Public Scoping Report Appendix B
Scoping Meeting Materials

December 14, 2007
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Scoping Meeting Agenda

Comment Card

Speaker's Card

Presentations

Overview – United States Department of the Interior, Bureau of Reclamation

Settling Parties – Natural Resources Defense Council and Friant Water Users Authority

Flood Management Coordination – State of California, Department of Water Resources

Poster Boards

Station 1 – Program & Process

Station 2 – Fish Restoration Goal

Station 3 – Water Management Goal

Station 4 – Flood Management

Station 5 – Reach-by-Reach Overview
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Welcome to the San Joaquin River Restoration Program
Public Scoping Meetings!

Thank you for helping with first steps of the Program by attending today’s Public Scoping Meeting. Always conducted at the beginning of the environmental review process, Scoping Meetings are held to assist the implementing agencies identify the scope of issues to be addressed and significant issues related to the Program. Scoping Meetings provide the opportunity for YOU to learn about the approaches being considered and provide insights on the environmental process and impacts. We want to hear your comments on impacts, alternatives and environmental issues. Please provide us with information on local conditions, issues, and concerns. Be sure to pick up a Comment Card and return it by Friday, September 21, 2007.

Agenda

- **6:00-6:45 pm: Overview Presentation**
  Presenters include Reclamation, Department of Water Resources, Friant Water Users Authority, and the Natural Resources Defense Council. The presentation will describe the purpose of the meeting, provide an overview of the Settlement and Program implementation, and explain the public involvement process.

- **6:45-8:00 pm: “Open House”**
  Staffed by agency personnel and consultants, visit the various stations to discuss specific aspects of the Program. The following topics are highlighted at the stations:

  - **Station 1 – Program & Process.** Topics: Program goals, geographic overview, Program timeline, NEPA/CEQA process, organizational chart with roles and responsibilities, and environmental issues overview.

  - **Station 2 – Fish Restoration Goal.** Topics: Settlement provisions, restoration actions and options.

  - **Station 3 – Water Management Goal.** Topics: Settlement provisions, water management actions and options, restoration flow guidelines.

  - **Station 4 – Flood Management.** Topics: coordinated flood management planning, flood management actions and options.

  - **Station 5 – Reach-by-Reach Overview.** Displays: key features, maps and overlays of each reach.

  - **Comment Station.** Fill out Comment Cards in person and leave in the box provided. You may also mail, fax or email it back to us by SEPTEMBER 21, 2007. Where meeting locations support it, computers are provided for you to input your comments directly onto the Web site (www.restoresjr.com). Ask for help if you need it! (contact information provided on card and Website)

- **8:00-9:00 pm: Public Comment Session**
  In addition to your written comments, if you wish to make a verbal comment, please fill out a Speaker’s Card from the Welcome Table and hand it to the Facilitator. Speakers will be called in the order in which Speaker Cards are submitted with the exception of elected officials, who will be called first.

Once again, thank you for taking time to participate in a public scoping meeting for the San Joaquin River Restoration Program. **Visit our Web site, www.restoresjr.com, to stay informed.** We hope to see you at a future Program activity!

Scoping Meetings

<table>
<thead>
<tr>
<th>Tulare</th>
<th>Fresno</th>
<th>Los Banos</th>
<th>Sacramento*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, August 28</td>
<td>Wednesday, August 29</td>
<td>Thursday, August 30</td>
<td>Monday, September 10</td>
</tr>
<tr>
<td>6-9 p.m.</td>
<td>6-9 p.m.</td>
<td>6-9 p.m.</td>
<td>1:30 - 4:30 p.m.</td>
</tr>
<tr>
<td>International Agri-Center Banquet Hall 4450 S. Laspina Street Tulare, CA 93274</td>
<td>Piccadilly Inn, University Ballroom 4961 North Cedar Avenue Fresno, CA 93726</td>
<td>Merced Co. Fairgrounds Germino Room 403 F Street Los Banos, CA 93635</td>
<td>Library Galleria 828 I Street Sacramento, CA 95814</td>
</tr>
<tr>
<td>*Agenda will differ for Sacramento Meeting</td>
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</tbody>
</table>
PUBLIC SCOPING COMMENTS
for the San Joaquin River Restoration Program
Environmental Impact Statement/Environmental Impact Report

Written comments can be submitted at the scoping meetings,
mailed to the Bureau of Reclamation
(mail address is on the back of this card),
faxed 916-978-5114, emailed to mgidding@mp.usbr.gov
or provided online at www.restorejr.com
by close of business on Friday, September 21, 2007.
Thank you.

(Please print clearly)

Name_________________________________________________________

Organization and Address ________________________________________

________________________________________________________________

Phone ( )__________ FAX ( )__________ E-mail___________________

Comment here: ____________________________________________ Date

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

All comments become part of the public record.
Please fold, staple, stamp, and mail

U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
2800 Cottage Way, MP-140
Sacramento, CA 95825
Attn: Ms. Margaret Gidding
Public Scoping Speaker Card
San Joaquin River Restoration Program
Environmental Impact Statement/Environmental Impact Report

Please return Speaker Card to Registration Table.

Name (please provide pronunciation if needed)

Organization (if applicable)

Address

City/State/Zip

Phone
Fax
E-mail

Date
Location

Please Print Legibly
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Public Scoping Meetings

August-September 2007
Agenda

• Welcome and Introductions

• Program Overview and History
  – Implementing Agencies: Jason Phillips, Reclamation
  – Settling Parties: Monty Schmidt, NRDC and Ron Jacobsma, Friant Water Users Authority
  – Flood Management Coordination: Paula Landis, DWR

• Open House
  – Visit Stations and Talk with the Program Team

• Public Comment Forum
  – Oral Comments
Purpose of Scoping

Gather public comments, insights and local information for the environmental document

Please provide written comments!
Purpose of Scoping Meeting

**PUBLIC**

Provide comments on:
- Options
- Alternatives
- Environmental issues
- Local conditions, issues and concerns

**AGENCIES**

Describe:
- Settlement and program implementation
- Alternatives development and environmental review process
- Public involvement process
Meeting Guidelines

• **Ensure Everyone's Participation**
  – Structured to give everyone an opportunity to participate

• **Respect**
  – Listen carefully to other participants
  – Place cell phones, pagers, etc., on vibrate or silent mode

• **Honor Time Limits**
  – Please keep comments concise so everyone has an opportunity to speak

• **Identify Yourself**
  – State your name and organization or community
## Settlement Implementation

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>Lawsuit filed challenging the Bureau of Reclamation’s renewal of the long-term water service contracts between the United States and the Central Valley Project, Friant Division contractors</td>
</tr>
<tr>
<td>1992</td>
<td>Congress directs Interior as part of CVPIA to develop comprehensive plan to restore the San Joaquin River</td>
</tr>
<tr>
<td>1998</td>
<td>Ninth Circuit Court of Appeals sends the issue of the applicability of Section 5937 of the California Fish and Game Code to the operation of Friant Dam to the District Court</td>
</tr>
<tr>
<td>1998-2003</td>
<td>Friant and NRDC engage in settlement negotiations</td>
</tr>
<tr>
<td>2003</td>
<td>First round of settlement discussions end. Plaintiffs filed seventh amended complaint</td>
</tr>
<tr>
<td>2004</td>
<td>Judge rules that Reclamation violated Section 5937 of the Fish and Game Code</td>
</tr>
<tr>
<td>2005-2006</td>
<td>Settlement discussions are reinitiated</td>
</tr>
</tbody>
</table>
| 2006   | Settlement reached with two main goals:  
- Restoration Goal  
- Water Management Goal |
Program Structure

Secretary of the Interior Governor
- Agency Policy Team
- Program Management Team (5 agencies)
- Program Manager

Technical Work Groups
- Water Management
- Engineering & Design
- Env Compliance & Permitting
- Fishery Management

Third Party Input
- Other Stakeholder and Public Input
- Review of RA recommendations

Restoration Administrator (RA)
- Technical Advisory Committee (TAC)
  - NRDC
  - Friant
  - State of CA (non-voting)
    - Fish & Game
    - Water Resources

Decision Makers

Settling Party Input

Agency Implementation

Stakeholders/Public

Third Party MOU
## Proposed Program Funding

<table>
<thead>
<tr>
<th>Water User/Federal Funding</th>
<th>Lifetime</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVPIA Friant Surcharge</td>
<td></td>
<td>≈ $8 M/year</td>
</tr>
<tr>
<td>Friant Capital Repayment</td>
<td></td>
<td>≈ $9 M/year</td>
</tr>
<tr>
<td>CVPIA Restoration Funds</td>
<td></td>
<td>up to $2 M/year</td>
</tr>
<tr>
<td>Federal Appropriation</td>
<td></td>
<td>up to $250 M</td>
</tr>
</tbody>
</table>

### State Bonds (2006)

| Proposition 84                          | $100 M        |
| Proposition 1e                           | $100 M        |
# Program Implementation Process

## Stage 1

**Program Milestones**

<table>
<thead>
<tr>
<th>Year</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td></td>
</tr>
</tbody>
</table>
  - Complete Final Program Management Plan  
  - Publish Notice of Intent and Notice of Preparation  
  - Appoint Restoration Administrator  
  - Hold Public Scoping Meetings and Issue Public Scoping Report  
  - Issue Draft Alternatives Report |

**Stage 1** focuses on program-level planning and environmental review. It will include the identification of significant data needs that will be completed in Stage 2.

## Stage 2

**Program Milestones**

<table>
<thead>
<tr>
<th>Year</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td></td>
</tr>
</tbody>
</table>
  - Initiate Interim Restoration Flows |

**Stage 2** will include: the start of interim restoration flows; detailed site-specific environmental review; implementation of high priority river improvements; reintroduction of salmon; and projects to meet water management goal.

## Stage 3

**Program Milestones**

<table>
<thead>
<tr>
<th>Year</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td></td>
</tr>
</tbody>
</table>
  - Initiate Full Restoration Flows |
| 2016 |  
  - Complete Phase 2 River Channel Improvements |
| 2025 |  
  - Complete All Improvements |

During **Stage 3**, the full restoration flows will be initiated along with a long-term monitoring program to measure the performance of implementation.
Program Environmental Impact Statement/Environmental Impact Report (PEIS/R)

- Evaluate a range of alternatives to achieve Settlement goals
- Analyze and identify program-wide impacts
- Provide basis for site-specific environmental documents
- Support decision-making
- Focus on system-wide impacts beyond the Program Area

Environmental Compliance for Site-Specific Projects (As Needed)

- Developed before implementing actions
- Focus on site-specific impacts
- In tandem with or subsequent to the PEIS/R
- Using information and decisions developed in the PEIS/R
- Additional public involvement activities and comment periods
Public Comments

• The implementing agencies want to hear your comments:
  – What environmental issues and impacts should be evaluated in the environmental review?
  – What local knowledge or information can you provide to assist in the environmental review?
  – What options and alternatives should be considered and evaluated?
    • Fish Restoration (physical changes, flows, etc.)
    • Water Management (water recovery, recirculation, etc.)
    • Flood Management (protection of land uses and natural resources)
    • Other Options?
  – When and how would you like to be informed about and involved in the Program?
Commenting Process

WHEN:
Comments due by Friday, September 21, 2007

HOW:
Comment today at the Scoping Meeting
Comment online: www.restoreSJR.com

Mail comments: Margaret Gidding
Bureau of Reclamation
Mid-Pacific Region
2800 Cottage Way, MP-140
Sacramento, CA 95825
Karen Dulik, Senior Environmental Scientist
California Department of Water Resources
San Joaquin District
3374 E. Shields Ave.
Fresno, California 93726

Fax comments: (916) 978-5114

WHAT HAPPENS TO COMMENTS?
Comments will be compiled and addressed in a Scoping Document, provided to interested parties and placed on the Program’s website www.restoreSJR.com
Stations and Commenting

Station 1: Program & Process
Program, goals, process, timeline, environmental issues, and more

Station 2: Fish Restoration
Fish reintroduction provisions in the Settlement, new flows, and restoration actions

Station 3: Water Management
Water management provisions in the Settlement, actions, and options

Station 4: Flood Management
Coordination between state flood management program and SJRRP

Station 5: Reach-by-Reach Considerations
Key features depicted in each reach, provide your local knowledge

Comment Station:
Provide comments on options/alternatives, environmental issues/impacts, local information, and planning process and public involvement
Ground Rules for Oral Comments

• Any person wishing to make a comment will have an opportunity to do so (3 minutes per person)

• If you’d like to comment, please fill out a speaker’s card and hand it to the facilitator

• Please limit comments to matters relating to the San Joaquin River Restoration program

• All comments will be considered equally and recorded by a note-taker.

• Please do not interrupt other people

• Please introduce yourself and tell us your organization, if applicable, before making a comment
www.restoresjr.com

Learn more about the SJRRP
Sign up to receive more information
Provide comments
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San Joaquin River Restoration Program

Public Scoping Meetings

Monty Schmitt
San Joaquin River Project Manager
Natural Resources Defense Council

Ron Jacobsma
General Manager
Friant Water Users Authority
San Joaquin River Restoration Program

Settlement Agreement

- Restoration Goal
- Water Management Goal
- Timeline
- Funding
- Legislation
The Restoration Goal

- **Reintroduce Salmon**
  - Spring and fall run chinook salmon
  - Establish naturally reproducing and self-sustaining populations

- **Restore flows**
  - From Friant Dam to the confluence of the Merced River
  - Obligation to protect flows all the way to the Delta

- **Channel improvements**
  - Flow conveyance
  - Fish passage and habitat
1. Gravel pits in Reach 1
2. Bifurcation Structure
3. Increase Reach 2B Capacity
4. Mendota Pool Bypass Channel
5. Arroyo Canal Fish Screen
6. Sack Dam Fish Passage
7. Reach 4b Flow Strategy
8. Sand Slough Control Structure
9. Mud & Salt Slough Barriers
10. Additional Improvements
Benefits of Settlement

- Ends litigation and begins restoration
- Enables a cooperative partnership
  - Five Agencies
  - Funding
- Other Benefits
  - Educational opportunities
  - Recreational opportunities
  - Water quality
  - Flood control
  - Habitat / National Wildlife Refuges
San Joaquin River Restoration Program

Friant Division Service Area and Contractors

Service Area
Merced Co
Madera Co
Fresno Co
Tulare Co
Kern Co

Ag Water Contractors
Alpaugh I.D.
Arvin-Edison W.S.D.
Atwell Island I.D.
Chowchilla W.D.
Delano-Earlimart I.D.
Exeter I.D.
Fresno I.D.
Garfield W.D.
Hills Valley I.D.
International W.D.
Porterville I.D.
Rag Gulch W.D.
Saucelito I.D.
Shafter-Wasco I.D.
Southern San Joaquin M.U.D.
Stone Corral I.D.
Tea Pot Dome W.D.
Terra Bella I.D.
Tulare I.D.

M&I Contractors
City of Fresno

City of Orange Cove

City of Lindsay

Fresno Co. WWD #18

Madera County
Water Management Goal

Equal Goal of the Settlement

The Secretary is required to:

- Develop and implement a plan for recirculation, recapture, reuse, exchange or transfer of Restoration Flows to mitigate impacts to Friant Districts; and

- Implement a Recovered Water Account that will make wet year water available at reduced prices
Monty Schmitt
Natural Resources Defense Council
111 Sutter St., 20th Floor
San Francisco, CA 94104
(415) 875-6100
Email: mschmitt@nrdc.org

Ron Jacobsma
Friant Water Authority
854 N. Harvard Ave
Lindsay, CA 93247
(559) 562-6305
Email: rjacobsma@friantwater.org
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San Joaquin River Restoration Program and Flood Management Coordination

PEIS/EIR Public Scoping Meetings
August/September 2007
Paula J. Landis, PE
Chief, San Joaquin District
California Department of Water Resources
SJRRP Flood Management Areas
Restoration plans propose that all channels on the San Joaquin have a capacity of 4,500 cfs. This means increased flow capacity in Reaches 2B and 4B and evaluation of the design flow capacities in Reach 3 and 4A.
Limited capacity of the control structure requires that the pool upstream be held excessively high to divert higher flows into the bypass or river. This condition adds to the problem of the upstream levee instability. Capacity of the Chowchilla Canal Bypass control structure should be increased at least 50 percent.

Channel capacity reduction from sedimentation in Reach 2A. Note that proposed modifications to the bypass structure may improve bypass performance.
Illustration of impacts to adjacent land use from levee failure in Reach 2A. Floodwater at top out of channel flooding farmland.
Reach 2A – Flood water boiling through the levee 2006
collapsing stream bank in reach 3
Firebaugh
evidence of lateral earth cracking, proximity to structures in Reach 3
Firebaugh
Vegetation encroachment reducing the capacity of the channel in Reach 4B.

Design capacity = 1,500 cfs.
Actual capacity = 400 cfs.
Vegetation encroachment reducing the capacity of the channel in Reach 4B.
Levee Evaluation Program

- 300 miles urban levees
- 1,600 miles project levees
- Funding Propositions 84 and 1E
- Factors
  - seepage
  - stability
  - settlement
  - erosion
  - seismic
Levee Evaluation Program

- DWR is committed to assisting local agencies in determining the best way to implement and fund needed repairs to their levees.

- Goal
  - 200 year protection in urban areas
  - Design level protection in rural areas

- Funds are not adequate for the entire state and they will be awarded on a competitive basis.
Coordination

The SJRRP is working closely with DWR’s Levee Evaluation Program.

Working to:
- leverage funds and staff
- assure no duplication of effort
- coordinate schedules
- attain common goals
The San Joaquin River Restoration Program’s Two Goals

**River/Fish 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.
Process and Planning

Environmental Review Purpose

Compliance activities associated with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) will:

- Evaluate reasonable alternatives that could reduce or avoid environmental impacts
- Provide information for public review and comment
- Identify significant environmental impacts
- Develop mitigation (ways to reduce or avoid environmental impacts)
- Disclose to decision makers the impacts, mitigation, and public comments

What is Scoping?

Scoping is the process of identifying what issues will be covered in the environmental reports and in what detail. The Implementing Agencies are defining the issues to be evaluated in the Draft PEIS/R and invite stakeholder and public input on environmental considerations as part of the scoping process.

Scoping helps to identify and refine:

- Potential options and alternatives
- Potential environmental impacts
- Potential mitigation measures

Program Document

Information and analysis for the SJRRP will be documented in a Draft and Final Program Environmental Impact Statement/Environmental Impact Report (PEIS/R) that will:

- Consider the SJRRP comprehensively and evaluate a range of alternatives to achieve the goals of the Settlement
- Focus on system-wide impacts
- Provide a basis for any site-specific environmental documents needed, to include environmental compliance documentation
Environmental Issues & Potential Impacts

**Hydrology and Flood Management**
- Water Supply (surface and groundwater)
- Water Quality
- Flood Management

**Biological Resources**
- Fish and Aquatic Resources
- Terrestrial Vegetation and Wildlife Resources

**Construction and Operation Impacts**
- Noise and Vibration
- Dust and Air Quality

**Land Use and Socioeconomics**
- Agricultural Resources
- Recreation
- Social Issues and Environmental Justice
- Land Use, Planning and Zoning
- Socioeconomics
- Population and Housing
- Indian Trust Assets
- Cultural Resources

**Infrastructure**
- Transportation and Circulation
- Utilities and Public Services
- Hydropower Resources

**Physical Resources**
- Aesthetics
- Geology and Soils
- Toxic and Hazardous Materials
- Energy Resources

**Cumulative Effects**
## Environmental Review Process and Timeline

### Scoping
- **Planning, Coordinating, Permitting**
  - National Environmental Policy Act (NEPA)
  - California Environmental Quality Act (CEQA)

### Program-Level NEPA/CEQA Process

<table>
<thead>
<tr>
<th>OPTIONS &amp; ALTERNATIVES</th>
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<tbody>
<tr>
<td><strong>INITIAL ALTERNATIVES</strong></td>
</tr>
<tr>
<td>Water Management</td>
</tr>
<tr>
<td>Fisheries Management</td>
</tr>
<tr>
<td>Flood Management</td>
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<table>
<thead>
<tr>
<th>ENVIRONMENTAL EVALUATION &amp; IMPACT ANALYSIS</th>
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<td>Evaluation</td>
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<table>
<thead>
<tr>
<th>ONGOING PUBLIC INVOLVEMENT &amp; COMMENTS</th>
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<tbody>
<tr>
<td>Please visit <a href="http://www.restoresjr.com">www.restoresjr.com</a></td>
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</table>

<table>
<thead>
<tr>
<th>FORMAL PUBLIC REVIEW &amp; COMMENT OPPORTUNITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scoping</td>
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</tbody>
</table>

*Prior to implementing subsequent actions identified in the SJRRP Program EIS/R, detailed, project-level environmental documents will be developed, if necessary.*
Station 1

SJRRP Organization Chart

Secretary of the Interior
Governor

Agency Policy Team

Program Management Team
(5 agencies)

Program Manager

Third Party Input

Other Stakeholder and Public Input

Review of RA recommendations

Coordinate with Related State and Local Programs

Technical Work Groups

Water Management

Engineering & Design

Env Compliance & Permitting

Fishery Management

Technical Sub-group Participants
- Cooperating Agencies
- Settling Parties
- Third Parties
- Other Interested Stakeholders
- Land/Facilities Owners

Restoration Administrator (RA)

Technical Advisory Committee (TAC)
- NRDC
- Frant
- State of CA (non-voting)
  - Fish & Game
  - Water Resources

Decision Makers
- settling Party Input
- Agency
- Implementation
- Stakeholders/Public
- Third Party MOU
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Restoration Flows

In addition to channel and structural improvements, releases of water from Friant Dam to the confluence of the Merced River will be made to achieve the Restoration Goal. Interim Flows begin in Fall of 2009 but are limited to experimental purposes, and by channel capacity and construction activities. Full Restoration Flows will begin no later than January 2014.

Key Dates Identified in the Settlement:

- Reintroduction of Salmon

The Restoration Goal includes the reintroduction of spring-run and fall-run Chinook salmon between Friant Dam and the confluence with the Merced River at the earliest practical date after commencement of sufficient flows and issuance of required permits.

Key Dates Identified in the Settlement:

- 2010 September: U.S. Fish & Wildlife Service (USFWS) submits an application for reintroduction of salmon to National Marine Fisheries Service (NMFS)
- 2012 April: NMFS issues a decision on application
- 2012 December: Reintroduce salmon
Conceptual Models

The Fish Management Work Group is currently building conceptual models of how they believe environmental factors will influence the abundance of spring-run and fall-run Chinook salmon in the San Joaquin River between Friant Dam and the Merced River confluence.

These conceptual models include a thorough and in-depth review of background literature and existing appropriate models on the life history and biology of California Central Valley spring- and fall-run Chinook salmon. The models are precursors to quantitative models that will be used to assist in the evaluation of program alternatives, guide flow management, and help identify key habitat restoration needs. They will also help identify key knowledge gaps and hypotheses that will be addressed by an adaptive management process that includes a rigorous monitoring program.

Each conceptual model contains the following components:

- Graphic depictions of the current understanding of Central Valley spring- and fall-run Chinook salmon life cycles and limiting factors (e.g., physical, chemical, and biological)
- A narrative description reviewing background literature on the basic life history requirements and potential stressors in the San Joaquin River Basin
- Spring- and fall-run Chinook salmon knowledge gaps
- Controllable and uncontrollable limiting factors that are believed to affect the recovery of Chinook salmon populations in the San Joaquin River Basin
## Milestones

<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>October: Restoration Administrator submits recommendations to the Secretary</td>
</tr>
<tr>
<td>2009</td>
<td>September: Complete Program Environmental Impact Statement/Report (PEIS/R)</td>
</tr>
<tr>
<td>2009</td>
<td>October: Initiate Interim Flows and Monitoring Program in San Joaquin River</td>
</tr>
<tr>
<td>2010</td>
<td>September: U.S. Fish &amp; Wildlife Service (USFWS) submits a completed permit application to the National Marine Fisheries Service (NMFS) for the reintroduction of spring-run Chinook salmon</td>
</tr>
<tr>
<td>2012</td>
<td>April: NMFS issues a decision of the spring-run Chinook salmon permit application</td>
</tr>
<tr>
<td>2012</td>
<td>December: Reintroduce spring- and fall-run Chinook salmon</td>
</tr>
<tr>
<td>2013</td>
<td>December: Complete Phase 1 channel improvements</td>
</tr>
<tr>
<td>2014</td>
<td>January: Initiate full Restoration Flows</td>
</tr>
<tr>
<td>2016</td>
<td>December: Complete Phase 2 channel improvements</td>
</tr>
<tr>
<td>2024</td>
<td>December: Submit report to Congress on the reintroduction of spring- and fall-run Chinook salmon</td>
</tr>
</tbody>
</table>
Water Management Goal from the Settlement

"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."

- Natural Resources Defense Council v. Kirk Rodgers, as Regional Director of the United States Bureau of Reclamation, et al.

How do we accomplish the goal?

- Develop guidelines necessary for understanding the river system and methodology to release and monitor Interim and Restoration Flows
- Develop a Plan for recirculation, recapture, reuse, exchange or transfer
- Develop a Recovered Water Account and Program

Water Management Milestones

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>October</td>
<td>Water Management and Physical Improvements Options Technical Memo</td>
</tr>
<tr>
<td>2007</td>
<td>December</td>
<td>Initial Restoration Flow Guidelines Technical Memo</td>
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<tr>
<td>2008</td>
<td>February</td>
<td>Recovered Water Account Report</td>
</tr>
<tr>
<td>2008</td>
<td>June</td>
<td>Final Restoration Flow Guidelines Technical Memo</td>
</tr>
<tr>
<td>2009</td>
<td>September</td>
<td>Program Environmental Impact Statement/Report (EIS/R)</td>
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Water Management Options and Actions:

Evaluation will include those options and projects described in Paragraph 13(j) and Paragraph 16 of the Settlement.

Paragraph 13(j):
Paragraph 13(j) outlines the steps necessary to understand the river system and develop the methodology necessary to release and monitor the Interim and Restoration Flows.

Paragraph 16:
Paragraph 16 of the Settlement calls for the development of a plan for recirculation, recapture, reuse, exchange or transfer of the Flows, and for the development of a Recovered Water Account.
Paragraph 13(j):

Guidelines will be developed prior to commencement of Restoration Flows and include:

- Determining water-year types and timing
- Measuring, monitoring and reporting of flow procedures
- Determining and accounting for reductions in water deliveries
- Developing a methodology to determine seepage losses
- Making real-time changes to releases
- Determining the extent to which flood releases meet hydrograph releases outlined in the Settlement

Paragraph 16:

16(a): Develop and implement a plan for recirculation, recapture, reuse, exchange or transfer of the Interim Flows and Restoration Flows. The plan shall include provisions for funding necessary measures to implement the plan.

16(b): Develop and implement a Recovered Water Account and program to make water available to all of the Friant Division long-term contractors who provide water to meet Interim Flows or Restoration Flows for the purpose of reducing or avoiding the impact of the Interim Flows and Restoration Flows on such contractors.
California Department of Water Resources
Levee Evaluation Program

Reflecting Governor Arnold Schwarzenegger’s long-term commitment to improving flood safety to prevent possible catastrophic flooding and loss of life, DWR is undertaking unprecedented efforts to evaluate and upgrade aging and deteriorating levees along the Sacramento and San Joaquin River Valleys and Delta.

Funded through Propositions 84 and 1E

Urban Evaluations:
Geotechnical levee evaluations of project levees that protect greater than 10,000 people.

Non-Urban Evaluations:
Geotechnical levee evaluations of project levees that protect 10,000 people or less.

The Electromagnetic (EM) system collects three-dimensional earth resistivity data via a transmitter and receiver housed in the cylindrical “bird” slung beneath the helicopter.

A helicopter equipped with a LIDAR system called FLI-MAP (Fast Laser Imaging - Mapping Airborne Platform) was used to conduct high-resolution surveys, still pictures, and a video record of the levee system.

Cone Penetrometer (CPT) rig advancing rod into project levee to estimate soil behavior type.

Geotechnical field crews drill borings to collect soil samples from a flood control levee.
Restoration plans propose that all channels on the San Joaquin River have a minimum flow capacity of 4,500 cfs, which would require an increase in flow capacity of Reach 2B and 4B and evaluation of flow capacity in Reach 3 and 4A.

Proposed settlement actions that will improve flood protection on the San Joaquin River System

Phase 1 Improvements
2) Modifications in channel capacity to ensure conveyance of at least 4,500 cfs in Reach 2B.

Phase 2 Improvements
2) Modifications to the Chowchilla Bifurcation Structure to provide fish passage and prevent entrainment.  
4) Modifications to the Sand Slough Structure to enable effective routing and conveyance of restoration flows up to 4,500 cfs.

Paragraph 12
“The Parties acknowledge that there are likely additional channel or structural improvements...that may further enhance the success of achieving the Restoration Goal.”
California Department of Water Resources
Levee Geotechnical Evaluation
Station 5
San Joaquin Program Area

Legend of Reaches

1. FRIANT DAM TO GRAVELLY FORD
2. GRAVELLY FORD TO MENDOTA DAM
3. MENDOTA DAM TO SACK DAM
4. SACK DAM TO CONFLUENCE WITH BEAR CREEK AND EASTSIDE BYPASS
5. CONFLUENCE OF BEAR CREEK AND EASTSIDE BYPASS TO CONFLUENCE WITH MERCESD RIVER
Reach 1: Friant Dam to Gravelly Ford
STATION 5
Reach 2: Gravelly Ford to Mendota Dam
STATION 5
Reach 3: Mendota Dam to Sack Dam
STATION 5
Reach 4: Sack Dam to Confluence with Bear Creek and Eastside Bypass
STATION 5
Reach 5: Confluence of Bear Creek and Eastside Bypass to Confluence with Merced