



Sustainable Groundwater Management in a Rapidly Changing Climate

The California Department of Water Resources

January 2024



Sustainable Groundwater Management Act





Surface Water and Groundwater

For over 100 years, surface water has been actively managed in California

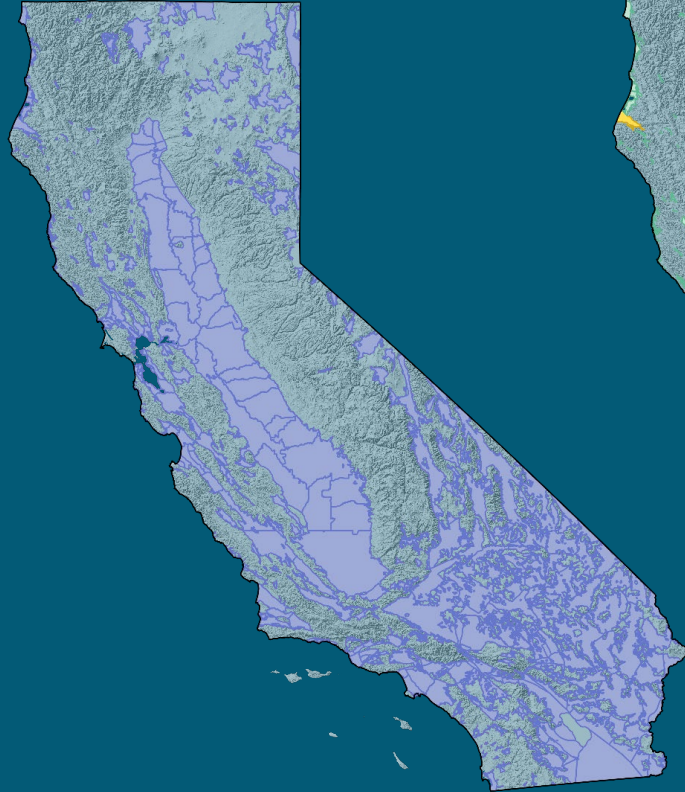


The Sustainable Groundwater Management Act changed water management



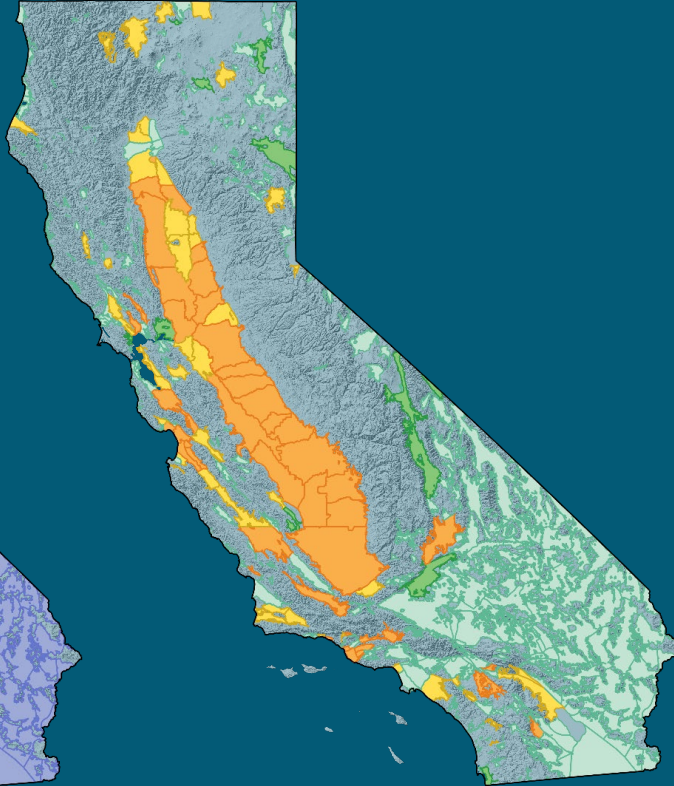
515 Basins

SGMA applies to all basins



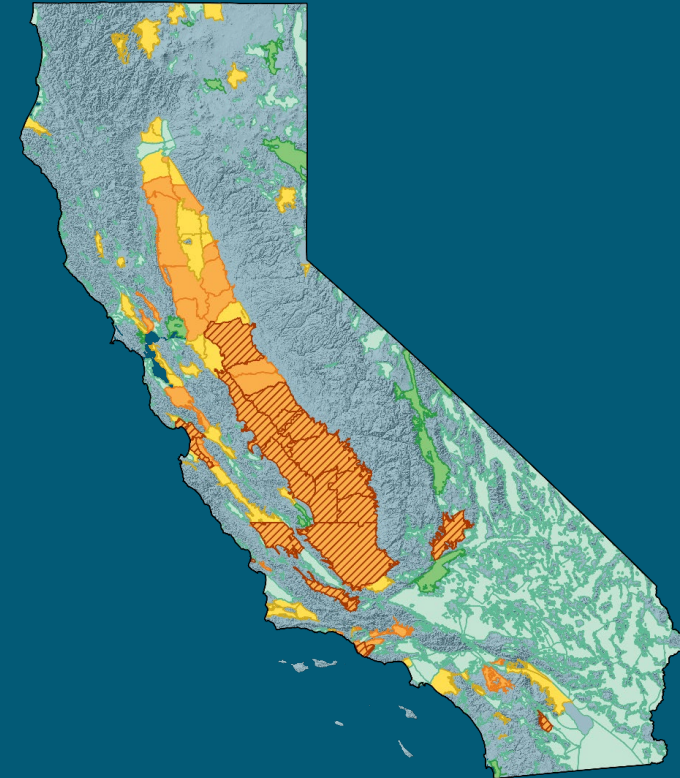
94 High & Medium Priority Basins

Cover 96% of groundwater use 88% of California's overlying population



21 Critically Overdrafted Basins

Accounts for 98% of all groundwater pumped in California



Groundwater Basins

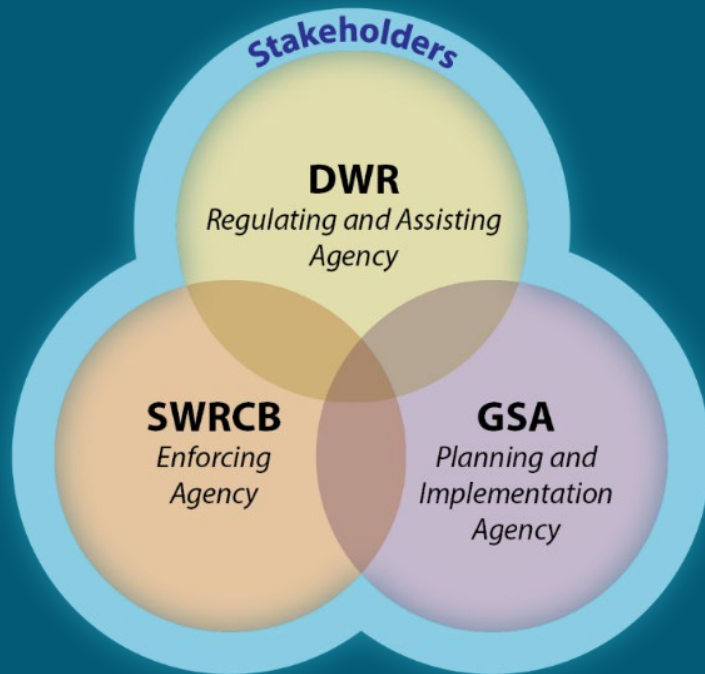
Priority:

High Medium
Low Very-Low

Critically Overdrafted Basins

SGMA Overview

Local Control



Sustainability

Avoid Six Undesirable Results



Lowering of GW Levels



Reduction of GW Storage



Seawater Intrusion



Degraded Water Quality



Land Subsidence

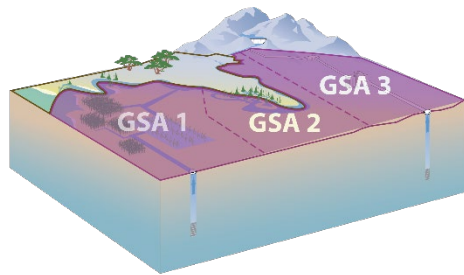


Depletion of Interconnected Streams

Groundwater Sustainability Plans

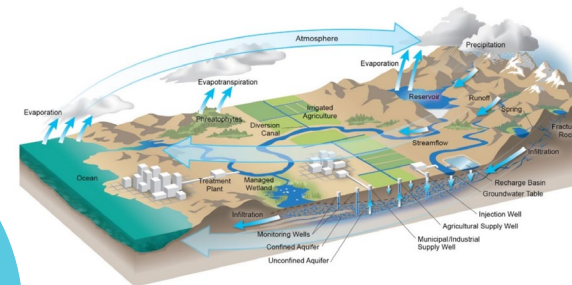
Who

- Administrative Information -



What

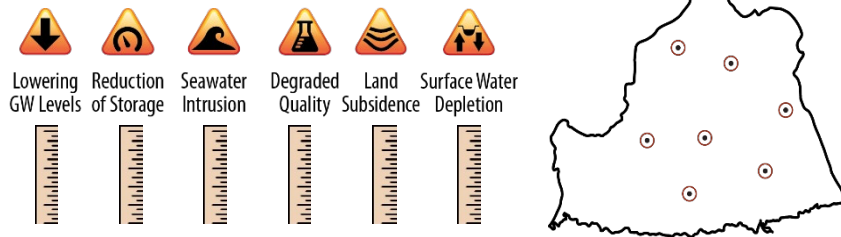
- Basin Setting -



GSP

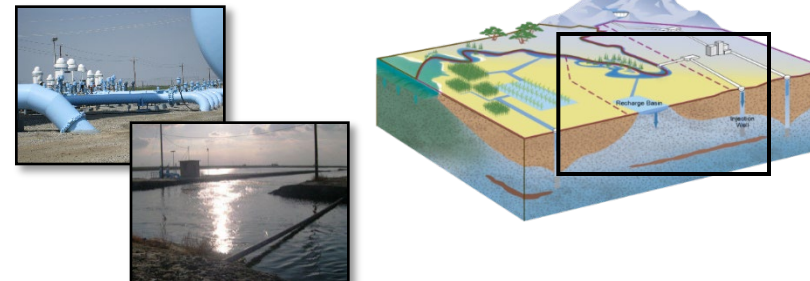
Where

- Sustainable Management Criteria -
- Monitoring Network -



How

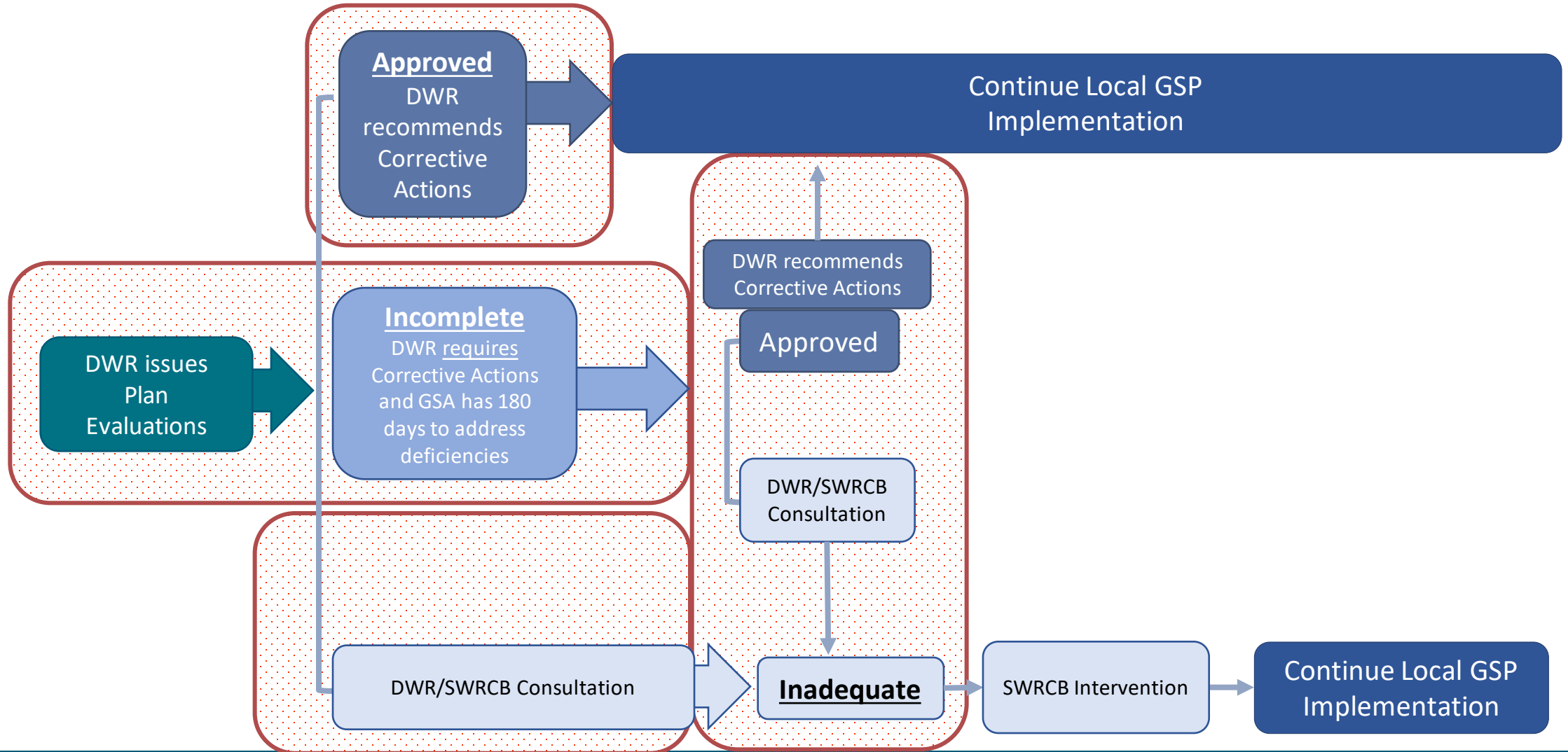
- Projects & Management Actions -





**Sustainable Groundwater
Management**

SGMA Regulatory Pathways



Groundwater Sustainability Plan Determinations

71
Basins

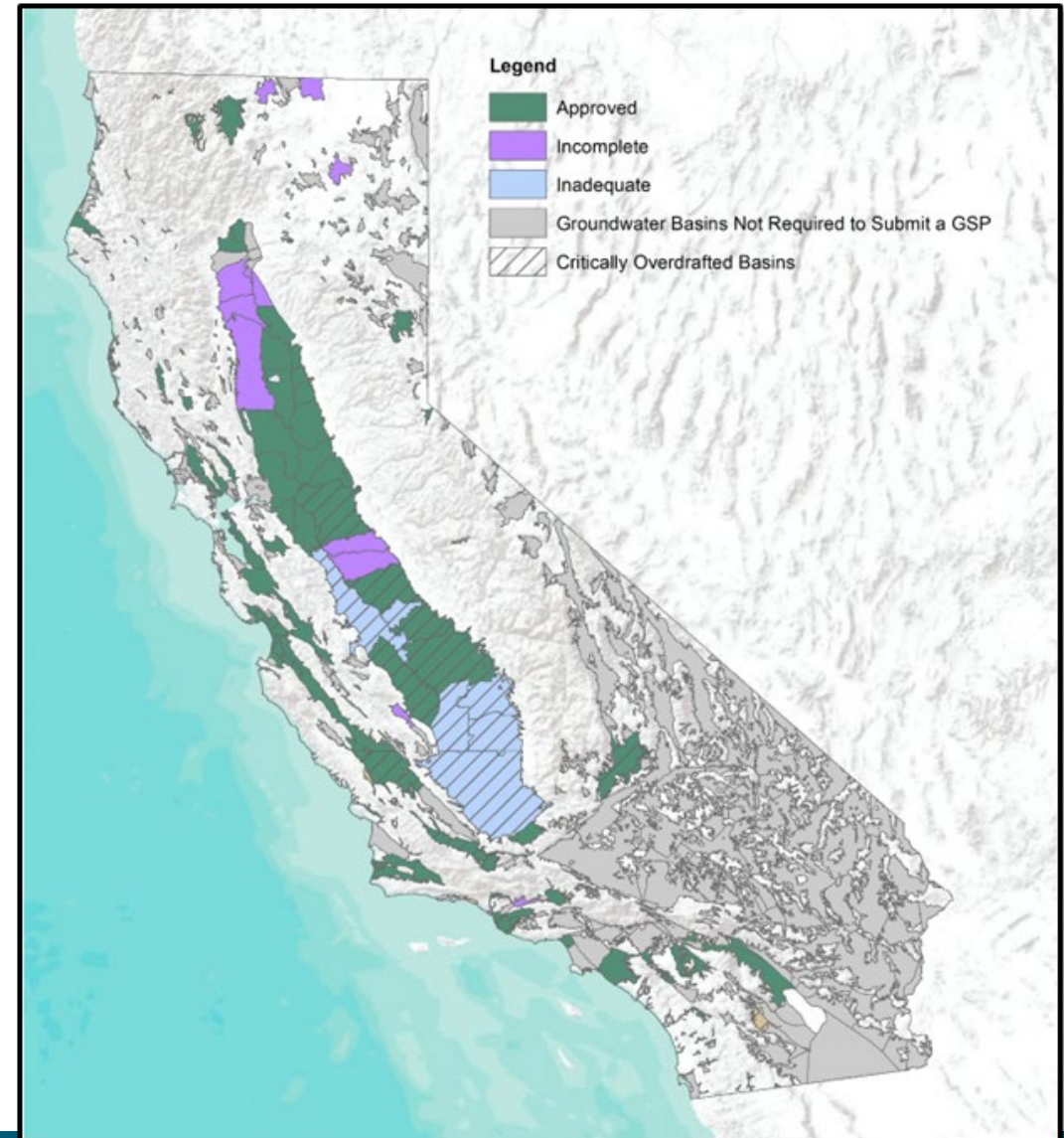
APPROVED BASINS

13
Basins

INCOMPLETE BASINS

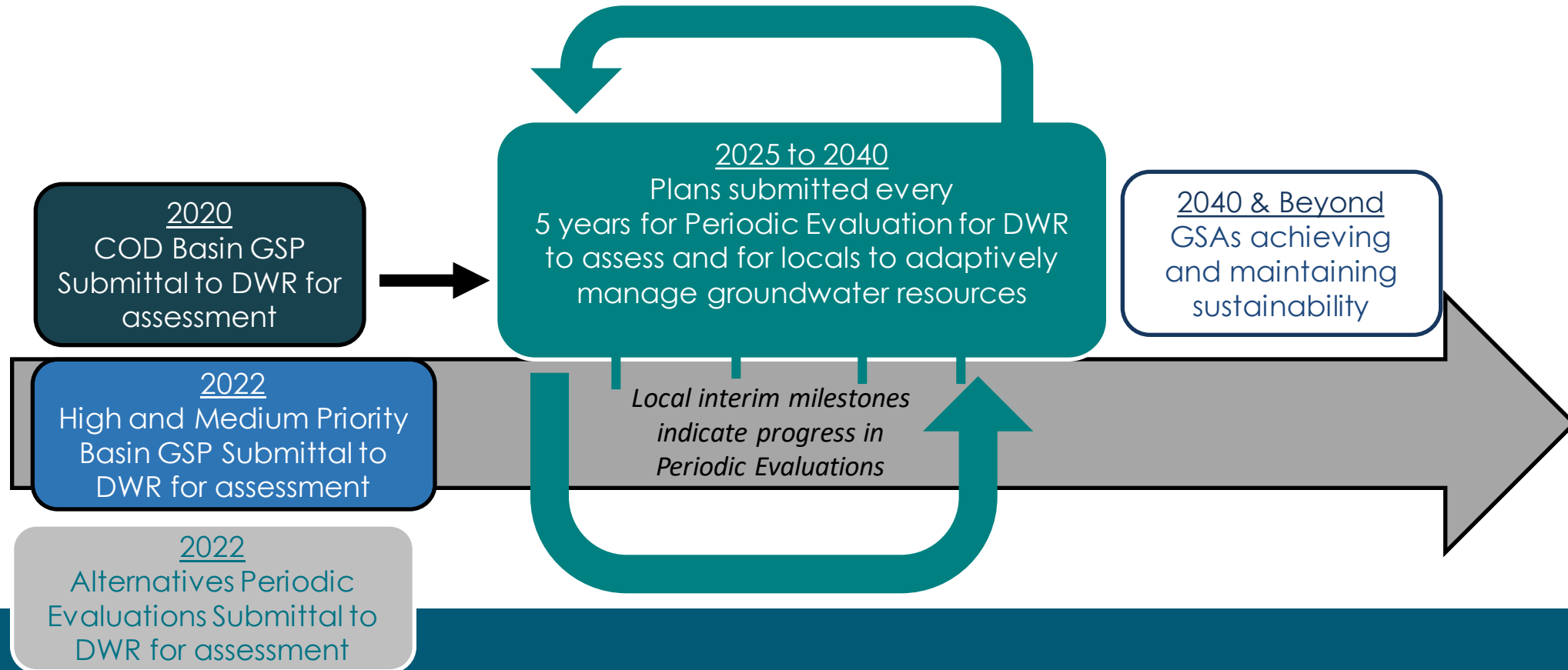
6
Basins

INADEQUATE BASINS



Note: Map updated October 2023

SGMA Implementation: 20 Year Horizon Implementation Guidance (October 2023)



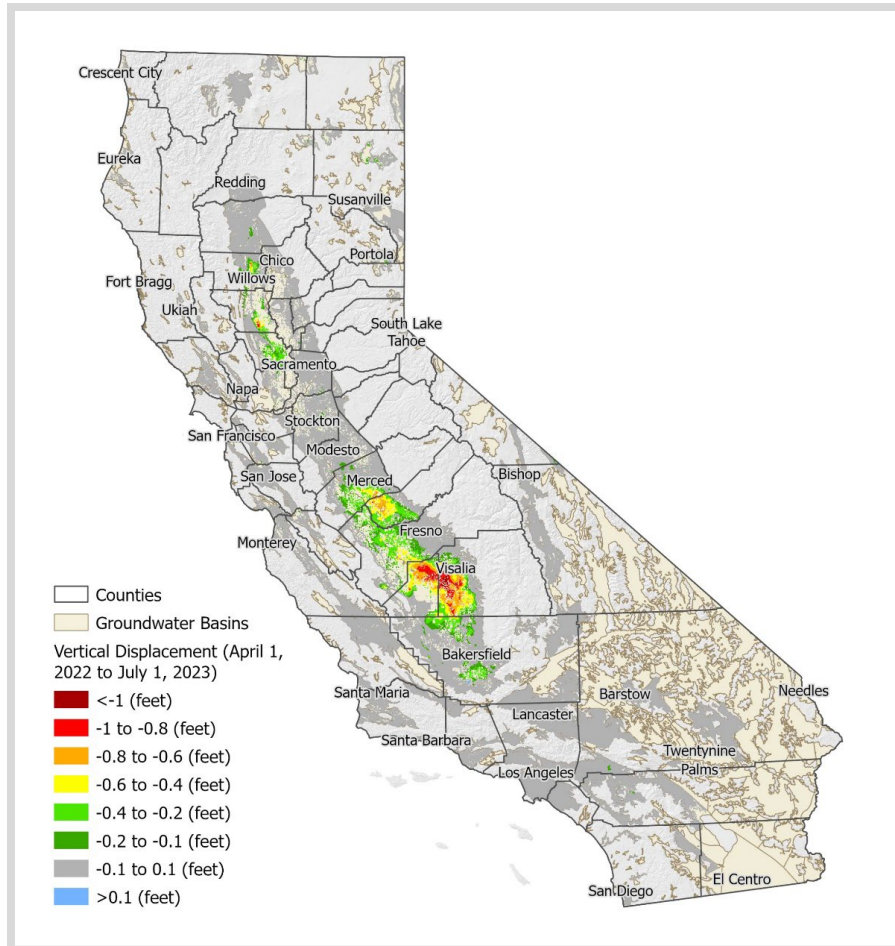
Groundwater Sustainability: Flood Diversion and Recharge



Groundwater Basins Remain in Drought Conditions

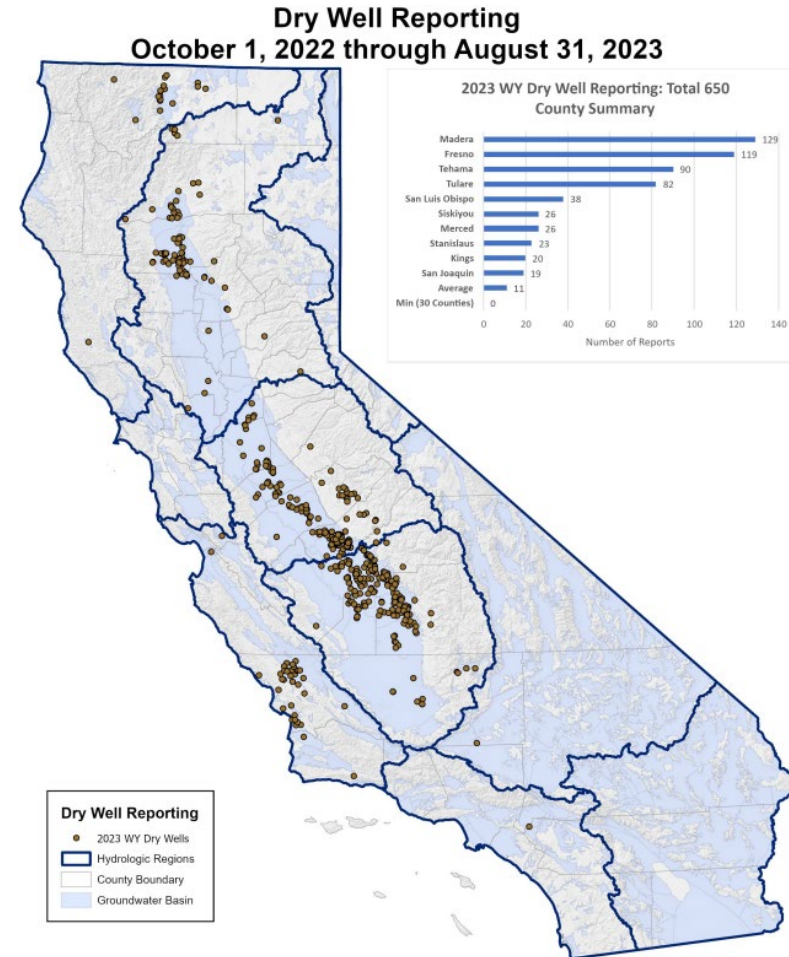
Land Subsidence Data

April 1, 2022 to July 1, 2023



Dry Well Reports

650 in 2023 Water Year



Flood Diversion and Recharge

Expediting Groundwater Recharge:

- **Target: 500,000 acre-feet/year average recharge**
- **Water Supply Strategy Document: Regulatory Assistance on 180-day Temporary, Streamlined Water Rights Permits for Groundwater Storage**
- **Drought Executive Order, Action 13: CEQA Suspension for Local Groundwater Recharge Projects**
- **State Financial Assistance through various grant programs and emergency funds**
- **Flood Water Recharge Order/Statute (N-4-23, SB 122)**



Flood Diversion and Groundwater Recharge

Flood Diversions

- Diversion of flood flows can continue under the following conditions:
 - Imminent risk of flood is known
 - Diversions must stop when there is no longer a flood risk
 - Use existing diversion infrastructure or temporary pumps with simple screens to minimize impacts to fish/other species
 - Use existing recharge locations
- Water rights permits suspended
- CEQA and CDFW 1600 compliance is suspended



Source: Poso Creek, SJV Water

Temporary Flood Diversion Equipment & Groundwater Recharge Support



- DWR is able to provide temporary flood diversion equipment to support local agencies conveying high flows from rivers
- Temporary pumps and siphons can be mission tasked by submitting a request via local county to CalOES to DWR
- Water should be diverted to open, working lands or recharge facilities

Flood Diversions and Groundwater Recharge

2023 Flood Diversions and Recharge

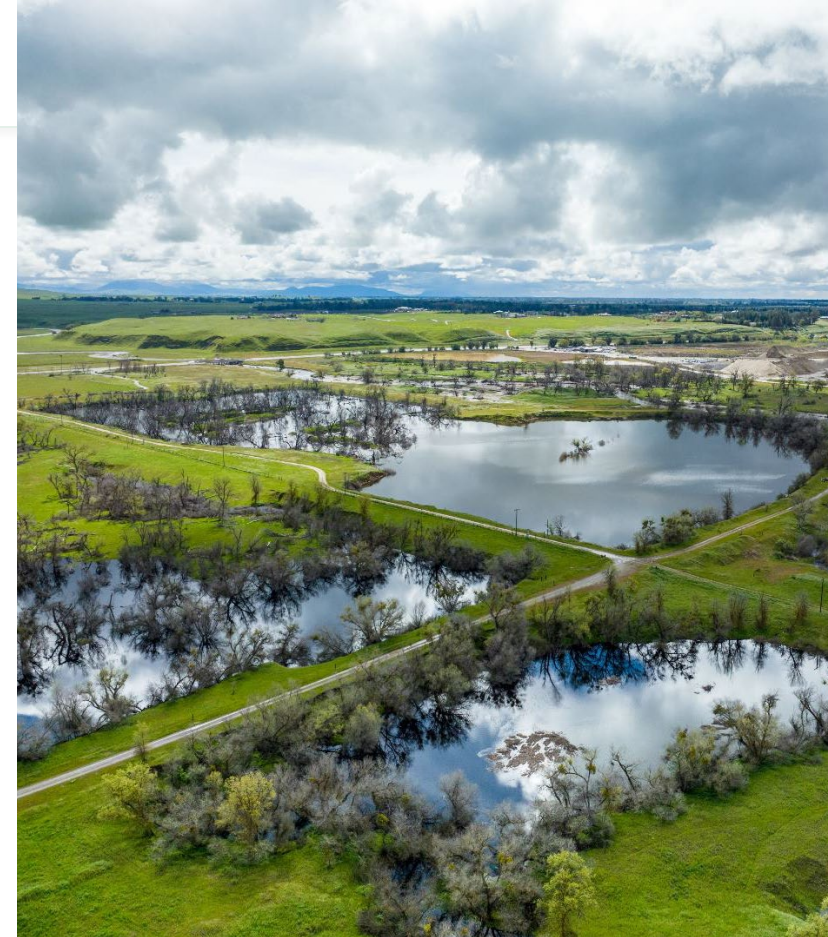
- **ACTIVE KNOWN/REPORTED RECHARGE**
 - 112,920 acre-feet
- **ACTIVE ESTIMATED RECHARGE**
 - 3,448,422 MAF
- **FUTURE ESTIMATES/PROJECTS IN THE PLANNING PHASE**
 - 206,000 acre-feet

TOTAL: 3,767,342 acre-feet = 3.8 MAF



Flood Diversion & Recharge Plan

- Assess the 2023 Flood Diversions
 - Recharge & Water quality monitoring:
 - Improve recharge tracking and reporting
- Prepare flood diversion “game plans” and actions for Sac Valley, San Joaquin Valley (Tulare, Kern), and Coast
 - Act: Deploy temporary pumps and Rip and Chip as needed
- Explore longer-term opportunities to maximize flood diversion, recharge and water supply management
- Continue Streamline Water Right Permit Process
- Continue Defining Fast-Paths to the Subsurface



Thank You

