

East San Joaquin
WATER QUALITY COALITION

East San Joaquin Water Quality Coalition

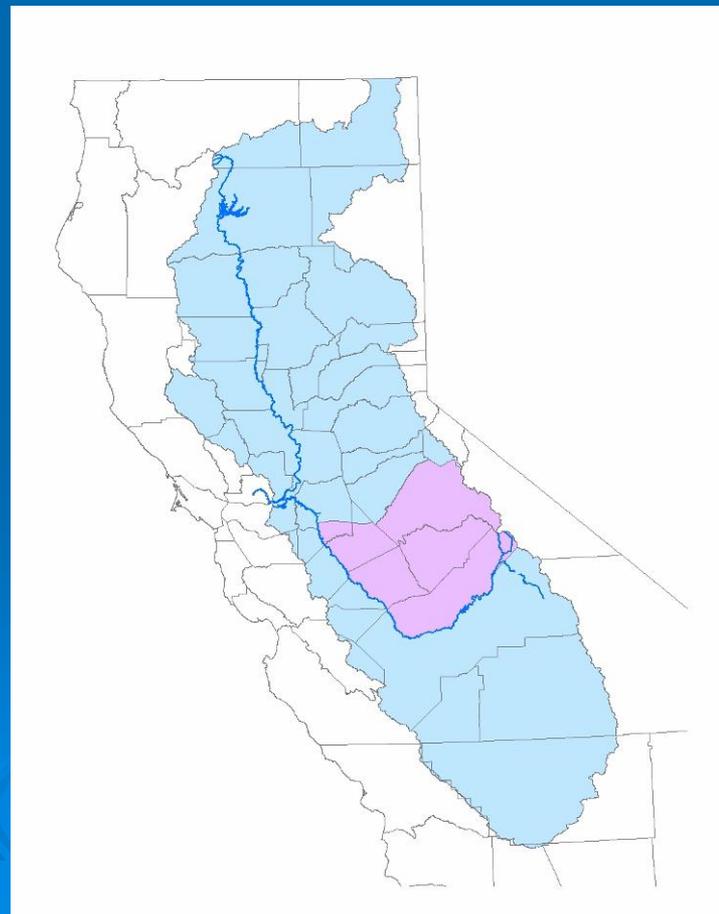
Parry Klassen
Executive Director

Merced River



Coalition Overview

- In operation since 2003
- **2,297 Landowner / operators**
- **540,782 irrigated acres**
 - Madera, Merced, Stanislaus, Tuolumne, Mariposa counties
- *We manage group permit for our members*





Board of Directors

Board Officers

- Parry Klassen, Board Chairman
Executive Director
Coalition for Urban Rural Environmental Stewardship; fruit grower
- Wayne Zipser, Vice-Chairman
Stanislaus Co. Farm Bureau
- Bill McKinney, Treasurer
almond grower

Board Members

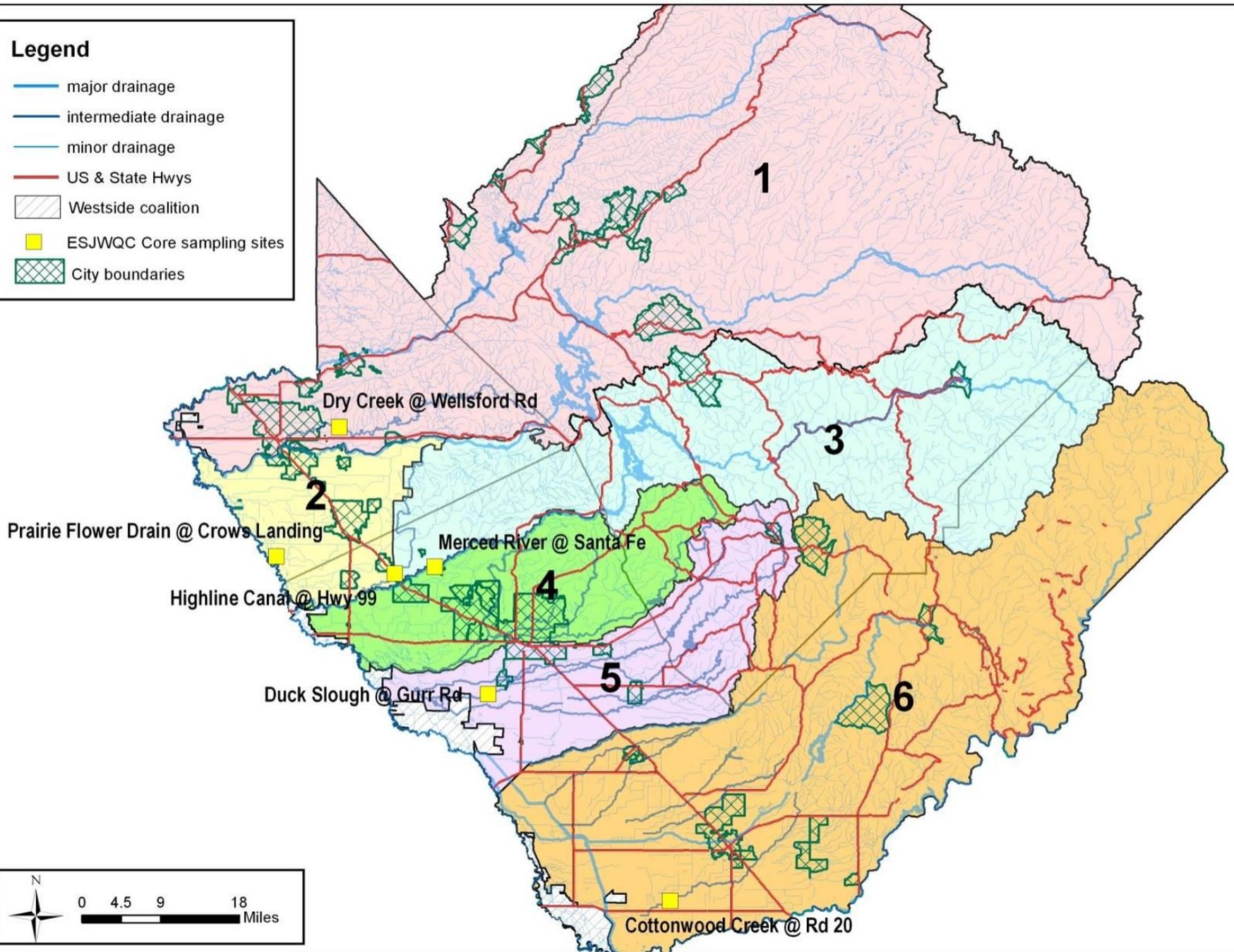
- Amanda Carvajal
Merced Co. Farm Bureau
- John Eisenhut
Hilltop Ranch, almond grower
- Brian Franzia
West Coast Vineyards
- Richard Gemperle
Gemperle Enterprises, almond grower
- Anja K. Raudabaugh
Madera Co. Farm Bureau
- Alan Reynolds
Gallo Vineyards, Inc.
- Albert Rossini
Rossini Ag, grape grower
- Jim Wagner
Wilbur Ellis Co.
- Mike Neimi
Turlock Irrigation District

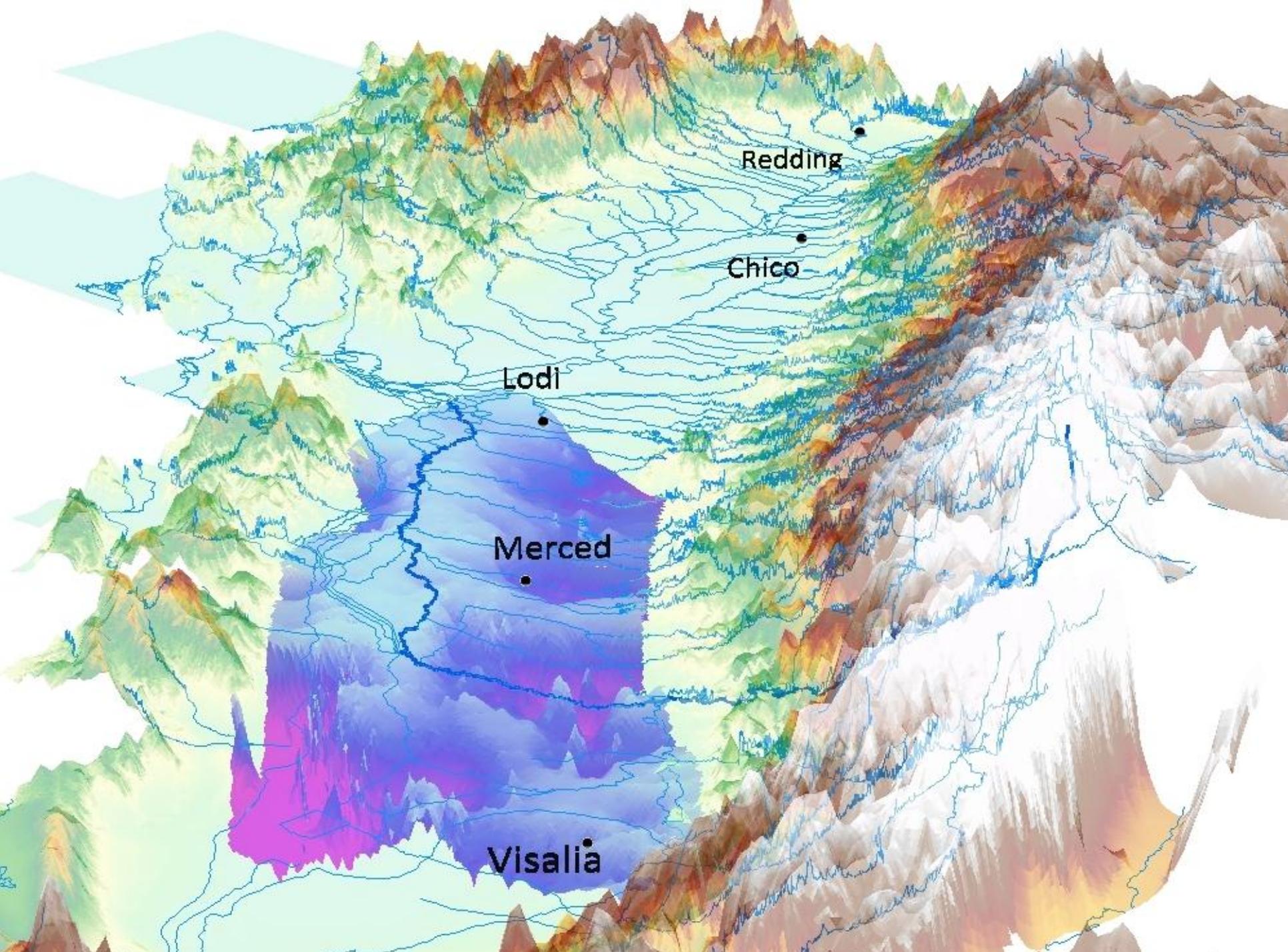
Non-voting

- Gary Caseri
Stanislaus County Agricultural Commissioner
- David Robinson
Merced County Agricultural Commissioner
- Bob Rolan
Madera County Agricultural Commissioner
- Dianna Waller
Natural Resources Conservation Service
- Dennis Wescot
San Joaquin River Group Authority

Legend

- major drainage
- intermediate drainage
- minor drainage
- US & State Hwys
- Westside coalition
- ESJWQC Core sampling sites
- City boundaries





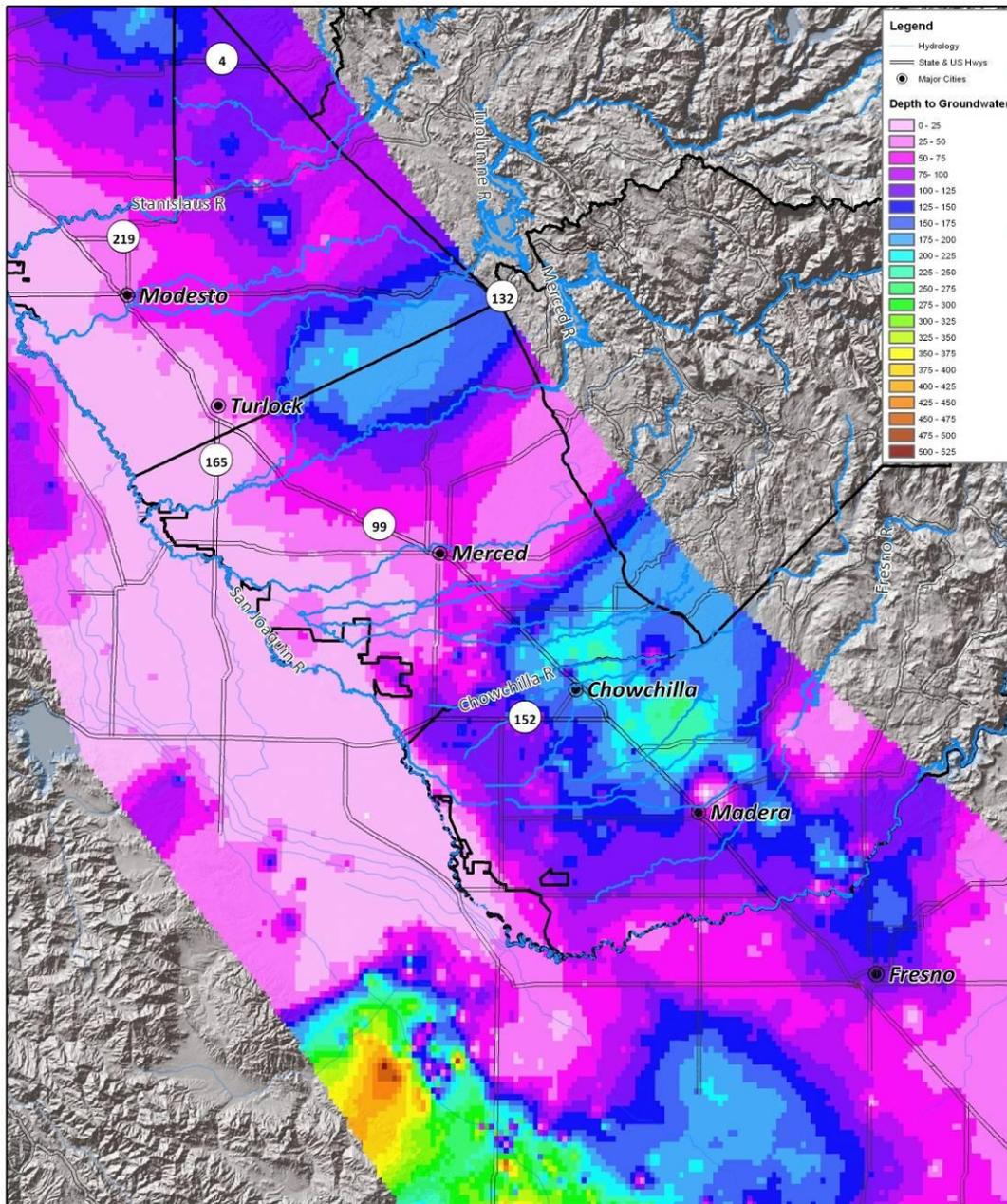
Redding

Chico

Lodi

Merced

Visalia

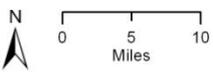
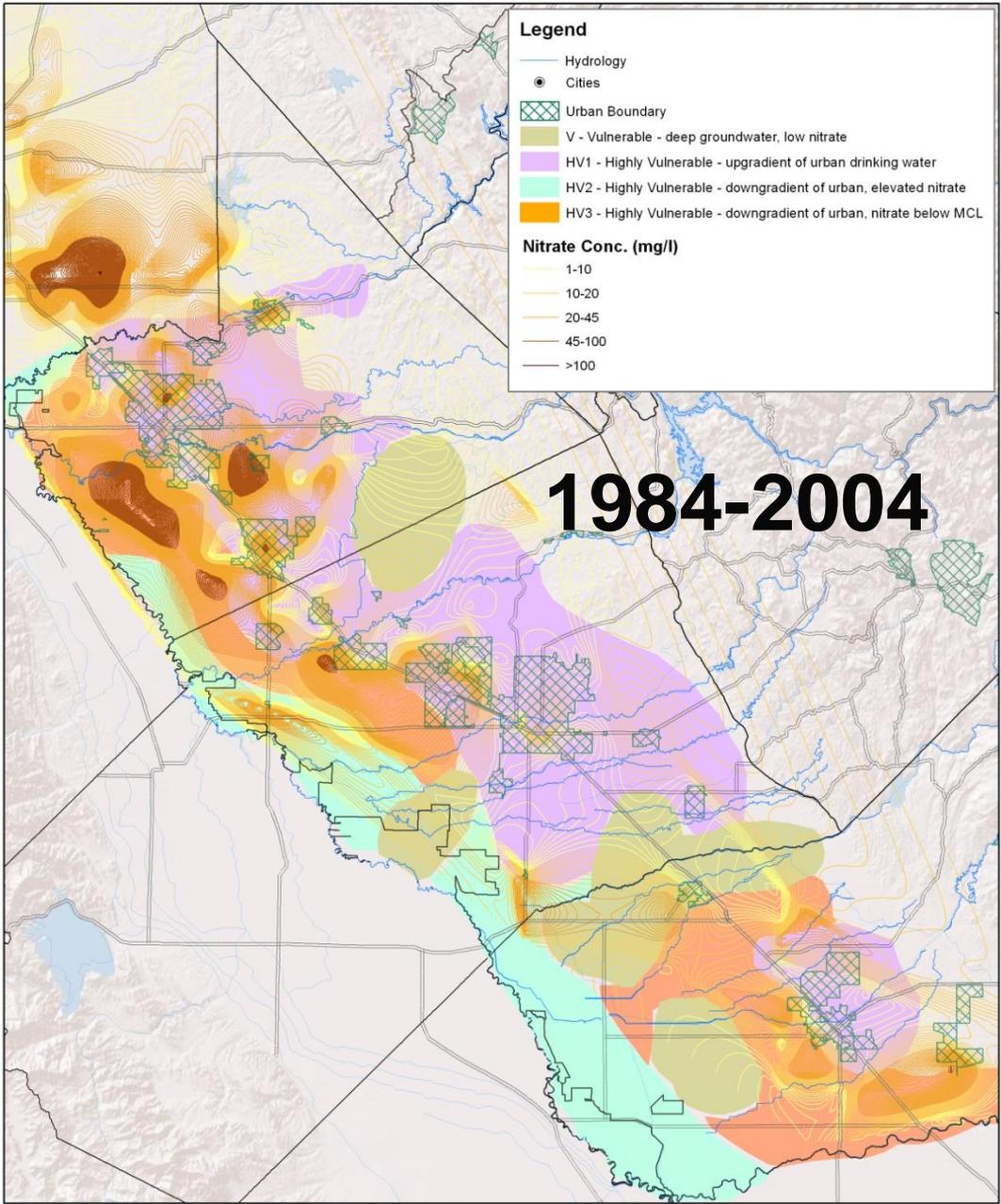


ESJWQC Depth To Groundwater

Date Prepared: 11/23/11

ESJWQC

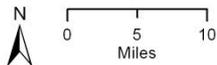
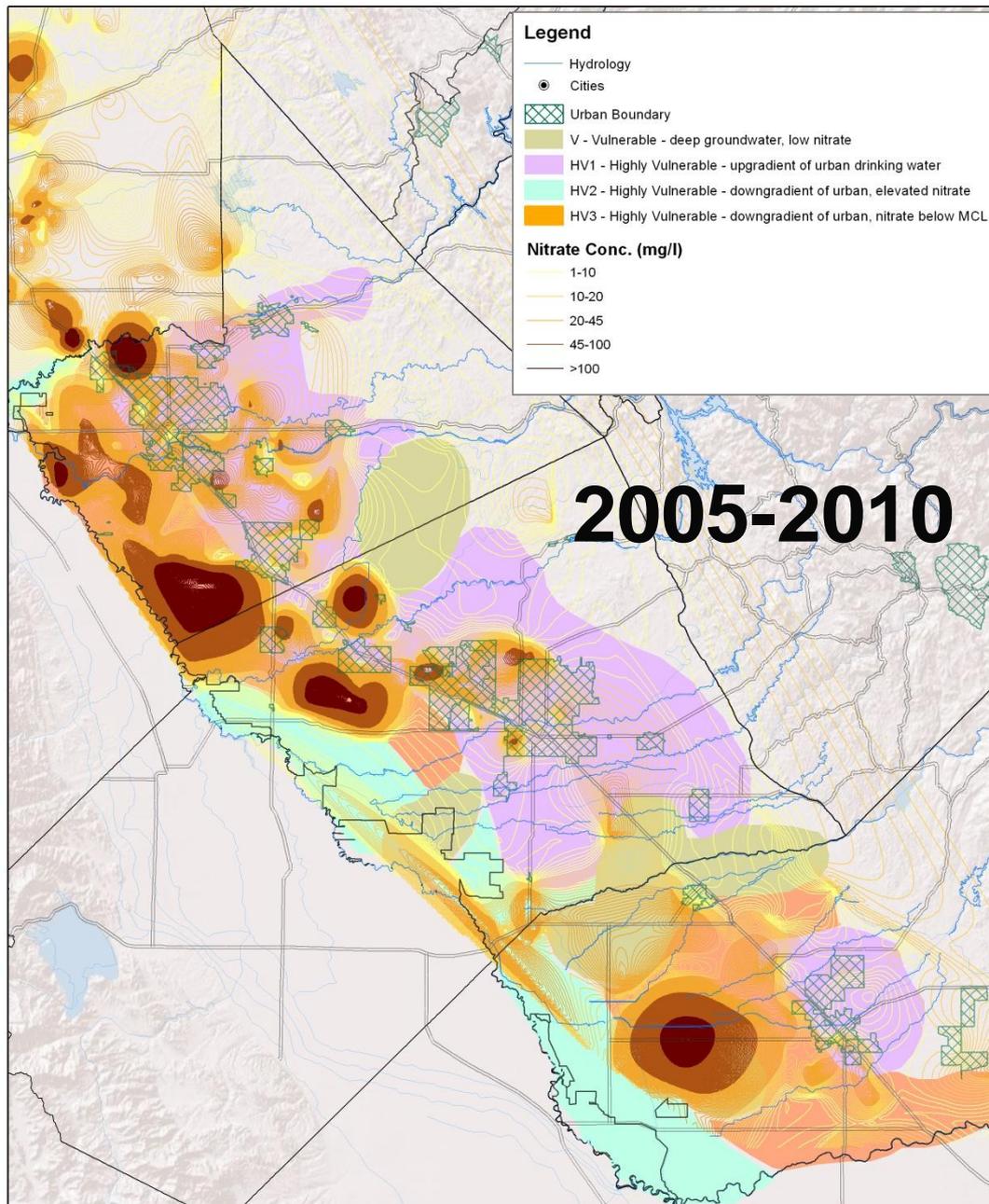




ESJWQC Vulnerable Regions & Well NO3 Conc. 1984-2004

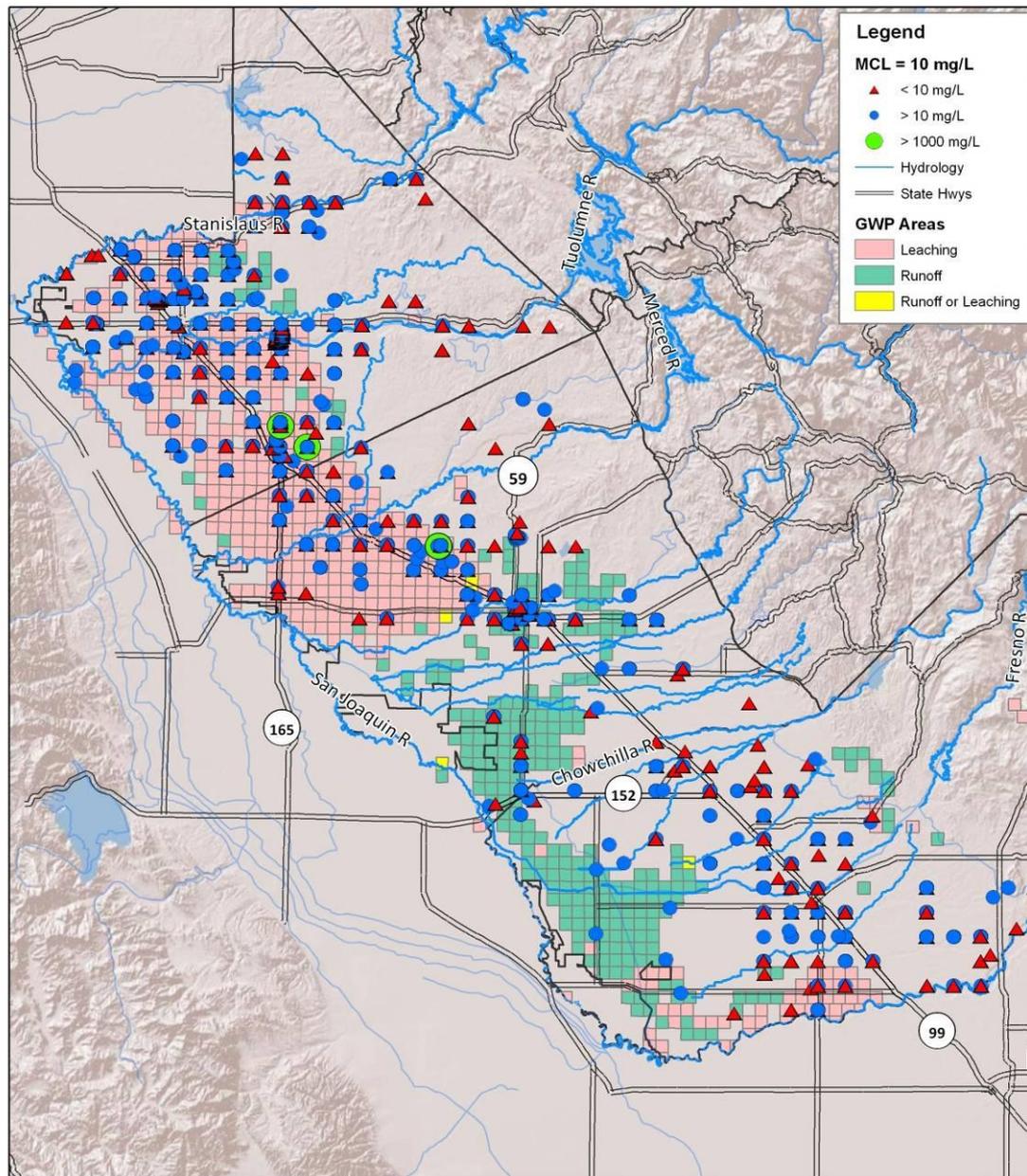
Date Prepared: 01/21/12
ESJWQC

ESJWQC_GW_well map 2012



**ESJWQC Vulnerable Regions &
Well NO₃ Conc. 2005-2010**

Date Prepared: 01/21/12
ESJWQC



Date Prepared: 11/22/11

ESJWQC

Well Concentration for Nitrate
Drinking Water Quality Standard (MCL) = 10 mg/L

Waste Discharge Requirements

Irrigated Lands Regulatory Program

ESJWQC Approach

- *Classification of vulnerable areas*
- *Well head protection program*
- *Nitrogen management plans*

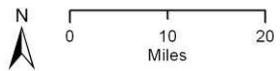
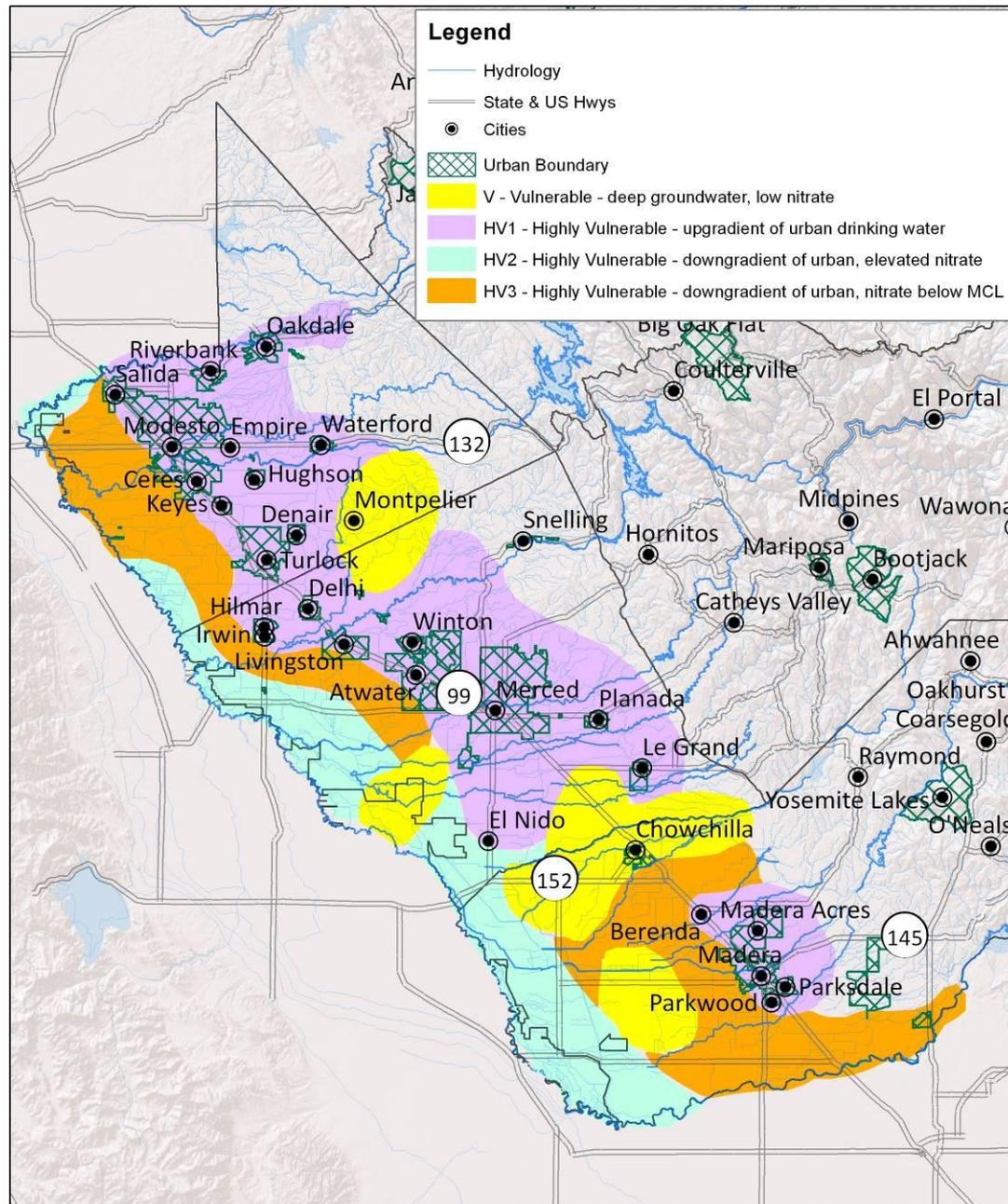


Waste Discharge Requirements

Irrigated Lands Regulatory Program

Assessment Report (due January 2014)

- Rank land vulnerability based on Assessment Report
 - **High Vulnerability**
 - Areas ID'd using DPR pesticide groundwater protection areas, State Water Board vulnerable areas*
 - 2014: Farm assessment requirement starts
 - 2014: Nitrogen budget requirement starts
 - 2014 Well head protection
 - **Low Vulnerability**
 - Keep farm assessment/nitrogen budgets on farm



ESJWQC Vulnerable Regions

Date Prepared: 11/07/11
ESJWQC

Wellhead Protection BMPs

- Wellhead house keeping
 - Prevent ponding for extended periods
 - Waste can enter if wellhead/casing is cracked or improperly sealed
 - Grade away from wellhead to prevent storm runoff ponding
- Open discharge well
 - Air gap between well discharge and receiving device
- Pressurized systems: Back flow preventers
 - In case of power failures and/or pump malfunction
 - Back siphoning can directly contaminate groundwater
- Abandoned wells
 - Develop plan to manage



Nitrogen Management Plan Components

- Apply N at crop removal rates
 - Dairies regulated to 140% of crop use (N applications)
- Test well water for nitrogen levels (then adjust N applications accordingly)
- Leaf / tissue testing
- Soil testing

- Irrigation management



Member ID# 1234APN: 111-00-222Owner/mgr Parry KlassenField # A, B, C

CROP NITROGEN DEMAND Crop Nitrogen Needs / Uptake	NITROGEN SUPPLY Credits and Applications	
Crop <u>Almonds</u> Expected yield (Lbs of production/ acre) <u>3000 lbs / ac</u> Nitrogen Crop Needs to meet expected yield (lbs of Nitrogen per acre) <u>250</u>	Nutrients: Total N applied to field Nitrogen fertilizers (conventional and organic) Spring 100 Summer 75 Fall 100 Foliar fertilizers 5 Other fertilizers 0 Manure 0 Compost 0 Bacterial extracts/Compost teas 0 Other nutritional products 0 TOTAL N APPLIED 280 Soil Nitrogen Credits Soil N ppm ³ Lbs N/acre Nitrogen from previous legume crop 0 Residual from long-term manure applications 5 Soil organic matter mineralization 5 Current soil test levels ⁴ 5 Irrigation water nitrogen credits (annualized) 50 TOTAL N CREDITS 65	
<div style="text-align: right;"> Total N Credits and Applications: 345 Crop N needs: 250 Balance 95 Ratio 1.380 </div>		

Waste Discharge Requirements

Irrigated Lands Regulatory Program

Representative Monitoring

Confirm that management practices implemented to improve groundwater quality are working

- Are agricultural management practices protective of groundwater in high vulnerability areas
- Assess effectiveness of any newly implemented management practices.

Coalition to rank/prioritize high vulnerability areas and commodities and present phased approach

Coordinated effort by coalitions/commodity groups to complete

Waste Discharge Requirements

Irrigated Lands Regulatory Program

Regional Water Board process

➤ Next steps

- Public review of draft WDR
 - Comment deadline July 31, 2012
- October 4, 2012 Regional Water Board ILRP meeting
 - Approve or delay?
- After passage, ESJ has 30 days to apply to be Third Party
- 120 day “holiday” to join coalition directly
 - Holiday ends February 1, 2013 (approximate)



Parry Klassen

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www.esjcoalition.org

