

SAN JOAQUIN RIVER
RESTORATION PROGRAM



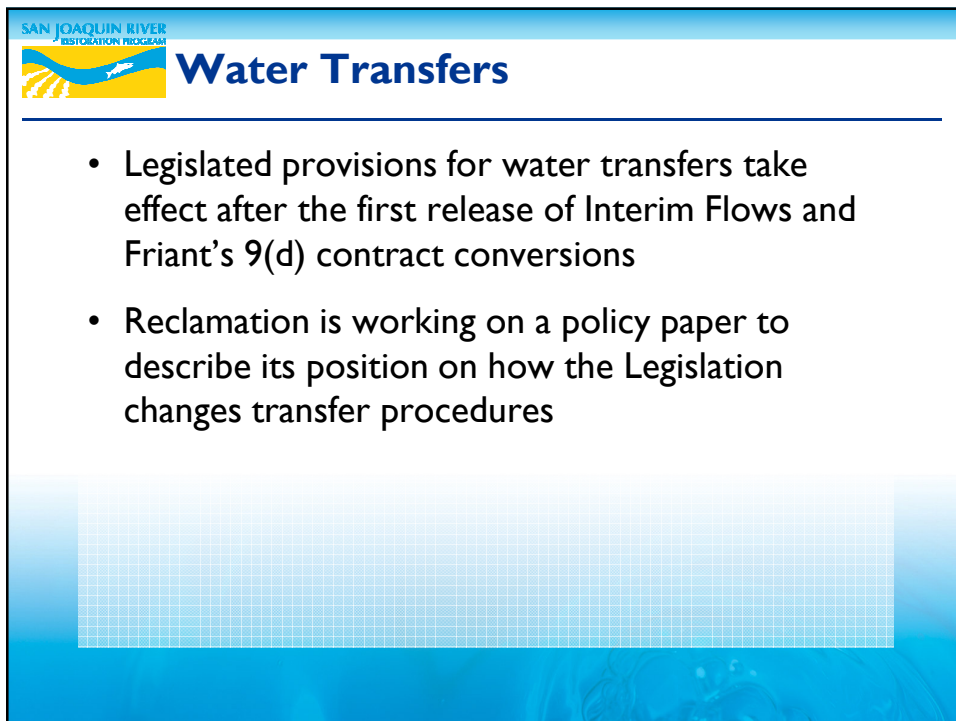
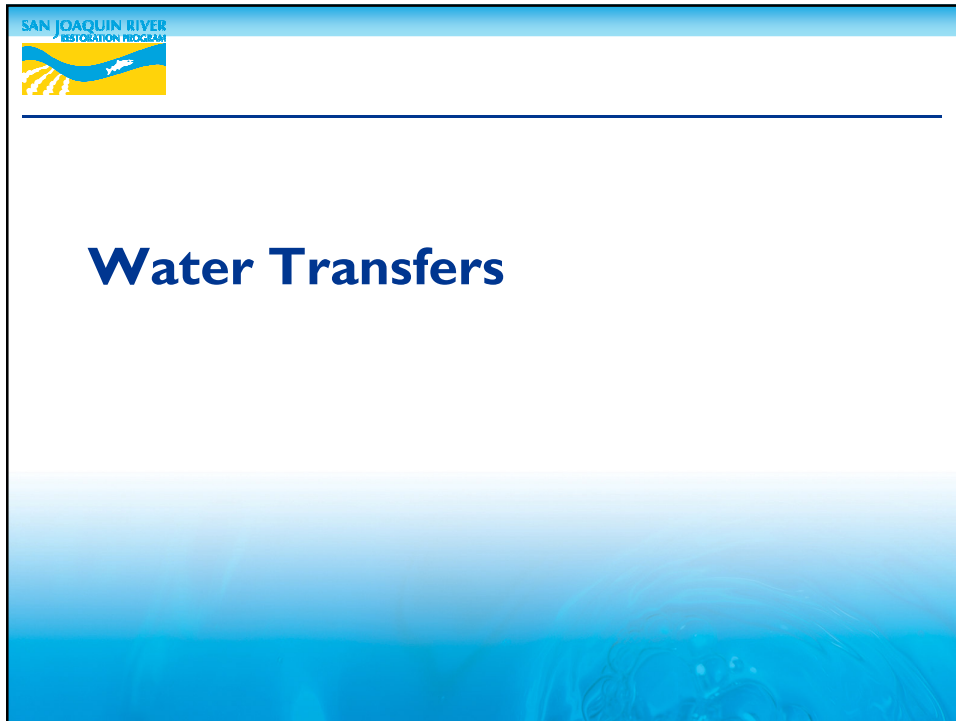
Water Management Technical Feedback Meeting

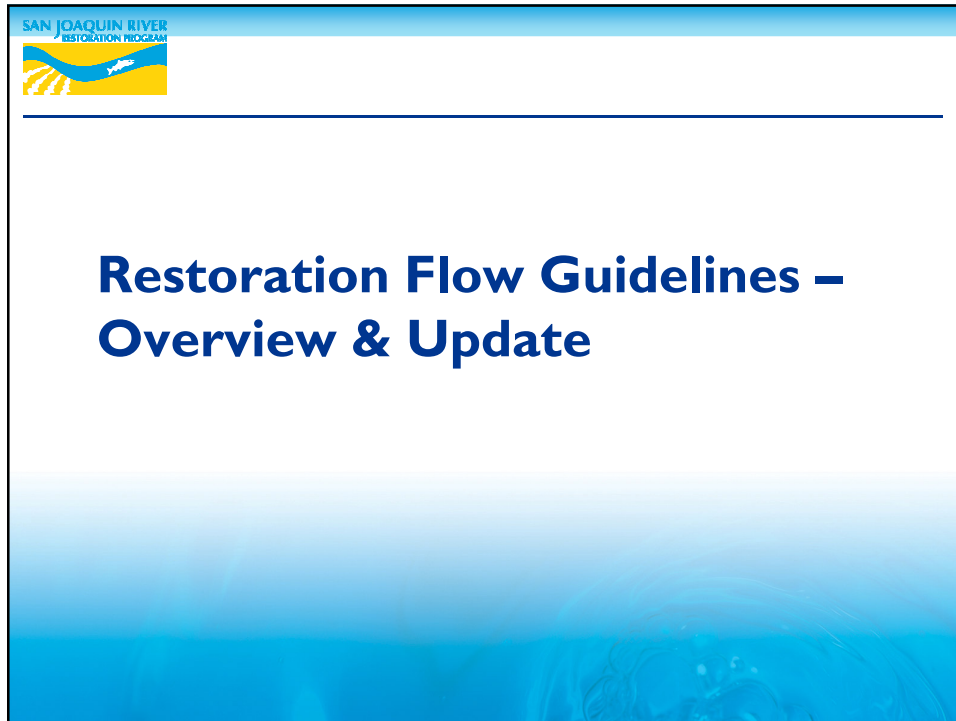
June 5, 2009
Visalia, CA



Agenda Overview


- Water Transfers (10 min.)
- Restoration Flow Guidelines (10 min.)
- Recovered Water Account (25 min.)
- MC/FKC Capacity Correction Assessment (30 min.)
- Interim Flow Water Right Petition (20 min.)
- Recapture/Recirculation Activities (10 min.)
- Public Comment (10 min.)






This slide contains the same logo and title as the previous slide. Below the title, there is a bulleted list of RFG components and next steps. The list is set against a light blue grid background.

- **RFG Components:**
 - Allocation (hydrograph smoothing)
 - Completed January 2009
 - Residuals
 - Completed May 2009
 - Recovered Water Account (next slides)
 - Anticipated completion June 2009
- **Next Steps:**
 - Early July 2009: Revised draft RFG & feedback
 - Late July 2009: Administrative Draft RFG




Recovered Water Account




Recovered Water Account History

- In past meetings, Reclamation presented different methods for measuring water supply impacts and declined shadow accounting.
- Feedback identified inferred relationships from river releases (simplified methods) as undesirable.
- The current direction compares modeled (no-Settlement) conditions to measured deliveries with Restoration Flows.



RWA Current Technical Requirements

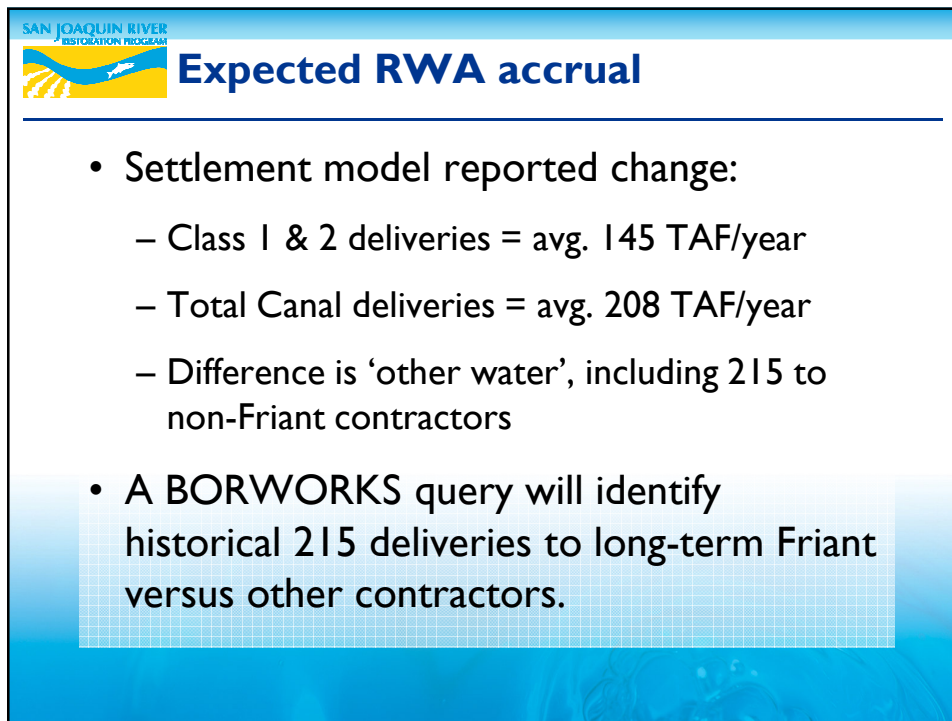
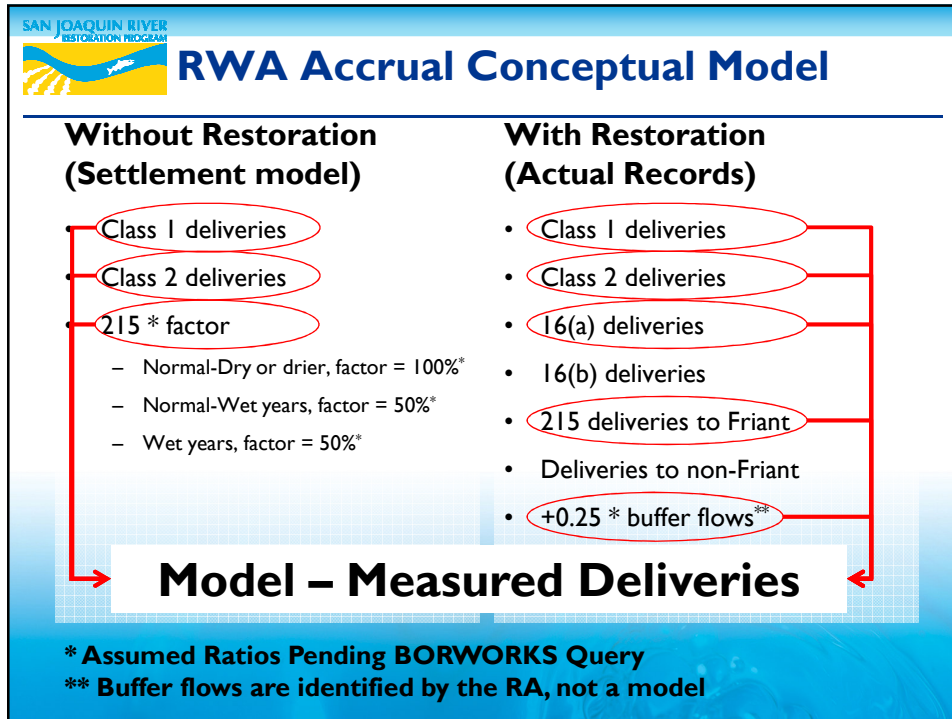
- The RWA compares between conditions with and without Restoration Flows.
- ‘What would’ve been delivered’ requires assumptions.
- Measured canal deliveries requires separating out mitigation resources.
 - 16(a) deliveries outside of an allocation
 - 16(b) deliveries to Friant long-term contractors

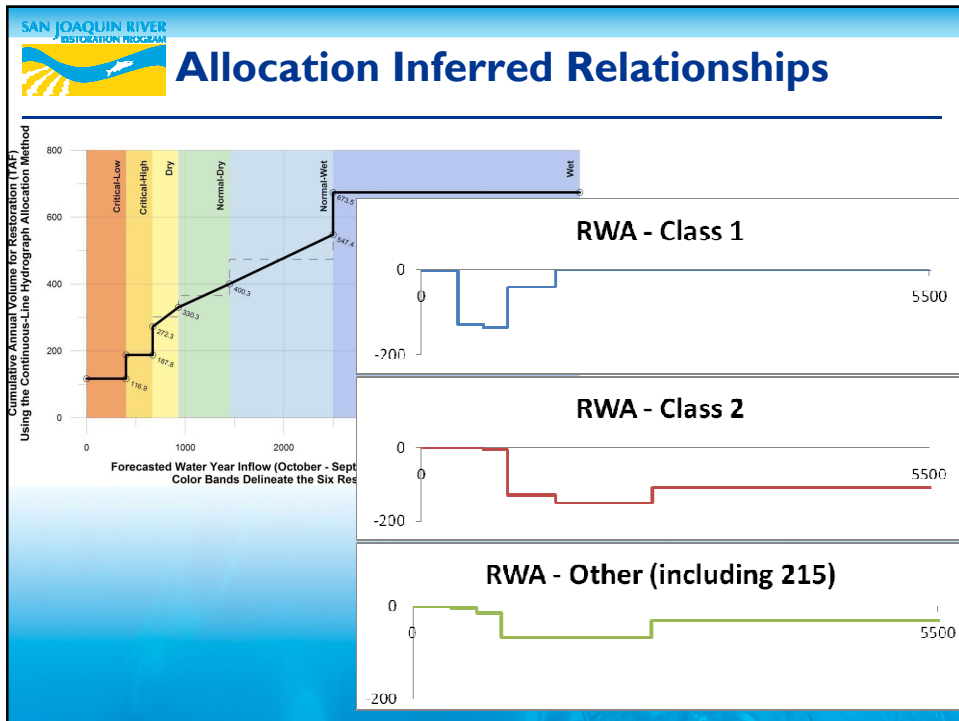
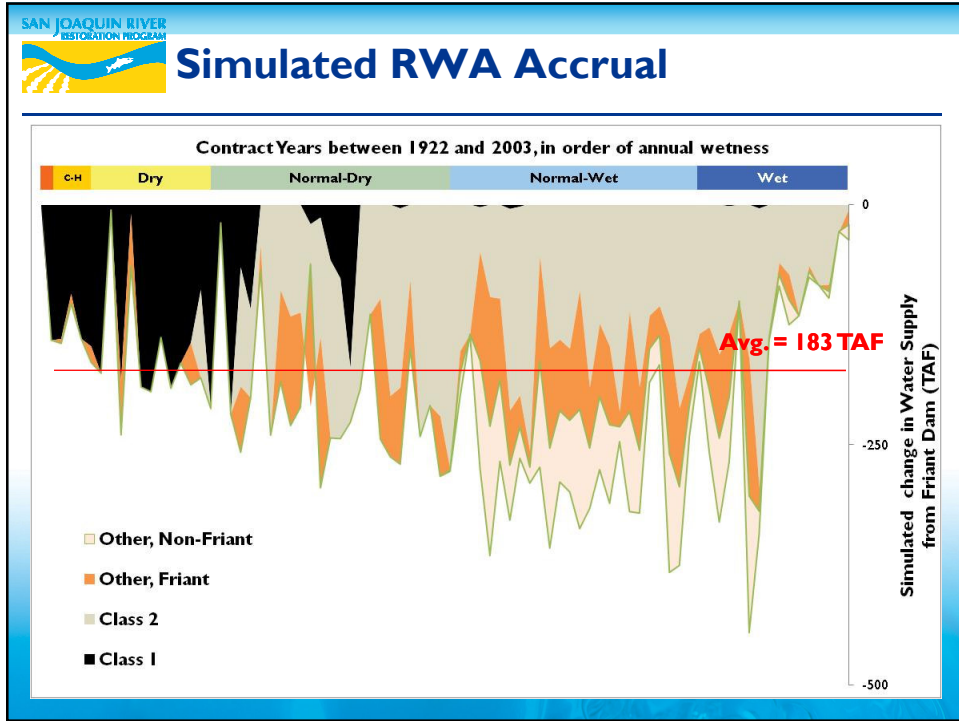


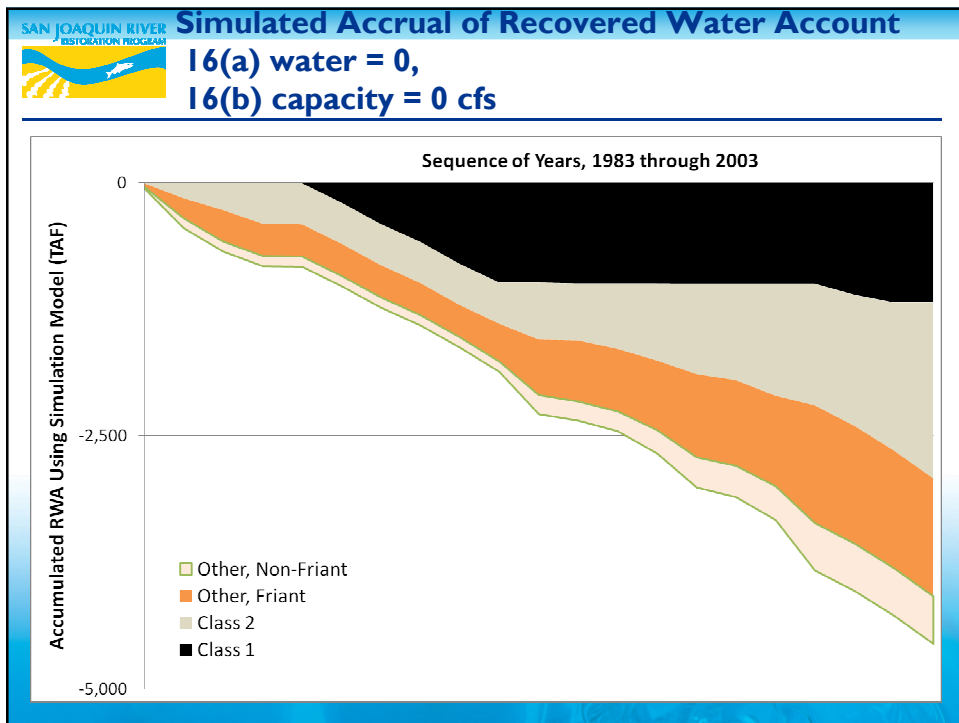
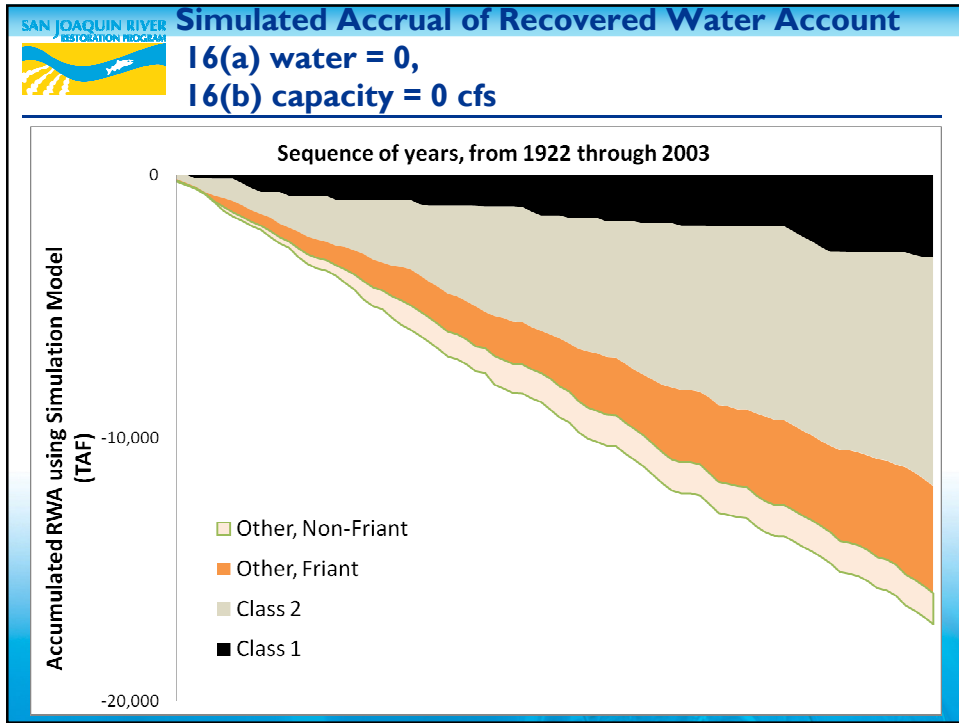
RWA Conceptual Model

The conceptual model for the RWA:

- Uses canal based accounting procedures;
- Delivers without Restoration water according to the Settlement model demand curves;
- Tracks reductions to Class 1, Class 2, and 215 deliveries to long-term Friant contractors; and
- Maintains consistency with the Settlement assumed impacts.







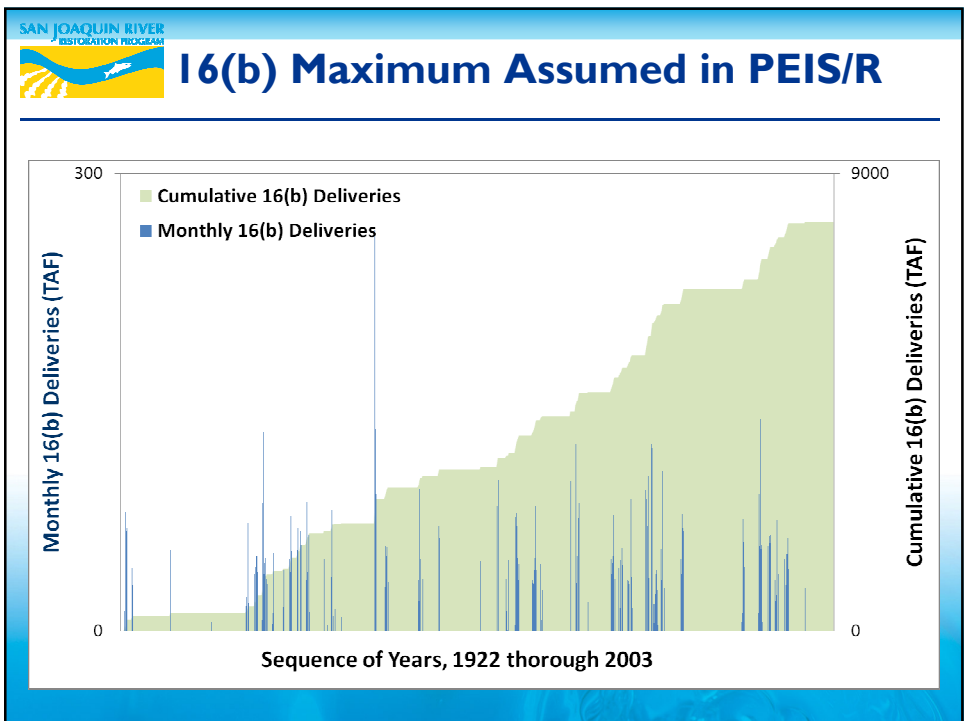
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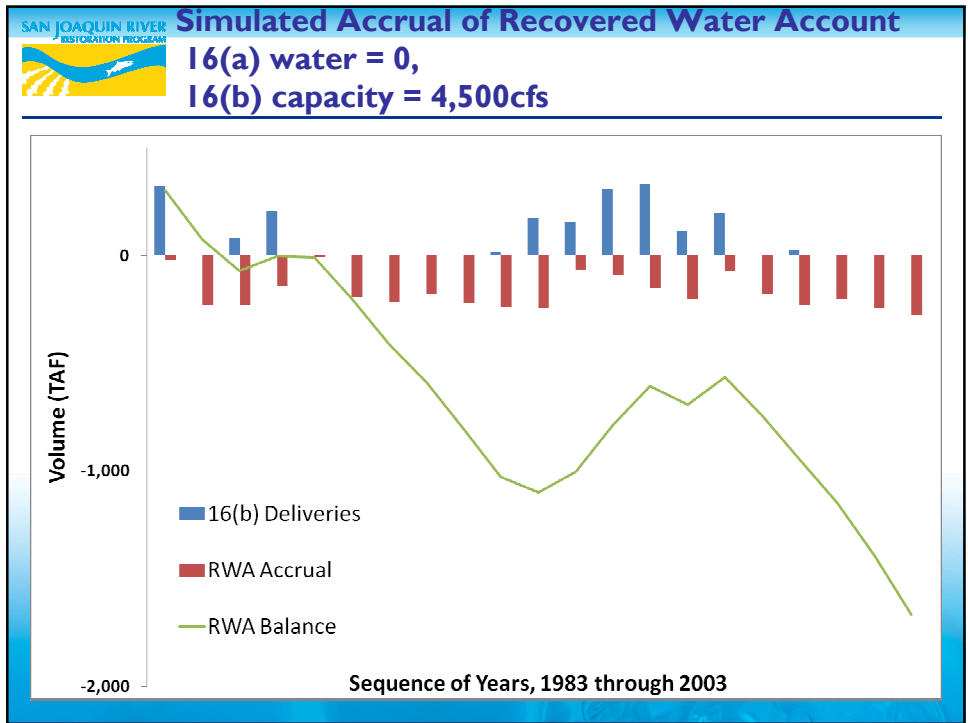
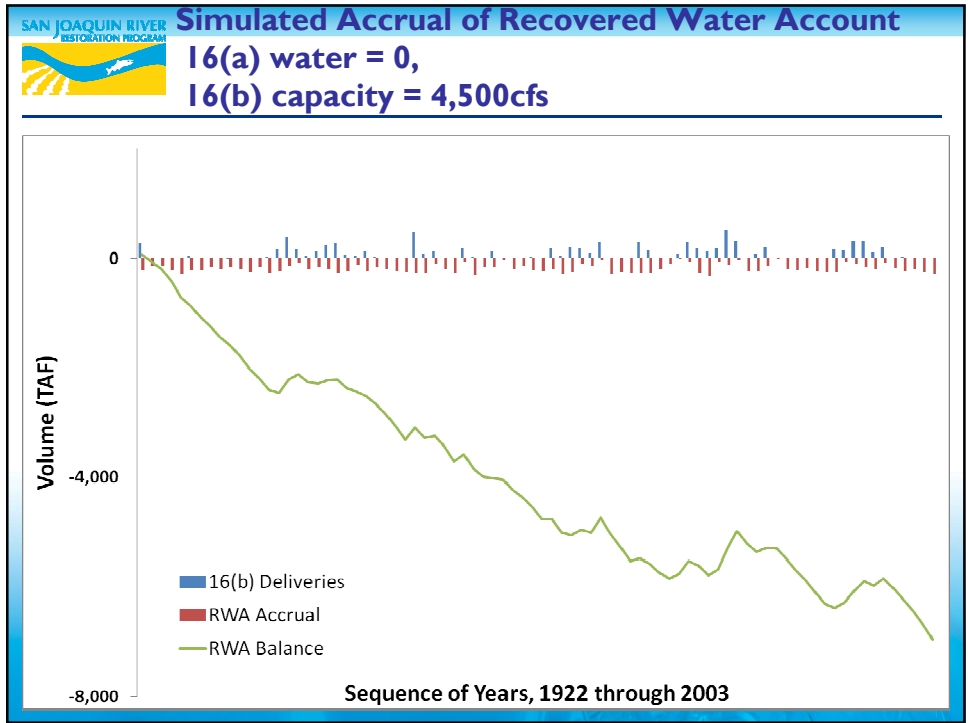
16(b) Facilities Assumed by PEIS/R


- 16(b) take used in PEIS/R
 - Approximately 4,500 cfs total take capacity
 - Maximum direct recharge \approx 430 TAF annually
 - Maximum In-Lieu \approx 2,200 cfs (on ag. pattern)

Potential Groundwater Banking Projects and Recharge Capacities in Friant Division Service Area


	WMA 1		WMA 2		WMA 3		Management Areas				WMA 6		WMA 7		Totals (cfs)		
	Direct Recharge (cfs)	In-Lieu Recharge (cfs)	Direct Recharge (cfs)	In-Lieu Recharge (cfs)	Direct Recharge (cfs)	In-Lieu Recharge (cfs)	Direct Recharge (cfs)	In-Lieu Recharge (cfs)	Direct Recharge (cfs)	In-Lieu Recharge (cfs)	Direct Recharge (cfs)	In-Lieu Recharge (cfs)	Direct Recharge (cfs)	In-Lieu Recharge (cfs)	Direct Recharge	In-Lieu Recharge	Total
Non-Friant	375	25	130	45	110	10	95	590	100	35				1000	810	1,705	2,515
Friant									100	15	250	465	1150		1,500	480	1,980








**Madera & Friant-Kern Canals
Capacity Correction Assessment
Status Update**



Authorization and Funding

- Public Law 111-11 requires a feasibility study and authorizes construction consistent with the feasibility study
- Reclamation FY 2008 budget provides budget for Planning Studies under Operations and Maintenance authority
- Friant Staff have identified a desire for the Restoration Program to fund canal capacity corrections and pump-back facilities


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Milestones

- MC/FKC Capacity Correction
 - Proj. Description & Scope – 07/09
 - FS/Env. Review/Initial Eng. Design – 07/10
 - Final FS to Commissioner – 08/10
- FKC Pump-Back
 - Proj. Description & Scope – 07/09
 - FS/Env. Review/Initial Eng. Design - 07/10
 - Final FS to Commissioner – 08/10

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Work Plan

- Contracting October 2008
- Initial site visit in November 2008
- Data collection, 2009
- Hydraulic Modeling, June 2009
- Contracting (Modification or Task Order)
- Feasibility Study and Environmental Assessment
- Engineering Design Report

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Initial Site Visit


- Friant-Kern Canal

Bottleneck		Project Distance	Design Flow	Estimated Current Capacity
FKC Mileposts		Miles	cfs	cfs
29.13	30.50	1.37	5000	4680
52.98	57.14	4.16	5000	4500
71.37	79.25	7.88	4500	4105
131.35	137.19	5.84	2500	2170
- Madera Canal
 - Modeling Expected to Highlight Restrictions

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Data Collection

- Kick-off meeting / Site review (MC & FKC)
- Canal design drawings
- Surveys of MC and FKC complete
- Operational data being assembled by FWA and MCWPA
- Existing Data TM




Hydraulic Modeling

- Development
- Calibration and Validation
 - Technical Memo
 - Feedback from FWA and MCWPA
- Evaluate canal capacity correction
 - Technical Memo
 - Feedback from FWA and MCWPA




Feasibility Studies and EA

- Restoration funding requires a feasibility study.
- Alternatives include:
 - Capacity Correction;
 - Pump-Back; and
 - Capacity Correction and Pump-Back.
- An engineering report follows from the feasibility study.




Resourcing

- MWH pursuing capacity correction
- TSC developing pump-back plan
- Additional contracting actions to combine and complete studies if required.




Going Forward

- At Hydraulic Modeling phase of work
- Operations data is required to move forward
- Proposed Communication Plan:
 - Monthly updates during SJRRP WM Tech Feedback meetings
 - Monthly status reports
 - Additional calls with FWUA and MCWPA lead representatives between monthly updates



**Interim Flow
Water Right Petition**



**Recapture / Recirculation
Activities**





Public Comment

