



**EASTERN SAN JOAQUIN
GROUNDWATER AUTHORITY**

ESJ Informational Meeting

September 25, 2024



Welcome

Event Format

- 40-minute presentation
- Open house style
- Groundwater Sustainability Agency's representing different areas of the Subbasin
- Opportunity to provide input
 - Comment cards, Q&A, and discussions

Presentation Agenda

- About SGMA
 - What is it & what does it require?
- Current Basin Conditions
 - How are we doing with regards to meeting basin goals?
- Projects & Management Actions
 - How are we planning to reach basin sustainability?



About SGMA

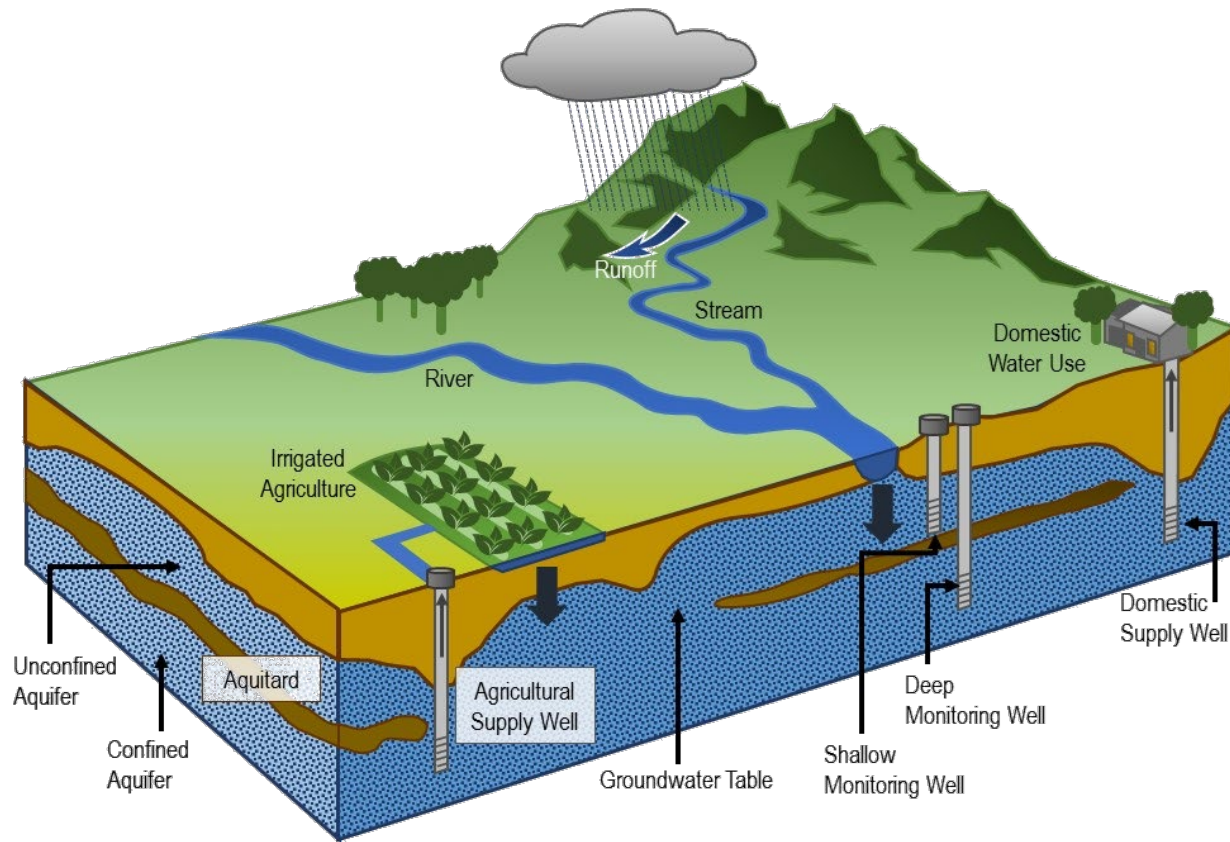
SGMA is a Regulatory Requirement

The **Sustainable Groundwater Management Act**, or SGMA, is statewide legislation (2014) that establishes a path for the sustainable management of groundwater for the first time in California's history.

What Does SGMA Require?

- Groundwater Sustainability Agencies (GSAs) must be formed. GSAs must prepare and submit the initial Groundwater Sustainability Plans (GSPs) by
 - January 2020, for critically overdrafted basins
 - January 2022, for remaining high and medium priority basins
- GSPs must include measurable objectives and milestones to achieve sustainability within 20 years of GSP adoption
- GSAs must assess progress every 5 years after initial GSP submittal through Periodic Evaluations (PEs)
- GSP development and adoption requires public engagement

SGMA Requires Accounting of All Water Uses and Sources



SGMA requires an accounting of all groundwater and surface water entering and leaving a basin

DWR has strongly messaged that, through SGMA, GSAs are required to bring the basin into balance, halting groundwater overdraft

SGMA Requires 6 Sustainability Indicators to be Addressed



Chronic lowering of groundwater levels



Degraded water quality



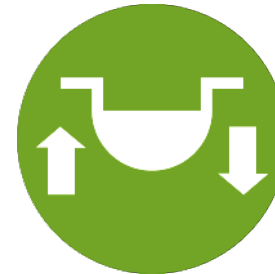
Reduction of groundwater storage



Land subsidence

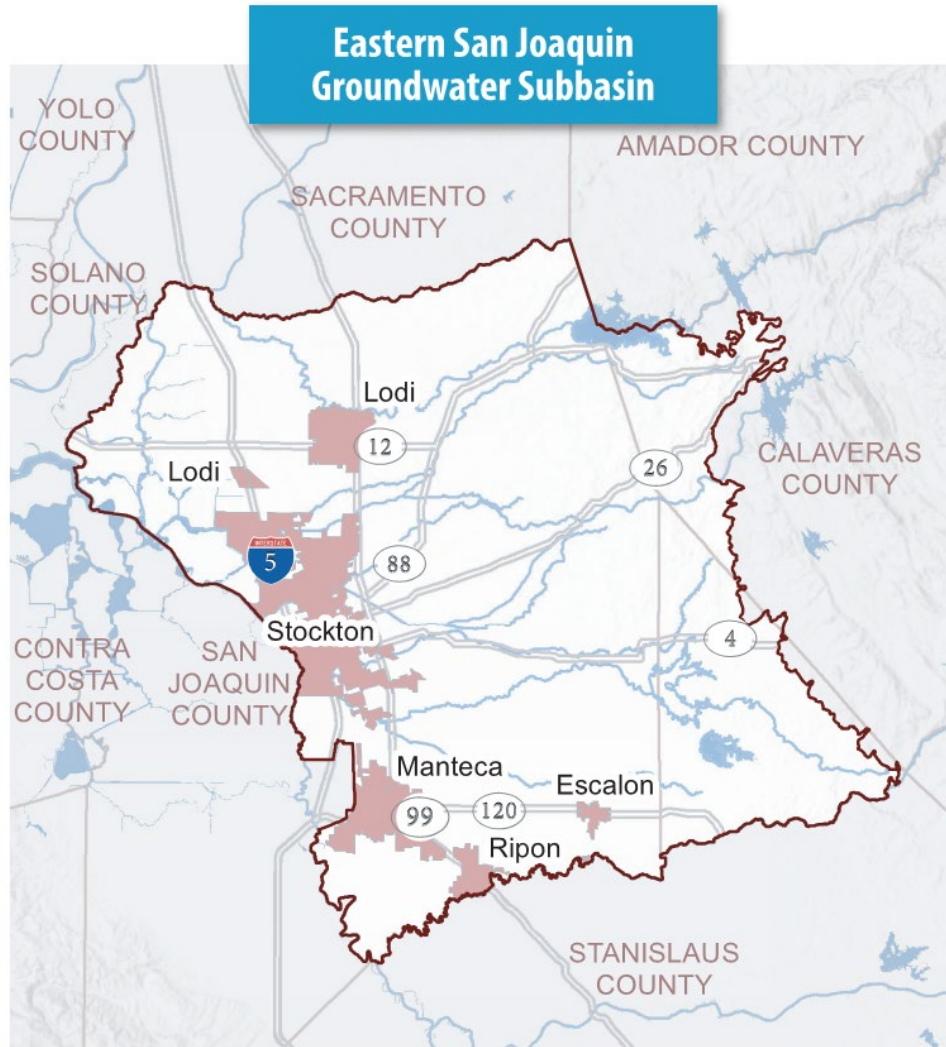


Seawater intrusion



Depletions of interconnected surface waters

Where is the Eastern San Joaquin Subbasin Boundary?



ESJ Subbasin boundaries:

- North – Dry Creek
- West – San Joaquin River
- South – Stanislaus River
- East – Sierra Nevada Bedrock Outcrop

1,195 square miles

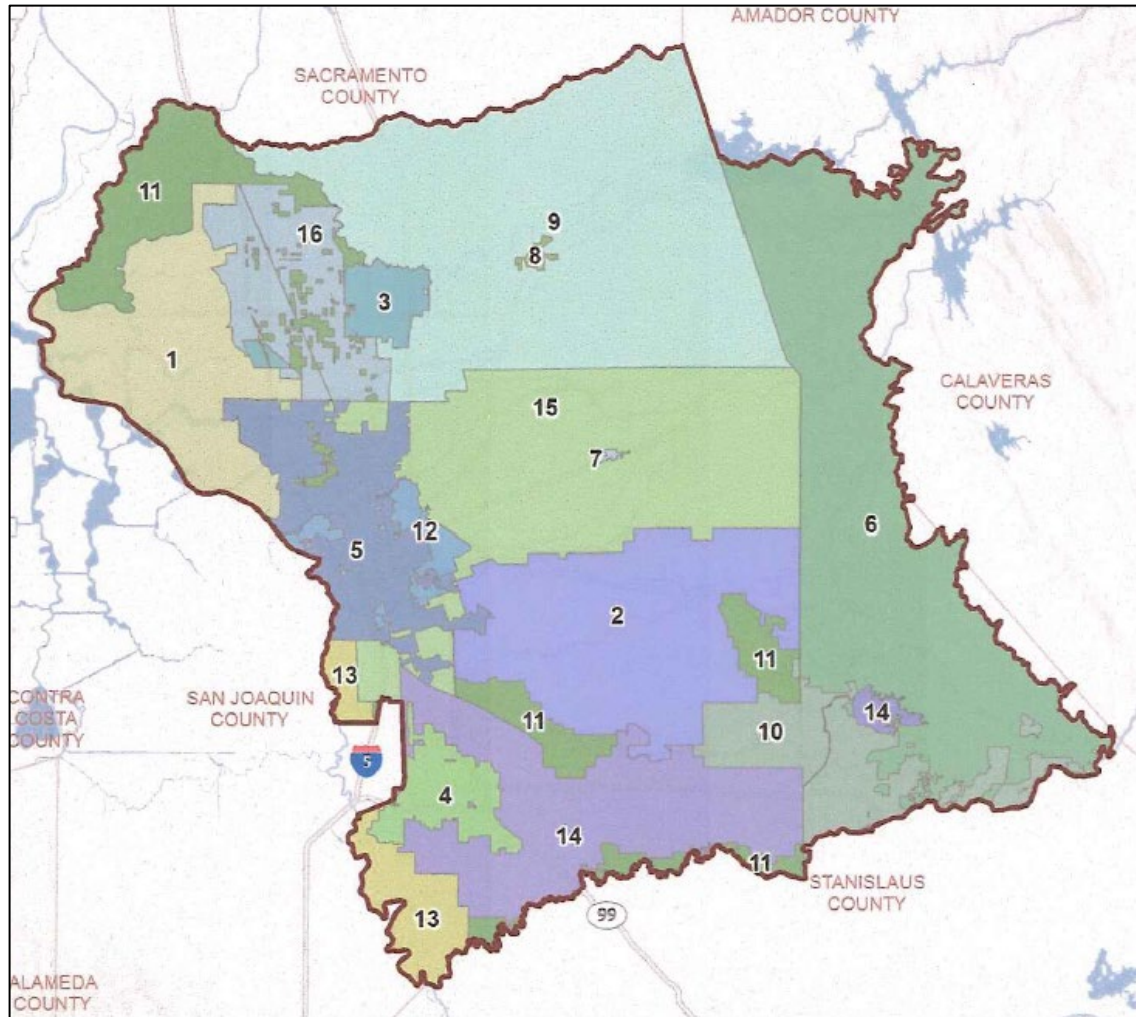
Eastern San Joaquin is Classified as a High Priority Critically Overdrafted Basin

Eastern San Joaquin Subbasin



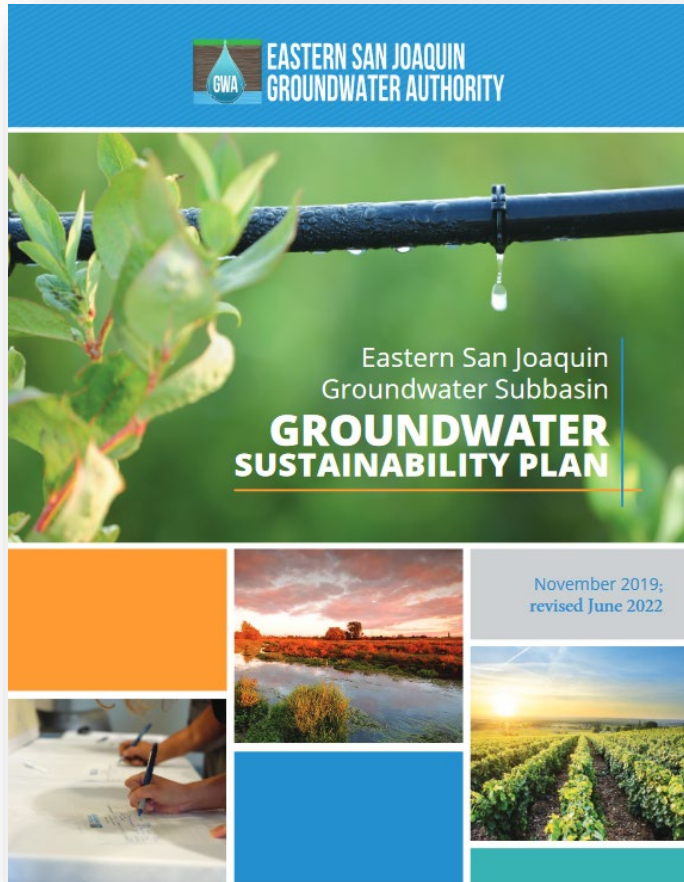
This means that the initial GSP was submitted by January 31, 2020

ESJ Subbasin: 16 GSAs, One GSP



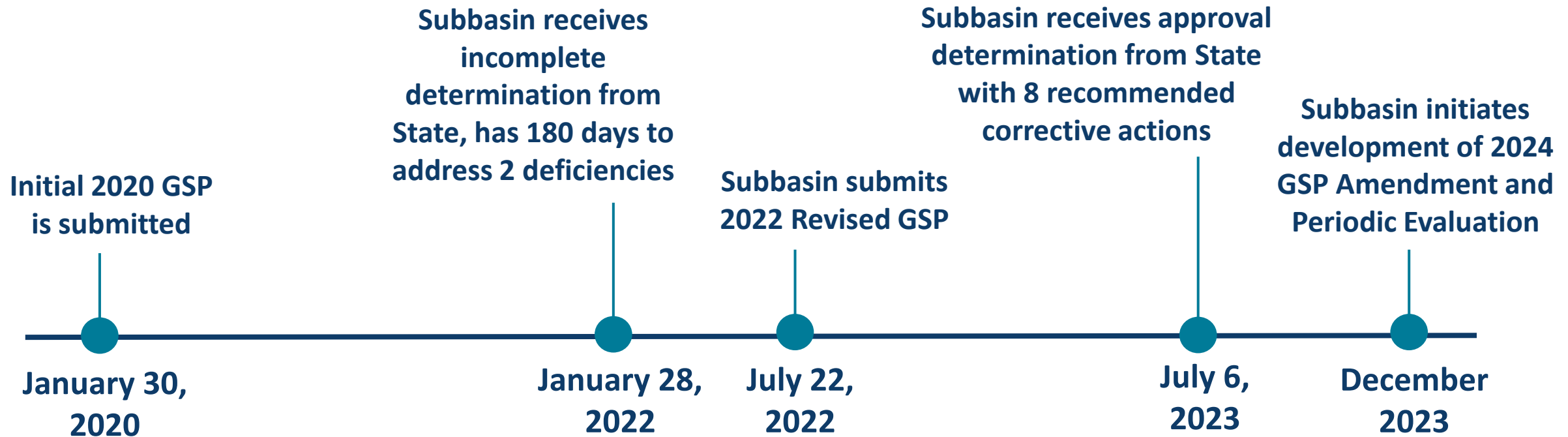
- GSAs worked collaboratively to develop a single GSP
- The GSAs formed the Eastern San Joaquin Groundwater Authority (GWA) in 2017 to jointly develop and implement the Eastern San Joaquin GSP

The GSP – What's In It?



1. Agency Information, Plan Area, & Communication
2. Basin Setting
 - Hydrogeologic Conceptual Model
 - Current & Historical Conditions
 - Water Budget
3. Sustainable Management Criteria
4. Monitoring Networks
5. Data Management System
6. Projects & Management Actions
7. Plan Implementation
8. References

2020 GSP Approval Journey



Completing the 5-Year Update



Address 8 recommended
corrective actions



Prepare 2024 GSP
Amendment



Prepare Subbasin's first
Periodic Evaluation

Hold public open house &
public review period



GSA adoption of GSP
Amendment & approval of
Periodic Evaluation



Submit all documentation by
January 29, 2025 deadline



Public Comment Period (October 1 – 31)

The Draft Amended GSP and Periodic Evaluation will be posted to the website homepage:

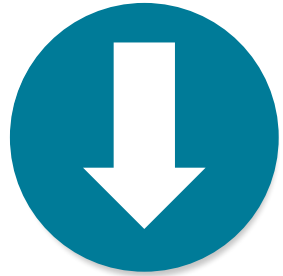
www.esjgroundwater.org

Comments are due Thursday October 31 to
info@esjgroundwater.org



Current Basin Conditions

What is the current status across each of the 6 sustainability indicators?



Chronic lowering of groundwater levels



Degraded water quality



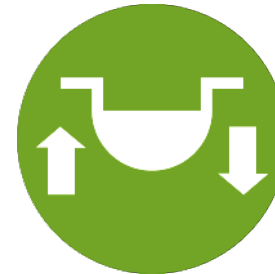
Reduction of groundwater storage



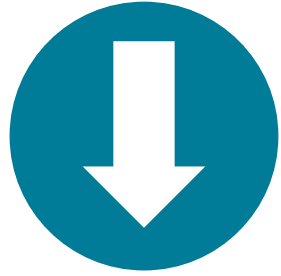
Land subsidence



Seawater intrusion

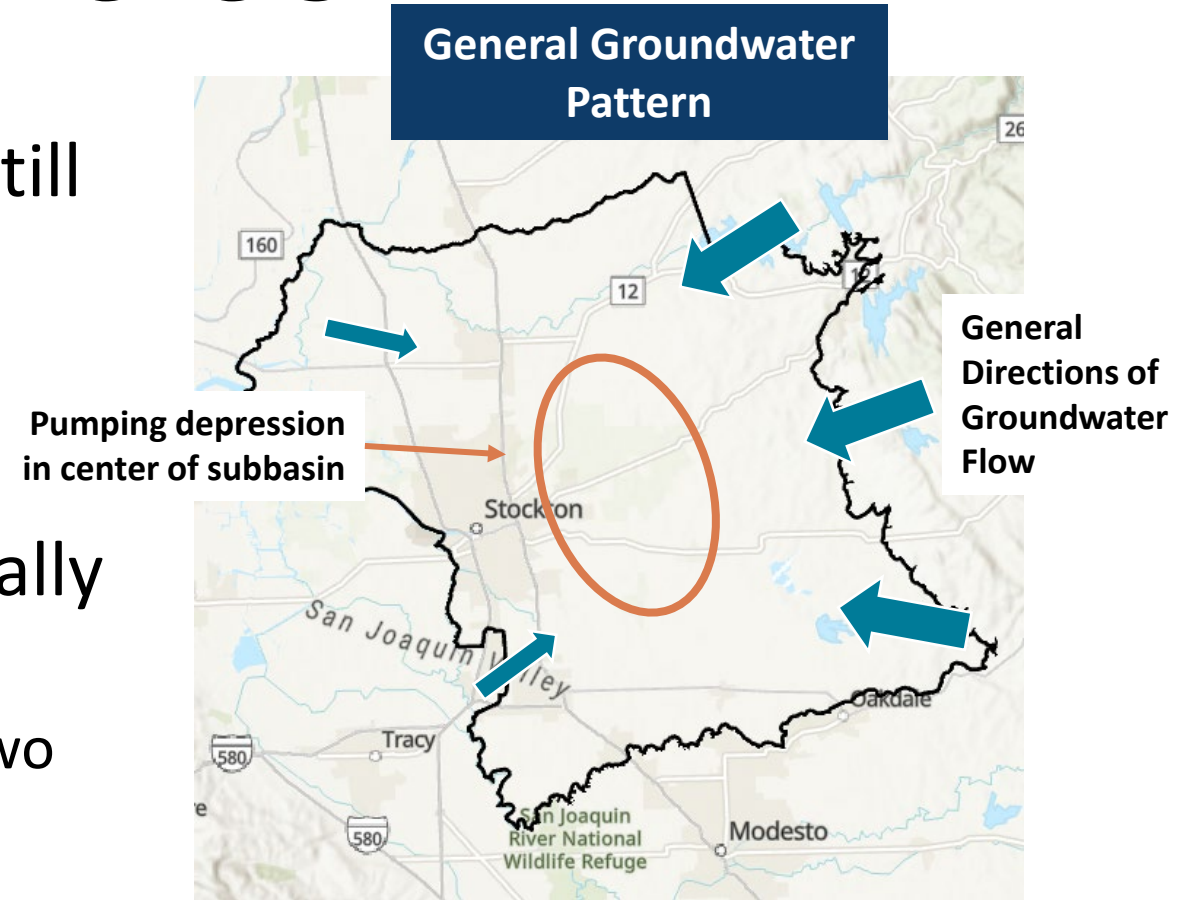


Depletions of interconnected surface waters



Chronic Lowering of Groundwater Levels

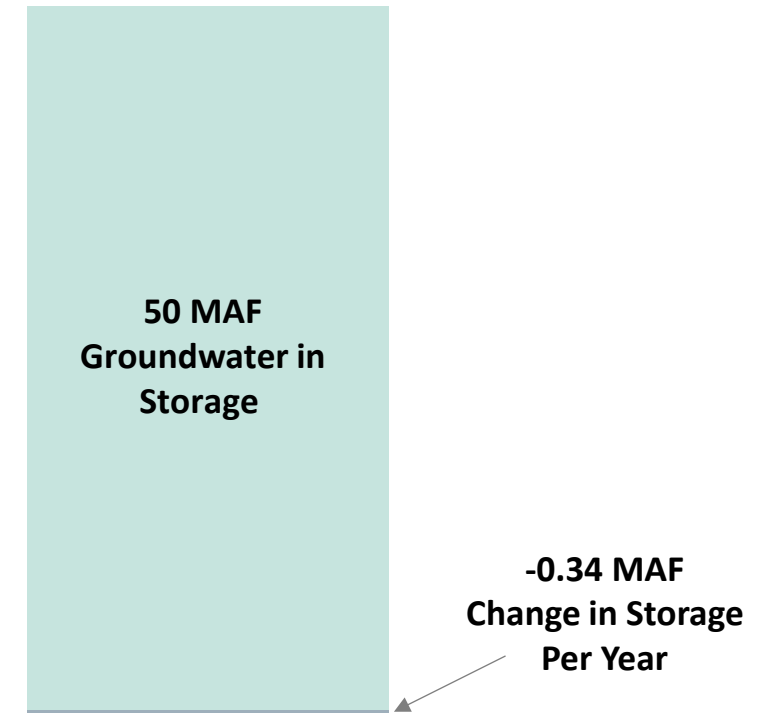
- Seasonal pumping depression still observed in central portion of Subbasin
- Groundwater levels have generally increased in recent years
 - Result of two wet years following two critically dry years





Reduction of Groundwater in Storage

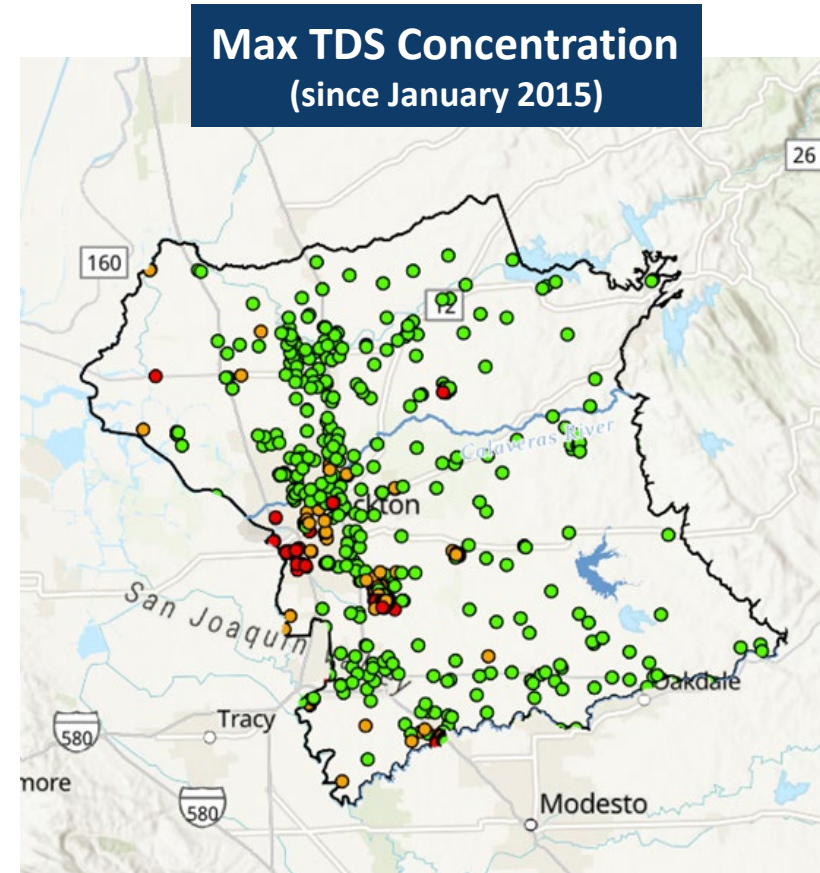
- Over 50 Million acre-feet (MAF) of groundwater estimated in storage in 2015
- Change in storage estimated at -0.34 MAF per year on average
 - Less than 0.01% change in storage per year





Degraded Water Quality

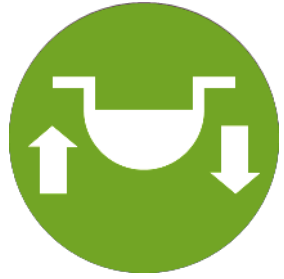
- Elevated Total Dissolved Solids (TDS) seen in wells near City of Stockton and western margin
- Chloride remains low in Subbasin, often remaining below 250 mg/L



Green: 0-600 mg/L

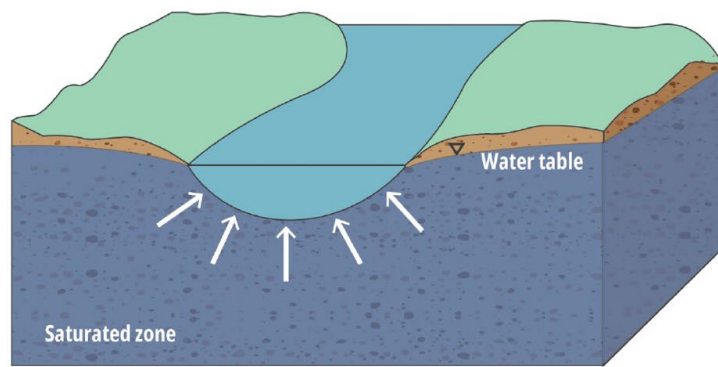
Orange: 600-1,000 mg/L

Red: > 1,000 mg/L

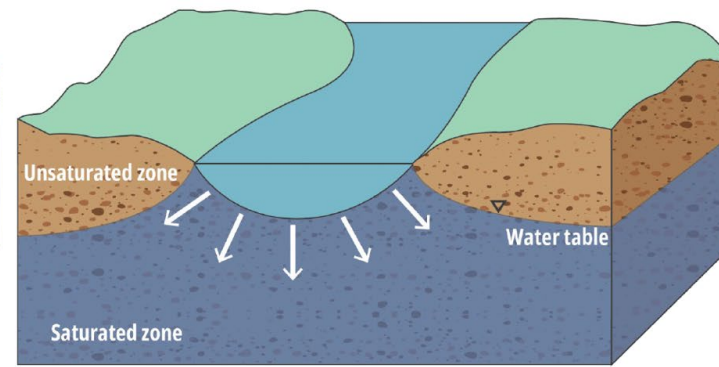


Depletions of Interconnected Surface Waters

- Mokelumne, Stanislaus, and lower San Joaquin Rivers are “connected” under current conditions
- Analysis indicates current conditions are very similar to historical conditions when looking at stream losses/gains



Gaining Stream



Losing Stream



Land Subsidence

- Has not historically been an area of concern in the Subbasin
- There are no records of land subsidence caused by groundwater pumping in Subbasin



Seawater Intrusion

- Has not historically been observed in subbasin, nor is it likely to occur in the future
- Not an applicable sustainability indicator in Subbasin



Projects & Management Actions

Projects & Management Actions

Project

- Reduces reliance on groundwater & increases recharge opportunities
- Goal: Achieve sustainability by 2040 by increasing water supply

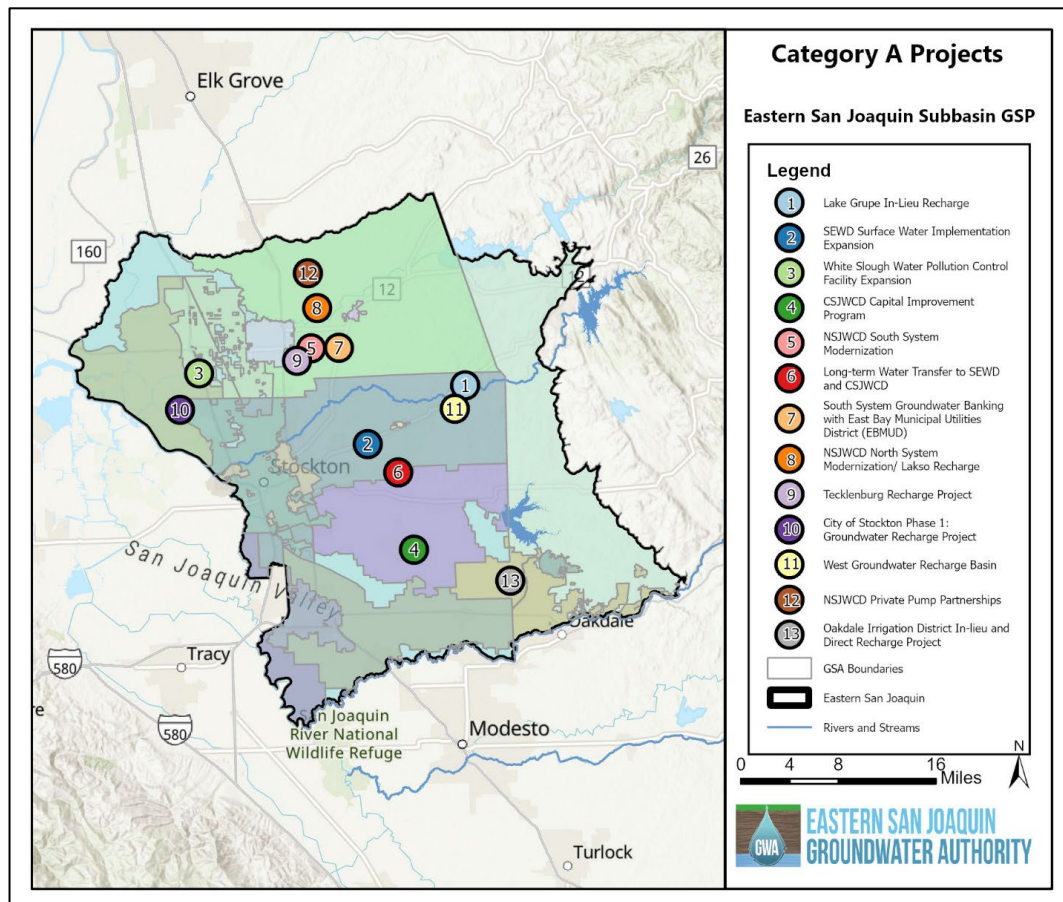
Management Action

- Locally implemented actions that can be taken to further affect groundwater sustainability in the Subbasin

Projects

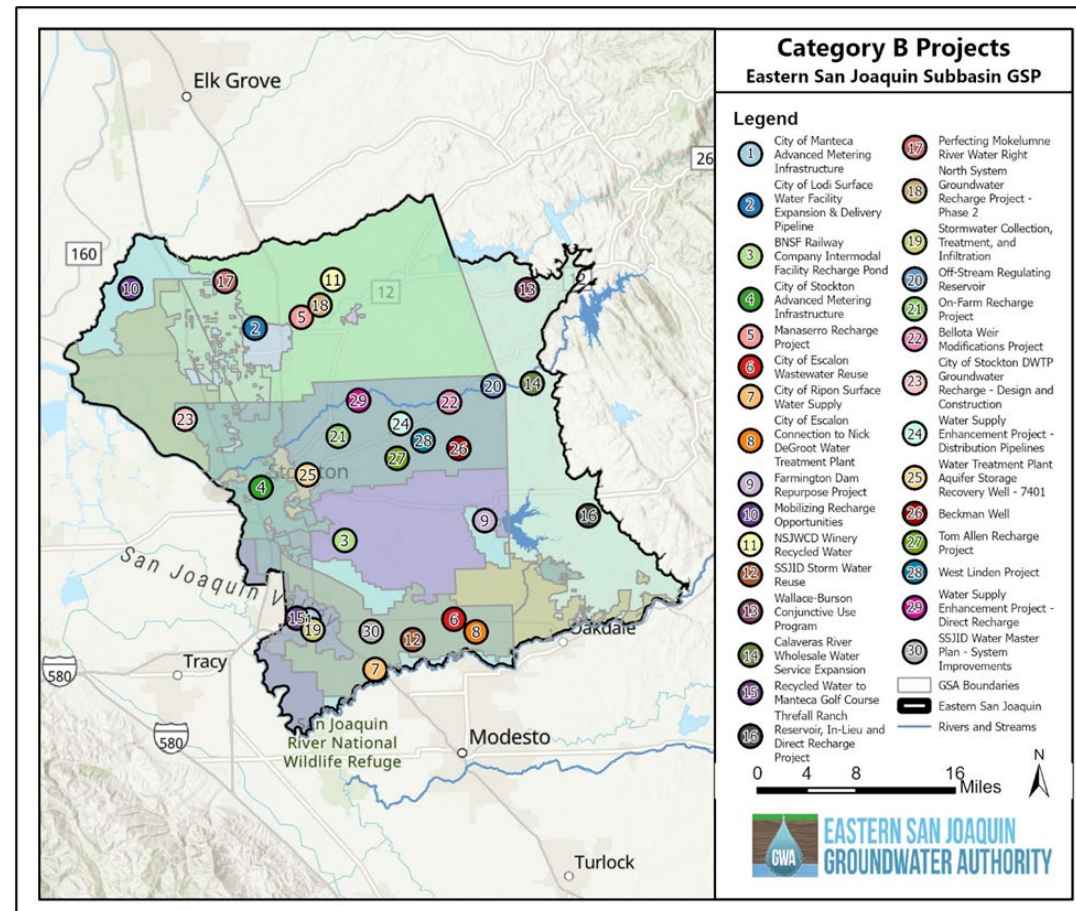
Category A

Completed or expected to advance soon
13 projects identified



Category B

Projects that may be implemented in future
30 projects identified



Management Actions

Domestic Well Mitigation Program

- Provides financial mitigation for domestic water supply wells that fail due to groundwater overdraft conditions
- Well owners must submit a claim for review by a Technical Review Committee



Management Actions

Domestic Well Mitigation Program

- Eligible claims:
 - Well failures caused by declining water levels that were caused by overdraft pumping that occurred after January 1, 2015
 - Well failures due to water quality problems caused by overdraft pumping that occurred after January 1, 2015

Management Actions

Demand Management Program

- Subbasin is dedicated to implementing projects to achieve basin sustainability
- This Program is a backstop to be activated if projects are unable to prevent undesirable results
- Program would allocate a basin-wide demand reduction goal amongst the GSAs
 - Target of 95,000 AFY with 36,000 AFY by 2030 in Category A projects

GSAs would be responsible for achieving their reduction goal, which could include pumping reductions

Management Actions

Demand Management Program

- Subbasin will be working over the next 2 years to develop the Program with full implementation by December 31, 2028





Communication & Engagement

Outreach During This 5-Year Update

- Subbasin received a Facilitation Support Services grant from DWR to conduct outreach to stakeholders and the public
- Supports meetings and the development of a Communication & Engagement Plan
- Prior meetings:
 - ESJGWA Steering Committee and Board of Directors: Receive input from GSAs and public
 - June 26: Stakeholder Workshop #1 on SGMA Primer and Domestic Well Mitigation
 - July 17: Stakeholder Workshop #2 on ESJGWA Communications and Engagement
 - September 25: ESJ-Tracy Subbasin Interbasin Coordination

Communication & Engagement Plan

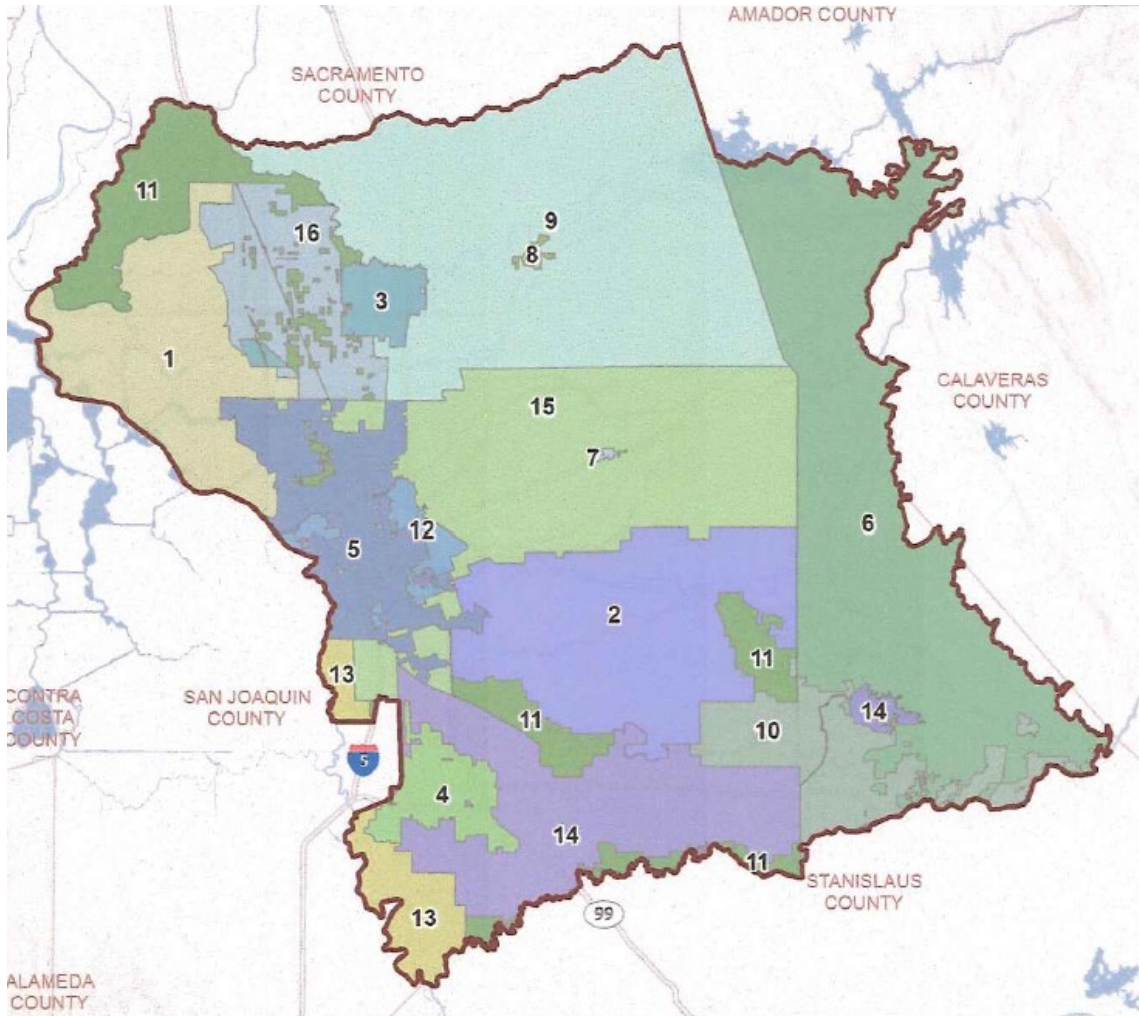
- Outlines how the Subbasin will continue to engage with stakeholders and the public about SGMA
- Anticipate Final Draft in November 2024
- More information about the Plan and upcoming events will be posted to esjgroundwater.org



Thank you!

We encourage you to visit your GSA's station and ask questions.

We are here to listen!





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September 25, 2024**