

SAN JOAQUIN RIVER
RESTORATION PROGRAM



Seepage & Conveyance Technical Feedback Group

December 17, 2010
Los Banos, CA



Agenda

- Introductions & Purpose
- Technical Feedback Group
- Seepage Management Plan
- ITRC Report
- Seepage Monitoring
- Information and Data Exchange
- Next Steps and Follow-through



Ali Forsythe

PURPOSE & GOALS



Purpose & Goals

- Restoration and Water Management Goals
- Convey Restoration Flows
 - Use Interim Flows to identify where problems exist
 - Reduce or avoid material adverse seepage impacts



Charles Gardiner

TECHNICAL FEEDBACK GROUP



Technical Feedback Group

- Issues and Input from Interviews
- Technical Feedback Group Charter
 - Purpose
 - Objectives
 - Topics
 - Process & Decision-making
 - Completion



Areas of Agreement

- New Forum is Needed
 - Improve communication and understanding
- Initial and Primary Focus is Seepage Issues
 - Data and information exchange between landowners and agencies
 - Monitoring plan
 - Seepage impact thresholds
 - Avoiding impacts



Areas of Agreement

- Participation Should be Broad and Inclusive
 - Include agencies, water district managers, landowners, RMC, and Settling Parties
- Discussions Should be Focused and Forward Moving
 - The group should be a manageable number and have clear outcomes, actions items, and follow-through



Challenges

- Anticipation of Issues & Impacts
- Complexity & Inter-relationship of Topics
- Managing Level of Detail & Timeframe
- Decision-making & Responsiveness



Project Charter

- Establishes the basic agreements for working together
 - Purpose
 - Objectives
 - Topics
 - Process & Decision-making
 - Completion



Project Purpose

- Provide a constructive forum
 - To improve the information exchange, knowledge, and understanding
 - Among agencies, water districts, landowners, and Settling Parties
 - Regarding Interim and Restoration flows, conveyance, and seepage issues



Objectives

- Develop an improved Seepage Monitoring & Management Plan before implementing spring Interim Flows (March 2011)
- Identify and evaluate actions to avoid seepage impacts
- Clarify future claims process



Core Topics

- Data & Information Consolidation
- Monitoring Plan
- Impact Thresholds
- Impact Avoidance Actions
- Process for Potential Future Claims



Related Topics

- Temporary Access & Acquisition
- Claims for Impacts Last Year
- Draft Program EIS/EIR
- Reach 4B Flow & Routing Issues
- Flood Management & Levee Improvements
- Funding



Process & Decision-making

- 3 to 5 meetings through February
 - Focused on SMMP
- Additional topics and meetings identified and considered as we proceed
- Reclamation and its partner agencies retain decision authority for Program implementation



Dave Mooney

SEEPAGE MONITORING & MANAGEMENT PLAN



Seepage Monitoring and Management Plan

- Purpose: describe the approach to conveying flows while reducing or avoiding adverse seepage impacts
- Uses for the SMMP include:
 - Disclosure of approaches
 - Guidance for actions
 - Forum for input
- The Technical Feedback Group provides a way to solicit input.



Elements of the SMMP

- Seepage Impacts
- Locations of Known Risks
- Operations Conceptual Model
- Monitoring Program
- Thresholds and Triggers
- Site Visit and Response
- Site Evaluation and Projects



Seepage Impacts

- Root-zone Salinity
- Waterlogging of Crops
- Levee Instability

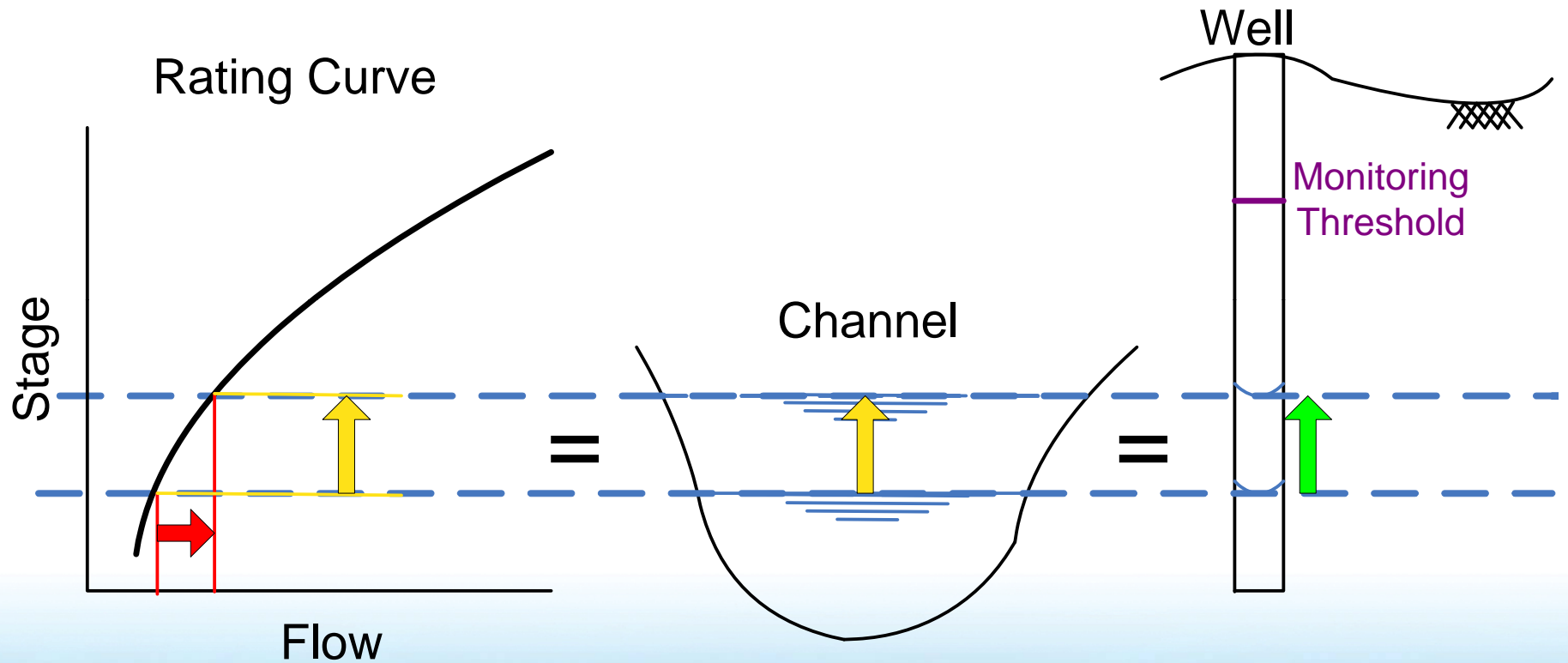


Location of Known Risks

- Landowner Identified Parcels
- RMC Identified Parcels
- Historical Groundwater Levels
 - CCID, MPG and DWR Database
- Central Valley Hydrologic Model
- Interim Flows Monitoring



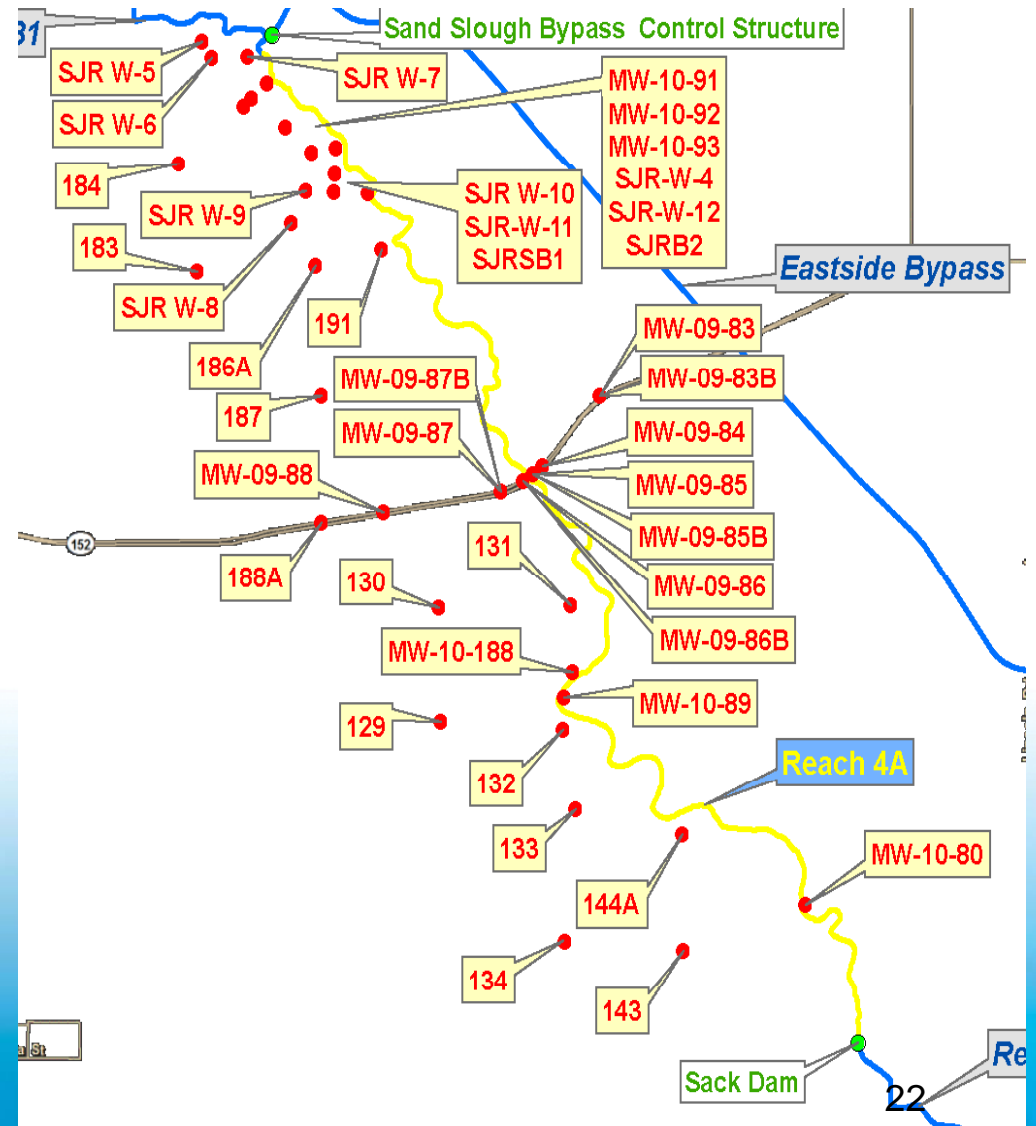
Operations Concepts





Monitoring Program

- Groundwater Elevation
- River Stage
- Soil Salinity
- Hydraulic Conductivity
- Water Quality
- Soil Texture
- Infrastructure





Thresholds and Triggers

- Threshold: the measureable value where impacts become a concern
 - River Stage
 - Groundwater Elevation
 - Others?
- Trigger: the initiation of a response
 - Measurements exceed a threshold
 - Hotline Call



Site Visits and Response

- A trigger results in a hotline form that may involve a site-visit.
- Responses include:
 - Updating Thresholds
 - Diverting Flows
 - Reducing Releases



Site Evaluation and Projects

- Site Evaluation: Evaluation of various factors that may influence seepage concerns at a location
- Projects include:
 - Tile Drains
 - Slurry Walls
 - Drainage Interceptor Ditches
 - Operation of wells
 - Easements
 - Compensation



Landowner Tools

- Immediate Concern
 - Seepage Hotline
 - Potential site visit and reduction of flows
- Longer Term Concern
 - Potential Project and Technical Feedback Group
 - Identify, coordinate, and implement projects to avoid impacts
- Process for Financial Compensation
 - File Administrative Claim for impacts resulting from Interim Flows

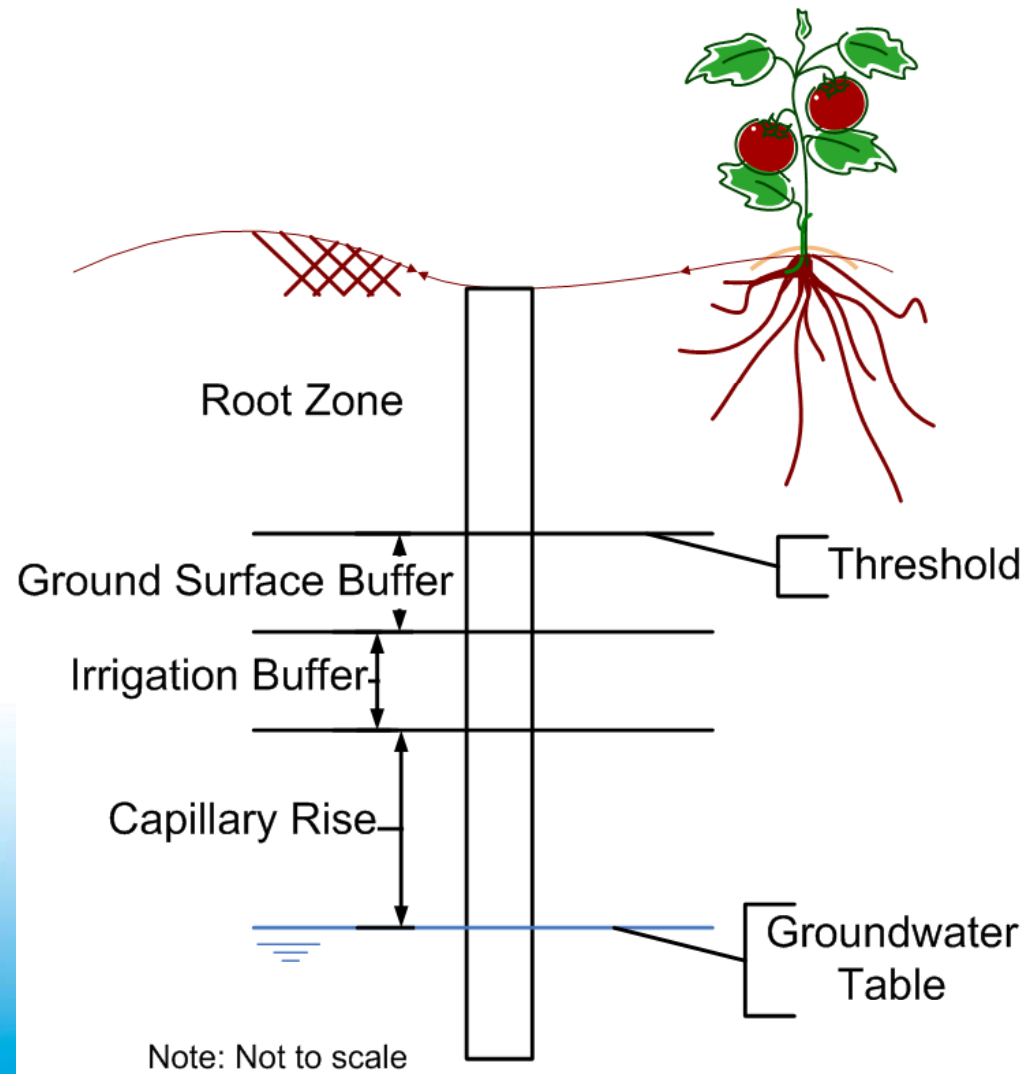


Updated Plan

- Prediction of Risks
- Conceptual Models for Operations
- Additional Monitoring
- Updated Thresholds
- Landowner Process



Threshold





Jim Nickel & Chris White

ITRC REPORT



Dave Mooney & Charles Gardiner

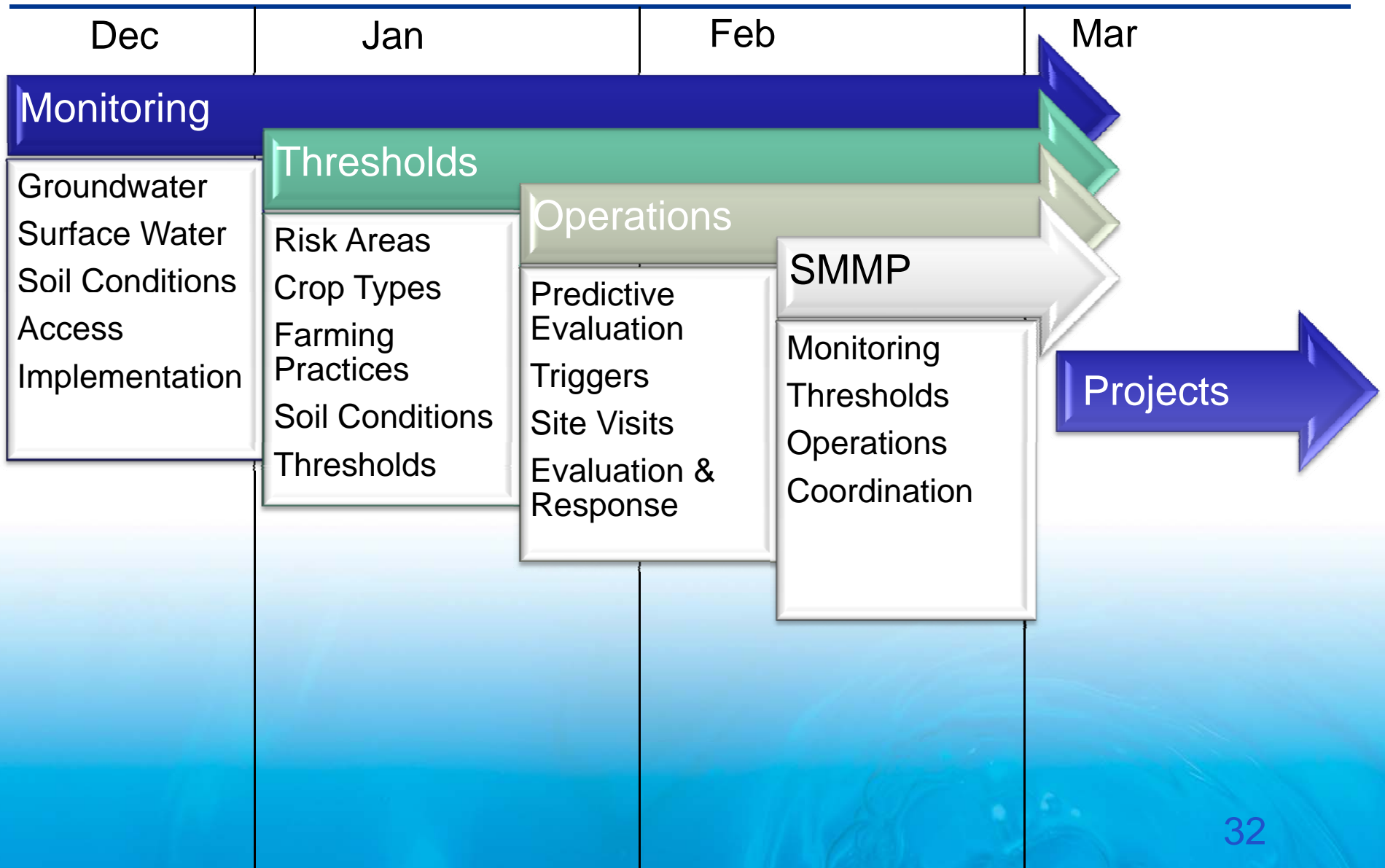
MEETING TOPICS & MILESTONES



Requirements

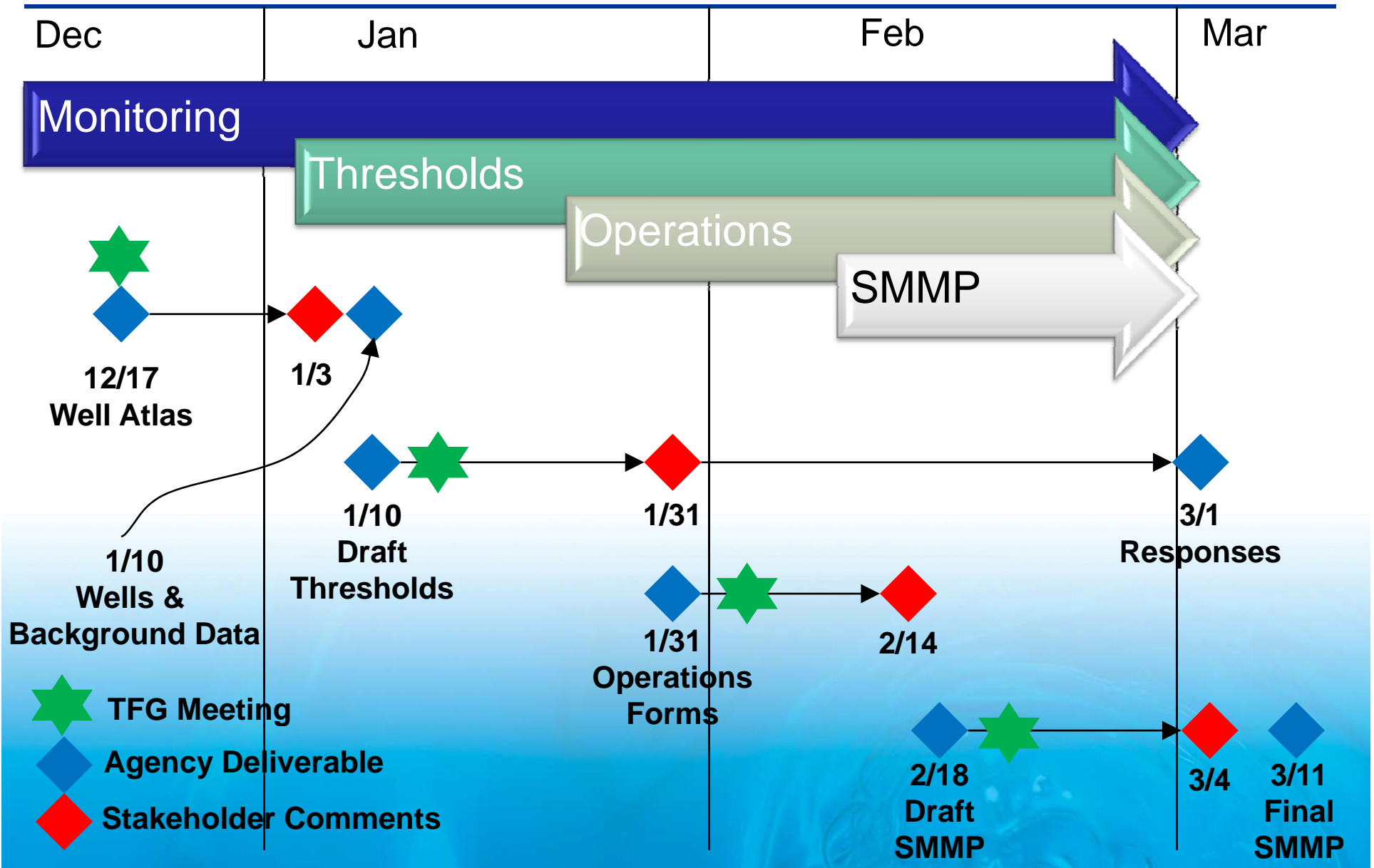
- Condition 7 of WY 2011 Interim Flows State Board Order
 - Monitoring
 - January 10, 2011 – Proposed monitoring wells
 - Thresholds
 - January 10, 2011 – Draft Thresholds
 - Public Comment
 - March 1, 2011 – Response to comments

Discussion Topics





Milestones





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SEEPAGE MONITORING

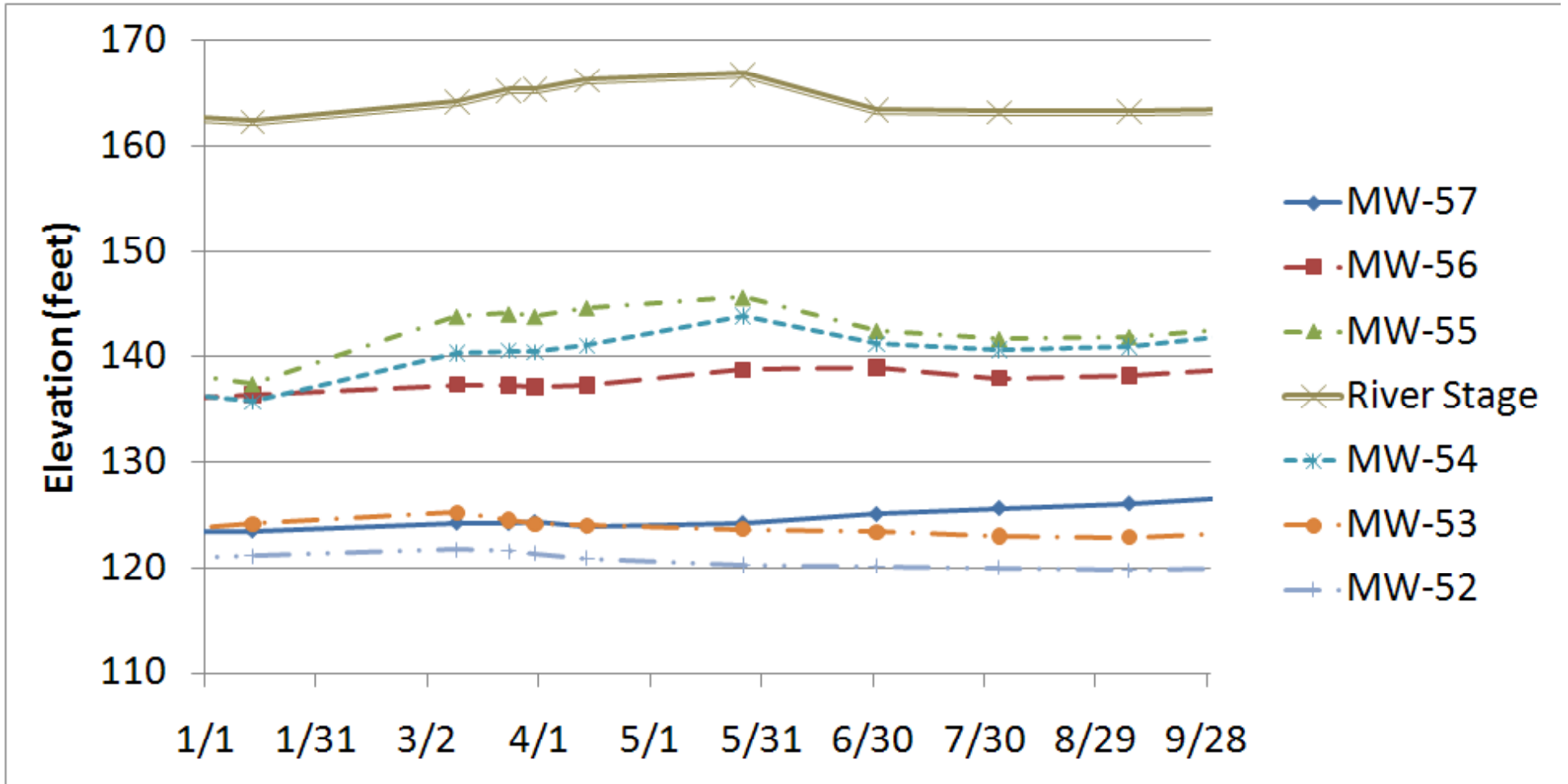


Monitoring Types

- Groundwater Elevation
- River Stage
- Flow
- Soil Salinity
- Hydraulic Conductivity
- Water Quality
- Soil Texture
- Infrastructure
- Crops

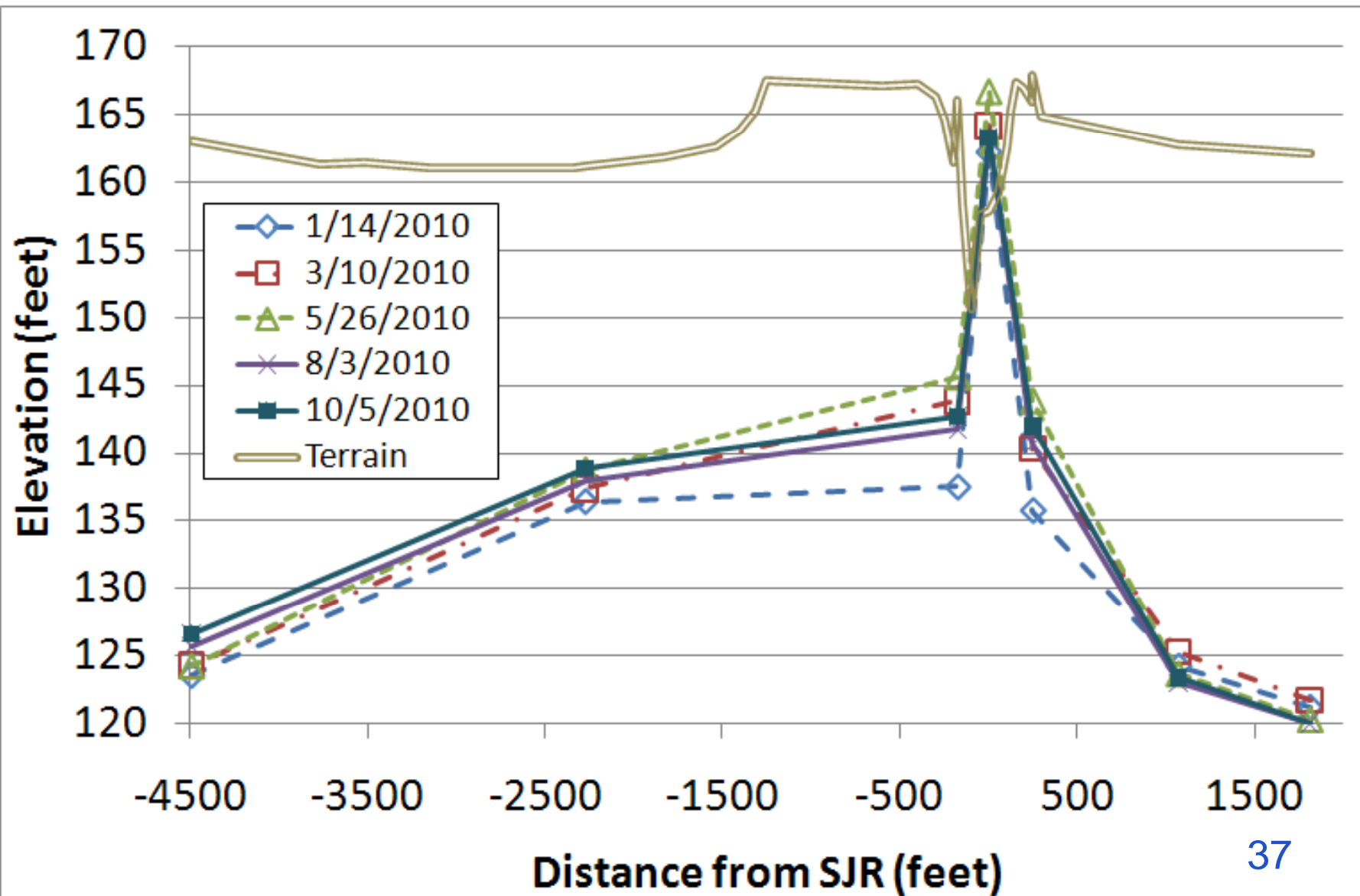


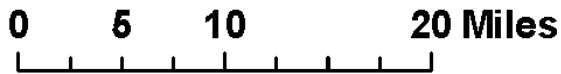
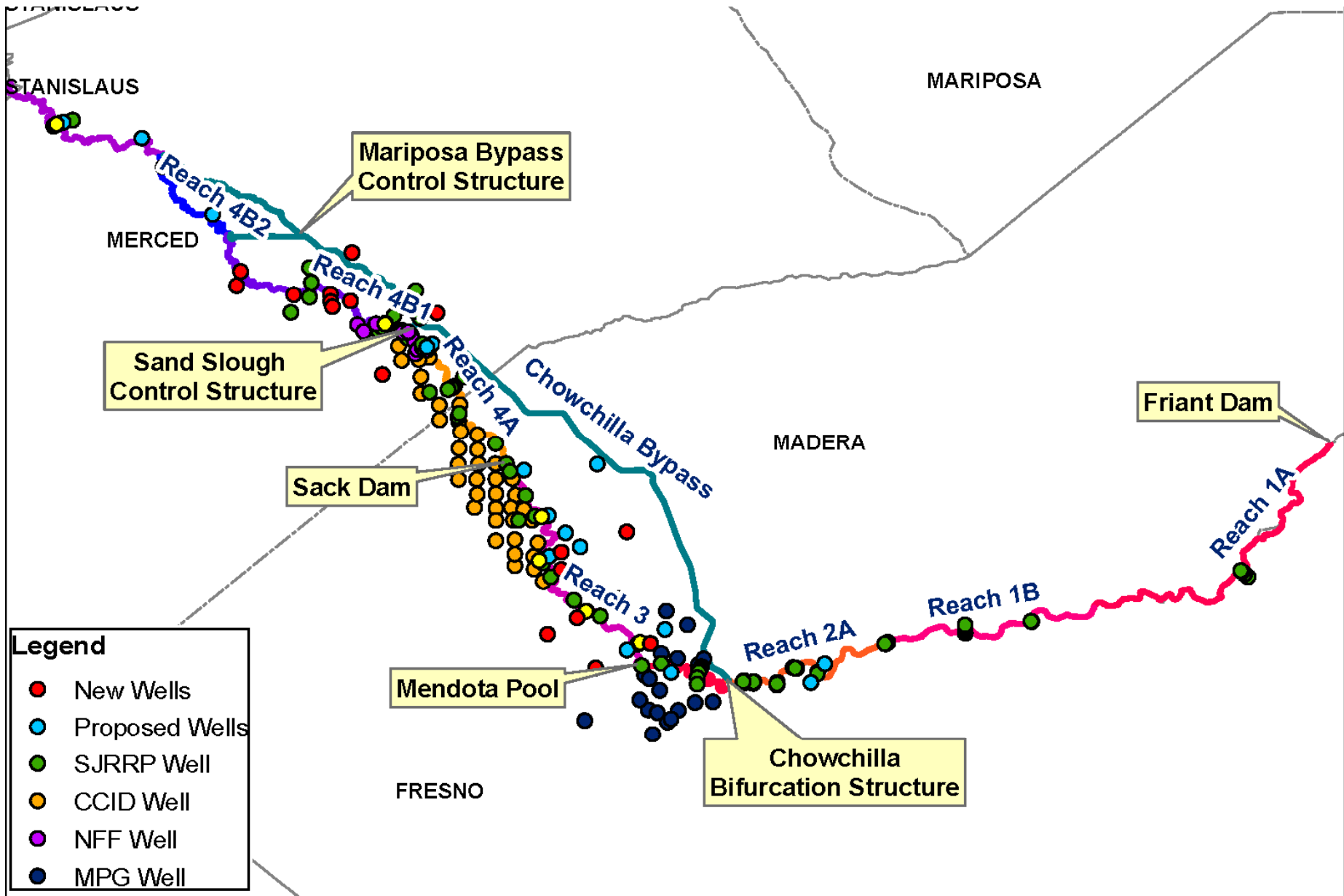
San Mateo Time Series





San Mateo Cross Section

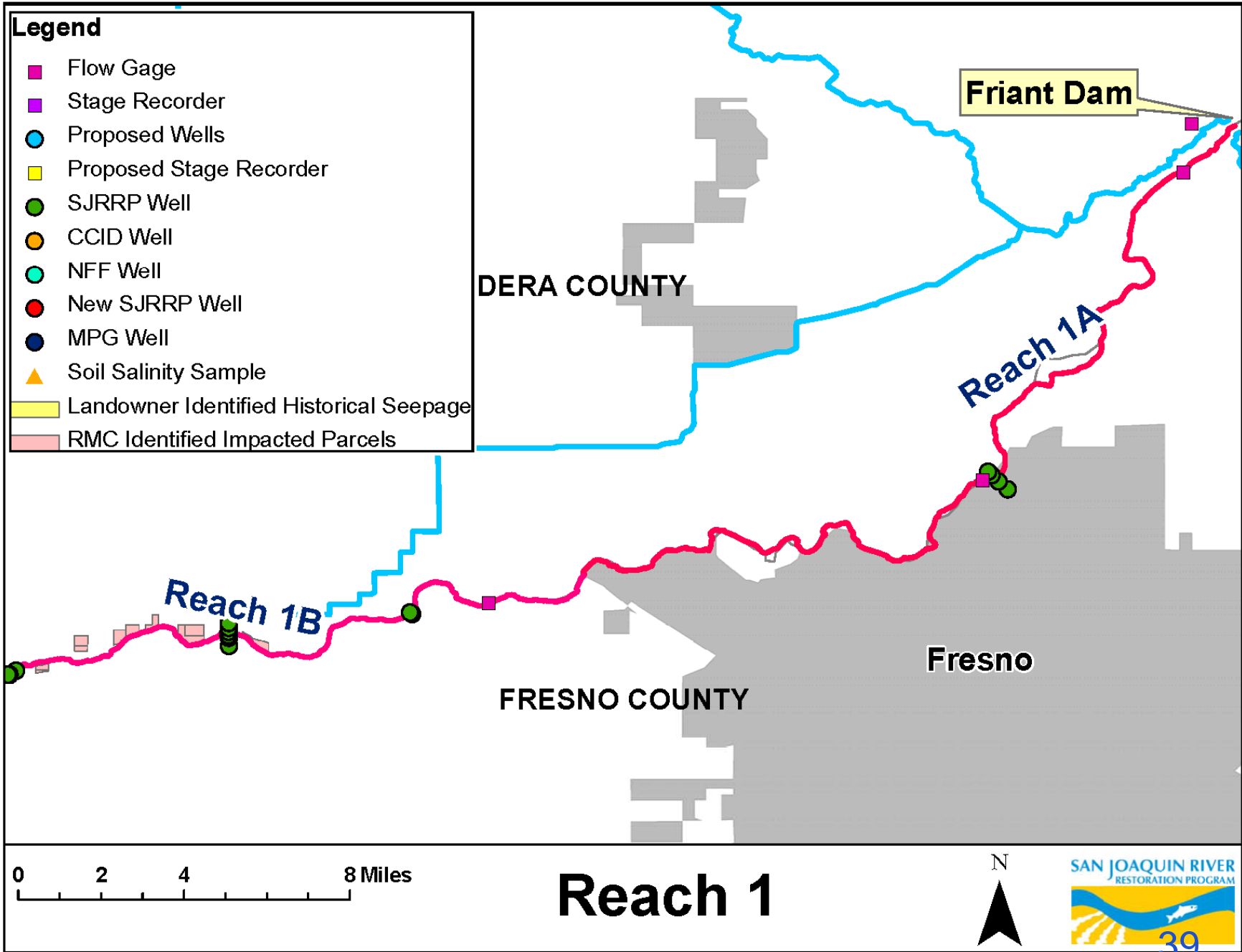


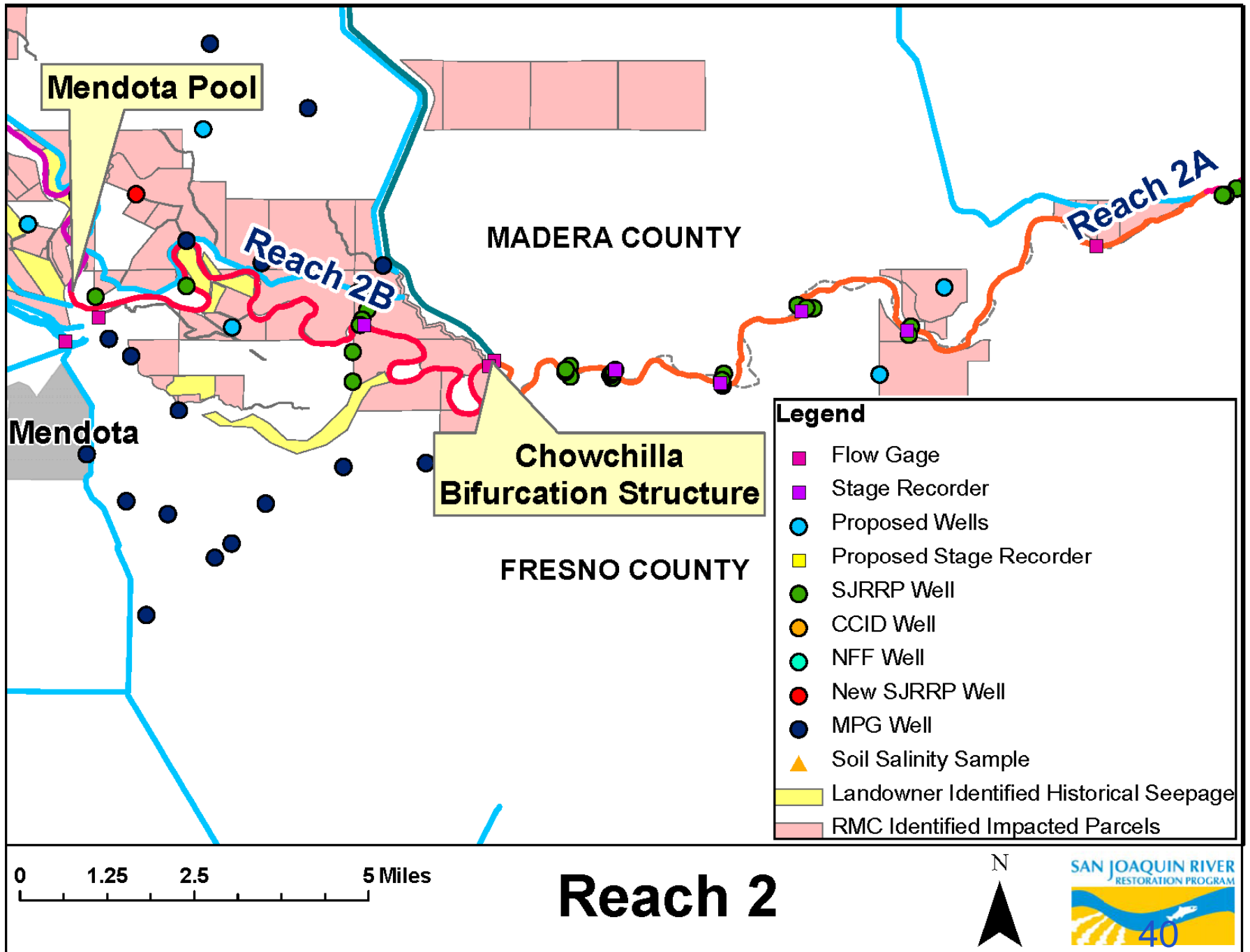


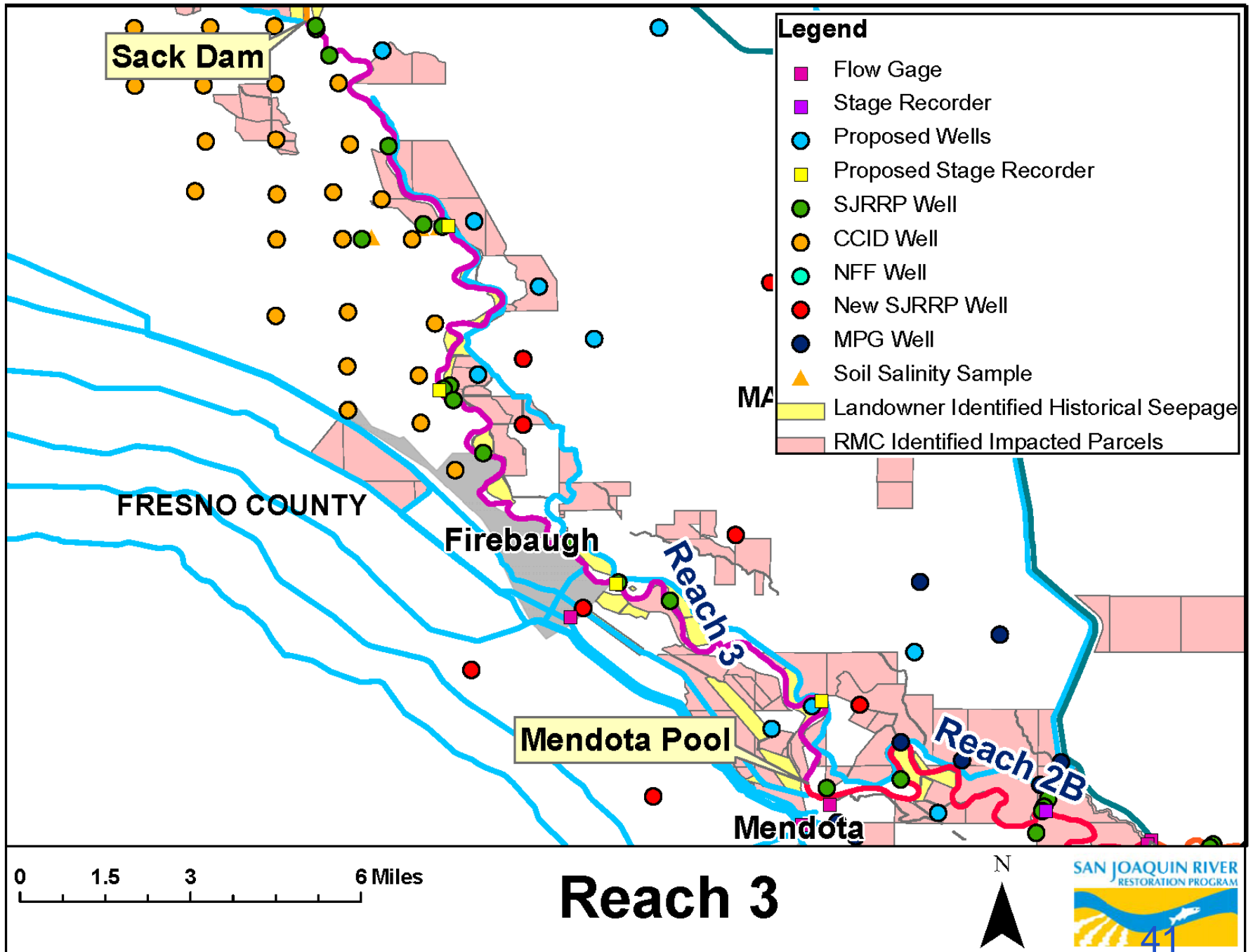
Monitoring Wells

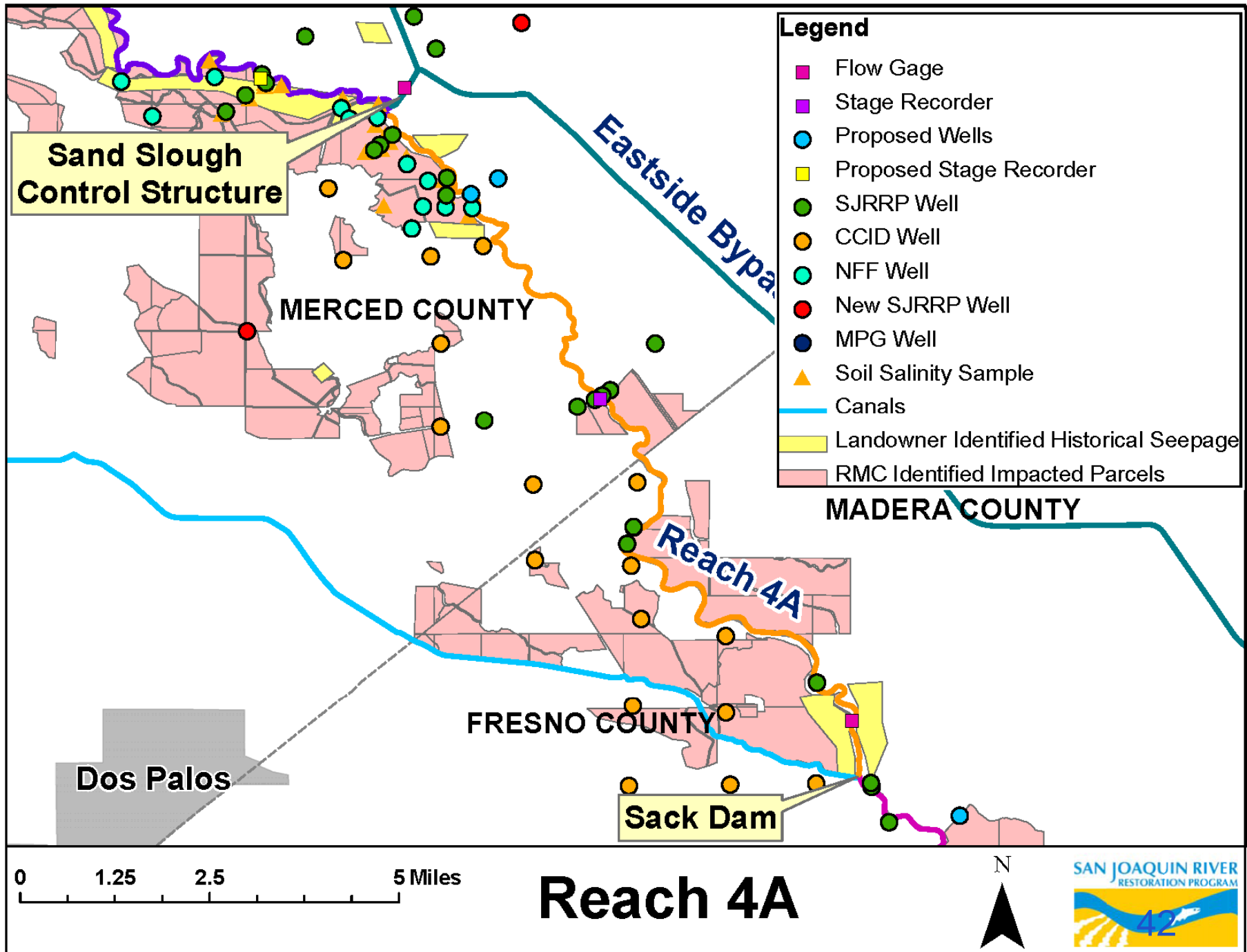


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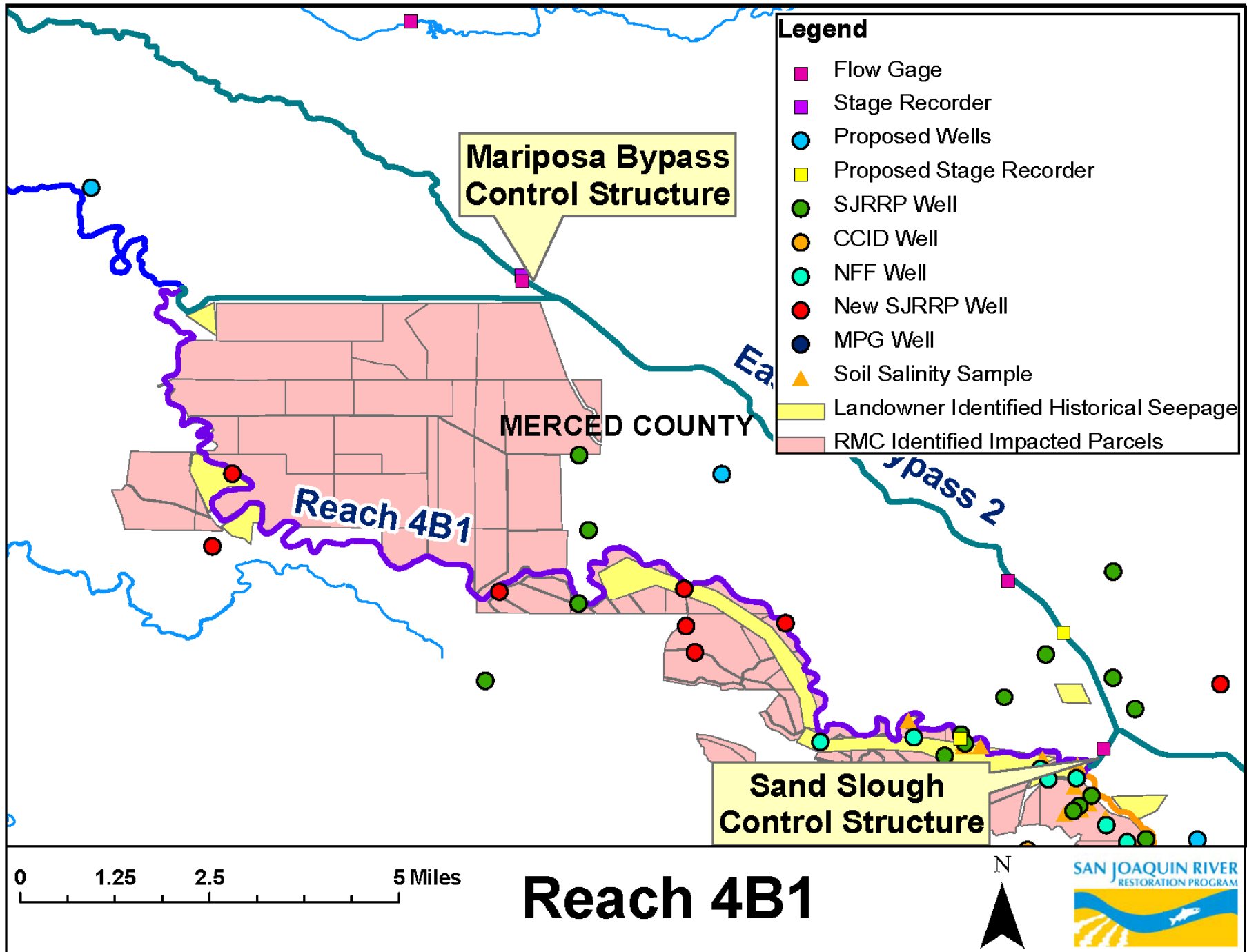


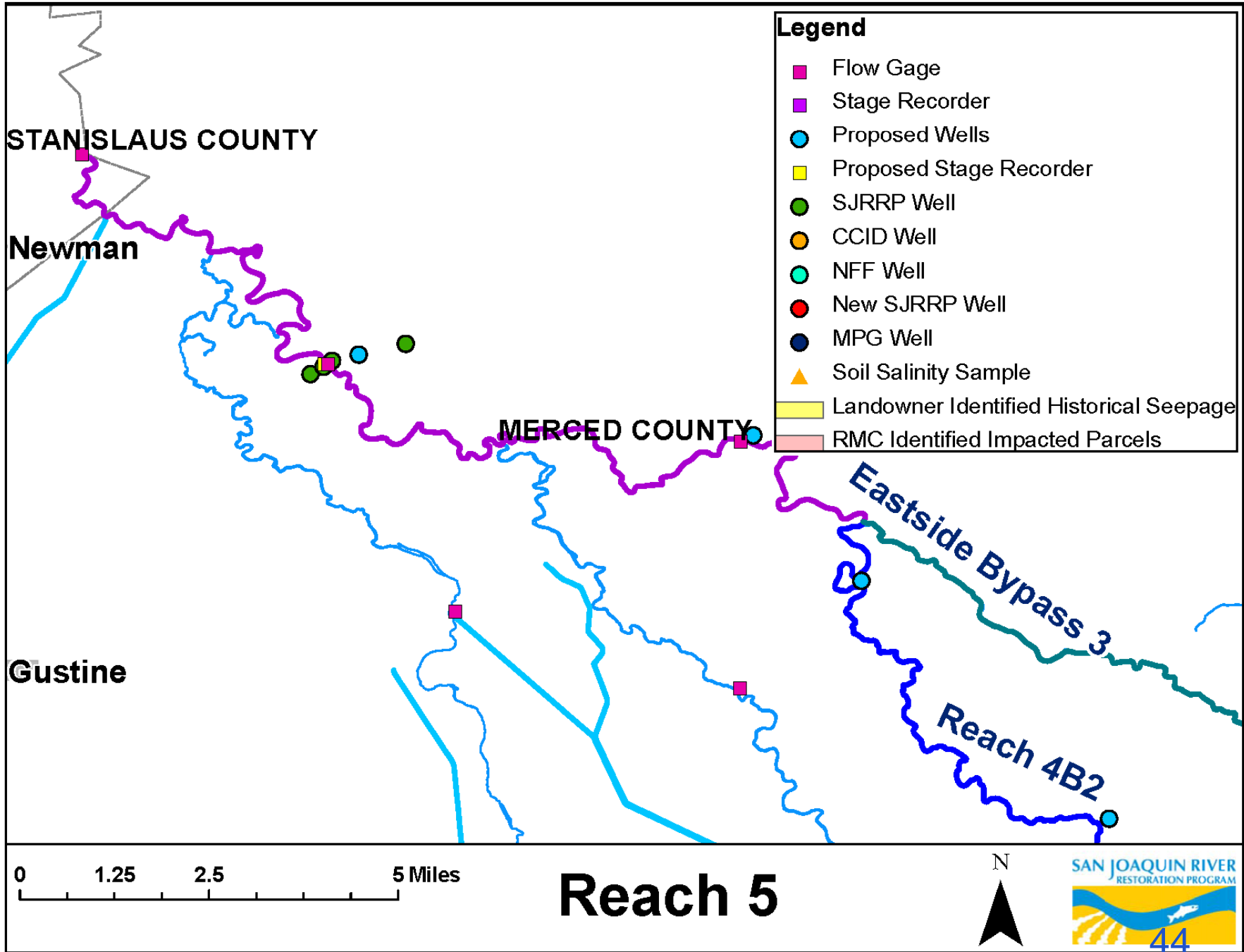






Reach 4A







Dave Mooney

INFORMATION & DATA EXCHANGE



Info & Data Exchange

- What are the key areas to exchange data and information?
 - Risk Areas
 - Surface Water Monitoring
 - Groundwater Monitoring
 - Soil Conditions
 - Crop Types
 - Other



NEXT STEPS



Next Steps

- Action Items
- Next Meeting
- Meeting Review



Contact

- Technical Feedback Group
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- Seepage Concerns
 - Seepage Hotline: (916) 978-4398
 - Email: interimflows@restoresjr.net



OTHER QUESTIONS & DISCUSSION