

## **FISCAL YEAR 2009**

### **BUREAU OF RECLAMATION**

#### **ECOSYSTEM RESTORATION PROGRAM**

##### **Anadromous Fish Restoration Program**

**Authority:** Title XXXIV, H.R. 429, P.L. 102-575, Section 3406 (b)(1)

**FY 2009 Budget Request (000's):** \$5,736

##### ***Estimated Inter-agency Breakdown:***

<b>Agency</b>	<b>\$000's</b>
U.S. Bureau of Reclamation	\$36
U.S. Fish and Wildlife Service	\$5,700

**Project Description:** 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.

**Current Status:** FY 2009 funding will focus on streams with the potential to sustain natural production of winter-run Chinook salmon, spring-run Chinook salmon, and steelhead, which are federally listed as threatened. The streams that support these species include the Sacramento, Yuba, and American rivers, and Battle, Mill, Deer, Big Chico, and Butte creeks. Emphasis will be on improving access for spawning adults to upstream habitat, protecting and restoring riparian and shaded riverine aquatic habitat, improving access for juvenile fish to floodplain habitats, and reducing loss of juveniles along their rearing and migratory corridors. Additional actions within the AFRP will emphasize the San Joaquin River Basin fall-run Chinook salmon, which are considered a candidate for Federal listing. Actions will focus on restoring river and tributary channels and channel forming processes, restoring spawning gravels and riparian cover, and eliminating predator ponds on tributaries.

##### **Anadromous Fish Screen Program (AFSP)**

**Authority:** Title XXXIV, H.R. 429, P.L. 102-575, Section 3406 (b)(21)

**FY 2009 Budget Request (000's):** \$2,500

***Estimated Inter-agency Breakdown:***

<b>Agency</b>	<b>\$000</b>
U.S. Bureau of Reclamation	\$2,200
U.S. Fish and Wildlife Service	\$300

***Project Description:*** 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."

***Current Status:*** Prior year AFSP funding has contributed to the completion of preconstruction project activities including engineering feasibility studies, environmental compliance and project design for the Natomas Mutual Water Company (NMWC), Sutter Mutual Water Company (SMWC), Reclamation District 108 (RD 108), Meridian Farms Water Company (MFWC), and Patterson Irrigation District (PID) fish screen projects.

In 2007, a 960 cfs diversion on the Sacramento River operated by Sutter Mutual Water Company was screened. This completed fish screen resulted in screening of the largest remaining unscreened diversion on the Sacramento River.

In 2008, construction of the RD 108 "Combined Pumping Plant and Fish Screen Project" is expected to be completed. This project involves combining three of RD 108's largest existing unscreened pumping plants on the Sacramento River into one new 300 cfs pumping plant with a positive barrier fish screen.

FY 2009 funds are anticipated to be used for cost share funding for environmental, design and/or construction activities for a number of fish screen projects. The selection of these projects will be made based AFSP prioritization criteria which include: willing applicant, cost effectiveness, biological benefits, availability of non-federal cost-share, and ability to obtain preconstruction monitoring data.

***Clear Creek Restoration***

***Authority:*** Title XXXIV, H.R. 429, P.L. 102-575, Section 3406 (b)(12)

***FY 2009 Budget Request (000's):*** \$725

***Estimated Inter-agency Breakdown:***

<b>Agency</b>	<b>\$000's</b>
U.S. Bureau of Reclamation	\$475
U.S. Fish and Wildlife Service	\$250

***Project Description:*** 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.

***Current Status:*** Actions to be implemented for FY 2009, with funding in the amount of \$725,000 include the following: (1) continue monitoring the program, documenting and quantifying juvenile production of steelhead and spring-run Chinook salmon; (2) increase the quality and quantity of spawning habitat by placing clean spawning-sized gravel at several locations along the creek, new injection sites will be developed downstream of Whiskeytown Dam in accordance with the OCAP Biological Opinion; (3) conduct analyses to determine the need to implement Phase 3C of the Channel Restoration Project; (4) conduct analyses to determine need and feasibility of increasing juvenile rearing habitat from Clear Creek Road Bridge downstream to the upstream extent of the Channel Restoration Project; and (5) if needed, continue work to develop: an implementation plan, hydraulic analyses, and permitting in support of efforts of CALFEDs Environmental Water Program to acquire channel maintenance flows in Clear Creek.

***Comprehensive Assessment and Monitoring Program***

***Authority:*** Title XXXIV, H.R. 429, P.L. 102-575, Section 3406 (b)(16)

***FY 2009 Budget Request (000's):*** \$500

***Estimated Inter-agency Breakdown:***

<b>Agency</b>	<b>\$000</b>
U.S. Bureau of Reclamation	\$30
U.S. Fish and Wildlife Service	\$470

***Project Description:*** The Comprehensive Assessment and Monitoring Program (CAMP) is intended as the vehicle for comprehensively assessing the effects of all CVPIA restoration actions under Section 3406(b). The program has two objectives: (1) assess the overall (cumulative) effectiveness of actions implemented under CVPIA Section 3406(b), and (2) assess the relative effectiveness of categories of actions under CVPIA Section 3406(b). This will be primarily a data compilation and assessment effort, using ongoing project-specific and general monitoring to assess the progress of 3406 (b) actions.

**Current Status:** The Program will continue efforts to monitor and evaluate the progress of CVPIA implementation actions as well as the progress toward achieving the anadromous fish doubling goals. Utilization of this information will allow the adaptive management of the CVPIA anadromous fish restoration efforts and an annual report will be produced.

**Dedicated Project Yield**

**Authority:** Title XXXIV, H.R. 429, P.L. 102-575, Section 3406 (b)(2)

**FY 2009 Budget Request (000's):** \$800

**Estimated Inter-agency Breakdown:**

<b>Agency</b>	<b>\$000</b>
U.S. Bureau of Reclamation	\$150
U.S. Fish and Wildlife Service	\$650

**Project Description:** 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.

**Current Status:** Funding will be used to continue efforts associated with dedication and management of 800,000 acre-feet of CVP yield for the primary purpose of anadromous fish restoration as directed by the CVPIA. The May 2003 Decision on Implementation of Section 3406(b)(2), will be implemented for the sixth year in 2009, upstream actions will be implemented; and monitoring and evaluation to assess the effectiveness of (b)(2) environmental measures will continue.

**Other CVP Impacts – Habitat Restoration Program 3406 (b)(1) Other**

**Authority:** Title XXXIV, H.R. 429, P.L. 102-575, Section 3406 (b)(1) Other

**FY 2009 Budget Request (000's):** \$1,500

**Estimated Inter-agency Breakdown:**

<b>Agency</b>	<b>\$000's</b>
U.S. Bureau of Reclamation	\$750
U.S. Fish and Wildlife Service	\$750

***Project Description:*** Protect and restore native habitats impacted by the Central Valley Project (CVP) that are not specifically addressed in the Fish and Wildlife Restoration activities section of the CVPIA. The focus is on habitats known to have experienced the greatest percentage decline in habitat quantity and quality since construction of the CVP, where such decline could be attributed to the CVP (based on direct and indirect loss of habitat from CVP facilities and use of CVP water). These include rare serpentine soil habitat, alkali desert scrub and associated grasslands, vernal pools, foothill chaparral, riparian and associated oak woodlands.

***Current Status:*** Funding will be used for acquisition of fee title, conservation easements, restoration, and management of habitats as well as surveys and studies for listed, proposed, or candidate species to facilitate better management decisions for acquisition, restoration, and management. The Program will focus on protecting, restoring, and conserving threatened serpentine soil habitats, grassland and alkali scrub habitats in the southern Valley, vernal pools wetlands in CVP impacted areas, chaparral, riparian and associated oak woodland habitats throughout the Valley. In FY 2009 funding will be used for acquisition of fee title, conservation easements, restoration, research/surveys and management of habitats for listed and other special status species impacted by the CVP. All projects will focus on improving conditions for CVP impacted species.

**Spawning Gravel/Riparian Habitat**

***Authority:*** Title XXXIV, H.R. 429, P.L. 102-575, Section 3406 (b)(13)

***FY 2009 Budget Request (000's):*** \$1,000

***Estimated Inter-agency Breakdown:***

<b>Agency</b>	<b>\$000's</b>
U.S. Bureau of Reclamation	\$200
U.S. Fish and Wildlife Service	\$800

***Project Description:*** 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.

***Current Status:***

Funding will be used for gravel restoration projects on the Upper Sacramento, American, and Stanislaus rivers immediately downstream from Keswick, Nimbus, and Goodwin dams, respectively. Preliminary planning and engineering are underway in newly identified downstream areas to determine optimal gravel placement. Permits and

environmental documentation will be obtained and processed, engineering completed, and gravel replenishment projects implemented.

**Suisun Marsh Preservation**

**Authority:** P.L. 99-546, 100 Stat. 3052, October 27, 1986

**FY 2009 Budget Request (000's):** \$1,700

**Project Description:** The Suisun Marsh Preservation Agreement (SMPA) was executed on March 2, 1987, among Reclamation, California Department of Water Resources, California Department of Fish and Game, and Suisun Resource Conservation District. The revised SMPA was executed on June 20, 2005, to reflect significant events and changed conditions that had occurred since the original SMPA was signed. The objective of the SMPA is to assure that a dependable water supply is maintained to mitigate the adverse effects on the Marsh from the Central Valley Project (CVP) and State Water Project (SWP) and a portion of the adverse effects of the other upstream diversions. Reclamation (CVP) is responsible for 40 percent of the construction and annual operation and maintenance costs associated with implementation of the SMPA; the State of California (SWP) is responsible for 60 percent of the implementation costs.

**Current Status:** Funding continues Federal participation with the State of California to identify structural and nonstructural actions for protection and preservation of Suisun Marsh to improve water quality, while preserving the storage yield of the CVP. Funding continues Reclamation participation with California Department of Water Resources to ensure dependable water supply of adequate quantity and quality to protect wildlife habitat in the Marsh for the protection and preservation of fish and wildlife.

**Water Acquisition**

**Authority:** Title XXXIV, H.R. 429, P.L. 102-575, Section 3406 (b)(3)-(d)(2)

**FY 2009 Budget Request (000's):** \$9,990

**Estimated Inter-agency Breakdown:**

<b>Agency</b>	<b>\$000's</b>
U.S. Bureau of Reclamation	\$9,740
U.S. Fish and Wildlife Service	\$250

**Project Description:** 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)].

***Current Status:*** The WAP continues its efforts to:

(1) Provide supplemental refuge water supplies (Incremental Level 4) through annual purchases. As a supplement to annual acquisitions, the WAP is continuing its investigations for using groundwater in order to lower costs and increase reliability of providing supplemental refuge water supplies. In 2009, the WAP will consider implementation of one or more pilot groundwater projects involving collection of welling pumping and water quality data that will allow assessment for the potential for long-term groundwater projects while providing short-term Incremental Level 4 supplies.

(2) Provide additional instream flows in support of the SJRA. The WAP acquires water for the SJRA from the San Joaquin River Group Authority and its member agencies to provide additional spring and fall fishery flows on the Stanislaus, Tuolumne, Merced, and lower San Joaquin rivers. The SJRA will continue as an on-going requirement until at least 2009.

(3) Acquire water to improve spawning and rearing habitat to increase salmon and steelhead in support of the AFRP. In recent years the U.S. Fish and Wildlife Service has led a planning effort to determine which tributaries should receive priority for instream acquisition efforts. A specific timeline for implementation of instream acquisitions in support of AFRP will be established as part of future program activities in 2008 and ongoing in 2009.

### **Bay-Delta Conservation Plan (BDCP)**

***Authority:*** P.L. 85-624, Fish and Wildlife Coordination Act; and P.L. 108-361, Title I, Section (d)(6)

***FY 2009 Budget Request (000's):*** \$1,500

***Project Description:*** 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.

**Current Status:** During 2007, a consultant team (SAIC) evaluated four potential Conservation Strategy Options based on existing scientific information regarding environmental stressors affecting covered fish species and Delta ecosystem processes. A Conservation Strategy Options Evaluation Report (dated 9/17/07) documents the outcome of each of the 4 Options relative to 17 evaluation criteria identified by the Steering Committee. By November 2007, the Steering Committee reached agreement on the basic approach to development of the BDCP, including potential improvements to the water conveyance system and strategies for in-Delta habitat restoration and enhancement. It was agreed that the BDCP will also address water operations and management, conservation actions to address other stressors (e.g., toxics, non-native introductions, and harvest), monitoring and adaptive management, scientific input, cost and funding, and implementation structure and decision-making. Steering Committee subgroups during 2007 included science, membership, technical, and public outreach. Additional workgroups and technical teams are being established to address biological goals and objectives, habitat restoration and enhancement, conservation actions to address other stressors, water conveyance, analytical tools, and in-Delta water quality during preparation of the BDCP. Development of the conservation strategy is scheduled for completion by the end of 2008. Issuance of the public Draft BDCP and associated EIS/EIR is anticipated in 2009, with signed FESA and CESA permits and implementation agreements in 2010.

## **ENVIRONMENTAL WATER ACCOUNT**

### **Environmental Water Account – Water Acquisitions and Power**

**Authority:** P.L. 108-361, Section 103 (f)(2)

**FY 2009 Budget Request (000's):** \$7,000

**Project Description:** 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. Collectively, these agencies are referred to as the “EWA agencies

**Current Status:** The EWA is currently being implemented in accordance with the Flexible Purchase Alternative described in the Final EWA Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) (January 2004) for the existing program. A Record of Decision was signed by Reclamation in March 2004. Also in March 2004 a Notice of Determination was approved by the California Department of Water Resources and filed with the California State Clearinghouse. This Final EWA EIS/EIR complies with the National Environmental Policy Act and California



Environmental Quality Act and provides environmental coverage for the program through 2007.

In November 2006, the EWA agencies were in the process of preparing an environmental compliance document for the acquisition and management of EWA assets for a proposed long-term EWA Program beginning January 2008 and until 2030. However, because of uncertainties associated with Project operations (specifically the reconsultation of the Operations Criteria and Plan for Central Valley Project and State Water Project under the Federal Endangered Species Act), ongoing investigations into the apparent Delta pelagic organism decline (POD), and ongoing planning efforts for a proposed Bay Delta Conservation Plan, completion of the environmental compliance document was postponed. Until these uncertainties are resolved, the EWA agencies are taking the steps necessary to extend the existing Stage 1 EWA Program, potentially for up to four years, beginning January 2008. Extending the existing Program will require extending the EWA Operating Principles Agreement (EWA OPA) (2000), amending the Memorandum of Understanding (MOU) between the EWA agencies (2004), extending the assurances provided in the Multi-Species Conservation Strategy (MSCS) (2004), and supplementing the existing Final EWA EIS/EIR (2004).

Regarding the need to supplement the Final EWA EIS/EIR, the EWA Agencies are in the process of preparing a “Supplemental EIS/EIR to the EWA Final EIS/EIR” (SEIS/EIR). Public review of a draft SEIS/EIR was completed in December 2007. A Final SEIS/EIR is expected in March 2008, followed by a draft SEIS/EIR Record of Decision (ROD) in April 2008. A final ROD is anticipated in May 2008. The SEIS/EIR will provide environmental coverage for the EWA program through 2011, if extended.

After completing the SEIS/EIR ROD, the EWA agencies expect to sign an amended MOU, extending the existing Stage 1 EWA program through 2011. For the Federal EWA agencies, the EWA is expected to terminate on September 30, 2010 unless re-authorized. The amended MOU would include, by reference, extending the EWA OPA, as may be amended, and the MSCS, as may be amended.

## **WATER USE EFFICIENCY**

### **Calleguas Municipal Water District Recycling Project**

**Authority:** P.L. 102-575 – Title XVI, Reclamation Wastewater and Groundwater Study and Facilities Act, October 30, 1992; and P.L. 104-266, Reclamation Recycling and Water Conservation Act of 1996, October 9, 1996

**FY 2009 Budget Request (000’s):** \$800

**Project Description:** 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.

***Current Status:*** For FY 2009 work will continue on the Regional Brine Line being constructed by the Calleguas MWD. As of September 30, 2007, this project has used 49 percent of its authorization ceiling. The project is scheduled for completion in 2013.

**Long Beach Area Water Reclamation Project**

***Authority:*** P.L. 102-575 – Title XVI, Reclamation Wastewater and Groundwater Study and Facilities Act, October 30, 1992; and P.L. 104-266, Reclamation Recycling and Water Conservation Act of 1996, October 9, 1996

***FY 2009 Budget Request (000's):*** \$692

***Project Description:*** 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).

***Current Status:*** For FY 2009 work will continue on the expansion of the City of Long Beach's recycled water distribution system, including the construction of pipelines, pumping facilities, and storage facilities. Work will also begin on construction of Phase 2 of the Alamitos Barrier Reclaimed Water Project. As of September 30, 2007, the project has used 56 percent of its authorization ceiling. Alamitos Barrier Reclaimed Water Project is scheduled for completion in 2011. City of Long Beach Recycled Water System Expansion Project is scheduled for completion in 2010.

**Orange County Regional Water Reclamation Project, Phase 1**

***Authority:*** P.L. 102-575 – Title XVI, Reclamation Wastewater and Groundwater Study and Facilities Act, October 30, 1992; and P.L. 104-266, Reclamation Recycling and Water Conservation Act of 1996, October 9, 1996

***FY 2009 Budget Request (000's):*** \$558

***Project Description:*** 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 72,000 acre-feet of water annually primarily for groundwater recharge.

***Current Status:*** Work for FY 2009 will complete the construction of the Groundwater Replenishment System, including the recycled water treatment plant, pumping facilities, and pipelines. As of September 30, 2007, the project has used 87 percent of its authorization ceiling. The project is scheduled for completion in 2009.

### **San Diego Area Water Reclamation Program**

***Authority:*** P.L. 102-575 – Title XVI, Reclamation Wastewater and Groundwater Study and Facilities Act, October 30, 1992; and P.L. 104-266, Reclamation Recycling and Water Conservation Act, October 9, 1996

***FY 2009 Budget Request (000's):*** \$3,000

***Project Description:*** 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.

***Current Status:*** Work for FY 2009 will continue on the construction of recycled water distribution systems (pipelines, pumping facilities, and storage facilities) from the City of San Diego's North City WRP and South Bay WRP. Work will also continue on recycled water systems being constructed by the Otay Water District and the Sweetwater Authority. As of September 30, 2007, this project has utilized 49 percent of its authorization ceiling. The project is scheduled for completion in 2028.

### **San Gabriel Basin Project**

***Authority:*** P.L. 102-575 – Title XVI, Reclamation Wastewater and Groundwater Study and Facilities Act, October 30, 1992; P.L. 103-126, Water and Energy Appropriations Act for 1994, October 28, 1993; P.L. 104-266, Reclamation Recycling and Water Conservation Act, October 9, 1996; and P.L. 108-418, to amend The Reclamation Projects Authorization and Adjustment Act of 1992 to increase the Federal share of the costs of the San Gabriel Basin Demonstration Project, November 30, 2004

***FY 2009 Budget Request (000's):*** \$700

***Project Description:*** 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.

***Current Status:*** Work for FY 2009 will continue on the construction of facilities to contain and treat the contaminated groundwater in the San Gabriel Basin. Work will also continue on Phase 2 of the Rio Hondo Water Recycling Program, consisting of recycled water distribution pipelines. Work will also continue on the San Gabriel Valley Water Reclamation Project by the Upper San Gabriel Valley MWD, consisting of pipelines, pumping facilities, and storage facilities. As of September 30, 2007, this project has used 71 percent of its authorization ceiling. The project is scheduled for completion in 2010.

#### **San Jose Area Water Reclamation and Reuse Program**

***Authority:*** P.L. 102-575, Title XVI, Section 1607, as amended, The Reclamation Wastewater and Groundwater Study and Facilities of 1992; P.L. 104-266, Reclamation Recycling and Water Conservation Act, October 9, 1996

***FY 2009 Budget Request (000's):*** \$250

***Project Description:*** 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.

***Current Status:*** FY 2009 funding will reimburse the City of San Jose for the Federal share of project construction of Phase I. The project is being constructed in phases. Phase I construction was completed in 1998, providing 9,000 acre-feet of recycled water. For Phase I, Reclamation is reimbursing the City of San Jose by providing up to 25

percent or up to \$35 million. Reclamation's position has been to complete Phase I reimbursement before committing to Phase II or other project phases.

The City is proceeding into Phase II which will provide an additional 27,000 acre-feet of recycled water. Phase II construction is estimated at \$180 million and Reclamations participation could reach \$45 million. Additional phases beyond Phase II are possible. Reclamations maximum Federal cost share for all phases is capped at \$109.9 million.

### **Water Conservation**

**Authority:** P.L. 97-293, P.L. 102-575, Section 3405 (e)

**FY 2009 Budget Request (000's):** \$1,750

**Project Description:** The Mid-Pacific Regional Office's Water Conservation Team (Team) administers the Central Valley Project (CVP) Water Conservation Program (Program) activities with assistance from the Area Offices. The 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.”

In FY 2008, the Team implemented water conservation measures through a competitive, water use efficiency grant program offered to water districts, irrigation districts, resource conservation districts, urban water agencies, etc. This program is designed to encourage cost shared water conservation projects that meet the objectives contained in the CALFED Water Use Efficiency Program. Benefits of the awarded projects will include increased water supply reliability, water quality improvements, and contributions to ecosystem restoration. In addition, the funds will assist water contractors with the implementation of Best Management Practices, while focusing on water districts with a CALFED Bay-Delta connection.

**Current Status:** The Team continues to provide Federal leadership and expertise required to evaluate Plans and water use efficiency projects. The Team provides technical and financial assistance to water districts to prepare Plans and implement conservation measures. The competitive grant process will be completed and projects awarded by September 2009. The Administration will seek additional authority as necessary. Through multiple public outreach efforts, Reclamation is maintaining an active water conservation program for its contractors and the public. Program staff works closely with other Federal, state, local, and environmental constituents on water

conservation issues and policy development. The Conservation Connection Newsletter and the Watershare website are used to inform the public on Mid-Pacific Region water conservation activities and grant opportunities.

## **DRINKING WATER QUALITY**

### **Drainage Management Program**

**Authority:** P.L. 86-488

**FY 2009 Budget Request (000's):** \$1,500

#### ***Estimated Inter-agency Breakdown:***

<b>Agency</b>	<b>\$000's</b>
U.S. Bureau of Reclamation	\$1,250
U.S. Fish and Wildlife Service	\$250

**Project Description:** A Record of Decision on Reclamation's efforts to develop a solution to address outstanding Federal drainage obligations under the 1960 San Luis Act, including efforts outlined in the Plan of Action for Drainage to the San Luis Unit submitted to the District Court in April 2001, in compliance with the Court's order, was completed in 2007. The FY 2008 budget request continues Reclamation's participation in the ongoing Grasslands Bypass Project. The Grassland Bypass Project results in annual reductions in discharge of salts, selenium, and other constituents to the San Joaquin River.

**Current Status:** A Final EIS was completed in May 2006. A Record of Decision was completed in March 2007. Federal costs of drainage service alternatives exceed \$2 billion, exceeding the authorized appropriation ceiling contained in the San Luis Act.

### **Land Retirement**

**Authority:** Title XXXIV, H.R. 429, P.L. 102-575, Section 3408 (h)

**FY 2009 Budget Request (000's):** \$550

#### ***Estimated Inter-agency Breakdown:***

<b>Agency</b>	<b>\$000's</b>
U.S. Bureau of Reclamation	\$486
U.S. Fish and Wildlife Service	\$64

**Project Description:** The purpose of the Land Retirement Program is to evaluate impacts of retiring 15,000 acres of land from irrigated agriculture. Interior will continue to purchase land from willing sellers as part of a Demonstration Project up to the targeted 15,000 acres and remove it from irrigated agriculture. Pursuant to the U.S. Fish and Wildlife Service's (FWS) September 1999 Biological Opinion for the Demonstration Project, five years of monitoring were necessary to evaluate the potential risks to biota

and the physical impacts of land retirement. A report for documenting five years of monitoring at the demonstration site in Fresno County (1999-2004) was completed in FY 2005 and posted on Reclamation's website. One more year of monitoring at the Atwell Island Water District site in Tulare and Kings Counties is needed to comply with the FWS Biological Opinion. Monitoring of selenium levels in vegetation and wildlife will continue.

**Current Status:** In FY 2009 funds will be used to acquire and retire lands from irrigated agricultural production due to poor drainage conditions. Actions in FY 2009 will continue land acquisition, research, ecological restoration, site management, reporting, and outreach at the two demonstration project sites.

Funds for the following activities require \$550,000 which includes \$50,000 from the Water and Related Resources request. The program will be used to acquire and restore land as part of the Five Year Land Retirement Demonstration Program. Monitoring of physical and biological impacts of retired land and preparation of the final reports for compliance with the biological opinion will occur. Restoration at Atwell Island will continue in pursuit of acquiring the restoration target of 400 acres per year. Threatened and endangered species and drainage water reductions are the primary benefits.

### **San Joaquin Basin Action Plan**

**Authority:** Title XXXIV, H.R. 429, P.L. 102-575, Section 3406 (d)(5)

**FY 2009 Budget Request (000's):** \$1,341

#### ***Estimated Inter-agency Breakdown:***

<b>Agency</b>	<b>\$000's</b>
U.S. Bureau of Reclamation	\$1,341
U.S. Fish and Wildlife Service	

**Project Description:** Reclamation and the U.S. Fish and Wildlife Service (FWS) are to complete the design for the East Bear Creek Unit facilities of the San Luis National Wildlife Refuge, Los Banos, California. Planning for this Unit has proceeded separately from other San Joaquin Basin Action Plan lands due to its location on the east side of the San Joaquin River. This refuge is projected to be a 4,000 acre site that will have emergent and riparian wetlands and wetland associated upland areas. FWS has obtained previous funding under the North American Wetlands (NAW) Conservation Act which has funded the program to restore and enhance the East Bear Creek Unit to a more natural environment. Under the San Joaquin Basin Action Plan and the mandate of CVPIA, Reclamation is responsible for the planning, design, and construction of the water conveyance infrastructure of the East Bear Creek Unit facility.

**Current Status:** In FY 2009 funds for the following activities require \$1,341,000 which includes \$341,000 from the Water and Related Resources request. Requested funds will help to meet program needs to complete refuge facility construction for delivery of refuge water supplies within San Joaquin Basin Action Plan lands. Specific funding efforts will



include: construction of the East Bear Creek Unit, San Luis National Wildlife Refuge, and Orleans Canal design effort.

### **Contra Costa Water District Alternative Intake Project**

**Authority:** P.L. 108-361, Title I, Section 103 (f)(1)(E)

**FY 2009 Budget Request (000s):** \$0

**Project Description:** 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.

**Current Status:** In 2006 Reclamation, in cooperation with Contra Costa Water District (CCWD), initiated evaluation of alternatives for providing an alternative intake for CCWD's Los Vaqueros Reservoir. The purpose of the evaluation is to (1) develop an appropriate mitigation for implementation of the SDIP, in case current analysis proves to be inaccurate and future subsequent initiation of the SDIP determines that further mitigation measures are required or (2) provide for a method for improving drinking water quality for CCWD. A Federal feasibility was initiated in 2006 and will continue into 2007. Full implementation of SDIP is not scheduled to begin until 2009.

### **San Joaquin River Salinity Management**

**Authority:** P.L. 86-488; and P.L. 108-361, Title I, Section 103 (d)(2)(D)

**FY 2009 Budget Request (000's):** \$5,000

**Project Description:** The 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. Reclamation has initiated implementation of the PTMS Program

required by the Act and is coordinating implementation with key stakeholders in the San Joaquin Valley.

**Current Status:** Funding in 2009 will continue implementation of activities that will help meet water quality standards and objectives for which the CVP has responsibility. Projects include those within the preferred alternative proposed by the San Joaquin River Water Quality Management Group, of which Reclamation is a participant. The approach focuses on managing salt loading in the San Joaquin River in areas where the highest salt loads originate. The approach also incorporates an element of real-time management to manage salt loading into the San Joaquin River, while not redirecting impacts to the Delta. Specific activities include continued implementation of the Westside Regional Drainage Plan, water quality monitoring, wetlands management, and other actions identified in the program to assist in meeting water quality standards and objectives in the lower San Joaquin River. A Report on the PTMS Program was submitted to Congress in 2006 summarizing the scope, activities and management approach that Reclamation is pursuing for this Program. In 2007 a meeting was held to brief stakeholders on the progress of the PTMS Program including presentations by the Fish and Wildlife Service and key stakeholders responsible for implementation of PTMS program elements.

## **STORAGE**

### **CVP, Yield Feasibility Investigation**

**Authority:** Title XXXIV, H.R. 429, P.L. 102-575, Section 3408(j); and P.L. 108-361, Title I, Section 103 (d)(1)(C)

**FY 2009 Budget Request (000's):** \$303

**Project Description:** Section 3408(j) of the Central Valley Project Improvement Act (CVPIA) of 1992 directs Reclamation “*to develop and submit to the Congress a least-cost plan to increase, within fifteen years after the date of enactment of this title, the yield of the Central Valley Project by the amount dedicated to fish and wildlife purposes under this title*”. The legislation authorizes Reclamation to examine numerous options to replace the impact of dedicating 1.2 million acre-feet of Project yield for fish and wildlife purposes including but not limited to (1) improvements in, modification of, or additions to the facilities and operations of the project, (2) conservation, (3) transfers, (4) conjunctive use, (5) purchase of water, (6) purchase and idling of agricultural land, and (7) direct purchase of water rights.

Title I, Section 103 (d)(1)(C) of P.L. 108-361 directs Reclamation to conduct a study, in coordination with the State, of available water supplies and existing and future needs for water within the units of the CVP, the area served by CVP agricultural, municipal, and industrial water service contractors, and the CALFED Bay-Delta solution area. The findings of the study shall be presented in a report identifying possible projects and water management actions that could provide new firm yield and water supply improvements for the CVP while helping California meet its current and future needs for water. The

report shall also identify potential project costs and beneficiaries and assess their willingness to pay for improvements.

***Current Status:*** Completed in December 2007, Reclamation plans on submitting to Congress the Water Supply and Yield Study (Study) in January 2008. The Study fulfills the requirements of Title I, Section 103 (d)(1)(C) of P.L. 108-361. The Study's authorizing legislation directed Reclamation approach the analysis from a supply and demand perspective. Reclamation interpreted demand as the amount of water a user desires to apply to a particular use regardless of influencing factors such as price, available supply, or facility constraints. The Study considers the average water year demand as the base condition and determines the supply-demand gap regionally relative to available supplies. The Study recommends the continued support of the CALFED storage and conveyance projects as well as other statewide water management actions but does not identify specific actions requiring additional authorization. The Study also recommends additional data could be collected to develop CVP-specific supply-demand gaps. This would allow for the following analyses: (1) identification of supply-demand gaps by CVP division and (2) identification of projects and water management actions to fill the supply-demand gap by CVP division

Submitted to Congress in July 1996, the Least-Cost CVP Yield Increase Plan (Plan) presented an appraisal-level evaluation of options that would need to be further refined as specific needs for yield increase became better known. The Plan determined that no option category would likely dominate a refined set of options. It foresaw a refined plan containing a combination of option categories that would minimize reliance on a single yield increase type. The Plan recommended additional analyses, feasibility investigations, and environmental documentation for the final refined set of options.

Current funds will be used to meet the intent of 3408(j) of Title XXXIV, mitigating the adverse impacts to CVP water supply contractors resulting from implementation of the CVPIA. The CVP Yield Feasibility Investigation Program will continue to monitor water supply trends and evaluate Federal, State, and local programs and projects for their impacts upon CVP yield, as well as any opportunity to increase CVP yield. Integrated resources planning efforts to address management issues and opportunities in the various geographic regions of the CVP are also being developed.

#### **Los Vaqueros Expansion Study**

***Authority:*** P.L. 108-7, §215, Title II, Division D, and P.L. 108-361, sec. 103

***FY 2009 Budget Request (000's):*** \$200

#### ***Estimated Inter-agency Breakdown:***

<b>Agency</b>	<b>\$000's</b>
U.S. Bureau of Reclamation	\$200
U.S. Fish and Wildlife Service	

**Project Description:** This study is evaluating the potential to expand the existing Los Vaqueros Reservoir by up to 275,000 acre-feet. The objectives of the study are to develop water supplies for environmental water management, to improve water supply reliability for Bay Area users, and improve the quality of water delivered to Bay Area agencies from the Delta.

**Current Status:** FY 2009 funds will be used to complete the Draft Feasibility Report and technical and managerial review of the EIS/EIR. Contra Costa Water District (CCWD) completed a Planning Report in May 2003 that focused on developing sufficient information for the CCWD Board and ratepayers on how an expanded reservoir could meet their Board principles which include improving water quality and supply reliability for the Bay Area, as well as enhancing the Delta. Reclamation completed an Initial Alternatives Information Report in September 2005.

**Key Milestones:**

- Initial Alternatives Information Report: Summer 2005
- Draft EIS/EIR: Spring 2008
- Draft Feasibility Study Report: May 2009
- Final Feasibility Study Report & EIS/R: September 2010

**Shasta Lake Water Resources Investigation**

**Authority:** P.L. 96-375, 1980; and P.L. 108-361, Title I, Section 103, (d)(1)(A)(i)(I)

**FY 2009 Budget Request (000's):** \$2,720

**Estimated Inter-agency Breakdown:**

Agency	\$000's
U.S. Bureau of Reclamation	\$2,320
U.S. Fish and Wildlife Service	\$180
U.S. Forest Service	\$220

**Project Description:** 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.

**Current Status:** FY 2009 funds will be used to perform planning, engineering, environmental, economic and other studies, and to complete the draft Feasibility Report and EIS. Specific activities will include formulation and refinement of a final array of

alternative plans; operational modeling; analyses of potential physical and operational impacts; identification of mitigation requirements; preparation of feasibility level engineering designs and cost estimates, including real estate costs; evaluation of potential cost and benefit effects; allocation of estimated costs and benefits for a tentatively recommended plan; and public involvement and outreach.

A Plan Formulation Report was completed in May 2007 to update agency decision makers and stakeholders on the progress and findings of the ongoing Feasibility Study. It describes the development and refinement of a final array of preliminary alternative plans and mitigation requirements, analysis of potential environmental impacts, costs and benefits, and potential allocation of costs and benefits at the plan formulation stage of the Feasibility Study. The Report also describes water resources problems and needs in the upper Sacramento River and in the Central Valley Project and State Water Project systems, planning objectives, potential solutions, and recommends future actions. Five alternative plans are refined and evaluated, all of which include raising Shasta Dam and Reservoir from about 6.5 to 18.5 feet primarily for increasing anadromous fish survival and water supply reliability, and potential conjunctive use facilities, ecosystem restoration elements, and non-structural components focusing on improving efficiencies of the existing water supply and flood management operations at Shasta Reservoir. Each action alternative would contribute directly and indirectly to the four primary CALFED Program objectives of water quality, water supply reliability, ecosystem restoration, and delta levee system integrity.

***Key Milestones:***

- Notice of Intent Published: October 2005
- Scoping Meetings: Fall 2004
- Scoping Report Released: February 2006
- Initial Alternatives Information Report Released: June 2004
- Plan Formulation Report: May 2007
- Draft Feasibility Study Report & EIS: May 2008
- Final Feasibility Study Report & EIS: September 2010

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

***Authority:*** P.L. 108-137, Title II, Section 211, December 1, 2003; and P.L.108-361, Title I, Section 103 (d)(1)(A)(ii)(I)

***FY 2009 Budget Request (000's):*** \$200

***Estimated Inter-agency Breakdown:***

<b>Agency</b>	<b>\$000's</b>
U.S. Bureau of Reclamation	\$200
U.S. Fish and Wildlife Service	

***Project Description:*** 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.

***Current Status:*** FY 2008 funds will be used to perform planning, engineering, environmental, economic and other studies, and to develop the draft Feasibility Report and EIS/EIR. Specific activities will include formulation and refinement of a final array of alternative plans; operational modeling; analyses of potential physical and operational impacts; identification of mitigation requirements; preparation of feasibility level engineering designs and cost estimates, including real estate costs; evaluation of potential cost and benefit effects; allocation of estimated costs and benefits for a tentatively recommended plan; and public involvement and outreach.

An Initial Alternatives Information Report was completed in 2006 to describe water resources problems and needs in the upper Sacramento River and in the Central Valley Project and State Water Project systems, planning objectives, potential solutions, and recommends future actions. Reclamation and DWR are continuing to develop and refine alternative plans for a new reservoir with up to 1.8 million acre-foot storage capacity and perform related engineering modeling, environmental, and economic studies. A Plan Formulation Report, scheduled for October 2007, is delayed until at least spring 2008 because of the decline in Delta smelt populations, which requires new modeling studies that will reassess Delta pumping rates. There will also be a delay in the draft Feasibility Report and draft EIS/EIR. However, the schedule for the final Feasibility Report and final EIS/EIR remains unchanged at September 2010. The Plan Formulation Report will update the status of the ongoing feasibility study to agency decision makers and stakeholders. It will discuss the development and refinement of an array of preliminary alternative plans and mitigation requirements, analysis of potential environmental impacts, costs and benefits, and potential allocation of costs and benefits for further consideration during the feasibility study stage. Each action alternative would contribute directly and indirectly to the four primary CALFED Program objectives of water quality, water supply reliability, ecosystem restoration, and delta levee system integrity.

***Key Milestones:***

- Notice of Intent Published: November 2001
- Public Scoping Meetings: November 2001
- Scoping Report: February 2002
- Initial Alternatives Info. Report Released: Spring 2006 (Draft); Fall 2006 (Final)
- Plan Formulation Report: October 2007

- Draft Feasibility Report and Draft EIS/EIR: June 2008
- Final Feasibility Report and Final EIS/EIR: September 2010

**Upper San Joaquin River Basin Storage Investigation**

**Authority:** P.L. 108-7, Section 215, Title II, Division D; and P.L. 108-361, Title I, Section 103 (d)(1)(A)(ii)(II)

**FY 2009 Budget Request (000's):** \$3,330

***Estimated Inter-agency Breakdown:***

<b>Agency</b>	<b>\$000's</b>
U.S. Bureau of Reclamation	\$3,180
U.S. Fish and Wildlife Service	\$150

**Project Description:** 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 (EIS/EIR) for the Upper San Joaquin River Basin Storage Investigation. The feasibility study purpose is to determine the type and extent of Federal interest in a multiple purpose plan to provide additional storage in the upper San Joaquin River watershed through enlargement of Millerton Lake at Friant Dam or a functionally equivalent storage program. The primary objectives for storage and management of water supply from the upper San Joaquin River are to enhance water temperature and flow conditions in the San Joaquin River and improve CVP Friant Division water supply reliability. Secondary objectives and benefits include potential for increased management of flood flows at Friant Dam, contributions to water supply for environmental protection, improvements to San Joaquin River water quality and development of hydropower generation and recreational opportunities.

**Current Status:** FY 2009 funds will be used to perform planning, engineering, environmental, economic and other studies needed to develop the draft Feasibility Report and EIS/EIR. Specific activities will include formulation and refinement of a final array of alternative plans; operational modeling; analyses of potential physical and operational impacts; identification of mitigation requirements; preparation of feasibility level engineering designs and cost estimates, including real estate costs; evaluation of potential cost and benefit effects; allocation of estimated costs and benefits for a tentatively recommended plan; and public involvement and outreach.

An Initial Alternatives Information Report, completed in 2005, describes water resources problems and needs in the upper San Joaquin River Basin, planning objectives, potential solutions, and recommends future actions. It developed and screened 24 water storage measures and resulted in six measures retained for further study, and described preliminary water operations scenarios and the status of groundwater storage measures development. Reclamation and DWR are continuing to develop and refine alternative plans for increasing water storage and reliability, and perform related engineering

modeling, environmental, and economic studies. The San Joaquin River Settlement in late 2006 requires changes in fishery releases and management, which affected formulation and evaluation of alternatives for the potential storage project. Reclamation has revised assumptions for existing and future conditions, and performed some reformulation of the planning objectives.

A Plan Formulation Progress Report is scheduled for Summer 2008 to update agency decision makers and stakeholders on the progress and findings of the ongoing feasibility study, including development and refinement of a final array of preliminary alternative plans and mitigation requirements, analysis of potential environmental impacts, costs and benefits for further consideration during the feasibility study stage. Each action alternative would contribute directly and indirectly to the four primary CALFED Program objectives of water quality, water supply reliability, ecosystem restoration, and delta levee system integrity.

***Key Milestones:***

- Notice of Intent Published: January 2004
- Public Scoping Meetings: March 2004
- Scoping Report: December 2004
- Initial Alternatives Information Report: June 2005
- Plan Formulation Progress Report: July 2008
- Draft Feasibility Study Report & EIS/R: July 2009
- Final Feasibility Study Report & EIS/R: September 2010

**CONVEYANCE**

**Enlarged Delta Mendota Canal /California Aqueduct Intertie Feasibility Study**

***Authority:*** P.L. 108-361, Title I, Section 103 (f)(1)(B)

***FY 2009 Budget Request (000's):*** \$2,000

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

***Current Status:*** It is anticipated that by the end of 2009 environmental compliance for an intertie between the State Water Project California Aqueduct and the Central Valley Project Delta Mendota Canal will be complete. This project, with an initial capacity of 467 cfs toward the California Aqueduct and a reverse flow capability of 900 cfs toward the Delta-Mendota Canal, will allow for greater operation and maintenance flexibility for both the CVP and SWP, and enable the CVP to recover conveyance capacity. A feasibility study of increasing the conveyance capacity of the intertie will be initiated in 2009 and continue into 2010.



**San Luis Lowpoint Feasibility Study**

**Authority:** P.L. 108-361, Title I, Section 103 (f)(1)(A)

**FY 2009 Budget Request (000's):** \$1,400

**Project Description:** 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.

**Current Status:** In 2008 Feasibility Report activities continue. Specific activities include preparation of a Draft Plan Formulation Report. In fiscal year 2009 a Draft Feasibility Report and draft EIS/EIR will be completed. The final feasibility report and final EIS/EIR are anticipated in 2010.

**South Delta Improvements Program Plan Coordination**

**Authority:** Title XXXIV, H.R. 429, P.L. 102-575, Section 3406 (15); and P.L. 108-361, Title I, Section 103 (f)(1)(D)&(E)(ii)

**FY2009 Budget Request (000's):** \$200

**Project Description:** Reclamation and California Department of Water Resources (DWR) completed environmental studies for the South Delta Improvement Program (SDIP) for Stage 1 activities to construct a fish control barrier and 3 agricultural control barriers, dredging and agricultural intake extensions in the south Delta. Supplemental environmental studies will be completed in the future to address a Stage 2 decision to increase exports and improve water supply reliability. 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 State Water Project'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.

**Current Status:** Significant activities conducted in 2007 included interagency coordination with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, and the California Department of Fish and Game under the Federal and State Endangered Species Acts. Completion of environmental documentation on the preferred physical/structural component is anticipated in 2009. Funding in FY 2009 will support continued coordination and technical support to DWR.

**Tracy Fish Facilities Mitigation Program**

**Authority:** Title XXXIV, H.R. 429, P.L. 102-575, Section 3406 (b)(4)

**FY 2009 Budget Request (000's):** \$1,377

**Project Description:** 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).

**Current Status:** Continue research and operation assessment efforts in order to better understand current operating performance of the TFCF and to implement physical and operational changes, as budgets and resources allow, in order to improve overall fish salvage capabilities. This is consistent with current CALFED South Delta Fish Facility Forum recommendations and CVP OCAP Biological Opinions. Some improvements have been implemented and many others are planned through FY 2013 as budgets and resources allow.

**Frank's Tract Feasibility Study/Through Delta/Delta Cross Channel Reoperation**

**Authority:** P.L. 108-361, Title I, Section 103 (f)(1)(C)

**FY 2009 Budget Request (000's):** \$2,700

**Project Description:** Project objective is to significantly reduce salinity concentrations in the south Delta and at the CVP/SWP pumping facilities.

**Current Status:** Feasibility Study was initiated in 2007.

**Recirculation Feasibility Study**

**Authority:** P.L. 108-361, Title I, Section 103 (f)(1)(G)

**FY 2009 Budget Request (000's):** \$750

**Project Description:** 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.

**Current Status:** A Plan of Action and Plan of Study were completed and submitted as required to the SWRCB in 2006. The required Recirculation Feasibility Study was initiated in 2006 and will continue into 2009.

## SCIENCE

### **Interagency Ecological Program**

**Authority:** Title XXXIV, H.R. 429, P.L. 102-575

**FY 2009 Budget Request (000's):** \$4,100

**Project Description:** 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.

**Current Status:** The IEP provides a variety of essential data utilized for management and operation of the Central Valley Project and for planning future projects involving Reclamation. Currently the IEP has withdrawn from conducting special studies and limits its endeavors to monitoring various biological, water quality, and hydrological parameters

### **CALFED Science Activities**

**Authority:** Title XXXIV, H.R. 429, P.L. 102-575

**FY 2009 Budget Request (000's):** \$3,000

**Project Description:** Continues investigation by the Interagency Ecological Program agencies and the CALFED Science Program of the causes and consequences of the recent declines in the relative abundance of pelagic organisms in the Bay-Delta, including the delta smelt, a species listed as threatened under the Endangered Species Act. Also continues expert evaluations and scientific assessments of Program elements and assistance in CALFED agencies efforts to establish performance measures and to monitor and evaluate the performance of all Program elements.

### **Pelagic Organism Decline Investigation**

**Authority:** Title XXXIV, H.R. 429, P.L. 102-575

**FY 2009 Budget Request (000's):** \$2,715

**Project Description:** Continues to support the ongoing scientific investigation of the decline of native and non-native pelagic fishes in the Sacramento-San Joaquin Estuary. Personnel involved in the investigation include scientists, hydrologists and engineers from the Interagency Ecological Program agencies, CALFED, universities and the National Center for Ecological Analysis and Synthesis.

***Current Status:*** Four species of pelagic fishes in the Sacramento- San Joaquin Estuary have experienced a substantial decline in abundance in recent years. At least two of the fish species are listed, or are a candidate for listing, for protection under the Federal Endangered Species Act. Various potential causes of the decline have been identified for further investigation including, but not limited to, the presence of exotic organisms, contaminants/toxic algae and water project operations.

## **OVERSIGHT AND COORDINATION**

### **CALFED Program Management, Oversight, and Coordination**

***Authority:*** P.L. 108-361, Title I, Section 103 (f)(4)

***FY 2009 Budget Request (000's):*** \$2,000

***Project Description:*** 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.

## **ARMY CORPS OF ENGINEERS**

### **ECOSYSTEM RESTORATION PROGRAM**

#### **Hamilton Airfield Wetlands Restoration, CA**

**Authority:** WRDA of 1999, Sec 101(b)(3) and WRDA of 2007

**FY 2009 Budget Request (000's):** \$4,900

**Project Description:** The project includes 988 acres of a former military airfield and adjacent California State Lands Commission areas. The site is located on San Pablo Bay, 4 miles east of the city of Novato, in Marin County, California. The levee-protected site has subsided below the elevation of surrounding properties, including the tidal wetlands immediately adjacent to San Pablo Bay. This wetlands restoration project would advance the beneficial reuse of dredged material from San Francisco Bay as part of the Long Term Management Strategy (LTMS). The California State Coastal Conservancy (Conservancy) is the non-Federal sponsor.

**Current Status:** Funds are being used to complete site preparation for dredge material placement for one segment. Complete containment levees for seasonal wetland and preparation for receipt of Oakland -50 foot project including the Wildlife Corridor Berm. Material placement will begin this fiscal year.

**Key Milestones:**

Offloader testing: November 2007

Groundbreaking Ceremony: February/March 2008

### **INTEGRATED REGIONAL WATER MANAGEMENT**

#### **Coyote Creek and Berryessa Creek, CA**

**Authority:** WRDA 1990, National Defense Authorization Act for Fiscal Year 1994 (directed the Secretary to construct the project notwithstanding Section 902 of Water Resources Development Act of 1986).

**FY 2009 Budget Request (000's):** \$950

**Project Description:** The recommended project includes offset levees and an overflow channel on Coyote Creek, and two sedimentation basins, concrete lined trapezoidal channel and off-set levees on Berryessa Creek. Provisions are also included for fish and wildlife mitigation for both Coyote and Berryessa Creeks.

***Current Status:*** Coyote Creek element was completed in Aug 96. Mitigation planting contract was completed in Apr 97, and was followed by a 3-year plant establishment period. Severe flooding has occurred on both Coyote and Berryessa Creeks. In 1983 flooding on Coyote Creek caused over \$6.0 million worth of damages. The Jan 97 flood was the highest recorded flow on Coyote Creek since completion of Anderson Dam in 1950. Although some flooding occurred upstream on Coyote Creek, flooding was averted in the project reach due to completion of the Coyote Creek project element in 1996, which provided for a 100-year level of protection.

In June 2001, the Reevaluation Cost Sharing Agreement (RCSA) was executed between the U.S. Army Corps of Engineers, Sacramento District, and the Santa Clara Valley Water District for a General Reevaluation Report (GRR) analysis of the Berryessa element. The project is cost shared on a 50/50 percent basis. The release of the GRR for public review is scheduled for late FY08, with completion of the report and start of design in early FY09. FY2009 funds will be used to continue design.

**Key Milestones:**

Public review of GRR August 2008  
Completion of GRR October 2008

**Napa River, CA**

***Authority:*** Flood Control Acts of 1965 & 1976

***FY 2009 Budget Request (000's):*** \$7,000

***Project Description:*** The project is located in the city of Napa, CA. A major portion of the presently developed area of the City is located in a high flood hazard area and is subject to flooding. The NED Plan would provide a 100-year level of protection from the Napa River and Napa Creek and would consist of overbank excavation, floodwalls, vertical walls, levees, bridges, pumping stations, and flowage easements. The plan also includes recreation trails and incidental restoration.

***Current Status:*** Work completed to date includes: Contract 1A Excavation in Oct 2000; Demolition work for the east side in Sep 2002; Railroad Relocation, including a bridge relocation (Federal responsibility) completed in 2002 by the local sponsor; first phase of Petroleum Remediation along east side of river in Dec 2002 and last phase in Jan 2004; Contract 1B Excavation in Apr 2004; 6<sup>th</sup> to 3<sup>rd</sup> Street Excavation in Sep 2005; Duden Excavation in Sep 2005; and NSD Excavation in Dec 2006. The current Hatt to First Street Floodwalls construction contract was awarded in Aug 2005 and is expected to be completed in late 2007. The local sponsor completed the Third Street Bridge Relocation in Sep 2002, the Soscol Bridge Relocation in Jan 2004, and the First Street Bridge Relocation in Jan 2006. Relocation of the Maxwell Bridge was completed in Spring 2006. The sponsor continues with the extensive land acquisition and other utility relocations required for the Napa River Project. There will be at least five additional

construction contracts to complete the flood protection features. During FY 2009, funds will be used to continue the Napa Wine Train Railroad Relocation contract.

**Key Milestones:**

ROD for revised SEIS/EIR issued Jun 99

PCA executed Feb 00

CN 2West Hatt to First initiated Sep 05 and presently continuing

Several contracts completed, including recent NSD Excavation and Duden Excavation

**Santa Ana River Mainstem, CA**

**Authority:** WRDA 1986 (PL-99-662), Energy & Water Appropriations Act, 1988 (San Timoteo), WRDA 1990 (Santa Ana Trails), 1996 (Prado Dam, SR 71)

***FY 2009 Budget Request (000's):*** \$8,100

***Project Description:*** The project is located along a 75-mile (mi) reach of Santa Ana River in Orange, San Bernardino and Riverside Counties. Plan of improvement: Seven Oaks Dam (145,600 acre-feet), management of overflow area-Seven Oaks to Prado (35 mi); raise Mill Creek levee (2.4 mi); additional storage at Prado (140,600 acre-feet); improvements along: Oak Street Drain/Riverside County (3.6 mi) Santiago Creek/Orange County (1.2 mi), and lower Santa Ana River (31 mi); recreation development; mitigation and preservation; and San Timoteo (5.4 mi).

***Current Status:*** During FY 2009, funds will be used to complete construction for the Prado Dam Embankment and Outlet works.

**Key Milestones:**

Fully fund Prado Dam Embankment and Outlet contract

## **USDA NATURAL RESOURCES CONSERVATION SERVICE**

### **Ecosystem Restoration Program**

#### **Working Landscapes and Ecosystem Restoration**

**Authority:** Public Law 107-171, Farm Security and Rural Investment Act of 2002 (Environmental Quality Incentive Program Section 1240 of the Food Security Act of 1985 as amended by Section 2301 of Public Law 107-171; Wetland Reserve Program Section 1237 of Food Security Act of 1985 as amended by Section 2201 of Public Law 107-171); Public Law 74-46, The Soil Conservation and Domestic Allotment Act of 1935 and The Soil and Water Resources Conservation Act of 1977, Conservation Operations.

**FY 2009 Budget Request (000's):** Included in base budget for Conservation Operations

**Project Description:** The Natural Resources Conservation Service (NRCS) provides technical assistance for on-farm natural resources conservation activities, including conservation planning through its Conservation Operations authority, and provides technical and financial assistance to agricultural producers to assist with their natural resource concerns through the Environmental Quality Incentive Program. NRCS also provides technical and financial assistance to landowners for qualifying wetland restoration and preservation projects through the Wetland Reserve Program.

**Current Status:** NRCS continues to provide Federal leadership for on-farm natural resources conservation activities, and provides technical and financial assistance to agricultural producers to assist with conservation and other natural resource concerns. NRCS works closely with other Federal, State, local, and environmental constituents and partners to coordinate implementation of on-farm conservation activities with the landowner. NRCS implements the Wetland Reserve Program in partnership with other Federal, State, local, and environmental organizations to maximize the benefits and effectiveness of the program.

#### **Working Landscapes and Ecosystem Restoration Projects**

**Authority:** Public Law 107-171, Farm Security and Rural Investment Act of 2002 (Environmental Quality Incentive Program (EQIP) Section 1240 of the Food Security Act of 1985 as amended by Section 2301 of Public Law 107-171; Wetland Reserve Program Section 1237 of Food Security Act of 1985 as amended by Section 2201 of Public Law 107-171).

**FY 2009 Budget Request (000's):** EQIP \$10 million estimate based on prior fiscal years and initial county allocations for fiscal year (FY) 2008. WRP's \$8 million estimate is based on prior fiscal years and initial allocation for FY 2008.

**Project Description:** Focusing on farm operations, implement projects using Environmental Quality Incentive Program (EQIP) incentive payments which complement



the objectives contained in the CALFED Ecosystem Restoration Program. Signups are held at local service centers located in the CALFED solution area. Approved projects will optimize environmental benefits while addressing natural resource concerns and are awarded based on criteria consistent with the performance goals of NRCS' Environmental Quality Incentive Program.

Implement projects using Wetland Reserve Program (WRP) funding which complement the objectives contained in the CALFED Ecosystem Restoration Program and the objectives of the WRP. The WRP objectives are to achieve the greatest wetland functions and values, along with optimum wildlife habitat, on every acre enrolled in the program. This is done through the enrollment of conservation easements on private lands, restore and protect wetlands in agricultural settings, remove environmentally sensitive, marginal cropland from cultivation, assist landowners with restoration of wetland hydrology and contribute to the national goal of no net loss of wetlands. Signups are held at local service centers located in the CALFED solution area. Applications are ranked using state wide ranking criteria. Approved projects optimize environmental benefits while addressing natural resource concerns and are awarded based on their state wide rank consistent with the goals of NRCS' Wetland Reserve Program.

***Current Status:*** Initial allocations have been received for FY 2008 for EQIP and WRP. Currently, the Farm Security and Rural Investment Act of 2002 (Farm Bill) is scheduled for reauthorization in 2007. The results of Congressional action will impact the ongoing CALFED projects for FY 2009. Specific actions during these two years will depend on the applications for on-farm activities as well as reauthorization of the Farm Bill.

## **Water Use Efficiency Program**

### **Water Conservation**

***Authority:*** Public Law 107-171, Farm Security and Rural Investment Act of 2002 (Environmental Quality Incentive Program Section 1240 of the Food Security Act of 1985 as amended by Section 2301 of Public Law 107-171; Ground and Surface Water Conservation Section 1240I of the Food Security Act of 1985 as amended by Section 2301 of Public Law 107-171); Public Law 74-46, The Soil Conservation and Domestic Allotment Act of 1935 and The Soil and Water Resources Conservation Act of 1977, Conservation Operations.

***FY 2009 Budget Request (000's):*** Included in base budget for Conservation Operations.

***Project Description:*** NRCS provides technical assistance for on- farm water conservation activities, including conservation planning through its Conservation Operations authority, and provides technical and financial assistance to agricultural producers to assist with water conservation and other natural resource concerns through the Farm Bill authorities.

**Current Status:** NRCS provides Federal leadership for on-farm water conservation activities, and provides technical and financial assistance to agricultural producers to assist with water conservation and other natural resource concerns. NRCS works closely with other Federal, State, local, and environmental constituents on water conservation issues through the State Technical Committee.

### **Water Conservation Projects**

**Authority:** Public Law 107-171, Farm Security and Rural Investment Act of 2002 (Section 1240 of the Food Security Act of 1985 as amended by Section 2301 of Public Law 107-171; Ground and Surface Water Conservation Section 1240I of the Food Security Act of 1985 as amended by Section 2301 of Public Law 107-171).

**FY 2009 Budget Request (000's):** \$8 million estimated based on prior fiscal years and initial FY 2008 allocations.

**Project Description:** Ground and Surface Water Conservation (GSWC) provides a special initiative through EQIP for ground and surface water conservation projects. Projects are implemented on-farm using the EQIP Ground and Surface Water Conservation incentive payments which complement the CALFED Water Use Efficiency program water conservation objectives. Signups are held at local service centers located in the CALFED solution area. Approved projects optimize environmental benefits while addressing natural resource concerns and are awarded based on local ranking criteria consistent with the performance goals of NRCS' EQIP Ground and Surface Water Conservation.

**Current Status:** Initial allocations have been received for FY 2008 for EQIP GSWC. Currently, the Farm Security and Rural Investment Act of 2002 (Farm Bill) is scheduled to be reauthorized in 2007. The results of Congressional action could impact ongoing CALFED projects in FY 2009. Specific actions during these two years will depend on the applications for on-farm activities as well as the reauthorization of the Farm Bill.

# **National Oceanic and Atmospheric Administration**

## **ECOSYSTEM RESTORATION PROGRAM**

### **Ecosystem Restoration Program (ERP) Oversight & Coordination**

**Authority:** Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), Magnuson-Steven Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.)

**FY 2009 Budget Request (000's):** \$150

**Project Description:** As an Ecosystem Restoration Program (ERP) implementing agency, the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration in the U.S. Department of Commerce (NOAA Fisheries) will continue ERP planning efforts in collaboration with the U.S. Fish and Wildlife Service (FWS), the California Department of Fish and Game (CDFG) and the California Bay-Delta Authority (CBDA). Activities include program planning and implementation, tracking schedules, finances, and performance; coordination of Program activities to ensure Program balance and integration with other CALFED Programs; coordination of public outreach and involvement, including tribal, environmental justice, and public advisory activities in accordance with the Federal Advisory Committee Act. NOAA Fisheries, through an interagency process, is also involved in planning and developing the format and guidelines for preparing Action Specific Implementation Plans (ASIP) for all CALFED projects in order to meet the requirement of FESA, CESA, and NCCPA.

**Current Status:** NOAA Fisheries will continue management-level participation in CALFED and CBDA coordination meetings, continue work on multi-year planning documents, work on defining and streamlining the ASIP, participate in developing the Delta Regional Ecosystem Implementation Plan, the South Delta Improvements Package, and the Proposal Solicitation Process (PSP), and serve on annual PSP selection panels to review and fund specific projects in the CALFED program. Staff and Management participate in quarterly ERP Science Board meetings to assist coordination of implementation and integration the ERP program overall in meeting CALFED goals and objectives.

### **Screen Engineering and Review**

**Authority:** Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.), Magnuson-Steven Fishery Conservation and Management Act (16 U.S.C. 1801 et seq.).

**FY 2009 Budget Request (000's):** \$75

***Project Description:*** Activities include technical review and comment of proposed projects under the Anadromous Fish Screen Program (AFSP). The 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."

***Current Status:*** Efforts in this program element have scaled down over the past couple of years due to decreased emphasis on screening diversions and greater emphasis on habitat restoration by the ERP program in general. In addition funding for the AFSP has been reduced, resulting in fewer projects in the planning and/or implementation phase. However, staff will continue to review CALFED-funded fish screens and improvement projects as they develop for compliance with section 7 of the Endangered Species Act and existing biological opinions. Specific issues for program staff include reviewing the State Water Project and Central Valley Project Fish Collection Facilities in the Delta. Staff participates on the Tracy Technical Advisory Team, South Delta Fish Facility Forum, and Central Valley Fish Facility Team, all of which are involved in developing new ways to salvage fish from water and debris and return them unharmed to the Delta. Staff reviews and comments on fish studies, research projects, facility evaluations, and operations and maintenance of the Delta fish facilities for compliance with current biological opinions.

Many of the research projects are funded by either CVPIA or CALFED. Staff works with our engineers in Santa Rosa and at the Bureau of Reclamation to approve CVPIA funded fish screen projects. In the past NOAA Fisheries has had 3-4 biologists and engineers working almost full time on these projects. Current staffing is one engineer part-time in support of this program element. In the future there are studies and screen improvements required in the OCAP biological opinion that will have to be evaluated and commented on with respect to listed fish concern.

## **ENVIRONMENTAL WATER ACCOUNT**

### **EWA Program Oversight & Coordination**

***Authority:*** Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.)

***FY 2009 Budget Request (000's):*** \$75

***Project Description:*** Five Federal and State agencies administer the EWA. The California Department of Water Resources (DWR) and the Bureau of Reclamation (Reclamation), or the “Project Agencies,” are responsible for acquiring water assets and for storing and conveying the assets through use of the SWP and CVP facilities. The “Management Agencies,” which include the State and Federal fishery agencies (NOAA Fisheries, FWS, and CDFG), use the EWA to protect and restore fish. All five EWA agencies are responsible for the day-to-day program management of actions taken to protect and benefit fish (*e.g.*, pumping reductions to protect fish) and in stream flow enhancements to help facilitate fish population recovery.

***Current Status:*** The EWA program, as it is being implemented incorporates functionally equivalent purchases and actions within the framework of the CALFED ROD and EWA Operating Principles Agreement. Ongoing actions in FY 2009 include using staff expertise on the Central Valley Project and State Water Project to assess operational impacts on juvenile or adult migrating listed winter-run and spring-run Chinook and steelhead. NOAA Fisheries supports extending the EWA for another 4 years and will providing comments and guidance on the anticipated EIS/EIR.

## **SCIENCE**

### **Interagency Ecological Program**

***Authority:*** Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.)

***FY 2009 Budget Request (000’s):*** \$75

***Project Description:*** The Interagency Ecological Program (IEP) is an estuarine ecological monitoring and special study collaboration by 3 state and 6 federal agencies with management and/or regulatory responsibilities in the San Francisco Estuary and Sacramento-San Joaquin Delta, California. The 3 state agencies are the CDFG, DWR, and California State Water Resource Control Board (SWRCB); the federal agencies include FWS, US Bureau of Reclamation (USBR), National Oceanic and Atmospheric Administration, US Geological Survey (USGS), US Environmental Protection Agency (USEPA), and the US Army Corps of Engineers (USACE). The purpose of this collaboration is to gather in an efficient, coordinated and cooperative way the ecological information required by the agencies to effectively carry out their management and regulatory responsibilities.

The goals and objectives to address the mission of the IEP are (1) describe the status and trends of aquatic ecological factors of interest in the estuary; (2) develop an understanding of environmental factors that influence observed aquatic ecological status and trends; (3) use knowledge of the previous information in a collaboration process to support natural resource planning, management, and regulatory activities in the estuary; (4) continually reassess and enhance long-term monitoring and research activities that demonstrate scientific excellence; (5) provide scientific information about the estuary that

is accurate, accessible, reliable, and timely; and (6) respond to management needs in a timely fashion.

***Current Status:*** The Interagency Ecological Program is comprised of long-term monitoring, water operations monitoring and special studies. The IEP is committed to conducting the mandated monitoring studies required by NOAA Fisheries and FWS biological opinions and SWRCB Water Rights Decision D-1641. There is also a commitment to continue providing the “real-time” data needed to make water operation decisions.

## **OVERSIGHT & COORDINATION**

### **General Oversight and Coordination**

***Authority:*** Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.)

***FY 2009 Budget Request (000's):*** \$150

***Project Description:*** Activities include participation at CALFED agency coordination meetings, Bay-Delta Public Advisory Committee meetings, California Bay-Delta Authority meetings, input into the development of and review of CALFED program plans, crosscut budgets, and annual reports.

## US GEOLOGICAL SURVEY

### SCIENCE

#### *Interagency Ecological Program*

**Authority:** Organic Act of March 3, 1879, as amended (43 U.S.C. 31 et seq.)

**FY 2009 Budget Request (000's):** \$532

**Project Description:** In cooperation with other agencies in the Interagency Ecological Program (IEP: US Fish & Wildlife Service, US Bureau of Reclamation, USGS, US Army Corps of Engineers, US Environmental Protection Agency, CA Water Resources Control Board, CA Department of Water Resources, and CA Department of Fish & Game), the USGS is applying new technologies to measure within-Delta water transfers and Delta outflow into the Bay, providing information needed for documenting salt transport mechanisms and managing freshwater flow to meet salinity standards.

**Current Status:** Research conducted in the Delta Cross Channel (DCC) has focused on better understanding the hydrodynamics of flows supporting the development of management strategies for balancing water-quality needs against the survival of out-migrating Chinook salmon. DCC gate operations that improve water quality in the Central and South Delta are believed to increase mortality of outmigrating juvenile salmon by diverting them into the Central Delta, away from the more direct route to the ocean. Three different technologies were used in combination: (1) hydrodynamic measurements of the velocity fields within the Sacramento River/Georgiana Slough junction, (2) hydroacoustic monitoring stations deployed at the Sacramento River/Georgiana Slough junction to measure the distribution of fish within Georgiana Slough and at the boundaries of velocity maps on the Sacramento, and (3) fish fitted with acoustic tags to observe the detailed movements of individual juvenile salmon within a junction and to enable the computation of time of travel and mortality estimates for individuals within channels.

Related activities include studies of flow and salt transport in the central and south Delta, and Suisun Marsh.

#### *Lead Scientist Oversight*

**Authority:** Organic Act of March 3, 1879, as amended (43 U.S.C. 31 et seq.)

**FY 2009 Budget Request (000's):** \$701

**Project Description:** The U.S. Geological Survey provides support for the CALFED Bay-Delta Program's Lead Scientist and staff.

CALFED Bay-Delta Program is a multi-decade, multi-billion dollar cooperative effort of more than 20 State and Federal agencies working to improve the quality and reliability of California's water supplies and revive the San Francisco Bay-Delta ecosystem. The CALFED Science Program, led by the Lead Scientist, is tasked with: providing a comprehensive and integrated scientific context for CALFED activities; ensuring the advance of science needed to guide Bay-Delta decisions and water project operations; establishing a framework to identify and articulate relevant areas of scientific uncertainty; and developing strategies to reduce uncertainties and track progress toward CALFED goals.

The Lead Scientist works with the CALFED Science Program staff, the CALFED Independent Science Board, CALFED implementing agency scientists, and the scientific community at large to promote the use of peer-reviewed science throughout the CALFED Program. The Lead Scientist identifies, refines and implements the science agenda for the CALFED Program.

The Lead Scientist has oversight responsibility to ensure that CALFED studies are relevant, authoritative and objective and that they progressively reduce uncertainties about critical issues, add to the knowledge that aids water management and ecosystem restoration, and help prepare for future uncertainties. The Lead Scientist communicates new findings and current scientific understandings to the California Bay-Delta Authority, CALFED agency managers, stakeholders, scientific community and the public.

***Current Status:*** The Lead Scientist and Staff are in place.

***Place-based study of SF Bay***

***Authority:*** Organic Act of March 3, 1879, as amended (43 U.S.C. 31 et seq.)

***FY 2009 Budget Request (000's):*** \$1,237

***Project Description:*** The mission of Place Based Studies, now called Priority Ecosystem Science (PES), is to provide science in support of adaptive management of ecosystems that have near-term societal concern and significant long-term societal value. These studies are designed to serve local ecosystem management needs and to provide transferable knowledge and approaches. PES efforts focus in areas where new integrated science approaches can be developed to address the needs of a diverse group of decision-makers. Activities require collaboration and integration of expertise to achieve a system-scale understanding of the natural and anthropogenic factors affecting ecosystems and to better understand the interactive nature of resources and the environment.

***Current Status:*** Current studies cover a range of activities from the Delta through Suisun Bay to the Golden Gate dealing with hydrodynamic processes, sediment budgets, and salt transport. The information and knowledge produced is integral to the developing understanding of wetland management, salt pond reclamation, salinity control and fish movements within and through the Delta.



**Sacramento Basin National Water Quality Assessment (NAWQA)**

**Authority:** Organic Act of March 3, 1879, as amended (43 U.S.C. 31 et seq.)

**FY 2009 Budget Request (000's):** \$183

**Project Description:** The National Water-Quality Assessment (NAWQA) Sacramento Basin Program is designed to assess the status and trends of water quality in the basin, and to understand the factors that affect it. Specifically, the Program goals are to characterize the condition of streams and ground water in the basin, evaluate how the water quality is changing over time, and to identify how natural features and human activities affect the quality of streams and ground water. The NAWQA Program is a long-term cyclical study that began in 1991.

**Current Status:** The Sacramento Basin Program has completed the first cycle, and is preparing for its second cycle. Recent activity has focused on the evaluation of Dissolved Organic Carbon (DOC) transported by the Sacramento River into the Delta and its effects on drinking water quality. The CALFED Drinking Water Program needs information on DOC concentrations and loads to the Delta. This project will provide critical information on the long-term trends in carbon loading and will improve the accuracy of flow measurements from the upstream sources.

**San Joaquin Basin National Water Quality Assessment (NAWQA)**

**Authority:** Organic Act of March 3, 1879, as amended (43 U.S.C. 31 et seq.)

**FY 2009 Budget Request (000's):** \$584

**Project Description:** The National Water-Quality Assessment (NAWQA) San Joaquin Basin Program is designed to assess the status and trends of water quality in the basin, and to understand the factors that affect it. Specifically, the Program goals are to characterize the condition of streams and ground water in the basin, evaluate how the water quality is changing over time, and to identify how natural features and human activities affect the quality of streams and ground water. The NAWQA Program is a long-term cyclical study that began in 1991.

The San Joaquin Basin National Water Quality Assessment is a long-term Program, and is one of 42 nationwide. Cycle 1 (Water Quality Status) started in 1991, and was completed in 2001. Cycle 2 (Water Quality Trends and Understanding) began in 2001, and is scheduled to end in 2011.

In the second cycle, efforts now in process focus on five major activities:

(1) Status assessment of mercury; (2) Status assessment of ground-water drinking water sources; (3) Assessment of water-quality trends in streams and ground water; (4) Topical

study of transport of anthropogenic and natural contaminants to community supply wells;  
(5) Topical study of agricultural chemicals: sources, transport and fate.

***Current Status:*** The San Joaquin-Tulare Basin Program is in its second study cycle, and is one of five areas nationwide participating in an intensive study of the sources, transport, and fate of agricultural chemicals in relatively small agricultural watersheds. The primary goal of these studies is to estimate a mass balance for water and chemicals. To achieve this goal, all compartments of the hydrologic cycle have been monitored. These compartments include the atmosphere, surface runoff, vadose zone, and ground water. In addition, ground-water processes along a flowpath, and interactions between ground water and surface water at the toe of the flowpath have been monitored. The San Joaquin site is located within the Merced River Basin on the east side of the valley. The objective is to apply the information and understanding gained in this intensive study to larger areas, which in this case includes the Sacramento-San Joaquin River Delta.

#### **Toxics Substances Hydrology Program**

***Authority:*** Organic Act of March 3, 1879, as amended (43 U.S.C. 31 et seq.)

***FY 2009 Budget Request (000's):*** \$492

***Project Description:*** The San Francisco Bay-Estuary Toxic Substances Hydrology (Toxics) Program is an ongoing, long-term estuarine study designed to quantitatively define the processes that affect contaminant transport and distribution in the San Francisco Bay estuary. It is part of the national Toxic Substances Hydrology Program. The goal is to create the scientific foundation from which specific, management-oriented problems may be addressed.

The U.S. Geological Survey (USGS) Toxic Substances Hydrology (Toxics) Program was initiated in 1982 to provide objective and reliable scientific information needed to develop policies and practices that help avoid exposure to toxic substances, mitigate environmental deterioration from contaminants, provide cost-effective cleanup and waste-disposal strategies, and reduce future risk of contamination.

San Francisco Bay receives a broad range of organic and inorganic contaminants that vary widely in their sources, seasonality, toxicity, and environmental behavior. Despite an increasing awareness of potential problems, the effects of organic contaminants in the estuarine environment are not well understood. Since 1991, the USGS has been studying the fate and effects of these contaminants in San Francisco Bay as part of the Toxic Substances Hydrology Program. This study is referenced as the San Francisco Bay Toxics Project.

The San Francisco Bay-Estuary Toxic Substances Hydrology (Toxics) Study is unique among estuarine studies in its long-term approach to quantitatively defining the processes that affect contaminant transport and distribution in major urbanized estuaries. These

studies create the scientific foundation from which specific, management oriented problems may be addressed. The necessary balance between maintaining this scientific foundation and responding effectively to critical management issues is demonstrated by the complementary nature of Toxics and USGS Place-based studies in San Francisco Bay.

***Current Status:*** The Toxics Program is supporting the development of sediment-transport, and two- and three-dimensional numerical models that build on our present knowledge to better understand the occurrence and effects of pesticides and related toxics on sensitive fish species in the Delta and Bay. In combination with other USGS scientific programs in the San Francisco Bay/Delta system, this Program provides water-resource regional managers and the general public with scientific information that describes relationships among flow, circulation, contaminant distribution and effects, and habitat alteration.

## **US Fish and Wildlife Service**

### ***ECOSYSTEM RESTORATION***

#### **ERP Administration**

**Authority:** Central Valley Project Improvement Act, PL. 102-575 § 3406; CALFED Bay-Delta Authorization Act, PL 108-361; Fish and Wildlife Coordination Act, 16 U.S.C. 661-667(e)

**FY 2009 Budget Request (000's):** \$1,232

**Project Description:** The Service, as an Ecosystem Restoration Program (ERP) implementing agency, will continue ERP planning efforts in collaboration with the National Marine Fisheries Service (NMFS), California Department of Fish and Game (CDFG) and California Bay-Delta Authority (CBDA). Comprehensive efforts are currently underway to develop regional ecosystem restoration plans for areas such as Suisun Marsh and San Francisco Bay-Delta watershed. These multi-agency efforts strive to restore the systems while working with stakeholders in a manner responsive to their concerns. Under the CALFED Bay-Delta Authorization Act, the Service is charged with coordinating and tracking all ecosystem restoration actions using federal funds under the CALFED account. The Service tracks schedules, finances, and performance; coordinates Program activities to ensure Program balance and integration; and coordinates public outreach and involvement, including tribal, environmental justice, and public advisory activities in accordance with the Federal Advisory Committee Act. The Service, through an interagency process, is also involved in planning and developing the format and guidelines for preparing Action Specific Implementation Plans (ASIP) for all CALFED projects in order to meet the requirement of the Federal Endangered Species Act (FESA), California Endangered Species Act (CESA), and California's Natural Communities Conservation Planning Act (NCCPA).

**Current Status:** The Service, as an ERP implementing agency, will continue ERP planning efforts in collaboration with NMFS, CDFG and CBDA. The Service will continue to participate in developing regional ecosystem restoration plans for areas such as Suisun Marsh and the San Francisco Bay-Delta watershed. The Service will continue to track schedules, finances, and performance; coordinate Program activities to ensure Program balance and integration; and coordinate public outreach and involvement, including tribal, environmental justice, and public advisory activities in accordance with the Federal Advisory Committee Act. The Service, through an interagency process, will continue to be involved in planning and developing the format and guidelines for preparing ASIPs for all CALFED projects in order to meet the requirement of FESA, CESA, and NCCPA.

In 2004, the ERP implementing agencies completed a comprehensive assessment of the overall status of the ERP towards achieving the 119 implementation milestones identified in the Federal programmatic biological opinions and State Natural Community

Conservation Plan Approval for the CALFED Program. The milestones, developed primarily from targets or actions in the ERP Plan and Water Quality Program Plan, were those actions the fish and wildlife agencies expected would be implemented during Stage 1 (the first seven years of the 30-year CALFED program) to achieve CALFED's conservation goals. This assessment found that progress on nearly 80 percent of the milestones was on or ahead of schedule. This progress was sufficient to allow the state and federal regulatory agencies to continue coverage under FESA, CESA, and NCCPA for the entire CALFED Program, and contributed to continuance of their program-level commitments. The ERP implementing agencies are presently conducting an end of Stage 1 Milestones assessment, which will help determine future FESA, CESA and NCCPA compliance needs following Stage 1.

In January 2006, a Statement of Principles was negotiated by State and Federal agencies and stakeholders involved in the CALFED process. It serves as the foundation for an agreement for (1) development of one or more Bay-Delta Conservation Plans (BDCPs) and (2) implementation of key water quality, near-term water supply, ecosystem, and levee actions, subject to compliance with applicable environmental review under the National Environmental Policy Act and the California Environmental Quality Act. The Statement of Principles intends for the BDCPs to ensure implementation of actions that will adequately conserve and assist in the recovery of fish and wildlife affected by covered activities, and to provide long-term assurances related to implementation and operation of designated water and power related projects and other associated activities described in the BDCPs.

**Key Milestones:** Stage 1 of CALFED implementation concluded December 31, 2007. In early 2008, the ERP will be conducting an end of Stage 1 progress assessment, including milestones and other ERP goals and objectives, and will produce a corresponding report. The ERP also is preparing a Conservation Strategy to provide the ERP agencies' views for activities of CALFED and other programs in the Bay-Delta region following Stage 1, such as the Bay-Delta Conservation Plan, Delta Vision, and Delta Risk Management Strategy.

### **Central Valley Joint Venture**

**Authority:** North American Waterfowl Management Plan 1986

**FY 2009 Budget Request (000's):** TBD

**Project Description:** The Central Valley Joint Venture (CVJV), one of fourteen North American Joint Ventures in the United States, is a public-private partnership of 20 agencies and conservation organizations. The CVJV mission is to work collaboratively through diverse partnerships to protect restore and enhance wetlands and associated habitats for waterfowl, shorebirds, waterbirds, and riparian songbirds, in accordance with biological based conservation actions identified in its Implementation Plan.

***Current Status:*** The Joint Venture partners are working toward achieving the stated goals of its 2006 implementation plan, which includes goals for the conservation of breeding and wintering waterfowl, breeding and wintering shorebirds, riparian birds, and waterbirds. In FY 2007, the Joint Venture Partners restored, enhanced, or protected 60,000 acres in wetlands and associated uplands. It is expected that these acreage numbers will increase about 5 percent annually in FY 2008 and FY 2009.

***Key Objectives and Strategies for 2007 through 2011:***

- Restore 108,527 acres of seasonal wetlands
- Enhance 23,884 acres of seasonal wetlands
- Restore 12,500 acres of semi-permanent wetlands
- Restore 10,000 acres of riparian habitat
- Enhance 477,000 acres of waterfowl-friendly agricultural crops
- Protect all unprotected seasonal wetlands with fee or conservation easements
- Secure full water supplies for Central Valley State and Federal refuges

***Cooperative Endangered Species Conservation Fund***

***Authority:*** Endangered Species Act of 1973, 16 U.S.C 1361 et seq., as amended; Department of the Interior Appropriations, P.L.107-63.

***FY 2009 Budget Request (000's):*** TBD

***Project Description:*** The Cooperative Endangered Species Conservation Fund (CESCF) (Section 6 of the Endangered Species Act) provides funding to States and Territories for species and habitat conservation actions on non-Federal lands. States and Territories must contribute a minimum non-Federal match of 25% for the estimated program costs of approved projects, or 10% when two or more States or Territories implement a joint project. A State or Territory must currently have, or enter into a cooperative agreement with the U.S. Fish and Wildlife Service (Service) to receive grant funds.

Four grant programs are available through the CESCF, they include the “Traditional” Conservation Grants and the “Nontraditional” Habitat Conservation Plan (HCP) Land Acquisition, HCP Planning Assistance, and Recovery Land Acquisition Grants. Traditional conservation grants are based on a formula driven award. The Recovery Land Acquisition grants are awarded based on a regional competition, whereas the HCP Land Acquisition and Planning Assistance grants are awarded based on a national competition.

***Current Status:*** In FY 2006, we provided a \$238,000 grant to assist in the development of a Bay/Delta Conservation Plan. The Service did not receive a request for additional funds for FY 2007 or 2008 for the Bay-Delta Conservation Plan.

### **Endangered Species Recovery Program Funds**

**Authority:** Endangered Species Act of 1973, 16 U.S.C 1361 et seq., as amended

**FY 2009 Budget Request (000's):** TBD

**Project Description:** The Recovery Program's objective is to remove federally threatened and endangered species from the endangered species list or to downlist them from an endangered status to a threatened status. This objective is accomplished in three ways: 1) through the development of comprehensive species-specific or ecosystem-specific recovery plans; 2) through the implementation of actions outlined in the recovery plans; and 3) through the issuance of section 10(a)(1)(A) recovery permits for the enhancement and survival of each species.

**Current Status:** The program is currently in the process of completing numerous recovery plans and several others have been submitted for review and/or have been published. Plans currently under development include a second draft plan for the giant garter snake, a final plan for Chaparral communities in the east SF Bay area, a draft plan for the Delta smelt, a draft plan for 11 plants of coastal areas of Marin and Sonoma Counties, and a draft tidal marsh recovery plan for northern and central California. The final plan for the western snowy plover was published in 2007.

The Recovery Program continues an annual schedule of writing 5-year reviews of listed species found within the jurisdiction of the Sacramento Fish and Wildlife Office. Five 5-year reviews were published in 2007 for the Kern primrose sphinx moth, vernal pool fairy shrimp, Conservancy fairy shrimp, longhorn fairy shrimp, and the vernal pool tadpole shrimp. In addition to recovery planning, numerous on-the-ground recovery actions are on-going, or have been completed. For example, several habitat creation and/or restoration projects are on-going or completed for the San Francisco garter snake and California red-legged frog, including a partnership with the San Francisco International Airport; full-scale captive propagation and reintroduction programs for the riparian brush rabbit and the Lange's metalmark butterfly; outplanting of two endangered plants, Antioch Dunes evening primrose and the Contra Costa wallflower and restoration of dune habitat at Antioch Dunes National Wildlife Refuge; reintroduction of *Suaeda californica* to locations around SF Bay; reintroduction of the extremely endangered *Trifolium amoenum* at sites in Marin and Sonoma Counties; and numerous projects involving seed collection, storage, reintroduction, and research for numerous listed plant species.

The level of Endangered Species recovery program funds obligated to projects that overlap with CALFED goals are based two factors: availability of funds and project proposals. Project selection is competitive and the level awarded varies annually; thus, future activities occur opportunistically and cannot be projected.

#### **Key Milestones:**

- Draft tidal marsh recovery plan to be published by Summer 2008

- Giant garter snake second draft recovery plan to be published in 2008
- More brush rabbits will be released in 2008

### **Partners for Fish and Wildlife**

**Authority:** Fish and Wildlife Coordination Act, 16 U.S.C. 661, 16 U.S.C. 742a-j, 16 U.S.C. 3741

**FY 2009 Budget Request (000's):** TBD

The Partners for Fish and Wildlife is a voluntary partnership program that assists private landowners restore wetlands and other important fish and wildlife habitat on their lands. Given that it is a voluntary program, the success of it and the level of effort rely on the private landowner's willingness to accept technical and financial assistance from the Service. Projects for FY 2009 have not been selected and, therefore, future amounts to be expended and planned actions are undetermined at this time.

**Project Description:** The Partners for Fish and Wildlife Program (PFW) is the Service's primary mechanism for delivering voluntary on-the-ground habitat improvement projects on private lands for the benefit of Federal trust species. It provides technical and financial assistance to landowners to help meet the habitat needs of Federal trust species on private lands. Program projects may include improving habitat for any or all of the following: migratory bird species; anadromous fish species of special concern to the Service; endangered, threatened, or candidate species; species proposed for listing; and other declining or imperiled species.

**Current Status:** In FY 2008, the program is implementing "Initiative Areas" that will enable the Service to focus its efforts in critical watersheds and threatened landscapes in the Region. In those areas PFW will focus on the restoration and enhancement of wetlands, riparian areas, native uplands, habitats for threatened and endangered species, and the elimination of invasive plants. The program will also provide technical assistance to landowners seeking assistance with restoration or enhancement projects.

Since 1990, PFW in California has restored or enhanced 128,400 acres of wetland habitats, 36,259 acres of upland habitats, 1,998 acres of riparian habitats, and 357 miles of riparian habitats on 788 properties. Projections for conservation in FY 2008 are provided under *Key Milestones*. It is anticipated that all milestones will be achieved. It is expected that milestones for FY 2009 will increase about 5 percent in FY 2009.

### ***Key Milestones (based on GRPA goals for 2008):***

- Restore 2,700 acres of wetlands in the Central Valley and Central Coast.
- Restore 10 miles of riparian habitats in the Central Valley and Central Coast.
- Restore 20 miles of instream habitat for salmon and steelhead by removing fish barriers from Central Valley and Pacific Coast waterways.
- Benefit the federally threatened California red-legged frog by improving ranchers' livestock ponds.



- Provide technical assistance to 100 landowners annually.

### **Land Acquisition**

**Authority:** Migratory Bird Conservation Act, The Fish and Wildlife Act of 1956 (16 U.S.C. 742a-742j), The Endangered Species Act of 1973, as amended (PL 93-205), The Migratory Bird Hunting and Conservation Stamp Act (16 U.S.C. 718-718j, 48 Stat. 452), The Refuge Recreation Act of 1962 (87-714), The Refuge Recreation Act of 1962 (87-714), The Emergency Wetlands Resources Act of 1986 (PL. 99-645), Land and Water Conservation Fund (16 USC 4601 - 4601-11).

**Project Description:** The objective is acquiring property, either in fee title or through perpetual conservation easements, for wildlife habitat protection, restoration or enhancement benefits within the National Wildlife Refuge System. The program is administered by USFWS Realty staff within approved project boundaries, in cooperation with refuge staff personnel. In addition to land acquisition, program responsibilities include land exchanges, rights-of-way, relocations, and revenue sharing.

**Current Status:** In FY 2008, this program will continue to seek out willing sellers within approved refuge acquisition boundaries, concentrating on perpetual conservation easements. This program works with the U.S. Fish and Wildlife Division of Realty, who coordinates with willing sellers and local governments.

Within the Central Valley in the past 25 years, over 100,000 acres of private managed wetland habitat has been protected by conservation easements. Several existing refuges have had lands acquired in fee and added to current acreage, many with listed species as the focus. The Service currently is seeking to acquire perpetual conservation easements within the approved land acquisition boundaries of the Grasslands WMA, North Central Valley WMA, and Willow Creek-Lurline WMA. We will also begin to acquire interests in property within the recently approved Tulare Basin WMA acquisition boundary. Since its inception, over \$15,000,000 in CALFED monies has been used acquire several thousand acres in fee and easements throughout the Central Valley. Within the current fiscal cycle, we plan to use various funding sources to acquire approximately 2,500 acres of wildlife habitat at an estimated cost of \$4,000,000.

### **North American Wetlands Conservation Fund (NAWCF)**

**Authority:** North American Wetlands Conservation Act of 1989 (PL. 101-233)

**FY 2009 Budget Request (000's):** TBD

The North American Wetlands Conservation Fund is a competitive grant program that does not have a set-aside for CALFED. Five proposals were awarded in FY 2007, each receiving \$1 million of Federal funding with at least a 1:1 non-federal match : (1) Yolo Bypass Phase III, (2) North Sacramento Valley Phase III, (3) Sutter and American

Basins, (4) San Luis NWR Sno-bird unit, (5) Elmwood Tract, and (6) Butte and Colusa basins.

***Project Description:*** The North American Wetlands Conservation Act (Act) of 1989 provides matching grants to organizations and individuals who have developed partnerships to carry out wetlands conservation projects in the United States, Canada, and Mexico. The Act was passed, in part, to support activities under the North American Waterfowl Management Plan, an international agreement that provides a strategy for the long-term protection of wetlands and associated uplands habitats needed by waterfowl and other migratory birds in North America. In December 2002, Congress reauthorized appropriations for the Act through Fiscal Year (FY) 2007, reflecting its and the public's support of the Act's goals. Congress increased the appropriation authorization to \$55 million in 2003, with \$5 million increases to occur annually until FY 2007, when the appropriation cap will be \$75 million. Actual annual appropriations are usually in the \$40-\$45 million range, nationally.

***Current Status:*** The North American Wetlands Conservation Act established the North American Wetlands Conservation Act Council to review and recommend project proposals to the Migratory Bird Conservation Commission (MBCC), which has the authority to approve funding for projects. The Council meets three times each year.

Projects for Yolo Bypass Phase III, Elmwood Tract, and Butte and Colusa basins were funded in FY 2007 (total of \$2.075 million) and have begun work. Projects for North Sacramento Valley, Sutter and American basins, and San Luis NWR Sno-bird unit were approved by the NAWCA council in FY 2007; funding decisions are expected at the March 2008 MBCC meeting.

## **SCIENCE**

### **Interagency Ecological Program**

***Authority:*** Fish and Wildlife Coordination Act, 16 U.S.C. 661-667(e)

***FY 2009 Budget Request (000's):*** \$219,000

***Project Description:*** The Interagency Ecological Program (IEP) is an estuarine ecological monitoring and special study collaboration by three state and six federal agencies with management and/or regulatory responsibilities in the San Francisco Estuary and Sacramento-San Joaquin Delta, California. The three state agencies are the California Department of Fish and Game (DFG), California Department of Water Resource (DWR), and California State Water Resource Control Board (SWRCB); the federal agencies include U.S. Fish and Wildlife Service (USFWS), U.S. Bureau of Reclamation (USBR), National Ocean and Atmospheric Administration Fisheries (NOAA Fisheries), U.S. Geological Survey (USGS), U.S. Environmental Protection Agency (USEPA), and the U.S. Army Corps of Engineers (USACE). The purpose of this collaboration is to gather in an efficient, coordinated and cooperative way the ecological

information required by the agencies to effectively carry out their management and regulatory responsibilities.

The goals and objectives to address the mission of the IEP are (1) describe the status and trends of aquatic ecological factors of interest in the estuary; (2) develop an understanding of environmental factors that influence observed aquatic ecological status and trends; (3) use knowledge of the previous information in a collaboration process to support natural resource planning, management, and regulatory activities in the estuary; (4) continually reassess and enhance long-term monitoring and research activities that demonstrate scientific excellence; (5) provide scientific information about the estuary that is accurate, accessible, reliable, and timely; and (6) respond to management needs in a timely fashion.

***Current Status:*** The Interagency Ecological Program is comprised of long-term monitoring, water operations monitoring and special studies. The IEP is committed to conducting the mandated monitoring studies required by NOAA Fisheries and FWS biological opinions and SWRCB Water Rights Decision D-1641. There is also a commitment to continue providing the “real-time” data needed to make water operation decisions. Work to be done includes:

- Providing funding is available, implementing coded-wire tagging of all CNFH late-fall run production to ensure proper race identification during subsequent recovery of fish at Delta export facilities and in juvenile and adult sampling programs. Recovery of tagged late-fall run fish is also part of the spring-run recovery plan.
- Sampling juvenile salmon and other delta fishes with midwater trawls, Kodiak trawls and beach seines in the delta that supports or provides information useful to water project operations. Distribution and abundance of juvenile salmonids are required by NOAA Fisheries OCAP BO for winter-run and spring-run Chinook salmon.
- Trawling and seining at key sites in the lower rivers, Delta and estuary targeting all races of juvenile salmon emigrating through, and rearing in the Delta. The program is multipurpose, providing information on the timing of emigration extent of rearing in the Delta, and annual production. Although this effort focuses on juvenile salmon, information is also collected on all other delta fishes. Distribution and abundance of juvenile salmonids are required by NOAA Fisheries OCAP BO for winter-run and spring-run Chinook salmon.
- Studying pelagic organism decline (POD) and Delta smelt. As part of the POD investigations we are providing statistical analysis and biological expertise in determining the cause of the decline and potential actions to mitigate these losses.
- Continuing experimentation and monitoring of juvenile salmon (smolt and fry) survival through the Delta.
- Mitten crab monitoring and reporting. This element will operate the online reporting system for mitten crab collections and observations and will implement summer surveys of mitten crab distribution and abundance. The main part of this

- element will be funded and staffed by USFWS nonnative invasive species program personnel with some sharing of resources from IEP.
- Continuing to engage in implementation and assessment of the Environmental Water Account.

***Key Milestones:***

- Sample salmon, steelhead trout and delta smelt distribution and abundance as well as water quality measurements, and provide data on a “real-time” basis, to make day-to-day water operations decisions during Data Assessment Team (DAT) conference calls and Water Operations Management Team (WOMT) meetings. Fish samples from this activity support genetic analyses to differentiate Chinook salmon runs and support the collection and processing of fish that are marked with coded-wire tags to help estimate fish survival. This is an ongoing long-term project that will continue in FY 2008, and is expected to continue in future years, given sufficient funding.
- Continue monitoring and reporting of mitten crab abundance and distribution. This is an ongoing long-term project that will continue in FY 2008, and is expected to continue in future years, given sufficient funding.