

SAN JOAQUIN RIVER
RESTORATION PROGRAM




Water Management Technical Feedback Meeting

April 17, 2009
Visalia, CA




Agenda

- Schedule
- Mediation Outcomes
- Recapture and Recirculation Approach
- Next Meeting

 **Mediation Outcomes**

- What is required from Reclamation?
- What decisions are internal to Friant?
- What are the recommendations to Reclamation?
- What decisions require Reclamation approval?

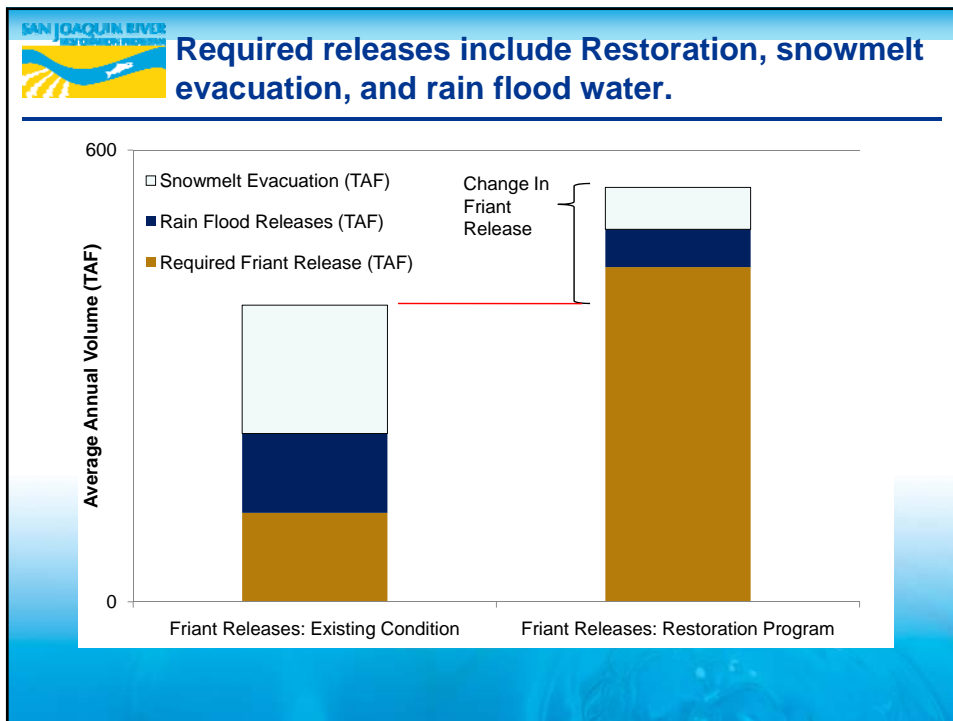
 **16(a) Recapture and Recirculation**

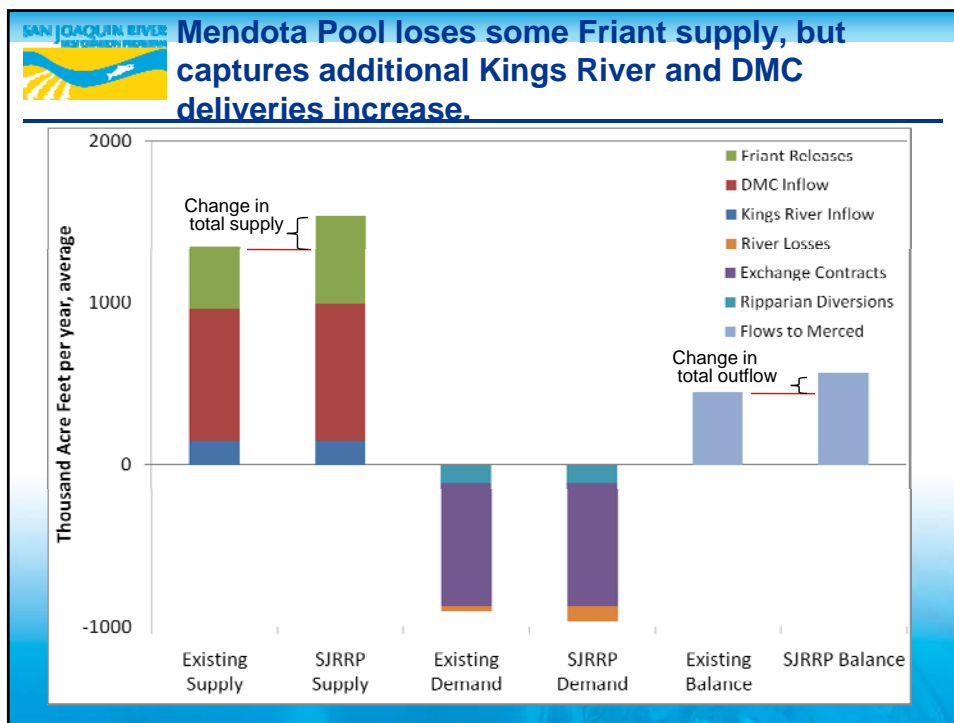
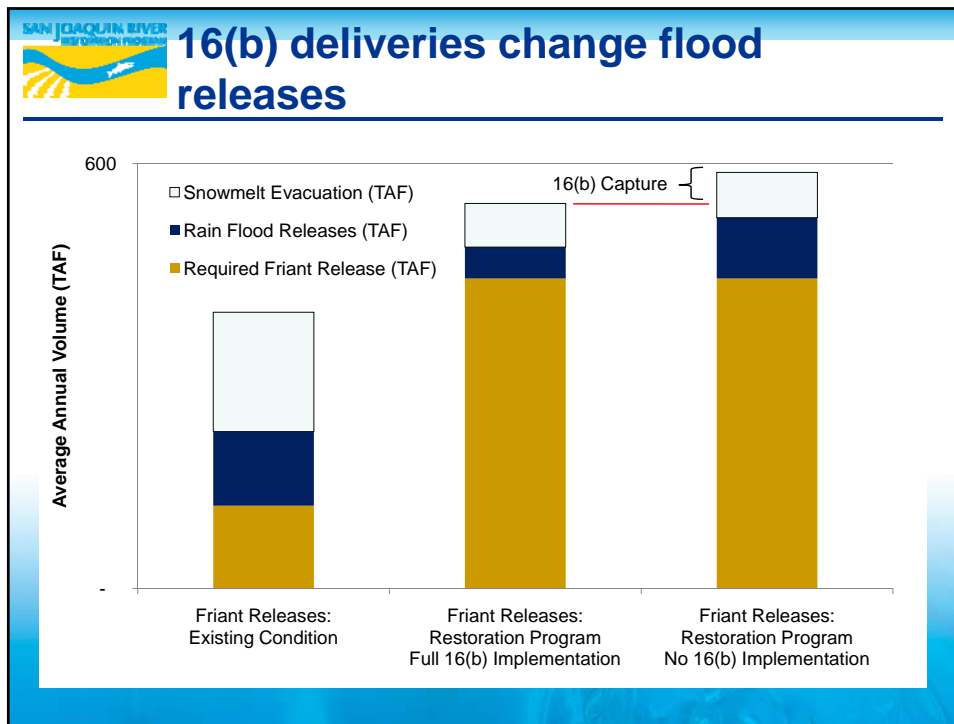
- Purpose: describe technical support for the recapture and recirculation of Interim and Restoration flows
- Objectives:
 - Describe how the system may respond to the release of Restoration Flows;
 - Identify key assumptions that control modeling results; and
 - Identify key assumptions that control opportunities for recapture and recirculation.

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Technical Approach

- Today: Scientific exploration of potential system responses, through modeling, to inform recapture and recirculation strategies.
 - Hypothetical scenarios test different outcomes and processes.
 - Results identify trends resulting from different choices rather than absolute numbers.
 - Assumptions do not reflect policy decisions.
- Future: identify policies and mechanisms to develop specific numbers and impacts where required. (Not Today)





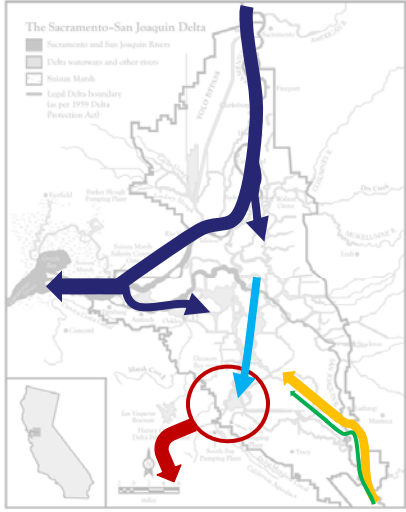
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Additional flow below the Merced River closely matches additional Delta inflow.

- No negative water supply impacts are seen in the East Side Tributaries.
- Without change to VAMP, some year to year differences in targets and contributions would occur
- New Melones shows small water supply benefits due to water quality savings at Goodwin.

SAN JOAQUIN RIVER Delta Allocation Program

Delta Modeling Components

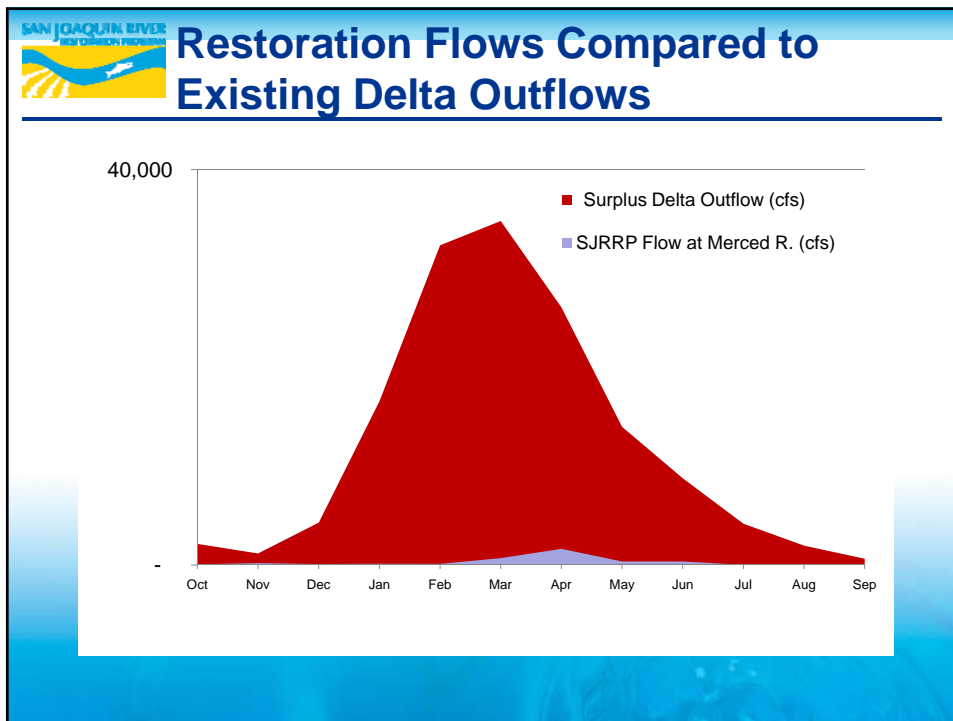


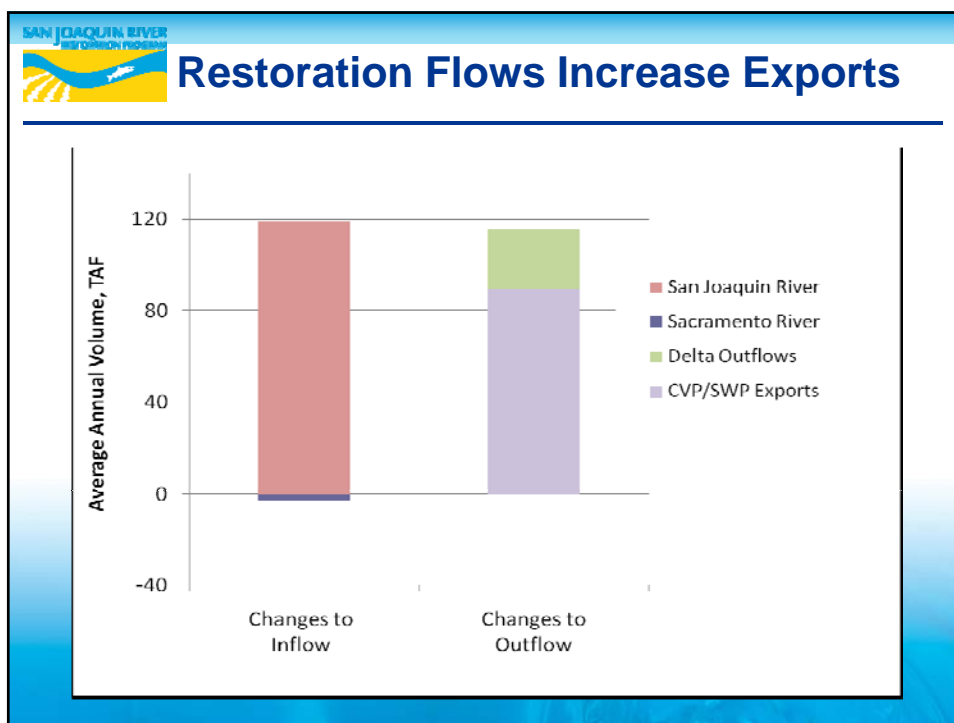
- Sources of Inflow
 - North of Delta Inflow
 - Existing San Joaquin Inflow
 - Restoration Flows
- Sources of Outflow
 - Delta Outflow
 - Delta Exports
 - Recapture

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Assumptions for Restoration Flows in the Delta

- Major Assumptions
 - 16(b) utilization by Friant
 - South of Delta demand pattern
- Minor Assumptions
 - VAMP coordination
 - Flexible Flow implementation
 - Others?






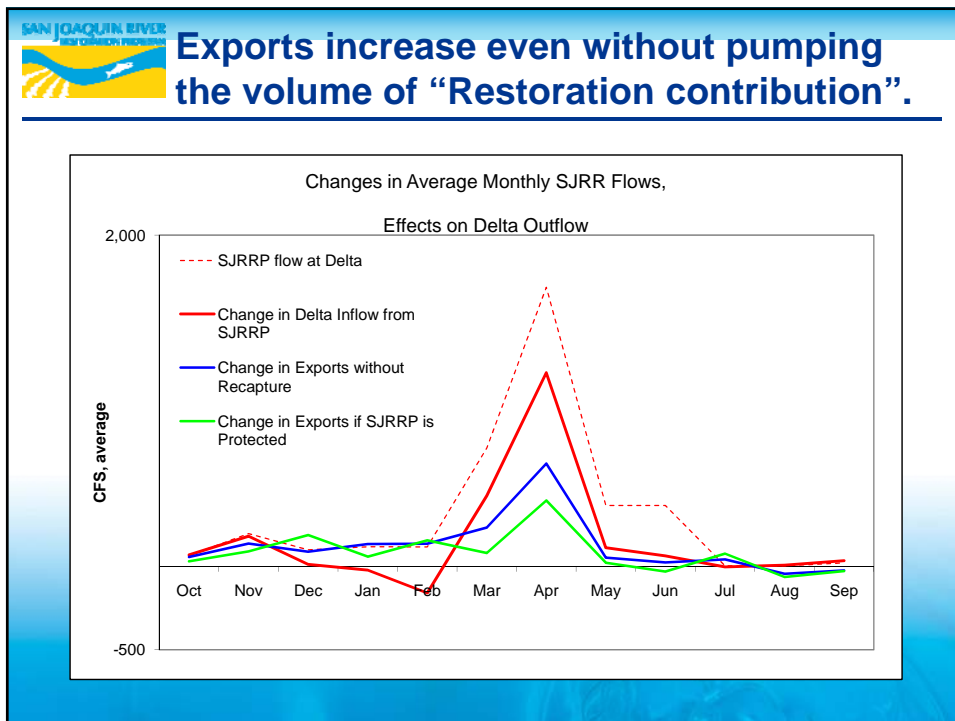
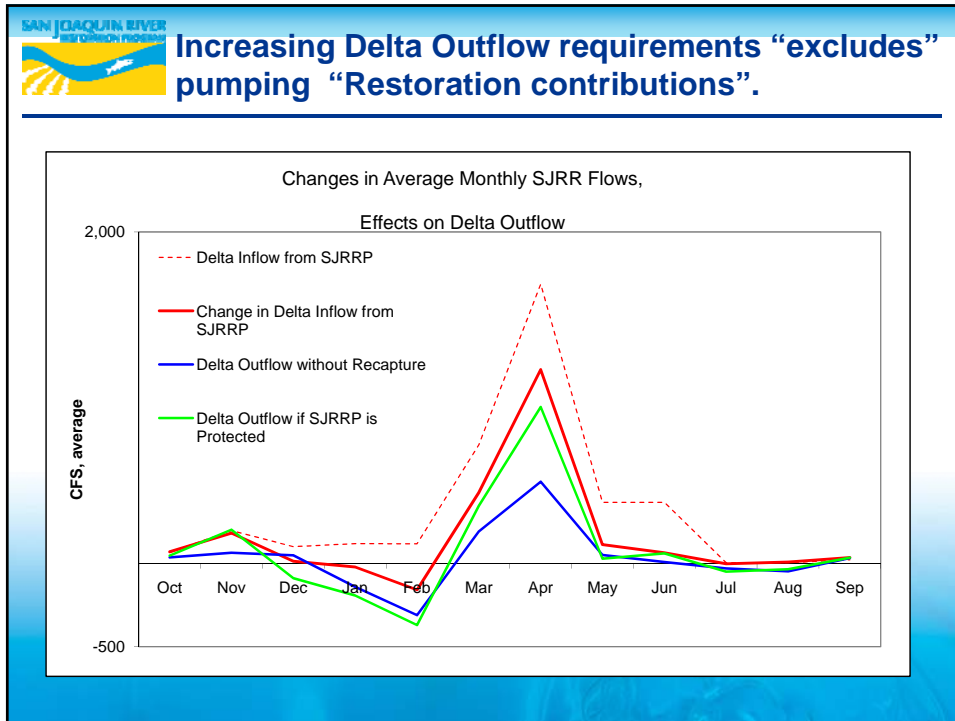
- Intermediate Summary:
Water Balance**
- Change in Delta inflow is less than change in releases from Friant Dam
 - CalSim does not show losses to Restoration Flows on the San Joaquin below Merced River
 - Restoration Flows change Delta conditions, resulting in increased Exports and Delta Outflow


 **Water Rights Petition**

- Reclamation will petition to deliver flows from Friant Dam to Friant Districts through the Delta.
- The State Water Resources Control Board will require us to demonstrate:
 - Presence of additional water;
 - No harm to 3rd Parties; and
 - No harm to fish or wildlife.
- The burden of proof requires analysis similar to a water transfer and supported by agreements with 3rd parties.

 **How do exports relate to Restoration?**


- Hypothesis 1: Restoration water flows directly to exports.
- Hypothesis 2: North of Delta water becomes exports rather than delta outflow.





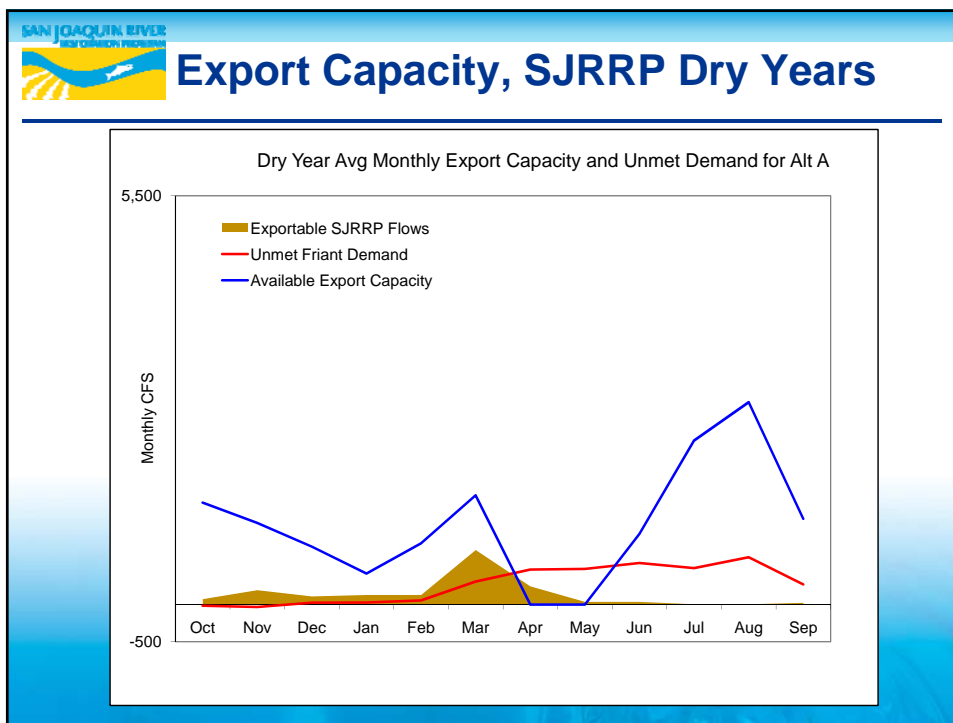
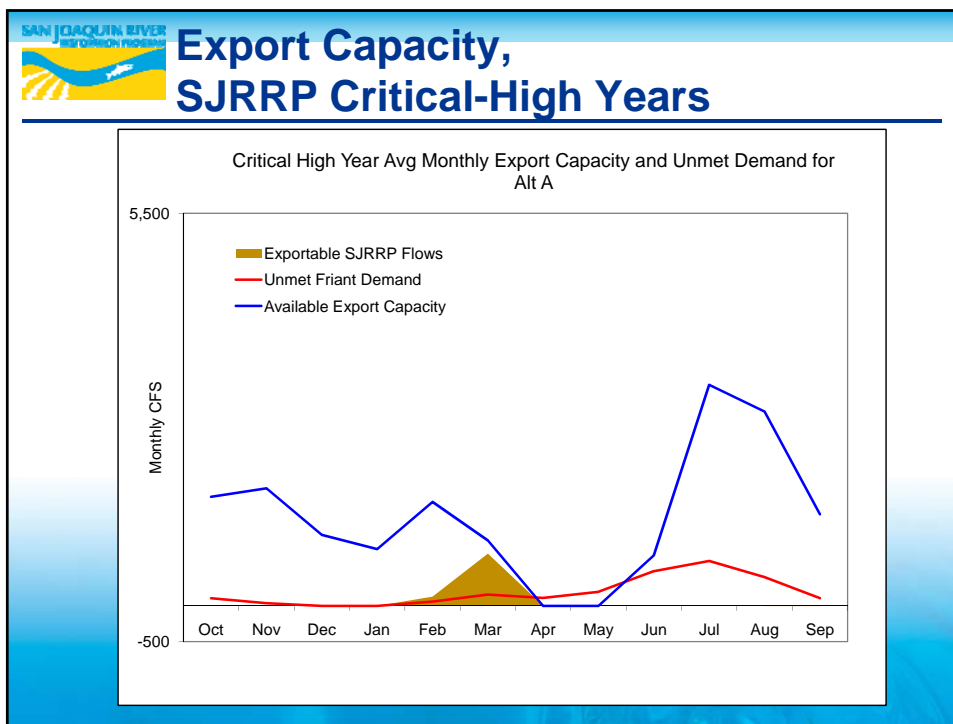
Intermediate Summary: Export Mechanism

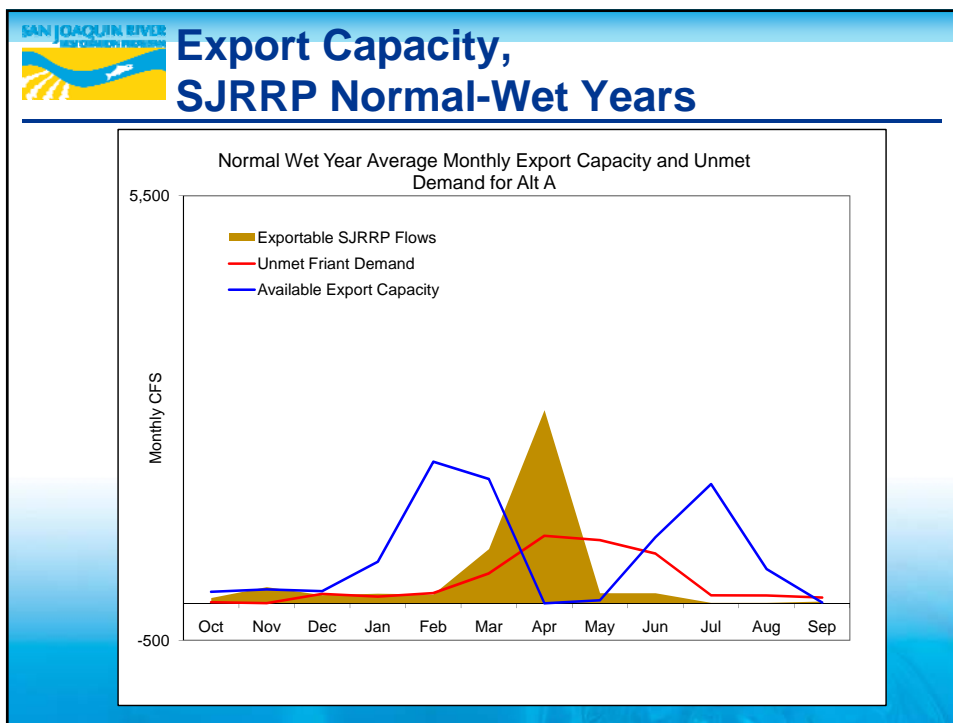
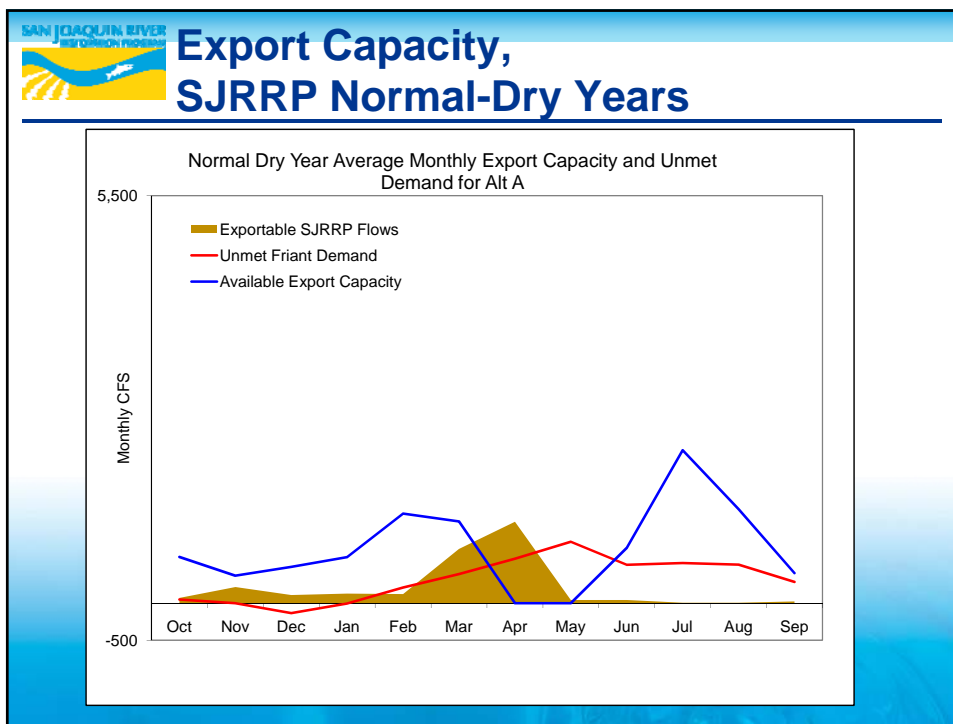
- Changes in Exports correlate with the timing of Restoration Flows, but are less than Restoration Flows
- Increased exports occur as a result of meeting improved flow and water quality targets.

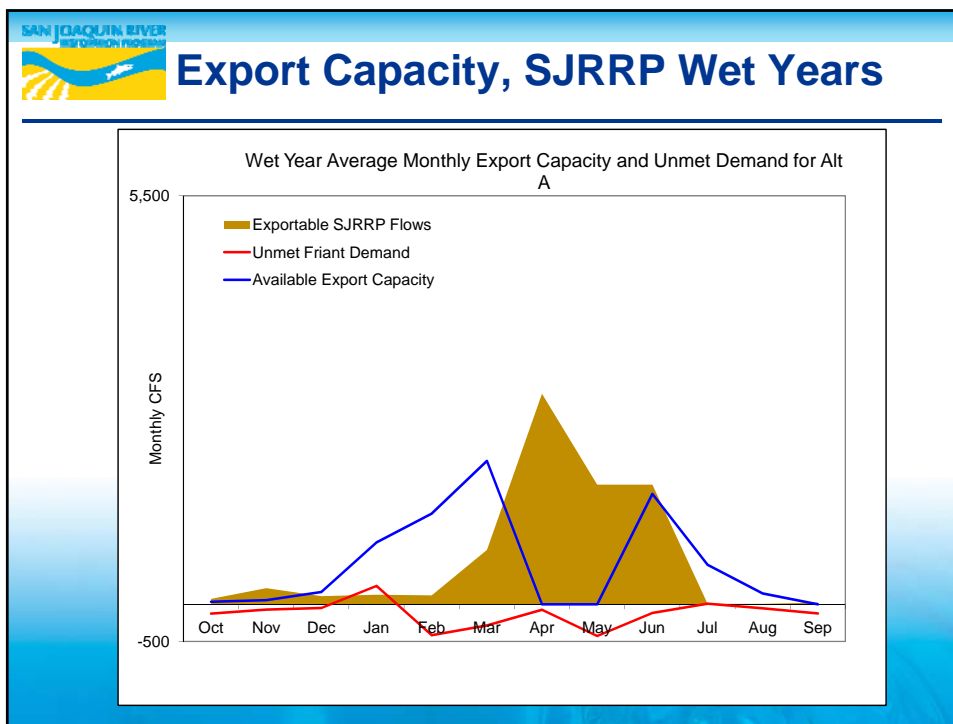


Support for a Petition

- Presence of Water: demonstrated through CalSim model results
- Fish and Wildlife: regulatory agency consultations
- No Harm to 3rd Parties: agreement with State and Federal Agencies and water supply contractors







Intermediate Summary of Results

- Modeling results do not show capacity to export additional water during the most restricted months.
- Availability of flow in the Delta corresponds to demand patterns, except in wet years.

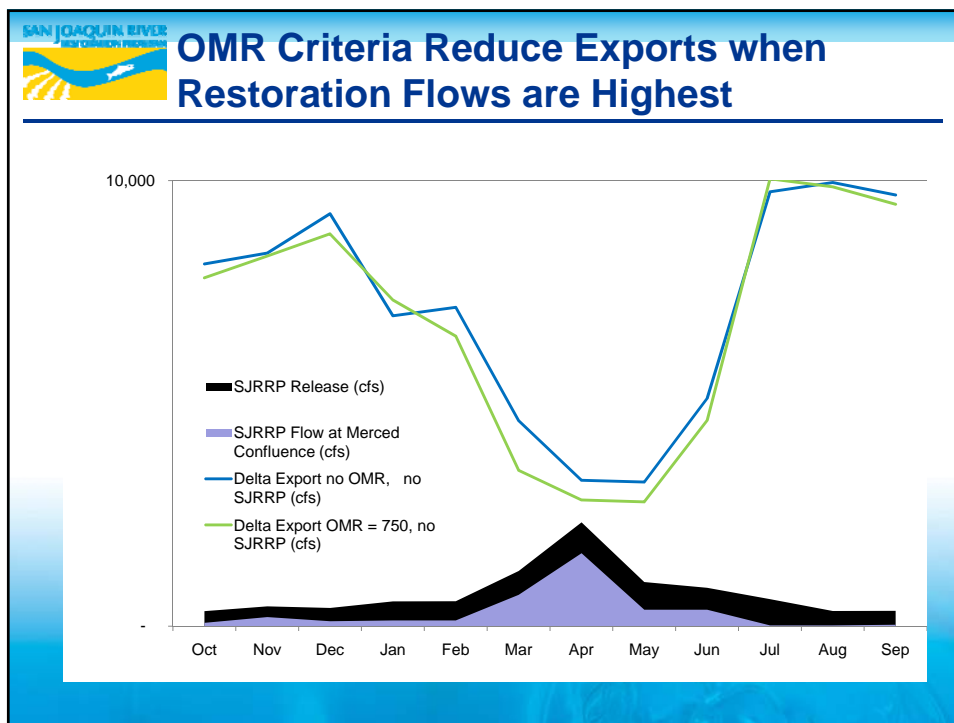
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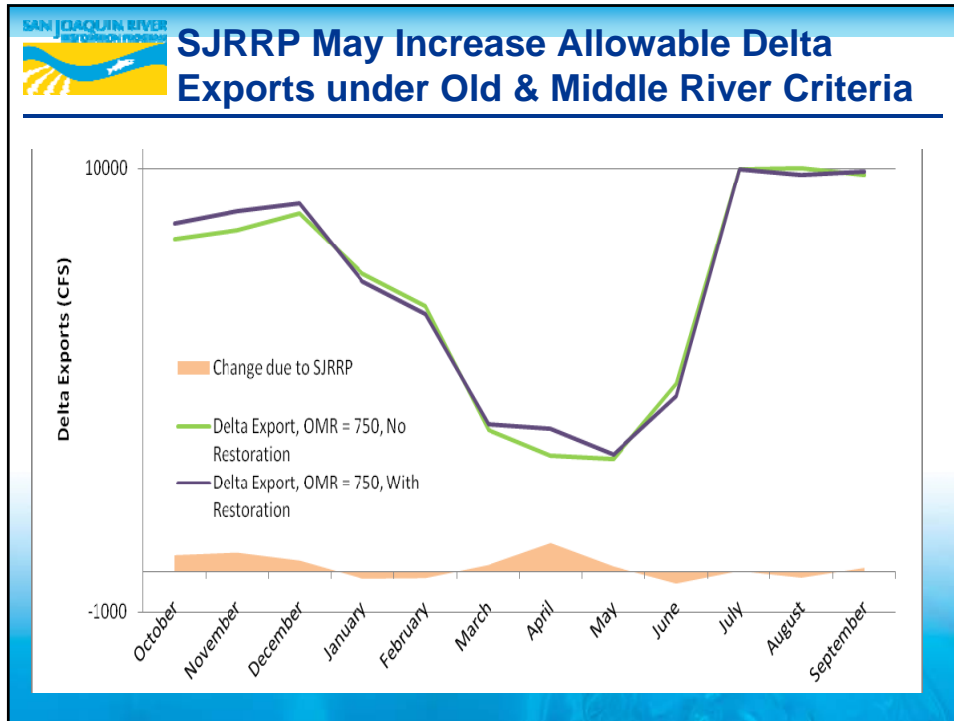
Old & Middle River Flow Criteria

The Sacramento-San Joaquin Delta


- Sacramento and San Joaquin Rivers
- Delta waterways and other rivers
- Suisun Marsh
- Legal Delta boundary (as per 1959 Delta Protection Act)

- Operations Criteria and Plan (OCAP)
 - Operating rules for the Central Valley and State Water Projects
 - New requirements include flow and turbidity standards for Old & Middle Rivers (OMR)
- Planning Model Sensitivity Studies on OCAP
 - (-750) cfs, most restrictive planning assumption → used for results here
 - (-1500) cfs, less restrictive planning assumption





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- 16(a) Requirements**
- PEIS/R: compliance on flows.
 - Agreements:
 - Resource Agencies (DWR, Reclamation);
 - South of Delta State Water Contractors;
 - South of Delta Federal Water Contractors;
 - Friant; and
 - NRDC.
 - Reclamation will collaborate with Friant to initiate discussions.



Feedback from Friant

- Mediation requirements from Reclamation.
- Comments on 16(a) technical approach and results.
- Friant viewpoint on 3rd party discussions.



Next Meeting

- Date: May 8th
- Agenda
 - Reclamation Response to Mediation Recommendations
 - Restoration Flow Guidelines
 - Other?