

SAN JOAQUIN RIVER  
RESTORATION PROGRAM



ANNUAL REPORT 2011



## Mission Statement

*The San Joaquin River Restoration Program (SJRRP) is a comprehensive long-term effort to restore flows to the San Joaquin River from Friant Dam to the confluence of the Merced River restoring a self-sustaining Chinook salmon fishery in the river while reducing or avoiding adverse water supply impacts from restoration flows.*





# Table of Contents

## 3 » INTRODUCTION

- » San Joaquin River Restoration Area
- » The Settlement
- » Settlement Implementation
- » Authorization and Funding
- » Program Management Structure

## 11 » 2011: PROGRESS AND ACCOMPLISHMENTS

- » Restoration and Water Management Goal 2011 Accomplishments
- » Technical Work Groups and 2011 Activities
- » Key Documents and Technical Memoranda Released in 2011
- » Public Involvement and Outreach
- » Program Costs and Funding
- » Annual Budget Table for 2011 and 2012

## 27 » LOOKING AHEAD: PROGRAM ACTIVITIES FOR 2012 AND BEYOND

- » 2012 Activities
- » Program Milestones
- » Public Involvement and Outreach

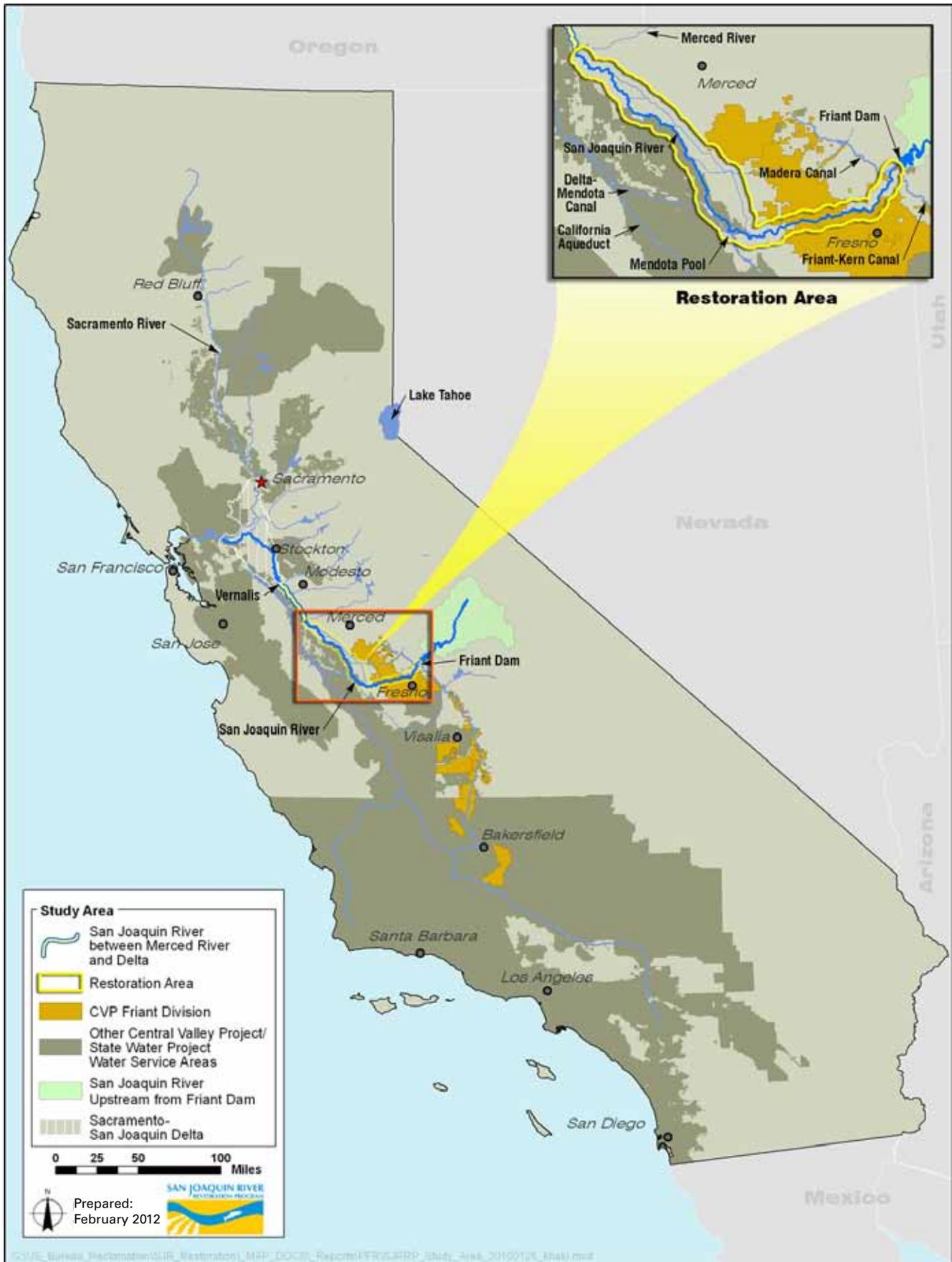


FIGURE 1 MAP OF RESTORATION AREA

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## Introduction

*San Joaquin River Below Friant Dam*



The San Joaquin River Restoration Program (SJRRP or Program) 2011 Annual Report describes 2011 Program activities and accomplishments and planned activities for 2012. The SJRRP was established upon court acceptance of a Stipulation of Settlement in *NRDC, et al., v. Kirk Rodgers, et al.*, in October 2006 on litigation related to the renewal of long-term water supply contracts in the Friant Division of the Central Valley Project, California.

In 2007, the Implementing Agencies including Reclamation, U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), and the California Department of Water Resources (DWR) and Department of Fish and Game (DFG) established the structure for the SJRRP and began work on the Program Environmental Impact Statement/ Environmental Impact Report (PEIS/R). In 2008, progress continued towards supporting the PEIS/R. In 2009, the SJRRP released the first Interim Flows on October 1, began development of operational guidelines for releasing Restoration Flows, initiated site-specific work on three of the highest priority Phase I channel improvements projects identified in the Settlement, and developed a plan to recirculate water back to the Friant Division long-term contractors.

In 2010, the SJRRP completed a variety of activities including the following: completed the first year of Interim Flows including extensive physical and biological monitoring activities; executed new contracts with 27 Friant Division long-term contractors; submitted a permit application for the reintroduction of salmon to the San Joaquin River by FWS to NMFS; formulated alternatives and environmental compliance strategies for the site-specific projects; recaptured and recirculated Interim Flows to Friant Division long-term contractors and made water available under the Recovered Water Account; and continued development of operational guidelines.

In 2011, progress continued across all areas of the Program, including:

- » Completing its second year of Interim Flows and initiation of the third year;
- » Allocating more than 680,000 acre-feet and delivering more than 350,000 acre-feet of Recovered Water Account water to date;
- » Recapturing more than 29,600 acre-feet of Interim Flows for 2011;
- » Completing and publicly releasing for comment a Draft PEIS/R;
- » Completing an updated Seepage Management Plan with coordination from landowners through a new Seepage and Conveyance Technical Feedback Group; and
- » Progressing on site-specific projects in Reaches 2B and 4B1 and at the Arroyo Canal and Sack Dam
  - **Mendota Pool Bypass and Reach 2B Channel Improvements Project**  
The project will create a bypass channel around the Mendota Pool (approximately 0.5 to 1.5 miles of new river channel, depending on the route) and will expand Reach 2B capacity to convey at least 4,500 cubic feet per second. The project will develop 11 miles of new levee and flood plain habitat.
  - **Reach 4B, Eastside Bypass and Mariposa Bypass Channel and Structural Improvements Project**  
The project includes the construction, operation, and maintenance of a channel in Reach 4B of the San Joaquin River and in the Eastside and Mariposa bypasses. It also includes improvements to structures in the San Joaquin River channel and Eastside and Mariposa bypasses to allow for fish passage.
  - **Arroyo Canal Fish Screen and Sack Dam Fish Passage Project**  
The project includes the installation of a fish screen on the Arroyo Canal to prevent entrainment of juvenile Chinook salmon in the canal and modifications to Sack Dam to allow for fish passage around the structure.

## SAN JOAQUIN RIVER RESTORATION AREA

The geographic area for the SJRRP includes California's Central Valley from the Sacramento-San Joaquin Delta (Delta) to the base of the Tehachapi Mountains south of Bakersfield (see Figure 1). This area includes the San Joaquin River from Friant Dam to the Delta, the Friant Division of the Central Valley Project (CVP), other water service areas potentially affected by changes in water deliveries or restoration of the San Joaquin River, and tributaries to the San Joaquin River downstream of the river restoration area. The river restoration area is 153 miles long and reaches from Friant Dam to the confluence of the Merced River. This stretch of river crosses the counties of Fresno, Madera, Merced, and Stanislaus. For the purposes of the Program, the river has been divided into five primary reaches (see Figure 2). The Program will also evaluate the Eastside and Mariposa bypasses for the potential to convey Interim and Restoration flows and perform physical improvements to support fisheries. The Program will also evaluate the Eastside and Mariposa bypasses for the potential to convey Interim and Restoration flows and perform physical improvements to support fisheries.

### REACHES OF THE SAN JOAQUIN RIVER UNDER EVALUATION INCLUDE:

- » Reach 1 – Friant Dam to Gravelly Ford
- » Reach 2 – Gravelly Ford to Mendota Dam
- » Reach 3 – Mendota Dam to Sack Dam
- » Reach 4 – Sack Dam to the confluence of Bear Creek and the Eastside Bypass
- » Reach 5 – Eastside Bypass/Bear Creek confluence to the Merced River confluence



FIGURE 2 MAP OF RIVER RESTORATION AREA

## THE SETTLEMENT

In 1988, a coalition of environmental groups, led by the Natural Resources Defense Council (NRDC), filed a lawsuit challenging the renewal of the long-term water service contracts between the United States and the Central Valley Project Friant Division contractors. After more than 18 years of litigation of this lawsuit, known as *Natural Resources Defense Council, et al., v. Kirk Rodgers, et al.*, a Stipulation of Settlement (Settlement) was reached. On September 13, 2006, the Settling Parties reached agreement on the terms and conditions of the Settlement, subsequently approved by the Court on October 23, 2006. The “Settling Parties” include the NRDC, Friant Water Users Authority (FWUA), the U.S. Department of the Interior and the U.S. Department of Commerce.

The Settlement’s two primary goals are:

### RESTORATION GOAL

To restore and maintain fish populations in “good condition” in the main stem of the San Joaquin River below Friant Dam to the confluence of the Merced River, including naturally reproducing and self-sustaining populations of salmon and other fish.

### WATER MANAGEMENT GOAL

To reduce or avoid adverse water supply impacts to all of the Friant Division long-term contractors that may result from the Interim Flows and Restoration Flows provided for in the Settlement.

## SETTLEMENT IMPLEMENTATION

The Settlement states that the U.S. Secretary of the Interior (Secretary) will implement the terms and conditions of the Settlement. Additionally, the Settling Parties agreed that implementation of the Settlement will also require participation of the State of California (State). Concurrent with the execution of the Settlement, the Settling Parties entered into a Memorandum of Understanding (MOU) with the State by and through the California Natural Resources Agency, DWR, DFG, and the California Environmental Protection Agency (CalEPA) regarding the State’s role in the implementation of the Settlement.

The program established to implement the Settlement is the San Joaquin River Restoration Program (SJRRP or Program), and the “Implementing Agencies” responsible for the management of the Program include Reclamation, FWS, NMFS, DWR, and DFG.

## AUTHORIZATION AND FUNDING

Federal participation in the SJRRP is authorized under the Central Valley Project Improvement Act (CVPIA) and the San Joaquin River Restoration Settlement Act (SJRRS Act), part of the Omnibus Public Land Management Act of 2009, Public Law 111-11. The CVPIA, signed in 1992, included provisions for the potential restoration of the San Joaquin River and authorized planning and environmental compliance for such activities. The SJRRS Act, signed in March 2009, authorizes and directs the Secretary of the Interior to implement the Settlement. Federal funding obligated for the SJRRP in Fiscal Year (FY) 2011 for planning and environmental compliance activities was approximately \$22 million.

The State of California has committed its support of the Settlement by entering into the State MOU with the Settling Parties that outlines a collaborative role for the State in planning, design, funding and implementation of the actions set forth in the Settlement. In the November 2006 election, State propositions 84 and 1E were passed by the California voters and should provide about \$200 million of State bond funds for projects that will directly contribute to the restoration efforts. Of that amount, approximately \$9.7 million was obligated in State Fiscal Year 2011.

## PROGRAM MANAGEMENT STRUCTURE

The Settlement included clear commitments that the Settling Parties and downstream water and land interests (referred to as Third Parties) would be involved in the development and implementation of plans by the Secretary of the Interior. Court approval of the Settlement initiated a series of actions that resulted in a program approach structured to provide for effective oversight, management and transparency of the SJRRP. Key among these actions was the development of MOUs with the State of California and Third Party Stakeholders.

### STATE MOU

Signed at the same time as the Settlement, the State MOU recognizes that the State of California, through DFG, DWR, the Natural Resources Agency, and CalEPA, will play a major, collaborative role in the planning, design, funding, and implementation of the actions on the San Joaquin River called for by the Settlement.

### THIRD PARTY STAKEHOLDERS MOU

Signed in February 2007, this MOU recognizes that the Third Parties will play a collaborative role in the planning, design, implementation, and potential adaptation of the actions on the San Joaquin River called for by the Settlement and in the implementing legislation.

The Program Organizational Chart (Figure 3) reflects the provisions of the Settlement and subsequent MOUs. The Program organization is described below.

The SJRRP Team is a multi-tiered group that includes staff from the Implementing Agencies. Roles and responsibilities:

### PROGRAM MANAGEMENT TEAM

Includes executives from the Implementing Agencies and is responsible for overall direction and coordination of the SJRRP

### PROGRAM MANAGER

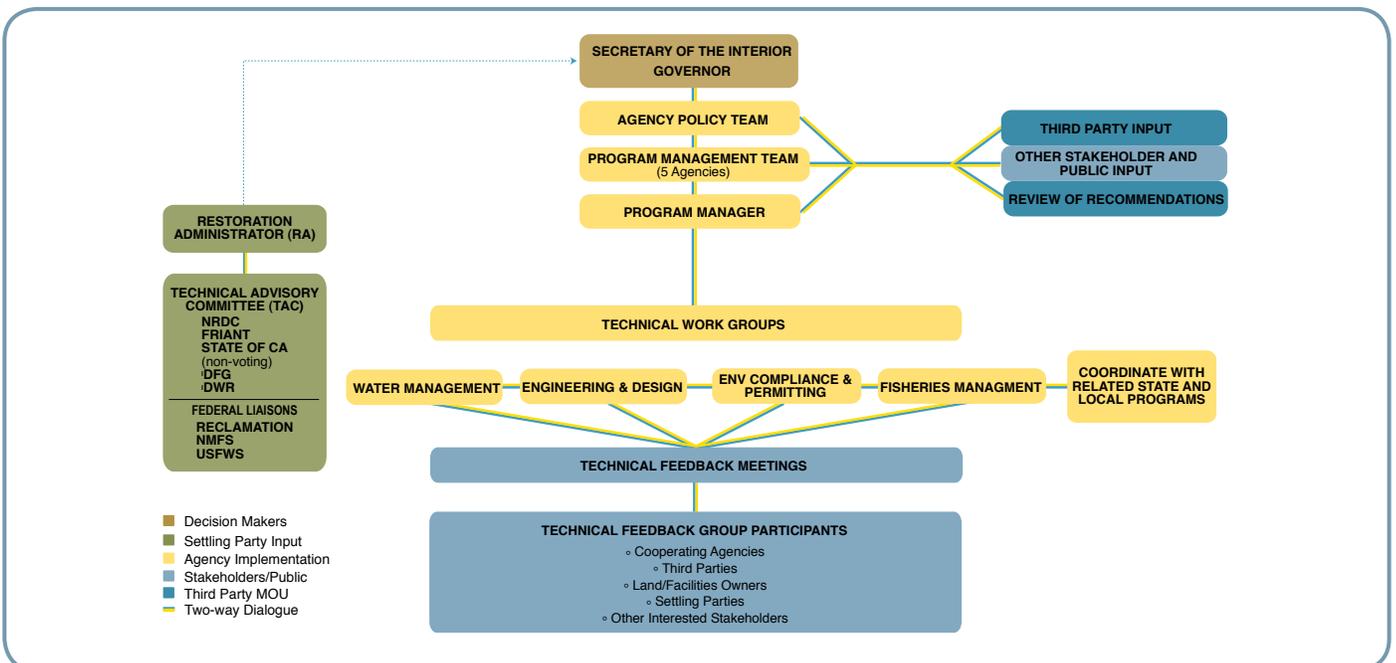
Provides direction and management of the Technical Work Groups (TWG) and serves as chair of the Program Management Team

### TECHNICAL WORK GROUPS

The SJRRP includes four primary Technical Work Groups (TWGs), each supported by various subject matter-specific sub-groups, as described later in this report. The four TWGs are:

- Water Management
- Engineering & Design
- Environmental Compliance & Permitting
- Fisheries Management

FIGURE 3 PROGRAM ORGANIZATIONAL CHART



## PROGRAM MANAGEMENT TEAM

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promero@water.ca.gov

### CALIFORNIA DEPARTMENT OF FISH & GAME (CALIFORNIA NATURAL RESOURCES AGENCY)

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## RESTORATION ADMINISTRATOR AND TECHNICAL ADVISORY COMMITTEE

The Settlement specified the roles and responsibilities for a Restoration Administrator who is supported by a Technical Advisory Committee. The SJRRP management structure integrates these resources to obtain timely input on technical issues related to the Restoration Goal.

### RESTORATION ADMINISTRATOR

The Restoration Administrator (RA), selected jointly by the NRDC and Friant Water Authority (FWA), provides recommendations to the Secretary, in consultation with the Technical Advisory Committee, regarding specific elements of the Settlement and certain issues related to the SJRRP's Restoration Goal.

### TECHNICAL ADVISORY COMMITTEE

The Technical Advisory Committee (TAC) includes six voting members selected by and representing FWA and NRDC. Voting members of the TAC assist and advise the RA regarding areas outlined in the Settlement, have relevant technical or scientific background or expertise in fields related to river restoration or fishery restoration, and serve for 3 years. Two non-voting members representing the State agencies serve as liaisons to the RA and TAC. The Federal agencies have three liaisons to the TAC to ensure coordination and information-sharing with the Implementing Agencies.

### RECOMMENDATIONS IN 2011

In accordance with the Settlement, the RA submitted the following recommendations to the SJRRP, after consultation with the TAC:

- » RA Updated Recommendation on Interim Flow Program - March 7
- » Spring 2011 Interim Flow Program Real-time Management Recommendations - April 23
- » Interim Flow Schedule RA Recommendation - May 11
- » 2010 RA Annual Report - July
- » RA Recommendation for 2012 Priority Monitoring and Assessment Actions - August 31
- » RA Recommendation for Updated Interim Flow releases, October 1, 2011, through February 29, 2012 - September 14

## RESTORATION ADMINISTRATOR & TECHNICAL ADVISORY COMMITTEE

### RESTORATION ADMINISTRATOR

Rod Meade

### TECHNICAL ADVISORY COMMITTEE

#### Voting Members

Monty Schmitt – Senior Water Resources Scientist, NRDC

Bill Luce – Consulting Resources Manager, Friant Water Authority

Scott McBain – McBain and Trush

Chuck Hanson – Hanson Environmental

Peter Moyle – University of California, Davis

Rene Henery – Trout Unlimited (joined September 2011)

#### Non-voting Members

Kevin Faulkenberry - DWR

Gerald Hatler - DFG

### FEDERAL LIAISONS

Alicia Forsythe – Reclamation

Rhonda Reed – NMFS

Robert Clarke – USFWS

### THIRD PARTY STAKEHOLDERS

Third Parties are persons or entities diverting or receiving water pursuant to applicable State and Federal laws and includes Central Valley Project water contractors outside of the Friant Division of the Central Valley Project and State Water Project.

#### THIRD PARTY MOU/SIGNATORS

##### ENTITIES ALONG THE SAN JOAQUIN RIVER

San Joaquin River Exchange Contractors Water Authority  
Central California Irrigation District  
Firebaugh Canal Water District  
San Luis Canal Company  
Columbia Canal Company  
San Joaquin River Resource Management Coalition

##### DOWNSTREAM TRIBUTARY WATER USERS

Merced Irrigation District  
Turlock Irrigation District  
Modesto Irrigation District  
Oakdale Irrigation District  
South San Joaquin Irrigation District  
San Joaquin Tributaries Association

##### OTHER CVP WATER USERS

Westlands Water District  
San Luis & Delta-Mendota Water Authority



## 2011 Progress and Accomplishments



*Alicia Forsythe, SJRRP, and Kevin Faulkenberry, DWR, at the Draft PEIS/R Sacramento public hearing*

The following section summarizes the Program's progress and accomplishments toward meeting the Program's goals. These 2011 accomplishments emphasize the Program's commitment to an open and transparent process through extensive public involvement efforts throughout the year.

### RESTORATION AND WATER MANAGEMENT GOAL 2011 ACCOMPLISHMENTS

#### OVERALL PROGRAM ACCOMPLISHMENTS:

Released a Draft PEIS/R for the SJRRP on April 21, 2011, with an extended public comment period and held public hearings within the restoration area and Sacramento.

#### RESTORATION GOAL ACCOMPLISHMENTS:

- Installed four temporary control gates at Sack Dam
- Finalized a Financial Assistance Agreement in August 2011 with Henry Miller Reclamation District #2131 for planning, environmental compliance, and design efforts for modifications to Sack Dam and the Arroyo Canal
- Continued progress on the planning, environmental compliance, and design efforts for the Mendota Pool Bypass and Reach 2B Channel Improvements Project and the Reach 4B, Eastside Bypass, and Mariposa Bypass Channel and Structural Improvements Project
- Issued a \$2 million grant to the San Joaquin River Parkway and Conservation Trust to help fulfill Reclamation's invasive vegetation monitoring and management commitments as part of the SJRRP Interim Flows project
- Completed Water Year 2011 Interim Flow releases including related monitoring and water recapture and recirculation activities

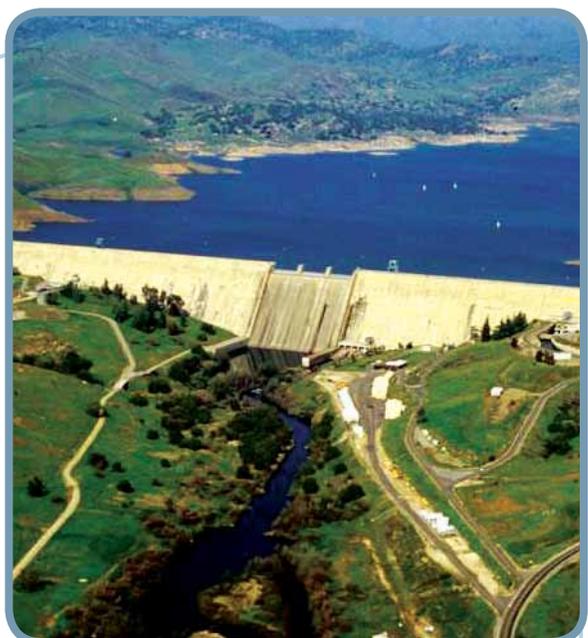


*Pete Lucero, Reclamation Public Affairs Officer, served as the Draft PEIS/R Hearings Officer*

- Released a Draft 2011 Annual Technical Report in April 2011 summarizing monitoring and analysis results to date related to Interim Flows
- Submitted all required documentation for and began Water Year 2012 Interim Flows
- Released a Draft Monitoring and Analysis Plan (MAP) presenting studies, monitoring network changes, and development of analytical tools scheduled for 2012 implementation of the Interim Flows
- Completed an updated Seepage Management Plan with coordination from landowners through a new Seepage and Conveyance Technical Feedback Group. Additionally, with landowner assistance and input, worked on a process for selecting and implementing seepage projects as described in the Seepage Project Handbook
- Monitored spring and fall Interim Flow releases with 23 flow gages and 29 additional locations recording river stage, 163 monitoring wells, and approximately 100 hourly temperature monitoring locations, with information disseminated in the Annual Technical Report
- Continued to monitor shallow groundwater wells to address seepage concerns and installed an additional 34 wells in 2011. These installations expanded the extensive groundwater monitoring network on public and private property to better understand changes in shallow groundwater conditions in response to Interim Flow releases

**WATER MANAGEMENT GOAL ACCOMPLISHMENTS:**

- Allocated more than 480,000 acre-feet in 2011 and 680,000 acre-feet since beginning the Program, and delivered more than 350,000 acre-feet of Recovered Water Account water to date
- Recaptured and recirculated more than 29,600 acre-feet of Interim Flows in 2011
- Released the Public Draft Feasibility Report and Environmental Assessment for the Friant-Kern Canal Capacity Restoration project with final documents anticipated July 2012
- Released a Final Environmental Assessment and Finding of No Significant Impact in June 2011 for the recirculation of recaptured Water Year 2011 SJRRP Interim Flows
- Continued progress on the:
  - Development of specific operational guidelines for releasing Restoration Flows and the framework for a Recovered Water Account
  - Long-term recapture and recirculation planning to return water back to the Friant Division long-term contractors including coordination with other water users
  - Final designs for the Friant-Kern Canal Capacity Restoration Project
  - Feasibility Study for the Madera Canal Capacity Restoration Project
  - Guidelines for Financial Assistance to Local Projects



*Millerton Lake and Friant Dam near Fresno, California*

## HILLS FERRY BARRIER STUDIES

Every fall, the California Department of Fish and Game constructs the Hills Ferry Barrier (HFB) on the San Joaquin River near the Merced River confluence to restrict passage of adult fall-run Chinook salmon upstream where habitat and water quality may be unsuitable for these fish. One of the studies called out in the legislation authorizing the SJRRP (Public Law 111-11) was to evaluate the effectiveness of the HFB in preventing upstream migration of anadromous fish, including Chinook salmon and steelhead, in the San Joaquin River and any false migratory pathways.

The first year of this study concluded in 2011 and a report is available on the SJRRP website at [www.restoresjr.net/program\\_library/02-Program\\_Docs/index.html](http://www.restoresjr.net/program_library/02-Program_Docs/index.html). Another year of study is under way and improvements to the structure were made for the fall 2011 season in order to improve opportunities for data collection, manage fish movement, better evaluate barrier effectiveness, and increase the rigidity and “fish tightness” of the structure.

*Hills Ferry Barrier Study Fish Trap*



*Hills Ferry Barrier*



*Norm Ponferrada, Reclamation, listens for acoustically tagged fish movement at the HFB*

RECOGNITION

- The SJRRP received a Partners in Conservation Award from the U.S. Department of the Interior for its extensive collaborative efforts.
- The Arroyo Canal Fish Screen and Sack Dam Fish Passage Project was one of 14 priority federal infrastructure projects highlighted on the White House Office of Management and Budget’s Federal Infrastructure Projects Dashboard.

- In November, 2011, the Department of the Interior released its America’s Great Outdoors Fifty-State Report summarizing two project ideas in each state for federal agencies to partner with state and local governments and other stakeholders on a shared conservation and recreation agenda. For California, the SJRRP was recognized as part of a national blueway, restoration, and recreation effort along the San Joaquin



Photo by Tami Heilemann

Secretary Ken Salazar gives a thumbs-up while canoeing on the San Joaquin River at an AGO event sponsored by the SJR Parkway and Conservation Trust, February 20, 2011.

River from its headwaters to the Sacramento-San Joaquin and San Francisco Bay Delta. The blueway is anticipated to become a regional and statewide asset that fosters health, strengthens community ties, enhances learning, and supports restoration and conservation efforts. Go to <http://americasgreatoutdoors.gov/> for more information on President Barack Obama’s America’s Great Outdoors initiative.

SJRRP SELECTED AS PART OF NEW WHITE HOUSE PUBLIC WEBSITE TRACKING TOOL

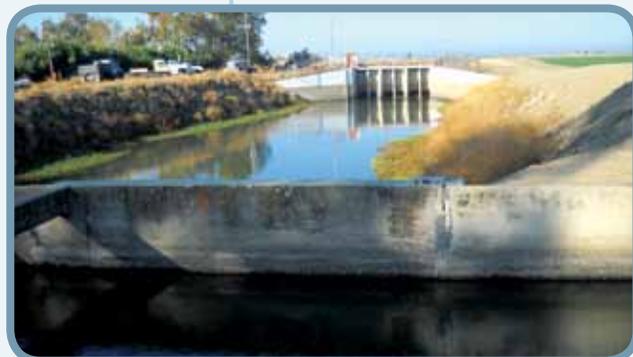
The White House Office of Management and Budget launched a new website, the Federal Infrastructure Projects Dashboard, where the federal permitting and environmental review process for expedited high priority infrastructure projects can be tracked. Located at <http://permits.performance.gov>, one of the initial 14 priority federal infrastructure projects highlighted is the SJRRP’s Arroyo Canal Fish Screen and Sack Dam Fish Passage Project. The site lists pending permits, studies and interagency agreements for this specific project and will track the progress on the activities in keeping with the current

project schedule, improving the accountability, transparency, and efficiency of Project actions.

The Arroyo Canal Fish Screen and Sack Dam Fish Passage Project implements two of the highest priority projects identified in the Settlement. The project includes a fish screen on the Arroyo Canal to prevent entrainment of juvenile native fish in the canal and modifications to Sack Dam to allow for fish passage around

the structure. The project furthers the Department of the Interior’s efforts to restore Chinook salmon and other fish to the San Joaquin River and is authorized in the San Joaquin River Restoration Settlement Act (P.L. 111-11).

Arroyo Canal



## TECHNICAL WORK GROUPS AND 2011 ACTIVITIES

The four Technical Work Groups (TWGs) of the SJRRP and their related sub-groups contributed their areas expertise towards the development and implementation of Program activities. Listed below is a summary of each TWG's focus and accomplishments for 2011.

### WATER MANAGEMENT TWG

Working in collaboration with all TWGs, the Water Management TWG addresses water operations and activities for accomplishing the Restoration and Water Management goals. In 2011, this group continued work on: development of Restoration Flows Guidelines; implementation of the recapture and recirculation of Interim Flows for the benefit of Friant Division long-term contractors; development and management of the Recovered Water Account; canal improvement projects; and, financial assistance for local projects.

### SJRRP RECEIVES NATIONAL AWARD FROM DEPARTMENT OF INTERIOR

In September, U.S. Secretary of the Interior, Ken Salazar, selected the SJRRP as one of 17 recipients for the 2011 Partners in Conservation Awards for its outstanding conservation, collaboration, cooperation, and communication achievements. The award recognizes efforts towards the Department's priorities of widespread engagement of youth, tribes, local communities and states, other federal agencies, business and industry, private for-profit and non-profit institutions, and private landowners.

Secretary Salazar commented, "The Partners in Conservation Awards demonstrate that our nation's greatest conservation legacies often emerge when agencies and citizens from a wide range of backgrounds come together to address shared challenges."



Accepting the award on behalf of the SJRRP included, from left to right: David Murillo, Reclamation Deputy Commissioner; Rhonda Reed, NMFS San Joaquin River Basin Acting Branch Chief; DOI Secretary Ken Salazar; Alicia Forsythe, Reclamation SJRRP Program Manager; Doug Obegi, NRDC Staff Attorney; and Robert Clarke, FWS Pacific Southwest Region Fisheries Program Manager (photo by DOI photographer Tami Heilemann).

### ACCOMPLISHMENTS IN 2011:

- Completed quarterly Water Management public Technical Feedback Group meetings
- Implemented a project management approach to completing the Restoration Flows Guidelines by January 2014
- Allocated more than 480,000 acre-feet in 2011 and 680,000 acre-feet since beginning the Program, and delivered more than 350,000 acre-feet of Recovered Water Account water to date
- Recaptured and recirculated more than 29,600 acre-feet of Interim Flows in 2011
- Completed Feasibility Report and Draft Environmental Assessment for the Friant-Kern Canal Capacity Restoration Project
- Continued progress on the:
  - Development of specific operational guidelines for releasing Restoration Flows and the framework for a Recovered Water Account
  - Long-term recapture and recirculation planning to return water back to the Friant Division long-term contractors including coordination with other water users
  - Final designs for the Friant-Kern Canal Capacity Restoration Project
  - Feasibility Study for the Madera Canal Capacity Restoration Project
  - Final Guidelines for Financial Assistance to Local Projects

FISHERIES MANAGEMENT TWG

The Fisheries Management TWG is responsible for planning and coordination efforts to implement the fisheries components of the Restoration Goal. Work during 2011 consisted of document preparation and submission, study development and implementation, and technical input to various Program efforts.

ACCOMPLISHMENTS IN 2011:

- Performed a study on juvenile Chinook salmon survival rates while migrating from Friant Dam to the mouth of the Merced River
- Released Interim Flows monitoring and analysis results in the 2010 Annual Technical Report and the Draft 2011 Annual Technical Report
- Responded to comments and completed revisions to the Endangered Species Act 10(a)1(A) permit application and submitted it to NMFS
- Completed a Reintroduction Strategy Document identifying the methods and numbers for collection of donor stocks to support Central Valley spring-run Chinook salmon reintroduction to the San Joaquin River
- Provided technical support for the Mendota Pool Bypass and
- Reached 2B Channel Improvements Project, the Reach 4B, Eastside Bypass, and Mariposa Bypass Channel and Structural Improvements Project, the Arroyo Canal Fish Screen and Sack Dam Fish Passage Project, and the Draft PEIS/R regarding fish passage, screening, and floodplain habitat development
- Continued providing input and guidance for an Ecosystem Diagnosis and Treatment quantitative model for the SJRRP
- Provided technical support for the water quality monitoring portion of the Program
- Provided fisheries support for the development of the Restoration Flow Guidelines



Chinook Salmon, photo by DWR

SCIENTIFIC STUDIES PROPOSED AND COMPLETED

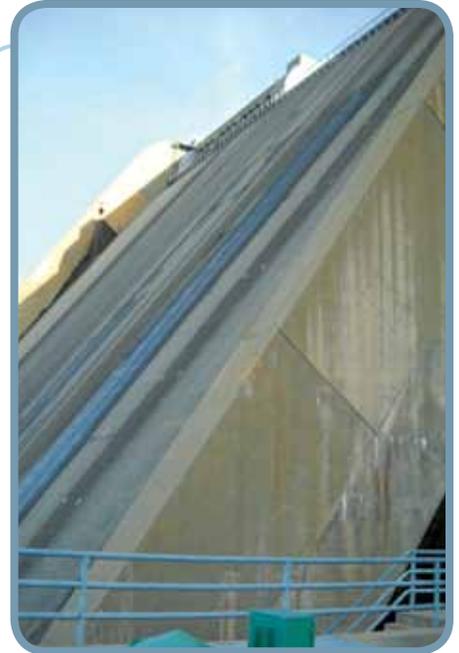
STUDIES IMPLEMENTED IN 2011 AND REPORTED IN THE ANNUAL TECHNICAL REPORT:

- Completed second year of Benthic Macroinvertebrate Bioassessment using Surface Water Ambient Monitoring Program protocols
- Completed year 1 of Juvenile Salmon Migration and Survival Study
- Completed year 1 of Egg Survival Study
- Completed Evaluation of Spawning Habitat in Hyporheic Zone
- Continued Evaluation of Hills Ferry Barrier
- Completed Recreational Fishery Impacts Evaluation
- Continued Fish Passage Barrier Evaluation
- Continued Broodstock Captive Rearing Study
- Completed Evaluation of Reach 1A Bed Mobility Study

## ENGINEERING AND DESIGN TWG

This TWG is responsible for engineering and design of structures and flow channels needed to meet the Restoration and Water Management goals of the Settlement. Through coordination with other TWGs, the Engineering and Design TWG is estimating the costs of structures and flow channels for inclusion in: the Draft PEIS/R; the Mendota Pool Bypass and Reach 2B Channel Improvements Project; Reach 4B, and Eastside Bypass and Mariposa Bypass Channel and Structural Improvements Project; the Arroyo Canal Fish Screen and Sack Dam Fish Passage Project; Friant-Kern and Madera Canal Capacity Restoration projects; the Friant-Kern Canal Reverse-Flow Pump-back Facilities Project; and Seepage Management projects. These designs, and cost estimates, will assist in the development of alternatives for each of the projects.

The Engineering and Design TWG is also responsible for the monitoring of physical parameters and development of seepage management projects. Efforts include the installation of monitoring equipment including temperature sensors, stream gages, and groundwater wells. The Engineering and Design TWG also began hosting Seepage and Conveyance Technical Feedback Meetings to discuss seepage management plans and solicit feedback from stakeholders on the non-damaging level of flows that can be released from Friant Dam and passed below Mendota Pool.



*Friant Dam*

## ACCOMPLISHMENTS IN 2011:

- Developed designs and initial alternatives for the Mendota Pool Bypass and Reach 2B Channel Improvements Project
- Developed designs for the Reach 4B, Eastside Bypass, and Mariposa Bypass Channel and Structural Improvements Project
- Chartered a Seepage and Conveyance Technical Feedback Group (SCTFG) that solicits feedback from stakeholders on the non-damaging level of flows that can be released from Friant Dam and passed below Mendota Pool and also develops plans for increasing channel capacity. Ten SCTFG meetings were held in 2011 with an average of 20 participants at each. They included irrigation district managers, local landowners, agency staff, non-profits, and congressional staffers.
- Produced an updated Seepage Management Plan in March 2011, incorporating landowner comments regarding groundwater thresholds. The group resolved issues regarding the operations of Interim Flows to protect crop root zones, including concerns regarding speed of response to landowner observed seepage, process for reducing flows from Friant Dam, monitoring well coverage and root zone depth.
- Initiated the development of a Seepage Project Handbook to set expectations, process and timelines for implementation of seepage projects to increase the channel capacity of the river channel. The Handbook will be completed in 2012.
- Identified two seepage projects for implementation in 2012 in Reach 3 and 4A. Landowner meetings will be held in 2012 as part of implementing additional seepage projects.

*Note:* The Seepage Project Handbook and the Seepage Management Plan are available on the website here: [www.restoresjr.net/flows/Groundwater/index.html#SMP](http://www.restoresjr.net/flows/Groundwater/index.html#SMP). They were distributed to the SCTFG attendees at multiple meetings for purposes of providing comments.

## MONITORING SUBGROUP

The Monitoring Subgroup, consisting of monitoring leads from the Implementing Agencies, met during 2011 to plan, coordinate, and implement monitoring activities as well as discuss the Annual Technical Report and Monitoring and Analysis Plan. Information acquired through these activities will help to form and refine the scientific basis for actions taken in fulfillment of the Settlement including Friant Dam operations, San Joaquin River channel and facilities improvements, and Chinook salmon reintroduction.

### ACCOMPLISHMENTS IN 2011:

- Allocated and operated Interim Flow releases for 2011
- Disseminated data collected in 2010 and 2011 through an Annual Technical Report
- Announced 2012 data collection efforts through a Monitoring and Analysis Plan
- Monitored the spring and fall Interim Flows including hourly recorded or periodic measured values at 23 flow gages and 29 additional locations recording river stage, individual groundwater monitoring wells, 48 locations measuring groundwater temperature, and approximately 100 surface water temperature monitoring locations
- Surveys including vegetation transects, water surface elevation surveys in Reaches 4A, 4B2, 5 and the Eastside Bypass, and detailed surveying at potential fish passage barriers
- Samples and testing included bi-monthly water quality parameters including turbidity, pH, selenium, boron and mercury on the San Joaquin River; the bypass system and tributaries; sediment sampling for engineering properties; water quality analyses in Mendota Pool; and soil salinity sampling at approximately 48 locations



*Reclamation's drill crew drilling one of the 34 monitoring wells installed in 2011, with a friendly mule taking a nibble. Reach 2A of the SJR. (12/7/2011)*

- Installed 34 monitoring wells in 2011, extending the total well network to 163 wells that includes 99 previously installed monitoring wells and piezometers, 15 wells re-monitored from the 2002 pilot project, 3 CCID wells and 12 private wells monitored regularly by the SJRRP
- Installed a new flow gaging station at San Mateo Road near Mendota which has been operational since February 17, 2011
- Collected suspended sediment and bed-load samples at five locations in Reaches 1 through 3 as well as bed-material samples as part of fisheries habitat assessments in Reach 1
- Collected aerial imagery of the Restoration Area for three different Friant Dam release rates during spring Interim Flows
- Evaluated fish passage at key locations in the Restoration Area

## MODELING SUBGROUP

The Modeling Subgroup, consisting of modeling team members from the Implementing Agencies, other agencies and associated consultants, coordinated modeling efforts for site-specific projects and overall planning efforts in 2011. Information acquired through these activities will help to predict future conditions for potential actions taken in fulfillment of the Settlement including Friant Dam operations, San Joaquin River channel and facilities improvements, and Chinook salmon reintroduction.

### ACCOMPLISHMENTS IN 2011:

- Developed SRH-2D hydraulic and sediment transport models for Reaches 1A, 1B, 2A, 2B, and 4B1
- Developed a draft 2D temperature model for gravel pits in Reach 1A to evaluate the effects of gravel pits on San Joaquin River temperatures under different flow scenarios as well as correlation to predation
- Updated digital terrain models for Reaches 1B, 2A, and 4A with 2008 LiDAR and 2009-2011 bathymetry, as available
- Developed a Daily Flow Model with reservoir and flood control operations included for use in site-specific projects
- Evaluated Mendota Pool Bypass and Reach 2B Channel Improvements Project alternatives through hydraulic, sediment transport, and vegetation modeling
- Modeled and evaluated Reach 4B, Eastside Bypass, and Mariposa Bypass Channel and Structural Improvements Project alternatives with ongoing hydraulic and sediment transport modeling
- Developed a draft ¼-mile, grid-size MODFLOW- based groundwater model for within five miles on either side of the San Joaquin River and bypasses including the farm process and local grid refinement methodology developed for the Central Valley Hydrologic Model
- Obtained a contract and held a workshop to begin revisions to the Ecosystem Diagnostic and Treatment (EDT) model initially developed in 2009. The EDT model will be used to evaluate site-specific project alternatives as well as inform fisheries reintroduction activities.



*Reclamation's soil scientist, Joe Brummer, drilling a hand auger borehole in a pistachio orchard in Reach 4B adjacent to the Eastside Bypass to check the depth of the groundwater below ground surface. (3/16/2011)*

*Mendota Dam at the Mendota Pool*



#### ENVIRONMENTAL COMPLIANCE AND PERMITTING TWG

This TWG plans and coordinates efforts to implement elements of the Settlement in relation to environmental studies, permits, alternative formulation, and other requirements necessary for actions needed to meet the Restoration and Water Management goals.

#### ACCOMPLISHMENTS IN 2011:

- Completed and consulted on multiple studies and small-scale projects, including Mendota Pool Sediment Sampling, monitoring well installation, and Mendota Dam Sluice Gate Replacement
- Reviewed and released the Draft PEIS/R and initiated the Program Endangered Species Act (ESA) consultation
- Completed the Water Year 2012 Supplemental Interim Flows Environmental Assessment/Finding of No Significant Impact (EA/FONSI), National Historic Preservation Act (NHPA) compliance, and ESA compliance
- Completed the Recirculation of Recaptured Water Year 2011 SJRRP Interim Flows EA/FONSI and compliance activities
- Submitted 10(a)1(A) permit application for the monitoring of Central Valley steelhead on the San Joaquin River
- Distributed the Friant-Kern Canal Capacity Restoration Draft EA and FONSI for public comment



## KEY DOCUMENTS AND TECHNICAL MEMORANDA RELEASED IN 2011

The SJRRP developed numerous key program documents and Technical Memoranda (TMs) in 2011. As they became available, these documents and TMs were posted on the Program website to facilitate early coordination with the Settling Parties, Third Parties, other stakeholders, and interested members of the public regarding initial concepts and approaches under consideration. While the Program Team does not request formal comments on the TMs, to the extent possible, all comments received are considered in refining the concepts and approaches in the TMs and in future Program documents.

Program documents can be found on the SJRRP website at [www.restoresjr.net/program\\_library/02-Program\\_Docs/index.html](http://www.restoresjr.net/program_library/02-Program_Docs/index.html).

### SUMMARY OF DOCUMENTS RELEASED IN 2011

#### MONITORING WELL THRESHOLDS DRAFT TECHNICAL MEMORANDUM

The purpose of this memorandum is to describe the development of thresholds for monitoring wells. The memorandum includes monitoring thresholds to identify groundwater levels of concern and buffer zones to add a safety factor protecting crop root zones. It also includes the proposed process for development of and updates to action thresholds. The memorandum was released and available on the Program website in January 2011.

#### REINTRODUCTION STRATEGY FOR SPRING RUN CHINOOK SALMON

The reintroduction of Chinook salmon to the San Joaquin River under the Settlement requires the USFWS to submit an application to NMFS for an ESA Section 10(a)1(A) permit for scientific research or to enhance the propagation and survival of the species. The Reintroduction Strategy, developed to support this permit application, provides a description of a suite of appropriate methods for collection from each donor stock and a suite of reintroduction methods utilizing various life stages of the donor stocks, various reintroduction techniques, and various levels of conservation hatchery techniques. The Reintroduction Strategy was released and available on the web in February 2011.

#### UPDATED SEEPAGE MANAGEMENT PLAN

The Seepage Management Plan for the SJRRP describes the monitoring and operating guidelines for reducing Interim or Restoration Flows to the extent necessary to address any material adverse impacts caused by Interim and Restoration Flows in the San Joaquin River identified by the SJRRP groundwater monitoring program. The Updated Seepage Management Plan was released and available on the web in March 2011.

#### ANNUAL TECHNICAL REPORT

The ATR for the SJRRP provides an incremental update on monitoring and analyses completed for each year of Interim Flows. The ATR tracks long-term restoration approaches, identifies outstanding information needs, reports monitoring and analysis results, documents the Program's scientific approach for operating Friant Dam, and provides feedback into the decision-making process. The ATR is a way for the Implementing Agencies to present to stakeholders the process used to address specific SJRRP needs. The 2010 ATR was released and available on the website in April 2011.

*Salmon*



*Orange Grove in the Central Valley*



*Groundwater Seepage*

**DRAFT PROGRAM ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT**

The purpose of the Draft Program Environmental Impact Statement/Environmental Impact Report (PEIS/R) is to analyze and disclose the direct, indirect, and cumulative impacts of implementing the Settlement as directed by the Act, consistent with NEPA/CEQA requirements. The Draft PEIS/R serves as an informational document for decision makers, public agencies, non-governmental organizations, and the general public regarding the potential direct, indirect, and cumulative environmental consequences of implementing any of the alternatives. The Draft PEIS/R was released and available on the web in April 2011.

**DRAFT FEASIBILITY REPORT, ENVIRONMENTAL ASSESSMENT, AND PROPOSED FINDING OF NO SIGNIFICANT IMPACT FOR THE FRIANT-KERN CANAL CAPACITY RESTORATION FEASIBILITY STUDY**

Reclamation prepared a Draft Feasibility Report, Environmental Assessment (EA) and a Proposed Finding of No Significant Impact (FONSI) to restore the capacity of the Friant-Kern Canal from the current operating capacity of 4,680 cfs to the previously designed and constructed capacity of 5,000 cfs for more than 59 miles of canal length that includes modifications to the Little Dry Creek Wasteway. These documents were released in June 2011.

**FINAL SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT AND PROPOSED FINDING OF NO SIGNIFICANT IMPACT FOR THE SJRRP'S WATER YEAR 2012 INTERIM FLOWS PROJECT**

Reclamation prepared an Environment Assessment to extend the period of modified releases of water from Friant Dam for an additional year (Water Year 2012 or October 1, 2011 to September 30, 2012) in accordance with the flow schedule in Exhibit B of the Settlement, and in a manner consistent with Federal, State and local laws and any agreements with downstream agencies, entities, and landowners. The Draft EA and FONSI were released in June 2011. The Final EA and FONSI were released and available on the website in September 2011.

**FINAL ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT FOR RECIRCULATION OF RECAPTURED WATER YEAR 2011 SJRRP INTERIM FLOWS**

Reclamation prepared an Environment Assessment and FONSI to analyze the impacts to the human environment from recirculating recaptured WY 2011 Interim Flows. The Draft EA and FONSI were released in March 2011. The Final EA and FONSI were released and available on the web in June 2011.

**REACH 4B, EASTSIDE BYPASS, AND MARIPOSA BYPASS CHANNEL AND STRUCTURAL IMPROVEMENTS PROJECT PUBLIC SCOPING REPORT ADDENDUM**

This Report Addendum documents the second round of scoping activities for the SJRRP Reach 4B, Eastside Bypass, and Mariposa Bypass Channel and Structural Improvements Project. The report was released and available on the website in July 2011.

*Millerton Reservoir*



**MENDOTA POOL BYPASS AND REACH 2B CHANNEL IMPROVEMENTS PROJECT REGULATORY COMPLIANCE TM**

This TM identifies the permits and approvals required for implementing the Mendota Pool Bypass and Reach 2B Improvements Project and describes a comprehensive and coordinated approach to obtaining them. The TM was completed in August 2011.

**EVALUATION OF HILLS FERRY BARRIER EFFECTIVENESS AT RESTRICTING CHINOOK SALMON PASSAGE ON THE SJR FINAL REPORT**

This report evaluates the Hills Ferry Barrier for effectiveness at preventing unintended upstream migration of anadromous fish in the San Joaquin River. The final report was released and available on the website in October 2011.

#### REACH 4B, EASTSIDE BYPASS, AND MARIPOSA BYPASS CHANNEL AND STRUCTURAL IMPROVEMENTS PROJECT INITIAL ALTERNATIVES TECHNICAL MEMORANDUM

The Initial Alternatives Technical Memorandum documents the process for formulating preliminary alternatives to implement the Reach 4B, Eastside Bypass, and Mariposa Bypass Channel and Structural Improvements Project. The Technical Memorandum presents a collection of conceptual alternatives to encourage comments before the evaluation of the alternatives. The Technical Memorandum was released and available on the website in October 2011.

#### MENDOTA POOL BYPASS AND REACH 2B CHANNEL IMPROVEMENTS PROJECT ENVIRONMENTAL FIELD SURVEY RESULTS TM

This TM provides biological background information and survey results needed to support the resource area sections in the Mendota Pool Bypass and Reach 2B Improvements Project (Project) Environmental EIS/R and supports the permit applications necessary to implement the Project, including the Biological Assessment. The TM was completed in November 2011.

#### 2012 MONITORING AND ANALYSIS PLAN

The Monitoring and Analysis Plan (MAP) presents studies, monitoring network changes, and the development of analytical tools scheduled for 2012 implementation. The Final 2012 MAP was released and available on the website in November 2011.

#### DRAFT SEEPAGE PROJECT HANDBOOK

The Seepage Project Handbook establishes the process Reclamation will use to coordinate with landowners on evaluation, design and construction of projects to reduce or avoid adverse material impacts from groundwater seepage as part of the SJRRP. The Draft Seepage Project Handbook was released and available on the website in December 2011.

#### FINAL ENVIRONMENTAL ASSESSMENT AND PROPOSED FINDING OF NO SIGNIFICANT IMPACT FOR THE MENDOTA DAM SLUICE GATES REPLACEMENT PROJECT

Reclamation prepared an Environment Assessment and FONSI to analyze the impacts of replacing all six of the existing Calco rectangular, cast iron gates on Mendota Dam with heavy duty Waterman Gates. The new gates are intended to improve reliability and allow the Central California Irrigation District to respond more effectively to SJRRP flow deliveries through the dam. The Draft EA and FONSI were released in mid-December 2011. The Final EA and FONSI were released and available on the website in late December 2011.





*Margaret Gidding, SJRRP Outreach Coordinator, at the Hills Ferry Barrier*

## PUBLIC INVOLVEMENT AND OUTREACH

The SJRRP includes a variety of public outreach activities creating an open and transparent process that the general public, stakeholders, affected Third Parties, and other interested parties can monitor and participate. To set the framework for the outreach, the Program developed a Public Involvement Plan (PIP) that describes how the five Federal and State agencies implementing the Program inform and involve all levels of leaders, managers, stakeholders, and the general public. Effective communication and coordination with all interested and affected parties helps ensure that stakeholders and the public are informed, have an opportunity to provide input, and Program actions are implemented efficiently and effectively. Outreach activities conducted in 2011 included:

### TECHNICAL FEEDBACK GROUP MEETINGS

Technical Feedback Group (TFG) meetings continued during 2011 to assist Program staff in soliciting input from technical experts, interested stakeholders, and the public in the development of key Program documents and implementation activities. The meetings also provide a public process for the various steps of Program development and implementation. Meetings were held for the following TFGs in 2011: Water Management, Restoration Goals, Fisheries Management, and Seepage and Conveyance. Participation in TFG meetings is open to the public, including the Settling Parties, Third Parties, landowners and any stakeholders with an interest in the topic(s) being discussed.

### 2012 TECHNICAL FEEDBACK GROUP MEETING DATES

TECHNICAL FEEDBACK GROUP	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Water Management	21		4	15		17			16			16
Restoration Goals							7				1	
Fisheries Management					17				29			
Seepage and Conveyance	14	10, 22	23	29			6	4	6		10	15

## LANDOWNER MEETINGS

To support progress in development of site-specific studies and communicate Program-level accomplishments of the SJRRP, several public meetings were conducted for landowners or their representatives in 2011. Meetings were held in Dos Palos, Firebaugh, and Fresno. These meetings built upon the 2010 focus of in-person and phone meetings with individual landowners for parcel-level discussions. Landowner meetings for 2011 were in addition to Field Survey and Investigation Coordination (see below) activities implemented to support site-specific technical studies, data collection, and other management activities.

Two landowner meetings and a technical workshop were held in 2011 for the Mendota Pool Bypass and Reach 2B Improvements Project. A March 24 landowner meeting, held at DWR's Fresno office and attended by 37 people, focused on: the presentation of a range of initial alternative designs; a status update on boundary surveys by the California State Lands Commission (CSLC); and an overview of the real estate acquisition process for Reclamation and DWR. Based on landowner feedback and further technical studies, the Project team hosted another landowner meeting at the Andrew Firebaugh Community Center, Firebaugh, on October 3, to present refined alternative designs and for CSLC staff to present draft administrative maps for Reach 2B (41 attendees). Based on content presented at the October meeting, participants requested a technical workshop to review and comment on the design, location, and operation of potential structures and levees identified in remaining alternatives. The workshop was held November 14 at Kings River Water Conservation District, Fresno (28 attendees).

Two landowner meetings were held for the Reach 4B, Eastside Bypass, and Mariposa Bypass Channel and Structural Improvements Project in 2011. The July 21 and October 3 meetings were hosted by the San Luis Canal Company, with attendance of 18 and 30 people, respectively. The July 21 landowner meeting provided a general overview of alternatives identified in the Settlement and other Program-level activities; a briefing on the type of field activities necessary to evaluate the alternatives; and information on pending CSLC boundary surveys. The October meeting provided an update on field activities, a review of initial concepts for flow routing, and a status update on the CSLC boundary surveys.



*Fresno Bee reporter Mark Grossi (left) interviews Don Portz, Reclamation Technical Service Center, at the Hills Ferry Barrier*

### TEMPORARY ENTRY PERMIT COORDINATION AND GROUNDWATER MONITORING WELLS

In 2010, SJRRP management reached an agreement with local landowners and Third Parties, including the San Joaquin River Resource Management Coalition (RMC), on a Comprehensive Temporary Entry Permit for pre-construction surveys and investigations on private property including field reconnaissance surveys, sediment sampling, soil surveys, terrain surveys, water surface and flow measurements, biological resource surveys, cultural surveys, and vegetation mapping. This permit replaced a more limited version used in 2008. Another permit, referred to as the Geologic Investigation Temporary Entry Permit, was released in 2009 to support installation of groundwater monitoring wells. The 2009 and 2010 formats continue to be used by the SJRRP.

Since 2008, the SJRRP has executed 20 Comprehensive and 34 Geologic Temporary Entry Permits with individual landowners in Reach 2A through 5 and the Eastside Bypass. The SJRRP has utilized these permits for prioritization of certain field surveys and for the installation of groundwater monitoring wells where authorized by the landowner. New Temporary Entry Permits are released where necessary to support specific field activities or to amend landownership records. In 2011, four Temporary Entry Permits were distributed to landowners (three still pending landowner signatures). Groundwater monitoring well agreements were coordinated to support the installation of 17 wells on 11 individual landowner properties in 2011.

### FIELD SURVEY AND INVESTIGATION COORDINATION

To support field survey activities and investigations on private and public lands in 2011, the Program initiated the preparation and distribution of Field Advisories and performed one-on-one coordination with individual landowners for field activities. Field Advisories are developed to inform landowners and other interested parties of upcoming activities. Field Advisories developed in 2011:

- Bathymetric Surveys of the Reach 4A, 4B2 and Eastside Bypass to map channel contours during flood flows; aerial surveys of the Friant-Kern and Madera canals - January
- Biological surveys of private property in Reach 2B with a focus on elderberry shrubs, wildlife habitat, botanical and wetland resources - February
- Aerial survey of the San Joaquin River from Friant Dam to the Merced River confluence, inclusive of the bypass system - March
- Fish telemetry study to install acoustic receivers at 30 locations in advance of the release of juvenile fall run Chinook salmon for a fish survival study - April
- Small mammal survey in Reach 2B and an area adjacent to the Chowchilla Bifurcation Structure - July
- Test pit survey for potential borrow materials for the Reach 2B site-specific study; cone and standard penetration test surveys in Reach 4B1 - September

- Notice of Round 5 groundwater monitoring well installations in Reaches 2 thru 4; notice of replacement of cast iron monitoring well covers in the public right of way with locking aluminum covers - November
- Noise survey for Reach 2B site-specific study - December

Other field surveys and investigations conducted in 2011 with direct permission and/or coordination with landowners included:

- Year 2 bedload sampling at Reach 1A performed at direction of the Restoration Administrator - January
- Mendota Pool sediment sampling evaluation and pre-staging site visit - February
- Fish passage survey in portions of the San Joaquin River and Eastside Bypass, primarily focused on bridges, weirs, culverts, rock weirs and beaver dams; Year 2 soil salinity surveys on parcels previously evaluated - March
- Year 2 conduct of bioassessment surveys for macroinvertebrates - July
- Vegetation monitoring transect site surveys at sites in Reaches 2A thru 4A - August
- Mendota Pool sediment sampling conducted from barge mounted drill - August

## PROGRAM-WIDE PUBLIC HEARINGS

During the week of May 23, 2011, Reclamation and DWR held four public hearings to solicit input on the Draft PEIS/R released April 22, 2011. Each public hearing included an open house portion where SJRRP staff were available to talk with the attendees. Following the open house portion, a formal public hearing was held to gather comments. The hearings were held in Visalia (May 24), Fresno (May 24), Los Banos (May 25), and Sacramento (May 26).

## PROGRAM INFORMATION DISTRIBUTION/MAILINGS

- **Program Mailing List:** In order to provide targeted information to individuals and groups, the Program actively maintains a mailing list of individuals, organizations, and public agencies who wish to receive notifications of Program activities. Interested individuals are able to submit contact information at meetings, on printed material, and on the website. As of December 2011, the list included approximately 3,200 contacts.

- **Program Updates:** Three four-page Program Updates were developed for distribution to the mailing list and were posted on the Program website in January, May and August 2011.

- **Fact Sheet:** SJRRP Fact Sheets are developed to disseminate specific information on certain components of the Program:

- SJRRP Trifold Brochure – updated in January
- Water Education Foundation -- A Briefing on the San Joaquin River Restoration Program – April

- **Press Releases** distributed for the following events:

- Reclamation Releases Addendum and FONSI to Final EA for Recirculation of Recaptured WY 2010 SJRRP Interim Flows – February 7
- Reclamation Releases Draft EA/FONSI for Recirculation of Recaptured Water Year 2011 San Joaquin River Restoration Program Interim Flows – March 9
- Alicia Forsythe Selected as SJRRP Program Manager – April 1
- Reclamation Makes Available “Recovered Water Account” water to Friant Division Contractors – April 6

- SJRRP Environmental Document Available for Public Review and Comment; Public Meetings Scheduled – April 22



*Dave Mooney (right) talks with a member of the public during a public meeting breakout session.*

- Public Review Period Extended for the San Joaquin River Restoration Program Environmental Document – May 24
- Reclamation Releases Draft Feasibility Report and Environmental Documents on Restoring the Capacity of the Friant-Kern Canal – June 3
- Public Review Period Further Extended for San Joaquin River Restoration Draft Program EIS/R – June 7
- SJRRP Supplemental Draft Water Year 2012 Interim Flows Environmental Document Available for Public Comment – June 14
- Reclamation Releases Final EA/FONSI for Recirculation of Recaptured Water Year 2011 SJRRP Interim Flows – June 17

- Public Comment Period Extended for SJRRP Supplemental Draft Water Year 2012 Interim Flows Environmental Document – July 8
- Secretary of the Interior Ken Salazar Selects the SJRRP for Partners in Conservation Award – September 21
- SJRRP Final Document Available for Water Year 2012 Interim Flows – September 30
- Reclamation Releases Final Environmental Documents for the SJRRP Mendota Pool Gates Project – December 30
- 2010 SJRRP Annual Report released and publicly available in April 2011
- Additional Program Distribution
  - Interim Flows Information disseminated via the Interim Flows Notification List by U.S. mail, email, and phone calls – January 31, March 4 and September 30
- Other
  - The website, updated frequently, includes a general Program fact sheet in Spanish, Programa de Restauración del Río San Joaquín. Visit the website at [www.restoresjr.net](http://www.restoresjr.net).



### SAN JOAQUIN RIVER RESTORATION TOUR

For the fourth year, the SJRRP co-sponsored a two-day San Joaquin River Restoration Tour organized by the Water Education Foundation. On November 2-3, 2011, the tour's 41 attendees and staff made about 15 stops along the San Joaquin River and bypass system from Millerton Lake to the Merced River confluence, during which they heard a variety of experts speak about the progress of the SJRRP and challenges of restoring the river. Tour participants represented diverse perspectives and backgrounds and included educators, landowners, elected officials, southern California and San Joaquin Valley water users, staff from SJRRP implementing agencies, and consultants.



*Program Manager Alicia Forsythe briefs the WEF tour group at Skaggs Bridge*

### PROGRAM COSTS AND FUNDING

Funding for the SJRRP is provided by the Federal government and the State of California, as summarized below. These funds are used to support the implementation of actions outlined in the Settlement.

#### SUMMARY OF APPROVED, OBLIGATED AND EXPENDED – ALL SOURCES

	APPROVED FY 2007 TO 2011	OBLIGATED FY 2007 TO 2011	EXPENDED FY 2007 TO 2011
Federal	\$48,332,927	\$57,605,470	\$37,694,475
State	\$100,079,608	\$27,502,465	\$32,629,808
Total	\$148,412,535	\$85,107,935	\$70,324,283

*Note: Federal approved, obligated, and expended provided in Federal fiscal years, October 1 to September 30. State approved, obligated, and expended provided in State fiscal years, July 1 to June 30.*

*Approved – Amount of funds (budget) approved.*

*Obligated – Funds encumbered for specific activities.*

*Expended – Payment for goods or services, or a charge against available funds.*

## SJRRP ANNUAL REPORT: ANNUAL BUDGET TABLE FOR 2011 AND 2012

SOURCE	FISCAL YEAR 2011 <sup>2</sup>	FISCAL YEAR 2012 <sup>3</sup>
<b>FEDERAL FUNDS</b>		
Reclamation <sup>1</sup>		
Central Valley Project Improvement Act	\$717,822	\$2,000,000
San Joaquin River Restoration Fund	\$16,542,598	\$24,000,000
California Department of Water Resources	\$579,871	\$1,661,000
Federal Appropriations	\$5,016,000	\$9,000,000
National Marine Fisheries Service	\$0	
Protected Resources – Salmon	\$0	
<b>FEDERAL SUB-TOTAL</b>	<b>\$22,856,291</b>	<b>\$36,661,000</b>
<b>STATE FUNDS</b>		
Dept. of Water Resources		
Proposition 1E	\$0	
Proposition 13	\$224,471	\$264,000
Proposition 84	\$8,492,696	\$21,212,000
Dept. of Fish and Game		
Proposition 13	\$22,832	\$804,069
Proposition 84	\$959,297	\$262,783
<b>STATE SUB-TOTAL</b>	<b>\$9,699,296</b>	<b>\$22,542,852</b>
<b>TOTAL</b>	<b>\$32,555,587</b>	<b>\$59,203,852</b>

1. Includes funding for FWS and NMFS participation.

2. Fiscal Year 2011 represent total funds obligated.

3. Fiscal Year 2012 represents total dollar amounts approved.

State Fiscal Year is from July 1-June 30; Federal Fiscal Year is from October 1-September 30.



*Michelle Workman, FWS, tags a fish prior to release*

## Looking Ahead: Program Activities for 2012 and Beyond

This section highlights key documents and activities that are anticipated to happen in 2012 for the overall Program and on specific projects with schedules through 2015.

### 2012 ACTIVITIES

#### OVERVIEW OF PLANNED ACTIVITIES FOR 2012:

- Release Final PEIS/R and Record of Decision
- Continue Interim Flows to collect a range of information regarding river and channel characteristics, including flows, temperatures, fish needs, seepage losses, and water recirculation, recapture, and reuse
- Petition the State Water Resources Control Board to change Reclamation's water rights at Friant Dam to re-operate the Dam for Interim and Restoration Flows supporting the SJRRP.
- Continue with the following site-specific planning, engineering, environmental review, and other activities required to implement the actions called for in Paragraph 11(a) of the Settlement:
  - **Mendota Pool Bypass and Reach 2B Channel Improvements Project** As part of the analytical and evaluation support to prepare the Reach 2B site-specific EIS/R document, the Reach 2B team has been conducting scientific, economic, environmental, engineering, technical, cultural, and social impact investigations and analyses for each of the proposed alternatives. The proposed alternatives will be available in the Project Description TM expected in summer 2012.

#### Current Schedule:

- Release Project Description TM – summer 2012
- Release of Draft EIS/R – late 2013

- **Reach 4B, Eastside Bypass and Mariposa Bypass Channel and Structural Improvements Project** In 2012, preparations will continue toward developing the Draft EIS/R, including completion of a Project Description TM that will describe alternatives for further analysis, and a Regulatory Compliance TM that will identify the permits, approvals, and other requirements necessary to implement the project.

#### Current Schedule:

- Release Regulatory Compliance TM – summer 2012
- Release Project Description TM – summer 2012
- Release of Draft EIS/R – early 2014
- Release of Final EIS/R and Record of Decision – fall 2014

*A landowner with his almond orchard in bloom in Reach 3 of the San Joaquin River*



- **Arroyo Canal Fish Screen and Sack Dam Fish Passage Project** - Completing the Draft ES/IS in summer 2012 and Final EA/IS by the end of 2012 will allow construction to start in 2013.

Current Schedule:

- Release of Draft EA/IS – summer 2012
  - Release of Final EA/IS – late 2012
  - Construction target dates – 2013 to 2014
- » Continue water accounting and recovery activities to include: continued development of Restoration Flow Guidelines; implementation of the Recovered Water Account; recapture and recirculation of Interim Flows; and completion of an Environmental Assessment for recirculation of recaptured 2012 Interim Flows.
  - » Continue efforts on the following projects in support of the Water Management Goal:
    - **Madera Canal Feasibility Study:** A demonstration project will be initiated on the Madera Canal to test potential fixes and assist in the development of alternatives for the Feasibility Study. Finalization of the Feasibility Report and required environmental documents is expected by spring 2013.
    - **Friant-Kern Canal Reverse Flow Project:** Finalization of the Feasibility Report and required environmental documents is expected by winter of 2012.
    - **Friant-Kern Canal Capacity Restoration Project:** Finalization of the Feasibility Report, EA and FONSI, and other required documents by spring 2012. Construction by the Friant Water Authority, through a Cooperative Agreement with the SJRRP, is expected to commence in the winter of 2012.
    - **Financial assistance for local projects:** Finalization of the Part III Guidelines is expected by spring of 2012. An initial funding announcement is expected by spring of 2013.
    - **Recapture and Recirculation:** Finalization of the 2012 Recapture and Recirculation Plan is expected by August 2012.
  - » Continue to identify seepage projects as part of the Seepage Management Plan; begin implementing projects that are ready, and continue holding Reach 3 and 4A landowner meetings to explore additional projects.
  - » Initiate levee investigations on the existing levees to assess the potential flood risk impacts of restoration flows and identify potential mitigation strategies to maintain acceptable flood risk management for the SJRRP. Activities in 2012 will include a preliminary limiting capacity analysis to identify priority reaches, development of performance standards, and initiation of geotechnical exploration and evaluation.

The Settlement calls for the reintroduction of Chinook salmon to the San Joaquin River by December 31, 2012. Several documents have been developed to support the reintroduction effort. A Stock Selection Strategy Document was developed to identify and describe potential donor stocks for reintroduction. A Hatchery and Genetics Management Plan was developed to describe the manner in which donor stock would be propagated. The Reintroduction Strategy is another document developed that will guide the methods of reintroduction. This document provides a description of a suite of appropriate methods for collection from each donor stock, and a suite of reintroduction methods utilizing various life stages of the donor stocks, various reintroduction techniques, and various levels of conservation hatchery techniques. These documents are available on the Program Documents page of the Program website, [www.restoresjr.net](http://www.restoresjr.net), and the studies listed below will help support and inform the reintroduction efforts.

Currently, the Settling Parties are revisiting the Settlement reintroduction deadline to determine collectively if it would be better to continue with studies while key activities and actions supporting a successful reintroduction effort are implemented more fully.

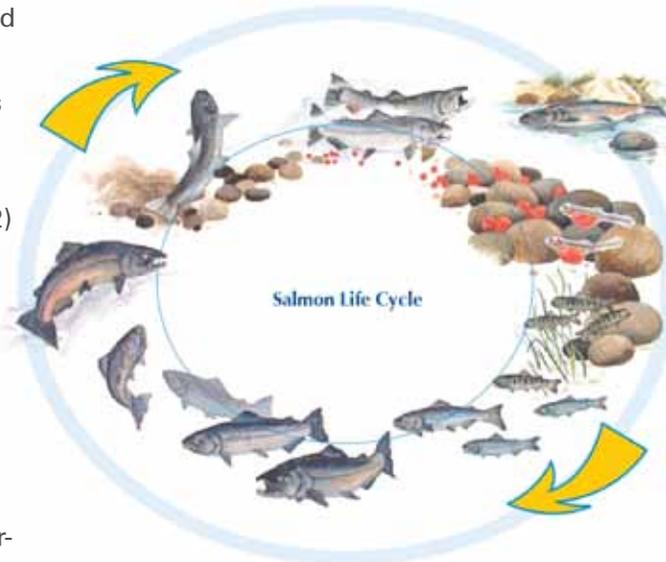
INITIATE OR CONTINUE IMPLEMENTING STUDY PROPOSALS IN THE MONITORING AND ANALYSIS PLAN FOR 2012:

**1 Salmon Life Cycle – Egg Survival and Spawning Gravel:**

- In-Situ Egg Survival Study
- Effects of Sedimentation on Egg Survival
- Monitoring of Oxygen Concentrations and Egg Survival
- Field Surveys of Spawning Habitat Quality and Quantity
- Spawning Gravel Mobility

**4 Long-term and Broad Focus:**

- Development of Eco-system Diagnosis and Treatment Model
- Water Quality Effects on Fish
- Benthic Macro Invertebrate Study (Year 2)
- Determining Flood-plain Requirements for Fish
- Fish Community Assessment of San Joaquin River
- Feasibility of a Basin Wide PITTag Monitoring Program
- Steelhead Monitoring Plan



**2 Salmon Life Cycle – Juvenile Survival:**

- Juvenile Salmon Migration and Survival Study
- Assessment of Predator Abundance in Gravel Pits
- Temperature Modeling of Gravel Pits
- Review of Predator Impacts at Fish Screening and Passage Structures

**3 Salmon Life Cycle – Adult Passage:**

- In-channel and Structural Adult Passage Impediments
- Temperature Monitoring for Adult Migration
- Reintroduction Efforts
- Collection and Transport of Donor Salmon Stocks
- Captive Rearing of Broodstock (Year 3)
- Fish Health Assessment Methods for Donor Stock Collections
- Evaluation of Fish Tagging and Genetic Methodology



FIGURE 4 STATUS OF KEY RIVER IMPROVEMENT PROJECTS

## PROGRAM MILESTONES

The Settlement described significant milestones and timelines in three stages.

**Stage 1** focuses on program-level planning and environmental review, including formulating and evaluating reasonable alternatives for accomplishing the Restoration and Water Management goals with a focus on system-wide aspects of implementation. Stage 1 has been initiated and includes the development of a Program EIS/R and the identification of significant data needs that will be completed during Stage 2.

**Stage 2** commenced in October 2009 with the release of Interim Flows and will conclude in December 2013. During Stage 2, the Interim Flows program will continue to collect relevant data concerning flows, temperatures, fish needs, seepage losses, recirculation, recapture, and reuse. Stage 2 also includes the reintroduction of spring-run and fall-run Chinook salmon and the implementation of all Phase 1 channel improvements.

**Stage 3** primary activities include the release of full Restoration Flows from Friant Dam, continued implementation of the Fishery Management Plan, implementation of Phase 2 actions, and the operation and maintenance of project facilities. The full Restoration Flows shall commence no later than January 1, 2014. Stage 3 will conclude once all activities called for in the Settlement are completed; however, ongoing operations and maintenance of facilities and structures will continue indefinitely.

Recognizing that some actions required by the Settlement are unavoidably behind schedule, including Phase 1 channel and structural improvement projects that may be beneficial for the successful reintroduction of salmon, the Program initiated consultation with the parties to the Settlement and have been working towards a more realistic revised schedule and budget based upon the Draft PEIS/R. Once fully coordinated and agreed upon, the revised Draft Implementation Plan will be made available publicly. The document is anticipated to be available in spring 2012, and from that point forward the revised schedule and budget will be used to guide Program and project actions and activities.

## PUBLIC INVOLVEMENT AND OUTREACH

The SJRRP will continue to provide meaningful opportunities for public involvement and input into Program activities in 2012. The SJRRP website will continue to be updated regularly with Program documents, project updates, and information about upcoming meetings. The SJRRP will distribute via email and postal mail regular Program Updates to keep the public informed of recent Program developments and upcoming involvement opportunities. The Technical Feedback Groups described in this report will continue to hold public meetings to provide input receive feedback on SJRRP activities. The SJRRP will also continue to reach out to landowners in the different Program reaches to discuss related projects, and receive feedback, allowing the Program to address concerns and work toward identifying potential solutions.



*The confluence of the Merced (left) and San Joaquin Rivers (right)*

**SAN JOAQUIN RIVER**  
RESTORATION PROGRAM



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San Joaquin River Restoration Program  
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