EKI TECHNICAL PRESENTATION #46

COSUMNES SUBBASIN GSP IMPLEMENTATION

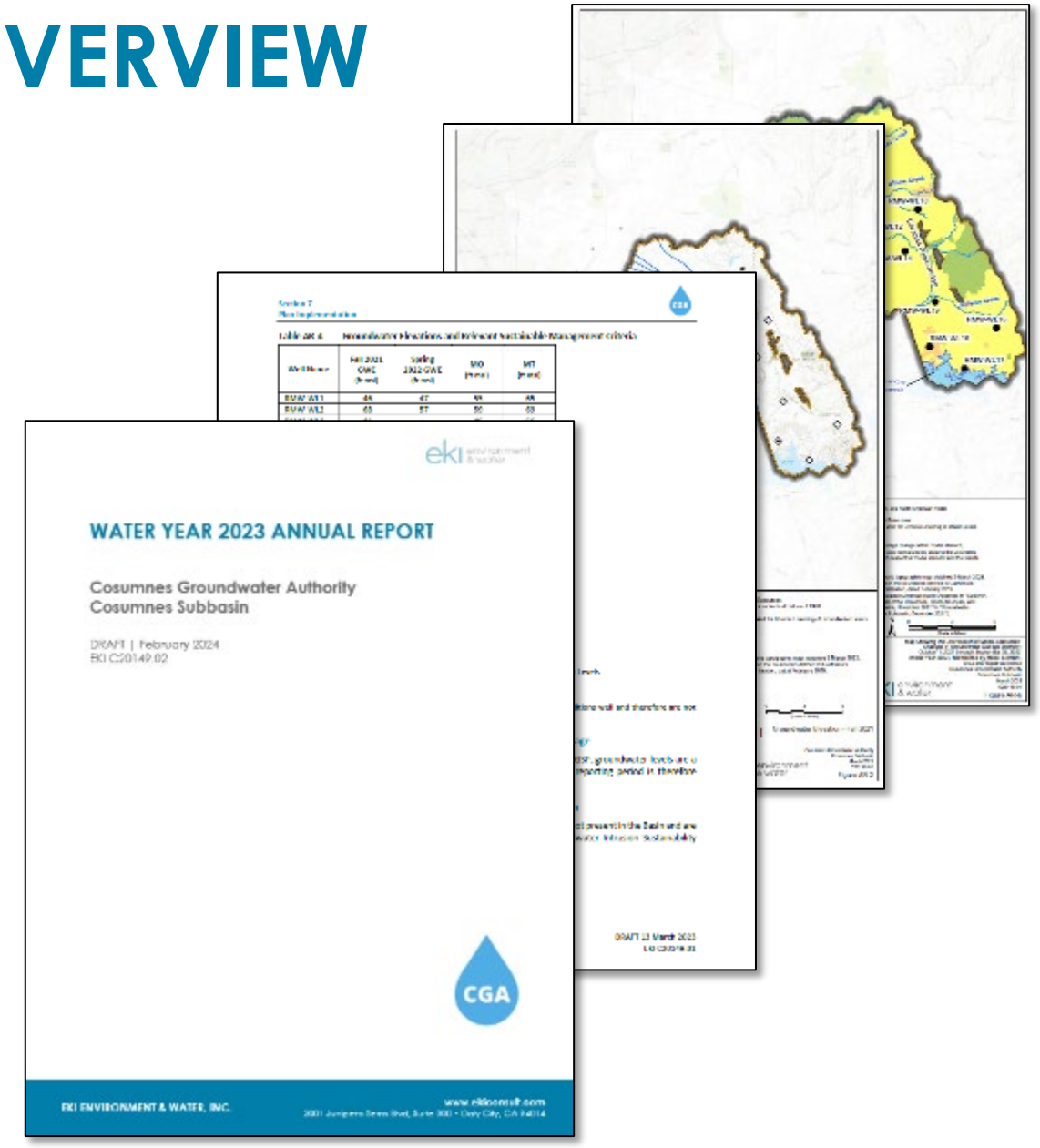
4 MARCH 2026

COSUMNES GROUNDWATER AUTHORITY BOARD OF DIRECTORS MEETING

eki environment & water

WY 2025 ANNUAL REPORT OVERVIEW

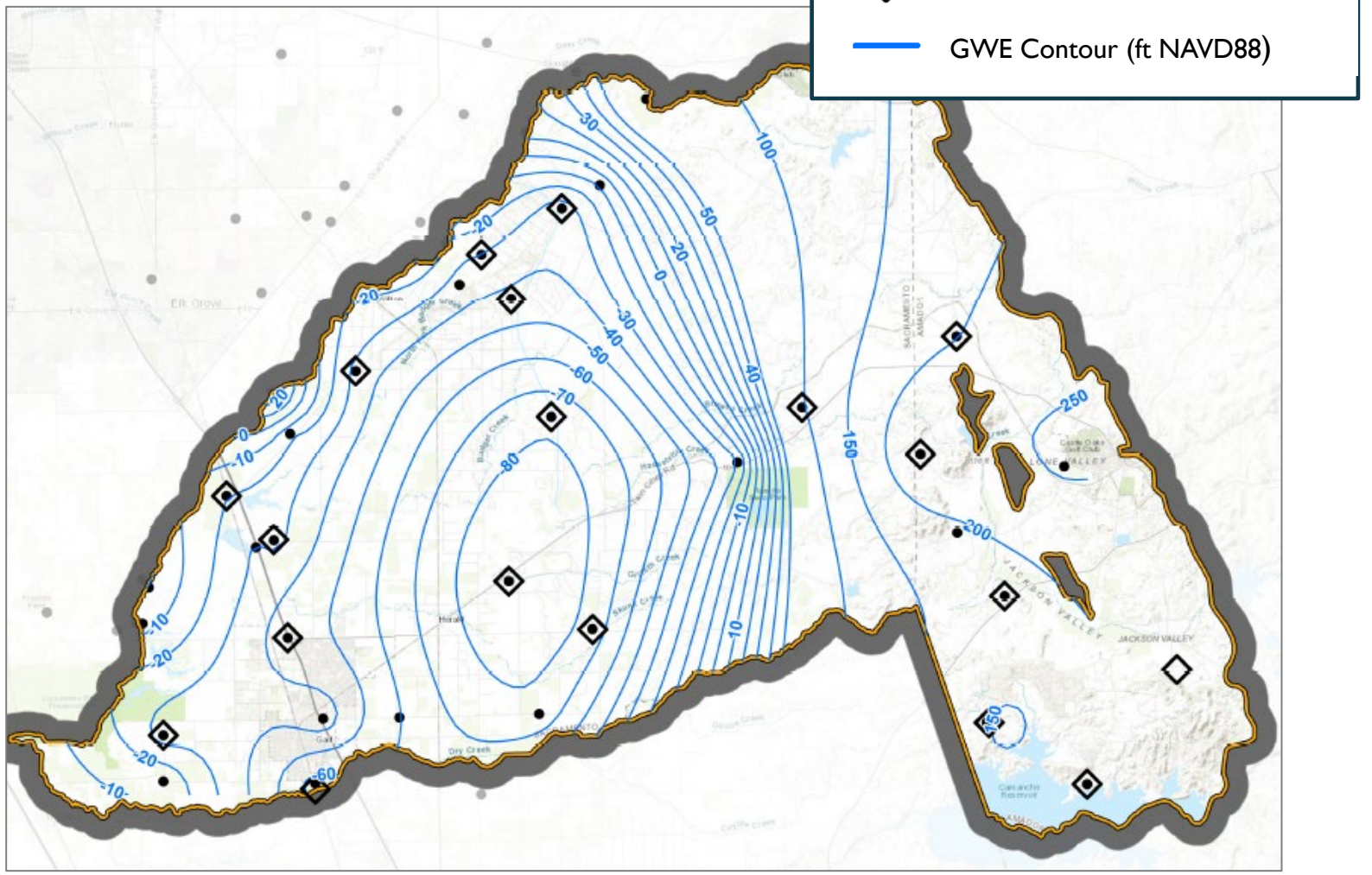
- Focus is Water Year 2025 (1 October 2024 through 30 September 2025).
- **Key Take-Aways:**
  - No Undesirable Results.
  - ~3,300 AF estimated **increase** in groundwater pumping compared to WY 2024.
  - ~8,500 AF estimated **decrease** in groundwater storage compared to WY 2024.



GROUNDWATER ELEVATION – FALL 2024

Contours of equal groundwater elevations based on measured water levels in 61 wells within and outside the Basin.

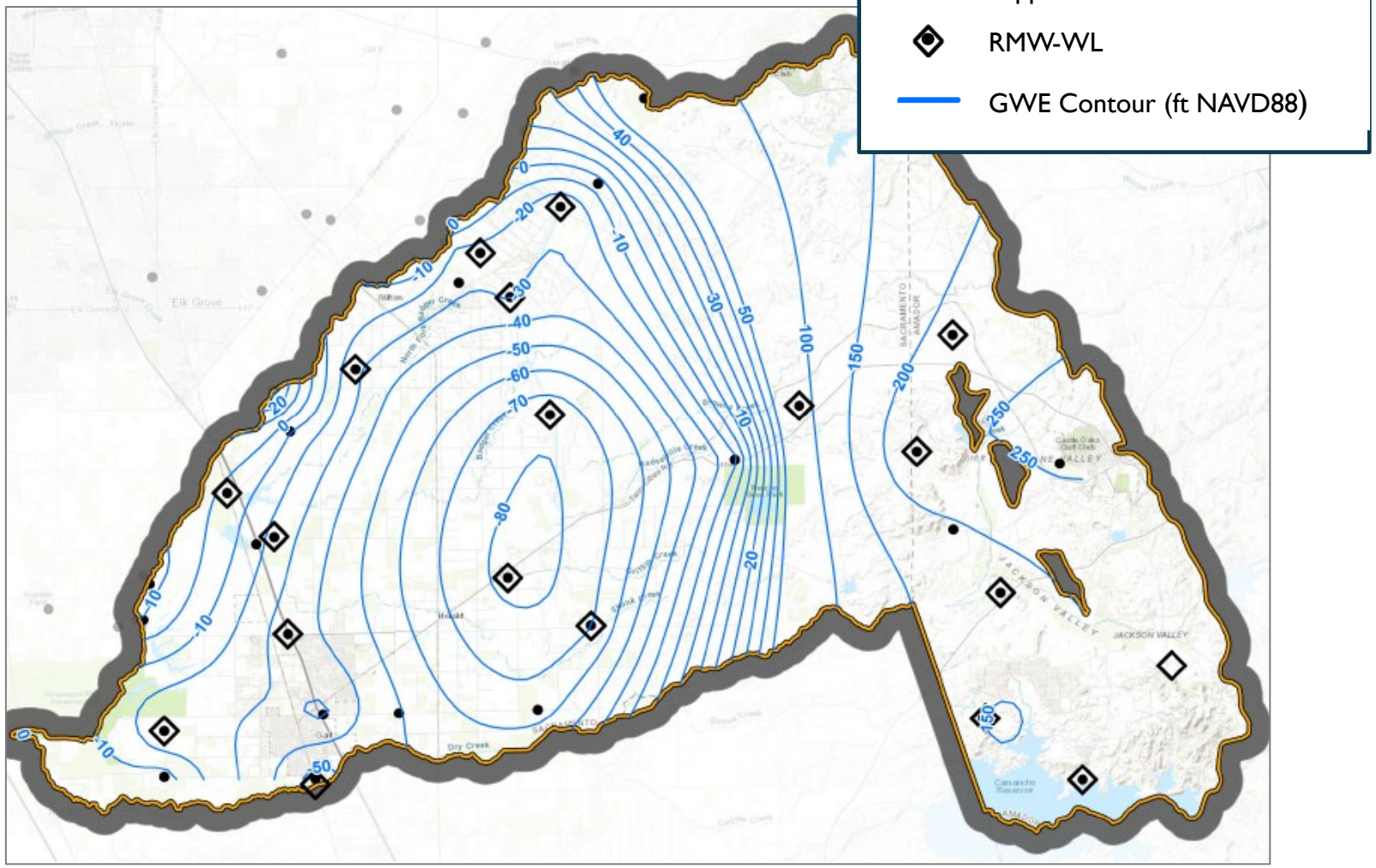
- In the Foothills, groundwater flow is to the west toward the Plain.
- In the Plain, groundwater flow is towards the groundwater low ("cone of depression").
- On average, WY 2025 Fall elevations were ~1 ft lower relative to WY 2024.



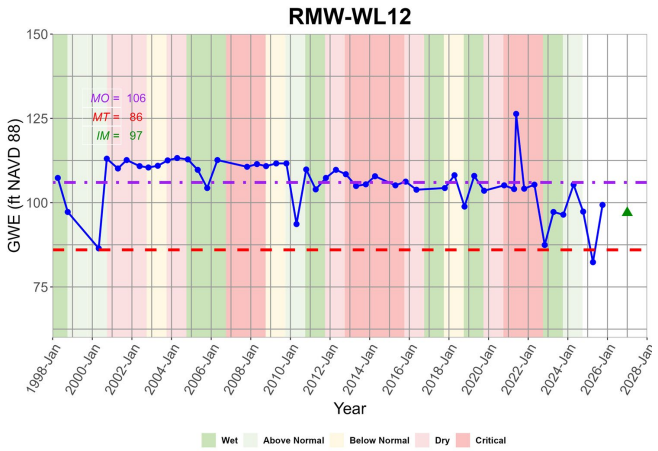
GROUNDWATER ELEVATION – SPRING 2025

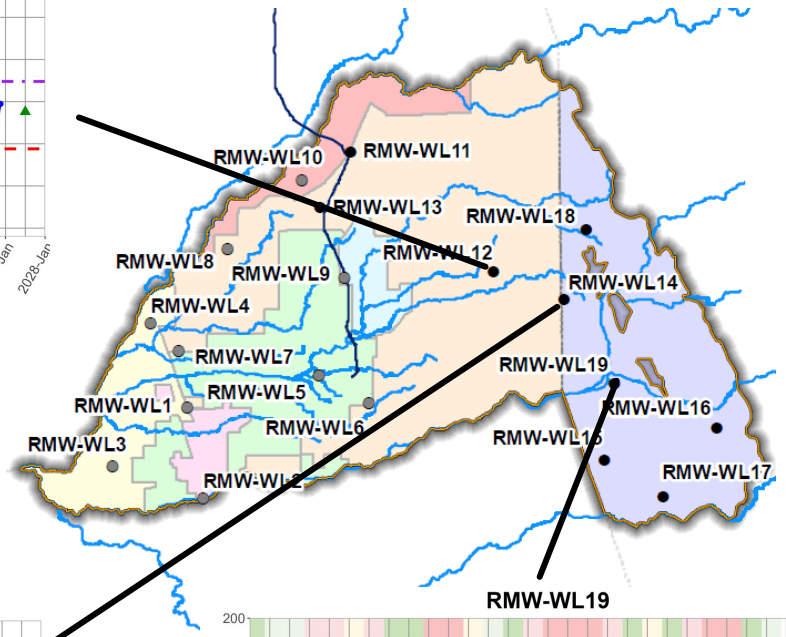
Contours of equal groundwater elevations based on measured water levels in 56 wells within and outside the Basin.

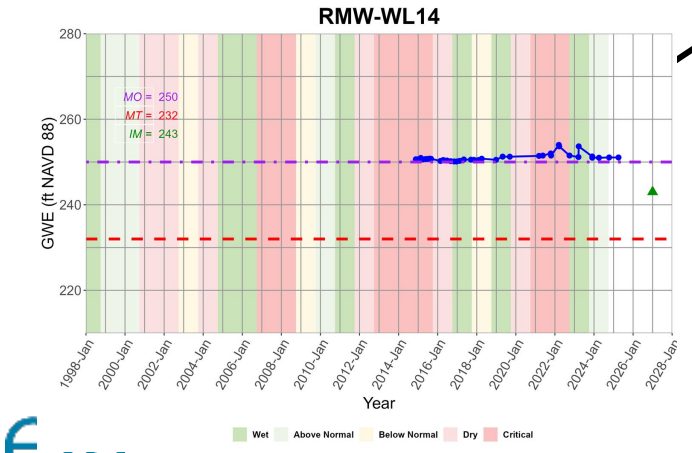
- In the Foothills, groundwater flow is to the west toward the Plain.
- In the Plain, groundwater flow is towards the groundwater low ("cone of depression").
- On average, WY 2025 Spring elevations were about ~1 ft lower relative to WY 2024.

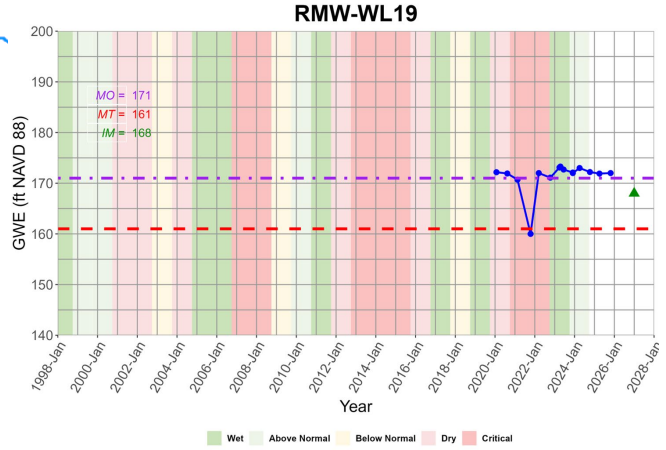


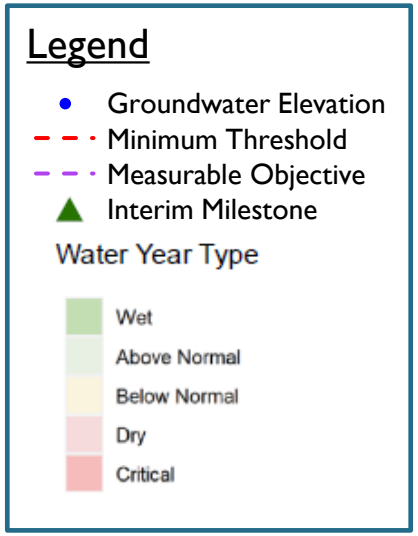
EXAMPLE HYDROGRAPHS - FOOTHILLS





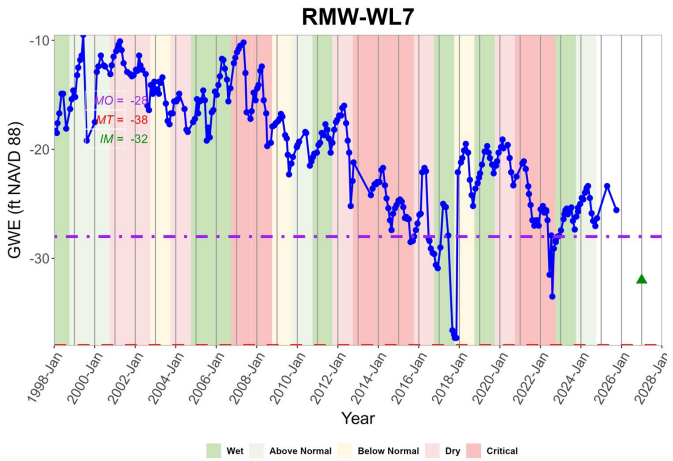


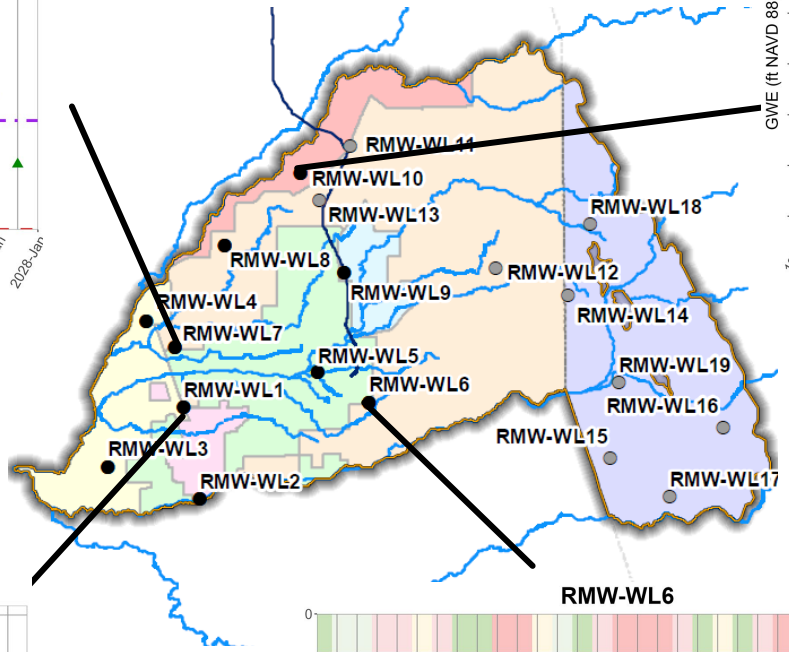


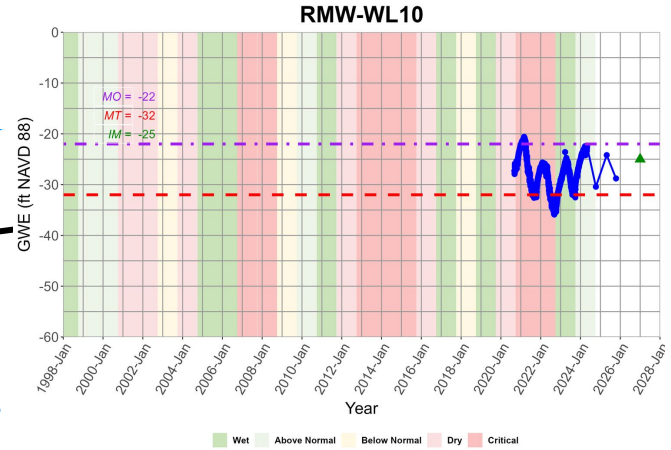


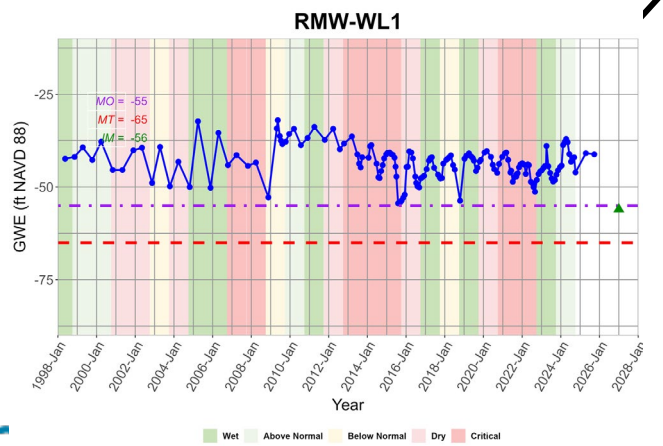
Most Foothills wells have groundwater levels near the Measurable Objective (MO).

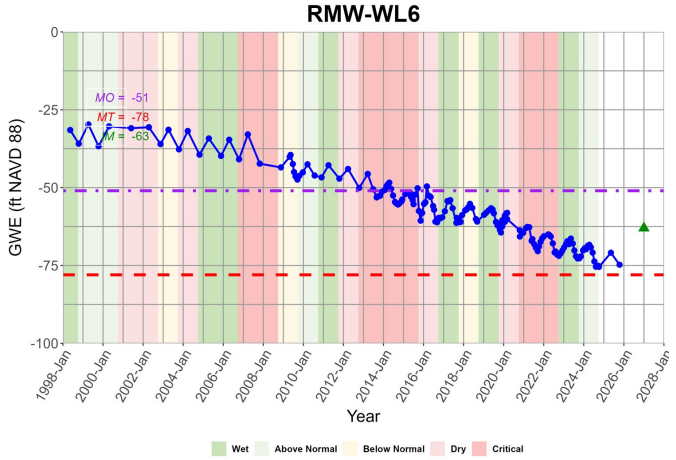
EXAMPLE HYDROGRAPHS – BASIN PLAIN

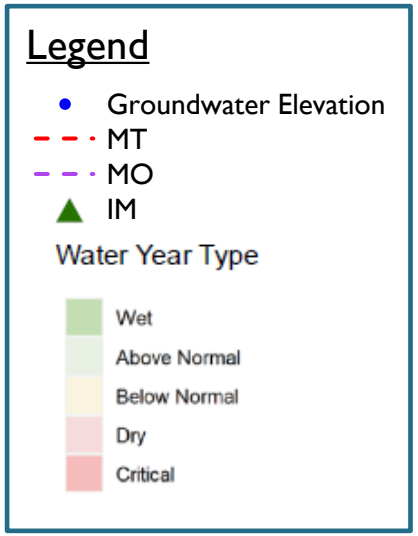












- Western-most wells have groundwater levels above or near the MO.
- Wells located near the center of the cone of depression have declining groundwater levels below MOs and approaching MTs.

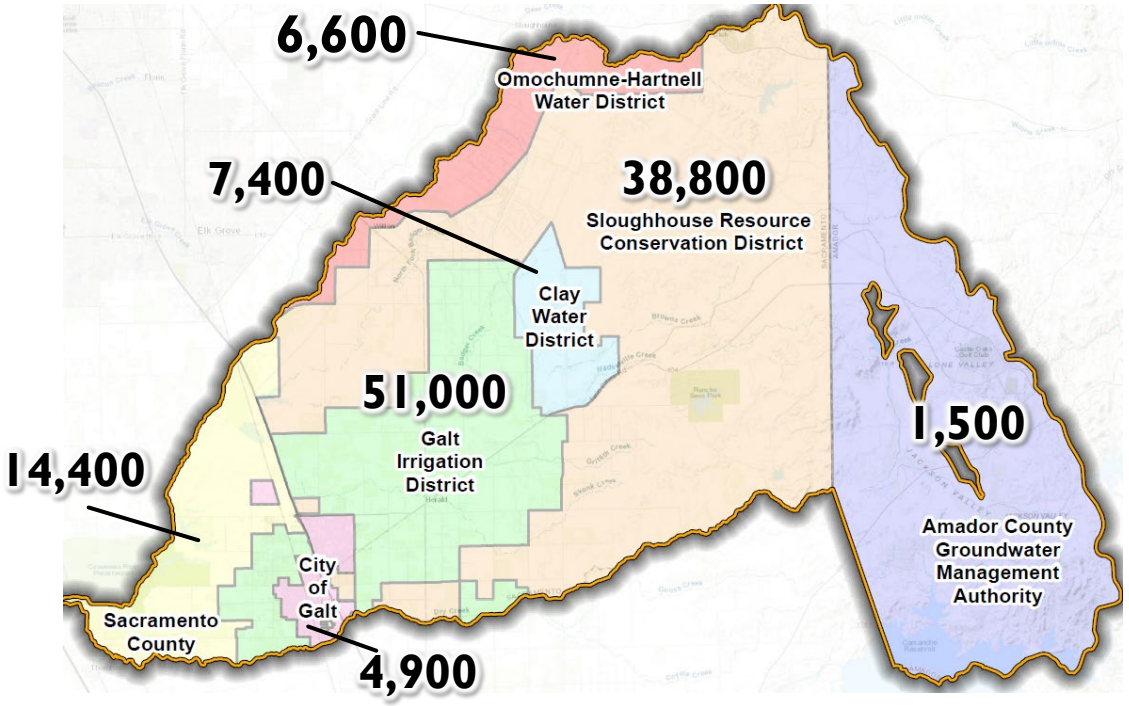
GROUNDWATER PUMPING BY SECTOR AND GSA

- 123,300 AF estimated total pumping
  - 87% for Agricultural Sector (includes Ag-Res).
  - 9% for Industrial Sector (aquaculture).
  - 4% for Urban Sector (municipal and public water systems).
- Total estimated pumping increased by 3,300 AF between WY 2024 and WY 2025.
  - Includes pumping reduction owing to the removal of ~2,500 acres of vineyards.

Table AR-1. Summary of Groundwater Extraction Data by Sector (AF)

Water Year	Agricultural	Industrial	Urban	Total
2021	134,100	11,000	5,200	**150,300**
2022	124,800	11,000	4,700	**140,500**
2023	105,900	11,000	4,700	**121,600**
2024	104,400	11,000	4,800	**120,200**
2025	107,300	11,000	5,000	**123,300**

From Figure AR-5. General Locations and Volumes of Annual Extractions (AF)



WY 2025 WATER USE BY SUPPLY SOURCE

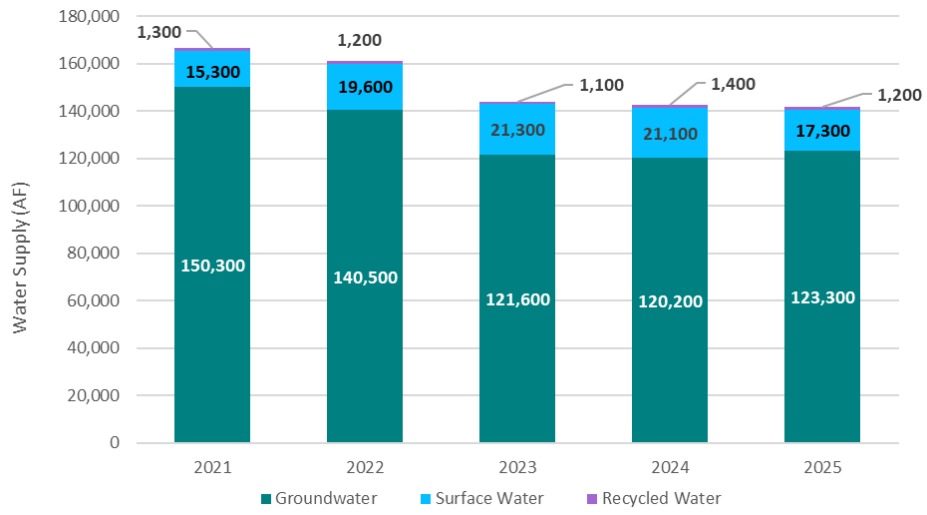
Total use was 141,800 AF

- Total WY 2025 use decreased 900 AF relative to WY 2024.
- Groundwater was the primary water source
  - 87% groundwater extractions.
  - 12% surface water (imported and diversions).
  - <1% from recycled water.

Table AR-3. Total Water Use by Source Type (AF)

Water Year	Groundwater	Surface Water	Recycled Water	Total
2021	150,300	15,300	1,300	**166,900**
2022	140,500	19,600	1,200	**161,300**
2023	121,600	21,300	1,100	**144,000**
2024	120,200	21,100	1,400	**142,700**
2025	123,300	17,300	1,200	**141,800**

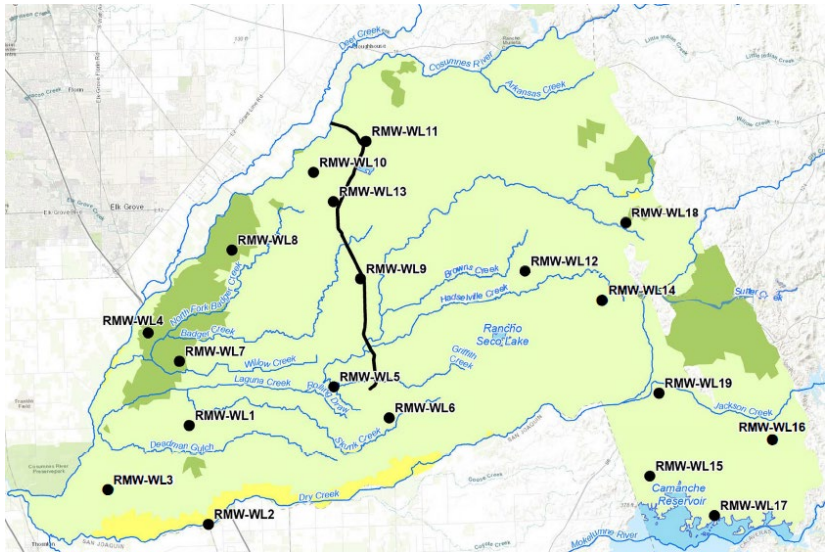
Figure AR-8. Total Water Use by Source Over Time (AF)



ESTIMATED GROUNDWATER STORAGE CHANGE

- Groundwater storage declined slightly (-0.25 feet or less) across most of the Basin, with greatest declines along Dry Creek.
- Localized groundwater storage increases were simulated in the uppermost portions of the Basin and in localized areas near the Cosumnes River.
- The calculated net change in storage across the entire Basin during WY 2025 was a decrease of **8,500 AF**.
- The net change in Basin storage during the period WY 2016 through WY 2025 is a total decrease of -52,600 AF (annual average decline of -5,260 AFY).

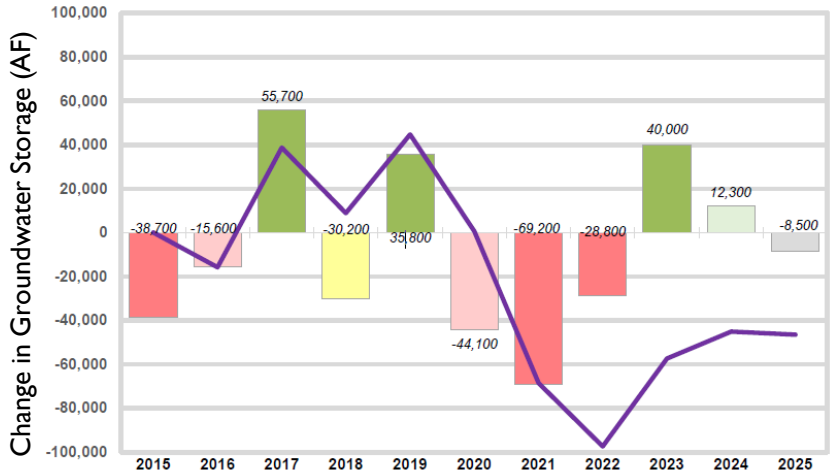
Storage Change for WY 2025



Legend

Storage Change (ft)

- ≤ -0.25
- -0.25 to 0
- 0 to 0.25
- 0.25 to 0.5
- 0.5 to 0.75
- > 0.75



Legend

DWR Water Year Type and Annual Groundwater Storage Change (AF)

- Wet
- Above Normal
- Below Normal
- Dry
- Critical
- Unclassified
- Cumulative Storage Change Since 2015 (AFY)

WY 2025 PLAN IMPLEMENTATION (1 OF 3)

Current Conditions – Sustainability Indicators

- Chronic Lowering of Groundwater Levels

"Undesirable Results occur when MTs are exceeded in 25% or more of the RMW-WLs (5 out of 19) for 2 consecutive years."

  - **No Undesirable Results in WY 2025.**

- Groundwater Storage (Groundwater levels used as a proxy for groundwater storage).

"Undesirable Results occur when MTs are exceeded in 25% or more of the RMW-WLs (5 out of 19) for 2 consecutive years."

  - **No Undesirable Results in WY 2025.**

- Seawater Intrusion - Not applicable to the Basin.

- Degraded Water Quality

"Undesirable Results occur when MTs for a constituent of concern are exceeded in 25% or more of the RMW-WQ (4 of 14) for 2 consecutive years."

  - **No Undesirable Results in WY 2025**.
  - *Note:* Three (3) wells were at or exceeded the MT for Arsenic (RMW-WQ2, RMW-WQ9 & RMW-WQ14) and will be evaluated as part of Recommended Corrective Action 3 (Investigate potential relationships between groundwater levels and degraded water quality).

- Land Subsidence

"Undesirable Results occur when MTs are exceeded in 25% or more of the RMW-WLs (5 out of 19) for 2 consecutive years."

  - **No Undesirable Results in WY 2025**.

- Depletions of Interconnected Surface Water

"Undesirable Results occur when water levels fall below the MTs for one (1) or more of the RMW-ISWs for 2 consecutive years."

  - **No Undesirable Results in WY 2025.**

WY 2025 PLAN IMPLEMENTATION (2 OF 3)

Projects and Management Actions

- PMA #1: OHWD GSA Agricultural Flood Managed Aquifer Recharge (Flood-MAR)
  - Secured a 5-year temporary water right allowing up to 2,444 AF diversion until 2027.
  - 330 AF of Cosumnes River water was diverted for recharge in WY 2025.
- PMA #2: Sacramento Area Flood Control Agency (SAFCA) Flood-Mar
  - Coordination between CGA and the South American Subbasin (SASb).
  - SASb provided the following implementation updates:
    - In WY 2025, SAFCA initiated development of a white paper describing benefits to the agencies using the American River water and outlining next steps.
    - Plans for WY 2026 include developing a pilot program to assess feasibility in the SASb.
- PMA #4: City of Galt Recycled Water Project: The recycled water feasibility study was initiated in August 2025 and will be completed in the latter part of 2026.
- PMA #5: Voluntary Land Repurposing

  The SRCD GSA is administering two grants from the California Department of Food and Agriculture to support:
  - 24 on-farm conservation plans to enhance water use efficiency, soil health, and carbon farming have been prepared.
  - 36 water efficiency tests were performed by the Water Efficiency Technician who assists farmers implement water-saving practices (expect at least 80 efficiency tests will be conducted over the two-year period).

WY 2025 PLAN IMPLEMENTATION (3 OF 3)

Recommended Corrective Actions

- Being addressed as part of the 2026 Amended GSP and 2026 Periodic Evaluation.

Other Information

- Stakeholder outreach included:
  - Monthly public CGA and GSA Board of Directors Meetings.
  - Public Workshops.
  - Farmers Appreciation BBQ.
  - Outreach and Engagement Committee meetings.
  - CGA Newsletters.
- Additional Information or Accomplishments included:
  - Two supplemental wells were added in the cone of depression area.
  - Sacramento County initiated Cosumnes River Pilot Study effort north of the Basin (reduces flood risk, increases groundwater recharge, and provides floodplain restoration).

QUESTIONS?