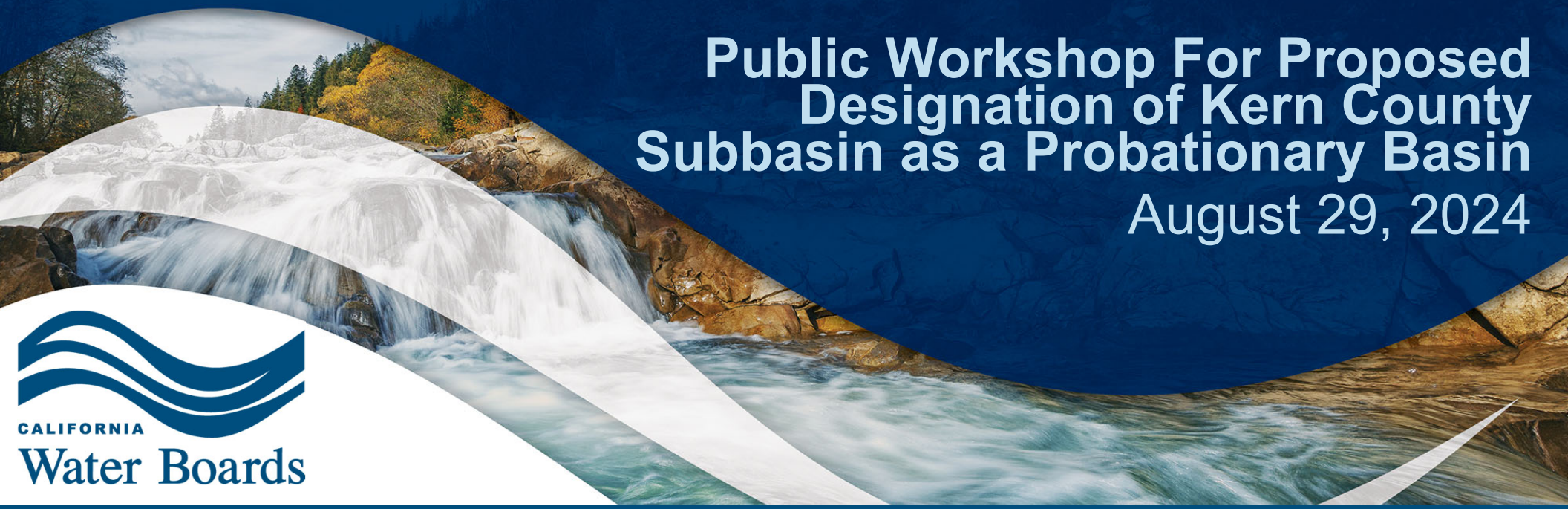
Sustainable Groundwater Management Act



Public Workshop For Proposed Designation of Kern County Subbasin as a Probationary Basin

August 29, 2024

CALIFORNIA
Water Boards

State Water Resources Control Board

Language Access

For Interpretation Service Users

- Please see registration table for an interpretation device
- **Spanish:** Click channel number 1 on your device to access services
- **Punjabi:** Click channel number 9 on your device to access services

For all Participants

- We may have slower than usual transitions between slides, we appreciate your patience

Community Guidelines

1. **Engage respectfully and avoid personal attacks – verbally or in written comments**
2. **Use comment cards or microphone to communicate comments and/or questions to speakers**
3. **Public Feedback**
    - **Question & Answer Portion**
        - **We will keep the time brief to prioritize the comment period**
    - **Public Comment Portion**
        - **We will go in order of the queue**
        - **Keep comments within the provided time allotment shown on the timer**

How to Participate

Ask Staff to Share
Submit Questions and Comments by comment card (name optional) for staff to read aloud.

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Objectives

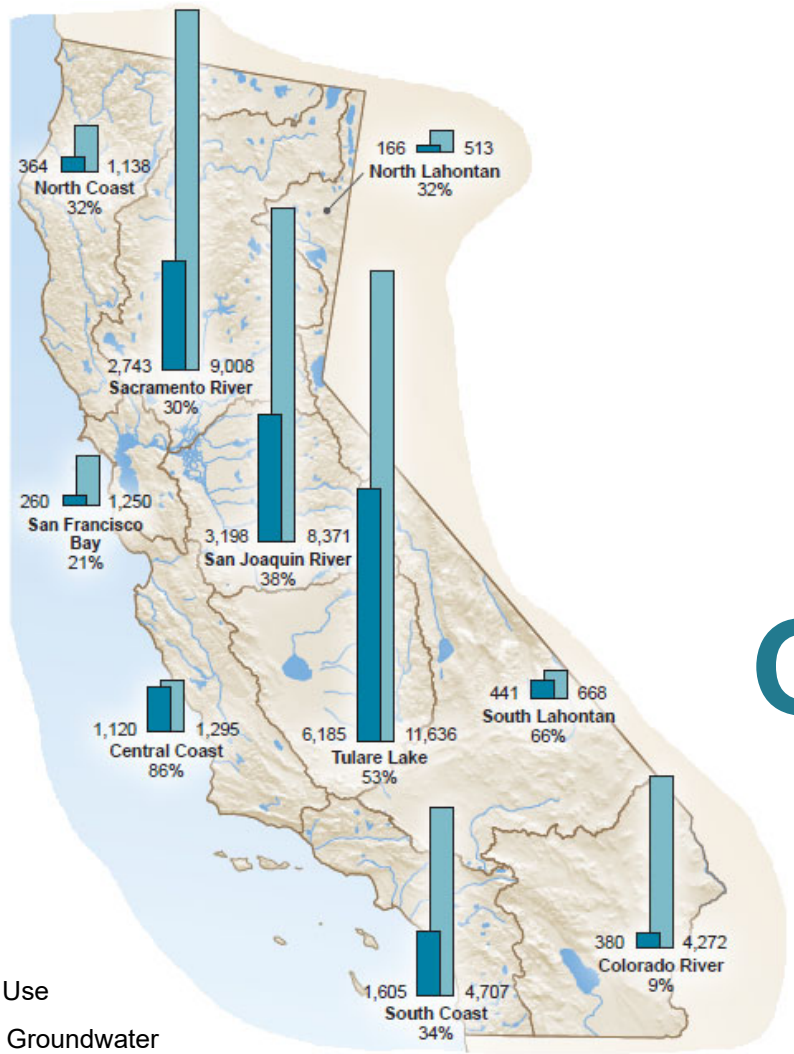
1. **Provide an opportunity for the public to learn about the draft staff report which describes the actions staff recommend the State Water Resources Control Board should take for the proposed designation of Kern County Subbasin as a probationary basin.**
2. **Provide an opportunity for the public to interact with State Water Resources Control Board staff and raise their questions and concerns.**
3. **Provide an opportunity for the public to provide verbal and written comments on the draft recommendations.**

Public Workshop Agenda

1. Opening Remarks
2. Groundwater & Kern County Subbasin Background
3. Overview of State Intervention Under SGMA
4. Plan Issues Described in Staff Report
5. Proposed Requirements for Groundwater Extractors
6. Public Q&A on Probationary Hearing Process
7. Presentation from the Kern County Groundwater Sustainability Agencies
8. Public Comment (Starts at 7:00 pm)
9. Next Steps

Opening Remarks

Background on Groundwater & the Kern County Subbasin

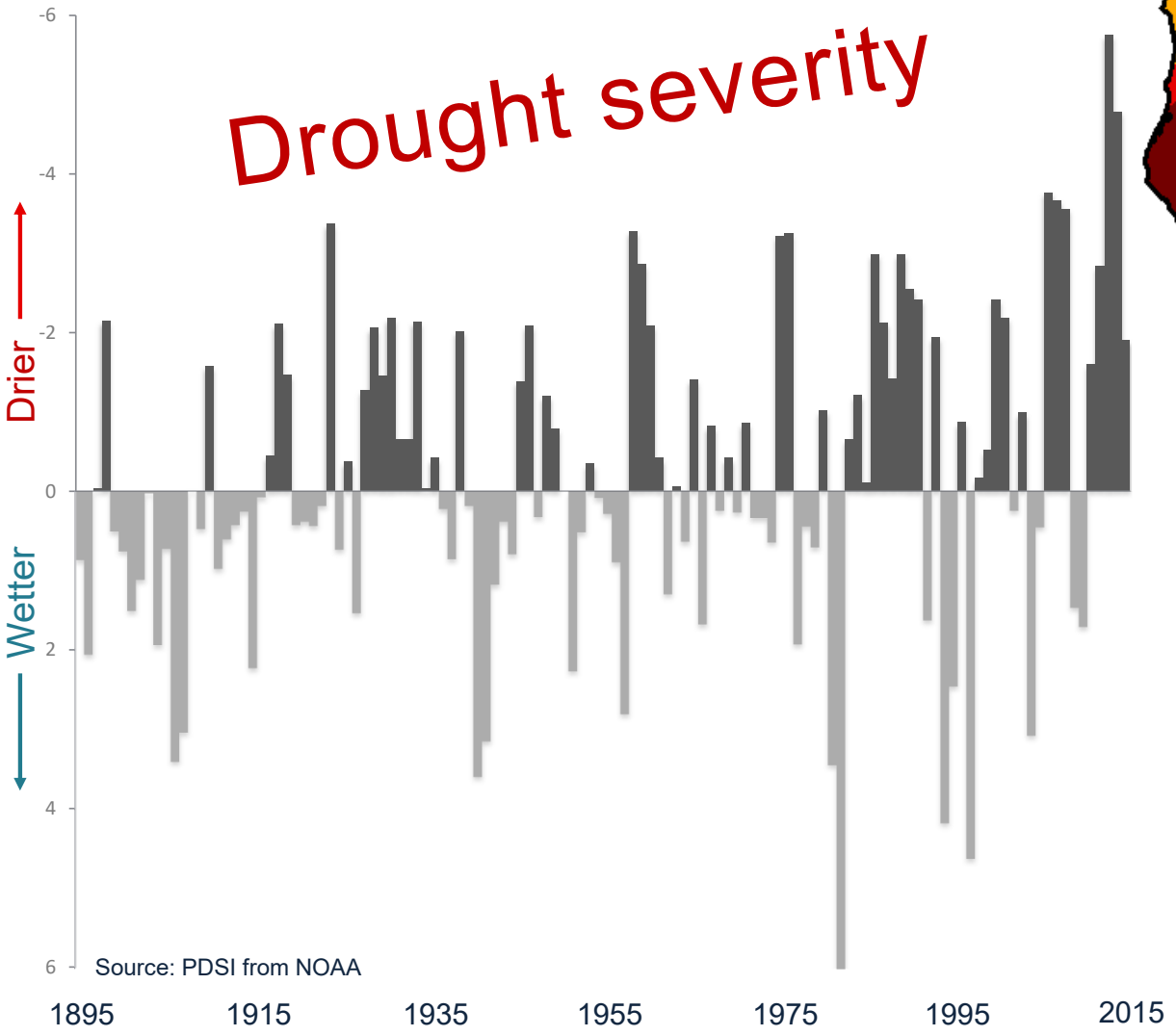


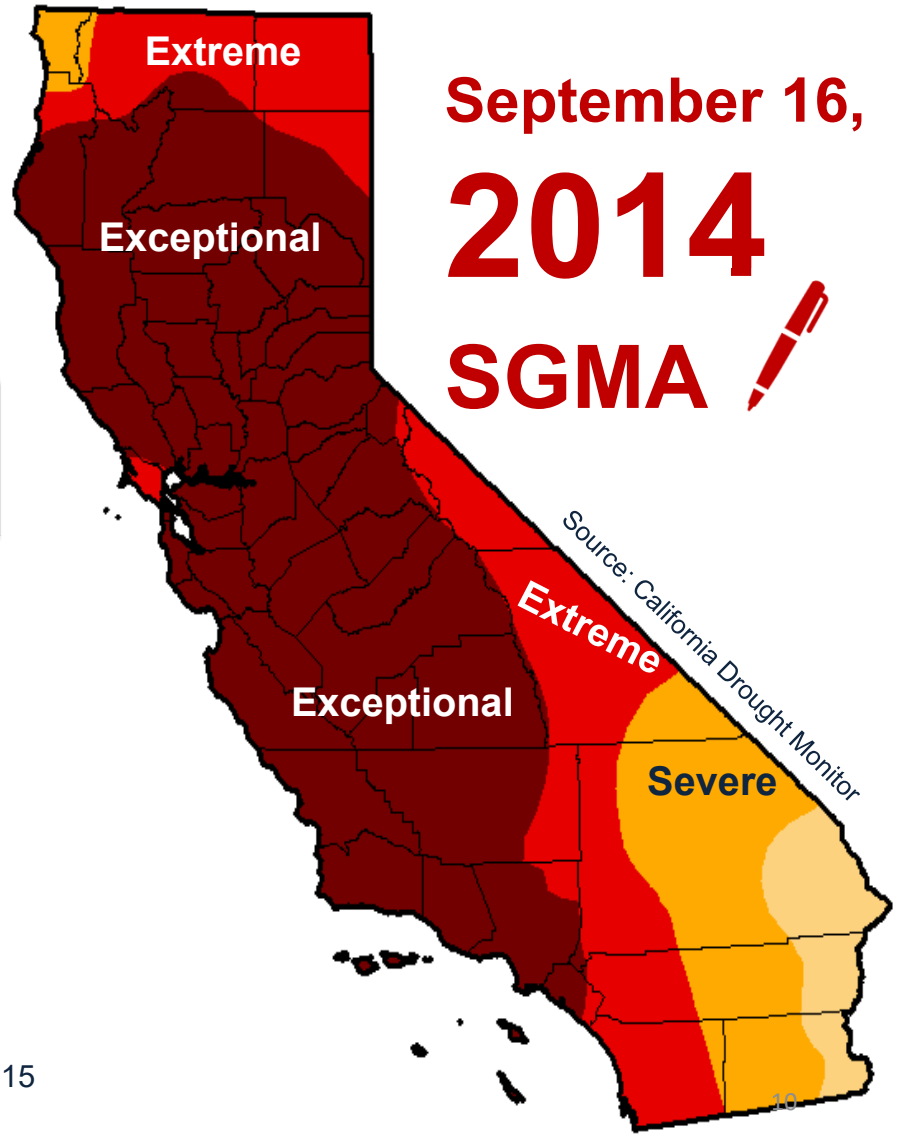
Source: California Water Plan Update 2013

80%

of Californians rely on GROUNDWATER for part of their water supply

Drought severity

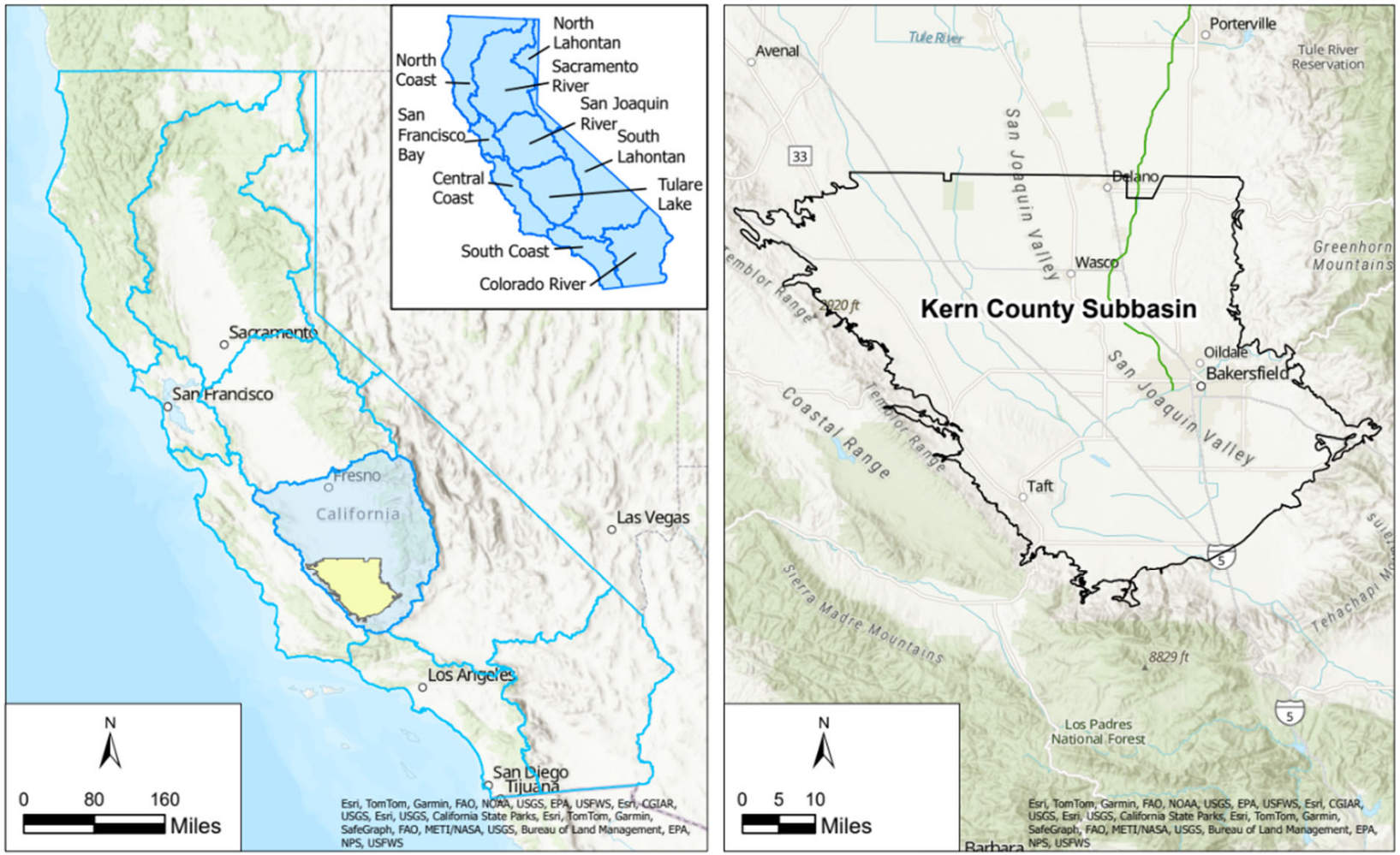




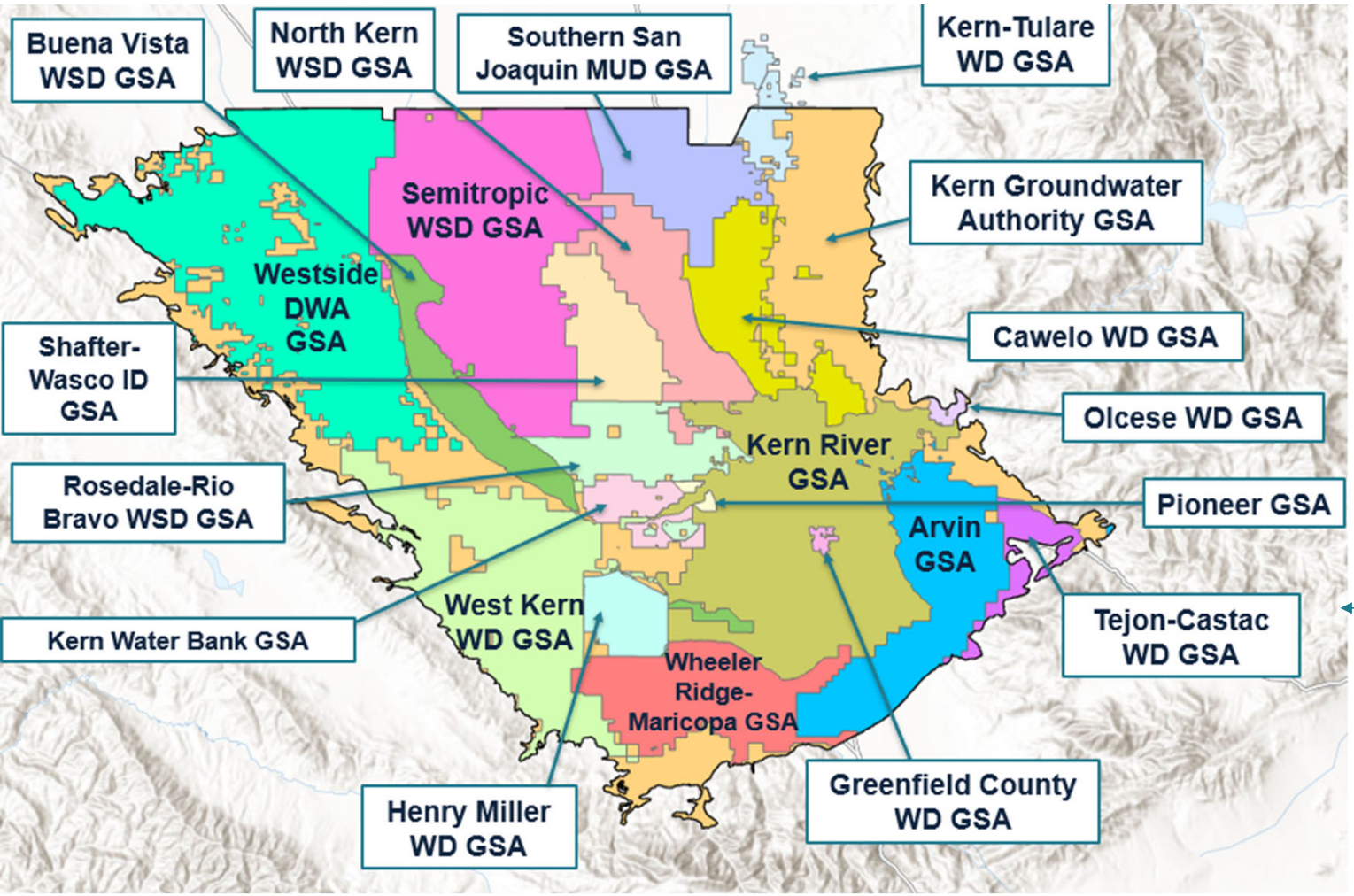
September 16, 2014

SGMA

Kern County Subbasin



Kern County Subbasin



2020 Plans

- 11 GSAs
- 5 GSPs

+15 Management area plans

2022 Plans

- 14 GSAs
- 6 GSPs

+12 Management area plans

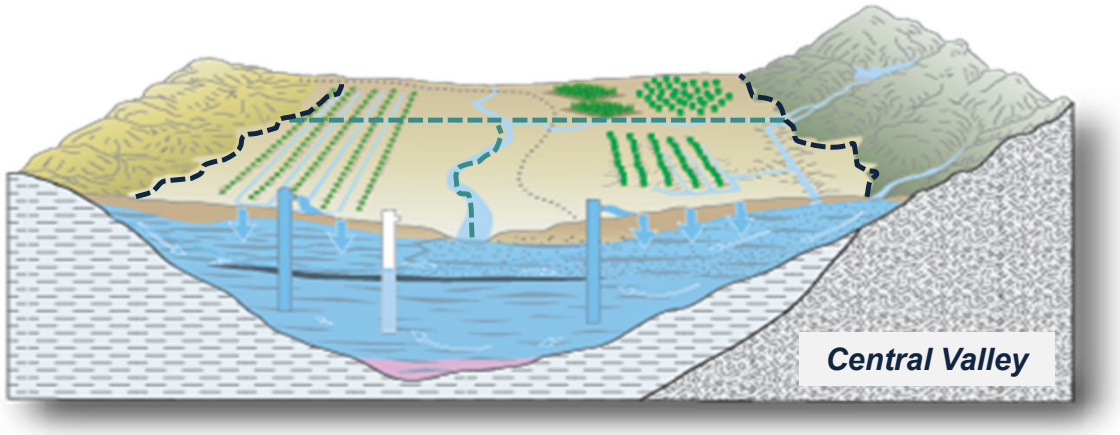
2024 Plans

- 20 GSAs
- 7 GSPs

Kern County Subbasin

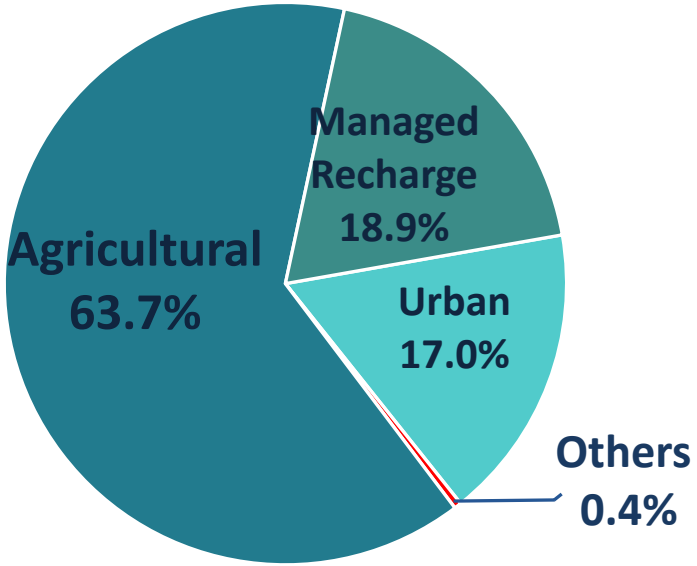
Groundwater Uses

- Municipal and domestic supply
- Drinking Water
- Agricultural supply
- Industrial and service supply
- Managed Recharge Recovery



Groundwater Extractions

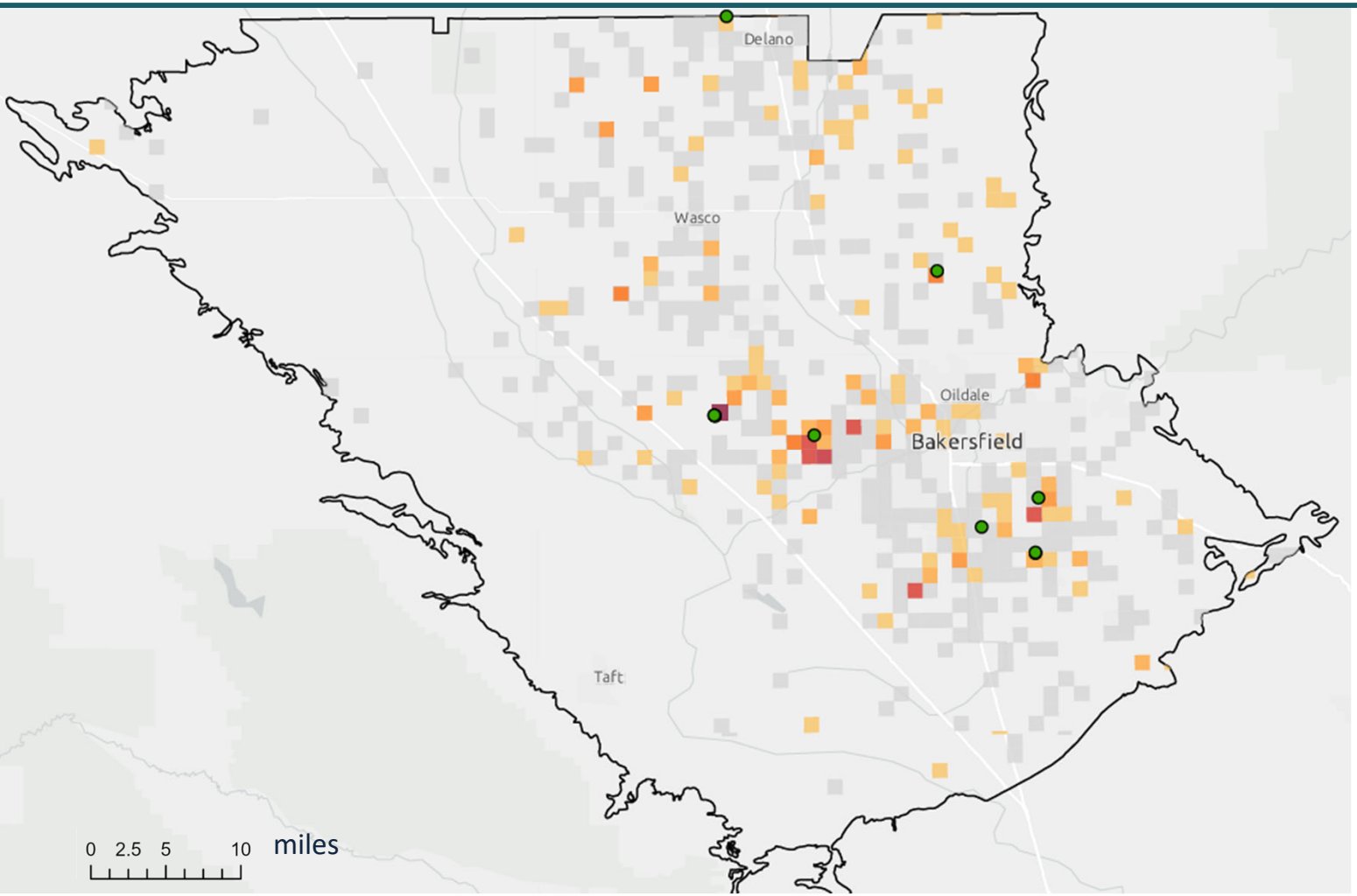
October 2022 – September 2023



925,464 acre feet

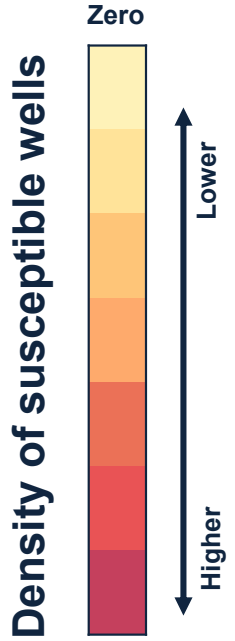
Data Source: WY 2023 Kern County Subbasin Annual Report

Kern County Subbasin: Domestic Wells

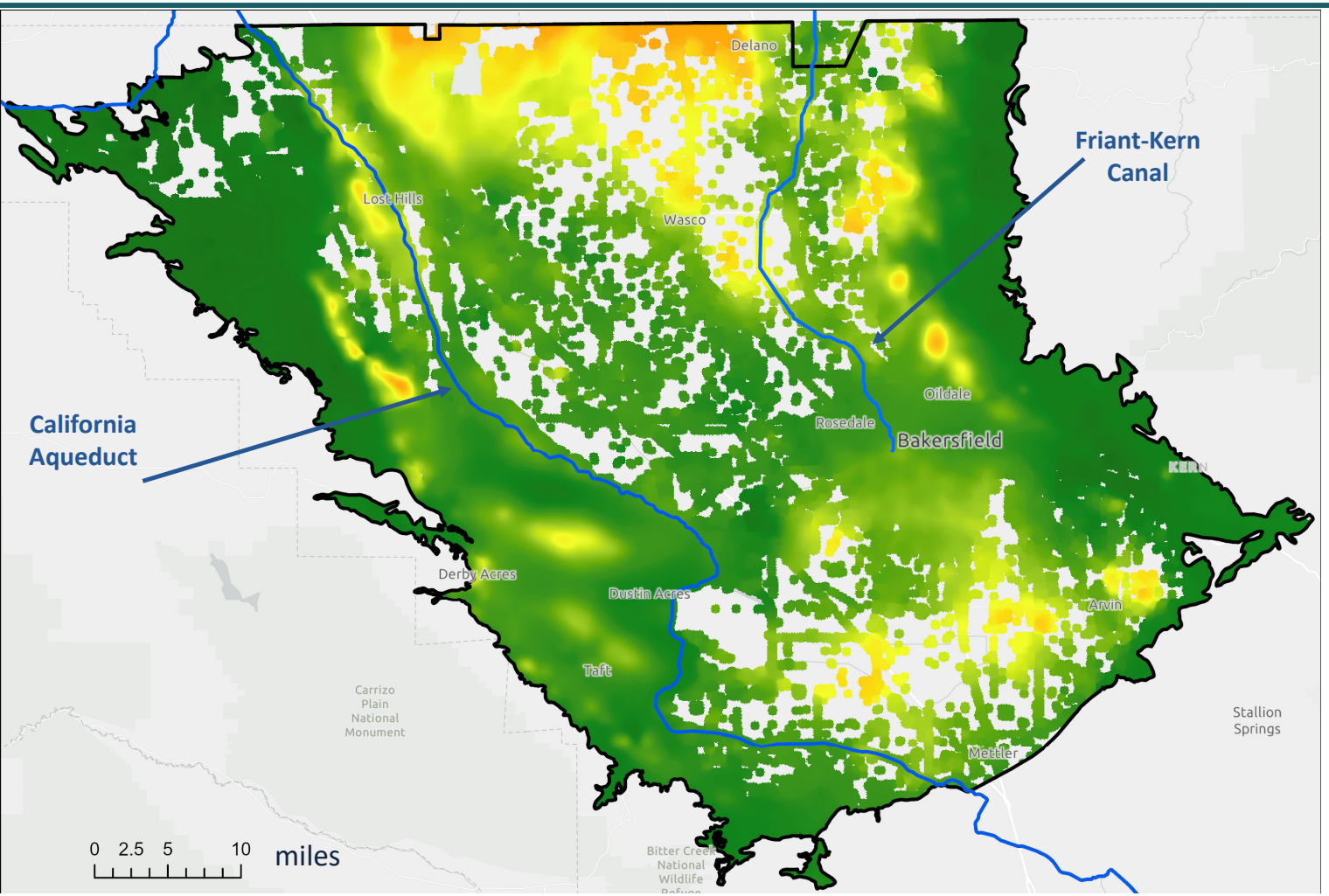


Susceptible: 227

Reported dry in 2023: 10

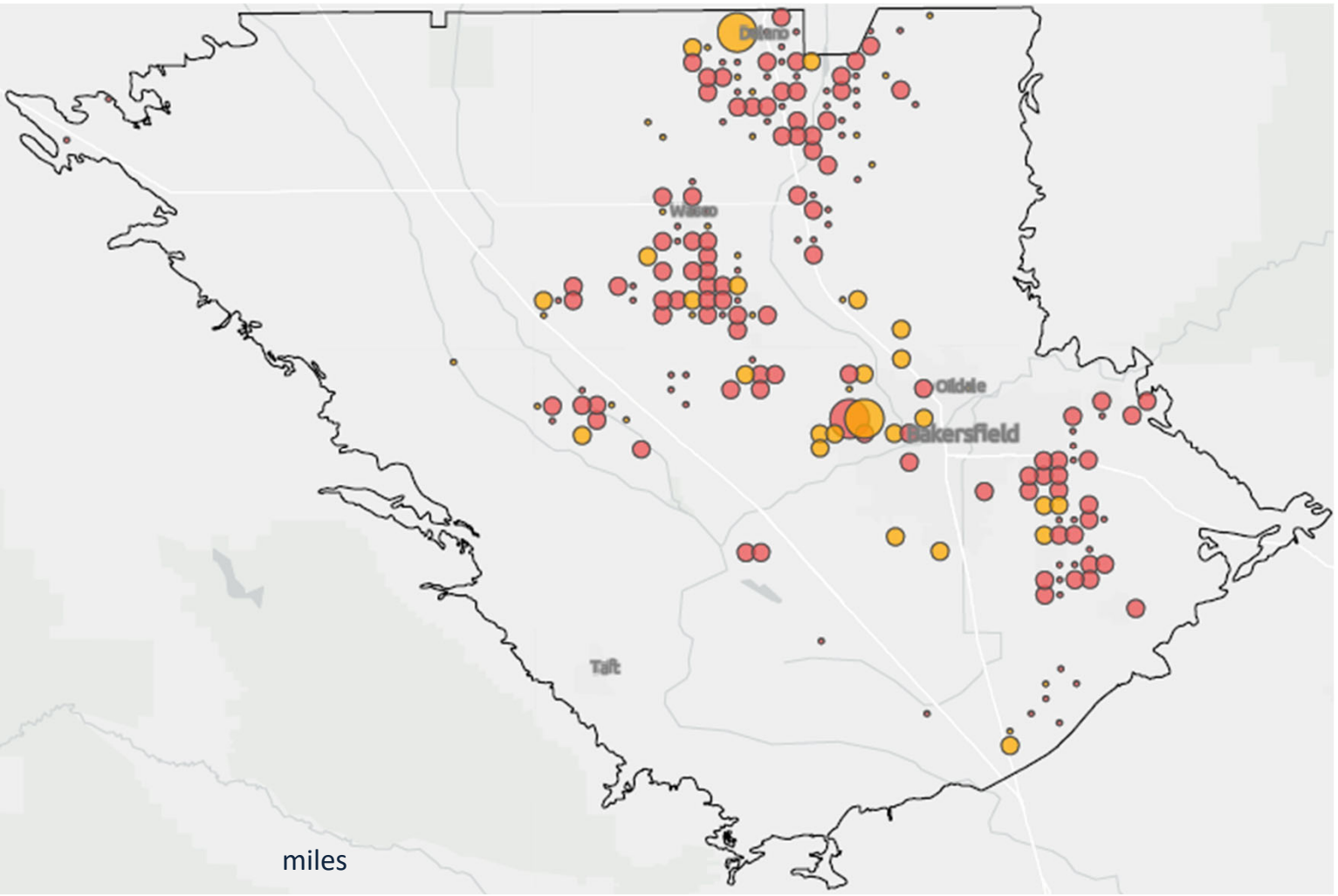


Kern County Subbasin: Subsidence



Subsidence from InSAR: June 2015 to January 2024

Kern County Subbasin: Groundwater Quality



2024 At Risk Domestic and State Small Water System Wells

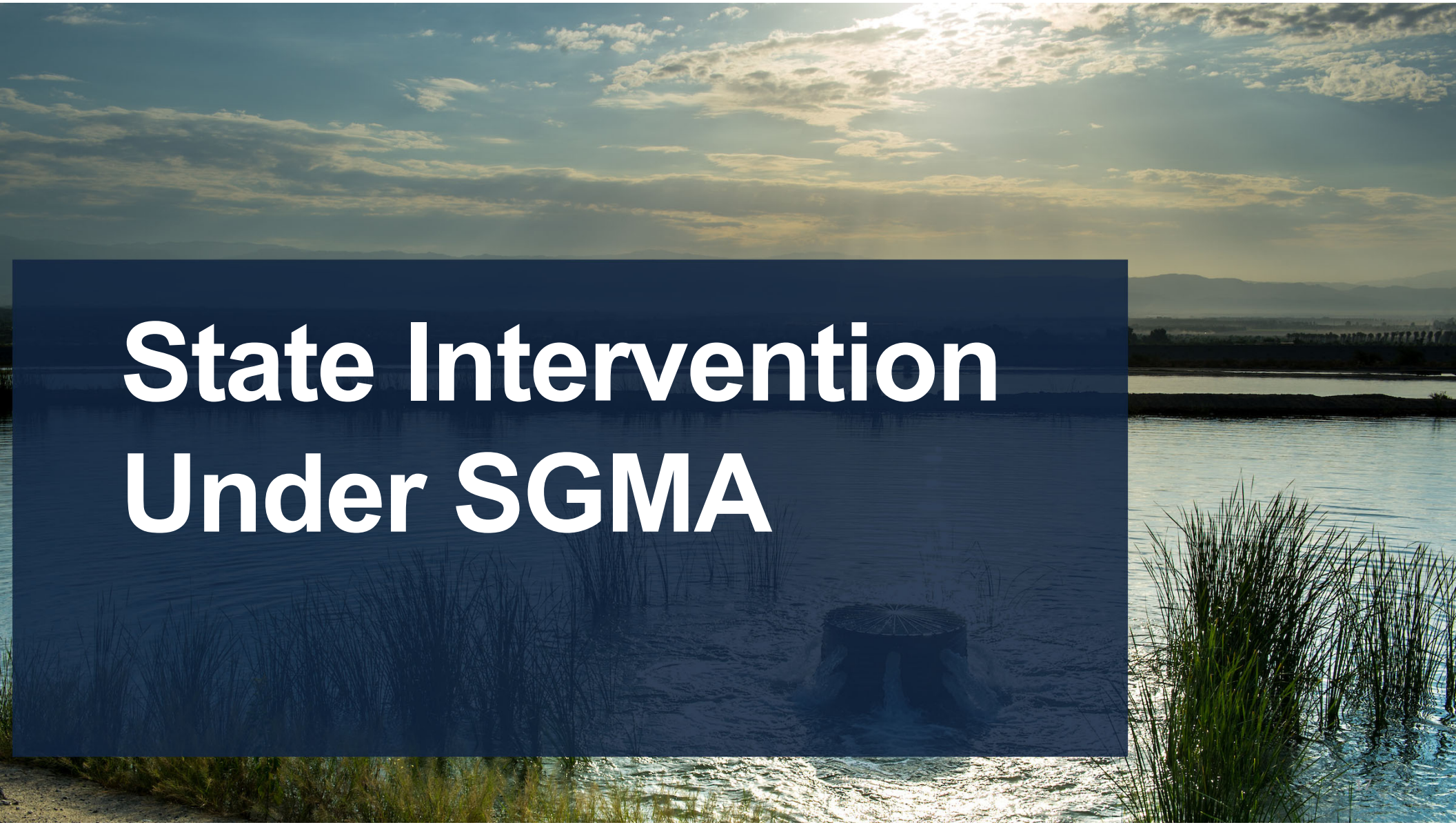
591 Wells

1. Nitrate

1,031 Wells (Other)

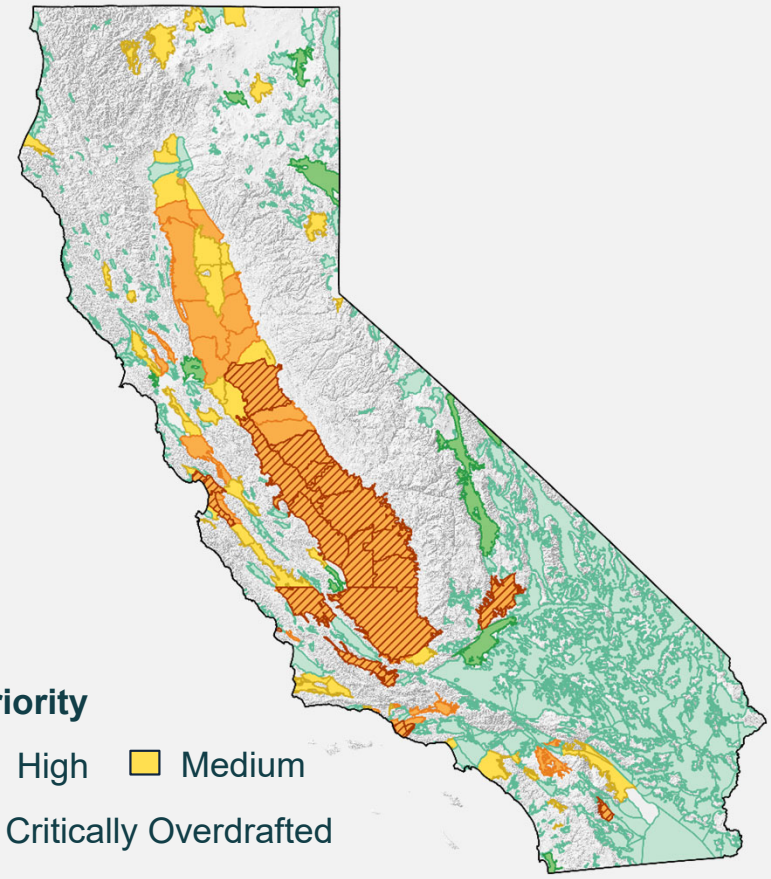
Risk
- Medium
- High

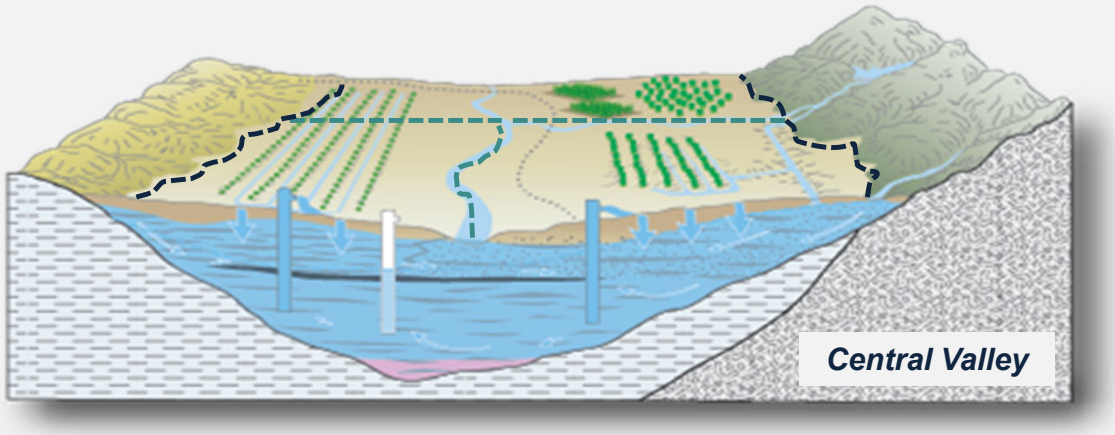
Number of Wells
- 1
- 25
- 50



State Intervention Under SGMA

SGMA AT THE BASIN SCALE





Basins & Subbasins

SGMA Authorities

Groundwater Sustainability Agencies (GSAs)

CA Department of Water Resources (DWR)

State Water Resources Control Board

What is Sustainability?

Basin operated within its sustainable yield and not experiencing undesirable results:


Lowering GW Levels


Storage Reduction


Seawater Intrusion


Degraded Quality


Land Subsidence


Surface Depletion

Significant and unreasonable…

…caused by groundwater conditions occurring throughout the basin.

"Where a local groundwater sustainability agency is not managing its groundwater sustainably,

the state needs to protect the resource

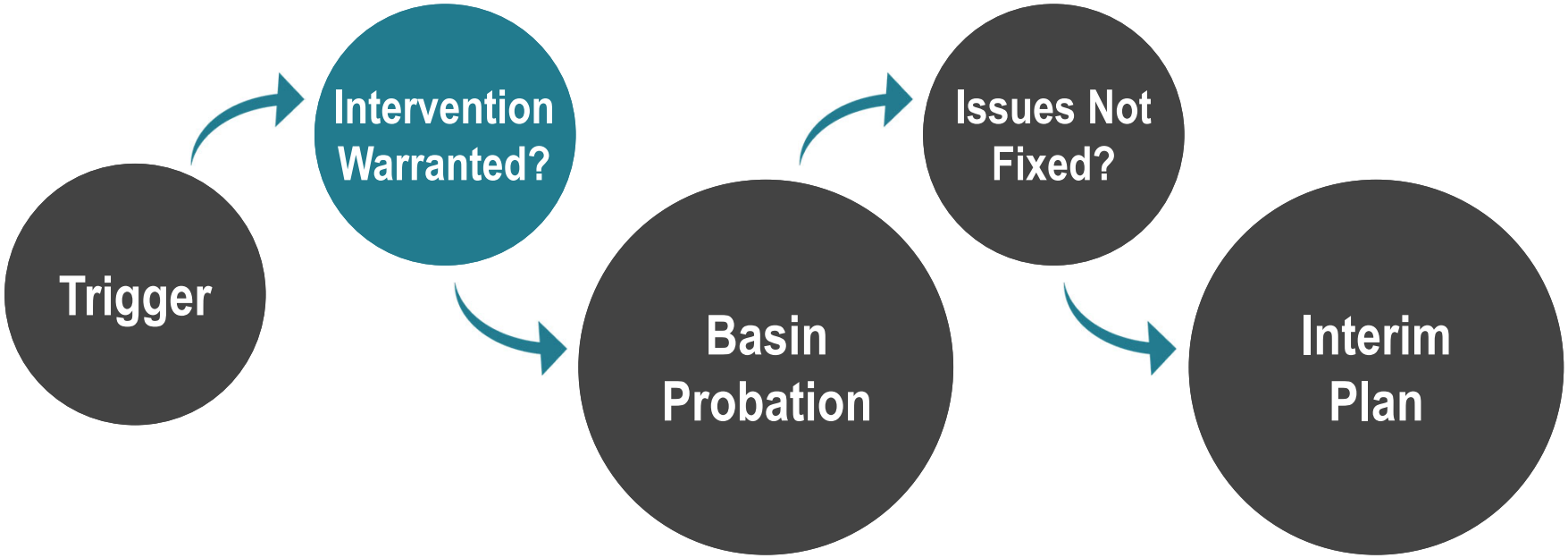
until… a local groundwater sustainability agency can sustainably manage the groundwater basin."

California Legislature

Board Backstop Basics

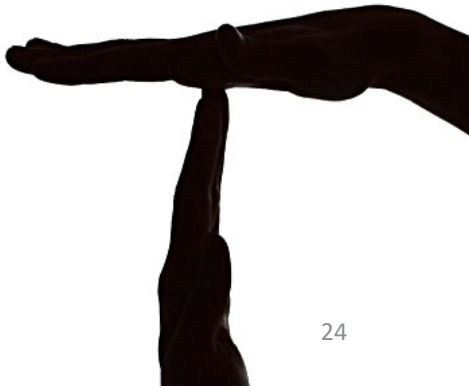
1. Board only steps in when local efforts fail.
2. Temporarily protects the basin until locals come up-to-speed.
3. Backstop is triggered by deadlines and deficiencies.

State Water Resources Control Board Intervention



Probationary groundwater BASIN

- Board identifies deficiencies
- GSAs have time to address issues & continue to implement their plans
- Extractors begin reporting
- Board may require meters
- Board recovers costs via fees



Extraction REPORTS

Reports are submitted annually.

Reports require…

- well location & capacity
- monthly extraction volumes
- place & purpose of use

Reports must be filed electronically.

Information on extraction reports is available at https://www.waterboards.ca.gov/sgma/reporting_and_fees.html.

Probationary Extraction Reporting Fees

If the Board places the basin on probation

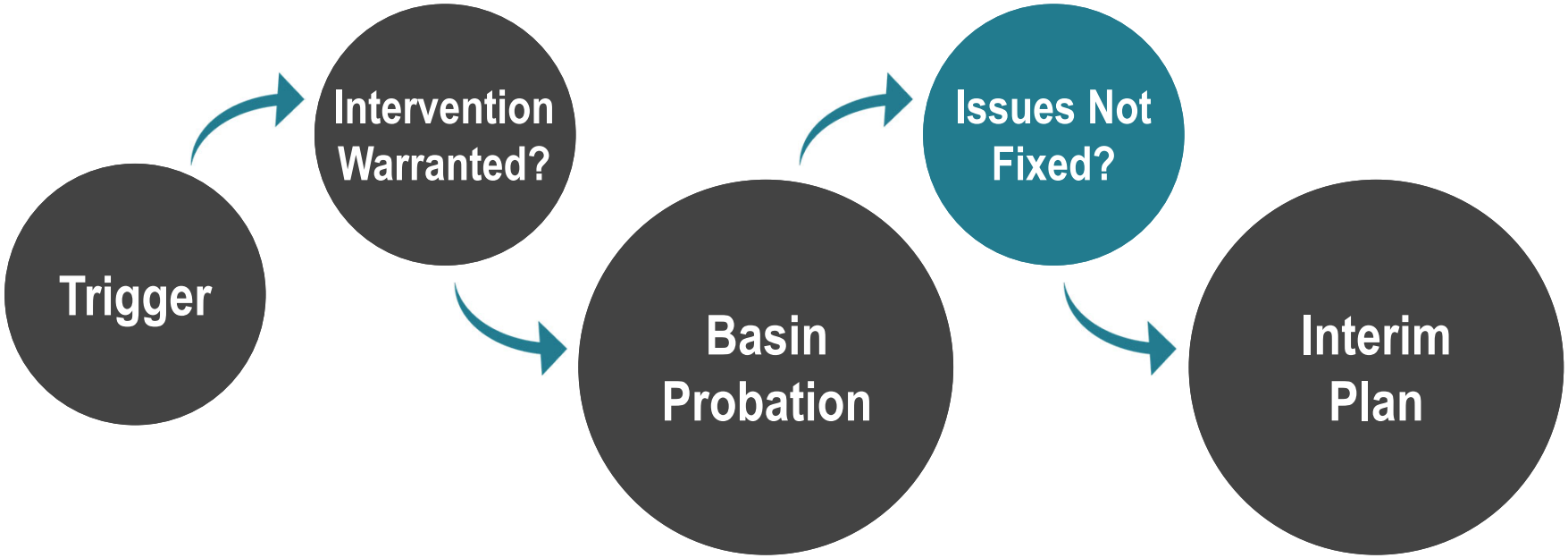
$300 per well per year

$20 per acre-foot extracted

Late reporting fee: 25% per month late

*Fee waivers available for DACs, public schools, and those with low income

State Water Resources Control Board Intervention




Corrective Actions
Interim
PLAN
Enforcement
Monitoring
Schedule

Groundwater Sustainability Plan Issues Described in Draft Staff Report

Kern County GSP Review

- **March 2023 DWR found July 2022 GSPs inadequate and referred the Kern County Basin to the State Water Board**
  - **Board staff began review of the 2022 GSPs and development of the Staff Report identifying deficiencies and potential corrective actions**
- **May 28, 2024 GSAs released new draft GSPs for public comment**
  - **Board staff conducted a preliminary review and determined that major deficiencies identified in the draft Staff Report remain, posing a continued risk to beneficial users**
- **Draft Staff Report analysis of July 2022 GSPs helps inform the continued review and improvement of the draft 2024 GSPs**

Staff Recommendations

- **Improved plans are necessary to achieve sustainability in the basin by 2040**
- **In 2022 and 2024 Draft Plans, Staff identified potential impacts to:**
  - **Groundwater users (primarily drinking water users)**
  - **Critical infrastructure**
  - **Groundwater quality**
  - **Interconnected surface water**
- **Continue to review new Draft 2024 GSPs**
  - **Work with GSAs and meet regularly to walk through areas of major deficiencies and potential corrective actions**

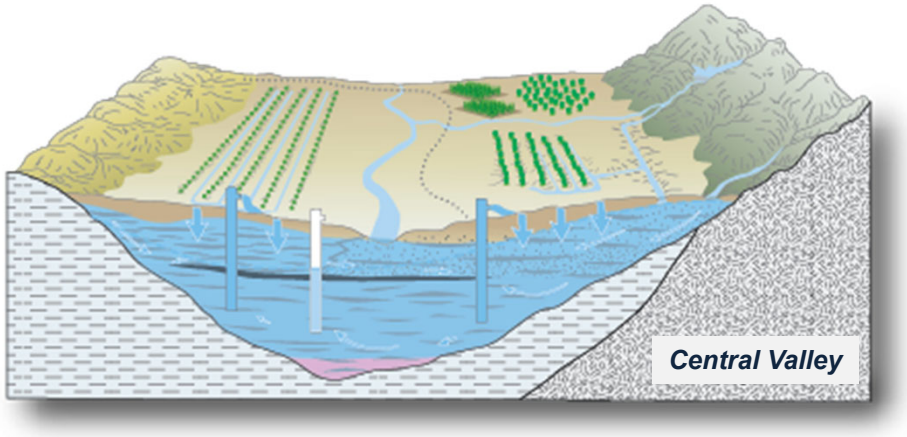
GSP Elements

Groundwater Conditions

Sustainability Criteria

Monitoring

Projects & Actions



Plan Deficiencies

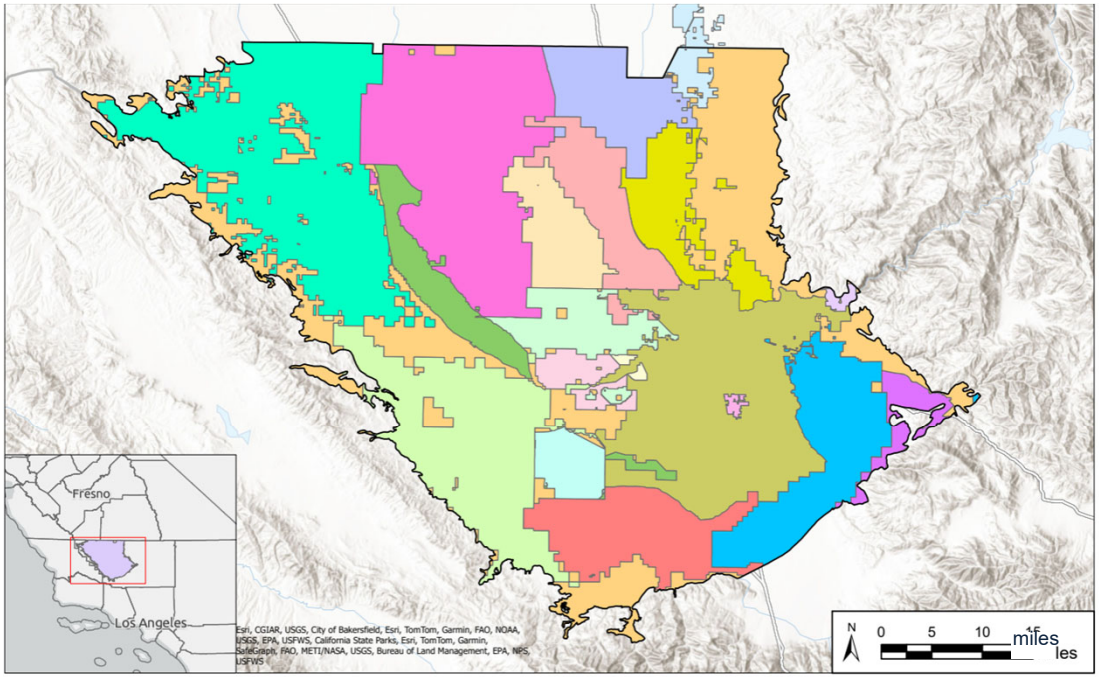


Figure 3-8
GSAs in the Kern County Subbasin

Draft Staff Report
Kern County Subbasin
July 2024

Issues with:

- Coordination
- Declining Groundwater Levels
- Land Subsidence
- Water Quality Degradation
- Interconnected Surface Water

Plan Deficiencies:
Coordination

Problems with:

- Inconsistent Data and Methodologies that are incomparable
- Description of what the GSPs are trying to avoid ("undesirable result")
  - Two-tiered approach to define undesirable results would require multiple management area exceedances to occur before an undesirable would be triggered
- Potential impacts to groundwater users
  - One or more management areas, and users within those areas, can experience impacts for sustained periods of time and not be considered an undesirable result
- Lack of clarity on basin GSA coverage and authority
- Potential impacts due to subsidence, groundwater quality degradation

Potential Consequences:
Coordination

- Lack of communication
- Disproportional impacts to users across basin
- Impacts to other sustainability indicators
- No clear responsible party for impacts
- Continued localized impacts with no actionable triggers

Plan Deficiencies:
Declining Groundwater Levels

Problems with:

- Inconsistent and incomparable data and methodologies across plans
- Description of what the GSPs are trying to avoid (“undesirable result”)
  - What is considered "significant and unreasonable" in each Plan is defined separately
- Potential impacts to groundwater users
  - Under 2022 GSPs, over 437 of 2,141 domestic wells (20%) and 25 of 256 (10%) public supply wells would go dry at groundwater level minimum thresholds
- Potential impacts to other sustainability indicators
- Role and scope of monitoring and well mitigation

Potential Consequences:
Declining Groundwater Levels

- **Threatens drinking water sources by causing dry wells or reducing well productivity**
- **Increases costs to deepen or drill new wells**
- **Increases energy costs of pumping**
- **Increases cost of water for everyone**
- **Causes subsidence, degrades groundwater quality, reduces storage, and depletes interconnected surface water**

Plan Deficiencies:
Land Subsidence

Problems with:

- **Inconsistent definitions of infrastructure, data, and methodologies**
- **Description of what the GSAs are trying to avoid ("undesirable result")**
  - **Example: amount of damage to canals, levees, wells, loss of storage in aquifers**
- **Subsidence impacts from declining groundwater levels**
- **Significant impacts to conveyance infrastructure without mitigation**

Potential Consequences:
Land Subsidence

- Reduces carrying capacity of gravity-driven water conveyance (e.g., canals)
  - Reduces surface water deliveries and increases flooding risks
- Damages deeper wells
- Damages infrastructure like roads, utilities, and pipelines
- Causes irreversible damage to groundwater aquifers and lasting damage to aquatic ecosystems
- Degrades groundwater quality

Plan Deficiencies:
Degraded Groundwater Quality

Problems with:

- **Inconsistent Data and Methodologies**
- **Lack of adequate identification of constituents of concern present within the subbasin**
- **Inadequate monitoring of domestic drinking water wells and users**
- **Lack of mitigation**

Potential Consequences:
Degraded Groundwater Quality

- **Can cause foul taste and odor, chronic disease, or death.**
- **Can result in irrigation water that is not suitable for crops**
- **Mitigation and treatment of water may be difficult and expensive**
- **May require alternative water source**

Plan Deficiencies:
Depletion of Interconnected Surface Water

Problems with:

- Potential impacts to groundwater and surface water beneficial uses
- Inconsistent definition of interconnected surface water throughout the subbasin
- Need to assess depletion of interconnected surface water
- Lack of monitoring

Potential Consequences:
Depletion of Interconnected Surface Water

- **May substantially transform/harm habitat and wildlife**
- **Reduces available water for surface water users**

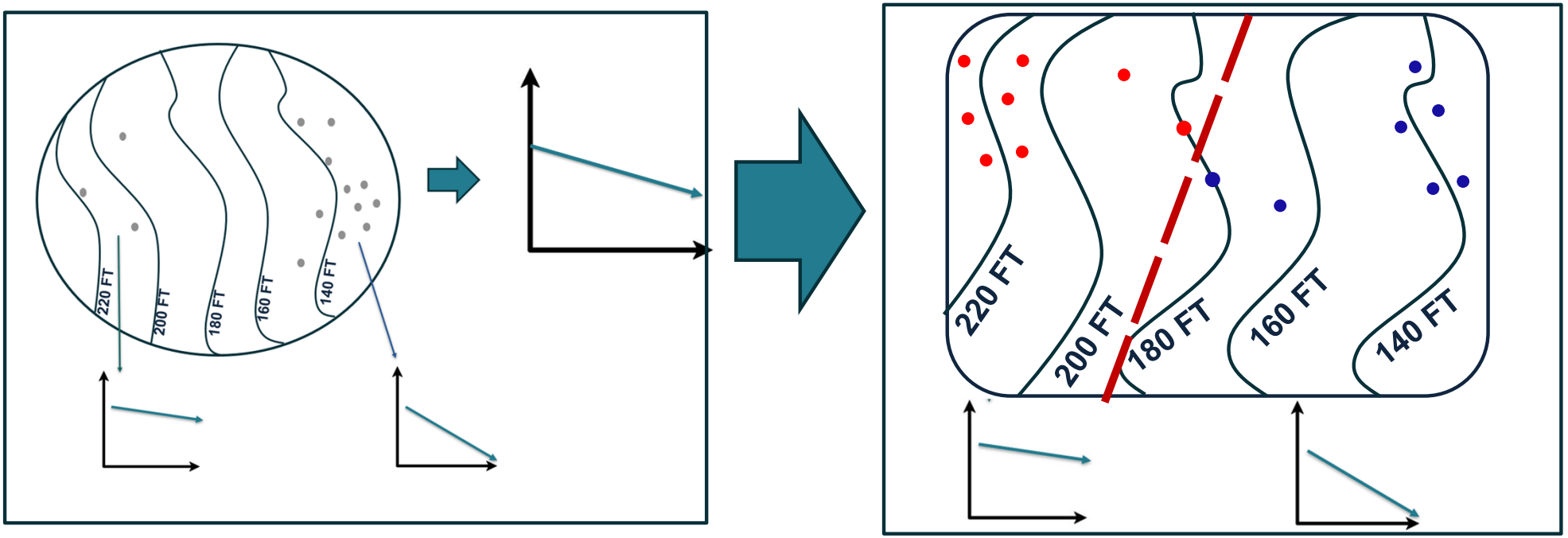
2024 Groundwater Sustainability Plans' Issues Described in Draft Staff Report

Kern County Draft 2024 GSPs Deficiencies:

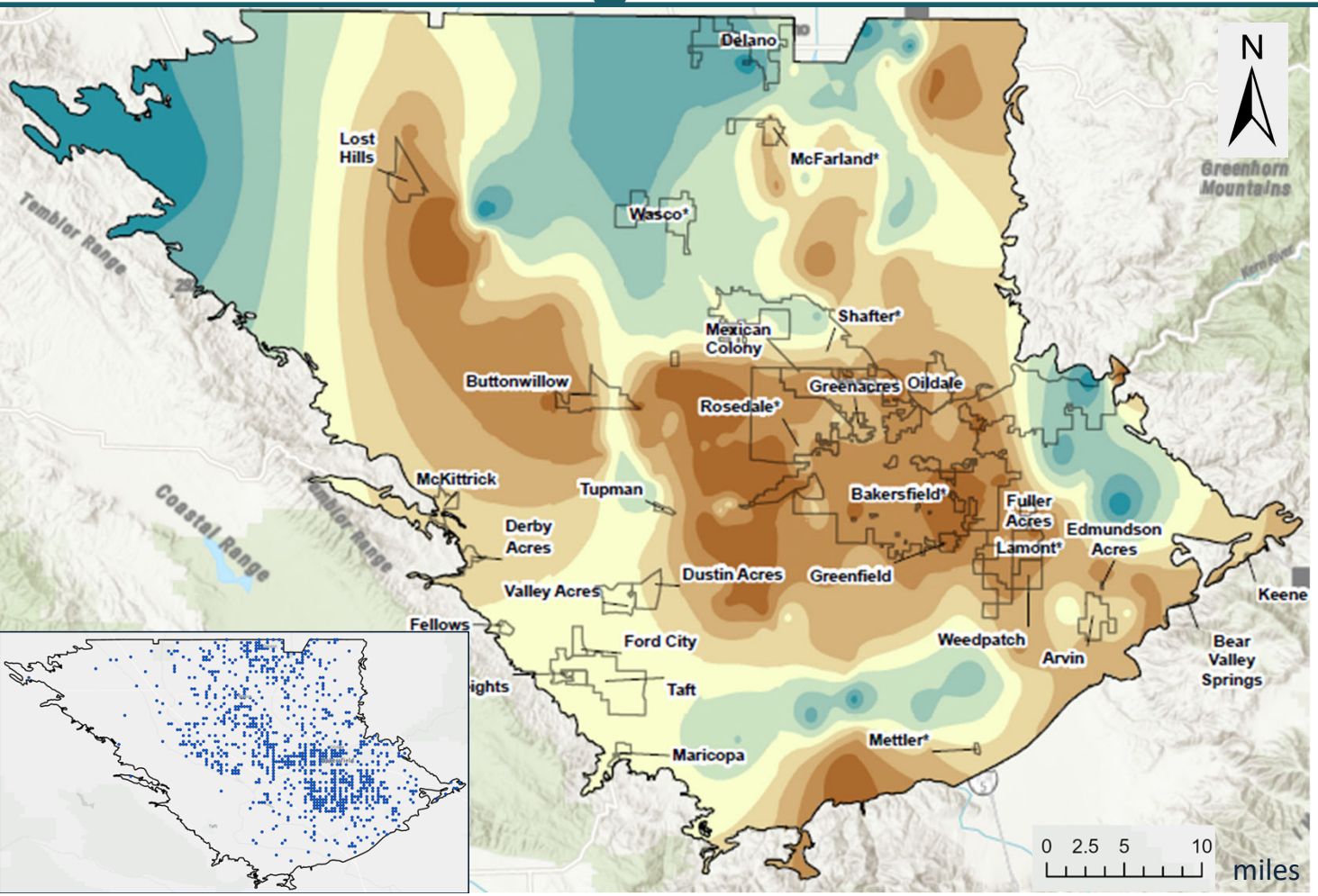
- **Methodology results in values that are not coordinated across boundaries**
- **Methodology is based on the lowest "trend" or "range" value rather than impacts to beneficial uses or users, resulting in lowered thresholds near communities**
- **Lowered thresholds result in up to 9.3 MAF less groundwater**
- **Insufficient consideration of confined, unconfined, and semi-confined aquifers can cause a lack of protections for beneficial uses and users meant to be protected by monitoring networks and mitigation plans**

Kern County Draft 2024 GSPs' Deficiencies:

- **Methodology results in values that are not coordinated across boundaries**



Deficiencies:
Change in Minimum Thresholds

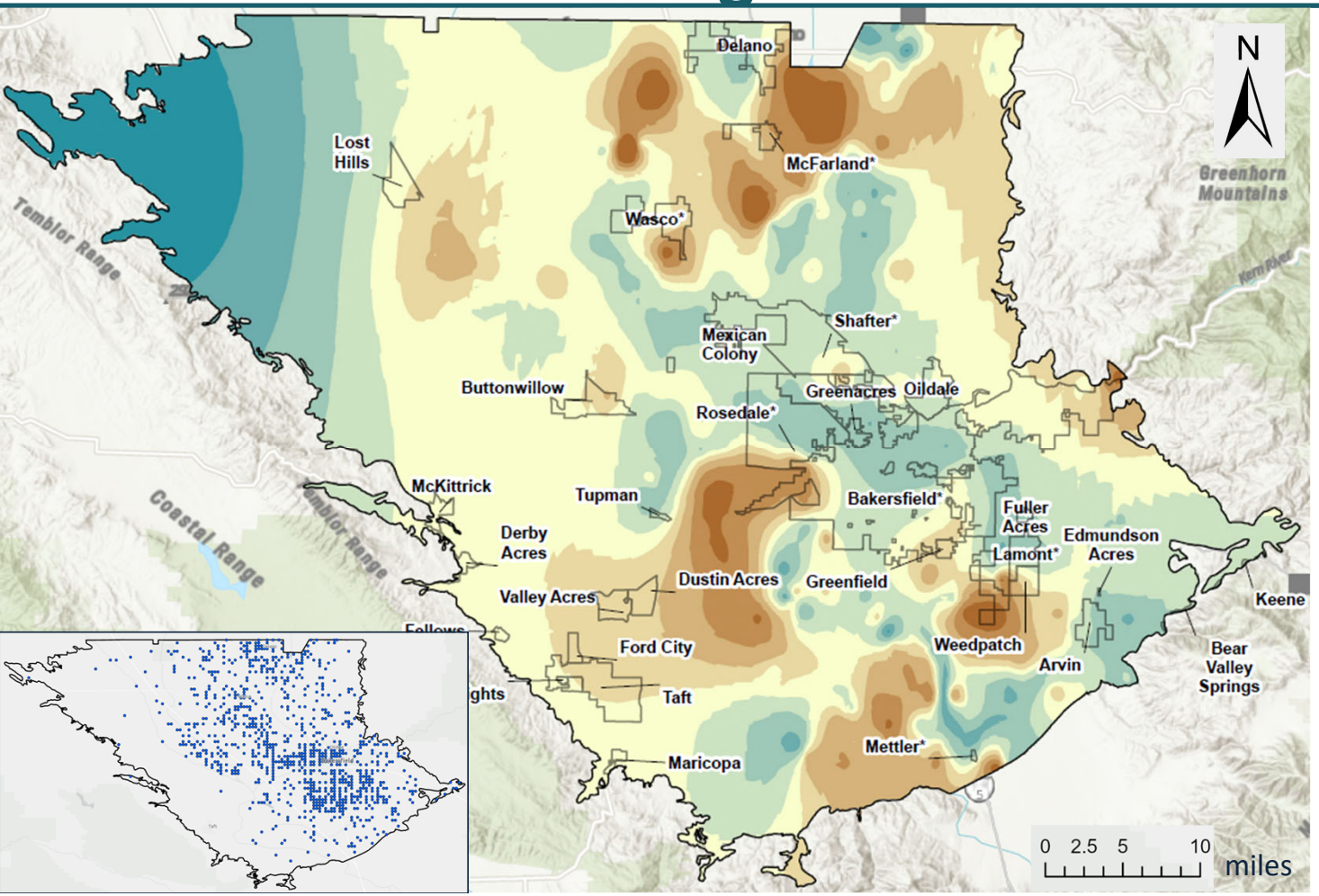


Change in 2022 to 2024 Minimum Thresholds

Feet

- -114.111 - -56.26
- -56.259 - -25.316
- -25.315 - 1.592
- 1.593 - 27.154
- 27.155 - 55.407
- 55.408 - 87.696
- 87.697 - 126.712
- 126.713 - 169.765
- 169.766 - 228.962

Deficiencies:
Declining Groundwater Levels

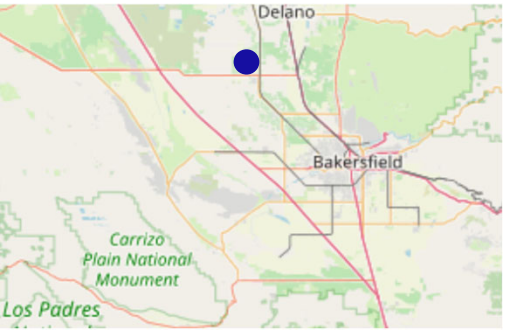


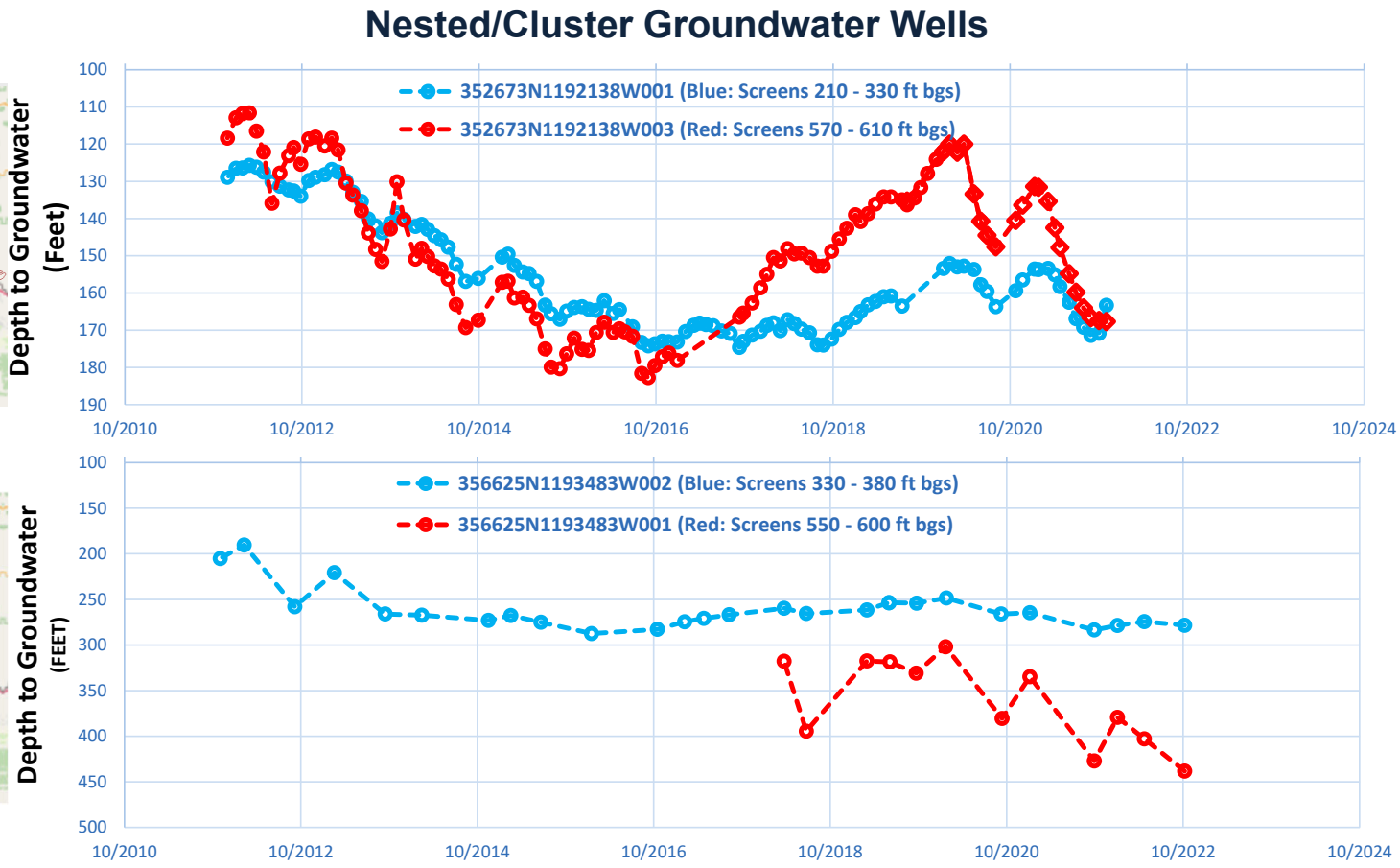
Change in Current Groundwater Levels to 2024 Minimum Thresholds

Feet

- -399.861 - -209.494
- -209.493 - -167.413
- -167.412 - -133.347
- -133.346 - -109.301
- -109.3 - -87.258
- -87.257 - -59.204
- -59.203 - -19.127
- -19.126 - 34.978
- 34.979 - 111.125

Deficiencies:
Aquifer Differences





Kern County Draft 2024 GSPs' Deficiencies:

- **Uncertainty how banking and recharge operations impact management**
- **Incomplete subsidence mitigation plans and inadequate explanations of subsidence effects of oil and gas operations**
- **Lack of clarity on how GSAs will address minimum threshold exceedances for groundwater quality caused by GSAs**
- **GSAs do not define ISW consistent with the requirements of SGMA**

Potential Consequences:

- **Insufficient well impact analysis, which leads to insufficient well mitigation plans**
- **Various impacts to beneficial uses and users in the subbasin**
- **Significant impacts can occur without being considered an "undesirable result"**
- **Inability for projects and management actions, including banking and recharge operations, to properly account for water availability**

Recommended Requirements For Groundwater Extractors

Staff Recommendations

- Exclude household domestic well users from reporting and fees
- Require other pumpers to report by December of each year
- Require meters for those pumping more than 500 acre-feet a year
- Require meters for those pumping near critical infrastructure (except for household domestic well users)
- Do not exclude any portion of the basin from probationary status

Kern County Schedule

2024-2025

July 25, 2024

Release draft deficiencies

Notice to cities and counties

July 26, 2024

Notice to all known pumpers

August 26 & 29, 2024

Stakeholder meetings

July 25 – Sept. 23, 2024

Public comment period

Jan. 2025

Release final deficiencies

Issue draft resolution

Feb 20, 2025

Hearing

Potential probationary designation

*subject to change or cancellation


Public Q & A


Public Comment

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Written Comments

Electronic:

Email in PDF format to SGMA-KernCounty@waterboards.ca.gov

Fax to (916) 341-5620

Mail or Hand Delivery:

Address to:
Courtney Tyler, Clerk to the Board
State Water Resources Control Board

Mail: P.O. Box 100, Sacramento, CA 95812

Hand Delivery: 1001 I Street, 24th Floor, Sacramento, CA 95814

Comments must be received by September 23, 2024, at 12:00 noon.

Thank you and Adjourn

bit.ly/sgma-Kern County