Sustainable Groundwater Management Act: Kern County Subbasin

Proposed Resolution 2025-XXX
September 17, 2025
Item No. 6

CALIFORNIA
Water Boards

Office of Sustainable Groundwater Management

Language Interpretation In Person

Interpretación en persona

ਵਿਅਕਤੀਗਤ ਤੌਰ 'ਤੇ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿੱਚ ਵਿਆਖਿਆ

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ਇਸ ਕਮਰੇ ਦੇ ਬਾਹਰ ਮੇਜ਼ 'ਤੇ ਜਾਓ ਜੇਕਰ ਤੁਹਾਨੂੰ ਹੈੱਡਸੈੱਟ ਦੀ ਲੋੜ ਹੈ ਜਾਂ ਤੁਹਾਨੂੰ ਕੋਈ ਤਕਨੀਕੀ ਮੁਸ਼ਕਲ ਪੇਸ਼ ਆ ਰਹੀ ਹੈ।

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- Click the Interpretation icon in your meeting controls
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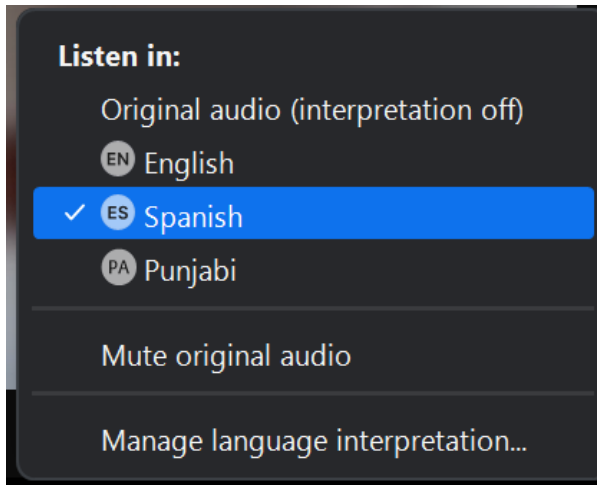

ਜ਼ੂਮ ਰਾਹੀਂ ਭਾਸ਼ਾ ਅਨੁਵਾਦ

- ਆਪਣੇ ਮੀਟਿੰਗ ਕੰਟਰੋਲਾਂ ਵਿੱਚ ਅਨੁਵਾਦ ("Interpretation") ਆਈਕਨ ਤੇ ਕਲਿੱਕ ਕਰੋ
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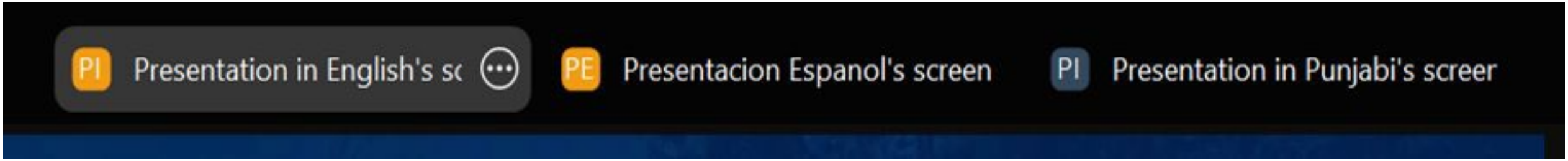

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Hearing Agenda

1. Comments by elected officials or California Native American Tribes
2. State Water Board staff presentation
3. Kern County Subbasin GSAs panel presentation
4. Public comments and panels
5. Board discussion and potential vote on resolution

Sustainable Groundwater Management Act – Kern County Subbasin

Continuation of the Probationary Hearing for the Kern County Subbasin

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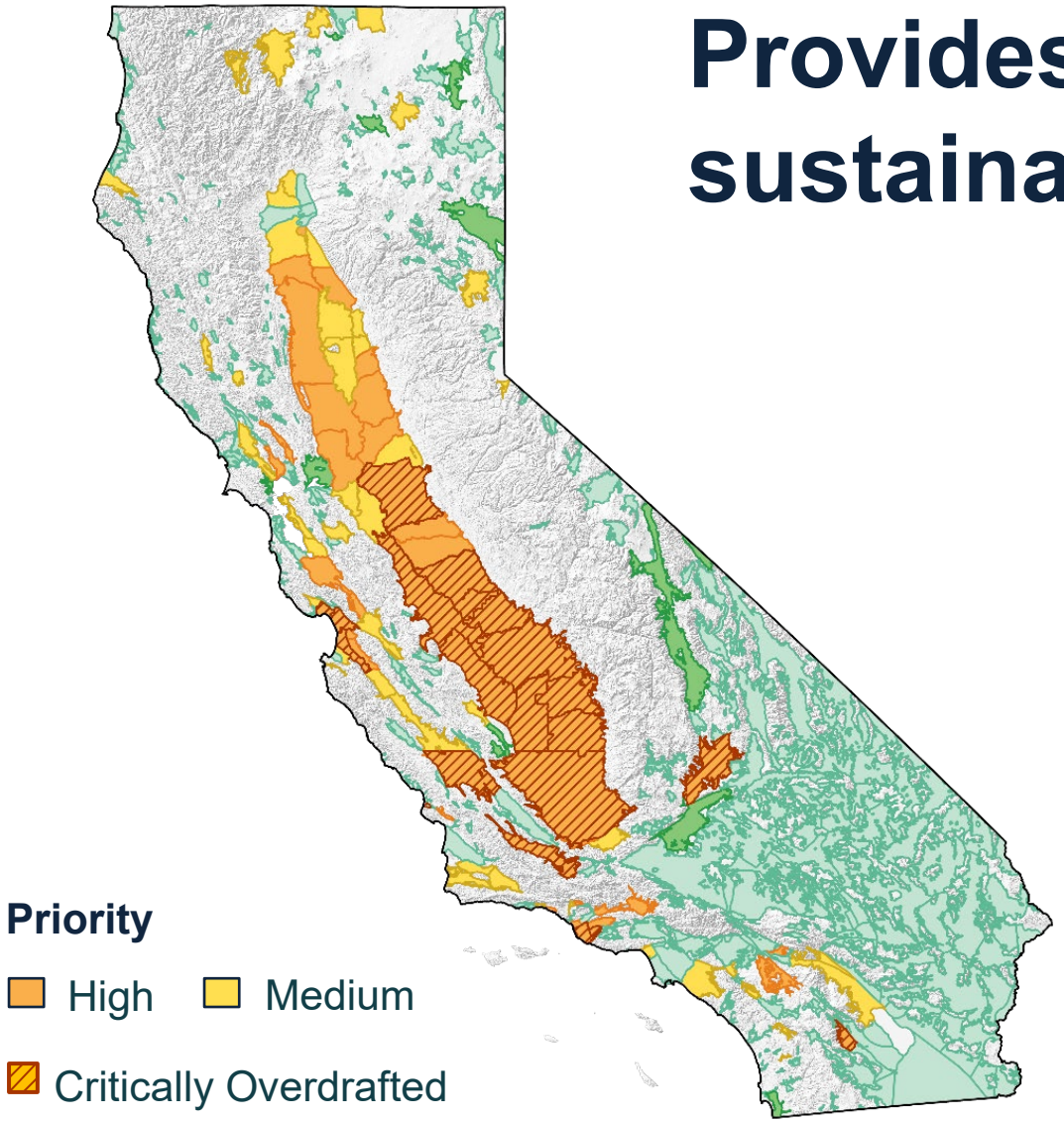
Staff Presentation

1. State Water Board SGMA Intervention basics
2. Kern County Subbasin background
3. SGMA process in Kern County Subbasin
4. Basin developments since the Feb 20, 2025, hearing
5. GSP deficiencies and 2025 revisions
6. Recommended potential actions for remaining deficiencies
7. Staff Recommendations to the Board

State Water Board SGMA Intervention Basics

Sustainable Groundwater Management Act



Provides for formation of groundwater sustainability agencies that must:

- Create groundwater sustainability plans (GSPs)
- Submit annual reports
- Periodically evaluate GSPs
- Achieve basin sustainability goal in 20 years

What is Sustainability under SGMA?

Sustainability happens when a basin operates within its *sustainable yield* and is not experiencing *undesirable results.*

***Undesirable results* are the significant and unreasonable occurrences of:**


Groundwater Level Declines


Storage Reduction


Seawater Intrusion


Degraded Quality

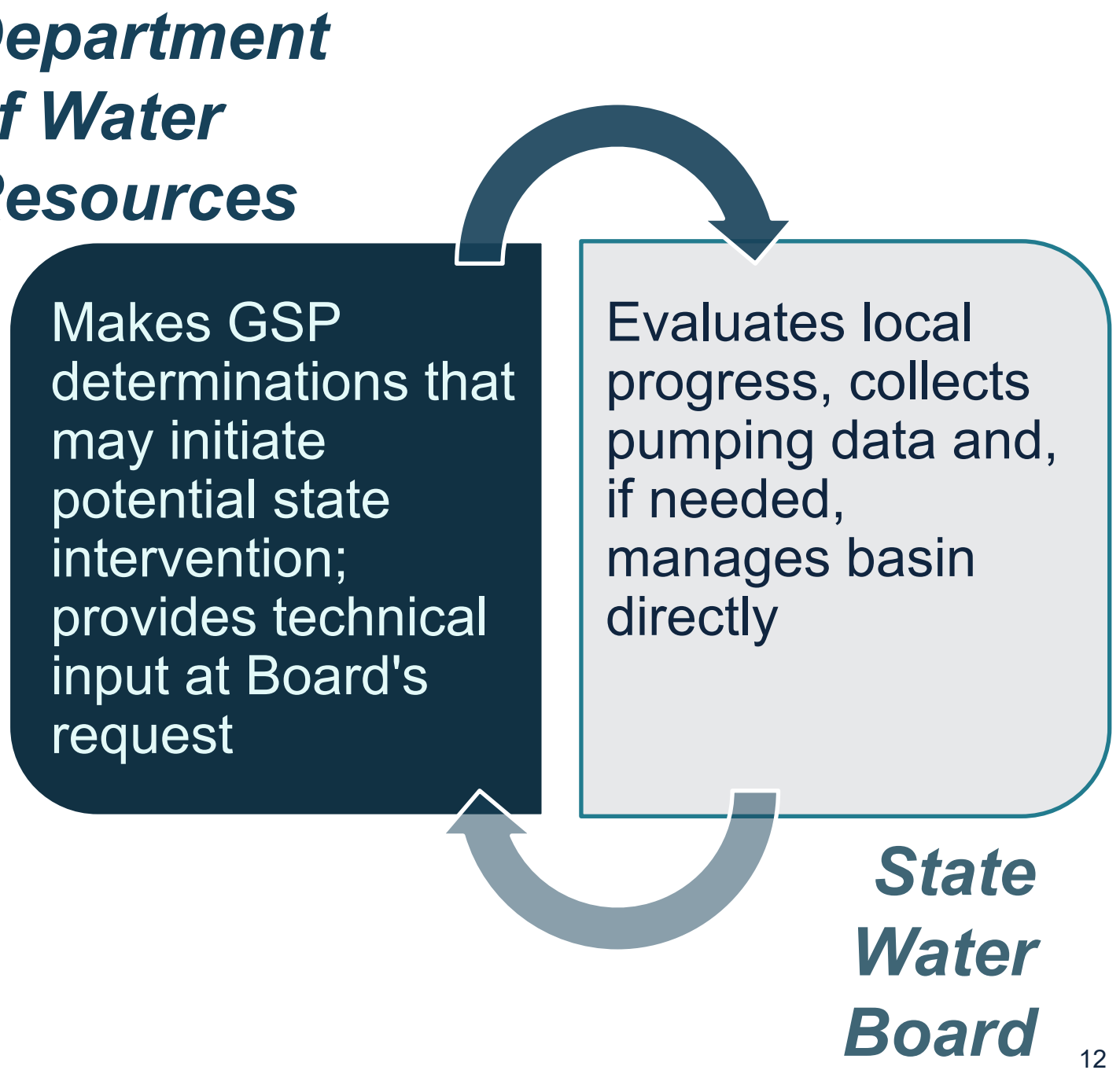

Land Subsidence


Surface Water Depletion

...caused by groundwater conditions occurring throughout the basin.

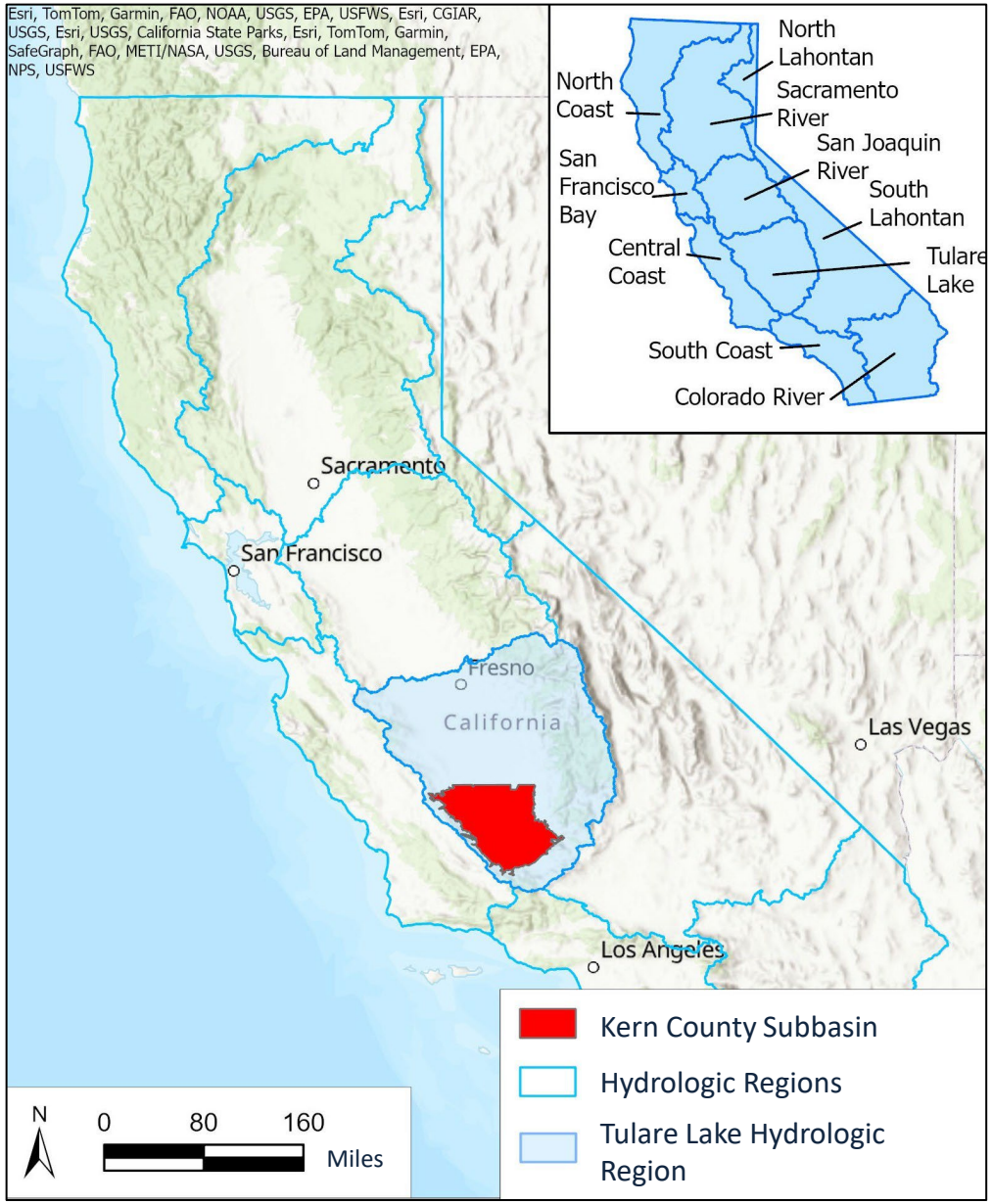
GSAs aren't required to address undesirable results that occurred prior to 2015

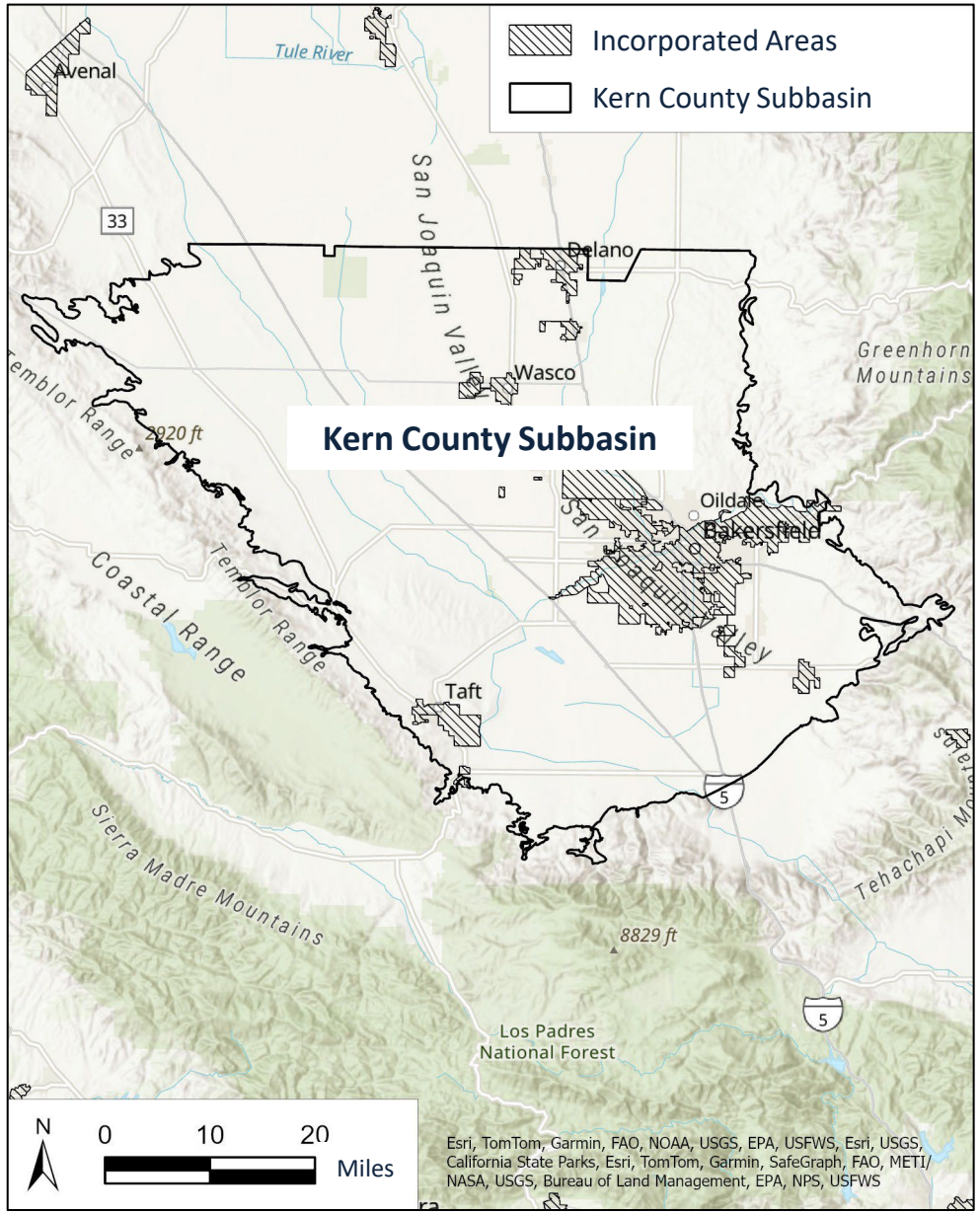
Both the Department of Water Resources and the State Water Board have roles in State Intervention



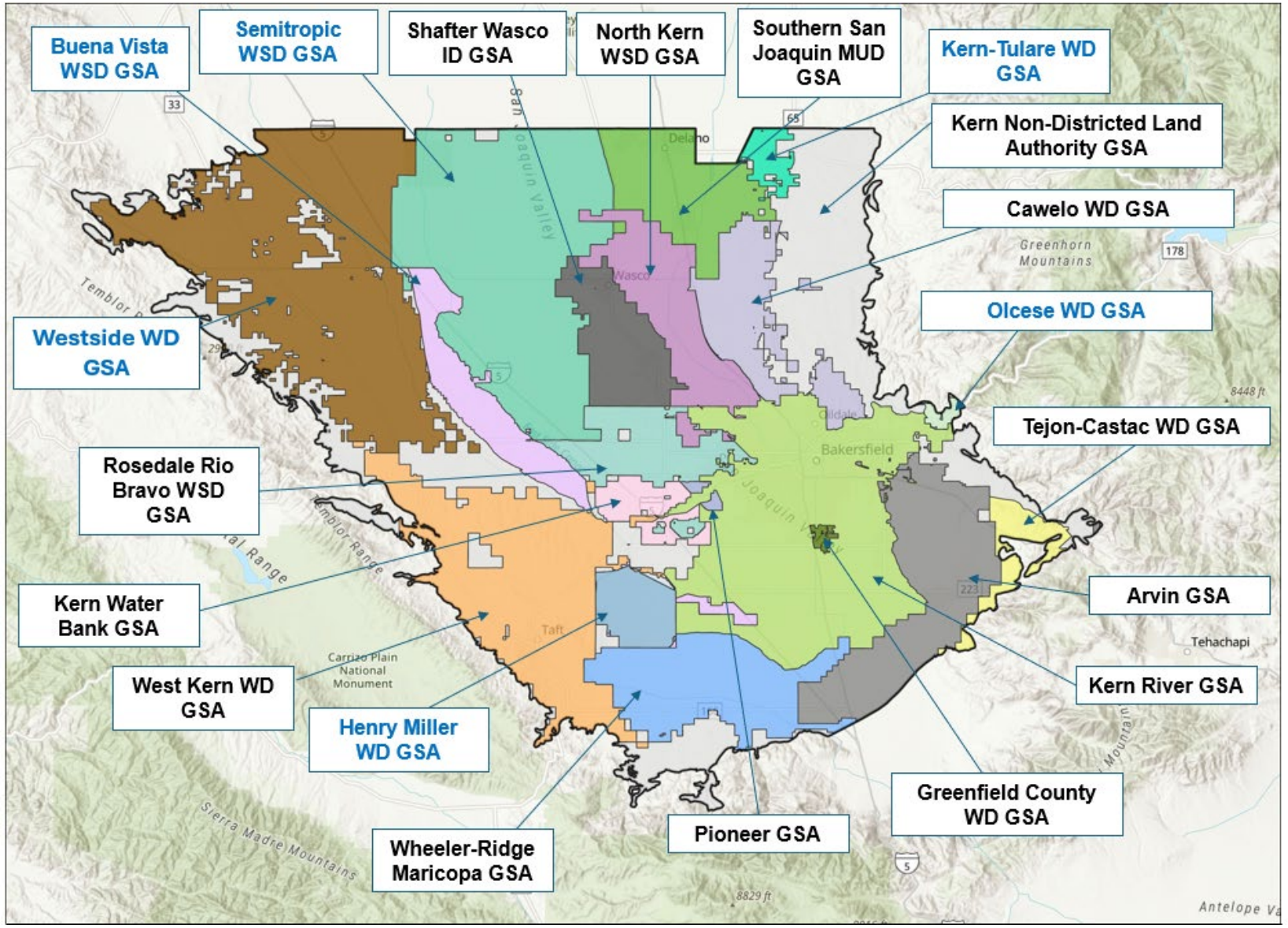
Kern County Subbasin Background

Physical Setting





Groundwater Sustainability Agencies

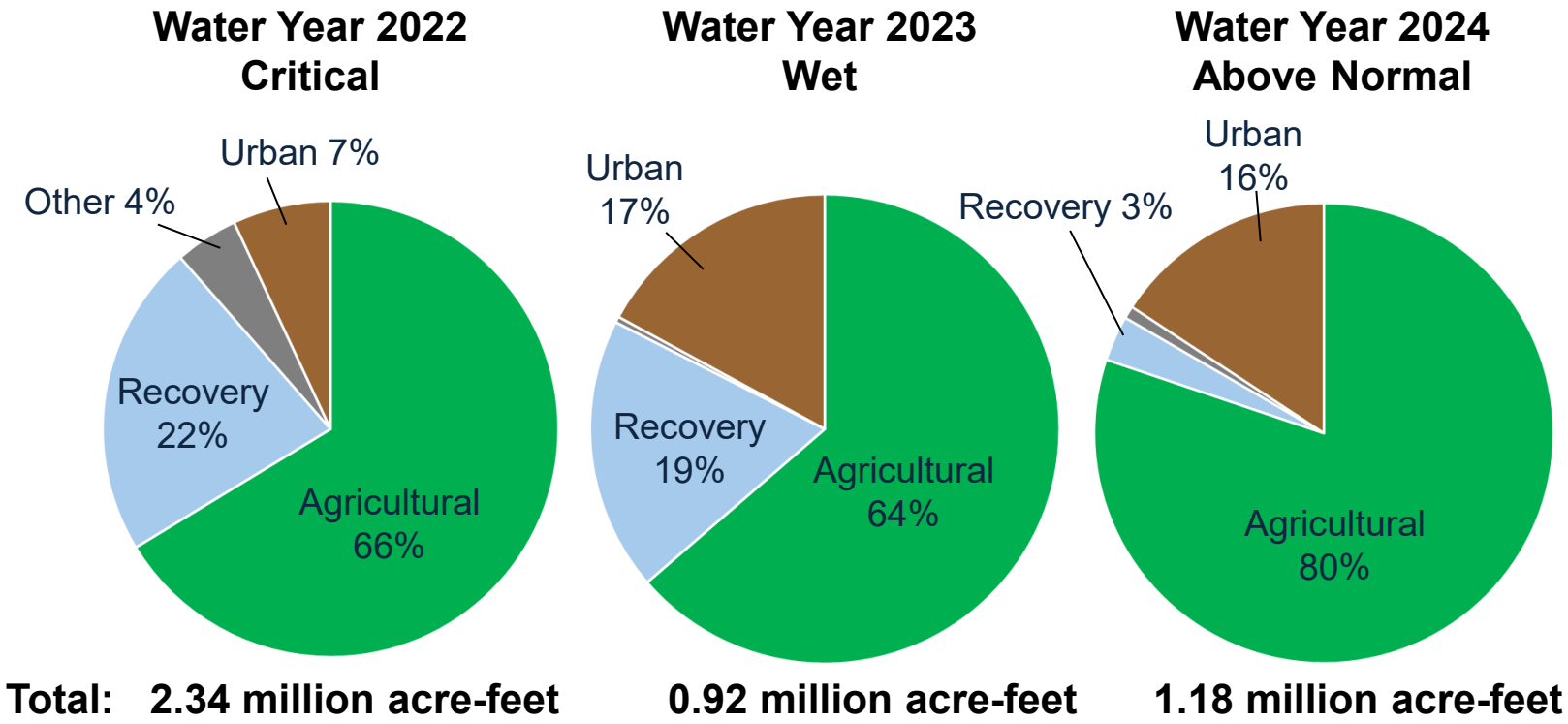


- 20 GSAs
- 1 Main GSP
- 6 GSPs with "Blue Pages" (labeled in blue)

Groundwater Pumping

Groundwater pumping for:

- Agricultural uses
- Urban uses
  - Drinking & residential
  - Commercial, municipal & industrial
  - Landscaping
- Managed recharge and water bank recovery



Total: 2.34 million acre-feet **0.92 million acre-feet** **1.18 million acre-feet**

Source: Kern County Subbasin Annual Reports - Water Years 2022, 2023 and 2024

Annual averages from Water Year 2015 to Water Year 2023:

Groundwater pumping: 1.82 million acre-feet per year

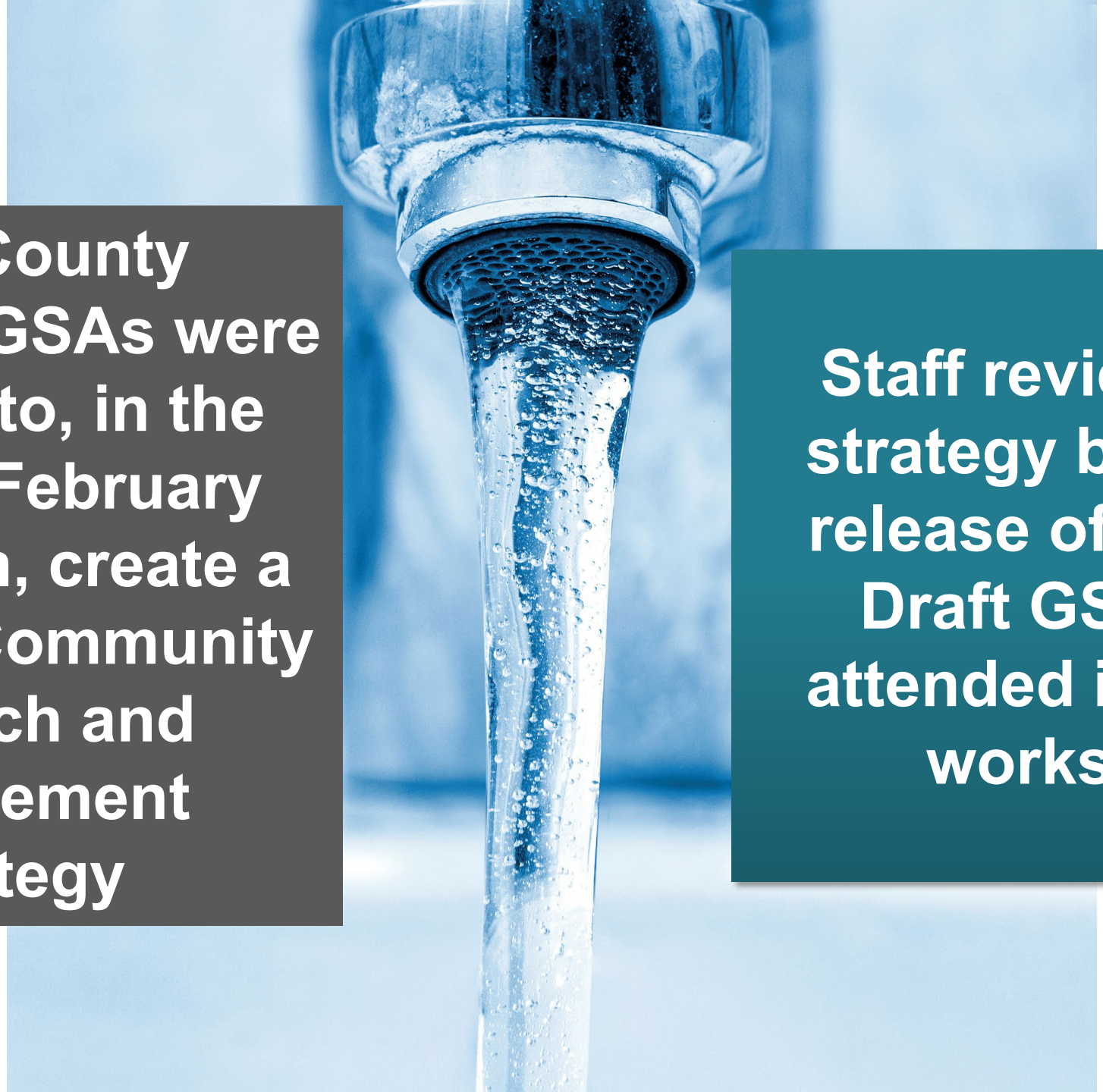
Natural & artificial recharge: 1.54 million acre-feet per year

Overdraft: 344,000 acre-feet per year

Source: 2025 Draft GSP

State Intervention Timeline

Developments Since February Hearing

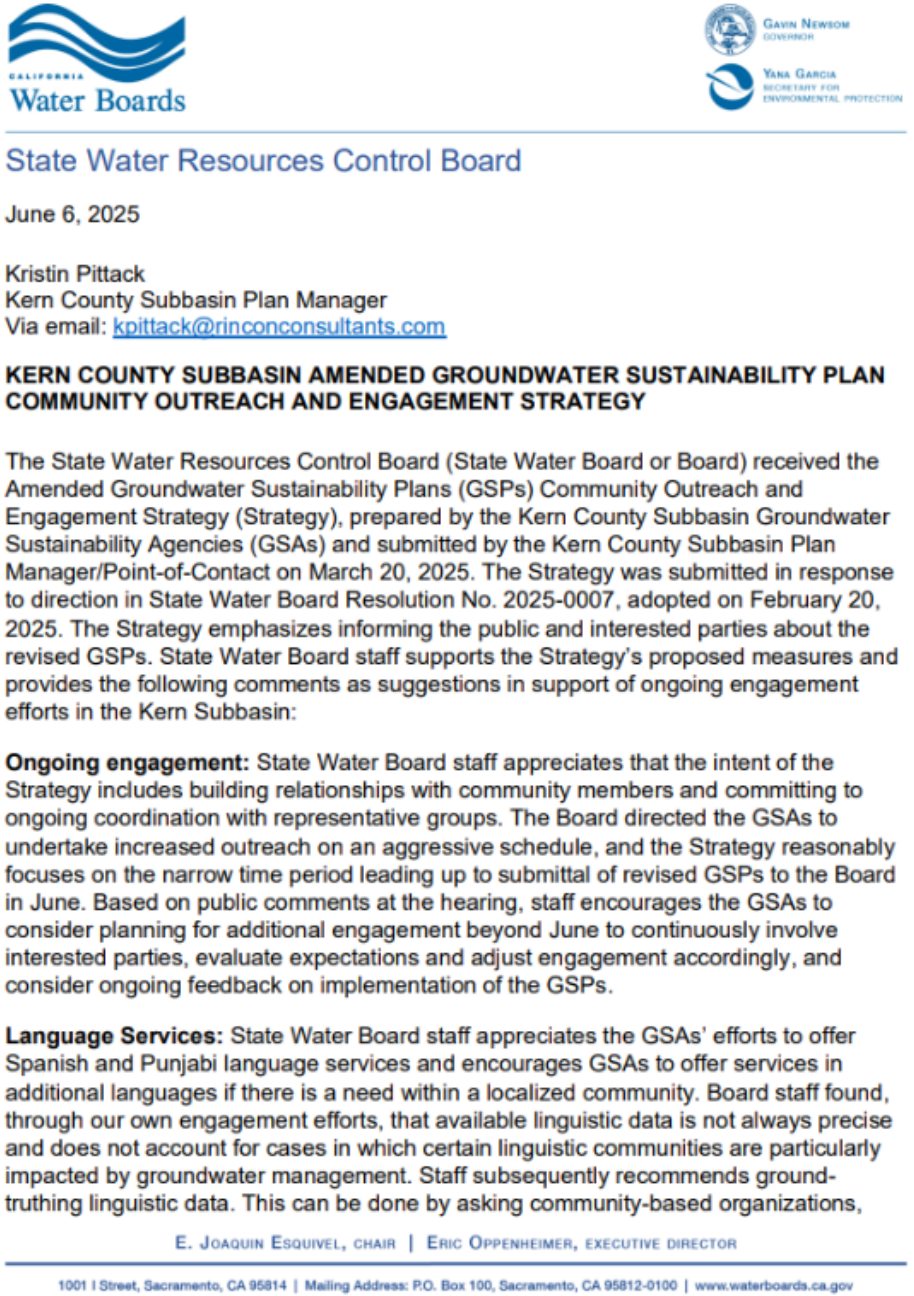


Kern County Subbasin GSAs were directed to, in the Board's February resolution, create a stronger Community Outreach and Engagement Strategy

Staff reviewed the strategy before the release of the 2025 Draft GSPs and attended in-person workshops

Board staff provided comments on the strategy noting GSAs should:

- Continue focusing on community engagement past the adoption of the GSPs
- Enhance language services based on local linguistic need



California Water Boards

Gavin Newsom, Governor

Yana Garcia, Secretary for Environmental Protection

State Water Resources Control Board

June 6, 2025

Kristin Pittack
Kern County Subbasin Plan Manager
Via email: kpittack@rinconconsultants.com

KERN COUNTY SUBBASIN AMENDED GROUNDWATER SUSTAINABILITY PLAN COMMUNITY OUTREACH AND ENGAGEMENT STRATEGY

The State Water Resources Control Board (State Water Board or Board) received the Amended Groundwater Sustainability Plans (GSPs) Community Outreach and Engagement Strategy (Strategy), prepared by the Kern County Subbasin Groundwater Sustainability Agencies (GSAs) and submitted by the Kern County Subbasin Plan Manager/Point-of-Contact on March 20, 2025. The Strategy was submitted in response to direction in State Water Board Resolution No. 2025-0007, adopted on February 20, 2025. The Strategy emphasizes informing the public and interested parties about the revised GSPs. State Water Board staff supports the Strategy's proposed measures and provides the following comments as suggestions in support of ongoing engagement efforts in the Kern Subbasin:

Ongoing engagement: State Water Board staff appreciates that the intent of the Strategy includes building relationships with community members and committing to ongoing coordination with representative groups. The Board directed the GSAs to undertake increased outreach on an aggressive schedule, and the Strategy reasonably focuses on the narrow time period leading up to submittal of revised GSPs to the Board in June. Based on public comments at the hearing, staff encourages the GSAs to consider planning for additional engagement beyond June to continuously involve interested parties, evaluate expectations and adjust engagement accordingly, and consider ongoing feedback on implementation of the GSPs.

Language Services: State Water Board staff appreciates the GSAs' efforts to offer Spanish and Punjabi language services and encourages GSAs to offer services in additional languages if there is a need within a localized community. Board staff found, through our own engagement efforts, that available linguistic data is not always precise and does not account for cases in which certain linguistic communities are particularly impacted by groundwater management. Staff subsequently recommends ground-truthing linguistic data. This can be done by asking community-based organizations,

E. Joaquin Esquivel, chair | Eric Oppenheimer, executive director

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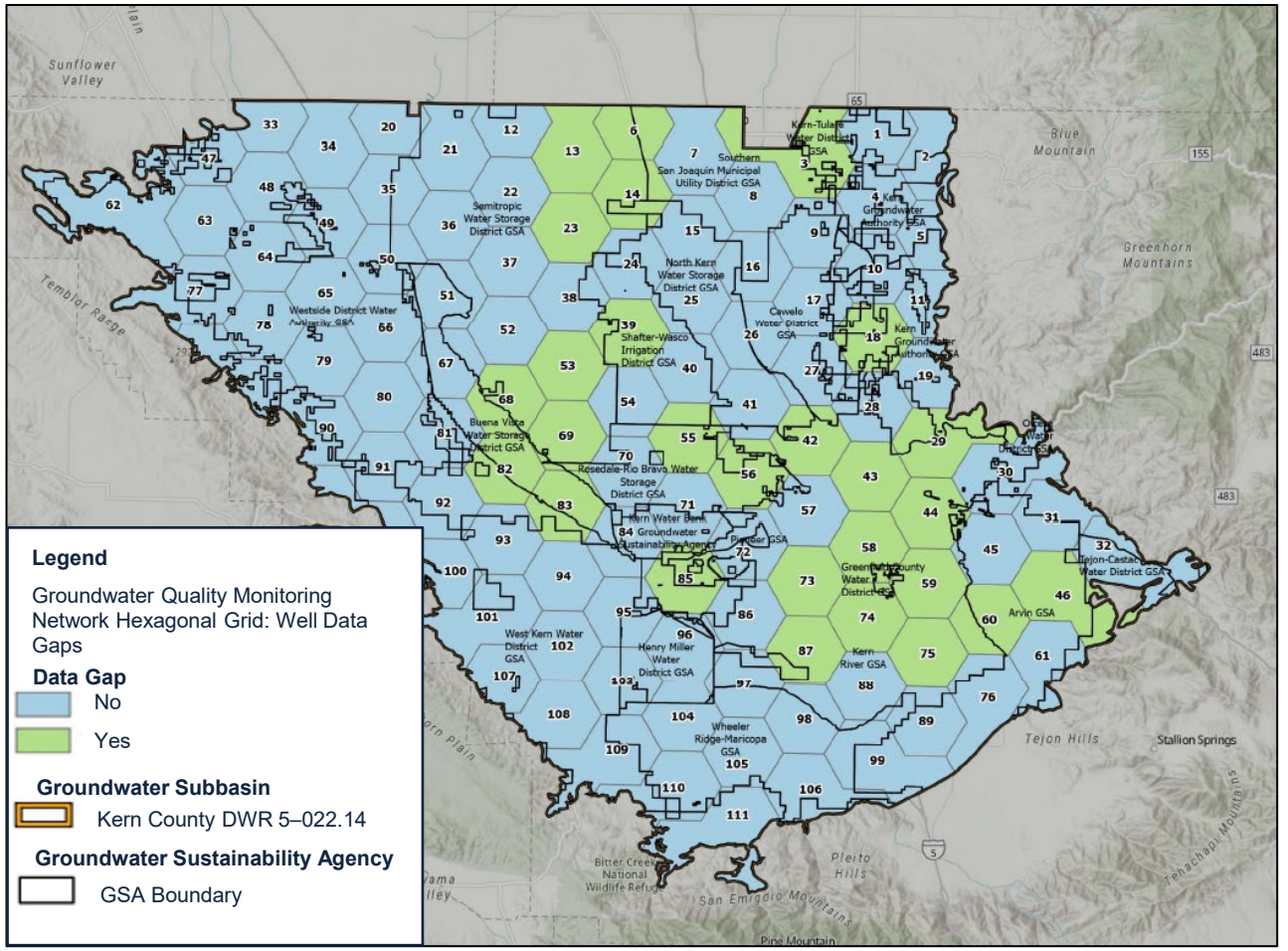
Board staff continued regular technical consultations with the GSAs ☑

Main Topics Covered

- Monitoring network data gaps
- Sustainable management criteria
- Local adjustments to water level thresholds
- Mitigation plans



Modified after Draft 2025 GSP, Figure 15-17

2025 Plan Review – Coordination

Most coordination deficiencies have been resolved (one pending)

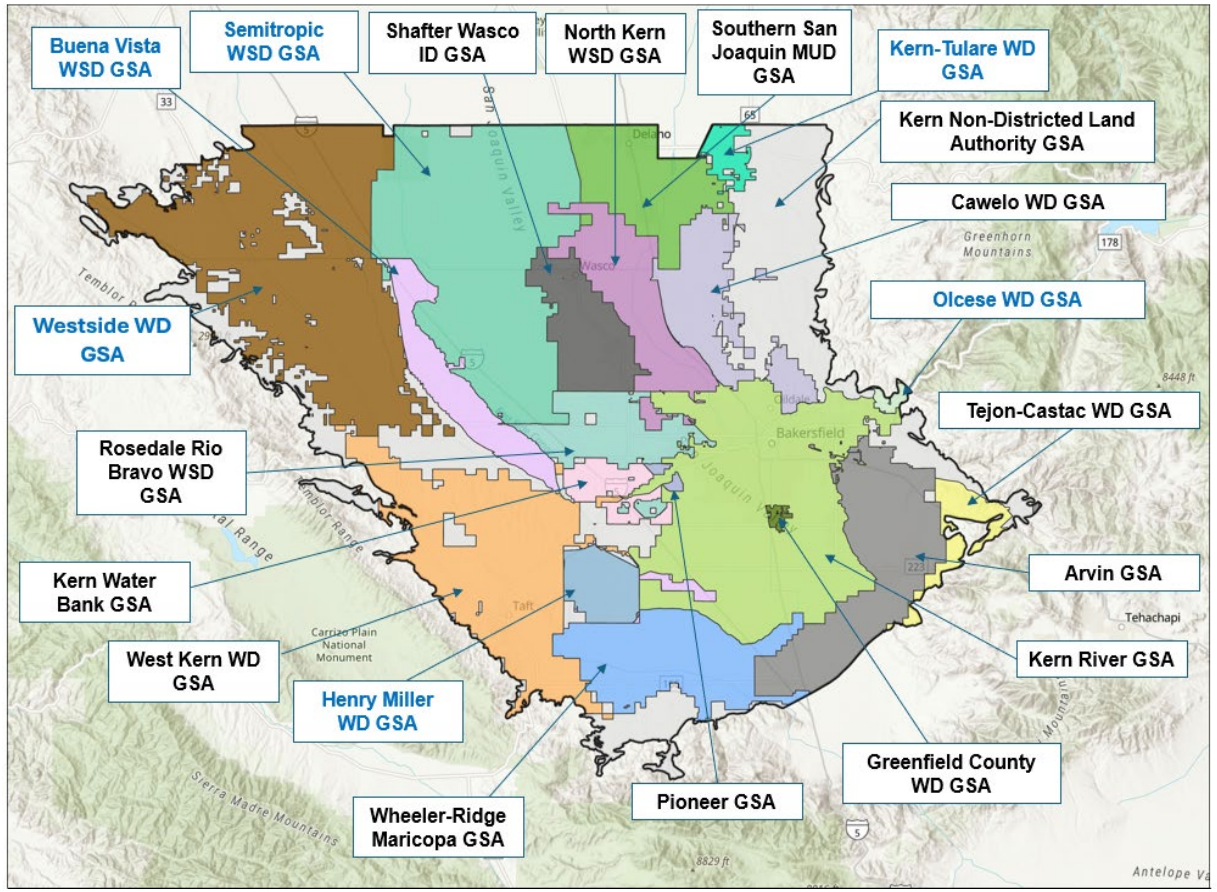
Is the Basin Coordinated?

- ✓ Consistent and Clear URs
- ✓ Sustainable Management Criteria
- ✓ MT Exceedance Policy/Mitigation Plan

Coordination deficiency

Deficiency CRD-3 Partially addressed

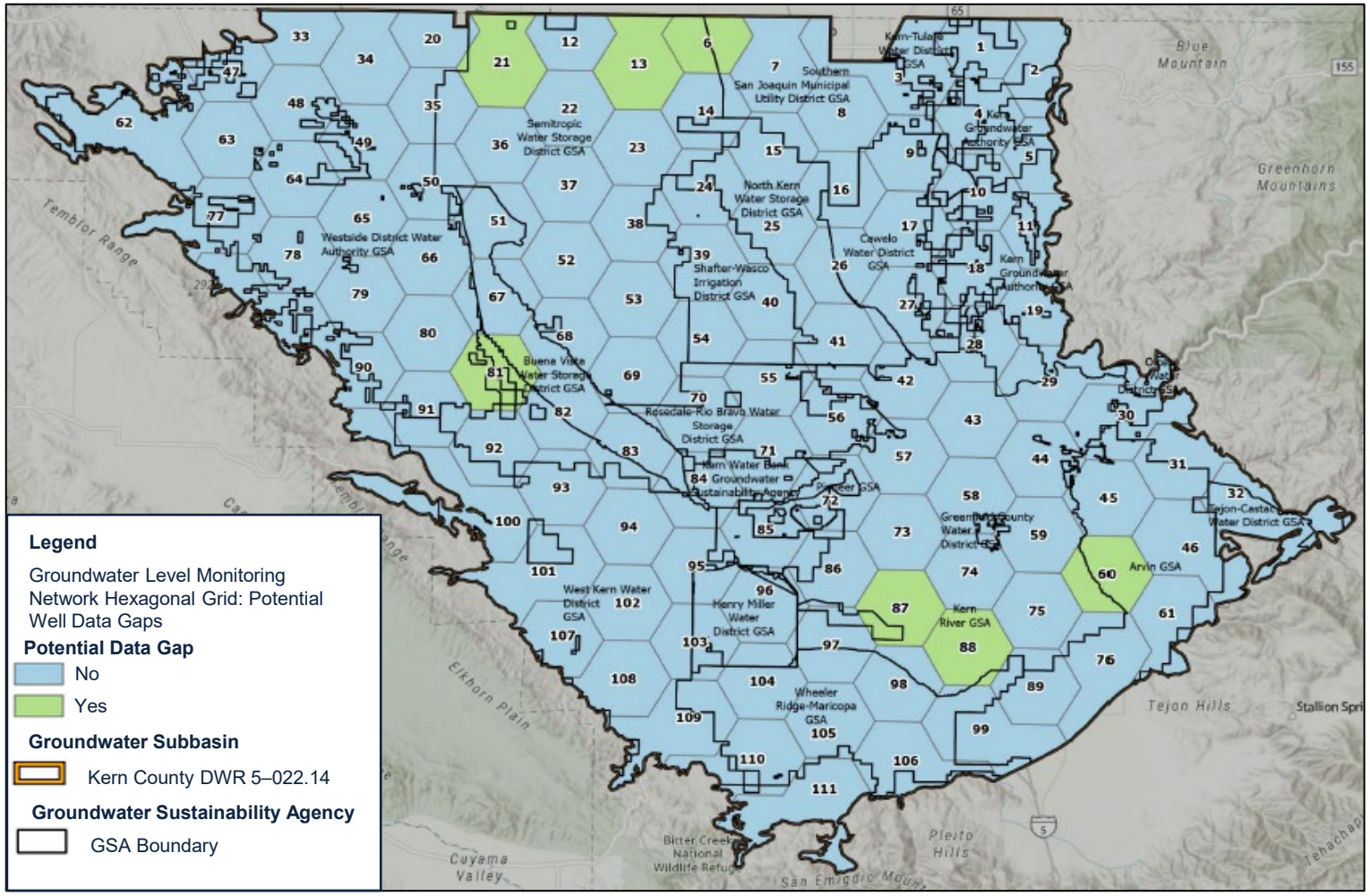
Kern Non-districted Land Authority (KNDLA) GSA legal filing and expiration of JPA in May 2026



2025 Plan Review – Groundwater Levels

GSAs made substantial improvements to groundwater level monitoring network

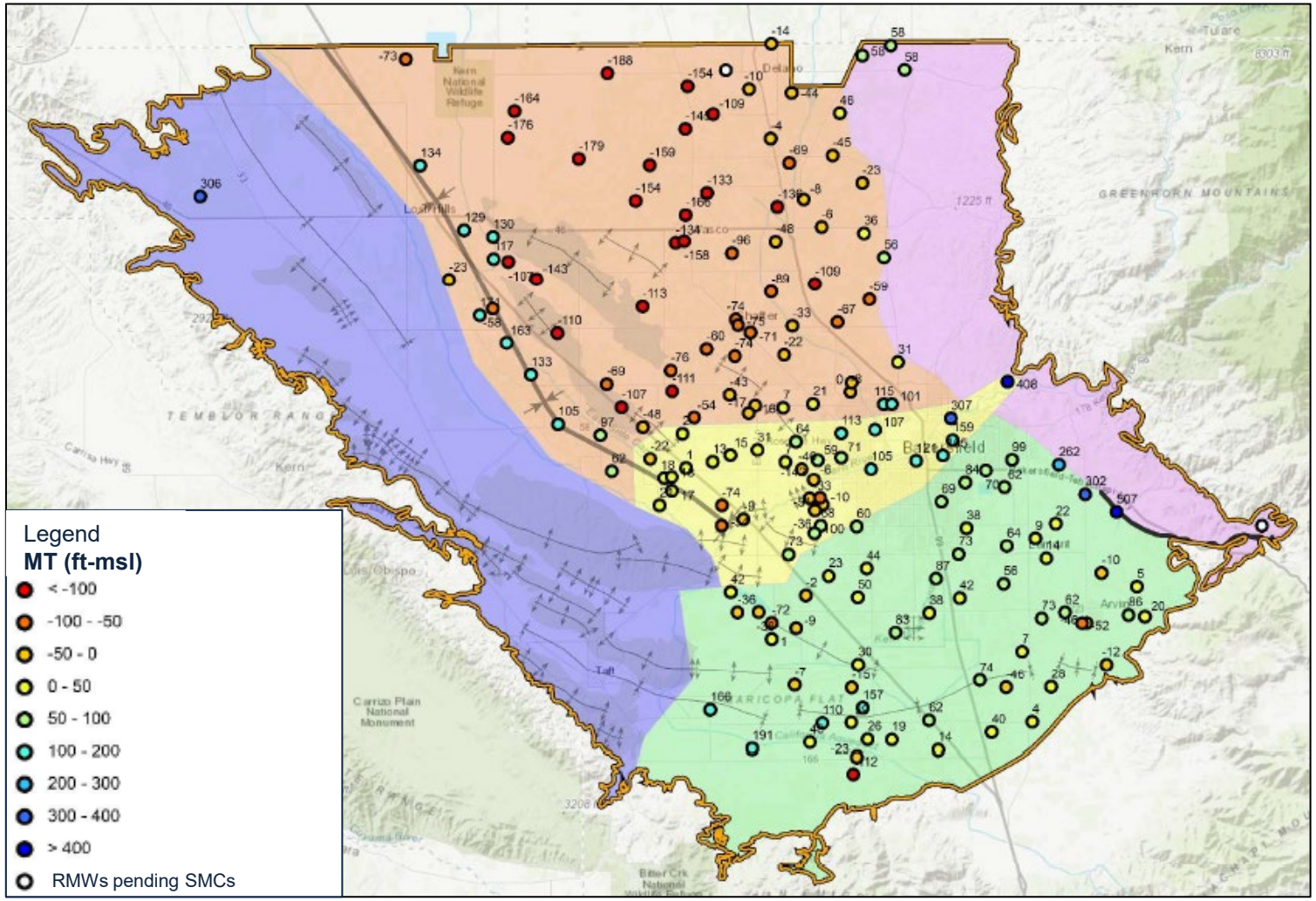
GSAs identified monitoring gaps and committed to fill gaps by 2026



Modified after Draft 2025 GSP, Figure 15-15

Groundwater level criteria previously allowed impacts to many wells

The 2025 GSPs set more protective minimum thresholds and undesirable result definitions

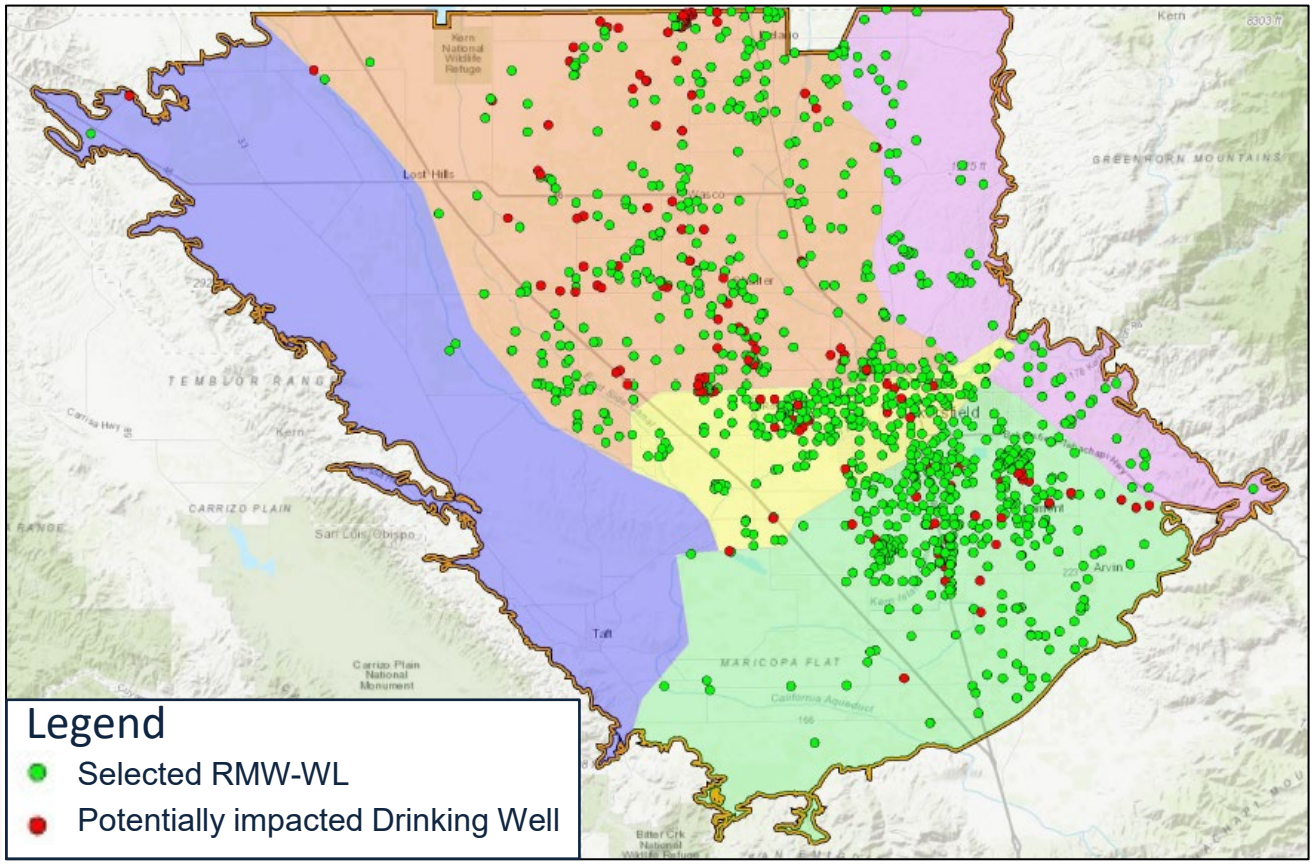


Modified after Draft 2025 GSP, Figure 13-7

Revised water level thresholds reduce potential impacts to drinking water wells

Potentially impacted domestic wells:

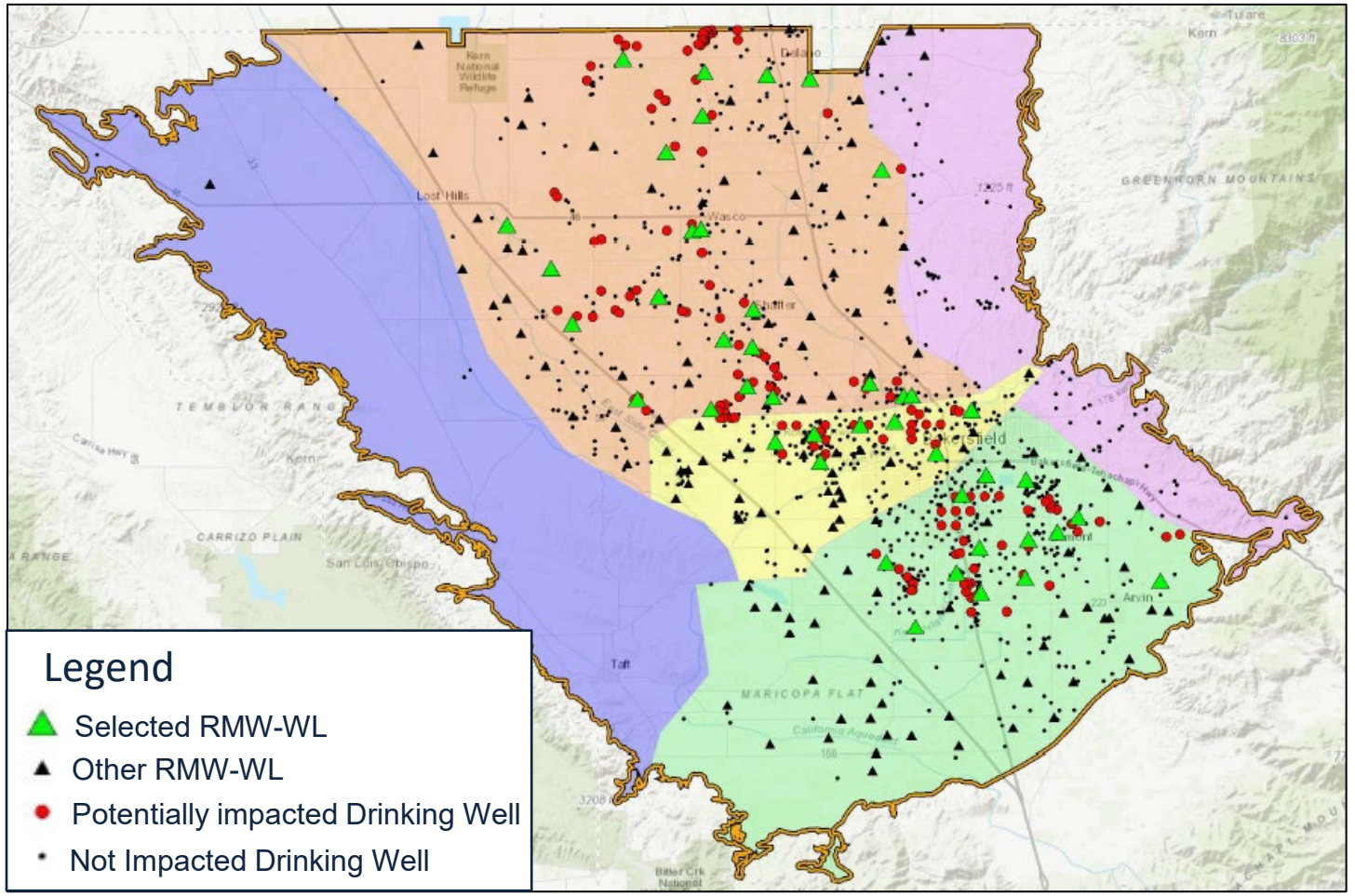
- 185 if all monitoring wells reach minimum thresholds (8 percent of domestic wells in the basin)
- Up to 165 if 25 percent reach thresholds



Modified after Draft 2025 GSP, Figure 13-10

Well mitigation is inadequate for vulnerable state small water systems

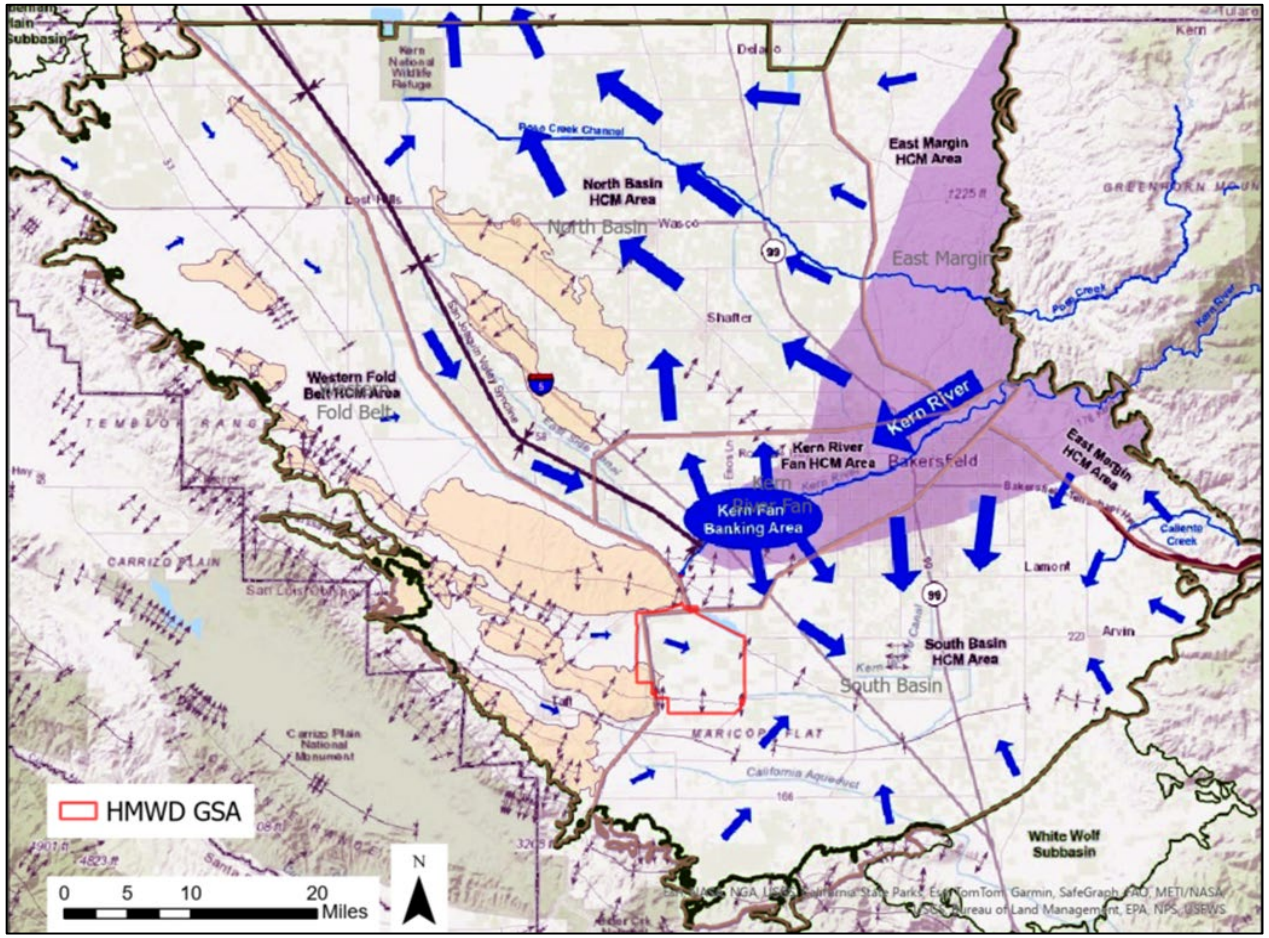
"Technical Assistance Track" for impacted "domestic" wells with more than four connections is not adequate



Modified after Draft 2025 GSP, Figure 13-11

Board staff recommended raising thresholds for a subset of wells to account for local conditions

Staff recommended raising minimum thresholds at 26 wells in 7 GSAs



Blue arrows show groundwater flow directions

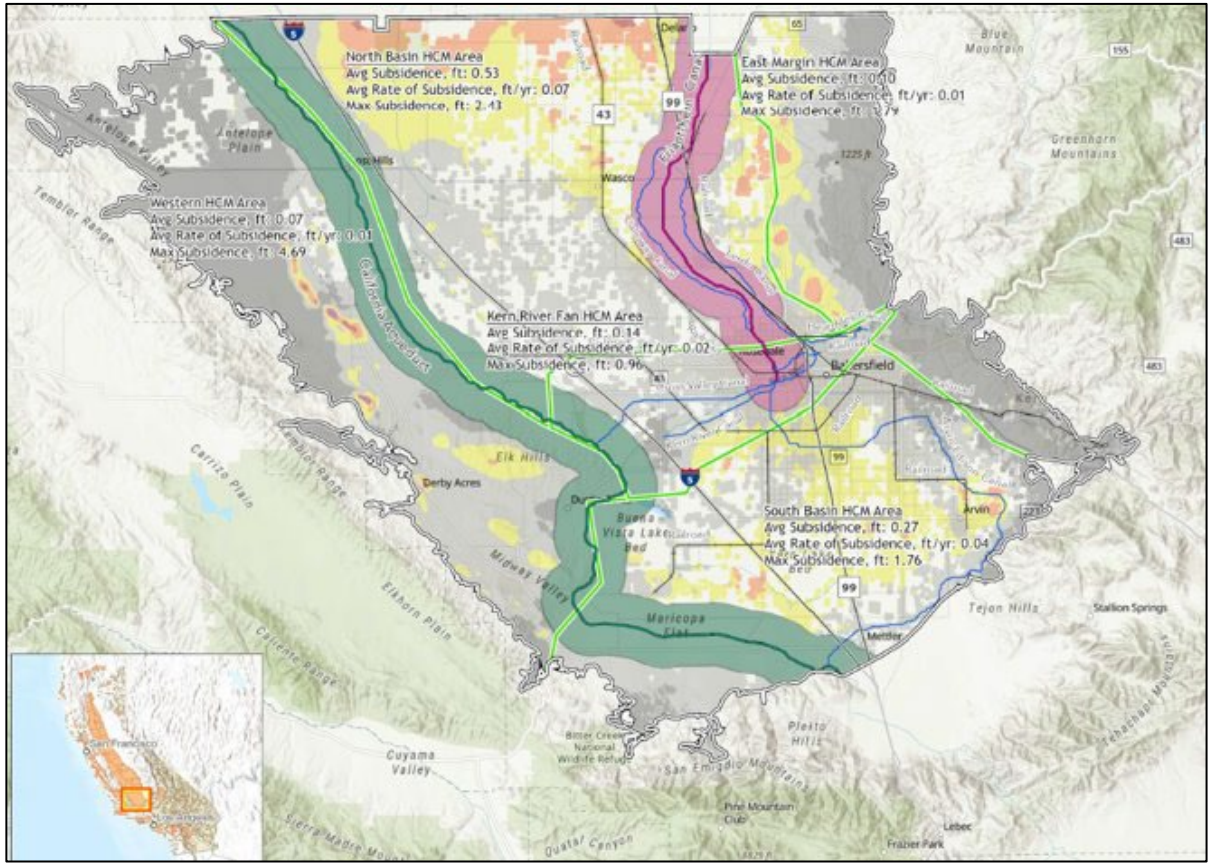
(modified after 2025 Draft GSP – Figure 8-1)

2025 Plan Review – Land Subsidence

GSAs have committed to no additional subsidence beyond 2040

Exceedance Policy & Action Plan initiated if:

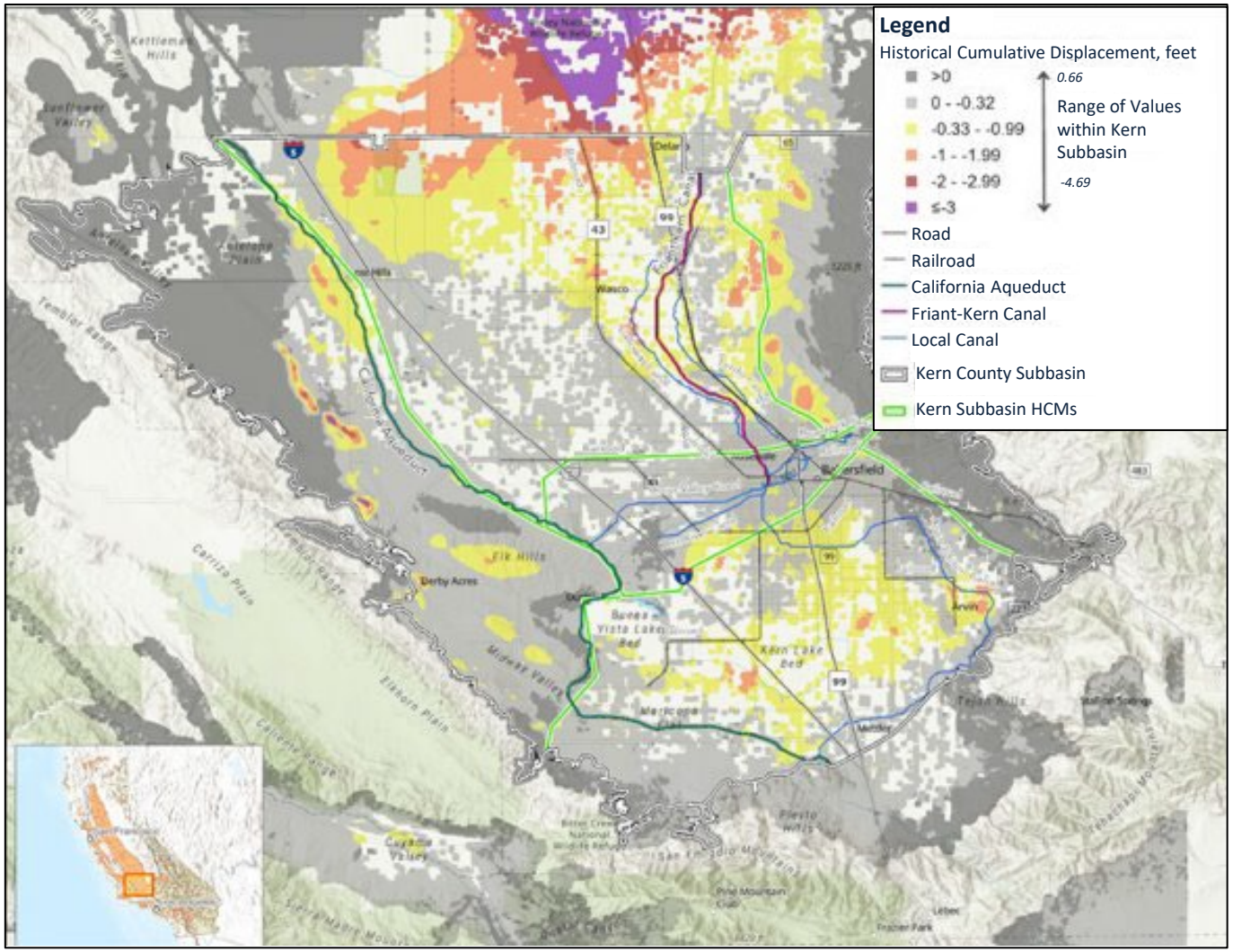
- A single annual interim milestone or minimum threshold exceedance along California Aqueduct or Friant Kern Canal, or
- Six consecutive quarterly measurements exceed interim milestones or minimum thresholds in other areas



Modified after Draft 2025 GSP, Figure 13-28

Land Subsidence mitigation plan and investigations are still unclear

GSPs do not clearly describe how land subsidence attribution will be assessed and how impacts will be mitigated



Modified after Draft 2025 GSP, Figure 13-27

2025 Plan Review – Groundwater Quality

GSAs revised criteria and undesirable result definition for groundwater quality

Revised undesirable result definition

(1) 15% of representative wells exceed any minimum thresholds or

(2) 5% of domestic wells annually or 15% cumulatively through 2040 estimated to have an MT exceedance, or

(3) a GSA is unable to meet well mitigation

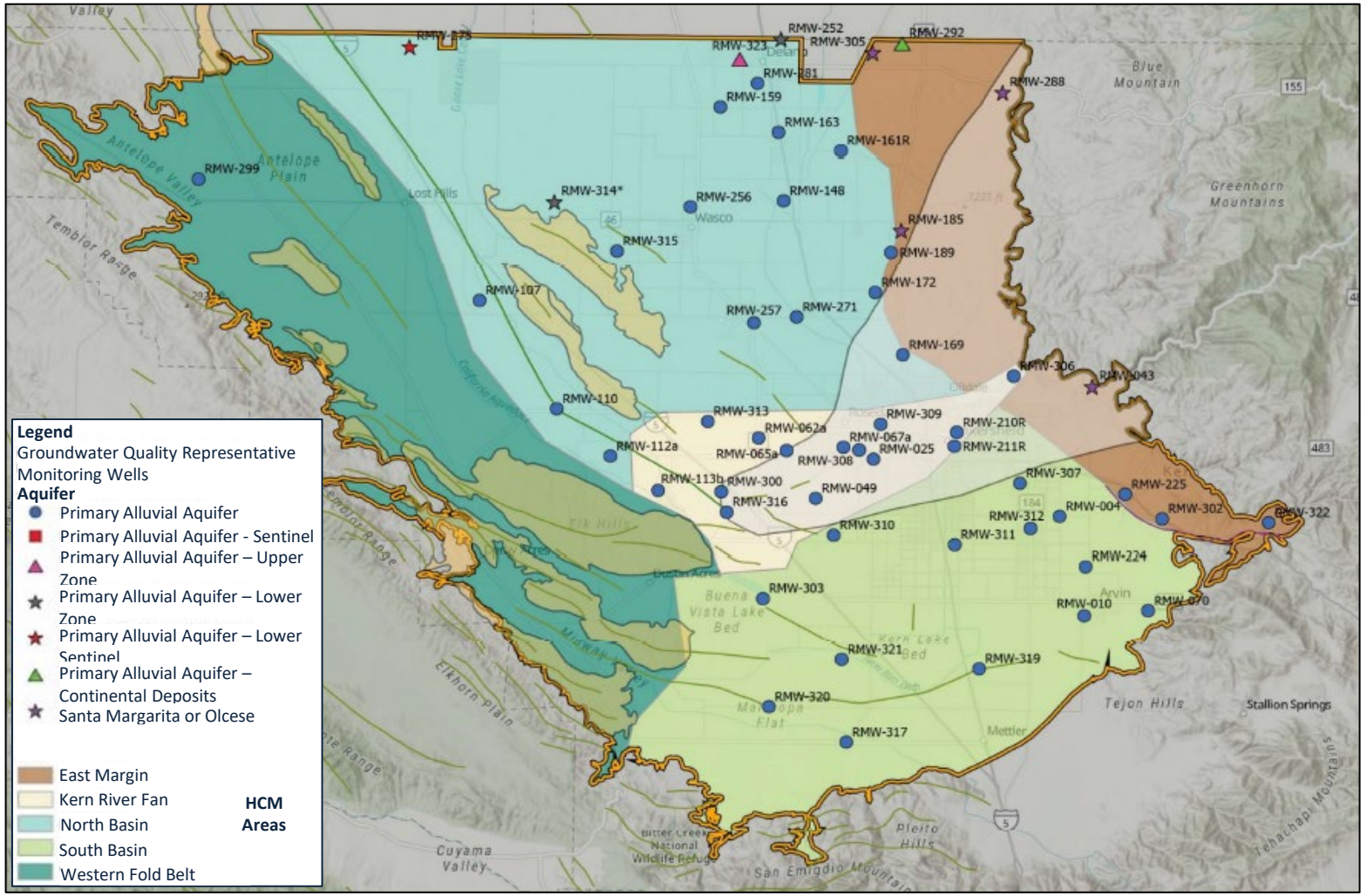
93% of individual minimum thresholds (MTs) are set at drinking water standards

Constituent of Concern	Existing Health-Based Standard	% of Wells Exceeding Health-Based Standard	Potential to Impact Beneficial Users	SMC Developed
Arsenic	10 ppb	22.4%	High	Yes
Nitrate (as N)	10 ppm	14.9%	Moderate	Yes
Nitrate + Nitrite (as N)	10 ppm	24.9%	Moderate	Yes
Nitrite (as N)	1 ppm	1.8%[11]	Moderate	Yes
Total Dissolved Solids	1,000 ppm	11.7%	Moderate	Yes
1,2,3-Trichloropropane (1,2,3-TCP)	5 ppt	44.5%	Moderate	Yes
Uranium	20 pCi/L	7.2%	Moderate	Yes
1,2 Dibromoethane (EDB)	20 ppt	0.7%	Low	No
1,2,-Dibromo-3-chloropropane (DBCP)	200 ppt	2.0%	Low	No
Benzene	1 ppb	0.5%	Low	No
Gross Alpha	15 pCi/L	5.1%	Low	No
Perfluorooctanoic acid (PFOA)	4 ppt	14.8%	N/A[1]	No[1]
Perfluorooctanoic sulfonate (PFOS)	4 ppt	6.9%	N/A[1]	No[1]
Selenium	50 ppb	0.9%	Low	No

Modified after Draft 2025 GSP, Table 13-6

Groundwater quality monitoring and mitigation are substantially improved

Groundwater quality monitoring network, criteria, and mitigation plan are more protective of groundwater users

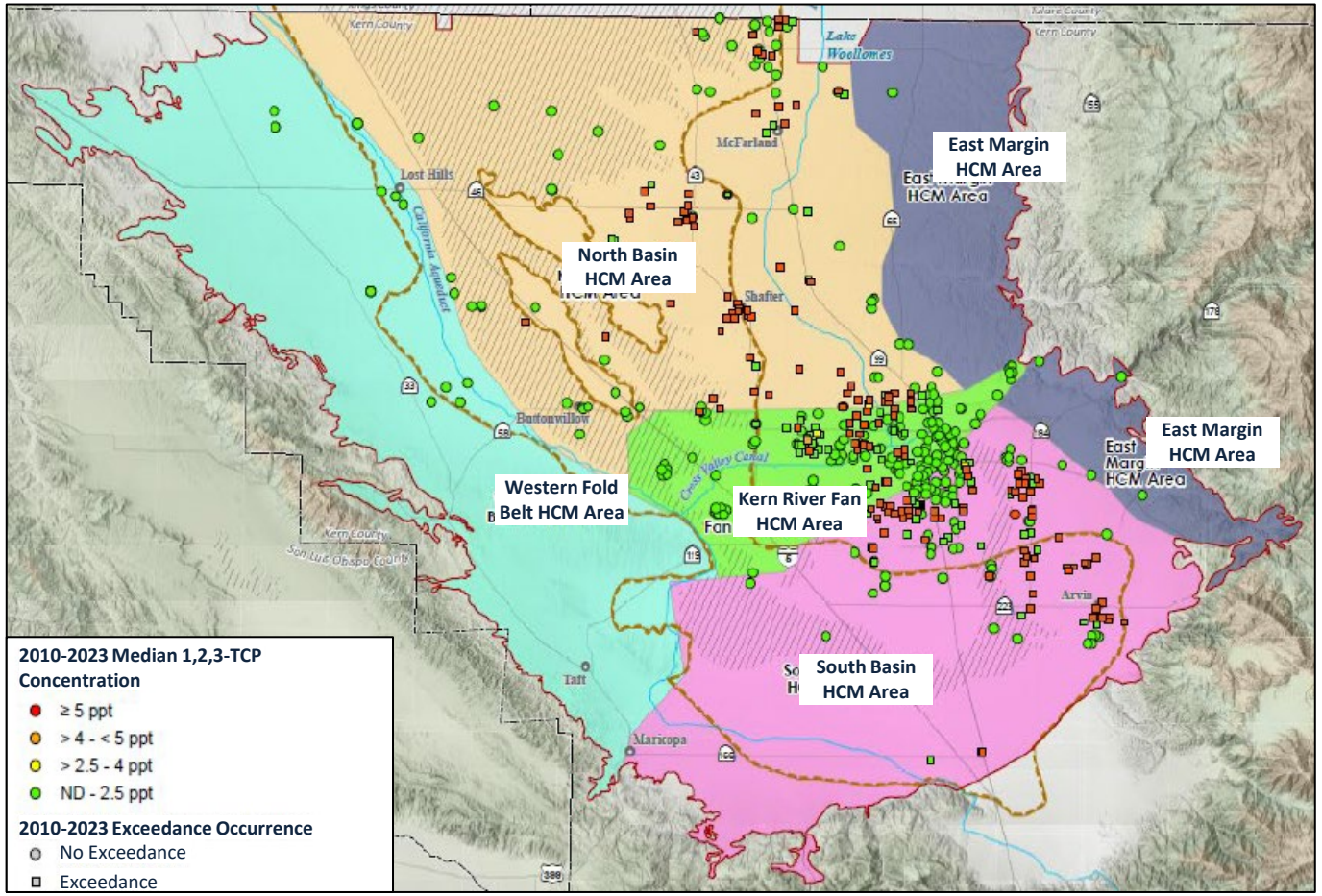


Modified after Draft 2025 GSP, Figure 15-25

Groundwater quality concerns remain

Lack of clarity on:

- **Investigation and mitigation under some scenarios**
- **1,2,3-TCP mitigation**



Modified after Draft 2025 GSP, Figure 8-20

Public Comments on Draft GSPs

Public comments period ended on August 7
Board received 16 comment letters

Community Outreach & Engagement	Representation of small communities in SGMA process
Subsidence	Understanding GSA and non-GSA contributions to subsidence
Interconnected Surface Water	Identification of interconnected surface water
Managed Wetlands	Impacts of demand management and fees on managed wetlands
Water Banking	Importance of water banks

Potential actions for the 2025 Draft GSPs

Potential Actions - Groundwater Level

- ❑ Place state small water system wells on the mitigation track and consider contributing funding for consolidation, where feasible
- ❑ Fill all identified monitoring gaps; prioritize more vulnerable areas
- ❑ Consider raising minimum thresholds for Henry Miller GSA wells to reflect historical trends and projected water use

Potential Actions - Land Subsidence

- ❑ Improve methodology to characterize GSA and non-GSA causes of subsidence
- ❑ Improve coordination with government agencies (ex. DWR CASP, CalGEM) and oil & gas extraction companies
- ❑ Improve understanding of critical heads and subsidence thresholds for different infrastructure
- ❑ Develop targeted projects and management actions and mitigation plans

Potential Actions - Groundwater Quality

- ❑ Clarify well mitigation if degradation cause is inconclusive or is partially attributed to groundwater management
- ❑ Mitigate for increases in all constituents of concern attributed to groundwater management

Staff Recommendations for the Kern County Subbasin

Staff Recommendations for Board Action

Return the subbasin to DWR's oversight if GSAs:

(1) Provide an adequate mitigation program for drinking water wells impacted by any constituent with a minimum threshold, including 1,2,3-TCP, where groundwater management activities cause water quality degradation;

(2) Provide an adequate mitigation program for state small water system wells (or domestic wells with more than four service connections) impacted by groundwater management activities; and

(3) Eliminate the Kern Non-Districted Land Authority GSA Joint Exercise of Powers Agreement May 2026 sunset provision.

Office of Sustainable Groundwater Management

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