

Workshop

Draft Eastern San Joaquin River Watershed Waste Discharge Requirements (WDRs) Status of the Long-term ILRP



Presentation Overview

- Background
- Program development
- WDRs for Eastern San Joaquin River Watershed
- Next Steps

Program Background

- Long-term ILRP & EIR initiated by the board (2003 & 2006 conditional waivers)
- Existing Conditions Report
- Stakeholder Advisory Workgroup

Program EIR

- Draft/Final Program EIR (2010/2011)
 - Five original alternatives developed with Stakeholder Advisory Workgroup
 - Sixth alternative developed from original five alternatives and circulated to Workgroup
 - Does not identify a recommended program
 - Certified by the board in April 2011

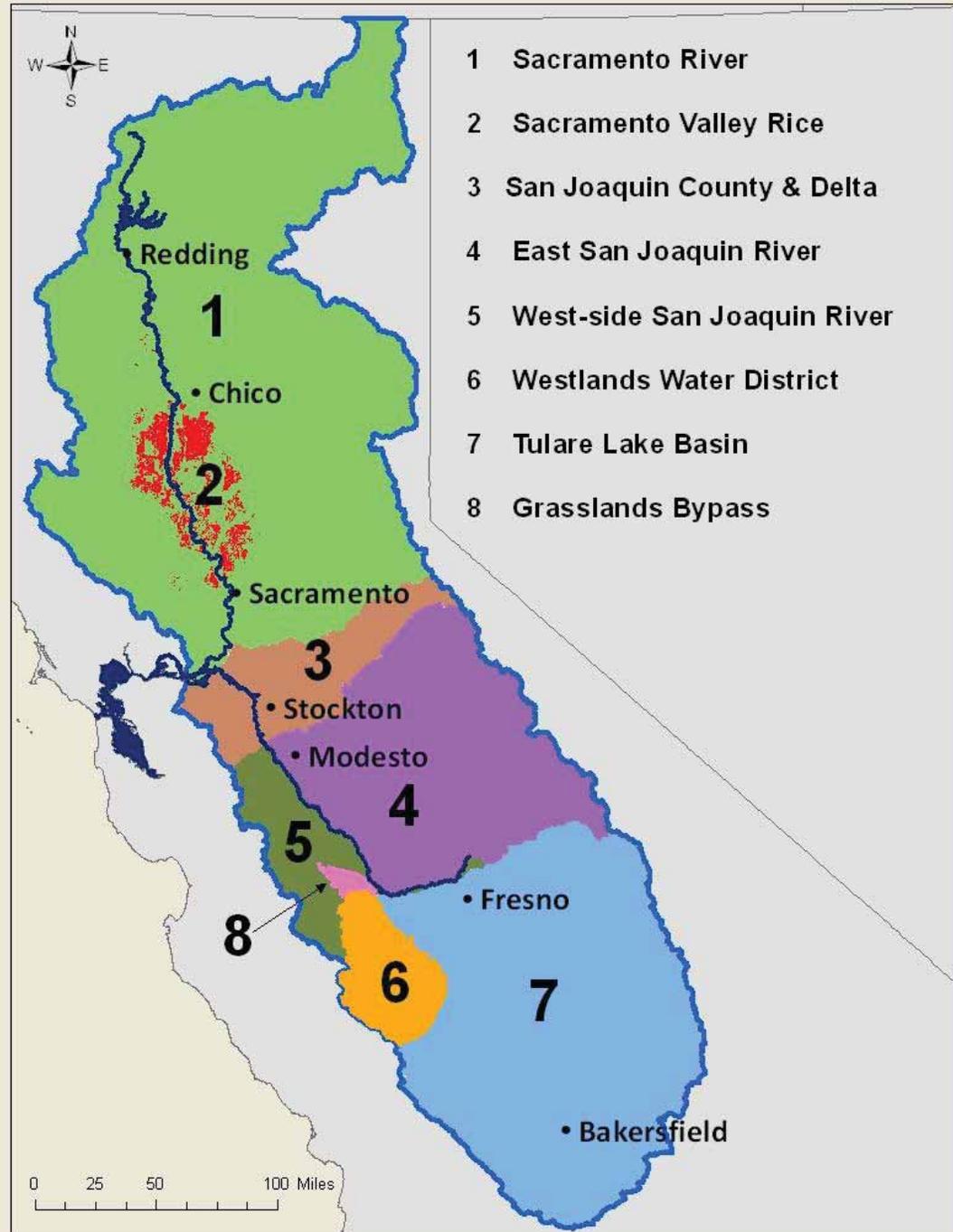
Central Valley Water Board Direction

- Consider the Framework a starting point for developing general orders
- Multiple general WDRs for specific geographic areas or commodities
- WDRs need to include requirements to protect surface and groundwater quality

Additional Workgroup Processes and Review

- Summer/Fall 2011
 - Technical Input - Groundwater Monitoring Advisory Workgroup
 - Policy Input - Stakeholder Advisory Workgroup

Geographic Areas/Commodities Addressed by WDRs



WDR Development Schedule

General WDR	Public review	Board hearing
East San Joaquin River	June 2012	October 2012
General Order for Individuals	June 2012	December 2012
Tulare Lake Basin	October 2012	February 2013
Sacramento Valley Rice	November 2012	March 2013
Grasslands Bypass	January 2013	June 2013
Sacramento River Watershed	February 2013	June 2013

WDR Development Schedule

General WDR	Public review	Board hearing
Westlands Water District	April 2013	August 2013
West-side San Joaquin River	June 2013	October 2013
San Joaquin County and Delta	June 2013	October 2013

Basin Plan Amendment on ILRP Costs

Adopted by Central Valley Board – October 2011;

State Board consideration – July 2012

General Order for Eastern San Joaquin River Watershed

- Administrative draft order circulated for interested party review (April 13 – May 21)
- **Yellow text = potential staff revision**
- **Green text = area of concern based on comments**

General Order for Eastern San Joaquin River Watershed

- Scope of coverage:
 - All irrigated agricultural operations within the Eastern San Joaquin River Watershed – including managed wetlands and nurseries

Eastern San Joaquin River Watershed:

- approx. 1 million acres of irrigated lands
- top crops: almonds, hay, corn, grapes, tomatoes, pasture, wheat, cotton, walnuts



Waste Discharge Requirements

- Designed for implementation by third-party
- Requirements for third-party
- Requirements for individual Members

Discharge Limitations

- Wastes discharged shall not cause [or contribute] [surface/groundwater] to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance
- For high quality waters, discharges shall comply with Order requirements resulting in best practicable treatment or control

Discharge Limitations

- Effective immediately unless Member is implementing an approved surface or groundwater quality management plan

Time Schedule for Compliance

- Time schedule for meeting the Order's discharge limitations must be as short as practicable
- Order allows a maximum of 10-years for compliance with limitations unless the Basin Plan specifies a different timeline

Farm Management Performance Standards

- Minimize waste discharge to surface/
groundwater
- Minimize or eliminate discharge of
sediment above natural background levels
- Minimize excess nutrient application
relative to crop need

Farm Management Performance Standards

- Prevent pollution and nuisance
- Achieve and maintain water quality objectives and beneficial uses
- Protect wellheads from surface water intrusion

Requirements for Members

- **Owners and operators** must enroll
- Current members → confirm membership
- Non-member have 90-day window to enroll with third-party
- **Align 90-day window with EO approval of third-party**

Requirements for Members

- Implement management practices
 - discharge limitations
 - performance standards
 - management plans
 - practices found protective, representative groundwater monitoring program

Requirements for Members

- Farm evaluation to third-party
 - Describes water quality practices in place
 - **Site specific information**
- Participate in annual outreach events
- **Provide property access at reasonable hours**

Requirements for Members

- Sediment and erosion control plans -
where potential to discharge sediment

Nutrient Management Planning

- Key mechanism to minimize nutrient discharge to surface and groundwater
- Certified nitrogen budgets required for Members in “high vulnerability areas”
- Benefit from CDFA program
- **Non-certified nitrogen budgets in all other areas**

Requirements for Third-party

- Apply to represent growers
- Transparency requirements
 - Third-party structure; fee expenditure summary
- Organize program enrollment
- Conduct education and outreach

Requirements for Third-party

- Farm evaluation **template**
- Sediment and erosion plan **template**
- Nitrogen budget **template**
 - May be commodity specific

Management Plans

- Key mechanism to achieve surface and groundwater quality goals
- Third-party develop \longrightarrow public input
EO approval \longrightarrow members implement
- Adaptive management process

Management Plan Elements

- Investigate sources
- Review available information for plan area
- Develop strategy to achieve water quality goals (Order's limitations)
- Develop feedback monitoring strategy
- Data evaluation and reporting

Management Plan Triggers

- Surface water –two exceedances of an objective at the same location in three-years
- Groundwater –a confirmed exceedance of an objective, also required in high vulnerability groundwater areas
- Trend of degradation in a high quality water that threatens beneficial use

Nitrogen Budget

- Template developed by third-party
- Proposed annual nitrogen budget
- Final annual nitrogen budget
- Proposed and final budget worksheets provided by Members to the third-party

Other Technical Reports

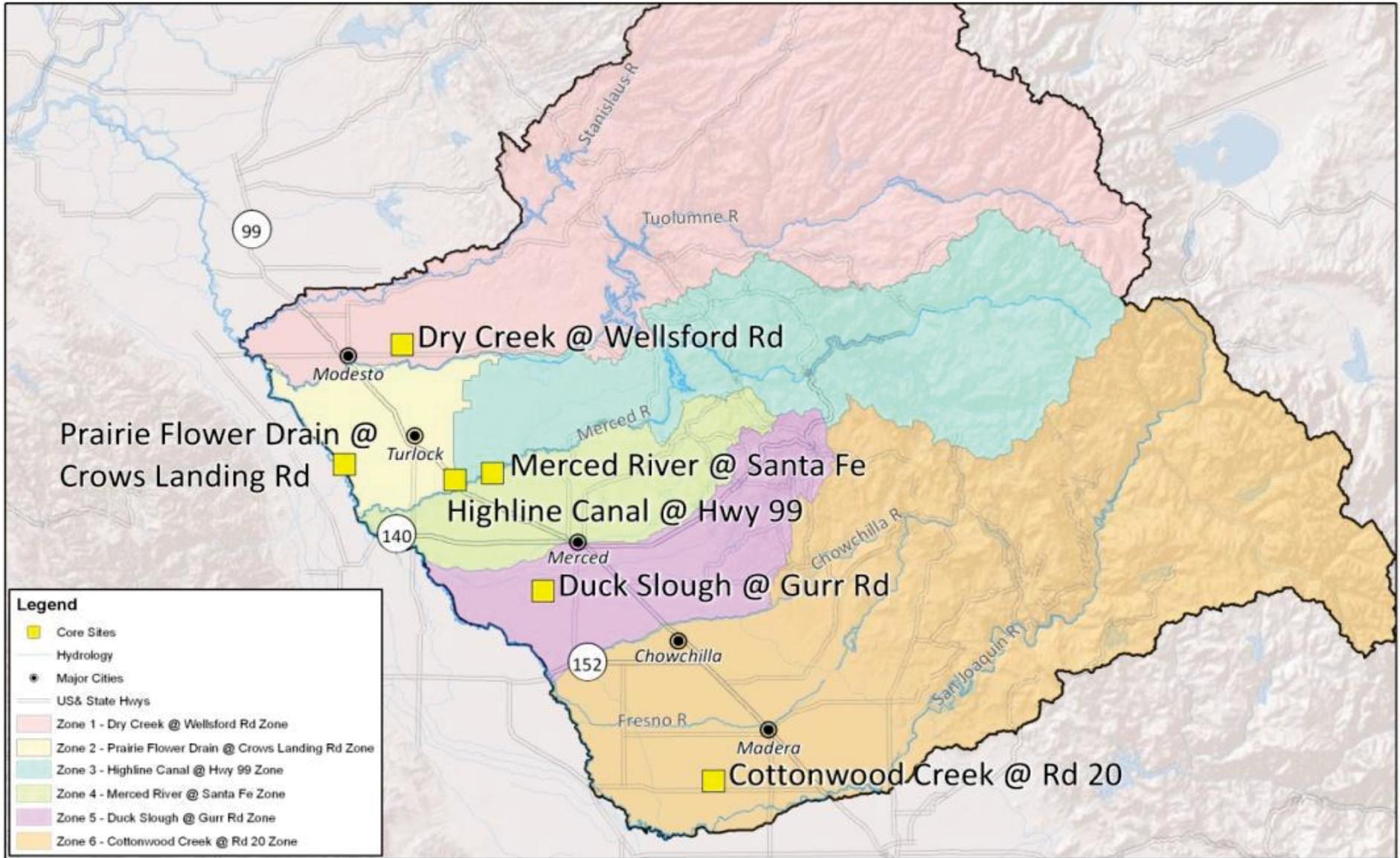
- Groundwater assessment report
- Groundwater monitoring workplans
- Annual monitoring report
- Technical reports – additional monitoring
 - Surface water - Regional vs. site specific monitoring

Monitoring Program

- Surface water
- Groundwater

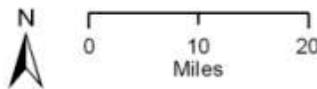
Monitoring Program – Surface Water

- Builds on current surface water monitoring program
- Utilizes Coalition's six monitoring zones based on hydrology, crop types, land use, soil types, and rainfall
- Significant changes proposed by Coalition



Source of Layers:
 Hydrology - NHD hydrodata, 1:24,000-scale, <http://nhd.usgs.gov/>
 Roads, highways, railroads, county boundary, city outlines - California Spatial Information Library
 TRS - Teale Public Land Survey System, Pub. date, 20090101, California Spatial Information Library.
 Parcel Layer - Stanislaus 2010, Merced 2011, Madera 2011
 Basemap, Shaded Relief - ESRI
 GSC North America 1983

Date Prepared: 01/04/2011
 ESJWQC



ESJWQC Zone Boundaries

Surface Water Monitoring - Constituents

- Monitoring parameter report
 - Third party to specify constituents and the frequency of monitoring for each site
- Constituents of concern
 - Flow, EC, temperature, pH, DO, ecoli, TOC, TSS, turbidity, nutrients
 - Pesticides, metals
 - Toxicity (~~chronic~~) acute

Groundwater Assessment Report

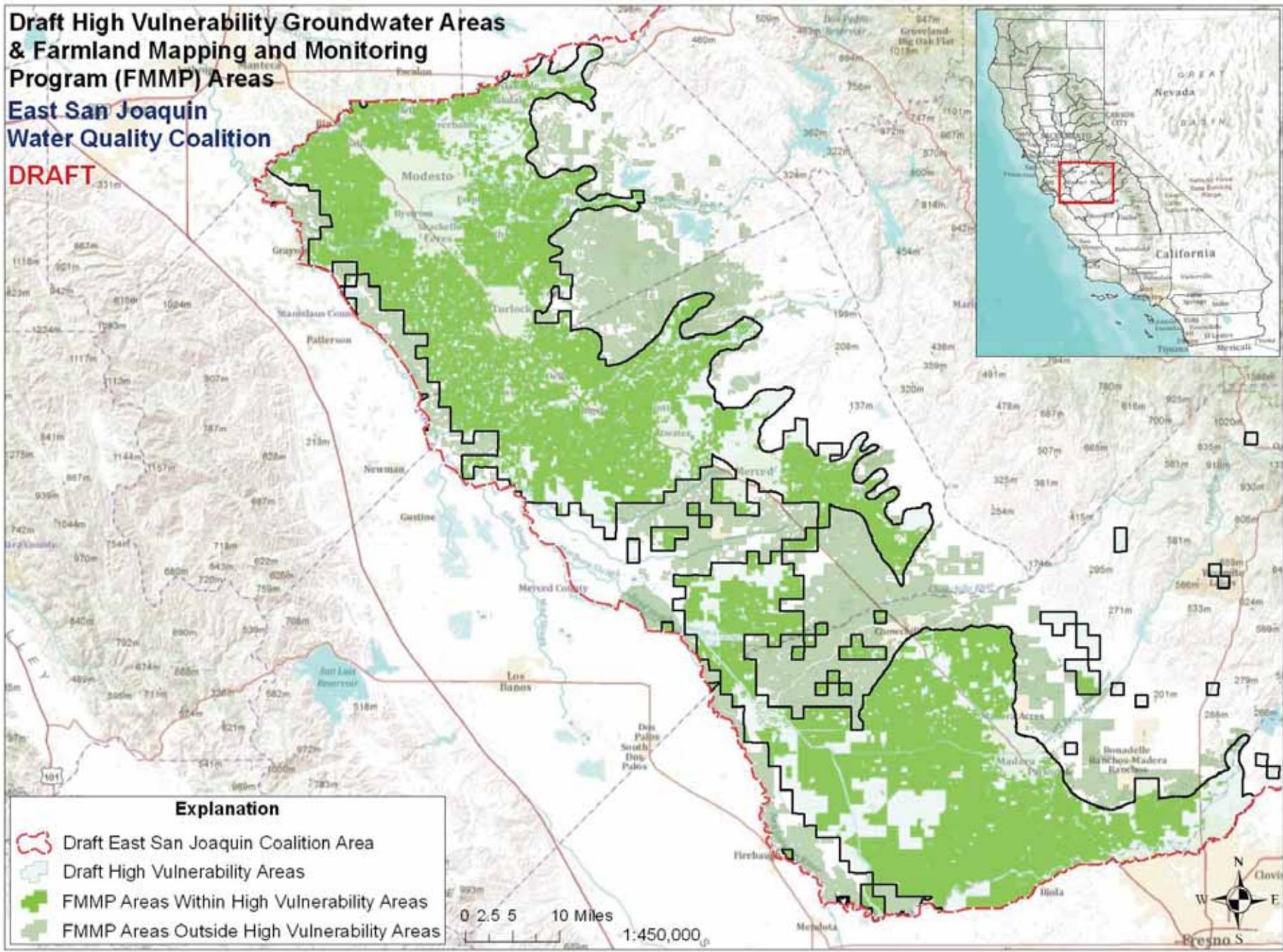
- Review existing information
- Evaluate potential to use data from existing groundwater programs
- Develop and refine vulnerable areas
- Prioritization of high vulnerable areas

Groundwater Vulnerability Areas

- High vulnerability areas
 - Exceedances of objectives
 - DPR groundwater protection areas
 - State Water Board vulnerability areas

**Draft High Vulnerability Groundwater Areas
& Farmland Mapping and Monitoring
Program (FMMP) Areas
East San Joaquin
Water Quality Coalition**

DRAFT



Explanation

- Draft East San Joaquin Coalition Area
- Draft High Vulnerability Areas
- FMMP Areas Within High Vulnerability Areas
- FMMP Areas Outside High Vulnerability Areas

0 2.5 5 10 Miles
1:450,000



Groundwater Monitoring

- Trend monitoring
- Representative monitoring

Trend Monitoring Workplan

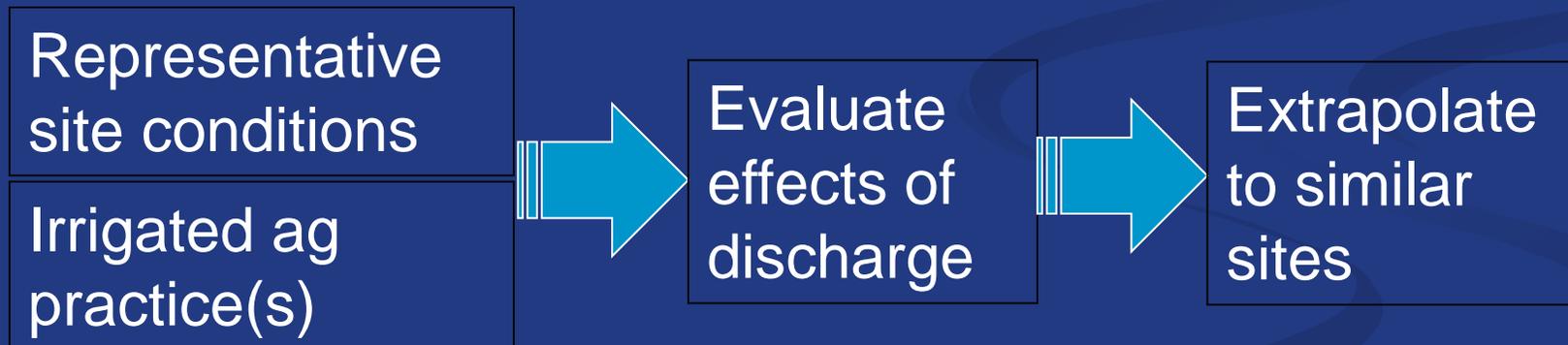
- Third-party to propose well network and plan
 - Determine baseline quality and evaluate regional effects
 - Allows use of shallow existing wells

Trend Monitoring Workplan

- Required minimum trend monitoring
 - Annual - EC, pH, DO, temp, alkalinity, nitrate, nitrite, TKN
 - Once every five years - TDS, anions and cations

Representative Monitoring Workplan

- Objective is to evaluate whether specific practices are protective of groundwater quality considering various site conditions
- Required in high vulnerability areas



Representative Monitoring Workplan

- New monitoring wells most likely necessary
- Encourages coordinated approach (e.g., by commodity/area)

Summary Representative Monitoring Report

- Output report of representative monitoring
 - Protective practices under specified site conditions
 - Extrapolation - identify areas where practices should be implemented based on similar site conditions

Annual Monitoring Report

- Sample results, exceedances
- Farm evaluation summary (sq mi)
- Nitrogen budget summary (sq mi)
- Mitigation monitoring
- Outreach events

Annual Monitoring Report

- Technical analysis of data collected
- Updates on management plan progress
- Conclusions and recommendations

Trigger Limits – Management Plans

- If exceeded – management plan
- MRP includes trigger limits based on numeric Basin Plan objectives
- Application of narrative objectives
 - Third-party to propose triggers
 - EO review and approval

California Environmental Quality Act

- Analysis of General Order
 - Indicates the provisions are within the range evaluated in the Program EIR
 - Requirements are similar to EIR Alternatives 2 and 4
 - Does not reveal any new or unique impacts

State Water Board Policies

High Quality Waters/ Antidegradation

- Order allows degradation of high quality waters, provided
 - Practices implemented to minimize the degradation to achieve “best practical treatment or control” (BPTC)
 - Degradation not to exceed water quality objectives

Next Steps

- Revision of draft
- Public review June of this year
- October 4/5 hearing

End Presentation