

FISCAL YEAR 2012

U.S. FISH AND WILDLIFE SERVICE

Renewed Federal State Partnership

Authority: Anadromous Fish Conservation Act, (P.L. 89-304), Endangered Species Act of 1973, as amended, (16 U.S.C. 1531-1544), Fish and Wildlife Act of 1956, as amended, (16 U.S.C. 742(a)-754), Fish and Wildlife Conservation Act, as amended, (16 U.S.C. 2901-2911), Fish and Wildlife Coordination Act, as amended, (16 U.S.C. 661-666(e)), and the Partners for Fish and Wildlife Act, (16 U.S.C. 3771 et. seq.).

FY 2012 Budget Request: \$951,000

Project Description: The U.S. Fish and Wildlife Service (Service) is working to renew Federal and State partnerships that are invested in restoring the Bay-Delta. With support from our partners, the Service will identify water flow and habitat restoration actions to recover endangered and sensitive species and their habitats as well as address long-term critical water issues facing California. These efforts support the Bay-Delta Conservation Plan (BDCP) and the Administration's Interim Federal Action Plan (IFAP).

Proposed Actions for 2012:

- A public draft BDCP is expected to be completed and available for public review in 2011.
- Following a public review period, a final BDCP is expected to be completed before the end of 2012.
- Associated with the IFAP, the Service will work to align and function with new California State legislation focused on efforts to restore the Bay-Delta Estuary and better meet the State's water needs.
- The Service will continue to work with State and local interests to plan and implement activities under the IFAP.

Smarter Water Supply & Use

Authority: Endangered Species Act of 1973, as amended, (16 U.S.C. 1531-1544), Fish and Wildlife Act of 1956, as amended, (16 U.S.C. 742(a)-754), Fish and Wildlife Conservation Act, as amended, (16 U.S.C. 2901-2911), and the Fish and Wildlife Coordination Act, as amended, (16 U.S.C. 661-666(e)).

FY 2012 Budget Request: \$1,326,000

Project Description: The Service will continue to collaborate with other Federal, state and local agencies to promote opportunities to maximize water supply for California. The Service will provide the technical expertise and environmental reviews to improve water conservation and management.

Proposed Actions for 2012:

- The Service will participate in consideration and implementation of smart water supplies and its uses during BDCP planning and implementation efforts.
- Associated with the IFAP, Federal agencies will align their water conservation programs and focus efforts to help reduce demand in targeted regions. One of the most important features of the recently-enacted State legislation is the adoption of State-wide conservation strategies as a part of a comprehensive water supply plan for California's future. The Service will facilitate IFAP implementation by providing technical assistance and environmental review.

Habitat Restoration

Authority: Anadromous Fish Conservation Act, (P.L. 89-304), Endangered Species Act of 1973, as amended, (16 U.S.C. 1531-1544), Fish and Wildlife Act of 1956, as amended, (16 U.S.C. 742(a)-754), Fish and Wildlife Conservation Act, as amended, (16 U.S.C. 2901-2911), Fish and Wildlife Coordination Act, as amended, (16 U.S.C. 661-666(e)), Migratory Bird Conservation Act, (16 U.S.C. 715-715d), National Wildlife Refuge System Administration Act of 1966, as amended, (16 U.S.C. 668dd et. Seq.), The National Wildlife Refuge System Improvement Act of 1997, (P.L. 105-57), and the Partners for Fish and Wildlife Act, (16 U.S.C. 3771 et. seq.).

FY 2012 Budget Request: \$4,306,000

Project Description: The Service is leading habitat restoration activities within the Bay-Delta Estuary. This includes working with other Federal, State, and local agencies to plan and implement numerous programs, including the CALFED Ecosystem Restoration Program, Bay Delta Conservation Program, portions of the Interim Federal Action Plan, the Central Valley Joint Venture, the Cooperative Endangered Species Conservation Fund, Endangered Species Recovery Program, Partners for Fish and Wildlife Program, Land Acquisition Program, the North American Wetlands Conservation Fund, and the Interagency Ecological Program. This overall effort so far has resulted in thousands of acres of restored and conserved habitats, providing benefits to numerous fish and wildlife species and the American public.

Proposed Actions for 2012:

- The Service will continue to assist implementing Ecosystem Restoration Program restoration grants and to work to approve additional projects as funding and authorization allow.
- The Service will reinforce cross-agency collaboration in its Bay-Delta Non-Native Invasive Species (NIS) program. The program will focus on preventing the introduction of new invasives (ex., quagga mussels), limiting or eradicating existing invasives (ex., *Egeria densa*), and reducing adverse impacts from infestations.

- The Service's work on the BDCP will assist that effort to identify and implement a set of water flow and habitat restoration actions to contribute to recovery of endangered and sensitive species and their habitats in the Bay-Delta Estuary.
- The Service will continue in the Federal, State, and City partnership, led by the Service, to support development of a facility designed to support the propagation and restoration of Delta native fish species.
- The Service will participate in short-term habitat restoration efforts such as restoration of flows on the San Joaquin River from Friant Dam to the confluence of the Merced River, and in efforts to restore self-sustaining habitat in Battle Creek, Cache Slough, and the Yolo Bypass Floodplain.
- The Service estimates it will restore, enhance and protect thousands of acres of Delta and Delta watershed wetland and waterfowl-friendly agricultural habitats and will secure full water supplies for Central Valley State and Federal refuges.
- The Service will award Cooperative Endangered Species Conservation Fund grants as appropriate, based on regional and national competitions and program criteria.
- The Service will publish the Draft Delta Native Fishes Recovery Plan in 2011
- The Service, working with numerous landowners, estimates it will restore thousands of acres of Delta and Delta watershed wetland, riparian, and instream habitat for numerous fish and wildlife species and will provide extensive technical assistance.

Drought & Floodplain Management

Authority: Endangered Species Act of 1973, as amended, (16 U.S.C. 1531-1544), Fish and Wildlife Act of 1956, as amended, (16 U.S.C. 742(a)-754), Fish and Wildlife Conservation Act, as amended, (16 U.S.C. 2901-2911), and the Fish and Wildlife Coordination Act, as amended, (16 U.S.C. 661-666(e)).

FY 2012 Budget Request: \$264,000

Project Description: The Service is participating with other Federal and state agencies to provide drought protection and floodplain management in California's Central Valley and Bay-Delta Estuary region.

Proposed Actions for 2012:

- The Service will continue to participate in planning and rapid response for permitting actions associated with drought protection in the State of California.
- The Service will participate with California's flood management effort, including participation in the Department of Water Resource's Delta Levees Flood Protection Program, FloodSAFE California Program and Central Valley Flood Protection Plan; and will continue to participate with the U.S. Army Corps of Engineers in its efforts to provide flood protection in the Delta and Delta watershed area.

FISCAL YEAR 2012

USDA NATURAL RESOURCES CONSERVATION SERVICE

Renewed Federal State Partnership

Authority: 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 2012 Budget Request (\$000): Included in base budget for Conservation Operations.

Project Description: NRCS provides technical assistance for natural resource concerns with emphasis on conservation planning for on-farm owner/operators, non-industrial private forestland owners, and Tribes. NRCS works closely with other Federal, State, local, and environmental constituents on Bay Delta conservation issues.

Current Status: NRCS provides Federal leadership for the International Federation of Agricultural Producers (IFAP) on-farm conservation activities. NRCS actively participates in numerous IFAP related Federal and State working groups related to Bay Delta planning and implementation coordination efforts.

Smarter Water Supply and Use

Authority: Public Law 110-246, The Food, Conservation, and Energy Act of 2008 (2008 Farm Bill) amended 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 Agricultural Water Enhancement Program Section 1240I of the Food Security Act of 1985 (16 U.S.C.3839aa-9) as amended by Food, Conservation and Energy Act of 2008; Cooperative Conservation Partnership Initiative Section 1243 of the Food Security Act of 1985 (16 U.S.C. 3843) as amended by Food, Conservation and Energy Act of 2008); 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 2012 Budget Request (\$000): Included in base budget for Conservation Operations.

Project Description: NRCS provides technical assistance for on-farm water conservation and water quality planning with owner/operators, assists non-industrial private forestland owners to reduce sediment for cleaner water supply, and assists tribal landowners and Tribes with water supply related conservation planning through its Conservation Operations authority, and provides technical and financial assistance to agricultural producers and non-industrial private landowners (including Tribes) 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 IFAP natural resource concerns. NRCS works closely with other Federal, State, local, and environmental constituents on water conservation issues through the State Technical Committee. NRCS is partnering with Reclamation on IFAP water conservation opportunities.

Water Conservation and Water Quality Projects

Authority: Public Law 110-246, The Food, Conservation, and Energy Act of 2008 (2008 Farm Bill) amended 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; Agricultural Water Enhancement Program Section 1240I of the Food Security Act of 1985 (16 U.S.C.3839aa–9) as amended by Food, Conservation and Energy Act of 2008; Cooperative Conservation Partnership Initiative Section 1243 of the Food Security Act of 1985 (16 U.S.C. 3843) as amended by Food, Conservation and Energy Act of 2008; Ground and Surface Water Conservation Section 1240I of the Food Security Act of 1985 as amended by Section 2301 of Public Law 107-171 by eliminating EQIP Ground and Surface Water Conservation, while section 2510 established the Agricultural Water Enhancement Program (AWEP) by amending section 1240I of the Food Security Act of 1985.

FY 2012 Budget Request (\$000): EQIP: \$22,078; CCPI: \$2,299; AWEP: \$11,215.

Project Description: EQIP has on-farm water conservation as an eligible financial assistance project. Signups are held at local service centers located in the Bay Delta geographic 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 and complementing the Water Supply category of IFAP. NRCS is partnering with Reclamation on IFAP water conservation opportunities and released a joint proposal that will have Reclamation's WaterSmart program select eligible applicants within Bay Delta. NRCS will then make additional EQIP available to the agricultural producers on-farm of the selected WaterSmart awardees.

Agricultural Water Enhancement Program (AWEP) complements the IFAP Water Supply objectives by improving water conservation and water quality on-farm. Signups under nationally approved AWEPs are held at local service centers within the Bay Delta and delineated AWEP geographic area. Approved projects optimize environmental benefits while addressing natural resource concerns and are awarded based on criteria consistent with the performance goals of NRCS AWEP. A unique feature of AWEP is that partners such as irrigation districts can request financial assistance targeted for their participants' on-farm water conservation that is not otherwise available to them since EQIP is usually oversubscribed.

Section 2707 of the 2008 Farm Bill established the Cooperative Conservation Partnership Initiative (CCPI) which allows combining six percent of the Wildlife Habitat Incentive Program (WHIP) funding and six percent of the EQIP funding received in a state to be set aside for

funding high priority natural resource objectives as identified by partners through a statewide application process. CCPI projects are eligible as multi-year on-farm conservation projects and it is anticipated that the existing approved CCPI will be funded for a second and third year if the same level or higher of funding is received for both WHIP and EQIP in FY 2011 and FY 2012. A large number of CCPIs requested funding specifically for water supply related conservation activities.

Current Status: Initial allocations have been received for FY 2011 for EQIP, AWEF, and CCPI.

Habitat Restoration Program

Authority: Public Law 110-246, The Food, Conservation, and Energy Act of 2008 (2008 Farm Bill) amended 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; Wildlife Habitat Incentive Program Section 1240N of the Food Security Act of 1985 (16 U.S.C. 3839bb-1) as amended by Food, Conservation and Energy Act of 2008; Cooperative Conservation Partnership Initiative Section 1243 of the Food Security Act of 1985 (16 U.S.C. 3843) as amended by Food, Conservation and Energy Act of 2008; Wetlands 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 2012 Budget Request (\$000): Included in base budget for Conservation Operations.

Project Description: NRCS provides technical assistance for natural resource concerns with emphasis on conservation planning for on-farm owner/operators, non-industrial private forestland owners, and Tribes through its Conservation Operations authority, and provides technical and financial assistance to producers to assist with their natural resource concerns through the Farm Bill.

Current Status: NRCS continues to provide Federal leadership for on-farm natural resources conservation activities and other natural resource concerns.

Habitat Restoration Projects

Authority: Public Law 110-246, The Food, Conservation, and Energy Act of 2008 amended 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; Wetlands Reserve Program (WRP) Section 1237 of Food Security Act of 1985 as amended by Section 2201 of Public Law 107-171; Cooperative Conservation Partnership Initiative Section 1243 of the Food Security Act of 1985 (16 U.S.C. 3843) as amended by Food, Conservation and Energy Act of 2008).

FY 2012 Budget Request (\$000): WRP: \$19,626; WHIP: \$280; EQIP: \$392; CCPI: \$185

Project Description:

Implement projects using Wetlands Reserve Program (WRP) funding which complement the objectives contained in the IFAP Habitat 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; restoration and protection of wetlands in agricultural settings; removal of environmentally sensitive, marginal cropland from cultivation; and assistance to landowners for restoration of wetland hydrology which will contribute to the national goal of no net loss of wetlands. Signups are held at local service centers located in the Bay Delta geographic 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's Wetlands Reserve Program. NRCS provided nearly \$20 million in addition to California's base WRP allocation in FY2010 to support wetlands restoration and protection in the Bay Delta region. These amounts were provided in addition to the program allocations reported in the FY 2011 Bay Delta crosscut.

Wildlife Habitat Incentive Program (WHIP) provides landowners the opportunity to enhance or restore wildlife habitat and corridors on-farm. Current priorities promote the restoration of declining or important native fish and wildlife habitats; protect, restore, develop or enhance fish and wildlife habitat to benefit at-risk species; reduce the impacts of invasive species on fish and wildlife habitats; and, protect, restore, develop or enhance declining or important aquatic wildlife species' habitats. NRCS administers WHIP to provide both technical assistance and up to 75 percent cost-share assistance to establish and improve fish and wildlife habitat. WHIP cost-share agreements between NRCS and the participant generally last from one year after the last conservation practice is implemented but not more than 10 years from the date the agreement is signed. It is anticipated that WHIP will be an effective tool in the IFAP Habitat Restoration Program within the Bay Delta geographic area.

Implement projects using Environmental Quality Incentive Program (EQIP) incentive payments which complement the objectives contained in the IFAP Habitat Restoration Program while focusing on-farms. Signups are held at local service centers located in the Bay Delta geographic 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's EQIP.

Section 2707 of the Farm Bill established the Cooperative Conservation Partnership Initiative (CCPI) which allows combining six percent of the Wildlife Habitat Incentive Program (WHIP) funding and six percent of the EQIP funding received in a state to be set aside for funding high priority natural resource objectives as identified by partners through a statewide application process. CCPI projects are eligible as multi-year on-farm conservation projects and it is anticipated that the existing approved CCPI will be funded for a second and third year if the same level or higher of funding is received for both WHIP and EQIP in FY 2011 and FY 2012.

Current Status: Initial allocations have been received for FY 2011 for WRP, EQIP and CCPI. California NRCS has expanded its field based wetlands teams and expects WRP applications to expand proportionately. CCPI will fluctuate annually depending upon availability of program funds.

Drought and Floodplain Management

Authority: Emergency Watershed Protection Program- Floodplain Easement Program (EWPP-FPE) is authorized by 16 U.S.C. 2203, as amended and 7 U.S.C. 428a. Public Law 110-246, The Food, Conservation, and Energy Act of 2008 (2008 Farm Bill) amended 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 2012 Budget Request (\$000's): Included in base budget for Conservation Operations which supplies technical assistance. There is no current need for specific project funding.

Project Description:

Implement projects using the Floodplain Easement Program (FPE) funding as provided through the Emergency Watershed Protection Program (EWPP). Section 382 of the Federal Agriculture Improvement and Reform Act of 1996, Public Law 104-127, amended (EWPP) to provide for the purchase of floodplain easements as an emergency measure. Since 1996, the Natural Resources Conservation Service (NRCS) has purchased floodplain easements on lands that qualify for EWPP assistance. Floodplain easements restore, protect, maintain, and enhance the functions of the floodplain; conserve natural values including fish and wildlife habitat, water quality, flood water retention, ground water recharge, and open space; reduce long-term federal disaster assistance; and safeguard lives and property from floods, drought, and the products of erosion. FPE complements the objectives contained in the IFAP. While this program provides significant value-added floodplain benefits, all existing backlog requests from prior emergencies in Bay Delta geographic area and other parts of California have been filled with the ARRA funding authorization.

Implement on-farm water conservation projects to augment limited existing water supply through the Environmental Quality Incentive Program (EQIP) if emergency drought declarations indicate need. NRCS provided \$10 million in addition to California's base EQIP allocation in FY2010 to assist irrigators within the San Joaquin Valley with the reduced water allocations through both the Federal and State Water Projects. These amounts were provided in addition to the program allocations reported in the FY 2011 Bay Delta crosscut.

Current Status: No funding is currently available nor is there an established need at this time. Should emergency conditions dictate a need for assistance, requests will be made for funding consideration.

FISCAL YEAR 2012

BUREAU OF RECLAMATION'S CALIFORNIA BAY-DELTA

Renewed Federal State Partnership

CALFED Program Management, Oversight, and Coordination

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

FY 2012 Budget Request (000's): \$2,000

Project Description: Activities include Program support; program-wide tracking of schedules, finances, and performance; agency oversight and coordination of Program activities to ensure program balance and integration; development of interagency crosscut budgets; coordination of public outreach and involvement, including tribal, environmental justice, and public advisory activities; 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.

Smarter Water Supply & Use

Water Conservation

Authority: P.L. 97-293 Section 210, P.L. 102-575, Section 3405 (e), P.L. 111-11

FY 2012 Budget Request (000's): \$5,000

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) (P.L. 102-575) and the Reclamation Reform Act of 1982 (RRA) (P.L. 97-293), 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 2010, 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 was completed and projects were awarded by August of 2010. 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.

Proposed Actions for FY 2012: A majority of the funding will be used to fund and administer grant programs offered to water districts, irrigation districts, resource conservation districts, and urban water agencies through the CALFED Water Use Efficiency Grant Program. Funding will be used to staff a portion of the Central Valley Office of Water Conservation. The program will fund awards that provide benefits to the Bay-Delta through water conservation activities. Other funding will be used to facilitate additional grant programs, criteria revision, water conservation plan reviews, provide technical assistance, publish newsletters, host web site, and provide drought assistance.

San Jose Area Water Reclamation and Reuse Program

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

FY 2012 Budget Request (000's): \$247

Project Description: This program calls for the planning, design, and construction of demonstration and permanent facilities to reclaim and reuse up to 36,000 acre-feet per year of wastewater treatment plant effluent in the San Jose metropolitan service area, in cooperation with the City of San Jose (City) and Santa Clara Valley Water District. The total program includes about 300 miles of pipelines 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: Phase I construction was completed in 1998, providing over 10,000 acre-feet of recycled water annually. For Phase I, Reclamation is reimbursing the City of San Jose by providing up to 25 percent or up to \$35 million. Phase 1C is being funded through the ARRA. Phases 1B and 1D will be funded through the Water and Related Resources Appropriation.

Proposed Actions for FY 2012: Funding will be used to continue reimbursing the City for completed construction and to pay the associated Federal cost share for new construction.

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 2012 Budget Request (000's): \$2,485

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 City of San Diego has resumed the San Diego Water Repurification Project (WRP), or Indirect Potable Reuse Project. A demonstration project has been implemented to further investigate the feasibility and reliability of the proposed 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. The primary customer will be the Helix Water District, which will use the recycled water primarily for groundwater recharge.

Current Status: Construction and expansion of recycled water systems by the City of San Diego, Otay Water District, Sweetwater Authority, Padre Dam Municipal Water District, and Helix Water District are underway. Portions are completed and operational.

Proposed Actions for FY 2012: Work for FY 2012 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, the Sweetwater Authority, the Padre Dam Municipal Water District, and the Helix Water District. As of September 30, 2010, this project has utilized 55 percent of its authorization ceiling. The project is scheduled for completion in 2028.

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 2012 Budget Request (000's): \$1,452

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 region's dependence on imported water supplies. This project is located in Ventura County, California.

Current Status: The Conejo Creek Diversion was completed in 2003 and is operational. Construction of the Regional Brine Line is underway.

Proposed Actions for FY 2012: Work will continue on the Regional Brine Line being constructed by the Calleguas MWD. As of September 30, 2010, this project has used 86 percent of its authorization ceiling. The project is scheduled for completion in 2014.

Long Beach Desalination Research and Development 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 2012 Budget Request (000's): \$500

Project Description: This project is located in Los Angeles County, California. In partnership with the City of Long Beach and the Los Angeles Department of Water and Power, this research and development project will determine the feasibility of a new method of seawater desalination that uses existing membrane technology. Significant cost savings due to lower energy requirements are anticipated.

Current Status: The pilot plant has been constructed, and is being operated to collect data. An experimental system for intake and discharge using pipelines installed under the sea bed has been installed and is being evaluated.

Proposed Actions for FY 2012: For FY 2012 work will continue on the pilot plant, and if successful, preliminary work on a larger sized demonstration unit will begin. As of September 30, 2010, the project has used 60 percent of its authorization ceiling. The research and demonstration project is scheduled for completion in 2015.

Long Beach Area 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 2012 Budget Request (000's): \$500

Project Description: This project is located in Los Angeles County, California, and consists of two units:

(1) 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 2012.

(2) 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: Phase 1 of the Alamitos Barrier Project is complete and operational. Phase 2 preconstruction activities began in 2009. Construction of the recycled water system expansion for the City of Long Beach is underway.

Proposed Actions for FY 2012: 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 continue on preconstruction activities for Phase 2 of the Alamitos Barrier Reclaimed Water Project. As of September 30, 2010, the project has used 59 percent of its authorization ceiling. Alamitos Barrier Reclaimed Water Project is scheduled for completion in 2015. City of Long Beach Recycled Water System Expansion Project is scheduled for completion in 2018.

Los Vaqueros Expansion (LVE) Feasibility Study

Authority: P.L. 108-7, §215, Title II, Division D, 2003

FY 2012 Budget Request (000's): \$1,294

Project Description: This feasibility study is evaluating the potential to expand the existing Los Vaqueros Reservoir by up to 275,000 acre-feet. 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: A Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) was issued for public review and comment in February 2009. A Final EIS/EIR was released in March 2010, with a proposed action/project that features a 60,000 acre-foot enlargement of Los Vaqueros Reservoir for implementation by Contra Costa Water District (CCWD). The proposed 60,000 acre-foot enlargement by CCWD has no Federal interest or involvement in implementation. Reclamation and CCWD are evaluating options for continuing feasibility studies for a larger expansion of LVE pursuant to the 2000 CALFED Bay-Delta Programmatic ROD. The requirements of the State Comprehensive Water Package and challenges in developing a reliable plan for improving conveyance through or around the Delta have exacerbated the physical, regulatory, and economic uncertainties about the reasonably foreseeable future condition in the Delta to assess the potential benefits, impacts and costs of alternative plans. This definition is essential for credible evaluations, complete and timely documentation, and legally defensible decision making.

Proposed Actions for FY 2012: Funds would be used to conduct and refine planning, engineering, environmental, economic, financial and other feasibility studies, prepare and process the draft Feasibility Report and EIS/EIR (for required technical, legal, and managerial review), continue stakeholder coordination and public involvement and outreach.

Upper San Joaquin River Basin Storage Investigation

Authority: P.L. 108-7, Section 215, Title II, Division D, 2003

FY 2012 Budget Request (000's): \$1,528

Project Description: Reclamation is continuing 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 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 improve water supply reliability for agricultural and urban uses and enhance water temperature and flow conditions in the San Joaquin River. Other opportunities and benefits include potential for increased management of flood flows at Friant Dam, improvements to urban water quality and development of hydropower generation and recreational opportunities.

Current Status: An Initial Alternatives Information Report, completed in 2005, described water resources problems and needs, planning objectives, potential solutions, and recommends future actions. It developed and screened 24 water storage measures down to six measures, which were retained for further study. The San Joaquin River Settlement in 2006 required 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 Report was completed in October 2008 and publically released in May 2009. The report updated agency decision makers, stakeholders, and the public 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 to CALFED program objectives of water quality, water supply reliability, and ecosystem restoration. Activities in FY 2011 include continuing planning, engineering, environmental, economic and other studies needed to refine and evaluate alternatives and to develop the draft Feasibility Report and draft EIS/EIR, consistent with Bay Delta Conservation Plan/ Delta Habitat Conservation and Conveyance Program (DHCCP) efforts, and re-scheduled for summer 2012.

Reclamation and partners are assessing the effects of new State legislation referred to as the Comprehensive Water Package, and emerging Federal and State initiatives to refine the study strategy, schedule, and budget to accommodate continuing change and uncertainty. The requirements of the Comprehensive Water Package and challenges in developing a reliable plan for improving conveyance through or around the Delta have exacerbated the physical, regulatory, and economic uncertainties about the reasonably foreseeable future condition in the Delta to assess the potential benefits, impacts and costs of alternative plans. This definition is essential for credible evaluations, complete and timely documentation, and legally defensible decision making.

Proposed Actions for FY 2012: Funds would be used to conduct and refine planning, engineering, environmental, economic, financial, and other feasibility studies, prepare and process the draft Feasibility Report and EIS/EIR (for required technical, legal, and managerial review), continue stakeholder coordination and public involvement and outreach.

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

Authority: P.L. 108-7, Section 215, Title II, Division, February 20, 2003; P.L. 108-137, Title II, Section 211, December 1, 2003

FY 2012 Budget Request (000's): \$1,528

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 EIS/EIR 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 increase water supplies to help meet existing contract requirements, including improved water supply reliability and greater flexibility in water management for agricultural, municipal, and environmental purposes; increase the survival of anadromous fish populations in the Sacramento River, as well as the survivability of other aquatic species; and improve drinking and environmental water quality in the Delta. Opportunities to expand the project to provide flexible generation through a daily pump-back operation which would help integrate wind, and solar energy into the electrical grid are being evaluated.

Current Status: A Plan Formulation Report, completed in September 2008, was publically released in May 2009 to update decision makers, stakeholders, and the public on the ongoing feasibility study, including 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 that will be further evaluated in future phases of the feasibility study. Each action alternative would contribute directly and indirectly to the CALFED program objectives of water quality, water supply reliability, ecosystem restoration, and delta levee system integrity. Reclamation and DWR are continuing the feasibility investigation to develop and refine alternative plans for a new offstream storage reservoir with up to 1.8 million acre-foot of storage capacity and perform related engineering, operational, environmental, and economic studies.

Reclamation and partners are assessing the effects of new State legislation referred to as the Comprehensive Water Package, and emerging Federal and State initiatives to refine the study strategy, schedule, and budget to accommodate continuing change and uncertainty. The requirements of the Comprehensive Water Package and challenges in developing a reliable plan for improving conveyance through or around the Delta have exacerbated the physical, regulatory, and economic uncertainties about the reasonably foreseeable future condition in the Delta to assess the potential benefits, impacts and costs of alternative plans. This definition is essential for credible evaluations, complete and timely documentation, and legally defensible decision

making. Activities in FY 2011 include planning, engineering, operations, environmental, economic, and other studies needed to develop the administrative draft Feasibility Report and administrative draft EIS/EIR in June 2011 and a public draft Feasibility Report and draft EIS/EIR in December 2011.

Proposed Actions for FY 2012: Funds would be used to continue feasibility studies; continue stakeholder coordination and public involvement and outreach; and prepare and process the final Feasibility Report and final EIS/EIR (for required technical, legal, and managerial review) in December 2012.

Shasta Lake Water Resources Investigation

Authority: P.L. 96-375, 1980

FY 2012 Budget Request (000's): \$1,750

Project Description: Reclamation is continuing a Feasibility Study including preparation of a Feasibility Report/Decision Document and 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 ROD.

Current Status: A Plan Formulation Report was released in March 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 to CALFED program objectives to improve water supply reliability, ecosystem restoration, and water quality. Activities in FY 2011 include continuing planning, engineering, environmental, economic and other studies needed to refine and evaluate potential effects of alternatives and to develop the Draft Feasibility Report and EIS, scheduled for management review before public release in spring 2012. Specific activities include refinement of a final array of alternative plans; operational modeling; analyses of potential physical and operational impacts; identification of mitigation requirements; 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 recommended plan; and public involvement and outreach.

Reclamation and partners are assessing the effects of new State legislation referred to as the Comprehensive Water Package, and emerging Federal and State initiatives to refine the study strategy, schedule, and budget to accommodate continuing change and uncertainty. The requirements of the Comprehensive Water Package and challenges in developing a reliable plan for improving conveyance through or around the Delta have exacerbated the physical, regulatory, and economic uncertainties about the reasonably foreseeable future condition in the Delta to assess the potential benefits, impacts and costs of alternative plans. This definition is essential for credible evaluations, complete and timely documentation, and legally defensible decision making.

Proposed Actions for FY 2012: Funds would be used to conduct and refine planning, engineering, environmental, economic, financial and other feasibility studies, initial preparation of the final Feasibility Report and EIS/EIR (for required technical, legal, and managerial review), continue stakeholder coordination and public involvement and outreach.

San Luis Lowpoint Feasibility Study

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

FY 2012 Budget Request (000's): \$400

Project Description: This is a 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 FY 2011 Feasibility Report activities continue. The Plan Formulation Report was finalized in FY 2010.

Proposed Actions for FY 2012: Specific activities include preparation of a Draft EIS/EIR. In FY 2011 a Draft Feasibility Report and draft EIS/EIR will be completed. The final feasibility report and final EIS/EIR are anticipated in 2012.

Address Degraded Bay Delta Ecosystem

Suisun Marsh Protection

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

FY 2012 Budget Request (000's): \$1,392

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: The SMPA agencies propose to amend the Revised SMPA to establish a Preservation Agreement Improvement Fund that would support cost sharing for improvement of managed wetland facilities and finance activities currently funded under the Joint Use Facilities Fund under a single cost sharing mechanism.

The managed wetland facilities improvement element of the proposed fund would include a 75/25 cost share program providing funds for infrastructure improvements necessary to meet the 30-day flood and drain cycle described in individual management plans, potentially including purchase and installation of new, larger, lowered, or relocated discharge facilities.

The managed wetland facilities improvement element of the proposed fund would also include a 50/50 cost share program providing funds for management and infrastructure improvements necessary to meet recommendations described in the individual management plans to improve leaching and drainage efficiency. Eligible activities would include cleaning, widening and deepening primary and secondary ditches, adding v-ditches or drainage swales, raising elevations of pond bottom sinks, installation or improvement of interior water control structures, coring of interior levees, offsetting electrical and fuel costs for portable and stationary pumps during spring leaching periods, and fish screen electrical costs.

The Joint Use Facility Improvements element of the proposed fund would provide financing on a 75/25 cost share basis for infrastructure improvement to increase efficient and cooperative use of joint use water delivery systems to managed wetlands, including construction of or improvements to; interior levees, water conveyance ditches, water control structures, and permanent pumps. Funded activities include newly constructed facilities or improvements to existing facilities.

Reclamation is also a principal participant with the other SMPA signatories and other interested agencies in developing a regional plan that balances implementation of the CALFED Program, SMPA and other management and restoration programs within Suisun Marsh in a manner responsive to the concerns of stakeholders and based upon voluntary participation by private landowners. Reclamation is currently participating in development of an EIS/EIR for the Suisun Marsh Plan, which includes environmental compliance documentation for implementation of the proposed amendment to the Revised SMPA. A public draft of the EIS/EIR was released on October 29, 2010, and the proposed amendment to the revised SMPA would be implemented following finalization of the EIS/EIR and related decision documents, anticipated in 2011.

Proposed Actions for FY 2012: Funding will continue Federal participation with the State of California to identify structural and nonstructural actions for the protection and preservation of Suisun Marsh to improve water quality, while preserving the CVP storage yield. Funding will support Reclamation's participation with the 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, including the anticipated implementation of the previously described proposed amendment to the revised SMPA upon finalization of the Suisun Marsh Plan EIS/EIR.

Anadromous Fish Restoration Program

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

FY 2012 Budget Request (000's): \$6,075

Estimated Inter-agency Breakdown:

Agency	\$000's
U.S. Bureau of Reclamation	\$40
U.S. Fish and Wildlife Service	\$6,035

Project Description: The objectives of the Anadromous Fish Restoration Program (AFRP) 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: In FY 2011, the AFRP will continue to fund habitat restoration projects that improve habitat, survival, and passage of anadromous fish in Antelope Creek, Cottonwood Creek, Mill Creek, and the American, Cosumnes, Merced, Mokelumne, Sacramento, Stanislaus, Tuolumne, and Yuba rivers. The program will continue to collect fish population data for Bear, Cottonwood, and Cow creeks and in the San Joaquin, Stanislaus, and Yuba rivers to facilitate evaluation of restoration actions.

The AFRP has addressed 34% of the actions and evaluations in the Final Restoration Plan since the program was implemented and the average natural production of Central Valley-wide Chinook salmon in the doubling period (1992-2009) is currently 427,749. The Chinook salmon natural production average has been decreasing from highs in 2000-2002 due to low adult escapements resulting from poor ocean returns.

Proposed Actions for FY 2012: The AFRP will continue to make reasonable efforts to at least double natural production of anadromous fish. In pursuing this goal, AFRP will work with local watershed groups and other partners to implement watershed restoration plans, and to give first priority to actions, which protect and restore natural channel and riparian habitat values. The AFRP will focus on streams with the greatest potential to sustain natural production of fall-run, winter-run, and, spring-run Chinook salmon, and steelhead. The streams that support these species include the Sacramento, Yuba, Feather, American, and Stanislaus rivers, and Cottonwood, Cow, Mill, Deer, Battle, and Clear creeks. The highest priority will be to complete ongoing projects. 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. Fish screening and fish passage project planning and permitting will be a high priority. Furthermore, AFRP will collaborate and provide technical assistance to large-scale restoration efforts on the main-stem San Joaquin River and in the Delta.

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 2012 Budget Request (000's): \$1,500

Estimated Inter-agency Breakdown:

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

Project Description: Protect and restore native habitats and species impacted by the Central Valley Project (CVP) that are not specifically addressed in the Fish and Wildlife Restoration activities section of the Central Valley Project Improvement Act (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 scrub and associated grasslands, vernal pools, Central Valley wetlands, riverine dunes, and riparian habitats.

Current Status: To date, the program has directed approximately \$25 million to fund 95 conservation actions. These actions include habitat protection (fee title/easement acquisition), habitat restoration, research, planning, and public outreach. As of FY 2010, the program has contributed to the permanent protection of 94,439 acres, and the restoration of 7,418 acres. The program has also funded over 70 research, planning, and outreach actions. It is anticipated that in FY 2011 the program will provide funding for protection and/or restoration of over 2,000 acres of CVP impacted habitats, captive breeding and reintroduction of federally listed species, development of habitat management plans, public outreach, and targeted research on CVP impacted species and habitats.

Proposed Actions for FY 2012: Funding will be used for protection of habitats through purchase of fee title or conservation easements, restoration and management of habitats, and surveys and studies for federally listed species impacted by the CVP. The program will focus on protecting and restoring threatened serpentine soil habitats in Santa Clara County, vernal pool wetlands in the Sacramento Valley, grassland and alkali scrub habitats in the San Joaquin Valley, San Joaquin River dune habitats, and aquatic/riparian habitats throughout the Central Valley. The program will also solicit for targeted research and planning actions that coincide with high priority species and habitats. Proposals will be solicited on www.grants.gov, with the selection of new projects each year being dependent on the most current species and habitat priorities. It is anticipated that funds will be committed to the following types of projects: 50% for land acquisition; 20% for habitat restoration; 20% for research; and 10% for other activities such as captive breeding and reintroduction of federally listed species, public outreach, and land management planning. The activities of the (b)(1) "Other" program are required as part of the Programmatic Section 7 Consultation for CVPIA and other Biological Opinions related to CVP operations. All projects will focus on improving conditions for CVP impacted species.

Anadromous Fish Screen Program (AFSP)

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

FY 2012 Budget Request (000's): \$6,049

Estimated Inter-agency Breakdown:

Agency	\$000's
U.S. Bureau of Reclamation	\$5,747
U.S. Fish and Wildlife Service	\$302

Project Description: The primary objective of the AFSP is to protect juvenile Chinook salmon (all runs), steelhead trout, and green and white sturgeon from entrainment at priority diversions in California's Central Valley including the Sacramento and San Joaquin Rivers, their tributaries, the Delta, and the Suisun Marsh. Section 3406 (b)(21) of the Central Valley Project Improvement Act 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.

Current Status: AFSP funding has contributed to the completion of 29 fish screen projects in addition to preconstruction project activities for on-going AFSP projects involving environmental compliance, project design and permitting activities for the RD 2035 and Yuba City fish screen projects. In addition, funding has been directed to on-going implementation of a four-year fish screening and monitoring program (2009-2012) in partnership with the Family Water Alliance. This effort includes collection of fish loss data prior to installation of fish screens, in order to assess the biological benefits of fish screening and to help prioritize future fish screening efforts.

In 2007, Sutter Mutual Water Company's 960 cfs diversion on the Sacramento River was screened. This project resulted in screening the largest remaining unscreened diversion on the Sacramento River.

In 2008, construction of the RD 108 "Combined Pumping Plant and Fish Screen Project" was completed. This project involved 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.

In 2009, construction of the Meridian Farms Phase I Fish Screen was completed. This project involved screening a 30 cfs diversion located at New Grimes on the Sacramento River.

In 2010, fish screens were installed at Sutter Mutual State Ranch (128 cfs), Davis Ranch (Sycamore Mutual) Site #2 (65, cfs), River Garden Farms #2 (32 cfs) and Lake California (11 cfs). In addition, in 2010 construction was initiated on the Patterson Irrigation District Fish Screen (195 cfs) on the San Joaquin River, and the Phase I Natomas Mutual Fish Screen Project (389 cfs) on the Sacramento River that replaces two existing diversions on the Natomas Cross Canal. The Patterson Fish Screen will be completed in 2011 and the Natomas Mutual Fish Screen will be completed in 2013.

Proposed Actions for FY 2012: 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 on AFSP prioritization criteria which include: willing applicant, cost effectiveness, biological benefits, availability of non-Federal cost share, and ability to obtain preconstruction monitoring data. A number of on-going AFSP projects are expected to need construction funding in FY 2012 including Natomas Mutual Water Company and RD 2035.

Water Acquisition

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

FY 2012 Budget Request (000's): \$19,850

Estimated Inter-agency Breakdown:

Agency	\$000's
U.S. Bureau of Reclamation	\$19,539
U.S. Fish and Wildlife Service	\$311

Project Description: The two 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, land, water, and conveyance to improve spawning and rearing habitat and increase migration instream 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: In FY 2011 the WAP continues its efforts to: (1) Provide supplemental refuge water supplies (Incremental Level 4) through annual purchases. As a supplement to surface water acquisitions the WAP will continue to investigate and implement groundwater projects in order to lower costs and increase reliability of providing supplemental refuge water supplies. Refuge water quality data will be collected and analyzed to assess the potential for long-term groundwater projects while providing short-term Incremental Level 4 supplies; (2) Provide additional instream flows in support of Vernalis Adaptive Management Plan (VAMP) under the San Joaquin River Agreement (SJRA). The WAP acquires water for VAMP from the San Joaquin River Group Authority's member water districts, pursuant to the SJRA, to provide additional spring and fall fishery flows on the Stanislaus, Tuolumne, Merced, and lower San Joaquin rivers. The SJRA expires December 31, 2011. The State Water Board is actively reviewing San Joaquin River flow objectives; however, it is uncertain when those objectives would be adopted; and (3) Acquire water to enhance instream flows, thus improving spawning and rearing habitat for salmon and steelhead in support of the AFRP, subject to funding availability.

Proposed Actions for FY 2012: CVPIA required the acquisition of 100 percent of Incremental Level 4 refuge water supplies, approximately 160,000 acre-feet (af), by 2002, for various wetland habitat areas within the Central Valley of California. However, the WAP has not yet achieved this goal due to a variety of factors including water availability, water pricing, and funding. In FY 2012, the WAP plans to acquire approximately 56,130 af of Incremental Level 4 water supplies. Reclamation may acquire water supplies through short-term purchase agreements, purchase options, long-term water purchase agreements that require annual payments, and participation in groundwater banking. A large percentage of this water will be acquired within the San Joaquin Valley where most of the wetlands are located. Sources of water will include reservoir storage transfers, groundwater pumping, banked groundwater, and temporary or permanent transfers of surface supplies by water right holders or project contractors. Some water supplies may be transferred through the Delta for use on the San Joaquin Valley refuges. In addition to the water acquisition cost, there are delivery costs to get the water to the refuges. Funding is provided under the Refuge Wheeling Conveyance Program.

In FY 2012, \$2.5 million will be used by the program to acquire water to supplement the quantity of water dedicated under (b)(2) for fish, wildlife and habitat restoration purposes. Acquisitions will focus on flows to support the Central Valley wide fish doubling goal as described in (b)(1).

Dedicated Project Yield

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

FY 2012 Budget Request (000's): \$800

Estimated Inter-agency Breakdown:

Agency	\$000's
U.S. Bureau of Reclamation	\$94
U.S. Fish and Wildlife Service	\$706

Project Description: The Department of the 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 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: The May 2003 Decision on Implementation of Section 3406(b)(2), clarified as necessary due to recent court decisions, will be implemented for the ninth year in 2012, upstream actions will be implemented; and monitoring and evaluation to assess the effectiveness of (b)(2) environmental measures will continue.

Proposed Actions for FY 2012: Funding will be used to continue efforts associated with the annual 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 ninth year in 2012; upstream actions will be implemented; and monitoring and evaluation to assess the effectiveness of (b)(2) environmental measures will continue.

Clear Creek Restoration

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

FY 2012 Budget Request (000's): \$905

Estimated Inter-agency Breakdown:

Agency	\$000's
U.S. Bureau of Reclamation	\$705
U.S. Fish and Wildlife Service	\$200

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: In FY 2011, Clear Creek restoration will focus on providing flows, restoring stream channel and instream habitat, and conduct monitoring to determine impacts of restoration actions.

Releases from Whiskeytown Dam will provide downstream fish habitat that is at least 90 percent of the maximum possible weighted usable area, will allow water temperatures to comply with the National Marine Fisheries Service's biological opinion, and allow passage of adult anadromous fish at the former McCormick-Saeltzer Dam location. Stream channel and instream habitat restoration will include placing about 15,000 tons of spawning gravel, continue design and permitting for using abandoned dredger mine tailings as an inexpensive source of spawning gravel for future placements, and continue preparing long-term programmatic environmental permits for various restoration actions. Monitoring activities will include work to ascertain impacts of restoration actions on fishery and geomorphic resources and determine the amount of spawning gravel needed to maximize the amount of spawning habitat.

Proposed Actions for FY 2012: Clear Creek restoration continues to aggressively implement Chinook salmon and steelhead habitat enhancement projects through partnerships with local landowners, public and private agencies, and universities. Projects are currently emphasizing restoration actions that will increase populations of spring-run Chinook salmon and steelhead, both listed as threatened under the Federal Endangered Species Act. Restoration activities will focus on implementing the Cloverview long-term Gravel Supply Project. The program will continue monitoring juvenile habitat use, spawning area mapping, juvenile habitat suitability indices, gravel quality, survival-to-emergence, fish rescue, benthic macro invertebrate sampling, water quality and water temperature. The program will also implement several in-stream spawning gravel placement projects.

Spawning Gravel/Riparian Habitat

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

FY 2012 Budget Request (000's): \$1,000

Estimated Inter-agency Breakdown:

Agency	\$000's
U.S. Bureau of Reclamation	\$900
U.S. Fish and Wildlife Service	\$100

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: Gravel placement occurs each year in the upper Sacramento River downstream from Keswick Dam. Gravel is replenished at existing augmentation sites as the placed gravel is washed downstream. New placement sites are being scoped and new projects addressing rearing and spawning habitat limitations are being considered. Monitoring of past projects is ongoing and a sediment budget is being developed.

The American River gravel placement program has identified specific project sites as part of a multi-year series of projects, beginning in 2008, between Nimbus Dam and River Bend Park to address spawning habitat and rearing habitat limitations. Projects include mainstem gravel placement and side channel creation for spawning and rearing habitat targeting steelhead. Evaluating the effectiveness of past projects is ongoing.

The Stanislaus River program has identified rearing habitat as a key limitation to Chinook salmon so projects will target gravel placement to enhance rearing and spawning habitat. The National Oceanic and Atmospheric Administration Reasonable and Prudent Alternative for operations of the CVP and SWP included an action to place 50,000 cubic yards of gravel in the Stanislaus by 2014 and 8,000 cubic yards per year thereafter (for steelhead). Stanislaus projects will strive to meet this action. Evaluating the effectiveness of past projects is ongoing.

Proposed Actions for FY 2012: Funding will be used for gravel restoration and rearing habitat projects on the Upper Sacramento, American, and Stanislaus rivers immediately downstream from Keswick, Nimbus, and Goodwin dams, respectively. Species to benefit include Sacramento, American and Stanislaus River Basin Chinook salmon and steelhead trout. The public involvement and permitting phases of project planning will determine final site selection in all three rivers. Monitoring will be incorporated into all projects to determine the effectiveness of projects at maintaining salmonid habitat. Specific gravel placement activities each year are dependent on watershed hydrology which modifies instream habitat.

Bay-Delta Conservation Plan (BDCP)

Authority: P.L. 85-624, Fish and Wildlife Coordination Act

FY 2012 Budget Request (000's): \$7,000

Project Description: The BDCP is a Habitat Conservation Plan and Natural Communities Conservation Plan being prepared to meet requirements of the Federal Endangered Species Act (ESA), California Endangered Species Act, and Natural Communities Conservation Planning Act for Central Valley Project (CVP) / State Water Project (SWP) water operations and management activities in the Delta. The BDCP will serve as the basis for incidental take permit applications for a new water conveyance facility around and/or through the Sacramento-San Joaquin River Delta, along with habitat restoration in the Delta, under section 10 of the ESA. The BDCP also will establish the parameters for modifications of the CVP that are subject to consultation under section 7 of the ESA. The section 10 permit issuance decisions and the associated federal actions which may be undertaken by the Reclamation are major Federal actions that require preparation of an EIS under the National Environmental Policy Act. Lead agencies for the EIS are Reclamation, the U.S. Fish and Wildlife Service (FWS), and the National Marine Fisheries Service (NMFS).

The BDCP also will serve as the planning and permitting document under State law for the new conveyance facility, operations, and habitat restoration, and a take permit for these activities under California's Natural Community Conservation Planning Act administered by the California Department of Fish and Game. The California Environmental Quality Act requires the preparation of an EIR for the BDCP. Lead agency for the EIR is the California Department of Water Resources.

The State and Federal lead agencies have decided to prepare a joint EIS/EIR. DWR initiated the Delta Habitat Conservation and Conveyance Program (DHCCP) to conduct engineering and environmental analysis and has engaged consultants to assist in the analysis. The DHCCP and consultants are preparing the EIS/EIR under direction and supervision of the four lead agencies. FWS and NMFS are providing technical assistance for analysis of ecological and biological effects of the proposed projects.

Current Status: BDCP is currently investigating water conveyance alternatives to move CVP and SWP water either through or around the Delta while restoring the Delta ecosystem. The ultimate goal is to identify a water conveyance system that will likely minimize the effects of project pumping while maximizing beneficial changes to the Delta ecosystem and provide flexibility to operation of the CVP and SWP. The BDCP will address water conveyance and project operations, habitat restoration, and other threats to the environment. Options currently being considered include:

- Water exports via dual conveyance facilities (using existing south Delta intakes and new intake facilities in the north Delta),
- Large restoration of tidal marsh habitat, and
- Measures to address other stressors such as pollutants, introduced species, predation, and hatcheries management.

Red Bluff Pumping Plant and Fish Passage

Authority: Title XXXIV, H.R. 429, P.L. 102-575, Section 3406 (b)(10)

FY 2012 Budget Request (000's): \$34,516

Project Description: The Red Bluff Diversion Dam is in the Sacramento River Division of the CVP. It has been identified as an impediment to upstream and downstream passage of salmonid species, as well as the green sturgeon (listed as threatened in April, 2006). In December 2006, Reclamation released a draft EIS/EIR, listing the preferred alternative as the construction of a screened pumping plant on the mainstem Sacramento River. The pumping plant would be capable of diverting the full capacity of the Tehama Colusa Canal with a build out capacity of 2,500 cfs to maintain irrigation diversions without lowering the Diversion Dam. The ROD was executed on July 16, 2008.

Current Status: Construction has begun with primary contracts being awarded for the Fish Screen, Pumping Plant, Siphon, Canals, Bridge, Pumps and Motors. Portions of the canals have been excavated and the siphon under Red Bank Creek is being constructed. An old landfill has been excavated and is in the process of being clean closed prior to continuing the canal excavation. A sheet pile cofferdam for construction of the fish screen is being installed and excavation of the forebay, pumping plan foundation and switchyard are in progress. Pumps and motors are in the process of being fabricated.

Proposed Actions for FY 2012: The June 4, 2009 Biological Opinion (BiOp) for the Operations Criteria and Plan (OCAP) for the CVP specifically calls for dam-only operation through the end of the 2011 irrigation season. Thus, beginning with the 2012 irrigation season, the pumping plant must be fully operational or the water supply will be greatly diminished. Funds requested will be used for construction support, mitigation and for continued biological monitoring that is mandated by the OCAP BO.

San Joaquin River Restoration Program (SJRRP)/San Joaquin River Basin Management

Authority: San Joaquin River Restoration Settlement Act, Title X, P.L. 111-11, and Title XXXIV, H.R. 429, P.L. 102-575, Section 3406 (c)

FY 2012 Budget Request (000's): \$35,077

Project Description: In 1988, a coalition of environmental groups, led by Natural Resources Defense Council (NRDC), filed a lawsuit challenging the renewal of the long-term water service contracts between the United States and the Central Valley Project, Friant Division contractors. After more than 18 years of litigation of this lawsuit, known as *NRDC et al. v. Kirk Rodgers, et al.*, a Settlement was reached. On September 13, 2006, the Settling Parties agreed on the terms and conditions of the Settlement, which was subsequently approved by the U.S. Eastern District Court of California on October 23, 2006. The Settlement establishes two primary goals:

- To restore and maintain fish populations in “good condition” in the main stem of the San Joaquin River below Friant Dam to the confluence of the Merced River, including naturally reproducing and self-sustaining populations of salmon and other fish (Restoration Goal); and
- To reduce or avoid adverse water supply impacts to all of the Friant Division long-term contractors that may result from the Interim Flows and Restoration Flows provided for in the Settlement (Water Management Goal).

The Settlement calls for a variety of physical improvements within and near the San Joaquin River, within the Friant-Kern and Madera canals, and within the service areas of the Friant Division long-term contractors to achieve the Restoration and Water Management goals. The San Joaquin River Restoration Settlement Act (Act), included in the Omnibus Public Land Management Act of 2009, was signed by the President on March 30, 2009 and became Public Law 111-11. The Act authorizes and directs the Secretary of the Interior to fully implement the Settlement. The San Joaquin River Restoration Program (SJRRP) will implement the Settlement consistent with the Act.

Current Status: Reclamation has been working with the other Settling Parties, the State of California, affected Third Parties, and other Federal agencies to conduct the environmental review, planning, and initial design activities to implement the Settlement and the Act. Actions in progress or that will be initiated in FY 2011 include the following:

- Program EIS/EIR – The environmental review for the implementation of the Settlement was formally initiated with public scoping meetings held in August and September, 2007. The Draft Program EIS/EIR (PEIS/R) is expected in early 2011, a Final PEIS/R in early 2012, and a ROD in early 2012.
- Fish Reintroduction – The FWS has developed and submitted a permit application for the reintroduction of spring-run Chinook salmon for consideration by the NMFS. NMFS must make a determination on the application, complete the necessary environmental documentation, issue an ESA Section 10(a) 1(A), and complete the ESA Section 10(j) rulemaking by April 2012.
- Highest Priority (Phase 1 Actions) Channel Improvements – Several planning, environmental compliance, and design efforts focused on the Phase 1 channel improvements identified in the Settlement are currently underway. These include the Reach 4B, Eastside Bypass, and Mariposa Bypass Channel and Structural Improvements Project and the Mendota Pool Bypass and Reach 2B Channel Improvements Project. Reclamation, in coordination with the Henry Miller Reclamation District, has also initiated site-specific planning, environmental compliance, and design work for one additional high-priority channel improvement project, the Arroyo Canal Fish Screen and Sack Dam Fish Passage Project.
- Flow Related Activities – Initial flow releases, called Interim Flows, are underway and Reclamation is currently conducting a variety of biological and physical monitoring and reporting efforts during these flows, including the installation of a groundwater well network to monitor seepage and conducting monitoring actions. Reclamation is also working to complete a conservation strategy for the long-term flow releases that seeks to avoid, minimize and compensate for impacts of these flows on federally listed species.
- Water Management Actions – The planning and environmental documentation for actions to recirculate, recapture and reuse Interim and Restoration flows has been initiated and is being developed in close coordination with the Settling Parties and Third Parties. A final recapture and recirculation plan is expected in late 2011. Reclamation is working to complete the Draft Environmental Assessment and Feasibility Study for the Friant-Kern and Madera Canal

Capacity Correction Project in mid-2011. Completion of Guidelines for funding groundwater banking projects as required under the Act has also been initiated and is scheduled to be completed in early 2011.

Proposed Actions for FY 2012: The SJRRP will continue planning, engineering, environmental compliance, fishery management, water operations, and public involvement activities related to the Restoration and Water Management goals in the Settlement. Significant actions planned for implementation in FY 2012 include the following:

- Program management, including providing funding for the FWS and NMFS to participate in the SJRRP and continue with activities to reintroduce spring-run Chinook salmon to the San Joaquin River.
- Continued release of initial flows, termed Interim Flows, from Friant Dam and implementation of associated biological and physical monitoring and reporting program.
- Continued implementation of a comprehensive groundwater seepage management and monitoring program for Interim Flows and expansion of this program in preparation for the higher, longer-term flow releases, termed Restoration Flows.
- Continued implementation of mitigation measures, including a biological conservation strategy to address impacts to biological resources and realty acquisition to address impacts to low-lying lands that may be impacted by the SJRRP's flows, as outlined in the PEIS/R. These actions would be in preparation for future Restoration Flows.
- Completion of a report as required in Section 10009(f) (2) of Public Law 111-11 to determine whether to increase the capacity of Reach 4B of the San Joaquin River or use an alternative route for high flows.
- Completion of planning, environmental compliance documents, and the majority of the appraisal-level design efforts for all four Phase 1, high-priority channel and structural improvements projects outlined in the Settlement. Land acquisition for the Mendota Pool Bypass and Reach 2B Channel Improvements Project and the Reach 4B, Eastside and Mariposa Bypass Channel and Structural Improvements Project would also begin. These two projects, once completed, will restore over 30 miles of the San Joaquin River. Complete final permitting, land acquisition, design activities, and pre-construction efforts for the Arroyo Canal Fish Screen and Sack Dam Fish Passage Project.
- Complete final design and begin construction activities for the Friant-Kern and Madera Canal Capacity Correction Project. Once completed, this project is intended to reduce the water supply impacts of the SJRRP's increased Interim and Restoration flow releases.

Comprehensive Assessment and Monitoring Program

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

FY 2012 Budget Request (000's): \$1,600

Estimated Inter-agency Breakdown:

Agency	\$000's
U.S. Bureau of Reclamation	800
U.S. Fish and Wildlife Service	800

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: CAMP 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. This information will inform adaptive management actions for the CVPIA anadromous fish restoration efforts. The 2007 CAMP annual report provides a synthesis and analysis of anadromous fish monitoring data collected between 1992 and 2006. This report suggests the majority of the AFRP production targets have not been met on a regular basis. This trend suggests a substantial increase in habitat restoration efforts will be required to promote measurable increases in Chinook salmon production and thereby achieve the AFRP fish production targets.

The CAMP is conducting a comprehensive assessment to determine the program's future scope, direction, and costs. The results will be included in a programmatic document that updates the 1997 CAMP Implementation Plan. The CAMP is currently working with entities that collect data summarized in CAMP reports to: (1) clarify how data have historically been collected; (2) provide templates for reporting data, analyses, and results to CAMP; and (3) provide more robust data collection techniques that describe the accuracy and precision of data that are collected. Additionally, the program is (1) assessing current data being collected by all CVPIA programs; (2) conducting management and program manager meetings to determine data needs for decision making; (3) coordinating data management activities with other Federal and state agencies and other organizations; (4) conducting data management training; and (5) developing short-term and long-term data management plans.

During FY 2011, the program will begin the implementation of a Science Based Management Framework that will be a guide to an adaptive management process. This framework emphasizes designing experiments to address key uncertainties (such as the ratio of hatchery vs. natural production, the impacts of predators on anadromous Fish, the availability of prey for anadromous fish, both in the ocean and in the rivers, geomorphology, water chemistry and temperature, meteorology, diseases, etc.), monitoring of the outcomes, analyzing and learning, improving management actions, and continually evaluating and repeating the process. Additional tools that will be useful for the Science Based Management Framework are a CVPIA Accomplishments database (containing CVPIA Program status information) and a web accessible version of the CVPIA documents database. Both of these tools will improve communication and understanding of the impacts of the restoration projects.

Proposed Actions for FY 2012: CAMP 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 inform the adaptive management process for CVPIA anadromous fish restoration efforts. Funds will also be used for program management at the FWS and a data manager at Reclamation. The Service will prepare an Annual Report documenting the status of anadromous fish toward the doubling goal described in Section 3406(b)(1); continue tracking CVPIA programmatic and project specific monitoring efforts; identify future monitoring priorities; and synthesizing data into usable reports. Reclamation will continue work on a new system for the management of CVPIA resource data. As a result of assessing future priorities, CAMP will fund a limited number of high priority monitoring projects necessary to develop the Annual Report. In addition, CAMP will continue the development and implementation of a science-based framework for CVPIA and the maintenance of databases (the Accomplishments and the Documents databases).

Tracy (Jones) Pumping Plant Mitigation Program

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

FY 2012 Budget Request (000's): \$1,452

Project Description: This activity identifies and implements 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 and CVP OCAP Biological Opinions.

Current Status: Research and operation assessment efforts continue in order to better understand current operating performance of the TFCF, and to implement physical and operational changes 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 2015.

Proposed Actions for FY 2012: Proposed actions for FY 2012 include continuation of TFCF operational assessment for white sturgeon and splittail, assessing effects of loading density and transport water volume on survival of the Sacramento-San Joaquin Delta fish species, and evaluation of vegetative debris removal techniques within the holding tanks. Actions also include working on field data collected as a result of TFCF operational assessment for use of Carbon Dioxide as an alternative predator removal technique and design and evaluation of an electric fish crowder. Other anticipated actions include publishing the completed Tracy Research Volume Series, including work related to Chinook salmon whole facility evaluations, evaluations of the abundance of large striped bass predators in the primary channel of the TFCF, and effects of fish density on water quality in the new haul out buckets, and maintenance of the Tracy Research website.

Frank's Tract Feasibility Study

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

FY 2012 Budget Request (000's): \$400

Project Description: Project objectives are to reduce salinity concentrations, improve water quality, and to improve fish movement to favorable habitats in the south Delta, including ancillary benefits at the CVP/SWP pumping facilities.

Current Status: The Feasibility Study was initiated in FY 2007 and will continue into FY 2011.

Proposed Actions for FY 2012: It is anticipated that the Plan Formulation Report will be finalized in FY 2011. This will require multiple modeling efforts and preliminary design revisions. The final feasibility report and final EIS/EIR are anticipated in 2012.

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)

FY 2012 Budget Request (000's): \$300

Project Description: Reclamation and California 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 and dredging and agricultural intake extensions in the south Delta. 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: Issuance of the NMFS Biological Opinion on operations of the CVP and SWP precluded implementation of the proposed SDIP. Alternatively, installation of a non-physical barrier at the head of Old River to deter salmonids from entering Old River and the south Delta was done in 2009 and 2010 and is planned again in 2011. Reclamation provides monitoring and reporting support on the effects of this barrier.

Proposed Actions for FY 2012:

Reclamation continues monitoring and reporting on the effects of installation of a non-physical barrier at the head of Old River to deter salmon from entering Old River and the south Delta.

Interagency Ecological Program (IEP)

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

FY 2012 Budget Request (000's): \$5,596

Project Description: Continues to support the IEP for the Sacramento-San Joaquin estuary to conduct physical, chemical, and biological monitoring required as a condition of the joint Federal-State water export permit (D-1641) and by biological opinions issued by the FWS and the NMFS under the Endangered Species Act of 1973.

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

Proposed Actions for FY 2012: Funding will be used to conduct mandated monitoring activities. These activities include the operation of delta flow and thermograph stations, the Environmental Monitoring Program, upper estuary zooplankton sampling, the fall midwater trawl and summer townet surveys, estuarine and Bay shrimp monitoring, Delta juvenile salmon monitoring, the Spring Kodiak trawl, larval fish and 20mm delta smelt surveys and screw trap monitoring for juvenile salmonids at Knights Landing, and Mill and Deer creeks.

CALFED Science Activities Pelagic Organism Decline (POD)

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

FY 2012 Budget Request (000's): \$5,300

Project Description: Continues investigation 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 and assistance in CALFED agencies efforts to establish performance measures and to monitor and evaluate the performance of all CALFED Program elements.

Current Status: Indices of relative abundance of four species of pelagic fishes in the Sacramento-San Joaquin Estuary, including the ESA-listed delta smelt, continue to be at or near record lows and there is a growing consensus that the Delta has undergone a radical ‘regime shift’ due in part to project operations, decreasing turbidity and the proliferation of exotic aquatic vegetation. The conceptual models underlying Delta science activities have thus been modified to reflect this new understanding.

Proposed Actions for FY 2012: Activities will continue to implement recommendations from the POD Synthesis Report, complete follow-up work identified in the synthesis report, and develop adaptive management scenarios. Tasks include field monitoring, laboratory evaluations, special studies, statistical evaluations, mathematical model construction, hydrodynamic and particle tracking modeling and program administration. Principal investigators will continue to publish their findings in peer-reviewed journals.

Federal Science Task Force Studies

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

FY 2012 Budget Request (000’s): \$5,051

Project Description: Continues investigations by Reclamation, in coordination with other local, state, and Federal agencies, to test alternative ways of protecting delta smelt and other sensitive aquatic species from entrainment by the Delta export pumps. The Demonstration Project is a five year experiment to evaluate the effectiveness of placing operable gates on Old River and Connection Slough to modify flows and turbidity in the Delta.

Current Status: The fall midwater trawl index of relative abundance for delta smelt continues to fluctuate at or near record low values. Preliminary data and modeling studies suggest that it may be possible to manage the flow and turbidity field of the Delta to guide delta smelt away from the CVP pumping facilities thereby reducing the direct and indirect effects of entrainment. There is too much uncertainty about the dynamics of sediment transport in the Delta and in the response of delta smelt to the resulting turbidity field during their upstream spawning migration to invest in infrastructure that would implement fish protection measures that depend on management of the turbidity field.

Proposed Actions for FY 2012: Activities will continue to develop an environmentally adequate and permissible project. Tasks include intensive field studies during ‘first flush’ events, subsequent monitoring of delta smelt movements, laboratory evaluations, special studies, statistical evaluations, mathematical model construction, and program administration.

Drainage Management Program

Authority: P.L. 86-488

FY 2012 Budget Request (000's): \$14,250

Project Description: In 2012, Reclamation will continue to implement actions submitted to the Court during the November 19th hearing with Judge Wanger. Using its existing authorities, Reclamation will continue the implementation of the 2007 Record of Decision, San Luis Drainage Feature Re-Evaluation (SLDFR-ROD) in a part of Westlands Water District, where it can construct a fully functional drainage system within current appropriations ceilings. 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 ROD 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.

Meanwhile, Reclamation has continued to support on the ground drainage projects including the Grassland Bypass Project while these long term solutions are pursued. The Grassland Bypass Project provides drainage to the northerly San Luis Unit and adjacent area and includes actions consistent with both Reclamation's Feasibility Report alternative and the alternative resolution concepts under consideration. A Final EIS for the Grassland Bypass was completed in October 2009 and the ROD was completed December 21, 2009. The Grassland Bypass project has broad support among all stakeholders.

Proposed Actions for FY 2012: The FY 2012 budget request continues Reclamation's participation in the ongoing Grasslands Bypass Project as well testing new technologies for implementation of drainage services to the San Luis Unit. Reclamation funding supports Reclamation and FWS participation in monitoring, data management and reporting, and other activities.

San Joaquin Basin Action Plan

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

FY 2012 Budget Request (000's): \$507

Estimated Inter-agency Breakdown:

Agency	\$000's
U.S. Bureau of Reclamation	\$467
U.S. Fish and Wildlife Service	\$40

Project Description: Reclamation and the FWS are continuing coordinated efforts toward completion of construction of an internal water conveyance infrastructure on the East Bear Creek Unit (Refuge) of the San Luis National Wildlife Refuge, Los Banos, California. The East Bear Creek construction project was planned and designed in two phases, Phase I and Phase II, and is the last major refuge facility construction project for delivery of refuge water supplies within San Joaquin Basin Action Plan lands. Project planning for the Refuge has proceeded separately from other San Joaquin Basin Action Plan lands due to its location on the east side of the San Joaquin River. The Refuge is projected to be a 4,000 acre site that will have emergent and riparian wetlands and wetland associated upland areas. FWS obtained funding under the North American Wetlands Conservation Act for the purpose of restoring and enhancing the East Bear Creek Unit to a more natural environment.

Reclamation and the Central California Irrigation District are coordinating efforts for design and construction of an automated self-cleaning trash removal system to be installed at the diversion point from the Newman Canal to the J-Lateral, which provides water deliveries to the China Island Unit of the California North Grasslands Wildlife Area, Los Banos, California.

Under the San Joaquin Basin Action Plan and the mandate of CVPIA, Reclamation is responsible for the planning, design, and construction of water conveyance infrastructures for both East Bear Creek Unit and China Island Unit.

Current Status: In FY 2010 funds were used to complete construction related activities for Phase I of the East Bear Creek Unit Project on the San Luis National Wildlife Refuge. Final acceptance of construction was completed in FY 2010. Funds in FY 2011 will be used for design, construction and installation of an automated self cleaning trash removal system at the J-Lateral diversion point for water deliveries to China Island Unit. Construction on the trash removal system is scheduled to be completed in FY 2011.

Proposed Actions for FY 2012: Requested funds will help 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 related activities for the East Bear Creek Unit Phase I, San Luis National Wildlife Refuge; and Newman Canal (service to China Island Unit) design and construction effort.

Land Retirement

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

FY 2012 Budget Request (000's): \$549

Estimated Inter-agency Breakdown:

Agency	\$000's
U.S. Bureau of Reclamation	\$549
U.S. Fish and Wildlife Service	\$0

Project Description: The purpose of the Land Retirement Program (LRP) is to evaluate impacts and benefits of retiring 15,000 acres of land from irrigated agriculture. The LRP 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. Five years of monitoring conducted as part of the Land Retirement Demonstration Project (LRDP) indicate that retired lands have great potential to be restored to productive wildlife habitat, with potentially important endangered species benefits.

Current Status: The LRP has acquired approximately 9,306 acres to date, and retired approximately 8,900 acres from irrigated agricultural production. In 2010, the program restored 400 acres to upland wildlife habitat. Implementation of the LRDP has eliminated the production of approximately 3,700 acre feet of poor quality drain water annually.

On average, the LRP has exceeded its land restoration performance goal of 400 acres per year. Since 1998, the LRP has restored approximately 5,300 acres. Restoration efforts on retired lands immediately increased biodiversity and abundance, including Special Status Species. Wildlife surveys of restored units observed important findings of sensitive San Joaquin Valley wildlife species, including populations of endangered Tipton kangaroo rats, burrowing owls, coast horned lizards, San Joaquin Valley Coachwhips, Swainson's hawks and a sensitive plant called Hoover's Woollystar.

Proposed Actions for FY 2012: The program will be used to acquire and restore land as part of the Five Year Land Retirement Demonstration Program (LRDP). 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. The LRDP has developed cost effective techniques for restoring retired farmlands in the San Joaquin Valley. The LRDP will continue to evaluate habitat rehabilitation techniques to determine the most effective and economical means to provide safe upland habitats to aid in the recovery of threatened and endangered species in the San Joaquin Valley and assist CVP water districts in managing and restoring retired agricultural lands.

San Joaquin River Salinity Management

Authority: P.L. 86-488, Public Law 111-11 (MAR. 30, 2009 123 STAT. 991) "Omnibus Public Land Management Act of 2009", Section 9504 Water Management Improvement.

FY 2012 Budget Request (000's): \$4,250

Project Description: The San Joaquin River Salinity Management Project is an action that contributes to the Program to Meet Standards (PTMS), mandated in Section 103(d) (2)(D) of P.L. 108-361. The project implements the stakeholder developed “Westside Regional Drainage Plan” (WRDP). The WRDP includes activities to assist the Grassland Bypass area’s program to eliminate drainage to the San Luis Drain, and the plan itself is a key element of Reclamation’s Action Plan to Address the Lower San Joaquin River Salinity total maximum daily load (TMDL) and contributes to resolution of San Luis Unit drainage provision responsibilities. The Plan’s key management components for the Grassland Drainage Area are: 1) Source Control, 2) Groundwater Management, 3) Drainage Reuse Projects, and 4) Drain Water Treatment and/or Salt Disposal.

Current Status: Reclamation has supported implementation of the WRDP. To date, Reclamation has contributed 12 percent of the overall funding for the purchase of 5,800 acres and development of 3,800 of those acres into reuse areas. In 2009-2012, the remaining 2,000 acres will be developed into reuse areas, meeting the interim goal of 6,000 acres of reuse area. Funding has also supported improving distribution efficiencies (eliminating leaks), piloting treatment technologies, and reducing groundwater impacts. As a result, in 2010 169,869 thousand tons of salt were prevented from entering the San Joaquin River.

Proposed Actions for FY 2012: Funding will continue crucial support of the development of the reuse areas (including permitting, land preparation, planting, delivery infrastructure, and wildlife mitigation) and the construction of shallow wells to lower the perched water table and reduce the discharge of nearby subsurface drainage systems. These actions will directly increase the amount of drainage that Grasslands can manage within their boundaries, and prevent its release to the San Joaquin River.

Program to Meet Standards

Authority: P.L. 86-488

FY 2012 Budget Request (000’s): \$750

Project Description: The Program to Meet Standards (PTMS) was initiated pursuant to P.L. 108-361, Section 103(d)(2)(D), which directs the Secretary of the Interior, in consultation with the Governor of California, 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. The PTMS may 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 in meeting any obligations to CVP contractors from the New Melones Project. Reclamation is coordinating implementation with key stakeholders in the San Joaquin Valley. Funding for the PTMS is primarily provided to ensure that the actions identified in the program, many of which are funded under individual authorities, move in concert to achieve the overall program objectives.

Current Status: Reclamation is continuing program implementation. In 2006, Reclamation submitted the PTMS plan to Congress and initiated implementation. Since FY 2007, funding was used to develop forecasting and monitoring tools needed to implement a real time salinity management program, which is not independently authorized, and implementation of a recirculation pilot program. These actions move the program towards its goal of greater flexibility in meeting existing and future water quality objectives. Other projects that support the PTMS include the Franks Tract Project, the New Melones Operations Plan, and the San Joaquin River Salinity Management Project. Due to the complex nature of water supply and quality issues on the lower San Joaquin River, these projects are all needed to contribute to the program's objectives. In 2010, Reclamation completed a Plan Formulation Report that found the recirculation project to be infeasible. In FY 2011, Reclamation will complete the first phase in updating modeling tools needed to work with stakeholders to collectively strategize on drainage management actions.

Proposed Actions for FY 2012: Funding will support the continued improvement of water and salinity modeling tools and engagement of irrigation districts and wetlands in determining the best strategies for salinity management, including the continued development of a stakeholder-driven real time salinity management program on the river.

FISCAL YEAR 2012

ARMY CORPS OF ENGINEERS

Renewed Federal State Partnership

CALFED Coordination, CA

Authority: Energy and Water Development Appropriations Act of 1999; WRDA 2000

FY 2012 Budget Request (000's): \$100

Project Description The California Bay Delta is an ecosystem of national significance, and the U.S. Army Corps of Engineers (USACE) is participating with other agencies in addressing the goals in the Interim Federal Action Plan for the Bay Delta. CALFED Coordination allows the Corps to participate in planning activities, interagency meetings and projects. Other coordination activities include watershed based planning and collaboration efforts along the Yuba River to help integrate Delta sustainability goals, as well as in southern California to advance statewide planning activities related to Delta sustainability. Interagency coordination includes the prioritization and implementation of existing projects benefiting the Bay Delta, by developing innovative ways to streamline the planning and implementation process of Bay Delta projects.

Current Status: The funds will be used to continue program support, coordination, and USACE representation efforts in the Federal and State CALFED (now Delta Stewardship Council) process. There are Bay Delta Conservation Plan (BDCP) activities that USACE is involved with as part of the IFAP that are funded through other accounts and programs, such as the Inspection of Completed Works and Regulatory. The State of California's Delta Plan is due January 1, 2012 and Corps staff will be coordinating with State of California DWR and the Delta Stewardship Council to help integrate flood risk management elements of the watershed into the plan, as well as ecosystem restoration activities in the Delta.

Key Milestones:

- Attending interagency meetings and coordinating with applicants on processing Section 408 and 404 requests.
- Continue coordination with State of California DWR and Delta Stewardship Council

Habitat Restoration

Hamilton City, CA

Authority: Water Resources Development Act of 2007, §. 1001(8), P. L. 110-114

FY 2012 Budget Request (000's): \$8,000

Project Description: The project area includes Hamilton City and the surrounding rural area. The boundaries are the Sacramento River to the east, the Glenn Colusa Canal to the west and extend about two miles north and six miles south of Hamilton City. The project area lies just north of the existing Sacramento River Flood Control project levees and within the area of extent of the Chico Landing to Red Bluff bank protection project. The project will construct a setback levee, degrade an existing levee and revegetate the setback area to restore 1,145 acres of riparian woodland, 261 acres of riparian shrub, and 70 acres of floodplain meadow. The project will also reduce flood risk for Hamilton City and adjacent agricultural lands, and improve fish passage through the delta.

Current Status: The design agreement was executed in 2005 and 90% of the designs were completed in FY 2010. With carryover funds, a Limited Reevaluation Report is being finalized in June 2011 which evaluated some of the design refinements.

Key Milestones:

- Execute Project Partnership Agreement: Dec 2011
- Award contract for Valley Elderberry Longhorn Beetle plantings and stream gauge: Aug 2012
- Award contracts for acquisition and propagation of plants and installation of half of the restoration area: Aug 2012

Sacramento River and Tributaries (Debris Control) Engelbright, CA

Authority: Rivers and Harbors Act of 1935

FY 2012 Budget Request (000's): \$407

Project Description: Englebright and North Fork Dams are both thin wall concrete arch dams constructed by the California Debris Commission to contain mining debris. Englebright is about 20 miles east of Marysville on the Yuba River, and the North Fork is on the North Fork of the American River about 5 miles Northeast of Auburn. The projects are located in the counties of Nevada and Yuba. This dam retains mining debris from contaminating and clogging the California Bay Delta.

Current Status: The total project request of \$1,299,000 is associated with navigation, recreation and environmental stewardship of the Englebright Dam. This dam retains mining debris from contaminating and clogging the California Bay Delta. The majority of the request is to fund permanently required activities that address Section 7 of the Endangered Species Act until the species (Spring Run Chinook Salmon and Central Valley Steelhead) are delisted. Only \$407,000 is directly related to the Bay Delta Interim Federal Action Plan. This navigation funding provides for operations of Engelbright dam and maintenance of all appurtenant structures including monitoring and analysis of instrumentation and data collection, and Real Estate requirements; includes federal, state and local coordination.

Key Milestones:

- Conduct road and vegetation control on the dam.
- Monitor and analyze instrumentation for data collection.
- Repair and service existing elevator, HVAC system, security lighting and fire suppressant.

San Pablo Bay Watershed and Suisun Marsh Ecosystem Restoration, CA

Authority: Flood Control Act of 1962; Section 503 of the Water Resources Development Act of 1996; and Section 5053(a) of the Water Resources Development Act of 2007

FY 2012 Budget Request (000's): \$500

Project Description: The San Pablo Bay Watershed is the northern arm of San Francisco Bay drainage basin, within the boundaries of Marin, Sonoma, Napa, Solano and Contra Costa Counties, California. Within the watershed, there are opportunities to increase the states' wetland acreage by over five percent. Suisun Marsh is located in southern Solano County, California about 35 miles northeast of San Francisco. The watershed study identifies and implements Federal participation for restoration projects and resource protection opportunities of these areas. Additionally, it may look at levee stability in the Suisun Marsh. As the largest contiguous brackish water marsh remaining on the west coast of North America, the Marsh is a critical part of the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta) estuary ecosystem.

Current Status: The draft San Pablo Watershed Management Plan, completed in FY 2010, describes activities that would restore critical habitat throughout the watershed. The final Watershed Management Plan would identify high priority project proposals and management measures and rank the watershed's critical habitats and set priorities for restoration. In accordance with Section 5053(c), prioritizing projects for implementation, USACE will be able to consult with and consider the priorities of public private entities that are active in the San Pablo Bay and Suisun marsh areas. \$40M is authorized to implement restoration projects in accordance with general procedures for Section 206 Continuing Authorities Program.

Key Milestones:

- Continue coordination and outreach activities including public involvement and education, Conduct Geographical Information System/mapping efforts, improving media, web and networking for our program, and more.

Yuba River, Daquerre Point Dam and Englebright Dam, CA

Authority: Flood Control Act of 1970, Section 216 and Flood Control Act of 1962

FY 2012 Budget Request (000's): \$100

Project Description: From its juncture with the Feather River at the City of Marysville, the study area extends upstream for a total of 30 river miles along the Yuba River. Daguerre Point Dam is located 11 miles upstream of this juncture and Englebright Dam another 10 miles upstream. The study area terminates at Rice's Crossing on the North Fork of the Yuba River 6 miles upstream of Englebright Dam. It also includes a one mile stretch of the Yuba River's South Fork, which breaks off a mile below Rice's Crossing. The purpose of the study is to investigate the two existing Corps Dams currently operated under "Sacramento River and Tributaries (Debris Control), CA" and "Yuba River, CA" and to assess the needs and opportunities for ecosystem restoration to improve fish passage of natural spawning Spring Run Chinook Salmon, Steelhead and Green Sturgeon at Daguerre Point Dam, to assess fish passage feasibility at Englebright Dam/Lake, and to develop a long-term gravel and woody debris augmentation program.

Current Status: New start reconnaissance study for FY 2012.

Key Milestones:

- Complete reconnaissance study: September 2012

Yuba River, CA

Authority: Rivers and Harbors Acts of 1896 & 1902

FY 2012 Budget Request (000's): \$67

Project Description: Project consists of a debris barrier, Daguerre Point Dam, with dikes across overflow channels and protective works (groins) downstream to maintain the Yuba River in its confined channel to the junction with the Feather River at Marysville. Federal responsibility consists of maintaining dikes and protective works to keep the Yuba River in its confined channel. The project is located in Yuba County. Provides current fish passage at Daguerre Point Dam and retains mining debris from contaminating and clogging delta waters.

Current Status: The total FY 2012 budget request is \$97,000 and it will address navigation and environmental stewardship of the Daguerre Point Dam. The request is to fund permanently required activities that address Section 7 of the Endangered Species Act until the species (Spring Run Chinook Salmon, Green Sturgeon and Central Valley Steelhead) are delisted. Specifically, \$67,000 is for navigation to fund operation and maintenance of all appurtenant structures, including the debris barrier with dikes across overflow channels and protective works downstream to maintain the Yuba River in its confined channel. This navigation funding also includes monitoring and analysis of instrumentation and data collection and real estate requirements including state and local agency coordination. This navigation funding for the operation and maintenance of the Daguerre Point Dam is directly related to the Bay Delta Interim Action Plan because the dam provides fish passage and retains mining debris from contaminating and clogging delta waters.

Key Milestones:

- Operate and maintain all appurtenant structures.
- Monitor and analyze instrumentation and data collection.

Drought and Floodplain Management

Black Butte Lake, CA

Authority: Flood Control Act of 1944

FY 2012 Budget Request (000's): \$1,560

Project Description: The project is located on Stony Creek, a tributary of the Sacramento River, about 9 miles west of the town of Orland, California and comprises an earth fill dam, maximum height of 140-feet, six dikes, an ungated spillway, creating a reservoir with a gross storage capacity of 160,000-acre-feet. The project is located in Glenn and Tehama counties. This project controls flows to the delta during flood events, and reduces risk of delta island levee failure and saltwater intrusion. It also provides irrigation water for central valley farming.

Current Status: The total FY 2012 budget request is \$2,602,000 which will fund flood risk management, recreation and environmental stewardship activities. \$1,560,000 for flood risk management is directly related to the Bay Delta Interim Federal Action plan (IFAP) because the Black Butte Dam controls flows to the Bay Delta during flood events, and reduces the risk of delta island levee failure and salt water intrusion. Black Butte reservoir is also a source of irrigation water for central valley farming. This flood risk management funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

Key Milestones:

- Remediation of piezometers.
- Operate dam to include minimum level of gate operation and service for life and safety.
- Conduct dam safety and post earthquake inspections, emergency actions, monitoring instruments, data collection, and compliance & outgrant inspections.
- Repair and service existing elevator, HVAC system, security system and fire suppressant

Buchanan Dam, H.V. Eastman Lake, CA

Authority: Flood Control Act of 1962

FY 2012 Budget Request (000's): \$1,039

Project Description: The project consists of an earthfill dam on the Chowchilla River, about 16 miles NE of the City of Chowchilla, CA, creating a reservoir with gross storage capacity of 150,000-acre-feet for flood control, irrigation, recreation, and other purposes. The project also includes about 2 miles of channel improvement work and levee construction on Ash and Berenda Sloughs, tributary channels of the river. The project is located in Madera and Mariposa Counties. This project controls flows to the delta during flood events, reduces risk of delta island levee failure and saltwater intrusion. It is also provides irrigation water for central valley farming.

Current Status: The total FY 2012 budget is \$2,032,000 for flood risk management, recreation and environmental stewardship for Buchanan Dam. Only \$1,039,000 is directly related to the Bay Delta Interim Federal Action Plan. This flood risk management funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earthquake inspections, emergency actions, monitoring instrumentation, data collection, vegetation control, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

Key Milestones:

- Conduct road and vegetation control on the dam.
- Monitor and analyze instrumentation for data collection.
- Repair and service existing elevator, HVAC system, security lighting and fire suppressant.

Farmington Dam, CA

Authority: Flood Control Act of 1944

FY 2012 Budget Request (000's): \$470

Project Description: The project is located on Littlejohn Creek about 3½ miles upstream from Farmington and about 18 miles east of Stockton, and consists of a 56-foot-high earth-fill dam and an ungated saddle spillway, creating a reservoir with a gross storage capacity of 52,000 acre feet. The project is located in San Joaquin and Stanislaus counties. The dam controls flows to the Delta during flood event, reduces risk of delta island levee failure and saltwater intrusion. The reservoir provides irrigation water for central valley farming.

Current Status: The total FY 2012 budget is \$470,000 for flood risk management of the Farmington Dam. Only \$470,000 is directly related to the Bay Delta Interim Federal Action Plan. This flood risk funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

Key Milestones:

- Monitor and analyze instrumentation for data collection.

Hidden Dam, Hensley Lake, CA

Authority: Flood Control Act of 1962

FY 2012 Budget Request (000's): \$1,738

Project Description: The project consists of a 163-foot-high earth-fill dam on the Fresno River about 15 miles Northeast of Madera, with a reservoir with gross storage capacity of 90,500-acre-feet. The project is located in Madera County.

Current Status: The total FY 2012 budget is \$2,585,000 for flood risk management, recreation and environmental stewardship. Only \$1,738,000 is directly related to the Bay Delta Interim Federal Action Plan. This flood risk management funding provides for routine required dam operations and maintenance. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Funding also includes initiation of several interim risk reduction measures (IRRM's). Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, HVAC, vegetation control, and Water Control Data Systems modifications.

Key Milestones:

- Conduct road and vegetation control on the dam.
- Monitor and analyze instrumentation for data collection.
- Remove vegetation from embankment - excessive vegetation makes difficult to detect any problems like seepage, depression areas, etc.

Inspection of Completed Works (ICW), CA

Authority: Flood Control Act of 1970, Section 221, as amended (84 Stat. 1831, 42 U.S.C. 1962d-5b)

FY 2012 Budget Request (000's): \$1,790

Project Description: This program covers levees, floodwall systems and reservoirs throughout California. Upon completion, infrastructure built under this program is transferred to the sponsoring cities, towns, and special use districts that own and operate the projects. All of these projects require continued maintenance after construction in order to ensure the project will function as intended. The priority of the ICW program has been levees because of public safety aspects and is guided by the Levee Safety Program. The basic objectives of the USACE Levee Safety Program are (1) to develop balanced and informed assessments of the nation's levees; (2) to evaluate, prioritize and justify levee safety decisions, and (3) to make recommendations to improve public safety associated with levee systems. One of the main activities includes inspections of federally authorized projects operated and maintained by a non-Federal sponsor. The purpose of the inspections is to determine if the levee system will perform as expected; identify deficiencies or areas which need monitoring or immediate repair; identify any changes over time; and collect information in order to be able to make informed decisions about future actions. Other activities include updating information in the National Levee Database; screening levees to begin ranking them in order of risk; conducting pre-storm inspections of federally authorized hurricane shore protection systems; conducting pre-inspection preparation and post inspection reporting and notification requirements; coordinating Levee Safety Program efforts with public sponsors or stakeholders; reviewing sponsor proposed alterations, improvements, excavations or construction which are in accordance with USACE policy and guidance for such proposal i.e. Section 208/408 proposals; and updating project operation and maintenance manuals.

Coordination between USACE and other Federal, state, and local agencies is essential for proper accomplishment of this program. In addition to satisfying USACE requirements, the improved inspection results will be made available on the National Levee Database and will be of great value to local, State and other Federal agencies tasked with the development and implementation of state and local Levee Safety Programs.

Current Status: Of the \$3,854,000 budgeted for California, only \$1,790,000 is directly related to activities and projects in the Bay Delta IFAP. This funding will support management of the lake, provide technical review and environmental compliance for Section 208.10 and section 408 alteration requests to modify existing Federal infrastructure and approvals including other delta related actions. This account also supports initiation of consultation for conflicts relating to levee vegetation policy. Funding provides for performing routine inspections for 10% of the California inspected systems and 100% of the other projects including developing reports and communicating with local sponsors and providing policy updates and issuing PL 84-99 eligibility notifications. Funding will support levee safety project managers and levee safety officers.

Key Milestones:

- Perform routine inspections for 100% of the Corps projects in California and provide policy on findings to sponsors regarding PL 84-99 eligibility.
- Where applicable, provide technical review and environmental compliance for Section 208.10 and section 408 alteration requests.

Isabella Lake, CA

Authority: Flood Control Act of 1944

FY 2012 Budget Request (000's): \$1,394

Project Description: The dam is located about 50 miles NE of Bakersfield, near the confluence of the north and south forks of the Kern River; the auxiliary dam is about ½ mile east of the main dam. Project comprises a 185-foot-high earth fill dam, an ungated concrete spillway, and a 100-foot-high earth fill auxiliary dam, creating a reservoir with a gross storage capacity of 570,000-acre-feet. The project is located in Kern County. Controls release for farming irrigation in the Central Valley. Reduces export burden on delta from agriculture needs. Isabella Lake is connected to Kern Friant Canal to deliver water through the Cross Valley Canal to the California Aqueduct for consumptive use.

Current Status: The total FY 2012 budget request is \$1,671,000 for flood risk management and environmental stewardship activities. \$1,394,000 funds flood risk management activities which are directly related to the Bay Delta IFAP to provide for routine required dam operations and maintenance. Isabella Lake is connected to the Kern Friant Canal to deliver water through the Cross Valley Canal to the California Aqueduct for consumptive use. Operations includes: limited execution of gate operation, dam safety and post earthquake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Funding also includes initiation of several interim risk reduction measures (IRRM's). Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, HVAC, vegetation control, and Water Control Data Systems modifications.

Key Milestones:

- Conduct road and vegetation control on the dam.
- Monitor and analyze instrumentation for data collection.
- Prepare dam safety and post earthquake inspections.

Merced County Streams, CA

Authority: Flood Control Act of 1944

FY 2012 Budget Request (000's): \$399

Project Description: The project consists of the following flood control improvements:

- 1) Five flood retention dams:
 - Mariposa, 88-feet-high (15,000-acre-feet), 18 miles east of Merced.
 - Owens 75-feet-high (3,600-acre-feet), 16 miles east of Merced.
 - Bear, 92-feet-high (7,700-acre-feet), 16 miles east of Merced.
 - Burns, 53-feet-high (7,000-acre-feet), 13 miles NE of Merced.
 - Castle, 40-feet-high (6,400-acre-feet), 6 miles NW of Merced.
- 2) Black Rascal and Owens Diversion Canals; and
- 3) Channel improvements on various streams in the vicinity of Merced.

The project is located in Mariposa County. The dams control flows to delta during flood events, reduces risk of delta island levee failure and saltwater intrusion, and provides irrigation water for central valley farming.

Current Status: The total FY 2012 budget is \$399,000 for flood risk management activities which are directly related to the Bay Delta IFAP for routine required dam operations and maintenance. The five dams control flows to the delta during flood events, reduces risk of delta island levee failure and saltwater intrusion. The five retention dams and two diversion canals assist in providing irrigation water for central valley farming, thereby reducing the water consumption from the Bay Delta. Operations includes: limited execution of gate operation, dam safety and post earthquake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data System modifications.

Key Milestones:

- Minimally operate the gates.
- Prepare dam safety and post earthquake inspection reports.
- Perform vegetation control.

New Hogan Lake, CA (O&M)

Authority: Flood Control Act of 1962

FY 2012 Budget Request (000's): \$2,795

Project Description: The project is located on the Calaveras River, about 28 miles Northeast of Stockton, and comprises a rock-fill dam with an impervious earth core and a maximum height of 200-feet together with four dikes, with a maximum height of 18-feet, and a gated spillway to create a reservoir with a gross storage capacity of 325,000-acre-feet. The project is located in Calaveras County. Controls flows to delta during flood event, reduces risk of delta island levee failure and salt water intrusion. New Hogan Lake, provides irrigation water for central valley farming.

Current Status: The total FY 2012 budget is \$4,023,000 for environmental stewardship, recreation and flood risk management activities. The total of flood risk management activities, \$2,795,000, is directly related to the Bay Delta IFAP by providing for routine required dam operations and maintenance. The New Hogan dam, controls flows to the delta during flood events, reduces risk of delta island levee failure and salt water intrusion. In addition, the New Hogan Lake provides irrigation water for central valley farming thereby reducing the water consumption from the Bay Delta. Operations includes: limited execution of gate operation, dam safety and post earthquake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications. Funding also includes retrofit of the tainter gates and reinforcement of the structural members to ensure adequate drainage to stop or reduce corrosion and adding an auto-lube system.

Key Milestones:

- Minimally operate flood gates.
- Monitor and analyze instrumentation for data collection.
- Prepare dam safety and post earthquake inspections.

New Melones Lake, CA

Authority: Flood Control Act of 1962

FY 2012 Budget Request (000's): \$302

Project Description: Project extends along the Stanislaus River from Goodwin Dam to its confluence with the San Joaquin River. The project provides recreationists' access to the Lower Stanislaus River. The project is located in Calaveras, San Joaquin, Stanislaus, and Tuolumne counties. Dam controls flows to delta during flood events, reduces risk of delta island levee failure and saltwater intrusion. The New Melones Lake provides irrigation water for central valley farming.

Current Status: Total FY 2012 budget request is \$1,897,000 for environmental stewardship, recreation and flood risk management activities. \$302,000 is directly related to flood risk management activities for operations at New Melones Lake. The New Melones Dam controls flows to the delta during flood events, and reduces risk of delta island levee failure and saltwater intrusion. The New Melones Lake provides irrigation water for central valley farming thereby reducing the water consumption from the Bay Delta. Critical funding needed to perform below minimum channel operation and maintenance to prevent failure and maintain integrity of Flood Risk Management; reducing inspections and engineering consultations.

Key Milestones:

- Minimally maintain channel operations
- Conduct Real Estate compliance and out-grant inspections for encroachment

Pine Flat Lake, CA

Authority: Flood Control Act of 1944

FY 2012 Budget Request (000's): \$2,250

Project Description: Pine Flat Dam located on the Kings River, about 25 miles east of the city of Fresno, is a straight, gravity-type concrete structure, 429-feet-high, with a gate-controlled spillway in the central section, and creates a reservoir of 1,000,000-acre-feet. The project is located in Fresno County. Controls releases for farming irrigation in central valley. Reduces export burden on delta from agriculture needs. Pine Flat Lake is connected to Kern Friant Canal to deliver water through the Cross Valley Canal to the CA Aqueduct for consumptive use.

Current Status: Total FY 2012 budget is \$3,291,000 is for environmental stewardship, recreation and flood risk management activities. The flood risk management activities related to the Bay Delta for routine required dam operations and maintenance, estimated at \$2,250,000. The Pine Flat Lake is connected to Kern Friant Canal to deliver water through the Cross Valley Canal to the California Aqueduct for consumptive use. Operations includes execution of gate operation & service, dam safety and post earthquake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Maintenance includes limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data System modifications.

Key Milestones:

- Prepare dam safety and post earthquake inspection reports.
- Conduct Real Estate compliance and out-grant inspections.
- Perform vegetation control.

Sacramento River Bank Protection Project, CA

Authority: Flood Control Act of 1960 (Public Law 86-645), p. 183; River Basin Monetary Authorization Act of 1974 (Public Law 93-251), Section 202; Joint Resolution of Congress in 1983; WRDA 1986 (Public Law 99-662), Section 601(a); WRDA 2007 (Public Law 110-114), Section 3031.

FY 2012 Budget Request (000's): \$10,000

Project Description: The project is located in north-central California, along the Sacramento River and its principal tributaries from Sacramento River RM 0.0 at Collinsville to Chico Landing at RM 194. It is within the limits of the existing Sacramento River Flood Control Project levees and includes Butte Basin, Cache Slough, and a portion of the Sacramento-San Joaquin Delta slough. The project meanders through eight counties including Tehama, Glenn, Butte, Colusa, Sutter, Yolo, Solano, and Sacramento. The project provides a long-range program of bank protection to protect the levees within the limits of the Sacramento River Flood Control Project from erosion. It prevents undermining of levee sections and includes fish and wildlife mitigation features. Some recreational facilities have been provided along the river.

Current Status: Continue the Post Authorization Decision Document/Environmental Impact Report/Environmental Impact Statement; construct 610 lineal feet of bank protection along selected sites on the Sacramento River system; Manage FY 2011 construction while planning an additional 2,800 lineal feet of bank protection for FY 2012; and to complete various mandated environmental mitigation sites for shallow fish habitat along the American River.

Key Milestones:

- Complete General Reevaluation Report (GRR): July 2012.

Sacramento-San Joaquin River Basins Comprehensive Study, Central Valley Integrated Flood Management Study (CVIFMS), CA

Authority: Flood Control Act of 1962 (P.L. 87-874), Sec. 209; HR 8 May 64

FY 2012 Budget Request (000's): \$300

Project Description: The study area includes the entire Sacramento River Basin, San Joaquin River and the Delta Basin in central California. The central valley represents 1% of the nation's agricultural land and about 10% of the nation's gross agricultural production. The project also includes the only river system in the nation where all five species of salmon can be found. The study area is home for over 35 endangered species and is part of international flyways for migratory birds (Pacific Flyway). Water from the central valley is a key resource for 2/3 of the residences throughout all of California (including San Francisco and Los Angeles), about 25,000,000 people. The study will develop a comprehensive long term strategy for the central valley, focused primarily on flood management but also on environmental stability/restoration and long term water supply. The study will build off of the Comprehensive Study which completed an interim report in 2003. The study will require an extensive public outreach program and coordination with Federal, state, local and tribal agencies to develop a plan that is supported by interest groups in the central valley.

Current Status: Continue the feasibility study to include administering existing contracts and in house obligations, evaluating and updating operational rule curves for 13 flood damage reduction facilities in the Central Valley, preparing existing environmental reports, and identifying problems and opportunities throughout the central valley.

Key Milestones:

Amend existing Feasibility Cost Sharing Agreement that was signed in July 2010: Late FY 2011.

Sacramento-San Joaquin Delta, Delta Islands and Levees, CA

Authority: House Resolution 1 Jun 48; EWDA 2004 (P.L. 108-137)

FY 2012 Budget Request (000's): \$1,015

Project Description: The study area is located in Sacramento, San Joaquin, Contra Costa, Solano, Alameda, and Yolo counties, California and extends from Sacramento south to the cities of Stockton, Tracy and west to and including Suisun Bay. Delta Levees protect 500,000 inhabitants and protect the water supply of 25,000,000 Californians. This study will develop the long-term strategy for Corps projects in the Delta region. The study will assess existing and future flood risks in the Delta, including opportunities for ecosystem restoration, as well as other water resources needs, and develop a comprehensive roadmap for Corps involvement in a wide range of water resources issues.

Current Status: Continue plan formulation activities, to include development of alternative plans, conducting feasibility scoping meetings, and initiate National Environmental Policy Act and California Environmental Quality Act compliance activities.

Key Milestones:

- Develop an array of alternatives and evaluate potential for recommended plan.

Scheduled Reservoir Operations, CA

Authority: Flood Control Act of 1944

FY 2012 Budget Request (000's): \$1,399

Project Description: Funding provided for Nation-wide program to facilitate and coordinate the operations of Federal and non-Federal dams for which there is a Federal interest and investment in providing dedicated flood space. Coordinate and manage channel flows and releases from 15 California Section 7 dams. Reduces risk of delta island levee failure and salt water intrusion.

Current Status: Funding supports typical activities which include data collection efforts and coordination for operational decisions, especially for flood releases, Water Control Manual coordination under NEPA and ESA and other activities associated with save operation of Section 7 dams. Of the budgeted \$1,648,000 for California, \$1,399,000 is directly related to the Bay Delta IFAP for coordination and facilitation with other Federal and non-Federal dams included for channel flows and releases from Section 7 dams. Ultimately, this coordination assists in reducing the risk of delta island levee failure and salt water intrusion.

Key Milestones:

- Collect data for operational decisions.
- Coordination with the California Water Master and other local, State and Federal agencies to comply with the Water Control Manual.
- Coordinate with other Federal regulatory agencies on NEPA and EASA operations of the Section 7 dams associated with the IFAP.

Success Dam and Reservoir, Tule River, Dam Safety Seismic Remediation , CA

Authority: Flood Control Act of 1944 (Public Law 78-534), Section 10; Water Resources Development Act of 1986 (Public Law 99-662), Section 1203; Energy and Water Development Appropriations Act, 2010 (Public Law 111-85), Section 125.

FY 2012 Budget Request (000's): \$18,000

Project Description: Success Dam and Reservoir are located on the Tule River within Tulare Lake Basin about 5 miles east and upstream of the town of Porterville, Tulare County, and about 60 miles north of Bakersfield, California. Tule River drains about 390 square miles into Success Lake, flowing from the lake through Porterville, and continuing 25 miles through agricultural areas. Construction of the dam was completed in May 1961. Recent studies concluded that the greatest risk of failure is from the Maximum Credible Earthquake and is the highest risk of life loss. Additionally, failure can also occur from constant erosion (seepage and piping) of the dam. Subsequently, a 2010 update to the Dam Safety Assurance Program Evaluation Report recommends remediation to prevent a catastrophic failure of the dam resulting in loss of life and economic damages.

Current Status: Completion of the approval process for the Decision Document, Real Estate Design Memorandum and supporting environmental documents.

Key Milestones:

- Upstream conduit structural evaluation: November 2011.
- Acquire remaining properties (environmental mitigation, borrow sites, easements): September 2012.
- Control Tower Retrofit and Access Bridge Final Design: September 2012.
- Downstream conduit and stilling basin final design: June 2012.
- Complete 90% Detailed Design Report: January 2012.

Success Lake, CA

Authority: Flood Control Act of 1944

FY 2012 Budget Request (000's): \$1,815

Project Description: The project is located on the Tule River, about 6 miles east of Porterville, and comprises an earth-fill dam with a maximum height of 142-feet with an ungated saddle spillway, and an auxiliary earth-fill dam or dike about 40-feet-high, creating a reservoir gross storage capacity of 85,000-acre-feet. This project is located in Tulare County. Controls releases for farming irrigation in the central valley and reduces export burden on delta from agriculture needs. Success Lake is connected to the Kern Friant Canal to deliver water through Cross Valley Canal to the California Aqueduct for consumption use.

Current Status: Total FY 2012 budget is \$2,744,000 to support environmental stewardship, recreation and flood risk management activities. For flood risk management, \$1,815,000 is directly related to the Bay Delta to fund routine required dam operations and maintenance. Lake Success is connected to the Kern Friant Canal to deliver water through the Cross Valley Canal to the California Aqueduct for consumption use. Operations include: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Funding also includes initiation of several interim risk reduction measures (IRRM's). Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

Key Milestones:

- Prepare dam safety and post earthquake inspection reports.
- Repair steel liners and plates and recoat the eroding liner of the outlet works
- Prepare IRRM instrumentation report.
- Perform vegetation control.

Terminus Dam, Lake Kaweah, CA

Authority: Flood Control Act of 1944

FY 2012 Budget Request (000's): \$1,589

Project Description: The project is located on the Kaweah River about 20 miles east of Visalia, and comprises an earth fill dam with a height of 200-feet, with an auxiliary earth fill dam 130-feet-high and fuse gates adjacent to the left abutment of the dam, creating a reservoir with a storage capacity of 185,630-acre-feet. The project is located in Tulare County. The Terminus Dam controls releases for farming irrigation in the central valley. It also reduces export burden on delta from agriculture needs. Lake Kaweah is connected to the Kern Friant Canal delivering water through Cross Valley Canal to California Aqueduct for consumptive use.

Current Status: The total FY 2012 budget is \$2,466,000 to support flood risk management, environmental stewardship and recreation activities. \$1,589,000 for flood risk management activities is directly related to the Bay Delta for routine required dam operations and maintenance. Terminus Dam controls releases for farming irrigation in the central valley and reduces export burden on delta from agricultural uses. Lake Kaweah is connected to the Kern Friant Canal delivering water through Cross Valley Canal to California Aqueduct for consumptive use. Operations includes: limited execution of gate operation, dam safety and post earth quake inspections, emergency actions, monitoring instrumentation, data collection, Water Management, Real Estate compliance and out-grant inspections. Funding also includes initiation of several interim risk reduction measures. Maintenance includes: limited critical maintenance, repairs to major equipment, embankment, fire suppression, security system, heating, ventilation and air conditioning, vegetation control, and Water Control Data Systems modifications.

Key Milestones:

- Prepare dam safety and post earthquake inspection reports.
- Maintain Water Control Data.
- Perform vegetation control.

FISCAL YEAR 2012

US GEOLOGICAL SURVEY

Habitat Restoration

Interagency Ecological Program

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

FY 2012 Budget Request (000's): \$505

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 measuring within-Delta salt and water transfers and Delta outflow into the Bay, providing information needed for documenting salt transport mechanisms and managing freshwater flow to meet salinity standards. These studies also include areas in Suisun Marsh and South San Francisco Bay, as well as measuring temperature and suspended sediment at the entrance of the San Joaquin River into the Delta and special scientific studies of flows and turbidity in the Cache Slough and Liberty Island area.

Also begun in FY2010 was the addition of 16 flow stations and 14 turbidity sensors, associated with some of the added flow stations, to monitor and assess turbidity patterns and intensities in the Delta. These data may be used to compare to occurrences of Delta smelt in an attempt to collect information relating Delta smelt migration to turbidity. This is only a first step toward better understanding these processes. FY2011 will see the implementation of a study specifically designed to test the hypothesis that an increase in turbidity is the signal that triggers the migration of smelt and that smelt do move with the turbidity plumes.

Current Status: The hydrodynamic flow and salinity stations funded by the IEP are an integral part of the entire flow network for the Delta. This data from this flow network are used in real-time decisions by water operators to divert water from the Delta to other parts of California (south and parts of the greater San Francisco bay area). More than 25 million Californians drink water originating from the Delta and this water is used to irrigate millions of acres of agricultural lands. The importance of this network also plays a key role in the ongoing attempt at assessing the migration patterns of threatened and endangered fish species in the Delta (salmon, pelagic organisms, etc.), and provides the framework for understanding the physical, chemical and biological interactions in the Delta, necessary information for solving the complex ecological and water supply issues in the Delta. The addition of the turbidity-flow data collection is focusing on the potential relationship (hypothetical) between turbidity movement and smelt migration. The study mentioned above to explicitly assess the smelt-turbidity relationship currently is being discussed and planned for implementation next year.

Related activities include studies of flow and salt transport in the central and south Delta, and Suisun Marsh, and flow and turbidity fields in relation to phytoplankton and Delta smelt in the northern Delta.

Lead Scientist

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

FY 2012 Budget Request (000's): \$712

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, seeks to provide the best possible unbiased scientific information to inform water and environmental decision-making in the Sacramento-San Joaquin Delta. The Science Program 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. This is carried out through funding research, synthesizing and communicating scientific information to policymakers and decision-makers, promoting independent scientific peer review, organizing and running public workshops on science topics of interest and coordinating with Delta agencies to promote science-based adaptive management.

The Lead Scientist works with the CALFED Science Program staff, the CALFED Independent Science Board, CALFED implementing agency managers and 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 CALFED agency managers, stakeholders, scientific community and the public.

Current Status: The Lead Scientist and Staff are in place. In the period covering October 2009 through September 2010, accomplishments of the program included:

- Preparation for funding scientific research projects, approximately \$8.0M, through the Science Program 2010 Proposal Solicitation Package (PSP);
- Communication of scientific information via public workshops:

- Ecosystem Restoration - provided information and guidance for large-scale ecosystem restoration efforts in the North Delta and Suisun Marsh by soliciting input from a panel of outside experts familiar with large-scale river floodplain and estuarine restoration.
 - Delta Fish Management Toolbox Review – provided a forum to achieve a common understanding of the management tools available for implementing the FWS’s biological opinion on the Coordinated Operations of the Central Valley Project and State Water Project and National Marine Fisheries Service’s biological opinion on the Long-Term Central Valley Project and State Water Project Operations Criteria and Plan;
- Promotion and coordination of independent scientific peer reviews:
 - FWS Habitat Study Group – expert review of conceptual model and study plan relating to the effects of State and Federal water projects on the delta smelt and its habitat in the fall.
 - VAMP – an independent panel will review the science generated by the Vernalis Adaptive Management Plan and make recommendations for how this science should be used to inform changes to the 2006 Bay-Delta Plan;
- Communication and coordination with State and Federal partners in the transition from the CALFED Bay-Delta Program to the Delta Stewardship Council, which includes the transition of the CALFED Science Program to the Delta Science Program, as designated by California legislation;
- Identified, recommended and appointed a 10 member Delta Independent Science Board to provide oversight for all scientific research, monitoring and assessment programs in the Delta;
- Preparation for the 6th Biennial Bay-Delta Science Conference highlighting regional science results. The conference, entitled *Ecosystem Sustainability: Focusing Science on Managing California’s Water Future*, is scheduled for September 27-29, 2010;
- Communication of scientific information resulting from Science Program funded research via public seminars and Science Program publications. Continued improvement and enhancement of bimonthly *Science News* to communicate science for the public and decisionmakers; and
- Continued support of the electronic journal, *San Francisco Estuary and Watershed Science* (http://escholarship.org/uc/jmie_sfews) for peer-reviewed publication of research on the Bay-Delta and watershed ecosystems.

Place-based study of SF Bay

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

FY 2012 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 watershed and Delta through Suisun Bay to South Bay and the Golden Gate dealing with climate change, hydrodynamic processes, sediment budgets, contaminant and ecological processes. The information and knowledge produced is integral to the developing understanding of wetland management and restoration, salt pond reclamation, salinity control and the success of native fish and their 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 2012 Budget Request (000's): \$465

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 2012 Budget Request (000's): \$581

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.

FISCAL YEAR 2012

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Renewed Federal State Partnership

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 2012 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.

Current Status: NOAA Fisheries is coordinating with other CALFED agencies to implement the Delta Vision Strategic Plan, a product of the Governor's Delta Vision Blue Ribbon Task Force. This coordination has focused on identifying existing governance structures and opportunities for integrating CALFED, Delta Vision implementation, and other planning efforts that are underway in the Delta, including the development of the ERP Conservation Strategy.

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 2012 Budget Request (000's): \$75

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 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. NOAA Fisheries is one of nine agencies with IEP implementation responsibility and participates at nearly all levels of the IEP structure, including the Director and Coordinator levels.

Smarter Water Supply and Use

Water Operations Oversight and Coordination

Authority: Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.)

FY 2012 Budget Request (000's): \$1,150

Project Description: On June 4, 2009, NOAA Fisheries issued its biological opinion on the long-term operations of the CVP and SWP. USBR and the DWR are implementing the Opinion in consultation and coordination with NOAA Fisheries.

Current Status: NOAA Fisheries staff is assisting USBR and DWR in the implementation of NOAA Fisheries' OCAP Opinion, including ongoing reviews of operations forecasts, participating on new technical teams, and assisting in adaptive management decisions regarding real time operations within the sideboards of the OCAP Opinion. Some of the RPA actions require NOAA Fisheries technical review of new studies and monitoring stations. Following the issuance of the OCAP Opinion, NOAA Fisheries expects future ESA section 7 consultations on infrastructure projects, long-term water contracts, fish screens, temperature control structures, and fish passage above dams.

As a result of completing one of the most complex and controversial biological opinions ever achieved by NOAA Fisheries, staff continue to respond to Freedom of Information Act requests, new and old allegations regarding the science used in the biological opinion, Court mandated deadlines and processes, etc. A handful of biologists are often required to reply to dozens of scientific experts hired by plaintiffs.

Habitat Restoration

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 2012 Budget Request (000’): \$ 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 of 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 2012 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 review and comment 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 concerns.

FISCAL YEAR 2012

ENVIRONMENTAL PROTECTION AGENCY

EPA support of the Interim Federal Action Plan is comprised of four programs:

The San Francisco Bay-Delta Estuary program is aimed at protecting and restoring water quality and ecological health of the estuary through partnerships, interagency coordination, and project grants. The FY2012 request includes \$5 million to continue a competitive grant program to implement projects that improve water quality and restore habitat in San Francisco Bay watersheds.

The National Estuary Program will provide \$600,000 in support of the San Francisco Estuary Partnership's implementation of their Comprehensive Conservation and Management Plan (CCMP), including activities to address water quality impairments and habitat loss.

EPA's State Revolving Funds (SRFs) provide capitalization grants for state loan programs for water and wastewater infrastructure, with specific projects identified at the state and local levels. The estimated amounts (\$45.9 million for the Clean Water SRF and \$38.5 million for the Drinking Water SRF) are based on a projected distribution of California's total SRF allocation.