

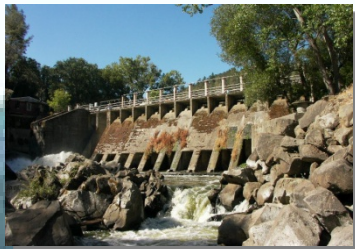
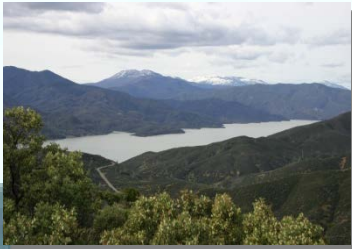
Groundwater Sustainability Planning in an Agro-Urban Basin

California Water Policy
Seminar Series

February 2, 2014

Tim O'Halloran
www.ycfcwcd.org



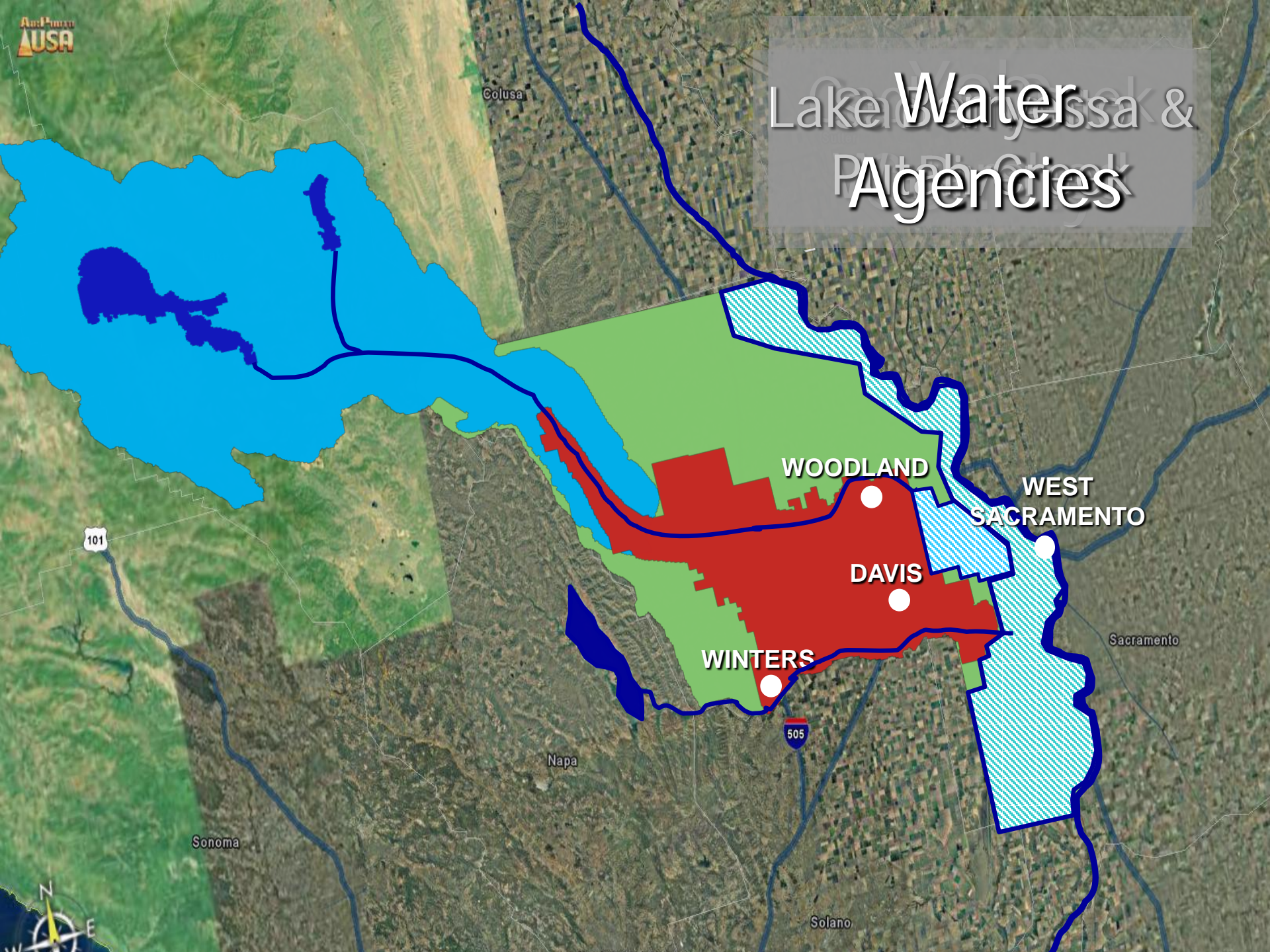


- *Surface Water in Yolo County and the Agencies that Manage it*
- *Integrated Regional Water Management: Planning for the Future*
- *The New Groundwater Legislation and "The Year of Groundwater"*



- *How Sustainable is Yolo County's Groundwater?*
- *Can't I Just Drill a Deeper Well than My Neighbor?*
- *I Was Here First – Why are We Allowing New Wells?*

Water Agency Lakers, Colusa & Pittsburg Creek Agencies



101

Colusa

WOODLAND

WEST
SACRAMENTO

DAVIS

WINTERS

Sacramento

Napa

505

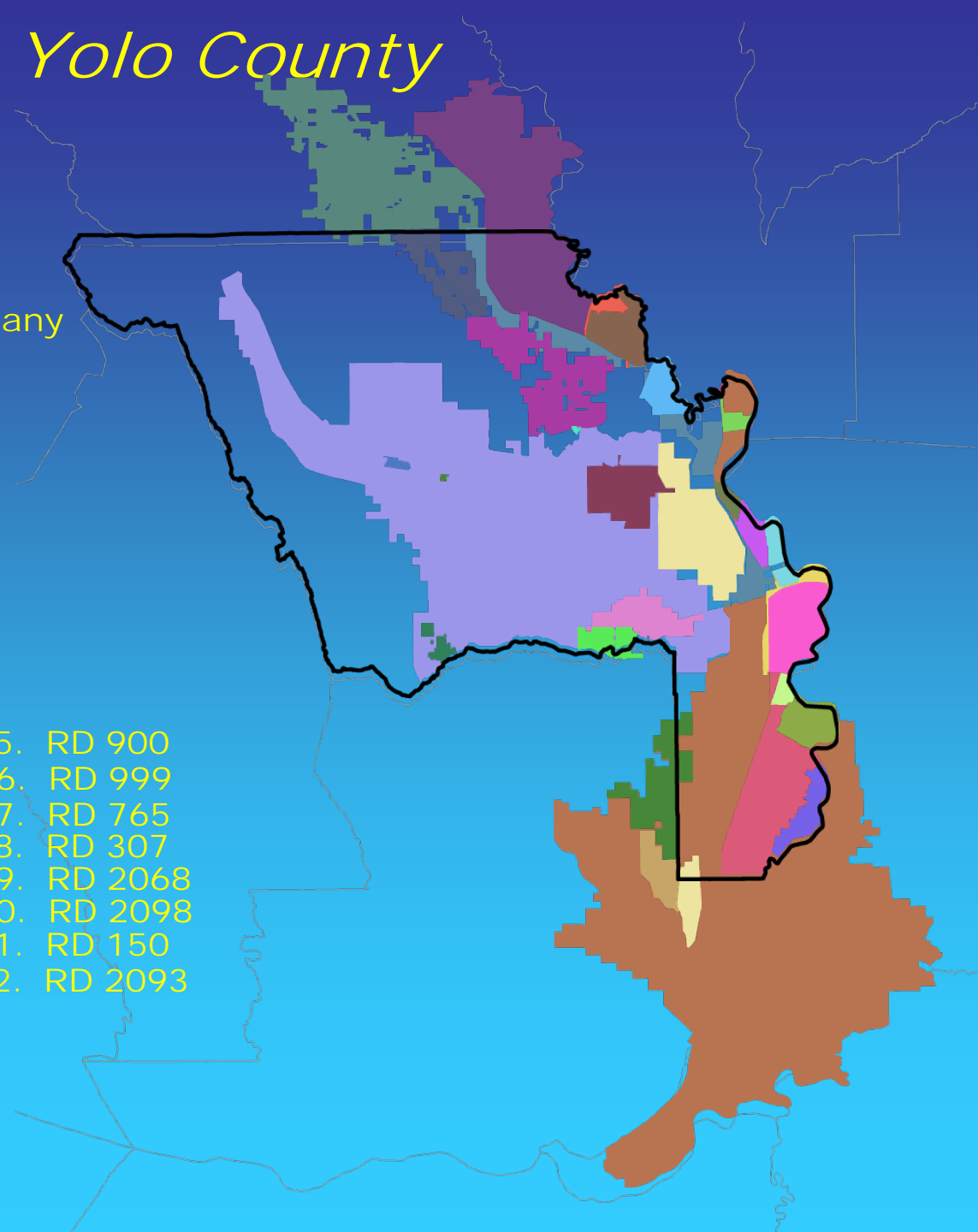
Sonoma

Solano



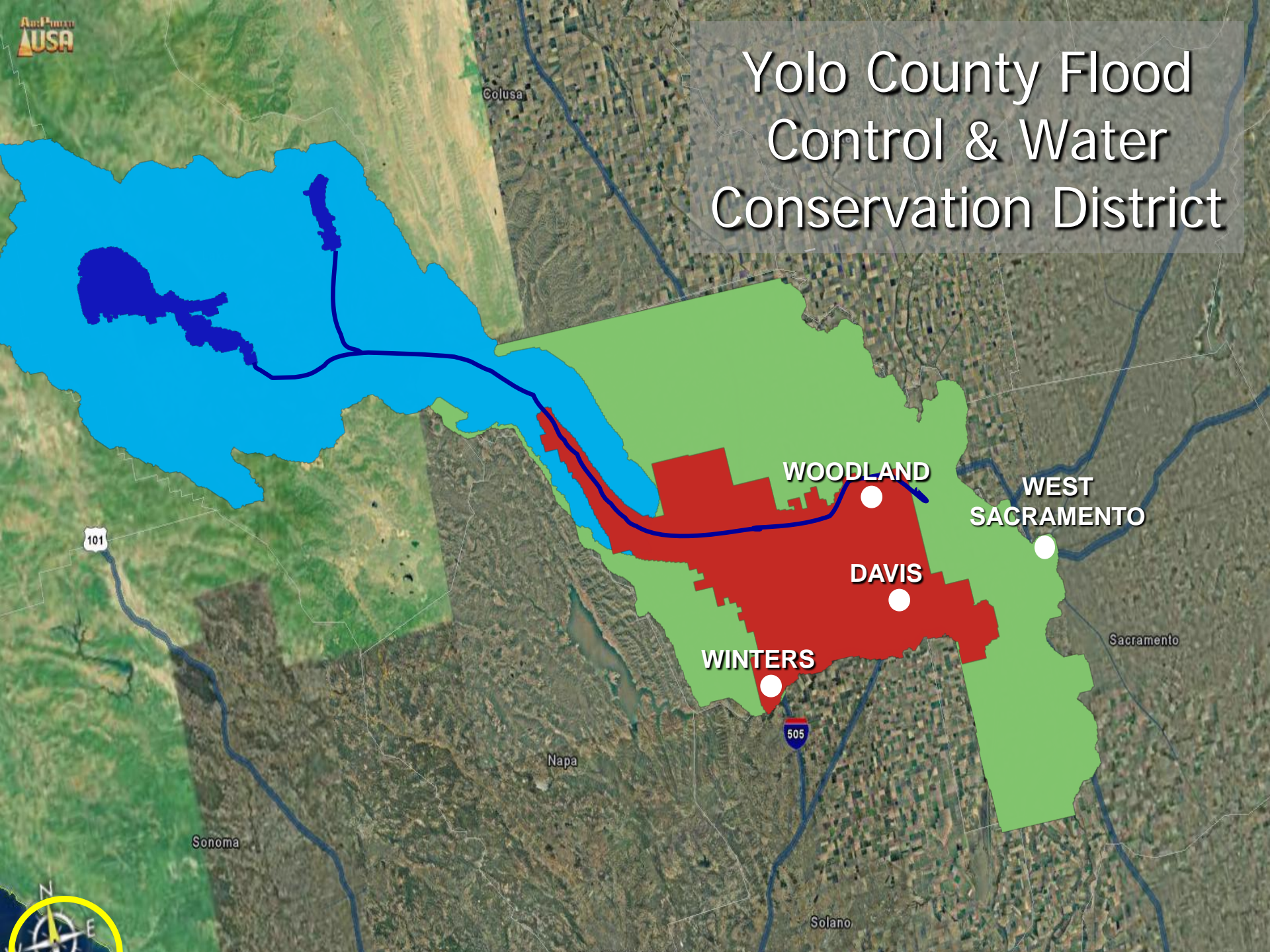
Water Agencies in Yolo County

1. YCFC&WCD
2. Colusa County Water District
3. RD 108
4. Dunnigan Water District
5. Colusa Drain Mutual Water Company
6. RD 787
7. River Garden Farms
8. Yolo-Zamora Water District
9. Knights Landing CSD
10. RD 730
11. Cacheville CSD
12. RD 1600
13. Deseret Farms
14. Esparto CSD
15. Madison CSD
16. City of Woodland
17. RD 2035
18. RD 827
19. RD 537
20. City of West Sacramento
21. City of Winters
22. City of Davis
23. UC Davis
24. North Delta Water Agency
25. RD 900
26. RD 999
27. RD 765
28. RD 307
29. RD 2068
30. RD 2098
31. RD 150
32. RD 2093





Yolo County Flood Control & Water Conservation District



Colusa

WOODLAND

WEST SACRAMENTO

DAVIS

WINTERS

Sacramento

Napa

Sonoma

Solano

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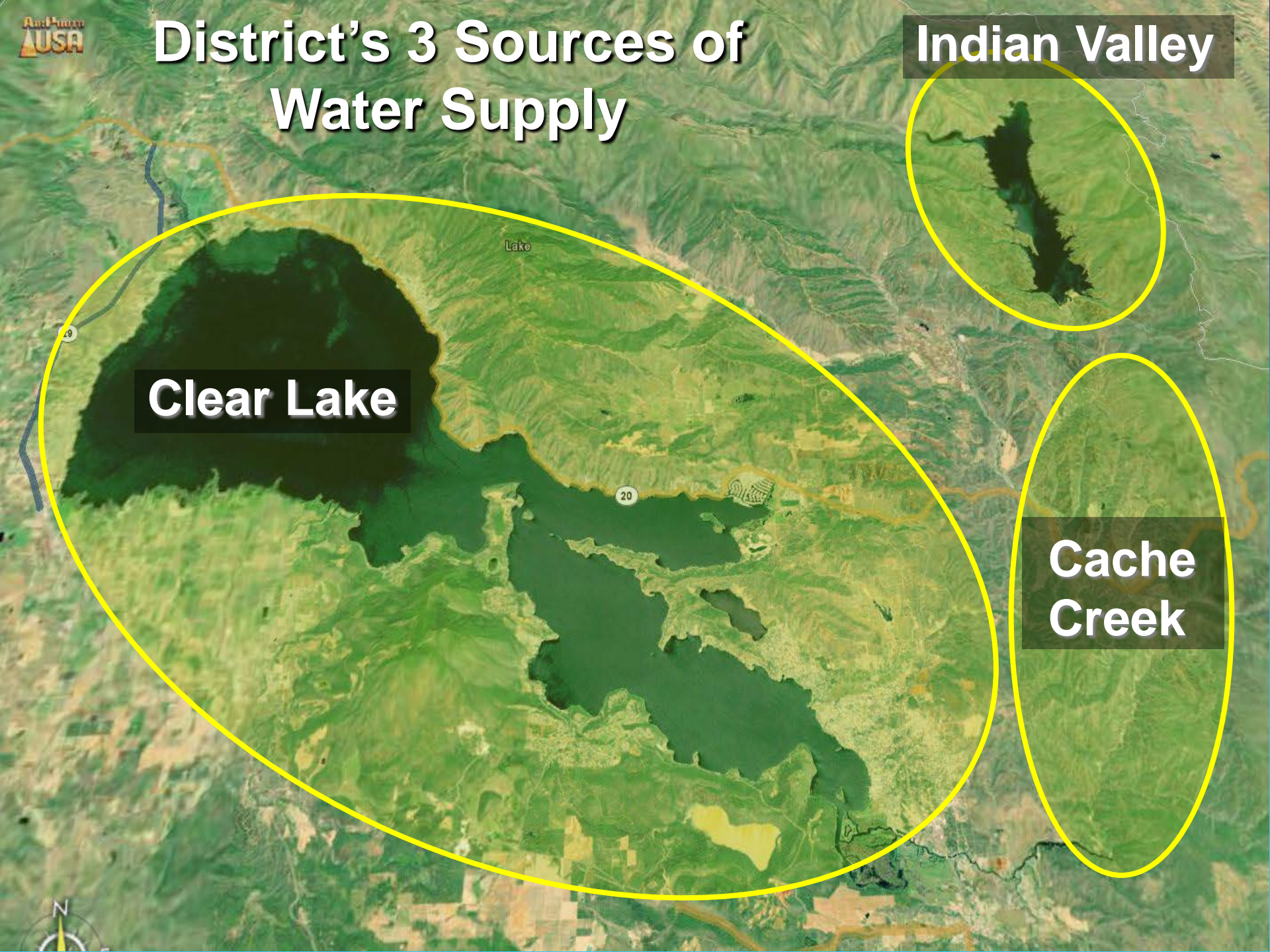


District's 3 Sources of Water Supply

Indian Valley

Clear Lake

Cache Creek

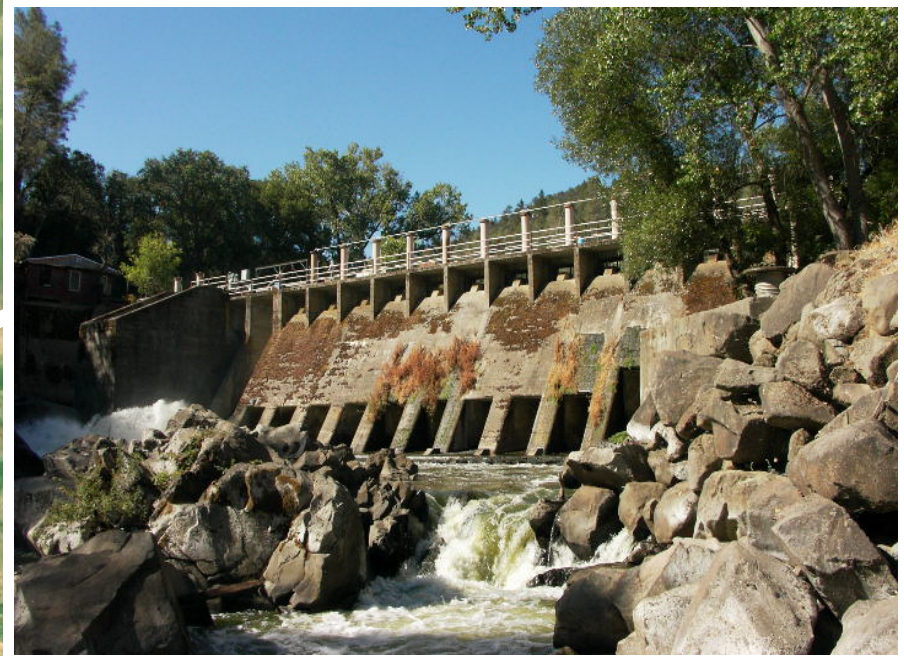


Clear Lake

Lake

29

20



CACHE CREEK DAM



Indian Valley Reservoir



HYDROELECTRIC



INFLATABLE DAM



FLOOD FLOWS





WINTERS

CAPAY

DAVIS

WOODLAND

80

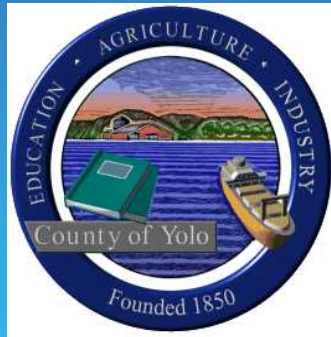
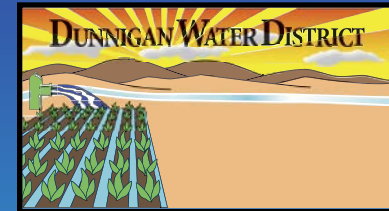
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Roads © 2004 GDT, Inc.
Maps © 2004 USGS

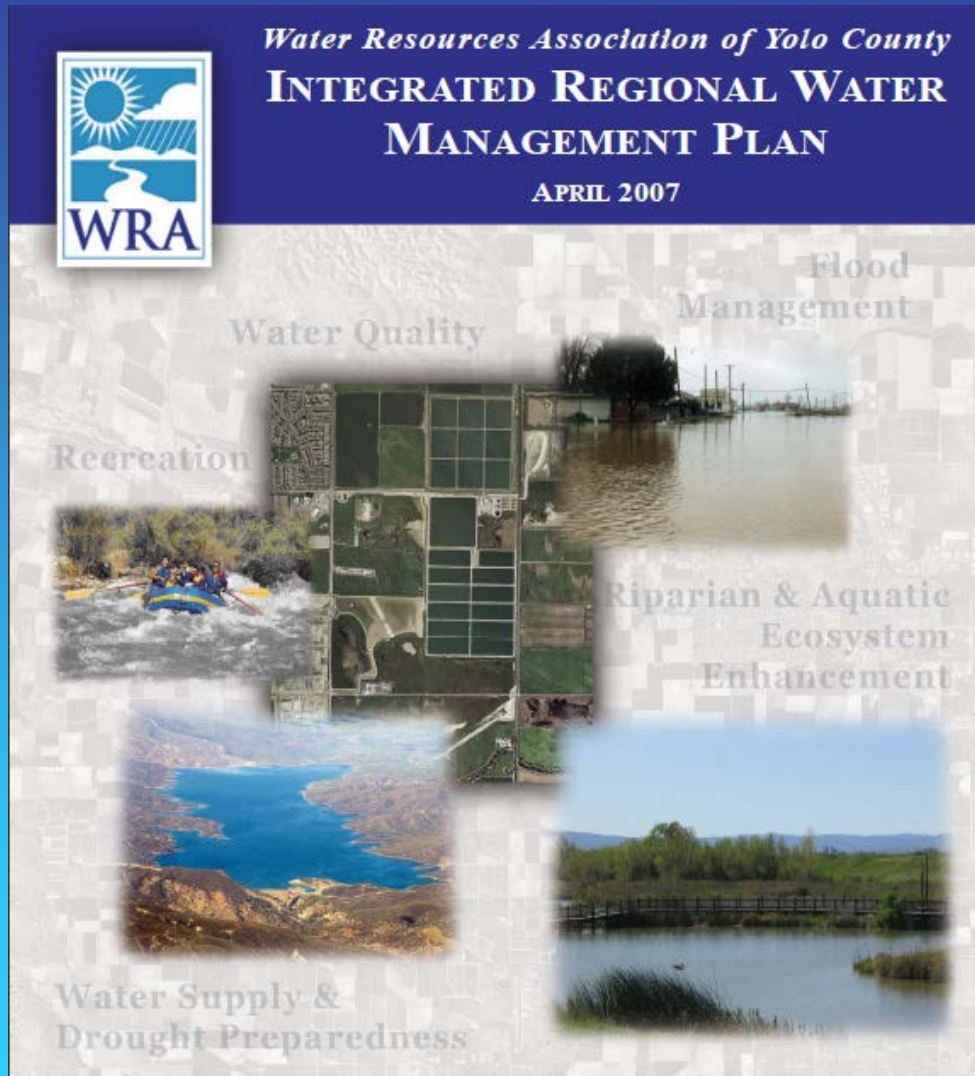
© 2004 keyhole.com



Water Resources Association and the Integrated Regional Water Management Plan



Integrated Regional Water Management Plan



- ✓ **Water Supply & Drought Preparedness**
- ✓ **Water Quality**
- ✓ **Storm Drainage and Flood Control**
- ✓ **Aquatic Ecosystem Enhancement**
- ✓ **Recreation**

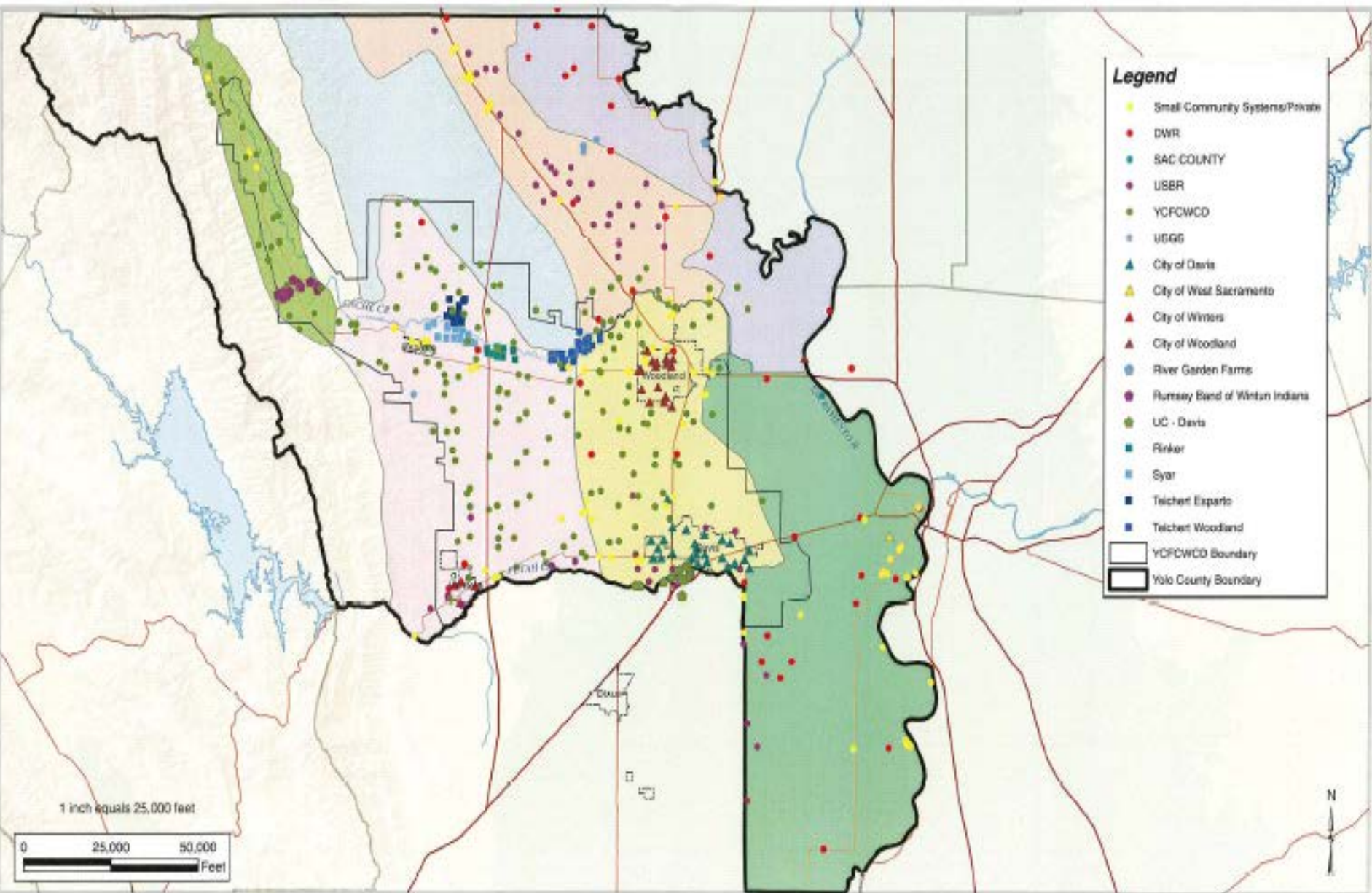


IRWMP Foundational Actions

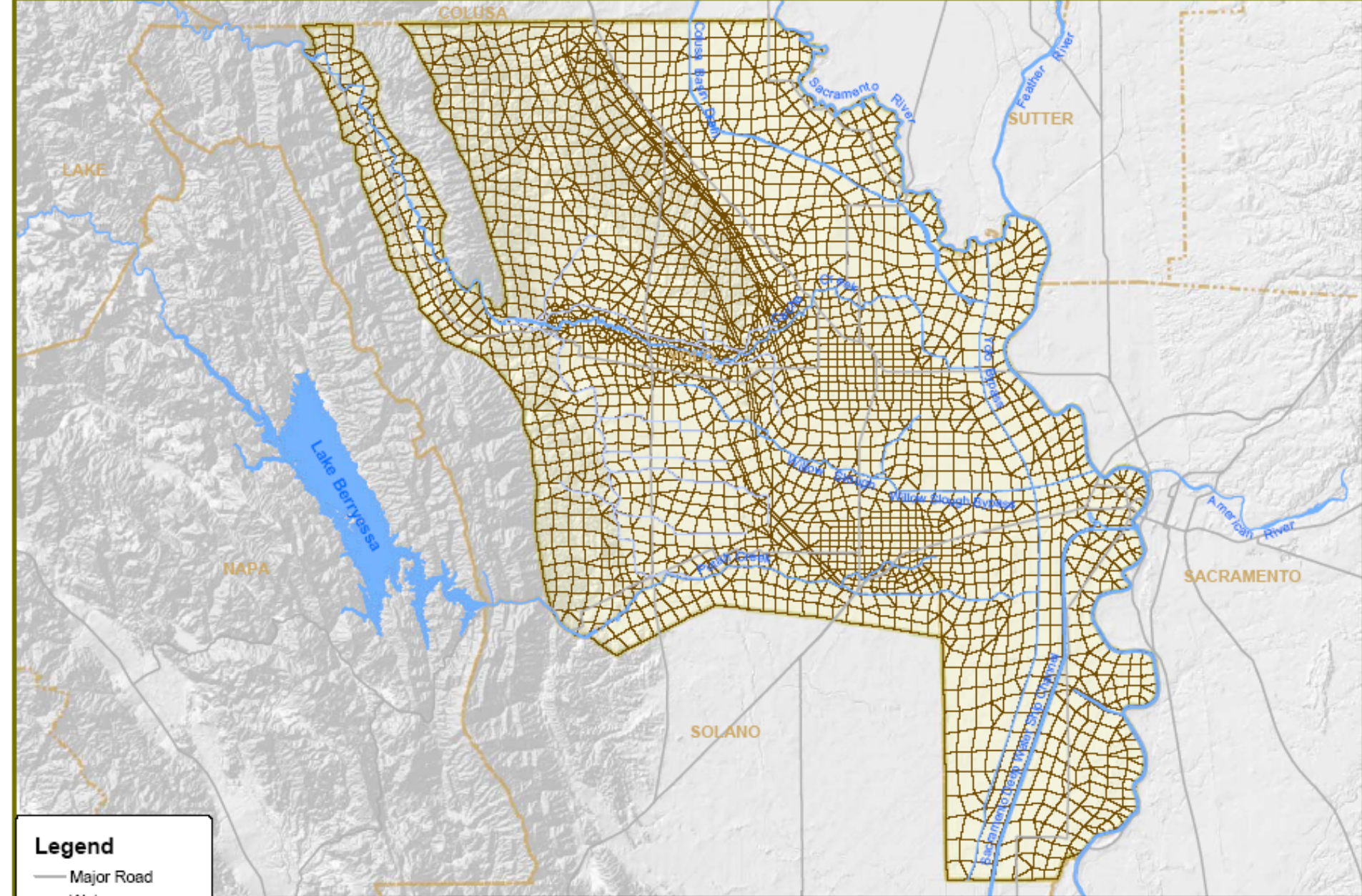
Integrated Regional Water Management Plan

- **Groundwater Monitoring**
- **Surface Water Monitoring**
- **Subsidence Monitoring**
- **Groundwater Modeling**
- **WEAP Climate Change Model**
- **Environmental and Aquatic Habitat**
- **Topographic Mapping (LiDAR)**

- **Water Resource Information Database**
- **SCADA Network Enhancement**



Yolo County Groundwater Monitoring Program



Legend

- Major Road
- Watercourse
- Canal
- Model Grid
- - - County Boundary
- Model Area

N

0 1 2 4 Miles



YOLO COUNTY
INTEGRATED GROUNDWATER AND SURFACE WATER MODEL (YCIGSM)

YCIGSM Grid

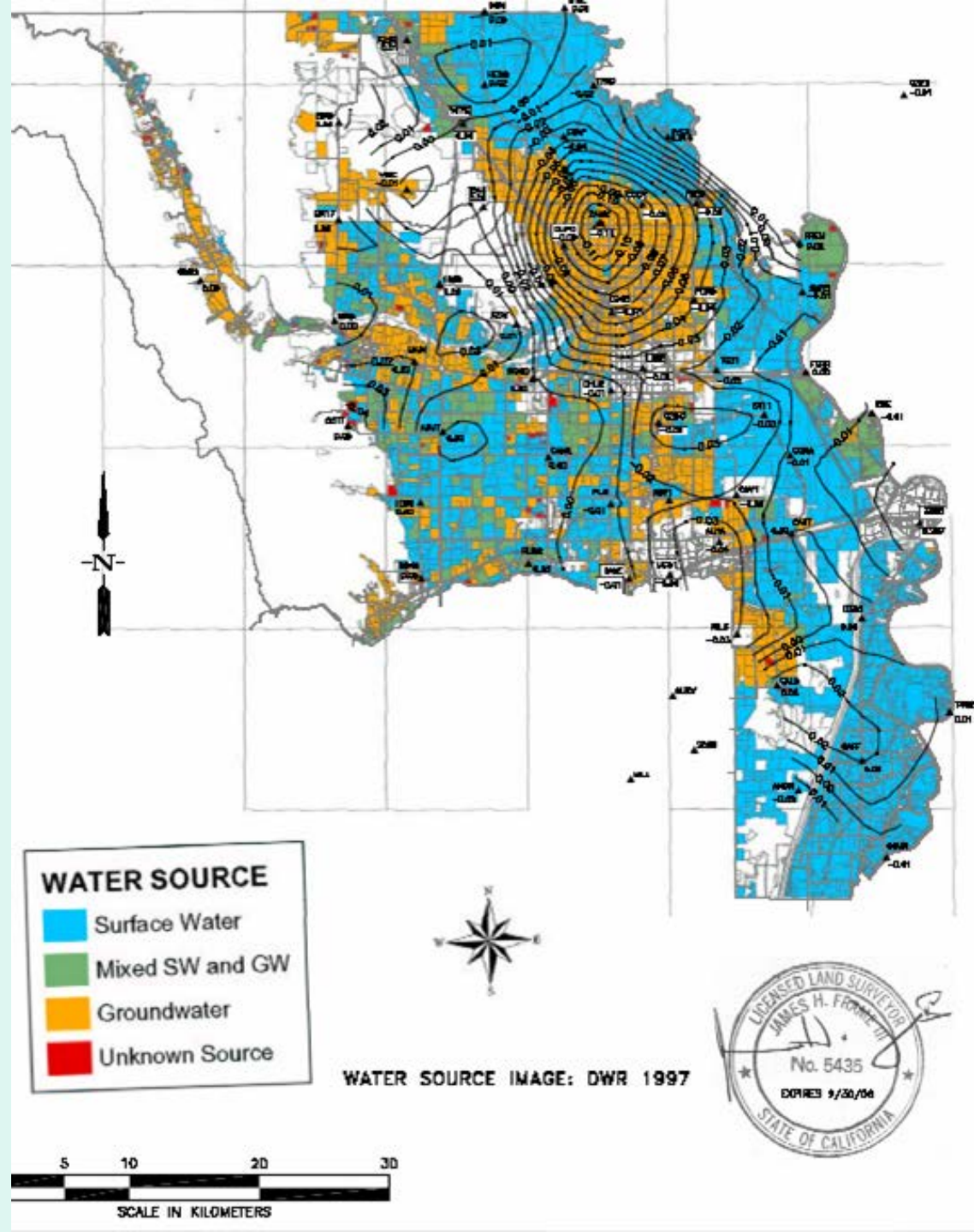
APRIL 2006

FIGURE 3.1

Contour Map of Subsidence

+

Patterns of Surface and Groundwater Use.





Yolo County Water Resources Information Database

[register](#) : [lost password](#) : [plugin](#) : [downloads](#)

authorized user login

username

password

[submit](#)



user options

- [Register New Account](#)
- [Lost Password Recovery](#)
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New Groundwater Legislation
and
“The Year of Groundwater”

Groundwater Legislation

“Sustainable Groundwater Management Act” (SGMA)

Passed by California Legislature August 29, 2014 and to become effective January 1, 2015.

The stated intent of the SGMA includes “To provide local groundwater agencies with the authority and technical and financial assistance necessary to sustainably manage groundwater”

Generally, “sustainability” means bringing the basin into balance by eliminating overdraft.

Groundwater Legislation Requirements

- ✓ High and medium priority basins are required to comply with *SGMA*.
- ✓ Groundwater basins areas and priorities are defined by Department of Water Resources. A process to amend basin boundaries to be developed by DWR
- ✓ Groundwater Sustainability Agencies (*GSA*'s) are to be formed by a local agency or a combination of local agencies.
- ✓ *GSA* required to develop a Groundwater Sustainability Plan (*GSP*)

Groundwater Legislation Timelines and State Intervention

- ✓ June 1, 2016 -- DWR to develop regulations for evaluating Groundwater Sustainability Plans.
- ✓ January 1, 2017 -- DWR to prepare “best management practices” guidelines.
- ✓ July 1, 2017 -- Groundwater Sustainability Agencies (GSAs) are to be formed by a local agency or a combination of local agencies.
- ✓ January 31, 2020 -- Designated GSA required to develop a Groundwater Sustainability Plan (GSP).

Yolo County Groundwater Status and Implementation Plan

- ✓ 4 Sub-basins in Yolo County
- ✓ 1 “high” priority, 2 “medium” priority and 1 “low” priority
- ✓ Extensive groundwater monitoring program in place
- ✓ Water Resource Association already established as the CASGEM groundwater monitoring entity
- ✓ Groundwater conditions generally in sustainable condition

The Year of Groundwater!

**A Collaborative Effort
Co-sponsored by the;**

**Water Resources Association of
Yolo County
and the
Yolo County Farm Bureau**

Year of Groundwater

- Previous work that put us in a strong position
 - Creation of a regional multi-agency groundwater level monitoring network including real-time sensors
 - Establishment and maintenance of the Water Resources Information Database (WRID)
 - County-wide groundwater model (IGSM)
 - Creation of a subsidence monitoring network
 - Development of AB 3030 groundwater management plans
 - Engagement at State, Regional and Local levels to advance pro-active groundwater management activities

*Who should the
Groundwater Sustainability
Agency (GSA) be?*



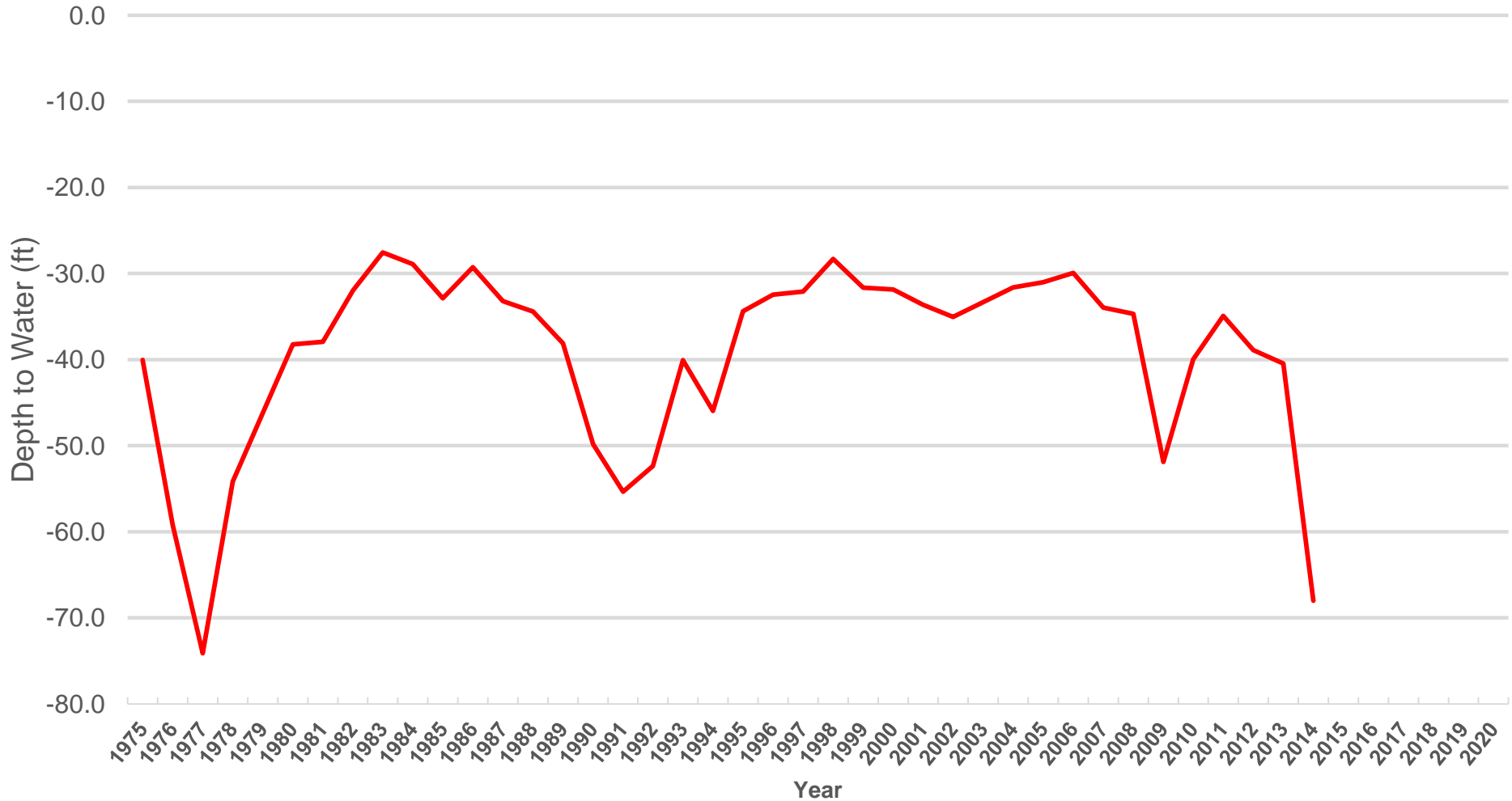
Is Yolo County's Groundwater
Sustainable?

Has it been?

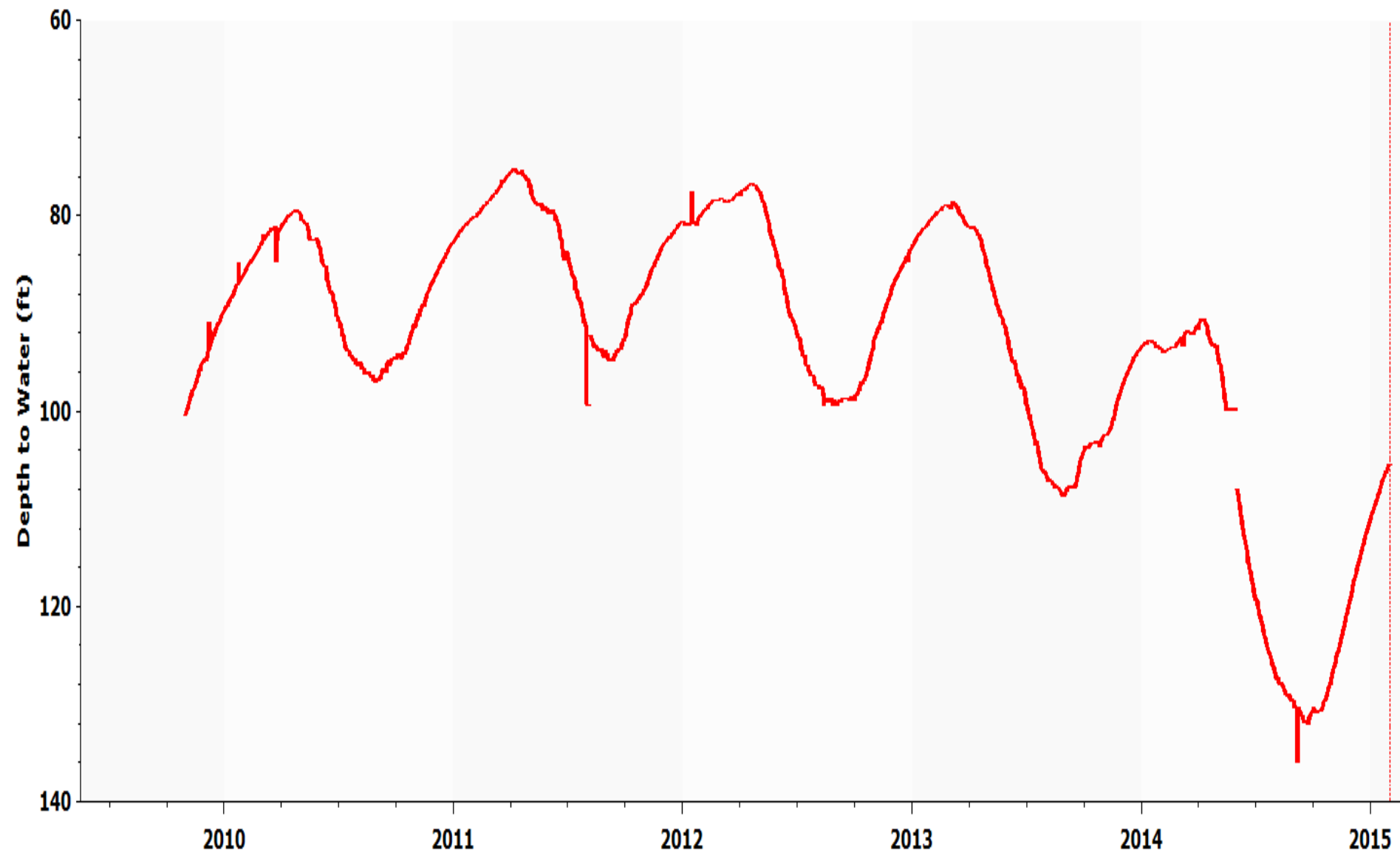
Will it continue to be?

Average Depth to Groundwater in Yolo County (ft)

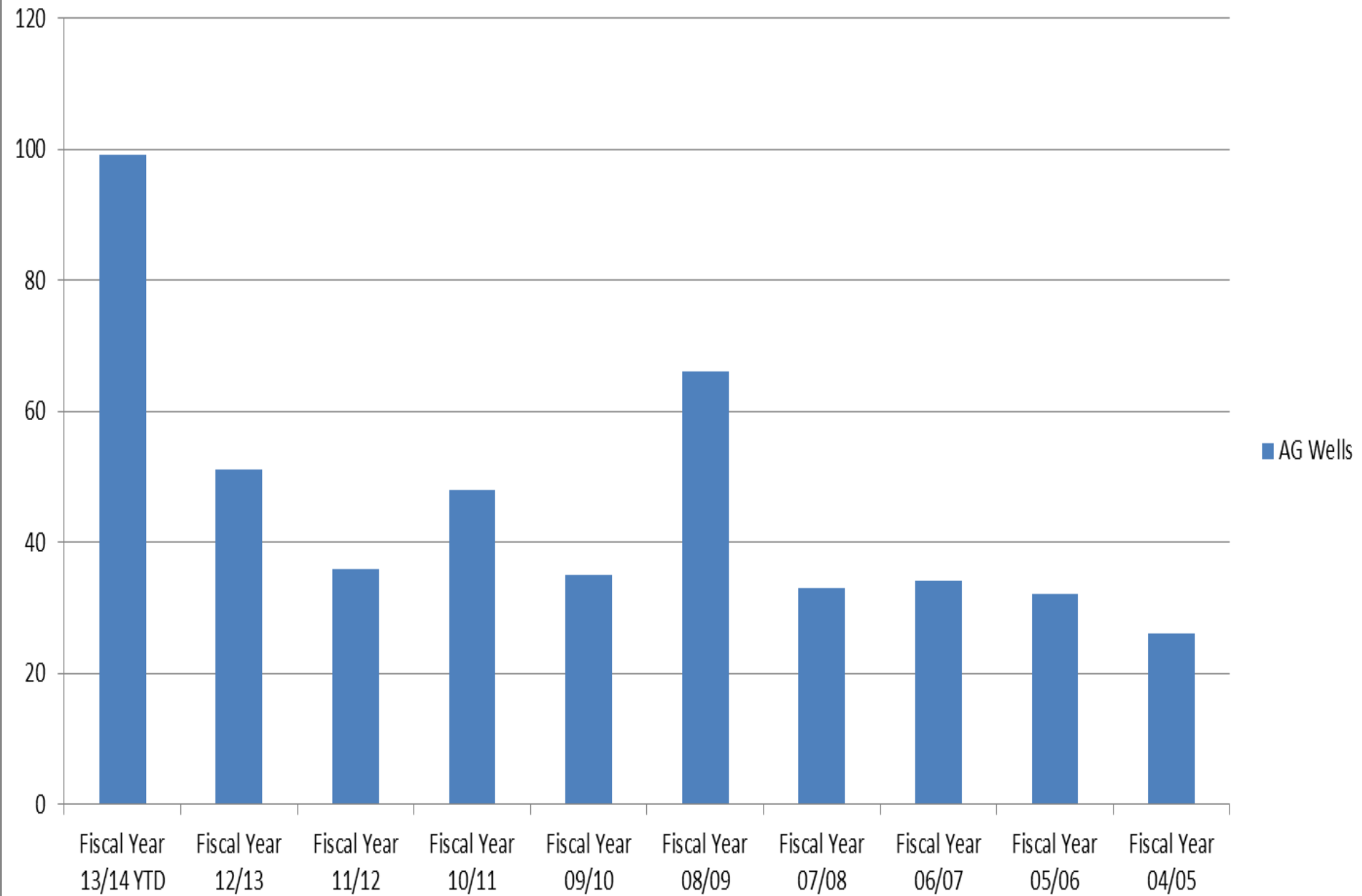
(average of annual maximum depth to water by well)



HQ Well Depth to Water



AG Wells



If the Yolo Region's Groundwater
Usage is Sustainable then.....

*It probably doesn't matter who the
GSA is*

If the Yolo Region's Groundwater Usage is **NOT** Sustainable then.....

It matters a lot!

What Responsibilities will the GSA have?

What Authorities will the GSA have?

What Authorities will the GSA have?

1. To determine the need for groundwater management
2. To prepare and adopt a groundwater sustainability plan and implementing rules and regulations
3. To propose and update fees
4. To monitor compliance and enforcement
5. (See Legislation Chapter 5)

Proposal:

The WRA, in coordination with the Yolo County Farm Bureau and other interested parties, will act as the *planning forum* for determining what agency or agencies will serve as the Groundwater Sustainability Agency (GSA).



Significant Past Water Decisions



- ✓ Non-participation in Solano Project (1950's)
- ✓ Flood Control on Cache Creek (1958)
- ✓ Purchase of Clear Lake Water Company (1967)
- ✓ Construction of Indian Valley Reservoir (1976)

Thank You

Contact Information:

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(530) 662-0265

Groundwater Information Center:

<http://www.water.ca.gov/groundwater>