

ZONE 7 WATER AGENCY

# Alternative GSP Update
# Livermore Valley Basin
# Public Stakeholder Meeting

20 October 2026

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# How To Participate

REC Meeting is being recorded.

**1 RAISE YOUR HAND**

When you would like to speak, click the Raise Hand button (often under Reactions).




**2 WAIT TO BE CALLED**

The host will recognize you and allow you to turn on your microphone.

**3 UNMUTE AND SPEAK**

When prompted, click Unmute, state your name, and begin your comments.

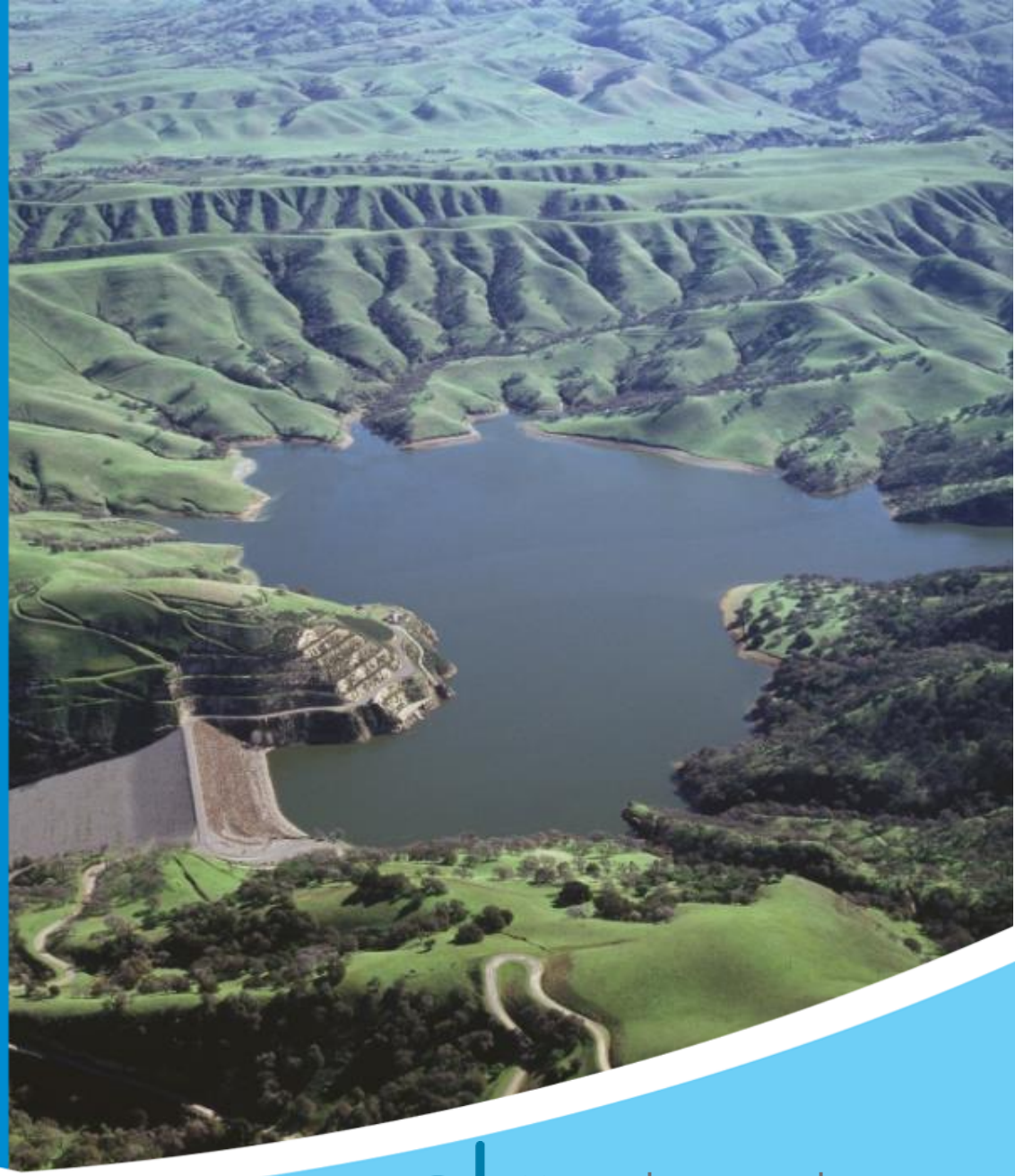
Tip: Keep your microphone muted unless called on to make a comment or ask a question.

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# Agenda

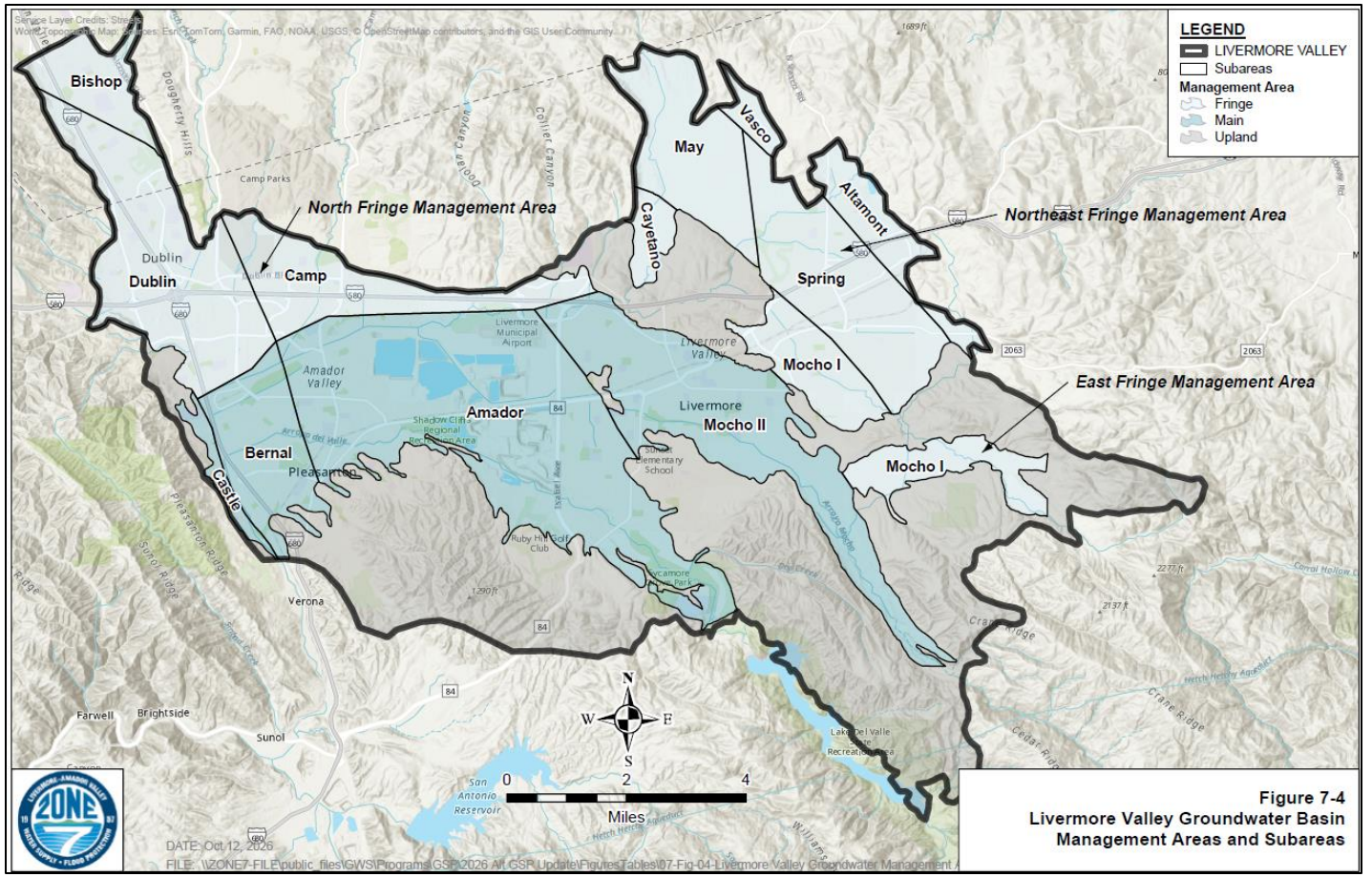
- Background
  - Overview of the Livermore Valley Basin
  - Key concepts of the Sustainable Groundwater Management Act (SGMA)
  - Zone 7's role
- Livermore Valley Basin Conditions & Outlook
- 2026 Alternative Groundwater Sustainability Plan (Alt GSP) Update
- Next Steps
- Public Comment

# Background



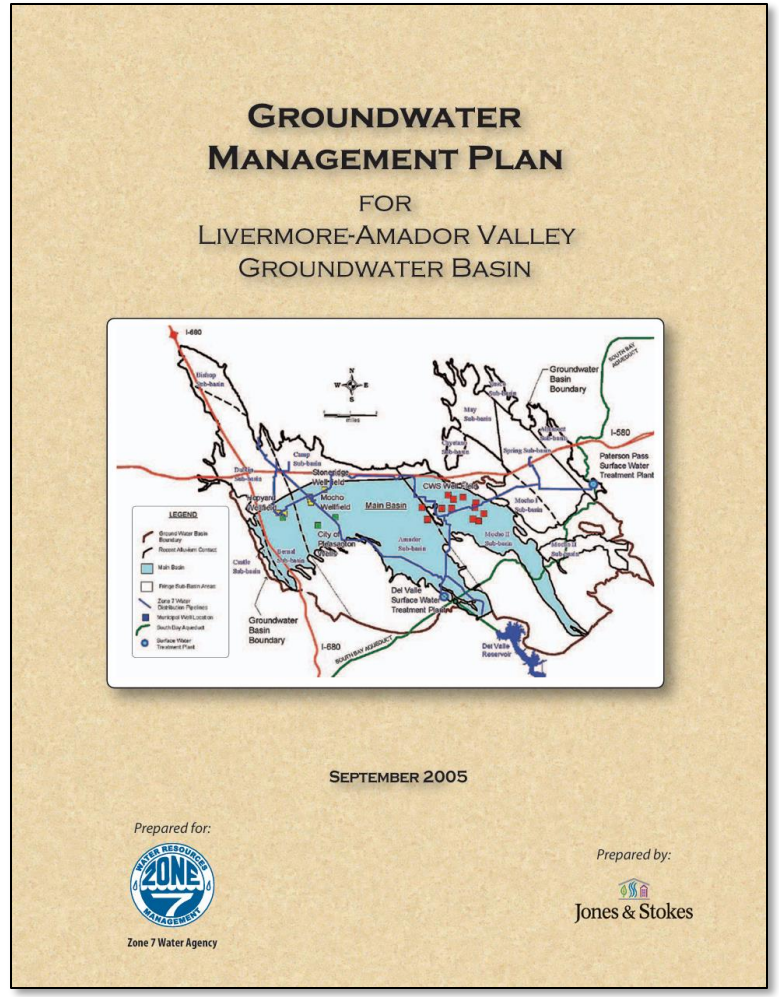
# Basin Overview

- Livermore Valley Basin covers ~69,600 acres
- Zone 7 serves a population of ~267,000 through its Retailers
- Basin includes three Management Areas (MAs):
  - Main Basin MA - 4 subareas
  - Fringe MA - 10 subareas
  - Upland MA



# Zone 7's Management of the Basin

- Zone 7 has been monitoring and managing groundwater conditions in the Basin since the 1960's
  - Groundwater levels, storage, and water quality have been successfully managed to supply safe drinking water to the public
  - Integrated water resources management covers a diverse portfolio of surface water imports, local surface waters, and groundwater production for beneficial use
  - Zone 7 has artificially recharged more water to the Basin than it has pumped since 1974 (approx. 33,000 acre-feet more)
- ***Zone 7's sustainable groundwater management pre-dates advent of California's Sustainable Groundwater Management Act (SGMA) and includes 2005 adoption of Groundwater Management Plan***



# SGMA Overview

- Groundwater basins are now managed by local Groundwater Sustainability Agencies (GSAs) pursuant to Groundwater Sustainability Plans (GSPs), or Alternative Groundwater Sustainability Plans (Alt GSP) if the GSA could show that the Basin had been sustainably managed for at least 10 years.
- Basins must reach sustainability by 2040/42 or continue to be sustainably managed if already demonstrated, as defined by a Sustainability Goal and measured by Sustainable Management Criteria (SMC) for six Sustainability Indicators:



**Chronic Lowering of Groundwater Levels**



**Reduction of Groundwater Storage**



**Degraded Water Quality**



**Land Subsidence**



**Depletions of Interconnected Surface Water**

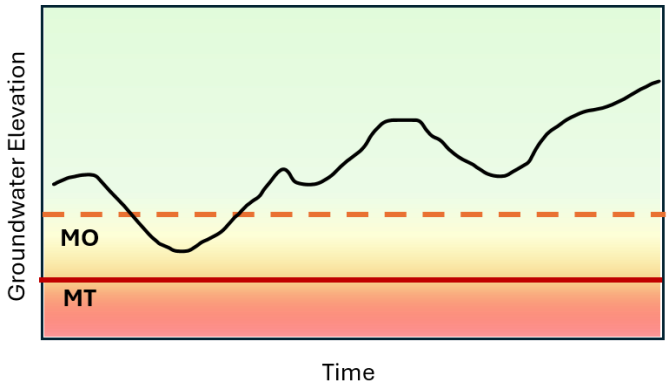


**Seawater Intrusion**

- GSAs manage groundwater with Projects and Management Actions (P/MAs)
- GSAs are required to prepare GSP updates, or re-submit its updated Alt GSP every 5 years

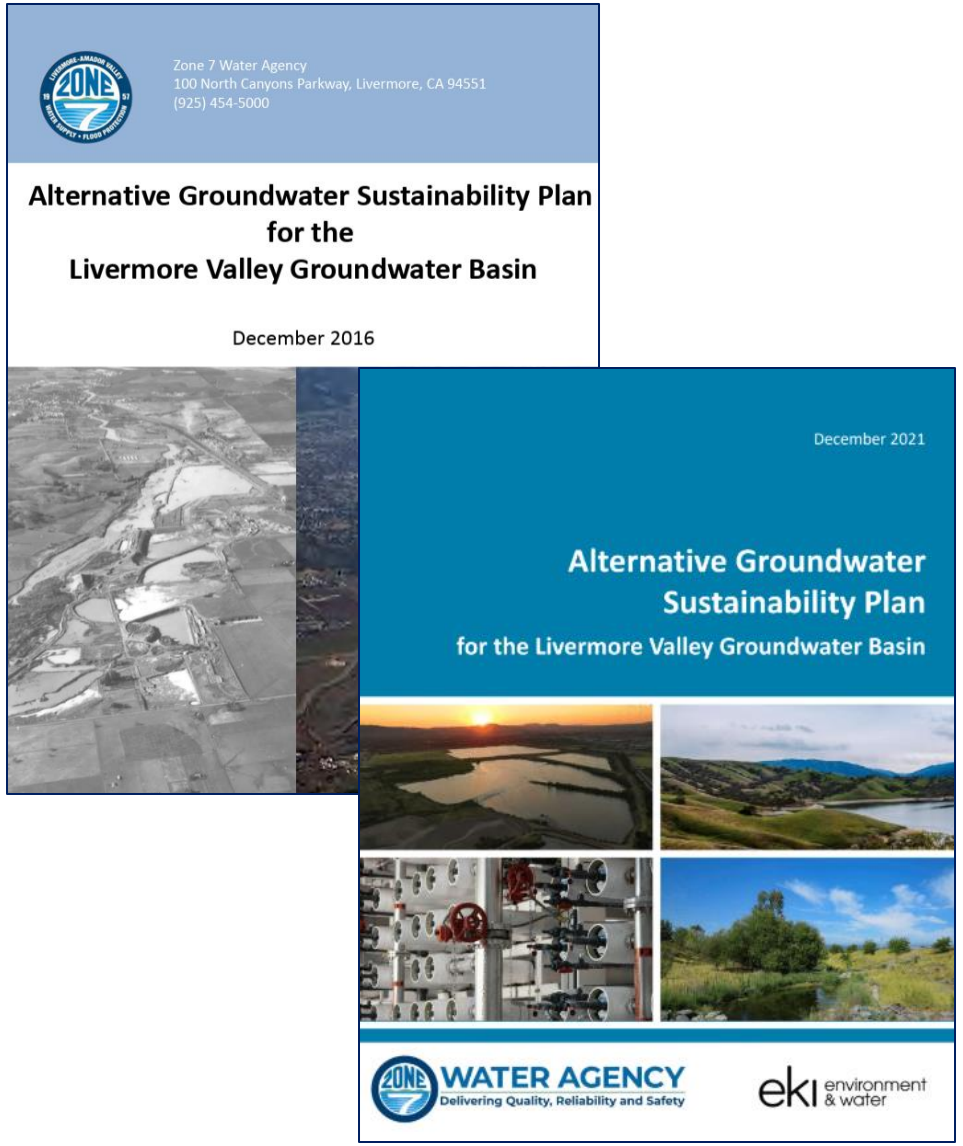
# Sustainable Management Criteria

- Under SGMA, progress towards sustainability for each Sustainability Indicator is evaluated against SMC at Representative Monitoring Sites (RMS):
  - **Measurable Objectives (MOs)** are quantitative goals that reflect the basin's desired groundwater conditions and allow the GSA to achieve the sustainability goal within 20 years
  - **Minimum Thresholds (MTs)** are the quantitative values representing groundwater conditions at a Representative Monitoring Site that, when exceeded, may cause an Undesirable Result (UR)



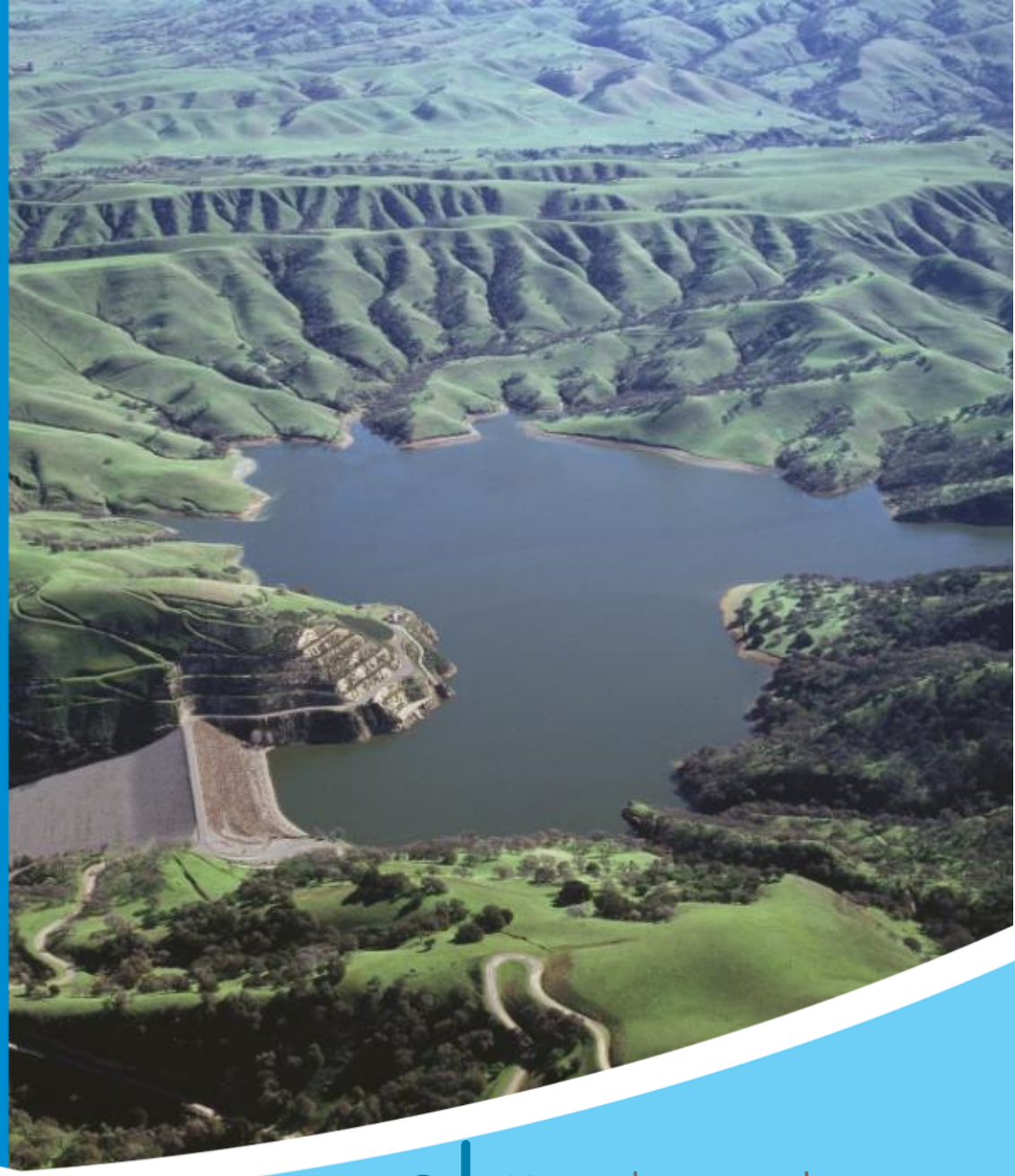
# Zone 7 Under SGMA

- Exclusive GSA for the medium-priority Livermore Valley Basin
- Two Alternative GSPs have been submitted and approved by DWR (2016 Alt GSP & 2021 Alt GSP)
- **Sustainability Goal:** *Continue to operate the Livermore Valley Groundwater Basin within its Sustainable Yield and to manage the groundwater resources for the prevention of significant and unreasonable: (1) lowering of groundwater levels, (2) reduction in basin storage, (3) degradation of groundwater quality, (4) inelastic land subsidence, or (5) depletion of surface water supplies such that beneficial uses aren't adversely impacted.*
- Annual Reports provide annual progress updates to DWR and the public



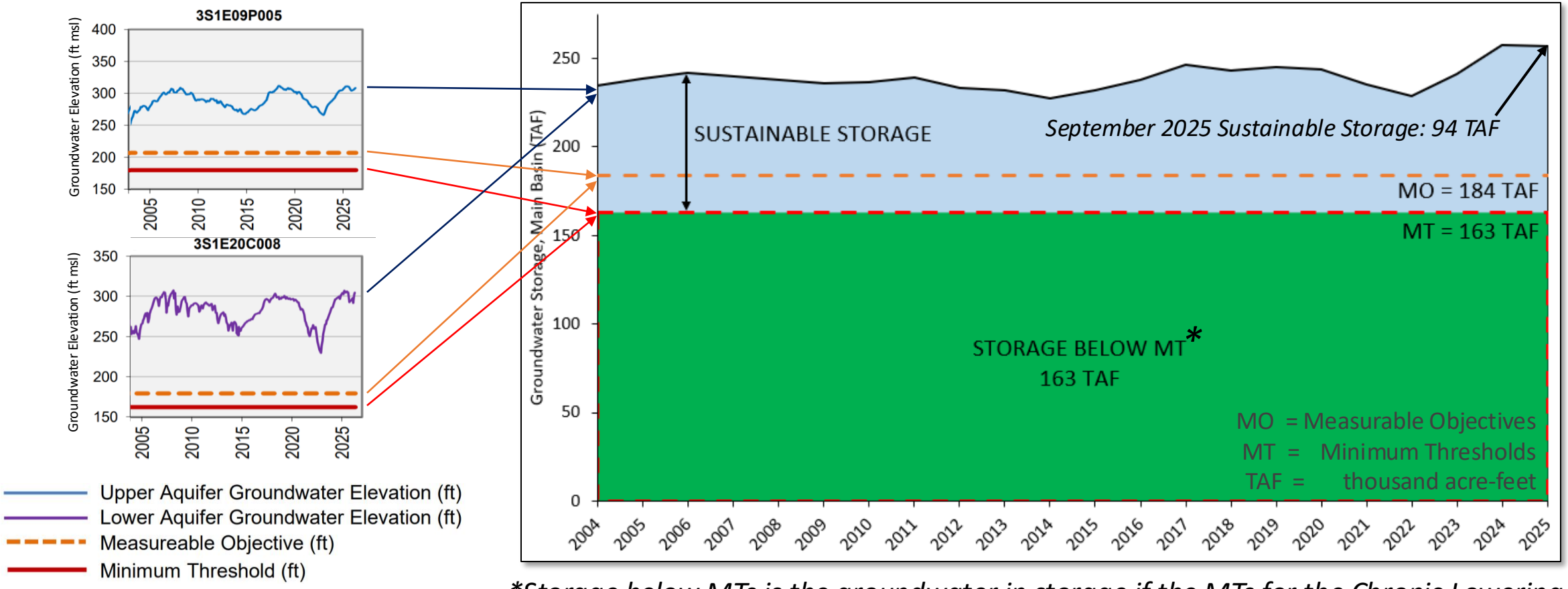

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# Livermore Basin Conditions and Outlook



# Groundwater Level & Storage Conditions

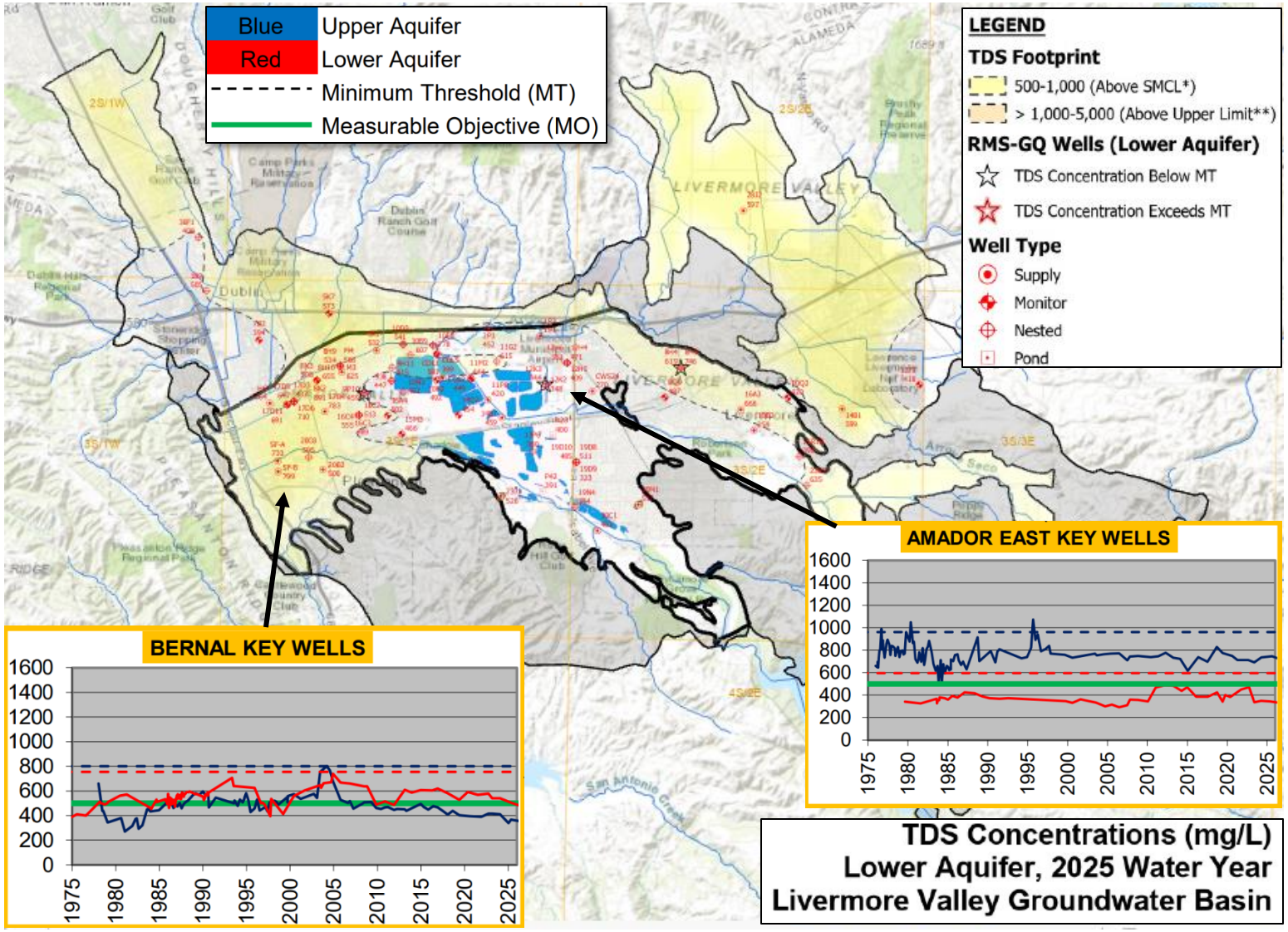
***Groundwater levels and groundwater storage are both high and stable***



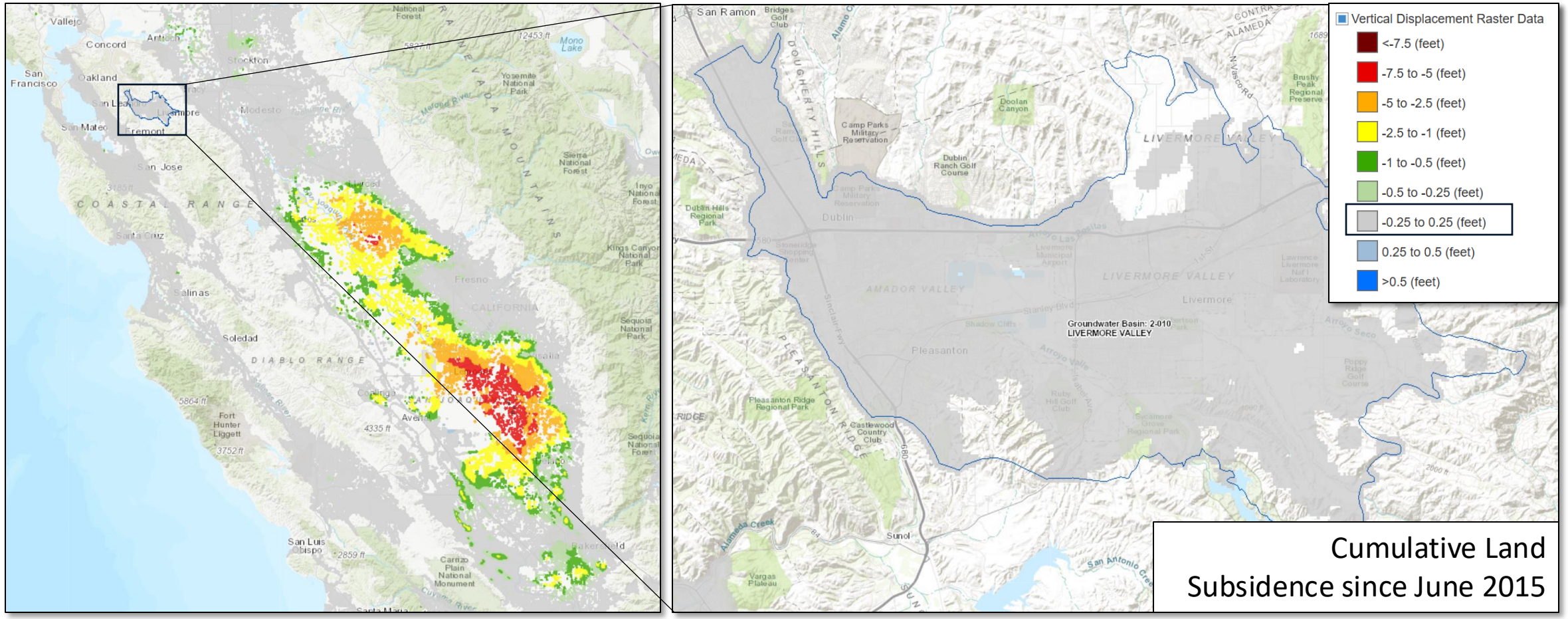

**Storage below MTs is the groundwater in storage if the MTs for the Chronic Lowering of Groundwater Levels were to occur simultaneously throughout the Basin*

# Groundwater Quality Conditions

- Water quality in the Basin is ***within historical ranges***, and ***treated to drinking water standards***
- The Alt GSP addresses TDS, nitrate, boron, hexavalent chromium, PFOS, and PFOA
- **No Undesirable Results Triggered**

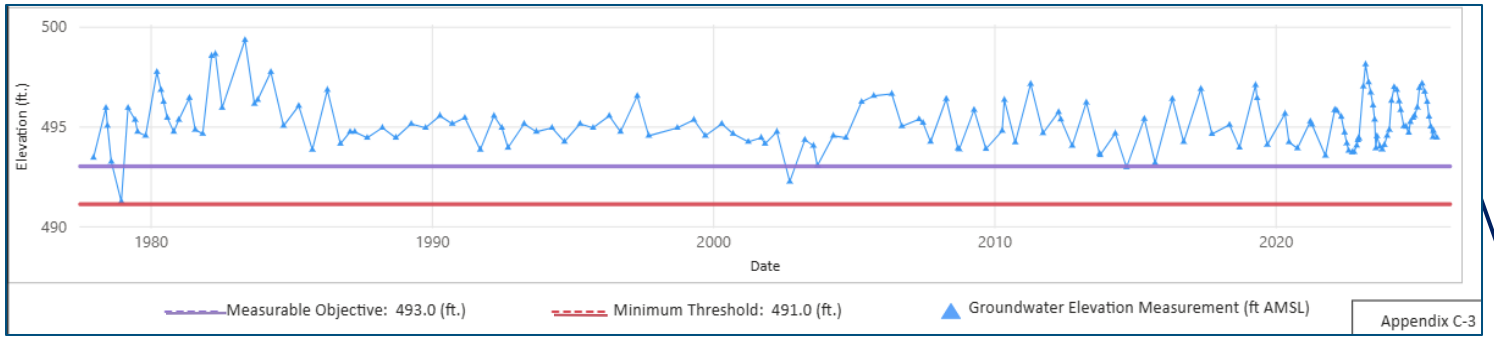


# Land Subsidence

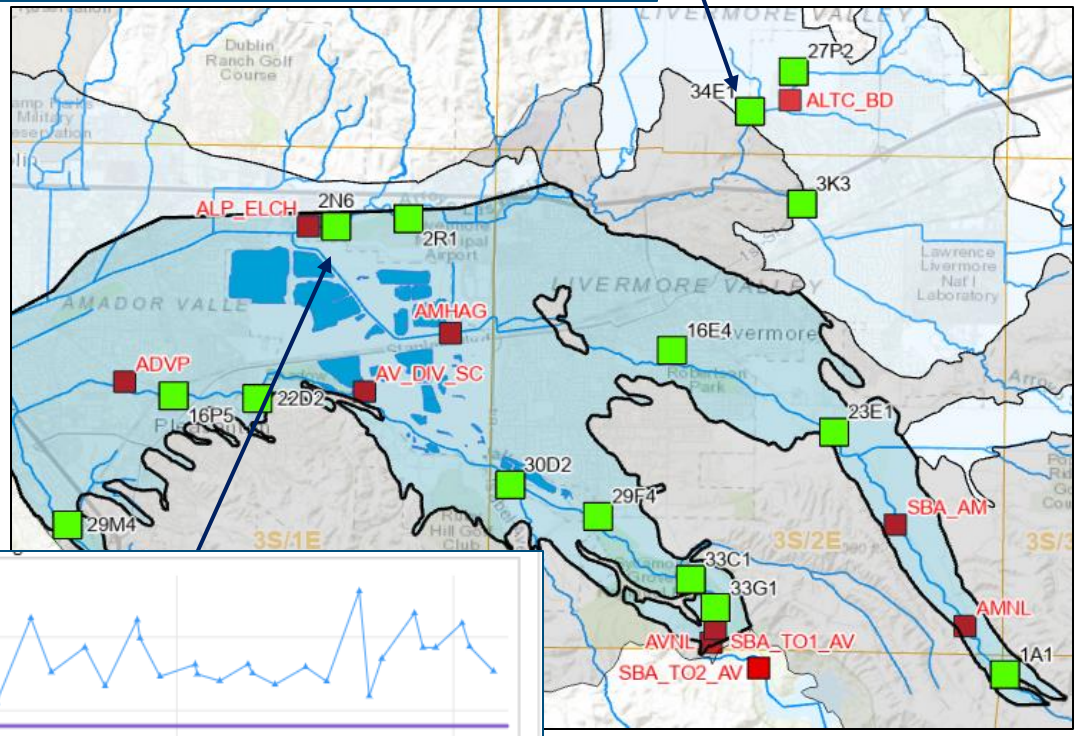


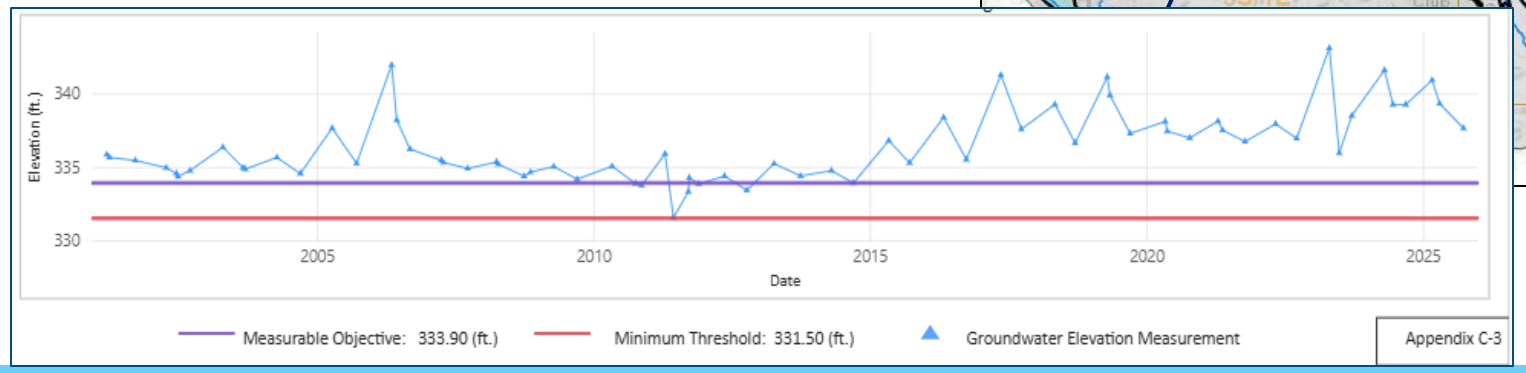

*Inelastic Land Subsidence **has not occurred** in the Basin historically or during past 5 years*

# Interconnected Surface Water




*Upper Aquifer water levels used historically to monitor Interconnected Surface Water (ISW)* ***remained stable and above MTs***




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# Basin Conditions Summary

- **Groundwater Basin is Healthy**
- **No Undesirable Results**
- **Meeting Basin Sustainability Goal & Continued Sustainable Basin Management**

| Sustainability Criteria | Meeting SMC Goals: |
|---|---|
|  Chronic Lowering of Groundwater Levels | ✓ |
|  Reduction of Groundwater Storage | ✓ |
|  Degraded Water Quality | ✓ |
|  Land Subsidence | ✓ |
|  Depletions of Interconnected Surface Water | ✓ |
|  Seawater Intrusion | Not Applicable |

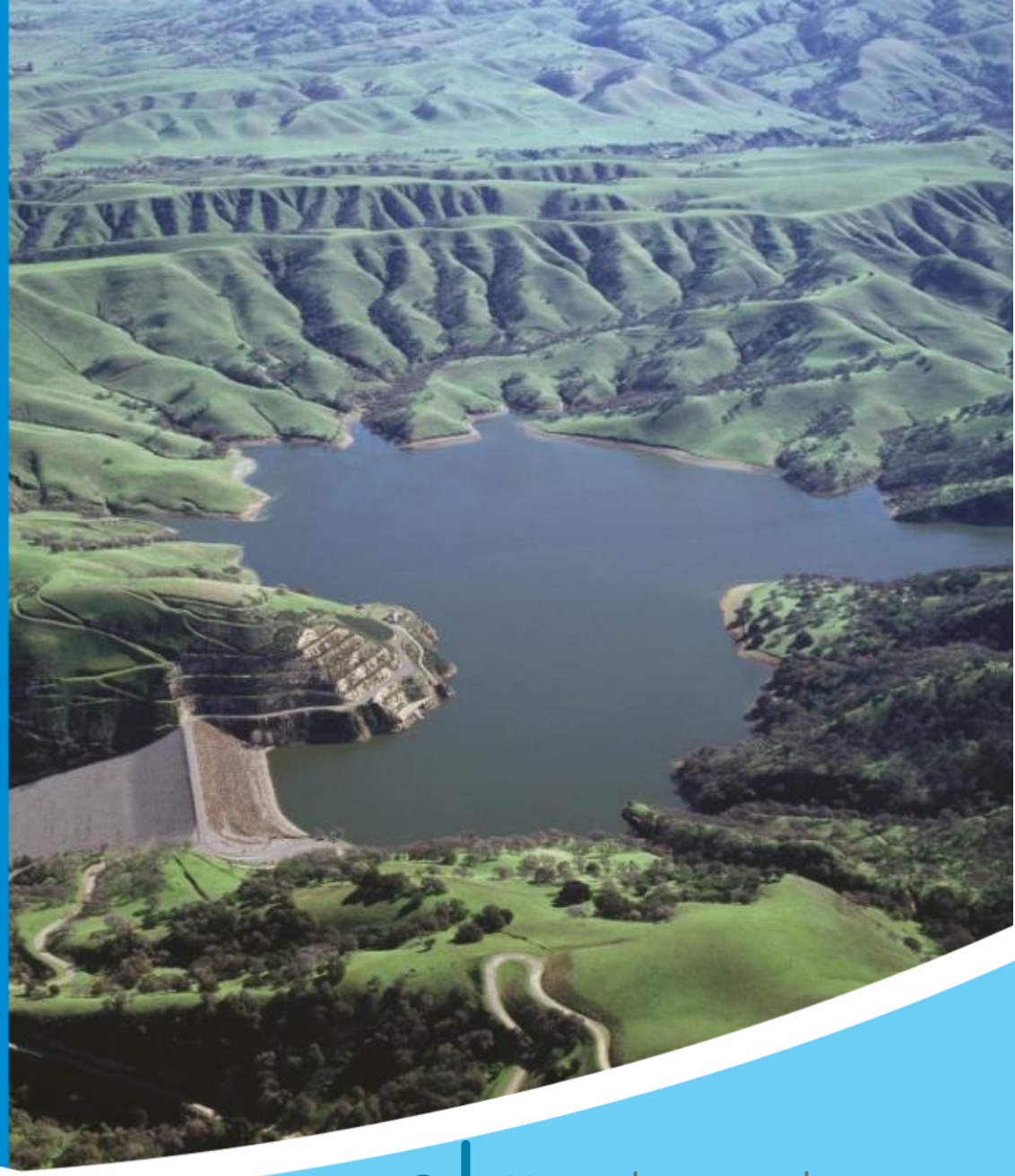
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# Projects and Management Actions

- **Regional Groundwater Facilities Project Feasibility Study** was completed to add two new wells in the Main Basin to increase water supply reliability for Zone 7 and to recover Pleasanton's groundwater production
- **Chain of Lakes Conveyance System Project** was approved to proceed with the development of local storage using Zone 7's own lakes
- **PFAS Management Strategy** was developed to include four pillars; monitoring, blending and treating, prevent further degradation, and diversifying groundwater sources to become more resilient.
- **Water Transfer transactions** were completed to manage water supplies as a portfolio component to meet the water supply reliability policy's goals
- **Data Gap Filling** was conducted using geophysical surveys, Electrical Resistivity Logs, well logs, etc. , to improve understanding of the Basin through data collection, an updated hydrogeologic conceptual model (HCM), a new numerical Model, and expanded monitoring networks

# 2026 Alternative Groundwater Sustainability Plan Update



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# 2026 Alternative GSP Update and Periodic Evaluation

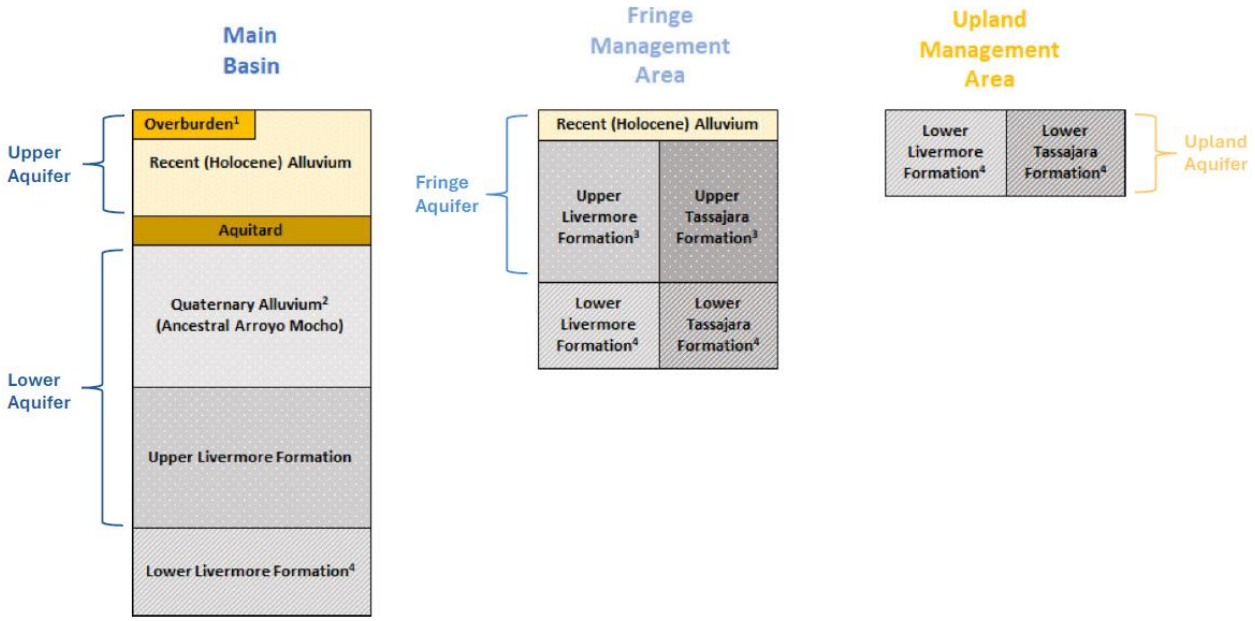
- Alt GSP revisions:
  - Basin setting
    - HCM
    - Groundwater Conditions
    - Water Budget
  - Monitoring Network
    - Addressed DWR recommendation to ensure Zone 7 monitoring well data is consistent with SGMA portal data
  - SMCs for Degraded Water Quality and Depletion of ISW
  - P/MA Update

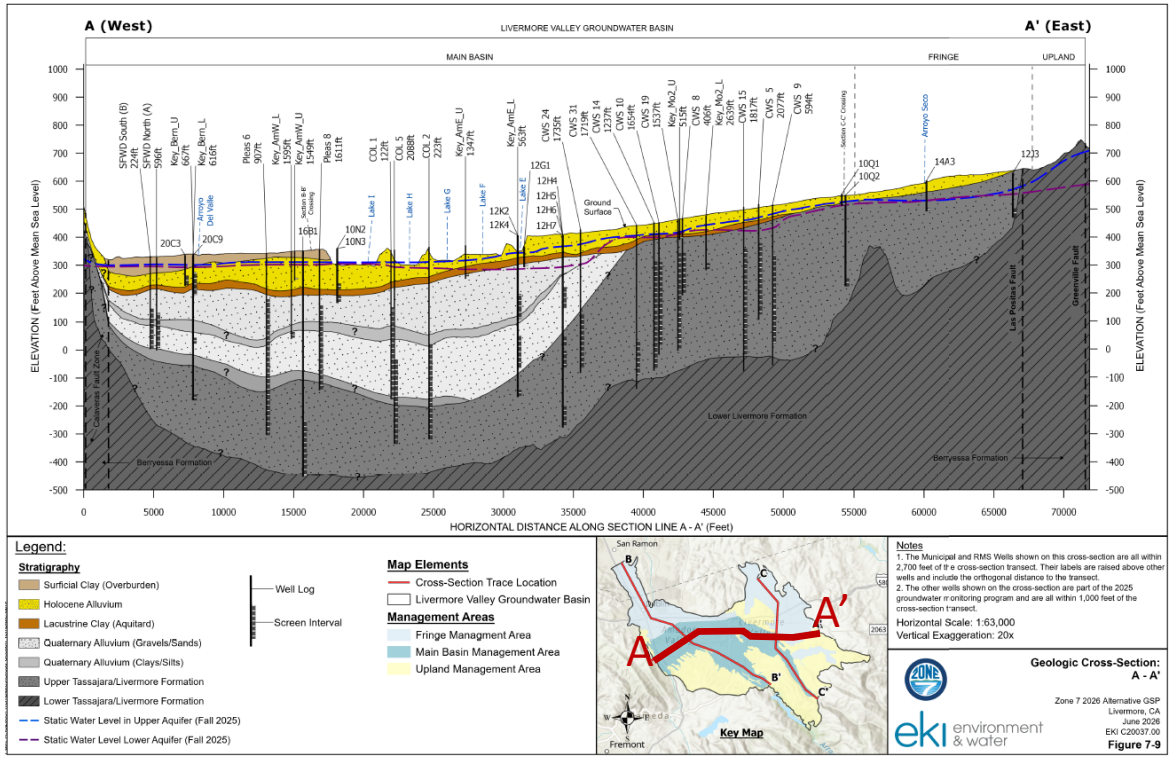
- Periodic Evaluation:
  - Summarizes Basin conditions and sustainability progress
  - Summarizes Alt GSP revisions

*No persistent MT exceedances or Undesirable Results have occurred over the past five years; no Undesirable Results are anticipated in coming years*

# Basin Setting – Hydrogeologic Conceptual Model

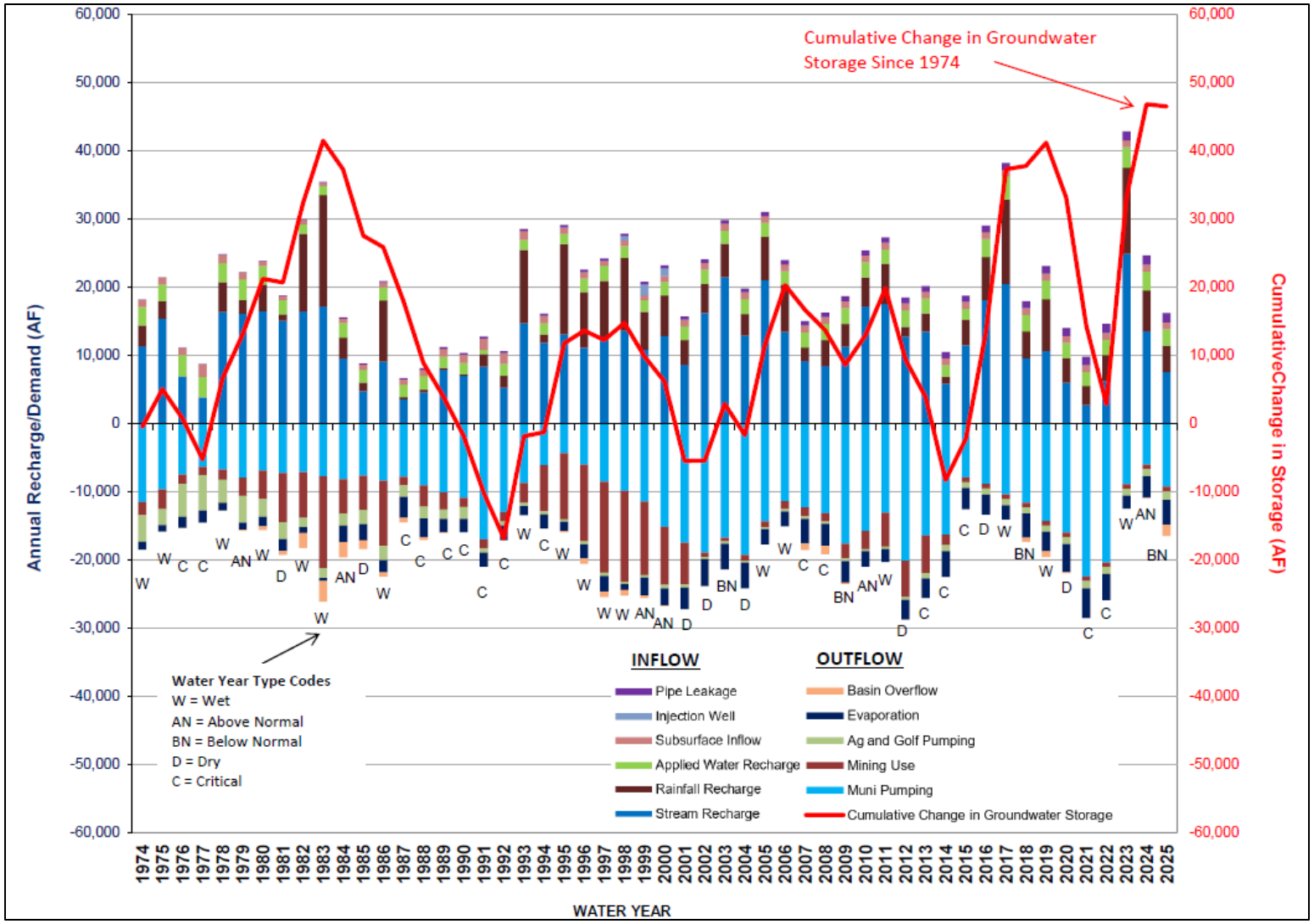
- Developed 3D geologic model of major hydrogeologic features and principal aquifers and aquitards
- Data sources incorporated into HCM include:
  - Lithology, e-log, grain size distribution, and well construction data from >1,070 boreholes
  - Geophysical data from five local ERT + seismic refraction surveys, two local sTEM surveys, eight DWR AEM surveys
  - Geospatial data representing surface topography, inferred fault lines / hydraulic barriers, surface water, etc.
  - Over 20 cross sections of the Basin from prior Zone 7, LLNL, USGS, and DWR studies



# Basin Setting – Water Budget

- Inflows – outflows = change in storage
- Basin storage generally increases during wet periods and decreases during dry periods
- Basin recovers quickly after dry periods, and Basin **water budget is 'balanced' over long-term**



# Monitoring Networks

- SGMA monitoring networks have been improved and expanded
- Groundwater Levels: includes ~250 wells, measured at least twice annually and in many cases continuously
- Water Quality: includes ~250 wells, sampled at least annually for a variety of compounds
  - Supply wells and areas in or near known areas with contamination are sampled more frequently
  - Water quality sampling now includes a full suite of PFAS and hexavalent chromium
- ISW: includes 9 Basin model stream segments, 15 monitoring wells, 13 stream gauges
  - Monitoring wells and stream segments were selected to monitor conditions at nearby groundwater-dependent ecosystems (GDEs)
- Zone 7 also monitors rainfall, evaporation, climatology, surface water levels and flows, and mining operations in the Basin
- Addressed DWR recommendation to ensure Zone 7 monitoring well data is consistent with SGMA portal data

# Groundwater Levels Monitoring Network

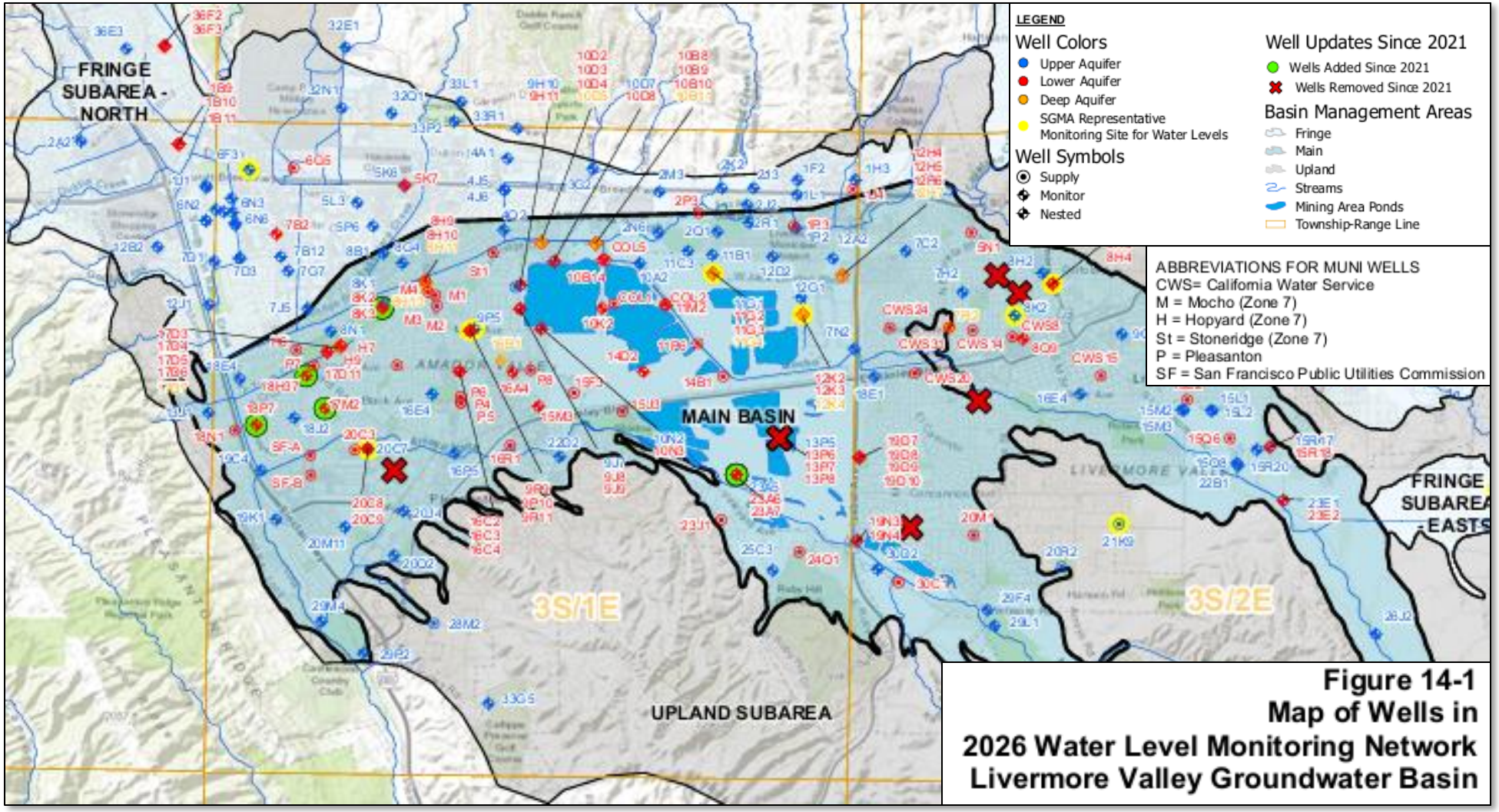
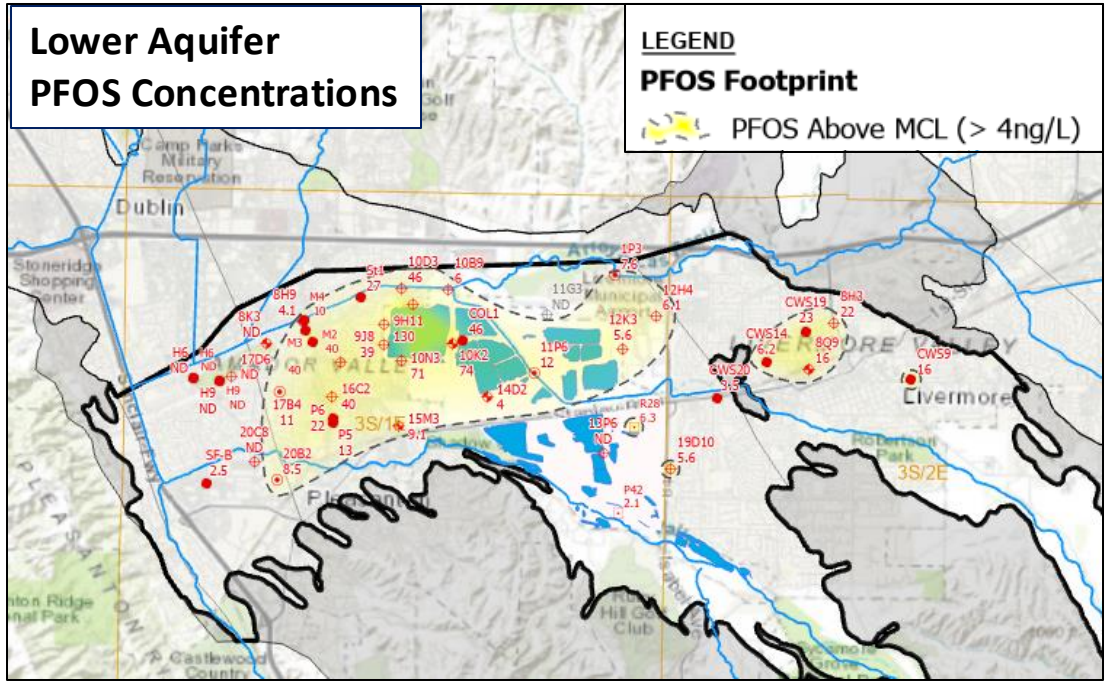


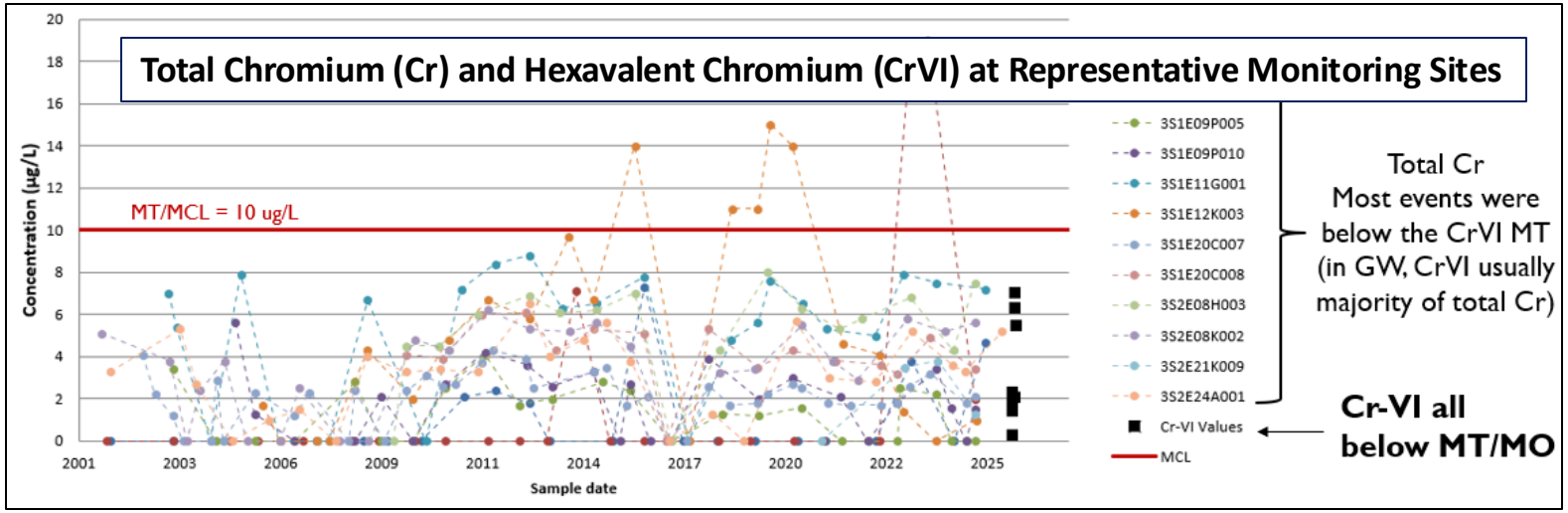

**Figure 14-1**
**Map of Wells in**
**2026 Water Level Monitoring Network**
**Livermore Valley Groundwater Basin**

*Since 2021, 8 wells have been added and 10 wells that were outside the Basin or not accessible were removed from monitoring network*

# SMCs - Water Quality

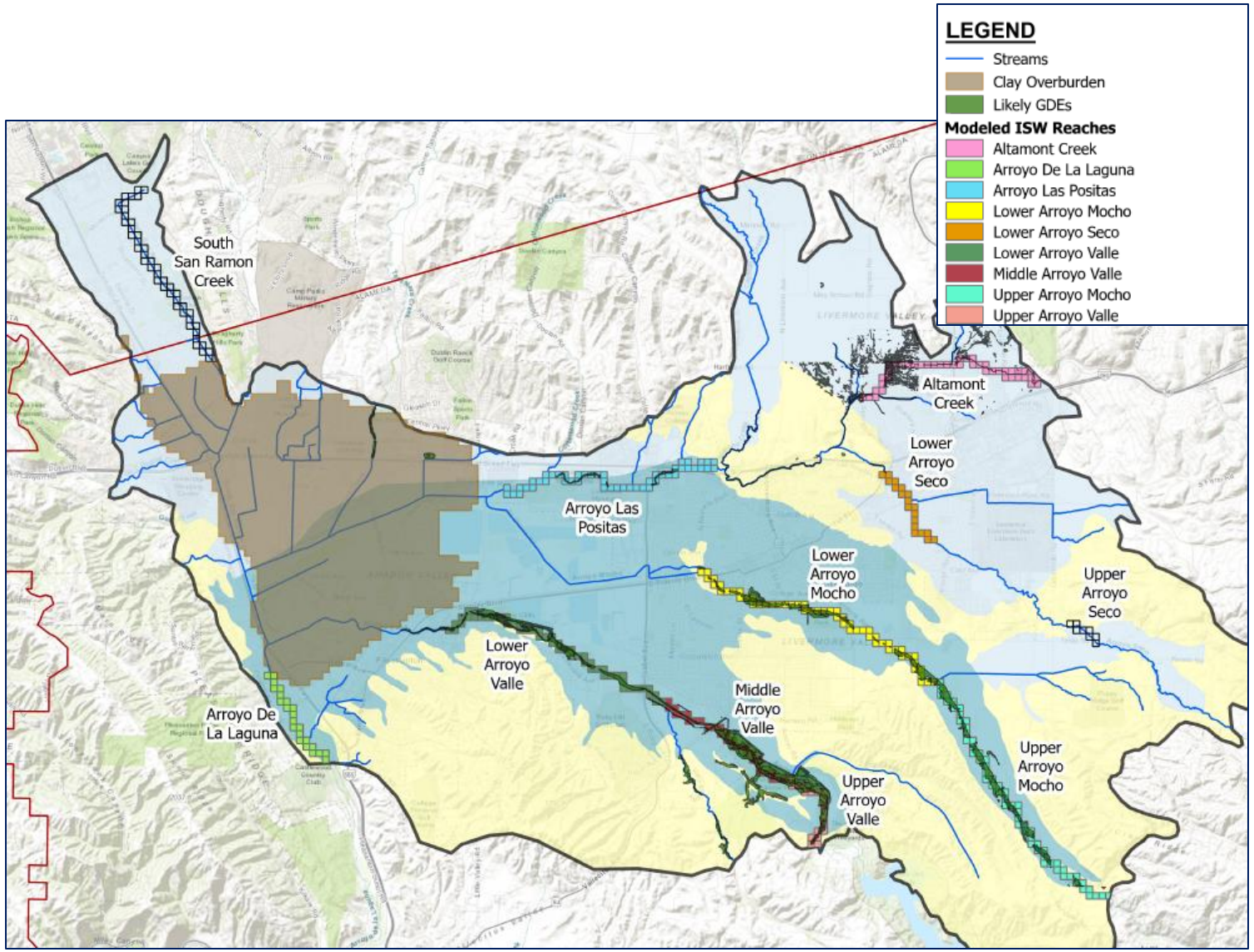
- SMCs developed based on MCLs and historical data, consistent with approach in 2021 Alt GSP
- Preliminary SMCs established to evaluate hexavalent chromium more specifically than generalized total chromium
- Preliminary SMCs established for PFOA and PFOS
  - Zone 7 is monitoring and managing PFAS and continues to supply safe water to the public
  - Zone 7 is proactively meeting PFAS drinking water standards ahead of the 2031 compliance deadline set by EPA



# SMCs – Interconnected Surface Water

- Preliminary SMCs for Depletion of ISW established for 9 stream reaches in the Basin based on modeled depletions due to pumping since 2014
- Shallow groundwater level monitoring serves as a trigger for modeling of potential depletions
- Approach is consistent with DWR Guidance for ISW

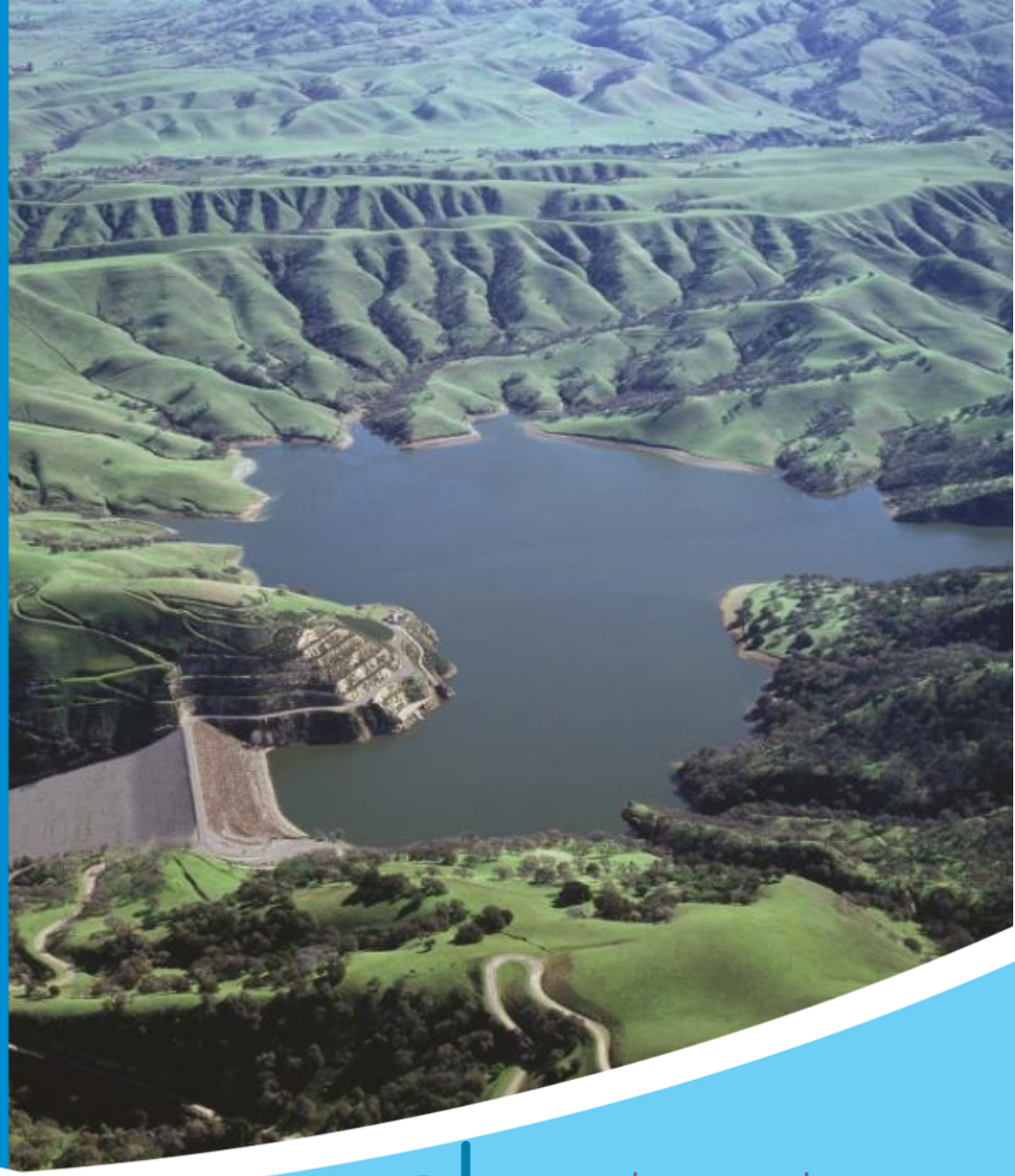


# The Next Five Years: Projects and Management Actions

- **Well Master Plan** Will evaluate supply well network and generate recommendations for improvements to supply reliability
- **Regional Groundwater Development Project** Adds two municipal production wells; expected by 2029
- **Chain of Lakes Conveyance System Project** Expected to provide 36,400 acre-feet (AF) additional storage
- **PFAS Management Strategy** Continue implementing four pillars of PFAS Management Strategy and adding a Mocho PFAS treatment plant by 2028
- **Basin Water Quality Management Plan** will serve as an agency-wide guidance document to provide a comprehensive and coordinated plan for water quality management across the Basin
- **Sites Reservoir** is a planned reservoir in Colusa/Glenn counties that will provide Zone 7 with an average of 3,500 AF per year in additional supply



# Next Steps and Public Comment



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# What is Happening Next?

- A public draft will be available for review by October 30, 2026
- The public and stakeholders can submit input on the Draft Alt GSP through 18 November 2026
- 18 November 2026: Updated Alt GSP will be presented to Zone 7 Board of Directors
- Zone 7 will compile and incorporate input into the Alt GSP
- 21 December 2026: Updated Alt GSP will be submitted to DWR
- DWR will host a 75-day comment period available on SGMA Portal

| Date | By | Comments/Questions | Response |
|---|---|---|---|
| 11/18/2021 | Lunn, Dave | The nitrate loading from vineyards uses 4.86 pounds per acre as an application rate. I thought that the vineyards in Livermore that produce wine grapes did not use much nitrate. What is the source of this loading rate? Is this the loading rate from Wente? | Data started with a representative total applied N from ***Ransom, K.M., Bell, A.M., Barber, Q.E. et al. 2018. A Bayesian approach to infer nitrogen loading rates from crop and land-use types.*** The calculations then assumed a portion of that is taken by the plant and then a certain portion (23%) of the remainder is leachable N to GW. Detailed calculations and accompanying references supporting the Nitrogen Loading estimates are now included in **Appendix L - Supporting Salt and Nutrient Loading Calculations.** |
| 11/18/2021 | Lunn, Dave | The OWTS for large properties used an application rate per acre. Isn't the application based on the number of dwellings? For most properties, there is only one dwelling. If so, the calculation should be on the number of properties. | Recalculated using 1 RRE per property if < 7 acres and 1RRE x Number properties x Avg number of buildings per property on properties > 7 acres (using ACDEH GIS data). Assumes N loading of 34.8 lbs/yr for 1 RRE. |
| 11/18/2021 | Lunn, Dave | The groundwater pumping should include rural residential from areas like Buena Vista. Most of these properties have shallow wells with high nitrates. I believe the numbers indicate about 50 AF of pumping with a concentration of about 10 mg/l as N. The Asbury church is a good example. They have a community garden and lawns and use groundwater. Ever since they put in the well, they were able to discontinue the use of fertilization and have very green lawns. | The calculation took into account separate pumping and concentration rates for Ag, SFWD, Fairgrounds, Domestic, and golf courses. The numbers for GW Pumping - Others was represented on Table 8-3 as a weighted aggregate total. The concentration previously used for Domestic was 1.5 mg/L (an estimated total for the entire basin), but was updated. Now used GIS to calculate NO3N concentration at every |

*Example comments from 2021 Alt GSP*

# How to Provide Comments

- Information and Alt GSP Public Draft will be available on Zone 7 website: https://www.zone7waterca.gov/alternative-groundwater-sustainability-plan-and-updates
- Written questions and comments may be submitted to: groundwater@zone7water.com
- Participate live in this meeting




- Participate at November 18 Public Board Meeting

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# Thank You