Upper San Joaquin River Regional Flood Management Plan

Regional Flood Protection Now and in the Future

Kick-off Meeting

Wednesday May 8th
Lower San Joaquin Levee District
11704 Henry Miller Ave
Dos Palos, CA 93620

Agenda

- Introduction
- Regional Flood Management Plan (RFMP)
  - Overview of components
  - Process and Schedule
  - C&C Process
- Workshop 1 Preview

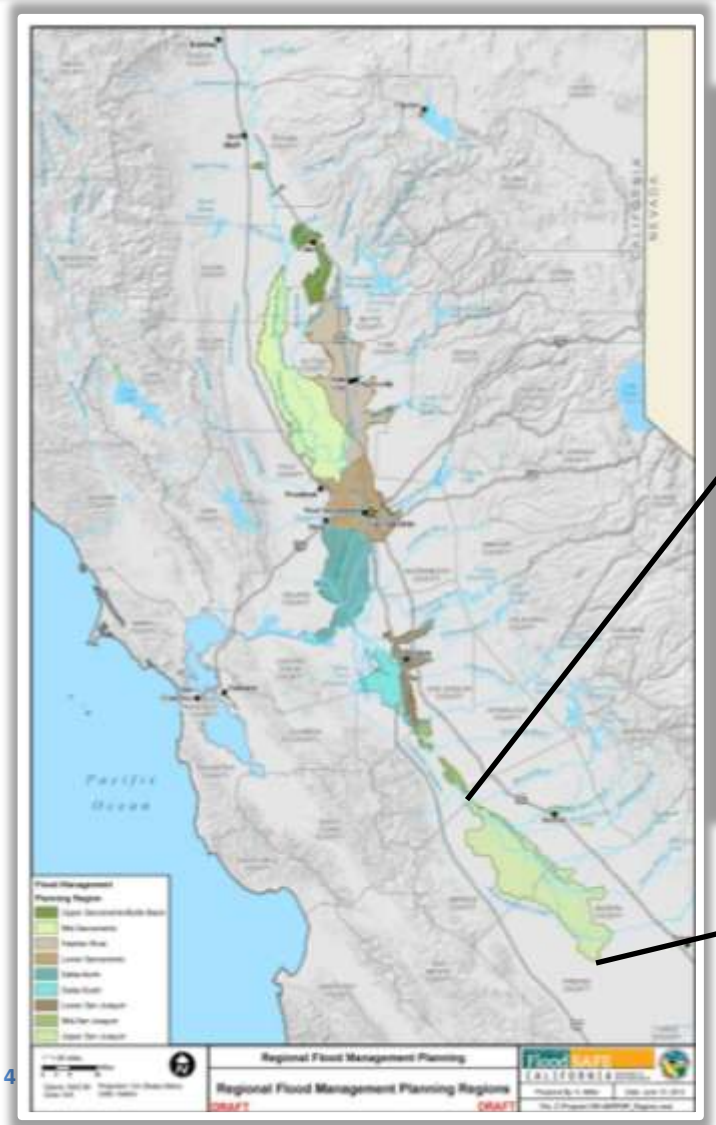
San Joaquin River Flood Control Project Agency

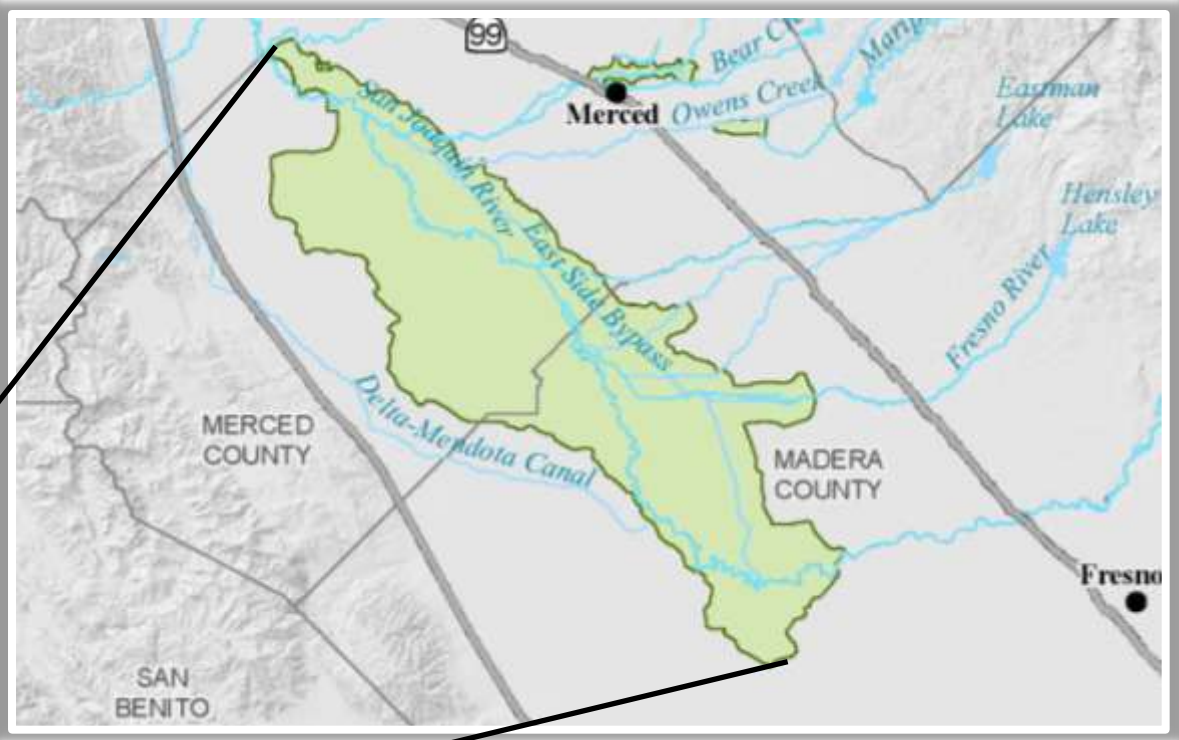
Joint Powers Authority (JPA) formed to lead the RFMP and represent regional interests

JPA consists of:

- Lower San Joaquin Levee District
- San Joaquin River Exchange Contractors Water Authority
- County of Merced (auditor/controller services)

Regional Flood Management Planning Areas





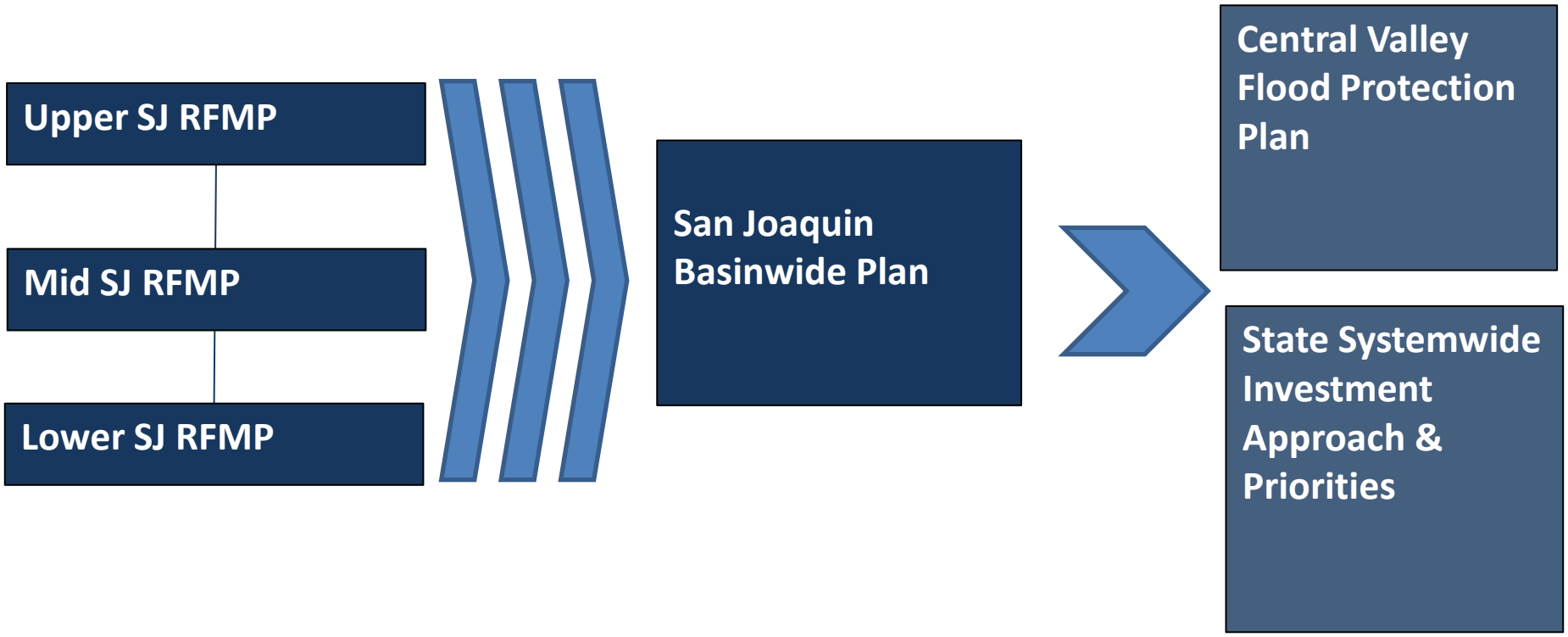
RFMP Overview

- Purpose:
  - Document existing flood risk conditions and management
  - Identify flood problems and issues
  - Develop prioritization criteria
  - Develop potential projects/actions and priorities
  - Develop financial plan with costs and financial strategies

Why Participate in the RFMP

- Stakeholder driven - bottom- up effort
- Provides local vision for flood risk reduction priorities for next 25-years
- RFMP feeds into San Joaquin Basin Plan and CVFPP Financing Plan
- Regional Priorities provide basis for developing SSIA

Overall Planning Process



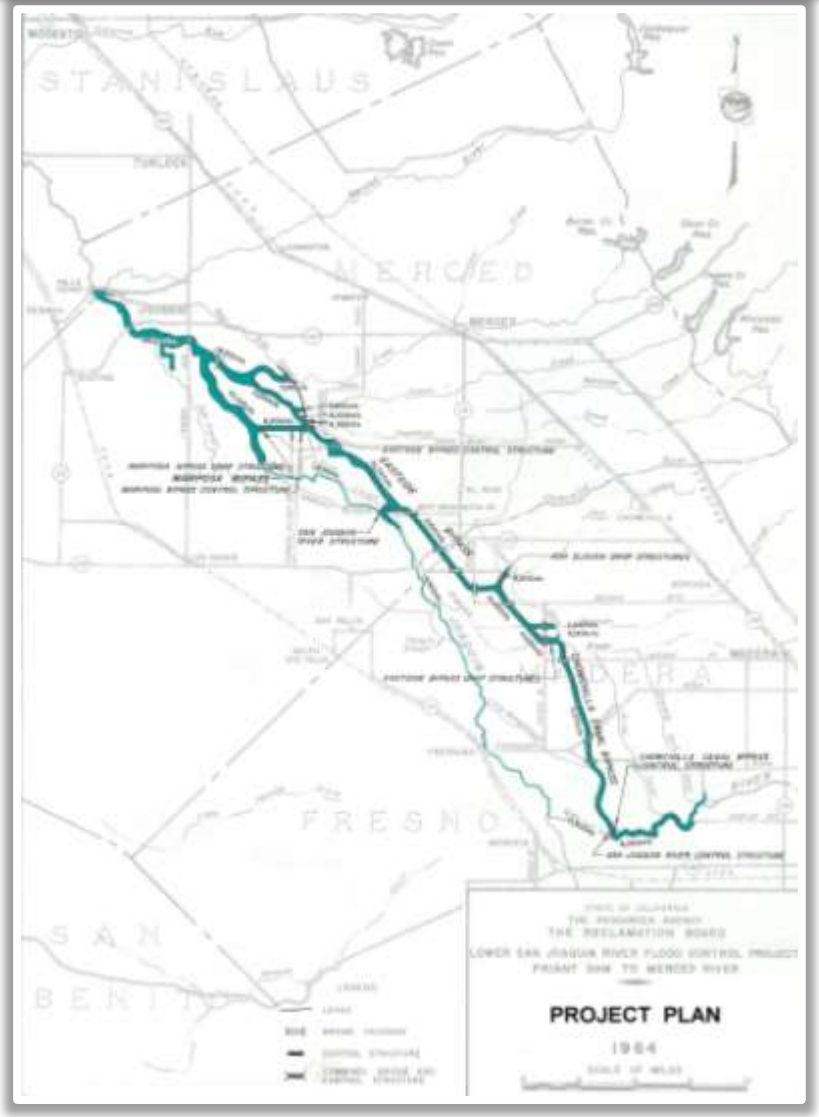
Upper San Joaquin River Region

Regional Characteristics

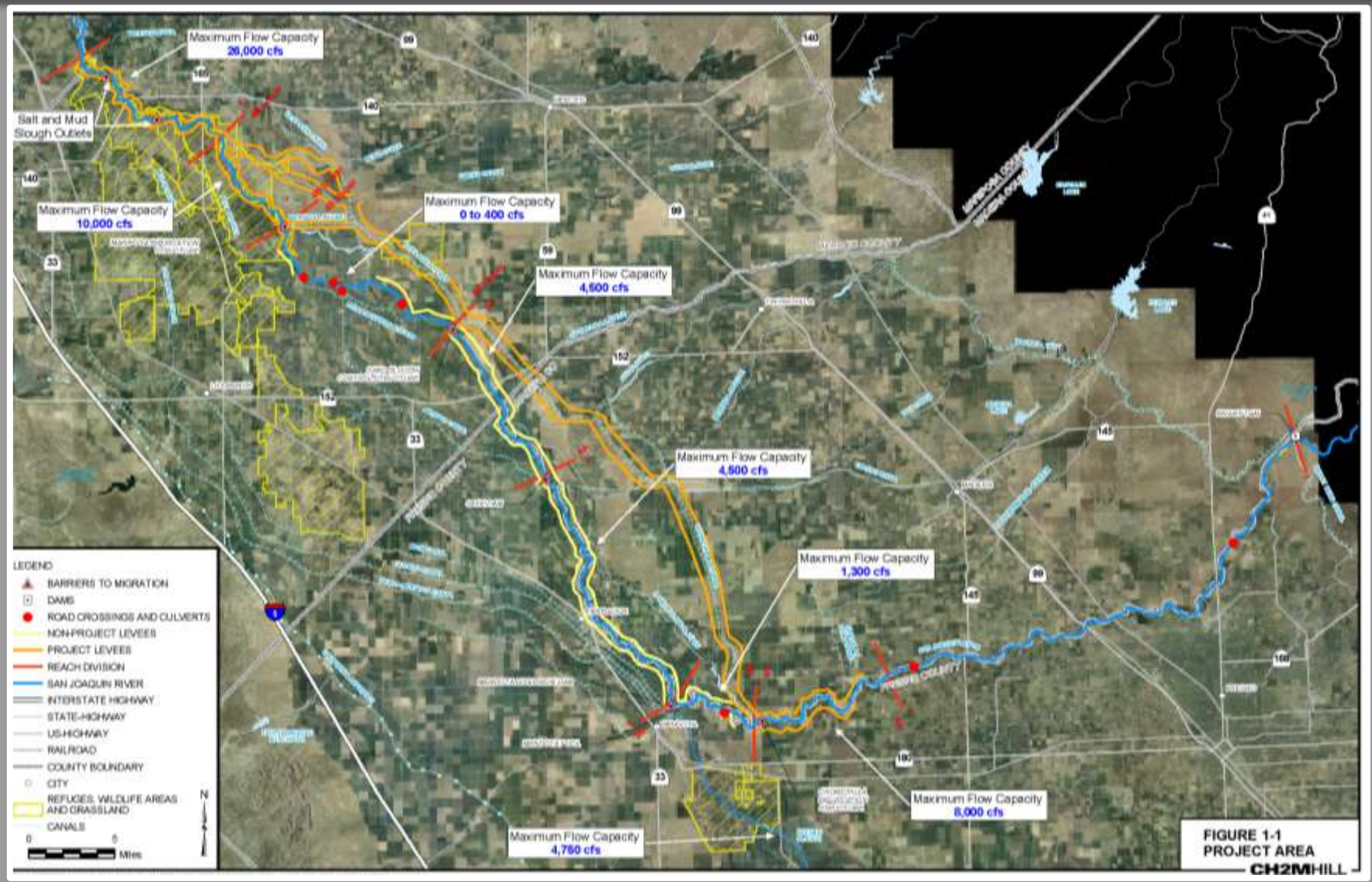
- Includes portions of Fresno, Madera, and Merced Counties
- 421,400 acres of land protected by State Plan of Flood Control (SPFC) facilities
- Predominately rural agricultural
- Includes cities of Dos Palos, Los Banos, Mendota, and Firebaugh
- Includes an area of SPFC facilities that protects a portion of the City of Merced

Lower San Joaquin River Flood Control Project

- Accounts for majority of SPFC facilities in region
- Constructed between 1959 and 1967
- O&M by the Lower San Joaquin Levee District (LSJLD)
- LSJLD was created in 1955
- LSJLD funded by property assessments



Existing Conditions



Other Flood Control Related Agencies

Major flood control facilities are maintained by:

- Madera County Flood Control and Water Conservation Agency
- Merced County Stream Group
- Merced Irrigation District
- San Joaquin River Exchange Contractors Water Authority
- Cities and water purveyors (including local drainage facilities)

Major Flood Issues

- LSJLD maintains:
  - 191 miles of levees
  - Multiple facilities along the flood bypasses
  - San Joaquin River Channel in the project area
- O&M costs are rising while tax base is shrinking
- Facilities reaching end of expected service life
- Facilities need upgrades to meet current criteria
- Complex flood operations require coordination between multiple water districts, and local, state, and federal agencies

Major Issues (Continued)

- Sedimentation and vegetation encroachment have reduced flood flow capacity below published design values
- Significant increase in recent subsidence rates along the bypass compromise flood flow capacity and operations
- Porous material used to construct the levees results in seepage problems to adjacent agricultural lands even during lower flows
- San Joaquin River Restoration Program poses special challenges for flood operations and management

Major Issues (Continued)

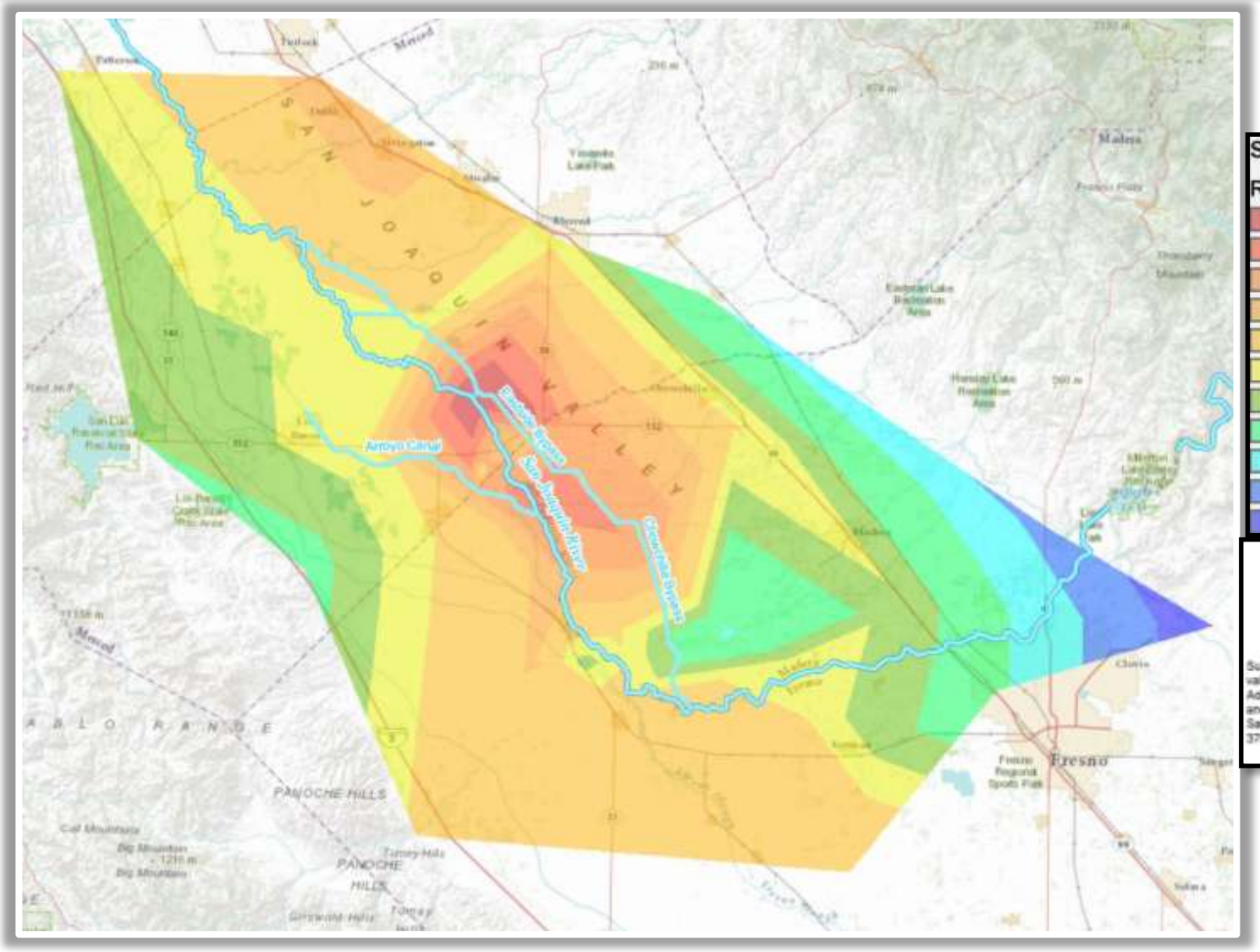
- Significant portion of Merced area is subject to flooding
- Merced County Stream Group (MSG) project completed
  except for Haystack Dam
- Additional studies on-going to identify solutions to flooding
- Facilities need to be constructed
  to protect downtown Merced
- Numerous lawsuits over residential structural damage
  are due in part to lack of flood control improvements and reoccurring flooding

Major Issues (Continued)

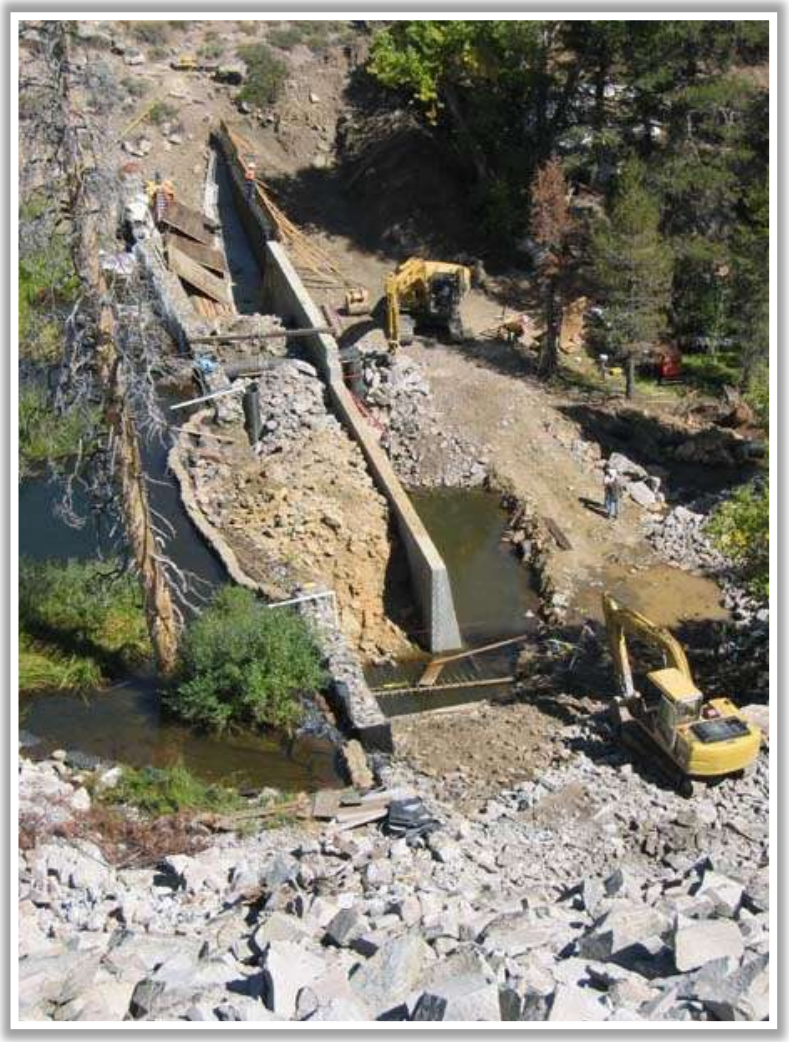
- Subsidence rate more than 0.75 ft/yr in Red Top Area
- Impacts water diversions, system operations, and flood management
- Deep well pumping, below the Corcoran Clay, is the likely cause of the subsidence
  - Pumping increased since 2005
  - Corcoran Clay is prevalent in the Red Top Area
  - Irrigation demand greater than groundwater replenishment

Gas well (above) and water well (below) in Red Top Area

Map of Subsidence Rates



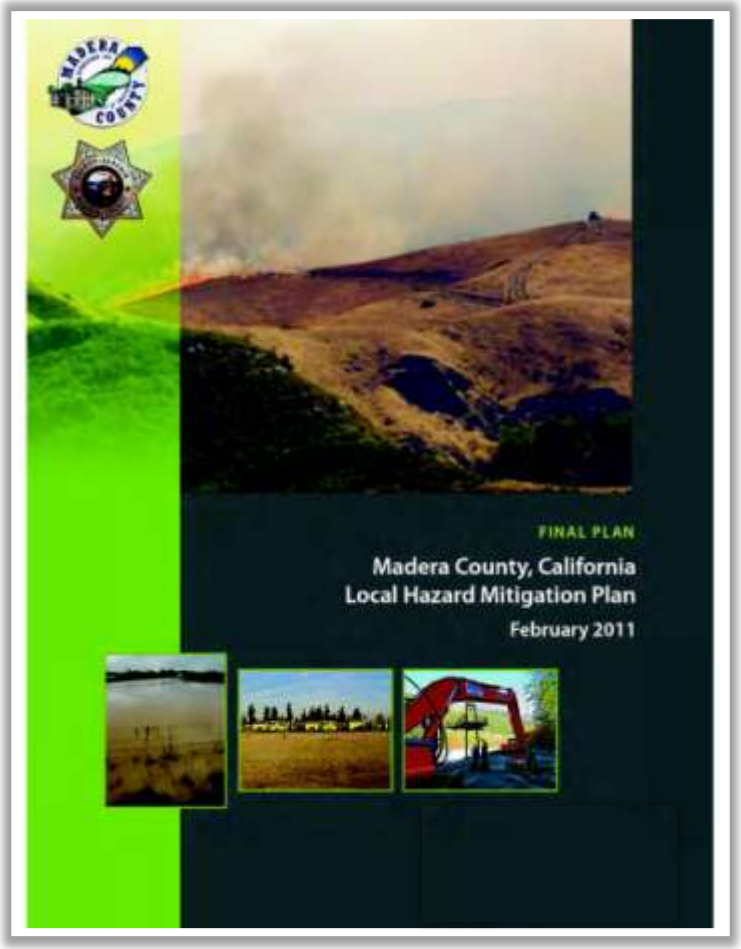
Potential Action/Project Types



Structural Actions

- Dam
- Levee
- Diversion
- Debris basin
- Floodwall
- Bypass and channel
- Operations and maintenance
- Natural floodplain systems

Potential Project Types



Nonstructural Actions

- Flood Warning System
- Flood Risk Awareness
- Hazard Mitigation Plan
- Flood Insurance
- Emergency Response
- Coordinated Flood Forecasting
- Flood Proofing

Project Prioritization Process

- Identify projects/actions including alternatives to integrate projects
- Use Multi-Criteria Decision Tool to score projects:
  - Provides formal decision-making process
  - Focus selection on key issues
  - Sets criteria to identify optimal projects

    Criteria could include:
    - Flood risk reduction
    - Environmental benefits
    - Recreational benefits
    - Water supply/conservation benefits
    - Public safety
    - Others

Finance Plan

- Identify high priority flood risk reduction solutions
  - Economically viable and implementable
- List of proposed improvements
  - Costs and benefits
  - Financing strategies
    - Mix of Federal vs. State vs. local
    - Need creative strategies to compete with other regions
    - Near- term and long-term financing strategies

RFMP Report Development Process

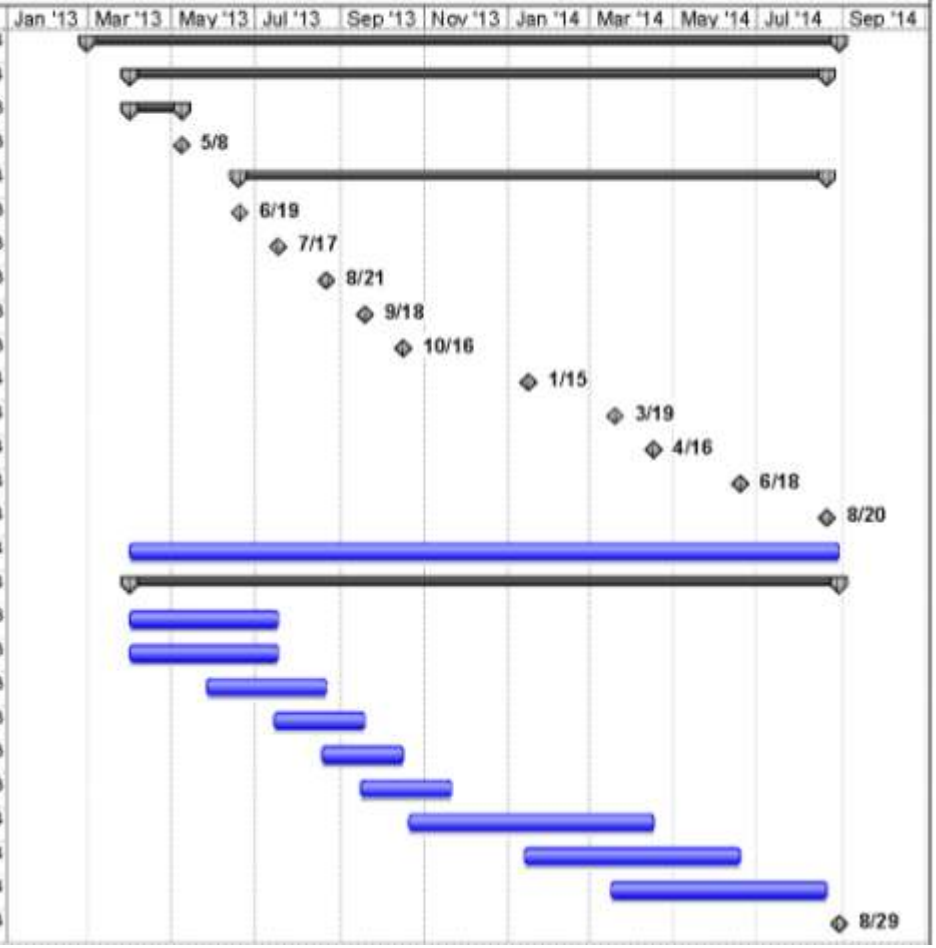
- Establish Work plan and Schedule
- Develop RFMP section by section using topic focused workshops
- Engage stakeholders through Communication and Collaboration Process
  - Data input
  - Workshops
  - Document Review

Regional Flood Management Plan Schedule

Draft - Upper San Joaquin River Region Flood Management Plan Schedule

May 8, 2013

WBS	Task Name	Start	Finish
1	Project Administration and Work Plan	Fri 3/1/13	Fri 8/29/14
2	Coordination and Collaboration	Mon 4/1/13	Wed 8/20/14
2.1	Coordination and Collaboration	Mon 4/1/13	Wed 5/8/13
2.2	Kickoff Meeting	Wed 5/8/13	Wed 5/8/13
2.3	RFMP Workshops (10)	Wed 6/19/13	Wed 8/20/14
	Workshop 1 (Atlas, Flood Hazard, and Regional Setting)	Wed 6/19/13	Wed 6/19/13
	Workshop 2 (Emergency Response Planning)	Wed 7/17/13	Wed 7/17/13
	Workshop 3 (Land Use and Environment)	Wed 8/21/13	Wed 8/21/13
	Workshop 4 (Enhanced O&M)	Wed 9/18/13	Wed 9/18/13
	Workshop 5 (Proposed Improvements)	Wed 10/16/13	Wed 10/16/13
	Workshop 6 (Regional Priorities - Review Selection Criteria)	Wed 1/15/14	Wed 1/15/14
	Workshop 7 (Regional Priorities)	Wed 3/19/14	Wed 3/19/14
	Workshop 8 (Finance Plan)	Wed 4/16/14	Wed 4/16/14
	Workshop 9 (Draft RFMP)	Wed 6/18/14	Wed 6/18/14
	Workshop 10 (Final)	Wed 8/20/14	Wed 8/20/14
3	Update Regional Atlas	Mon 4/1/13	Fri 8/29/14
4	Develop Regional FMP	Mon 4/1/13	Fri 8/29/14
4.1	Regional Setting	Mon 4/1/13	Wed 7/17/13
4.2	Flood Hazards Assessment	Mon 4/1/13	Wed 7/17/13
4.3	Emergency Response Planning	Mon 5/27/13	Wed 8/21/13
4.4	Land Use and Environmental Enhancements	Mon 7/15/13	Wed 9/18/13
4.5	Enhanced Operations and Maintenance	Mon 8/19/13	Wed 10/16/13
4.6	Proposed Regional Improvements	Mon 9/16/13	Wed 11/20/13
4.7	Regional Priorities	Mon 10/21/13	Wed 4/16/14
4.8	Regional Financial Plan	Mon 1/13/14	Wed 6/18/14
4.9	Executive Summary and Plan Completion	Mon 3/17/14	Wed 8/20/14
4.10	Final Written Completion Report	Fri 8/29/14	Fri 8/29/14



Deliverable Schedule

Final Delivery Dates for the Technical Memorandums:

• Coordination and Collaboration Plan	05/08/13
• Updated Regional Atlas Maps	08/29/14
• Regional Setting	07/17/13
• Flood Hazards	07/17/13
• Emergency Response Planning	08/21/13
• Land Use and Environmental Enhancements	09/18/13
• Enhanced O&M TM	10/16/13
• Proposed Regional Improvements	11/20/13
• Regional Priorities	04/16/14
• Regional Financial Plan	06/18/14
• Executive Summary and Plan Completion	08/20/14

Communication and Collaboration Plan

- **Goals**
  - Create opportunities for input and engagement
  - Develop communication partnerships
- **RFMP Team Responsibilities**
  - Communicate needs and engagement opportunities
  - Coordinate and conduct workshops
  - Facilitate information and knowledge sharing
  - Facilitate interregional coordination with other SJ RFMPs
- **Stakeholder Contributions**
  - Share knowledge of challenges/opportunities
  - Identify multiple benefits actions/projects
  - Participate in solution oriented discussions
  - Provide timely reviews and comments

RFMP Workshop Schedule

RFMP Workshops (10)

• Workshop 1 (Atlas, Flood Hazard, and Regional Setting)	06/19/13
• Workshop 2 (Emergency Response Planning)	07/17/13
• Workshop 3 (Land Use and Environment)	08/21/13
• Workshop 4 (Enhanced O&M)	09/18/13
• Workshop 5 (Proposed Improvements)	10/16/13
• Workshop 6 (Regional Priorities - Selection Criteria)	01/15/14
• Workshop 7 (Regional Priorities)	03/19/14
• Workshop 8 (Finance Plan)	04/16/14
• Workshop 9 (Draft RFMP)	06/18/14
• Workshop 10 (Final)	08/20/14

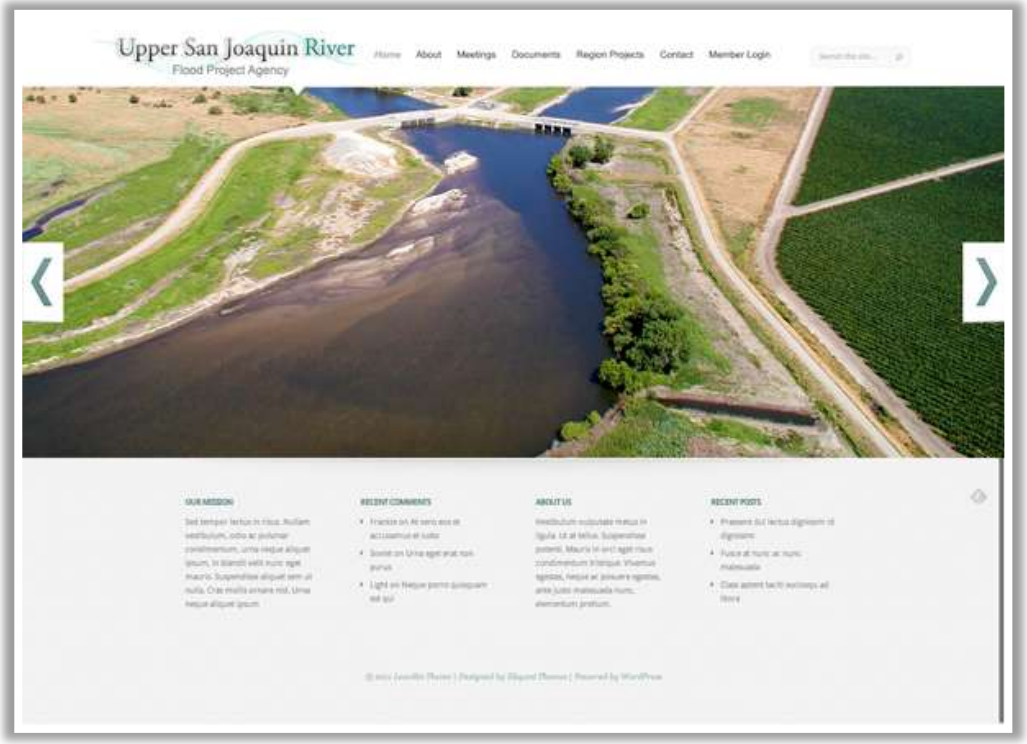
Workshop Protocols

Protocols

- Use common conversational courtesy
- Humor is welcome
- Be comfortable
- Spelling doesn’t count
- Electronics courtesy
- Avoid editorials

Communication and Collaboration Process

- Primary contact mechanism website: http://www.usjrflood.org
- Meeting materials available online
  1 week preceding workshop
- RFMP Section Reviews
  - 2 week review timeframe
  - Information available online
    1 week before workshop
  - Comment submittal due
    1 week after workshop
  - Comments submitted using form available online



RFMP Stakeholders

- Lower San Joaquin Levee District
- San Joaquin River Exchange Contractors Water Authority
- Merced County Streams Group
- Private Landowners
- Local cities
- Local irrigation districts
- Merced, Fresno, and Madera Counties
- United State Bureau of Reclamation
- United States Army Corps of Engineers
- San Joaquin River Restoration Program
- Non-governmental organizations

Workshop 1 Preview – Regional Setting and Flood Hazards

- General Description of the Region
  - Demographics
  - Land Use
  - Natural Resources
  - Governance
- Flood Hazards
  - Flood Risk
  - Flood Assets/ Infrastructure
  - Flood Hazards
  - System Deficiencies
  - Issues/Challenges

Workshop 1 Preview – Regional Setting and Flood Hazards

- List of compiled documents
- Types of Information needed:
  - Local planning studies – HMP's, emergency response plans, other plans/documents
  - Maps and Demographic information - Land use maps, agency jurisdictional maps, demographic information
  - Hydrology and hydrologic studies
  - Natural resources data/studies
  - Other information
- **Need information by May 31st**

For more information please contact:
Reggie Hill (209) 387-4545