0	\$0	\$259	\$259	\$0	\$0
6	Risk Assesment	\$0	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	Beneficial Reuse	\$0	\$4,700	\$698	\$310	\$388	\$0	\$499	\$310	\$189	\$0
8	Oversight & Coordination	\$0	\$4,300	\$1,020	\$1,020	\$0	\$0	\$713	\$713	\$0	\$0
9	Suisun Marsh	\$180,000	\$180,000	\$29	\$29	\$0	\$0	\$29	\$29	\$0	\$0
10				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
15				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
16				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
17				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Totals</b>		<b>\$444,000</b>	<b>\$444,000</b>	<b>\$60,167</b>	<b>\$48,201</b>	<b>\$388</b>	<b>\$11,578</b>	<b>\$52,839</b>	<b>\$44,433</b>	<b>\$189</b>	<b>\$8,217</b>
Comments: *Funding = State encumbrances / expenses and Federal obligations (Years 1 & 2 plus approved budget for year 3) **Actuals = State encumbrances / expenses and Federal obligations for years 1 & 2. State years 07/01/00 to 06/30/02 & Federal fiscal years 10/01/00 to 09/30/02.											

## CALFED - Levee System Integrity Program Element Summary Bar Chart by Tasks (dollars in thousands)



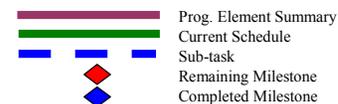
**CALFED - Levee System Integrity Program Element Bar Chart Comparison  
Funding for Years 1, 2, & 3 vs. Encumbrances/Expenditures/Obligations Years 1 & 2  
(dollars in thousands)**





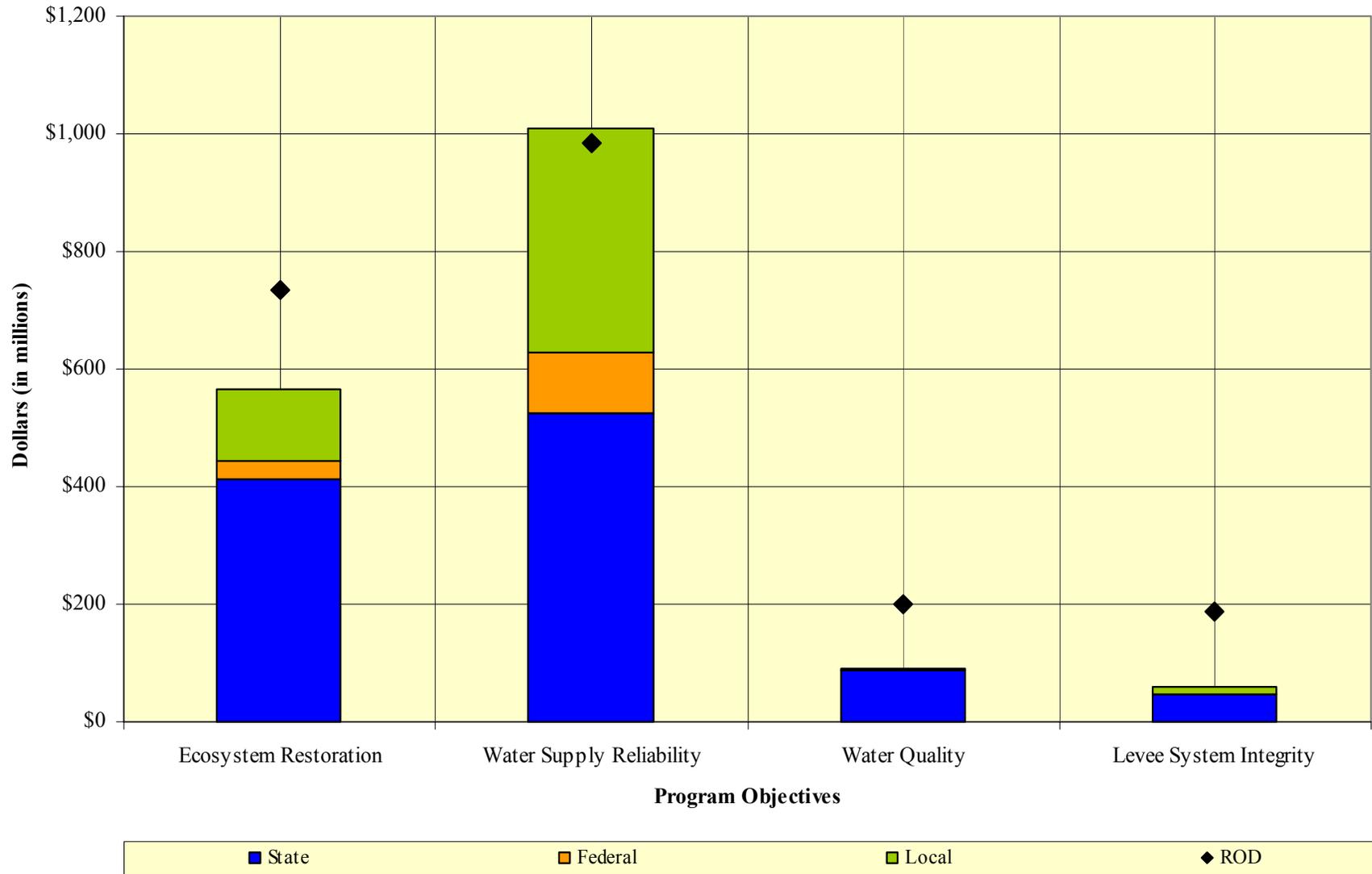
CALFED Revised December 17, 2002  
 Report Date: January 2003  
 Schedule Prepared by: CAS  
 California Department of Water Resources  
 Division of Engineering  
 Contract Administration Section  
 Sheet 1 of 1

### CALFED Bay-Delta Program Schedule Summary



# CALFED Program Years 1, 2, & 3 Cumulative Funding to Date

The Years 1, 2, & 3 Fiscal Summary Bar Chart presents State, Federal, and Local/Water User Funding to date, by Program Objective, as compared to the funding estimates, represented by the black diamonds, depicted in the August 2000 Record of Decision



**Agenda Item 5  
Attachment 3**

**Grant Projects by Region**



## Grant Projects Database Report for The Bay Region

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
<b><i>CBDA Program Element: <u>Conveyance</u></i></b>				
San Luis Low Point Improvement Project	2002	Santa Clara	\$14,010,000	Santa Clara Valley Water District
<b><i>Summary for 'Program Element' = Conveyance 1 project</i></b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$14,010,000</b>	
<b><i>CBDA Program Element: <u>Drinking Water Quality</u></i></b>				
Bay Area Blending & Exchange Project	2001	Contra Costa	\$110,000	Bay Area Blending & Exchange
Bromate Control with Carbon Dioxide Addition	2002	Alameda	\$120,000	Water Quality & Treatment Solutions, Inc.
Orestimba Creek Watershed-Agricultural Water Quality Pilot	2002	Santa Clara	\$275,000	Coalition for Urban/Rural Environmental Stewardship (CURES)
<b><i>Summary for 'Program Element' = Drinking Water Quality 3 projects</i></b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$505,000</b>	
<b><i>CBDA Program Element: <u>Ecosystem Restoration</u></i></b>				
Suisun Fish Screen Construction	1995	Solano	\$450,000	Suisun Resource Conservation District
Suisun Fish Screen Construction (Phase 2 - Install Additional Screens) - CANCELLED	1996	Solano	\$500,000	Suisun Resource Conservation District
Bay Point Shoreline Restoration Plan	1997	Contra Costa	\$185,000	East Bay Regional Park District
Cullinan Ranch Restoration	1997	Solano	\$368,500	Ducks Unlimited, Inc.
Preventing Exotic Introductions from Ballast Water	1997	Multiple	\$222,830	Sea Grant Extension Program, Univeristy of California, Davis
Tolay Creek Restoration	1997	Solano	\$283,000	Ducks Unlimited, Inc.
Alhambra Creek Watershed Coordinated Resource Management and Planning Program	1998	Contra Costa	\$138,500	Contra Costa Resource Conservation District
Benicia Waterfront Marsh Restoration - Phase I	1998	Solano	\$59,000	City of Benicia

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Biological Restoration and Monitoring in the Suisun Marsh/North San Francisco Bay Ecological Zone	1998	Multiple	\$772,667	California State University, Hayward - Biological Science
Cold Water Fisheries and Water Quality Element for the State of the Santa Clara Basin Report	1998	Santa Clara	\$200,000	City of San Jose, Environmental Services Department
DWR HAZMAT Review for ERP Land Acquisitions	1998	Multiple	\$24,000	California Department of Water Resources
Hamilton Wetlands Restoration Planning	1998	Marin	\$1,025,015	California Coastal Conservancy
Integrated Pest Management Partnership to Improve Water Quality in Suisun Bay and Local Creeks	1998	Contra Costa, Solano	\$266,000	Central Contra Costa Sanitary District
Local Watershed Stewardship: Steelhead Trout Plan	1998	Marin	\$47,500	Friends of Corte Madera Creek Watershed
Napa River Watershed Stewardship	1998	Napa	\$252,000	Napa County Resource Conservation District
Petaluma Marsh Expansion Project - Marin County	1998	Marin, Sonoma	\$352,135	Marin Audubon Society
Petaluma River Watershed Restoration Program	1998	Sonoma	\$220,000	Southern Sonoma County Resource Conservation District
San Francisco Regional Wetlands Goals Project	1998	Multiple	\$76,000	San Francisco Estuary Institute
Sonoma Creek Watershed Enhancement Plan - Phase II	1998	Sonoma	\$302,000	Southern Sonoma County Resource Conservation District
South Napa River Tidal Slough and Floodplain Restoration Project	1998	Napa	\$1,490,000	City of American Canyon
South Napa River Wetlands Acquisition	1998	Napa	\$1,073,513	Napa County Land Trust
South Napa River Wetlands Acquisition and Restoration Program	1998	Napa	\$466,000	Napa County Land Trust
Steelhead and Chinook Salmon Fish Passage Barrier Remediation on the Guadalupe River	1998	Santa Clara	\$178,200	Natural Heritage Institute
Water Challenge 2010	1998	Multiple	\$64,500	United States Army Corps of Engineers, San Francisco Bay Model Visitor's Center
Assessing Ecological & Economic Impacts of the Chinese Mitten Crab	1999	Multiple	\$113,033	University of California Berkeley
Effects of Introduced Clams on the Food Supply of Bay-Delta Fishes	1999	Multiple	\$100,490	California State Univerisyt, San Francisco
Effects of Introduced Species of Zooplankton & Clams on the Bay-Delta Food Web	1999	Multiple	\$653,384	San Francisco State University
Estuary Action Challenge Environmental Education Project	1999	Alameda, Contra Costa	\$51,500	Earth Island Institute
Introduced Spartina Eradication Project Invasive Species Program	1999	Multiple	\$275,000	California Coastal Conservancy

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Napa River Watershed Stewardship Year 2	1999	Napa	\$191,100	Napa County Resource Conservation District
South Napa River Tidal Slough & Floodplain Restoration Project	1999	Napa	\$1,565,600	City of American Canyon
Species & Community Profiles of the San Francisco Bay Area Wetlands Ecosystem Goals Project	1999	San Francisco	\$45,320	Friends of the San Francisco Estuary
Water Challenge 2010	1999	Multiple	\$52,015	United States Army Corps of Engineers, San Francisco Bay Model Visitor Center
Arundo Donax Eradication and Coordination	2000	Multiple	\$842,587	Sonoma Ecology Center
Determining the Biological, Physical and Chemical Characteristics of Ballast Water Arriving in San Francisco Bay	2000	Multiple	\$387,182	San Francisco Estuary Institute
Sonoma Creek Watershed Conservancy	2000	Sonoma	\$438,923	Southern Sonoma County Resource Conservation District
Treating Ballast Water Discharges at Existing Municipal Wastewater Treatment Plants	2000	Multiple	\$122,014	San Francisco Estuary Institute
Ecological Monitoring of Tolay & Cullinan Ranch Tidal Wetlands Restoration	2001	Solano, Sonoma	\$593,931	Ducks Unlimited, Inc.
Estuary Action Challenge Environmental Education Project	2001	Alameda, Contra Costa	\$50,000	Estuary Action Challenge / Earth Island Institute
Hill Slough West Habitat Restoration Demonstration Project, Phase II ** WAS 01-N14 **	2001	Solano	\$87,000	CA Dept of Fish and Game
Invasive Spartina Project	2001	Multiple	\$1,793,661	California Coastal Conservancy
Kirker Creek Watershed Coordinated Resource Management Planning Program	2001	Contra Costa	\$198,450	Contra Costa Resource Conservation District
Sonoma Creek Watershed Conservancy	2001	Sonoma	\$545,170	Southern Sonoma County Resource Conservation District
Suisun Marsh Property Acquisition and Habitat Restoration	2001	Solano	\$536,750	California Department of Water Resources
Bahia Acquisition & Tidal Wetland Restoration	2002	Marin	\$3,345,000	Marin Audubon Society
Distribution, and abundance of shrimp, plankton and benthos in Suisun Marsh: Tidal marsh as a refuge for native species	2002	Solano	\$271,804	University of California, Davis
Estuary Action Challenge Environmental Education Program	2002	Contra Costa, Alameda	\$120,000	Earth Island Institute
Napa-Sonoma Marsh Restoration Project	2002	Napa, Solano	\$4,511,400	Coastal Conservancy
Restoration of Sacramento Perch to San Francisco Estuary	2002	Multiple	\$572,732	University of California, Davis
Shallow Open Water Habitats: Hydrodynamics & Benthic Grazing	2002	Santa Clara, Solano	\$471,661	Stanford University

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Suisun Marsh Land Acquisition and Tidal Marsh Restoration	2002	Solano	\$1,046,400	CA Dept of Fish and Game
Update Individual Ownership Adaptive Management Habitat Plans	2002	Solano	\$214,944	Suisun Resource Conservation District
<b>Summary for 'Program Element' = Ecosystem Restoration 52 projects</b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$28,213,411</b>	

***CBDA Program Element: Ecosystem Restoration***

Effects of Climate Variability and Change on the Vegetation and Hydrology of the Bay-Delta Watershed	2002	Multiple	\$562,924	UCSD, Scripps Institution fo Oceanography
Hydroclimatic Reconstruction And Ancient Blue Oak Mapping Over The Drainage Basin Of San Francisco Bay	2002	Multiple	\$747,741	University of Arkansas Fayetteville
Reducing the Introduction and Damage of Aquatic Nonindigenous Species through Outreach and Education, Phase 2	2002	Multiple	\$156,951	University of California, Davis
Selenium Effects on Health and Reproduction of White Sturgeon, Acipenser transmontanus, in the Sacramento-San Joaquin Estuary	2002	Multiple	\$150,047	University of California, Davis
<b>Summary for 'Program Element' = Ecosystem Restoration 4 projects</b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$1,617,663</b>	

***CBDA Program Element: Science***

Invasive Species in Ports and Harbors	2002	Multiple	\$111,192	University of Southern California
<b>Summary for 'Program Element' = Science 1 project</b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$111,192</b>	

***CBDA Program Element: Storage***

Marina Coast Water District	2001	Monterey	\$250,000	Marina Coast Water District
Pajaro Valley Water Management Agency	2001	Santa Cruz Monterey	\$30,450	Pajaro Valley Water Management Agency
Scotts Valley Water District	2001	Santa Cruz	\$250,000	Scotts Valley Water District
Westside Basin Groundwater Management Plan	2001	San Francisco, San Mateo	\$250,000	City of Daly City

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Construct Two Four-Well Monitoring Sites in Cupertino & Palo Alto to Improve Groundwater Monitoring Data Within the Santa Clara Valley	2002	Santa Clara	\$250,000	Santa Clara Valley Water District
Monterey County Water Resources Agency	2002	Monterey	\$250,000	Monterey County Water Resources Agency
Pajaro Valley Water Management Agency	2002	Santa Cruz	\$38,500	Pajaro Valley Water Management Agency
Marina Coast Water District	2003	Monterey	\$250,000	Marina Coast Water District
Montara Sanitary District	2003	San Mateo	\$175,169	Montara Sanitary District
Santa Clara Valley Water District	2003	Santa Clara	\$250,000	Santa Clara Valley Water District

**Summary for 'Program Element' = Storage 10 projects**

**Grant Dollars Awarded For Program Element:**

**\$1,994,119**

***CBDA Program Element: Water Use Efficiency***

California Irrigation Management Information System Weather Data Station Installed	2000	Contra Costa	\$15,000	Contra Costa Water Agency
Implementation: Mobile Lab Used For Local Area Irrigation Evaluations	2000	Monterey	\$25,000	Monterey Resource Conservation District
Maintenance of Water Conservation Garden; Purchase of Public and School Education Materials; Retrofit Kits For Water Audit Surveys	2000	Solano	\$19,775	Solano County Water Agency
Water Conservation Garden for Public Demonstrations & Study on Dual Flush Toilets to See If They Are More Water Efficient Than Ultra Low Flush Toilets	2000	Alameda	\$20,000	East Bay Municipal Utility District
A Straight Flush Commercial Ultra Low Flow Toilet Direct Installation	2001	Contra Costa	\$150,000	Contra Costa Water District
Alameda County Water District Schools & Water Conservation - Large Landscapes	2001	Alameda	\$125,000	Alameda County Water District
Implementation: Mobile Lab Used For Local Area Irrigation Evaluations	2001	Monterey	\$25,000	Monterey Resource Conservation District
Landscape & Agriculture Area Management & Water Budgets	2001	Santa Clara	\$406,000	Santa Clara Valley Water District
On Farm Mobile Lab	2001	Multiple	\$99,500	Pajaro Valley Water Management Agency
The Save Our Delta Surveys	2001	Contra Costa	\$50,000	City of Pittsburg
Dedicated Landscape Meter Program	2002	Santa Clara	\$100,000	Santa Clara Valley Water District
Large Landscape Evapotranspiration Controller System Project	2002	Solano	\$195,000	Solano County Water Agency

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Pre-Rinse Spray Head and Dishwasher Installation Program for Fast Food Industry	2002	Alameda, Contra Costa	\$482,081	East Bay Municipal Utility District
Water Conservation System Rehabilitation Program	2002	Monterey	\$959,029	Marina Coast Water District
Water Meter Retrofit Project	2002	Sonoma	\$1,276,548	City of Rohnert Park
Water Softener Pilot Project	2002	Santa Clara	\$60,000	Santa Clara Water District
Evapotranspiration Controller Installation in 6 City Parks	2003	Santa Clara	\$50,000	City of Los Altos
Evapotranspiration Controller Installation Project	2003	Alameda	\$1,660,725	East Bay Municipal Utility District
Innovative High Efficiency Commercial Equipment Retrofits	2003	Santa Clara	\$496,000	Santa Clara Valley Water District
Regional Resource Efficient Clothes Washer Rebate	2003	Alameda	\$2,190,375	East Bay Municipal Utility District
Targeted Irrigation System Hardware Upgrades	2003	Santa Clara	\$100,000	Santa Clara Valley Water District
Targeted Multi-Family Toilet Replacement Program	2003	Contra Costa	\$203,670	Contra Costa Water District
Water Conservation Program	2003	Monterey	\$190,000	Montara Sanitary District
X-Ray Processor Recycling Capital Outlay Project	2003	Alameda	\$152,400	East Bay Municipal Utility District

**Summary for 'Program Element' = Water Use Efficiency 24 projects**

**Grant Dollars Awarded For Program Element: \$9,051,103**

***CBDA Program Element: Watershed***

Almaden Reservoir Watershed Restoration Project	2001	Santa Clara	\$300,000	Santa Clara Valley Water District
Citizen Involvement and Regional Outreach Program	2001	Alameda, Contra Costa	\$608,132	Aquatic Outreach Institute
Codornices Creek Watershed Restoration Action Plan	2001	Alameda	\$200,000	Urban Creeks Council
Lagoon Valley Watershed Restoration	2001	Solano	\$431,000	City of Vacaville, Community Services Department
Napa River Watershed Mapping Partnership	2001	Napa	\$318,300	San Francisco Regional Water Quality Control Board
Partnership for Sub-Regional Watershed Forums and a Watershed Center	2001	Alameda	\$498,122	Alameda County Resource Conservation District/Merritt College Environmental Program
San Francisquito Creek Watershed Enhancement Program	2001	San Mateo, Santa Clara	\$250,225	Acterra
Sonoma Creek Watershed Conservancy: Outreach and Restoration	2001	Sonoma	\$270,541	Sonoma Ecology Center

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Stewardship Plans for the West Valley, Guadalupe, and Lower Peninsula Watersheds	2001	Santa Clara	\$700,000	Santa Clara Valley Water District
Stewardship Support and Watershed Assessment in the Napa River Watershed: A Two-Year Project	2001	Napa	\$360,900	Napa County Resource Conservation District
Upper Guadalupe River Tributary Monitoring Program & Pilot Restoration Project	2001	Santa Clara	\$47,000	Guadalupe-Coyote Resources Conservation District
Walnut Creek Watershed	2001	Contra Costa	\$260,000	Contra Costa County Flood Control & Water Conservation District
Yosemite Watershed Restoration Assessment Project	2001	San Francisco	\$771,000	ARC Ecology/ Bay View-Hunters Point Advocates
A Watershed Regional Awareness Program for Wildcat/San Pablo Creeks	2002	Contra Costa	\$750,000	Urban Creeks Council
Enhancing Local Capacity in North Richmond & Parchester Village to Manage & Restore the Lower Rheem Creek Watershed	2002	Contra Costa	\$440,870	Natural Heritage Institute
Oakland Releaf Watershed Protection Program	2002	Alameda	\$350,000	Oakland Releaf

**Summary for 'Program Element' = Watershed 16 projects**

**Grant Dollars Awarded For Program Element: \$6,556,090**

\* See Complete Grant For More Detail.

**Summary for 'Region' = Bay 111 projects**

**Total Grant Dollars Awarded: \$62,058,578**



## Grant Projects Database Report for The Delta Region

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
<b><i>CBDA Program Element: Drinking Water Quality</i></b>				
Veale-Byron Project/Rock Slough & Old River Water Quality Actions	2000	Contra Costa	\$450,000	Contra Costa Water District
Contra Costa County Knightsen Water Quality/Drainage Improvement	2001	Contra Costa	\$100,000	Contra Costa Water District
Hydrologic Flow Measurement & Assessment of Organic Loads	2001	Sacramento	\$300,000	United States Geological Survey
Sources & Magnitudes of Water Quality Constituents of Concern in Drinking Water Supplies Taken From the Sacramento/San Joaquin Delta	2001	Multiple	\$45,000	Jones & Stokes
Assessing the Occurrence & Sources of Microbial Contamination in the Delta Region	2002	Multiple	\$973,311	Metropolitan Water District of Southern California
Determining the Contribution of Riverine In-Delta & Aqueduct Sources of Organic Loads in the State Water Project Using Accelerator Mass Spectrometry Carbon Dating & Stable Isotope	2002	San Joaquin	\$396,088	California Department of Water Resources
Investigating In-Situ Low Intensity Chemical Dosing to Decrease Delta Waters Dissolved Organic Carbon Concentrations & Disinfection By-Product Precursors While Accelerating Wetland Peat Accretion Rates & Reducing Flood Risks	2002	Sacramento	\$767,135	United States Geological Survey
North Bay Aqueduct Watershed Best Management Practices	2002	Solano	\$399,608	Solano County Water Agency
North Bay Aqueduct Watershed Management & Alternative Intake Study	2002	Solano	\$188,500	Metropolitan Water District of Southern California & Friant Water Users Auth.
Reducing Non-Point Dissolved Organic Carbon & Nitrogen Exports Rice Fields: A Pilot Study & Quantitative Survey to Determine the Effects of Different Hydrologic & Straw Management Best Management Practices	2002	Contra Costa	\$869,715	Contra Costa Water District
Resolution of Outstanding Issues in Delta Hydrodynamics & Water Quality Models	2002	San Joaquin	\$155,000	K. T. Shum
Rock Slough & Old River Drainage Management	2002	Contra Costa	\$1,300,000	Contra Costa Water District
The Water You Play In Is The Water You Drink	2002	Contra Costa	\$982,655	Contra Costa County Clean Water Program
<b><i>Summary for 'Program Element' = Drinking Water Quality 13 projects</i></b>				
<b><i>Grant Dollars Awarded For Program Element:</i></b>			<b><i>\$6,927,012</i></b>	

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
<b><i>CBDA Program Element: Ecosystem Restoration</i></b>				
Microsatellite DNA for Management and Protection of Endangered Central Valley Chinook Salmon	1995	Sonoma	\$300,000	U.C. Davis Bodega Marine Laboratory
Banta-Carbona Fish Screen Project - CANCELLED	1996	See 97-M07	\$100,000	Banta - Carbona Irrigation District
Invasion of the Bay-Delta Estuary By Introduced Species-Introduction of Non-Indigenous Aquatic Species Research Program	1996	Multiple	\$197,000	San Francisco Estuary Institute
North Delta Area - Inventory of Rearing Habitat for Juvenile Salmon	1996	Solano	\$24,500	California State University, Sacramento
Prospect Island - Develop Monitoring Plan	1996	Solano	\$35,000	California Department of Water Resources
Prospect Island - Shallow Water Habitat/Wetlands Restoration Plan	1996	Solano	\$2,500,000	United States Army Corps of Engineers
Research to Predict Evolution of Restored Diked Wetlands	1996	Solano	\$575,172	School of Fisheries, University of Washington
Riparian Habitat Restoration Verona-Collinsville (Phase 1-Feasibility Study)	1996	Contra Costa, Sacramento, Solano, Sutter, Yolo	\$500,000	Department of Water Resources
Sherman Island - Levee Habitat Demonstration Project - CANCELLED	1996	Sacramento	\$480,000	California Department of Water Resources Central District
Yolo Bypass Habitat Restoration Study	1996	Yolo	\$226,000	California Dept of Water Resources
Assessment and Implementation of Urban Use Reduction of Diazion and Chlorpyrifos (Sacramento County)	1997	Sacramento	\$663,500	Sacramento Area Stormwater Permittees
Banta-Carbona Irrigation District Fish Screen Project	1997	San Joaquin	\$938,875	Banta-Carbona Irrigation District
Cosumnes Start-up Stewardship and Restoration	1997	Sacramento	\$1,985,100	The Nature Conservancy
Effects of Wetlands Restoration on Methyl Mercury Levels	1997	Multiple	\$546,171	University of California, Davis
Franks Tract Restoration	1997	Solano	\$323,186	Moffat and Nichol Engineers
Hastings Tract Fish Screen (Phase I - Feasibility Study)	1997	Solano	\$27,000	Hastings Island Land Company
In-Channel Island Restoration/Demonstration (Phase 1 - Permitting and Design)	1997	San Joaquin	\$270,270	Association of Bay Area Governments
Jepson Prairie Restoration and Conservation Plan	1997	Solano	\$244,801	Solano County Farmlands Open Space Foundation
Liberty Island Acquisition	1997	Solano, Yolo	\$8,926,000	US Fish & Wildlife Service
Monitoring of Delta Contaminants	1997	Multiple	\$100,000	San Francisco Baykeeper

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Role of Contaminants in the Decline of Delta Smelt in the Sacramento-San Joaquin Estuary.	1997	Multiple	\$437,326	University of California, Davis, Bodega Marine Laboratory
Sedimentation Movement and Availability and Monitoring in the Delta	1997	Multiple	\$1,047,010	United States Geological Survey
Tyler Island Levee Protection and Habitat Restoration Pilot Project	1997	Sacramento	\$885,202	Habitat Assessment & Restoration Team, Inc
Adult Fall-Run Chinook Salmon Movement in the Lower San Joaquin River and South Delta	1998	San Joaquin	\$285,000	California Department of Fish and Game, Bay-Delta and Special Water Projects Division
Algae Toxicity Study	1998	Multiple	\$500,000	Central Valley Regional Water Quality Control Board
Cache Slough Habitat Enhancement	1998	Solano	\$85,000	Reclamation District 2060
Cosumnes River Acquisition, Restoration Planning and Demonstration	1998	Multiple	\$750,000	The Nature Conservancy
Cosumnes River Salmonid Barrier Program	1998	Sacramento	\$188,255	Fishery Foundation of California
Culture of Delta Smelt	1998	Multiple	\$194,870	University of California, Davis, Department of Animal Science
Delta Dredging and Reuse Strategy	1998	Multiple	\$200,000	State Water Resources Control Board
Delta Dredging and Reuse Strategy	1998	Multiple	\$276,000	California Department of Fish and Game
Delta Dredging and Reuse Strategy	1998	Multiple	\$24,000	Delta Protection Commission
Developing a Methodology to Accurately Simulate Entrainment of Fish (Pump Barge Study)	1998	Multiple	\$200,000	CA Dept of Fish & Game
Discover the Flyway	1998	Multiple	\$49,000	Yolo Basin Foundation
Evaluation of Selenium Sources, Levels, and Consequences in the Delta	1998	Multiple	\$1,627,117	US Geological Survey
Fern-Headreach Tidal Perennial Aquatic and Shaded River Aquatic Conservation Project	1998	San Joaquin	\$425,000	L & L Farms
Hastings Tract Fish Screen (Phase II - Construction)	1998	Solano	\$271,250	Hastings Island Land Company
Hill Slough West Habitat Demonstration Project - Phase I	1998	Solano	\$200,000	California Department of Fish & Game
Local Watershed Stewardship Plan for the Lower Mokelumne River	1998	San Joaquin	\$159,000	San Joaquin County Resource Conservation District
Lower Putah Creek Watershed Stewardship Program	1998	Solano, Yolo	\$100,500	Solano County, Department of Environmental Management, Plan
Prospect Island Habitat Protection Project	1998	San Joaquin	\$2,000,000	US Army Corps of Engineers

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Reclamation District 2035 Fish Screen	1998	Yolo	\$100,000	Reclamation District 2035
Rhode Island Floodplain Management and Habitat Restoration - Phase I	1998	Contra Costa, San Joaquin	\$25,000	California Department of Fish & Game
Stone Lakes National Wildlife Refuge Land Acquisitions	1998	Sacramento	\$2,622,500	US Fish & Wildlife Service
Stone Lakes Water Hyacinth Education Program	1998	Sacramento	\$9,600	Sacramento Regional County Sanitation District
Support for McCormack-Williamson Tract	1998	Sacramento	\$24,000	Department of Water Resources
Twitchell Island Subsidence Study	1998	Sacramento	\$3,583,000	Department of Water Resources
An Evaluation of the Potential Impacts of the Chinese Mitten Crab ( <i>Eriocheir sinensis</i> ) on the Benthic Communities in the Sacramento-San Joaquin Delta and Suisun Bay	1999	Multiple	\$152,233	California Department of Water Resources
Assessment of Pesticide Effects on Fish & Their Food Resources in the Sacramento/San Joaquin Delta	1999	Multiple	\$1,586,894	University of California, Berkeley - Regents of the University of California
Chronic Toxicity of Environmental Contaminants in Sacramento Splittail - A Biomarker Approach	1999	Yolo	\$673,684	University of California, Davis - Animal Sciences
Cosumnes and Mokelumne Rivers Feasibility Study	1999	San Joaquin	\$1,007,800	East Bay Municipal Utility District / The Nature Conservancy
Dissolved Organic Carbon Release from Delta Wetlands, Part 1	1999	Multiple	\$1,434,449	United States Geological Survey
East Delta Habitat Corridor (Georgiana Slough)	1999	Sacramento	\$1,100,000	Habitat Assessment & Restoration Team, Inc
Fish Treadmill -- Developed Fish Screen Criteria for Native Sacramento-San Joaquin Watershed Fish	1999	Multiple	\$823,000	University of California, Davis, Wildlife, Fish, & Conservation Biology
Habitat Restoration on McCormack-Williamson Tract Levees	1999	Sacramento	\$860,778	The Nature Conservancy
Inundation of a Section of the Yolo Bypass to Restore Sacramento Splittail & Other Native Species. - CANCELLED	1999	Yolo	\$820,679	Natural Heritage Institute
Levee Setback Geomorphic Model	1999	Multiple	\$104,458	University of California, Davis
Lower Mokelumne Stewardship	1999	Sacramento, San Joaquin	\$227,000	San Joaquin Resource Conservation District
McCormack-Williamson Tract Acquisition	1999	Sacramento	\$5,356,000	The Nature Conservancy / California Wildlife Conservation Board
Prospect Island Monitoring Project - CANCELLED	1999	Solano	\$915,000	CA Dept of Water Resources
Purple Loosestrife Prevention, Detection & Control Actions for the Sacramento-San Joaquin River Delta System	1999	Multiple	\$127,473	California Department of Food & Agriculture

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Purple Loosestrife Prevention, Detection & Control in the Sacramento/San Joaquin Delta & Associated Hydrologic Units	1999	Multiple	\$201,306	California Department of Food & Agriculture
Reducing Risk of Importation & Distribution on Non-Native Invasive Species Through Outreach & Education	1999	Multiple	\$105,466	University of California, Davis
Reintroduction of Endangered Soft Bird's Beak to Restored Habitat	1999	Solano	\$178,889	University of California, Davis, Department of Environmental Science and Policy
Traveling Film Festival & Exhibit; McCormack-Williamson Restoration Film	1999	Multiple	\$51,500	Independent Documentary Group
Understanding Tidal Marsh Restoration Processes and Patterns: Validating and Extending the "BREACH" Conceptual Model	1999	Multiple	\$1,042,246	University of Washington, School of Fisheries
Zebra Mussel Detection & Outreach Project	1999	Multiple	\$100,000	California Department of Water Resources
Canal Ranch Habitat Restoration Phase II	2000	San Joaquin	\$135,940	California Department of Fish & Game
Culture of Delta Smelt Phase II & III	2000	Multiple	\$576,229	University of California Davis, Department of Animal Science
Dissolved Organic Carbon Release from Delta Wetlands - Part 2	2000	Multiple	\$1,030,000	United States Geological Survey
Liberty Island Acquisition and Restoration Phase I	2000	Solano, Yolo	\$2,701,734	US Fish & Wildlife Service
McCormack-Williamson Tract Phase II Monitoring Project	2000	Sacramento	\$572,886	University of California, Davis
McCormack-Williamson Tract Phase II Restoration Planning	2000	Sacramento	\$365,650	California Department of Water Resources
Demonstration Project for the Protection and Enhancement of Delta In-Channel Islands (Phase 2 - Construction & Monitoring)	2001	Contra Costa, San Joaquin	\$928,150	Association of Bay Area Governments
Digital Soil Survey Mapping and Digital Orthophotoquad Imagery Development	2001	Multiple	\$502,100	Natural Resources Conservation Service / California Conservation Partnership
Discover the Flyway II	2001	Yolo	\$197,987	Yolo Basin Foundation
Educating Farmers and Landowners in Biological Resource Management	2001	Merced, Solano, Yolo	\$1,066,593	Community Alliance with Family Farmers
Fay Island Restoration Project, Phase I	2001	Contra Costa, San Joaquin	\$744,148	California Department of Fish & Game
Feasibility Study of the Ecosystem and Water Quality Benefits Associated with Restoration of Franks Tract, Big Break, and Lower Sherman Lake - WAS 01-N18	2001	Contra Costa, Sacramento	\$1,218,105	California Department of Water Resources
Fish Treadmill -- Developed Fish Screen Criteria for Native Sacramento-San Joaquin Watershed Fish	2001	Multiple	\$1,362,878	University of California Davis
Food Resources for Zooplankton in the Sacramento-San Joaquin River Delta	2001	Multiple	\$576,422	UC Davis

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Juvenile Salmon Migratory Behavior Study in North, Central and South Delta	2001	Multiple	\$210,000	Natural Resource Scientists, Inc.
Lower Mokelumne River Restoration Program (Phase 2 - Woodbridge)	2001	San Joaquin	\$680,000	Woodbridge Irrigation District
Sedimentation in the Delta and Suisun Bay	2001	Multiple	\$1,367,684	United States Geological Survey
Staten Island Acquisition	2001	San Joaquin	\$35,110,873	The Nature Conservancy
The Influence of Flood Regimes, Vegetative and Geomorphic Structures on the Links Between Aquatic & Terrestrial Systems	2001	Sacramento	\$2,521,236	University of California, Davis
Transport, Transformation & Effects of Selenium and Carbon in the Delta: Implications for Ecosystem Restoration Program	2001	Contra Costa	\$2,600,000	United States Geological Survey
Watershed Stewardship in Marsh Creek: A Project to Protect Water Quality in the Western Delta	2001	Contra Costa	\$126,000	Natural Heritage Institute
Yolo Bypass Management Strategy, Phase II	2001	Solano, Yolo	\$210,000	Yolo Basin Foundation
Delta Smelt Culture and Research Program	2002	Contra Costa	\$400,000	University of California, Davis
Determining the Mechanisms Relating Freshwater Flow & Abundance of Estuarine Biota (the "Fish-X2" relationships): Phase I	2002	Multiple	\$509,222	San Francisco State University-Romberg Tiburon Center
Distribution & Ecology of Lepidium Latifolium in Bay-Delta Wetlands	2002	Multiple	\$223,050	Environmental Science Associates
Dutch Slough Tidal Marsh Restoration Project	2002	Contra Costa	\$1,500,000	CA Dept of Fish & Game
Evaluation of Mercury Transformations & Trophic Transfer in the San Francisco Bay/Delta: Identifying Critical Processes for the Ecosystem Restoration Program	2002	Contra Costa, Sacramento	\$2,262,567	US Geological Survey
Geomorphic & Geologic Mapping for Restoration Planning, Sacramento-San Joaquin Delta Region	2002	Sacramento, Solano	\$120,000	William Lettis & Associates, Inc.
Life History of Egeria Densa in the Delta: Factors Controlling Production & Fragment Viability	2002	Contra Costa	\$327,937	Portland State University
McCormack-Williamson Tract Restoration: Wildlife-Friendly Levee Management	2002	Sacramento	\$2,476,835	The Nature Conservancy
Primary Production in the Delta: Monitoring Design, Data Analysis and Forecasting	2002	Multiple	\$315,811	University of California, Davis
Reclamation District No. 108 Consolidated Pumping Facility and Fish Screen	2002	Colusa, Yolo	\$630,000	Reclamation District 108
Restoring Ecosystem Integrity in the Northwest Delta: Phase II	2002	Solano	\$246,370	Solano County Farmlands Open Space Foundation
Staten Island Wildlife-Friendly Farming Demonstration	2002	San Joaquin	\$1,507,459	Ducks Unlimited, Inc.

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Sustainable Restoration Technologies for Bay/Delta Tidal Marsh & Riparian Habitat	2002	Sacramento, Solano, Yolo	\$1,800,000	H.A.R.T., Inc.
The Ecological & Economic Costs & Benefits of Alternative Agricultural Practices: Sediment, Nutrient, & Pesticides in Runoff From Conservation Tillage & Cover Cropped Systems	2002	Stanislaus, Yolo	\$1,892,916	UC Davis

**Summary for 'Program Element' = Ecosystem Restoration 103 projects**

**Grant Dollars Awarded For Program Element:**

**\$121,116,842**

***CBDA Program Element: Levees***

Demonstration of Technique for Reversing the Effects of Subsidence in the Sacramento-San Joaquin Delta	2000	Sacramento	\$3,351,850	United States Geological Survey, Northwest Hydraulics Consultants, Hydrofocus
Bacon Island	2001	San Joaquin	\$1,278,913	Reclamation District 2028
Bethel Island	2001	Contra Costa	\$123,181	Bethel Island Municipal Improvement District
Bishop Tract	2001	San Joaquin	\$27,079	Reclamation District 2042
Bouldin Island	2001	San Joaquin	\$183,462	Reclamation District 756
Brack Tract	2001	San Joaquin	\$35,043	Reclamation District 2033
Bradford Island	2001	Contra Costa	\$4,867	Reclamation District 2059
Brannan-Andrus	2001	Sacramento	\$557,356	Brannan-Andrus Levee Maintenance District
Byron Tract	2001	Contra Costa	\$387,866	Reclamation District 800
Cache-Hass Slough	2001	Solano	\$405	Reclamation District 2098
Canal Ranch Tract	2001	San Joaquin	\$19,999	Reclamation District 2086
Coney Island	2001	Contra Costa	\$5,952	Reclamation District 2117
Egbert Tract	2001	Solano	\$4,366	Reclamation District 536
Empire Tract	2001	San Joaquin	\$115,479	Reclamation District 2029
Fabian Tract	2001	San Joaquin	\$31,438	Reclamation District 773
Fay Island	2001	San Joaquin	\$15,448	Reclamation District 2113
Grand Island	2001	Sacramento	\$48,164	Reclamation District 3
Hasting Tract	2001	Solano	\$24,018	Reclamation District 2060

Levees

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Holland Tract	2001	Contra Costa	\$2,321	Reclamation District 2025
Hotchkiss Tract	2001	Contra Costa	\$95,864	Reclamation District 799
Jersey Island	2001	Contra Costa	\$216,564	Reclamation District 830
Jones Tract, Lower	2001	San Joaquin	\$199,813	Reclamation District 2038
Jones Tract, Upper	2001	San Joaquin	\$158,544	Reclamation District 2039
King Island	2001	San Joaquin	\$173,995	Reclamation District 2044
Lisbon District	2001	Yolo	\$21,381	Reclamation District 307
Mandeville Island	2001	San Joaquin	\$89,526	Reclamation District 2027
McCormack-Williamson Tract	2001	Sacramento	\$335,388	Reclamation District 2110
McDonald Island	2001	San Joaquin	\$231,525	Reclamation District 2030
Medford Island	2001	San Joaquin	\$32,746	Reclamation District 2041
Netherlands	2001	Yolo	\$33,877	Reclamation District 999
New Hope Tract	2001	San Joaquin	\$24,549	Reclamation District 348
Orwood/Palm Tract	2001	Contra Costa	\$434,271	Reclamation District 2024
Pescadero District	2001	San Joaquin	\$2,243	Reclamation District 2058
Quimby Island	2001	Contra Costa	\$605,913	Reclamation District 2090
Rindge Tract	2001	Yolo	\$231,914	Reclamation District 2037
Roberts Island, Lower	2001	San Joaquin	\$109,995	Reclamation District 684
Roberts Island, Middle	2001	Contra Costa	\$37,066	Reclamation District 524
Roberts Island, Upper	2001	San Joaquin	\$17,266	Reclamation District 544
Ryer Island	2001	Contra Costa	\$94,866	Reclamation District 501
Sargent-Barnhart Tract	2001	San Joaquin	\$67,804	Reclamation District 2074
Sherman Island	2001	San Joaquin	\$288,965	Reclamation District 341
Shima Tract	2001	San Joaquin	\$3,720	Reclamation District 2115
Smith Tract	2001	San Joaquin	\$11,405	Reclamation District 1614

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Stark Tract	2001	Solano	\$1,665	Reclamation District 2089
Terminus Tract	2001	Contra Costa	\$8,174	Reclamation District 548
Twitchell Island	2001	Sacramento	\$187,973	Reclamation District 1601
Tyler Island	2001	San Joaquin	\$362,153	Reclamation District 563
Union Island, East	2001	San Joaquin	\$29,323	Reclamation District 1
Union Island, West	2001	San Joaquin	\$236,348	Reclamation District 2
Van Sickle Island	2001	Solano	\$2,226	Reclamation District 1607
Veale Tract	2001	Contra Costa	\$28,849	Reclamation District 2065
Venice Island	2001	San Joaquin	\$285,910	Reclamation District 2023
Victoria Island	2001	San Joaquin	\$124,578	Reclamation District 2040
Weber Tract	2001	San Joaquin	\$36,469	Reclamation District 828
Winter Island	2001	Contra Costa	\$132,942	Reclamation District 2122
Woodward Island	2001	San Joaquin	\$77,252	Reclamation District 2072
Wright-Elmwood Tract	2001	San Joaquin	\$17,395	Reclamation District 2119
Yolano	2001	Solano	\$8,067	Reclamation District 2068
Bacon Island	2002	San Joaquin	\$117,932	Reclamation District 2028
Bethel Island	2002	Contra Costa	\$83,369	Bethel Island Municipal Improvement District
Bishop Tract	2002	San Joaquin	\$15,082	Reclamation District 2042
Bouldin Island	2002	San Joaquin	\$24,944	Reclamation District 756
Brack Tract	2002	San Joaquin	\$94,643	Reclamation District 2033
Brannan-Andrus	2002	Sacramento	\$274,870	Brannan-Andrus Levee Maintenance District
Byron Tract	2002	Contra Costa	\$124,808	Reclamation District 800
Canal Ranch Tract	2002	San Joaquin	\$6,147	Reclamation District 2086
Coney Island	2002	Contra Costa	\$16,313	Reclamation District 2117
Egbert Tract	2002	Solano	\$10,071	Reclamation District 536

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Empire Tract	2002	San Joaquin	\$30,960	Reclamation District 2029
Fabian Tract	2002	San Joaquin	\$19,534	Reclamation District 733
Fay Island	2002	San Joaquin	\$38,515	Reclamation District 2113
Grand Island	2002	Sacramento	\$39,256	Reclamation District 3
Hasting Tract	2002	Solano	\$30,794	Reclamation District 2060
Holland Tract	2002	Contra Costa	\$25,647	Reclamation District 2025
Hotchkiss Tract	2002	Contra Costa	\$44,657	Reclamation District 799
Jersey Island	2002	Contra Costa	\$216,372	Reclamation District 830
Jones Tract, Lower	2002	San Joaquin	\$99,201	Reclamation District 2038
Jones Tract, Upper	2002	San Joaquin	\$48,645	Reclamation District 2039
King Island	2002	San Joaquin	\$166,309	Reclamation District 2044
Mandeville Island	2002	San Joaquin	\$157,679	Reclamation District 2027
McCormack-Williamson Tract Restoration, Planning, Design & Monitoring	2002	Sacramento	\$355,000	California Department of Water Resources
McDonald Island	2002	San Joaquin	\$274,655	Reclamation District 2030
Medford Island	2002	San Joaquin	\$63,390	Reclamation District 2041
Netherlands	2002	Yolo	\$56,443	Reclamation District 999
New Hope Tract	2002	San Joaquin	\$36,032	Reclamation District 348
Orwood/Palm Tract	2002	Contra Costa	\$6,340	Reclamation District 2024
Pescadero District	2002	San Joaquin	\$1,723	Reclamation District 2058
Quimby Island	2002	Contra Costa	\$158,096	Reclamation District 2090
Rindge Tract	2002	Yolo	\$31,368	Reclamation District 2037
Roberts Island, Lower	2002	San Joaquin	\$129,807	Reclamation District 684
Roberts Island, Middle	2002	Contra Costa	\$14,893	Reclamation District 524
Roberts Island, Upper	2002	San Joaquin	\$169,581	Reclamation District 544
Ryer Island	2002	Contra Costa	\$31,654	Reclamation District 501

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Sargent-Barnhart Tract	2002	San Joaquin	\$35,305	Reclamation District 2074
Sherman Island	2002	San Joaquin	\$68,831	Reclamation District 341
Shima Tract	2002	San Joaquin	\$2,383	Reclamation District 2115
Smith Tract	2002	San Joaquin	\$23,175	Reclamation District 1614
Stark Tract	2002	Solano	\$11,019	Reclamation District 2089
Terminus Tract	2002	Contra Costa	\$152,217	Reclamation District 548
Twitchell Island	2002	Sacramento	\$109,313	Reclamation District 1601
Tyler Island	2002	San Joaquin	\$148,794	Reclamation District 563
Union Island, East	2002	San Joaquin	\$27,977	Reclamation District 1
Union Island, West	2002	San Joaquin	\$46,052	Reclamation District 2
Van Sickle Island	2002	Solano	\$8,414	Reclamation District 1607
Veale Tract	2002	Contra Costa	\$7,560	Reclamation District 2065
Venice Island	2002	Contra Costa	\$197,306	Reclamation District 2023
Victoria Island	2002	Contra Costa	\$116,090	Reclamation District 2040
Webb Tract	2002	Contra Costa	\$66,526	Reclamation District 2026
Winter Island	2002	Contra Costa	\$56,127	Reclamation District 2122
Woodward Island	2002	San Joaquin	\$107,622	Reclamation District 2072
Wright-Elmwood Tract	2002	San Joaquin	\$20,977	Reclamation District 2119
Yolano	2002	Solano	\$16,100	Reclamation District 2068
Bethel Island	2003	Contra Costa	\$125,905	Bethel Island Municipal Improvement District
Bradford Island	2003	Contra Costa	\$3,040,341	Reclamation District 2059
Empire Tract	2003	San Joaquin	\$37,500	Reclamation District 2029
Grand Island	2003	Sacramento	\$2,420	Reclamation District 3
Hotchkiss Tract	2003	Contra Costa	\$61,875	Reclamation District 799
Jersey Island	2003	Contra Costa	\$2,475,232	Reclamation District 830

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
New Hope Tract	2003	San Joaquin	\$1,283,244	Reclamation District 348
Sherman Island	2003	San Joaquin	\$2,730,869	Reclamation District 341
Twitchell Island	2003	Sacramento	\$187,973	Reclamation District 1601
Van Sickle Island	2003	Solano	\$2,226	Reclamation District 1607
Webb Tract	2003	Contra Costa	\$145,756	Reclamation District 2026
<b>Summary for 'Program Element' = Levees 123 projects</b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$25,605,590</b>	
 <b><i>CBDA Program Element: Science</i></b>				
Science Program Directed Action for Ecological Evaluation of Yolo Bypass to Support Floodplain Restoration	2001	Yolo	\$395,500	California Department of Water Resources
Co-Sponsored Delta Island Subsidence and Accretion	2002	San Joaquin	\$240,000	United States Geological Survey
Co-Sponsored Peer Review of North Delta Flood Models with Levee Program	2002	Multiple	\$15,000	Association of Bay Area Governments /University of California
Delta Water Quality: Analysis of Existing Data to Establish a Baseline	2002	San Joaquin	\$231,225	University of Washington
Ecological Evaluation of Yolo Bypass to Support Floodplain Restoration	2002	Yolo	\$791,000	California Department of Water Resources
Genetic Identification Methods for Splittail in the Sacramento Watershed	2002	Sacramento	\$256,544	University of California Davis
Hydroacoustic Surveys to Determine the Distribution of Fish in the Sacramento River Near the Delta Cross Channel	2002	Sacramento	\$88,829	United States Bureau of Reclamation
Hydrodynamic and Transport Mechanisms in the Delta	2002	Multiple	\$1,100,000	United States Geological Survey
Install and Operate Five Flow Meters in the North Delta for the Delta Cross Channel Through Delta Facility Studies at the Delta Cross Channel	2002	Sacramento	\$519,000	United States Geological Survey
Interagency Ecological Program Fish Presence, Abundance, and Location Data	2002	Sacramento, San Joaquin	\$496,000	United States Geological Survey
Pilot Wetlands Monitoring - Organized Multidisciplinary Team to Conduct Integrated Studies (Phase I)	2002	Multiple	\$1,500,000	Multiple Recipients*
Pilot Wetlands Monitoring Team Conduct Integrated Studies (Phase II)	2002	Sacramento	\$3,700,000	San Francisco State University
Replaced In-Situ Flow Monitoring Equipment in the Delta	2002	Sacramento	\$262,706	United States Geological Survey

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Research Studies Including the Tagging of Salmon Smolt to Determine Migratory Routes Near the Delta Cross Channel Under Different Tides and Gate Operations	2002	Merced	\$26,660	San Luis & Delta-Mendota Water Agency
Research Studies of the Migratory Pathways of Adult Salmon, Sturgeon, and Striped Bass and the Influence of the Delta Cross Channel on Those Pathways	2002	Sacramento	\$385,057	California Department of Fish & Game
The Spatial Ecology and Population Dynamics of Delta Smelt Revealed by Otolith Biogeochemistry	2002	Multiple	\$88,312	University of California Davis
<b>Summary for 'Program Element' = Science 16 projects</b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$10,095,833</b>	

***CBDA Program Element: Storage***

East Stockton Water District Pilot Project	2001	San Joaquin	\$1,341,000	Stockton East Water District
Enhancement of the San Joaquin County Groundwater Monitoring Program	2001	San Joaquin	\$250,000	San Joaquin County Flood Control and Water Conservation District
Yolo County Groundwater Feasibility Study	2001	Yolo	\$385,000	Yolo County Flood Control & Water Conservation District
Develop Groundwater Monitoring Program for The Non-Urban Portions of the Valley Area in Yolo County	2002	Yolo	\$200,000	Yolo County Flood Control & Water Conservation District
Davis, City of	2003	Yolo	\$225,000	Davis, City of
Dunnigan Water District	2003	Yolo	\$249,830	Dunnigan Water District
Reclamation District 2068	2003	Yolo	\$249,614	Reclamation District 2068
<b>Summary for 'Program Element' = Storage 7 projects</b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$2,900,444</b>	

***CBDA Program Element: Water Use Efficiency***

Irrigation Web Page, Computer Program To Provide Evapotranspiration Comparisons on Water Bills & Develop Outreach Program to Inform Users of Tools & Services Available to Improve Water Management	2000	Solano	\$24,400	Solano Irrigation District
Purchase Equipment to Develop County-Wide Water-Well Pump Testing	2001	Solano	\$24,044	Solano Irrigation District

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Purchase of a Central Control Irrigation Station for the City of Suisun & Hand-Held Data Loggers/Recorders	2001	Solano	\$24,950	Solano County Water Agency
Sub-Surface Drip Irrigation of Asparagus	2001	San Joaquin	\$299,500	Golden State Irrigation Services, Inc.
Banta-Carbona Irrigation District Modernization Feasibility Study	2002	San Joaquin	\$99,204	Banta-Carbona Irrigation District
Large Landscape Irrigation System Incentive Program	2002	Sacramento	\$150,000	Regional Water Authority, Sacramento
Leak Detection and Repair Program	2002	Sacramento	\$386,750	Regional Water Authority, Sacramento
Spill Reduction Feasibility Study	2002	Solano	\$89,000	Solano Irrigation District
Water Meter Project	2002	Contra Costa	\$49,000	Pleasantimes Mutual Water Company, Inc.

**Summary for 'Program Element' = Water Use Efficiency 9 projects**

**Grant Dollars Awarded For Program Element: \$1,146,848**

***CBDA Program Element: Watershed***

Contra Costa County Watershed Atlas and Creek Restoration Strategy	2001	Contra Costa	\$50,000	Contra Costa County Community Development Department
Lower Mokelumne River Watershed Education Project	2001	San Joaquin	\$70,140	City of Lodi, Lodi Lake Nature Area Docent Council
Lower Putah Creek Watershed Assessment and Stewardship Implementation Program	2001	Solano, Yolo	\$600,000	Solano County Water Agency
Yolo Bypass Watershed Planning Project	2001	Sacramento, Yolo	\$288,081	City of Woodland
Putah Creek - Yolo Housing Authority Project	2002	Solano, Yolo	\$279,655	Solano County Water Agency
Upper Mokelumne River Watershed Assessment	2002	Contra Costa, San Joaquin	\$200,000	Upper Mokelumne River Watershed Authority

**Summary for 'Program Element' = Watershed 6 projects**

**Grant Dollars Awarded For Program Element: \$1,487,876**

\* See Complete Grant For More Detail.

**Summary for 'Region' = Delta 277 projects**

**Total Grant Dollars Awarded: \$169,280,445**



## Grant Projects Database Report for The Sacramento Valley Region

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
<b><i>CBDA Program Element: Drinking Water Quality</i></b>				
Steelhead Creek Drinking Water Quality Study & Watershed Assessment	2002	Tehama	\$595,131	Dry Creek Conservancy
<b><i>Summary for 'Program Element' = Drinking Water Quality 1 project</i></b>			<b><i>\$595,131</i></b>	
<b><i>Grant Dollars Awarded For Program Element:</i></b>			<b><i>\$595,131</i></b>	
<b><i>CBDA Program Element: Ecosystem Restoration</i></b>				
Battle Creek - Interim Flow Restoration	1995	Tehama	\$500,000	US Fish & Wildlife Service
Durham Mutual Fish Screen and Ladder Project	1995	Butte	\$316,500	Durham Mutual Water Company
Keswick Dam Sacramento River Gravel Placement Project	1995	Shasta	\$45,000	California Department of Fish and Game
M&T/Parrott Pumping Station and Fish Screen Project-Relocation Construction	1995	Butte	\$1,610,000	Duck's Unlimited
Parrot-Phelan Dam Fish Ladder and Screen	1995	Butte	\$318,000	California Department of Fish and Game
Adams Dam Fish Screen & Ladder Feasibility Study	1996	Butte	\$70,304	Ducks Unlimited
Battle Creek - Chinook Salmon & Steelhead Restoration Study	1996	Shasta, Tehama	\$306,000	William M. Keir Associates
Battle Creek Watershed Management Strategy Project - Chinook Salmon & Establish Watershed Conservancy	1996	Shasta, Tehama	\$50,000	Western Shasta Resource Conservation District
Butte Creek - Watershed Management Strategy Plan	1996	Butte, Colusa, Glenn, Sutter	\$83,000	California State University, Chico
Butte Creek Siphon & Associated Improvements	1996	Butte	\$3,095,873	Western Canal Water District
Gorrill Dam Fish Screen & Ladder	1996	Butte	\$67,990	Ducks Unlimited
Innovative Fish Screen for Small Diversions Demonstration Project	1996	Shasta, Tehama	\$90,000	Buell & Associates
Princeton Pumping Plant Fish Screen (Phase 1-Feasibility Study)	1996	Colusa	\$75,000	Reclamation District 1004
Princeton-Codora-Glenn Irrigation District and Provident Irrigation District Pumping Station and Fish Screen Project (Phase II: Construction)	1996	Colusa, Glenn	\$5,500,000	Princeton-Codora-Glenn / Provident Irrigation Districts

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Sacramento River and Major Tributaries Corridor Mapping Project	1996	Multiple	\$145,200	California State University, Chico's Geographical Information Center
Sacramento River Princeton-Codora-Glenn Irrigation District and Provident Irrigation District Fish Screen (Phase I: Feasibility Study/Engineering)	1996	Colusa, Glenn	\$75,000	Princeton-Codora-Glenn / Provident Irrigation Districts
Wilkins Slough Fish Screen Project - Phase 2 Feasibility Study and Preliminary Design	1996	Yolo, Colusa	\$100,000	Reclamation District 108
Yuba River Fish Screen Replacement	1996	Yuba	\$114,750	Browns Valley Irrigation District
Adams Dam Fish Ladder and Screen Construction	1997	Butte	\$217,000	Ducks Unlimited, Inc.
Battle Creek Screens and Fish Passage	1997	Shasta, Tehama	\$395,000	California Department of Water Resources
Big Chico Creek Watershed Management Plan	1997	Butte	\$422,830	Big Chico Creek Watershed Alliance
Butte Creek Acquisition and Riparian Restoration	1997	Butte	\$187,128	CSU Chico Research Foundation
Cottonwood Creek Channel Restoration Planning	1997	Shasta, Tehama	\$61,000	Graham Matthews & Associates
Deer Creek Watershed Management/Implementation Program	1997	Tehama	\$196,554	Deer Creek Watershed Conservancy and CSUC
Gorrill Dam Fish Screen and Ladder Project	1997	Butte	\$369,641	Ducks Unlimited
Lower Mill Creek Riparian Restoration (Phase II)	1997	Tehama	\$69,000	Mill Creek Conservancy, The Nature Conservancy
Princeton Fish Screen Construction	1997	Colusa	\$1,750,000	Reclamation District 1004
Restoration Planning (Middle and North Fork American River, Auburn Ravine, Coon Creek)	1997	Placer	\$222,530	Placer County
Sacramento River Floodplain Acquisition - Natural Process Restoration	1997	Multiple	\$9,879,800	Wildlife Conservation Board, US Fish and Wildlife Service, The Nature Conservancy
Sacramento River Floodplain Acquisition - Riparian Forest Restoration	1997	Tehama	\$780,000	Wildlife Conservation Board, US Fish and Wildlife Service, The Nature Conservancy
Sacramento River Floodplain Acquisition and Riparian Restoration	1997	Glenn	\$512,500	Wildlife Conservation Board
Sacramento River Meander Restoration	1997	Glenn	\$898,700	The Nature Conservancy
Saeltzer Dam Fish Passage	1997	Shasta	\$238,200	Townsend Flat Water Ditch Company
Selected Fish Screens on Sacramento River and Tributaries	1997	Shasta	\$374,850	California Dept of Fish & Game
Suisun Marsh Fish Screens - CANCELLED	1997	Shasta, Tehama	\$2,784,600	Unknown
Watershed Improvements/Sediment Stabilization (Deer, Mill, Antelope Creeks)	1997	Tehama	\$371,000	United States National Forest Service (Lassen National Forest)

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Watershed Management Planning for Sacramento River Riparian Program	1997	Multiple	\$200,000	California Department of Water Resources, Northern District
Wilkins Slough Pumping Plant Fish Screen Project	1997	Colusa	\$2,500,000	Reclamation District 108
Wilson Ranch Fish Screen Project - CANCELLED	1997	Butte, Glenn	\$200,000	Deseret Farms of California
American Basin Fish Screen and Habitat Improvement Project	1998	Sacramento, Sutter	\$200,000	Natomas Mutual Water Company
American River (North and Middle Forks) Integrated Watershed Stewardship Strategy	1998	Placer	\$220,750	Placer County Resource Conservation District
Anadromous Fish Passage at Clough Dam on Mill Creek	1998	Tehama	\$1,215,000	California Department of Water Resources
Anderson-Cottonwood Irrigation District Fish Passage	1998	Shasta	\$325,000	Anderson-Cottonwood Irrigation District
Anderson-Cottonwood Irrigation District Fish Passage and Fish Screen Improvement Project (Phase II - Final Design)	1998	Shasta	\$860,000	Anderson-Cottonwood Irrigation District
Battle Creek Screens and Fish Passage	1998	Shasta, Tehama	\$395,000	Department of Water Resources
Battle Creek Watershed Stewardship	1998	Shasta, Tehama	\$145,000	Battle Creek Watershed Conservancy
Boeger Family Farm Fish Screen (Phase II - Construction)	1998	Colusa	\$139,500	Boeger Family Farms
Boeger Family Farm Screen - Feasibility Study Phase I	1998	Colusa	\$15,000	Boeger Family Farms
Butte Creek Acquisition and Riparian Restoration	1998	Butte	\$125,000	California State University, Chico - Department of Geography and Planning
Butte Creek Riparian Restoration Demonstration	1998	Butte	\$76,348	California State University Chico
Butte Creek Watershed Restoration Implementation	1998	Butte	\$302,867	California State University, Chico - Chico Research Foundation Watershed Projects Office
City of Sacramento Fish Screen Replacement Project (Phase II - Design)	1998	Sacramento	\$654,500	City of Sacramento
Conduct/Facilitate Meetings on the Upper Yuba River; Engelbright Dam	1998	Nevada	\$7,333	United States Fish & Wildlife Service
Cosumnes Floodplain Acquisition and Restoration	1998	Sacramento	\$3,500,000	The Nature Conservancy
Cottonwood Creek Watershed Group Formation	1998	Shasta, Tehama	\$161,000	Cottonwood Creek Watershed Group
Deer and Mill Creeks Acquisition and Enhancement	1998	Tehama	\$1,000,000	The Nature Conservancy
Fathead Minnow Toxicity Study in the Sacramento River	1998	Multiple	\$400,000	Central Valley Regional Water Quality Control Board
Fish Passage Improvement Project at the Red Bluff Diversion Dam	1998	Tehama	\$340,600	Tehama-Colusa Canal Authority

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Floodplain Acquisition, Management, and Monitoring on the Sacramento River	1998	Multiple	\$1,000,000	The Nature Conservancy
Genetic Comparison of stocks considered for re-establishing steelhead (Oncorhynchus mykiss) in Clear Creek, a tributary to the Upper Sacramento River.	1998	Shasta	\$45,493	United States Fish and Wildlife Service, Northern Central Valley Fish and Wildlife Office
Inventory of Forest Road Systems, Cat Creek Watershed	1998	El Dorado	\$45,320	United States Forest Service
Life History and Stock Composition of Steelhead Trout	1998	Yuba	\$120,000	Yuba County Water Agency
Lower Clear Creek Floodway Restoration Project (Phase II)	1998	Shasta	\$3,559,596	Western Shasta Resource Conservation District
Lower Mill Creek Riparian Restoration (Phase I)	1998	Butte	\$30,000	Mill Creek Conservancy
Monitoring Spring and Winter-Run Chinook Salmon and Steelhead in Battle Creek	1998	Shasta, Tehama	\$150,000	US Fish & Wildlife Service
Nelson Slough Wildlife Area Restoration Demonstration Project - CANCELLED	1998	Yuba	\$256,476	California Department of Fish & Game
Richter Brothers Screen, Phase I	1998	Sutter	\$49,000	Richter Brothers
Sacramento River, Headwaters to the Ocean, Public Information and Education	1998	Multiple	\$49,640	Sacramento River Discovery Center
Sand and Salt Creek Watershed Project	1998	Colusa, Yolo	\$599,000	Colusa County Resource Conservation District
Small Fish Screen Diversion Project on the Sacramento River	1998	Shasta, Tehama	\$900,000	Natural Resources Conservation Service
Small Fish Screen Evaluation - CANCELLED	1998	Sutter	\$95,000	Pelgar Mutual Water Company
South Yuba River Coordinated Watershed Management Plan	1998	Nevada	\$264,000	California Department of Parks and Recreation
Spawning Areas of Green Sturgeon (Acipenser medirostris) in the Upper Sacramento River	1998	Tehama	\$60,801	United States Fish and Wildlife Service, Northern Central Valley Fish and Wildlife Office
Sulfur Creek Coordinated Resource Management Planning Group	1998	Shasta	\$23,838	Sacramento Watersheds Action Group
The Butte Creek Watershed Educational Workshops and Field Tours Series	1998	Multiple	\$33,000	California State University, Chico Research Foundation, Department of Geography and Planning
Union School Slough Watershed Improvement Program	1998	Yolo	\$636,000	National Audubon Society
Yolo Bypass Watershed Restoration Strategy	1998	Solano, Yolo	\$244,188	Yolo Basin Foundation, Inc.
American River (South and Middle Fork) Watershed Stewardship Project	1999	El Dorado	\$203,250	Georgetown Divide Resource Conservation District

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Anderson-Cottonwood Irrigation District Fish Passage and Fish Screening Improvement Project, Phase III	1999	Shasta	\$5,253,000	Anderson-Cottonwood Irrigation District
Anderson-Cottonwood Irrigation District Fish Screen	1999	Shasta	\$5,100,000	Anderson-Cottonwood Irrigation District
Battle Creek Salmon and Steelhead Restoration Project	1999	Shasta, Tehama	\$28,000,000	Pacific Gas & Electric (primary)
Central Valley Steelhead Genetic Evaluation	1999	Multiple	\$70,636	California Department of Fish & Game
Clear Creek Prescription	1999	Shasta	\$256,260	Western Shasta Resource Conservation District
Colusa Basin Watershed Project	1999	Colusa	\$492,500	Colusa County Resource Conservation District
Colusa County Watershed Educational Training	1999	Colusa	\$13,390	Colusa County Resource Conservation District
Development of a River Corridor Management Plan for the Lower American River	1999	Sacramento	\$250,000	City of Sacramento
Development of an Implementation Plan for Lower Yuba River Anadromous Fish Habitat Restoration	1999	Yuba	\$3,000,000	Surface Water Resources, Inc.
Duncan/Long Canyon, Paired-Watershed Study	1999	Placer	\$86,108	Placer County Water Agency
Fish Passage Improvement Project at the Red Bluff Diversion Dam, Phase II	1999	Tehama	\$1,030,000	Tehama-Colusa Canal Authority
Improving Fish Passage Facilities at Coleman National Fish Hatchery to Facilitate Restoration of Battle Creek Salmon and Steelhead	1999	Shasta, Tehama	\$2,500,000	United States Fish & Wildlife Service
Lake Red Bluff Riparian Area Restoration & Education Support Project	1999	Tehama	\$29,114	California Conservation Corps
Lower Butte Creek Project (Phase II - Preliminary Engineering and Environmental Analysis for Butte Sink Structural Modifications and Flow-Through System)	1999	Butte, Colusa, Sutter	\$775,000	Ducks Unlimited, Inc.
Riparian Corridor Acquisition and Restoration Assessment	1999	Shasta, Tehama	\$2,240,250	United States Bureau of Land Management, Redding Field Office
Sacramento River Discovery Center Educational Program	1999	Tehama	\$39,552	Sacramento River Discovery Center
The Learning Watershed Project	1999	Multiple	\$56,907	American River Watershed Institute
Yuba Watershed Council	1999	Yuba	\$142,618	Yuba Watershed Council
City of Redding Water Utility Fish Screen Rehabilitation	2000	Shasta	\$510,262	City of Redding, Department of Public Works
Cottonwood Creek Watershed Monitoring and Assessment	2000	Shasta, Tehama	\$360,000	Cottonwood Creek Watershed Group
Department of Conservation Directed Action - Mine Remediation Assessment	2000	Nevada, Placer, Sierra	\$147,000	California Department of Conservation

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Floodplain Acquisition and Subreach/Site-Specific Management Planning on the Sacramento River (Red Bluff to Colusa)	2000	Multiple	\$534,570	The Nature Conservancy
Investigation of Abandoned Mine Sites - Yuba River	2000	Nevada, Sierra, Yuba	\$100,000	Unknown
Last Chance Creek Watershed Restoration Project - Ferris Meadow Reach - Feather River Coordinated Resource Management	2000	Plumas	\$1,009,400	Feather River Coordinated Resource Management
Maxwell Irrigation District Tuttle Pump Relocation Project	2000	Colusa	\$440,737	Maxwell Irrigation District
Sacramento River Small Diversion Fish Screen Program - Mechanical Monitoring and Maintenance Project	2000	Colusa, Shasta	\$322,081	Natural Resources Conservation Service
American Basin Fish Screen & Habitat Improvement Project	2001	Sacramento, Sutter	\$950,000	Natomas Mutual Water Company
Arundo Donax: Survey and Eradication	2001	Butte, Tehama	\$360,000	California State University, Chico
Battle Creek Anadromous Salmonid Monitoring Projects	2001	Shasta, Tehama	\$1,576,152	US Fish & Wildlife Service
Battle Creek Riparian Protection	2001	Shasta, Tehama	\$1,000,000	The Nature Conservancy
Battle Creek Watershed Stewardship, Phase II	2001	Shasta, Tehama	\$268,817	Battle Creek Watershed Conservancy
Butte Creek, Big Chico Creek, and Sutter Bypass Chinook Salmon and Steelhead Evaluation	2001	Butte, Sutter	\$280,951	CA Dept of Fish & Game
Butte Creek/Sanborn Slough Bifurcation Upgrade Project	2001	Butte, Colusa	\$1,000,000	California Waterfowl Association
City of Sacramento Intake Fish Screen Replacement Project	2001	Sacramento	\$6,020,995	City of Sacramento
Clear Creek Juvenile Salmonid Monitoring Project	2001	Shasta	\$871,026	US Fish & Wildlife Service
Ecosystem Restoration Program Directed Action for Cache Creek Settling Basin Study	2001	Yolo	\$100,000	Army Corps of Engineers
Estimating the Abundance of Sacramento River Juvenile Winter Chinook Salmon with Comparisons to Adult Escapement	2001	Tehama	\$1,081,638	US Fish & Wildlife Service
Fish Passage Improvement Project at the Red Bluff Diversion Dam - Balance of Phase II Funding with Requested Change of Scope	2001	Tehama	\$1,574,000	Tehama-Colusa Canal Authority
Large-Scale Pilot Demonstration of Passivation Technology For Restoration of Newton Copper Mine	2001	Amador	\$60,000	University of Nevada
Lassen National Forest Watershed Stewardship Within the Anadromous Watersheds of Butte, Deer, and Mill Creeks	2001	Butte, Tehama	\$849,845	US Forest Service
Lower Butte Creek Project (Phase III - Facilitation/Coordination and Construction of Three Fish Passage Modifications to Sutter Bypass West Side Water Control Structures)	2001	Sutter	\$4,783,719	Ducks Unlimited, Inc.

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Narrows 2 Hydro Power Plant Flow Bypass System Design	2001	Yuba	\$299,606	Yuba County Water Agency
Real-Time Flow Monitoring	2001	Butte, Colusa, Sutter, Tehama	\$418,700	California Department of Water Resources
Reclamation District 2035 Fish Screen Design and Environmental Review	2001	Yolo	\$1,820,000	Reclamation District 2035
Sacramento River Conservation Area Program	2001	Multiple	\$326,991	CSU Chico
Sacramento River Fish Small Screen Project Vertical River Pump Diversions	2001	Colusa, Glenn, Sutter	\$1,800,000	Natural Resources Conservation Service
Sacramento River Winter Chinook Salmon Carcass Survey	2001	Shasta	\$305,273	US Fish & Wildlife Service
Sustaining Agriculture and Wildlife Beyond the Riparian Corridor	2001	Yolo	\$1,464,167	Yolo County Resource Conservation District
Technical and Scientific Services for the Upper Yuba River Studies Program	2001	Nevada, Sierra, Yuba	\$540,000	US Geological Service
Watershed Education Project	2001	Butte	\$100,865	Chico Unified School District
Watershed Education, Headwaters to the Ocean	2001	Multiple	\$321,816	Sacramento River Discovery Center
White Mallard Dam and Associated Diversions	2001	Colusa	\$84,938	California Waterfowl Association
Willow Slough Watershed Rangeland Stewardship Program	2001	Yolo	\$1,800,668	National Audubon Society
Yuba Feather Work Group	2001	Nevada, Placer, Sierra, Yuba	\$193,650	San Francisco Estuary Institute
American Basin Fish Screen and Habitat Improvement Project	2002	Sacramento, Sutter	\$12,600,000	Natomas Mutual Water Company
AT-RISK PLANT SPECIES, HABITAT RESTORATION AND RECOVERY, AND NON-NATIVE INVASIVE SPECIES MANAGEMENT	2002	Yolo	\$400,000	Yolo County Parks
Battle Creek Protection and Stewardship (Funded through Iron Mountain Mine Remediation)	2002	Shasta, Tehama	\$2,206,625	The Nature Conservancy
Butte Sink Water Control Structure Modifications (Phase III - Construction)	2002	Butte, Sutter	\$5,748,112	Ducks Unlimited, Inc.
Department of Conservation, Abandoned Mine Lands Unit Mine Remediation Assessment and Field Investigations of the Middle Yuba River and other Watersheds	2002	Nevada, Sierra, Yuba	\$400,000	CA Dept of Conservation
Distribution and Relationship of Resident and Anadromous Central Valley Rainbow Trout	2002	Multiple	\$158,756	CA Department of Fish and Game
East Sacramento County Blue Oak Legacy Acquisition Area-Deer Creek Hills Project	2002	Sacramento	\$1,000,000	Sacramento Valley Open Space Conservancy
Engineering, Environmental, Project Management and Facilitation for Upper Yuba River Studies Program	2002	Nevada, Sierra, Yuba	\$2,120,000	Anadromous Fish Restoration Program

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Hamilton City Ecosystem Restoration and Flood Damage Reduction	2002	Glenn	\$420,000	CA State Reclamation Board
INFORM - Integrated Forecast & Reservoir Management Demonstration for Northern California Water Resources	2002	Multiple	\$600,000	Hydrologic Research Center
Kids for Our Creeks	2002	Shasta, Tehama	\$164,579	Cottonwood Creek Watershed Group
Lower American River Temperature Reduction Modeling Project (formerly the Lake Natoma Temperature Curtains Pilot Project)	2002	Sacramento	\$466,082	Dept of Water Resources
Lower Butte Creek Project: Sutter Bypass - Willow Slough Weir Fish Passage Project	2002	Sutter	\$155,000	Ca Dept of Water Resources
Lower Deer Creek Restoration and Floodplain Management: Feasibility Study and Conceptual Design	2002	Tehama	\$1,519,200	Deer Creek Watershed Conservancy
Meridian Farms Water Company - Positive Barrier Fish Screen Project	2002	Sutter	\$750,000	Meridian Farms Water Company
Mill & Deer Creeks Protection & Stewardship	2002	Tehama	\$4,700,000	The Nature Conservancy
Narrows 2 Powerplant Flow Bypass System	2002	Yuba	\$4,280,600	Yuba County Water Agency
Pacific Flyway Center Initial Planning	2002	yolo	\$334,021	Yolo Basin Foundation
Pine Hill Ecological Reserve	2002	El Dorado	\$800,000	American River Conservancy
Pyrethroid Insecticides: Analysis, Occurrence, and Fate in the Sacramento and San Joaquin Rivers and Delta	2002	Multiple	\$800,000	US Geological Survey
Restoration of The Confluence Area of The Sacramento River, Big Chico and Mud Creeks	2002	Butte	\$2,603,377	The Nature Conservancy
Riparian Restoration Planning and Feasibility Study for the Riparian Sanctuary, Llano Seco Unit	2002	Butte	\$289,784	US Fish and Wildlife Service
Sub-Reach Planning for the Sacramento River: River Mile 144-164	2002	Colusa Glenn	\$1,488,009	The Nature Conservancy
Sutter Mutual Water Company-Tisdale Positive Barrier Fish Screen and Pumping Plant	2002	Sutter	\$1,270,000	Sutter Mutual Water Company
Upper Cosumnes River Watershed Conservation Project	2002	El Dorado	\$2,000,000	American River Conservancy
Water Quality and Sediment Studies in the Yuba Watershed	2002	Nevada, Sierra, Yuba	\$4,043,966	Anadromous Fish Restoration Program
White Mallard Dam and Associated Diversions - Phase III Construction	2002	colusa	\$753,415	Ducks Unlimited
<b>Summary for 'Program Element' = Ecosystem Restoration 159 projects</b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$188,725,178</b>	

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
<b><i>CBDA Program Element: Science</i></b>				
Flow and Sediment Transport Model for Channel and Floodplain Restoration on the Sacramento River	2002	Colusa, Glenn, Tehama	\$390,352	University of California Santa Barbara
Heavy Metal and Mercury Concentrations in Bed Sediments and Floodplains of Clear Creek Watershed	2002	Shasta	\$163,000	University of Montana
<b>Summary for 'Program Element' = Science 2 projects</b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$553,352</b>	
<b><i>CBDA Program Element: Storage</i></b>				
Big Valley Groundwater Recharge Investigation Update	2001	Lake	\$179,004	Lake County Flood Control and Water Conservation District
Glenn County Installation of Dedicated Multicompletion Groundwater Monitoring System with Extensometers and Observation Wells	2001	Glenn	\$250,000	Glenn County
Hydrogeology and Groundwater Monitoring in Sierra Valley	2001	Plumas Sierra	\$250,000	Sierra Valley Groundwater Management District
Natomas Mutual Water Recharge Feasibility Study	2001	Sacramento	\$100,000	Sacramento North Area Groundwater Management Authority
Redding Area Water Resources Master Plan - Phase 2C	2001	Shasta	\$134,066	Shasta County Water Agency
Water Inventory and Analysis for Tehama County	2001	Tehama	\$190,000	Tehama County Flood Control & Water Conservation District
Conduct An In-Depth, Detailed Inventory & Analysis of the Groundwater in Tehama County, Including the Documentation & Analysis of Surface/Subsurface Geology, Fresh Groundwater Bearing Units & Movement of Groundwater.	2002	Tehama	\$200,000	Tehama County Flood Control and Water Conservation District
Develop a Hydrogeologic Inventory & Groundwater Management Assessment Program, Geographic Information System Will Be Developed to Examine & Analyze Existing Groundwater Conditions, Monitoring Equipment Would Be Purchased for Ten Wells	2002	Lassen	\$200,000	Lassen County
Establish a Monitoring Program for Surface Flow & Groundwater Level Measurements, Stop Potential Groundwater Contamination Avenues By Properly Abandoning Wells, Update the Groundwater Model to Confirm the Groundwater Management Plan	2002	Placer	\$202,000	Squaw Valley Public Service District
Group Multiple Individual Management Strategies Into Feasible Plans, Then Evaluate Those Plans Using the Basin Water Model Developed in a Previous Phase of Work	2002	Shasta	\$100,000	Shasta County Water Agency

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Identify and Collect Existing Groundwater Information for the Basin Underlying the Boundaries of Sacramento Groundwater Authority, Populating the Data Management System, & Utilization of the Data Management System to Determine a Baseline Condition	2002	Sacramento	\$200,000	Sacramento Groundwater Authority
Install a Multi-Completion Well & Two Dual Completion Wells, Which Are Expected to Complement Those Wells to be Installed Using 2000/2001 Assembly Bill 303 Funds	2002	Glenn	\$250,000	Glenn County
Install Two Multi-Completion Monitoring Wells (Total Depth of Approximately 1,000 Ft.) Equipped With Extensometers in Butte Basin	2002	Butte	\$249,000	Butte County Department of Water and Resource Conservation
Placer County Water Agency	2002	Placer	\$59,800	Placer County Water Agency
Regional Water Authority	2002	Sacramento / Placer	\$21,671,697	Regional Water Authority
Yuba County Water Agency	2002	Yuba	\$3,150,000	Yuba County Water Agency
Glenn, County of	2003	Glenn	\$250,000	Glenn, County of
Merced Area Groundwater Pool Interests (MAGPI)	2003	Merced	\$250,000	Merced Area Groundwater Pool Interests (MAGPI)
Quincy Community Services District	2003	Plumas	\$243,932	Quincy Community Services District
South Tahoe Public Utility District	2003	El Dorado	\$200,000	South Tahoe Public Utility District
Squaw Valley Public Service District	2003	Placer	\$171,000	Squaw Valley Public Service District

**Summary for 'Program Element' = Storage 21 projects**

**Grant Dollars Awarded For Program Element: \$28,500,499**

***CBDA Program Element: Water Use Efficiency***

American River Water Education Center at Folsom Dam	2000	Sacramento	\$50,000	California Department of Parks & Recreation
Conducting Water Audits; Develop Web Page to Showcase Water Conservation Information; Purchase of School & Public Education & Water Audit Materials	2000	Sacramento	\$15,000	Citrus Heights Water District
Design and Printing of Brochures, Purchase of Rain Sensor Switches, Rebates for Planting Drought Tolerant Plants, Purchase of Meter-Master Data Logger and Associated Software and Training	2000	Sacramento	\$15,000	Sacramento County Water Maintenance District
Development and Purchase of Exhibits, Displays, Handouts and Educational Material For Public Education Opportunities	2000	Multiple	\$22,627	United States Bureau of Reclamation Water Awareness Education
Educational Irrigation Displays at the District's Water Conservation Garden	2000	Sacramento	\$8,000	Northridge Water District

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Expand the California Irrigation Management Information System to the On-Site Field Level; Buy Water Efficient Devices as Incentives in Starting Best Management Practices; Buy New & Updated Materials For Public Education	2000	El Dorado	\$15,000	El Dorado Irrigation District
Grower Education Partnership, Study of Improved Irrigation Techniques in Northern California	2000	Multiple	\$15,065	University of California Extension Service
Hand Held Recorder Program for "Lead the Field" Program for River Meter Reading Program	2000	Multiple	\$10,400	United States Bureau of Reclamation
Irrigation Efficiency Program	2000	Glenn	\$20,000	Orland-Artois Water District
Irrigation Efficiency Program Implementing Water Conservation Plan	2000	Butte	\$20,000	4-M Water District
New Water Billing System Including Purchase of Software & Installation Support	2000	Sacramento	\$15,000	Orangevale Water Company
On-Farm Irrigation System Evaluations for Water Users Served	2000	Multiple	\$30,000	CalPoly State University Irrigation Training and Research Center
On-Site District Supervisory Control and Data Acquisition Planning Assistance	2000	Multiple	\$30,000	CalPoly State University Irrigation Training and Research Center
Pilot Project Implementation of Water Master Plan	2000	Shasta	\$23,800	Shasta Community Services District
Public Education Water Conservation Program Implementation	2000	Shasta	\$16,000	Bella Vista Water District
Purchase and Distribution of Water Conservation Kits	2000	Yolo	\$2,000	City of West Sacramento
Residential Xeriscape Gardens and Information Center Purchase of Flow Recorder to Show Water Use and Development of Regional Water Conservation Manager to Oversee Group of Water District's Water Conservation Effort	2000	Placer	\$39,600	San Juan Water District
Sacramento River Discovery Center Water Awareness & Teacher Water Conservation Education Program	2000	Tehama	\$45,000	Sacramento River Discovery Center
Stony Creek Riparian Improvement Planning for Watershed Improvement	2000	Glenn	\$50,000	Glenn County Resource Conservation District
Supervisory Control and Data Acquisition Implementation Assistance, Real Time Remote Control and Monitoring of District's Delivery System	2000	Yolo	\$15,450	Reclamation District 108
Supervisory Control and Data Acquisition Training Lab Development Cost Share	2000	Multiple	\$20,000	CalPoly State University Irrigation Training and Research Center
Supervisory Control and Data Acquisition, Remote Control and Monitoring of Distribution System, and Cost Share For Handheld Delivery Recording System	2000	Sutter	\$20,000	Sutter Mutual Water Company
Urban Water Audit Program	2000	Shasta	\$3,720	City of Shasta Lake

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Water 2020 Display	2000	Multiple	\$20,000	Denver Technical Services Center - Presentations Group
Water Conservation Information on Web Site; Purchase a Global Positioning System to Assist in Accurately Locating and Verifying Water Meters; Training of Water Conservation Staff on How to Perform Water Audits	2000	Sacramento	\$15,000	Fair Oaks Water District
Water Conservation Newsletter, Web Site and Conduct Interior and Exterior Audits	2000	Placer	\$15,000	City of Roseville
Water Conservation Public Education Program	2000	Shasta	\$35,000	City of Redding/Turtle Bay
Water Education Outreach Program to Inform Schools About Water Conservation and the American River Water Education Center at Folsom Dam	2000	Multiple	\$10,000	Education Link
Water Management Technology Transfer Center for Students and Industry	2000	Butte	\$59,448	California State University Chico
A Metered Water Rate Study Billing System. Included The Purchase Of Software And Installation Support And The Purchase And The Installation Of Rain Sensors To Automatically Turn Off Irrigation Systems	2001	Sacramento	\$15,000	Orangevale Water Company
A Regional Pilot Program of Twenty-Five Large Landscapes at Parks & Schools. Audit These Landscapes to Determine if a Benefit/Cost Ratio Will Allow for Auditing of All Similar Large Landscapes	2001	Placer	\$20,000	San Juan Water District
Community Water Education and Training (WET)	2001	Sacramento	\$360,000	ExPERT Inc.
Development And Printing Of Handouts And Education Material For Public Education Opportunities And The Purchase Of Measurement Demonstration	2001	Multiple	\$15,650	United States Bureau of Reclamation Water Awareness Education
District Plan Implementation And Public Education Program	2001	Shasta	\$35,000	City of Redding/Turtle Bay
Geographic Information System Development With Districts	2001	Multiple	\$5,000	CalPoly State University Irrigation Training and Research Center
Glen Colusa Irrigation District System Optimization for Fisheries.	2001	Colusa, Glenn	\$100,000	Glenn-Colusa Irrigation District
Hand-Held Field Recorder Program	2001	Sacramento, Sutter	\$23,579	Natomas Central Mutual Water District
Main Canal Modernization	2001	Shasta	\$100,000	Anderson-Cottonwood Irrigation District
Meter Upgrade Program From High Flow Meters To Low Flow Meters	2001	Yolo	\$8,900	Dunnigan Water District
On-Site District Supervisory Control and Data Acquisition Planning Assistance	2001	Multiple	\$15,000	CalPoly State University Irrigation Training and Research Center
Oroville-Wyandotte Irrigation District Palermo Canal Lining Project	2001	Butte	\$183,000	Oroville-Wyandotte Irrigation District.

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Purchase & Install Rain Sensors to Automatically Turn Off Irrigation System, Analyze Data of Existing Water Users at a Flat Rate as Compared to Metered Rates. Develop Water Rates for When The District Goes Fully Metered in 2005	2001	Placer	\$15,000	San Juan Water District
Purchase of a Central Irrigation Control System to Operate Various Schools' Irrigation Systems within the Elk Grove Unified School District. Purchase & Installation of Rain Sensors to Automatically Turn Off Irrigation Systems	2001	Sacramento	\$15,000	Sacramento County Water Maintenance District
Real-Time Canal Flow Monitoring and Canal Lining	2001	Placer	\$662,744	Placer County Water Agency
Regional High-Efficiency Washing Machine Rebate	2001	Multiple	\$1,750,875	Electric & Gas Industrial Association
Regional Water Use Efficiency Project	2001	Glenn	\$100,000	Orland Unit Water Users' Association
Sacramento Water Use Efficiency Training	2001	Sacramento	\$100,000	San Juan Water District - Water Forum
Shasta Dam Xeriscape Project	2001	Shasta	\$15,000	United States Bureau of Reclamation - Lead The Field
Spreadsheets To Track Water Conservation Costs & Water Savings, Purchase Weather Station Software To Allow Better Water Scheduling & Purchase & Install Rain Sensors	2001	Placer	\$15,000	City of Roseville
Stony Creek Riparian Improvement Planning	2001	Glenn	\$50,000	Glenn County Resource Conservation District
Sub-Basin Level Water Measurement Program	2001	Yolo	\$100,000	Reclamation District 108
Supervisory Control and Data Acquisition Canal Management Program	2001	Shasta	\$22,000	Anderson-Cottonwood Irrigation District
Supervisory Control and Data Acquisition Implementation Program	2001	Glenn	\$20,000	Orland-Artois Water District
Supervisory Control and Data Acquisition Program Implementation For Return Flow Monitoring	2001	Yolo	\$24,800	Reclamation District #108
Supervisory Control and Data Acquisition, Remote Control Variable Frequency Drive, & Monitoring for Improved Management of Canal System	2001	Sutter	\$17,000	Sutter Mutual Water Company
Supervisory Control and Data Acquisition/ Data Collection At Willows From Sacramento River Districts	2001	Multiple	\$15,000	United States Bureau of Reclamation - Lead The Field
Three Watershed Explorations Curriculum & Included Partner With The Placer County Resource Conservation District.	2001	Placer	\$9,775	Placer County Nature Center
Train Water Conservation Staff, Purchase Rain Sensors To Automatically Turn Off Irrigation Systems, Purchase Educational Material & Water Conservation Educator	2001	Sacramento	\$15,000	Fair Oaks Water District
Ultra Low Flow Toilet Rebates for Low-Income Customers	2001	El Dorado	\$60,000	El Dorado Irrigation District

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Upgrade Of An Irrigation Management System (Which Provided Weekly Irrigation Scheduling), Purchased And Installed Rain Sensors To Automatically Turn Off Irrigation Systems And Established A Rebate Program For High-Efficiency Washing Machines	2001	El Dorado	\$15,000	El Dorado Irrigation District
Water Audits, Create a Web Page to Showcase Water Conservation Information, Buy School & Public Education & Water Audit Materials	2001	Sacramento	\$15,000	Citrus Heights Water District
Water Awareness and Teacher Water Conservation Education Program	2001	Tehama	\$45,000	Sacramento River Discovery Center
Water Conservation and Recycling Awareness	2001	Multiple	\$168,675	Water Education
Water Education Center at Folsom Dam	2001	Sacramento	\$50,000	State of California Parks and Recreation
Water Management Technology Transfer Center For Students And Industry	2001	Butte	\$50,000	California State University – Chico
Water Management Training	2001	Sacramento, Shasta, Sutter	\$1,600	Natomas Central Mutual Water Company & Sutter Mutual Water Company, Cities of Redding & Shasta Lake
Water-Wise Demonstration Landscape	2001	Sacramento	\$92,774	Regents of University of California
Western Canal Water District Water Use Efficiency Project	2001	Butte	\$265,524	Western Canal Water District
Auburn System Leak Repair	2002	Placer	\$679,560	Placer County Water Agency
Canal and Reservoir Efficiency Feasibility Study	2002	Placer	\$100,000	Placer County Water Agency
Evaluation of the Feasibility and Cost Effectiveness of Canal Lining	2002	Siskiyou	\$99,720	Tulelake Irrigation District
Large Landscape Irrigation System Incentive Program	2003	Sacramento	\$975,000	Regional Water Authority
Main Replacement Project	2003	Butte	\$1,310,522	Paradise Irrigation District
Water Line Replacement Project	2003	Placer	\$255,185	Placer County Water Agency

**Summary for 'Program Element' = Water Use Efficiency 74 projects**

**Grant Dollars Awarded For Program Element:**

**\$8,667,993**

***CBDA Program Element: Watershed***

A Management Program for Tamarix & Arundo Donax on Cache Creek	2001	Yolo	\$222,200	Cache Creek Conservancy
American River Conservancy Water Quality Assessment: South Fork American and Consumnes River Basins	2001	Amador, Calaveras, El Dorado, Nevada, Placer, Sacramento	\$96,700	American River Conservancy
Butte Creek Watershed Floodplain Management Plan	2001	Butte	\$582,510	Butte Creek Watershed Conservancy

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Capay Valley Community Action Plan	2001	Yolo	\$40,000	Capay Valley Vision Inc.
Capay Valley Watershed Improvement Program	2001	Yolo	\$118,000	Yolo County Resource Conservation District
Cherokee Watershed Organizational Capacity and Citizen Monitoring Project	2001	Butte	\$93,815	Butte County Department of Water and Resource Conservation
City of Roseville Creek and Riparian Management and Restoration Plan	2001	Placer	\$228,470	City of Roseville, Community Development Department
Deer Creek Watershed Conservancy Rangeland and Riparian Management Program	2001	Tehama	\$212,000	Deer Creek Watershed Conservancy
Dry Creek Watershed Stewardship Group	2001	Placer	\$266,990	Dry Creek Coordinated Resource Management Planning
Implementation of Best Management Practices to Mitigate Organophosphate Pesticides Runoff	2001	Butte, El Dorado, Nevada, Placer, Sacramento, Sutter, Yuba	\$400,000	Agricultural Research Consulting
Lassen National Forest Watershed Stewardship Within the Anadromous Antelope Creek Watershed	2001	Tehama	\$673,000	United States Forest Service - Lassen
Middle Creek Ecosystem Restoration Project - Design Phase	2001	Lake	\$135,818	Lake County Flood Control and Water Conservation District
North/Middle Forks American River Watershed Ecological Unit Inventory - Based Watershed Management Plan	2001	Placer	\$554,500	Placer County Resource Conservation District
Pit River Watershed Alliance Watershed Management Program	2001	Modoc, Lassen, Shasta, Siskiyou	\$542,456	North Cal-Neva/ Pit River Watershed Alliance
Promotion of Farming Best Management Practices and Calibration Technology to Mitigate Organophosphate Pesticide Runoff into the Sacramento River Watershed	2001	Butte, El Dorado, Nevada, Placer, Sacramento, Sutter, Yuba	\$308,000	Coalition for Urban/ Rural Environmental Stewardship (CURES)
Shasta West Watershed Assessment	2001	Tehama	\$131,600	Western Shasta Resources Conservation District
South Yuba River Comprehensive Management Plan	2001	Nevada	\$524,671	California State Parks
Sutter County Integrated Watershed Coordinator	2001	Sutter	\$195,200	Sutter County
Sutter National Wildlife Refuge Water Conveyance Restoration Project	2001	Sutter	\$521,250	Ducks Unlimited, Inc.
The Last Chance Assessment and Model Protocol	2001	Plumas	\$582,000	The Regents of University of California Davis/ Plumas Corporation, Feather River Coordinated Resource Management Planning
Western Placer Watersheds Coordination, Planning & Assessment	2001	Placer	\$425,764	Placer County Planning Department

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Yuba River Conservancy Planning and Public Outreach Proposal	2001	Yuba	\$192,300	South Yuba River Citizens League and the Yuba-Sutter Land Trust
Abandoned Mine Reclamation & Restoration	2002	Sierra	\$217,000	Sierra County Fire Safe & Watershed Council
Bear Creek Watershed Assessment	2002	Shasta	\$140,806	Western Shasta Resource Conservation District
Clear Lake Watershed Mercury & Nutrient Assessment	2002	Lake	\$147,182	Lake County Flood Control & Water Conservation District
Colfax Community Watershed & Fire Safe Ecosystem Project	2002	Sierra	\$99,700	City of Colfax
Cottonwood Creek Watershed Management Program	2002	Tehama, Trinity	\$200,000	Cottonwood Creek Watershed Group
Deer Creek Watershed Erosion & Sediment Control Project - Phase II Implementation	2002	Butte	\$493,175	Deer Creek Watershed Conservancy
Glenn County Surface Water Stewardship	2002	Glenn	\$275,000	Glenn County Department of Agriculture
Invasive Species Inventory, Eradication & Monitoring	2002	Lake	\$181,262	Lake County Flood Control & Water Conservation District
Lower Clear Creek Spawning Gravel Injections	2002	Shasta	\$335,489	Western Shasta Resource Conservation District
Restoring Deer Creek: Building Partnerships to Overcome the Legacy of the Gold Rush Era	2002	Butte	\$360,000	Friends of Deer Creek
South Yuba Watershed Assessment	2002	Nevada, Yuba	\$300,526	Nevada County Land Trust
Stony Creek Watershed Management Program	2002	Glenn	\$200,000	Glenn County Resource Conservation District
Tehama West Watershed Assessment	2002	Tehama	\$199,500	Tehama County Resource Conservation District
Upper Pit River Watershed Enhancement & Protection Project	2002	Modoc	\$585,580	Central Modoc Resource Conservation District
Upper Spanish Creek Watershed Assessment & Restoration Strategy	2002	Plumas	\$170,000	Plumas Corporation
Upper Trinity River Watershed Management Planning Project	2002	Trinity	\$200,000	Trinity County Resource Conservation District
Water Quality Improvement in Cow Creek Watershed	2002	Shasta, Trinity	\$67,160	Western Shasta Resource Conservation District
Yuba River Water Quality Monitoring Project, Phase II	2002	Yuba	\$215,000	South Yuba River Citizens League
<b>Summary for 'Program Element' = Watershed 40 projects</b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$11,434,624</b>	

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
* See Complete Grant For More Detail.				
<b>Summary for 'Region' = Sacramento Valley 297 projects</b>				
<b>Total Grant Dollars Awarded:</b>			<b>\$238,476,777</b>	



## Grant Projects Database Report for The San Joaquin Valley Region

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
<b><i>CBDA Program Element: Drinking Water Quality</i></b>				
Recovery, Purification & Utilization of Salts From Agricultural Drainage Water in the San Joaquin Valley	2001	Fresno	\$322,500	University of California Davis
Adaptive Real-Time Monitoring & Management of Seasonal Wetlands in the San Luis National Wildlife Refuge to Quantify Contaminant Sources & Improve Water Quality in the San Joaquin River	2002	Merced	\$320,000	Berkeley National Laboratory
Agricultural Drainage Treatment: Intermediate-Scale Experiments	2002	Fresno	\$155,000	Panoche Drainage District
Control of Agricultural Runoff	2002	Stanislaus	\$742,000	Turlock Irrigation District
County of Tuolumne Water Quality Plan	2002	Tuolumne	\$182,995	County of Tuolumne Planning Division
Dairy Nutrient Management Program	2002	Stanislaus	\$271,930	East Stanislaus Resource Conservation District
Determining Mitigation Strategies to Prevent Contaminants From Animal Feeding Operations from Entering Drinking Water Sources	2002	Merced	\$568,000	Merced County Division of Environmental Health
Full Scale Demonstration of Agricultural Drainage Water Recycling Process Using Membrane Technology	2002	Fresno	\$158,045	United States Geological Survey
Improving Delta Drinking Water Quality: Managing Sources of Disinfection By-Product-Forming Material in the State Water Project	2002	San Joaquin	\$1,368,813	United States Geological Survey
Salt and Martinez Creeks Watershed Assessments	2002	Fresno	\$200,000	Westside Resource Conservation District
San Joaquin Valley/Southern California Water Quality Exchange	2002	Fresno	\$20,000,000	University of California Davis & WaterTech Partners
San Luis Drain Algae & Total Organic Carbon Control Project	2002	Merced	\$145,680	Grassland Basin Drainers
Vernalis Real-Time Water Quality Monitoring Station	2002	San Joaquin	\$515,000	California Department of Water Resources
<b><i>Summary for 'Program Element' = Drinking Water Quality 13 projects</i></b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$24,949,963</b>	

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
<b><i>CBDA Program Element: Ecosystem Restoration</i></b>				
Implementing Programs to Reduce the Use of Pesticides and Fertilizers in Sacramento and San Joaquin Watersheds (Bios - Biological Integrated Orchard Systems)	1995	Merced, Stanislaus	\$660,000	Community Alliance with Family Farmers
Cosumnes River Preserve (Valensin Ranch Acquisition)	1996	Sacramento	\$1,500,000	The Nature Conservancy
Acquisition and Restoration of Refuge Lands (San Joaquin River National Wildlife Refuge)	1997	Merced	\$10,827,000	US Fish & Wildlife Service
Bear Creek Floodplain Restoration Demonstration Project (San Luis National Wildlife Refuge)	1997	Merced	\$334,000	US Fish & Wildlife Service (San Luis National Wildlife Refuge Complex)
Developing a Genetic Baseline for San Joaquin Salmon	1997	Multiple	\$387,003	CA Dept of Fish & Game
Gravel Replacement at Basso Bridge	1997	Tuolumne	\$250,975	CA Dept of Fish & Game
Knights Ferry Gravel Replenishment	1997	Stanislaus	\$536,410	Carl Mesick Consultants
San Joaquin River Real-Time Water Quality Management Program	1997	Merced, San Joaquin, Stanislaus	\$931,857	California Department of Water Resources, San Joaquin District
Stanilaus River Chinook Salmon Habitat Restoration Actions, Williams Site - CANCELLED	1997	Stanislaus	\$1,037,899	California Department of Water Resources / California Department of Fish and Game
Tuolumne River Channel Restoration (Pool 9)	1997	Stanislaus	\$2,353,100	Turlock Irrigation District
Tuolumne River Setback Levees and Channel/Mining Reach Restoration (7/11 Segment)	1997	Stanislaus	\$2,801,000	Turlock Irrigation District
Bacterial Treatment of Selenium in the Panoche Drainage	1998	Multiple	\$1,149,000	University of California, Berkeley
Basso Bridge and Merced River Ranch Land Acquisition	1998	Tuolumne	\$830,500	California Department of Fish & Game, Resources Agency
Environmental Agriculture Conferences and Field Tours	1998	Multiple	\$28,000	The Committee for Sustainable Agriculture
Grayson River Ranch Perpetual Easement and Restoration	1998	Stanislaus	\$732,000	East Stanislaus Resource Conservation District
Lower San Joaquin River Floodplain Protection and Restoration Project	1998	Stanislaus	\$1,100,000	US Fish & Wildlife Service
Merced River Corridor Restoration Plan	1998	Merced	\$300,000	Stillwater Sciences
Merced River Salmon Habitat Enhancement (Phase III)	1998	Merced	\$2,433,759	California Departmento of Water Resources
San Joaquin Valley Salmonids in the Classroom Program Enhancement	1998	Multiple	\$3,000	California Department of Fish & Game
Tuolumne River Natural Resources Program	1998	Stanislaus	\$94,213	City of Modesto

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Tuolumne River Setback Levees and Channel Restoration	1998	Stanislaus	\$1,362,000	Turlock Irrigation District
Woodbridge Fish Screen and Passage	1998	Sacramento, San Joaquin	\$1,575,000	Woodbridge Irrigation District
Biological Agricultural Systems In Cotton-BASIC-Reducing Synthetic Pesticides & Fertilizers in the North San Joaquin Valley	1999	Multiple	\$460,000	Sustainable Cotton Project
Determination of the Causes of Dissolved Oxygen Depletion in the San Joaquin River	1999	Merced, San Joaquin, Stanislaus	\$892,400	California Department of Water Resources, Environmental Services Office
Floodplain Easements - Lower Tuolumne and San Joaquin Rivers	1999	Stanislaus	\$1,545,000	Natural Resources Conservation Service
Health Monitoring of Hatchery and Natural Fall-run Chinook Juveniles in the San Joaquin River and Delta, April - June 2000	1999	Merced, San Joaquin	\$38,996	United States Fish & Wildlife Service, California-Nevada Fish Health Center
Linked Hydrogeomorphic Ecosystem Models to Support Adaptive Management	1999	Sacramento	\$1,546,016	UC Davis
Merced River Salmon Habitat Enhancement (Phase I - Robinson/Gallo Salmon Restoration Project: Ratzlaff Reach Site)	1999	Merced	\$1,586,350	California Department of Water Resources
Merced River Salmon Habitat Enhancement: Lower Western Stone Restoration Site	1999	Merced	\$130,000	California Department of Water Resources
River Studies Center Exhibits & Programs	1999	Fresno, Madera	\$70,467	San Joaquin River Parkway & Conservation Trust
San Joaquin County Water Acquisition	1999	San Joaquin, Stanislaus	\$3,090,000	Oakdale & South San Joaquin Irrigation Districts
San Joaquin River Pilot Project	1999	Fresno	\$2,575,000	Friant Water Users Authority
Tuolumne River Mining Reach Restoration (MJ Ruddy)	1999	Stanislaus	\$3,332,050	Turlock Irrigation District
Tuolumne River Run Pool 10 Restoration	1999	Stanislaus	\$165,000	Turlock Irrigation District
A Mechanistic Approach to Riparian Restoration - San Joaquin Basin, Phase I & II	2000	Merced, Stanislaus	\$230,376	Stillwater Sciences
Adaptive Real-Time Water Quality Management of Seasonal Wetlands in the Grassland Water District	2000	Merced	\$671,900	Grassland Water District
Focused Action to Develop Ecologically-Based Hydrologic Models and Water Management Strategies in the San Joaquin Basin	2000	Multiple	\$304,803	Natural Heritage Institute
Merced River Corridor Restoration Project Phase III	2000	Merced	\$272,912	Stillwater Sciences
Panoche/Silver Creek Watershed Management/Action Plan	2000	Fresno, San Benito	\$873,440	Westside Resource Conservation District
Tuolumne River Bobcat Flat Floodplain Acquisition	2000	Stanislaus	\$2,043,850	Friends of the Tuolumne, Inc.

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Cosumnes/Mokelumne Corridor Floodplain Acquisitions, Management, and Restoration Planning	2001	Sacramento	\$3,044,342	The Nature Conservancy
Delta Studies Program: San Joaquin County Schools	2001	San Joaquin	\$306,291	San Joaquin County Office of Education
Directed Action for Selenium	2001	Multiple	\$115,000	*
Directed Action for Sources and Causes of Oxygen Demand from Algal Biomass in the San Joaquin River Deep Water Ship Channel	2001	San Joaquin	\$393,596	Dept of Water Resouces
Evaluate Use of a Two-Dimensional Hydraulic and Habitat Simulation Model to Assess Benefits of Channel Restoration	2001	Stanislaus	\$11,000	United States Fish & Wildlife Service
Habitat Acquisition for Riparian Brush Rabbit and Riparian Wood Rat	2001	San Joaquin, Stanislaus	\$2,720,085	United States Fish & Wildlife Service
Health Monitoring of Hatchery and Natural Fall-Run Chinook Juveniles	2001	San Joaquin, Stanislaus	\$40,890	United States Fish & Wildlife Service
Lower Calaveras River Chinook Salmon and Steelhead Life History Limiting Factors Assessment	2001	San Joaquin	\$314,704	Fishery Foundation of California
Merced River Water Temperature Management Feasibility Study	2001	Merced	\$45,000	Merced Irrigation District
Monitoring of Nutrients and Oxygen Depleting Substances in the San Joaquin River Basin Upstream of Vernalis	2001	Unknown	\$276,000	Unknown
Non-Structural Alternative at the San Joaquin River National Wildlife Refuge: Refinement for Habitat Enhancement	2001	Merced	\$231,942	Ducks Unlimited, Inc.
Patterson Irrigation District Positive Barrier Fish Screen on San Joaquin River Diversion	2001	Stanislaus	\$175,000	Patterson Irrigation District
Revised Phase 2: Merced River Salmon Habitat Enhancement: River Miles 42 to 44 (Robinson Ranch and Permit #307 sites) - WAS 01-N06	2001	Marin, Merced	\$1,699,101	California Department of Fish and Game, Central Valley Bay-Delta Branch
San Joaquin River Chinook Salmon Age Determinations: Phase II	2001	San Joaquin, Stanislaus	\$54,555	California Department of Fish & Game
San Joaquin River National Wildlife Refuge Riparian Habitat Protection & Floodplain Restoration Project - Phase II	2001	Stanislaus	\$7,646,233	United States Fish & Wildlife Service
Spawning Habitat & Floodplain Restoration in the Stanislaus River, Phase I	2001	Tuolumne	\$672,610	Carl Mesick Consultants
Stockton East Water District and Calaveras County Water District Fish Screen Facilities - Calaveras River	2001	Calaveras, San Joaquin	\$670,000	Stockton East Water District
Traveling Film Festival/San Joaquin River Oral History Film	2001	Multiple	\$281,316	Independent Documentary Group
Tuolumne River Fine Sediment Management	2001	Stanislaus	\$910,486	Turlock Irrigation District
Tuolumne River Mining Reach Restoration Number 3, Warner-Deardorff Segment	2001	Stanislaus	\$910,486	Turlock Irrigation District

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Tuolumne River Restoration: Special Run Pool 10	2001	Stanislaus	\$543,530	Turlock Irrigation District
Tuolumne River Watershed Outreach and Stewardship	2001	Tuolumne	\$62,000	Tuolumne River Preservation Trust
Full-Scale Demonstration of Agricultural Drainage-Water Recycling Process Using Membrane Technology	2002	Fresno	\$280,890	Water Tech Partners
Merced River Corridor Restoration Plan Phase IV:Dredger Tailings Reach	2002	Merced	\$2,192,515	Stillwater Sciences
Patterson Irrigation District Fish Screen Design & Environmental Review	2002	Stanislaus	\$611,000	Patterson Irrigation District
Recovery Implementation for Riparian Brush Rabbit and Riparian Woodrat on the Lower Stanislaus River (Was ERP-02-P25-D and then was 02D-P59).	2002	San Joaquin	\$6,427,131	US Fish and Wildlife Service
Restoration & Monitoring of Riparian Habitat Corridors Along the Lower Mokelumne River	2002	San Joaquin	\$859,405	San Joaquin County RCD
Stanislaus-Lower San Joaquin River Water Temperature Modeling & Analysis	2002	Calaveras, Stanislaus, Tuolumne	\$661,902	Tri-Dam Project
Tuolumne River - Big Bend Project	2002	Stanislaus	\$706,649	Tuolumne River Preservation Trust
Tuolumne River Mining Reach Restoration: Warner-Deardorff Segment No. 3 - Construction	2002	Stanislaus	\$10,839,000	Turlock Irrigation District
Tuolumne River Sediment Acquisition & Spawning Gravel Transfusion Project	2002	Stanislaus	\$4,350,000	Turlock Irrigation District

**Summary for 'Program Element' = Ecosystem Restoration 71 projects**

**Grant Dollars Awarded For Program Element:**

**\$99,107,935**

***CBDA Program Element: Storage***

Angiola Groundwater Feasibility Study	2001	Fresno	\$97,500	Angiola Water District
Angiola Groundwater Feasibility Study	2001	Fresno	\$1,534,002	Angiola Water District
Arroyo Pasajero/Cantua Creek Conjunctive Use Hydrologic Study	2001	Fresno	\$72,900	Westlands Water District
Camanche/Valley Springs Groundwater Study	2001	Calaveras	\$241,180	Calaveras County Water District
Cottonwood Creek/Main Canal Groundwater Recharge Feasibility Study	2001	Madera	\$69,000	Gravelly Ford Water District
Eastern Kern County Resource Conservation District	2001	Kern	\$207,000	Eastern Kern County Resource Conservation District
Greenfield, City of	2001	Tulare	\$100,000	Greenfield, City of

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Groundwater Basin Data Management System	2001	Madera	\$162,300	Root Creek Water District
Groundwater Monitoring and Recharge Investigation Project	2001	Fresno	\$167,200	City of Clovis
Hannah Ranch Recharge Feasibility Study	2001	Kings, Tulare	\$94,000	Kaweah Delta Water Conservation District
James Irrigation District Recharge Basin Development	2001	Fresno	\$1,578,950	James Irrigation District
Kings River Recharge Feasibility Study	2001	Fresno	\$100,000	Kings River Conservation District
Monitoring Well Replacement	2001	Fresno, Kings, Tulare	\$200,000	Consolidated Irrigation District
Pleasant Valley Groundwater Storage Bank Pilot	2001	Fresno	\$495,550	Pleasant Valley Water District
Root Creek Groundwater Recharge Feasibility Study	2001	Madera	\$68,000	Root Creek Water District
Semitropic Water Storage District Pipeline B369 System & Lateral B230-D Extension	2001	Kern	\$1,691,259	Buttonwillow Improvement District, Semitropic Water Storage District
Semitropic Water Storage District Pipeline P667 System Completion	2001	Kern	\$4,229,791	Pond - Poso Improvement District, Semitropic Water Storage District
Strathmore & Frazier Creeks Recharge Feasibility Studies	2001	Tulare	\$75,000	Friant Water Users Authority
Waldron Pond Recharge/Regulation Expansion Assessment	2001	Fresno	\$97,500	Fresno Irrigation District
Water Quality Study	2001	Kern	\$167,300	Semitropic Water Storage District
White Wolf Basin Groundwater Bank Pilot Project	2001	Kern	\$1,333,094	Wheeler Ridge - Maracopa Water Storage District
Buena Vista Water Storage District	2002	Kern	\$500,000	Buena Vista Water Storage District
Buttonwillow Improvement District, Semitropic Water Storage District	2002	Kern	\$5,000,000	Buttonwillow Improvement District, Semitropic Water Storage District
Cawelo Water District	2002	Kern	\$1,430,000	Cawelo Water District
Clovis, City of	2002	Fresno	\$2,031,245	Clovis, City of
Construct Four Monitoring Wells, Complete Quality Management Operations Study, Develop Geographic Information System Groundwater Database, & Study the Potential of Increasing Aqueduct Return Water Pumping	2002	Kern	\$250,000	Semitropic Water Storage District
Develop Preliminary Plans for Several Conjunctive Water Management Alternatives That Have the Potential of Improving Water Supply Reliability, Protecting Water Quality, & Providing Environmental Benefits	2002	Stanislaus	\$200,000	Eastside Water District

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Install Four or Five Well Clusters (Three Wells in a Cluster) Near Production Wells so That Water Level & Water Quality Data for Each Water-Bearing Zone Can Be Collected. Data Will Be Used in Groundwater Monitoring Program in Management Area C	2002	Kings	\$250,000	Kings River Conservation District
Kern County Water Agency	2002	Kern	\$22,000,000	Kern County Water Agency
Kern Water Bank Authority	2002	Kern	\$3,375,000	Kern Water Bank Authority
Madera Irrigation District	2002	Madera	\$150,000	Madera Irrigation District
North Kern Water Storage District	2002	Kern	\$1,131,000	North Kern Water Storage District
Denair Community Services District	2003	Stanislaus	\$200,000	Denair Community Services District
Fresno Irrigation District	2003	Fresno	\$220,000	Fresno Irrigation District
Kaweah Delta Water Conservation District	2003	Tulare	\$230,000	Kaweah Delta Water Conservation District
Kern Water Bank Authority	2003	Kern	\$220,000	Kern Water Bank Authority
Kings River Conservation District	2003	Fresno	\$220,000	Kings River Conservation District
Madera County Resource Management Agency	2003	Madera	\$250,000	Madera County Resource Management Agency
Pleasant Valley Water District	2003	Fresno	\$220,000	Pleasant Valley Water District

**Summary for 'Program Element' = Storage 39 projects**

**Grant Dollars Awarded For Program Element: \$50,658,771**

***CBDA Program Element: Water Use Efficiency***

Canal Evaluation for Automated Control	2000	Fresno	\$25,000	CalPoly State University Irrigation Training and Research Center
Constructing Friant Dam Water Education Center	2000	Fresno	\$30,000	Center for Irrigation Technology - Fresno State
Equipment for Authority Staff to Present Water Data and Conservation News to Districts	2000	Fresno	\$6,500	Friant Water Users Authority
Field Irrigation Evaluations and System Analysis	2000	Merced	\$41,250	Delta-Mendota Water Authority
Field Program to Collect and Report Soil Moisture & Irrigation Needs to Growers (Trees & Vines)	2000	Multiple	\$25,000	Center for Irrigation Technology - Fresno State
Mobile Lab Evaluation Team in South-Central California Area Office Service Area	2000	Multiple	\$30,000	CalPoly State University Irrigation Training and Research Center

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Monitor Landscape and Public Parks for Water Use	2000	Fresno	\$15,000	City of Fresno
Museum to Educate Public on Water Resources Within The San Joaquin River Watershed	2000	Fresno	\$60,000	Central Sierra Historical Society
Pipe Open Ditch Irrigation Water and Reduce Seepage and Evaporation	2000	Amador	\$12,000	Amador Resource Conservation District
Placement of Handicap Access Facilities for Education Garden and Visitor Center	2000	Multiple	\$24,728	Center for Irrigation Technology - Fresno State
Remote Operation for Irrigation Flow Control	2000	Fresno	\$9,105	Firebaugh Canal Water District
South Valley Mobile Lab for Friant Member Districts	2000	Fresno	\$24,995	Pond-Shafter Wasco Resource Conservation District
Stockton East Water District Irrigation System with More Efficient Controllers and Sprinklers	2000	San Joaquin	\$10,000	Stockton East Water District
Variable Speed System Added to Irrigation Pumps At Main Headworks	2000	Fresno	\$15,000	Broadview Water District
Water Level Control Valves for Canal Check Structures	2000	Madera	\$14,999	Chowchilla Water District
California Irrigation Management Information System Weather Station	2001	Kern	\$5,500	Delano-Earlimart Irrigation District
Canal Automation Upgrades At Delivery Points	2001	Fresno	\$15,000	James Irrigation District
Canal Gates Automated	2001	Stanislaus	\$15,000	Patterson Irrigation District
Crop Evapotranspiration Study	2001	Fresno	\$9,400	Westlands Water District
Data Logger Installed	2001	Fresno	\$15,000	James Irrigation District
District-Wide Geographic Information System Mapping Of All Irrigation Facilities And Crop Fields	2001	Fresno	\$15,108	Columbia Canal Company
Flow Meters Installed	2001	Merced, Stanislaus	\$15,000	Del Puerto Irrigation District
Flow Meters Installed At Key Canal Diversion Points	2001	Merced	\$30,000	San Luis-Delta Mendota Water Authority
Install Supervisory Control And Data Acquisition System	2001	Fresno	\$15,000	James Irrigation District
Irrigation Scheduling	2001	San Joaquin	\$200,000	WaterTech Partners
Irrigation Scheduling And Record Keeping Of Water Uses	2001	Tulare	\$5,000	Exeter Irrigation District
Mobile Lab	2001	Fresno	\$25,000	Pond-Shafter-Wasco Resource Conservation District
Non Point Source Pollution Reduction in Vineyards	2001	San Joaquin	\$217,440	Lodi-Woodbridge Wine Grape Commission

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
On-Farm Ditch and Cast-In-Place Replacement	2001	Stanislaus	\$274,000	Modesto Irrigation District
On-Farm Integrated Irrigation & Drainage Management	2001	Fresno	\$100,000	West Hills Community College District
On-Farm Irrigation Systems Improvements	2001	Fresno	\$152,823	Columbia Canal Company
Service Area 3 Distribution System Improvement	2001	Kern	\$572,100	Lost Hills Water District
Service Area 5 Distribution System Improvement	2001	Kern	\$754,500	Lost Hills Water District
Southwest Stanislaus County Regional Drainage Management	2001	Stanislaus	\$616,200	San Joaquin Valley Drainage Authority
Total Irrigation Management	2001	Stanislaus	\$160,523	Stanislaus Resource Conservation District, West
Total Utilization of Drainage & Minimization of Evaporation	2001	Fresno	\$111,280	Westside Resource Conservation District
Variability of Soil Salinity on Farms	2001	Fresno	\$175,010	Center for Irrigation Technology - Fresno State
Variable Speed Drive Upgrades	2001	Kern	\$15,000	Kern-Tulare Irrigation District
Variable Speed Drive Upgrades	2001	Fresno	\$10,415	Broadview Water District
Variable Speed Drive Upgrades	2001	Tulare	\$20,254	Saucelito Irrigation District
Water Recording System With Hand-Held Recorders	2001	San Joaquin	\$15,000	Plain View Water District
Water Use Efficiency Project	2001	Kern	\$310,000	Kern-Tulare Water District
Xeriscape Garden And Visitor Center At Friant Dam	2001	Fresno	\$20,000	Center for Irrigation Technology - Fresno State
Flow Meters	2002	Merced	\$30,000	Delta-Mendota Water Authority
Herndon Avenue Lateral Feasibility Study	2002	Fresno	\$54,545	Panoche Water District
Residential Ultra Low Flush Toilets	2002	Kern	\$44,000	Bear Valley Community Services District
Turnout Metering	2002	Kings	\$95,000	Consolidated Irrigation District
Variable Speed Drive	2002	Fresno	\$24,702	Broadview Water District
Variable Speed Driver	2002	Tulare	\$20,000	Saucilito Irrigation District
Water Measurement Enhancement Project	2002	Fresno	\$82,500	Westlands Water District
West Point Urban Water Conservation Capital Outlay Grant Project, Phase I	2002	Calaveras	\$1,925,000	Calaveras County Water District
Alpaugh Water Meter Retrofit Program	2003	Tulare	\$70,200	Tulare County Water Works District
Technical Assistance	2003	Fresno	\$20,000	Center for Irrigation Technology - Fresno State

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Variable Speed Drive	2003	Fresno	\$14,253	Broadview Water District
<b>Summary for 'Program Element' = Water Use Efficiency 54 projects</b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$6,613,331</b>	

***CBDA Program Element: Watershed***

Calaveras River Watershed Management Plan Implementation Program (Phase II)	2001	Calaveras, San Joaquin	\$195,000	Calaveras County Water District
Cosumnes River Watershed Inventory and Assessment	2001	Amador, Sacramento	\$556,325	Sloughhouse Resource Conservation District
Current Condition Assessment of the Silver Creek Drainage and Panoche Alluvial Fan Areas of the Panoche/Silver Creek Watershed	2001	Fresno	\$200,000	Westside Resources Conservation District
Millerton Area Watershed Coalition	2001	Fresno, Madera	\$102,154	Sierra Foothill Conservancy
Murphy Creek Restoration Project	2001	Amador, San Joaquin	\$282,500	San Joaquin County Resource Conservation District
The Arroyo Pasajero Watershed: Restoring the Land for the Water	2001	Fresno	\$181,600	Westside Resource Conservation District
This River is Our River - Watershed Capacity Building	2001	Fresno	\$373,875	San Joaquin River Parkway and Conservation Trust, Inc.
Tuolumne River Initiative: Developing an Integrated Plan	2001	Stanislaus	\$250,000	Tuolumne River Preservation Trust
Feingold Watershed Planning	2002	Fresno, Madera, Mariposa*	\$109,388	Sierra Foothill Conservancy
Panoche Creek Stabilization Project	2002	Fresno	\$200,000	Westside Resource Conservation District
Plymouth Area Vineyard Erosion Control	2002	Amador	\$487,000	Amador County Wine Grape Growers Association
The Stewards of the Arroyo Passajero Coordinated Resource Management Planning: Sharing Our Success	2002	Fresno	\$55,000	Westside Resource Conservation District
Upper Merced River Watershed Management Plan	2002	Mariposa	\$199,825	Mariposa Resource Conservation District
<b>Summary for 'Program Element' = Watershed 13 projects</b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$3,192,667</b>	

\* See Complete Grant For More Detail.

**Summary for 'Region' = San Joaquin Valley 190 projects**

**Total Grant Dollars Awarded: \$184,522,667**



## Grant Projects Database Report for The Southern California Region

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
<b><i>CBDA Program Element:    <u>Drinking Water Quality</u></i></b>				
Assessing the Occurrences and Sources of E. Coli and E. Coli 0157 Contamination in Castaic Lake	2002	Los Angeles	\$609,500	Metropolitan Water District of Southern California
Integrating Ultraviolet Light to Achieve Multiple Treatment Options	2002	Los Angeles	\$610,000	Metropolitan Water District of Southern California
Lake Perris Pollution Prevention & Source Water Protection Program	2002	Riverside	\$1,390,800	Metropolitan Water District of Southern California
<b><i>Summary for 'Program Element' = Drinking Water Quality    3 projects</i></b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$2,610,300</b>	
<b><i>CBDA Program Element:    <u>Storage</u></i></b>				
Black Basin Injection Pilot Project	2001	Riverside	\$1,493,250	Elsinore Valley Municipal Water District
Cabazon Spreading Grounds Recharge Feasibility Study	2001	Riverside	\$100,000	San Geronio Pass Water Agency
Chino Basin Groundwater Recharge Feasibility Study	2001	San Bernadino	\$100,000	Monte Vista Water District
Coldwater Basin Groundwater Recharge Feasibility Study	2001	Riverside	\$99,000	Elsinore Valley Municipal Water District
Development of a Groundwater Management Plan for the Elsinore Basin	2001	Riverside	\$250,000	Elsinore Valley Municipal Water District
Direct Recharge Facility Pilot	2001	Riverside	\$1,121,712	Coachella Valley Water District
Dominguez Gap Spreading Grounds Recharge Feasibility Study	2001	Los Angeles	\$100,000	Water Replenishment District of Southern California
Groundwater Management Plan for the Mojave Water Agency	2001	San Bernadino	\$250,000	Mojave Water Agency
Indian Wells Valley Recharge Test Basins	2001	Kern	\$100,000	Indian Wells Valley Water District
Inland Saline Intrusion Assessment Project	2001	Ventura	\$248,600	United Water Conservation District with the City of Oxnard
Inyo, County of	2001	Inyo	\$250,000	Inyo, County of
Mojave Basin Recharge Feasibility Study	2001	San Bernadino	\$100,000	Mojave Water Agency
Pilot Project for the Lower San Luis Rey River Valley	2001	San Diego	\$1,250,000	San Diego County Water Authority

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Riverside County Groundwater Storage Feasibility Study	2001	Riverside	\$200,000	The Eastern Municipal Water District
San Diego River System Groundwater Management Program	2001	San Diego	\$250,000	City of San Diego, Helix Water District, Padre Dam Municipal Water District
Three Valleys Turnout	2001	Los Angeles	\$400,000	Three Valleys Municipal Water District
Upper Ceckwalla Groundwater Storage Program	2001	Riverside	\$250,000	Metropolitan Water District of Southern California
Wellhead Protection Demonstration Program & Pilot Aquifer Storage Recovery Demonstration Program	2001	Santa Barbara	\$250,000	Carpinteria Valley Water District
Create a Regional Water Resources Database, Incorporating approximately Three Million Data Records That Currently Exist on Hard Copy & in Multiple Electronic Formats	2002	Riverside	\$200,000	Eastern Municipal Water District
Develop a Comprehensive Geographic Information System Database of Water Quality Data, Evaluate the Water Quality Data to Characterize Water Quality Problems & Sources, & Prepare a Comprehensive Water Quality-Monitoring Program	2002	San Benito	\$200,000	San Benito County Water District
Drill, Install, Develop, Test & Sample Five New Monitoring Wells, & Conduct an Initial Six-Month Program of Groundwater Level & Quality Monitoring in the Verdugo Basin	2002	Los Angeles	\$250,000	Crescenta Valley Water District
Goleta Water District	2002	Santa Barbara	\$1,802,019	Goleta Water District
Install Five Monitoring Wells to Approximately Five Hundred Feet Deep on the West Side of the Owens Valley to Monitor Groundwater Along the Alluvial Fan	2002	Inyo	\$250,000	Los Angeles Department of Water & Power
Install Multi-Port Well Site With the Bottom-Most Access Being Completed Into the Water-Bearing Strata Found in the Victorville Fan Unit, Which is a Previously Non-Monitored Area of the Upper Mojave Basin	2002	San Bernadino	\$250,000	Mojave Water Agency
Los Angeles County Department of Public Works	2002	Los Angeles	\$2,150,000	Los Angeles County Department of Public Works
Los Angeles, City of Department of Water and Power	2002	Los Angeles	\$2,000,000	Los Angeles, City of Department of Water and Power
Monitoring Program to Collect Baseline Data Prior to Implementation of Phase I of the Applicant's Groundwater Extraction Desalination Project & Installation of Seven Monitoring Wells & Stream Staff Gauges	2002	Orange	\$250,000	San Juan Basin Authority
Orange County Water District	2002	Orange	\$30,000,000	Orange County Water District
San Juan Basin Authority	2002	Orange	\$290,000	San Juan Basin Authority
United Water Conservation District	2002	Ventura	\$1,423,595	United Water Conservation District

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Water Replenishment District of Southern California	2002	Los Angeles	\$5,000,000	Water Replenishment District of Southern California
Borrego Water District	2003	San Diego	\$171,000	Borrego Water District
Cresenta Valley Water District	2003	Los Angeles	\$185,000	Cresenta Valley Water District
Inland Empire Utilities Agency, Chino Basin Watermaster	2003	San Bernardino	\$250,000	Inland Empire Utilities Agency, Chino Basin Watermaster
Los Osos Community Services District	2003	San Luis Obispo	\$220,000	Los Osos Community Services District
Rainbow Municipal Water District	2003	San Diego	\$199,810	Rainbow Municipal Water District
San Bernardino Valley Water Conservation District	2003	San Bernardino	\$230,000	San Bernardino Valley Water Conservation District
San Jacinto Mountain Area Water Study Agency	2003	Riverside	\$225,000	San Jacinto Mountain Area Water Study Agency
Three Valleys Municipal Water District (Six Basins Watermaster)	2003	Los Angeles	\$230,000	Three Valleys Municipal Water District (Six Basins Watermaster)

**Summary for 'Program Element' = Storage 39 projects**

**Grant Dollars Awarded For Program Element: \$52,588,986**

***CBDA Program Element: Water Use Efficiency***

Drought Planning for South-Central California Area Office For Both Urban And Agricultural Water Districts	2000	Santa Barbara	\$19,640	Santa Barbara County Water Agency
Green Gardener Certification Program	2000	Santa Barbara	\$15,000	Santa Barbara County Water Agency
Green Gardener Certification Program	2000	Santa Barbara	\$15,000	City of Santa Barbara
Water Audit Kits for City Households	2000	Santa Barbara	\$13,320	Goleta Water District
Arden-Cordova Evapotranspiration Controller/Rain Shut-off Program	2001	Los Angeles	\$11,875	Southern California Water Company
Brookside Golf Course Water Management Project	2001	Los Angeles	\$90,000	Rose Bowl Operating Company
California Water Conservation Support Network	2001	Multiple	\$115,000	Environmental Policy Center
Claremont Evapotranspiration Controller/Rain Shut-off Program	2001	Los Angeles	\$23,750	Southern California Water Company
Classroom Materials On Water Conservation	2001	Santa Barbara	\$5,600	Santa Barbara County Water Agency
Classroom Puzzle And Hands-On Display	2001	Santa Barbara	\$25,000	Goleta Water District
Commercial Rebate Program	2001	Los Angeles	\$34,000	Metropolitan Water District of Southern California

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Drought Contingency Plan Compiled For Urban Cities Within South Central California Area Office Service Area	2001	Santa Barbara	\$10,000	Santa Barbara County Water Agency
Expansion of the Learning to be Water Wise Program	2001	Los Angeles	\$38,000	Blue Planet Foundation
Field Evaluation Team	2001	San Luis Obispo	\$30,000	CalPoly State University Irrigation Training and Research Center
Green Gardener Training For Landscape And Urban Areas Of Coastal California	2001	Santa Barbara	\$15,000	City of Santa Barbara
High-Efficiency Clothes Washer Rebates	2001	Los Angeles	\$925,000	Metropolitan Water District of Southern California
Joint Agency X-Ray Processor Retrofit Model	2001	Orange	\$13,698	Irvine Ranch Water District
Los Osos Evapotranspiration Controller/Rain Shut-off Program.	2001	San Luis Obispo	\$23,750	Southern California Water Company
New Courses for Bilingual Landscape Education	2001	Los Angeles	\$100,000	Metropolitan Water District of Southern California
Partnership With The City Of Santa Barbara On The Green Gardener Program	2001	Santa Barbara	\$15,000	Santa Barbara County Water Agency
San Dimas Evapotranspiration Controller/Rain Shut-off Program	2001	Los Angeles	\$23,750	Southern California Water Company
San Gabriel Valley Indoor/Outdoor Water Saver Survey	2001	Los Angeles	\$5,470	Southern California Water Company
Southwest District Los Angeles, Evapotranspiration Controller/Rain Shut-off Program	2001	Los Angeles	\$23,133	Southern California Water Company
Urban Household Kits For Retrofit Of Showerheads, Toilets, And Leak Detection In And Outside The Home	2001	San Bernadino	\$10,000	San Benito County Water Agency
Various Education Guides, Brochures, Demonstration And Portable Displays Available To All Teachers Within County	2001	Santa Barbara	\$10,600	Santa Barbara County Water Agency
Voucher Incentive - Residential Clothes Washers	2001	San Diego	\$300,000	San Diego County Water Authority
Water Softener Pilot Program	2001	Los Angeles	\$100,000	Municipal Water District of Orange County
Weather TRAK Evapotranspiration Controller	2001	Santa Barbara	\$100,000	Santa Barbara County Water Agency
Coin-Operated Multi-Load Clothes Washer Voucher Incentive Program	2002	San Diego	\$350,000	San Diego County Water Authority
Commercial, Institutional, Industrial Zero Consumption Urinal Direct Install Program	2002	Los Angeles	\$300,000	City of Pasadena
Enhanced Rebates and Incentives for Water Saving Devices	2002	Los Angeles	\$615,000	Los Angeles Department of Water and Power, City of

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
Feasibility of Retrofitting to a Remote-Sensing Soil Moisture Monitoring & Irrigation Scheduling System	2002	Riverside	\$98,033	San Jacinto Basin Resource Conservation District
Large Meter Project	2002	Santa Barbara	\$85,800	Goleta Water District
Multi-Family Ultra Low Flush Toilet and Residential High Efficiency Clothes Washer Rebate Program	2002	Los Angeles	\$145,000	Las Virgenes Municipal Water District
Olive Sports Park Model Water Efficient Landscape Project	2002	Los Angeles	\$56,278	Upper San Gabriel Valley Municipal Water District
Residential Ultra Low Flush Toilet Replacement Project	2002	San Bernadino	\$70,000	Victor Valley Water District
Water/Energy Posters	2002	Santa Barbara	\$15,000	Santa Barbara County Water Agency
X-Ray Film Processor Retrofit Program	2002	San Bernadino	\$230,000	Inland Empire Utilities Agency
Commercial Landscape Incentive Program	2003	San Diego	\$1,125,000	San Diego County Water Authority
Commercial, Institutional, Industrial-School Zero Consumption Urinals Direct Install	2003	Los Angeles	\$168,625	Long Beach Water Department
Comprehensive Medical Facility Turn-Key Program	2003	Los Angeles	\$126,300	City of Santa Monica
Enhanced Rebates Commercial, Institutional, Industrial - Zero Water Consumption Urinals	2003	Los Angeles	\$780,000	Central Basin Municipal Water District
Evapotranspiration Controller Installation Project	2003	Los Angeles	\$1,778,700	Metropolitan Water District of Southern California
High Efficiency Plumbing Fixture Program	2003	San Bernardino	\$98,900	Yucaipa Valley Water District
Hospital X-Ray Film Processor Recirculating System	2003	San Diego	\$623,500	San Diego County Water Authority
Industrial Process Capital Improvement	2003	Los Angeles	\$348,630	Metropolitan Water District of Southern California
Los Osos Community Services District Water Conservation Toilet Retrofit Program	2003	San Luis Obispo	\$500,000	Los Osos Community Services District
Residential High Efficiency Clothes Washer Rebate	2003	Los Angeles	\$2,500,000	Metropolitan Water District of Southern California
Santa Barbara County Commercial, Institutional, Industrial Rebate Program	2003	Santa Barbara	\$268,600	Santa Barbara County Water Agency
Tri-City Park Irrigation System Upgrade	2003	Orange	\$58,296	City of Placentia
Water Conservation Program - Institution For Men & Associated Facilities	2003	San Bernardino	\$2,059,555	Inland Empire Utilities Agency
<b>Summary for 'Program Element' = Water Use Efficiency 51 projects</b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$14,512,803</b>	

<i>Project Title</i>	<i>Calendar Year Funded</i>	<i>County</i>	<i>Grant Amount Awarded</i>	<i>Recipient</i>
<b><i>CBDA Program Element: Watershed</i></b>				
Arroyo Seco Watershed Management Plan and Education Program	2001	Los Angeles	\$237,656	North East Trees
Engaging the Community: Outreach and Education for the Sun Valley Watershed Retrofit Project	2001	Los Angeles	\$350,000	TREES Project (Tree People)
Los Angeles & San Gabriel Rivers Watershed Council Organizational Development	2001	Los Angeles	\$288,000	Los Angeles & San Gabriel Rivers Watershed Council
San Gabriel River Watershed Citizen Monitoring Program	2001	Los Angeles	\$51,120	Friends of the San Gabriel River
Study of Augmenting Groundwater Supplies Through Capture of Urban Runoff	2001	Los Angeles	\$971,800	Los Angeles & San Gabriel Rivers Watershed Council
Sun Valley Watershed Management and Water Replenishment Project	2001	Los Angeles	\$430,000	Los Angeles County Department of Public Works
<b><i>Summary for 'Program Element' = Watershed 6 projects</i></b>				
<b>Grant Dollars Awarded For Program Element:</b>			<b>\$2,328,576</b>	

\* See Complete Grant For More Detail.

***Summary for 'Region' = Southern California 99 projects***

**Total Grant Dollars Awarded:** **\$72,040,665**