



CALFED
BAY-DELTA
PROGRAM

*CALFED Project Performance Information
Program Years 1 – 8*

Draft

October 18, 2007

Table of Contents

| | |
|--|------------------|
| <i>Section 1. Introduction.....</i> | <i>1</i> |
| <i>Section 2. Funding Summary</i> | <i>2</i> |
| Funding by Objective..... | 3 |
| Water Supply Reliability | 4 |
| Water Quality..... | 5 |
| Ecosystem Restoration..... | 6 |
| Levee System Integrity | 7 |
| Coordination and Science | 8 |
| Funding by Agency..... | 9 |
| <i>Section 3. CALFED Funding Details: Years 1 through 8</i> | <i>10</i> |

Section 1. Introduction

The purpose of this document is to present funding information and affiliated details related to past CALFED projects or activities spanning program years 1 through 8. Funding details are provided for program years 1 through 8.

This report represents data collected by CALFED Bay-Delta Program (CBDP) and agency staff. The detailed information listed in Section 3 represents a variety of activities, projects, program elements and aggregated budgetary amounts such as ‘staff support’ and grant funding totals. The remainder of this report is organized as follows:

- **Funding Summary (Section 2)** – This section provides tables and graphs of funding by CALFED objective, by implementing agency and by state and federal contribution. Funding for years 1 through 6 reflects actual expenditures reported, while year 7 is amount budgeted and year 8 is amount proposed.
- **Funding Details Years 1 through 8 (Section 3)** – This section provides a detailed listing of CALFED funding activities for program years 1 through 8. The report is organized by program year and by agency.

Section 2. Funding Summary

The table below summarizes the combined funding amounts, by CALFED objective, for program years 1 through 8. Funding for years 1 through 6 reflects actual expenditures reported, while year 7 is amount budgeted and year 8 is amount proposed.

| Objective | Years 1 to 6 | Year 7 | Year 8 | Total |
|--------------------------|-------------------------|-----------------------|-----------------------|-------------------------|
| Coordination and Science | \$ 168,681,500 | \$ 68,478,000 | \$ 46,084,000 | \$ 283,243,500 |
| Ecosystem Restoration | \$ 694,154,529 | \$ 211,440,328 | \$ 190,708,811 | \$ 1,096,303,668 |
| Levees | \$ 107,755,000 | \$ 18,905,000 | \$ 63,981,000 | \$ 190,641,000 |
| Water Quality | \$ 92,097,000 | \$ 31,180,047 | \$ 100,653,000 | \$ 223,930,047 |
| Water Supply Reliability | \$ 1,055,244,715 | \$ 286,410,000 | \$ 147,529,000 | \$ 1,489,183,715 |
| Total | \$ 2,117,932,744 | \$ 616,413,375 | \$ 548,955,811 | \$ 3,283,301,930 |

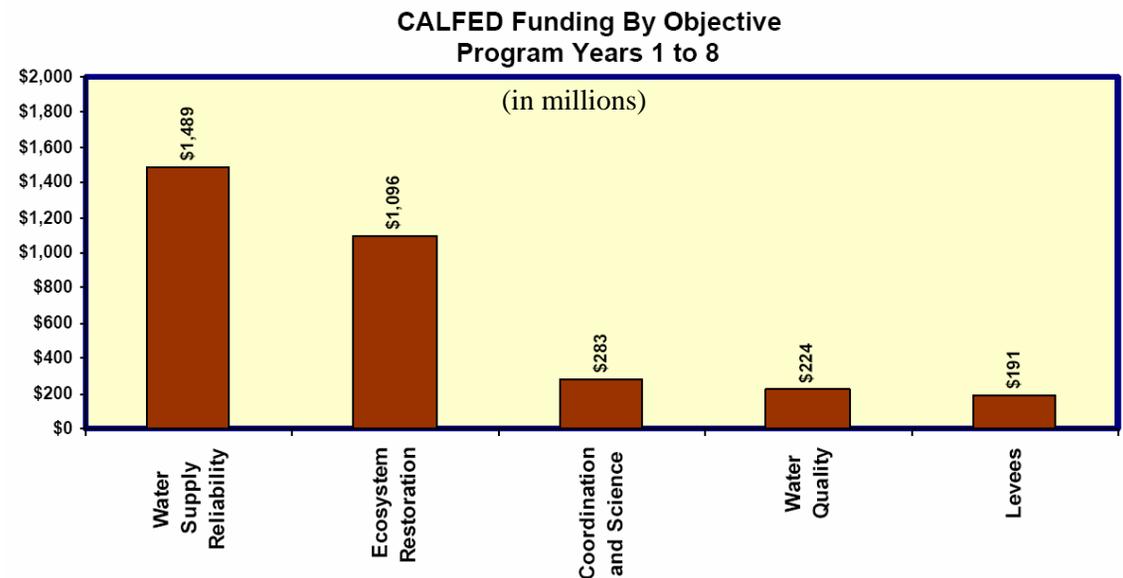
Source: Agency yearly funding submissions. Amounts include State Water Project and Central-Valley Project Improvement Act, and excludes local match. Amounts subject to change as a result of Stage 1 reviews.

The charts below provide aggregated funding amounts by CALFED objective, by implementing agency and state and federal contributions.

Funding by Objective

The CALFED Record of Decision, signed in August 2000, was designed to provide a blueprint to address the needs of major stakeholders. The ROD defined CALFED as focused upon four key objectives – Water Supply Reliability, Water Quality, Ecosystem Restoration and Levee System Integrity. The figures shown here summarize current project information. For project tacking purposes, this information also includes coordination and science, which are program areas that span the entire CALFED program. The objectives are generally described as follows:

- **Water Supply Reliability** – to reduce the mismatch between Bay-Delta water supplies and current and projected beneficial uses dependent on the Bay-Delta system.
- **Water Quality** – to achieve continuous improvement in the quality of the waters of the Bay-Delta system and minimize ecological, drinking water, and other water quality problems.
- **Ecosystem Restoration** – to improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta to support sustainable populations of diverse and valuable plant and animal species. .
- **Levee System Integrity** – to reduce the risk to land use, economic activities, water supply, infrastructure and the ecosystem from catastrophic breaching of Delta levees.



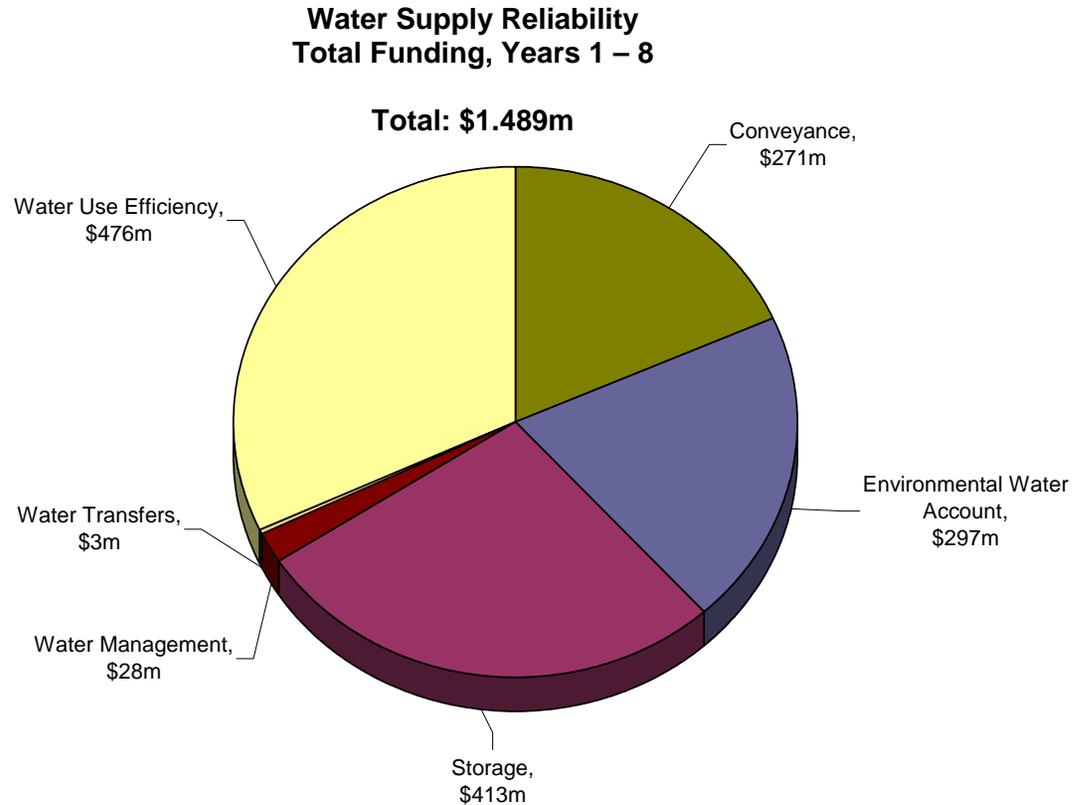
Water Supply Reliability

As identified in the ROD, the goal for water supply reliability is to reduce the mismatch between Bay-Delta water supplies and current and projected beneficial uses dependent on the Bay-Delta system. This can be accomplished by addressing the following broad objectives, as identified in the ROD:*

- Maintain an adequate water supply to meet expected in-Delta beneficial use needs.
- Improve export water supplies to help meet beneficial use needs.
- Improve the adequacy of Bay-Delta water to meet Delta outflow needs.
- Reduce the vulnerability of Bay-Delta levees.
- Improve the predictability of the water supply available from the Bay-Delta system for beneficial use needs.

As shown in the accompanying chart, Water Supply Reliability funding was spread over six program elements.

* Source: Final PEIS/EIR, section 1.2



Water Quality

The ROD proposed Program actions to address the drinking water quality concerns of the more than 24 million Californians who rely on Delta water in four broad categories. These actions were intended to:*

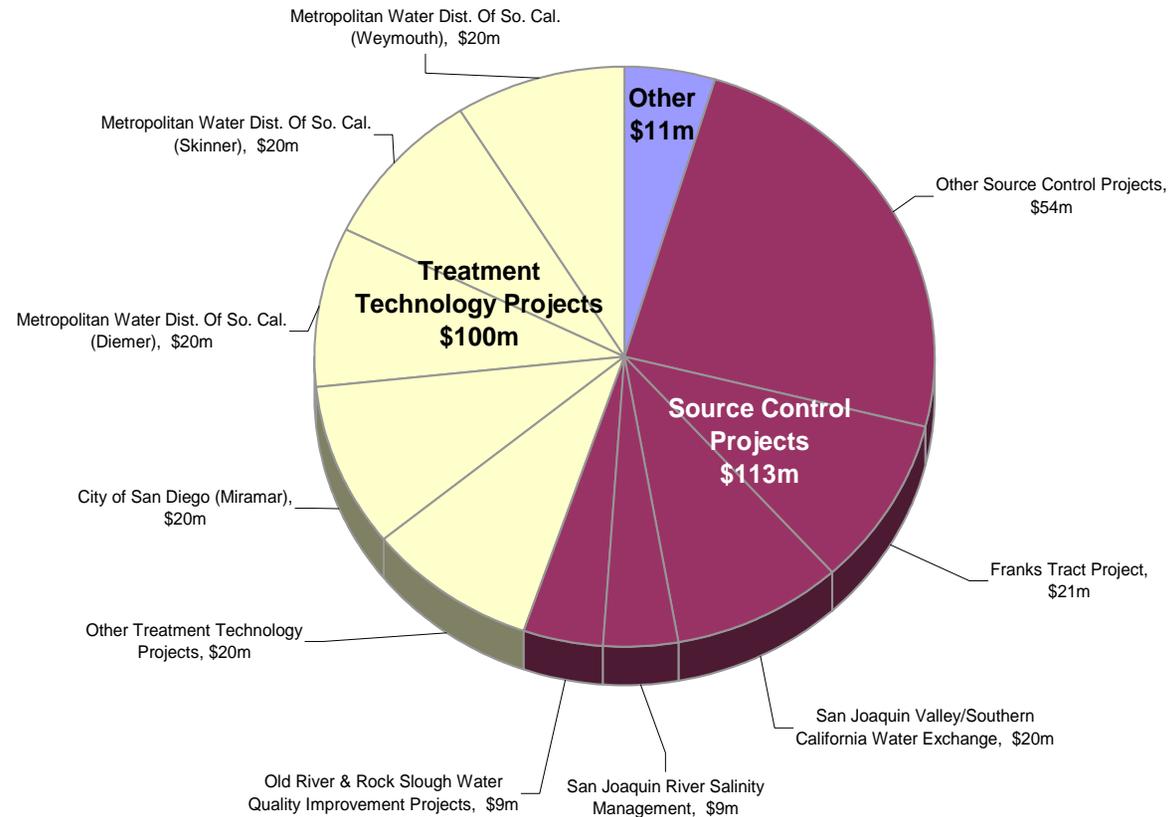
- Enable users to capture higher quality Delta water for drinking water purposes
- Reduce contaminants and salinity that impair Delta drinking water quality
- Evaluate alternative approaches to drinking water treatment to address growing concerns over disinfection byproducts and salinity.
- Enable voluntary exchanges or purchases of high quality source waters for drinking water uses.

Stage 1 was intended to begin work on this strategy, which would be completed in later stages. None of these actions, by itself, was intended to assure adequate supplies of good quality drinking water for California. They were to be pursued, in conjunction with other CALFED actions such as conveyance and storage improvements, to generate significant improvements in drinking water at the tap.

The accompanying figure shows that 95% of the funding was applied to source control and treatment technology efforts. Also listed are key users or activities of this funding.

* Source: ROD Volume 1, section 2.2.9.

**Water Quality
Total Funding, Years 1 – 8**



Ecosystem Restoration

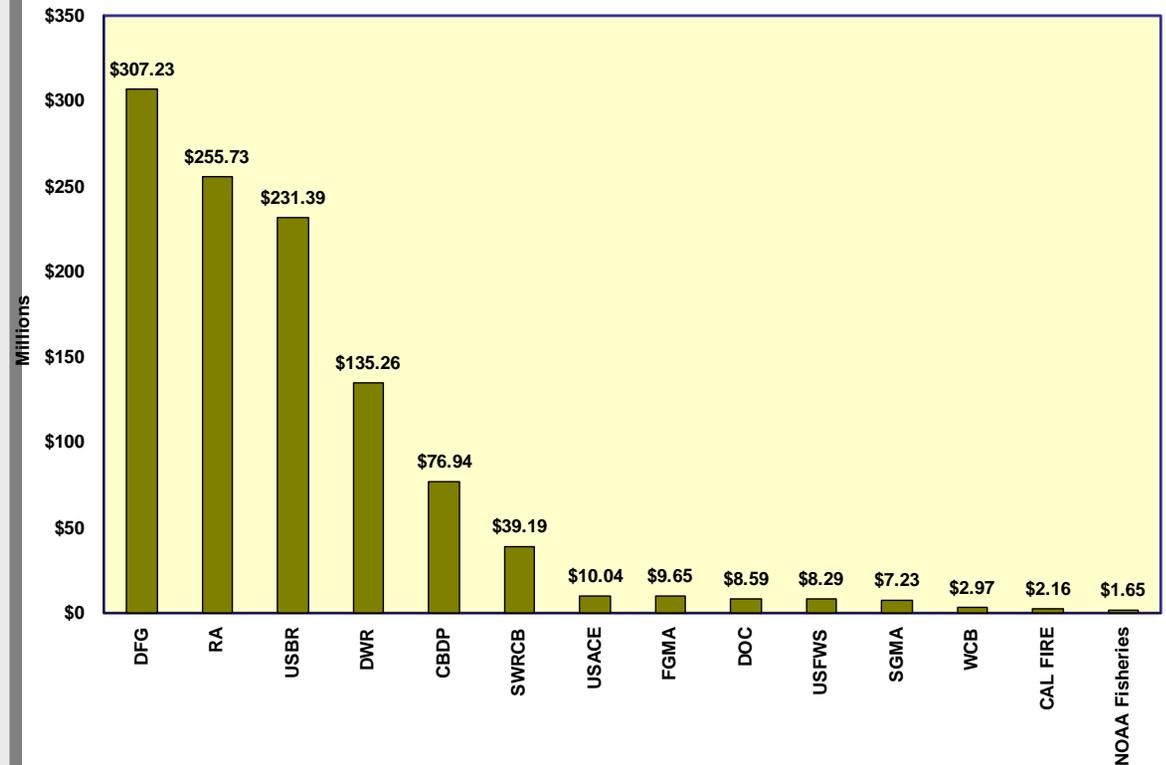
One of the cornerstones of the CALFED ERP has been the development of a common vision or single “blueprint” for ecosystem restoration. The blueprint was intended to ensure that ERP implementing agencies were all working towards common goals. To achieve its objectives, the ERP identified over 600 programmatic actions and 119 milestones in all regions of the Bay-Delta watershed.

To date, the blueprint has been implemented through a large number of competitive and directed grants and through work done by the agencies themselves. In 2004, the implementing agencies conducted a comprehensive review of the Ecosystem Restoration Program (ERP) and found that nearly 80 percent of the 119 ecosystem milestones had been met or exceeded. Additional review is currently underway to assess the progress of the ERP.

As shown in the accompanying chart, projects are implemented principally by the CA Dept. of Fish and Game, US Bureau of Reclamation, the CA Dept. of Water Resources, State Water Resources Control Board, CA Department of Conservation, and the US Fish and Wildlife Service.

Note: Funding reflects work done both inside and outside of the delta. Key accomplishments, mostly upstream, include significant investments in fish screens, temperature control, habitat protection, and restoration efforts.

**Ecosystem Restoration
Total Funding, Years 1 – 8**



Levee System Integrity

The Levee System Integrity Program provides long-term protection for multiple Delta resources by maintaining and improving the integrity of the extensive Delta levees system. There are five main parts to the Levee System Integrity Program: *

- **Delta Levee Base Level Protection Plan** - Improve and maintain existing Delta levees to meet the Army Corps of Engineers PL 84-99 levee standard.
- **Delta Levee Special Improvement Projects** - Enhance flood protection for key islands that provide statewide benefits to the ecosystem, water supply, water quality, economics, infrastructure, etc.
- **Delta Levee Subsidence Control Plan** - Implement best management practices to correct subsidence adjacent to levees and coordinate research to quantify the effects and extent of inner-island subsidence.
- **Delta Levee Risk Assessment** - Quantify the major risks to Delta resources from floods, seepage, subsidence and earthquakes, evaluate the consequences, and develop recommendations to manage the risk.
- **Delta Levee Emergency Management and Response Plan** – Building on existing State, Federal and local emergency management programs.

The accompanying figure shows key categories of Levee System Integrity funding.

**Levee System Integrity
Total Funding, Years 1 – 8**

| Effort | Funding |
|---|----------------|
| ➤ Subventions and Special Projects | \$150.0m |
| ➤ Levee Support and Coordination | \$31.0m |
| ➤ Delta Risk Management Strategy (DRMS) | \$8.0m |
| ➤ CALFED Levee Stability Program | \$.4m |
| ➤ West Delta Levees | \$.4m |
| ➤ Levee System Integrity - Beneficial Reuse | \$.2m |
| <i>Total for all Years, 1 – 8:</i> | |
| | \$190.0m |

Coordination and Science

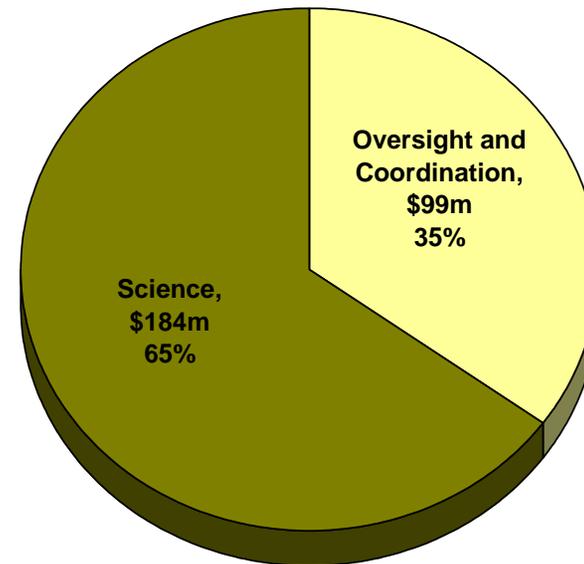
Through integrated science, communication, and strategic planning, the program supports the coordinated implementation of the CALFED Record of Decision, specifically the improvements in water supply reliability, ecosystem health, water quality, and levee stability of the Bay-Delta system.

This mission is implemented through the following areas of focus:

- Interagency Coordination
- Authoritative Science
- Measurable Performance
- Informed and Transparent Decisions
- Effective Communication
- Inclusive Public Involvement

Coordination and Science Total Funding, Years 1 – 8

Total: \$283m



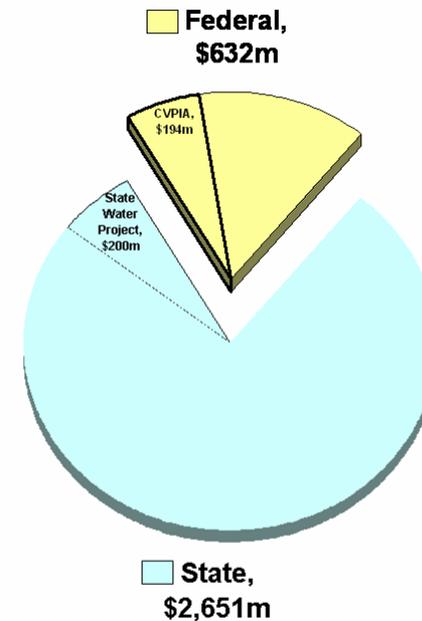
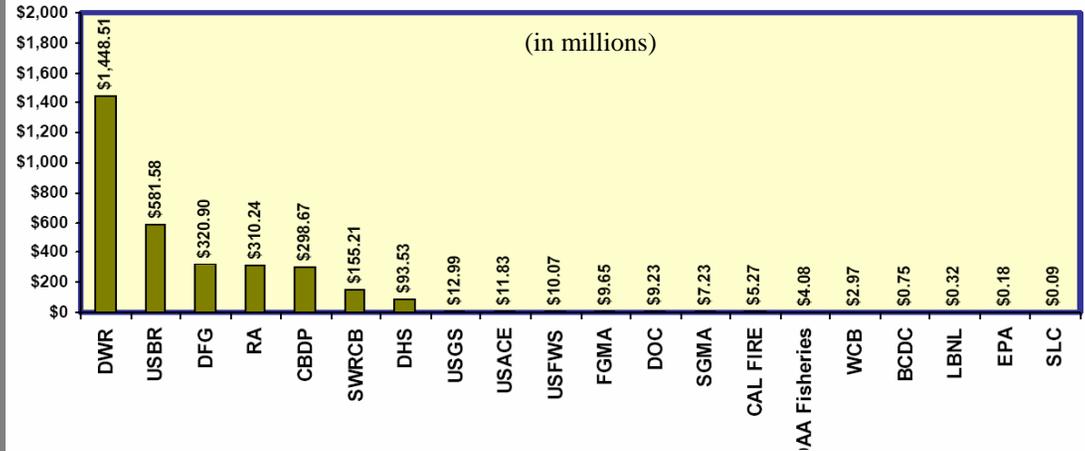
Funding by Agency

This section of the report presents project information organized by implementing agency:

- CA Dept. of Forestry and Fire Protection (CalFire)
- CA Dept. of Conservation (DOC)
- CA Dept. of Fish & Game (DFG)
- CA Dept. of Health Services (DHS)
- CA Dept. of Water Resources (DWR)
- CA State Water Resources Control Board (SWRCB)
- San Francisco Bay Conservation and Development Commission (BCDC)
- CALFED Bay-Delta Program (CBDP)
- US Geological Survey (USGS)
- US Fish and Wildlife Services (USFWS)
- US Environmental Protection Agency (EPA)
- US Bureau of Reclamation (USBR)
- US Army Corps of Engineers (USACE)
- National Oceanographic and Atmospheric Administration (NOAA)

The accompanying bar chart shows total funding by all CALFED implementing agencies. The next chart reflects the total funding for State and Federal and further carves out funding for the State Water and Central Valley Water projects.

**CALFED Funding By Agency
Program Years 1 to 8**



Section 3. CALFED Funding Details: Years 1 through 8

This section presents a detailed listing of CALFED projects or activities spanning program years 1 through 8. The report is sorted by program year and implementing agency, and includes detailed project descriptions for projects funded since program year 6. Summary descriptions only are provided for prior years (program years 1-5).

| Implementing Agency | Name | Year 1 Amount:* |
|--|---|----------------------------|
| CALFED Bay Delta Program (Resources Agency) | | Subtotal: \$128,120 |
| | Coordination and Science | \$24,277 |
| | CALFED Science - Workshops and White Papers | \$4,400 |
| | Oversight & Coordination - Human Resources and Staff Support | \$1,997 |
| | Oversight & Coordination - BDPAC Staff and Support | \$673 |
| | CALFED Science - Oversight & Coordination | \$890 |
| | Oversight & Coordination - Executive | \$4,436 |
| | Oversight & Coordination - Legal | \$696 |
| | CALFED Science - Performance Measures and Assessment | \$1,500 |
| | Oversight & Coordination - Public Affairs Public Involvement | \$355 |
| | CALFED Science - Data Analysis and Critical Unknowns | \$4,400 |
| | CALFED Science - Science Boards, Expert Panels, and Collaboration | \$1,628 |
| | Oversight & Coordination - Information Technology/Data Management | \$397 |
| | CALFED Science - Communication | \$1,300 |
| | Oversight & Coordination - Contracts/Fiscal | \$1,605 |
| | Ecosystem Restoration | \$9,790 |
| | Ecosystem Restoration - Oversight & Coordination | \$2,000 |
| | Watershed - Financial Assistance to Local Programs | \$6,711 |
| | Watershed - Program Management and Oversight | \$1,079 |
| | Levees | \$130 |
| | Levee System Integrity - Oversight & Coordination | \$130 |
| | Water Quality | \$13,500 |
| | Treatment Technology | \$1,225 |
| | Bay Area Water Quality & Supply Reliability Program | \$1,624 |
| | Control Runoff into Conveyances | \$1,569 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 1 Amount:* |
|------------------------------------|--|---------------------------|
| | Source Control | \$6,667 |
| | North Bay Aqueduct | \$189 |
| | Program Management & Oversight | \$1,476 |
| | San Joaquin Valley Agricultural Drainage | \$750 |
| | Water Supply Reliability | \$80,423 |
| | Environmental Water Account - Oversight & Coordination | \$200 |
| | Conservation - Urban Grants | \$5,883 |
| | Recycling - Water Measurement | \$95 |
| | Conservation - Urban Certifications | \$45 |
| | Conservation - Science & Monitoring | \$180 |
| | Conservation - Quantifiable Objectives | \$45 |
| | Environmental Water Account - Environmental Documentation | \$1,392 |
| | Conservation - Oversight & Coordination | \$428 |
| | Conveyance - Tracy Fish Test Facility | \$3,000 |
| | Water Transfers - Increase Availability of Market Information to Stakeholder and Permitting Agencies | \$335 |
| | Conservation - Agricultural Grants | \$5,924 |
| | Groundwater Storage & Other - Oversight & Coordination | \$543 |
| | Water Transfers - Program Oversight and Coordination | \$200 |
| | Groundwater Storage & Other - Feasibility Study Grants | \$5,000 |
| | Environmental Water Account - Water & Power Acquisitions | \$57,153 |
| Department of Fish and Game | | Subtotal: \$10,657 |
| | Coordination and Science | \$2,217 |
| | IEP - Interagency Ecological Program | \$2,057 |
| | Oversight & Coordination - Environmental Compliance | \$160 |
| | Ecosystem Restoration | \$8,037 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 1 Amount:* |
|--------------------------------------|--|----------------------------|
| | Ecosystem Restoration - Planning | \$1,677 |
| | Ecosystem Restoration - Implementation | \$6,360 |
| | Water Supply Reliability | \$403 |
| | Surface Storage - North-of-the-Delta Offstream Storage | \$243 |
| | Environmental Water Account - Oversight & Coordination | \$160 |
| Department of Water Resources | | Subtotal: \$167,408 |
| | Coordination and Science | \$6,306 |
| | Interagency Ecological Program | \$6,306 |
| | Ecosystem Restoration | \$6,669 |
| | Fish Passage Improvements Program | \$1,713 |
| | CVPIA State Cost Share | \$2,749 |
| | Four Pumps Delta Fish Agreement | \$2,207 |
| | Levees | \$32,053 |
| | Research, Special Studies, and Program Management | \$402 |
| | Delta Levees Subventions and Special Projects | \$31,651 |
| | Water Quality | \$24,000 |
| | San Joaquin Valley/Southern California Water Exchange | \$20,000 |
| | Treatment Technology | \$4,000 |
| | Water Supply Reliability | \$98,380 |
| | Los Vaqueros Reservoir Expansion | \$700 |
| | Urban Grants | \$569 |
| | Agricultural Grants | \$438 |
| | South Delta Improvements Program | \$7,351 |
| | North-of-the-Delta Offstream Storage | \$7,540 |
| | Urban Technical Assistance | \$1,300 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 1 Amount:* |
|--|---|--------------------------|
| | Agricultural Technical Assistance | \$279 |
| | Upper San Joaquin River Storage Investigations | \$263 |
| | Shasta Lake Enlargement | \$111 |
| | San Luis Reservoir Low Point Improvement Project | \$4,844 |
| | Groundwater Recharge Local Assistance | \$13,787 |
| | Common Assumptions/Water Management Strategy/Oversight & Coordination | \$1,300 |
| | In-Delta Storage Investigations | \$2,300 |
| | Groundwater Storage Program Grants and Loans | \$57,598 |
| Federal Grant Matching Agencies | | Subtotal: \$9,652 |
| | Ecosystem Restoration | \$9,652 |
| | Ecosystem Restoration - Planning | \$6,260 |
| | Watershed - Financial Assistance to Local Programs | \$3,392 |
| Lawrence Berkeley National Labs | | Subtotal: \$320 |
| | Water Quality | \$320 |
| | Source Control | \$320 |
| National Marine Fisheries Service | | Subtotal: \$450 |
| | Coordination and Science | \$225 |
| | IEP - Interagency Ecological Program | \$75 |
| | Oversight & Coordination - Executive | \$150 |
| | Ecosystem Restoration | \$150 |
| | Ecosystem Restoration - Planning | \$150 |
| | Water Supply Reliability | \$75 |
| | Environmental Water Account - Oversight & Coordination | \$75 |
| State Grant Match Agencies | | Subtotal: \$7,228 |
| | Ecosystem Restoration | \$7,228 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 1 Amount:* |
|--|---|---------------------------|
| | Watershed - Financial Assistance to Local Programs | \$1,100 |
| | Ecosystem Restoration - Implementation | \$6,128 |
| State Water Resources Control Board | | Subtotal: \$885 |
| | Coordination and Science | \$740 |
| | Oversight & Coordination - Environmental Compliance | \$740 |
| | Ecosystem Restoration | \$63 |
| | Project Management and Oversight | \$63 |
| | Water Quality | \$39 |
| | Project Management and Oversight | \$39 |
| | Water Supply Reliability | \$43 |
| | Project Management and Oversight | \$43 |
| U S Army Corps of Engineers | | Subtotal: \$3,065 |
| | Coordination and Science | \$169 |
| | Oversight & Coordination - Executive | \$169 |
| | Ecosystem Restoration | \$2,924 |
| | Ecosystem Restoration - Implementation | \$1,832 |
| | Ecosystem Restoration - Research | \$1,092 |
| | Levees | (\$28) |
| | Levee System Integrity - Special Projects | (\$28) |
| U S Bureau of Reclamation | | Subtotal: \$68,215 |
| | Coordination and Science | \$4,492 |
| | IEP - Interagency Ecological Program | \$3,861 |
| | Oversight & Coordination - Executive | \$631 |
| | Ecosystem Restoration | \$29,808 |
| | Ecosystem Restoration - Implementation | \$29,808 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 1 Amount:* |
|--|--|------------------------|
| | Levees | \$60 |
| | Levee System Integrity - Oversight & Coordination | \$60 |
| | Water Quality | (\$470) |
| | Unassigned funds | (\$470) |
| | Water Supply Reliability | \$34,325 |
| | Conservation - Agricultural Grants | \$1,176 |
| | Surface Storage - In-Delta Storage Investigations | \$300 |
| | Conveyance - North Delta Flood Control & Ecosystem Restoration Improvement Program | \$34 |
| | Conveyance - Tracy Fish Facilities Monitoring Program | \$1,694 |
| | Mont, Permit, Coord & Spec Support Programs | \$504 |
| | Conveyance - Tracy Fish Test Facility | \$3,929 |
| | Conveyance - 8,500 cfs - Permanent Operable Barriers | \$428 |
| | Surface Storage - Los Vaqueros Reservoir Expansion | \$100 |
| | Surface Storage - North-of-the-Delta Offstream Storage | \$100 |
| | Surface Storage - Shasta Lake Enlargement | \$1,016 |
| | Water Transfers - Increase Availability of Market Information to Stakeholder and Permitting Agencies | \$361 |
| | Groundwater Storage & Other - Oversight & Coordination | \$1 |
| | Surface Storage - Upper San Joaquin River Storage Investigations | \$300 |
| | Conservation - Urban Grants | \$1,176 |
| | Recycling - Water Recycling Grants | \$23,206 |
| U S Environmental Protection Agency | | Subtotal: \$20 |
| | Coordination and Science | \$20 |
| | IEP - Interagency Ecological Program | \$20 |
| U S Fish and Wildlife Service | | Subtotal: \$993 |
| | Coordination and Science | \$231 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 1 Amount:* |
|------------------------------------|---|-----------------------------------|
| | IEP - Interagency Ecological Program | \$231 |
| | Ecosystem Restoration | \$762 |
| | Ecosystem Restoration - Planning | \$762 |
| <hr/> | | |
| U S Geological Survey | | Subtotal: \$3,163 |
| | Coordination and Science | \$1,555 |
| | CALFED Science - Oversight & Coordination | \$573 |
| | CALFED Science - Science Boards, Expert Panels, and Collaboration | \$100 |
| | IEP - Interagency Ecological Program | \$782 |
| | CALFED Science - Data Analysis and Critical Unknowns | \$100 |
| | Water Quality | \$1,608 |
| | Source Control | \$767 |
| | Control Runoff into Conveyances | \$841 |
| <hr/> | | |
| Wildlife Conservation Board | | Subtotal: \$1,057 |
| | Ecosystem Restoration | \$1,057 |
| | Ecosystem Restoration - Research | \$1,057 |
| <hr/> | | |
| | | Year 1 Subtotal: \$401,233 |
| <hr/> | | |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 2 Amount:* |
|--|---|---------------------------|
| CALFED Bay Delta Program (Resources Agency) | | Subtotal: \$15,636 |
| | Coordination and Science | \$8,505 |
| | CALFED Science - Communication | \$24 |
| | CALFED Science - Performance Measures and Assessment | \$268 |
| | CALFED Science - Science Boards, Expert Panels, and Collaboration | \$93 |
| | Oversight & Coordination - Water Management Strategy | \$733 |
| | Oversight & Coordination - Regional Coordination | \$327 |
| | Oversight & Coordination - Human Resources and Staff Support | \$1,294 |
| | Oversight & Coordination - Contracts/Fiscal | \$730 |
| | Oversight & Coordination - Program Wide Performance and Tracking | \$1,035 |
| | Oversight & Coordination - Public Affairs Public Involvement | \$117 |
| | Oversight & Coordination - Legal | \$540 |
| | Oversight & Coordination - Finance Plan | \$137 |
| | Oversight & Coordination - Environmental Compliance | \$296 |
| | Oversight & Coordination - Executive | \$1,091 |
| | CALFED Science - Data Analysis and Critical Unknowns | \$1,114 |
| | CALFED Science - Oversight & Coordination | \$303 |
| | Oversight & Coordination - Information Technology/Data Management | \$305 |
| | Oversight & Coordination - BDPAC Staff and Support | \$98 |
| | Ecosystem Restoration | \$2,637 |
| | Ecosystem Restoration - Oversight & Coordination | \$767 |
| | Watershed - Program Management and Oversight | \$1,870 |
| | Levees | \$222 |
| | Levee System Integrity - Oversight & Coordination | \$222 |
| | Water Quality | \$846 |
| | Program Management & Oversight | \$344 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 2 Amount:* |
|--|--|--------------------------|
| | San Joaquin Valley Agricultural Drainage | \$158 |
| | Source Control | \$344 |
| | Water Supply Reliability | \$3,426 |
| | Conservation - Science & Monitoring | \$862 |
| | Water Transfers - Program Oversight and Coordination | \$52 |
| | Water Transfers - Increase Availability of Market Information to Stakeholder and Permitting Agencies | \$52 |
| | Conservation - Urban Grants | \$260 |
| | Conservation - Urban Certifications | \$191 |
| | Environmental Water Account - Oversight & Coordination | \$191 |
| | Groundwater Storage & Other - Oversight & Coordination | \$387 |
| | Recycling - Water Measurement | \$191 |
| | Conservation - Oversight & Coordination | \$574 |
| | Conservation - Quantifiable Objectives | \$97 |
| | Conservation - Agricultural Grants | \$260 |
| | Conveyance - Oversight, Coordination & Science | \$311 |
| California Department of Forestry and Fire Protection | | Subtotal: \$1,326 |
| | Ecosystem Restoration | \$1,326 |
| | Watershed - Information Development and Management | \$1,326 |
| Department of Conservation | | Subtotal: \$66 |
| | Coordination and Science | \$66 |
| | Oversight & Coordination - Environmental Compliance | \$66 |
| Department of Fish and Game | | Subtotal: \$5,298 |
| | Coordination and Science | \$1,664 |
| | Oversight & Coordination - Environmental Compliance | \$334 |
| | IEP - Interagency Ecological Program | \$1,243 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 2 Amount:* |
|---------------------|--|-----------------|
| | CALFED Science - Data Analysis and Critical Unknowns | \$87 |
| | Ecosystem Restoration | \$2,244 |
| | Ecosystem Restoration - Implementation | \$626 |
| | Watershed - Technical Assistance to Local Programs | \$462 |
| | Ecosystem Restoration - Planning | \$1,156 |
| | Levees | \$322 |
| | Levee System Integrity - Program Management | \$322 |
| | Water Supply Reliability | \$1,068 |
| | Surface Storage - North-of-the-Delta Offstream Storage | \$496 |
| | Conveyance - Through Delta Facility | \$81 |
| | Conveyance - Tracy Fish Test Facility | \$157 |
| | Environmental Water Account - Oversight & Coordination | \$334 |

| | | |
|---|------------------|------------------|
| Department of Water Resources | Subtotal: | \$175,552 |
| Coordination and Science | | \$5,937 |
| Environmental Compliance | | \$243 |
| Interagency Ecological Program | | \$5,694 |
| Ecosystem Restoration | | \$7,469 |
| Fish Passage Improvements Program | | \$1,435 |
| Four Pumps Delta Fish Agreement | | \$4,627 |
| CVPIA State Cost Share | | \$1,407 |
| Levees | | \$10,629 |
| Research, Special Studies, and Program Management | | \$2,465 |
| Delta Levees Subventions and Special Projects | | \$8,164 |
| Water Quality | | \$209 |
| Delta water quality modeling | | \$69 |
| Data analysis and Delta computer modeling support | | \$140 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 2 Amount:* |
|----------------------------|--|------------------------|
| | Water Supply Reliability | \$151,308 |
| | Groundwater Storage Program Grants and Loans | \$93,249 |
| | Common Assumptions/Water Management Strategy/Oversight & Coordination | \$113 |
| | Delta Mendota Canal / California Aqueduct Intertie | \$6 |
| | Shasta Lake Enlargement | \$52 |
| | San Luis Reservoir Low Point Improvement Project | \$4,818 |
| | Lower San Joaquin Flood Improvements | \$72 |
| | In-Delta Storage Investigations | \$2,097 |
| | Lower Transaction Costs Through Permit Streamlining | \$75 |
| | Agricultural Grants | \$705 |
| | Urban Technical Assistance | \$2,366 |
| | Groundwater Recharge Local Assistance | \$5,000 |
| | Upper San Joaquin River Storage Investigations | \$229 |
| | Agricultural Technical Assistance | \$1,005 |
| | Increase Availability of Market Information to Stakeholder and Permitting Agencies | \$35 |
| | Increase Availability of Existing Facilities for Water Transfers | \$40 |
| | North Delta Flood Control & Ecosystem Restoration Improvement Program | \$880 |
| | Water & Power Acquisitions | \$540 |
| | North-of-the-Delta Offstream Storage | \$4,520 |
| | Tracy Fish Test Facility | \$20,600 |
| | Delta Cross-Channel and Through Delta Facility | \$1,014 |
| | South Delta Improvements Program | \$3,403 |
| | Environmental Documentation | \$25 |
| | Oversight, Coordination & Science | \$15 |
| | Urban Grants | \$8,874 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 2 Amount:* |
|--|--|----------------------------|
| | Los Vaqueros Reservoir Expansion | \$1,575 |
| National Marine Fisheries Service | | Subtotal: \$475 |
| | Coordination and Science | \$225 |
| | IEP - Interagency Ecological Program | \$75 |
| | Oversight & Coordination - Executive | \$150 |
| | Ecosystem Restoration | \$150 |
| | Ecosystem Restoration - Planning | \$150 |
| | Water Supply Reliability | \$100 |
| | Environmental Water Account - Oversight & Coordination | \$100 |
| Resources Agency | | Subtotal: \$108,710 |
| | Ecosystem Restoration | \$92,434 |
| | Ecosystem Restoration - Oversight & Coordination | \$4,156 |
| | Ecosystem Restoration - Planning | \$4,974 |
| | Ecosystem Restoration - Implementation | \$79,030 |
| | Ecosystem Restoration - Monitoring | \$2,998 |
| | Ecosystem Restoration - Research | \$1,276 |
| | Water Supply Reliability | \$16,276 |
| | Environmental Water Account - Water & Power Acquisitions | \$16,276 |
| San Francisco Bay Conservation and Development Commission | | Subtotal: \$224 |
| | Coordination and Science | \$136 |
| | Oversight & Coordination - Environmental Compliance | \$136 |
| | Levees | \$88 |
| | Levee System Integrity - Program Management | \$29 |
| | Levee System Integrity - Subventions | \$29 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 2 Amount:* |
|--|--|---------------------------|
| | Levee System Integrity - Beneficial Reuse | \$30 |
| State Lands Commission | | Subtotal: \$90 |
| | Coordination and Science | \$90 |
| | Oversight & Coordination - Environmental Compliance | \$90 |
| State Water Resources Control Board | | Subtotal: \$16,001 |
| | Coordination and Science | \$740 |
| | Oversight & Coordination - Environmental Compliance | \$740 |
| | Ecosystem Restoration | \$7,670 |
| | Project Management and Oversight | \$63 |
| | Watershed - Financial Assistance to Local Programs | \$7,607 |
| | Levees | \$124 |
| | Levee System Integrity - Beneficial Reuse | \$124 |
| | Water Quality | \$7,276 |
| | Project Management and Oversight | \$77 |
| | Source Control | \$7,199 |
| | Water Supply Reliability | \$191 |
| | Water Transfers - Lower Transaction Costs Through Permit Streamlining | \$48 |
| | Water Transfers - Increase Availability of Market Information to Stakeholder and Permitting Agencies | \$48 |
| | Project Management and Oversight | \$47 |
| | Water Transfers - Increase Availability of Existing Facilities for Water Transfers | \$48 |
| U S Army Corps of Engineers | | Subtotal: \$2,681 |
| | Coordination and Science | \$238 |
| | Oversight & Coordination - Executive | \$238 |
| | Ecosystem Restoration | \$2,438 |
| | Ecosystem Restoration - Research | \$822 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 2 Amount:* |
|----------------------------------|--|---------------------------|
| | Ecosystem Restoration - Implementation | \$1,616 |
| | Levees | \$5 |
| | Levee System Integrity - Special Projects | \$5 |
| U S Bureau of Reclamation | | Subtotal: \$91,554 |
| | Coordination and Science | \$7,463 |
| | CALFED Science - Oversight & Coordination | \$1,200 |
| | Oversight & Coordination - Public Affairs Public Involvement | \$200 |
| | Oversight & Coordination - Executive | \$1,053 |
| | IEP - Interagency Ecological Program | \$3,962 |
| | Oversight & Coordination - Program Wide Performance and Tracking | \$100 |
| | Oversight & Coordination - BDPAC Staff and Support | \$5 |
| | Oversight & Coordination - Contracts/Fiscal | \$943 |
| | Ecosystem Restoration | \$36,201 |
| | Ecosystem Restoration - Implementation | \$36,201 |
| | Levees | \$46 |
| | Levee System Integrity - Oversight & Coordination | \$46 |
| | Water Supply Reliability | \$47,844 |
| | Mont, Permit, Coord & Spec Support Programs | \$59 |
| | Conveyance - North Delta Flood Control & Ecosystem Restoration Improvement Program | \$1,459 |
| | Conveyance - Delta Mendota Canal / California Aqueduct Intertie | \$208 |
| | Conveyance - Delta Cross Channel Re-operation | \$150 |
| | Conveyance - SCVWD Operational Appraisal Studies | \$94 |
| | Groundwater Storage & Other - Oversight & Coordination | \$470 |
| | Recycling - Water Recycling Grants | \$14,308 |
| | Yield Feasibility Investigation | \$1,473 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 2 Amount:* |
|--|--|--------------------------|
| | Conservation - Agricultural Grants | \$929 |
| | Environmental Water Account - Water & Power Acquisitions | \$12,888 |
| | Surface Storage - North-of-the-Delta Offstream Storage | \$832 |
| | Water Transfers - Increase Availability of Market Information to Stakeholder and Permitting Agencies | \$149 |
| | Surface Storage - Shasta Lake Enlargement | \$1,775 |
| | Conveyance - Tracy Fish Facilities Monitoring Program | \$525 |
| | Surface Storage - Upper San Joaquin River Storage Investigations | \$2,656 |
| | Conveyance - Tracy Fish Test Facility | \$4,766 |
| | Conservation - Urban Grants | \$929 |
| | Surface Storage - Los Vaqueros Reservoir Expansion | \$4,174 |
| U S Environmental Protection Agency | | Subtotal: \$20 |
| | Coordination and Science | \$20 |
| | IEP - Interagency Ecological Program | \$20 |
| U S Fish and Wildlife Service | | Subtotal: \$1,523 |
| | Coordination and Science | \$231 |
| | IEP - Interagency Ecological Program | \$231 |
| | Ecosystem Restoration | \$1,292 |
| | Ecosystem Restoration - Planning | \$1,292 |
| U S Geological Survey | | Subtotal: \$1,965 |
| | Coordination and Science | \$1,505 |
| | IEP - Interagency Ecological Program | \$782 |
| | CALFED Science - Oversight & Coordination | \$723 |
| | Water Quality | \$460 |
| | Source Control | \$460 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 2 Amount:* |
|------------------------------------|----------------------------------|----------------------|
| Wildlife Conservation Board | | Subtotal: \$1 |
| | Ecosystem Restoration | \$1 |
| | Ecosystem Restoration - Research | \$1 |
| Year 2 Subtotal: | | \$421,122 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 3 Amount:* |
|--|---|-----------------|
| CALFED Bay Delta Program (Resources Agency) | Coordination and Science | \$10,802 |
| | Oversight & Coordination - Program Wide Performance and Tracking | \$343 |
| | Oversight & Coordination - Regional Coordination | \$165 |
| | Oversight & Coordination - Public Affairs Public Involvement | \$124 |
| | Oversight & Coordination - Legal | \$849 |
| | Oversight & Coordination - Water Management Strategy | \$593 |
| | CALFED Science - Oversight & Coordination | \$339 |
| | Oversight & Coordination - Environmental Compliance | \$88 |
| | Oversight & Coordination - Human Resources and Staff Support | \$2,159 |
| | Oversight & Coordination - Contracts/Fiscal | \$1,059 |
| | CALFED Science - Data Analysis and Critical Unknowns | \$1,334 |
| | Oversight & Coordination - Environmental Justice | \$1,496 |
| | Oversight & Coordination - Information Technology/Data Management | \$1,232 |
| | Oversight & Coordination - Executive | \$818 |
| | Oversight & Coordination - BDPAC Staff and Support | \$203 |
| | Ecosystem Restoration | \$14,004 |
| | Ecosystem Restoration - Oversight & Coordination | \$383 |
| | Watershed - Financial Assistance to Local Programs | \$13,348 |
| | Watershed - Program Management and Oversight | \$273 |
| | Levees | \$310 |
| | Levee System Integrity - Oversight & Coordination | \$310 |
| | Water Quality | \$572 |
| | Program Management & Oversight | \$572 |
| | Water Supply Reliability | \$2,442 |
| | Conveyance - Through Delta Facility | \$134 |
| | Subtotal: | \$28,130 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 3 Amount:* |
|--|--|--------------------------|
| | Conveyance - Oversight, Coordination & Science | \$69 |
| | Conservation - Science & Monitoring | \$542 |
| | Groundwater Storage & Other - Oversight & Coordination | \$906 |
| | Conservation - Quantifiable Objectives | \$60 |
| | Conservation - Urban Certifications | \$120 |
| | Recycling - Water Measurement | \$120 |
| | Conveyance - Delta Cross Channel Re-operation | \$134 |
| | Conservation - Oversight & Coordination | \$357 |
| <hr/> | | |
| California Department of Forestry and Fire Protection | | Subtotal: \$86 |
| | Ecosystem Restoration | \$86 |
| | Watershed - Information Development and Management | \$86 |
| <hr/> | | |
| Department of Conservation | | Subtotal: \$96 |
| | Coordination and Science | \$96 |
| | Oversight & Coordination - Environmental Compliance | \$96 |
| <hr/> | | |
| Department of Fish and Game | | Subtotal: \$4,504 |
| | Coordination and Science | \$1,805 |
| | IEP - Interagency Ecological Program | \$1,538 |
| | Oversight & Coordination - Environmental Compliance | \$137 |
| | CALFED Science - Data Analysis and Critical Unknowns | \$130 |
| | Ecosystem Restoration | \$2,005 |
| | Ecosystem Restoration - Planning | \$1,967 |
| | Watershed - Technical Assistance to Local Programs | \$38 |
| | Levees | \$24 |
| | Levee System Integrity - Program Management | \$24 |
| | Water Supply Reliability | \$670 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 3 Amount:* |
|--------------------------------------|---|---------------------------|
| | Conveyance - Tracy Fish Test Facility | \$131 |
| | Surface Storage - North-of-the-Delta Offstream Storage | \$304 |
| | Conveyance - 8,500 cfs - Permanent Operable Barriers | \$32 |
| | Environmental Water Account - Oversight & Coordination | \$139 |
| | Conveyance - Oversight, Coordination & Science | \$32 |
| | Conveyance - Clifton Court Fish Screens / 10,300 cfs | \$32 |
| Department of Water Resources | | Subtotal: \$65,225 |
| | Coordination and Science | \$7,329 |
| | Data Analysis and Critical Unknowns | \$149 |
| | Interagency Ecological Program | \$6,946 |
| | Environmental Compliance | \$234 |
| | Ecosystem Restoration | \$6,373 |
| | CVPIA State Cost Share | \$1,376 |
| | Four Pumps Delta Fish Agreement | \$2,120 |
| | Program Management and Oversight | \$120 |
| | Fish Passage Improvements Program | \$1,667 |
| | Technical Assistance to Local Programs | \$1,090 |
| | Levees | \$3,414 |
| | Research, Special Studies, and Program Management | \$502 |
| | Delta Levees Subventions and Special Projects | \$2,912 |
| | Water Quality | \$130 |
| | Data analysis and Delta computer modeling support | \$65 |
| | Delta water quality modeling | \$65 |
| | Water Supply Reliability | \$47,979 |
| | North Delta Flood Control & Ecosystem Restoration Improvement Program | \$1,304 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 3 Amount:* |
|---------------------|--|-----------------|
| | Increase Availability of Existing Facilities for Water Transfers | \$65 |
| | Urban Grants | \$18,152 |
| | Delta Cross-Channel and Through Delta Facility | \$348 |
| | Increase Availability of Market Information to Stakeholder and Permitting Agencies | \$80 |
| | Urban Grants Administration | \$615 |
| | Lower Transaction Costs Through Permit Streamlining | \$129 |
| | In-Delta Storage Investigations | \$1,495 |
| | Los Vaqueros Reservoir Expansion | \$1,133 |
| | Lower San Joaquin Flood Improvements | \$108 |
| | Delta Mendota Canal / California Aqueduct Intertie | \$6 |
| | Upper San Joaquin River Storage Investigations | \$273 |
| | South Delta Improvements Program | \$8,868 |
| | Urban Technical Assistance | \$1,023 |
| | Agricultural Grants | \$43 |
| | Groundwater Storage Program Grants and Loans | \$3,974 |
| | Program Oversight and Coordination | \$30 |
| | Common Assumptions/Water Management Strategy/Oversight & Coordination | \$35 |
| | Oversight, Coordination & Science | \$81 |
| | Water Supply Reliability | \$1,537 |
| | Agricultural Technical Assistance | \$1,060 |
| | San Luis Reservoir Low Point Improvement Project | \$2,379 |
| | Water & Power Acquisitions | \$303 |
| | Environmental Documentation | \$241 |
| | North-of-the-Delta Offstream Storage | \$3,949 |
| | Shasta Lake Enlargement | \$74 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 3 Amount:* |
|--|--|----------------------------|
| | Agricultural Grants Administration | \$674 |
| National Marine Fisheries Service | | Subtotal: \$675 |
| | Coordination and Science | \$225 |
| | IEP - Interagency Ecological Program | \$75 |
| | Oversight & Coordination - Executive | \$150 |
| | Ecosystem Restoration | \$300 |
| | Ecosystem Restoration - Planning | \$300 |
| | Water Supply Reliability | \$150 |
| | Environmental Water Account - Oversight & Coordination | \$150 |
| Resources Agency | | Subtotal: \$168,019 |
| | Ecosystem Restoration | \$129,786 |
| | Ecosystem Restoration - Monitoring | \$4,209 |
| | Ecosystem Restoration - Research | \$1,791 |
| | Ecosystem Restoration - Implementation | \$110,966 |
| | Ecosystem Restoration - Oversight & Coordination | \$5,836 |
| | Ecosystem Restoration - Planning | \$6,984 |
| | Water Supply Reliability | \$38,233 |
| | Environmental Water Account - Water & Power Acquisitions | \$38,233 |
| San Francisco Bay Conservation and Development Commission | | Subtotal: \$88 |
| | Coordination and Science | \$88 |
| | Oversight & Coordination - Environmental Compliance | \$88 |
| State Water Resources Control Board | | Subtotal: \$16,684 |
| | Ecosystem Restoration | \$7,630 |
| | Project Management and Oversight | \$80 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 3 Amount:* |
|------------------------------------|--|---------------------------|
| | Watershed - Financial Assistance to Local Programs | \$7,550 |
| | Water Quality | \$446 |
| | Source Control | \$350 |
| | Project Management and Oversight | \$96 |
| | Water Supply Reliability | \$8,608 |
| | Recycling - Water Recycling Grants | \$8,425 |
| | Project Management and Oversight | \$39 |
| | Water Transfers - Lower Transaction Costs Through Permit Streamlining | \$48 |
| | Water Transfers - Increase Availability of Market Information to Stakeholder and Permitting Agencies | \$48 |
| | Water Transfers - Program Management and Oversight | \$48 |
| <hr/> | | |
| U S Army Corps of Engineers | | Subtotal: \$3,201 |
| | Coordination and Science | \$75 |
| | Oversight & Coordination - Executive | \$75 |
| | Ecosystem Restoration | \$2,858 |
| | Ecosystem Restoration - Research | \$1,066 |
| | Ecosystem Restoration - Implementation | \$1,792 |
| | Levees | \$268 |
| | Levee System Integrity - Special Projects | \$268 |
| <hr/> | | |
| U S Bureau of Reclamation | | Subtotal: \$62,111 |
| | Coordination and Science | \$4,492 |
| | Oversight & Coordination - Program Wide Performance and Tracking | \$125 |
| | Oversight & Coordination - Contracts/Fiscal | \$200 |
| | IEP - Interagency Ecological Program | \$3,468 |
| | Oversight & Coordination - Public Affairs Public Involvement | \$130 |
| | Oversight & Coordination - Executive | \$565 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 3 Amount:* |
|--|--|-----------------------|
| | Oversight & Coordination - BDPAC Staff and Support | \$4 |
| | Ecosystem Restoration | \$25,714 |
| | Ecosystem Restoration - Implementation | \$25,714 |
| | Water Supply Reliability | \$31,905 |
| | Water Transfers | (\$5) |
| | Environmental Water Account - Water & Power Acquisitions | \$2,539 |
| | Surface Storage - Upper San Joaquin River Storage Investigations | \$1,746 |
| | Mont, Permit, Coord & Spec Support Programs | (\$27) |
| | Conveyance - Tracy Fish Facilities Monitoring Program | \$1,783 |
| | Conservation - Urban Grants | \$720 |
| | Conveyance - SCVWD Operational Appraisal Studies | \$6 |
| | Conveyance - Tracy Fish Test Facility | \$4,042 |
| | Groundwater Storage & Other - Oversight & Coordination | \$302 |
| | Conveyance - Delta Mendota Canal / California Aqueduct Intertie | \$1,025 |
| | Desalination - Desalination implementation/grants | \$1,193 |
| | Yield Feasibility Investigation | \$867 |
| | Surface Storage - In-Delta Storage Investigations | \$158 |
| | Surface Storage - Los Vaqueros Reservoir Expansion | \$1,990 |
| | Surface Storage - Shasta Lake Enlargement | \$2,002 |
| | Surface Storage - North-of-the-Delta Offstream Storage | \$756 |
| | Conveyance - North Delta Flood Control & Ecosystem Restoration Improvement Program | \$1 |
| | Conservation - Agricultural Grants | \$720 |
| | Recycling - Water Recycling Grants | \$12,087 |
| <hr/> U S Environmental Protection Agency | | Subtotal: \$40 |
| | Coordination and Science | \$40 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 3 Amount:* |
|--------------------------------------|---|--------------------------|
| | IEP - Interagency Ecological Program | \$40 |
| U S Fish and Wildlife Service | | Subtotal: \$1,523 |
| | Coordination and Science | \$231 |
| | IEP - Interagency Ecological Program | \$231 |
| | Ecosystem Restoration | \$1,292 |
| | Ecosystem Restoration - Planning | \$1,292 |
| U S Geological Survey | | Subtotal: \$1,493 |
| | Coordination and Science | \$1,493 |
| | IEP - Interagency Ecological Program | \$770 |
| | CALFED Science - Oversight & Coordination | \$723 |
| Wildlife Conservation Board | | Subtotal: \$1,930 |
| | Ecosystem Restoration | \$1,930 |
| | Ecosystem Restoration - Research | \$1,930 |
| Year 3 Subtotal: | | \$353,805 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 4 Amount:* |
|--|---|---------------------------|
| CALFED Bay Delta Program (Resources Agency) | | Subtotal: \$39,280 |
| | Coordination and Science | \$7,144 |
| | CALFED Science - Science Boards, Expert Panels, and Collaboration | \$354 |
| | Oversight & Coordination - Information Technology/Data Management | \$470 |
| | Oversight & Coordination - Human Resources and Staff Support | \$860 |
| | Oversight & Coordination - Legal | \$1,255 |
| | Oversight & Coordination - BDPAC Staff and Support | \$150 |
| | Oversight & Coordination - Public Affairs Public Involvement | \$449 |
| | Oversight & Coordination - Finance Plan | \$500 |
| | CALFED Science - Oversight & Coordination | \$263 |
| | Oversight & Coordination - Contracts/Fiscal | \$1,094 |
| | Oversight & Coordination - Water Management Strategy | \$100 |
| | CALFED Science - Communication | \$263 |
| | Oversight & Coordination - Environmental Justice | \$83 |
| | Oversight & Coordination - Executive | \$1,147 |
| | Oversight & Coordination - Regional Coordination | \$156 |
| | Ecosystem Restoration | \$30,034 |
| | Ecosystem Restoration - Oversight & Coordination | \$12,009 |
| | Ecosystem Restoration - Planning | \$4,186 |
| | Ecosystem Restoration - Implementation | \$6,385 |
| | Ecosystem Restoration - Monitoring | \$647 |
| | Watershed - Program Management and Oversight | \$974 |
| | Watershed - Financial Assistance to Local Programs | \$3,000 |
| | Ecosystem Restoration - Research | \$2,833 |
| | Water Quality | \$312 |
| | Program Management & Oversight | \$312 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 4 Amount:* |
|--|--|--------------------------|
| | Water Supply Reliability | \$1,790 |
| | Conveyance - North Delta Flood Control & Ecosystem Restoration Improvement Program | \$211 |
| | Environmental Water Account - Oversight & Coordination | \$53 |
| | Conservation - Science & Monitoring | \$42 |
| | Recycling - Oversight & Coordination | \$335 |
| | Conveyance - Delta Cross Channel Re-operation | \$237 |
| | Groundwater Storage & Other - Oversight & Coordination | \$340 |
| | Conveyance - Oversight & Coordination | \$6 |
| | Conveyance - Oversight, Coordination & Science | \$566 |
| California Department of Forestry and Fire Protection | | Subtotal: \$196 |
| | Ecosystem Restoration | \$196 |
| | Watershed - Information Development and Management | \$196 |
| Department of Conservation | | Subtotal: \$96 |
| | Coordination and Science | \$96 |
| | Oversight & Coordination - Environmental Compliance | \$96 |
| Department of Fish and Game | | Subtotal: \$4,107 |
| | Coordination and Science | \$1,543 |
| | CALFED Science - Data Analysis and Critical Unknowns | \$80 |
| | Unassigned funds - Unassigned funds | \$463 |
| | IEP - Interagency Ecological Program | \$846 |
| | Oversight & Coordination - Environmental Compliance | \$154 |
| | Ecosystem Restoration | \$1,871 |
| | Ecosystem Restoration - Planning | \$634 |
| | Ecosystem Restoration - Implementation | \$942 |
| | Ecosystem Restoration - Unassigned funds | \$295 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 4 Amount:* |
|--------------------------------------|--|----------------------------|
| | Water Supply Reliability | \$693 |
| | Conveyance - Tracy Fish Test Facility | \$82 |
| | Environmental Water Account - Oversight & Coordination | \$154 |
| | Environmental Water Account - Water & Power Acquisitions | \$154 |
| | Surface Storage - North-of-the-Delta Offstream Storage | \$303 |
| <hr/> | | |
| Department of Water Resources | | Subtotal: \$174,079 |
| | Coordination and Science | \$11,427 |
| | Interagency Ecological Program | \$5,421 |
| | Environmental Compliance | \$249 |
| | Data Analysis and Critical Unknowns | \$5,757 |
| | Ecosystem Restoration | \$16,233 |
| | Fish Passage Improvements Program | \$863 |
| | Technical Assistance to Local Programs | \$1,833 |
| | Four Pumps Delta Fish Agreement | \$2,109 |
| | Ecosystem Water Quality - Dissolved Oxygen & Abandoned Mines | \$10,016 |
| | CVPIA State Cost Share | \$1,412 |
| | Levees | \$20,318 |
| | Research, Special Studies, and Program Management | \$3,502 |
| | Delta Levees Subventions and Special Projects | \$16,816 |
| | Water Quality | \$1,625 |
| | Source Control | \$1,467 |
| | Data analysis and Delta computer modeling support | \$158 |
| | Water Supply Reliability | \$124,476 |
| | In-Delta Storage Investigations | \$1,600 |
| | Lower Transaction Costs Through Permit Streamlining | \$100 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 4 Amount:* |
|---------------------|--|-----------------|
| | South Delta Improvements Program | \$7,202 |
| | Delta Fish Facility Improvements Project | \$3,780 |
| | Delta Cross-Channel and Through Delta Facility | \$1,124 |
| | Los Vaqueros Reservoir Expansion | \$5,700 |
| | North Delta Flood Control & Ecosystem Restoration Improvement Program | \$463 |
| | Water Supply Reliability | \$8,285 |
| | Groundwater Recharge Local Assistance | \$8,700 |
| | Water & Power Acquisitions | \$17,222 |
| | Urban Technical Assistance | \$1,024 |
| | Urban Grants Administration | \$515 |
| | Increase Availability of Market Information to Stakeholder and Permitting Agencies | \$35 |
| | Increase Availability of Existing Facilities for Water Transfers | \$200 |
| | Upper San Joaquin River Storage Investigations | \$964 |
| | Water Use Efficiency Grants and Loans | \$29,047 |
| | Common Assumptions/Water Management Strategy/Oversight & Coordination | \$1,120 |
| | North-of-the-Delta Offstream Storage | \$5,839 |
| | Shasta Lake Enlargement | \$40 |
| | Program Oversight and Coordination | \$32 |
| | Tracy Fish Test Facility | \$4,656 |
| | Environmental Documentation | \$200 |
| | Science & Monitoring | \$26 |
| | Agricultural Grants Administration | \$455 |
| | Desalination implementation/grants | \$25,000 |
| | Oversight, Coordination & Science | \$102 |
| | Desalination administration & Staff | \$17 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 4 Amount:* |
|--|--|---------------------------|
| | Agricultural Technical Assistance | \$1,028 |
| National Marine Fisheries Service | | Subtotal: \$675 |
| | Coordination and Science | \$225 |
| | IEP - Interagency Ecological Program | \$75 |
| | Oversight & Coordination - Executive | \$150 |
| | Ecosystem Restoration | \$300 |
| | Ecosystem Restoration - Planning | \$300 |
| | Water Supply Reliability | \$150 |
| | Environmental Water Account - Oversight & Coordination | \$150 |
| Resources Agency | | Subtotal: \$33,509 |
| | Ecosystem Restoration | \$33,509 |
| | Ecosystem Restoration - Monitoring | \$1,087 |
| | Ecosystem Restoration - Research | \$462 |
| | Ecosystem Restoration - Planning | \$1,803 |
| | Ecosystem Restoration - Implementation | \$28,650 |
| | Ecosystem Restoration - Oversight & Coordination | \$1,507 |
| San Francisco Bay Conservation and Development Commission | | Subtotal: \$88 |
| | Coordination and Science | \$88 |
| | Oversight & Coordination - Environmental Compliance | \$88 |
| State Water Resources Control Board | | Subtotal: \$85,126 |
| | Ecosystem Restoration | \$14,872 |
| | Watershed - Financial Assistance to Local Programs | \$14,503 |
| | Watershed - Program Management and Oversight | \$369 |
| | Water Quality | \$28,082 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 4 Amount:* |
|------------------------------------|--|---------------------------|
| | Source Control | \$27,649 |
| | Project Management and Oversight | \$433 |
| | Water Supply Reliability | \$42,172 |
| | Water Transfers - Lower Transaction Costs Through Permit Streamlining | \$48 |
| | Recycling - Water Recycling Grants | \$41,877 |
| | Water Transfers - Program Management and Oversight | \$48 |
| | Project Management and Oversight | \$151 |
| | Water Transfers - Increase Availability of Market Information to Stakeholder and Permitting Agencies | \$48 |
| <hr/> | | |
| U S Army Corps of Engineers | | Subtotal: \$2,145 |
| | Coordination and Science | \$110 |
| | IEP - Interagency Ecological Program | \$10 |
| | Oversight & Coordination - Executive | \$100 |
| | Ecosystem Restoration | \$1,823 |
| | Ecosystem Restoration - Implementation | \$1,145 |
| | Ecosystem Restoration - Research | \$678 |
| | Levees | \$212 |
| | Levee System Integrity - Special Projects | \$212 |
| <hr/> | | |
| U S Bureau of Reclamation | | Subtotal: \$64,477 |
| | Coordination and Science | \$4,440 |
| | IEP - Interagency Ecological Program | \$3,896 |
| | Oversight & Coordination - Program Wide Performance and Tracking | \$454 |
| | Oversight & Coordination - Executive | \$90 |
| | Ecosystem Restoration | \$26,908 |
| | Ecosystem Restoration - Implementation | \$26,908 |
| | Water Quality | \$350 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 4 Amount:* |
|--|--|--------------------------|
| | Unassigned funds | \$350 |
| | Water Supply Reliability | \$32,779 |
| | Conveyance - Delta Mendota Canal / California Aqueduct Intertie | \$993 |
| | Surface Storage - Los Vaqueros Reservoir Expansion | \$1,143 |
| | Surface Storage - North-of-the-Delta Offstream Storage | \$1,140 |
| | Groundwater Storage & Other - Oversight & Coordination | \$469 |
| | Surface Storage - Shasta Lake Enlargement | \$733 |
| | Mont, Permit, Coord & Spec Support Programs | (\$21) |
| | Conveyance - North Delta Flood Control & Ecosystem Restoration Improvement Program | \$1 |
| | Recycling - Water Recycling Grants | \$17,495 |
| | Conservation - Urban Grants | \$1,334 |
| | Conservation - Agricultural Grants | \$1,333 |
| | Conveyance - Tracy Fish Test Facility | (\$13) |
| | In-Delta Storage Investigations | (\$2) |
| | Environmental Water Account - Water & Power Acquisitions | \$2,095 |
| | Admin of Categories | \$632 |
| | Conveyance - Tracy Fish Facilities Monitoring Program | \$2,649 |
| | Tech Assistance to State | \$628 |
| | Yield Feasibility Investigation | \$858 |
| | Surface Storage - Upper San Joaquin River Storage Investigations | \$1,312 |
| U S Environmental Protection Agency | | Subtotal: \$20 |
| | Coordination and Science | \$20 |
| | IEP - Interagency Ecological Program | \$20 |
| U S Fish and Wildlife Service | | Subtotal: \$1,559 |
| | Coordination and Science | \$288 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 4 Amount:* |
|------------------------------------|---|-----------------------------------|
| | IEP - Interagency Ecological Program | \$288 |
| | Ecosystem Restoration | \$1,271 |
| | Ecosystem Restoration - Planning | \$1,271 |
| <hr/> | | |
| U S Geological Survey | | Subtotal: \$1,345 |
| | Coordination and Science | \$1,345 |
| | CALFED Science - Oversight & Coordination | \$723 |
| | IEP - Interagency Ecological Program | \$622 |
| <hr/> | | |
| Wildlife Conservation Board | | Subtotal: (\$19) |
| | Ecosystem Restoration | (\$19) |
| | Ecosystem Restoration - Research | (\$19) |
| <hr/> | | |
| | | Year 4 Subtotal: \$406,683 |
| <hr/> | | |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 5 Amount:* |
|--|---|---------------------------|
| CALFED Bay Delta Program (Resources Agency) | | Subtotal: \$28,386 |
| | Coordination and Science | \$8,501 |
| | CALFED Science - Oversight & Coordination | \$1,298 |
| | Oversight & Coordination - Contracts/Fiscal | \$1,396 |
| | Oversight & Coordination - Regional Coordination | \$187 |
| | Oversight & Coordination - Tribal Relations/Projects | \$1 |
| | Oversight & Coordination - Legal | \$1,261 |
| | Oversight & Coordination - Finance Plan | \$203 |
| | Oversight & Coordination - Information Technology/Data Management | \$650 |
| | Oversight & Coordination - Human Resources and Staff Support | \$999 |
| | Oversight & Coordination - Executive | \$1,806 |
| | Oversight & Coordination - Environmental Justice | \$226 |
| | Oversight & Coordination - Public Affairs Public Involvement | \$265 |
| | Oversight & Coordination - BDPAC Staff and Support | \$209 |
| | Ecosystem Restoration | \$19,033 |
| | Ecosystem Restoration - Implementation | \$14,624 |
| | Ecosystem Restoration - Planning | \$457 |
| | Watershed - Education and Outreach to Local Communities | \$1,299 |
| | Watershed - Program Management and Oversight | \$113 |
| | Ecosystem Restoration - Monitoring | \$36 |
| | Ecosystem Restoration - Research | \$2,269 |
| | Ecosystem Restoration - Oversight & Coordination | \$235 |
| | Water Quality | \$131 |
| | Program Management & Oversight | \$131 |
| | Water Supply Reliability | \$721 |
| | Conservation - Oversight & Coordination | \$70 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 5 Amount:* |
|--|--|----------------------------|
| | Groundwater Storage & Other - Oversight & Coordination | \$143 |
| | Conveyance - Oversight, Coordination & Science | \$508 |
| California Department of Forestry and Fire Protection | | Subtotal: \$239 |
| | Ecosystem Restoration | \$239 |
| | Watershed - Information Development and Management | \$239 |
| Department of Conservation | | Subtotal: \$3,326 |
| | Coordination and Science | \$96 |
| | Oversight & Coordination - Environmental Compliance | \$96 |
| | Ecosystem Restoration | \$3,230 |
| | Watershed - Financial Assistance to Local Programs | \$3,230 |
| Department of Fish and Game | | Subtotal: \$4,466 |
| | Coordination and Science | \$1,044 |
| | IEP - Interagency Ecological Program | \$414 |
| | Oversight & Coordination - Environmental Compliance | \$167 |
| | Unassigned funds - Unassigned funds | \$463 |
| | Ecosystem Restoration | \$2,840 |
| | Ecosystem Restoration - Unassigned funds | \$143 |
| | Ecosystem Restoration - Implementation | \$2,110 |
| | Ecosystem Restoration - Planning | \$587 |
| | Water Supply Reliability | \$582 |
| | Surface Storage - North-of-the-Delta Offstream Storage | \$346 |
| | Environmental Water Account - Water & Power Acquisitions | \$170 |
| | Conveyance - Tracy Fish Test Facility | \$36 |
| | Conveyance - Through Delta Facility | \$30 |
| Department of Water Resources | | Subtotal: \$190,870 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 5 Amount:* |
|----------------------------|--|------------------------|
| | Coordination and Science | \$7,934 |
| | Data Analysis and Critical Unknowns | \$374 |
| | Environmental Compliance | \$281 |
| | Interagency Ecological Program | \$7,279 |
| | Ecosystem Restoration | \$19,311 |
| | Financial Assistance to Local Programs | \$8,953 |
| | Yolo Aquatic Restoration Program | \$979 |
| | Technical Assistance to Local Programs | \$1,668 |
| | Fish Passage Improvements Program | \$1,136 |
| | Four Pumps Delta Fish Agreement | \$2,170 |
| | Ecosystem Water Quality - Dissolved Oxygen & Abandoned Mines | \$2,959 |
| | CVPIA State Cost Share | \$1,446 |
| | Levees | \$19,900 |
| | Delta Levees Subventions and Special Projects | \$15,324 |
| | Research, Special Studies, and Program Management | \$4,576 |
| | Water Quality | \$9,844 |
| | Franks Tract | \$131 |
| | USGS Low Intensity Chemical Dosing Project | \$369 |
| | Data analysis and Delta computer modeling support | \$164 |
| | Delta water quality modeling | \$81 |
| | Source Control | \$224 |
| | Old River & Rock Slough Water Quality Improvement Projects | \$8,875 |
| | Water Supply Reliability | \$133,881 |
| | Water Supply Reliability | \$1,870 |
| | Delta Mendota Canal / California Aqueduct Intertie | \$66 |
| | Increase Availability of Existing Facilities for Water Transfers | \$182 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 5 Amount:* |
|--|--|------------------------|
| | Increase Availability of Market Information to Stakeholder and Permitting Agencies | \$34 |
| | Groundwater Storage Program Grants and Loans | \$77,336 |
| | Common Assumptions/Water Management Strategy/Oversight & Coordination | \$245 |
| | Water Use Efficiency Grants and Loans | \$5,000 |
| | Environmental Documentation | \$244 |
| | Oversight, Coordination & Science | \$101 |
| | Los Vaqueros Reservoir Expansion | \$339 |
| | North Delta Flood Control & Ecosystem Restoration Improvement Program | \$417 |
| | Desalination administration & Staff | \$256 |
| | Upper San Joaquin River Storage Investigations | \$204 |
| | Shasta Lake Enlargement | \$80 |
| | Lower Transaction Costs Through Permit Streamlining | \$91 |
| | Water & Power Acquisitions | \$29,362 |
| | Delta Fish Facility Improvements Project | \$847 |
| | Agricultural Grants Administration | \$305 |
| | North-of-the-Delta Offstream Storage | \$2,558 |
| | South Delta Improvements Program | \$9,079 |
| | In-Delta Storage Investigations | \$1,389 |
| | Delta-Cross Channel and Through Delta Facility | \$1,585 |
| | Agricultural Technical Assistance | \$1,123 |
| | Urban Technical Assistance | \$863 |
| | Urban Grants Administration | \$305 |
| National Marine Fisheries Service | | Subtotal: \$675 |
| | Coordination and Science | \$225 |
| | Oversight & Coordination - Executive | \$150 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 5 Amount:* |
|--|--|---------------------------|
| | IEP - Interagency Ecological Program | \$75 |
| | Ecosystem Restoration | \$300 |
| | Ecosystem Restoration - Planning | \$300 |
| | Water Supply Reliability | \$150 |
| | Environmental Water Account - Oversight & Coordination | \$150 |
| San Francisco Bay Conservation and Development Commission | | Subtotal: \$88 |
| | Coordination and Science | \$88 |
| | Oversight & Coordination - Environmental Compliance | \$88 |
| State Water Resources Control Board | | Subtotal: \$24,313 |
| | Ecosystem Restoration | \$1,853 |
| | Watershed - Financial Assistance to Local Programs | \$1,100 |
| | Watershed - Program Management and Oversight | \$753 |
| | Water Quality | \$602 |
| | Project Management and Oversight | \$361 |
| | Source Control | \$241 |
| | Water Supply Reliability | \$21,858 |
| | Project Management and Oversight | \$460 |
| | Water Transfers - Program Management and Oversight | \$48 |
| | Water Transfers - Lower Transaction Costs Through Permit Streamlining | \$48 |
| | Water Transfers - Increase Availability of Market Information to Stakeholder and Permitting Agencies | \$48 |
| | Recycling - Water Recycling Grants | \$21,254 |
| U S Army Corps of Engineers | | Subtotal: \$207 |
| | Coordination and Science | \$207 |
| | Oversight & Coordination - Executive | \$197 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 5 Amount:* |
|----------------------------------|--|---------------------------|
| | IEP - Interagency Ecological Program | \$10 |
| U S Bureau of Reclamation | | Subtotal: \$61,856 |
| | Coordination and Science | \$4,370 |
| | Oversight & Coordination - BDPAC Staff and Support | \$15 |
| | Oversight & Coordination - Bay Delta Administrative Support | \$199 |
| | Oversight & Coordination - Public Affairs Public Involvement | \$130 |
| | Oversight & Coordination - Executive | \$201 |
| | IEP - Interagency Ecological Program | \$3,725 |
| | Oversight & Coordination - Program Wide Performance and Tracking | \$100 |
| | Ecosystem Restoration | \$33,690 |
| | Ecosystem Restoration - Implementation | \$33,690 |
| | Water Supply Reliability | \$23,796 |
| | Conveyance - Delta Mendota Canal / California Aqueduct Intertie | \$868 |
| | Conveyance - North Delta Planning | \$330 |
| | Admin of Categories | \$272 |
| | Yield Feasibility Investigation | \$474 |
| | Surface Storage - Upper San Joaquin River Storage Investigations | \$1,612 |
| | Groundwater Storage & Other - Storage | \$27 |
| | Surface Storage - North-of-the-Delta Offstream Storage | \$543 |
| | Tech Assistance to State | \$452 |
| | Surface Storage - Los Vaqueros Reservoir Expansion | \$471 |
| | Environmental Water Account - Water & Power Acquisitions | \$1,044 |
| | Recycling - Water Recycling Grants | \$11,933 |
| | Conservation - Urban Grants | \$1,337 |
| | Conveyance - Tracy Fish Test Facility | \$984 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 5 Amount:* |
|--|---|-----------------------------------|
| | Conservation - Agricultural Grants | \$1,336 |
| | Surface Storage - Shasta Lake Enlargement | \$1,473 |
| | In-Delta Storage Investigations | \$2 |
| | Conveyance - Tracy Fish Facilities Mitigation Program | \$639 |
| U S Environmental Protection Agency | | Subtotal: \$40 |
| | Coordination and Science | \$40 |
| | IEP - Interagency Ecological Program | \$40 |
| U S Fish and Wildlife Service | | Subtotal: \$1,484 |
| | Coordination and Science | \$231 |
| | IEP - Interagency Ecological Program | \$231 |
| | Ecosystem Restoration | \$1,253 |
| | Ecosystem Restoration - Planning | \$1,253 |
| U S Geological Survey | | Subtotal: \$1,345 |
| | Coordination and Science | \$1,345 |
| | CALFED Science - Oversight & Coordination | \$723 |
| | IEP - Interagency Ecological Program | \$622 |
| | | Year 5 Subtotal: \$317,295 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 6 Amount:* |
|--|--|--------------------------|
| CALFED Bay Delta Program (Resources Agency) | | Subtotal: \$9,134 |
| | Coordination and Science | \$7,081 |
| | O&C-IT <i>Information Technology/Data Management</i> | \$631 |
| | O&C-Public Affairs <i>Public Affairs/Public Involvement</i> | \$454 |
| | O&C <i>Oversight & Coordination</i> | \$991 |
| | O&C-Legal <i>Legal</i> | \$758 |
| | O&C-WM Strategy <i>Water Management Strategy</i> | \$24 |
| | O&C-EJ <i>Environmental Justice</i> | \$316 |
| | O&C-HR <i>Human Resources & Staff Support</i> | \$752 |
| | O&C-Reg Coor <i>Regional Coordination</i> | \$137 |
| | SCI-O&C <i>Oversight & Coordination</i> | \$676 |
| | SCI-Boards <i>Science Boards, Expert Panels & Collaboration</i> | \$96 |
| | O&C-Finance Plan <i>Finance Plan</i> | \$268 |
| | O&C-Exec <i>Executive</i> | \$1,083 |
| | O&C-Contracts/Fiscal <i>Contracts/Fiscal</i> | \$895 |
| | Ecosystem Restoration | \$1,439 |
| | ERP-O&C <i>Oversight & Coordination</i> | \$743 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 6 Amount:* |
|---------------------|---|-----------------|
| | ERP-Ag Activities <i>Costs associated with CALFED Ecosystem Restoration Program Integrating Agricultural Activities efforts</i> | \$177 |
| | WS-Ed & Outreach <i>Costs associated with the support of CALFED Watershed Management education & outreach to local communities program</i> | \$185 |
| | WS-Mgt & Oversight <i>Costs associated with CALFED Watershed Management Program Mangement and Oversight efforts</i> | \$334 |
| | Water Quality | \$128 |
| | DWQ-Mgt & Oversight <i>Program Management & Oversight</i> | \$128 |
| | Water Supply Reliability | \$486 |
| | CON-Thru Delta <i>Through Delta Facility-Planning</i> | \$136 |
| | CON-Cross Channel <i>Delta Cross Channel Re-operation</i> | \$78 |
| | CON-O&C <i>Oversight, Coordination & Science</i> | \$129 |
| | STO-O&C <i>Oversight & Coordination</i> | \$143 |

| | | |
|--|---|--------------|
| California Department of Forestry and Fire Protection | Subtotal: | \$154 |
| Ecosystem Restoration | | \$154 |
| NA | | \$20 |
| | <i>CSUS Santa Rosa: Collect THP History</i> | |
| NA | | \$50 |
| | <i>Ca Watershed Manual</i> | |
| NA | | \$5 |
| | <i>Operations</i> | |
| NA | | \$25 |
| | <i>UC Berkeley: Watershed Web & Educ; Fire Hazard Severity Zone (FHSZ); Prime Prod. Range and Hardwood Land ID.</i> | |
| NA | | \$54 |
| | <i>Hardware/Software for Project Staffand FRAP data structure/display</i> | |

* all amounts in thousands of dollars

Implementing Agency Name

Year 6 Amount:*

NA

\$1

Unspent

Department of Conservation

Subtotal: \$1,826

Coordination and Science

\$96

Staff Support Not Allocated to Projects

\$96

Ecosystem Restoration

\$1,730

Butte County RCD

\$35

Watershed Coordinator Position

Napa County RCD

\$53

Watershed Coordinator Position

San Joaquin River Parkway and Conservation Trust

\$25

Watershed Coordinator Position

Chowchilla-Red Top RCD

\$47

Watershed Coordinator Position

Upper Putah Creek Stewardship

\$45

Watershed Coordinator Position

Colusa County RCD

\$29

Watershed Coordinator Position

Los Angeles & San Gabriel Rivers Watershed Council

\$54

Watershed Coordinator Position

Nevada County RCD

\$61

Watershed Coordinator Position

West Lake RCD

\$48

Watershed Coordinator Position

Upper Sacramento River Exchange

\$43

Watershed Coordinator Position

Sonoma Ecology Center

\$42

Watershed Coordinator Position

El Dorado Irrigation District

\$30

Watershed Coordinator Position

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 6 Amount:* |
|---------------------|---|-----------------|
| | Georgetown Divide RCD <i>Watershed Coordinator Position</i> | \$33 |
| | Stockton East Water District <i>Watershed Coordinator Position</i> | \$8 |
| | San Francisquito Creek Joint Powers Authority <i>Watershed Coordinator Position</i> | \$45 |
| | Tehama County RCD <i>Watershed Coordinator Position</i> | \$19 |
| | Coastal San Luis RCD <i>Watershed Coordinator Position</i> | \$46 |
| | Central Modoc RCD <i>Watershed Coordinator Position</i> | \$47 |
| | Staff Support Not Allocated to Projects | \$214 |
| | Solano RCD <i>Watershed Coordinator Position</i> | \$48 |
| | Western Shasta RCD - Upper Cow-Battle / Sacramento Lower Cow-Lower Clear Watershed <i>Watershed Coordinator Position</i> | \$28 |
| | Earth Recource Foundation <i>Watershed Coordinator Position</i> | \$22 |
| | Yuba County RCD <i>Watershed Coordinator Position</i> | \$31 |
| | Mariposa County RCD <i>Watershed Coordinator Position</i> | \$17 |
| | Urban Watershed Project <i>Watershed Coordinator Position</i> | \$1 |
| | Contra Costa Public Works Department <i>Watershed Coordinator Position</i> | \$33 |
| | Sloughhouse RCD <i>Watershed Coordinator Position</i> | \$31 |
| | Mountains Recreation and Conservation Authority <i>Watershed Coordinator Position</i> | \$30 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 6 Amount:* |
|---------------------|---|-----------------|
| | Yolo County RCD - Lower Sacramento Watershed <i>Watershed Coordinator Position</i> | \$3 |
| | Friends of Deer Creek <i>Watershed Coordinator Position</i> | \$36 |
| | Fall River RCD <i>Watershed Coordinator Position</i> | \$38 |
| | RCD of the Santa Monica Mountains <i>Watershed Coordinator Position</i> | \$52 |
| | Battle Creek Watershed Conservancy <i>Watershed Coordinator Position</i> | \$13 |
| | Mojave Desert/Mountain RC & D Council <i>Watershed Coordinator Position</i> | \$45 |
| | San Joaquin County RCD <i>Watershed Coordinator Position</i> | \$0 |
| | Santa Barbara County Water Agency <i>Watershed Coordinator Position</i> | \$12 |
| | Central Sierra RC & D <i>Watershed Coordinator Position</i> | \$44 |
| | Sierra Valley RCD <i>Watershed Coordinator Position</i> | \$16 |
| | Yolo County RCD - Lower Cache Watershed <i>Watershed Coordinator Position</i> | \$36 |
| | Contra Costa RCD <i>Watershed Coordinator Position</i> | \$41 |
| | Placer County RCD <i>Watershed Coordinator Position</i> | \$49 |
| | Westside RCD <i>Watershed Coordinator Position</i> | \$25 |
| | Western Shasta RCD - Upper- Sacramento Clear / Sacramento Lower Cow-Lower Clear Watershe <i>Watershed Coordinator Position</i> | \$19 |
| | Arroyo Seco Foundation <i>Watershed Coordinator Position</i> | \$41 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 6 Amount:* |
|---------------------|---|-----------------|
| | Deer Creek Watershed Conservancy <i>Watershed Coordinator Position</i> | \$12 |
| | Alpine County <i>Watershed Coordinator Position</i> | \$23 |
| | East Merced RCD <i>Watershed Coordinator Position</i> | \$59 |

| Department of Fish and Game | Subtotal: | \$16,852 |
|--|-----------|-----------------|
| Coordination and Science | | \$683 |
| Staffing | | \$166 |
| <i>Staffing</i> | | |
| Agency unspecified projects | | \$517 |
| <i>Agency unspecified projects</i> | | |
| Ecosystem Restoration | | \$15,781 |
| Real Time Flow Monitoring (Sac River) | | \$110 |
| <i>Continue operation and maintenance of 13 stations that monitor stream flows and water quality in four eastside Sacramento River tributaries where the CVPIA has purchased water to maintain instream flows for salmonids: Big Chico, Butte, Deer, and Mill creeks. Long-term goals for this project include obtaining reach-specific flow and temperature measurements for each tributary and will: (1) provide a basis for current and future flow acquisitions and flow management, and (2) contribute to the recovery and future survival of anadromous fish populations in said tributaries. Measures of future success will include: (1) representation of flows using real-time telemetry and summarized in long-term database, (2) use of telemetry time series data for future flow acquisitions, and (3) spring-run Chinook salmon and steelhead populations in each tributary have recovered and long-term survival is insured.</i> | | |
| Suisun Marsh Regional Implementation Plan (DWR) | | \$310 |
| <i>The ERP Implementing Agencies as well as CDWR, USBR, Suisun Resource Conservation District (SRCD), and the CBDA continue to participate in preparing the Habitat Management, Preservation, and Restoration Plan for Suisun Marsh (SMP) for the Suisun Marsh Ecological Management Zone.</i> | | |
| Juvenile Anadromous Salmonid Emigration Monitoring on the Sacramento River at the Glenn-Colusa Irrigation District (GCID) Fish Screen Bypass Channel (2004 Monitoring PSP) | | \$60 |
| <i>This project will continue an existing California Department of Fish and Game juvenile salmonid monitoring project located at the Glenn Colusa Irrigation District (GCID) diversion on the Sacramento River near Hamilton.</i> | | |
| ERP Project Management (Staffing) | | \$1,586 |
| <i>Funding for permanent DFG staff assigned to coordinate ERP implementation with other restoration activities such as CVPIA and associated administrative costs.</i> | | |
| Llano Seco Ranch | | \$2,570 |
| <i>Directed Action for land aquisition.</i> | | |

* all amounts in thousands of dollars

Implementing Agency

Name

Year 6 Amount:*

| | |
|--|---------------------|
| <p>Project Tracking for ERP</p> <p><i>This agreement will allow the Contractor to assist the DFG, NOAA Fisheries, U.S. Fish and Wildlife Service, and the CALFED Bay-Delta Program with effectively monitoring restoration projects, conducting research associated with implementation to support the adaptive management process, tracking the success of approved restoration projects, and assist with the final review being conducted by the Department of Finance.</i></p> | <p>\$298</p> |
| <p>Upper Sacramento River Chinook Salmon Escapement Monitoring Program</p> <p><i>Continue monitoring of the annual abundance, migration timing, and distribution of adult winter, spring, late-fall Chinook salmon returning to spawn in the Upper Sacramento River basin for the next three years. Streams and species/runs to be monitored include: Sacramento River - winter, fall, and late fall-run Chinook; Clear Creek -fall-run Chinook; Battle Creek - fall-run Chinook; Mill Creek -fall and spring-run Chinook; Deer Creek - fall and spring-run Chinook; Beegum Creek - spring-run Chinook; Antelope Creek - spring-run Chinook.</i></p> | <p>\$284</p> |
| <p>Lake Davis Pike Containment Project</p> <p><i>DWR, under the direction of the DFG, will plan, design, construct, operate and maintain a new containment structure downstream of the outlet for Lake Davis.</i></p> | <p>\$2,000</p> |
| <p>Lake Davis Project</p> <p><i>DFG, in collaboration with the USFS, stakeholders and other agencies, is conducting the planning, completing the environmental documentation, and obtaining the permits needed to implement the proposed Lake Davis Pike Eradication Project. Other planning related activities include public outreach and enforcement will also be conducted. If a decision is made to proceed, implementation would start at the beginning of 2007.</i></p> | <p>\$3,772</p> |
| <p>Lower Clear Creek Floodway Rehabilitation Project (Phase 3B)</p> <p><i>Clear Creek restoration continues to implement Chinook salmon and steelhead habitat enhancement projects through partnerships with local landowners, public and private agencies, and universities. Restoration activities focus on channel restoration, adding spawning gravel, and erosion control. This project is two projects combined from the Year 6 ERP MYPP (FY 2005-06): Clear Creek Restoration for \$3,800,000 and Clear Creek Headcut Only for \$1,500,000. Together they are the "Phase 3B" project for a reduced amount of \$3,482,451. Phase 3B includes project implementation - channel modification, revegetation, and monitoring of project success. Phase 3B was modified and reduced from the original budget by removing the fish monitoring and removing/modifying some of the other tasks (such as mercury monitoring, which was completely removed). Specific objectives include: (1) Re-establish an alternate bar morphology in the Mining Reach, including riffles, exposed gravel bars, and deep pools; (2) Design the channel dimensions allowing coarse sediment to route through the reach; (3) Design floodplains to begin to allow fine sediments transported in suspension to deposit on floodplain surfaces; (4) Promote natural channel migration across the floodway; (5) Re-create floodplain micro-topography. (6) Revegetate selected channels with native riparian vegetation; and (7) Monitor geomorphology, fisheries, riparian vegetation and avian species to determine project success.</i></p> | <p>\$1,308</p> |
| <p>Lower Clear Creek Floodway Rehabilitation Project (Phase 3)</p> <p><i>This project is a comprehensive salmonid monitoring program that will evaluate restoration actions and inform adaptive management of Clear Creek. The U.S Fish and Wildlife Service – Red Bluff will provide 5 of 12 elements of a Projected comprehensive salmonid monitoring program. This will provide feedback for the adaptive management and evaluation of restoration actions of the Clear Creek Restoration Program and B2 Water Program. In addition to program management, this project includes 4 fisheries monitoring tasks: (1) annual escapement estimates, spawning area mapping, and installation, operation and monitoring of a picket weir; (2) estimates of juvenile salmonid production and condition factor of salmonids; (3) habitat use by juvenile Chinook salmon of restoration project, and (4) habitat preferences of juvenile salmonids.</i></p> | <p>\$3,482</p> |
| <p>Water Supply Reliability</p> | <p>\$388</p> |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 6 Amount:* |
|---------------------|---|-----------------|
| | Staffing | \$334 |
| | <i>Staffing</i> | |
| | Support studies to define fish movement in the delta | \$18 |
| | <i>Tasks include: 1) Assisting USFWS Stockton's juvenile Chinook salmon telemetry studies for Delta Action 8 through by advance deployment of telemetry receivers in the Sacramento River and near the intakes of the SWP and CVP export facilities; 2) Participated in technical advisory meetings for the following Conveyance Projects: Though Delta Facility, Delta Cross Channel Reoperation Studies, and Frank Tract. Met individually with DWR Conveyance Program Manager to discuss the merits of new options for Frank Tract Project; 3) Met with other telemetry project leaders (NOAA, UCD, USFWS, USGS, and EMUD) to assist with data sharing of telemetry information from detected fish in the lower Sacramento-San Joaquin rivers and Delta.</i> | |
| | Examines sources of predation or mortality | \$18 |
| | <i>Led DFG CHTR studies at the SWP; purpose is to determine the losses to delta smelt collected in salvage process to evaluate the feasibility of new state-of-the-art fish screens in the South Delta (CALFED Conveyance Project). Participated in DWR's Release Site studies designed to investigation the predation occurring after salvaged fish are released into the Central Delta. Supported DWR's Steelhead Predation studies designed to investigate predation losses in Clifton Court Forebay as a requirement for SDIP (CALFED Conveyance Project). Co-PI for CALFED PSP study on salvage efficiency of the SWP salvage facility and predation loss in Clifton Court Forebay for entrained delta smelt.</i> | |
| | Assist in development of technologies in water transfers and fish screening | \$18 |
| | <i>Led two fish facilities technical team meetings, CHTR Coordination Team and Central Valley Fish Facilities Review Team and participated in another technical team, Tracy Technical Advisory Team. These teams discuss research and technologies involving Delta fish screening current and proposed and investigates direct impacts associated with fish entrainment at the major Delta water diversions. Provided input on the design of fish screen improvements at the CVP and SWP Delta facilities such as new debris cleaners or improved fish transport trucks.</i> | |

| | | |
|--|------------------|--------------|
| Department of Public Health | Subtotal: | \$125 |
| Water Quality | | \$125 |
| Interagency agreement between DHS and CALFED, for technical support supporting water quality. | | \$125 |
| <i>Interagency agreement between DHS and CALFED, for technical support supporting water quality.</i> | | |

| | | |
|---|------------------|-----------------|
| Department of Water Resources | Subtotal: | \$97,063 |
| Coordination and Science | | \$8,084 |
| Fldwy Prot | | \$314 |
| <i>Review CALFED-related encroachment permit applications that are submitted through the Reclamation Board.</i> | | |
| IEP - POD | | \$1,103 |
| <i>Interagency Ecological Program - Pelagic Organism Decline investigations</i> | | |
| IEP - Baseline | | \$6,667 |
| <i>Interagency Ecological Program - Core</i> | | |
| Ecosystem Restoration | | \$5,684 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 6 Amount:* |
|---------------------|--|-----------------|
| | CVPIA <i>CVPIA State Cost Share - federal-State cost-share agreement between DWR, USBR, USFWS, and DFG for fishery restoration activities</i> | \$1,443 |
| | FPIP <i>Fish Passage Improvements Program</i> | \$1,155 |
| | ARPI <i>Yolo Aquatic Restoration Program</i> | \$819 |
| | Four Pumps (CAP) <i>Delta Fish Agreement (Four Pumps Program)- Lump Sum Account (CAP)</i> | \$504 |
| | Wtrshd Adm <i>Watershed Grant Program - Administration</i> | \$254 |
| | Four Pumps (Delta Fish Agreement - Annual) <i>The 1986 'Four Pumps Agreement', between the DWR and DFG was established to offset direct losses of fish caused by the diversion of water at the Harvey O. Banks Delta Pumping Plant. Among its provisions, the agreement provides for the estimation of annual fish losses and mitigation credits, and for the funding and implementation of mitigation projects including water exchange projects to provide salmon passage flows, enhanced law enforcement, stocking of salmon, steelhead and striped bass, fish screens and ladders, guidance barriers, and numerous salmon habitat enhancement projects.</i> <i>The Agreement has been amended three times, most recently in November 2004, which extends the \$15 Million Lump Sum component through December 2007. The other remaining Annual Mitigation funding component has no termination date. Since 1986 approximately \$59 million in combined funding from Annual and \$15 Million Lump Sum components has been approved for over 40 fish mitigation projects under the Four Pumps Agreement. About \$44 million of the approved funds have been expended to date and the remaining approved funds are allocated for new or longer term projects.</i> | \$1,509 |
| | Levees | \$19,231 |
| | Delta Levees Projects <i>The Delta Levees Maintenance Subventions program provides for financial assistance to local agencies for the maintenance and rehabilitation of non-project and project levees that meet prescribed requirements.</i> <i>Description: The Delta Levees Special Flood Control Projects program provides funds to designated local agencies for flood control projects that mainly consist of levee rehabilitation and repair efforts and are relative to habitat mitigation and net long-term improvement efforts.</i> | \$13,817 |
| | DRMS <i>Delta Risk Management Strategy</i> | \$3,000 |
| | Delta Levees Support <i>Delta Levees Program Support</i> | \$2,414 |
| | Water Quality | \$239 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 6 Amount:* |
|---------------------|--|-----------------|
| | Delta Modeling <i>Data analysis and Delta computer modeling support</i> | \$159 |
| | Delta Modeling <i>Delta water quality modeling</i> | \$80 |
| | Water Supply Reliability | \$63,825 |
| | Delta Cross Channel Reoperations/Through Delta Facility <i>This project involves evaluating and implementing operational procedures for the Delta Cross Channel to improve water quality of Delta exports/diversions and to address related fishery concerns. The Through Delta Facility is a proposed screened diversion facility on the Sacramento River with a capacity up to 4,000 cfs to improve the water quality of Delta exports/diversions and to address related fishery concerns.</i> | \$1,010 |
| | Delta Fish Facility Improvements Project (DFFIP) <i>DFFIP - Collection Handling Transportation and Release (CHTR) of fish at the Skinner fish salvage facility.</i> | \$674 |
| | WSR Prog Supp <i>Water Supply Reliability Program Support</i> | \$1,786 |
| | North-of-the-Delta Offstream Storage <i>We will review project descriptions to ensure completeness and clarity. This should include full sentences, and spell out acronyms and leave out technical jargon. The description should describe the overall project purpose as well as the expected result/outcome. In cases where the project may pertain to multiple program elements, the description should be focused upon the primary program element as already defined by the agency. We will also discuss 'projects' that are defined as staff support or other administrative costs. North-of-the-Delta Offstream Storage will provide flexibility to Shasta, Oroville and Folsom Reservoir operations. These changes will result in improved management of the overall water system, water diversions and deliveries can be timed in ways that improve water quality, restore wildlife habitat, support fishery needs, facilitate conjunctive mangement and increase water supply reliability and flood protection.</i> | \$3,270 |
| | LV <i>Los Vaqueros Reservoir Expansion</i> | \$3,031 |
| | SDIP <i>South Delta Improvements Program</i> | \$11,831 |
| | CIMIS <i>California Irrigation Management Information System</i> | \$780 |
| | Upper SJ <i>Upper San Joaquin River Storage</i> | \$287 |
| | Urban Tech. Asst. <i>Urban Water Use Efficiency Technical Assistance</i> | \$213 |
| | Common Assumptions <i>Common Assumptions</i> | \$1,784 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 6 Amount:* |
|---------------------|--|-----------------|
| | N. Delta Flood Eco <i>North Delta Flood Control & Ecosystem Restoration Project</i> | \$483 |
| | Program Management <i>Conveyance Program Management</i> | \$65 |
| | WUE Tech. Asst. <i>Agricultural and Urban Water Use Efficiency Technical Assistance</i> | \$142 |
| | Ag Tech. Asst. <i>Agricultural Water Conservation Technical Assistance</i> | \$859 |
| | Desal - Admin <i>Desalination Program Administration</i> | \$134 |
| | Urban Tech. Asst. <i>Urban Water Conservation Technical Assistance</i> | \$897 |
| | WSR Asst. to Locals <i>Water Supply Reliability Program - Assistance to Locals</i> | \$4,826 |
| | WUE Grants Admin <i>Water Use Efficiency Grants Administration</i> | \$460 |
| | WUE Sci & Monitor <i>Water Use Efficiency Science & Monitoring</i> | \$614 |
| | EWA Assets <i>Water and Power Acquisitions</i> | \$9,025 |
| | Desal - Grants <i>Desalination Program Grants fund various statewide projects that include construction projects, feasibility studies, pilot and demonstration efforts, and research and development efforts.</i> | \$21,290 |
| | WUE Prog Support <i>Water Use Efficiency Program Delivery and Program Support</i> | \$364 |

| | | |
|--|------------------|--------------|
| National Marine Fisheries Service | Subtotal: | \$675 |
| Coordination and Science | | \$225 |
| (None Supplied) <i>Staff Support</i> | | \$150 |
| (None Supplied) <i>Staff Support</i> | | \$75 |
| Ecosystem Restoration | | \$300 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 6 Amount:* |
|--|---|---------------------------|
| | (None Supplied) <i>Staff Support</i> | \$300 |
| | Water Supply Reliability | \$150 |
| | (None Supplied) <i>Staff Support</i> | \$150 |
| <hr/> | | |
| San Francisco Bay Conservation and Development Commission | | Subtotal: \$88 |
| | Coordination and Science | \$88 |
| | (None Supplied) <i>SFBCDC Staff Support</i> | \$88 |
| <hr/> | | |
| State Water Resources Control Board | | Subtotal: \$832 |
| | Ecosystem Restoration | \$832 |
| | East Merced RCD | \$832 |
| | <i>The Merced River Alliance Project consists of joining two (2) independent watershed management efforts to collaboratively address issues, conduct biological assessment monitoring, and provide education and outreach to stakeholders in the upper and lower reaches of the Merced River watershed.</i> | |
| <hr/> | | |
| U S Army Corps of Engineers | | Subtotal: \$533 |
| | Coordination and Science | \$106 |
| | Interagency Ecological Program | \$37 |
| | <i>No knowledge here, we believe that this funding goes straight to IEP without the Corps Sac District seeing it.</i> | |
| | CALFED Coordination Activities | \$69 |
| | <i>Corps participation in CALFED activities</i> | |
| | Levees | \$427 |
| | CALFED Levee Stability Program | \$427 |
| | <i>Prioritized Levee Stability Projects in the Delta Report to Congress, authorized \$90 Million</i> | |
| <hr/> | | |
| U S Bureau of Reclamation | | Subtotal: \$87,915 |
| | Coordination and Science | \$6,352 |

* all amounts in thousands of dollars

CALFED Program Management, Oversight, and Coordination

\$776

Activities include Program support; Program-wide tracking of schedules, finances, and performance; multi-agency oversight and coordination of Program activities to ensure Program balance and integration; development of interagency crosscut budgets and a comprehensive finance plan to allocate costs in accordance with the beneficiary pays provisions of the Record of Decision; coordination of public outreach and involvement, including tribal, environmental justice, and public advisory activities in accordance with the Federal Advisory Committee Act (5 U.S.C. App.); development of Annual Reports; and Reclamation's administration of the storage, conveyance, water use efficiency, environmental water account, ecosystem restoration, science, and water transfer programs.

Interagency Ecological Program (IEP)

\$5,576

Continues to support the IEP for the Sacramento-San Joaquin estuary for physical, chemical, and biological monitoring which is required as a condition of the joint Federal-State water export permit and studies under the Endangered Species Act of 1973 and to resolve Bay-Delta water issues.

Ecosystem Restoration

\$36,341

Spawning Gravel/Riparian Habitat

\$513

The purpose of the Spawning Gravel/Riparian Habitat Program is to increase the availability of spawning gravel and rearing habitat, and subsequently monitor the results of these actions, for: (1) Sacramento River Basin Chinook salmon and steelhead trout in the reach of the mainstem Upper Sacramento River from Keswick Dam downriver to Red Bluff Diversion Dam; (2) American River Basin Chinook salmon and steelhead trout in the reach of the American River downriver from Nimbus Dam; and (3) Stanislaus River Chinook salmon and steelhead trout in the reach of the Stanislaus River downriver from Goodwin Dam.

Water Acquisition

\$12,839

Three key objectives of the Water Acquisition Program (WAP) are to: (1) Provide supplemental water supplies for refuges, referred to as Incremental Level 4, for critical wetland habitat supporting resident and migratory waterfowl, threatened and endangered species, and wetland dependent aquatic biota [CVPIA Sections 3406 (b)(3) and (d)(2)]. (2) Acquire instream flows in support of the San Joaquin River Agreement (SJRA) [CVPIA Section 3406 (b)(3)]. The increased flows benefit numerous resident and anadromous fish species, but are acquired primarily to benefit Chinook salmon. (3) Acquire water to improve spawning and rearing habitat and increase migration flows for fall, winter and spring run Chinook salmon and steelhead in support of the Anadromous Fish Restoration Plan (AFRP) [CVPIA Section 3406 (b)(3)].

Anadromous Fish Restoration Program

\$3,302

The objectives of the Anadromous Fish Restoration Program are to (1) improve habitat for all life stages of anadromous fish through provision of flows of suitable quality, quantity, timing, and physical habitat; (2) improve survival rates by reducing or eliminating entrainment of juveniles at diversions; (3) improve the opportunity for adult fish to reach their spawning habitats in a timely manner; (4) collect fish population, health, and habitat data to facilitate evaluation of restoration actions; (5) integrate habitat restoration efforts with harvest and hatchery management; and (6) involve partners in the implementation and evaluation of restoration actions.

Bay-Delta Conservation Plan

\$2,718

The BDCP is a conservation plan prepared to meet the requirements of the Federal and California Endangered Species Act (FESA and CESA) and the State of California's Natural Communities Conservation Planning Act (NCCPA). The BDCP will provide FESA and CESA incidental take permits for water operations and management activities in the statutory Sacramento-San Joaquin Delta to the State of California and State and Federal water contractors. A Steering Committee including State and Federal agencies, State and Federal water contractors, and environmental interest groups has been formed to discuss key policy and strategy issues pertaining to BDCP development.

Clear Creek Restoration

\$946

The purpose of the Clear Creek Restoration Program is to: (1) restore stream channel form and function necessary to optimize habitat for salmon and steelhead and the aquatic and terrestrial communities on which they depend; (2) determine long-term flow needs for spawning, incubation and rearing by conducting an Instream Flow Incremental Methodology study as mandated in Section 3406 (b)(12); (3) provide flows of adequate quality and quantity to meet the requirements of all life stages of Chinook salmon and steelhead trout known to use Clear Creek; (4) provide spawning gravel to replace supply blocked by Whiskeytown Dam; and (5) monitor project results.

Tracy Fish Loss/Replacement/Protection Program

\$1

Continues measures to reduce and offset the losses of fish resources associated with the operation of the Tracy Pumping Plant and Fish Collecting Facility per the 1992 agreement with California Department of Fish and Game. Reclamation provides funding to the State of California to implement programs that will improve fish resources that are dependent on the Delta, principally by offsetting and replacing fish taken at the facilities. The 50-year old Tracy Fish Facility is not attaining the salvage efficiencies as required under current fish screen criteria and needs significant improvements or total replacement to meet acceptable standards.

Anadromous Fish Screen Program

\$12,091

The primary objective of the Anadromous Fish Screen Program (AFSP) is to protect juvenile chinook salmon (all runs), steelhead trout, green and white sturgeon, striped bass and American shad from entrainment at priority diversions throughout the Central Valley. Section 3406 (b)(21) of the Central Valley Project Improvement Act (CVPIA) requires the Secretary of the Interior to assist the State of California in developing and implementing measures to avoid losses of juvenile anadromous fish resulting from unscreened or inadequately screened diversions on the Sacramento and San Joaquin Rivers, their tributaries, the Delta, and the Suisun Marsh. Additionally, all AFSP projects meet Goal 3 of the CALFED Ecosystem Restoration Program's (ERP) Draft Stage 1 Implementation Plan (8/1/01, Page 22) which states that, "the goal is to maintain and/or enhance populations of selected species for sustainable commercial and recreational harvest, consistent with the other ERP Strategic Goals."

Dedicated Project Yield

\$2,065

The Department of the Interior (Interior) has the responsibility to dedicate and manage annually 800,000 acre-feet of CVP water (b)(2) water for fish, wildlife, and habitat restoration purposes and assist the State of California in its efforts to protect the waters of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. The management of (b)(2) water is being closely coordinated with the management of CALFED's Environmental Water Account (EWA). The program objectives are to: (1) improve habitat conditions for anadromous fish in CVP controlled rivers and streams and the Bay-Delta to help meet the AFRP doubling goals; (2) increase survival of out migrant juvenile anadromous fish, especially in the Bay-Delta; (3) enhance recovery of listed threatened and endangered fish species; and (4) monitor and evaluate to assess the effectiveness of (b)(2) measures.

Ecosystem Restoration

\$1,866

Continues the implementation of projects that improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta system to support sustainable populations of diverse and valuable plant and animal species. Projects could include habitat restoration actions, fish screen improvements, control of invasive species, and water quality improvement projects that contribute to the objectives of the CALFED's Ecosystem Restoration Program.

Water Quality

\$1,723

Contra Costa Water District Alternative Intake Project

\$16

The Calfed Bay-Delta Authorization Act authorizes Reclamation to design and construct the relocation of drinking water intake facilities to in-Delta water users along with taking other actions necessary to offset the degradation of drinking water quality in the Delta due to the South Delta Improvements Program (SDIP). Current analysis in the SDIP environmental documents show that relocating water intakes in the Delta is not required to mitigate water quality impacts of the program.

San Joaquin River Salinity Management

\$1,707

This Program to Meet Standards (PTMS) was mandated in Section 103 (d)(2)(D) of the Water Supply, Reliability, and Environmental Improvement Act (P.L. 108-361, Calfed Bay-Delta Authorization Act). The authorization directs the Secretary of the Interior, in consultation with the Governor of California, to develop and initiate implementation of a program to meet all existing water quality standards and objectives for which CVP has responsibility prior to increasing export limits from the Sacramento-San Joaquin Delta (Delta) for the purposes of conveying water to CVP contractors south of the Delta or increasing deliveries through an intertie between the California Aqueduct and Delta Mendota Canal (DMC). The Act further clarifies, the purpose of this authority and direction is to provide greater flexibility in meeting the existing water quality standards and objectives for which the CVP has responsibility and reduce the demand on water from New Melones Reservoir used for that purpose, and to assist the Secretary of the Interior in meeting any obligations to CVP contractors from the New Melones Project, i.e., Stockton East Water District (SEWD) and South San Joaquin Water Conservation District (SSJWCD). Reclamation has initiated implementation of the PTMS Program required by the Act and is coordinating implementation with the San Joaquin River Water Quality Management Group, which includes the California Department of Water Resources, along with other state and local agencies and other key stakeholders in the San Joaquin Valley.

Water Supply Reliability

\$43,499

Mission Basin Brackish Groundwater Desalting Demo Project

\$1

The Secretary, in cooperation with the City of Oceanside, is authorized to participate in the design, planning, and construction of a 3,000,000 gallon per day expansion of the Mission Basin Brackish Groundwater Desalting Demonstration Project in Oceanside, California.

CVP, Yield Feasibility Investigation

\$477

The Least-Cost Central Valley Project Yield Increase Plan (Yield Increase Plan) submitted to Congress in July 1996 identified the least-cost options to replace the impact of dedicating 1.2 million acre-feet of yield for fish and wildlife purposes under the Central Valley Project Improvement Act (CVPIA) on the Central Valley Project (CVP) water service contractors. The water supply and demand reduction options identified in the Yield Increase Plan include land fallowing, conservation, modified operations, conjunctive use, water reuse, surface storage, conveyance, and other options. As directed in the Calfed Bay-Delta Authorization Act, a Water Supply and Yield Study (WSAYS), in cooperation with the State of California, is required for submission to Congress by October 2005. The CVP Yield Feasibility Investigation Program continues the coordination and technical studies necessary to ensure CVP Yield benefits are effectively evaluated during feasibility investigations for water supply opportunities identified in the supplements to the Least-Cost CVP Yield Increase Plan; continues Reclamation's participation in conjunctive use, groundwater banking opportunities, and investigation of other options for improving water supply reliability through coordination with Federal and State agencies, water and irrigation districts, municipalities, environmental groups, and other stakeholders.

North San Diego County Area Water Recycling Project

\$2,052

This project is located in San Diego County, California. The four components of this project are the result of a cooperative effort by the San Elijo Joint Powers Authority, the Carlsbad Municipal Water District, the Olivenhain Municipal Water District, and the Leucadia Wastewater District. This project consists of planning, designing, and constructing permanent facilities to reclaim and reuse approximately 15,350 acre-feet of water annually in the North San Diego County area in order to reduce the regions dependence on imported water supplies and reduce wastewater discharges to the ocean.

| | |
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| Long Beach Area Water Reclamation Project | \$612 |
| <p><i>This project is located in Los Angeles County, California, and consists of two units: the Alamitos Barrier Reclaimed Water Project will ultimately recycle about 8,000 acre-feet per year in lieu of imported water. Facilities will be constructed so that tertiary treated water from the existing Long Beach Water Reclamation Plant can be treated to advanced levels so that it can be used for groundwater injection into seawater intrusion barriers. Phase 1 was completed in 2005, and Phase 2 is scheduled to begin construction in 2009. The City of Long Beach Recycled Water System Expansion Project will construct an expansion of an existing distribution system that allows the use of recycled water throughout the city. The expansion consists of pumps, pipes, storage facilities, and control systems that would increase use of recycled water from 4,585 acre-feet per year to 16,677 acre-feet per year (including the Alamitos Barrier Project).</i></p> | |
| Water Acquisitions and Power | \$4,675 |
| <p><i>The Environmental Water Account (EWA) is a cooperative management program whose purpose is to provide protection to at-risk fish species of the Bay-Delta Estuary through environmentally beneficial changes in the operations of the State Water Project (SWP) and the CVP, at no uncompensated water cost to the Projects water users. Three Federal (Reclamation, U.S. Fish and Wildlife Service, National Marine Fisheries Service) and two state (California Departments of Water Resources and Fish and Game) agencies work together implementing the EWA.</i></p> | |
| Delta Mendota Canal Intertie, EIS | \$670 |
| <p><i>The proposed Intertie consists of constructing and operating a pumping plant and pipeline connection between the DMC and the California Aqueduct. The Intertie would be used to meet current water supply demands, allow for maintenance and repair of the CVP Delta export and conveyance facilities, and provide operational flexibility to respond to emergencies related to both the CVP and the SWP.</i></p> | |
| San Luis Lowpoint Feasibility Study | \$2,092 |
| <p><i>Study of potential actions to increase the operational flexibility of storage in San Luis Reservoir and ensure a high quality, reliable water supply for San Felipe Division contractors.</i></p> | |
| Storage (Administrative) | \$5 |
| <p><i>N/A</i></p> | |
| Water Conservation Projects | \$4,501 |
| <p><i>The Central Valley Project (CVP) Water Conservation Program (Program) activity is administered by the Regional Water Conservation Team (Team) with assistance from the Area Offices. The Program Team performs duties required under the Central Valley Project Improvement Act of 1992 (CVPIA) and the Reclamation Reform Act of 1982 (RRA), which includes the development and administration of various Criteria – the Standard Criteria for Evaluating Water Management Plans, the Regional Criteria for the Sacramento Valley, and the Criteria for Developing Refuge Water Management Plans. Section 3405 (e) of the CVPIA, P.L. 102-575, directs the Secretary of the Interior (Secretary) to establish and administer an office on Central Valley water conservation best management practices that shall “. . . develop criteria for evaluating the adequacy of all water conservation plans developed by project contractors, including those plans required by Section 210 of the RRA, Public Law 97-293.” FY 2008 activities will continue implementation of water conservation through a Request for Proposal (RFP) Program. Selected proposals will be awarded grants or cooperative agreements which are targeted to meet water conservation objectives contained in the CALFED Water Use Efficiency Program. Other benefits of projects will include implementation of Best Management Practices, while focusing on water districts with a Federal connection. The RFP is designed to encourage cost share projects proposed by water districts, irrigation districts, resource conservation districts, urban water agencies, etc. Grants and cooperative agreements will be awarded based on criteria consistent with the goals of Reclamation’s Water Conservation Field Services Program.</i></p> | |

Implementing Agency

Name

Year 6 Amount:*

| | |
|---|----------------|
| <p>Westside Regional Drainage Program</p> <p><i>Specifically, projects to be implemented include groundwater management, source control, drainage reuse, treatment and salt disposal. The project will have beneficial impacts to the San Joaquin River by reducing discharge of drainage water and will provide needed drainage service to the westside of the San Joaquin Valley.</i></p> | <p>\$1,650</p> |
| <p>Pasadena Water Recycling Project</p> | <p>(\$113)</p> |
| <p>Upper San Joaquin River Basin Storage Investigation</p> <p><i>The CALFED ROD recommends a storage increase of 250-700 TAF in the upper San Joaquin River watershed by enlargement of Millerton Lake at Friant Dam or a functionally equivalent storage program in the region. The project would restore and improve water quality for the San Joaquin River and facilitate conjunctive water management and water exchanges improving water quality deliveries to urban communities. Water supply reliability is integral to advancing these objectives. Other benefits include potential increased flood protection, contributions to long-term EWA water supply, hydropower generation, and recreational.</i></p> | <p>\$4,143</p> |
| <p>Tech Assistance to State of CA</p> <p><i>The TATS Program is designed to enable Reclamation to assist states, statutory or state-chartered entities, legislatively authorized political subdivisions of the state, and Indian Tribes, in addressing water and related resource issues.</i></p> | <p>(\$4)</p> |
| <p>Shasta Lake Water Resources Investigation</p> <p><i>Reclamation is conducting a Feasibility Study including preparation of a Feasibility Report/Decision Document and Environmental Impact Statement (EIS) for the Shasta Lake Water Resources Investigation (SLWRI). The purpose of the SLWRI is to determine the type and extent of Federal interest in a multiple purpose plan to modify Shasta Dam and Reservoir to increase survival of anadromous fish populations in the upper Sacramento River; increase water supplies and water supply reliability to agricultural, municipal and industrial, and environmental purposes; and to the extent possible through meeting these objectives, include features to benefit other identified ecosystem, flood damage reduction, and related water resources needs, consistent with the objectives of the CALFED Bay Delta Program.</i></p> | <p>\$3,589</p> |
| <p>North of Delta Off-Stream Storage (Sites Reservoir) Investigation</p> <p><i>Reclamation is conducting a Feasibility Study in cooperation with the California Department of Water Resources (DWR) as the non-Federal partner that will include preparation of a Feasibility Report/Decision Document and Environmental Impact Statement/Report (EISR) for the North of Delta Off-Stream Storage (NODOS) Investigation. The Feasibility Study purpose is to determine the type and extent of Federal interest in a multiple purpose plan to provide up to 1.8 million acre-feet of off-stream water storage at a potential Sites Reservoir or alternative locations in the Sacramento Valley North of the Delta. The proposed project would improve water management flexibility and reliability for water supply, fish passage and survival, reduce diversions along the Sacramento River during critical fish migration periods, and provide storage and operational benefits to CALFED programs such as Delta water quality and the Environmental Water Account.</i></p> | <p>\$641</p> |
| <p>Los Vaqueros Expansion Project</p> <p><i>The CALFED ROD describes potential expansion of Los Vaqueros Reservoir as part of a Bay Area water quality and water supply reliability initiative. Feasibility Study planning objectives include 1) increased water supply reliability for primary study area water providers, principally to help meet M&I water demands, focusing on Los Vaqueros Reservoir enlargement; 2) use of an expanded Los Vaqueros Reservoir as a substitute for water supplies to be acquired for the long-term Environmental Water Account should the cost for an expanded reservoir be found to be less than acquisition costs for EWA, and 3) to the extent possible through pursuit of water supply reliability and environmental water objectives, improve the quality of Delta water deliveries to M&I customers in the study area.</i></p> | <p>\$3,669</p> |
| <p>Admin of Categories</p> | <p>(\$20)</p> |

* all amounts in thousands of dollars

Implementing Agency

Name

Year 6 Amount:*

Delta Mendota Canal Recirculation Project \$703

Study the feasibility of recirculation of Delta export water to reduce salinity and improve dissolved oxygen in the San Joaquin River. This action may also reduce the reliance on the New Melones Reservoir for meeting water quality and fishery flow objectives in the San Joaquin River. This feasibility study is also required by provisions of the water rights permits granted to Reclamation by the California State Water Resources Control Board (SWRCB) in Order D-1641.

Frank's Tract , Delta Cross Channel, Through Delta Evaluation \$403

Project objective is to significantly reduce salinity levels at the Delta drinking water intakes and improve water supply reliability by reconfiguring levees and/or Delta circulation patterns around Franks Tract.

San Gabriel Basin Project \$472

This project is located in the San Gabriel Valley of Los Angeles County, California, and consists of three units: (1) The San Gabriel Basin Demonstration Project is a conjunctive use project that was originally envisioned to address the most severe area of groundwater contamination within the San Gabriel Basin, namely the Baldwin Park Operable Unit, which is an Environmental Protection Agency Superfund site. However, after additional investigations, it was apparent that a comprehensive solution to the water supply and groundwater contamination problems was required to adequately protect the groundwater resources of the San Gabriel Basin. Additional operable units within the San Gabriel Basin, known as the El Monte, South El Monte, and Puente Valley Operable Units were included in the project to provide such a comprehensive remedy. The revised project continues to meet the original objectives by implementing conjunctive use projects that will enhance both the groundwater quality and the local and regional water supply. Treatment projects will remove volatile organic compounds and other contaminants from the groundwater and then deliver the water for distribution. When completed, the total capacity will be about 39,000 acre-feet annually. Extraction, treatment, and distribution of San Gabriel Basin groundwater will improve the basin's groundwater quality, increase storage capacity, and expand the basins use for regional benefits. (2) The Rio Hondo Water Recycling Program will distribute 5,600 acre-feet of recycled water annually from the San Jose Creek Water Reclamation Plant for landscape irrigation and industrial process water. This use of recycled water will replace the need for a like amount of potable water, thereby lessening the demand on both imported and groundwater resources. By reducing the need for groundwater pumping, this program will assist in the prevention of further migration of contamination from the San Gabriel plume, and wastewater discharges to the ocean will be decreased. Components of the program are construction of a main pump station, a booster pump station, reservoir storage facilities (10 million gallons), and approximately 40 miles of pipeline. The program is being implemented in two phases.(3) The San Gabriel Valley Water Reclamation Program will utilize up to 10,000 acre-feet of reclaimed water annually from the San Jose Creek Water Reclamation Plant to recharge the San Gabriel groundwater basin in order to replace and/or supplement water currently being imported and recharged. There will be no net change in the amount of water currently being recharged as a result of implementation of this program. The recharge will be accomplished in the San Gabriel River channel downstream of Santa Fe Dam. Additional facilities to use up to 13,300 acre-feet of reclaimed water annually for landscape irrigation and industrial use are also included.

Orange County Regional Water Reclamation Project, Phase 1 \$2,228

This project will take tertiary treated reclaimed water from an existing facility operated by the Orange County Sanitation District, treat the water to advanced levels using a pretreatment and reverse osmosis process, and pump the water through a pipeline that parallels the Santa Ana River up to existing recharge facilities adjacent to the River, where the water will be used to recharge the regions groundwater basin. This initial phase will provide about 50,000 acre-feet of water annually for groundwater recharge.

Inland Empire Utilities Agency Regional Water Recycling \$992

The project will contribute to water supply reliability and drought proofing the immediate region by being a part of regional groundwater basin conjunctive use project. The project would develop 75,000 acre-feet per year of new supplies for the most rapidly growing region in California.

North Delta Planning \$240

* all amounts in thousands of dollars

Implementing Agency

Name

Year 6 Amount:*

Butte County Groundwater Model

\$250

The model is an important water resource management tool for Butte County to complete local integrated water resources planning, as part of the development of an Integrated Water Resource Plan.

San Diego Area Water Reclamation Program

\$3,323

Greater use of reclaimed water results in decreased dependency on potable imported water including water from the Colorado River. This project consists of four units: (1) The San Diego Water Reclamation Project is a regional water reclamation program being implemented by the cities of San Diego and Poway, Sweetwater Authority, and Otay Water District. The project provides for the construction of five new wastewater treatment plants, expansion of an existing plant, along with distribution systems, and two conjunctive use projects. Total system capacity upon completion will be approximately 57,116 acre-feet per year. (2) The Escondido Water Reclamation Project is being implemented by the city of Escondido to upgrade its Hale Avenue Resource Recovery Facility from secondary treatment to tertiary treatment. A distribution system that will put the recycled water to beneficial use for non-potable purposes is also being constructed. In addition, the city of San Diego is planning to upgrade and expand its San Pasqual Water Reclamation Plant, which will produce recycled water for non-potable uses, and for a possible conjunctive use project. A distribution system will also be constructed. The City of Poway will construct a distribution system that will utilize recycled water from the San Pasqual Plant. When completed, the three project components will deliver a total of approximately 11,200 acre-feet of recycled water annually. (3) The San Diego Water Repurification Project has been stopped by the city of San Diego, and the reclaimed water and funds that would have been used for this project are now included in the San Diego Water Reclamation Project. (4) The Padre Dam Municipal Water District Reclamation Project will upgrade and expand an existing water treatment plant and construct a distribution system that will deliver 2,000 acre-feet of recycled water annually.

South Delta Improvement Program

\$47

Reclamation and California Department of Water Resources (DWR) completed environmental studies for the South Delta Improvement Program (SDIP) to provide increased deliveries for the SWP and CVP water service contractors while addressing the Delta fisheries and local in-Delta agricultural water users needs. The SDIP is a component of the Conveyance Program of the CALFED Bay-Delta Program. The SDIP major components are increasing the allowable diversion capacity at the SWP's Clifton Court Forebay to 8,500 cfs; construction of permanent operable flow control barriers to improve water level and water quality available for agricultural diversions in the south Delta; dredging portions of Middle River, Old River, and West, Grantline, Victoria, and North Canals to improve flows in south Delta channels; and constructing a permanent operable fish control barrier at the head of Old River to reduce fish movement into south Delta channels.

Tracy Fish Facilities Mitigation Program

\$2,244

Continues identifying and making physical improvements and operational changes assessing fishery conditions, and assessing salvage operations at the Tracy Fish Collecting Facility (TFCF) per the Central Valley Project Improvement Act (CVPIA).

San Jose Area Water Reclamation and Reuse Prog, Phase 1

\$414

This program calls for the planning, design, and construction of demonstration and permanent facilities, in cooperation with the City of San Jose and the Santa Clara Valley Water District, to reclaim and reuse up to 36,000 acre-feet per year of wastewater treatment plant effluent in the San Jose metropolitan service area. The total program includes construction of 300 miles of pipe over a 150 square mile area in six cities providing reclaimed water to the San Jose metropolitan service area. The total program cost is estimated at \$480 million, with the Federal contribution capped at \$109.9 million.

Long Beach Desalination Research and Development Project

\$1,237

Located in Los Angeles County, California, this research and development project will determine the feasibility of a new method of seawater desalination that uses existing membrane technology. A pilot plant will be constructed and operated to determine feasibility, and if successful, a demonstration unit will be constructed.

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 6 Amount:* |
|--|--|--------------------------|
| | Tracy Fish Test Facility | (\$41) |
| | Calleguas Municipal Water District Recycling Project | \$2,131 |
| | <i>This project consists of planning, designing, and constructing regional water recycling projects that include wastewater reclamation and reuse, brackish groundwater recovery, and regional salinity management projects. A total of ten specific projects are planned resulting in annual recycling or recovery of a total of 51,470 acre-feet of water in order to reduce the regions dependence on imported water supplies. This project is located in Ventura County, California.</i> | |
| | Delta Mendota Canal and California Aqueduct Intertie Capacity | \$115 |
| | <i>Evaluation of increased capacity of the intertie between the State Water Project California Aqueduct and the Central Valley Project Delta Mendota Canal.</i> | |
| | Through Delta Evaluation | \$101 |
| <hr/> | | |
| U S Environmental Protection Agency | | Subtotal: \$40 |
| | Coordination and Science | \$40 |
| | (None Supplied) | \$40 |
| | <i>Staff support, in-kind services, staff biologist to support the Interagency Ecological Program.</i> | |
| <hr/> | | |
| U S Fish and Wildlife Service | | Subtotal: \$1,430 |
| | Coordination and Science | \$264 |
| | (None Supplied) | \$264 |
| | <i>Staffing in support of Science program.</i> | |
| | Ecosystem Restoration | \$1,166 |
| | (None Supplied) | \$1,166 |
| | <i>Staffing in support of ERP.</i> | |
| <hr/> | | |
| U S Geological Survey | | Subtotal: \$1,128 |
| | Coordination and Science | \$1,128 |
| | Lead Scientist Support | \$712 |
| | Interagency Ecological Program | \$416 |
| <hr/> | | |
| Year 6 Subtotal: | | \$217,795 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 7 Amount:* |
|--|---|---------------------------|
| CALFED Bay Delta Program (Resources Agency) | | Subtotal: \$35,832 |
| | Coordination and Science | \$35,832 |
| | O&C-Exec | \$649 |
| | <i>Costs associated with CBDP executive staff</i> | |
| | SCI-Critical Unknowns | \$11,965 |
| | <i>Costs associated with the CBDP Science Program Grant, Data Analysis and Critical Unknowns, Fellows Program (\$5,915,000 from 00631 and \$6,050,000 from 00641)</i> | |
| | O&C-Communications | \$57 |
| | <i>Costs associated with CBDP Tribal Relations/Projects</i> | |
| | O&C-Program Support | \$355 |
| | <i>Costs associated with the CalFire program support of CALFED</i> | |
| | O&C-Communications | \$98 |
| | <i>Costs associated with CBDP environmental justice efforts</i> | |
| | O&C-Legal | \$290 |
| | <i>Costs associated with CBDP legal staff</i> | |
| | O&C-Tracking | \$232 |
| | <i>Costs associated with CBDP Program Performance and Finance Tracking</i> | |
| | O&C-Program Support | \$7 |
| | <i>Costs associated with the SWRCB program support of CALFED</i> | |
| | O&C-Communications | \$137 |
| | <i>Costs associated with CBDP communication and public involvement staff</i> | |
| | O&C-Program Support | \$15 |
| | <i>Costs associated with the DFG program support of CALFED</i> | |
| | O&C-Planning | \$532 |
| | <i>Costs associated with the CBDA Strategic Planning/Delta Vision efforts</i> | |
| | O&C-Communications | \$88 |
| | <i>Costs associated with Authority/BDPAC staff and support</i> | |
| | SCI-Communication | \$2,517 |
| | <i>Costs associated with the CBDP Science Program Communication of Scientific Understanding Program (\$1,244,000 from 00632 and \$1,273,000 from 00642)</i> | |
| | SCI-Integration/Evaluation | \$1,307 |
| | <i>Costs associated with the CBDP Science Program Integration/Evaluation of Science within CALFED-Technical review panels & peer review (\$646,000 from 00634 and \$661,000 from 00644)</i> | |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 7 Amount:* |
|---------------------|---|-----------------|
| | SCI-Integration/Evaluation <i>Costs associated with the CBDP Science Program Integration/Evaluation of Science within CALFED-Indicators & Performance measures development (\$737,000 from 00635 and \$754,000 from 00645)</i> | \$1,491 |
| | SCI-Program Support <i>Costs associated with the CBDP Science Program Planning/Reporting/Administration (\$1,504,000 from 00637 and \$1,538,000 from 00647)</i> | \$3,042 |
| | SCI-Integration/Evaluation <i>Costs associated with the CBDP Science Program Integration/Evaluation of Science within CALFED-Independent Science Board (\$1,126,000 from 00633 and \$1,151,000 from 00643)</i> | \$2,277 |
| | SCI-Program Support <i>Costs associated with CBDP Science program planning/reporting/ administration</i> | \$5,604 |
| | SCI-Integration/Evaluation <i>Costs associated with the CBDP Science Program Integration/Evaluation of Science within CALFED-All other costs (Advisors, technical experts, assessment & research activities, conceptual model development) (\$850,000 from 00636 and \$869,000 from 00646)</i> | \$1,719 |
| | O&C-Program Support <i>Costs associated with the Resources Agency program support of CALFED</i> | \$467 |
| | O&C-Program Support <i>Costs associated with the DWR program support of CALFED</i> | \$12 |
| | O&C-Program Support <i>Administrative support/OE&E for Resources Agency, DWR, SWRCB, CalFire, and DFG</i> | \$2,971 |

| | | |
|--|------------------|----------------|
| California Department of Forestry and Fire Protection | Subtotal: | \$1,719 |
| Coordination and Science | | \$1,565 |
| NA <i>CBDP Staff Support</i> | | \$1,565 |
| Ecosystem Restoration | | \$154 |
| NA <i>Digitize Timber Harvest Plan History</i> | | \$40 |
| NA <i>Operations</i> | | \$2 |
| NA <i>Cal-Fire CSUS: Collect THP History</i> | | \$10 |
| NA <i>Sanborn: Data migration and delivery of watershed information</i> | | \$55 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 7 Amount:* |
|---------------------|---|-----------------|
| | NA | \$20 |
| | <i>UC Berkeley: Watershed Web & Educ; Fire Hazard Severity Zone (FHSZ); Prime Prod. Range and Hardwood Land ID.</i> | |
| | NA | \$27 |
| | <i>Unspent to date</i> | |

| | | |
|---|------------------|--------------|
| Department of Conservation | Subtotal: | \$324 |
| Coordination and Science | | \$96 |
| Staff Support Not Allocated to Projects | | \$96 |
| Ecosystem Restoration | | \$228 |
| Staff Support Not Allocated to Projects | | \$228 |

| | | |
|---|------------------|------------------|
| Department of Fish and Game | Subtotal: | \$140,627 |
| Coordination and Science | | \$220 |
| Staffing | | \$54 |
| <i>Staffing</i> | | |
| Staffing | | \$166 |
| <i>Staffing</i> | | |
| Ecosystem Restoration | | \$140,316 |
| Battle Creek Habitat Restoration Project (Anadromous Fish Habitat Monitoring for the Battle Creek Salmon and Steelhead Restoration) | | \$3,360 |
| <i>The Battle Creek Salmon and Steelhead Restoration Project would restore approximately 42 miles of historical anadromous fish habitat in Battle Creek, and an additional 6 miles of habitat in its tributaries. Components of the project include: 1) Removal of 5 diversion dams that would have marginal power production value after their releases are adjusted to meet streamflow needs below the dams, 2) Installing fish ladders at 3 diversion dams and screening their associated diversions, 3) Increasing flow releases from all remaining diversion dams affecting anadromous fish on Battle Creek, and 4) Direct connection of powerhouse tailraces to power canals to eliminate redundant screening requirements, flow fluctuations associated with powerhouse operations, and false attraction of returning fish to powerhouse tailraces containing a mixture of waters from different basins. This is a multi-year implementation project delayed because of a revised EIS/EIR, access issues, and contracting delays. Due to delays and increased costs, the Restoration Project is seeking additional funding. Thus, it is currently undergoing technical review through the Ecosystem Restoration Program.</i> | | |
| Contract management for Ecosystem Restoration Program projects. | | \$787 |
| <i>ERP Project Mgt.</i> | | |

* all amounts in thousands of dollars

Implementing Agency

Name

Year 7 Amount:*

| | |
|--|-----------------|
| <p>Mercury in San Francisco Bay/Delta Birds: Trophic Pathways, Bioaccumulation, and Ecotoxicological Risk to Avian Reproduction</p> <p><i>The primary project goal is to use an integrated field and laboratory approach to evaluate the risks of mercury (Hg) exposure to avian reproduction in the Bay and the Delta.</i></p> | <p>\$3,517</p> |
| <p>Evaluation of Mercury Transformations and Trophic transfer in the San Francisco Bay/Delta: Identifying Critical Processes for the Ecosystem Restoration Program</p> <p><i>This research project focuses on factors affecting production of methyl mercury and its bioaccumulation in the foodweb, focused on contrasting two Delta sites- Frank's tract and the Cosumnes River.</i></p> | <p>\$940</p> |
| <p>Napa Sonoma Marsh Restoration Project-Construction</p> <p><i>The purpose of this project is to conduct phase I of the Napa-Sonoma Marsh restoration project, a Federal USACE project which entails the restoration of three former commercial salt ponds along the Napa River, totaling approximately 3,000 acres.</i></p> | <p>\$416</p> |
| <p>Restoration of the Confluence Area of the Sacramento River, Big Chico and Mud Creeks</p> <p><i>This project will complete phase II of a four-phase project to protect and restore 311 acres of floodprone, ecologically significant land located within the Sacramento River Conservation Area at the confluence of the Sac. R, Big Chico and Mud Creeks at river miles 194-195. The goal of this project is to protect and complete restoration and management planning for three properties located in Butte County; the Nicolas, Nock and Singh properties. The objectives are to improve the viability of at-risk species by protecting and restoring riparian habitat and rehabilitating floodplain processes, increasing the knowledge of ecosystem function, reducing flood damage to important human infrastructure y increasing floodwater storage in project area, and improving water quality.</i></p> | <p>\$1,033</p> |
| <p>Merced River Corridor Restoration Plan Phase IV:Dredger Tailings Reach</p> <p><i>The goal of this project is to design pilot floodplain and channel restoration experiments, in their watershed context, intended to initiate the restoration of natural ecosystem function to the Dredger Tailing Reach of the Merced River and to set in place monitoring and evaluation schemes designed to contribute transferable scientific understanding that assists in reducing uncertainty in restoration design.</i></p> | <p>\$311</p> |
| <p>American Basin Fish Screen and Habitat Improvement Project</p> <p><i>This project is the removal of a diversion dam, consolidation of diversions and the addition of state-of-the-art fish screens to NMWC's diversion on the Sacramento River, between Verona and the American River, and on the Cross Canal.</i></p> | <p>\$12,581</p> |
| <p>M & T/Llano Seco Fish Screen Facility - Short Term/Long Term Protection Project</p> <p><i>To protect the existing M&T/Llano Seco fish-screen facility and its beneficiaries while investigating and identifying a technically and economically feasible long-term solution to adapt the fish-friendly pumping facility to the lateral migration of the Sacramento River.</i></p> | <p>\$384</p> |
| <p>Napa-Sonoma Marsh Restoration Project</p> <p><i>The project is the restoration of three former commercial salt ponds along the Napa River, totaling approximately 3,000 acres, to tidal marsh. It is a phase of the Napa-Sonoma Marsh restoration project, a Federal USACE project. The project entails restoration of Ponds 3, 4, and 5, which includes construction of approximately two water control structures or levee breaches for salinity reduction; and levee breaches, ditch blocks, levee lowering, starter channels, and berms for habitat restoration. Phase I will provide for restoration of Pond 3 (1,300 acres) to tidal habitats, and salinity reduction in preparation for tidal habitat restoration in Ponds 4 and 5 (1,700 acres).</i></p> | <p>\$181</p> |
| <p>Dutch Slough Tidal Marsh Restoration Project</p> <p><i>This project will acquire the three contiguous parcels totalling 1,166 acres that comprise the Dutch Slough site</i></p> | <p>\$61</p> |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 7 Amount:* |
|---------------------|---|-----------------|
| | <p>Dutch Slough Tidal Marsh Restoration Project</p> <p><i>The purpose of this project is to develop a restoration plan for a 1,166 acre site adjacent to Dutch Slough and the mouth of Marsh Creek in the western Delta.</i></p> | \$731 |
| | <p>Life history and stock composition of Steelhead trout</p> <p><i>This project will characterize the life history patterns and stock composition of steelhead in the Yuba River to support ecosystem restoration and species recovery programs.</i></p> | \$86 |
| | <p>Big Break and Marsh Creek Water Quality and Habitat Restoration Program</p> <p><i>This project will develop a public outreach and education program in the Marsh Creek watershed.</i></p> | \$269 |
| | <p>Programmatic Quality Assurance and Quality Control for CBDA Mercury Research and Monitoring Projects</p> <p><i>The primary project goal is to provide oversight and coordination of quality assurance for multiple mercury research and monitoring projects.</i></p> | \$665 |
| | <p>Transport, Cycling and Fate of Mercury and Methyl Mercury in the San Francisco Delta and Tributaries - An Integrated Mass Balance Assessment Approach</p> <p><i>The purpose of this project is to provide an integrated research project on sources and loads of mercury in the Bay Delta watershed, and the transport, cycling and transformation that occur to mercury and methylmercury within the watershed. This research project will evaluate mercury sources and sinks and biogeochemical cycling using a mass balance approach. This project is performing tasks 1,3,4,5, and 6 under this scope. ERP-02-C06-B is performing task 2.</i></p> | \$652 |
| | <p>Wilkins Slough Positive Barrier Fish Screen Sediment Removal System</p> <p><i>The project is the addition of sediment removal facilities to an existing fish screen at Reclamation District 108's Wilkins Slough irrigation water diversion on the Sacramento River's west bank, near Grimes</i></p> | \$36 |
| | <p>Arundo Eradication and Coordination, Phase II</p> <p><i>This is Phase II of the Arundo donax eradication and coordination project. Phase II provides funding for ongoing monitoring and followup treatments for 5 Phase I projects, and adds 5 new partners. This project aims to remove approximately 273 acres of Arundo on over 63 miles of rivers and creeks.</i></p> | \$1,563 |
| | <p>A Pilot Program for Monitoring, Stakeholder Involvement, and Risk Communication Relating to Mercury in Fish in the Bay-Delta Watershed</p> <p><i>The project will monitor mercury in sportfish and other species in the Bay-Delta system for three years. Results will be used by the Dept. of Health Services to educate anglers and others about eating fish caught in the system. A stakeholder advisory committee representing local agencies and other organizations will guide the effort.</i></p> | \$3,306 |
| | <p>Hamilton City flood damage reduction/ecosystem restoration project</p> <p><i>This project is the preconstruction, engineering and design phase. Specific objectives include preparing topographic and hydrographic surveys, preparing hydraulic and erosion protection analysis, performing foundation explorations, performing soil/depth to ground water boring, performing cultural resource surveys, preparing detailed design report, preparing plans and specifications, preparing independent Government estimate, preparing engineering consideration and instructions to field personnel, and preparing operation, maintenance, and monitoring manuals.</i></p> | \$665 |

* all amounts in thousands of dollars

Implementing Agency

Name

Year 7 Amount:*

| | |
|---|-----------------|
| <p>Restoration and Monitoring of Riparian Habitat Corridors Along The Lower Mokelumne River</p> <p><i>Restore approximately 45 acres of riparian habitat along two miles of Lower Mokelumne River for birds. Restore degraded riparian ecosystems through invasive species removal and native plant restoration and to monitor the response of neo-tropical migrant songbirds to the restoration.</i></p> | <p>\$114</p> |
| <p>Pyrethroid Insecticides: Analysis, Occurrence, and Fate in the Sacramento and San Joaquin Rivers and Delta</p> <p><i>The purpose of this project is to develop routine, multi-residue methods for analysis of pyrethroid insecticides in water, colloids, sediments and biota. Goals are to develop, test and validate methods for analysis of six or more pyrethroid insecticides in these mediums.</i></p> | <p>\$471</p> |
| <p>Dev. implementation plan-resource management actions-Cosumnes&Mokelumne Rvr floodplains</p> <p><i>Develop an implementation plan for resource management actions on the Cosumnes and Mokelumne River floodplains.</i></p> | <p>\$359</p> |
| <p>Sacramento River Conservation Area Program</p> <p><i>This project will provide funding to continue the efforts of the Sacramento River Conservation Area Program to act as a coordinating body between local, state, and federal agencies regarding restoration activities in the Sacramento River watershed.</i></p> | <p>\$299</p> |
| <p>DFG/CBDA Transfer Positions</p> <p><i>Funding for 8 transfer positions from CBDA.</i></p> | <p>\$744</p> |
| <p>Restoring Ecosystem Integrity in the Northwest Delta: PHASE II</p> <p><i>The project's goal is to manage and restore up to 1300 acres of perennial grassland/vernal pool complex in Solano County, CA, and develop a management plan for the Pembco property or other acquisition within the JPP Island Corridor.</i></p> | <p>\$67</p> |
| <p>Narrows 2 Powerplant Flow Bypass System</p> <p><i>The proposal provides a structural remedy to eliminate flow and temperature fluctuations from emergency and maintenance shutdowns at the Narrows 2 Hydropower Plant on the Yuba River by constructing a 3,000 cfs synchronous bypass system to maintain stable flow releases.</i></p> | <p>\$8,742</p> |
| <p>Mercury and Methylmercury Processes in North San Francisco Bay Tidal Wetland Ecosystems</p> <p><i>This study investigates mercury cycling in tidal wetlands of the Petaluma river, with emphasis on quantifying and understanding processes that influence the abundance of methylmercury.</i></p> | <p>\$1,475</p> |
| <p>Lake Davis Pike Eradication Project - Implementation</p> <p><i>DFG, in collaboration with the USFS, stakeholders and other agencies, will implement the proposed Lake Davis Pike Eradication Project. If a decision is made to proceed, implementation would start at the beginning of 2007.</i></p> | <p>\$11,471</p> |
| <p>Invasive Spartina control monitoring in the San Francisco Estuary (2004 Monitoring Proposal)</p> <p><i>This project's primary goal is to provide timely, high quality data regarding the location and extent of invasive Spartina. It will plan and rapidly implement cost-effective weed control measures and determine when site-specific and regional control objectives have been met. In addition, the Monitoring Program will provide accurate data on the status of endangered California clapper rails at the Spartina treatment sites, to allow Spartina control to be implemented with minimum adverse effects on rails.</i></p> | <p>\$1,234</p> |

* all amounts in thousands of dollars

Implementing Agency

Name

Year 7 Amount:*

| | |
|---|---------|
| Upper Sacramento River Basin (USRB) Studies | \$496 |
| <i>Inclusive of 3 components: 1) PSMFC (USRB Escapement Mont. Program), 2) CDFG (USRB staffing support), and 3) USFWS (USRB Carcass Study). Continue monitoring of the annual abundance, migration timing, and distribution of adult winter, spring, late-fall Chinook salmon returning to spawn in the Upper Sacramento River basin for the next three years and estimate the abundance of winter Chinook salmon spawners and to evaluate the winter Chinook propagation program at Livingston Stone National Fish Hatchery.</i> | |
| San Joaquin Basin-wide Temperature Model (model development) | \$716 |
| <i>Model development for a temperature model on the Stanislaus River.</i> | |
| Implementing a Collaborative Approach to Quantifying Ecosystem Flow Regime Needs for the Sacramento River | \$1,078 |
| <i>This project seeks to quantify key aspects of a "naturalized" flow regime that are compatible with flood damage reduction, agriculture, diversions, storage and conveyance. (was ERP-02-P15-D)</i> | |
| Invasion Dynamics of Perennial Pepperweed, Lepidium latifolium and their Consequences for Protection of Natural and Restored Wetlands in the San Francisco Estuary Project | \$44 |
| <i>This project proposes to perform research to improve eradication and control programs for pepperweed. The research will improve the understanding of the plant's life history so that better strategies, such as increasing salinity, extending flooding, or applying herbicides, can be developed to exclude or control the species.</i> | |
| Biological Assessment of Green Sturgeon in the Sacramento-San Joaquin Watershed Project | \$376 |
| <i>This project proposes to continue research into the life history and habitat needs of green sturgeon. The project will investigate movements and distribution of these fish in the Bay-Delta system and describe their habitats, especially with emphasis on spawning sites.</i> | |
| West Coast Ballast Outreach Project | \$362 |
| <i>The goal is to reduce the number of aquatic nuisance species (ANS) that are introduced to the west coast of the U.S.A. via ballast water discharges from merchant vessels. This training includes the distribution of educational materials, a website, and ballast water management practices. Was ERP-02-P20-D.</i> | |
| Physical Modeling Experiments to Guide River Restoration Projects | \$507 |
| <i>This project proposes to support construction of a flume at the UC Richmond's Field Station. This flume will be used in experiments about the potential effects of river restoration projects, especially spawning gravel augmentation projects, dam removals, and channel reconstruction projects. Data from these experiments can be used to test river restoration designs and evaluate their potential effects. Was ERP-02-P13-D.</i> | |
| Restoring Ecosystem Integrity in the Northwest Delta: PHASE II Project | \$1,253 |
| <i>This project proposes to acquire conservation easements within the Cache Slough complex, along the Barker, Lindsey and Calhoun Sloughs, north Delta tidal channels located west of the Yolo Bypass.</i> | |
| Lower Deer Creek Restoration and Flood Management: Feasibility Study and Conceptual Design Project | \$939 |
| <i>The project will evaluate the feasibility of setting back levees on Deer Creek and investigate the feasibility of allowing flood flows to access the natural floodplain in a controlled manner to improve habitat and flood control.</i> | |
| Butte Sink Water Control Structure Modifications - Phase III Construction | \$894 |
| <i>Provide passage for adult salmonids by installing fish ladders and overflow gates at the Morton and End weirs and a control weir at the North Weir site to keep adult salmon and steelhead in the main migration path of Butte Creek.</i> | |

* all amounts in thousands of dollars

Implementing Agency

Name

Year 7 Amount:*

| | |
|---|----------------|
| <p>Butte Creek Spring-Run Chinook Salmon Life History Investigation (2004 Monitoring PSP)</p> <p><i>The project continues to monitor spring-run Chinook salmon and steelhead trout populations in Butte and Big Chico creeks to evaluate the effectiveness of many anadromous fish restoration projects in the two watersheds and to develop better information on these species' life histories. This project has three major focus areas: (1) juvenile monitoring, (2) juvenile marking (coded-wire tagging), and (3) adult escapement. Specific objectives of this project are to: (1) Monitor and document juvenile size at emigration, (2) Develop a measure of juvenile relative abundance, (3) Determine spawner escapement, (4) Determine age at spawning, (5) Determine contribution to, and impacts of, ocean and sport harvest, (6) Develop estimates of straying from and to other watersheds.</i></p> | <p>\$513</p> |
| <p>Primary Production in the Delta: Monitoring Design, Data Analysis and Forecasting</p> <p><i>The goal of this project is to understand the mechanisms governing phytoplankton primary production and biomass in the Delta.</i></p> | <p>\$57</p> |
| <p>Contract management for CALFED projects funded by Proposition 204</p> <p><i>ERP Project Mgt.</i></p> | <p>\$282</p> |
| <p>Stanislaus - Lower San Joaquin River Water Temperature Modeling and Analysis</p> <p><i>This project will perform modeling and analysis of various alternatives for water management in the Stanislaus River basin to: 1) Determine the relationship between water operations and river temperatures through Mossdale; 2) Refine and validate current water temperature criteria for Central Valley fall-run salmon and Steelhead; 3) simulate water operational strategies to assess cost versus benefit ratios of various water operational alternative.</i></p> | <p>\$113</p> |
| <p>Suisun Marsh Plan (SMP)</p> <p><i>Representative of 4 sub-projects for SMP: 1) Suisun Marsh Implementation Plan (DWR), 2) Suisun Marsh Implementation Plan (SRCD), 3) NEPA/CEQA Consultant (Jones & Stokes), and 4) CCP Contract (Facilitation Support for the Suisun Marsh Charter Process and Implementation Plan Development). The ERP Implementing Agencies as well as CDWR, USBR, Suisun Resource Conservation District (SRCD), and the CBDA continue to participate in preparing the Habitat Management, Preservation, and Restoration Plan for Suisun Marsh (SMP) for the Suisun Marsh Ecological Management Zone.</i></p> | <p>\$1,870</p> |
| <p>Tisdale Positive Barrier Fish Screen and Pumping Plants Project</p> <p><i>This is a fish screen to minimize entrainment of fish at a large (960cfs) irrigation water diversion on the Sac river's east bank, south of Meridian.</i></p> | <p>\$2,108</p> |
| <p>Staten Island Wildlife-Friendly Farming Demonstration</p> <p><i>The goal of the project is to improve wildlife-friendly agriculture to foster recovery of at-risk species and to investigate effects of agriculture on water quality.</i></p> | <p>\$341</p> |
| <p>Monitoring Responses of the Delta Smelt Populations to Multiple Restoration Actions in the San Francisco Estuary (2004 Monitoring PSP)</p> <p><i>This project will monitor delta smelt to discern how environmental conditions, including access to restored habitats, affect survival and population abundance. The project will also collaborate with the bay/delta-wide monitoring by the IEP and with local monitoring efforts at restoration sites to collect and archive delta smelt for analysis of vital characteristics affecting smelt distribution and abundance.</i></p> | <p>\$1,499</p> |
| <p>Recovery Implementation: Riparian Brush Rabbit/Riparian Woodrat-Lwr Stanislaus Rvr</p> <p><i>This project will restore riparian habitats along the lower Stanislaus and San Joaquin rivers adjacent to the Caswell State Park and the SJ river National Wildlife Refuge.</i></p> | <p>\$3,473</p> |

* all amounts in thousands of dollars

Implementing Agency

Name

Year 7 Amount:*

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| <p>Expanded Prevention, Detection, and Control of Purple Loosestrife in the California Bay-Delta Authority Watershed</p> <p><i>This project is an expansion and continuation of efforts for the prevention, detection, and control of purple loosestrife.</i></p> | <p>\$234</p> |
| <p>Demonstration of Techniques for Reversing the Effects of Subsidence in the Sacramento-San Joaquin Delta: Phase 1 - Twitchell Island</p> <p><i>Evaluate techniques to reverse the subsidence of Delta islands.</i></p> | <p>\$1,530</p> |
| <p>Cosumnes River Preserve Perennial Pepperweed Control</p> <p><i>Based on inventory and continued monitoring of existing Lepidium populations at the Cosumnes River Preserve, this project will develop targeted research about control of Lepidium focused on physical and chemical aspects of the soil and on the response of surrounding vegetation to Lepidium populations</i></p> | <p>\$389</p> |
| <p>Rainbow Trout Toxicity Monitoring: An Evaluation of the Role of Contaminants on Anadromous Salmonids</p> <p><i>This project will determine the toxicity of the Sacramento River Basin water bodies to rainbow trout embryos as an indicator of contaminant effects of Central Valley salmonids.</i></p> | <p>\$139</p> |
| <p>Invasive Spartina Project (ISP)</p> <p><i>This project is an expanded effort to plan and implement control measures for Spartina alterniflora, contribute to the overall scientific understanding of the species, and build a bay-wide infrastructure to detect and prevent its future invasions.</i></p> | <p>\$282</p> |
| <p>Hill Slough West Habitat Restoration Demonstration Project, Phase II</p> <p><i>Complete the environmental documentation and permitting for a multi-phased project to restore tidal action to seasonal and permanent wetlands in the Suisun Marsh</i></p> | <p>\$75</p> |
| <p>Transport/Cycling/Fate-Mercury/Monomethyl Mercury in SFDelta/Tributaries</p> <p><i>Transport/Cycling/Fate-Mercury/Monomethyl Mercury in SFDelta/Tributaries</i></p> | <p>\$83</p> |
| <p>Aquatic Restoration Planning and Implementation Section (ARPI) (was "DWR ARPI (Yolo Basin Studies Staffing)") (DWR Prop 50)</p> <p><i>Funding for eleven permanent DFG staff assigned to coordinate ERP implementation with other restoration activities such as CVPIA and associated administrative costs.</i></p> | <p>\$1,000</p> |
| <p>Genetic/Scale Tissue Archive</p> <p><i>Funding for continued development and coordination of historic Central Valley genetics/scale tissue archive and database. Historic scale/tissue collections in Arcata, Fresno, and other locations will be cataloged, entered into a database, and made part of the existing DFG Central Valley genetics tissue archive; collections will be provided for research purposes according to standard protocols.</i></p> | <p>\$344</p> |
| <p>Cosumnes/Mokelumne Corridor Floodplain Acquisitions, Management, and Restoration Planning</p> <p><i>This project is in the planning phase which includes acquisition. It is phase I of a two-part flood management and ecosystem restoration project in Sacramento County, which will ultimately result in 600 acres of land along the Cosumnes and Mokelumne Rivers incorporated into non-structural flood management practices of the Cosumnes River Preserve. Phase 1 will identify and acquire, from willing sellers, suitable parcels and conduct start-up stewardship activities, including baseline monitoring and preliminary restoration planning.</i></p> | <p>\$2,248</p> |

* all amounts in thousands of dollars

Implementing Agency

Name

Year 7 Amount:*

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| <p>Validation of Deep Water Ship Channel Models & SJR Dissolved Oxygen Project</p> <p><i>A stand alone link-node water quality model created by Systech Engineering and the CA Dept. of Water Resources has developed its Delta Simulation Model (DSM2), both with the capability to evaluate dissolved oxygen concentrations in the Deep Water Ship Channel (DWSC). This contract is tasked to provide independent scientific evaluation of the models created. Other objectives include: evaluate the performance of each model in predicting key water quality parameters, including DO in the DWSC.</i></p> | <p>\$215</p> |
| <p>Implementation of a Constant Fractional Marking/Tagging Program for Central Valley Hatchery Chinook Salmon</p> <p><i>Implementation of a Constant Fractional Marking Program for fall-run Chinook salmon at Central Valley hatcheries. CFM plan developed by the IEP Central Valley Salmonid Project Work Team.</i></p> | <p>\$6,776</p> |
| <p>Estimating the Abundance of Sacramento River Juvenile Winter Chinook Salmon with Comparisons to Adult Escapement (2004 Monitoring PSP)</p> <p><i>The project, selected through the 2004 Monitoring PSP, will monitor juvenile winter-run Chinook passing the Red Bluff Diversion Dam to obtain juvenile winter-run Chinook production indices and to correlate these indices with estimated escapement of these fish.</i></p> | <p>\$2,283</p> |
| <p>Development of a Comprehensive Central Valley Steelhead Monitoring Plan</p> <p><i>The Central Valley Steelhead Monitoring Plan will be a comprehensive plan for steelhead population monitoring that, when implemented, will provide the data necessary to assess whether or not restoration and recovery goals are being achieved, and to improve management of the species.</i></p> | <p>\$368</p> |
| <p>Ecological Monitoring of Tolay Creek and Cullinan Ranch Tidal Wetlands Restoration Projects</p> <p><i>This project will monitor the Tolay Creek (ERP-97-N19) and Cullinan Ranch (ERP-97-N18) Tidal Wetland Restoration Projects in the North San Francisco Bay.</i></p> | <p>\$60</p> |
| <p>Battle Creek Anadromous Salmonid Monitoring Projects</p> <p><i>This project is comprised of three Battle Creek salmonid monitoring projects to provide monitoring information for use in adaptive management of the Battle Creek Salmon and Steelhead Restoration Program: (1) adult fish counting and trapping at the Coleman barrier weir; (2) adult, redd, and carcass surveys, and (3) juvenile fish monitoring with using two rotary screw traps.</i></p> | <p>\$277</p> |
| <p>Working Lands Coordinator</p> <p><i>CBDA contracted with the Resources Legacy Fund to provided staff to support development of key strategies to optimize opportunities to integrate ERP activities with agricultural assistance programs, and wildlife friendly agriculture projects.</i></p> | <p>\$35</p> |
| <p>Arundo Donax Eradication and Coordination Program: Monitoring and Evaluation (2004 Monitoring PSP)</p> <p><i>This project will develop a protocol and data collection system to determine the success of Arundo eradication in northern California. The project is coordinating the eradication efforts of 10 participating regional entities and working with The Nature Conservancy on data collection and management for non native invasions.</i></p> | <p>\$111</p> |
| <p>Determination of Age Structure and Cohort Reconstruction of Central Valley Chinook Salmon Populations</p> <p><i>This project will determine the age structure of each population of Central Valley Chinook salmon through scale analysis. Age data will be used in combination with coded-wire tag recovery data to build cohort reconstructions for each year, and estimate population parameters for development of a full life cycle model for each Chinook run.</i></p> | <p>\$637</p> |

* all amounts in thousands of dollars

Implementing Agency

Name

Year 7 Amount:*

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| <p>RD 108 Combined Pumping Plant/Fish Screen Project</p> <p><i>This project represents completion of the five-phase project to design and construct a state-of-the-art fish screen at Reclamation District 108's Wilkins Slough diversion facility on the Yuba River. The project entails consolidating three unscreened diversion facilities into one screened diversion. Currently, the three diversions total about 377 cfs; however, the consolidation will result in a more efficient landside irrigation system, thereby, requiring a maximum diversion rate of only 300 cfs to service the existing agricultural area. Construction of the project will eliminate entrainment of anadromous fish from the existing RD 108 diversions.</i></p> | <p>\$14,248</p> |
| <p>CMARP Phase III Technical Support</p> <p><i>Contract with SFEI to develop conceptual models and associated science activities related to the POD effort.</i></p> | <p>\$105</p> |
| <p>Lower Butte Creek Project: Phase III Facilitation/Coordination and Construction of Three Fish Passage Modification to Sutter Bypass West Side Water Control Structures</p> <p><i>The goal of this project is to increase self-sustaining populations of spring-run and winter-run Chinook salmon, steelhead, and splittail by significantly improving accessibility to the natal holding and spawning areas in Butte Creek through improvement/installation of fish ladders and screens at three locations along the creek</i></p> | <p>\$2,302</p> |
| <p>CALFED NIS Program</p> <p><i>Inclusive of: 1) Zebra Mussel Rapid Response, 2) Zebra Mussel Prevention, and 3) USFWS and DFG NIS Admin Support</i></p> | <p>\$750</p> |
| <p>McCormack-Williamson Tract Restoration: Wildlife-Friendly Levee Management</p> <p><i>The purpose of this project is to reslope 20,000 linear feet of the backslope of the levees on the McCormack-Williamson tract (MWT) to a 5:1 slope using on-site fill to increase the strength and stability of the MWT levee system while increasing riparian habitat.</i></p> | <p>\$2,367</p> |
| <p>Phase II: Demonstration Project for the Protection and Enhancement of Delta In-Channel Islands</p> <p><i>This pilot project intends to demonstrates that biotechnical methods can be used in lieu of riprap or other hard surfaces to protect valuable tidal wetlands associated with in-channel islands in the Delta.</i></p> | <p>\$148</p> |
| <p>Fish Passage Improvement Program (FPIP) Staff (DWR Prop 50)</p> <p><i>The Fish Passage Improvement Program (FPIP) team studies and evaluates constructed structures that impede anadromous fish migration and assists with engineering and environmental evaluations for migration barrier structure removal or modification within the ERP focus area. The FPIP team is guided by an annual work plan developed by an Interagency Review Team (IRT) that includes representatives from the ERP Implementing Agencies and FPIP and approved by the ERP Implementing Agency managers. The work plan identifies and addresses high priority fish passage issues and other engineering support requirements for ecosystem restoration that may be highlighted in ERP regional restoration plans.</i></p> | <p>\$1,114</p> |
| <p>Tuolumne River Fine Sediment Management</p> <p><i>Reduce the supply of fine sediment to increase substrate permeability for chinook salmon.</i></p> | <p>\$512</p> |
| <p>Yolo Bypass Management Strategy, Phase II</p> <p><i>The objective of this project is to continue the technical research, planning, and stakeholder development efforts for implementation of potential habitat enhancement projects of the Yolo Bypass.</i></p> | <p>\$4</p> |

* all amounts in thousands of dollars

Implementing Agency

Name

Year 7 Amount:*

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| <p>Real Time Flow Monitoring (Sac River)</p> <p><i>Continue operation and maintenance of 13 stations that monitor stream flows and water quality in four eastside Sacramento River tributaries where the CVPIA has purchased water to maintain instream flows for salmonids: Big Chico, Butte, Deer, and Mill creeks. Long-term goals for this project include obtaining reach-specific flow and temperature measurements for each tributary and will: (1) provide a basis for current and future flow acquisitions and flow management, and (2) contribute to the recovery and future survival of anadromous fish populations in said tributaries. Measures of future success will include: (1) representation of flows using real-time telemetry and summarized in long-term database, (2) use of telemetry time series data for future flow acquisitions, and (3) spring-run Chinook salmon and steelhead populations in each tributary have recovered and long-term survival is insured.</i></p> | <p>\$330</p> |
| <p>Habitat Acquisition for Riparian Brush Rabbit and Riparian Woodrat</p> <p><i>Acquire fee title or conservation easements on 400 acres of riparian habitat to provide secure sites for release of captive-bred riparian brush rabbits.</i></p> | <p>\$2,660</p> |
| <p>Survey and Eradication of Arundo donax</p> <p><i>The primary objective of this project is to identify and eradicate areas infested by Arundo donax and Tamarix on Red Bank Creek, Reed's Creek and to finish eradication efforts on Deer Creek.</i></p> | <p>\$91</p> |
| <p>ERP Database Strategy Development and Implementation</p> <p><i>Continued support for the ERP database, web based interface, GIS digitizing support, and data entry.</i></p> | <p>\$250</p> |
| <p>ERP Project Management (Staffing)</p> <p><i>Funding for permanent DFG staff assigned to coordinate ERP implementation with other restoration activities such as CVPIA and associated administrative costs.</i></p> | <p>\$4,828</p> |
| <p>Petaluma Marsh Expansion Project: Monitoring and Secondary Test Site for the Integrated Regional Wetland Monitoring Project (2004 Monitoring PSP)</p> <p><i>This project monitors effects of restoring tidal wetlands adjacent to Petaluma Marsh for MSCS fish and wildlife. This is a secondary test site for the Integrated Regional Wetland Monitoring Project (IRWM).</i></p> | <p>\$235</p> |
| <p>Pacific Flyway Center Initial Planning Project</p> <p><i>The purpose of this project is to fund the initial planning phase of the Pacific Flyway Center (PFC), a proposed educational facility and site intended to serve the general public.</i></p> | <p>\$165</p> |
| <p>Hydrodynamics and Oxygen Modeling of the Stockton Deep Water Ship Channel</p> <p><i>The primary objective for this project is to understand how hydrodynamic and biogeochemical processes interact to produce reductions in dissolved oxygen concentrations along the San Joaquin River (SJR) within the Stockton Deep Water Ship Channel (DWSC).</i></p> | <p>\$632</p> |
| <p>Sacramento River Riparian Monitoring and Assessment Consolidated Projects (Revised 2004 Monitoring PSP)</p> <p><i>This project will measure a range of physical and biological indicators for ERP and AFRP-funded projects within the Sacramento River Ecological Management Zone between Red Bluff and Colusa and compare them to previous conditions and reference systems to test whether restoration actions have improved riparian forest conditions and forest interactions with aquatic processes.</i></p> | <p>\$1,265</p> |

* all amounts in thousands of dollars

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| Clear Creek anadromous salmonid monitoring program (2004 Monitoring PSP) | \$1,974 |
| <i>This project is a comprehensive salmonid monitoring program that will evaluate restoration actions and inform adaptive management of Clear Creek. The U.S Fish and Wildlife Service – Red Bluff will provide 5 of 12 elements of a Projected comprehensive salmonid monitoring program. This will provide feedback for the adaptive management and evaluation of restoration actions of the Clear Creek Restoration Program and B2 Water Program.</i> | |
| Bahia Acquisition and Tidal Wetland Restoration | \$916 |
| <i>The project the acquisition of the 631 acre Bahia site, which consists of historic tidal wetlands and adjacent uplands, and the restoration of the former wetlands to tidal marsh by developing a plan to restore 330 acres of currently diked wetlands to tidal action and implementing that plan.</i> | |
| Distribution, and Abundance of Shrimp, Plankton and Benthos in Suisun Marsh: Tidal Marsh as a Refuge for Native Species | \$101 |
| <i>The project objectives are: 1) to evaluate the relationships between presence of alien species, on the local community structure and 2) to investigate the influence that habitat type and environmental conditions have on the type and abundance of species present in the tidal marsh community. Tasks include sampling site location selections, benthos sampling, mysid sampling, zooplankton sampling and a draft and final report on methodology, data summary and analyses and conclusions.</i> | |
| Restoration of Sacramento Perch to San Francisco Estuary | \$222 |
| <i>The project goal is to develop strategies to restore Sacramento Perch to self-sustaining wild populations in the San Francisco Estuary and to assure the Sacramento Perch long-term future in Central California.</i> | |
| Sacramento River Chinook Salmon Carcass Survey | \$23 |
| <i>This project will estimate the abundance of adult endangered winter-run salmon with greater accuracy than current estimates, collect life history attributes, evaluate effectiveness of the propogation program, and collect tissue for genetic analysis.</i> | |
| Shallow Open Water Habitats: Hydrodynamics and Benthic Grazing | \$379 |
| <i>The objective of this project is to develop, via field observation and modeling, a detailed view of how tides and wind-generated waves determine the physical structure and hydrodynamics of shallow estuarine waters, and how these physical processes can act to constrain net primary production through their effects on grazing and light. Field experiments will be carried out in the shallows of Grizzly Bay and in Franks Tract.</i> | |
| Data integration on water and sediment quality and fish contamination | \$150 |
| <i>Funding for twelve permanent DFG staff assigned to prepare and maintain regional ERP implementation plans and to support ongoing implementation activities. This includes staff support for initiating work on the Sacramento River Regional Ecosystem Restoration Implementation Plan and the San Joaquin River Regional Ecosystem Restoration Implementation Plan and to continue work on DRERIP and SMP. These staff will assist in developing conservation strategies for regional HCP/NCCPs and provide support for developing comprehensive monitoring plans and indicators and performance measures through conceptual models.</i> | |
| Update Individual Ownership Adaptive Management Habitat Plans | \$144 |
| <i>Project works to update 140 "Individual Ownership Management Plans for Private Properties" within the Suisun Marsh and to provide wetland management educational information for private landowners.</i> | |
| Effects of Climate Variability and Change on the Vegetation and Hydrology of the Bay-Delta Watershed | \$341 |
| <i>The broad goal of this project is to assess the role of vegetation in shaping the watershed's hydrologic response to climate variability and global climate change.</i> | |

Implementing Agency

Name

Year 7 Amount:*

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| <p>Sacramento River Restoration:Chico Landing Sub-Reach</p> <p><i>Will conduct restoration planning and research on three sites within the Chico Landing Sub-reach (RM 178-206) in preparation for future restoration; and in a set of reference sites that were previously restored by a contractor 5-13 years ago. All sites are located within a portion of the Sacramento River Conservation Area.</i></p> | <p>\$343</p> |
| <p>Juvenile Anadromous Salmonid Emigration Monitoring on the Sacramento River at the Glenn-Colusa Irrigation District (GCID) Fish Screen Bypass Channel (2004 Monitoring PSP)</p> <p><i>This project will continue an existing California Department of Fish and Game juvenile salmonid monitoring project located at the Glenn Colusa Irrigation District (GCID) diversion on the Sacramento River near Hamilton.</i></p> | <p>\$30</p> |
| <p>San Joaquin River National Wildlife Refuge Riparian Habitat Protection and Floodplain Restoration Project - Phase II</p> <p><i>Fund easement acquisition. Restore riparian and wetland habitat. Reintroduce riparian brush rabbits. Monitor.</i></p> | <p>\$575</p> |
| <p>Estimating the abundance of Sacramento River Juvenile Winter Chinook salmon with comparisons to adult escapement</p> <p><i>This project will develop juvenile production indices and correlate these indices with estimated escapement from adult counts at Red Bluff Diversion Dam and from the winter-run carcass survey.</i></p> | <p>\$258</p> |
| <p>Life History of Egeria densa in the Delta: Factors Controlling Production & Fragment Viability</p> <p><i>The purpose of this project is to develop a mechanistic understanding of the life history of a highly invasive aquatic plant, Egeria densa (E.d) (Brazilian elodea), that will improve management and restoration efforts in the Delta.</i></p> | <p>\$68</p> |
| <p>Distribution and Ecology of Lepidium Latifolium in Bay-Delta Wetlands</p> <p><i>The purpose of this project is to conduct research on distribution of perennial pepperweed (Lepidium latifolium) in the Bay-Delta and develop GIS mapping of this region-wide inventory.</i></p> | <p>\$124</p> |
| <p>San Joaquin Basin-wide Temperature Model (data collection)</p> <p><i>DFG will collect, store and manage water temperature and meteorological data in support of Tri-Dam Project's original approved ERP grant to develop a Water Temperature Model on the Stanislaus River; included in this task is expanded sampling on the Tuolumne and Merced rivers to develop a Basin-Wide Water Temperature Model. DFG will oversee water temperature data collection program for San Joaquin River Basin, which consists of deploying and downloading thermographs, conducting reservoir water temperature profiles, managing databases, and transferring water temperature data to computer modelers.</i></p> | <p>\$781</p> |
| <p>Songbird Population Responses to Riparian Management and Restoration at Multiple Scales: Comparative Analysis, Predictive Modeling, and the Evaluation of Monitoring Programs</p> <p><i>The applicant will synthesize the results of past and current riparian bird system research and monitoring across the entire CALFED region. The goals are to identify the major factors influencing the success of hydrological, vegetation management, and restoration activities in providing habitat for self-sustaining bird populations, to develop recommendations for how such activities can best benefit breeding songbirds and to evaluate the songbird monitoring strategy.</i></p> | <p>\$96</p> |

* all amounts in thousands of dollars

Implementing Agency

Name

Year 7 Amount:*

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| <p>Hydroclimatic Reconstruction and Ancient Blue Oak Mapping over the Drainage Basin of San Francisco Bay</p> <p><i>This research project will develop high quality climate and hydrologic reconstructions up to 500 years using an unparalleled network of 50 tree-ring chronologies from moisture-sensitive blue oak trees in the drainage basin of the San Francisco Bay. The purpose of this project is to develop 50 moisture-sensitive tree-ring chronologies from ancient oaks, to reconstruct a suite of precipitation and hydrological variables, and to map ancient blue oak forests in the drainage basin of San Francisco Bay.</i></p> | <p>\$591</p> |
| <p>Mill and Deer Creeks Protection and Stewardship</p> <p><i>This project proposes to help address water quality and quantity, salmon habitat, and existing wildlife-friendly agriculture on Mill Creek and Deer Creek through conservation easements and active land stewardship.</i></p> | <p>\$1,482</p> |
| <p>Sub-Reach Planning for the Sacramento River: River Mile 144-164</p> <p><i>This project will lead planning efforts for the Colusa-Princeton Sub-reach of the Sacramento River (RM 144-164)) Sub-reach planning is site-specific at a spatial scale of approximately 20 river miles. This is a comprehensive approach to restoration planning that includes a high level of stakeholder involvement to develop conceptual restoration plans and analyzes potential benefits to, and impacts of, restoration implementation on surrounding landowners and land uses.</i></p> | <p>\$916</p> |
| <p>The ecological and economic costs and benefits of alternative agricultural practices: Sediment, nutrient, and pesticides in runoff from conservation tillage and cover cropped systems</p> <p><i>The purpose of this research project is to study the effects of conservation tillage and cover cropping on several sensitive resources.</i></p> | <p>\$326</p> |
| <p>Tuolumne River Sediment Acquisition & Spawning Gravel Transfusion Project</p> <p><i>The Tuolumne River restoration project proposed to secure a long-term source of sediment necessary to implement present and future restoration projects, and add a large enough quantity of clean spawning gravel into the river to restore the supply that has been lost during the past century of sediment regulation.</i></p> | <p>\$4,011</p> |
| <p>Wetland response to modified hydrology with respect to salinity management</p> <p><i>DFG, Grassland Water District, UC Merced, and CSU-Fresno Foundation, will collect water quality data in the Grassland Basin and San Joaquin River to further characterize outflow from managed wetlands, determine and compare productivity of differently managed wetlands in the basin, and monitor waterbirds use of differently managed wetlands. This project will assess the feasibility of developing wetland operations that maximize Grasslands' wildlife habitat and improve water quality in the Grasslands Basin and San Joaquin River. This activity helps address water quality stressors of concern in the San Joaquin River and follows up on the previously funded Grassland Water District project titled Adaptive Real-Time Management of Seasonal Wetlands in the Grassland Water District to Improve Water Quality in the San Joaquin River.</i></p> | <p>\$260</p> |
| <p>Clear Creek Juvenile Salmonid Monitoring Project</p> <p><i>This project will provide funds for continued monitoring of juvenile salmonid conditions and outmigration in Clear Creek in order to provide information to managers in assessing the effectiveness of restoration activities funded through the CVPIA.</i></p> | <p>\$59</p> |
| <p>INFORM - Integrated Forecast and Reservoir Management Demonstration for Northern California Water Resources</p> <p><i>This project will build on past work to establish a pilot demonstration site in Northern CA for assessing the utility of climate information for the operational management of regional water resources.</i></p> | <p>\$68</p> |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 7 Amount:* |
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| | Patterson Irrigation District Fish Screen Design and Environmental Review | \$71 |
| | <i>This project will cover the tasks necessary to complete the preliminary and final engineering design for a new diversion and pumping enclosure facility adjacent to the existing diversion. The existing diversion will be abandoned in place per regulatory requirements. The primary objective is to provide a positive means of preventing entrainment of migrating at-risk native fish species by the intake facility.</i> | |
| | Yuba Feather Work Group | \$81 |
| | <i>This project will provide funds to support a community-based stakeholder approach to providing input into Yuba County Water Agency's Proposition 13 Yuba Feather Flood Control Study on various non new-dam watershed management techniques to enhance flood protection while maintaining or improving natural process, habitat and populations of high priority at risk species, including Chinooks salmon and steelhead.</i> | |
| | Determining the mechanisms relating freshwater flow and abundance of estuarine biota (the "Fish-X2" relationships): Phase I | \$130 |
| | <i>Abundance or survival of several estuarine biological populations in the San Francisco Estuary is positively related to freshwater flow. The relationships have been described in terms of 'X2', the location of the 2 psu (practical salinity units) isohaline. This project is phase I of a research program. The ultimate purpose of this project is to contribute to the understanding of the factors that control the distribution and abundance of estuarine species, how these factors vary with X2, and how they might change in the future.</i> | |
| | Kids for Our Creeks | \$83 |
| | <i>The goal of this environmental education proposal is to establish partnerships with the local K-8 schools and establish watershed education programs through the use of an education coordinator.</i> | |
| | Meridian Farms Water Company - Positive Barrier Fish Screen Project | \$196 |
| | <i>This project will result in the completion of the engineering final design, conduct the final environmental analyses, and secure the necessary permits for the fish screen project for the positive barrier fish screen project.</i> | |
| | American Basin Fish Screen & Habitat Improvement Project | \$102 |
| | <i>This project will support the American Basin Fish Screen and Habitat Improvement Project which will improve fish passage, reduce entrainment, and improve aquatic, riverine, and riparian habitats along the Sacramento River.</i> | |
| | Sustainable Restoration Technologies for Bay/Delta Tidal Marsh and Riparian Habitat | \$273 |
| | <i>The objective of this project is protection of natural embankment and reconstruction through passive recruitment of new sediment to create new riparian and shaded riverine aquatic habitat in aquatic channels.</i> | |
| | Monitoring & Investigations of the San Joaquin River & Tributaries Related to Dissolved Oxygen | \$2,617 |
| | <i>This study will provide a comprehensive understanding of the sources and fate of oxygen-consuming materials in the San Joaquin River watershed between Channel Point and Lander Avenue.</i> | |
| | Water Supply Reliability | \$91 |
| | Staffing | \$10 |
| | <i>Staffing</i> | |

* all amounts in thousands of dollars

Implementing Agency

Name

Year 7 Amount:*

Examines sources of predation or mortality

\$27

Led DFG CHTR studies at the SWP; purpose is to determine the losses to delta smelt collected in salvage process to evaluate the feasibility of new state-of-the-art fish screens in the South Delta (CALFED Conveyance Project). Participated in DWR's Release Site studies designed to investigate the predation occurring after salvaged fish are released into the Central Delta. Supported DWR's Steelhead Predation studies designed to investigate predation losses in Clifton Court Forebay as a requirement for SDIP (CALFED Conveyance Project). Co-PI for CALFED PSP study on salvage efficiency of the SWP salvage facility and predation loss in Clifton Court Forebay for entrained delta smelt.

Support studies to define fish movement in the delta

\$27

Tasks include: 1) Assisting USFWS Stockton's juvenile Chinook salmon telemetry studies for Delta Action 8 through by advance deployment of telemetry receivers in the Sacramento River and near the intakes of the SWP and CVP export facilities; 2) Participated in technical advisory meetings for the following Conveyance Projects: Though Delta Facility, Delta Cross Channel Reoperation Studies, and Frank Tract. Met individually with DWR Conveyance Program Manager to discuss the merits of new options for Frank Tract Project; 3) Met with other telemetry project leaders (NOAA, UCD, USFWS, USGS, and EMUD) to assist with data sharing of telemetry information from detected fish in the lower Sacramento-San Joaquin rivers and Delta.

Assist in development of technologies in water transfers and fish screening

\$27

Led two fish facilities technical team meetings, CHTR Coordination Team and Central Valley Fish Facilities Review Team and participated in another technical team, Tracy Technical Advisory Team. These teams discuss research and technologies involving Delta fish screening current and proposed and investigates direct impacts associated with fish entrainment at the major Delta water diversions. Provided input on the design of fish screen improvements at the CVP and SWP Delta facilities such as new debris cleaners or improved fish transport trucks.

Department of Public Health

Subtotal: \$13,200

Water Quality

\$13,200

Antelope Valley E. Kern Water Agency

\$856

Reduces disinfection byproducts in distribution system caused by source water quality (State Water Project). This is one of four projects by Antelope Valley East Kern Water District and Los Angeles County Waterworks Districts 36 and 40 to allow these entities to continue to use State Project Water (SPW) and to be in compliance with disinfection byproduct regulations. SPW has high levels of naturally occurring reactive organic carbon and bromide. These constituents, when mixed with chlorine for disinfection, create disinfection byproducts that exceed regulatory standards. The projects to be funded out of Prop 50 will add treatment facilities or other facilities that reduce disinfection byproducts.

Eastern Municipal WD

\$12,123

Filtration plant to treat State project Water. This is one of five projects that will allow the Eastern Municipal Water District, the Metropolitan Water District, and the City of San Diego to reduce demand on surplus Colorado River Water by providing funding for treatment facilities that allow these entities to use greater amounts of State Project Water (SPW) when that water is available. Currently, these entities cannot make use of all the SPW when available, because SPW has high levels of naturally occurring reactive organic carbon and bromide. These constituents, when mixed with chlorine for disinfection, create disinfection byproducts that exceed regulatory standards. As a result, the entities use greater blends of Colorado River water to meet standards. These projects will allow these entities the flexibility to use the water that is available, whether that be water from the State Project or the Colorado River or local sources.

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 7 Amount:* |
|---------------------|--|-----------------|
| | Los Angeles Co WW Dist 40-Region 38-Lake LA (Project 005) | \$221 |
| | <i>Disinfection Conversion Project. Reduces disinfection byproducts in distribution system caused by source water quality (State Water Project) This is one of four projects by Antelope Valley East Kern Water District and Los Angeles County Waterworks Districts 36 and 40 to allow these entities to continue to use State Project Water (SPW) and to be in compliance with disinfection byproduct regulations. SPW has high levels of naturally occurring reactive organic carbon and bromide. These constituents, when mixed with chlorine for disinfection, create disinfection byproducts that exceed regulatory standards. The projects to be funded out of Prop 50 will add treatment facilities or other facilities that reduce disinfection byproducts.</i> | |

| | | |
|---|------------------|------------------|
| Department of Water Resources | Subtotal: | \$336,104 |
| Coordination and Science | | \$19,144 |
| Fldwy Prot | | \$292 |
| <i>Review CALFED-related encroachment permit applications that are submitted through the Reclamation Board.</i> | | |
| BDCP | | \$2,125 |
| <i>Bay-Delta Conservation Plan Development</i> | | |
| Delta Vision | | \$1,383 |
| <i>Delta Vision Study</i> | | |
| IEP - POD | | \$1,630 |
| <i>Interagency Ecological Program - Pelagic Organism Decline investigations</i> | | |
| CALFED Science Projects | | \$1,656 |
| <i>CALFED Science Projects</i> | | |
| IEP - Baseline | | \$6,058 |
| <i>Interagency Ecological Program - Core</i> | | |
| Species Recovery | | \$6,000 |
| <i>Species Recovery Fund</i> | | |
| Ecosystem Restoration | | \$43,474 |
| FPIP | | \$1,184 |
| <i>Fish Passage Improvements Program</i> | | |
| Colusa Basin Watershed Assessment And Capacity Building | | \$400 |
| <i>Colusa County Resource Conservation District</i> | | |
| Overcoming The Liability Stalemate In Abandoned Mine Clean-Up | | \$50 |
| <i>Sustainable Conservation</i> | | |
| Watershed Health Scorecards For Better Watershed Management | | \$336 |
| <i>Sonoma Ecology Center</i> | | |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 7 Amount:* |
|----------------------------|---|------------------------|
| | Marsh Creek Watershed Restoration And Outreach Program <i>Natural Heritage Institute</i> | \$400 |
| | Wtrshd Tech. Asst. <i>Watershed Program Technical Assistance</i> | \$706 |
| | Invasive Control, Capacity Building And Broadening Partnerships On Cache Creek <i>Cache Creek Conservancy</i> | \$400 |
| | Tuolumne River Outdoor Classroom <i>Tuolumne River Preservation Trust</i> | \$201 |
| | Stony Creek Watershed Plan <i>Glenn County Resource Conservation District</i> | \$400 |
| | Tehama East Watershed Assessment <i>Tehama County Resource Conservation District</i> | \$398 |
| | Yuba Watershed Assessment, Visioning and Restoration Strategy <i>South Yuba River Citizens League</i> | \$371 |
| | Pit River Alliance Watershed Management Strategy Development Program <i>North Cal-Neva Resource Conservation And Development Council</i> | \$400 |
| | Bear Creek Watershed Assessment, Planning, And Technology Transfer <i>Bureau Of Land Management</i> | \$258 |
| | Arroyo Seco, Watershed Sustainability <i>Arroyo Seco Foundation</i> | \$391 |
| | Salmonid Action Program <i>Kids for the Bay</i> | \$150 |
| | Upper Cache Creek Assessment And Management Planning Project <i>West Lake Resource Conservation District</i> | \$400 |
| | Lower Feather River Huc/Honcut Creek Watershed Assessment Project <i>Sutter County Resource Conservation District</i> | \$400 |
| | Wtrshd Grants <i>Watershed Grant Program - Financial Assistance</i> | \$1,095 |
| | The Grassland Stewardship Plan <i>Grassland Water District</i> | \$391 |
| | The Emerald Necklace <i>Amigos De Los Rios</i> | \$169 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 7 Amount:* |
|---------------------|--|-----------------|
| | CVPIA <i>CVPIA State Cost Share - federal-State cost-share agreement between DWR, USBR, USFWS, and DFG for fishery restoration activities</i> | \$1,575 |
| | Upper Laguna Creek Collaborative <i>Sacramento Urban Creeks Council</i> | \$400 |
| | Assessment Of Riparian Wetlands As Buffer Zones For Water Quality In The San Joaquin River <i>University Of The Pacific</i> | \$400 |
| | EWQ <i>Ecosystem Water Quality - Dissolved Oxygen & Abandoned Mines</i> | \$22,158 |
| | Wtrshd Adm <i>Watershed Grant Program - Administration</i> | \$264 |
| | Four Pumps (CAP) <i>Delta Fish Agreement (Four Pumps Program)- Lump Sum Account (CAP)</i> | \$2,505 |
| | Watershed Symposiums On Non-Native Invasive Species In CALFED Area <i>US FWS and Calfed NIS Program</i> | \$62 |
| | ARPI <i>Yolo Aquatic Restoration Program</i> | \$1,047 |
| | Assessment Of Restoration <i>University of California, Davis</i> | \$400 |
| | Forgotten Shoreline <i>Natural Heritage Institute</i> | \$347 |
| | Four Pumps (Delta Fish Agreement - Annual) <i>The 1986 'Four Pumps Agreement', between the DWR and DFG was established to offset direct losses of fish caused by the diversion of water at the Harvey O. Banks Delta Pumping Plant. Among its provisions, the agreement provides for the estimation of annual fish losses and mitigation credits, and for the funding and implementation of mitigation projects including water exchange projects to provide salmon passage flows, enhanced law enforcement, stocking of salmon, steelhead and striped bass, fish screens and ladders, guidance barriers, and numerous salmon habitat enhancement projects.</i> <i>The Agreement has been amended three times, most recently in November 2004, which extends the \$15 Million Lump Sum component through December 2007. The other remaining Annual Mitigation funding component has no termination date. Since 1986 approximately \$59 million in combined funding from Annual and \$15 Million Lump Sum components has been approved for over 40 fish mitigation projects under the Four Pumps Agreement. About \$44 million of the approved funds have been expended to date and the remaining approved funds are allocated for new or longer term projects.</i> | \$3,988 |
| | Inland Empire Sustainable Watershed <i>California Resource Connections, Inc.</i> | \$400 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 7 Amount:* |
|---------------------|---|-----------------|
| | Sacramento River Watershed Information Module <i>Sacramento River Watershed Program</i> | \$400 |
| | Shasta West Watershed Management Plan <i>Western Shasta Resource Conservation District</i> | \$111 |
| | Bridging Schools And Communities In Yuba River Watershed <i>Nevada County Superintendent of Schools</i> | \$155 |
| | Alder Creek Watershed Planning <i>City Of Folsom, Dept. of Public Works</i> | \$399 |
| | Water For Fish And Farms (WFF) <i>Napa County Resource Conservation District</i> | \$363 |
| | Levees | \$18,905 |
| | Delta Levees Projects <i>The Delta Levees Maintenance Subventions program provides for financial assistance to local agencies for the maintenance and rehabilitation of non-project and project levees that meet prescribed requirements.</i> <i>Description: The Delta Levees Special Flood Control Projects program provides funds to designated local agencies for flood control projects that mainly consist of levee rehabilitation and repair efforts and are relative to habitat mitigation and net long-term improvement efforts.</i> | \$9,365 |
| | Delta Levees Oversight <i>Delta Levees Program Oversight</i> | \$185 |
| | DRMS <i>Delta Risk Management Strategy</i> | \$3,800 |
| | Delta Levees Support <i>Delta Levees Program Support</i> | \$5,555 |
| | Water Quality | \$11,480 |
| | Franks Tract Project <i>The Franks Tract Project involves developing modifications in and/or around Franks Tract to improve the water quality of Delta exports/diversions and develop other beneficial opportunities. The development of a pilot project is currently being pursued to confirm the potential water quality improvements and to monitor the effects of the project. The pilot project would provide information for further project development/operations while yielding interim benefits at a reasonable cost.</i> | \$8,431 |
| | Delta Modeling <i>Delta water quality modeling</i> | \$84 |
| | Delta Modeling <i>Data analysis and Delta computer modeling support</i> | \$168 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 7 Amount:* |
|---------------------|--|------------------|
| | Old River/Rock Slough <i>Old River & Rock Slough Water Quality Improvement Projects</i> | \$1,263 |
| | LICD <i>Low Intensity Chemical Dosing Project</i> | \$1,534 |
| | Water Supply Reliability | \$243,101 |
| | Common Assumptions <i>Common Assumptions</i> | \$1,242 |
| | LV <i>Los Vaqueros Reservoir Expansion</i> | \$1,000 |
| | SD Hydrodynamic Inv <i>South Delta Hydrodynamic Investigations</i> | \$708 |
| | WSR Asst. to Locals <i>Water Supply Reliability Program - Assistance to Locals</i> | \$5,033 |
| | WUE Oversight <i>Water Use Efficiency Program Oversight</i> | \$78 |
| | WUE Tech. Asst. <i>Agricultural and Urban Water Use Efficiency Technical Assistance</i> | \$146 |
| | DFFIP - Stealhead predation loss study. <i>Delta Fish Facility Improvements Project - Stealhead predation loss study.</i> | \$2,347 |
| | San Luis LPIP <i>San Luis Reservoir Low Point Improvement Project - Santa Clara Valley Water District (SCVWD)</i> | \$1,999 |
| | North-of-the-Delta Offstream Storage <i>We will review project descriptions to ensure completeness and clarity. This should include full sentences, and spell out acronyms and leave out technical jargon. The description should describe the overall project purpose as well as the expected result/outcome. In cases where the project may pertain to multiple program elements, the description should be focused upon the primary program element as already defined by the agency. We will also discuss 'projects' that are defined as staff support or other administrative costs. North-of-the-Delta Offstream Storage will provide flexibility to Shasta, Oroville and Folsom Reservoir operations. These changes will result in improved management of the overall water system, water diversions and deliveries can be timed in ways that improve water quality, restore wildlife habitat, support fishery needs, facilitate conjunctive mangement and increase water supply reliability and flood protection.</i> | \$3,100 |
| | EWA Tier 3 <i>Tier 3 Emergency Reserve</i> | \$3,200 |
| | CIMIS <i>California Irrigation Management Information System</i> | \$796 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 7 Amount:* |
|---------------------|--|-----------------|
| | Desal & Recycling - tech asst <i>Desalination and Recycling Technical Assistance</i> | \$114 |
| | Delta Fish Facility Improvements Project (DFFIP) <i>DFFIP - Collection Handling Transportation and Release (CHTR) of fish at the Skinner fish salvage facility.</i> | \$3,401 |
| | Ag Water Cons. Loans <i>Agricultural Water Conservation Loans</i> | \$15,000 |
| | WSR Prog Supp <i>Water Supply Reliability Program Support</i> | \$4,363 |
| | Upper SJ <i>Upper San Joaquin River Storage</i> | \$1,000 |
| | Urban Tech. Asst. <i>Urban Water Use Efficiency Technical Assistance</i> | \$234 |
| | Program Management <i>Conveyance Program Management</i> | \$102 |
| | Grndwater Storage <i>Groundwater Storage Program grants</i> | \$2,000 |
| | N. Delta Flood Eco <i>North Delta Flood Control & Ecosystem Restoration Project</i> | \$496 |
| | SDIP <i>South Delta Improvements Program</i> | \$74,406 |
| | EWA Assets <i>Water and Power Acquisitions</i> | \$71,377 |
| | WUE Tech. Asst. <i>Water Use Efficiency Technical Assistance</i> | \$1,896 |
| | Ag Tech. Asst. <i>Agricultural Water Conservation Technical Assistance</i> | \$1,118 |
| | WUE Prog Support <i>Water Use Efficiency Program Delivery and Program Support</i> | \$451 |
| | WUE Grants <i>Water Use Efficiency Grants</i> | \$35,329 |
| | Urban Tech. Asst. <i>Urban Water Conservation Technical Assistance</i> | \$906 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 7 Amount:* |
|--|---|---------------------------|
| | Desal - Admin <i>Desalination Program Administration</i> | \$259 |
| | Delta Cross Channel Reoperations/Through Delta Facility <i>This project involves evaluating and implementing operational procedures for the Delta Cross Channel to improve water quality of Delta exports/diversions and to address related fishery concerns. The Through Delta Facility is a proposed screened diversion facility on the Sacramento River with a capacity up to 4,000 cfs to improve the water quality of Delta exports/diversions and to address related fishery concerns.</i> | \$8,927 |
| | WUE Grants Admin <i>Water Use Efficiency Grants Administration</i> | \$587 |
| | WUE Sci & Monitor <i>Water Use Efficiency Science & Monitoring</i> | \$1,486 |
| National Marine Fisheries Service | | Subtotal: \$450 |
| | Coordination and Science | \$225 |
| | (None Supplied) <i>Staff Support</i> | \$75 |
| | (None Supplied) <i>Staff Support</i> | \$150 |
| | Ecosystem Restoration | \$150 |
| | (None Supplied) <i>Staff Support</i> | \$150 |
| | Water Supply Reliability | \$75 |
| | (None Supplied) <i>Staff Support</i> | \$75 |
| San Francisco Bay Conservation and Development Commission | | Subtotal: \$88 |
| | Coordination and Science | \$88 |
| | (None Supplied) <i>SFBCDC Staff Support</i> | \$88 |
| State Water Resources Control Board | | Subtotal: \$10,746 |
| | Ecosystem Restoration | \$6,265 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 7 Amount:* |
|---------------------|---|-----------------|
| | Reappropriated budgetary authority amounts that have not be allocated to projects. <i>This item represents budgetary authority amounts that the Water Board has not yet allocated to projects. It is included in this listing so that total funding amounts balance to the crosscut budget report.</i> | \$6,265 |
| | Water Quality | \$3,530 |
| | Reappropriated budgetary authority amounts that have not be allocated to projects. <i>This item represents budgetary authority amounts that the Water Board has not yet allocated to projects. It is included in this listing so that total funding amounts balance to the crosscut budget report.</i> | \$3,530 |
| | Water Supply Reliability | \$951 |
| | City of Palo Alto <i>Mountain View/Moffett Recycle Water Pipeline consists of installing recycled water conveyance pipelines to extend recycled water service into the City of Mountain View.</i> | \$198 |
| | Delta Diablo Sanitation Dist. <i>Pittsburg Golf Course Recycle Water Project consists of recycled water distribution system to expend recycle water service to Delta View Golf Course and other city-owned parks within the City of Pittsburg.</i> | \$375 |
| | Reappropriated budgetary authority amounts that have not be allocated to projects. <i>This item represents budgetary authority amounts that the Water Board has not yet allocated to projects. It is included in this listing so that total funding amounts balance to the crosscut budget report.</i> | \$378 |

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|---|------------------|-----------------|
| U S Bureau of Reclamation | Subtotal: | \$74,465 |
| Coordination and Science | | \$9,702 |
| CALFED Science Activities <i>Continues investigation by the Interagency Ecological Program agencies and the CALFED Science Program of causes for the recent declines in the Delta of pelagic organisms. Also continues expert evaluations and scientific assessments of Program elements and for assisting the CALFED agencies with the establishment of performance measures, and monitoring and evaluating the performance of all Program elements.</i> | | \$2,970 |
| Interagency Ecological Program (IEP) <i>Continues to support the IEP for the Sacramento-San Joaquin estuary for physical, chemical, and biological monitoring which is required as a condition of the joint Federal-State water export permit and studies under the Endangered Species Act of 1973 and to resolve Bay-Delta water issues.</i> | | \$3,762 |
| CALFED Program Management, Oversight, and Coordination <i>Activities include Program support; Program-wide tracking of schedules, finances, and performance; multi-agency oversight and coordination of Program activities to ensure Program balance and integration; development of interagency crosscut budgets and a comprehensive finance plan to allocate costs in accordance with the beneficiary pays provisions of the Record of Decision; coordination of public outreach and involvement, including tribal, environmental justice, and public advisory activities in accordance with the Federal Advisory Committee Act (5 U.S.C. App.); development of Annual Reports; and Reclamation's administration of the storage, conveyance, water use efficiency, environmental water account, ecosystem restoration, science, and water transfer programs.</i> | | \$2,970 |
| Ecosystem Restoration | | \$19,601 |

* all amounts in thousands of dollars

Anadromous Fish Restoration Program

\$4,200

The objectives of the Anadromous Fish Restoration Program are to (1) improve habitat for all life stages of anadromous fish through provision of flows of suitable quality, quantity, timing, and physical habitat; (2) improve survival rates by reducing or eliminating entrainment of juveniles at diversions; (3) improve the opportunity for adult fish to reach their spawning habitats in a timely manner; (4) collect fish population, health, and habitat data to facilitate evaluation of restoration actions; (5) integrate habitat restoration efforts with harvest and hatchery management; and (6) involve partners in the implementation and evaluation of restoration actions.

Ecosystem Restoration

\$1,980

Continues the implementation of projects that improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta system to support sustainable populations of diverse and valuable plant and animal species. Projects could include habitat restoration actions, fish screen improvements, control of invasive species, and water quality improvement projects that contribute to the objectives of the CALFED's Ecosystem Restoration Program.

Dedicated Project Yield

\$900

The Department of the Interior (Interior) has the responsibility to dedicate and manage annually 800,000 acre-feet of CVP water (b)(2) water for fish, wildlife, and habitat restoration purposes and assist the State of California in its efforts to protect the waters of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. The management of (b)(2) water is being closely coordinated with the management of CALFED's Environmental Water Account (EWA). The program objectives are to: (1) improve habitat conditions for anadromous fish in CVP controlled rivers and streams and the Bay-Delta to help meet the AFRP doubling goals; (2) increase survival of out migrant juvenile anadromous fish, especially in the Bay-Delta; (3) enhance recovery of listed threatened and endangered fish species; and (4) monitor and evaluate to assess the effectiveness of (b)(2) measures.

Water Acquisition

\$8,086

Three key objectives of the Water Acquisition Program (WAP) are to: (1) Provide supplemental water supplies for refuges, referred to as Incremental Level 4, for critical wetland habitat supporting resident and migratory waterfowl, threatened and endangered species, and wetland dependent aquatic biota [CVPIA Sections 3406 (b)(3) and (d)(2)]. (2) Acquire instream flows in support of the San Joaquin River Agreement (SJRA) [CVPIA Section 3406 (b)(3)]. The increased flows benefit numerous resident and anadromous fish species, but are acquired primarily to benefit Chinook salmon. (3) Acquire water to improve spawning and rearing habitat and increase migration flows for fall, winter and spring run Chinook salmon and steelhead in support of the Anadromous Fish Restoration Plan (AFRP) [CVPIA Section 3406 (b)(3)].

Spawning Gravel/Riparian Habitat

\$500

The purpose of the Spawning Gravel/Riparian Habitat Program is to increase the availability of spawning gravel and rearing habitat, and subsequently monitor the results of these actions, for: (1) Sacramento River Basin Chinook salmon and steelhead trout in the reach of the mainstem Upper Sacramento River from Keswick Dam downriver to Red Bluff Diversion Dam; (2) American River Basin Chinook salmon and steelhead trout in the reach of the American River downriver from Nimbus Dam; and (3) Stanislaus River Chinook salmon and steelhead trout in the reach of the Stanislaus River downriver from Goodwin Dam.

Clear Creek Restoration

\$935

The purpose of the Clear Creek Restoration Program is to: (1) restore stream channel form and function necessary to optimize habitat for salmon and steelhead and the aquatic and terrestrial communities on which they depend; (2) determine long-term flow needs for spawning, incubation and rearing by conducting an Instream Flow Incremental Methodology study as mandated in Section 3406 (b)(12); (3) provide flows of adequate quality and quantity to meet the requirements of all life stages of Chinook salmon and steelhead trout known to use Clear Creek; (4) provide spawning gravel to replace supply blocked by Whiskeytown Dam; and (5) monitor project results.

Anadromous Fish Screen Program

\$3,000

The primary objective of the Anadromous Fish Screen Program (AFSP) is to protect juvenile chinook salmon (all runs), steelhead trout, green and white sturgeon, striped bass and American shad from entrainment at priority diversions throughout the Central Valley. Section 3406 (b)(21) of the Central Valley Project Improvement Act (CVPIA) requires the Secretary of the Interior to assist the State of California in developing and implementing measures to avoid losses of juvenile anadromous fish resulting from unscreened or inadequately screened diversions on the Sacramento and San Joaquin Rivers, their tributaries, the Delta, and the Suisun Marsh. Additionally, all AFSP projects meet Goal 3 of the CALFED Ecosystem Restoration Program's (ERP) Draft Stage 1 Implementation Plan (8/1/01, Page 22) which states that, "the goal is to maintain and/or enhance populations of selected species for sustainable commercial and recreational harvest, consistent with the other ERP Strategic Goals."

Water Quality

\$2,970

San Joaquin River Salinity Management

\$2,970

This Program to Meet Standards (PTMS) was mandated in Section 103 (d)(2)(D) of the Water Supply, Reliability, and Environmental Improvement Act (P.L. 108-361, Calfed Bay-Delta Authorization Act). The authorization directs the Secretary of the Interior, in consultation with the Governor of California, to develop and initiate implementation of a program to meet all existing water quality standards and objectives for which CVP has responsibility prior to increasing export limits from the Sacramento-San Joaquin Delta (Delta) for the purposes of conveying water to CVP contractors south of the Delta or increasing deliveries through an intertie between the California Aqueduct and Delta Mendota Canal (DMC). The Act further clarifies, the purpose of this authority and direction is to provide greater flexibility in meeting the existing water quality standards and objectives for which the CVP has responsibility and reduce the demand on water from New Melones Reservoir used for that purpose, and to assist the Secretary of the Interior in meeting any obligations to CVP contractors from the New Melones Project, i.e., Stockton East Water District (SEWD) and South San Joaquin Water Conservation District (SSJWCD). Reclamation has initiated implementation of the PTMS Program required by the Act and is coordinating implementation with the San Joaquin River Water Quality Management Group, which includes the California Department of Water Resources, along with other state and local agencies and other key stakeholders in the San Joaquin Valley.

Water Supply Reliability

\$42,192

North of Delta Off-Stream Storage (Sites Reservoir) Investigation

\$1,485

Reclamation is conducting a Feasibility Study in cooperation with the California Department of Water Resources (DWR) as the non-Federal partner that will include preparation of a Feasibility Report/Decision Document and Environmental Impact Statement/Report (EISR) for the North of Delta Off-Stream Storage (NODOS) Investigation. The Feasibility Study purpose is to determine the type and extent of Federal interest in a multiple purpose plan to provide up to 1.8 million acre-feet of off-stream water storage at a potential Sites Reservoir or alternative locations in the Sacramento Valley North of the Delta. The proposed project would improve water management flexibility and reliability for water supply, fish passage and survival, reduce diversions along the Sacramento River during critical fish migration periods, and provide storage and operational benefits to CALFED programs such as Delta water quality and the Environmental Water Account.

Los Vaqueros Expansion Project

\$1,980

The CALFED ROD describes potential expansion of Los Vaqueros Reservoir as part of a Bay Area water quality and water supply reliability initiative. Feasibility Study planning objectives include 1) increased water supply reliability for primary study area water providers, principally to help meet M&I water demands, focusing on Los Vaqueros Reservoir enlargement; 2) use of an expanded Los Vaqueros Reservoir as a substitute for water supplies to be acquired for the long-term Environmental Water Account should the cost for an expanded reservoir be found to be less than acquisition costs for EWA, and 3) to the extent possible through pursuit of water supply reliability and environmental water objectives, improve the quality of Delta water deliveries to M&I customers in the study area.

San Diego Area Water Reclamation Program

\$3,465

Greater use of reclaimed water results in decreased dependency on potable imported water including water from the Colorado River. This project consists of four units: (1) The San Diego Water Reclamation Project is a regional water reclamation program being implemented by the cities of San Diego and Poway, Sweetwater Authority, and Otay Water District. The project provides for the construction of five new wastewater treatment plants, expansion of an existing plant, along with distribution systems, and two conjunctive use projects. Total system capacity upon completion will be approximately 57,116 acre-feet per year. (2) The Escondido Water Reclamation Project is being implemented by the city of Escondido to upgrade its Hale Avenue Resource Recovery Facility from secondary treatment to tertiary treatment. A distribution system that will put the recycled water to beneficial use for non-potable purposes is also being constructed. In addition, the city of San Diego is planning to upgrade and expand its San Pasqual Water Reclamation Plant, which will produce recycled water for non-potable uses, and for a possible conjunctive use project. A distribution system will also be constructed. The City of Poway will construct a distribution system that will utilize recycled water from the San Pasqual Plant. When completed, the three project components will deliver a total of approximately 11,200 acre-feet of recycled water annually. (3) The San Diego Water Repurification Project has been stopped by the city of San Diego, and the reclaimed water and funds that would have been used for this project are now included in the San Diego Water Reclamation Project. (4) The Padre Dam Municipal Water District Reclamation Project will upgrade and expand an existing water treatment plant and construct a distribution system that will deliver 2,000 acre-feet of recycled water annually.

South Delta Improvement Program

\$249

Reclamation and California Department of Water Resources (DWR) completed environmental studies for the South Delta Improvement Program (SDIP) to provide increased deliveries for the SWP and CVP water service contractors while addressing the Delta fisheries and local in-Delta agricultural water users needs. The SDIP is a component of the Conveyance Program of the CALFED Bay-Delta Program. The SDIP major components are increasing the allowable diversion capacity at the SWP's Clifton Court Forebay to 8,500 cfs; construction of permanent operable flow control barriers to improve water level and water quality available for agricultural diversions in the south Delta; dredging portions of Middle River, Old River, and West, Grantline, Victoria, and North Canals to improve flows in south Delta channels; and constructing a permanent operable fish control barrier at the head of Old River to reduce fish movement into south Delta channels.

Orange County Regional Water Reclamation Project, Phase 1

\$1,238

This project will take tertiary treated reclaimed water from an existing facility operated by the Orange County Sanitation District, treat the water to advanced levels using a pretreatment and reverse osmosis process, and pump the water through a pipeline that parallels the Santa Ana River up to existing recharge facilities adjacent to the River, where the water will be used to recharge the regions groundwater basin. This initial phase will provide about 50,000 acre-feet of water annually for groundwater recharge.

Calleguas Municipal Water District Recycling Project

\$990

This project consists of planning, designing, and constructing regional water recycling projects that include wastewater reclamation and reuse, brackish groundwater recovery, and regional salinity management projects. A total of ten specific projects are planned resulting in annual recycling or recovery of a total of 51,470 acre-feet of water in order to reduce the regions dependence on imported water supplies. This project is located in Ventura County, California.

Delta Mendota Canal Recirculation Project

\$1,385

Study the feasibility of recirculation of Delta export water to reduce salinity and improve dissolved oxygen in the San Joaquin River. This action may also reduce the reliance on the New Melones Reservoir for meeting water quality and fishery flow objectives in the San Joaquin River. This feasibility study is also required by provisions of the water rights permits granted to Reclamation by the California State Water Resources Control Board (SWRCB) in Order D-1641.

North San Diego County Area Water Recycling Project

\$1,238

This project is located in San Diego County, California. The four components of this project are the result of a cooperative effort by the San Elijo Joint Powers Authority, the Carlsbad Municipal Water District, the Olivenhain Municipal Water District, and the Leucadia Wastewater District. This project consists of planning, designing, and constructing permanent facilities to reclaim and reuse approximately 15,350 acre-feet of water annually in the North San Diego County area in order to reduce the regions dependence on imported water supplies and reduce wastewater discharges to the ocean.

Tracy Fish Facilities Mitigation Program

\$1,914

Continues identifying and making physical improvements and operational changes assessing fishery conditions, and assessing salvage operations at the Tracy Fish Collecting Facility (TFCF) per the Central Valley Project Improvement Act (CVPIA).

Shasta Lake Water Resources Investigation

\$3,960

Reclamation is conducting a Feasibility Study including preparation of a Feasibility Report/Decision Document and Environmental Impact Statement (EIS) for the Shasta Lake Water Resources Investigation (SLWRI). The purpose of the SLWRI is to determine the type and extent of Federal interest in a multiple purpose plan to modify Shasta Dam and Reservoir to increase survival of anadromous fish populations in the upper Sacramento River; increase water supplies and water supply reliability to agricultural, municipal and industrial, and environmental purposes; and to the extent possible through meeting these objectives, include features to benefit other identified ecosystem, flood damage reduction, and related water resources needs, consistent with the objectives of the CALFED Bay Delta Program.

Water Conservation Projects

\$3,002

The Central Valley Project (CVP) Water Conservation Program (Program) activity is administered by the Regional Water Conservation Team (Team) with assistance from the Area Offices. The Program Team performs duties required under the Central Valley Project Improvement Act of 1992 (CVPIA) and the Reclamation Reform Act of 1982 (RRA), which includes the development and administration of various Criteria – the Standard Criteria for Evaluating Water Management Plans, the Regional Criteria for the Sacramento Valley, and the Criteria for Developing Refuge Water Management Plans. Section 3405 (e) of the CVPIA, P.L. 102-575, directs the Secretary of the Interior (Secretary) to establish and administer an office on Central Valley water conservation best management practices that shall “. . . develop criteria for evaluating the adequacy of all water conservation plans developed by project contractors, including those plans required by Section 210 of the RRA, Public Law 97-293.” FY 2008 activities will continue implementation of water conservation through a Request for Proposal (RFP) Program. Selected proposals will be awarded grants or cooperative agreements which are targeted to meet water conservation objectives contained in the CALFED Water Use Efficiency Program. Other benefits of projects will include implementation of Best Management Practices, while focusing on water districts with a Federal connection. The RFP is designed to encourage cost share projects proposed by water districts, irrigation districts, resource conservation districts, urban water agencies, etc. Grants and cooperative agreements will be awarded based on criteria consistent with the goals of Reclamation’s Water Conservation Field Services Program.

Upper San Joaquin River Basin Storage Investigation

\$3,960

The CALFED ROD recommends a storage increase of 250-700 TAF in the upper San Joaquin River watershed by enlargement of Millerton Lake at Friant Dam or a functionally equivalent storage program in the region. The project would restore and improve water quality for the San Joaquin River and facilitate conjunctive water management and water exchanges improving water quality deliveries to urban communities. Water supply reliability is integral to advancing these objectives. Other benefits include potential increased flood protection, contributions to long-term EWA water supply, hydropower generation, and recreational.

San Gabriel Basin Project

\$743

This project is located in the San Gabriel Valley of Los Angeles County, California, and consists of three units: (1) The San Gabriel Basin Demonstration Project is a conjunctive use project that was originally envisioned to address the most severe area of groundwater contamination within the San Gabriel Basin, namely the Baldwin Park Operable Unit, which is an Environmental Protection Agency Superfund site. However, after additional investigations, it was apparent that a comprehensive solution to the water supply and groundwater contamination problems was required to adequately protect the groundwater resources of the San Gabriel Basin. Additional operable units within the San Gabriel Basin, known as the El Monte, South El Monte, and Puente Valley Operable Units were included in the project to provide such a comprehensive remedy. The revised project continues to meet the original objectives by implementing conjunctive use projects that will enhance both the groundwater quality and the local and regional water supply. Treatment projects will remove volatile organic compounds and other contaminants from the groundwater and then deliver the water for distribution. When completed, the total capacity will be about 39,000 acre-feet annually. Extraction, treatment, and distribution of San Gabriel Basin groundwater will improve the basin's groundwater quality, increase storage capacity, and expand the basins use for regional benefits. (2) The Rio Hondo Water Recycling Program will distribute 5,600 acre-feet of recycled water annually from the San Jose Creek Water Reclamation Plant for landscape irrigation and industrial process water. This use of recycled water will replace the need for a like amount of potable water, thereby lessening the demand on both imported and groundwater resources. By reducing the need for groundwater pumping, this program will assist in the prevention of further migration of contamination from the San Gabriel plume, and wastewater discharges to the ocean will be decreased. Components of the program are construction of a main pump station, a booster pump station, reservoir storage facilities (10 million gallons), and approximately 40 miles of pipeline. The program is being implemented in two phases.(3) The San Gabriel Valley Water Reclamation Program will utilize up to 10,000 acre-feet of reclaimed water annually from the San Jose Creek Water Reclamation Plant to recharge the San Gabriel groundwater basin in order to replace and/or supplement water currently being imported and recharged. There will be no net change in the amount of water currently being recharged as a result of implementation of this program. The recharge will be accomplished in the San Gabriel River channel downstream of Santa Fe Dam. Additional facilities to use up to 13,300 acre-feet of reclaimed water annually for landscape irrigation and industrial use are also included.

Delta Mendota Canal and California Aqueduct Intertie Capacity

\$1,288

Evaluation of increased capacity of the intertie between the State Water Project California Aqueduct and the Central Valley Project Delta Mendota Canal.

Through Delta Evaluation

\$395

San Jose Area Water Reclamation and Reuse Prog, Phase 1

\$495

This program calls for the planning, design, and construction of demonstration and permanent facilities, in cooperation with the City of San Jose and the Santa Clara Valley Water District, to reclaim and reuse up to 36,000 acre-feet per year of wastewater treatment plant effluent in the San Jose metropolitan service area. The total program includes construction of 300 miles of pipe over a 150 square mile area in six cities providing reclaimed water to the San Jose metropolitan service area. The total program cost is estimated at \$480 million, with the Federal contribution capped at \$109.9 million.

San Luis Lowpoint Feasibility Study

\$1,485

Study of potential actions to increase the operational flexibility of storage in San Luis Reservoir and ensure a high quality, reliable water supply for San Felipe Division contractors.

Contra Costa Water District Alternative Intake Project

\$495

The CCWD Alternative Intake Project is authorized in PL 108-361 to expend funds "for design and construction of the relocation of drinking water intake facilities...or take other actions necessary to offset the degradation of drinking water quality in the Delta due to the South Delta Improvement Program." The project proposed by CCWD includes the addition of a Delta diversion facility that would be connected via pipeline to the existing CCWD Old River Intake. Both intakes are proposed to be of the same capacity and no increases in diversion are planned. CCWD relies entirely upon the Sacramento-San Joaquin Delta for its supply, which includes both Central Valley Project (CVP) water and water diverted under CCWD water rights. Water quality problems for CCWD result from undesirable concentrations of salinity, minerals, bromide and organic carbon, and turbidity in Delta source water. Seasonal water quality fluctuations and drought conditions in the Delta make it more difficult for CCWD to meet self-imposed objectives that are more stringent than drinking water regulations. The proposed action would involve adding a new point of diversion to certain existing water rights held by CCWD and by Reclamation. The new intake in the southwest Delta would tie into the existing Old River Intake and Pump Station and improve operational flexibility to divert from either location to provide the highest water quality. CCWD and Reclamation only seek to add a point of diversion with no increase in water rights, capacity, CVP contract amounts, or Los Vaqueros Reservoir filling or release rates. CCWD funded Reclamation's staff time from August - December 2005 under a Contributed Funds Agreement. Reclamation is currently funding CCWD under a sole source contract. Reclamation also has a contract to complete a special study to determine federal interest and complete a cost allocation.

Water Acquisitions and Power

\$10,890

The Environmental Water Account (EWA) is a cooperative management program whose purpose is to provide protection to at-risk fish species of the Bay-Delta Estuary through environmentally beneficial changes in the operations of the State Water Project (SWP) and the CVP, at no uncompensated water cost to the Projects water users. Three Federal (Reclamation, U.S. Fish and Wildlife Service, National Marine Fisheries Service) and two state (California Departments of Water Resources and Fish and Game) agencies work together implementing the EWA.

Long Beach Area Water Reclamation Project

\$743

This project is located in Los Angeles County, California, and consists of two units: the Alamitos Barrier Reclaimed Water Project will ultimately recycle about 8,000 acre-feet per year in lieu of imported water. Facilities will be constructed so that tertiary treated water from the existing Long Beach Water Reclamation Plant can be treated to advanced levels so that it can be used for groundwater injection into seawater intrusion barriers. Phase 1 was completed in 2005, and Phase 2 is scheduled to begin construction in 2009. The City of Long Beach Recycled Water System Expansion Project will construct an expansion of an existing distribution system that allows the use of recycled water throughout the city. The expansion consists of pumps, pipes, storage facilities, and control systems that would increase use of recycled water from 4,585 acre-feet per year to 16,677 acre-feet per year (including the Alamitos Barrier Project).

CVP, Yield Feasibility Investigation

\$792

The Least-Cost Central Valley Project Yield Increase Plan (Yield Increase Plan) submitted to Congress in July 1996 identified the least-cost options to replace the impact of dedicating 1.2 million acre-feet of yield for fish and wildlife purposes under the Central Valley Project Improvement Act (CVPIA) on the Central Valley Project (CVP) water service contractors. The water supply and demand reduction options identified in the Yield Increase Plan include land fallowing, conservation, modified operations, conjunctive use, water reuse, surface storage, conveyance, and other options. As directed in the CalFed Bay-Delta Authorization Act, a Water Supply and Yield Study (WSAYS), in cooperation with the State of California, is required for submission to Congress by October 2005. The CVP Yield Feasibility Investigation Program continues the coordination and technical studies necessary to ensure CVP Yield benefits are effectively evaluated during feasibility investigations for water supply opportunities identified in the supplements to the Least-Cost CVP Yield Increase Plan; continues Reclamation's participation in conjunctive use, groundwater banking opportunities, and investigation of other options for improving water supply reliability through coordination with Federal and State agencies, water and irrigation districts, municipalities, environmental groups, and other stakeholders.

| Implementing Agency | Name | Year 7 Amount:* |
|-------------------------------|--|-----------------------------------|
| U S Fish and Wildlife Service | | Subtotal: \$1,558 |
| | Coordination and Science | \$306 |
| | (None Supplied) | \$306 |
| | <i>Staffing in support of Science program.</i> | |
| | Ecosystem Restoration | \$1,252 |
| | (None Supplied) | \$1,252 |
| | <i>Staffing in support of ERP.</i> | |
| <hr/> | | |
| U S Geological Survey | | Subtotal: \$1,300 |
| | Coordination and Science | \$1,300 |
| | Lead Scientist Support | \$712 |
| | Interagency Ecological Program | \$588 |
| <hr/> | | |
| | | Year 7 Subtotal: \$616,413 |
| <hr/> | | |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 8 Amount:* |
|--|---|---------------------------|
| CALFED Bay Delta Program (Resources Agency) | | Subtotal: \$14,156 |
| | Coordination and Science | \$14,156 |
| | O&C-Communications | \$137 |
| | <i>Costs associated with CBDP communication and public involvement staff</i> | |
| | O&C-Communications | \$98 |
| | <i>Costs associated with CBDP environmental justice efforts</i> | |
| | O&C-Program Support | \$3,046 |
| | <i>Administrative support/OE&E for Resources Agency, DWR, SWRCB, CalFire, and DFG</i> | |
| | O&C-Communications | \$88 |
| | <i>Costs associated with Authority/BDPAC staff and support</i> | |
| | O&C-Program Support | \$7 |
| | <i>Costs associated with the SWRCB program support of CALFED</i> | |
| | SCI-Critical Unknowns | \$2,552 |
| | <i>Grants, Data Analysis and Critical Unknowns-PSP, Fellows</i> | |
| | SCI-Program Support | \$5,598 |
| | <i>Costs associated with CBDP Science program planning/reporting/ administration</i> | |
| | O&C-Exec | \$649 |
| | <i>Costs associated with CBDP executive staff</i> | |
| | O&C-Program Support | \$12 |
| | <i>Costs associated with the DWR program support of CALFED</i> | |
| | O&C-Planning | \$532 |
| | <i>Costs associated with the CBDA Strategic Planning/Delta Vision efforts</i> | |
| | O&C-Communications | \$57 |
| | <i>Costs associated with CBDP Tribal Relations/Projects</i> | |
| | O&C-Program Support | \$479 |
| | <i>Costs associated with the Resources Agency program support of CALFED</i> | |
| | O&C-Program Support | \$364 |
| | <i>Costs associated with the CalFire program support of CALFED</i> | |
| | O&C-Tracking | \$232 |
| | <i>Costs associated with CBDP Program Performance and Finance Tracking</i> | |
| | O&C-Program Support | \$15 |
| | <i>Costs associated with the DFG program support of CALFED</i> | |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 8 Amount:* |
|--|--|----------------------------|
| | O&C-Legal <i>Costs associated with CBDP legal staff</i> | \$290 |
| California Department of Forestry and Fire Protection | | Subtotal: \$1,553 |
| | Coordination and Science | \$1,553 |
| | NA <i>CBDP Staff Support</i> | \$1,553 |
| Department of Conservation | | Subtotal: \$3,496 |
| | Coordination and Science | \$96 |
| | Staff Support Not Allocated to Projects | \$96 |
| | Ecosystem Restoration | \$3,400 |
| | Staff Support Not Allocated to Projects | \$3,400 |
| Department of Fish and Game | | Subtotal: \$134,387 |
| | Coordination and Science | \$166 |
| | Staffing <i>Staffing</i> | \$166 |
| | Ecosystem Restoration | \$134,140 |
| | Additional milestones projects based on annual milestones assessment <i>Milestones are a list of ERP, Multi-Species Conservation Strategy (MSCS), and Water Quality Program actions the CALFED Program will implement in Stage 1 to address covered species. The MSCS-ERP Milestones represent the ERP Agencies' objectives for ERP implementation that would allow covered species to make significant progress toward restoration and recovery. As stated in the ROD, the ERP Agencies will revise the milestones as necessary. During Year 5, a milestones assessment was completed and a long-term program of milestone assessment will be developed to ensure that the ERP and MSCS are implemented in a manner and to an extent sufficient to sustain programmatic FESA, GESA, and NCCPA compliance for all Program elements.</i> | \$9,082 |
| | Aquatic Restoration Planning and Implementation Section (ARPI) (was "DWR ARPI (Yolo Basin Studies Staffing)") (DWR Prop 50) <i>ARPI was established in DWR to support the ERP by developing habitat enhancement and fish passage improvement in the Yolo Bypass. ARPI collaborates with the Yolo Basin Foundation and other local groups to identify, study, and carry out projects on public or private land with willing participants; these efforts create regionally significant improvement in riparian, tidal marsh, and seasonal floodplain habitats in the bypass. This effort is compatible with maintaining or improving seasonal flood flow capacity of the bypass while improving habitat diversity and quality.</i> | \$1,000 |

* all amounts in thousands of dollars

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| <p>Fish Passage Improvement Program (FPIP) Staff (DWR Prop 50)</p> <p><i>The Fish Passage Improvement Program (FPIP) team studies and evaluates constructed structures that impede anadromous fish migration and assists with engineering and environmental evaluations for migration barrier structure removal or modification within the ERP focus area. The FPIP team is guided by an annual work plan developed by an Interagency Review Team (IRT) that includes representatives from the ERP Implementing Agencies and FPIP and approved by the ERP Implementing Agency managers. The work plan identifies and addresses high priority fish passage issues and other engineering support requirements for ecosystem restoration that may be highlighted in ERP regional restoration plans.</i></p> | \$1,000 |
| <p>Funding for additional approved ERP grants and Directed Action projects</p> | \$11,974 |
| <p>Battle Creek Habitat Restoration Project</p> <p><i>The Battle Creek Salmon and Steelhead Restoration Project would restore approximately 42 miles of historical anadromous fish habitat in Battle Creek, and an additional 6 miles of habitat in its tributaries. Components of the project include: 1) Removal of 5 diversion dams that would have marginal power production value after their releases are adjusted to meet streamflow needs below the dams, 2) Installing fish ladders at 3 diversion dams and screening their associated diversions, 3) Increasing flow releases from all remaining diversion dams affecting anadromous fish on Battle Creek, and 4) Direct connection of powerhouse tailraces to power canals to eliminate redundant screening requirements, flow fluctuations associated with powerhouse operations, and false attraction of returning fish to powerhouse tailraces containing a mixture of waters from different basins. This is a multi-year implementation project delayed because of a revised EIS/EIR, access issues, and contracting delays. Due to delays and increased costs, the Restoration Project is seeking additional funding. Thus, it is currently undergoing technical review through the Ecosystem Restoration Program.</i></p> | \$49,210 |
| <p>Coordinated Monitoring and Indicator/Performance Measure Strategy Project</p> <p><i>NMFS reinitiation efforts in September 2004 identified a need for scientifically sound performance measures to describe and evaluate the benefits of the CALFED program on listed salmonids. This work element consists of the development of relevant performance measures.</i></p> | \$2,000 |
| <p>Dutch Slough Tidal Marsh Restoration Project (Phase III)</p> <p><i>Restore a portion of Dutch Slough and conduct adaptive management experiments</i></p> | \$25,889 |
| <p>Project Tracking for the Ecosystem Restoration Program</p> <p><i>This agreement will allow the Contractor to assist the DFG, NOAA Fisheries, U.S. Fish and Wildlife Service, and the CALFED Bay-Delta Program with effectively monitoring restoration projects, conducting research associated with implementation to support the adaptive management process, tracking the success of approved restoration projects, and assist with the final review being conducted by the Department of Finance.</i></p> | \$385 |
| <p>Assisting Farmers in Integrating Agricultural Activities with Ecosystem Restoration (AFI)</p> <p><i>Chapter 7 of Proposition 50 states that "not less than \$20 million shall be allocated for projects that assist farmers in integrating agricultural activities with ecosystem restoration." During Year 6, ERP will dedicate funds in this category to a focused solicitation and directed actions to implement projects that benefit fish, GGS, and other MSCS species on agricultural lands and technical assistance partnerships to facilitate integration of state-federal-local agricultural programs benefiting MSCS species and habitats. Remaining funds could be used to support targeted agricultural activities benefiting wildlife and fish and will identify funding priorities, priority practices, and geographical focus areas for projects that assist farmers in integrating agricultural activities with ecosystem restoration, monitoring, research, and implementation.</i></p> | \$15,393 |
| <p>Suisun Marsh Property Acquisition and Habitat Restoration</p> <p><i>Acquisition of lands in the Suisun Marsh suitable for tidal restoration. Approved through the 2002 Project Solicitation Process.</i></p> | \$1,046 |

Implementing Agency**Name****Year 8 Amount:***

| | |
|---|-------------|
| The M&T/Llano Seco Fish Screen Facility - Short-term/Long-term Protection Project | \$500 |
| <i>This project involves developing a long-term solution for protecting operations of the M&T/Llano Seco diversion pumps. River meander and sediment deposition continues to threaten operations and safety of the pumping facility, which supplies water to farmland and USFWS and CDFG refuge lands. This funding will support studies to develop a long-term solution.</i> | |
| Technical assistance partnerships to integrate agricultural activities with ecosystem restoration | \$500 |
| <i>ERP will increase its cooperative efforts with organizations such as USDA's Natural Resources Conservation Service (NRCS), Resource Conservation Districts, and other technical non-profit agencies to provide technical assistance to landowners to implement agricultural activities benefiting MSCS wildlife and fish. This effort will provide a linkage between state and federal programs and help develop the institutional capacity of implementing agencies and cooperators to support agricultural activities benefiting wildlife and fish.</i> | |
| Additional Milestones Projects for Other At-Risk Species Affected by Water Projects Operations, Based on Annual Milestones Assessments | \$10,000 |
| <i>In the consultation letters sent in September 200, the USFWS and NOAA Fisheries noted that work on specific milestones needed to continue or be started. Funds expended to meet the requirements listed in the consultation letters may include fish passage or water acquisition projects. Milestones are a list of ERP, Multi-Species Conservation Strategy (MSCS), and Water Quality Program actions the CALFED Program will implement in Stage 1 to address covered species. The MSCS-ERP Milestones represent the ERP Agencies' objectives for ERP implementation that would allow covered species to make significant progress toward restoration and recovery. As stated in the ROD, the ERP Agencies will revise the milestone as necessary. During year 6, a long-term program of milestone assessment will be developed to ensure that the ERP and MSCS are implemented in a manner and to an extent sufficient to sustain programmatic FESA, CESA, and NCPPA compliance for all Program elements. Projects that could be considered under this item include Science Program recommendations relevant to ERP goals and objectives like the "Determination of Age Structure of Central Valley Salmon" analysis and the BREACH III effort.</i> | |
| Napa Salt Ponds Monitoring | \$2,000 |
| <i>This project would monitor the 10,000 acre Napa Salt Marsh Restoration projects effects on fish, wildlife and the Napa River estuary.</i> | |
| ERP Project Management (Staffing) | \$4,160 |
| <i>Funding for permanent DFG staff assigned to coordinate ERP implementation with other restoration activities such as CVPIA and associated administrative costs.</i> | |
| Water Supply Reliability | \$81 |
| Examines sources of predation or mortality | \$27 |
| <i>Led DFG CHTR studies at the SWP; purpose is to determine the losses to delta smelt collected in salvage process to evaluate the feasibility of new state-of-the-art fish screens in the South Delta (CALFED Conveyance Project). Participated in DWR's Release Site studies designed to investigate the predation occurring after salvaged fish are released into the Central Delta. Supported DWR's Steelhead Predation studies designed to investigate predation losses in Clifton Court Forebay as a requirement for SDIP (CALFED Conveyance Project). Co-PI for CALFED PSP study on salvage efficiency of the SWP salvage facility and predation loss in Clifton Court Forebay for entrained delta smelt.</i> | |

* all amounts in thousands of dollars

Implementing Agency

Name

Year 8 Amount:*

Assist in development of technologies in water transfers and fish screening \$27

Led two fish facilities technical team meetings, CHTR Coordination Team and Central Valley Fish Facilities Review Team and participated in another technical team, Tracy Technical Advisory Team. These teams discuss research and technologies involving Delta fish screening current and proposed and investigates direct impacts associated with fish entrainment at the major Delta water diversions. Provided input on the design of fish screen improvements at the CVP and SWP Delta facilities such as new debris cleaners or improved fish transport trucks.

Support studies to define fish movement in the delta \$27

Tasks include: 1) Assisting USFWS Stockton's juvenile Chinook salmon telemetry studies for Delta Action 8 through by advance deployment of telemetry receivers in the Sacramento River and near the intakes of the SWP and CVP export facilities; 2) Participated in technical advisory meetings for the following Conveyance Projects: Though Delta Facility, Delta Cross Channel Reoperation Studies, and Frank Tract. Met individually with DWR Conveyance Program Manager to discuss the merits of new options for Frank Tract Project; 3) Met with other telemetry project leaders (NOAA, UCD, USFWS, USGS, and EMUD) to assist with data sharing of telemetry information from detected fish in the lower Sacramento-San Joaquin rivers and Delta.

Department of Public Health

Subtotal: \$80,204

Water Quality **\$80,204**

City of San Diego (Miramar) \$20,000

Installation of ozone disinfection should reduce chlorine based DBPs at the tap. (Miramar Water Treatment Plant) This is one of five projects that will allow the City of San Diego, the Metropolitan Water District, and Eastern Municipal Water District to reduce demand on surplus Colorado River Water by providing funding for treatment facilities that allow these entities to use greater amounts of State Project Water (SPW) when that water is available. Currently, these entities cannot make use of all the SPW when available, because SPW has high levels of naturally occurring reactive organic carbon and bromide. These constituents, when mixed with chlorine for disinfection, create disinfection byproducts that exceed regulatory standards. As a result, the entities use greater blends of Colorado River water to meet standards. These projects will allow these entities the flexibility to use the water that is available, whether that be water from the State Project or the Colorado River or local sources.

Metropolitan Water Dist. Of So. Cal. (Skinner) \$20,000

Installation of treatment to reduce DBP concentrations based on the mix of local, SWP, and Colorado River water supplied. (Skinner Water Treatment Plant) This is one of five projects that will allow the Metropolitan Water District, the City of San Diego, and Eastern Municipal Water District to reduce demand on surplus Colorado River Water by providing funding for treatment facilities that allow these entities to use greater amounts of State Project Water (SPW) when that water is available. Currently, these entities cannot make use of all the SPW when available, because SPW has high levels of naturally occurring reactive organic carbon and bromide. These constituents, when mixed with chlorine for disinfection, create disinfection byproducts that exceed regulatory standards. As a result, the entities use greater blends of Colorado River water to meet standards. These projects will allow these entities the flexibility to use the water that is available, whether that be water from the State Project or the Colorado River or local sources.

Los Angeles CO WW 36-Val Verde (Project 038) \$68

Improving water quality in reservoirs. Reduces disinfection byproducts in distribution system caused by source water quality (State Water Project). This is one of four projects by Antelope Valley East Kern Water District and Los Angeles County Waterworks Districts 36 and 40 to allow these entities to continue to use State Project Water (SPW) and to be in compliance with disinfection byproduct regulations. SPW has high levels of naturally occurring reactive organic carbon and bromide. These constituents, when mixed with chlorine for disinfection, create disinfection byproducts that exceed regulatory standards. The projects to be funded out of Prop 50 will add treatment facilities or other facilities that reduce disinfection byproducts.

* all amounts in thousands of dollars

Implementing Agency

Name

Year 8 Amount:*

| | |
|---|-----------------|
| <p>Los Angeles CO WW Dist 40-Region 38-Lake LA (Project 039)</p> <p><i>Improving water quality in reservoirs. Reduces disinfection byproducts in distribution system caused by source water quality (State Water Project). This is one of four projects by Antelope Valley East Kern Water District and Los Angeles County Waterworks Districts 36 and 40 to allow these entities to continue to use State Project Water (SPW) and to be in compliance with disinfection byproduct regulations. SPW has high levels of naturally occurring reactive organic carbon and bromide. These constituents, when mixed with chlorine for disinfection, create disinfection byproducts that exceed regulatory standards. The projects to be funded out of Prop 50 will add treatment facilities or other facilities that reduce disinfection byproducts.</i></p> | <p>\$136</p> |
| <p>Metropolitan Water Dist. Of So. Cal. (Weymouth)</p> <p><i>Installation of treatment to reduce DBP concentrations based on the mix of local, SWP, and Colorado River water supplied. (Weymouth Water Treatment Plant) This is one of five projects that will allow the City of San Diego, the Metropolitan Water District, and Eastern Municipal Water District to reduce demand on surplus Colorado River Water by providing funding for treatment facilities that allow these entities to use greater amounts of State Project Water (SPW) when that water is available. Currently, these entities cannot make use of all the SPW when available, because SPW has high levels of naturally occurring reactive organic carbon and bromide. These constituents, when mixed with chlorine for disinfection, create disinfection byproducts that exceed regulatory standards. As a result, the entities use greater blends of Colorado River water to meet standards. These projects will allow these entities the flexibility to use the water that is available, whether that be water from the State Project or the Colorado River or local sources.</i></p> | <p>\$20,000</p> |
| <p>Metropolitan Water Dist. Of So. Cal. (Diemer)</p> <p><i>Installation of treatment to reduce DBP concentrations based on the mix of local, SWP, and Colorado River water supplied. (Diemer Water Treatment Plant) This is one of five projects that will allow the Metropolitan Water District, the City of San Diego, and Eastern Municipal Water District to reduce demand on surplus Colorado River Water by providing funding for treatment facilities that allow these entities to use greater amounts of State Project Water (SPW) when that water is available. Currently, these entities cannot make use of all the SPW when available, because SPW has high levels of naturally occurring reactive organic carbon and bromide. These constituents, when mixed with chlorine for disinfection, create disinfection byproducts that exceed regulatory standards. As a result, the entities use greater blends of Colorado River water to meet standards. These projects will allow these entities the flexibility to use the water that is available, whether that be water from the State Project or the Colorado River or local sources.</i></p> | <p>\$20,000</p> |

Department of Water Resources

Subtotal: \$242,210

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|--|-----------------|
| Coordination and Science | \$19,773 |
| BDCP | \$3,214 |
| <i>Bay-Delta Conservation Plan Development</i> | |
| Species Recovery | \$6,000 |
| <i>Species Recovery Fund</i> | |
| CALFED Science Grants | \$1,647 |
| <i>CALFED Scientific Research Grants</i> | |
| IEP - Baseline | \$6,354 |
| <i>Interagency Ecological Program - Core</i> | |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 8 Amount:* |
|---------------------|--|-----------------|
| | IEP - POD <i>Interagency Ecological Program - Pelagic Organism Decline investigations</i> | \$1,630 |
| | Delta Vision <i>Delta Vision Study</i> | \$617 |
| | Fldwy Prot <i>Review CALFED-related encroachment permit applications that are submitted through the Reclamation Board.</i> | \$311 |
| | Ecosystem Restoration | \$30,047 |
| | FPIP <i>Fish Passage Improvements Program</i> | \$1,200 |
| | Four Pumps (CAP) <i>Delta Fish Agreement (Four Pumps Program)- Lump Sum Account (CAP)</i> | \$1,713 |
| | EWQ <i>Ecosystem Water Quality - Dissolved Oxygen & Abandoned Mines</i> | \$20,567 |
| | CVPIA <i>CVPIA State Cost Share - federal-State cost-share agreement between DWR, USBR, USFWS, and DFG for fishery restoration activities</i> | \$1,575 |
| | Four Pumps (Delta Fish Agreement - Annual) <i>The 1986 'Four Pumps Agreement', between the DWR and DFG was established to offset direct losses of fish caused by the diversion of water at the Harvey O. Banks Delta Pumping Plant. Among its provisions, the agreement provides for the estimation of annual fish losses and mitigation credits, and for the funding and implementation of mitigation projects including water exchange projects to provide salmon passage flows, enhanced law enforcement, stocking of salmon, steelhead and striped bass, fish screens and ladders, guidance barriers, and numerous salmon habitat enhancement projects.</i> <i>The Agreement has been amended three times, most recently in November 2004, which extends the \$15 Million Lump Sum component through December 2007. The other remaining Annual Mitigation funding component has no termination date. Since 1986 approximately \$59 million in combined funding from Annual and \$15 Million Lump Sum components has been approved for over 40 fish mitigation projects under the Four Pumps Agreement. About \$44 million of the approved funds have been expended to date and the remaining approved funds are allocated for new or longer term projects.</i> | \$4,044 |
| | Wtrshd Tech. Asst. <i>Watershed Program Technical Assistance</i> | \$685 |
| | Wtrshd Adm <i>Watershed Grant Program - Administration</i> | \$263 |
| | Levees | \$63,981 |
| | Delta Levees Support <i>Delta Levees Program Support</i> | \$10,506 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 8 Amount:* |
|---------------------|--|------------------|
| | Delta Levees Projects | \$51,500 |
| | <i>The Delta Levees Maintenance Subventions program provides for financial assistance to local agencies for the maintenance and rehabilitation of non-project and project levees that meet prescribed requirements.</i> | |
| | <i>Description: The Delta Levees Special Flood Control Projects program provides funds to designated local agencies for flood control projects that mainly consist of levee rehabilitation and repair efforts and are relative to habitat mitigation and net long-term improvement efforts.</i> | |
| | West Delta Levees | \$390 |
| | <i>West Delta Levees Program Support</i> | |
| | DRMS | \$1,400 |
| | <i>Delta Risk Management Strategy</i> | |
| | Delta Levees Oversight | \$185 |
| | <i>Delta Levees Program Oversight</i> | |
| | Water Quality | \$15,699 |
| | Delta Modeling | \$90 |
| | <i>Delta water quality modeling</i> | |
| | Delta Modeling | \$168 |
| | <i>Data analysis and Delta computer modeling support</i> | |
| | Franks Tract Project | \$12,617 |
| | <i>The Franks Tract Project involves developing modifications in and/or around Franks Tract to improve the water quality of Delta exports/diversions and develop other beneficial opportunities. The development of a pilot project is currently being pursued to confirm the potential water quality improvements and to monitor the effects of the project. The pilot project would provide information for further project development/operations while yielding interim benefits at a reasonable cost.</i> | |
| | CCC Enc. | \$2,824 |
| | <i>Contra Costa Water District Canal Lining</i> | |
| | Water Supply Reliability | \$112,710 |
| | WUE Grants Admin | \$585 |
| | <i>Water Use Efficiency Grants Administration</i> | |
| | Urban Tech. Asst. | \$251 |
| | <i>Urban Water Use Efficiency Technical Assistance</i> | |
| | Desal & Recycling - tech asst | \$114 |
| | <i>Desalination and Recycling Technical Assistance</i> | |
| | Program Management | \$102 |
| | <i>Conveyance Program Management</i> | |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 8 Amount:* |
|---------------------|--|-----------------|
| | EWA Tier 3 <i>Tier 3 Emergency Reserve</i> | \$6,250 |
| | EWA Assets <i>Water and Power Acquisitions</i> | \$2,828 |
| | Ag Water Cons. Loans <i>Agricultural Water Conservation Loans</i> | \$26,999 |
| | WUE Prog Support <i>Water Use Efficiency Program Delivery and Program Support</i> | \$449 |
| | WUE Tech. Asst. <i>Water Use Efficiency Technical Assistance</i> | \$1,896 |
| | WUE Sci & Monitor <i>Water Use Efficiency Science & Monitoring</i> | \$1,486 |
| | N. Delta Flood Eco <i>North Delta Flood Control & Ecosystem Restoration Project</i> | \$525 |
| | WUE Grants <i>Water Use Efficiency Grants</i> | \$30,136 |
| | Desal - Admin <i>Desalination Program Administration</i> | \$259 |
| | SDIP <i>South Delta Improvements Program</i> | \$18,129 |
| | SD Hydrodynamic Inv <i>South Delta Hydrodynamic Investigations</i> | \$3,403 |
| | AB 1881 <i>Water conservation and landscaping - SFL BCP</i> | \$400 |
| | Urban Tech. Asst. <i>Urban Water Conservation Technical Assistance</i> | \$1,005 |
| | Delta Fish Facility Improvements Project (DFFIP) <i>DFFIP - Collection Handling Transportation and Release (CHTR) of fish at the Skinner fish salvage facility.</i> | \$4,250 |
| | Ag Tech. Asst. <i>Agricultural Water Conservation Technical Assistance</i> | \$1,172 |
| | CIMIS <i>California Irrigation Management Information System</i> | \$852 |

* all amounts in thousands of dollars

| Implementing Agency | Name | Year 8 Amount:* |
|--|---|---------------------------|
| | WUE Oversight <i>Water Use Efficiency Program Oversight</i> | \$78 |
| | Delta Cross Channel Reoperations/Through Delta Facility <i>This project involves evaluating and implementing operational procedures for the Delta Cross Channel to improve water quality of Delta exports/diversions and to address related fishery concerns. The Through Delta Facility is a proposed screened diversion facility on the Sacramento River with a capacity up to 4,000 cfs to improve the water quality of Delta exports/diversions and to address related fishery concerns.</i> | \$11,386 |
| | WUE Tech. Asst. <i>Agricultural and Urban Water Use Efficiency Technical Assistance</i> | \$155 |
| San Francisco Bay Conservation and Development Commission | | Subtotal: \$88 |
| | Coordination and Science | \$88 |
| | (None Supplied) <i>SFBCDC Staff Support</i> | \$88 |
| State Water Resources Control Board | | Subtotal: \$619 |
| | Water Supply Reliability | \$619 |
| | Reappropriated budgetary authority amounts that have not been allocated to projects. <i>This item represents budgetary authority amounts that the Water Board has not yet allocated to projects. It is included in this listing so that total funding amounts balance to the crosscut budget report.</i> | \$619 |
| U S Bureau of Reclamation | | Subtotal: \$70,991 |
| | Coordination and Science | \$9,000 |
| | Interagency Ecological Program (IEP) <i>Continues to support the IEP for the Sacramento-San Joaquin estuary for physical, chemical, and biological monitoring which is required as a condition of the joint Federal-State water export permit and studies under the Endangered Species Act of 1973 and to resolve Bay-Delta water issues.</i> | \$4,000 |
| | CALFED Program Management, Oversight, and Coordination <i>Activities include Program support; Program-wide tracking of schedules, finances, and performance; multi-agency oversight and coordination of Program activities to ensure Program balance and integration; development of interagency crosscut budgets and a comprehensive finance plan to allocate costs in accordance with the beneficiary pays provisions of the Record of Decision; coordination of public outreach and involvement, including tribal, environmental justice, and public advisory activities in accordance with the Federal Advisory Committee Act (5 U.S.C. App.); development of Annual Reports; and Reclamation's administration of the storage, conveyance, water use efficiency, environmental water account, ecosystem restoration, science, and water transfer programs.</i> | \$2,000 |

* all amounts in thousands of dollars

Implementing Agency**Name****Year 8 Amount:*****CALFED Science Activities**

\$3,000

Continues investigation by the Interagency Ecological Program agencies and the CALFED Science Program of causes for the recent declines in the Delta of pelagic organisms. Also continues expert evaluations and scientific assessments of Program elements and for assisting the CALFED agencies with the establishment of performance measures, and monitoring and evaluating the performance of all Program elements.

Ecosystem Restoration**\$23,122****Dedicated Project Yield**

\$800

The Department of the Interior (Interior) has the responsibility to dedicate and manage annually 800,000 acre-feet of CVP water (b)(2) water for fish, wildlife, and habitat restoration purposes and assist the State of California in its efforts to protect the waters of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. The management of (b)(2) water is being closely coordinated with the management of CALFED's Environmental Water Account (EWA). The program objectives are to: (1) improve habitat conditions for anadromous fish in CVP controlled rivers and streams and the Bay-Delta to help meet the AFRP doubling goals; (2) increase survival of out migrant juvenile anadromous fish, especially in the Bay-Delta; (3) enhance recovery of listed threatened and endangered fish species; and (4) monitor and evaluate to assess the effectiveness of (b)(2) measures.

Anadromous Fish Screen Program

\$4,432

The primary objective of the Anadromous Fish Screen Program (AFSP) is to protect juvenile chinook salmon (all runs), steelhead trout, green and white sturgeon, striped bass and American shad from entrainment at priority diversions throughout the Central Valley. Section 3406 (b)(21) of the Central Valley Project Improvement Act (CVPIA) requires the Secretary of the Interior to assist the State of California in developing and implementing measures to avoid losses of juvenile anadromous fish resulting from unscreened or inadequately screened diversions on the Sacramento and San Joaquin Rivers, their tributaries, the Delta, and the Suisun Marsh. Additionally, all AFSP projects meet Goal 3 of the CALFED Ecosystem Restoration Program's (ERP) Draft Stage 1 Implementation Plan (8/1/01, Page 22) which states that, "the goal is to maintain and/or enhance populations of selected species for sustainable commercial and recreational harvest, consistent with the other ERP Strategic Goals."

Spawning Gravel/Riparian Habitat

\$1,000

The purpose of the Spawning Gravel/Riparian Habitat Program is to increase the availability of spawning gravel and rearing habitat, and subsequently monitor the results of these actions, for: (1) Sacramento River Basin Chinook salmon and steelhead trout in the reach of the mainstem Upper Sacramento River from Keswick Dam downriver to Red Bluff Diversion Dam; (2) American River Basin Chinook salmon and steelhead trout in the reach of the American River downriver from Nimbus Dam; and (3) Stanislaus River Chinook salmon and steelhead trout in the reach of the Stanislaus River downriver from Goodwin Dam.

Clear Creek Restoration

\$900

The purpose of the Clear Creek Restoration Program is to: (1) restore stream channel form and function necessary to optimize habitat for salmon and steelhead and the aquatic and terrestrial communities on which they depend; (2) determine long-term flow needs for spawning, incubation and rearing by conducting an Instream Flow Incremental Methodology study as mandated in Section 3406 (b)(12); (3) provide flows of adequate quality and quantity to meet the requirements of all life stages of Chinook salmon and steelhead trout known to use Clear Creek; (4) provide spawning gravel to replace supply blocked by Whiskeytown Dam; and (5) monitor project results.

Implementing Agency**Name****Year 8 Amount:*****Bay-Delta Conservation Plan**

\$1,500

The BDCP is a conservation plan prepared to meet the requirements of the Federal and California Endangered Species Act (FESA and CESA) and the State of California's Natural Communities Conservation Planning Act (NCCPA). The BDCP will provide FESA and CESA incidental take permits for water operations and management activities in the statutory Sacramento-San Joaquin Delta to the State of California and State and Federal water contractors. A Steering Committee including State and Federal agencies, State and Federal water contractors, and environmental interest groups has been formed to discuss key policy and strategy issues pertaining to BDCP development.

Anadromous Fish Restoration Program

\$4,500

The objectives of the Anadromous Fish Restoration Program are to (1) improve habitat for all life stages of anadromous fish through provision of flows of suitable quality, quantity, timing, and physical habitat; (2) improve survival rates by reducing or eliminating entrainment of juveniles at diversions; (3) improve the opportunity for adult fish to reach their spawning habitats in a timely manner; (4) collect fish population, health, and habitat data to facilitate evaluation of restoration actions; (5) integrate habitat restoration efforts with harvest and hatchery management; and (6) involve partners in the implementation and evaluation of restoration actions.

Water Acquisition

\$9,990

Three key objectives of the Water Acquisition Program (WAP) are to: (1) Provide supplemental water supplies for refuges, referred to as Incremental Level 4, for critical wetland habitat supporting resident and migratory waterfowl, threatened and endangered species, and wetland dependent aquatic biota [CVPIA Sections 3406 (b)(3) and (d)(2)]. (2) Acquire instream flows in support of the San Joaquin River Agreement (SJRA) [CVPIA Section 3406 (b)(3)]. The increased flows benefit numerous resident and anadromous fish species, but are acquired primarily to benefit Chinook salmon. (3) Acquire water to improve spawning and rearing habitat and increase migration flows for fall, winter and spring run Chinook salmon and steelhead in support of the Anadromous Fish Restoration Plan (AFRP) [CVPIA Section 3406 (b)(3)].

Water Quality**\$4,750****San Joaquin River Salinity Management**

\$4,250

This Program to Meet Standards (PTMS) was mandated in Section 103 (d)(2)(D) of the Water Supply, Reliability, and Environmental Improvement Act (P.L. 108-361, Calfed Bay-Delta Authorization Act). The authorization directs the Secretary of the Interior, in consultation with the Governor of California, to develop and initiate implementation of a program to meet all existing water quality standards and objectives for which CVP has responsibility prior to increasing export limits from the Sacramento-San Joaquin Delta (Delta) for the purposes of conveying water to CVP contractors south of the Delta or increasing deliveries through an intertie between the California Aqueduct and Delta Mendota Canal (DMC). The Act further clarifies, the purpose of this authority and direction is to provide greater flexibility in meeting the existing water quality standards and objectives for which the CVP has responsibility and reduce the demand on water from New Melones Reservoir used for that purpose, and to assist the Secretary of the Interior in meeting any obligations to CVP contractors from the New Melones Project, i.e., Stockton East Water District (SEWD) and South San Joaquin Water Conservation District (SSJWCD). Reclamation has initiated implementation of the PTMS Program required by the Act and is coordinating implementation with the San Joaquin River Water Quality Management Group, which includes the California Department of Water Resources, along with other state and local agencies and other key stakeholders in the San Joaquin Valley.

Contra Costa Water District Alternative Intake Project

\$500

The Calfed Bay-Delta Authorization Act authorizes Reclamation to design and construct the relocation of drinking water intake facilities to in-Delta water users along with taking other actions necessary to offset the degradation of drinking water quality in the Delta due to the South Delta Improvements Program (SDIP). Current analysis in the SDIP environmental documents show that relocating water intakes in the Delta is not required to mitigate water quality impacts of the program.

Implementing Agency

Name

Year 8 Amount:*

Water Supply Reliability

\$34,119

Water Acquisitions and Power

\$7,000

The Environmental Water Account (EWA) is a cooperative management program whose purpose is to provide protection to at-risk fish species of the Bay-Delta Estuary through environmentally beneficial changes in the operations of the State Water Project (SWP) and the CVP, at no uncompensated water cost to the Projects water users. Three Federal (Reclamation, U.S. Fish and Wildlife Service, National Marine Fisheries Service) and two state (California Departments of Water Resources and Fish and Game) agencies work together implementing the EWA.

Long Beach Area Water Reclamation Project

\$600

This project is located in Los Angeles County, California, and consists of two units: the Alamitos Barrier Reclaimed Water Project will ultimately recycle about 8,000 acre-feet per year in lieu of imported water. Facilities will be constructed so that tertiary treated water from the existing Long Beach Water Reclamation Plant can be treated to advanced levels so that it can be used for groundwater injection into seawater intrusion barriers. Phase 1 was completed in 2005, and Phase 2 is scheduled to begin construction in 2009. The City of Long Beach Recycled Water System Expansion Project will construct an expansion of an existing distribution system that allows the use of recycled water throughout the city. The expansion consists of pumps, pipes, storage facilities, and control systems that would increase use of recycled water from 4,585 acre-feet per year to 16,677 acre-feet per year (including the Alamitos Barrier Project).

Upper San Joaquin River Basin Storage Investigation

\$2,500

The CALFED ROD recommends a storage increase of 250-700 TAF in the upper San Joaquin River watershed by enlargement of Millerton Lake at Friant Dam or a functionally equivalent storage program in the region. The project would restore and improve water quality for the San Joaquin River and facilitate conjunctive water management and water exchanges improving water quality deliveries to urban communities. Water supply reliability is integral to advancing these objectives. Other benefits include potential increased flood protection, contributions to long-term EWA water supply, hydropower generation, and recreational.

San Luis Lowpoint Feasibility Study

\$1,400

Study of potential actions to increase the operational flexibility of storage in San Luis Reservoir and ensure a high quality, reliable water supply for San Felipe Division contractors.

Delta Mendota Canal and California Aqueduct Intertie Capacity

\$1,400

Evaluation of increased capacity of the intertie between the State Water Project California Aqueduct and the Central Valley Project Delta Mendota Canal.

* all amounts in thousands of dollars

San Gabriel Basin Project

\$700

This project is located in the San Gabriel Valley of Los Angeles County, California, and consists of three units: (1) The San Gabriel Basin Demonstration Project is a conjunctive use project that was originally envisioned to address the most severe area of groundwater contamination within the San Gabriel Basin, namely the Baldwin Park Operable Unit, which is an Environmental Protection Agency Superfund site. However, after additional investigations, it was apparent that a comprehensive solution to the water supply and groundwater contamination problems was required to adequately protect the groundwater resources of the San Gabriel Basin. Additional operable units within the San Gabriel Basin, known as the El Monte, South El Monte, and Puente Valley Operable Units were included in the project to provide such a comprehensive remedy. The revised project continues to meet the original objectives by implementing conjunctive use projects that will enhance both the groundwater quality and the local and regional water supply. Treatment projects will remove volatile organic compounds and other contaminants from the groundwater and then deliver the water for distribution. When completed, the total capacity will be about 39,000 acre-feet annually. Extraction, treatment, and distribution of San Gabriel Basin groundwater will improve the basin's groundwater quality, increase storage capacity, and expand the basins use for regional benefits. (2) The Rio Hondo Water Recycling Program will distribute 5,600 acre-feet of recycled water annually from the San Jose Creek Water Reclamation Plant for landscape irrigation and industrial process water. This use of recycled water will replace the need for a like amount of potable water, thereby lessening the demand on both imported and groundwater resources. By reducing the need for groundwater pumping, this program will assist in the prevention of further migration of contamination from the San Gabriel plume, and wastewater discharges to the ocean will be decreased. Components of the program are construction of a main pump station, a booster pump station, reservoir storage facilities (10 million gallons), and approximately 40 miles of pipeline. The program is being implemented in two phases. (3) The San Gabriel Valley Water Reclamation Program will utilize up to 10,000 acre-feet of reclaimed water annually from the San Jose Creek Water Reclamation Plant to recharge the San Gabriel groundwater basin in order to replace and/or supplement water currently being imported and recharged. There will be no net change in the amount of water currently being recharged as a result of implementation of this program. The recharge will be accomplished in the San Gabriel River channel downstream of Santa Fe Dam. Additional facilities to use up to 13,300 acre-feet of reclaimed water annually for landscape irrigation and industrial use are also included.

Orange County Regional Water Reclamation Project, Phase 1

\$1,500

This project will take tertiary treated reclaimed water from an existing facility operated by the Orange County Sanitation District, treat the water to advanced levels using a pretreatment and reverse osmosis process, and pump the water through a pipeline that parallels the Santa Ana River up to existing recharge facilities adjacent to the River, where the water will be used to recharge the regions groundwater basin. This initial phase will provide about 50,000 acre-feet of water annually for groundwater recharge.

San Diego Area Water Reclamation Program

\$3,450

Greater use of reclaimed water results in decreased dependency on potable imported water including water from the Colorado River. This project consists of four units: (1) The San Diego Water Reclamation Project is a regional water reclamation program being implemented by the cities of San Diego and Poway, Sweetwater Authority, and Otay Water District. The project provides for the construction of five new wastewater treatment plants, expansion of an existing plant, along with distribution systems, and two conjunctive use projects. Total system capacity upon completion will be approximately 57,116 acre-feet per year. (2) The Escondido Water Reclamation Project is being implemented by the city of Escondido to upgrade its Hale Avenue Resource Recovery Facility from secondary treatment to tertiary treatment. A distribution system that will put the recycled water to beneficial use for non-potable purposes is also being constructed. In addition, the city of San Diego is planning to upgrade and expand its San Pasqual Water Reclamation Plant, which will produce recycled water for non-potable uses, and for a possible conjunctive use project. A distribution system will also be constructed. The City of Poway will construct a distribution system that will utilize recycled water from the San Pasqual Plant. When completed, the three project components will deliver a total of approximately 11,200 acre-feet of recycled water annually. (3) The San Diego Water Repurification Project has been stopped by the city of San Diego, and the reclaimed water and funds that would have been used for this project are now included in the San Diego Water Reclamation Project. (4) The Padre Dam Municipal Water District Reclamation Project will upgrade and expand an existing water treatment plant and construct a distribution system that will deliver 2,000 acre-feet of recycled water annually.

South Delta Improvement Program

\$200

Reclamation and California Department of Water Resources (DWR) completed environmental studies for the South Delta Improvement Program (SDIP) to provide increased deliveries for the SWP and CVP water service contractors while addressing the Delta fisheries and local in-Delta agricultural water users needs. The SDIP is a component of the Conveyance Program of the CALFED Bay-Delta Program. The SDIP major components are increasing the allowable diversion capacity at the SWP's Clifton Court Forebay to 8,500 cfs; construction of permanent operable flow control barriers to improve water level and water quality available for agricultural diversions in the south Delta; dredging portions of Middle River, Old River, and West, Grantline, Victoria, and North Canals to improve flows in south Delta channels; and constructing a permanent operable fish control barrier at the head of Old River to reduce fish movement into south Delta channels.

North of Delta Off-Stream Storage (Sites Reservoir) Investigation

\$3,000

Reclamation is conducting a Feasibility Study in cooperation with the California Department of Water Resources (DWR) as the non-Federal partner that will include preparation of a Feasibility Report/Decision Document and Environmental Impact Statement/Report (EISR) for the North of Delta Off-Stream Storage (NODOS) Investigation. The Feasibility Study purpose is to determine the type and extent of Federal interest in a multiple purpose plan to provide up to 1.8 million acre-feet of off-stream water storage at a potential Sites Reservoir or alternative locations in the Sacramento Valley North of the Delta. The proposed project would improve water management flexibility and reliability for water supply, fish passage and survival, reduce diversions along the Sacramento River during critical fish migration periods, and provide storage and operational benefits to CALFED programs such as Delta water quality and the Environmental Water Account.

Shasta Lake Water Resources Investigation

\$3,000

Reclamation is conducting a Feasibility Study including preparation of a Feasibility Report/Decision Document and Environmental Impact Statement (EIS) for the Shasta Lake Water Resources Investigation (SLWRI). The purpose of the SLWRI is to determine the type and extent of Federal interest in a multiple purpose plan to modify Shasta Dam and Reservoir to increase survival of anadromous fish populations in the upper Sacramento River; increase water supplies and water supply reliability to agricultural, municipal and industrial, and environmental purposes; and to the extent possible through meeting these objectives, include features to benefit other identified ecosystem, flood damage reduction, and related water resources needs, consistent with the objectives of the CALFED Bay Delta Program.

CVP, Yield Feasibility Investigation

\$562

The Least-Cost Central Valley Project Yield Increase Plan (Yield Increase Plan) submitted to Congress in July 1996 identified the least-cost options to replace the impact of dedicating 1.2 million acre-feet of yield for fish and wildlife purposes under the Central Valley Project Improvement Act (CVPIA) on the Central Valley Project (CVP) water service contractors. The water supply and demand reduction options identified in the Yield Increase Plan include land fallowing, conservation, modified operations, conjunctive use, water reuse, surface storage, conveyance, and other options. As directed in the Calfed Bay-Delta Authorization Act, a Water Supply and Yield Study (WSAYS), in cooperation with the State of California, is required for submission to Congress by October 2005. The CVP Yield Feasibility Investigation Program continues the coordination and technical studies necessary to ensure CVP Yield benefits are effectively evaluated during feasibility investigations for water supply opportunities identified in the supplements to the Least-Cost CVP Yield Increase Plan; continues Reclamation's participation in conjunctive use, groundwater banking opportunities, and investigation of other options for improving water supply reliability through coordination with Federal and State agencies, water and irrigation districts, municipalities, environmental groups, and other stakeholders.

Water Conservation Projects

\$1,874

The Central Valley Project (CVP) Water Conservation Program (Program) activity is administered by the Regional Water Conservation Team (Team) with assistance from the Area Offices. The Program Team performs duties required under the Central Valley Project Improvement Act of 1992 (CVPIA) and the Reclamation Reform Act of 1982 (RRA), which includes the development and administration of various Criteria – the Standard Criteria for Evaluating Water Management Plans, the Regional Criteria for the Sacramento Valley, and the Criteria for Developing Refuge Water Management Plans. Section 3405 (e) of the CVPIA, P.L. 102-575, directs the Secretary of the Interior (Secretary) to establish and administer an office on Central Valley water conservation best management practices that shall “. . . develop criteria for evaluating the adequacy of all water conservation plans developed by project contractors, including those plans required by Section 210 of the RRA, Public Law 97-293.” FY 2008 activities will continue implementation of water conservation through a Request for Proposal (RFP) Program. Selected proposals will be awarded grants or cooperative agreements which are targeted to meet water conservation objectives contained in the CALFED Water Use Efficiency Program. Other benefits of projects will include implementation of Best Management Practices, while focusing on water districts with a Federal connection. The RFP is designed to encourage cost share projects proposed by water districts, irrigation districts, resource conservation districts, urban water agencies, etc. Grants and cooperative agreements will be awarded based on criteria consistent with the goals of Reclamation’s Water Conservation Field Services Program.

Delta Mendota Canal Recirculation Project

\$1,000

Study the feasibility of recirculation of Delta export water to reduce salinity and improve dissolved oxygen in the San Joaquin River. This action may also reduce the reliance on the New Melones Reservoir for meeting water quality and fishery flow objectives in the San Joaquin River. This feasibility study is also required by provisions of the water rights permits granted to Reclamation by the California State Water Resources Control Board (SWRCB) in Order D-1641.

Long Beach Desalination Research and Development Project

\$250

Located in Los Angeles County, California, this research and development project will determine the feasibility of a new method of seawater desalination that uses existing membrane technology. A pilot plant will be constructed and operated to determine feasibility, and if successful, a demonstration unit will be constructed.

Tracy Fish Facilities Mitigation Program

\$2,083

Continues identifying and making physical improvements and operational changes assessing fishery conditions, and assessing salvage operations at the Tracy Fish Collecting Facility (TFCF) per the Central Valley Project Improvement Act (CVPIA).

San Jose Area Water Reclamation and Reuse Prog, Phase 1

\$200

This program calls for the planning, design, and construction of demonstration and permanent facilities, in cooperation with the City of San Jose and the Santa Clara Valley Water District, to reclaim and reuse up to 36,000 acre-feet per year of wastewater treatment plant effluent in the San Jose metropolitan service area. The total program includes construction of 300 miles of pipe over a 150 square mile area in six cities providing reclaimed water to the San Jose metropolitan service area. The total program cost is estimated at \$480 million, with the Federal contribution capped at \$109.9 million.

Calleguas Municipal Water District Recycling Project

\$900

This project consists of planning, designing, and constructing regional water recycling projects that include wastewater reclamation and reuse, brackish groundwater recovery, and regional salinity management projects. A total of ten specific projects are planned resulting in annual recycling or recovery of a total of 51,470 acre-feet of water in order to reduce the regions dependence on imported water supplies. This project is located in Ventura County, California.

| Implementing Agency | Name | Year 8 Amount:* |
|------------------------------|---|--|
| | Frank's Tract , Delta Cross Channel, Through Delta Evaluation <i>Project objective is to significantly reduce salinity levels at the Delta drinking water intakes and improve water supply reliability by reconfiguring levees and/or Delta circulation patterns around Franks Tract.</i> | \$1,000 |
| | North San Diego County Area Water Recycling Project <i>This project is located in San Diego County, California. The four components of this project are the result of a cooperative effort by the San Elijo Joint Powers Authority, the Carlsbad Municipal Water District, the Olivenhain Municipal Water District, and the Leucadia Wastewater District. This project consists of planning, designing, and constructing permanent facilities to reclaim and reuse approximately 15,350 acre-feet of water annually in the North San Diego County area in order to reduce the regions dependence on imported water supplies and reduce wastewater discharges to the ocean.</i> | \$1,500 |
| U S Geological Survey | Coordination and Science | Subtotal: \$1,252 |
| | Interagency Ecological Program | \$540 |
| | Lead Scientist Support | \$712 |
| | | Year 8 Subtotal: \$548,956 |
| | | Year 1 – 8 Grand Total Amount:* |
| GRAND TOTAL: | | \$3,283,302 |

* all amounts in thousands of dollars