

# CALFED Bay-Delta Program

**DRAFT**

Conveyance Program

Program Plan Year 9

(State FY 2008-2009; Federal FY 2009)

Implementing Agencies:  
**Department of Water Resources**  
**U.S. Bureau of Reclamation**

April 11, 2008

Insert CALFED Program  
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# Introduction

This Conveyance Program Plan identifies the CALFED Program activities that are scheduled to be completed during State Fiscal Year (FY) 2008-2009 and Federal FY 2009. The Plan also describes progress made to date on the previous year's program plan. As appropriate, the Program Plan and activities will be adjusted during the year to reflect, for example, changes in priorities, funding, policies or program direction.

The goal of the Conveyance Program is to identify and implement water conveyance modifications in the Delta that will:

- Improve water supply reliability for in-Delta and export users
- Support continuous improvement in Delta water quality for drinking-water purposes
- Complement and, where possible, improve the ecosystem

Additional details on the specific elements of the CALFED Conveyance Program can be found in Appendix A.

## Priorities

This section discusses the priorities for the Conveyance Program for FY 08-09. Factors considered in establishing priorities are the potential of the activity to help meet CALFED Program objectives, including the South Delta Fish Facilities Forum (SDFF) Co-Chairs Report, the timing of the implementation of a proposed project, the need for information or study to inform the Delta Vision and Bay Delta Conservation Plan, and the availability of funding for this year and future years.

### South Delta Improvement Study

The Department of Water Resources and the U.S. Bureau of Reclamation are seeking permits for the installation and operation of permanent operable gates to implement improvements in the south Delta for local water level, water quality and salmon protection. Construction of operable gates at four locations in the south Delta incorporates dredging, and extension of agricultural intakes.

### Clifton Court Fish Screens

The Department of Water Resources is continuing two separate Collection, Handling, Transportation and Release (CHTR) studies at the State's fish protection facility. One study focuses on predation, acute mortality and injury, and stress and the second study is investigating fish loss in the release phase of the salvage process. These studies are designed to identify improvements to the process of salvaging and releasing Delta smelt and other species diverted into SWP and CVP facilities to increase survival. DWR is conducting another study in the Clifton Court Forebay to estimate pre-screen loss of steelhead.

#### Tracy Fish Test Facility

In lieu of constructing the Tracy Fish Test Facility (TFTF) per the CALFED ROD, the U.S. Bureau of Reclamation is continuing the Tracy Research and Improvements program to assess and implement operational and structural improvements at the existing Tracy Fish Collection Facility (TFCF). Efficiency studies for delta smelt, salmon, splittail, and green sturgeon, assessing holding tank stress on delta smelt and salmon, and improved management of debris and predators within the TFCF are being conducted to improve multi-species protection at the federal export pumps.

#### Lower San Joaquin flood Improvements

The San Joaquin Area Flood Control Agency (SJAFCA); County of San Joaquin; Cities of Stockton, Manteca, and Lathrop; Reclamation Districts (RD) 17 and 404; and South Delta Water Agency (SDWA) have requested that the Central Valley Flood Protection Board and Sacramento District Corps of Engineers (Corps) initiate a feasibility scope investigation to address flood and related resources conditions along the Lower San Joaquin River. The primary study area for the Lower San Joaquin River Feasibility Investigation (LSJRFI) would be from the Eastside Bypass downstream to and including the City of Stockton and surrounding communities as well as major tributaries along the river and distributaries in the South Delta.

#### Delta Cross Channel Re-Operation and Through-Delta Facility

The U.S. Bureau of Reclamation is preparing a Plan Formulation Report and Feasibility Report for several alternatives to address water supply quality, and fisheries protection in the Delta. The Department of Water Resources is coordinating the North/Central Delta Regional Salmon Outmigration Study planned for October 2008 through April 2009. Reports incorporating this information and making recommendations for the DCC and the TDF would be completed by fall 2009.

#### Franks Tract Project

The Department of Water Resources and the U.S. Bureau of Reclamation are working on refining the alternatives to protect fishery resources and improve water quality. The agencies will commence preparation of environmental documentation and release a public draft EIR/EIS in mid-2009.

#### Delta Mendota Canal/California Aqueduct Intertie

The U.S. Bureau of Reclamation is preparing an Environmental Impact Statement for construction and operation of a pumping plant and pipeline connection between the DMC and the California Aqueduct to facilitate effective and efficient operations and maintenance activities in the near-term.

#### Contra Costa Water District Alternative Intake Project

Contra Costa Water District (CCWD) is constructing a screened intake on Victoria Canal that would relocate some of CCWD's diversions to obtain better source water quality and shift diversion from an unscreened intake on Rock Slough.

### Program To Meet Standards (PTMS)

The U.S. Bureau of Reclamation, in coordination with the Department of Water Resources, is conducting several activities as part of the PTMS as required by PL 108-361. These activities are designed to reduce salinity loadings and improve water quality in the lower San Joaquin River. Activities being undertaken in 2008 and 2009 include the Delta Mendota Canal Recirculation Feasibility Study, the Westside Regional Drainage Plan (salinity, selenium, and boron reductions), real-time water quality monitoring and modeling, and the development of Best Management Plans (BMP) for wildlife refuges receiving Federal water in the San Joaquin valley.

### Delta Mendota Canal Recirculation Feasibility Study

The U.S. Bureau of Reclamation, in cooperation with the Department of Water Resources, is preparing a Feasibility Study and EIS/EIR for recirculation of water via the DMC to assist in meeting the water quality standards and flows in the lower San Joaquin River. In 2008, the agencies expect to release a Plan Formulation Report.

## Progress Report

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**South Delta Actions** – to increase State Water Project (SWP) and Central Valley Project (CVP) export capability, improve the Delta ecosystem through fish protective measures, and ensure that local in-Delta agricultural water needs are met.

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### **South Delta Improvement Program - Permanent Operable Gates**

Progress: Reinitiated consultation on the operations of the permanent operable gates through the Operations Criteria And Plan (OCAP) consultation process. Included operations of the permanent operable gates in the OCAP Biological Assessment. Notified the State water Resources Control Board that permits are being pursued and the earliest the gates will be operable is spring 2012. Therefore, the Department has requested an extension of the compliance date from the Board.

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### **Clifton Court Fish Screens:**

Progress: Continued work on the CHTR and steelhead pre-screen loss study. CHTR study activities included completion of draft reports by Department of Fish and Game for agency review, and continued collection and analysis of DIDSON data at SWP and CVP fish release sites. The progress of steelhead study included completion of data collection and continued with the analysis to calculate the pre-screen loss rate of steelhead in Clifton Court Forebay.

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### **Tracy Fish Test Facility:**

Progress: Conducted research activities on site and in lab related to delta smelt salvage factors, debris collection, predation control, fish hauling criteria, Chinook salmon handling stress, fish passage, hydraulic analysis, and water chemistry. Continued lab testing of prototype louver cleaners to be considered for use. Purchased new trucks, truck tanks and transfer bucket. Publish various Tracy Research Volume Series. Updated Tracy Research website. Department of Fish and Game and DWR studies are underway and have been collecting data. Data Collection for all CHTR studies to be completed by the mid-2008.

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**Lower San Joaquin Flood Improvements:**

Progress: The Reclamation Board (currently Central Valley Flood Protection Board) sent a letter dated 16 November 2007 to the U.S. Army Corps of Engineers (Corps), that the Board would act as the non-Federal sponsor for the LSJRFI. The Board sent letters dated 30 November 2007 of the State's intent to share the 50 percent non-federal study cost with other local sponsors to all the Counties, Cities, and RD's within the primary study area soliciting their interest in participating in the LSJRFI. As of early 2008, the San Joaquin Area Flood Control Agency (SJAFCFA); County of San Joaquin; Cities of Stockton, Manteca, and Lathrop; RD's 17 and 404; and tentatively the South Delta Water Agency (SDWA) have agreed to actively participate in the investigation.

The Corps has prepared a preliminary draft of the Project Management Plan (PMP) for the investigation. The purpose of the PMP is to lay out the scope, tasks, schedule, cost, and management plan for the investigation.

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**North Delta Actions** – to improve flood protection and conveyance facilities, water quality, Delta fisheries, and avoid water supply disruptions, to increase the water supply reliability for the SWP and CVP and to enhance the Delta ecosystem.

**Delta Cross Channel Re-Operation and Through-Delta Facility (Delta Improvements Package):**

Progress: A summary report on Delta Conveyance Improvement Studies was completed and provided to CALFED. Completed preparation of the North/Central Delta Regional Salmon Outmigration Study workplan and CALFED Independent Science Review. Continued data collection from the flow and salinity monitoring stations in the Delta and regularly posted on CDEC.

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**Frank's Tract (A project component of the CALFED Water Quality Program and Delta Improvements Package):**

Progress: Continued maintenance of flow and salinity monitoring stations to establish baseline conditions for subsequent analysis. Completed a long-term (16 years) modeling and analysis of salinity reduction at key locations in the south Delta for Threemile Slough and West False River alternatives. Completed preparation of 10% level of design and preliminary geotechnical report for these alternatives. Completed workplan preparation for EIR/EIS and public participation.

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**North Delta Flood Control and Ecosystem Restoration Project:**

Progress: Completed the Draft Environmental Impact Report on November, 2007 and provided the public Notice of Availability on January 28, 2008. The public comment period was 60 days beginning on January 28, 2008 to allow stakeholders ample opportunity to comment on the substantive document. A public hearing was held on February 21, 2008 at the Jean Harvie Community Center in Walnut Grove.

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**Delta Mendota Canal/California Aqueduct (DMC/CA) Intertie Actions**– to consider the need for two specific SWP/CVP intertie projects which physically connect the SWP and CVP facilities.

**Delta Mendota Canal/California Aqueduct Intertie (Delta Improvements Package):**

Progress: Reclamation and the San Luis Delta Mendota Water Authority have been working on the Environmental Impact Statement needed for environmental compliance purposes. Sections requiring modeling of alternatives have been deferred for completion after the modeling assumptions for the Operations Criteria and Plan are developed. Project modeling will be consistent with OCAP to ensure that assessments of effects are based on the most current data and methodology.

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**Clifton Court Forebay/Tracy Pumping Plant Intertie:**

Progress: Work on this project has not yet commenced.

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**Program To Meet Standards** – to develop and initiate implementation of a program to meet all existing water quality standards and objectives for which Central Valley Project has responsibility.

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**Program to Meet Standards (PTMS):**

**Progress:** Reclamation continues to implement activities specified in PL 108-361 for the PTMS. Westside Regional Drainage Plan efforts to reduce and manage salt, selenium, and boron discharges also continue, with 61,000 tons of salt diverted for discharge to the SJR in 2007. Other key activities include BMPs for the refuges receiving Federal water in the SJR Basin and additional real-time water quality monitoring and modeling efforts for the SJR. The expected completion date for the BMP report is 2008.

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**DMC Recirculation Feasibility Study & Pilot Studies:**

**Progress:** An Initial Alternatives Information Report on the feasibility of DMC recirculation was completed and provided to stakeholders in early 2008. Work on the Feasibility Study and EIS/EIR will continue in 2008 and 2009. DMC recirculation pilot studies, including extensive water quality monitoring, were conducted in both 2004 and 2007, pursuant to study plans coordinated with the Central Valley Regional Water Quality Control Board and the State Water Resources Control Board.

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**Complementary Actions** – to consider actions that were identified in the Framework for Action but were not analyzed in the Final Programmatic EIR/EIS

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**Temporary Barriers Project:**

**Progress:** Three agricultural barriers were successfully installed in the south Delta. The spring Head of Old River Barrier was installed in April 2007 along with the agricultural barriers. The fall Head of Old River barrier was installed in 2007 per DFG request. Portable pumps were not needed in 2007 as flows were high during the summer and water levels remained adequate for agricultural diversions, both at the Tom Paine Slough and elsewhere in the south Delta.

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**Additional Actions Under Delta Improvement Package** – actions to increase water supply reliability, improve water quality, protect important fish species, and maintain the integrity of the levee systems in the Delta

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**Study of South Delta Hydrodynamics, Water Quality, and Fish:**

(See Clifton Court Fish Screens and 10,300 cfs)

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**South Delta Fish Facilities Improvements**

(See Clifton Court Fish Screens and 10,300 cfs)

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**Study of Delta Smelt and Fish Facilities:**

(See Tracy Fish Test Facility)

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**CCWD Alternative Intake Project (A project component of the CALFED Water Quality Program and Delta Improvements Package):**

**Progress:** Completed and circulated to the public the Final EIR/EIS in October 2006. Secured the U.S. Fish and Wildlife Biological Opinion in April 2007. Secured the National Marine Fisheries Service Biological Opinion in July 2007. Completed a Draft federal Special Study in January 2008. The completion of these environmental compliance activities will move the project from planning and environmental review to project implementation when federal action on a Record of Decision is executed.

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**SWP/CVP Integration Plan** - the use of CVP stored water to meet SWP Delta water quality obligations and SWP export capability for CVP south-of-Delta deliveries.

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(Included in the South Delta Improvement Program)

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# Activity

## Conveyance Program Activities Planned for Year 9

**South Delta Actions** – to improve the Delta ecosystem through fish protection measures, and ensure that local in-Delta agricultural water needs are met.

**Activity:** **South Delta Improvement Program - Permanent Operable Gates**

**Expected Deliverables/Products:** Revised Action Specific Implementation Plan (ASIP); Operations Criteria and Operations Plan (OCAP) Biological Assessment.

**Schedule:** ASIP (6/08); Notice of Determination (NOD) (TBD); Record of Decision (ROD) (TBD); Advertise for construction/supply contract (TBD); Begin gate construction (TBD).

**Cost:** \$3 mil (SWP)

**Potential Problems:** Acquiring all approvals to allow construction of gates components to begin in late 2009 and gates to be constructed and operable by Spring 2012 is still uncertain. The SWQCB has issued a Cease and Desist Order to DWR and the USBR to remove a threat of violating south Delta water quality standards by July 2009. The permanent operable gates are required to improve south Delta water quality and remove the Cease and Desist Order.

**Performance Measure Development:** N/A

**Science Review or Science Understanding:** Addressed in NEPA/CEQA document.

**Public Involvement and Outreach:** Regular web site updates. Quarterly reports to key stakeholders.

**Linkages with Other Elements:** Environmental Restoration Program, Environmental Water Account and the Water Quality Program.

**Environmental Compliance:** Addressed in NEPA/CEQA documents.

**Environmental Justice:** Addressed in NEPA/CEQA documents.

**Tribal Activities:** Addressed in NEPA/CEQA documents.

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**Activity:** **Clifton Court Fish Screens**

**Expected Deliverables/Products:** Manuscripts for two peer-reviewed journal articles discussing salvage process and entrainment of fishes in the south Delta will be submitted. Also, final DWR Reports will be prepared for both studies. Posters and oral presentations will be demonstrated at fishery conferences.

**Schedule:** Reports for CHTR study (12/08) and steelhead pre-screen loss (12/08); Hydrodynamic and water quality field monitoring completed (12/09)

**Cost:** CHTR study: \$0.5 mil (State) and \$0.5 mil (Prop 13); \$0.5 mil (Prop 13); Hydrodynamic study: \$0.5 mil (State)

**Potential Problems:** Funding must be secured for development and implementation of alternative measures to reduce the fish salvage mortality/injury and predation on steelhead in the Forebay.

**Performance Measure Development:** CHTR: Collect fish sample from inside the pipe, and monitor fish release site using DIDSON camera.

**Science Review or Science Understanding:** Study data and reports are reviewed through the Central Valley Fish Facilities Review Team and Interagency Ecological Program.

**Public Involvement and Outreach:** Continue to present data at local conferences, IEP Asilomar Conference, CALFED Science Conference, and AFS Cal-Neva meeting (predation study).

**Linkages with Other Elements:** Hydrodynamic study - Science program. Pre-screen loss study - 2004 NOAA Fisheries Biological Opinion and South Delta Permanent Gates; and CHTR – South delta fish facility forum.

**Environmental Compliance:** - N/A

**Environmental Justice:** - N/A

**Tribal Activities:** N/A

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**Activity: Tracy Fish Test Facility**

**Expected Deliverables/Products:** Contract for construction of new trashrack cleaning system. Construction of new research building. Contract for development of land for abandoned intake channel (AIC). Publish completed study efforts in the Tracy Research Volume Series Reports and update Tracy Research website, as needed. The Department of Fish and Game will provide Final Reports on the CHTR Predation Study, Delta Smelt Acute Mortality and Injury and the Delta Smelt Stress Study. DWR will develop a plan and resource requirements to determine what information is needed to address possible improvement alternatives as part of the South Delta Fish Facilities Improvements project.

**Schedule:** Begin construction of new trashrack cleaning system (later in federal fiscal year). Fill in AIC (later in the federal fiscal year). Department of Fish and Game CHTR study Final Reports (June 30, 2009).

**Cost:** \$2.057 mil (federal – in Presidents Budget) \$2.2 mil (State) for CHTR studies. \$0.24 mil (TBD) feasibility study for construction of a new secondary screening and handling system at the TFCF.

**Potential Problems:** CVP operational fluctuations due to the recent delta smelt court rulings and onsite TFCF rehabilitation activities could delay certain TFCF study and improvement efforts.

**Performance Measure Development:** N/A

**Science Review or Science Understanding:** Study data and reports are reviewed through the Central Valley Fish Facilities Review Team and Interagency Ecological Program.

**Public Involvement and Outreach:** Conduct monthly Tracy Technical Advisory Team meetings. Update Tracy Research website information. Publish Tracy Research Volume Series.

**Linkages with Other Elements:** Ecosystem restoration (TDLA). Interagency Ecological Program (IEP).

**Environmental Compliance:** N/A

**Environmental Justice:** N/A

**Tribal Activities:** N/A

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**Activity: Lower San Joaquin Flood Improvements**

**Expected Deliverables/Products:** Revised draft Program Management Plan (PMP), Draft Feasibility Cost Sharing Agreement (FCSA) for the Lower San Joaquin River Feasibility Investigation (LSJRFI), Early phase of the LSJRFI will focus on completing pertinent hydrologic and hydraulic evaluations. DWR implementation guidance for the use of Proposition 84 funds.

**Schedule:** Revised draft PMP (mid-March 2008); FCSA can be executed and the LSJRFI initiated (May or June 2008).

**Cost:** Upcoming year costs \$2 mil (\$1 mil Federal; \$1 mil non-Federal with \$0.5 State and \$0.5 local) An estimate of the total cost of the LSJRFI could range from between \$5 to \$7 million (\$2.5 to \$3.5 Federal and an equal amount non-Federal).

**Potential Problems:** Without reprogramming, Federal funds for the remainder of FY 2008 are limited to about \$0.3 million. There are no Federal funds in the Presidents budget for FY 2009. Recent initiatives by DWR have been to assist supporting Congressional add funds for FY 2009.

**Performance Measure Development:** N/A

**Science Review or Science Understanding:** N/A

**Public Involvement and Outreach:** Local consensus meetings with concerned stakeholders to develop study priorities and needs will be initiated upon initiation of the LSJRFI.

**Linkages with Other Elements:** The primary focus of the LSJRFI will be flood damage reduction. However, the potential for improvements to ecosystem conditions along the lower San Joaquin River will also be emphasized as part of the investigation.

**Environmental Compliance:** N/A

**Environmental Justice:** N/A

**Tribal Activities:** N/A

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**North Delta Actions** – to improve flood protection and conveyance facilities, water quality, Delta fisheries, and avoid water supply disruptions, to increase the water supply reliability for the SWP and CVP and to enhance the Delta ecosystem.

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**Activity:** **Delta Cross Channel Re-Operation and Through-Delta Facility (Delta Improvements Package)**

**Expected Deliverables/Products:** North/Central Delta regional Salmon Outmigration Study (Nov 08 – May 09)

**Schedule:** Equipment testing (Sep 08); Equipment deployment (Nov 08); Study execution and data collection (Nov 08 – April 09); Data analysis and report preparation (May 09 – June 10)

**Cost:** TDF/DCC modeling work and fish study \$2.0 mil (State), \$ 2.0 mil (SWP), \$0.4 mil (federal);

**Potential Problems:** The Delta regional salmon outmigration study, planned to be done in fall of 2008, is dependent upon coordination of DCC and project operations.

**Performance Measure Development:** N/A

**Science Review or Science Understanding:** CALFED Science Program Peer Review, Interagency Ecological Program (IEP)

**Public Involvement and Outreach:** Conduct public and technical advisory meetings to obtain feedback regarding the Delta regional salmon outmigration study.

**Linkages to Other Elements:** Water Quality Program and Environmental Restoration Program, IEP

**Environmental Compliance:** N/A

**Environmental Justice:** N/A

**Tribal Activities:** N/A

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**Activity:** **Frank's Tract (A project component of the CALFED Water Quality Program and Delta Improvements Package)**

**Expected Deliverables/Products:** Baseline data collection reports; Preliminary Geotechnical Engineering Report; Alternatives Analysis Report; Administrative Draft EIR/EIS; Public Draft EIR/EIS

**Schedule:** Baseline data collection reports (July 08); Preliminary Geotechnical Engineering Report (Aug08); Alternatives Analysis Report (Aug 08); Administrative Draft EIR/EIS (Dec 08); Public Draft EIR/EIS (July 09)

**Cost:** \$ 3.3 mil (State), \$ 0.9 mil (SWP)

**Potential Problems:** Ongoing coordination and preparation of OCAP biological opinion may continue through late-2008, potentially delaying the FTP.

**Performance Measure Development:** To be addressed in NEPA/CEQA documents.

**Science Review or Science Understanding:** Fisheries and Modeling Workgroups; CALFED Science Program

**Public Involvement and Outreach:** As part of the CEQA/NEPA process, meetings and workshops will be arranged to discuss the potential project with the public, stakeholders, and all responsible agencies.

**Linkages with Other Elements:** Water Quality Program and Environmental Restoration Program.

**Environmental Compliance:** To be addressed in NEPA/CEQA documents.

**Environmental Justice:** To be addressed in NEPA/CEQA documents.

**Tribal Activities:** To be addressed in NEPA/CEQA documents.

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**Activity: North Delta Flood Control and Ecosystem Restoration Project**

**Expected Deliverables/Products:** North Delta Flood Control and Ecosystem Restoration Final EIR

**Schedule:** Final EIR- August 2008

**Cost:** \$0.47 mil (State – general fund) for DWR staff

**Potential Problems:** No funding is available for completion of the EIR beyond completion of Final EIR. No implementation funding for design and construction has yet been identified. No long-term landowner for Staten or McCormack-Williamson Tract has been identified. No federal lead agency has been identified. However, there has been some forward momentum in resolving these outstanding issues.

**Performance Measure Development:** N/A

**Science Review or Science Understanding:** N/A

**Public Involvement and Outreach:** Final preferred alternative will be selected through the participation of stakeholders in the form of meetings of the North Delta Improvements Group, North Delta Agency Team and the Mokelumne-Cosumnes Watershed Alliance. Participants include DWR, DFG, State Lands Commission, RWQCB, Delta Protection Commission, Reclamation Districts, USFWS and National Marine Fisheries Service.

**Linkages with Other Elements:** The development of North Delta Flood Control and Ecosystem Restoration Project is expected to result in ecosystem improvements in the Delta. The North Delta Flood Control and Ecosystem Restoration Project will have direct and indirect land-use implications for rural communities and agricultural landowners in the Delta. This projects' planning and development efforts will be coordinated with the North Delta Implementation Group to integrate, to extent reasonably possible, a working landscape approach to implementation. The North Delta Flood Control and Ecosystem Restoration Project is expected to involve levee improvements in the Delta and will involve coordination with the Levee System Integrity Program.

**Environmental Compliance:** - N/A

**Environmental Justice:** - N/A

**Tribal Activities:** N/A

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**Delta Mendota Canal/California Aqueduct (DMC/CA) Intertie Actions**– to consider the need for two specific SWP/CVP intertie projects which physically connect the SWP and CVP facilities.

**Activity: Delta Mendota Canal/California Aqueduct Intertie (Delta Improvements Package)**

**Expected Deliverables/Products:** Administrative Draft EIS and Public Draft EIS.

**Schedule:** The schedule for completion of planning and environmental compliance activities is to be determined based on OCAP concerns.

**Cost:** TBD

**Potential Problems:** Additional court injunction or action preventing construction. Coordination and integration with preparation of OCAP biological opinion is likely to continue through late-2008, delaying construction until Summer 2009, or later.

**Performance Measure Development:** N/A

**Science Review or Science Understanding:** N/A

**Performance Measures:** There are no federal performance measures.

**Public Involvement and Outreach:** Preparation and release of public information notices, public review and comment on draft environmental documentation.

**Linkages with Other Elements:** No linkages have been identified.

**Environmental Compliance:** Preparation of EIS.

**Environmental Justice:** Will be addressed in the EIS.

**Tribal activities:** Will be addressed during environmental compliance.

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**Activity: Clifton Court Forebay / Tracy Pumping Plant Intertie**

Work on this project has not yet commenced.

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**Program To Meet Standards** – to develop and initiate implementation of a program to meet all existing water quality standards and objectives for which Central Valley Project has responsibility.

**Activity:** **DMC Recirculation Feasibility Study**

**Expected Deliverables/Products:** Feasibility Study and EIS/EIR in 2009.

**Schedule:** Draft EIS/EIR (Fall 2008); Final Feasibility Study and EIS/EIR (May 2009); ROD (June 2009).

**Cost:** \$3 million (Reclamation).

**Potential Problems:** The Westley Wasteway (one of the paths to the SJR from the DMC) is no longer connected to the SJR due to river migration over time. Total Suspended Solids (TSS) and Turbidity have been parameters of concern based upon the 2004 and 2007 Recirculation Pilot Studies.

**Performance Measure Development:** N/A

**Science Review or Science Understanding:** Addressed in NEPA/CEQA documents and Fisheries Technical Memorandum.

**Public Involvement and Outreach:** Conduct public stakeholder meetings for feedback regarding the proposed alternatives and modeling results for the study; regularly update the website.

**Linkages to Other Elements:** Water Quality Program, Environmental Restoration.

**Environmental Compliance:** Addressed in NEPA/CEQA documents.

**Environmental Justice:** Addressed in NEPA/CEQA documents.

**Tribal Activities:** Addressed in NEPA/CEQA documents.

**Complementary Actions** - to consider actions that were identified in the Framework for Action but were not analyzed in the Final Programmatic EIR/EIS

**Activity:** **Temporary Barriers Project**

**Expected Deliverables/Products:** Install, operate, and remove barriers. Prepare regular reports.

**Schedule:** The operation of the HORB, MR, and DMC barriers, and a partial GLC barrier, typically begins on April 15 each year. The full operation of the GLC barrier begins on June 1. The removal of the spring HORB generally begins May 16 each year. The removal of the Ag barriers begins early November. The operation of the fall HORB begins mid-September and the removal begins early November. All barriers are completely removed from channels by November 30 each year. The spring HORB will not be installed in 2008 and possibly future years due to recent court decisions regarding delta smelt protections.

**Cost:** \$6.6 mil (SWP)

**Potential Problems:** Naturally occurring high flows in the San Joaquin River that impact installation, and low summer flows that reduce water quality and may require barrier re-operations. Delta smelt abundance and salvage impact barrier installation and culvert operations, and may require removal as the most extreme measure.

**Performance Measure Development:** N/A

**Science Review or Science Understanding:** N/A

**Public Involvement and Outreach:** Coordinate with South Delta Water Agency, local landowners, and Reclamation Districts. Weekly updates emailed to stakeholders and provided on DWR web site during barrier operations.

**Linkages with Other Elements:** The Delta smelt Biological Opinion, water quality, and river flows, governs the installation, operation, and removal of the barriers.

**Environmental Compliance:** - N/A

**Environmental Justice:** - N/A

**Tribal Activities:** N/A

**Additional Actions Under Delta Improvement Package** - actions to increase water supply reliability, improve water quality, protect important fish species, and maintain the integrity of the levee systems in the Delta

**Activity:** **Study of South Delta Hydrodynamics, Water Quality, and Fish**

(See Clifton Court Fish Screens and 10,300 cfs)

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**Activity: Study of Delta Smelt and Fish Facilities**

(See Tracy Test Facility)

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**Activity: CCWD Alternative Intake Project (CALFED Water Quality Program and Delta Improvements Package)**

**Expected Deliverables/Products:** No deliverables are expected during this fiscal year. A federal Record of Decision (ROD) will be executed to change the point of diversion specified in the CCWD water service contract.

**Schedule:** The schedule for completion of planning and environmental compliance activities is to be determined based on OCAP concerns.

**Cost:** Costs for this fiscal year are limited to Reclamation labor costs necessary to complete a ROD and resolve OCAP issues.

**Potential Problems:** OCAP may affect the operations of an AIP.

**Performance Measure Development:** N/A

**Science Review or Science Understanding:** N/A

**Performance Measures:** There are no federal performance measures.

**Public Involvement and Outreach:** There are no public involvement or outreach activities planned for this fiscal year.

**Linkages to Other Elements:** None

**Environmental Compliance:** Execution of a Record of Decision.

**Environmental Justice:** Has already been addressed in the EIS/EIR completed last fiscal year.

**Tribal activities:** Have already been addressed during environmental compliance.

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**SWP/CWP Integration Plan** - the use of CVP stored water to meet SWP Delta water quality obligations and SWP export capability for CVP south-of-Delta deliveries.

(Included in the South Delta Improvement Program.)

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# APPENDIX A

The programs, projects, and evaluations to meet three commitments identified in the CALFED Record of Decision (ROD) that are contained in the Conveyance Program include:

## South Delta Actions

South Delta Improvements Program

Increasing the permitted State Water Project (SWP) Delta diversion limit to 8500 cubic feet per second (cfs) and installing permanent operable gates in the south Delta

Clifton Court Forebay (CCFB) Fish Screens/10,300 cfs

Constructing a new screened intake to CCFB and increasing the SWP diversion limit to 10,300 cfs

Tracy Fish Test Facility

Constructing a test facility at the Central Valley Project (CVP) Tracy pumping facilities

Lower San Joaquin Flood Improvements

Improving flood protection and ecosystem

## North Delta Actions

Delta Cross Channel Re-Operation

Evaluate and implement operations to improve fish protection and improve water quality

Through-Delta Facility Evaluation

Evaluate the feasibility of a screened diversion up to 4,000 cfs from the Sacramento River to the central Delta

North Delta Flood Control and Ecosystem Restoration Improvement Program

Implement flood control improvements in a manner that benefits aquatic and terrestrial habitats, species, and ecological processes for the North Delta region

## CVP/SWP Intertie Actions

Delta Mendota Canal/California Aqueduct Intertie

CVP/SWP Clifton Court Forebay Intertie

There are also several additional actions under the Conveyance Program which are also contained in the Delta Improvements Package (DIP) and the SDFP Co-Chairs Report. These actions and the program within which they are incorporated, shown in parenthesis, are:

- Study of South Delta hydrodynamics to better understand how flows in the Delta affect water quality and fish to determine areas for improvement (CCFB Fish Screen/10,300 cfs);
- South Delta Fish Facility Improvements and Collection, Handling, Transport and Release Study to evaluate and implement improvements in existing SWP and

- CVP fish salvaging facilities to increase the survival of Delta fish (CCFB Fish Screen/10,300 cfs);
- Improving the integration of the operation of the SWP and CVP by providing stored CVP water for SWP Delta water quality requirements and SWP Delta export capacity to pump CVP water for wildlife refuges (South Delta Improvements Program).

The “Complementary Actions” contained in the CALFED Program ROD for the Conveyance Program are the Temporary Barriers Project and the Sacramento and San Joaquin River Comprehensive Study. The Comprehensive Study was completed to an interim level with release of a December 2002 interim report. The report “sets the foundation for future modifications to the flood management system”. The Temporary Barriers Project continues as an annual activity in the South Delta and is included in this program plan.

The following programs are project components of the CALFED Water Quality Program Plan with linkages to the Conveyance Program.

Franks Tract

Evaluate flow and salinity in the Franks Tract region to improve fish protection and improve water quality

CCWD Alternative Intake Project

Improving and protecting the drinking water quality of existing Contra Costa Water District (CCWD) Delta diversions

Delta Mendota Canal Recirculation Feasibility Study and EIS/EIR

Reclamation, in cooperation with DWR, is preparing a Feasibility Study and EIS/EIR to analyze the potential of recirculation to assist in meeting water quality and flow objectives.

The geographic distribution of these actions is presented in Figure 1.

# CALFED Conveyance Program Plan



Figure 1