

# **State Water Resources Control Board San Joaquin River Restoration Program Workshop**

Operational Perspective  
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# Interim Flows Project Description

- Purpose is “. . . to collect relevant data concerning flows, temperatures, fish needs, seepage losses, recirculation, recapture and reuse.”
- Water Year 2010
  - October 1 to November 20, 2009
    - Approx. maximum release of 700 cfs at Friant Dam
  - February 1 to September 30, 2010
    - Approx. maximum release of 1,550 cfs at Friant Dam
- Flows based on water year type, downstream channel capacity, potential seepage impacts, and consistent with all necessary permits and agreements



# Water Year 2010 Interim Flows



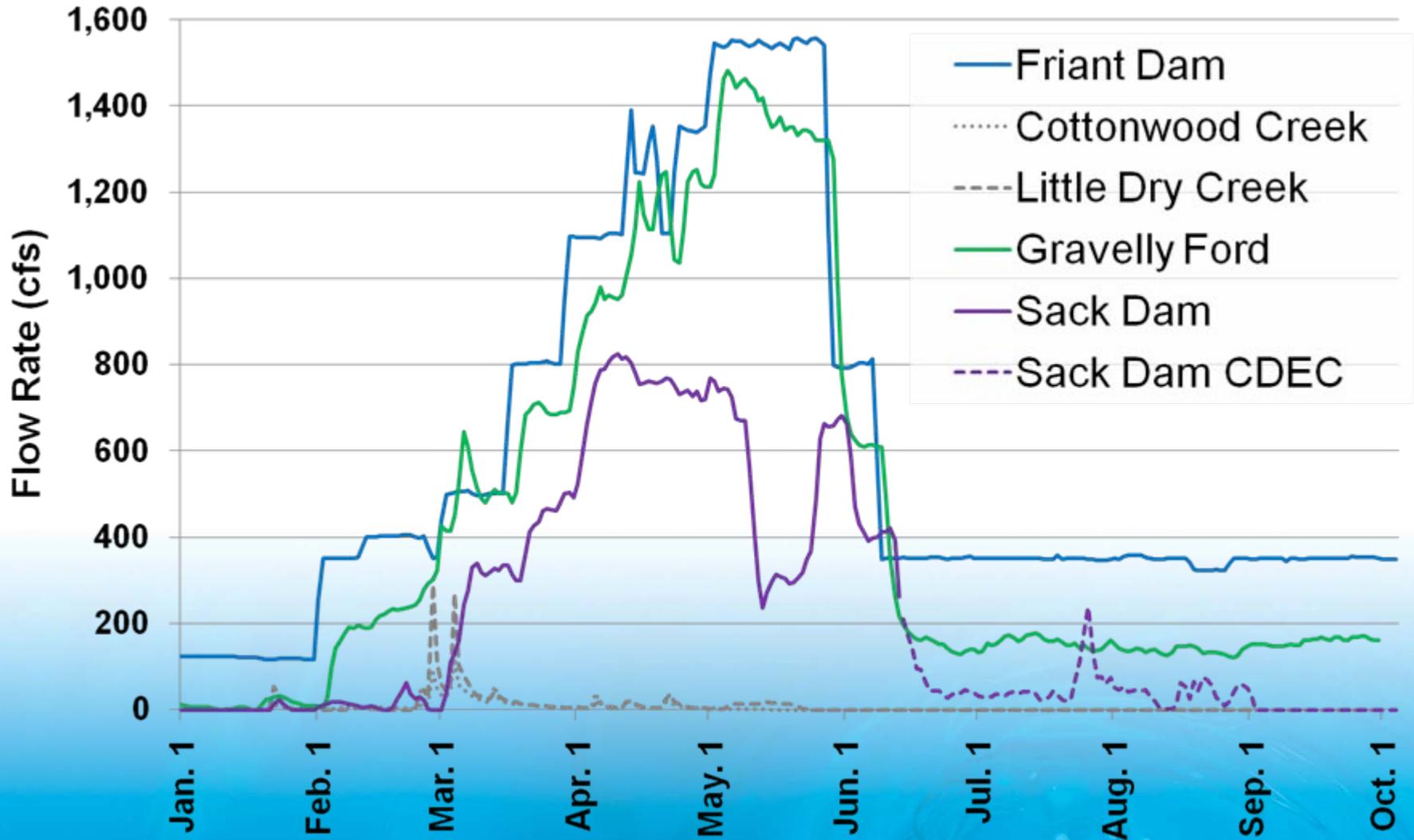
**Reach 2 in July 2009**



**Reach 2 in November 2009**

- Began October 1, 2009
- Peak release of 1,550 cfs from Friant Dam
- Released 260,000 acre-feet of Interim Flows; recaptured 46,000 acre-feet
- Reconnected the upper San Joaquin River with the Delta in 2010

# Water Year 2010 Interim Flows



# Reach 1 – Friant to Gravelly Ford



# Reach 1 – Friant to Gravelly Ford

- WY 2010 Key Monitoring Activities:
  - Flow, water quality, water surface profiles, and temperature
  - Mesohabitat mapping
  - Bed material sampling
  - Gravel and cobble mobilization studies
  - Sand source assessments
  - Shallow groundwater / seepage
- Future Monitoring:
  - Similar to above plus efforts to address gravel pits and spawning habitat availability
- Challenges:
  - Managing flows to meet Gravelly Ford targets
  - Managing flows to address flashy tributary inflows



# Reach 2 – Gravelly Ford to Mendota Pool



## Reach 2 – Gravelly Ford to Mendota Pool

- WY 2010 Key Monitoring Activities:
  - Flow, water quality, water surface profiles
  - Water temperature
  - Bed material mobilization studies
  - Shallow groundwater / seepage
  - Vegetation surveys
- Future Monitoring:
  - Similar and expanded on above
- Challenges:
  - Possible sediment build-up near the Chowchilla Bypass structure
  - Limited channel capacity and high groundwater elevations in Reach 2B



# Mendota Pool



# Mendota Pool

- WY 2010 Key Monitoring Activities:
  - Flow, water quality, water temperature
  - Shallow groundwater / seepage
- Future Monitoring:
  - Similar and possibly expanded on above
- Challenges:
  - Coordination with local agencies on Pool operations
  - Levee stability and pool elevations
  - High groundwater elevations
  - Reduced water mixing leading to poor water quality
  - Inflow / outflow accounting



# Reach 3 – Mendota Pool to Sack Dam

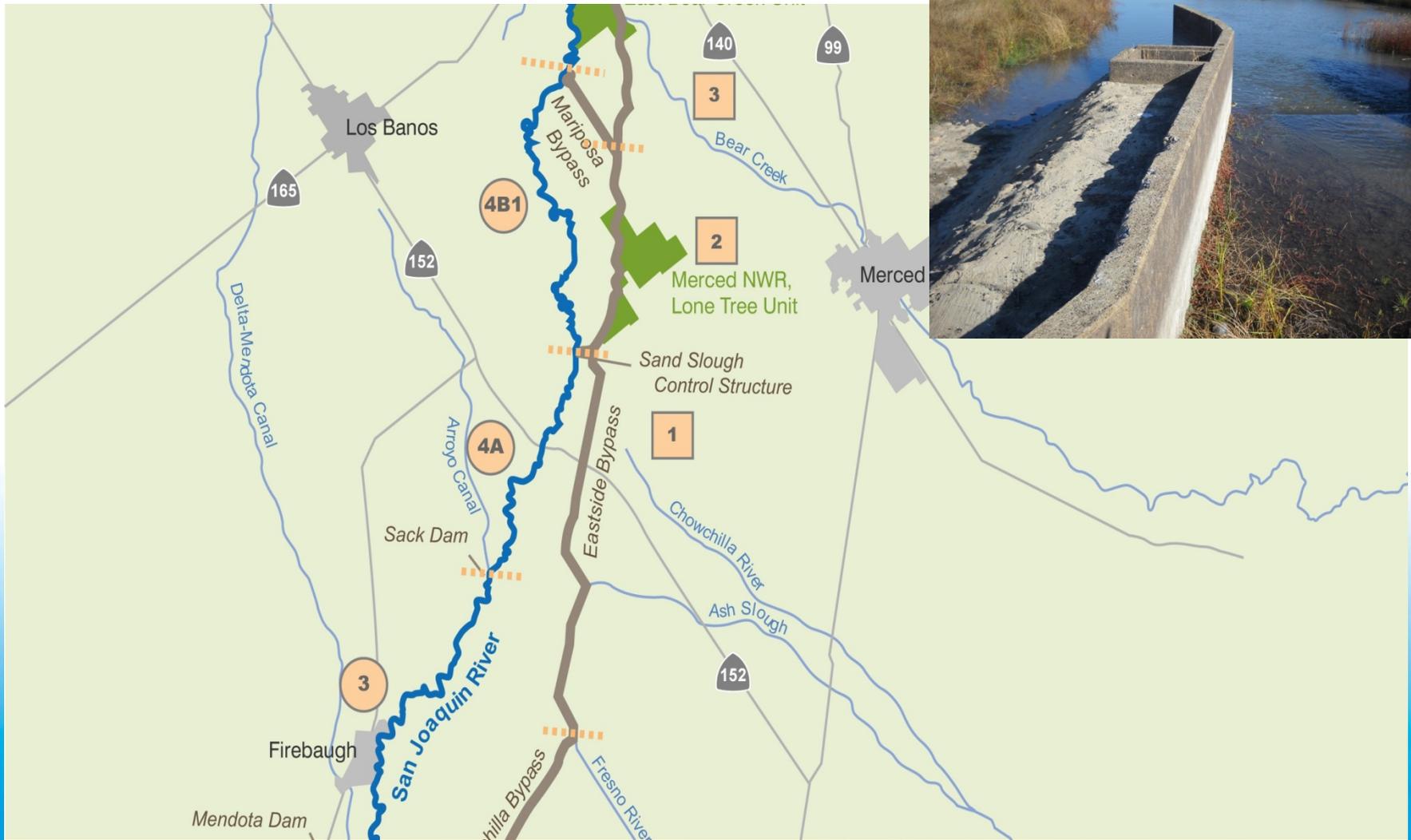


# Reach 3 – Mendota Pool to Sack Dam

- WY 2010 Key Monitoring Activities:
  - Flow, water quality, water temperature
  - Shallow groundwater / seepage
  - Fish habitat surveys
- Future Monitoring:
  - Similar and possibly expanding on above
- Challenges:
  - Coordination with local agencies on water deliveries



# Reach 4A – Sack Dam to Bypass



# Reach 4A – Sack Dam to Bypass

- WY 2010 Key Monitoring Activities:
  - Flow, water quality, and temperature
  - Shallow groundwater / seepage
  - Fish habitat surveys
- Future Monitoring:
  - Similar and expanded seepage monitoring
- Challenges:
  - High groundwater elevations resulted in holding flows below anticipated levels
  - Channel constrictions raising water elevations Sand Slough Control Structure



# Reach 4B1 – Headgates to Mariposa Bypass



# Reach 4B1 – Headgates to Mariposa Bypass

- WY 2010 Key Monitoring Activities:
  - None - No flows in this reach as flow-through capacity is limited
- Future Monitoring & Studies:
  - Quantify channel capacity
  - Biological and cultural surveys
  - Groundwater monitoring well installation
- Challenges:
  - Limited historical flows
  - High groundwater elevations



# Eastside Bypass



# Eastside Bypass

- WY 2010 Key Monitoring Activities:
  - Flow, water quality, and temperature
  - Shallow groundwater / seepage
- Future Monitoring:
  - Similar and expanded seepage and fisheries habitat monitoring
- Challenges:
  - Sand accumulation
  - Conflicts between restoration actions and the Flood Control Project





# Recapture and Recirculation

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- WY 2010:
  - Recaptured at Mendota Pool with water credited in San Luis Reservoir
  - 46,000 AF recaptured in WY 2010
- Future:
  - Test downstream locations such as Banta-Carbona, Patterson, and West Stanislaus
- Challenges:
  - Tracking and accounting
  - Determining impacts, if any, to other CVP contractors
  - Coordination with tributary operations on Vernalis targets



# Annual Technical Report and Annual Agency Monitoring Plan

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- Annual Technical Report
  - Monitoring data available to the public
  - Schedule for public release
    - Draft 1 – Late July
    - Draft 2 – Late January
    - Final – Late April
    - Posted on website
- Annual Agency Monitoring Plan
  - Planned upcoming monitoring efforts available to the public
  - Schedule for public release
    - Draft Plan – Late September
    - Final Plan – Late November



# Looking Forward

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- Continued study and monitoring
- Continued efforts to address concerns:
  - Seepage and shallow groundwater elevations
  - Levee stability and continued operations and maintenance activities for the Flood Control Project
  - Water recapture and recirculation accounting and possible impacts to downstream water agencies
- Continued close coordination with Implementing Agencies as well as other Federal, State, and Local Agencies