CALIFORNIA DEPARTMENT OF WATER RESOURCES

CWC SGMA Update

5/20/2026

Presentation Outline

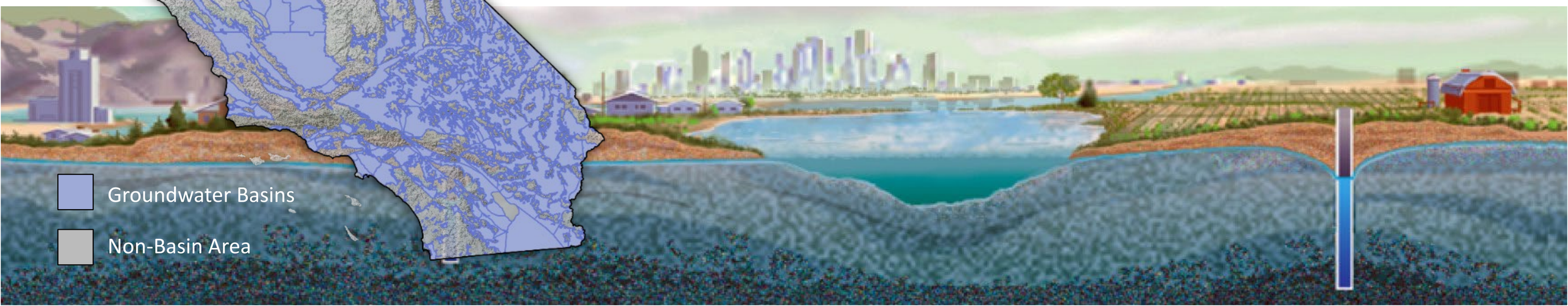
1. California's Groundwater: Bulletin 118
   - Update 2025
   - Spring Semi-Annual Groundwater Update
2. Water Trading
3. Subsidence BMP

CALIFORNIA DEPARTMENT OF WATER RESOURCES

California's Groundwater - Bulletin 118

Overview of Update 2025 and Semi-Annual GW Report

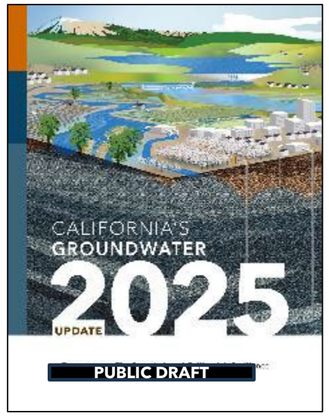
CA Water Commission
May 20, 2026



California's Groundwater: Channels of Information

California's Groundwater Information Available @ https://water.ca.gov/calgw

1



California's Groundwater (B-118) Comprehensive Updates

in years ending in 5

2

California's Groundwater (B-118) Semi-Annual Updates

Expanding in Spring, Conditions in Fall

3

California's Groundwater Live

Expanding content

Level of Detail & Analysis

Now 10 years (next one – 2035)

6 months

daily

Update Frequency

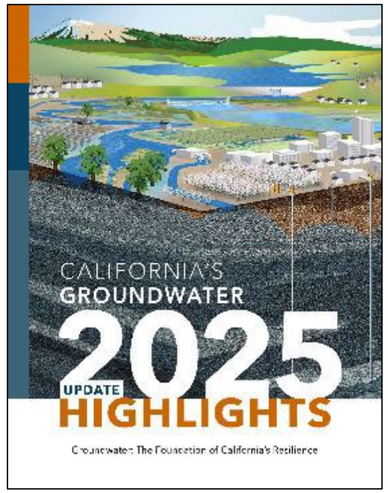
What are CalGW Updates?

- Official State Publication on California's Groundwater
- Comprehensive Resource
- SGMA Connection
- Support Groundwater Management & Policy
- Support Climate & Water Initiatives
  - ➢CA Water Plan
- Improve Access & Timeliness of Data

CalGW 2025 – Highlights & Statewide Report

Highlights *(English & Spanish)*

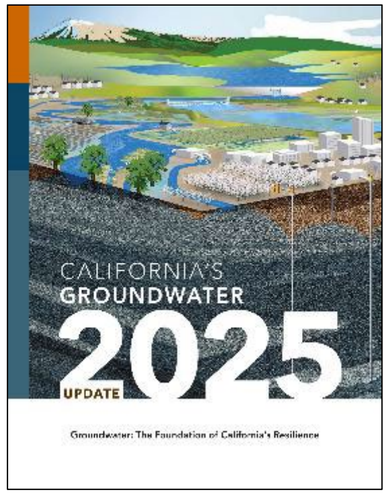
- Summary of Statewide Report
- Key Findings & Recommendations



2025 Statewide Report *(English)*

1. Context & Vision for Sustainable Groundwater Management
2. Progress towards Sustainable Groundwater Management
3. California's Natural & Built Groundwater Infrastructure
4. Water Use, Extraction & Budget
5. Groundwater Monitoring
6. Groundwater Conditions
7. Regional Groundwater at a Glance (10 HRs)

Appendix – Land Subsidence in California



Semi-Annual Groundwater Conditions Update

Spring 2026

- Presents latest groundwater information as of April, 2026, focus on WY25

- Spring 2026 report includes information on:
  - SGMA Implementation – Projects Management Actions
  - Groundwater Levels, Extraction & Change in Storage
  - Managed Recharge
  - Subsidence
  - Well Infrastructure – New Domestic and Ag Wells & Dry Wells
  - Summary of Groundwater Monitoring Efforts

- Next GW conditions report will be Fall 2026

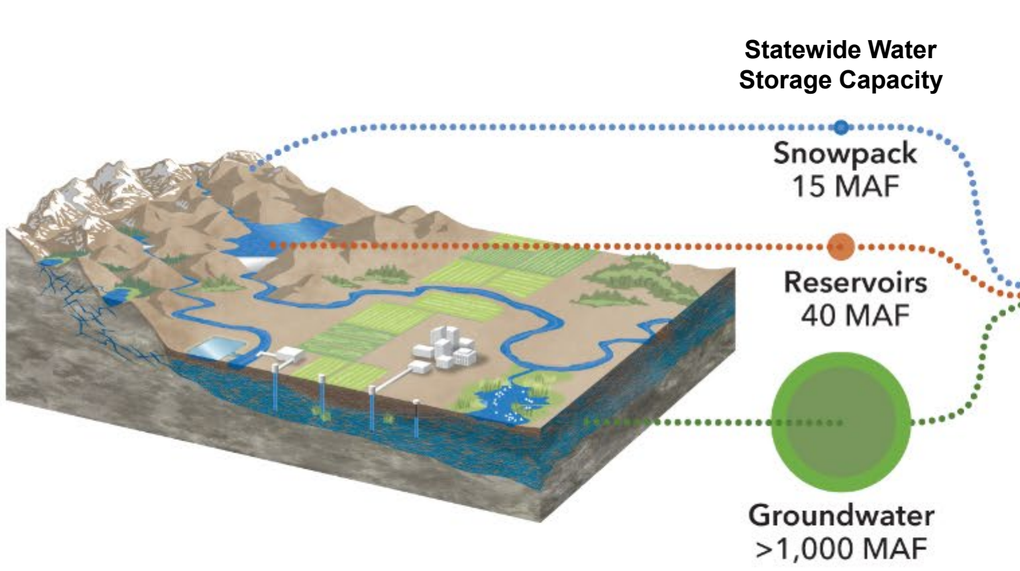
Available on DWR's California's Groundwater Webpage
https://water.ca.gov/calgw

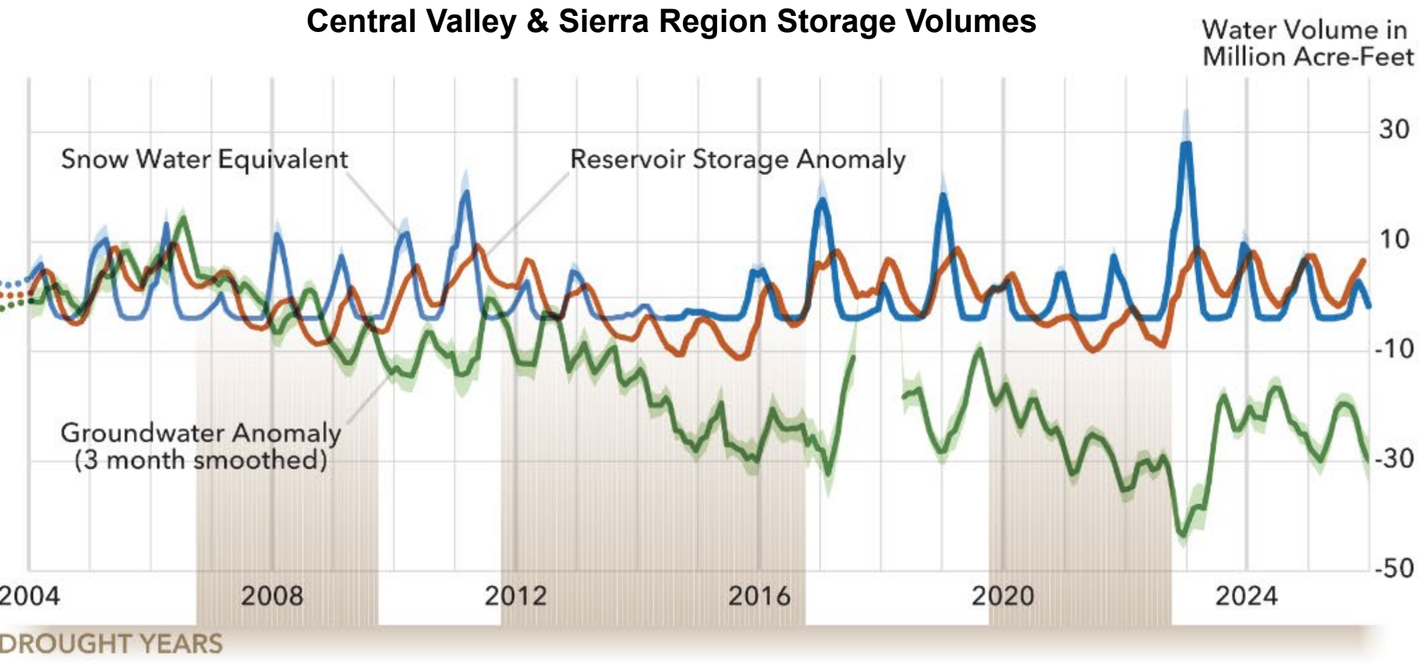
Semi-Annual Groundwater Conditions Update

Highlights

- Following two wetter years that improved water conditions, Water Year 2025 was drier with uneven storms and strong regional differences across California

- Despite recent wet years, many groundwater basins remain depleted, reinforcing the need for continued groundwater sustainability through implementing 1,900+ projects and management actions in over 100 Groundwater Plans





Semi-Annual Groundwater Conditions Update

Highlights

➢ **Statewide Groundwater: Positive Near-Term Groundwater Trends, Long-term Deficits Persist**

GW Pumping

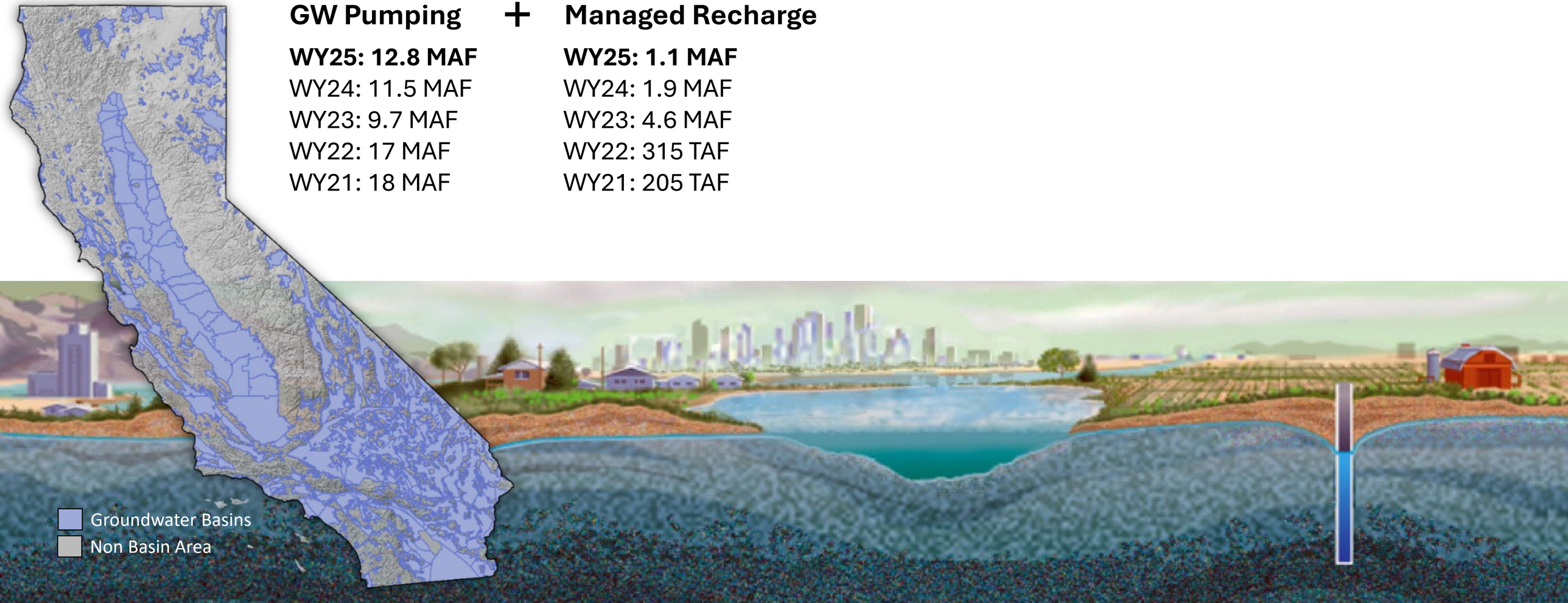
WY25: 12.8 MAF
WY24: 11.5 MAF
WY23: 9.7 MAF
WY22: 17 MAF
WY21: 18 MAF

Semi-Annual Groundwater Conditions Update

Highlights

➢ **Statewide Groundwater: Positive Near-Term Groundwater Trends, Long-term Deficits Persist**

GW Pumping		Managed Recharge
WY25: 12.8 MAF		**WY25: 1.1 MAF**
WY24: 11.5 MAF		WY24: 1.9 MAF
WY23: 9.7 MAF		WY23: 4.6 MAF
WY22: 17 MAF		WY22: 315 TAF
WY21: 18 MAF		WY21: 205 TAF

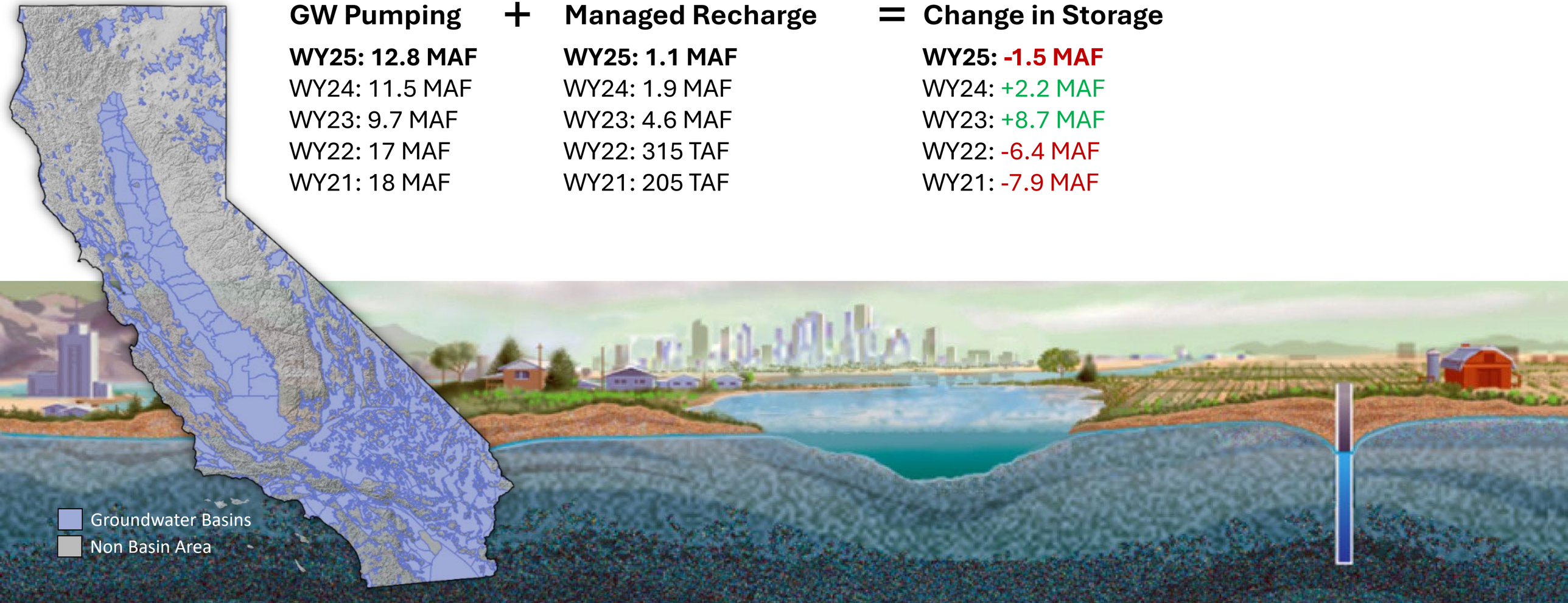


Semi-Annual Groundwater Conditions Update

Highlights

➢ **Statewide Groundwater: Positive Near-Term Groundwater Trends, Long-term Deficits Persist**

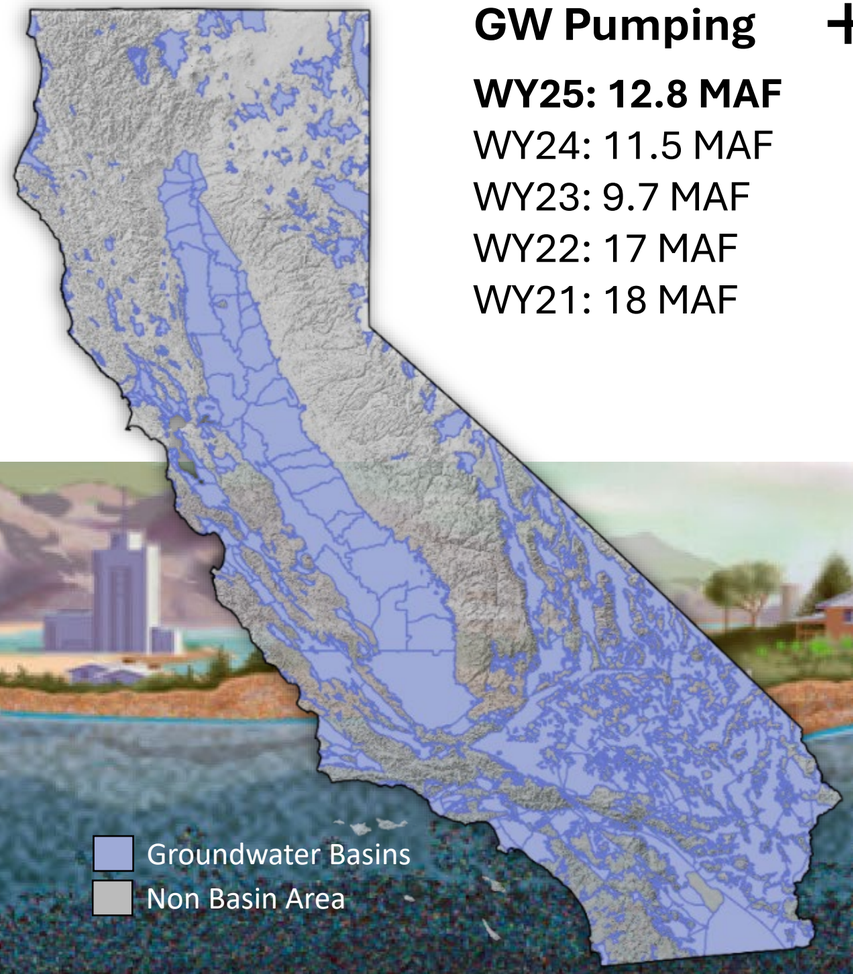
GW Pumping	+	Managed Recharge	=	Change in Storage
WY25: 12.8 MAF		**WY25: 1.1 MAF**		**WY25: -1.5 MAF**
WY24: 11.5 MAF		WY24: 1.9 MAF		WY24: +2.2 MAF
WY23: 9.7 MAF		WY23: 4.6 MAF		WY23: +8.7 MAF
WY22: 17 MAF		WY22: 315 TAF		WY22: -6.4 MAF
WY21: 18 MAF		WY21: 205 TAF		WY21: -7.9 MAF



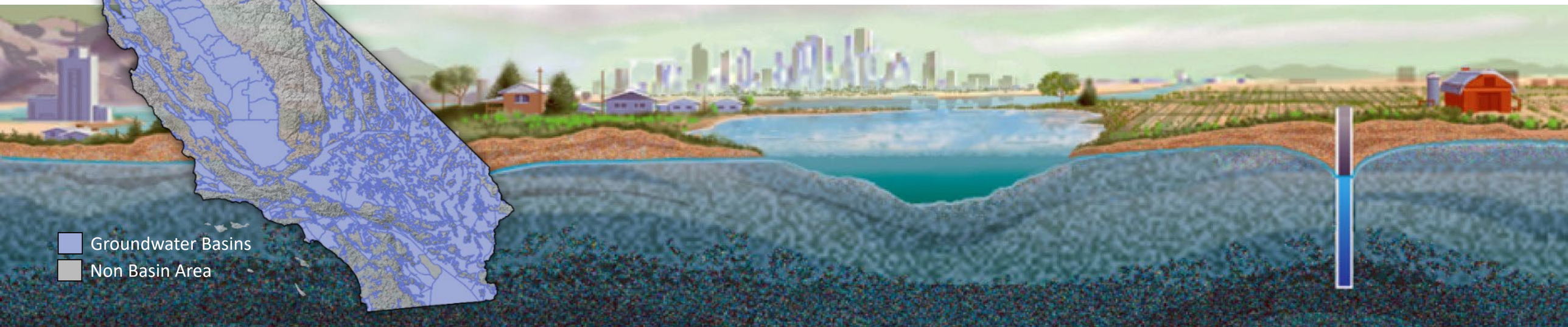
Semi-Annual Groundwater Conditions Update

Highlights

➢ **Statewide Groundwater: Positive Near-Term Groundwater Trends, Long-term Deficits Persist**



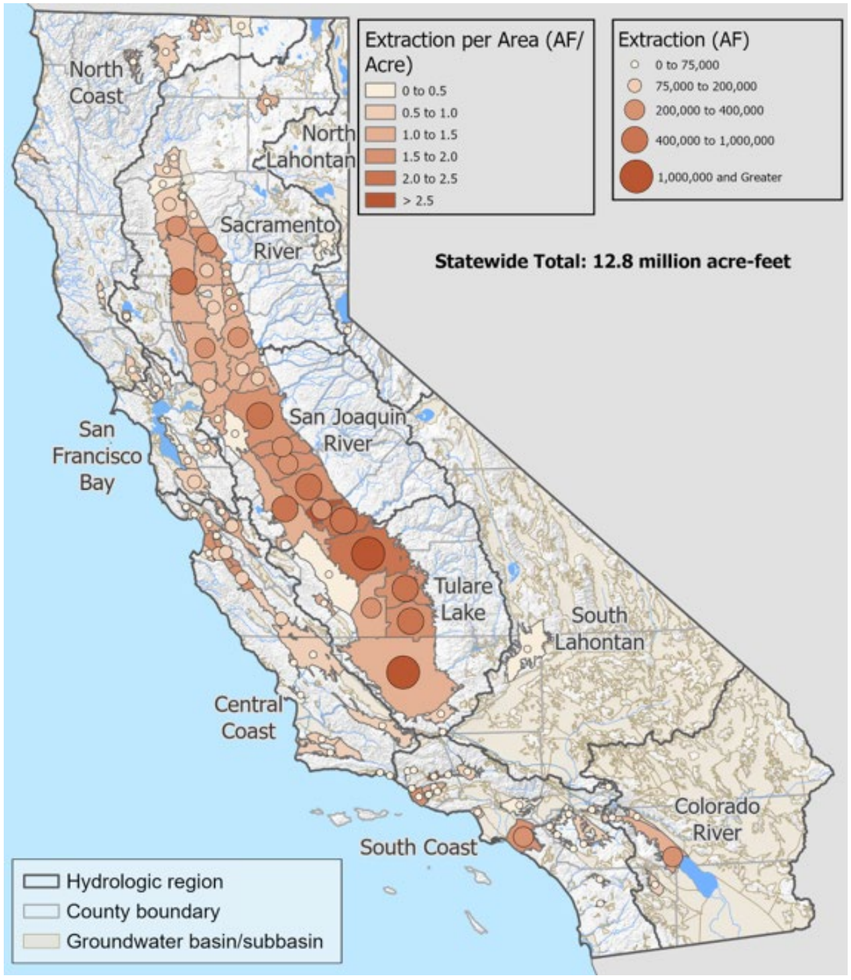
GW Pumping	+	Managed Recharge	=	Change in Storage	GW Conditions & Impacts
WY25: 12.8 MAF		**WY25: 1.1 MAF**		**WY25: -1.5 MAF**	• Near-term GW Levels Stable
WY24: 11.5 MAF		WY24: 1.9 MAF		WY24: +2.2 MAF	• Long-term GW Level Declines
WY23: 9.7 MAF		WY23: 4.6 MAF		WY23: +8.7 MAF	• GW storage Declines
WY22: 17 MAF		WY22: 315 TAF		WY22: -6.4 MAF	• Continued Subsidence
WY21: 18 MAF		WY21: 205 TAF		WY21: -7.9 MAF	• Fewer Dry Wells



Semi-Annual Groundwater Conditions Update

Extractions

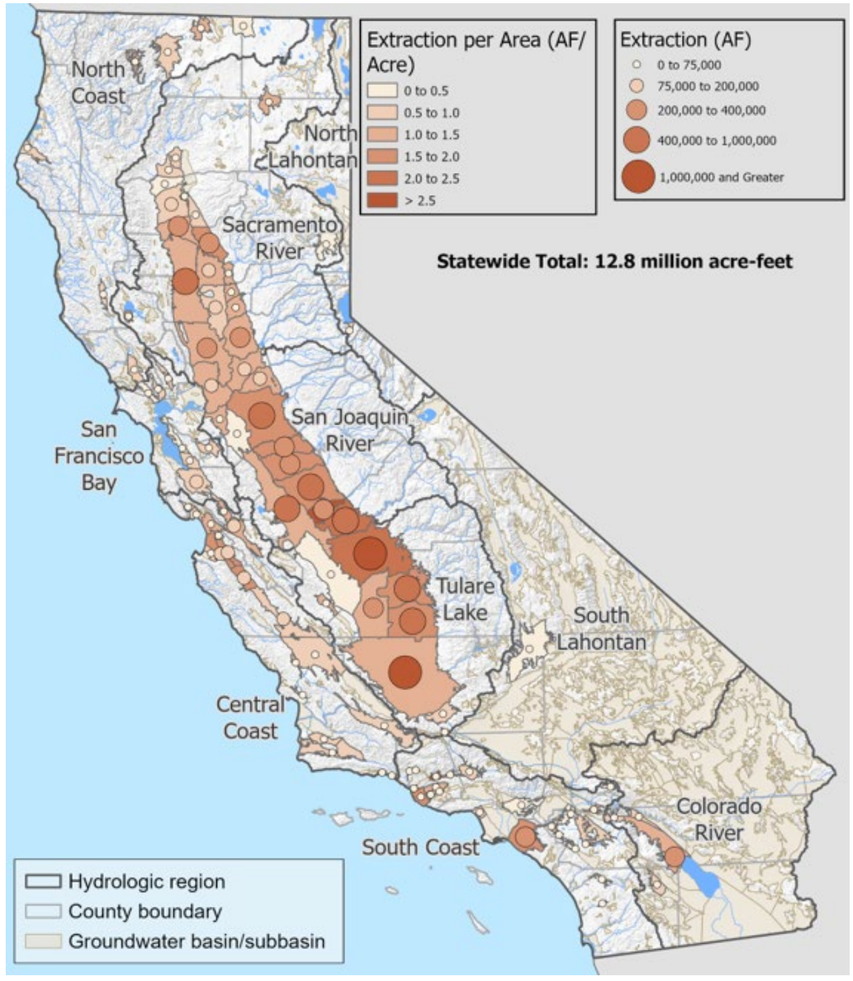
Groundwater Extraction Reported by Basin for Water Year 2025



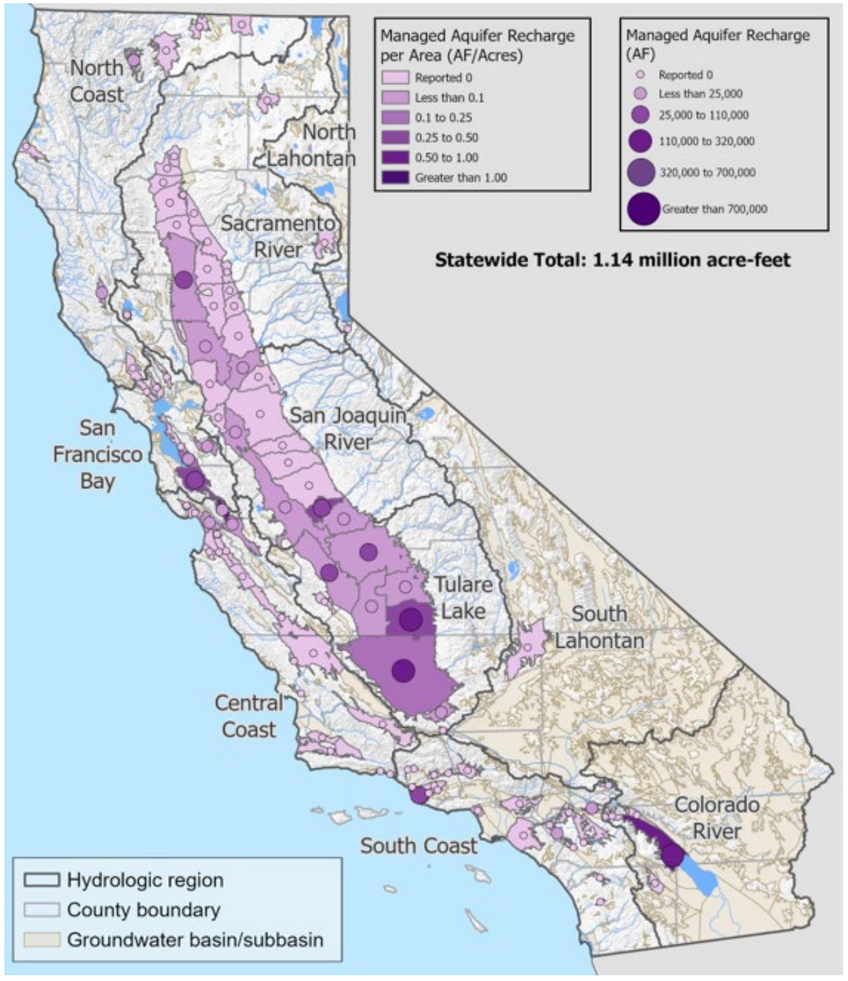
Semi-Annual Groundwater Conditions Update

Extractions, Recharge

Groundwater Extraction Reported by Basin for Water Year 2025



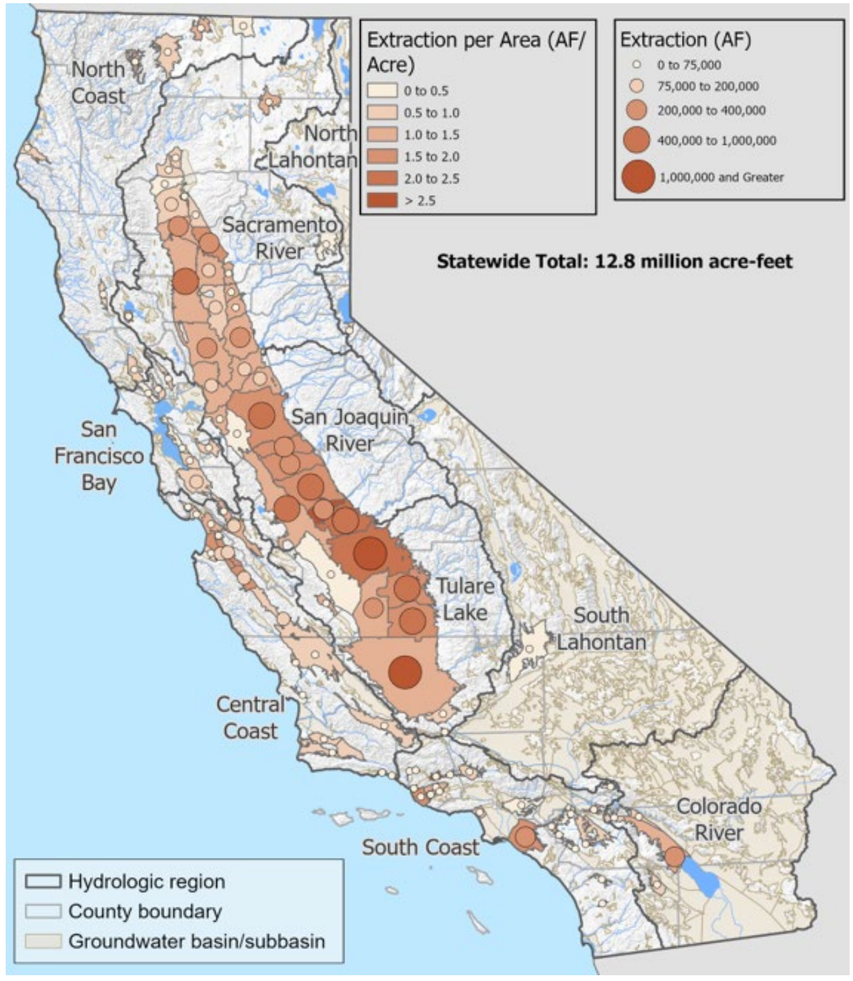
Groundwater Recharge Reported by Basin for Water Year 2025



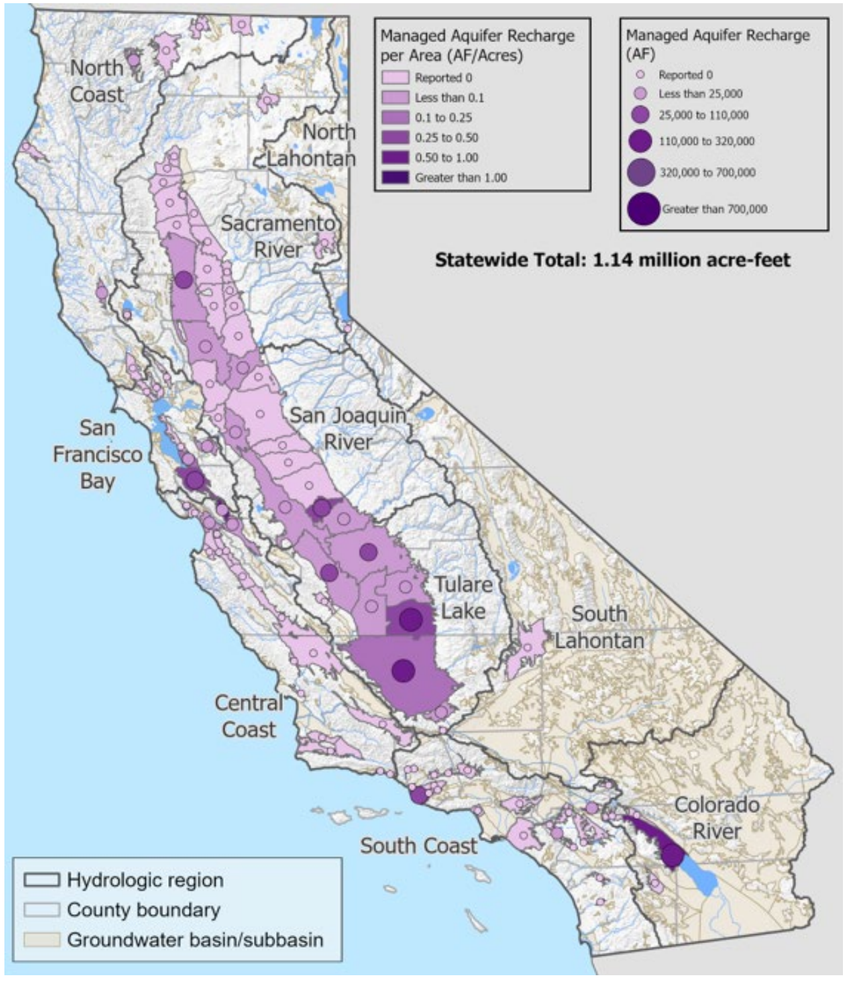
Semi-Annual Groundwater Conditions Update

Extractions, Recharge, Change in Storage

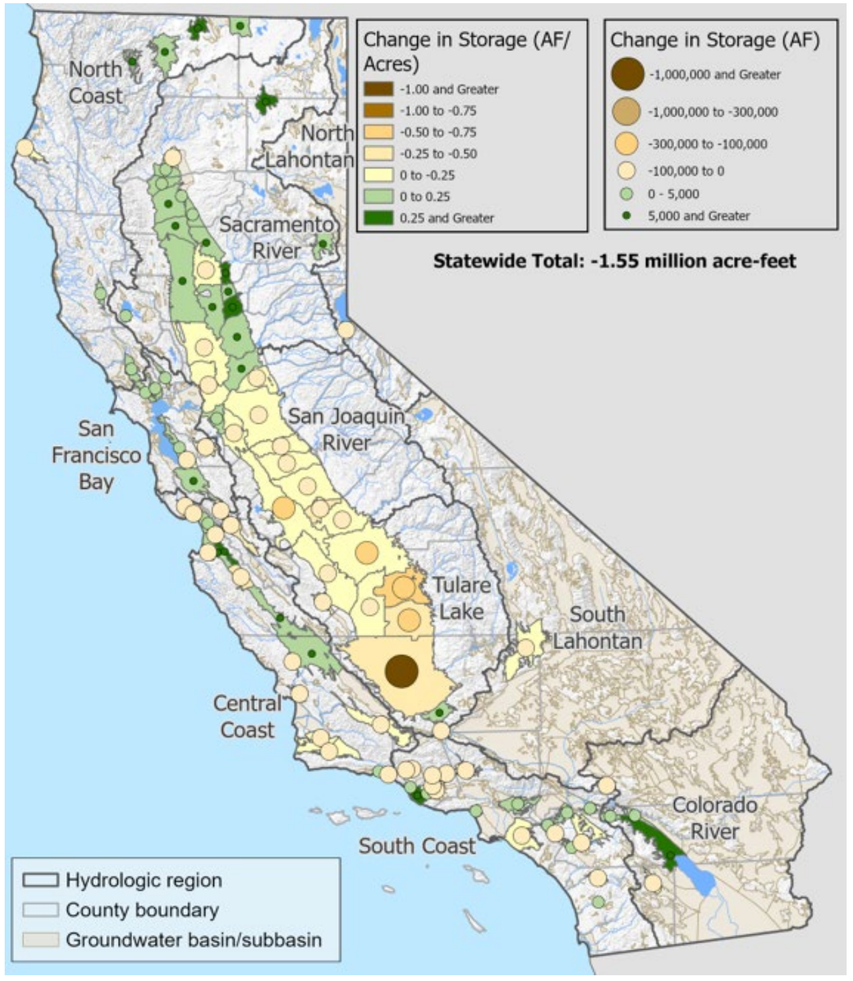
Groundwater Extraction Reported by Basin for Water Year 2025



Groundwater Recharge Reported by Basin for Water Year 2025



Groundwater Change in Storage Reported by Basin for Water Year 2025

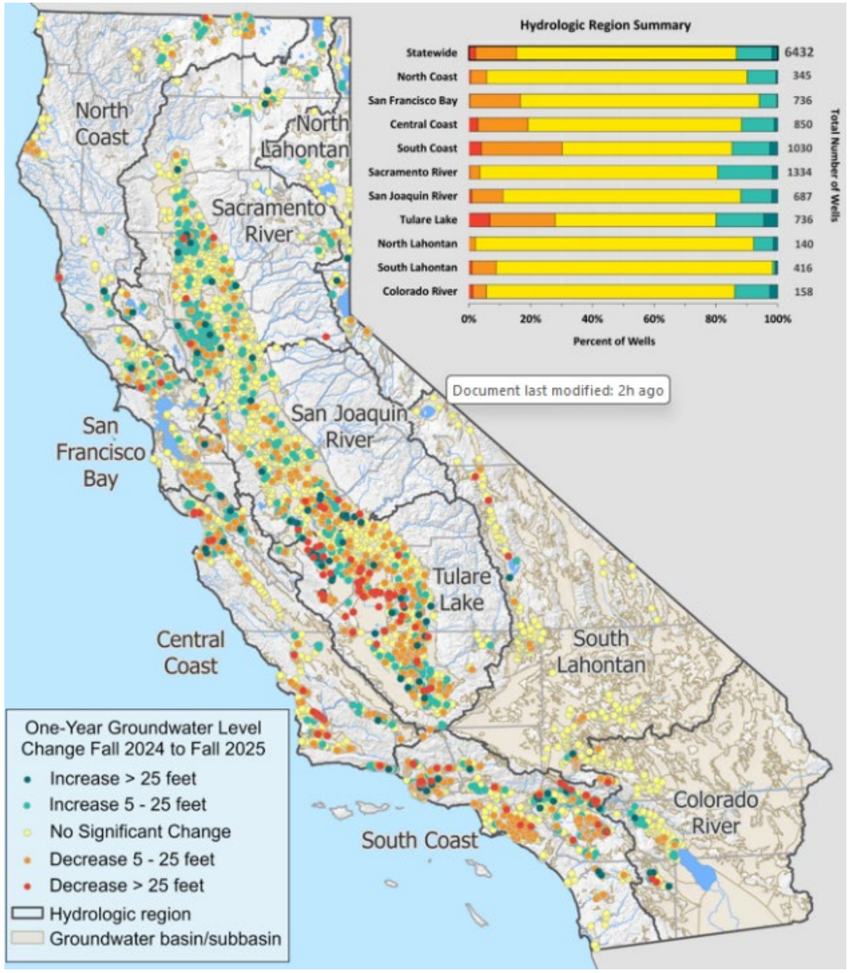


Semi-Annual Groundwater Conditions Update

Groundwater Levels

- Stable Short-term (1 yr) Conditions

One-Year Groundwater Level Change
Fall 2024 to Fall 2025

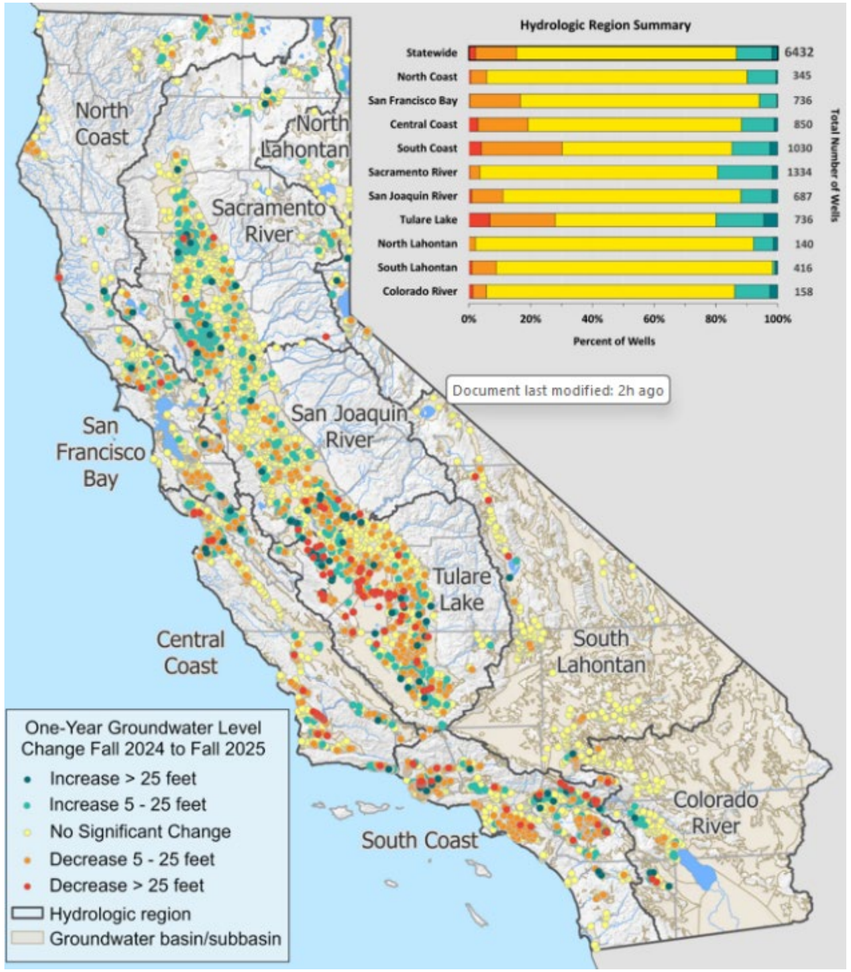


Semi-Annual Groundwater Conditions Update

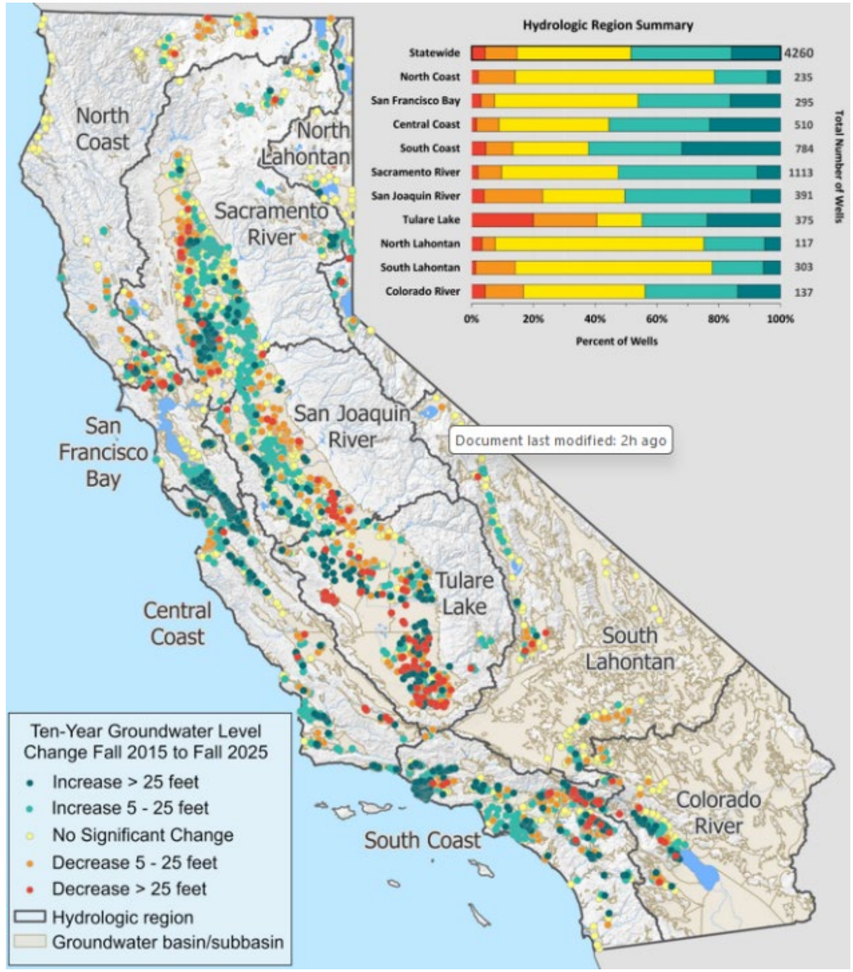
Groundwater Levels

- Stable Short-term (1 yr) Conditions, Improving (10 yr)

One-Year Groundwater Level Change
Fall 2024 to Fall 2025



Ten-Year Groundwater Level Change
Fall 2015 to Fall 2025

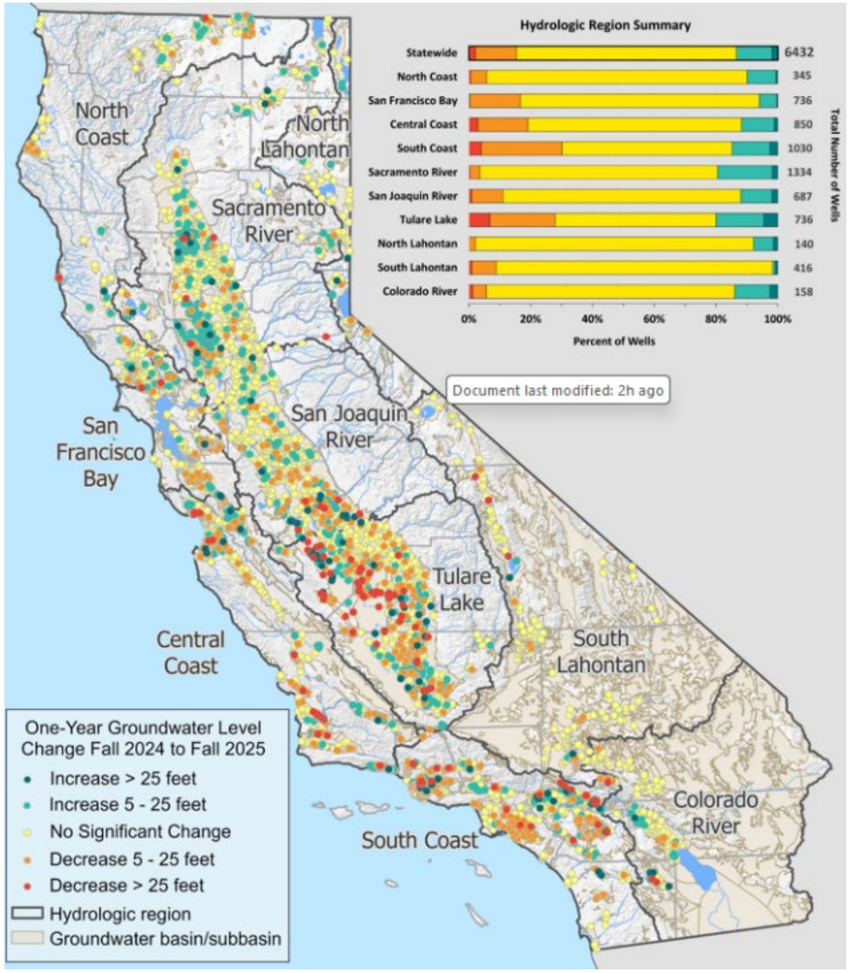


Semi-Annual Groundwater Conditions Update

Groundwater Levels

- Stable Short-term (1 yr) Conditions, Improving (10 yr), Long-term Declining (20 yr) Trends Persist

One-Year Groundwater Level Change
Fall 2024 to Fall 2025



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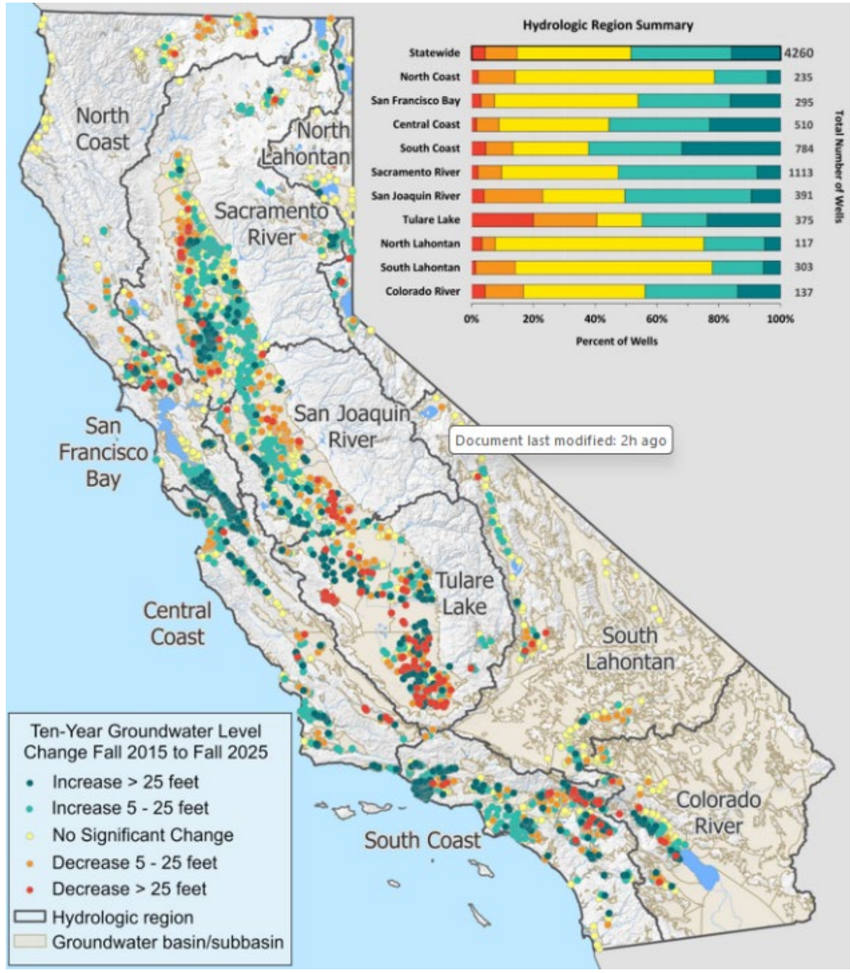
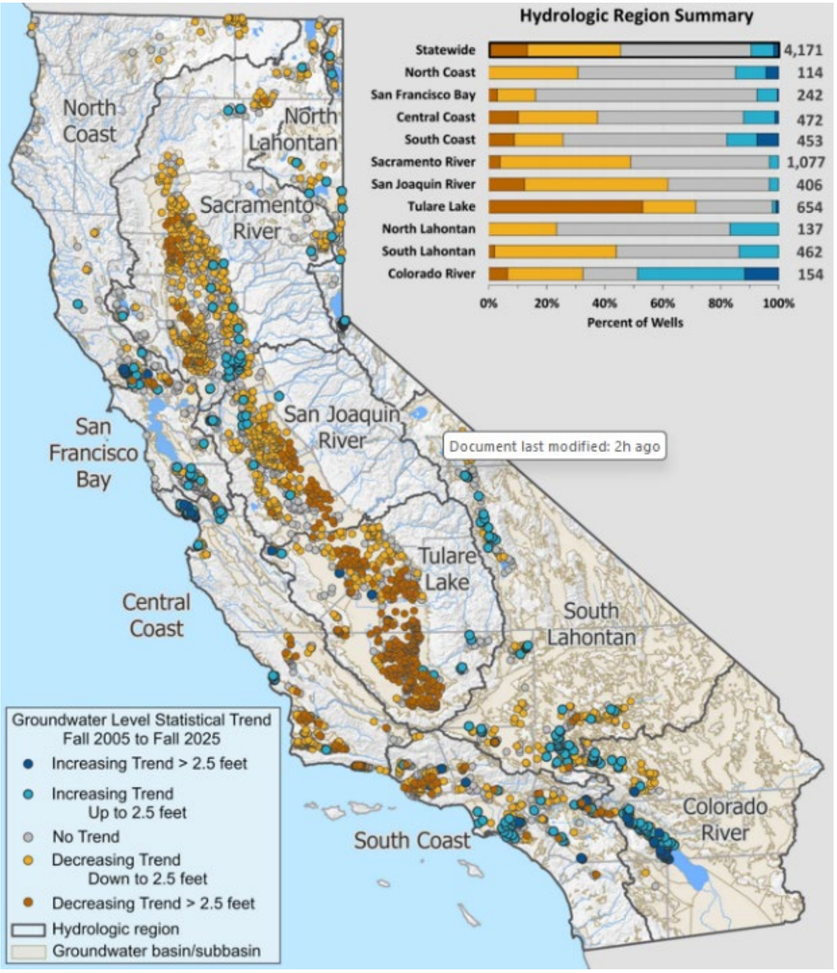


Twenty-Year Groundwater Level Trend
Water Years 2005 to 2025

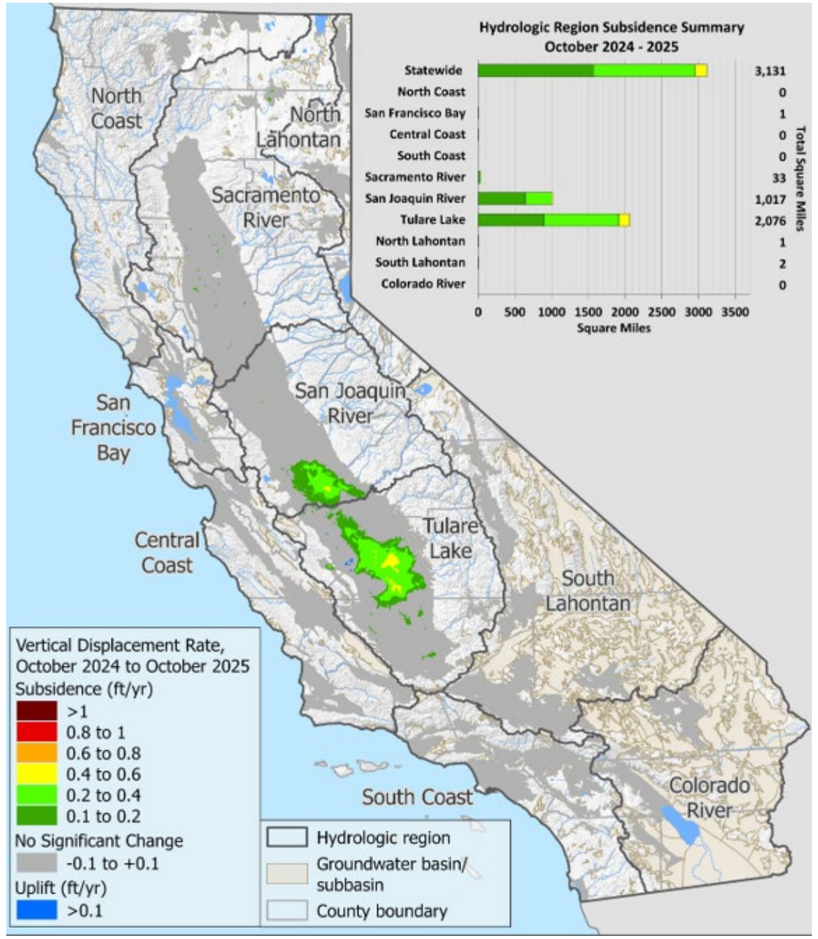


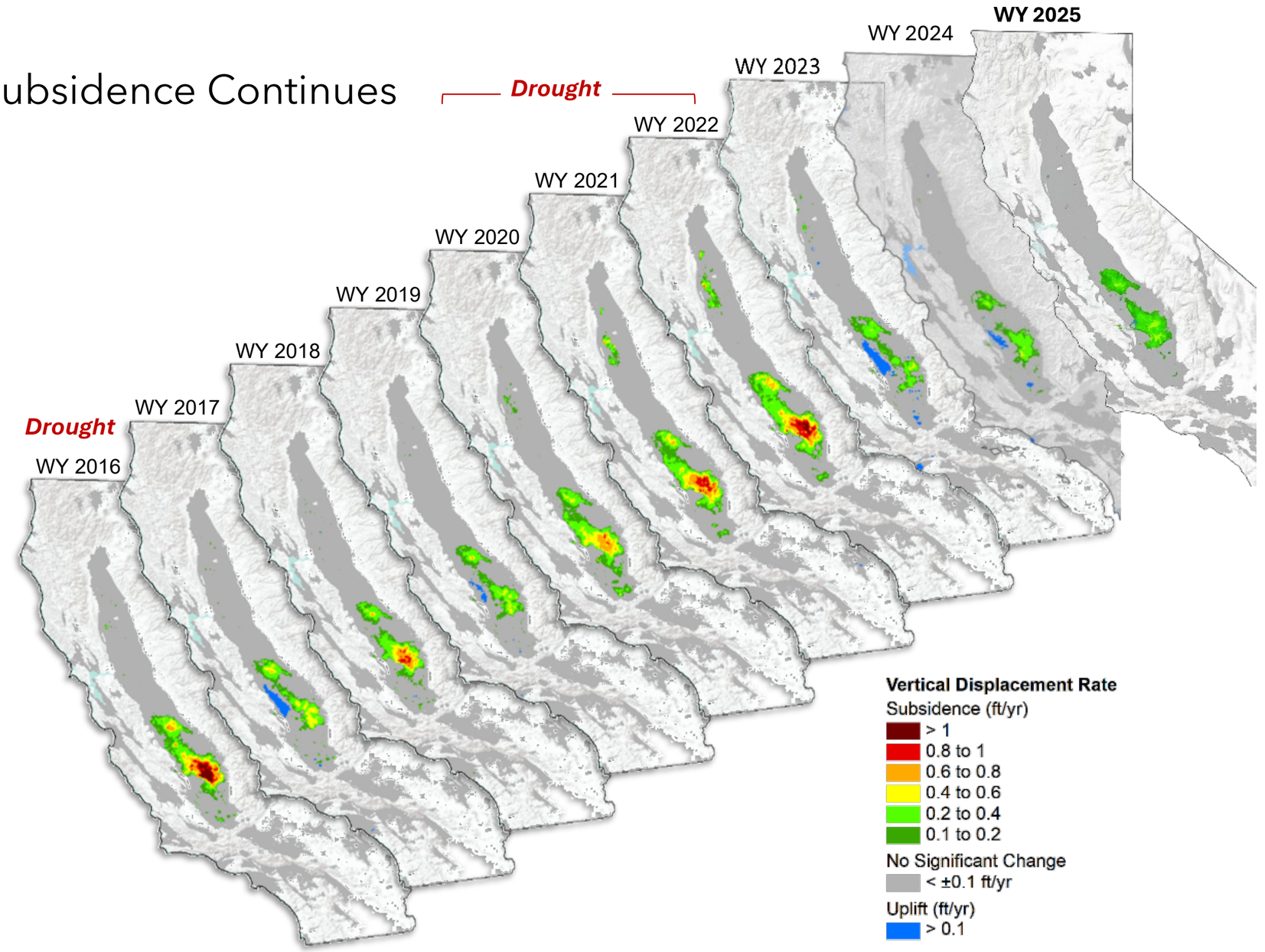
Semi-Annual Groundwater Conditions Update

Subsidence

- Reduced Short-term Rates, but Subsidence Continues

Subsidence Rate
October 2024 to October 2025



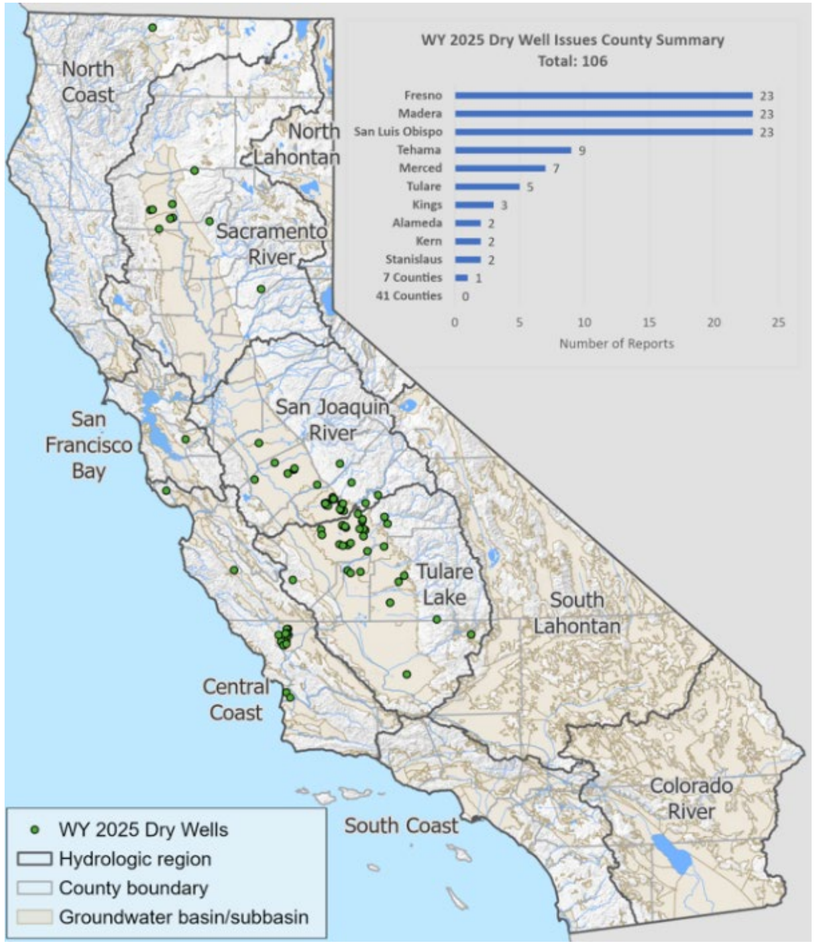


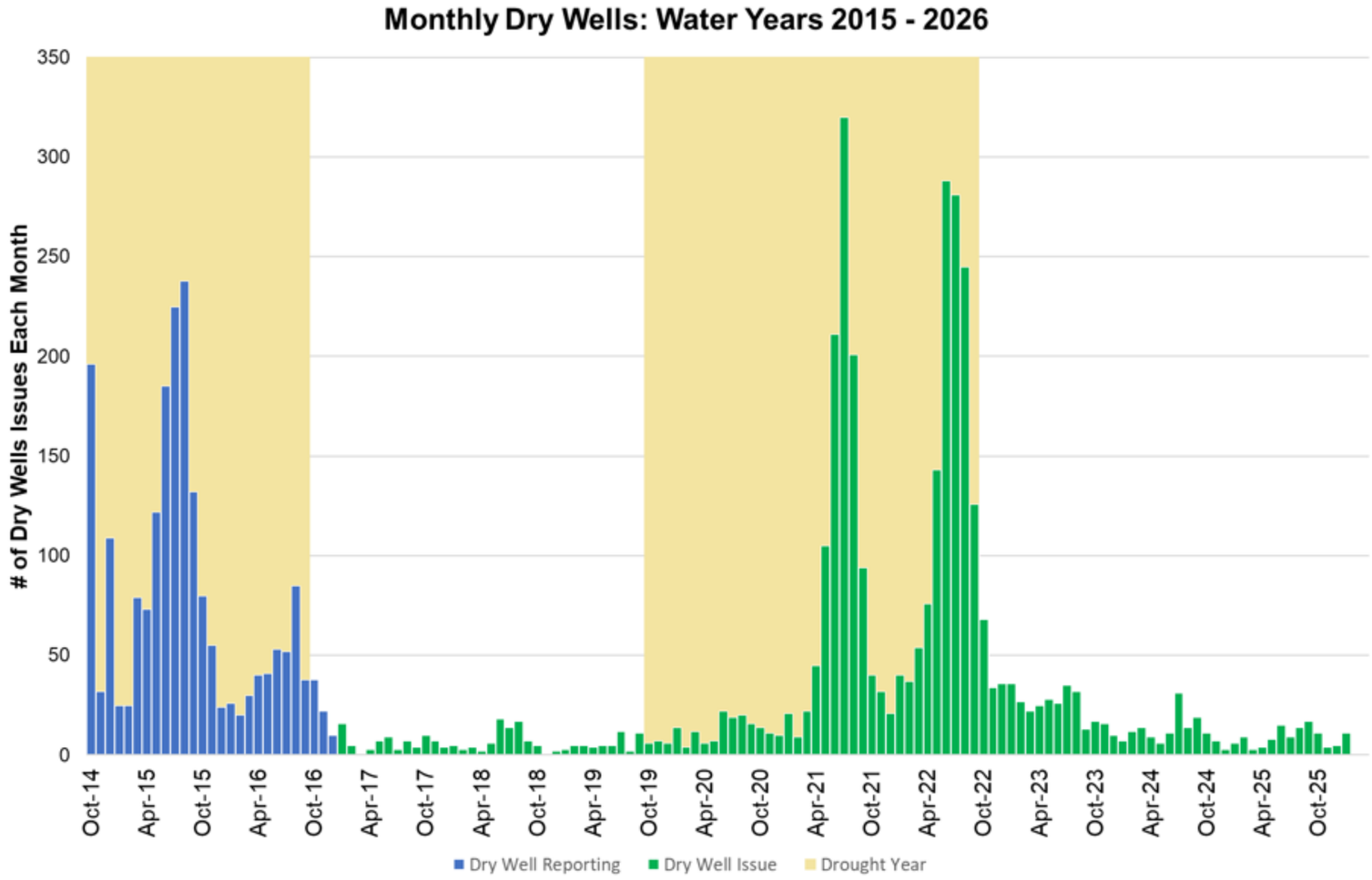
Semi-Annual Groundwater Conditions Update

Well Infrastructure and Reported Dry Wells

- Fewest domestic and ag well installations in last 10 years and Dry well reports remain below drought peaks

Dry Wells Reported - Water Year 2025





Thank You

California's Groundwater Information Available @ https://water.ca.gov/calgw

For Follow-up Questions, Email CalGW@water.ca.gov

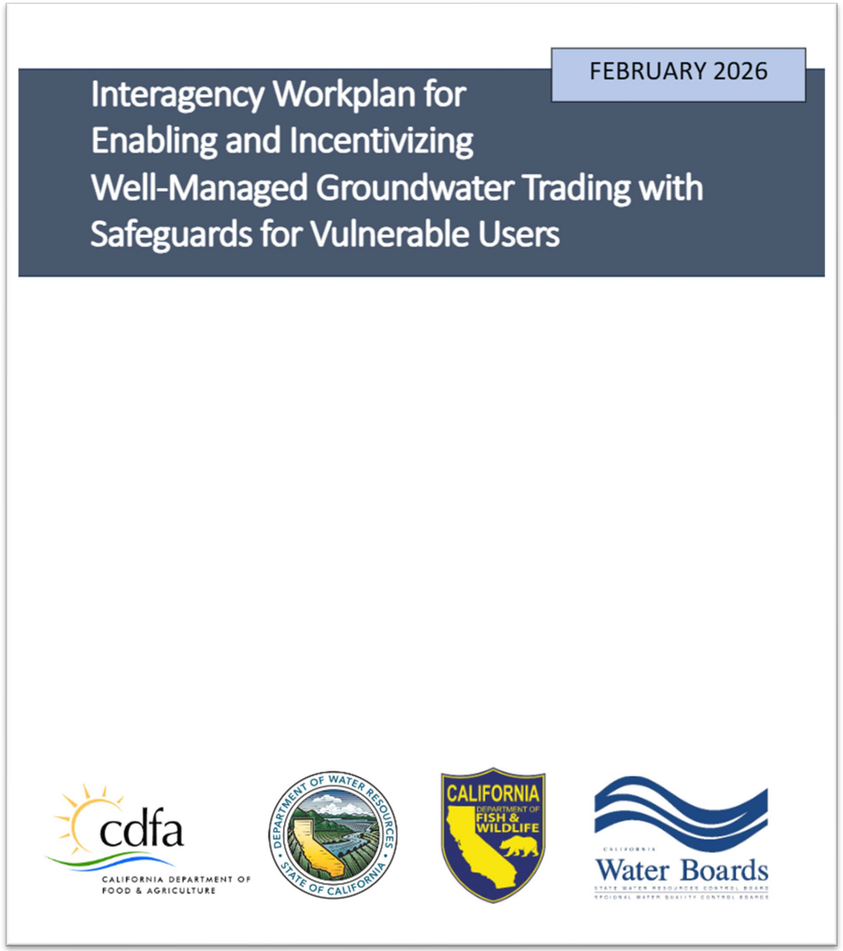
Groundwater Trading Update

(CA Water Resiliency Portfolio Action 3.6)

Andrew Morgan, Senior Engineering Geologist (DWR SGMO)

Interagency Workplan

- Collaborative effort between DWR, State Water Board, CDFW, and CDFA in response to the Water Resiliency Portfolio directive (Action 3.6) and the Commission's White Paper (2022)
- Provides **initial framework** & **potential State actions** to support well-managed, locally designed, and locally led trading programs w/ safeguards for vulnerable parties.
- Workplan posted on DWR's website and CNRA's Open Data Portal in February 2026. (new)



Workplan publicly available on:

CALIFORNIA OPEN DATA PORTAL

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Local Projects and Management Actions to Achieve Sustainability

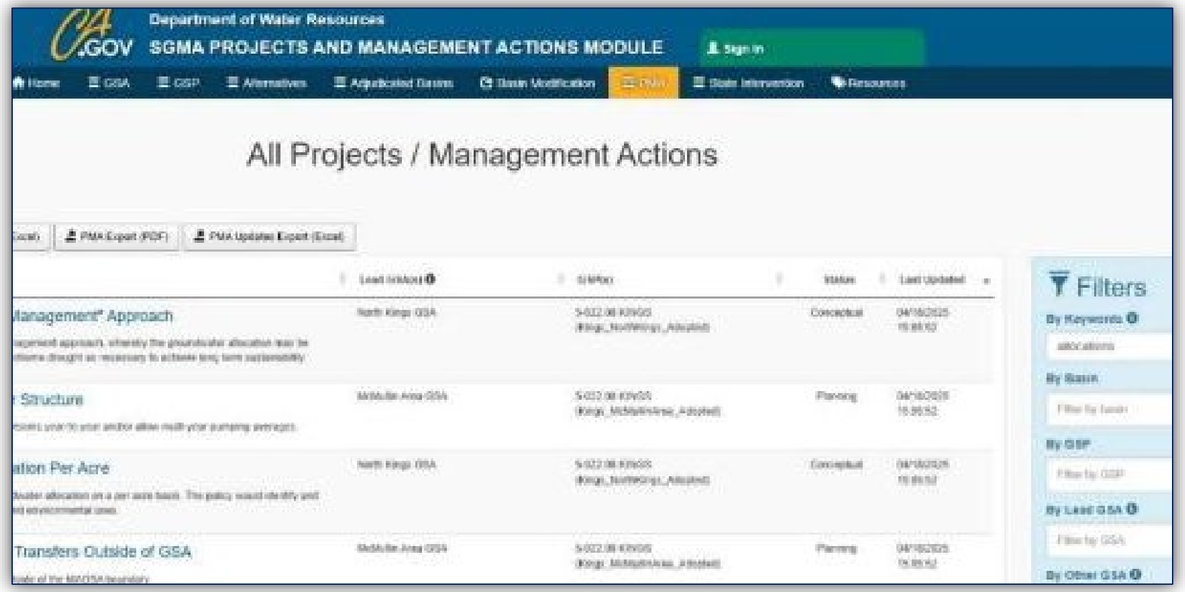
- SGMA grants GSAs extensive authorities[1] that provide them with a broad degree of local control and flexibility in how they choose to manage groundwater to achieve sustainability in their basin.

- GSPs must include a description of the *projects and management actions* (PMAs) the GSA will implement to achieve the sustainability goals required by SGMA.[2] Many are designed to either *increase water supplies* or *reduce demand*.

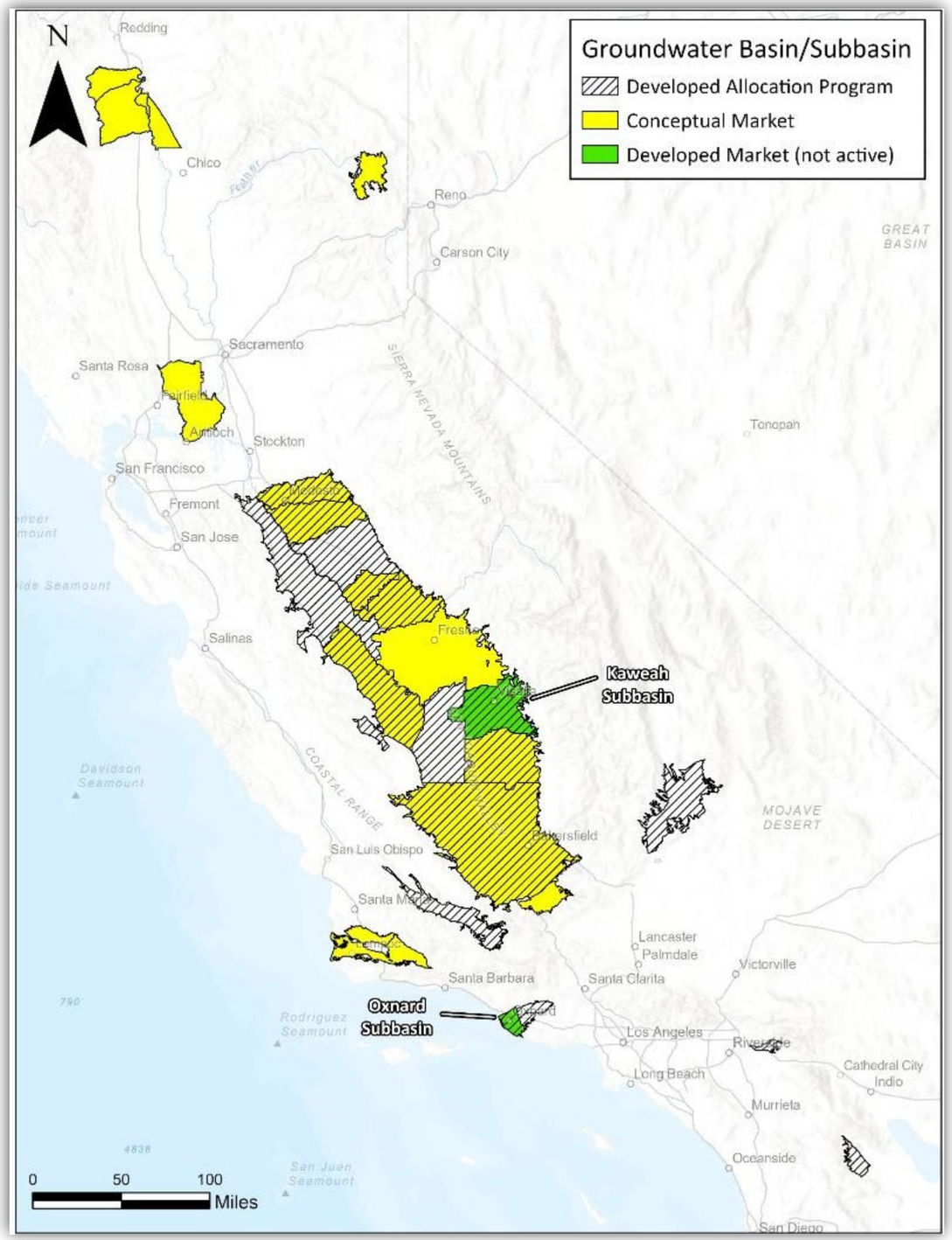
- Groundwater trading is only one *optional* tool under a broad range of *demand management* approaches being considered by GSAs.

1. Water Code §§ 10725.2, 10723.4, & 10725
2. CCR § 354.44

SGMA Portal PMA Module -Tracking & Monitoring Developing Markets



https://sgma.water.ca.gov/portal/projects/submitted



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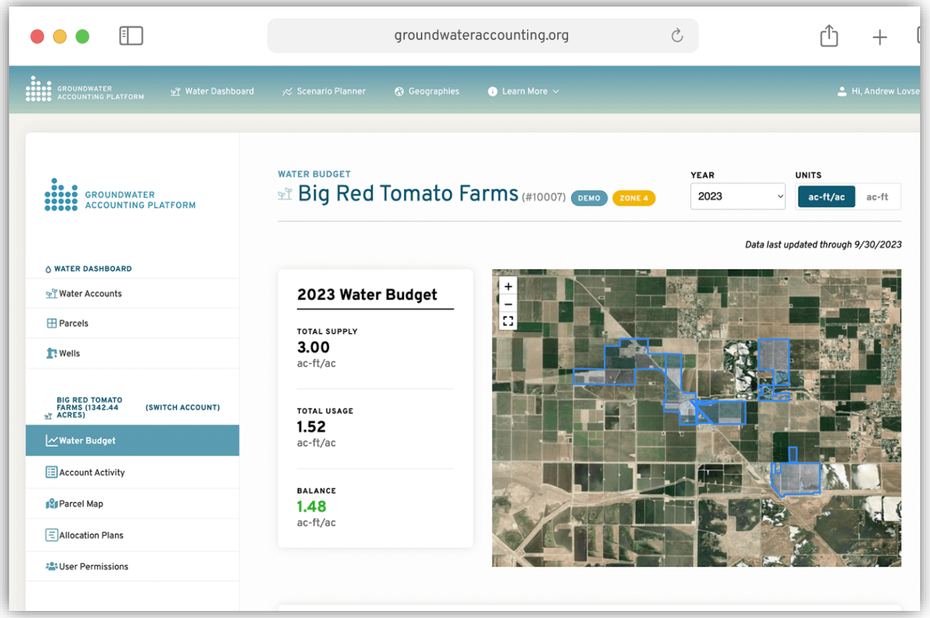
Assistance: Groundwater Accounting Platform

- Continued support and funding for the ongoing enhancement of the Groundwater Accounting Platform - developed by EDF the CWDC and others.

- Pilot studies currently underway in multiple basins.



- Groundwater accounting is a precursor for market development. Accurate accounting will likely underpin the successful implementation of most conjunctive use, demand management, and groundwater trading programs.

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Project Partners

Environmental Defense Fund

California Water Data Consortium

Environmental Science Associates

Open ET

Olsson

Rosedale-Rio Bravo Water Storage District

Merced Irrigation-Urban Groundwater Sustainability Agency

Pajaro Valley Water Management Agency

Yolo County Flood Control and Water Conservation District

Merced Subbasin Groundwater Sustainability Agency

Next Steps…

- Continue to engage with interested parties to better understand the state of local groundwater trading efforts and assess the need for additional State action.
- Maintain communication and explore opportunities for collaboration with the other State agencies to advance the objectives of Action 3.6.
- Potentially implement targeted Workplan outreach & engagement activities in the near future

Questions about the Workplan or water trading under SGMA can be directed to sgmps@water.ca.gov

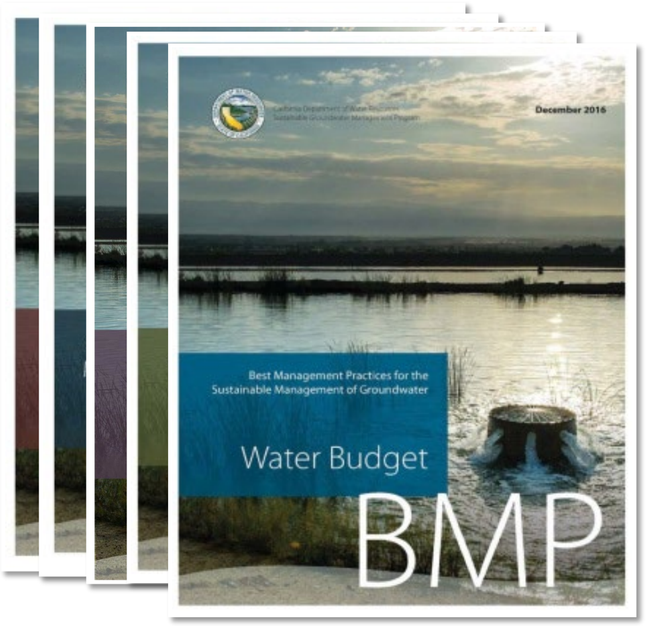
Reminder that **Public Comments** on GSP implementation can also be submitted at any time via DWR's SGMA Portal.

CALIFORNIA DEPARTMENT OF WATER RESOURCES

Subsidence BMP Update

Shane Edmunds, Supervising Engineering Geologist (DWR SGMO)

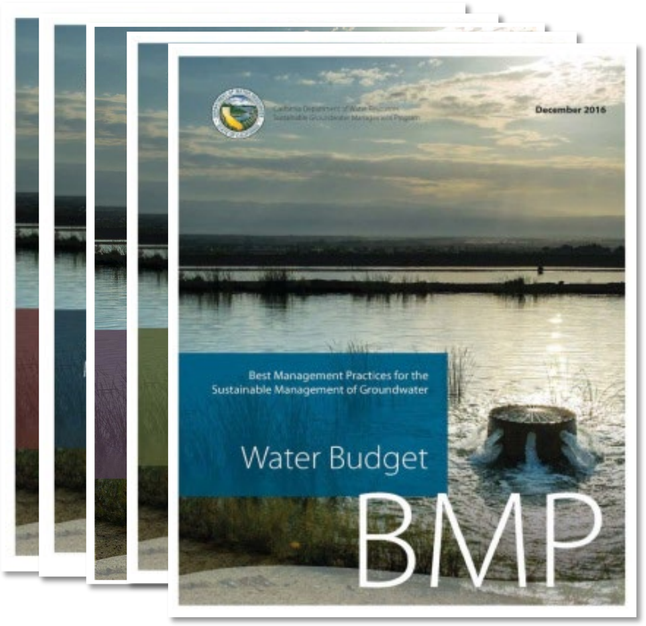
History of Subsidence BMP



- Draft Released July 2025
- Held 60-Day Public Comment Period and Three Public Meetings
- Briefed CWC on August 20, 2025
- Final BMP was released on January 21, 2026
- Statewide BMP Implementation Launch held March 10, 2026

Purpose of BMP

- General Purpose of BMPs
  - Identify best practices for addressing SGMA
  - BMPs can be used to streamline Regulation updates

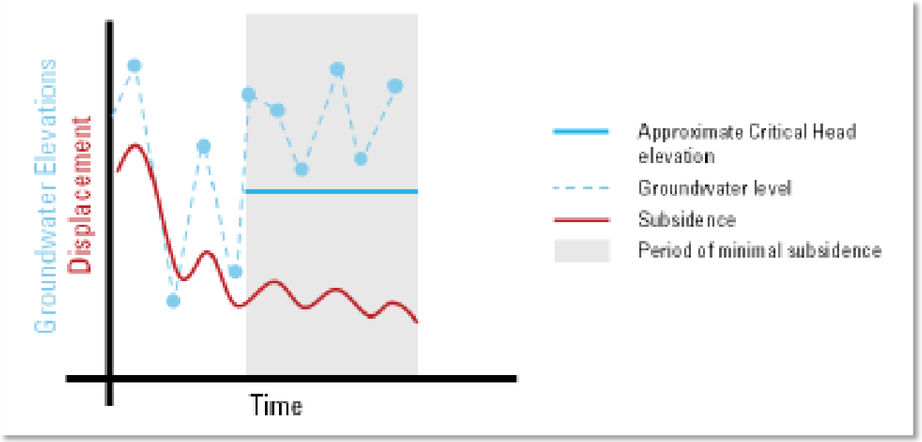


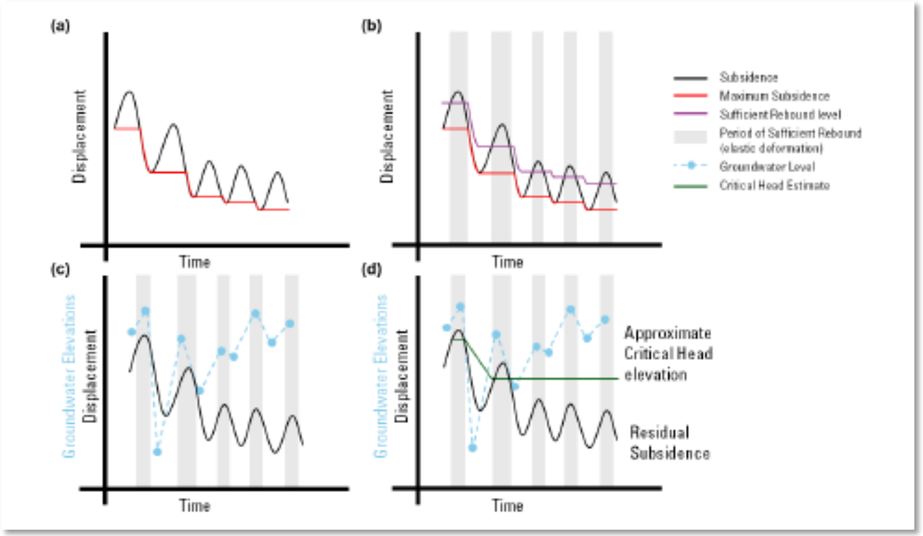
- Specific Purpose of Subsidence BMP
  - Applicable to every SGMA basin, whether it has or hasn't experienced subsidence
  - To put a renewed focus on subsidence

BMP Highlights: Critical Head

- An estimated groundwater level below which inelastic subsidence occurs.

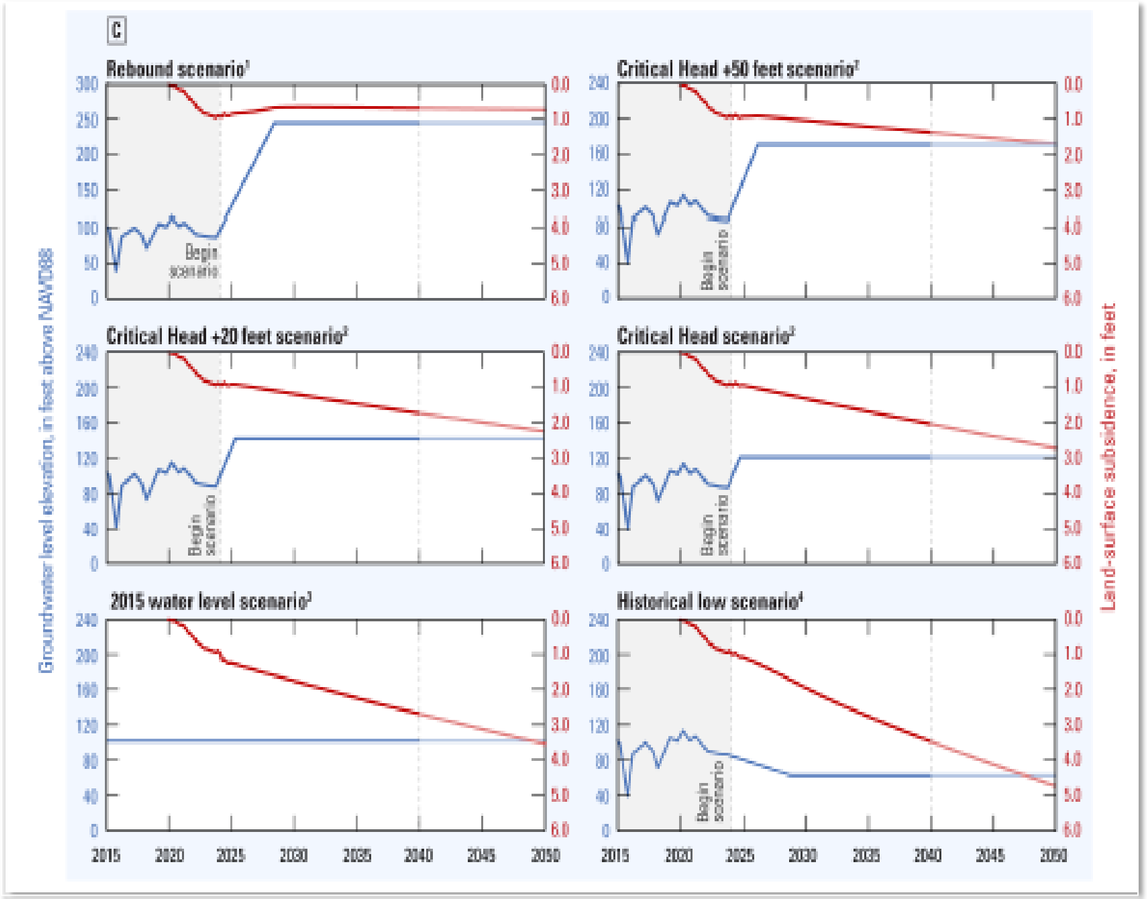
- Three methods to estimate in BMP
  - Trend Based
  - Empirical
  - Modeling





BMP Highlights: Limiting Subsidence

- Subsidence is effectively minimized only when groundwater levels are allowed to rise as rapidly and as much as possible above groundwater levels at which subsidence can occur
- Groundwater levels should be managed adaptively to make subsidence targets achievable



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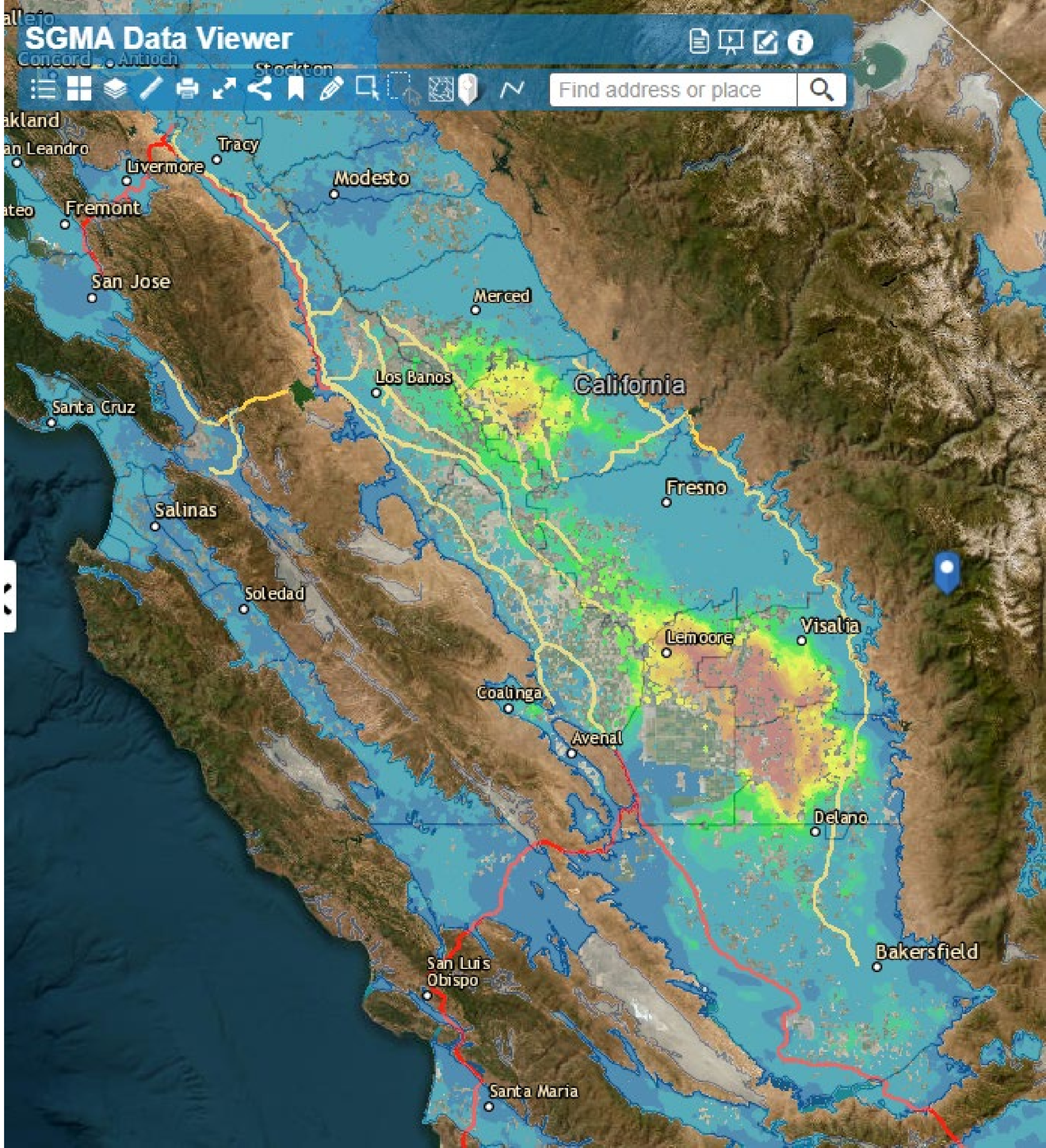
Infrastructure Considerations

- Identify infrastructure
- Coordinate with entities responsible for infrastructure
- Set subsidence targets
- Estimate future subsidence
- Consider managing water levels at or above critical head level



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Turning the BMP into Action

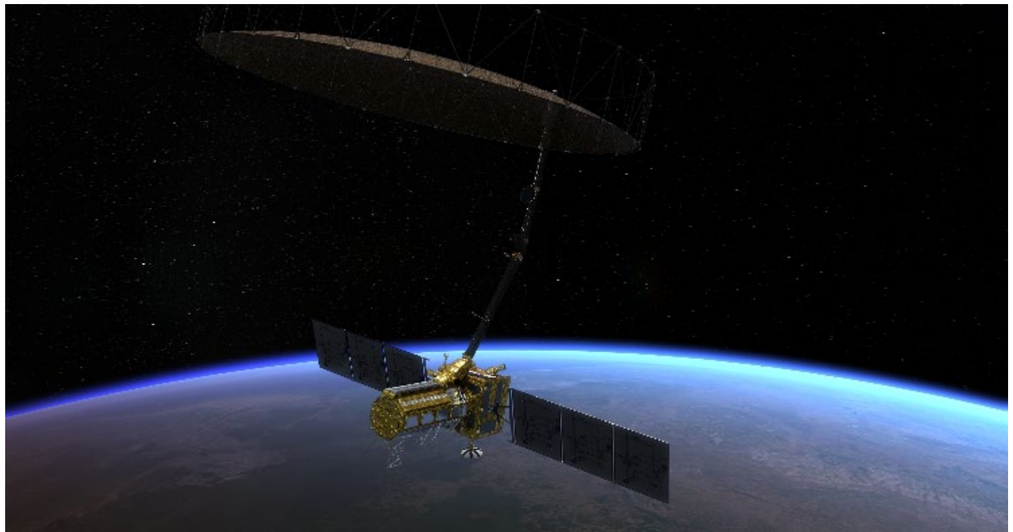
- DWR is committed to helping assist GSAs as they implement the BMP beginning with today's statewide kickoff meeting

Actions supporting BMP Implementation

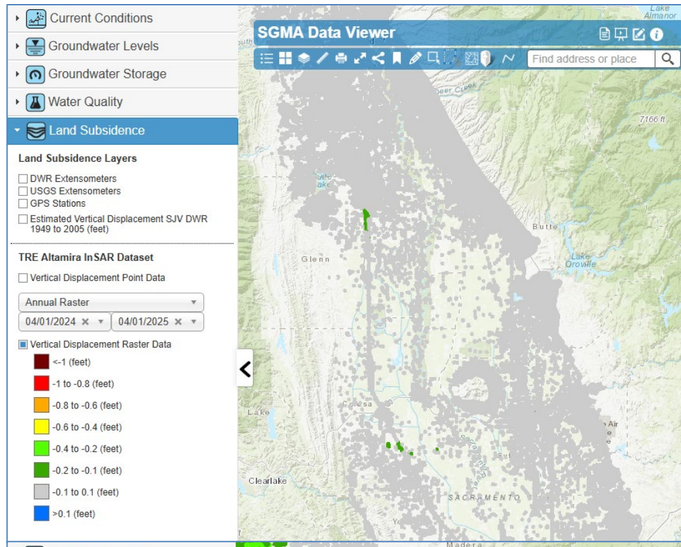
- DWR plans to:
  - Provide additional support to better understand local subsidence conditions is currently underway.
  - Host in-person meetings with individual basins to discuss the status of subsidence, the current actions under way to address subsidence, and planned actions to minimize or avoid subsidence
  - Facilitate regional meetings to engage GSAs to cooperatively address subsidence across California.

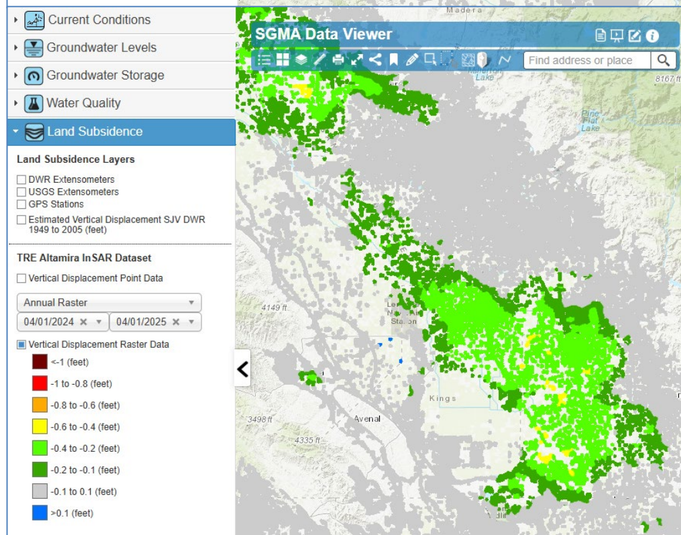
DWR Support of Subsidence BMP: InSAR

- Quarterly InSAR Data
  - Increased Coverage
- Data from new NISAR (NASA-ISRO Synthetic Aperture Radar) mission

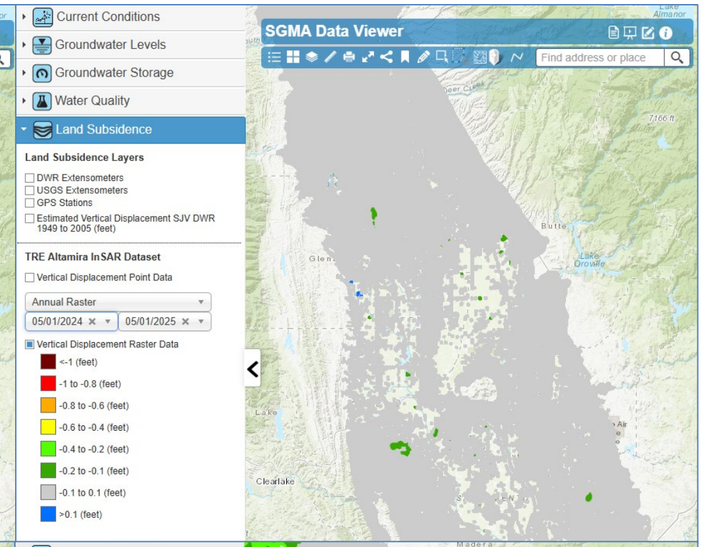


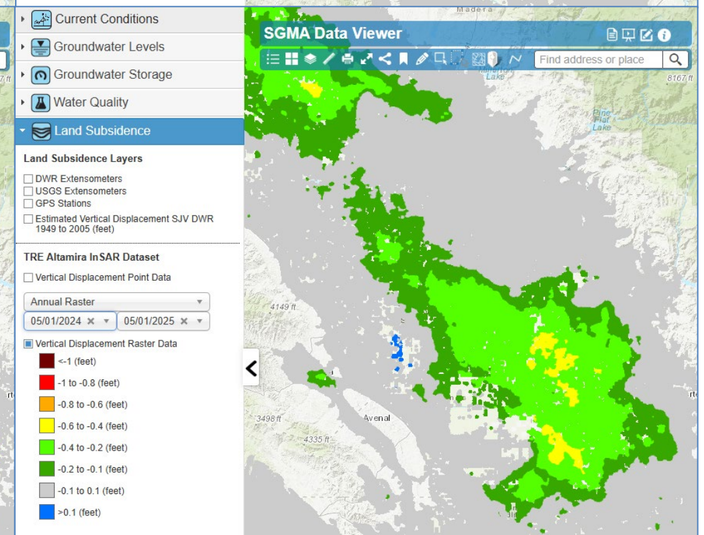
Previous Coverage





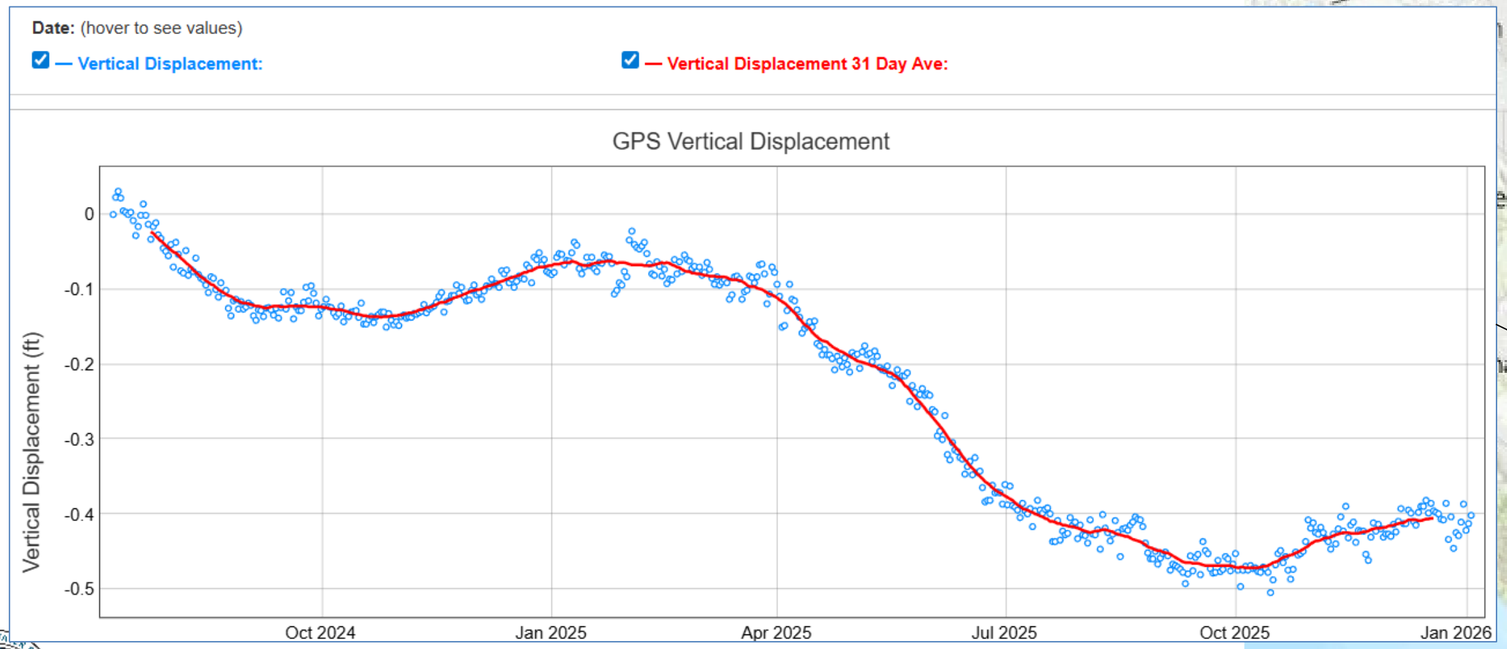
Improved Coverage

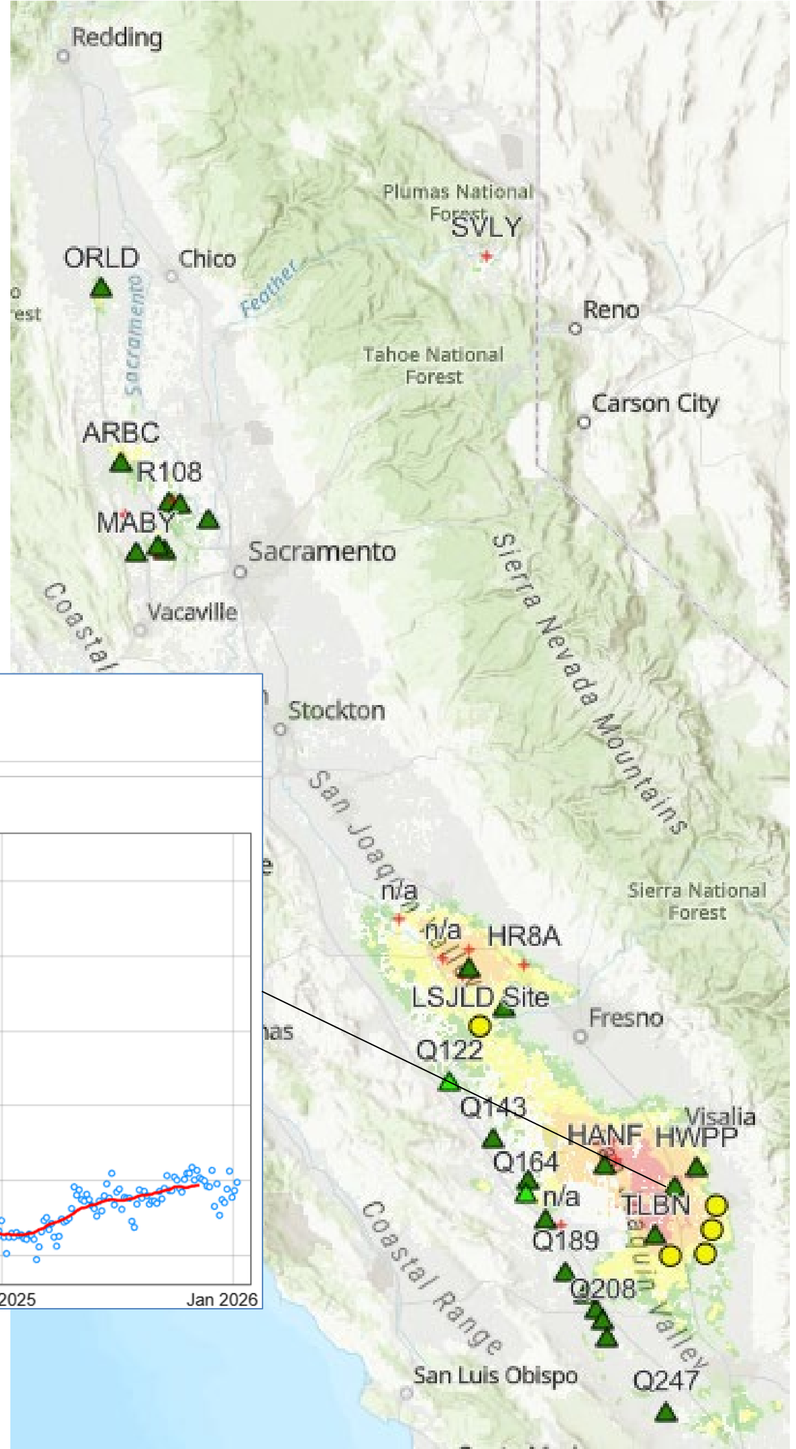




DWR Support of BMP: New Monitoring Stations

- New CGPS Stations, InSAR Reflectors





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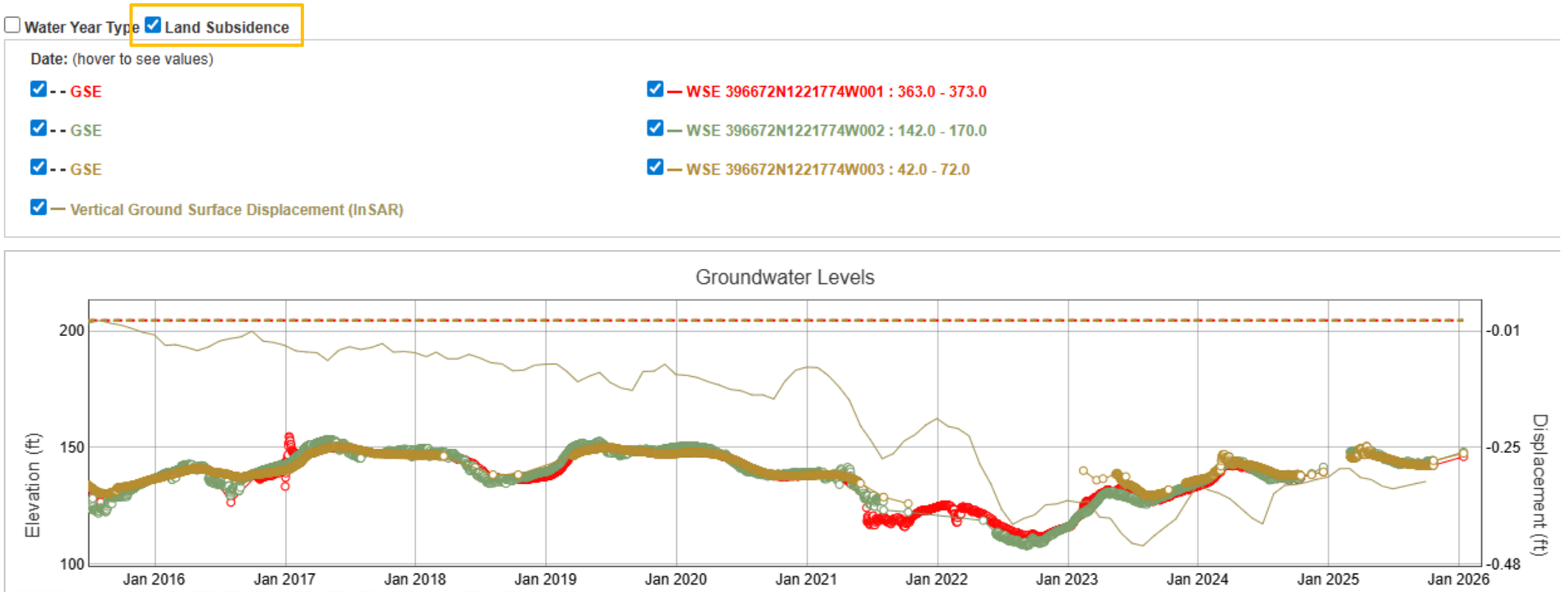
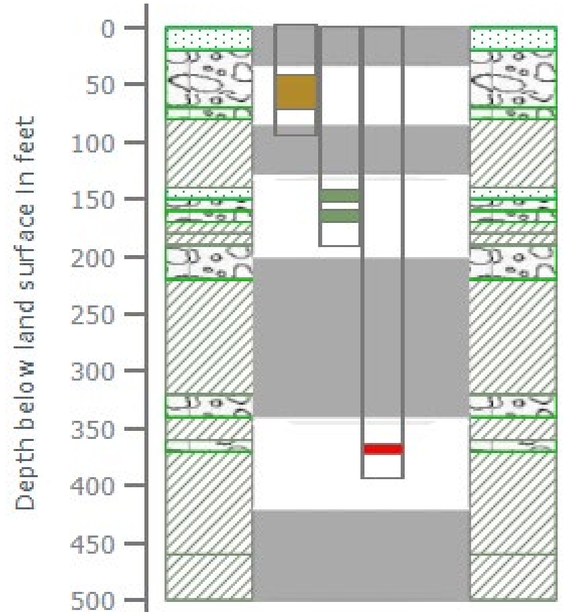
DWR Support of BMP: SGMA Data Viewer

- Addition of lithology and subsidence data to hydrographs





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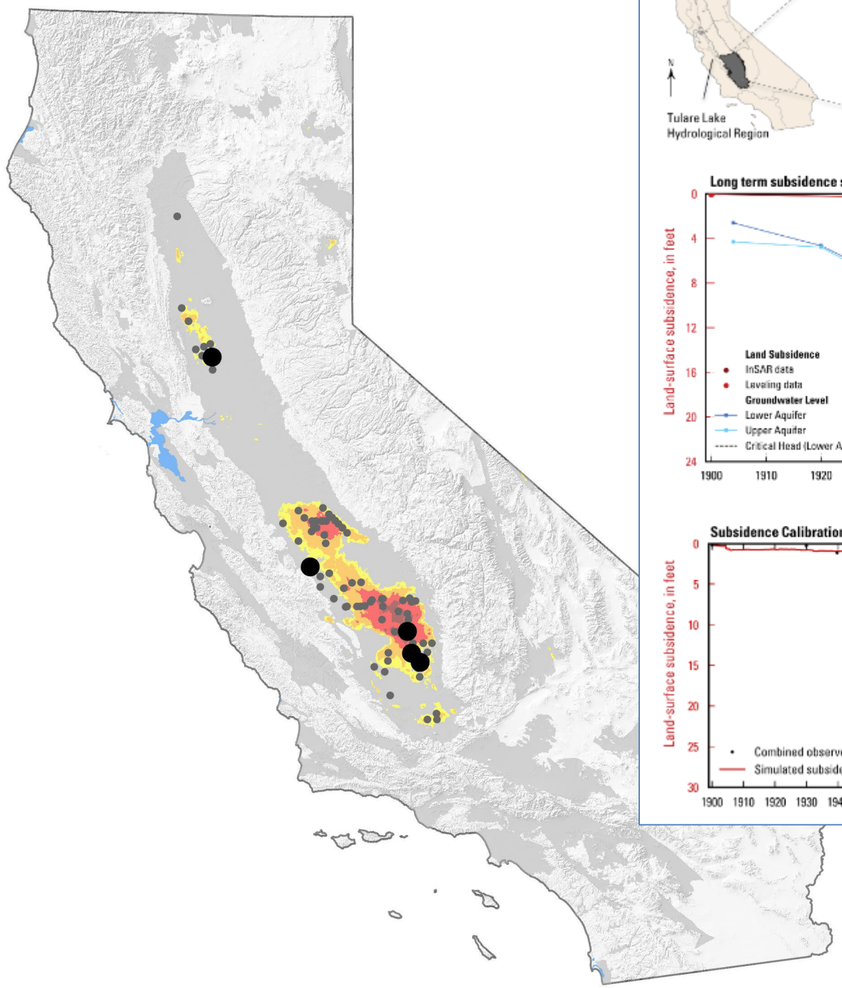
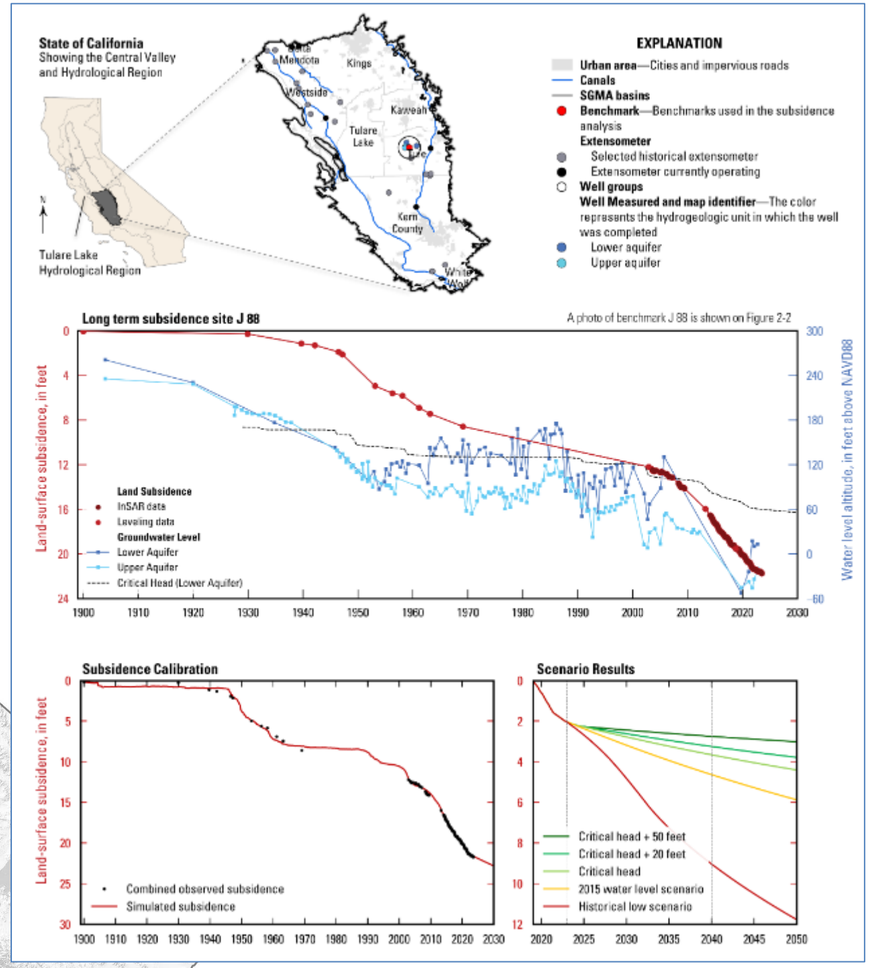
DWR Support of BMP: 1-D Modeling





California's Groundwater Update 2025 (Bulletin 118) Appendix I. – Update on Land Subsidence in California

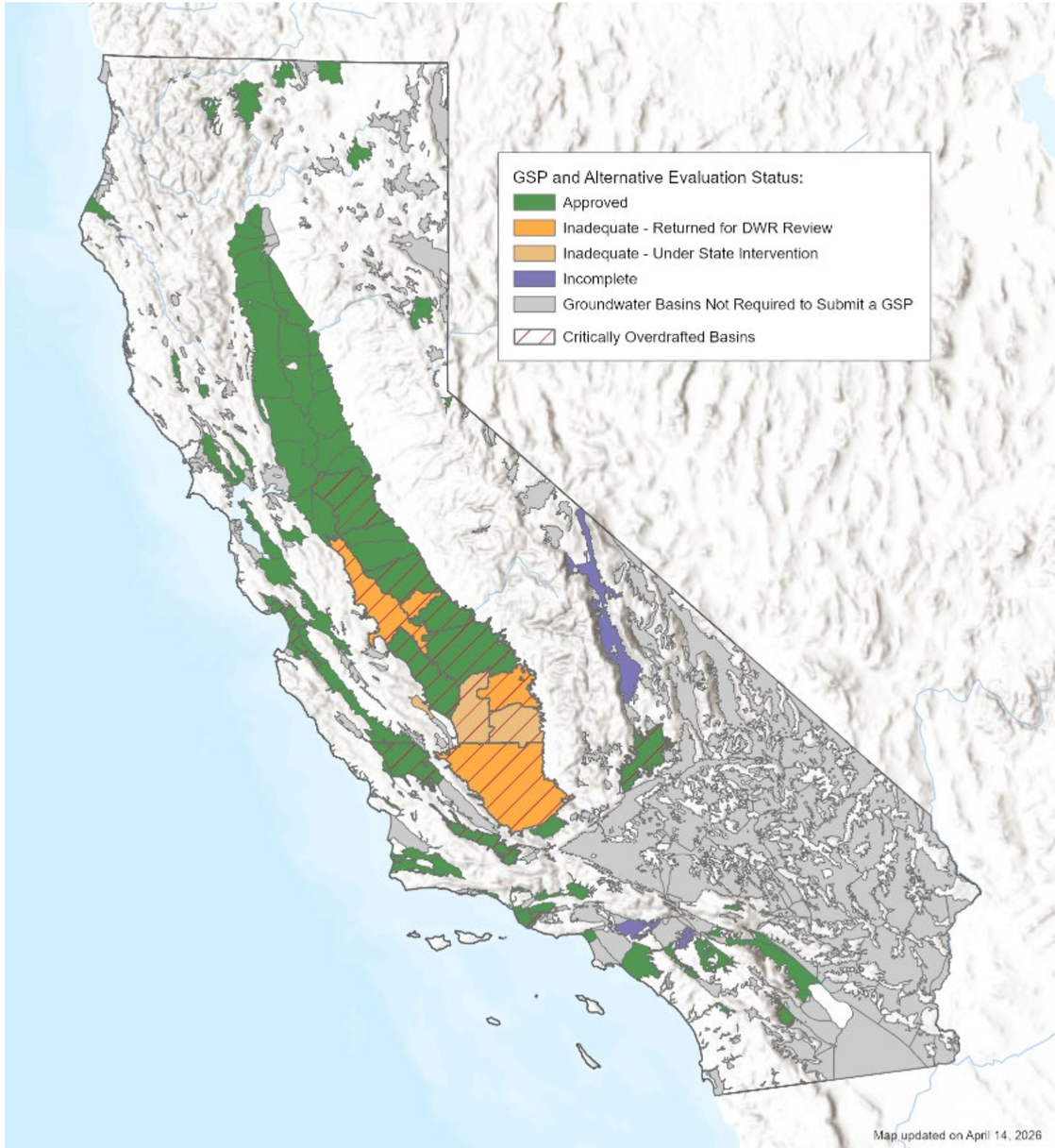
- 50 Sites
- Tech Memo and Modeling Files

DWR Support of BMP: Ongoing Assistance

- DWR will continue to provide many other types of assistance including:
  - Financial Assistance
  - Facilitation Support Services
    - Written Translation Services
    - Verbal Interpretive Services
  - Technical Support Services

DWR Support of GSP Implementation

- DWR is committed to assisting GSAs as they implement the BMP including hosting meetings with individual basins.
- Meetings will occur across California in basins experiencing subsidence.
- Effort in conjunction with the State Water Resources Control Board.



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DWR Support of BMP: Basin-Specific Meetings

- The purpose of these meeting is to share DWR's approach for the next steps following the release of the Land Subsidence BMP.
- We will discuss conditions, monitoring, infrastructure, management, and coordination related to subsidence.
- Discuss our commitment to help GSAs implement the BMP through educational resources, dialogue, data, and facilitation services related to subsidence.

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

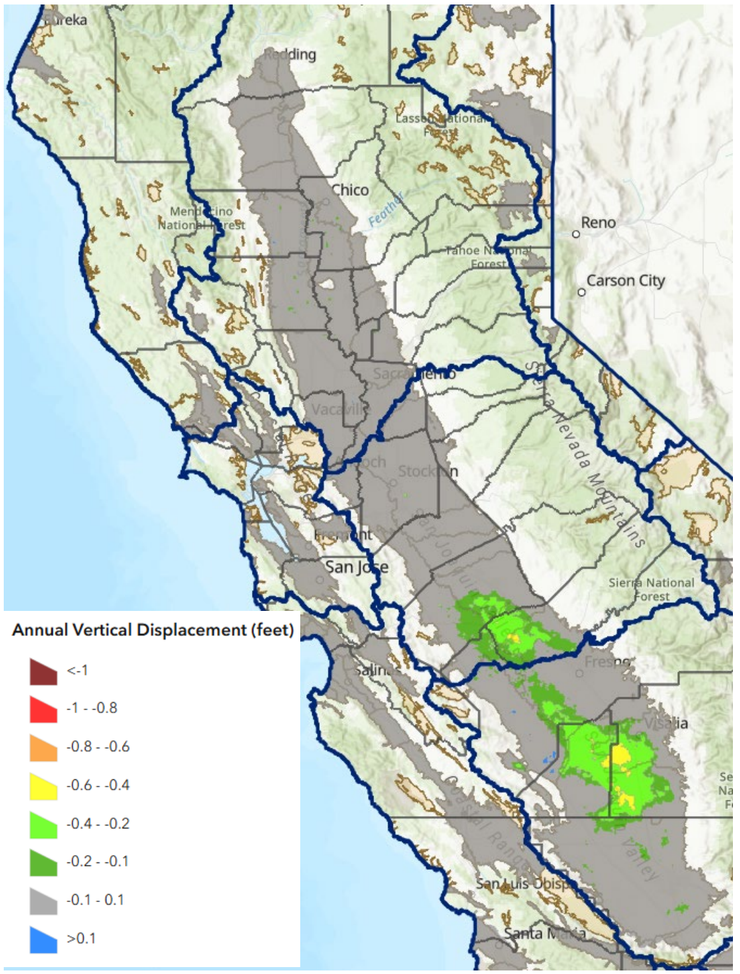
CALIFORNIA DEPARTMENT OF WATER RESOURCES

DWR Support of BMP: Meeting Schedule

- Meetings Held: Colusa and Yolo (Held 4/27); Chowchilla and Merced (Held 5/15)

- Future Meetings Planned: Delta-Mendota, Kaweah, Kern, Kings, Madera, Pleasant Valley, Tulare Lake, Tule, Turlock, and Westside.

When: April – July 2026
Who: Representatives from all Basin GSAs managing subsidence.



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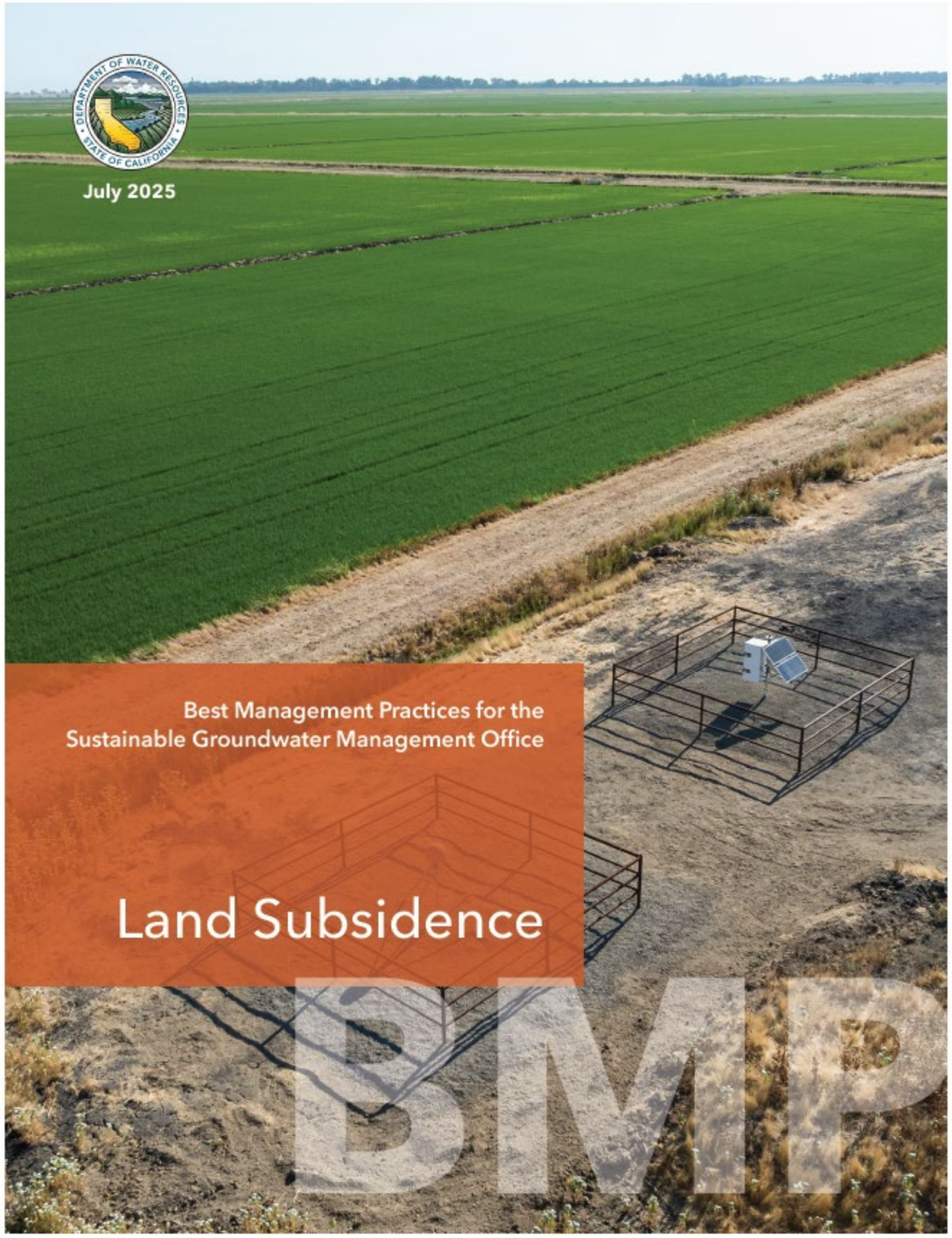
DWR Support of BMP: Regional Meetings

- After Basin-Specific Meetings, DWR will compile information and meet with all GSAs, as needed, within a regional subsidence area to discuss:
  - Subsidence data, trends, and hotspots
  - Data gaps in subsidence monitoring
  - Infrastructure impacts
  - Critical head estimates
  - Differences between subsidence management in the region

When: Fall 2026
Who: Representatives from all Basin GSAs managing subsidence



Thank You!

Send Comments to:
sgmps@water.ca.gov