

## Monitoring and Analysis Plan Overview and Introduction



Restoration Goal Technical Feedback Meeting  
September 20, 2012  
Flood Control District Board Room  
5469 E. Olive Avenue  
Fresno, CA



### Purpose and Objectives for Today

- Goal: present the Draft 2013 Monitoring and Analysis Plan (MAP) and suggest the direction for feedback from stakeholders.
- Immediate Objectives
  - Identify monitoring and study activities for 2013; and
  - Solicit feedback on 2013 activities.
- Long-Term Objectives
  - Identify the major actions contemplated for the SJRRP;
  - Identify timelines for major actions of the SJRRP;
  - Highlight uncertainties and areas of concern; and
  - Identify challenges and needs to set the future direction.



## San Joaquin River Restoration Program

- Stipulation of Settlement (2006)
  - Restoration Goal
  - Water Management Goal
- Settlement Act (2009)
- Program Actions
  - Release and Convey Interim and Restoration Flows
  - Construct Channel and Structural Improvements
  - Reintroduce Spring-Run Chinook Salmon
  - Reduce or Avoid Water Supply Impacts
- We see a need to structure implementation of the SJRRP.

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3

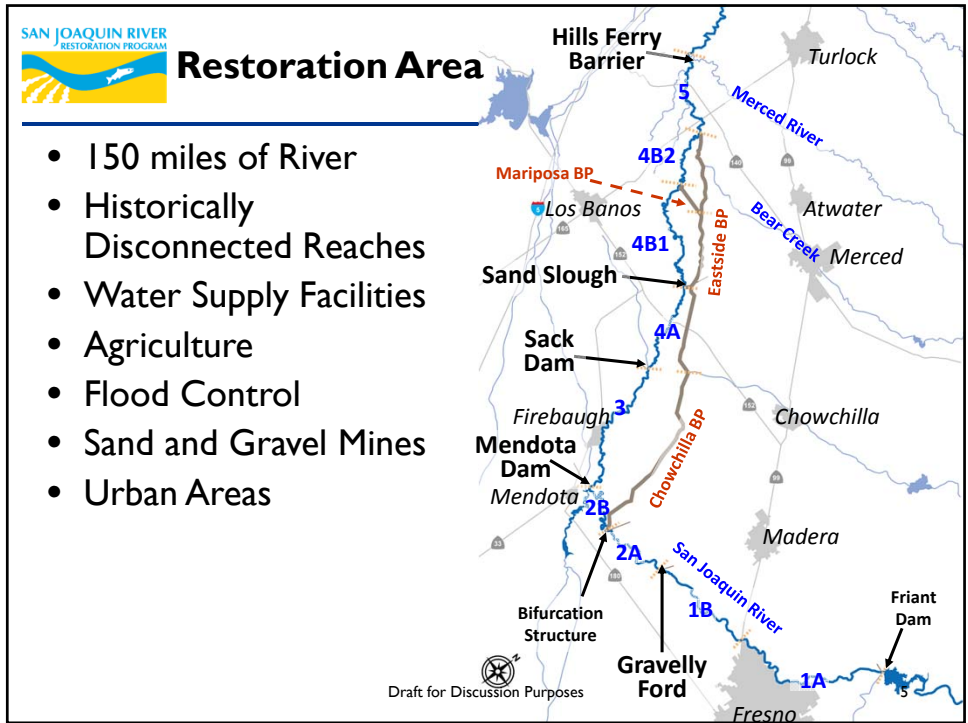


## Framework for Implementation

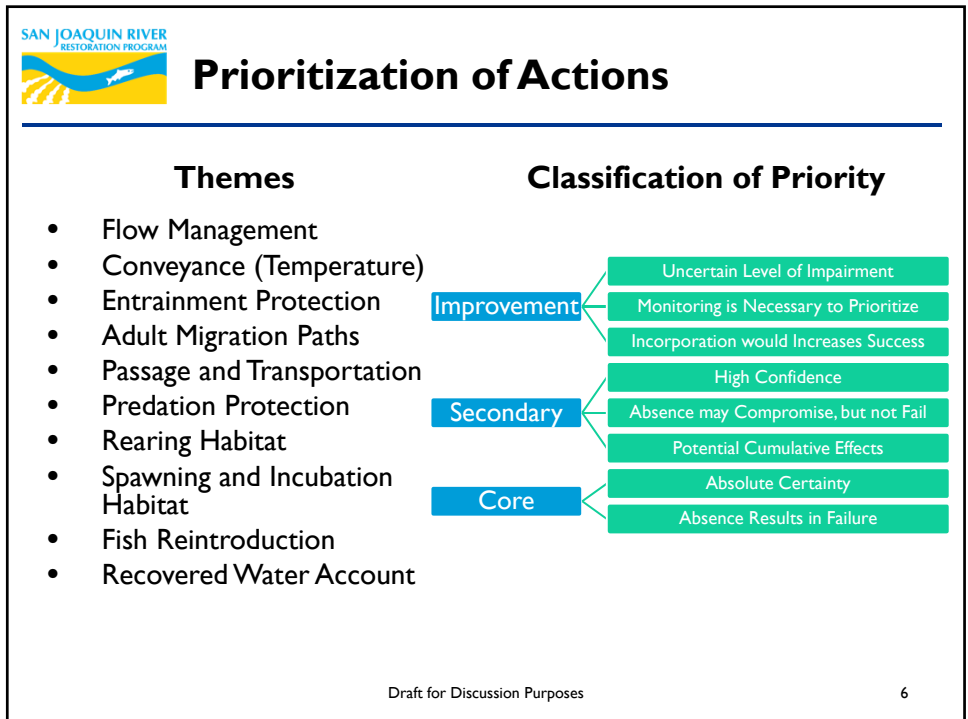
- The Framework for Implementation (Framework) provides an overview of the SJRRP, while site-specific documents provide detailed plans and disclose specific decisions.
- The Framework provides an update on implementation with a revised schedule and a revised budget.
- Objectives include:
  - Release and Convey Interim and Restoration flows
  - Provide for Fishery Needs and Reintroduce Fish
  - Protect Third Parties
    - Material Adverse Impacts due to Groundwater Seepage
    - Levee Stability of the Flood Control Project
    - Screening of Diversion Facilities where Required
  - Reduce or Avoid Friant Division Water Supply Impacts
- The Framework is a living document that the SJRRP will update as more information is gained and milestones are reached.

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4



- 150 miles of River
- Historically Disconnected Reaches
- Water Supply Facilities
- Agriculture
- Flood Control
- Sand and Gravel Mines
- Urban Areas





## Flow Management Highlights



- Interim and Restoration Releases
- Physical and Biological Monitoring
- Program EIS/R Measures
  - Invasive Vegetation
  - Millerton Lake Boat Ramps
  - Recreation Projects
- Seepage Projects
- Levee Projects

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7



## Channel and Structural Improvement Highlights

- Core Projects
  - Chowchilla Bifurcation and San Joaquin River Control Structures Passage
  - Reach 2B Conveyance
  - Mendota Pool Bypass
  - Arroyo Canal Screening
  - Sack Dam Passage
  - Reach 4B Conveyance
  - Eastside and Mariposa Passage
  - Reach 5 Barriers
- Secondary Projects
  - Gravel Pit Filling and Isolation
  - Floodplain Improvements
  - Gravel Augmentation
- Improvement Projects
  - Millerton Cold Water Management



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8



## Fish Reintroduction Highlights

- Conservation Hatchery
- Donor Stock Collection
- Source Stock Monitoring
- Trap and Haul



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9




## Water Management Highlights



- Recapture and Recirculation
- Recovered Water Account
- Friant-Kern and Madera Canal Capacity Restoration
- Financial Assistance for Local Groundwater Projects

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10



## Restoration Goal Timeline

|                        |   |
|------------------------|---|
| 2010                   | Fall-run in-River and hatchery brood stock studies.   |
| 2012                   | Fall-run studies and spring-run collection for brood stock.   |
| 2013                   | Fall-run and spring-run releases for studies and an opportunistic adult trap and haul program.  |
| 2014                   | Release of study fish, adult opportunistic trap and haul, and brood stock collection.   |
| 2015                   | Completion of conservation hatchery, and the ramp-up of production.<br>Study fish, opportunistic trap and haul, and brood stock collection continue.  |
| 2016                   | Fish are released in sufficient numbers to expect returns.<br>Completion of passage at major structures allows fish to return downstream of Mendota Dam where trap and haul provides passage.<br>Study fish releases and collection of brood stock continue.                      |
| 2017,<br>2018,<br>2019 | Conservation hatchery operates at full capacity.<br>Non-damaging capacities approach 1,300 cfs based on Mendota Pool constraints.<br>Extensive trap and haul around Mendota Dam supports adult upstream migration.<br>Study fish releases and collection of brood stock continue. |
| 2020                   | Completion of the Mendota Pool Bypass reduces the need for trap and haul. Chinook salmon can complete their life-cycle without handling.  |
| 2020+                  | Continued channel and structural improvements   |

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# MAP AND ATR

Monitoring and Analysis Plan and Annual Technical Report

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## Monitoring and Analysis Plan Context

- We make assumptions on how the river will respond to changed conditions and how the fish will behave.
- We see a need to study, learn, and adapt in order to accomplish the Settlement goals.
- We use the Monitoring and Analysis Plan and Annual Technical Report to organize and solicit feedback.
- We invest in the MAP and ATR for coordination, transparency, and feedback.

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13



## MAP Constraints

- The Settlement directs the agencies to implement specific actions.
- The Settling Parties set aggressive timelines for major construction.
- Map constraints include:
  - Providing data on timeframes that support timely decision making.
  - Working within bounds set by the Settlement projects.
- The development of the MAP and ATR is a learning process too.

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14



## Flow Constraints

- Shallow groundwater and levee conditions limit the release of Interim and Restoration Flows.
- Seepage and levee stability projects will reduce constraints over time.
- Restrictions on releases may limit some of the data collection opportunities or require creative approaches.



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15



## Interview Results for the MAP

- Establish Priorities and Objectives
- Develop Multi-Year and Long-Term Efforts
- Develop Scientific Approaches
- Collaborate and Share Preliminary Results
- Delineate Discretionary and Required Data
- Delineate Monitoring from Studies
- Link Studies and Management Decisions

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16





## Proposed Approach

- Directed Approach:
  - Define the conditions we need to succeed;
  - Place value on projects and methods that create those conditions;
  - Plan multi-year interdisciplinary studies; and
  - Update annually.
- Small interdisciplinary groups centered around framework themes to develop approaches.
- Mid-year workshop after the Spring pulse in lieu of attempting a formal report.

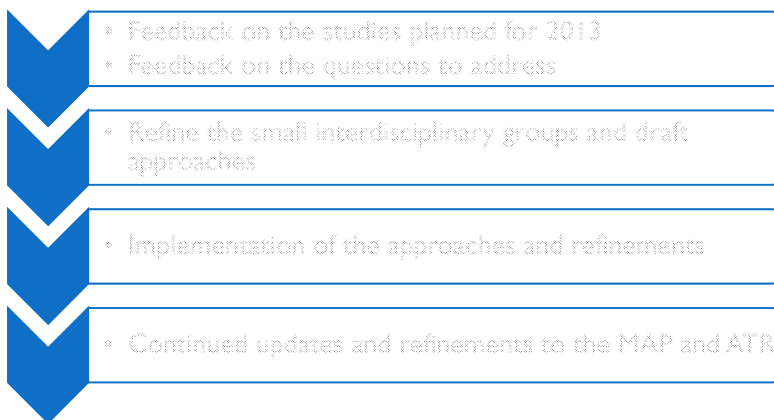
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17



## Process

- We're targeting incremental improvements in the MAP over the next few years.



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18



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# QUESTIONS

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19