The San Joaquin River Restoration Program

Achieving Large-Scale River Restoration While Minimizing Water Supply Impacts to Agricultural Users

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Central Valley of California
Central Valley of California

Friant Division

Friant Dam
Central Valley of California
Restoration Area

Stanislaus River → Tuolumne River → Merced River → San Joaquin River

Madera Canal, Friant Kern Canal

TO SAN FRANCISCO BAY-DELTA
Restoration Area
Restoration Area
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Restoration Area

- Stanislaus River
- Tuolumne River
- Merced River

TO SAN FRANCISCO BAY-DELTA

San Joaquin River
The Settlement

1948 – Initial water contracts signed

1988 – Contract renewal was challenged in Federal court

2006 – Settlement reached after 18 years of litigation
Settling Parties, Implementing Agencies

Settling Parties
- Environmental Coalition: 14 organizations led by NRDC
- Friant Water Authority: 22 water agencies
- State of California: Department of Water Resources, Department of Fish and Game
- Restoration Administrator and Committee

Implementing Agencies
Co-Equal Goals

• Restoration Goal
  – To restore and maintain fish populations in “good condition”, 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
Implementation Challenges

- Communication
- Financing
- Schedule
- Flood Management
- Flow Management
- River Continuity
- Water Recapture
Flow Management

- Varies according to available supply
- Year-round base flow plus peaks
- Peak spring flows mimic snow-melt patterns
- Flow targets exist throughout river
Flow Management

Settlement Flow Schedules Adapted for Real-Time Application
River Continuity

• Preserve design water level in all river reaches
• Provide for fish migration upstream and downstream

Photo: Mark Crosse, The Fresno Bee
Water Recapture

- Complex operations to avoid interference with:
  - The Restoration Goal
  - Senior water rights
  - Operations of Major water projects

- Complex accounting
  - Rigorous monitoring
  - Recovered water delivery and exchange
Flood Management

• Change from intermittent flood flows
  – Steady flows cause levee seepage
  – Sediment and vegetation management
  – Maintenance costs increase

• Collecting new information
  – Characterize levee conditions
  – Limit flows to safe capacity at all times
  – Involve stakeholders in flow decisions
2006 Settlement reached
2009 Begin Interim Flows
2012 Reintroduce Salmon
2013 Complete first phase channel and habitat work
2014 Initiate full Restoration Flows

Resolving Unexpected Issues Will Require More Time
Financing

- Settlement and legislation provided funding for expected costs at the time
- Federal budget rules limit expenditures until 2018
- Additional needs are being identified through detailed studies
- **Current estimates approaching $1.5B**
• Over-communicate with stakeholders and public officials
• Establish performance targets to guide actions
• Science-based processes assure agreement on the facts
• Comprehensive monitoring
• Adapt plans to changing conditions while meeting objectives
Thank You