Information Subject to Revision
May 9, 2007

CALFED Bay-Delta Program

Ecosystem Restoration Program Plan Year 8 and Year 8 Annotated Budget (State FYs 2007-08; Federal FY 2008)

Implementing Agencies:
California Department of Fish & Game
United States Fish & Wildlife Service
NOAA's National Marine Fisheries Service

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CALFED BAY-DELTA PROGRAM

Program Plan Organization

The California Bay-Delta Authority Act requires implementing agencies to develop an annual program plan and proposed budget for the following budget year describing how each implementing agency proposes to carry out their respective program elements during the following year. Each program plan and proposed budget must include program priorities, work plans, proposed budgets, and significant program products.

The context for the ERP plan is one of consistency amid transition and uncertainty. The primary focus of this Program Plan is Table 1, Year 7 Activities and Projected Year 8 Activities. This table records the ERP's priorities carried over from last year's plan, and includes information about what happened in Year 7 and what is planned for Year 8. These priorities are based on the goals, objectives, and targets for the CALFED Bay-Delta Program (Program) that were identified in the Ecosystem Restoration Program Plan (2000) Volumes I, II. In Years 6 and 7, activities were prioritized as a result of current issues such as the declining Delta pelagic species. Year 8 will include priority projects delayed from Year 7, as well as habitat restoration and monitoring projects.

Year 7 marks the end of seven years of Stage 1 of CALFED. Activities which were accomplished by ERP before December 31, 2007 will be reviewed during Years 7 and 8. The results of this review will help to define the priorities for Year 8, as defined below under "ERP Planning for Stage 1 and Stage 2 Activities".

This program plan serves as the vehicle to meet the above-stated requirements, which includes the annual planning and budget document known as the Annotated Budget for implementing the Single Blueprint for Ecosystem Restoration (referred to as the Single Blueprint document). The years referred to in this document, e.g., Year 8, correspond with the State fiscal year (July to June) beginning with the year the Record of Decision was signed (2000-2001 State fiscal year, or Year 1); the Federal fiscal year is October to September.

A partial list of other efforts include:

10 Year Action Plan— HCP/NCCP. In 2005, Program underwent an extensive review by the Little Hoover Commission, the California Department of Finance and KPMG, an independent management agency. As a result of the three reviews, the state Administration developed a 10-Year Action plan, which outlines the efforts to refocus the Program to meet the State's integrated resource management needs. As part of negotiations on the 10-Year Action Plan, water users, environmental groups and regulatory agencies sought a new approach for managing environmental regulatory requirements for the Delta. Through a voluntary process, water users who must comply with the California and Federal Endangered Species Acts regarding on-going operations of water projects are working cooperatively to prepare a Habitat Conservation Plan under Section 10 of the Federal Endangered Species Act and Natural Communities Conservation Plan under the California Endangered Species Act (HCP/NCCP). This HCP/NCCP, known as the Bay-Delta Conservation Plan (BDCP), would serve as a strategic plan for guiding restoration efforts in the Delta, while allowing water projects to move forward.

However, conservation actions identified by the BDCP are only a subset of conservation actions identified by the broader ERP conservation strategy currently being revised by the ERP implementing agencies.

- Transition from California Bay-Delta Authority (CBDA) to the Department of Fish and Game (DFG) as lead State Implementing Agency. For the first four years of the Program, the ERP was managed by CBDA staff; statutorily, DFG was named as the State Implementing Agency for the ERP and was made responsible for its management. CBDA and DFG staffs worked to seamlessly transition management and decision making responsibilities to DFG. Beginning July 1, 2006, DFG, US Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS) (referred to as the ERP Implementing Agencies), in coordination with CBDA, have full responsibility for the day-to-day management and administration of the ERP.

- End of Stage 1 Decisions. Ten years ago the Program was established to address and resolve long-standing disputes over California water management and its impacts. The Program represents an unprecedented effort to build a framework for Federal and State multi-agency coordination. After years of public hearings, two draft programmatic environmental documents, and the CALFED Multi-Species Conservation Strategy (MSCS), the final Programmatic Environmental Impact Statement/Report and Record of Decision (ROD) were certified and signed in July and August 2000, respectively. As stated in the 10 Year Action Plan:

> Both the PEIS/R and ROD pointed out that the Program had a 30-year time horizon, and because of that time frame, the approach would be one of staged implementation and decision-making. This strategic approach would allow decision makers to actively and adaptively manage the water resources by incorporating knowledge developed through research, project implementation, and monitoring. The adaptive management approach was selected to underscore the idea that while the Program's objectives are fixed over time, the actions may be adjusted to assure a durable solution even as conditions change, and as more is learned about the system and how it responds.
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> As documented in the PEIS/R and ROD, the CALFED Agencies agreed that the first stage (Stage 1) would last seven years, after which a series of questions would be answered in order to collectively and collaboratively determine the activities for the Program's next stage. As stated in the Implementation Plan, "Stage 1 actions are subject to revision, including modification, deletion, or addition of individual actions, based upon information developed during program implementation; available resources, including funding and personnel; and logistical considerations." Some Stage 1 actions, along with other actions identified in the PEIS/R, were summarized and highlighted in the ROD and became collectively called "ROD Commitments." [Those actions characterized as ROD Commitments are a subset of actions listed in the larger PEIS/R document and are not limited to the Stage 1 timeframe; ROD Commitments apply to the 30-year Program.] ROD Commitments and Stage 1 actions do not focus on the same proposed actions, although there is some duplication; Stage 1 decisions are to be based upon the results of Stage 1 actions and ROD actions.
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> Implementation of Stage 1 actions and ROD Commitments were hampered by state and federal budget shortfalls and staff reductions, resulting in delays in carrying out the anticipated actions. Contracting difficulties sometimes led to missing critical timeframes and therefore added more delay to initial project implementation.

Stage 1 decisions are those which need to be made in order for policy-makers to determine the next steps for the CALFED Program, including the ERP. As stated in the ROD, certain assumptions were

in place in 2000 regarding funding, however, the anticipated level of funding did not occur and various factors affected carrying projects forward on the original time lines.

As stated in the 10 Year Action Plan, the Stage 1 decisions are:

- What additional actions are needed to achieve the drinking water quality goals?
- What is an appropriate scope for the ERP and related actions so the regulatory commitments can be extended beyond December 2007?
- Should the screened Sacramento River diversion be built or should alternatives to the Through-Delta conveyance be reconsidered?
- Should surface storage facilities be constructed?
- Is a new approach needed to reduce Delta levee risks?

- Milestones. In 2004, the Program completed a mid-Stage 1 assessment of progress towards achieving the milestones, a discrete set of ERP actions focused on contributing to recovery of endangered and threatened species. The implementing agencies determined that the Program was making sufficient progress towards achieving the milestones and agreed to extend both the Environmental Water Account (EWA) and the Conservation Agreement regarding the Program's Multi-Species Conservation Strategy (MSCS) to the end of Stage 1 (December 31, 2007).

  In their letters to the Program, both USFWS and NMFS listed milestones and other efforts that they would like to see additional work during the remainder of Stage 1. The agencies also requested that the Program report annually about the continued progress toward achieving the milestones and addressing the other issues. Milestone reports were completed in 2005 and 2006.

- PSP: Assisting Farmers in Integrating Ecosystem Restoration Activities. In 2005, ERP solicited project proposals for grants to assist farmers in integrating agricultural activities with ecosystem restoration. The ERP has approximately $15 million for these grants. There were 76 grant applications submitted. After administrative, technical and scientific review, the Selection Panel made its initial recommendations in July 2006. After public comments were reviewed, the Selection Panel made its final recommendations in fall 2006. Eight projects were selected and funded and three would be reconsidered if revised. These projects were contracted in 2007. The proposals and the Selection Panel's recommendations are available online at:
  http://www.delta.dfg.ca.gov/erp/grants_opportunities_2005_initial_recommendations.asp

- Delta Vision Process. Also in 2005, Assembly Bill 1200 (Laird) was enacted, which requires a report to the Legislature by January 1, 2008, that identifies, evaluates and comparatively rates principal options to carry out certain objectives for the Delta or the Sacramento and San Joaquin Rivers. To accomplish this, the Department of Water Resources and DFG were directed to study specific issues such as subsidence, earthquakes, floods, climate change, sea level rise and salmon restoration. The process by which this report will be written has been dubbed the "Delta Vision Process," which will encompass and integrate many of the ongoing but separate planning efforts for the Delta and Suisun Bay and Marsh (Delta-Suisun).

  The final scope of the report is still being discussed, but at the time of this program plan, the focus of the Delta Vision Process and resulting report is to analyze the risks and consequences of several scenarios, including "business as usual," regarding the many uses and resources of the Delta-Suisun. In particular,

this analysis will look at the risks and consequences in light of changing climatic, hydrologic, environmental, seismic, and land use conditions. The Delta Vision report will include:

1. Ecosystem functions and biodiversity, aquatic and terrestrial flora and fauna
2. Land use and land use patterns, agriculture, urbanization, and housing
3. Transportation, streets, roads, highways, waterways and shipping channels
4. Utilities, aqueducts, pipelines, and gas and electricity transmission corridors
5. Water supply and quality, municipal and industrial discharges, and urban and agricultural runoff

Many of the issues and options that will be addressed in the Delta Vision report are similar to those addressed in the ERP; therefore, information and actions developed and pursued by the ERP will be instrumental in developing the Delta Vision report. ERP planning and Delta Vision efforts will be coordinated closely.

Delta Risk Management Strategy (DRMS). The DRMS planning group, concurrent with the Delta Vision Process, is assigned to evaluate the potential risks and hazards to the Delta, including seismic effects, subsidence, flood analysis in light of climate change resulting from global warming, current levee conditions, and necessary improvements. Hydrodynamic analyses will address water circulation, residence time, temperature, tidal amplitude, tidal excursion, tidal mixing, tidal transport, and range. A consequences analysis will examine potential affects to ecosystem values, water supply, infrastructure, life and property, agriculture, navigation, recreation, and both the statewide and national economy in the event of levee failure. All of this will be evaluated using 50-, 100-, and 500-years projections. The final analysis and strategy will be integrated into the Delta Vision Process with the ultimate purpose of providing reliable water supplies, improving water quality, protecting and enhancing the ecosystem, preserving sustainable delta lands, protecting infrastructure, improving delta levees, and providing for public safety. The scheduled timeline is to have a Final Delta Vision Report and Final Panel Recommendations by January 2008.

Delta Regional Ecosystem Restoration Implementation Plan (DRERIP). The Delta Regional Ecosystem Restoration Implementation Plan (DRERIP) is one of four regional plans intended to guide the implementation of the CALFED Ecosystem Restoration Program (ERP) element. In 2007 and 2008, the Adaptive Management Planning Team (AMPT) was revitalized to include independent technical review as an integral part of the planning process. Efforts in Year 8 will include focused review workshops to vet Ecosystem models as they are completed.

ERP Planning for Stage 1 and Stage 2 Activities

ERP Years 7 and 8 will include review of certain activities during Stage 1 of CALFED, and planning and transition to Stage 2. Stage 1 of CALFED will end at the conclusion of Year 7. The 2000 programmatic biological opinions, PEIS/R and ROD stated that the Program's first stage (Stage 1) would last seven years. Following this first stage, a series of questions would be answered in order to determine the activities for the following stage (Stage 2). During Year 7, the ERP Implementing Agencies will evaluate progress towards the completion of certain activities. This review process will provide a basis for how ERP implementation may occur during Stage 2.

End of Stage 1 Review. The end of Stage 1 activities are those that ERP Implementing Agencies will accomplish by December 31, 2007. Work performed during Year 7 to evaluate the Stage 1 activities will include the following:

- Evaluation of Progress towards Achieving MSCS Milestones (Milestones Assessment). ERP implementing agencies developed 119 Milestones which include a list of ERP, Multi-species Conservation Strategy (MSCS), and Water Quality Program (WQP) actions the CALFED Program intended to implement during Stage 1 of CALFED. At the end of Stage1, the program will complete an assessment of the CALFED Program's compliance in achieving the conservation objectives established in the Milestones.

- Evaluation of the Ecosystem Restoration Program. The Ecosystem Restoration Program has initiated over 400 projects in support of the CALFED Bay-Delta Ecosystem Restoration Program. Goals and objectives for this program are described in Volumes I and II of the Ecosystem Restoration Program Plan and the Ecosystem Restoration Program Plan Strategic Plan for Ecosystem Restoration (July, 2000). This review of the entire ERP program will provide a broad ecological perspective of the ERP Stage 1 Activities.

- Evaluation of the Efficacy of the EWA. The EWA Agencies (FWS, DFG, Reclamation, and DWR) completed an evaluation of the efficacy of the EWA during the first four years of implementation, as required by the CALFED ROD. The EWA Agencies signed a MOU on September 30, 2004 to extend the EWA operating Principles and to continue implementing the EWA through December 31, 2007. During the end of Stage 1, the EWA Technical Review Panel will meet to conduct comprehensive review of the EWA Program. A final EIS/EIR will be completed for the Long-Term EWA in December 2007.

- Evaluation of Progress Towards Achieving Key Planned Actions. The CALFED Program programmatic biological opinions identify "Key Planned Actions" that the CALFED agencies would implement at the programmatic level. These Key Planned Actions will be evaluated at the end of Stage 1 to determine overall progress in implementing the CALFED Program.

- Evaluation of other ROD Actions. The 2000 Record of Decision (ROD) refers to other ERP actions that should be implemented in Stage 1. The ROD refers to the more than 600 actions in the

ERP Program Plan. This list of actions is not necessarily meant to be completed during Stage 1, but is a summary of actions for the 30-year program. The actions include 11 specific components for ecosystem restoration. The ERP will assess these commitments during the end of Stage 1 review.

Planning for Stage 2 Activities. The review activities completed during Stage 1 will help to inform the strategy for Stage 2. Additionally, the question of whether alternatives to through-Delta conveyance will be investigated will also have influence on the planning for Stage 2. Following the review activities completed in Stage 1, the ERP will begin transitioning and developing the Stage 2 strategy.

- Coordination with Other Planning Efforts. Several ongoing planning efforts in the Delta are concurrently taking place alongside ERP. These include the recently signed Executive Order to Develop a Strategic Vision for the Delta (Delta Vision), the Bay-Delta Conservation Plan (BDCP), the Pelagic Organism Decline Study (POD), the Central Valley Project and State Water Project Operations Criteria and Pan (OCAP) reconsultation, the Delta Risk Management Strategy (DRMS), and the Stage1-Stage 2 Planning for CALFED, including the Stage of the Science Report.

Year 7 Accomplishments and Projected Year 8 Activities

The ERP has over 100 ongoing major activities. Some new activities began in Year 7, while several others were projected to start during Year 7, but were postponed to Year 8 or later, depending upon available funding. There are more than 350 other projects that are in various stages of completion that were funded before Year 7; this report does not address all of these projects.

Table 1 lists Year 7 Activities and proposed Year 8 activities. Future project priorities will be guided by the outcome of existing efforts such as the Pelagic Organism Decline (POD) studies; the contractual process for projects selected through the 2004 Monitoring and Evaluation Proposal Solicitation Process (PSP); and the 2005 Assisting Farmers in Integrating Agricultural Activities with Ecosystem Restoration PSP. Projects which were delayed in the Year 7 contracting process will be given priority in Year 8. Other priorities will include Battle Creek habitat restoration, restoration and monitoring projects, and integrating agricultural activities with ecosystem restoration.

Unless otherwise indicated, the ERP projects and activities listed in Table 1 incorporate:

- Environmental Review: CALFED Action Specific Implementation Plan (ASIP), CEQA, NEPA, CESA, and FESA review
- Public Review. Each project has been subjected to one or more of these processes: the PSP, project specific environmental documentation process, the Ecosystem Restoration Subcommittee and Bay-Delta Public Advisory Committee meetings, specific workgroup and local stakeholder group meetings (i.e., Yolo Bypass Working Group) or workshops.
- Science Review. The ERP strongly emphasizes a science-based approach to ecosystem restoration and continues to integrate science into all program activities including: (1) collaborative actions with CALFED's Science Program; (2) direct involvement of the CALFED Lead Scientist in developing the project proposal review and project selection process; (3) technical and scientific review of project proposals; (4) support of scientific workshops and conferences; and (5) monitoring implementation results from project proposals and their contributions toward achieving the ERP objectives, including the MSCS/ROD milestones, and (6) updating conceptual models with newly developed information to be available for subsequent resource management decisions (adaptive management).
- Environmental Justice. Environmental Justice is an important implementation commitment of the ERP. The ERP maintains an extensive list of local agencies, tribes, and nonprofit organizations, including many representing economically disadvantaged communities, local agencies, communities and tribes are notified when the ERP Agencies receive proposals within their jurisdictions so they are aware and can provide comments if they choose to do so. Their comments are considered in grant recommendations. The ERP holds workshops to explain grant-making guidelines, criteria and processes in communities in its solution area and provides assistance to grant seekers through a toll-free telephone number and on-line materials.
- Farmland Conservation. The final Programmatic Environmental Impact Statement/Report (2000) outlines potential impacts to agricultural lands resulting from land acquisitions and restoration. Mitigation strategies are outlined in the programmatic environmental document (Section 7.1-2). These strategies include supporting the California Farmland Conservancy program in acquiring easements on agricultural land to prevent its conversion to urbanized uses and increase farm

viability. Also, restoring existing habitat as available would be a priority over converting agricultural land. Additionally, individual acquisition and/or restoration projects would be subject to environmental review and public comment through the California Environmental Quality Act (CEQA) process.

The activities listed in Table 1 describe actions ERP Implementing Agencies believe are the highest priority to maintain the Conservation Agreement's regulatory commitments through Stage 1 (December 2007) implementation of the CALFED ROD. Therefore, the priorities described in this program plan are focused on specific actions accomplished in Year 7 and projected for Year 8. The ERP Implementing Agencies relied on the ERP Strategic Plan, the ERP Draft Stage 1 Implementation Plan, and the ERP Milestones Assessment to develop the list of priority actions for Years 7 and 8. These actions were developed and organized to be responsive to the POD, the CALFED Bay-Delta Program 10-Year Action Plan, Delta Vision Process and Bay-Delta Conservation Plan, and the recommendations of the Little Hoover Commission. Activities listed in Table 1 are categorized as follows:

- At-Risk Delta Dependent Fish Species
  - Native Anadromous Fish
  - Non-Native Invasive Species
  - Delta Pelagic Fishes
- Multiple Species
- Mandated Programs
  - Central Valley Project Improvement Act contribution
  - Assistance to Farmers Integrating Agricultural Activities with Ecosystem Restoration
  - Mine Remediation and San Joaquin River Dissolved Oxygen Projects
- Staff

A note about the table format. The ERP Implementing Agencies chose to use a similar table format as the one used in last year's program plan but modified to display both prior year accomplishments and projected activities in the same table. This allows for an easier comparison and provides more continuity between annual program plans.

Terms Used in the Table. One of the challenges of the ERP as a cross-jurisdictional, multi-agency effort is finding and understanding terms used to describe ERP efforts; in some cases terms have a legal or regulatory meaning that is not the intended meaning by the ERP Implementing Agencies in their efforts to describe the ERP's activities. The definitions of the terms used in Table 1 are as follows:

Activity:	Refers to the project title and includes a brief description of the desired outcome from the project.
Year 7 Activities:	Lists the significant accomplishments related to the Activity that happened between July 1, 2006 and June 30, 2007.
Year 8 Activities:	Refers to efforts related to the Activity that are projected to take place between July 1, 2007 and June 30, 2008.
Year 8 Projected Costs:	Refers to the best projection of how much funding will be granted, allocated, contracted, or spent and staff resources allocated between July 1, 2007 and June 30, 2008 for the Activity.
Funding Source:	Lists the source of funding for the Activity, if known; e.g., State, Federal, or Water User.

Agencies:	Agencies that will ensure that the Activity is carried out.
Milestones:	The ERP-MSCS Milestone numbers which this Activity is meant to help address.
Task Category:	Refers to the category that the Activity represents. There are five task categories: Planning, Research, Implementation, Education, and Monitoring.

Table 1. Year 7 Activities and Projected Year 8 Activities

At-Risk Delta Dependent Fish Species

Native Anadromous Fish

Activity: Determination of Age Structure and Cohort Reconstruction of Central Valley Chinook Salmon. This project will determine the age structure of each population of Central Valley Chinook salmon through scale analysis. Age data will be used in combination with coded-wire tag recovery data to build cohort reconstructions for each year, and estimate population parameters for development of a full life cycle model for each Chinook run.

Year 7 Activities: Contract was executed. Initial activities on this project will consist of purchasing equipment, and beginning scale analysis.

Year 7 Cost: $637,412

Year 8 Activities: Continue scale analysis.

Year 8 Projected Cost: Project funded in Year 7.

Funding Source: Prop 50

Agencies: DFG, Pacific States Marine Fisheries Commission

Milestones: 119

Task Category: Monitoring and Research - Directed Action

Activity: Battle Creek Habitat Restoration Project: Phase 1 of implementation and construction

The Battle Creek Salmon and Steelhead Restoration Project would restore approximately 42 miles of historical anadromous fish habitat in Battle Creek, and an additional 6 miles of habitat in its tributaries. Components of the project include:

- Removal of 5 diversion dams that would have marginal power production value after their releases are adjusted to meet streamflow needs below the dams,
- Installing fish ladders at 3 diversion dams and screening their associated diversions,
- Increasing flow releases from all remaining diversion dams affecting anadromous fish on Battle Creek,
- Direct connection of powerhouse tailraces to power canals to eliminate redundant screening requirements, flow fluctuations associated with powerhouse operations, and false attraction of returning fish to powerhouse tailraces containing a mixture of waters from different basins.

Year 7 Activities: Year 7 represents Phase I of the total $74,000,000 project, which will be implemented in several phases. ROD anticipated in summer 2006; habitat restoration scheduled to begin in September 2006; this is a multi-year implementation project delayed because of a revised EIS/EIR, access issues, and contracting delays

Year 7 Cost: $74,500,000

Year 8 Projected Cost: Project funded in Year 7.

Funding Source: Prop 50, WCB, Benicia-Martinez Bridge Mitigation Funds, Iron Mountain Mine

Agencies: USBR, USFWS, DFG, NMFS

Milestone(s): 57, 62, 64, 66, 67 69

Task Category: Implementation

Activity: Coleman Intake Screens. Water intake structures at the Coleman National Fish Hatchery are currently either unscreened or poorly screened and therefore do not meet current criteria for fish screening/protection as prescribed by NOAA Fisheries and DFG. Properly screening and/or modifying the intakes will avoid the the loss of naturally-produced outmigrating salmon and steelhead juveniles through impingement or entrainment and is an important step in the overall restoration of Battle Creek.

Year 8 Activities: Installing intake screens.

Year 8 Projected Cost: $5,000,000

Funding Source: Unknown

Agencies: USBR, USFWS

Milestone(s): 69, 72

Task Category: Implementation

Activity: Butte Creek Spring-Run Chinook Salmon Life History Investigation (2004 Monitoring PSP). The project continues to monitor spring-run Chinook salmon and steelhead trout populations in Butte and Big Chico creeks to evaluate the effectiveness of many anadromous fish restoration projects in the two watersheds and to develop better information on these species' life histories.

Year 7 Activities: The California State University, Chico Research Foundation (Grantee) was awarded funding pursuant to the Multi-Year Program Plan dated August, 2004, authorized by DFG and California Bay-Delta Authority for the Butte Creek Spring-Run Chinook Salmon Life History Investigation.

This project has three major focus areas: (1) juvenile monitoring, (2) juvenile marking (coded-wire tagging), and (3) adult escapement. Specific objectives of this project are to:

- Monitor and document juvenile size at emigration;
- Develop a measure of juvenile relative abundance;
- Determine spawner escapement;
- Determine age at spawning;
- Determine contribution to, and impacts of, ocean and sport harvest
- Develop estimates of straying from and to other watersheds.

Year 7 Cost: $513,281

Year 8 Activities: Continue and implement monitoring activities

Year 8 Projected Cost: Project was funded in Year 7

Funding Source: Prop 50

Agencies: CSU Chico, DFG

Milestone(s): 112, 119

Task Category: Monitoring and Research - Reconsider if Revised (Implementation Year 6)

Activity: Clear Creek Anadromous Salmonid Monitoring Program (2004 Monitoring PSP) This project is a comprehensive salmonid monitoring program that will evaluate restoration actions and inform adaptive management of Clear Creek. The U.S Fish and Wildlife Service – Red Bluff will provide 5 of 12 elements of a Projected comprehensive salmonid monitoring program. This will provide feedback for the adaptive management and evaluation of restoration actions of the Clear Creek Restoration Program and B2 Water Program.

Year 7 Activities: In addition to program management, this project includes 4 fisheries monitoring tasks: (1) annual escapement estimates, spawning area mapping, and installation, operation and monitoring of a picket weir; (2) estimates of juvenile salmonid production and condition factor of salmonids; (3) habitat use by juvenile Chinook salmon of restoration project, and (4) habitat preferences of juvenile salmonids.

Year 7 Projected Cost: $1,974,068

Year 8 Activities: Continue and implement monitoring activities

Year 8 Projected Cost: Project was funded in Year 7

Funding Source: Prop 50

Agencies: USFWS

Milestone(s): 112, 119

Task Category: Monitoring and Research - Reconsider if Revised (Implementation Year 6)

Activity: Lower Clear Creek Anadromous Salmonid Monitoring Program (2004 Monitoring PSP) This project is a comprehensive salmonid monitoring program that will evaluate restoration actions and inform adaptive management of Clear Creek. The U.S Fish and Wildlife Service – Red Bluff will provide 5 of 12 elements of a Projected comprehensive salmonid monitoring program. This will provide feedback for the adaptive management and evaluation of restoration actions of the Clear Creek Restoration Program and B2 Water Program.

Year 7 Activities: In addition to program management, this project includes 4 fisheries monitoring tasks: (1) annual escapement estimates, spawning area mapping, and installation, operation and monitoring of a picket weir; (2) estimates of juvenile salmonid production and condition factor of salmonids; (3) habitat use by juvenile Chinook salmon of restoration project, and (4) habitat preferences of juvenile salmonids.

Year 7 Cost: $1,308,448

Year 8 Activities: Continue fisheries monitoring tasks.

Year 8 Projected Cost: Funded in Year 7

Funding Source: Prop 50

Agencies: USFWS

Milestone(s): 112, 119

Task Category: Monitoring and Research - Reconsider if Revised (Implementation Year 6)

Activity: Lower Clear Creek Floodway Rehabilitation Project (Phase 3B). Clear Creek restoration continues to implement Chinook salmon and steelhead habitat enhancement projects through partnerships with local landowners, public and private agencies, and universities. Restoration activities focus on channel restoration, adding spawning gravel, and erosion control. This project combines two projects \from the Year 6 ERP MYPP (FY 2005-06): Clear Creek Restoration for $3,800,000 and Clear Creek Headcut Only for $1,500,000. Together they are the "Phase 3B" project for a reduced amount of $3,482,451. Phase 3B includes project implementation - channel modification, revegetation, and monitoring of project success. Phase 3B was modified and reduced from the original budget by removing the fish monitoring and removing/modifying some of the other tasks (such as mercury monitoring, which was completely removed).

Year 7 Activities: (1) Re-establish an alternate bar morphology in the Mining Reach, including riffles, exposed gravel bars, and deep pools; (2) Design the channel dimensions allowing coarse sediment to route through the reach; (3) Design floodplains to begin to allow fine sediments transported in suspension to deposit on floodplain surfaces; and (4) Promote natural channel migration across the floodway.

Year 7 Projected Cost: $3,482,000

Year 8 Activities: Re-create floodplain micro-topography. Revegetate selected channels with native riparian vegetation; and monitor geomorphology, fisheries, riparian vegetation and avian species to determine project success.

Year 8 Projected Cost: $1,047,000

Funding Source: Prop 204, Ch 7, Prop 50

Agencies: DFG, USFWS

Milestone(s): 54, 58, 62, 64

Task Category: Implementation

Activity: Interim Adult Central Valley Steelhead Monitoring Project. The project scope is intended to describe a critically needed population assessment regarding the Central Valley steelhead ESU. The goal of this effort is to obtain a snapshot of adult Central Valley steelhead abundance, spatial distribution, and age composition during the 2007 and 2008 sampling seasons to provide baseline abundance information prior to implementation of Central Valley-wide salmonid monitoring efforts funded by ERP in the future. In addition, this effort will be comparable to trends documented by Hallock *et al*. (1957) and used to evaluate relative population abundance changes since his work in the early-1950s.

Year 8 Activities: Activities in 2007 will start with site reconnaissance and sampling design, wire fyke trap construction, capture and release, and scale collection and aging. A final report and data set will be delivered at project's end.

Year 8 Projected Cost: $514,000

Funding Source: Unknown

Agencies: DFG, NMFS, USFWS

Milestone(s): 112, 119

Task Category: Monitoring and Research

Activity: The M&T/Llano Seco Fish Screen Facility - Short-term/Long-term Protection Project. This project involves developing a long-term solution for protecting operations of the M&T/Llano Seco diversion pumps. River meander and sediment deposition continues to threaten operations and safety of the pumping facility, which supplies water to farmland and USFWS and CDFG refuge lands. This funding will support studies to develop a long-term solution.

Year 7 Activities: Initiate studies and work to develop and reach consensus on preferred alternatives and solution for river meander at the site. Sediment deposition causes ineffective operation of the ERP-funded fish screen facility.

Year 7 Cost: $500,000

Year 8 Activities:

Year 8 Projected Cost: $12,000,000

Funding Source: Prop 50 (Year 7). Unknown (Year 8)

Agencies: DFG

Milestone(s): 112, 119

Task Category: Planning

Activity: San Joaquin Basin Monitoring. Monitor status and trends of salmonids in Stanislaus, Tuolumne and Merced rivers.

Year 7 Activities: This project will monitor salmonids in three rivers. The scope for this project is currently under development.

Year 7 Cost: $2,250,000

Year 8 Activities: Continue monitoring activities

Year 8 Projected Cost: Funded in Year 7

Funding Source: Unknown

Agencies: DFG

Milestone(s): 119

Task Category: Monitoring and Research

Activity: Rim Dam fish passage evaluation. Evaluate salmonid passage feasibility above the rim dams of the Central Valley.

Year 8 Activities:

Year 8 Projected Cost: $1,000,000

Funding Source: Unknown

Agencies: NOAA Fisheries

Milestone(s): 67, 72

Task Category: Planning

Activity: Implementation of a Constant Fractional Marking/Tagging Program for Central Valley Hatchery Chinook Salmon. Implementation of a Constant Fractional Marking (CFM) Program for fall-run Chinook salmon at Central Valley hatcheries. CFM plan developed by the IEP Central Valley Salmonid Project Work Team. Equipment purchase could be accomplished through a Purchase option.

Year 7 Activities: Procure equipment and build tagging trailers. Mark and tag salmon.

Year 7 Cost: $6,775,918

Year 8 Activities: Continue marking and tagging salmon.

Year 8 Projected Cost: $2,000,000

Funding Source: Prop 50 (Year 7), Unknown (Year 8)

Agencies: DFG

Milestone(s): 112, 119

Task Category: Implementation

Activity: Development of a Comprehensive Central Valley Steelhead Escapement Monitoring Plan.
The Central Valley Steelhead Monitoring Plan will be a comprehensive plan for steelhead population monitoring that, when implemented, will provide the data necessary to assess whether or not restoration and recovery goals are being achieved, and to improve management of the species.

Year 7 Activities: Review existing programs to determine data gaps. Complete coded wire tag recovery.

Year 7 Cost: $367,888

Year 8 Activities: Continue Year 7 activities. Develop revised monitoring plans and cost estimates.

Year 8 Projected Cost: Funded in Year 7

Funding Source: Prop 50

Agencies: DFG, NMFS, Pacific States Marine Fisheries Commission, USFWS

Milestone(s): 112, 119
Task Category: Monitoring and Research - Directed Action

Activity: Development of a Comprehensive Central Valley Adult Chinook Salmon and Steelhead Escapement Monitoring Plan. The Central Valley Chinook Salmon Escapement Monitoring Plan will be a long-term comprehensive plan designed to estimate population status and trends in abundance of adult Central Valley salmon in a statistically valid manner. Development of the plan will include review of existing monitoring programs, and development of revised programs including escapement estimation, coded-wire tag recovery, aging programs, and a coordinated data management and reporting system.

Year 8 Activities: Review existing programs to determine data gaps. Complete coded wire tag recovery. Develop revised monitoring plans and cost estimates.

Year 8 Projected Cost: $373,349

Funding Source: Prop. 84

Agencies: DFG, NMFS, Pacific States Marine Fisheries Commission, USFWS

Milestone(s): 112, 119

Task Category: Monitoring and Research - Directed Action

Activity: Estimating the Abundance of Sacramento River Juvenile Winter Chinook Salmon with Comparisons to Adult Escapement (2004 Monitoring PSP). The project, selected through the 2004 Monitoring PSP, will monitor juvenile winter-run Chinook passing the Red Bluff Diversion Dam to obtain juvenile winter-run Chinook production indices and to correlate these indices with estimated escapement of these fish.

Year 7 Activities: There was a request for a time extension request : (1) allow continued rotary trap sampling while DFG contract issues are resolved and funding is made available, and (2) to use unspent funds from the current contract after June 30, 2006, to complete the final report. DFG awarded a contract to fund Red Bluff FWO Mainstem Juvenile Monitoring Program's rotary trap sampling operations for an additional three years.

Year 7 Activities: Rotary trap sampling at Red Bluff Diversion Dam; annual report production
Year 7 Cost: $ 2,282,630

Year 8 Activities: Continue trap sampling at Red Bluff Diversion Dam; provide annual report.
Year 8 Projected Cost: Funded in Year 7
Funding Source: Prop. 50
Agencies: DFG, USFWS
Milestone(s): 112, 119
Task Category: Monitoring

Activity: Juvenile Outmigrant Sampling. Juvenile outmigrant sampling needs include additional monitoring on the mainstem Sacramento River, discussed in meetings of the Interagency Ecological Program (IEP) Upper Sacramento River Monitoring and Juvenile Monitoring Project Work Teams. Monitoring will improve understanding of winter and spring-run Chinook salmon migration through the Sacramento River prior to entering the Delta.

Year 8 Activities: Monitoring on the Sacramento River

Year 8 Projected Cost: $300,000

Funding Source: Prop. 84

Agencies: DFG

Milestone(s): 112, 119

Task Category: Monitoring and Research

Activity: Juvenile Anadromous Salmonid Emigration Monitoring on the Sacramento River at the Glenn-Colusa Irrigation District (GCID) Fish Screen Bypass Channel (2004 Monitoring PSP). This project will continue an existing California Department of Fish and Game juvenile salmonid monitoring project located at the Glenn Colusa Irrigation District (GCID) diversion on the Sacramento River near Hamilton.

Year 7 Activities: Staff will be operating and monitoring rotary screw traps.

Year 7 Cost: $90,072.

Year 8 Activities: Continue operating and monitoring rotary screw traps.

Year 8 Projected Cost: Project was funded in Year 7.

Funding Source: Prop 50

Agencies: DFG

Milestone(s): 112, 119

Task Category: Monitoring and Research - Directed Action

Activity: Real Time Flow Monitoring in the Sacramento River System. Continue operation and maintenance of stations that monitor stream flows and water quality in four eastside Sacramento River tributaries where the CVPIA has purchased water to maintain instream flows for salmonids: Big Chico, Butte, Deer, and Mill creeks.. Long-term goals for this project include obtaining reach-specific flow and temperature measurements for each tributary and will: (1) provide a basis for current and future flow acquisitions and flow management, and (2) contribute to the recovery and future survival of anadromous fish populations in said tributaries. Measures of future success will include: (1) representation of flows using real-time telemetry and summarized in long-term database, (2) use of telemetry time series data for future flow acquisitions, and (3) spring-run Chinook salmon and steelhead populations in each tributary have recovered and long-term survival is insured.

Year 7 Activities: This project will operate and maintain 13 flow-monitoring stations with temperature sensors. The stations will monitor dedicated instream base flows for spring-run Chinook salmon and steelhead in 4 eastside Sacramento tributaries (Big Chico, Butte, Deer and Mill creeks) and provide a basis for additional future dedicated instream flow acquisitions.

Year 7 Cost: $330,000

Year 8 Activities: Continue operating and maintaining flow-monitoring stations.

Year 8 Projected Cost: Project was funded in Year 7

Funding Source: Prop 50
Agencies: DFG, DWR

Milestone(s): 66, 115
Task Category: Monitoring and Research - Directed Action

Activity: San Joaquin Basin-wide Temperature Model (data collection). DFG will collect, store and manage water temperature and meteorological data in support of Tri-Dam Project's original approved ERP grant to develop a Water Temperature Model on the Stanislaus River. This task includes expanded sampling on the Tuolumne and Merced rivers to develop a Basin-Wide Water Temperature Model. DFG will oversee water temperature data collection program for San Joaquin River Basin, which consists of deploying and downloading thermographs, conducting reservoir water temperature profiles, managing databases, and transferring water temperature data to computer modelers.

Year 7 Activities: Temperature collection protocols will be developed, temperature probes installed, and data collected.

Year 7 Cost: $781,000

Year 8 Activities: Continue data collection activities started in Year 7.

Year 8 Projected Cost: Project was funded in Year 7
Funding Source: Prop 50
Agencies: DFG
Milestone(s): 84
Task Category: Monitoring and Planning

Activity: San Joaquin Basin-wide Temperature Model (model development). This Directed Action represents an expansion of tasks for Tri-Dam's existing ERP project number ERP-02-P28 to support model development.

Year 7 Activities: This year will include a new contract for work with Tri-Dam. A model for San Joaquin basin temperatures will be developed.

Year 7 Cost: $716,054

Year 8 Activities: Continue model development

Year 8 Projected Cost: Project was funded in Year 7

Funding Source: Prop 50
Agencies: DFG
Milestone(s): 84
Task Category: Monitoring and Planning

Activity: Tuolumne River Restoration Monitoring (2004 Monitoring PSP). This project will monitor the effects on geomorphology, salmonids, and streamside habitats of four Tuolumne River restoration activities: gravel mining restoration, Special Run Pool 9 restoration, fine sediment management, and coarse sediment management.

Year 8 Activities: Scope under revision to include hypothesis-based monitoring, links to conceptual models, and post-project adaptive management. Project implementation includes monitoring of restoration activities and data collection.

Year 8 Projected Cost: $1,263,900

Funding Source: Prop 50
Agencies: DFG, Turlock Irrigation District

Milestone(s): 112, 119
Task Category: Monitoring and Research

Activity: RD 108 Combined Pumping Plant/Fish Screen Project. This project represents completion of the five-phase project to design and construct a state-of-the-art fish screen at Reclamation District 108's Wilkins Slough diversion facility on the Yuba River. The project entails consolidating three unscreened diversion facilities into one screened diversion. Currently, the three diversions total about 377 cfs; however, the consolidation will result in a more efficient land side irrigation system, thereby, requiring a maximum diversion rate of only 300 cfs to service the existing agricultural area. Construction of the project will eliminate entrainment of anadromous fish from the existing RD 108 diversions.

Year 7 Activities: Final engineering design completed and environmental compliance documentation completed. Initiation of construction of the RD108 Consolidation Fish Screen Project is anticipated in FY2007.

Year 7 Cost: $14,247,500

Year 7 Activities: Construction will continue through 2007 and 2008.

Year 7 Cost: Funded in Year 7

Funding Source: Prop 50

Agencies: RD 108

Milestone(s): 67, 72

Task Category: Implementation

Activity: Population Biology, Life History, Distribution, and Environmental Optima of Green Sturgeon
This project would conduct telemetric, physiological, reproductive, and genetic studies to provide state and federal agencies such as NMFS and the California Department of Fish and Game (CDFG) with information on the size of the population and its critical habitat within the Sacramento-San Joaquin watershed to inform the development of a recovery plan for the species.

Year 8 Activities: The distribution of spawning adults and juveniles will be continuously monitored using automated listening stations situated throughout the Sacramento River, Delta, and San Francisco Bay Estuary. The environment where adult green sturgeon are found to spawn will be characterized.

Year 8 Projected Cost: $969,071

Funding Source: Prop 84
Agencies: DFG
Milestone(s): 112, 119
Task Category: Monitoring and Research

Activity: USRB Winter Chinook Salmon Carcass Survey. The purpose of this project is to estimate the abundance of winter Chinook salmon spawners and to evaluate the winter Chinook propagation program at Livingston Stone National Fish Hatchery. The project will monitor the annual abundance, migration timing, spawning distribution and several life history characteristics of hatchery and natural winter Chinook salmon.

Year 7 Activities: Crews will search the entire river bottom for carcasses. Data will be collected and recorded including gender, spawing status, and condition. Carcasses will be marked, tagged, and biological samples will be collected from a subset of carcasses.

Year 7 Cost: $496,885

Year 8 Activities: Continue data collection and recording.

Year 8 Projected Cost: Funded in Year 7.

Funding Source: Prop 50
Agencies: DFG, USFWS, PSMFC
Milestone(s): 112, 119
Task Category: Monitoring and Research

Non-Native Invasive Species

Activity: Lake Davis Pike Eradication Project- Implementation DFG, in collaboration with the USFS, stakeholders and other agencies, will implement the proposed Lake Davis Pike Eradication Project.

Year 7 Activities: Implementation would start at the beginning of 2007 with the gradual reduction in Lake Davis water levels so that the target lake level is achieved by fall 2007. Access the following website for more detailed project information: http://www.dfg.ca.gov/northernpike/

Year 7 Cost: $11,470,742

Year 8 Activities: Project would conclude in Year 7.

Year 8 Projected Cost: Funded in Year 7.

Funding Source: Prop 50

Agencies: DFG, USFS

Milestone(s): 22

Task Category: Implementation

Activity: Lake Davis Pike Eradication Project- Planning Feasibility Phase DFG, in collaboration with the USFS, stakeholders and other agencies, is conducting the planning, completing the environmental documentation, and obtaining the permits needed to implement the Projected Lake Davis Pike Eradication Project. Other planning related activities include public outreach and enforcement will also be conducted. If a decision is made to proceed, implementation would start at the beginning of 2007. Access the following website for more detailed project information: http://www.dfg.ca.gov/northernpike/

Year 8 Activities: Monitoring after project implementation

Year 8 Projected Cost: $500,000

Funding Source: General Fund

Agencies: DFG, USFS

Milestone(s): 22

Task Category: Planning

Activity: Monitoring for Invasive Spartina Control in the San Francisco Estuary. This project's primary goal is to provide timely, high quality data regarding the location and extent of invasive Spartina. It will plan and rapidly implement cost-effective weed control measures and determine when site-specific and regional control objectives have been met. In addition, the Monitoring Program will provide accurate data on the status of endangered California clapper rails at the Spartina treatment sites, to allow Spartina control to be implemented with minimum adverse effects on rails. The project will monitor marsh areas treated to control Atlantic cordgrass and its approved monitoring grant hybrids to determine if treatment was effective. Annual regional surveys for nonnative cordgrasses in the San Francisco Estuary will also be included.

Year 7 Activities: Develop eradication and eradication success measurement protocols. Continued eradications within the 22,000 acre focus area.

Year 7 Projected Cost: $1,234,396

Year 8 Activities: Continue eradication and success measurement protocols.

Year 7 Projected Cost: Funded in Year 7

Funding Source: Prop 50, WCB

Agencies: CSCC and numerous local agencies and districts

Milestones: 39, 11

Task Category: Implementation

Activity: Arundo Donax Eradication and Coordination Program: Monitoring and Evaluation (2004 Monitoring PSP). This project will develop a protocol and data collection system to determine the success of Arundo eradication in northern California. The project is coordinating the eradication efforts of 10 participating regional entities and working with The Nature Conservancy on data collection and management for non-native invasions.

Year 7 Activities: Develop eradication and eradication success measurement protocols

Year 7 Cost: $111,071

Year 8 Activities: Continue eradication and measurement activities.

Year 8 Projected Cost: Funded in Year 7

Funding Source: Prop 50

Agencies: Sonoma Ecology Center, The Nature Conservancy

Milestones: 22, 38, 62

Task Category: Implementation

Delta Pelagic Fishes

Activity: Pelagic Fish Species Scientific Investigations (CMARP Phase III). Expansion of existing IEP aquatic monitoring activities necessary to measure indicators and performance measures to assess the effectiveness of the ERP on restoring aquatic resources. This will supplement the POD efforts described in the Pelagic Fish Species Scientific Investigations project. This project was formerly known as Aquatic Monitoring (IEP+).

Year 7 Activities: The Comprehensive Monitoring Program indicators and performance measures are currently under development. The San Francisco Estuary Institute will provide research assistance to Interagency Ecological Program Coordinators for the development of a long-term ecological monitoring program based on past work (e.g., Comprehensive Monitoring Assessment and Research Program (CMARP)) and existing monitoring programs to implement the CALFED Bay-Delta Program's aquatic monitoring mandates.

Year 7 Cost: $4,895,172

Year 8 Activities: Continue monitoring activities.

Year 8 Projected Cost: $5,000,000

Funding Source: Prop 50, Prop. 84

Agencies: DFG

Milestone(s): 112, 119

Task Category: Monitoring and Research

Activity: CMARP Phase III Technical Support. Contract with SFEI to develop conceptual models and associated science activities related to the POD effort.

Year 7 Activities: Contract negotiated and executed.

Year 7 Cost: $104,828

Year 8 Activities: Continue developing conceptual models.

Year 8 Projected Cost: Funded in Year 7

Funding Source: Prop 50

Agencies: DFG

Milestone(s): 112, 119

Task Category: Monitoring and Research

Activity: Blacklock Tidal Marsh Habitat Restoration. Restore tidal action to a 70 acre parcel of Blacklock Ranch in Suisun Marsh. Restore the Blacklock property to self-sustaining functioning brackish tidal marsh by restoring tidal action, reversing subsidence, and promoting establishment of native vegetation and a tidal marsh channel network appropriate to this location within the San Francisco Estuary. This project will contribute to CALFED's ERPP goal of restoring 5,000-7000 acres of tidal wetlands in Suisun Marsh.

Year 8 Activities: This project is funding selected parts of a DWR restoration project. Property purchase will be initiated. Restoration plans will be prepared. Restoration activities will continue to restore tidal action. Monitoring restoration areas for vegetation, salmonids, mercury and sediment will also continue.

Year 8 Projected Cost: $382,250
Funding Source: Prop 84
Agencies: DFG, DWR, USFWS
Milestone(s): 39, 40, 41, 42
Task Category: Directed Action

Activity: Restoration of Cullinan Ranch. Restoration of tidal marshes and sloughs.

Year 8 Activities: Scope is under development.
Year 8 Projected Cost: $3,500,000
Funding Source: Prop 84
Agencies:
Milestone(s): 39, 40, 41, 42
Task Category: Implementation

Activity: Suisun Marsh Property Acquisition and Habitat Restoration. Acquisition of lands in the Suisun Marsh suitable for tidal restoration. Approved through the 2002 Proposal Solicitation Process.

Year 7 Activities: Identify properties available for purchase. Complete appraisal process with advisory team. Initiate purchasing process. This project includes: 1) Site selection and containment surveys: 2) Property acquisition and land acquisition; and 3) Site selection and public notification.

Year 7 Cost: $1,046,400

Year 8 Activities: Continue property acquisition activities.

Year 8 Projected Cost: Funded in Year 7

Funding Source: Prop 50
Agencies: DFG, DWR, WCB, Suisun RCD
Milestone(s): 38, 39, 42
Task Category: Implementation

Activity: Monitoring Responses Of The Delta Smelt Population To Multiple Restoration Actions The San Francisco Estuary (2004 Monitoring PSP). This project will monitor delta smelt to discern how environmental conditions, including access to restored habitats, affect survival and population abundance.

The project will collaborate with the bay/delta-wide monitoring by the IEP and with local monitoring efforts at restoration sites to collect and archive delta smelt for analysis of vital characteristics affecting smelt distribution and abundance.

Year 7 Activities : Fish Sampling, growth analysis, histopathology, otolith analysis, bioassays, plankton sampling, gut analysis, reporting.

Year 7 Cost: $2,658,648

Year 7 Activities: Continue analysis and reporting.

Year 8 Projected Cost: Funded in Year 7

Funding Source: Prop 50

Agencies: IEP, DWR, DFG

Milestone(s): 112, 119

Task Category: Monitoring and Research - Reconsider if Revised (Implementation Year 6)

Activity: Delta Regional Ecosystem Restoration Implementation Plan (DRP). The DRP continues to refine the ERP planning foundation specific to the Delta region. Funding is for state and federal implementing agency and consultant support.

Year 7 Activities: (1) Updated the website for web-based products www.delta.dfg.ca.gov/erp, (2) Developed Ecosystem Element and Species Conceptual Models for habitats, processes, stressors, and species affected by the Pelagic Organism Decline (POD) and Bay-Delta Conservation Plan (BDCP), (3) Re-constituted the Science Advisors for the AMPT.

Year 7 Cost: $300,000
Year 8 Activities: Continue development and peer review of models, continue scientific vetting of the ERP-related actions and develop conservation strategies.

Year 8 Projected Cost: $300,000
Funding Source: Prop 50, Prop 84
Agencies: CBDA, DFG, NMFS, USFWS
Milestone(s): 1 – 37
Task Category: Planning - DFG Implementation and Program Support

Activity: Hamilton Airfield/Bel Marin Keys (BMK) Wetland Restoration. Restore San Pablo Bay tidal creeks and marshes by implementing the Hamilton Air Force Base - Bel Marin Keys Wetlands Restoration Plan. MSCS fish and wildlife will benefit from these habitats. The project will restore the former military airfield and adjacent California State Lands Commission areas to tidal wetlands and tributary habitats.

Year 7 Activities: Permits for wetland construction were received. The project initially planned to utilize dredge material to raise subsided areas to an elevation more conducive to colonization by emergent vegetation. However this strategy is being reevaluated due to the cost and availability of dredge material. FY 07 activities include awarding a bulk fill contract for seasonal wetland, continue site preparation through construction of South Levee and tidal wetland containment cells.

Year 7 Cost: $11,700,000

Year 8 Activities: Continue restoration activities and site preparation.

Year 8 Projected Cost: $10,000,000

Funding Source: Federal

Agencies: USACOE, SCC

Milestones: 39, 41, 42

Task Category: Implementation

Activity: Napa Salt Ponds Restoration. This project would implement the Napa salt marsh restoration project by restoring 10,000 acres of tidal creeks, marshes and managed ponds to this property to support anadromous and resident estuarine fish and wildlife, including endangered species, waterfowl, and shorebirds.

Year 8 Activities : Restore tidal exchange to Ponds 4 and 5. Continue monitoring impacts related to the restoration of tidal flows, redistribution of sediments and passive conversion to wetland habitat types.

Year 8 Projected Cost: $266,000

Funding Source: Prop 50, WCB

Agencies: DFG, USACOE, CSCC

Milestones: 39, 40, 41, 42

Task Category: Implementation

Activity: Napa Salt Ponds Monitoring. This project would monitor the 10,000 acre Napa Salt Marsh Restoration projects effects on fish, wildlife and the Napa River estuary.

Year 8 Activities :

Year 8 Projected Cost: $2,000,000

Funding Source: Prop 50, WCB

Agencies: DFG, USACOE, CSCC

Milestones: 39, 40, 41, 42

Task Category: Monitoring and Research

Activity: Tidal Restoration of Hill Slough Parcel in Suisun Marsh. This Project will restore tidal habitat to approximately 507 acres of diked seasonal wetlands in Suisun Marsh. The Project will re-introduce tidal action to the site, restoring a transition of perennial aquatic habitat in the deepest areas, low intertidal marsh, high intertidal marsh, and lowland alluvial habitat. The outcome will be a self-sustaining marsh ecosystem created through restoration of natural hydrologic and sedimentation processes and reliance on natural abiotic and biological succession processes.

Year 8 Activities: This project will fund the elevation of Grizzly Island Road from the Hill Slough bridge to Highway 12 to allow diked seasonal wetlands to the west and east of the road to be restored to tidal influence, breaches two levees on Suisun Slough, and breaches one levee on Hill Slough. This project will contribute to CALFED's ERPP goal of restoring 5,000-7,000 acres of tidal wetlands in Suisun Marsh.

Year 8 Projected Costs: $5,000,000
Funding Source: Prop. 84
Agencies: WCB, DFG
Milestone(s): 39, 40, 41, 42
Task Category: Implementation

Multiple Species

Activity: Sacramento River - Chico Landing Subreach Habitat Restoration. This project will implement restoration planning and research on three sites within the Chico Landing Sub-reach (RM 178-206) in preparation for future restoration, and in a set of reference sites that were previously restored by a contractor 5-13 years ago. All sites are located within a portion of the Sacramento River Conservation Area. The three sites are Capay (Glenn County), Dean Man's Ranch (Butte County), and the Northern portion of Pine Creek (Butte County); all are part of the Sacramento River National Wildlife Refuge.

Year 7 Activities: A set of small-scale experiments will be conducted in the context of the planned future restoration activities to test hypotheses that will advance riparian restoration. Survey of sites that were planted in the past will be conducted to assess the effect of long-term vegetation establishment. Gathering this information on how vegetation communities have developed following the cessation of restoration maintenance activities (irrigation, NIS control), is critical to furthering our ability to calibrate our planting design model to local and landscape-scale conditions.

Year 7 Cost: $3,180,000

Year 8 Activities: Habitat restoration planning and research

Year 8 Projected Cost : Funded in Year 7

Funding Source: Prop 204, Ch 7

Agencies: CBDA

Milestone(s): 59, 60, 62

Task Category: Implementation

Activity: Sacramento River Riparian Monitoring and Assessment Consolidated Projects (2004 Monitoring PSP). This project will measure a range of physical and biological indicators for ERP and AFRP-funded projects within the Sacramento River Ecological Management Zone between Red Bluff and Colusa and compare them to previous conditions and reference systems to test whether restoration actions have improved riparian forest conditions and forest interactions with aquatic processes.

Year 7 Activities: Tasks and program elements will be focused and revised.

Year 7 Cost: $1,264,691

Year 8 Activities: Implement monitoring activities.

Year 8 Projected Cost : Funded in Year 7

Funding Source: Prop 50

Agencies: CSU Chico, DFG, River Partners, The Nature Conservancy

Milestone(s): 58, 60

Task Category: Monitoring and Research - Reconsider if Revised

Activity: Sacramento River Conservation Area Forum Base Funding. As part of its commitment to protect and restore the Sacramento River meander corridor, ERP set as a Stage 1 priority assistance to the Sacramento River Conservation Area Forum. The forum provides essential and critical stakeholder involvement in the restoration efforts along the Sacramento River.

Year 7 Activities: Support stakeholder involvement and staff activities in planning restoration activities in Sacramento River Conservation Area. Provide support for base operating costs.

Year 7 Cost : $653,000

Year 8 Activities: Continue to support stakeholder involvement and staff activities.

Year 8 Projected Cost : Funded in Year 7.

Funding Source: Prop 50

Agencies:

Milestone(s): 59, 60, 61, 62, 63, 64, 112

Task Category: Planning

Activity: Liberty Island Restoration Monitoring. This consolidated project includes the COYOTE project and "BREACH III". Activities involve Lower Yolo Bypass technical site evaluation, monitoring, research, and feasibility assessment. Several issues need to be addressed to assess long-term ownership, restoration potential, and management of publicly-owned properties in the Lower Yolo Bypass. The combined approaches of the BREACH III and COYOTE proposals will address both the physical and environmental processes occurring on the sites and greatly improve our understanding of the aquatic species response to tidal wetland restoration. The BREACH III proposal, which was recommended for funding with future funds by the Science Program PSP Selection Panel, may be considered for achieving the physical and geomorphic processes evaluation. The "Cosumnes-Yolo Terrestrial-Aquatic Ecotone Project ("COYOTE Project"); A Unified Approach to Monitoring Floodplain and Freshwater Tidal Marsh Restoration in the Cosumnes Preserve and Yolo Bypass (2004 Monitoring PSP)" project will monitor connectivity and key ecological variables within the Yolo Bypass and the Cosumnes Preserve. The program will take advantage of comparisons between similar ecosystems in the Yolo Bypass and Cosumnes River to assess project performance and the impacts of seasonal and interannual hydrologic variability.

Year 8 Activities: Staff are working with principals from the two respective proposals on a revised scope for a combined effort. The results should be a comprehensive monitoring and research approach that is closely coordinated with the stakeholder planning process. The technical approach should also greatly improve abilities to make sound decisions in regards to future management, restoration potential, and its relationship to flood control needs in the lower bypass.

Year 8 Projected Cost: $2,447,996

Funding Source: Prop 84

Agencies: DFG, NOAA Fisheries, USFWS

Milestone(s): 1, 2, 3, 6, 7, 8, 9, 11, 13, 14, 16, 17, 18, 21, 23, 24, 25, 31, 33, 34, 36, 37, 44, 49, 50, 52, 53, 55, 57, 66, 67, 68, 69, 70, 71, 72, 74, 75, 78, 80, 81, 82, 83, 112, 119

Task Category: Implementation, Monitoring and Research

Activity: McCormack-Williamson Tract. Restoration being planned as part of the North Delta flood control and ecosystem restoration project.

Year 8 Activities:

Year 8 Projected Cost: $5,000,000

Funding Source: Prop 84

Agencies:
Milestone(s): Task Category:

Activity: Yolo Bypass Strategic Plan Support. Collaborative process to resolve Lower Yolo Bypass management concerns. Using a consensus-seeking, formal collaborative process, facilitated by the Center for Collaborative Policy, local stakeholders will develop their recommendations regarding future management, actions, responsibilities, oversight, monitoring, public access, potential liabilities, funding and regulatory needs of the Lower Yolo Bypass. Participants will include local landowners, reclamation districts, and local, state and federal agencies. This effort will be closely collaborated with the monitoring and research conducted under the Liberty Island Restoration Monitoring project in order improve the collective understanding regarding any technical issues associated with land use, long term management, or conservation of the lower bypass.

Year 8 Activities: Work with the project proponents to ensure the project scope includes the coordination and collaboration necessary to take advantage of previous and current investments in the Lower Bypass in order to ensure the most current available information is being used in the discussions.

Year 8 Projected Cost: $300,000

Funding Source: Prop 84

Agencies: DFG, NMFS, USFWS, Delta Protection Commission, Yolo Basin Foundation

Milestone(s): 1, 6, 7, 8, 9, 13, 16, 31, 78
Task Category: Planning

Activity: Suisun Marsh Plan (SMP). The ERP Implementing Agencies as well as DWR, USBR, Suisun Resource Conservation District (SRCD), and the CBDA continue to participate in preparing the Habitat Management, Preservation, and Restoration Plan for Suisun Marsh (SMP) for the Suisun Marsh Ecological Management Zone.

Year 7 Activities: Continue working on SMP development. Year 7 will include funding to implementing agencies and contracts to complete NEPA/CEQA work and facilitation support.

Year 7 Cost: $1,869,500

Year 8 Activities: Continue working on SMP development, NEPA/CEQA, and facilitation.
Year 8 Projected Cost : Funded in Year 7

Funding Source: Prop 50

Agencies: DFG, NMFS, USFWS, USBR, DWR, SRCD

Milestone(s): Encompasses all the Bay Region milestones as they apply to Suisun Marsh (38-53)

Task Category: Planning - DFG Implementation and Program Support

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Activity: Coordinated Monitoring and Indicator/Performance Measure Strategy Project. DFG will lead an interagency team to develop a coordinated monitoring and indicator/performance measure strategy for the ERP and begin implementation of that strategy. This project will work to integrate a large number of competing and uncoordinated efforts in the ERP focus area.

Year 8 Activities: Provide funding to an interagency team led by DFG to develop a coordinated monitoring and indicator/performance measure strategy for the ERP. DFG and the team, with consultant support, will:

- Coordinate with the Comprehensive Wildlife Conservation Strategy (CWCS) completed as part of the California Wildlife Action Plan. Visit its website for more information: http://www.dfg.ca.gov/habitats/wdp/index.html
- Integrate other efforts currently underway such as CMARP Phase 3, the Science Program, and the CALFED Leadership Council's Interagency Committee on Performance Measures. For more information on the Science Program's efforts visit its website at: http://science.calwater.ca.gov/monitoring/monitoring.shtml#
- Coordinate with entities currently conducting monitoring in the ERP focus area such as the DFG's Resource Assessment Program (RAP) To obtain more information on RAP visit its website at: http://www.dfg.ca.gov/habitats/RAP/default.html
- Coordinate with regional planning efforts such as DRERIP and SMP to ensure the completion of the conceptual models needed to assist in selecting indicators
- Integrate with comprehensive monitoring plans being developed for steelhead and adult Chinook salmon
- Confirm the use of interim indicators such as Chinook salmon adult escapement
- Acquire the necessary equipment such as a replacement aircraft for DFG's air services unit to ensure that the DFG can continue to conduct critical monitoring activities related to species and grant projects.
- Integrate data collection efforts for various monitoring using the BIOS system; http://bios.dfg.ca.gov/

Year 8 Projected Cost: $2,000,000

Funding Source: Prop 84

Agencies: DFG, USGS, USFWS, NMFS, DWR

Milestone(s): 1 – 119
Task Category: Planning

Activity: Conduct Comprehensive Terrestrial Monitoring. Terrestrial monitoring necessary to measure the indicators and develop the performance measures to assess the effectiveness of the ERP on restoring terrestrial resources.

Year 8 Activities: Begin developing indicators and performance measures

Year 8 Projected Cost : $1,500,000

Funding Source: Prop 84

Agencies: DFG

Milestone(s): 112
Task Category: Monitoring

Activity: Wetland Response to Modified Hydrology with Respect to Salinity Management. DFG, Grassland Water District, UC Merced, and CSU-Fresno Foundation, will collect water quality data in the Grassland Basin and San Joaquin River to further characterize outflow from managed wetlands, determine and compare productivity of differently managed wetlands in the basin, and monitor waterbird use of differently managed wetlands. This project will assess the feasibility of developing wetland operations that maximize Grasslands' wildlife habitat and improve water quality in the Grasslands Basin and San Joaquin River. This activity helps address water quality stressors of concern in the San Joaquin River and follows up on the previously funded Grassland Water District project titled Adaptive Real-Time Management of Seasonal Wetlands in the Grassland Water District to Improve Water Quality in the San Joaquin River, CALFED Contract No. ERP-00-FC-B05.

Year 7 Activities: Project Includes biological monitoring and vegetation sampling contracts. Determine and compare productivity of differently managed wetlands. Collect water quality data. Conduct monitoring for waterbird use. Conduct habitat mapping and collect vegetation samples.

Year 7 Cost: $260,000
Year 8 Activities: Continue monitoring activities.
Year 8 Projected Cost: Funded in Year 7.

Funding Source: Prop 50

Agencies: DFG, GWD, CSU-Fresno Foundation, DWR, USBR, Lawrence Berkeley National Laboratory, UCD, UC Merced

Milestone(s): 96, 101, 102, 104, 105, 107, 108
Task Category: Implementation

Activity: Petaluma Marsh Expansion Project This project monitors effects of restoring tidal wetlands adjacent to Petaluma Marsh for MSCS fish and wildlife. This is a secondary test site for the Integrated Regional Wetland Monitoring Project (IRWM).

Year 7 Activities: Post-construction monitoring will begin when construction is completed in fall 2006. Project construction is now underway, but was delayed to relocate and redesign levees.
Year 7 Cost: $235,000
Year 8 Activities:
Year 8 Projected Cost: Funded in Year 7.
Funding Source: Prop 50, Caltrans
Agencies: Marin Audubon Society
Milestones: 39, 41, 42

Task Category: Monitoring

Mandated Programs

Activity: Central Valley Project Improvement Act (CVPIA) Contribution According to the ROD, approximately $15 million of CVPIA restoration funds will be used for the purpose of protecting, restoring, and enhancing special-status species and their habitats in areas directly or indirectly affected by the Central Valley Project. CVPIA programs that contribute to ERP goals and objectives include: Anadromous Fish Restoration Program, Dedicated Project Yield, Restoration of Riparian Habitat and Spawning Gravel, Clear Creek Restoration, Anadromous Fish Screen Program, & Water Acquisition programs. This Program Plan includes only highlights of CVPIA accomplishments and activities. The Anadromous Fish Restoration Program (AFRP) will continue to make reasonable efforts to at least double natural production of anadromous fish. To this end, AFRP will work with local watershed groups and other local partners to carry out locally developed and supported watershed restoration plans, giving priority to actions that restore natural channel and riparian habitat values [CVPIA Section 3406 (b)(1)]. The Anadromous Fish Screen Program (AFSP) plans to screen the largest diversions on the Sacramento River as diverters volunteer and funds become available. AFSP screens contribute to the "at least doubling" Central Valley anadromous fish populations CVPIA goal; these screens are also important to protect listed and candidate species such as the winter-run and spring-run Chinook salmon, Delta smelt, steelhead trout, and splittail [CVPIA Section 3406(b)(21)].

Year 7 Activities: The Anadromous Fish Restoration Program constructed Iron Canyon Fish Ladder on Big Chico Creek and constructed a fish bypass barrier to protect downstream migrating juvenile salmonids at Orwick Diversion on Battle Creek. Dedicated Project Yield anticipates continued use of 800,000 AF of (b)(2) per year to improve instream conditions and habitat for anadromous fish and to help protect salmonids and delta smelt in the Delta in cooperation with the EWA. The Restoration of Riparian Habitat and Spawning Gravel will continue with gravel introductions on all three rivers as budget permits. The Anadromous Fish Screen Program will initiate a field monitoring and assessment effort of unscreened diversions on the Sacramento River to quantify fish losses at unscreened diversions and initiate of fish screen construction of the unscreened municipal diversion for Yuba City on the Feather River. More information on CVPIA programs can be found at: http://www.usbr.gov/mp/cvpia/.

Year 7 Cost: $15,000,000

Year 8 Activities:

Year 8 Projected Cost: $15,000,000
Funding Source: CVPIA Restoration Fund
Agencies: USFWS
Milestone(s): 12, 13, 18, 21, 23, 44, 54, 62, 67, 68, 69, 70, 71, 72, 90, 94, 95, 97, 98, 99
Task Category: Implementation

Activity: South Delta Habitat. This item is to ensure that funding allocated in Proposition 204 related to the permanent barriers element of the South Delta Improvements Program (SDIP) contributes effectively to ERP implementation in support of the Delta Improvements Package actions related to water project operations in the Delta that will result in increased water supply reliability, improved water quality, environmental protection, ecosystem restoration, protection of the Delta Levee system, and analyses and evaluation to support improved real-time and long-term management. The Delta Improvements Package also outlines conditions under which the SWP would be allowed to increase its permitted export pumping capacity.

Year 7 Activities: Funds will be available for restoration after project approval.

Year 7 Cost: $9,500,000

Year 8 Activities: Continue restoration activities.

Year 8 Projected Cost : Funded in Year 7

Funding Source: Prop 204, Ch 4.

Agencies: DWR, DFG

Milestone(s): 1, 13, 17, 18, 23, 24

Task Category: Implementation

Assistance to Farmers Integrating Agricultural Activities with Ecosystem Restoration

Activity: Assistance to Farmers in Integrating Agricultural Activities with Ecosystem Restoration (AFI). ERP's Draft Stage One Implementation Plan established multi-regional priorities for a coordinated ERP effort to support "wildlife friendly agriculture". Chapter 7 of Proposition 50, which provided funds to the ERP, states that "not less than $20 million shall be allocated for projects that assist farmers in integrating agricultural activities with ecosystem restoration." Funds in this category have been dedicated to focused solicitation and directed actions to implement projects that benefit fish, GGS and other MSCS species on agricultural lands. In addition, a portion of the funds in this category have been allocated to support technical assistance partnerships to assist landowners in implementing agricultural activities benefiting MSCS wildlife and fish, and provide a linkage between state and federal programs to benefit farmers and wildlife.

Year 7 Activities: DFG will fund proposals and directed actions including those generated by the 2005 PSP. See solicitation website for more detailed information: http://www.calwater.ca.gov/Solicitation/ERP_Solicitation.shtml/ will be used to fund proposals and directed actions from PSP process and funds for projects which benefit Giant Garter Snake. Fourteen projects were chosen during the 2005 PSP solicitation process. During Year 7, scopes will be developed and contracts negotiated.

Year 7 Cost: $13,839,866

Year 8 Activities: Continue work on projects developed in Year 7.

Year 8 Projected Cost : Funded in Year 7

Funding source: Prop 50 AFI

Agencies: CDFA, DFG, DOC, NRCS, USFWS, USGS

Milestone(s): 6, 61, 91

Task Category: Implementation

Activity: Technical Assistance Partnerships to Integrate Agricultural Activities with Ecosystem Restoration. ERP will increase its cooperative efforts with organizations such as USDA's Natural Resources Conservation Service (NRCS), Resource Conservation Districts, and other technical non-profit agencies to provide technical assistance to landowners to implement agricultural activities benefiting MSCS wildlife and fish. This effort will provide a linkage between state and federal programs and help develop the institutional capacity of implementing agencies and cooperators to support agricultural activities benefiting wildlife and fish.

Year 7 Activities: Develop and execute technical assistance partnerships to integrate agricultural activities with ecosystem restoration.

Year 7 Cost: $900,000

Year 8 Activities: Continue developing technical assistance partnerships.

Year 8 Projected Cost: $500,000.

Funding Source: Prop 50 – AFI, Prop. 84.

Agencies: DFG, DOC, NRCS, USFWS
Milestones: 6, 61, 91

Mine Remediation and San Joaquin River Dissolved Oxygen Projects

Activity: Mine Remediation Projects. Prop.13 provides $15 million for mine remediation projects. Priorities will include process studies that can assist with understanding resource management actions that can reduce methylmercury production and mine remediation projects. Highest priority will be given to projects that can provide improvements in water quality in areas of interest for restoration or habitat for key species.

Year 7 Activities: In 2006, the primary Year 7 activities are to continue progress on the existing studies. Additionally, funding is being sought to evaluate the hypothesis that methylmercury is being transported conservatively in the major rivers in the watershed. It is anticipated that either Prop. 204 or Prop.13 could be used to support this work effort.

Year 7 Cost: A $319,000 amendment has been approved for this project.

Year 8 Activities: Continue developing technical assistance partnerships.

Year 8 Projected Cost: Funds were encumbered in previous years.

Funding Source: Prop 13 and Prop. 204

Agencies: CBDA, DFG, CVRWQCB

Milestones: 31, 78

Task Category: Implementation

Activity: San Joaquin River Dissolved Oxygen (DO) Issues. Prop. 13 provides $40 million to improve dissolved oxygen in the Stockton Deep Water Ship Channel (DWSC) in the SJR. Since 1999, significant progress has been made towards better defining the sources and causes of low dissolved oxygen in the DWSC. Further studies and demonstration projects are needed to determine a final long-term solution to the SJR dissolved oxygen problem. Proposition 13 requires that funds be spent on construction of demonstration projects and other projects to solve the problem. Completion of studies and projects in Year 7 and 8 will be critical to determining a final solution. These tasks include various studies and pilot demonstration projects designed to study sources, causes, and methods to correct dissolved oxygen depletion in the Stockton Deep Water Shipping Channel.

Year 7 Activities: The primary Year 7 activities will be continued progress on existing studies, conceptual models for dissolved oxygen, and start of the Aeration Demonstration Project. The Aeration Demonstration Project is expected to begin in January 07 and run for 1-2 years. Other activities include support for the Technical Workgroup and coordination with agencies and stakeholders.

Year 7 Cost: $6,000,000

Year 8 Activities: Continue activities from Year 7.

Year 8 Projected Cost: Funded in Year 7.

Funding Source: Prop 13

Milestones: 26, 100

Agencies: USBR, USFWS, DWR, CVRWQCB

Task Category: Implementation

Staff

Activity: Working Lands Coordinator. CBDA contracted with the Resources Legacy Fund to provided staff to support development of key strategies to optimize opportunities to integrate ERP activities with agricultural assistance programs, and wildlife friendly agriculture projects.

Year 7 Activities: In coordination with DFG, assisted with coordinating the AFI PSP, and provided staff support to the Working Landscapes Subcommittee.

Year 7 Cost: $35,351

Year 8 Activities: This activity continued until December 31, 2006.

Year 8 Projected Cost: Funded in Year 7.

Funding Source: Prop 50 - AFI

Agencies: Resources Agency

Milestones: 6, 61, 91

Task Category: Oversight and Coordination

Activity: Aquatic Restoration Planning and Implementation Section (ARPI). ARPI was established in DWR to support the ERP by developing habitat enhancement and fish passage improvement in the Yolo Bypass. ARPI collaborates with the Yolo Basin Foundation and other local groups to identify, study, and carry out projects on public or private land with willing participants; these efforts create regionally significant improvement in riparian, tidal marsh, and seasonal floodplain habitats in the bypass. This effort is compatible with maintaining or improving seasonal flood flow capacity of the bypass while improving habitat diversity and quality.

Year 7 Activities: ARPI will provide the engineering and scientific support needed for the highest priorities identified for the ERP. ARPI conducted the following: (1) evaluated fish passage and aquatic habitat, and studied sediment erosion and accretion; (2) developed 1-D and 2-D flow model; (3) conducted flow and stages monitoring; (4) designed potential restoration actions in lower Putah Creek; (5) evaluated Lisbon Weir fish passage improvement options; (6) evaluated options to integrate bypass-scale restoration into the Sacramento Area Flood Control Agency's Lower Sacramento River Regional Project. The ARPI website for detailed project information is http://wwwdes.water.ca.gov/ecological_studies_branch/arpi_section/index.cfm

The ERP Implementing Agencies met with ARPI staff to identify high priority needs in the Yolo Bypass, such as assessing sturgeon passage issues, and to articulate how ARPI could assist in addressing those needs. The goal was to develop an annual work plan that could be approved by the ERP Implementing Agency managers.

Year 7 Cost: $1,000,000

Year 8 Activities: Continue listed activities.

Year 8 Projected Cost: $1,000,000

Funding Source: Prop. 50, Prop. 84

Agencies: DWR

Milestones: 6, 8, 13, 17, 54, 62, 70

Task Category: Planning and Implementation

Activity: ERP Grant Management. Funding for eleven permanent DFG staff assigned to coordinate ERP implementation with other restoration activities such as CVPIA and associated administrative costs.

Year 7 Activities: Staff support ERP grant management

Year 7 Cost: $2,700,000

Year 8 Activities: Continue staff support

Year 8 Projected Cost: $2,700,000

Funding Source: Prop 50, Prop. 84

Agencies: DFG

Milestone(s): 1 - 119

Task Category: Implementation -DFG Implementation and Program Support

Activity: ERP Database Strategy Development and Implementation. Continued support for the ERP database, web based interface, GIS digitizing support, and data entry.

Year 7 Activities: A web-based query tool will be developed that allows all users to search and produce ERP Project Reports. Full integration of ERP Database with seamless connection to E-Library will be implemented.

- An ERP projects electronic library will be up and running with DFG as the keeper of the information previously housed in the E-Room.
- Query Reports are available for existing information in the ERP Database (Limited in scope and are prepackaged in format and content).
- User Guide developed with directions on how to access and utilize the Database and its query tools.
- Development of an on-line viewer Ecosystem Restoration Program Information Network (ERPIN Viewer) and selected project level information sorted by Project Type, Ecosystem Region, or Funding Agency.

Year 7 Cost $250,000

Year 8 Activities: Activities conclude in Year 7

Funding Source: Prop. 50

Agencies: DFG (lead) with review from other ERP Implementing Agencies (USFWS and NMFS)

Milestone(s): 1 - 119

Task Category: Implementation - DFG Implementation and Program Support

Activity: Fish and Wildlife Planning. USFWS, as an ERP Implementing Agency, will continue ERP planning efforts in collaboration with NMFS, CDFG and CBDA. Comprehensive efforts are currently underway to develop regional ecosystem restoration plans for areas such as Suisun Marsh and the Delta. USFWS, through an interagency process, is also involved in planning and developing the format and guidelines for preparing Action Specific Implementation Plans (ASIPs) for all CALFED projects in order to meet the requirement of FESA, CESA, and NCCPA. USFWS will continue planning efforts regarding the ERP PSP process. The USFWS continues to manage existing CALFED contracts that meet ERP goals and objectives. USFWS will continue efforts for the annual milestones assessments and other annual reporting requirements including the Multi-Year Program Plan.

Year 7 Activities: Will continue ERP planning and implementation efforts, including: (1) End of Stage 1 decisions, (2) End of Stage 1Milestone Assessment, (3) Conservation Plans for CALFED Program, (4) ERP performance measures , (5) Annual Program Plan, (6) CALFED Program environmental compliance needs, (7) BDPAC and BDPAC ERP Subcommittee, (8) ERP contract review, (9) AMPT and DRERIP, (10) Other CALFED elements, such as Watershed Management and Science Program.

Year 7 Cost: $1,292,000

Year 8 Activities: Continue listed activities.

Year 8 Projected Cost : $1,292,000

Funding Source: Federal

Agencies: USFWS

Milestone(s): 1 – 119

Task Category: Planning

Activity: Fish Passage Improvement Program (FPIP) Staff. The Fish Passage Improvement Program (FPIP) team studies and evaluates constructed structures that impede anadromous fish migration and assists with engineering and environmental evaluations for migration barrier structure removal or modification within the ERP focus area. The FPIP team is guided by an annual work plan developed by an Interagency Review Team (IRT) that includes representatives from the ERP Implementing Agencies and FPIP and approved by the ERP Implementing Agency managers. The work plan identifies and addresses high priority fish passage issues and other engineering support requirements for ecosystem restoration that may be highlighted in ERP regional restoration plans.

Year 6 Activities: Work continued on: (1) Big Chico Creek—Iron Canyon Fish Passage Project; (2) Calaveras River Migration Barriers Assessment 2005 Interim Report; (3) Daguerre Point Dam Fish Passage Improvement project; (4) Upper Yuba River Studies Program; (5) engineering and bathymetry information for the Lake Davis Pike Eradication Project Planning—Feasibility Phase; (6) Lower Butte Creek projects. The FPIP website provides detailed information: http://www.watershedrestoration.water.ca.gov/fishpassage/projects.

Year 7 Activities: Planning will continue on the above identified activities.

Year 7 Cost: $1,114,000

Year 8 Activities: Continue activities listed above.

Year 8 Projected Cost : $ 1,000,000

Funding Source: Prop. 50, Prop. 84.

Agencies: DWR

Milestones: 18, 21, 44, 67, 69, 70, 71, 72, 97, 99
Task Category: Planning

Activity: Genetic/Scale Tissue Archive. Funding for continued development and coordination of historic Central Valley genetics/scale tissue archive and database. Historic scale/tissue collections in Arcata, Fresno, and other locations will be cataloged, entered into a database, and made part of the existing DFG Central Valley genetics tissue archive. Collections will be provided for research purposes according to standard protocols.

Year 7 Activities: Continue work on the following: (1) support genetic monitoring at state and federal fish facilities, (2) identify spring run species, (3) Central Valley-wide survey of Chinook salmon, (4) Tissue and scale collections at fish hatcheries, and (5) support comprehensive steelhead monitoring program .
Year 7 Cost: $344,000

Year 8 Activities: Continue activities listed above.

Year 8 Projected Cost : $344,000

Funding Source: Prop. 50, Prop. 84.
Funding Source: Prop 50
Agencies: DFG
Milestone(s): 112, 118, 119
Task Category: Implementation -DFG Implementation and Program Support

Activity: Non-Native Invasive Species Program (USFWS).The Stockton Fish and Wildlife Office provides coordination and leadership to the Bay-Delta Authority ERP Non-native Invasive Species Program (NISP). USFWS will continue to work with the NIS agency and stakeholder teams to implement and administer the NIS Program, as developed and documented in the NIS Strategic and Implementation plans. Work will continue toward the three stated goals of the NIS Program. Actions for quantifying milestones and evaluating progress toward these milestones are underway. The three goals relate to 1) preventing new introductions, 2) limiting the spread or eliminating populations through management, and 3) reduce the harmful ecological, economical, social and public health impacts resulting from infestation of NIS. The NIS Program is providing technical assistance and coordination to regional efforts and watershed groups focusing on assessment and monitoring for NIS to improve rapid response to new invasions. The program is also active with other partners to achieve research and technology transfer. One example is Hazard Analysis and Critical Control Point (HACCP) training which will be provided so implementation and monitoring projects can create HACCP plans to minimize the spread of NIS. Another product involving the transfer of technology is the developing and maintaining of an aquatic NIS reference collection. Corresponding to this reference collection, a list of taxonomic experts will be maintained and updated as needed. These activities will continue. The NIS program will also continue working with the results from ERP funded research, technical assistance, and implementation and restoration projects and working with state agencies to implement California's Aquatic Nuisance Species Management Plan.

Year 7 Activities: Accomplishments included (1) provided technical assistance and coordinated zebra mussel prevention and response activities (e.g., partnering with DFG and DFA on the California Zebra Mussel Work Group, Zebra Mussel Rapid Response Plan), (2) coordinated and facilitated activities for NISAC and CINIPC, New Zealand Mud Snail surveys, (3) coordinated with partners to provide technical assistance for HACCP in CALFED focus area, (4) coordinated NISP actions with 100th Meridian and Western Regional Panel activities, (5) and providing outreach materials and technical guidance to watershed and other groups.Activities will focus on continuing work in the areas listed above. The NIS also would like to develop the process by which to access the ERP-CHRPD database and be included in reviewing and providing guidance and coordination on the technical aspects of NIS projects funded by CALFED ERP.

Year 7 Cost: $750,000

Year 8 Activities: Continue activities listed above.

Year 8 Projected Cost : $200,000

Funding Source: Prop. 50, Prop. 84

Agencies: USFWS

Milestones: 20, 22

Task Category: Implementation

Activity: Non-Native Invasive Species (DFG). DFG will work with the USFWS NIS Agency and Stakeholder Teams to implement and administer the NIS program, as developed and documented in the NIS Strategic and Implementation Plans.
Year 7 Activities: A Senior Biologist was hired to coordinate invasive species activities in the Calfed area, and a preliminary workplan was developed. Staff provided technical review to the State Aquatic Invasive Species Plan, prepared a draft Rapid Response Plan for Aquatic Invasive Species in California and presented portions of the Plan to public meetings, and participated in invasive species coordination meetings. Staff will continue to plan and implement actions for Calfed described in the State Aquatic Invasive Species Plan and the ERP Multi-year Program Plan, including completing a Rapid Response Plan for Aquatic Invasive Species, establishing priorities for terrestrial weed actions in the Calfed area, recommending new regulations for restricting the importation of invasive species and serving as co-chair to the Calfed Non-Native Invasive Species Advisory Committee.

Year 7 Cost: $100,000

Year 8 Activities: Continue activities listed above.

Year 8 Projected Cost : $100,000

Funding Source: Prop. 50, Prop. 84

Agencies: DFG

Milestones: 20, 22
Task Category: Implementation

Activity: Regional Planning and Implementation Support. Funding for twelve permanent DFG staff assigned to prepare and maintain regional ERP implementation plans and to support ongoing implementation activities. This includes staff support for initiating work on the Sacramento River Regional Ecosystem Restoration Implementation Plan and the San Joaquin River Regional Ecosystem Restoration Implementation Plan and to continue work on DRERIP and SMP. These staff will assist in developing conservation strategies for regional HCP/NCCPs and provide support for developing comprehensive monitoring plans and indicators and performance measures through conceptual models.

Year 7 Activities: Work continues on DRERIP and SMP and work began on the San Joaquin River Regional Ecosystem Implementation Plan (SJRREIP), and Big Chico Creek-Iron Canyon Fish Passage Project.

Year 7 Cost: $1,114,000

Year 8 Activities: Continue activities listed above.

Year 8 Projected Cost : $1,114,000

Funding Source: Prop. 50, Prop. 84.

Agencies: DFG

Milestones: 1-119

Task Category: Implementation

Activity: Restoration, Screens, etc. NMFS' supports the ERP goals and efforts by providing expertise regarding restoration and fish screen projects.

Year 7 Activities: Continuing activities supporting restoration and fish screen projects.

Year 7 Projected Cost: $800,000

Year 8 Activities: Continue Year 7 activities.

Year 8 Projected Cost : $800,000

Funding Source: Federal

Agencies: NMFS

Milestone(s): 1 - 119

Task Category: Planning

Activity: Project Tracking for the Ecosystem Restoration Program. This agreement will allow the Contractor to assist the DFG, NOAA Fisheries, U.S. Fish and Wildlife Service, and the CALFED Bay-Delta Program with effectively monitoring restoration projects, conducting research associated with implementation to support the adaptive management process, tracking the success of approved restoration projects, and assist with the finical review being conducted by the Department of Finance.

Year 7 Activities: Continuing activities supporting restoration and fish screen projects.

Year 7 Cost: $400,462

Year 8 Activities: Continue Year 7 activities.

Year 8 Projected Cost : $400,462

Funding Source: Prop 50, Prop 84

Agencies: NMFS

Milestone(s): 1 - 119

Task Category: Planning

Activity: Data Integration on Water and Sediment Quality and Fish Contamination. DWR leads a multi-agency coordinated effort to develop and implement a database for reporting water, sediment and tissue data to facilitate data sharing and web-based availability.

Year 7 Activities: DWR continued to enter water, sediment, and tissue data into its current database. DWR and DFG will coordinate linking the existing data into a refined web-based database being developed for ERP; DFG will manage this database. The integrated database will follow a format similar to that of BIOS (please visit http://bios.dfg.ca.gov). DWR will convert the existing data sets into the new format for the refined database, and it is expected to be completed in Year 7. Linking this data will assist with developing indicators and performance measures for ERP.

Year 7 Cost: $150,000

Year 8 Activities: Continue activities listed above.

Year 8 Projected Cost : $150,000

Funding Source: Prop. 50, Prop 84.

Agencies: DWR, DFG

Milestones: 1-119

Task Category: Implementation

Table 2 lists the types and number of projects funded by the ERP through Year 7. Specific information about any specific project may be found at the ERP website: http://www.delta.dfg.ca.gov/erp/

Table 2. Types and Number of Restoration Projects Funded by ERP Through Year 7

Type of Restoration Project	Amount Approved	Project Count
Fish Screens	$93,786,828.30	60
Ecosystem Water and Sediment Quality	$72,607,276.32	60
Shallow Water and Marsh Habitat	$57,764,384.00	43
Upland Habitat and Wildlife Friendly Agriculture	$57,317,028.23	14
Lowland Floodplains and Bypasses	$50,667,312.00	30
Fish Passage	$44,243,565.00	21
Riparian Habitat	$42,430,618.87	30
At-Risk Species Assessment	$41,218,337.48	45
Hydrodynamics, Sediment Transport, and Flow Regimes	$37,556,730.96	32
River Channel Restoration	$41,590,845.58	22
Non-Native Invasive Species	$23,339,854.09	33
Local Watershed Stewardship	$18,261,293.83	55
Administrative or Program Support	$6,414,584.00	15
Environmental Education	$7,223,828.60	34
Environmental Water Management	$7,458,007.00	7
Harvestable Species Assessment	$9,902,623.74	20
Mine Remediation	$1,860,121.00	4
Estuary Foodweb Productivity	$1,815,662.00	3
X2 Relationships (Freshwater-Seawater Interface)	$509,222.00	1

Funding

Ecosystem Restoration ($ in millions)	Yr 7	Yr 8	Grand Total
State [1]	$ 164.3	$ 62.7	$ 227.00
Federal [2]	$ 13.8	$ 12.0	$ 25.8
Water User [3]	$ 12.0		$ 12.0
Available Funding Total	$ 190.10	$ 74.7	$ 264.8

1. State funds include funds from the final enacted budget in Year 6 (FY 05-06) for the California Bay-Delta Authority (Authority), funds, from Department of Water Resources (DWR), and the Department of Fish and Game (DFG), Resources Agency (RA) and the Wildlife Conservation Board (WCB). The State budget includes these funds and State Water Project Water User Funding.

2. Federal funds are the President's Budget for the US Army Corps of Engineers (USACE), US Fish and Wildlife Service (USFW), and the National Marine Fisheries Service (NMFS). Federal appropriations beyond Year 6 are unknown.

3. Water user funding includes State Water Project funds and CVPIA Restoration funds that are collected from state water contractors and Central Valley Water Project water users, but are budgeted and appropriated through the federal and state governments.