

San Joaquin River Restoration Program



California Water Commission

November 20, 2013

Settlement History

- 1942 - Friant Dam completed
- 1988 - Lawsuit filed challenging Reclamation's renewal of the long-term contracts with Friant Division contractors
- 2004 - Federal Judge rules Reclamation violated Section 5937 of the California Fish and Game Code
- 2005 - Settlement negotiations reinitiated
- 2006 - Settlement reached; implementation begins
- 2009 - Federal legislation enacted (Public Law 111-11); Interim Flow releases began October 1





Settlement Goals

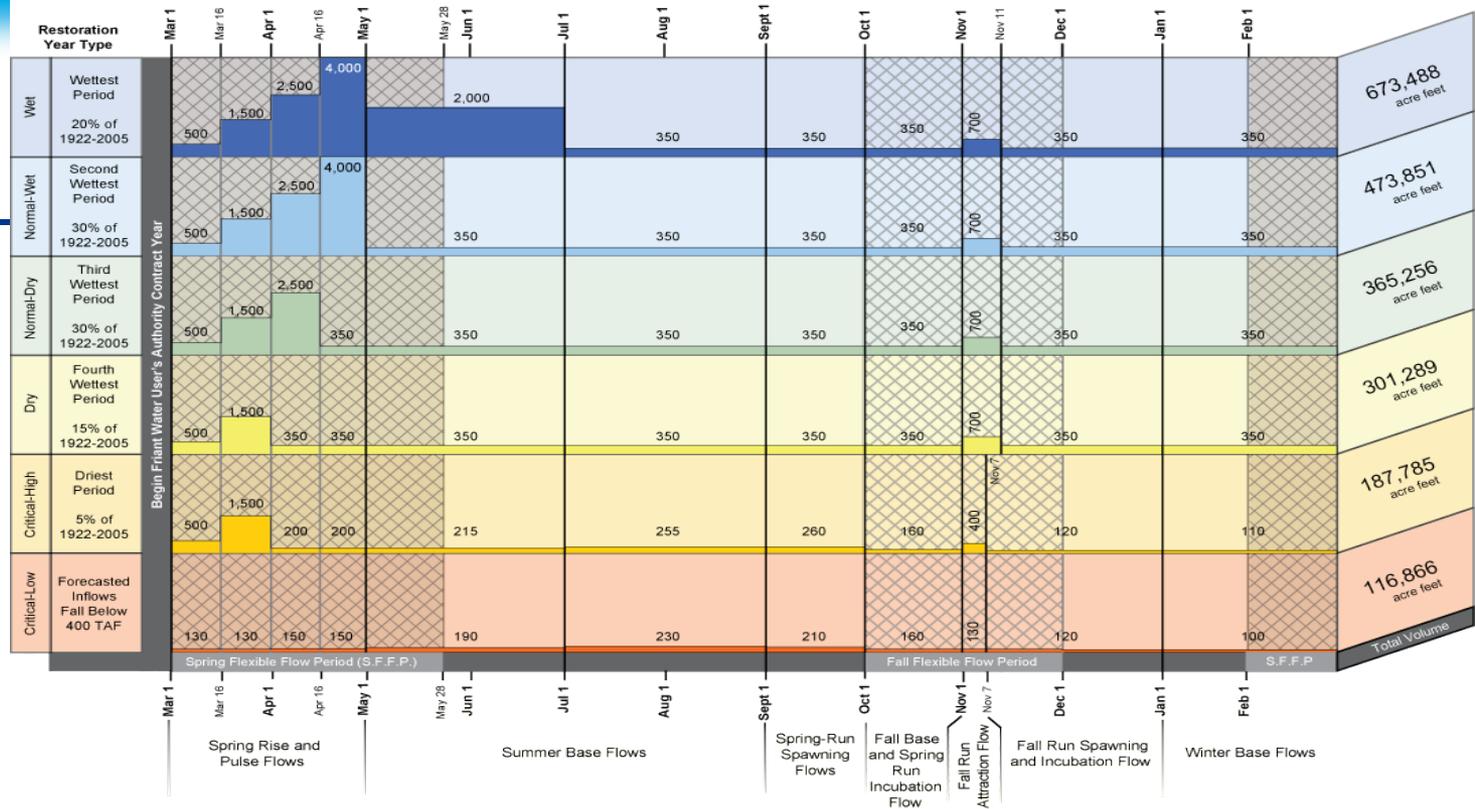
- **Restoration Goal**
 - To restore and maintain fish populations in “good condition” in the main stem of the San Joaquin River below Friant Dam to the confluence of the Merced River, including naturally reproducing and self-sustaining populations of salmon and other fish.
- **Water Management Goal**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

Restoration Goal Activities

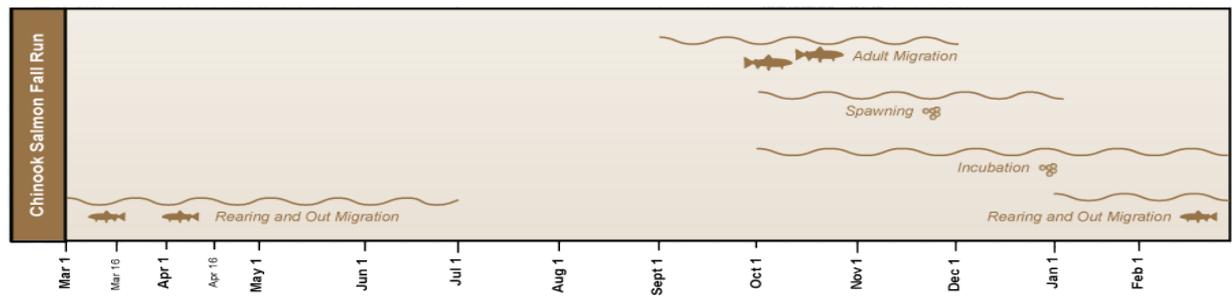
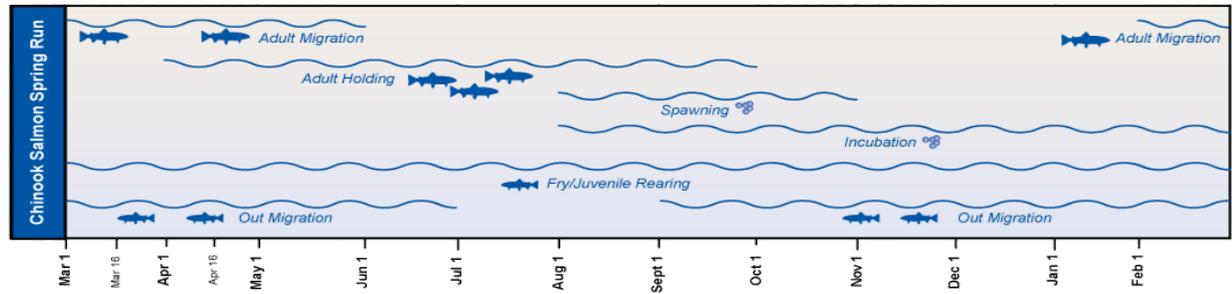
- Increase flows from Friant Dam
- Improve channel and structures to convey flows and improve fisheries habitat
- Reintroduce spring-run and fall-run Chinook salmon

Friant Release Schedule with Fisheries Migration Timing

- Interim Flows began in 2009 and continue through 2013



- Restoration Flows begin in 2014
- All flows released up to “then current” channel capacities



Major Channel and Structural Improvements

- Settlement requires 10 specific channel and structural improvement projects to address:
 - Channel capacity limitations
 - Fish habitat limitations
 - Fish passage and entrainment issues
- Combined into 4 major projects
- 3 underway



Mendota Pool Bypass and Reach 2B Channel Improvements Project

- **Project:**
 - Create bypass channel around the Mendota Pool (about ½ mile of new river channel)
 - Expand Reach 2B capacity to convey at least 4,500 cfs (11 miles of new levee and flood plain habitat)
 - Four alternatives currently under consideration
- **Current Schedule:**
 - Draft EIS/R – mid 2014
 - Final EIS/R – mid 2015
 - Construction start date – late 2016 (funding dependent)

Mendota Pool Bypass and Reach 2B Improvements Project

Compact Alignment Bypass with Wide Floodplain

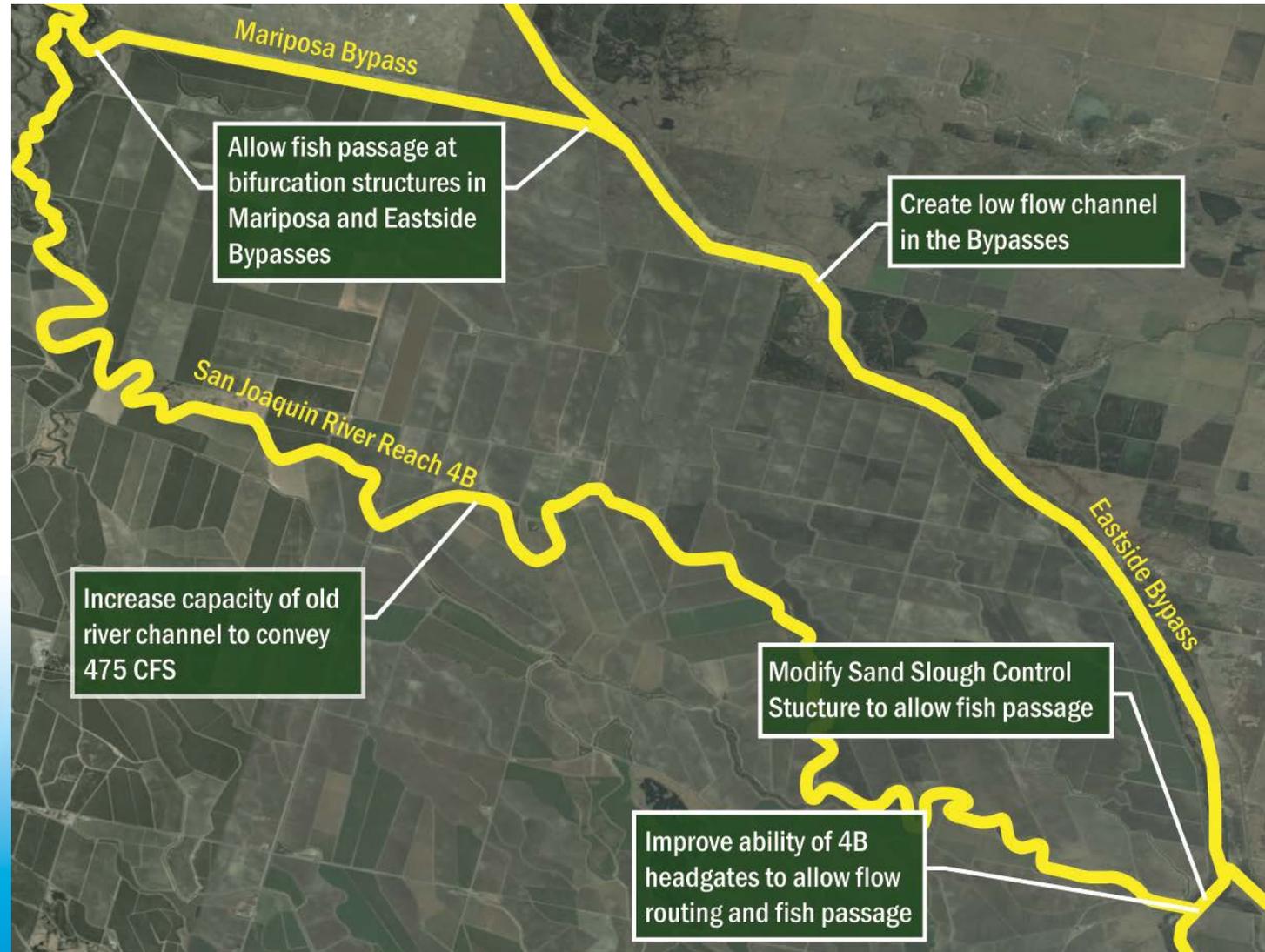


Compact Alignment Bypass with Wide Floodplain Summary Table

Floodplain Rearing Habitat (>1.0 feet of inundation at 2,500 cfs)	465 acres
Farmland Removed From Production	1,317 acres
Average Levee Height	4.7 to 5.6 feet

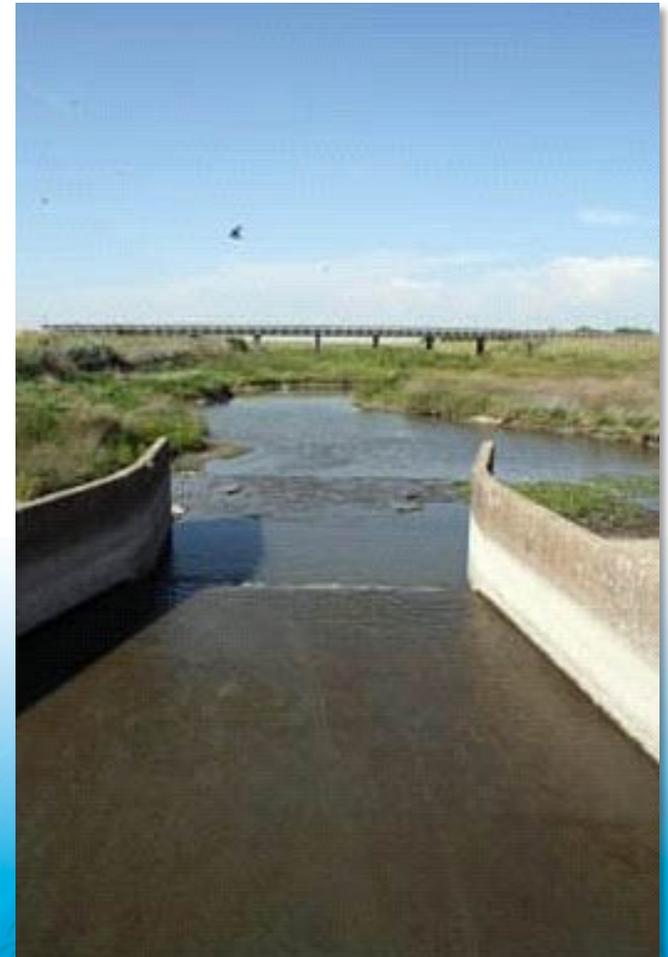
Reach 4B, Eastside Bypass and Mariposa Bypass Channel and Structural Improvements Project

- Reach 4B:
 - Modify to convey at least 475 cfs, possibly up to 4,500 cfs
 - Modify Sand Slough and Reach 4B headgates for flows and fish passage
- Eastside and Mariposa Bypass
 - Modify structures for fish passage
 - Establish low-flow channel



Reach 4B, Eastside Bypass and Mariposa Bypass Channel and Structural Improvements Project

- Current Schedule:
 - Draft EIS/R – early 2015
 - Final EIS/R – early 2016
- Construction Start Target – To be determined



Arroyo Canal Fish Screen and Sack Dam Fish Passage Project



Sack Dam – Modify for fish passage

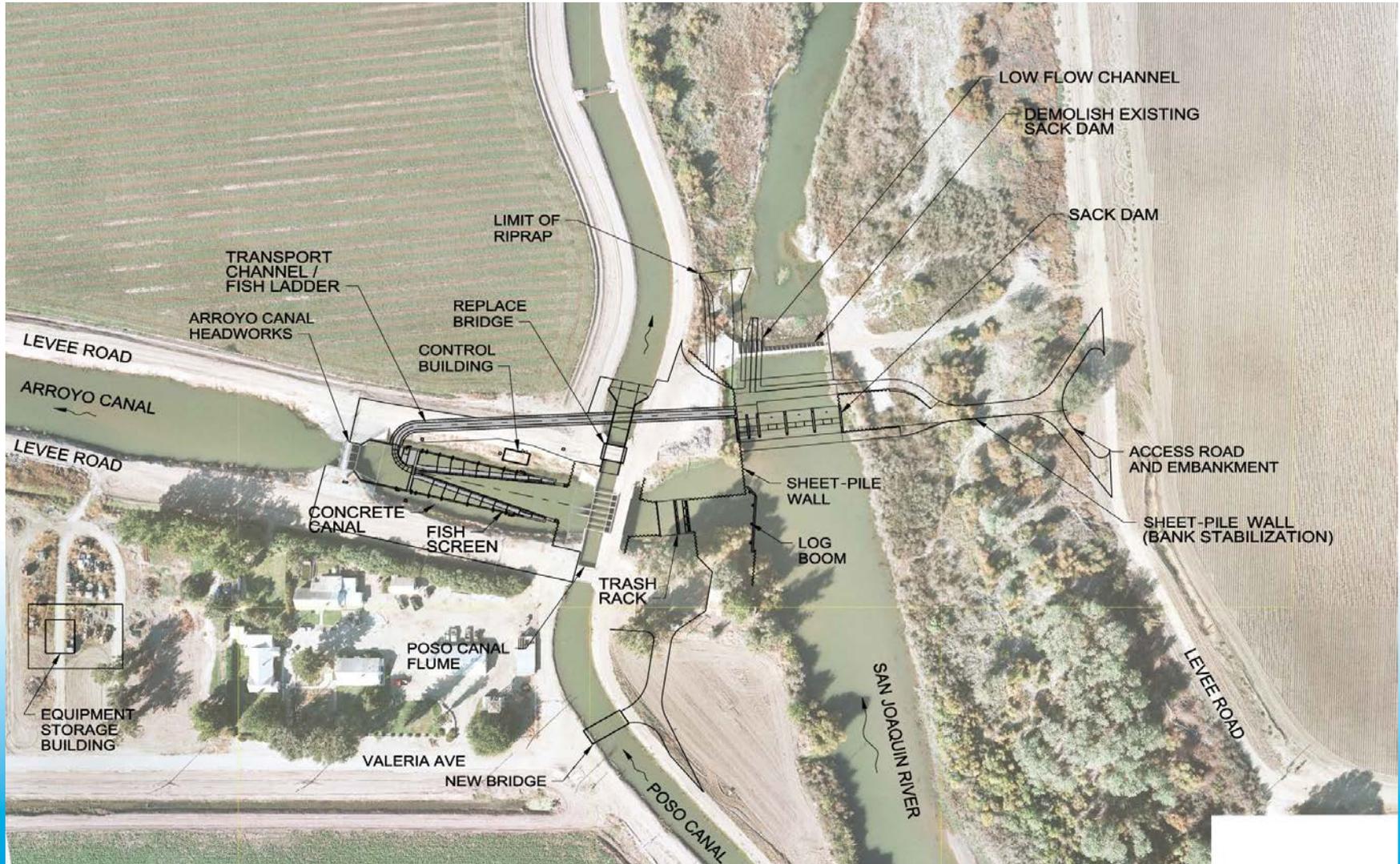
Arroyo Canal – Screen to prevent fish entrainment

NEPA and CEQA completed

Construction – on hold
pending path forward with
subsidence issue



Arroyo Canal Fish Screen and Sack Dam Fish Passage Project



Reintroduction of Salmon

- Settlement requires reintroduction of spring-run and fall-run Chinook salmon
- Spring-run broodstock efforts began in 2012
- Permitting and approvals in process for direct release of spring-run to river
- Pending all permits and approvals completed, spring-run reintroduction to begin in March 2014





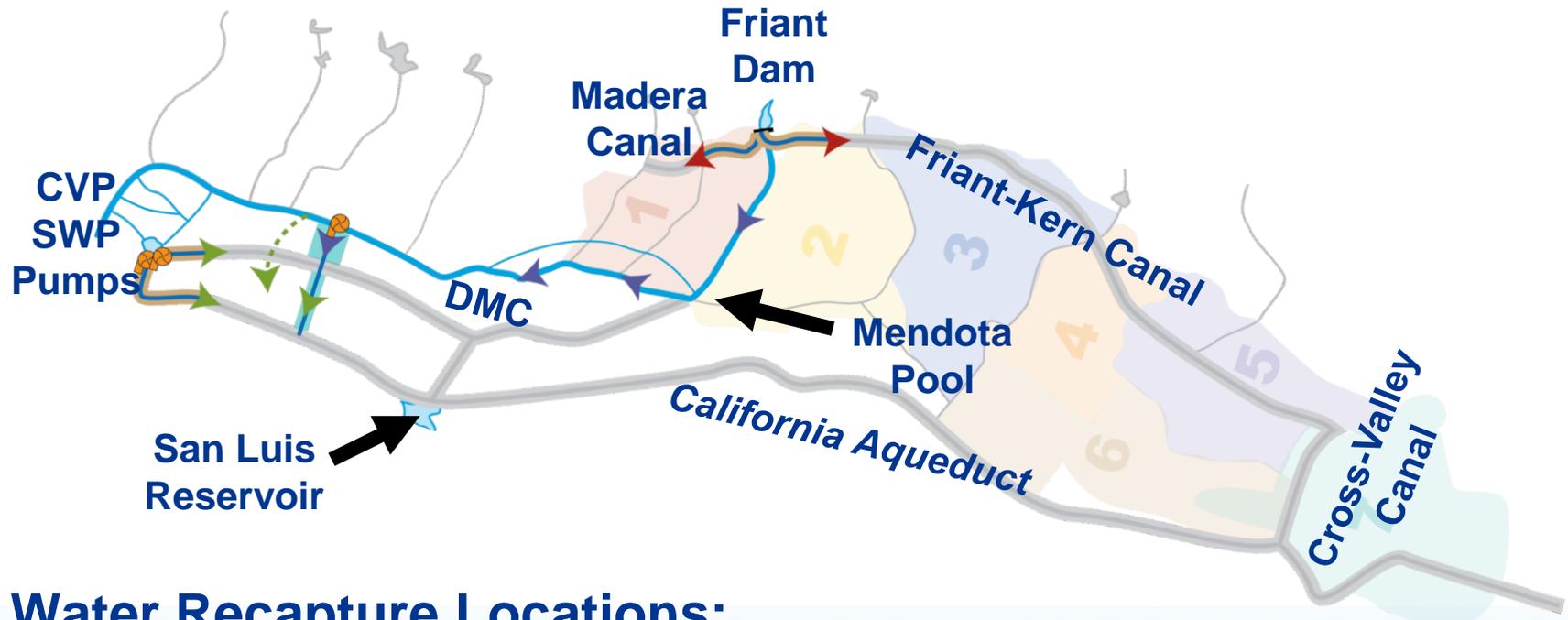
Water Management Goal Activities

- Water Accounting and Recovery Activities Underway
 - Restoration Flow Guidelines (will be completed 12/2013)
 - Recovered Water Account implementation (allocated 680,440 acre-feet to date)
 - Recapture and re-circulate Interim and Restoration flows
- Physical Projects in Planning
 - Friant-Kern Canal Capacity Restoration Project
 - Madera Canal Capacity Restoration Project
 - Friant-Kern Canal Reverse Flow Project
 - Financial assistance for groundwater banks

Recapture, Recirculation and Recovered Water Account

- Recovered Water Account
 - Available only in wet hydrologic conditions
 - Total cost of \$10/acre-foot
 - 680,440 acre-feet allocated to date
 - 356,200 acre-feet delivered to date
- Recapture and Recirculation
 - Draft Plan released February 2011; Final Plan scheduled to be complete in March 2014
 - Recaptured and recirculated (rounded):
 - Contract Year 2010 = 52,000 acre-feet
 - Contract Year 2011 = 36,000 acre-feet
 - Contract Year 2012 = 108,000 acre-feet
 - Contract Year 2013 = 87,000 acre-feet (projected)
 - Recapture amounts vary each year based on flows release and recapture locations
 - Recaptured roughly 50-60% of the Interim Flows released to date
 - Will be less in the future as flows go past the Merced River confluence and are recaptured at the Delta facilities

Recapture and Recirculation



Water Recapture Locations:

- Mendota Pool (temp)
- In Delta
- Along San Joaquin River at existing pumping plants
- New pumping plant along the river (considered in PEIS/R)

Recirculation Options:

- Exchanges
- Direct Deliveries (AEWSD/SWID)
- Sales

Program Framework for Implementation

- Some actions required by the Settlement are unavoidably behind schedule
- Settling Parties are working to develop a revised schedule that will:
 - Address the requirements of the Settlement for expeditious action and
 - Meet the requirements of the legislation to minimize impacts on third-party interests
- Working Draft Implementation Framework released for public review in June 2012
- Update is expected in late spring 2014

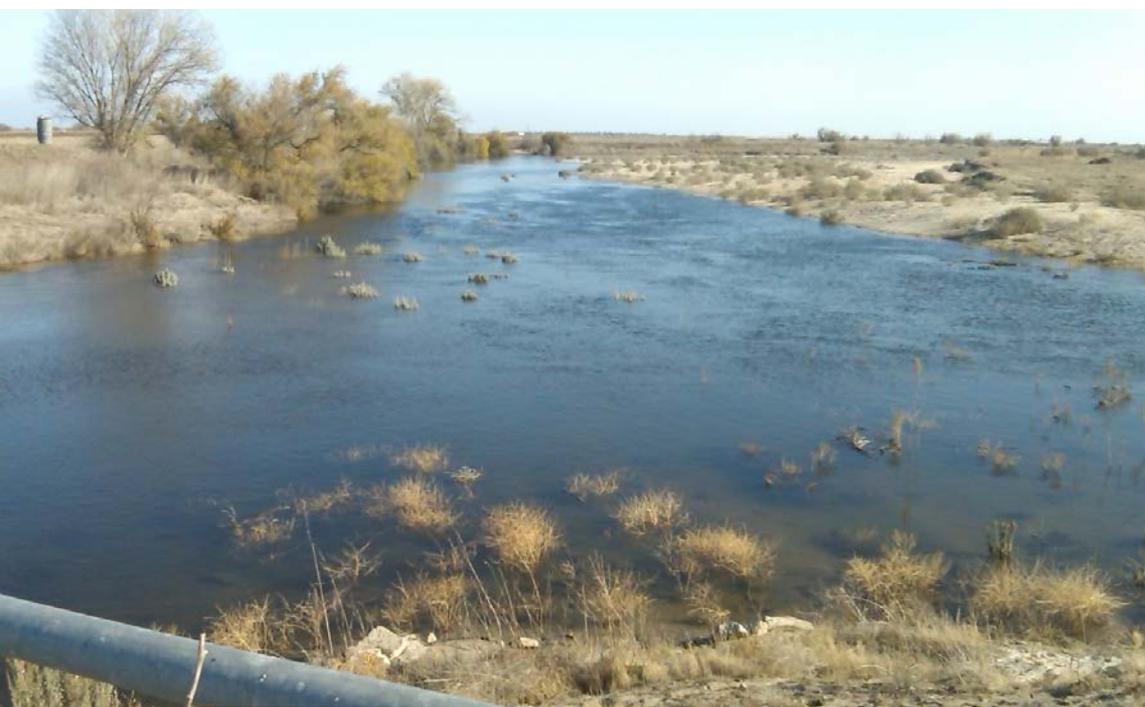


Near-term Key Milestones

2009	<ul style="list-style-type: none">• Began Interim Flows October 1
2012	<ul style="list-style-type: none">• Issued Final Program EIS/R and signed Record of Decision• Began reintroduction actions for fall-run Chinook salmon and documented successful fall-run spawning in the river• Began Program's spring-run Chinook broodstock efforts
2013	<ul style="list-style-type: none">• Issued Final EA and Signed FONSI for the Arroyo Canal Fish Screen and Sack Dam Fish Passage Project• Began Madera Canal Capacity Restoration actions• Awarded \$10M in financial assistance for groundwater banking projects• Obtained change to Reclamation's water rights to implement flow schedule• Obtaining permits for direct release of spring-run into the river (Dec 2013)• Resolving seepage concerns to achieve 300 cfs capacity and reconnect the San Joaquin River with the Delta (Dec 2013)

Near-term Key Milestones (con't)

2014	<ul style="list-style-type: none">• Begin construction of the following projects:<ul style="list-style-type: none">- Seepage projects to allow for up to 700 cfs in the river- Friant-Kern Canal Capacity Restoration• Initiate Restoration Flows• Release spring-run Chinook salmon (currently extirpated)
2015	<ul style="list-style-type: none">• Monitor subsidence near the Arroyo Canal Fish Screen and Sack Dam Fish Passage and complete re-design actions• Issue Final EIS/R and Record of Decision for the Mendota Pool Bypass and Reach 2B Improvements, begin land acquisition• Resolve seepage concerns to achieve 700 cfs capacity in river



Interim Flows in Reach 2A

- The Settlement is a substantial change in the last 60 years of operations of the San Joaquin River and CVP Friant Division.
- We are working to implement the Settlement in an open, transparent, and collaborative process.



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