

Water Management Technical Feedback Meeting

May 22, 2015 Sacramento, CA



Agenda Overview

- Recapture / Recirculation
- Investment Strategy
- Lecture Series I: Water Infrastructure Funding Opportunities
- Lecture Series 2: SJRRP Framework for Implementation Update
- Restoration Flows Guidelines
- Part III Projects
- Next Meeting Dates and Locations



Recapture / Recirculation



Long-term R&R EIS

- Planning and impacts analysis for WY 2018 and beyond.
- NEPA-only document
 - No clear CEQA lead
 - Prepare EIS compliant with CEQA Guidelines
- Alternatives Development Phase
 - Scoping meetings August 2015



- Recirculation Chapter revised in 2013 with Friant Contractor input
- Focus for 2015: largely complete Delta Recapture Chapter and associated operations agreements
- Schedule
 - Revised Admin Draft Plan: May 2016
 - Draft Plan: July 2016
 - Final Plan: September 2016



Investment Strategy



Final Investment Strategy Report

- Final Report is complete
- Available on SJRRP website



Lecture Series I: Water Infrastructure Funding Opportunities



Drought Response Program FY 2015 Funding Opportunities

Sheri Looper Resource Management Division

- Background
- FY 2015 Drought Funding Opportunity Announcements (FOA)
 - Allocation of Funding
 - Eligible Applicants
 - Resiliency Project Examples
 - Evaluation Criteria
 - Application Process
- Other Funding Opportunities



Reformulation of the Existing Drought Program

 Historically, most Drought Program funding was used for emergency response actions -very little funding has been used for planning or to build long-term resilience to drought

 New Drought Response Program will support a proactive approach for non-Federal partners to prepare for and respond to drought



Reformulation of the Existing Drought Program

 According to FEMA, mitigation-taking steps ahead of time to prevent or lessen known impacts from a natural disaster-saved \$4 for every \$1 expended

 Planning ahead is more efficient and effective than taking measures in a crisis



Funding Opportunity Announcements **Allocation of Funding**

Element	FY15 Funding (\$5M total)	50% Cost Share	Number of plans/projects					
Drought Contingency Planning	\$1-2M depending on demand	Required, waiver available	5-10 (up to \$200k per plan)					
Drought Resiliency Projects	\$2-3M depending on demand	Required	7-11 (up to \$300k per project)					



Funding Opportunity Announcements **Eligible Applicants**

Program Element	Eligible Applicants
Drought Contingency Planning	States, Indian tribes, irrigation districts, water districts, or other organizations with water or power delivery authority located within the 17 Western U.S. States and Hawaii
Drought Resiliency Projects	States, Indian tribes, irrigation districts, water districts, or other organizations with water or power delivery authority located in the western United States or Territories as identified in the Reclamation Act of June 17, 1902, as amended



Drought Contingency Planning

 Defined as actions taken by individuals, industry, government, and others before a drought occurs to mitigate impacts and conflicts.

- Comprehensive plan to address drought and plan in advance of a crisis.
 - How will you recognize the next drought in the early stages?
 - How will the drought affect you?
 - How can you protect yourselves?



Drought Contingency Planning Evaluation Criteria

- Need for a Drought Plan or Plan Update (40 points)
 - Status of existing drought plan and the drought risks to be addressed in the plan
- Diversity of Stakeholders (35 points)
 - Letters of support and proposed outreach efforts
- Project Implementation (20 points)
 - Implementation plan and availability of data, models, and qualified staff
- Nexus to the Bureau of Reclamation (5 points)
 - Connection to a Reclamation project or activity



Drought Resiliency FOA Project Requirements

- Supported by an existing drought plan
- Projects that build resiliency to drought by:
 - increasing the reliability of water supplies;
 - improving water management
 - facilitating the sale, transfer, or exchange of water;
 and
 - providing benefits for fish and wildlife and the environment
- Completed within two years



Drought Resiliency FOA - Example Projects

Project Type	Description
Infrastructure Improvements:	Lowering surface water intakes, develop/expand small-scale water storage, expand recharge programs, construct wells
Measurement, Modeling, and Monitoring	Water meters, online drought management tools, improved water models
Facilitating the Sale, Transfer, or Exchange of Water	Developing a water bank, or systems and programs that support water marketing, such as online tools that link buyers and sellers, or that help identify transfer priorities within a basin
Protection for fish and Wildlife and the Environment	Providing benefits for fish and wildlife and the environment: Installing fish screens and diversion structures, habitat management/ restoration



Drought Resiliency Projects- Evaluation Criteria

- Project Benefits (35 points)
 - Project will make additional water supplies available, or improve operational flexibility or water management.
- Drought Planning and Preparedness (25 points)
 - Proposed project is supported in an existing drought plan
- Actual or Potential Drought Impacts (20 points)
 - Severity of ongoing/recent/projected drought in project area and existing or potential impacts (e.g., to public health, economic losses, environment or other impacts)
- Nexus to Reclamation (15 points)
 - Connection to a Reclamation project or activity
- Project implementation (5 points)
 - Implementation plan and schedule

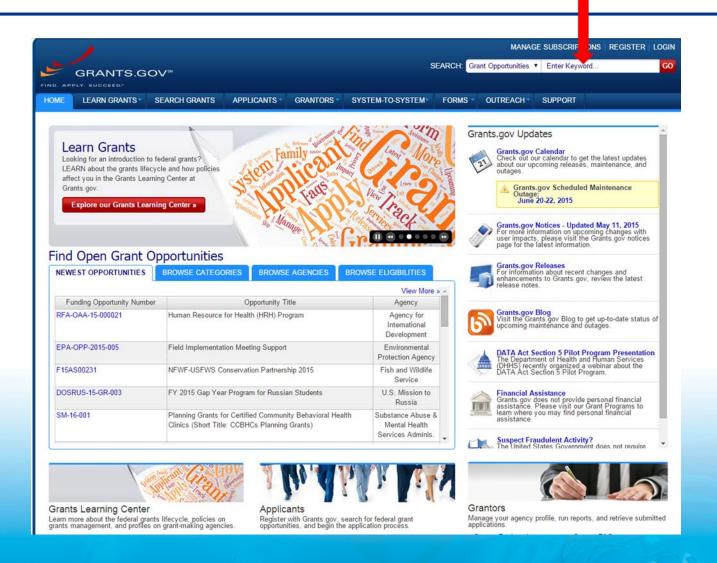


Application Process

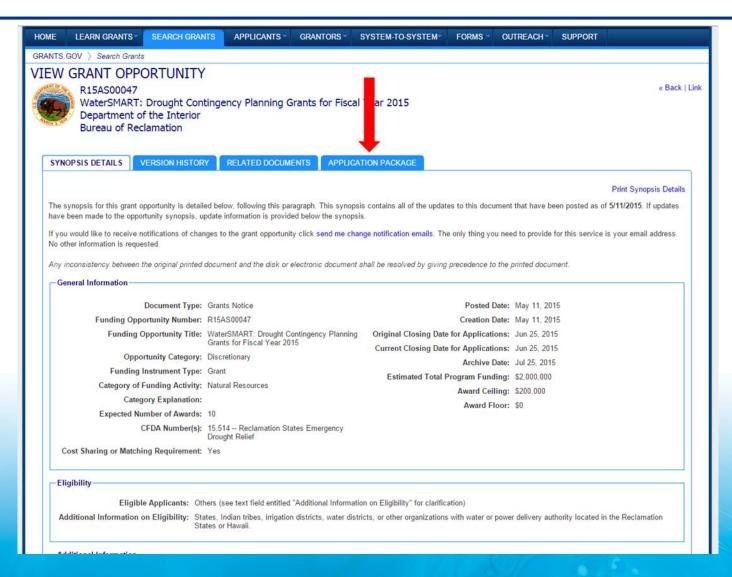
- Posted FOA on May 11, 2015
- 45-Day application period closing June 25, 2015
- Grants.gov
 - Drought Planning: R15AS00047
 - Drought Resiliency: R15AS00046
- ARC Review early July
- Selections announced in August, 2015
- Awards made prior to end of FY 2015



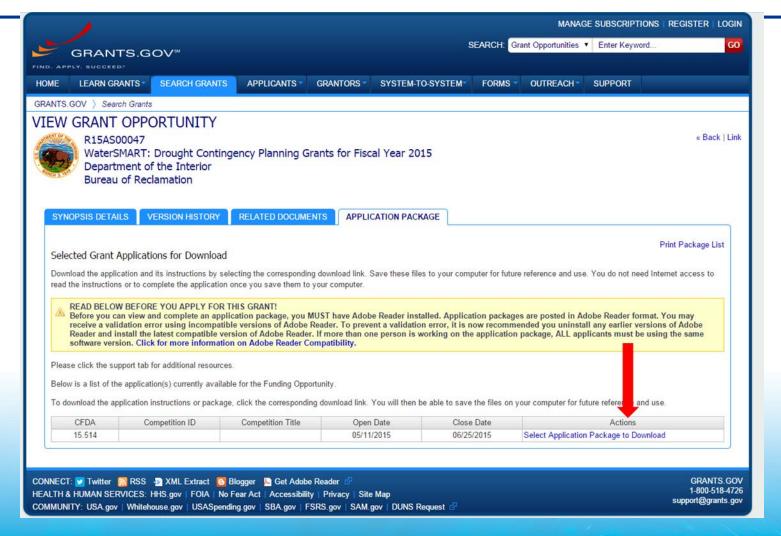
RI5AS00047 or RI5AS00046



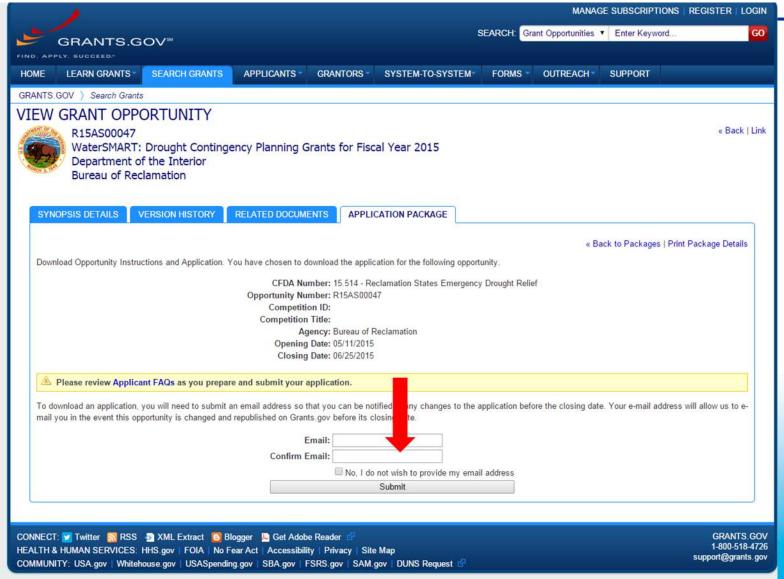




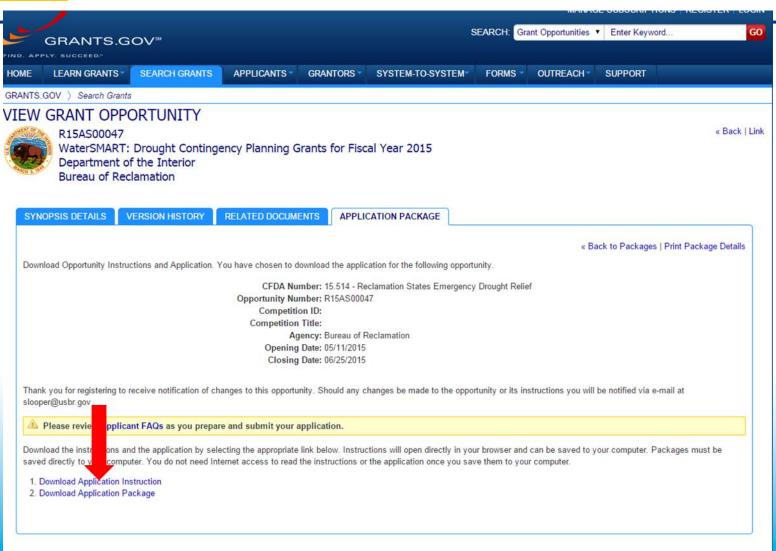














Other Reclamation Funding Opportunities

- Agricultural Water Conservation and Efficiency Grants
- Bay-Delta Restoration Water Use Efficiency Grants
- WaterSMART: Water and Energy Efficiency Grants



Other Funding Opportunities

- CDFA
 - STATE WATER EFFICIENCY AND ENHANCEMENT PROGRAM
- USDA
 - NRCS, EQIP
- Ca.gov/drought
 - California Drought Assistance Programs



2014 Drought Assistance Programs

The agencies below may have programs or resources available for:	. / .		, mi	et / mi	r / wer	real Sunt	audis Jarra	ores /	ie /	Trivate	rese water	or the	, de	er kod s	acts Ref	get de	, , , , , , , ,	njew	get Cultural	STATE OF CONTROL OF
California Department of Aging Area Agencies on Aging (AAA)	gr			provide drou			43	Hu	43.	4 80	Au.	N. S.	43	144	A *	100	/ An	- Park	100	7 (3)
alifornia Department of Business Oversight Vivision of Financial Institutions tate Banking				provide drou																
alifornia Department of Community Services and Development (CSD) ow-Income Home Energy Assistance Program (LIHEAP)				۵	۵	۵	۵						۵							
alifornia Department of Fish and Wildlife		No program:	s available to	provide drou	Ight assistanc	ie.														
alifornia Department of Food and Agriculture		No program:	s available to	provide drou	ight assistanc	se .														
alifornia Department of Forestry and Fire Protection			to programs available to provide drought assistance eceived funding for early hire and augmentation. Also a one year grant program based on drought severity funded from the SRA fire prevention fund.																	
alifornia Department of General Services		No programs available to provide drought assistance																		
alifornia Department of Health Care Services (DHCS) fedi-Cal Health Coverage				۵	۵	۵	۵						۵							
alifornia Department of Housing and Community Development (HCD) ommunity Development Block Grants (CDBG) Drought Housing Rental ubsidies (DHRS)		۵	۵	۵	۵	۵	۵						۵							
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alifornia Department of Social Services (CDSS) aIWORKs						۵	۵				_									
California Department of Social Services (CDSS) Drought Emergency Food Assistance Program (DFAP)						۵	۵				۵									



Drought FOAs

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General

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Lecture Series 2: Framework for Implementation Update



WHAT ARE WE DOING AND WHY?



Why are we Updating the Framework?

- Common vision/path forward for implementing the Program
- Identify Implementing Agencies roles and responsibilities with more accountability
- 3. Realistic schedules and funding outlooks so the Program can demonstrate success



SAN JOAQUIN RIVER Why bother? Why not let the Settlement fail?

Significant risks for all parties:

Reclamation - Judge continues remedy phase, orders flows

 SWRCB includes instream flow requirements on water rights

NRDC No channel improvement projects

No active fish reintroduction

Friant Flow releases as ordered by Judge

No Water Management Goal projects

SWRCB instream flow requirements

Third Parties Flow releases as ordered by Judge

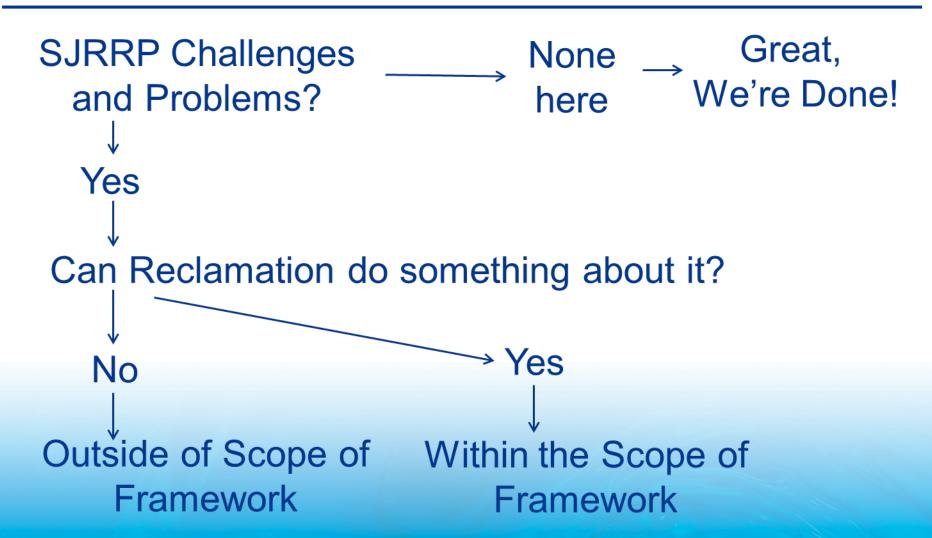
No seepage, levee stability, third party protections and other infrastructure projects

- Uncertain future California Fish and Game Code 5937 compliance at Mendota Dam and Sack Dam

SWRCB instream flow requirements



Actions Within the Scope





Will Not Consider...

- Changes to or violations of the Settlement
- Changes to or violations of the Act
- Changes to or anything inconsistent with Reclamation law or policy
- Anything that violates State or Federal law
- Returning to court for a "better" deal
- "Just get more money"
- Not implementing the entire Settlement or Settlement Act (no cherry picking actions)
- Miracles in addressing staffing, schedule, and process constraints
- Reclamation/Congress just go "fix it"
- Hoping it fixes itself



FRAMEWORK OVERVIEW



Schedule of Key Actions

	2015-2019	2020-2024	2025-2029	2030+
	Goal: 1,300 cfs Capacity in all Reaches	Goal: Increased Capacity	Goal: Phase 1 Projects Complete	Goal: All Remaining Projects Complete
•	Friant-Kern Capacity Restoration Madera Canal Capacity Restoration Mendota Pool Bypass Conservation Facility Seepage Projects to 1,300 cfs	 Part III / Financial Assistance for Groundwater Banks Reach 2B Arroyo Canal and Sack Dam Reach 4B Land Acquisition Seepage Projects to 2,500 cfs Levee Stability to 2,500 cfs 	 Reach 4B Mud and Salt Sloughs Seepage Projects to 4,500 cfs Levee Stability to 4,500 cfs 	Ongoing Operations and Maintenance



Key Foundational Factors and Assumptions

- Around \$50 million per year maximum additional federal appropriations
- Full Restoration Flows before Phase 2 projects are initiated
- Everyone gets better together
 - NRDC, Flows and fish in the river
 - Friant, Progress on WMG commensurate with increases of flows
 - 3rd Parties, Avoidance of "take" under ESA
- Only specific 3rd Party protections are required to be in place before actions are taken



5-Year Vision



5 Year Vision: Connectivity (FY 2015 – 2019)

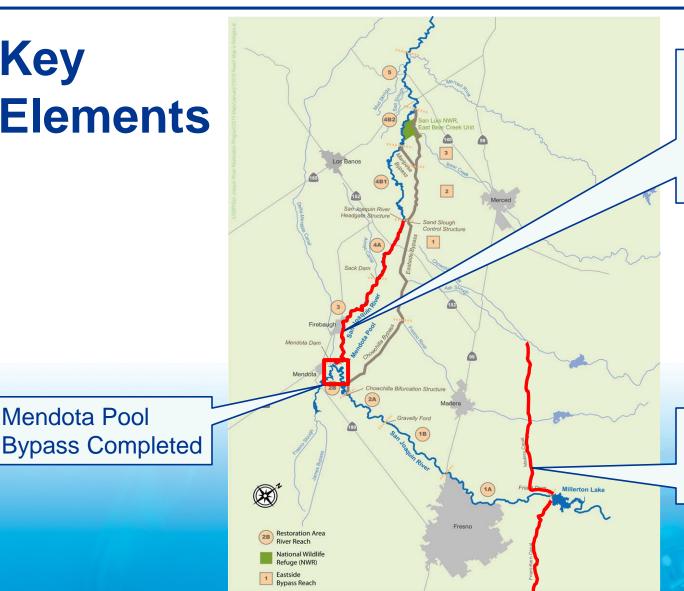
- Flow connectivity and fish passage, such that adult and juvenile salmon can complete migration without human assistance
- Continue to implement Water
 Management Actions to reduce or avoid supply impacts to Friant Division contractors



5 Year Vision: Connectivity (FY 2015 - 2019)

Key **Elements**

Mendota Pool



Seepage Projects and Levee Improvements to allow for flows up to 1,300 cfs

Friant-Kern and Madera Canal **Capacity Restoration**



Flow Related Activities

- PEIS/R ROD Conservation Strategy and Mitigation Actions
- Seepage and Levee Stability to allow up to 1,300 cfs in Reach 2B



Channel and Structural Improvements

- Mendota Pool Bypass
 - Minimize trap and haul of fish
- Reach 4B, Eastside Bypass/Mariposa Bypass EIS/R and Report to Congress
 - Routing decision to determine bypass levee repairs
- Passage at Key Barriers
 - Minimize trap and haul of fish



Fish Reintroduction

- Construction & operation of Salmon
 Conservation and Research Facility
- Spring-run donor stock collection and tagging
- Trap and haul fish until Mendota Pool Bypass is completed
- Permit for use of wild stock



Water Management

- Continued Recapture and recirculation of Restoration Flows, RWA accounts
- Recapture and Recirculation Plan
- Recirculation EIS/R
- Friant-Kern and Madera Canal Capacity Restoration Projects
 - Construct ASAP to maximize funding value (costs not indexed)



10-Year Vision



10 Year Vision: Increased Capacity (FY 2020 – 2024)

- SJR Restoration Fund available without further appropriation in FY 2020
 - Level of construction action increases with available funding
 - Make all major project decisions and award funds



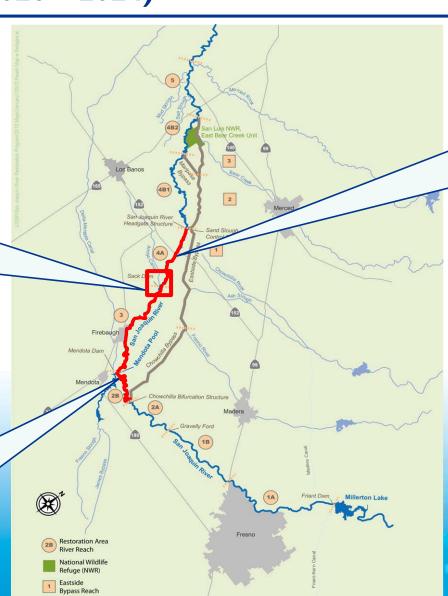
10 Year Vision: Increased Capacity

(FY 2020 - 2024)

Key Elements

Arroyo Canal Fish Screen & Sack Dam Fish Passage Construction

Increase Reach 2B channel capacity to 4,500 cfs, levee construction



Seepage Projects and Levee Improvements to allow for flows up to 2,500 cfs

Continue implementing Water Management Goal



Flow Related Activities - 10 Year

- Conservation Strategy and Mitigation Actions from PEIS/R ROD
- Flow management and monitoring
- Seepage and Levee Stability
 - Can get flows to 2,500 cfs in all reaches
 - Better manage water temperatures and improve salmon survival



Channel and Structural Improvements

- 10 Year

- 2B levee and channel improvements to 4,500 cfs
 - Relieves flow constraint in upper reaches
 - Full Spring pulses to Mendota Pool
- Land acquisition for Reach 4B, Eastside Bypass/Mariposa Bypass
 - Landowners likely prefer certainty of early land acquisition
- Construct Arroyo Canal Fish Screen/Sack Dam Fish Passage
 - Subsidence could further delay or increase costs
- Environmental Compliance for Salt and Mud Slough
 Seasonal Barriers



Fish Reintroduction - 10 Year

- Operation of Salmon Conservation and Research Facility
- Spring-run donor stock collection and tagging
- Prepare Report to Congress (Section 10011(d))
 - Segregation Action Cost not included



Water Management Goal - 10 Year

- Water Management Goal Oversight
- Recapture and Recirculation Plan Implementation
- Award funding for Groundwater Banking facilities
- Any remaining actions on the Madera Canal Capacity Restoration Project



15-Year Vision



15 Year Vision: Conveyance (FY 2025 - 2029)

- Increase capacity of all reaches to 4,500 cfs
- Reach 4B Project
- Continue to implement Water Management Actions to reduce or avoid supply impacts to Friant Division contractors



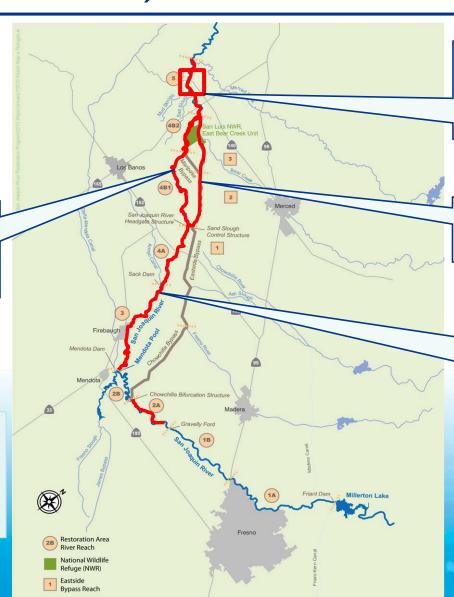
15 Year Vision: Conveyance

(FY 2025 - 2029)

Key Elements

Reach 4B Channel and Structural Improvements

Continue implementing Water Management Goal



Salt and Mud Slough Seasonal Barrier Projects

Reach 4B/ESB High Flow Routing

Increased channel capacity to allow for flows up to 4,500 cfs



15+ Year Vision



Beyond 15 Year Vision (FY 2030+):Monitoring, Maintenance and Final Project work

- Complete remaining construction actions
 - all Paragraph II(b) projects
 - all Paragraph 12 projects, if any recommended
- Monitor and maintain system for long-term
- Phase out hatchery production
 - Phase out hatchery production and population augmentation
 - Monitor self-sustaining, naturally reproducing populations
- Continue implementing Water Management Goal
 - Continue recapture and recirculation, tracking and allocating RWA water



Chowchilla

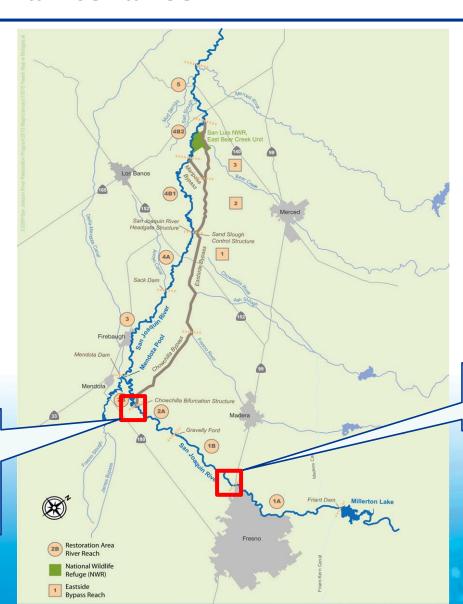
Passage

Construction

Bifurcation Fish

Beyond 15 Year Vision (FY 2030+): Monitoring and Maintenance

Key Elements



Gravel Pit Filling and/or isolation



Costs and Funding Sources



Cost Summary

Action	2012 Framework (Various \$ Years)	2015 Revised (2015 \$)
Staffing and Administration	\$78	\$124 ¹
Flow Actions		
Conservation Strategy / Mitigation Measures	\$35	\$38
Flows	\$45	\$26 ²
Channel and Structural Improvements		
Mendota Pool Bypass and Reach 2B	\$312	\$336 ³
Reach 4B, Eastside Bypass and Mariposa Bypass	\$156	\$264 ⁴
Arroyo Canal Fish Screen and Sack Dam Fish Passage	\$25	\$29
Salt and Mud Slough Seasonal Barriers	\$14	\$6
Passage at Key Barriers	Part of 4B	\$6
Fish Reintroduction		
All Other Fish Reintroduction	\$27	\$12
Conservation Facility	\$21	\$26
Water Management Goal & Friant Division Improvements	\$100	\$96
Total	\$813	\$962
Seepage Projects	\$79	\$189 ⁵
Total "Core" Projects	\$892	\$1,150
Chowchilla Fish Passage	N/A	\$20
Gravel Pits Filling or Isolation	N/A	\$14
Miscellaneous	N/A	\$49
Total Settlement	\$892	\$1,232
Levee Stability	\$189	\$307 ⁶
Total	\$1,081	\$1,539



Key Changes in Costs

- Program extended 10 years increased Admin costs
- Reach 4B costs increased
- Seepage and Levee Stability costs increased
 - About \$500M total
- Added in Paragraph II(b) projects
- Costs now provided in 2015 dollars



Funding Needs and Sources

(FY 2015 to FY 2029, in thousands)				
Funding Needs Remaining	Funds in 2015 Dollars			
Total Estimated Federal Funding Need	\$1,095,081			
Total Estimated State Funding Need	\$137,277			
Total Estimated State Funding Need with Levee Stability (non-SJRRP cost)	\$306,677			
Funding Sources Remaining				
SJRR Fund ¹	\$356,730			
CVP Restoration Fund (\$2,448 annual when indexed to 2015)	\$36,724			
New Federal Appropriations (Part I)	\$268,953			
New Federal Appropriations (Part III)	\$42,324			
State Funding Remaining	\$140,198			
Total Estimated Remaining Funding Sources	\$704,731			
Anticipated Federal Deficit	\$390,350			
Anticipated State Deficit	-\$2,921			
Anticipated Non-SJRRP State Funding Needs	\$306,677			
Anticipated State Deficit (if Levee Stability is a state SJRRP cost)	\$303,756			
Note: 1. Includes estimated future Unreleased Restoration Flows sales, RWA sales, and Friant surcharge collections.				



QUESTIONS?



Restoration Flows Guidelines



Restoration Flow Guidelines 2.0

- Procurement Request in progress for Contractor assistance with updating RFGs and other Water Management Goal support
- Outstanding Issues:
 - Forecasting Restoration Flows, including tools for mitigating uncertainty.
 - Gravelly Ford, minimum compliance point or flow target.
 - Managing flood management releases to best meet riparian recruitment needs.



Unreleased Restoration Flows (URFs)

5 year URFs Agreements Preliminary Schedule:

- Technical meetings: July/August 2015
- Develop Draft Agreements: August 2015
- Public Notice (if required): August 2015
- Negotiations: August/September 2015
- Final Agreement: October 2015
- NEPA compliance (if needed): August November 2015
- Public Comment Period: October December 2015
- Address comments; update Agreement: November/December 2015
- Execute Agreements: mid-January 2016
- Court Confirmation (if needed): January/February 2016
- Signed, sealed, delivered: February 28, 2016



Part III



Friant-Kern Canal Capacity Restoration

- Value Engineering Study January 2015
- Re-evaluating options to:
 - Phase lining raise by check structure
 - Lower maximum design capacity
 - Target existing capacity bottlenecks
- Revising Schedule



Madera Canal Capacity Restoration

- Low-Flow Bypass Valve Project:
 VE Study June 1-5, 2015
- Feasibility Study:
 - focus on off-canal alternatives proposed by Chowchilla WD and Madera ID
 - Alternatives Analysis TM and Stakeholder
 Meeting, May 27, 2015



Friant-Kern Canal Reverse Flow Pump-Back Project

- Red Bluff pumps and motors purchased and transported to FWA storage facility
- \$2.38M in drought funding announced in February 2015
- Concerns about water quality have delayed commitment of funds



Groundwater Financial Assistance

Tulare ID- Cordeniz Basin Construction & Exchange

Program

- 60 acre basin
- Modifying Grant Scope
- Environmental
 Compliance
 complete
 Fall 2015
- Construction completeDecember2016



Preliminary Draft, Subject to Revision



Groundwater Financial Assistance

Pixley ID- Joint Groundwater Bank

- 560 acre bank with 4.5 mile pipeline to new FKC turnout
- Revising schedule

Porterville ID- In-Lieu Project

- Area #1:1000 acres connected to Wood-Central Ditch
- Area #2: 650 acres connected to FKC
- Revising schedule

Shafter-Wasco ID- Madera Avenue Intertie

Project modification proposed



Next Meetings



Day	Date	Location
Friday	August 21, 2015	Visalia