

# Groundwater Workshop

January 30, 2025

## Solano Groundwater Sustainability Plan: An Overview and Updates

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# California SGMA Requirements



**Maintain a Functioning GSA  
(Budget and Staffing)**

**Conduct Annual GW Monitoring  
and Reporting (each April)**

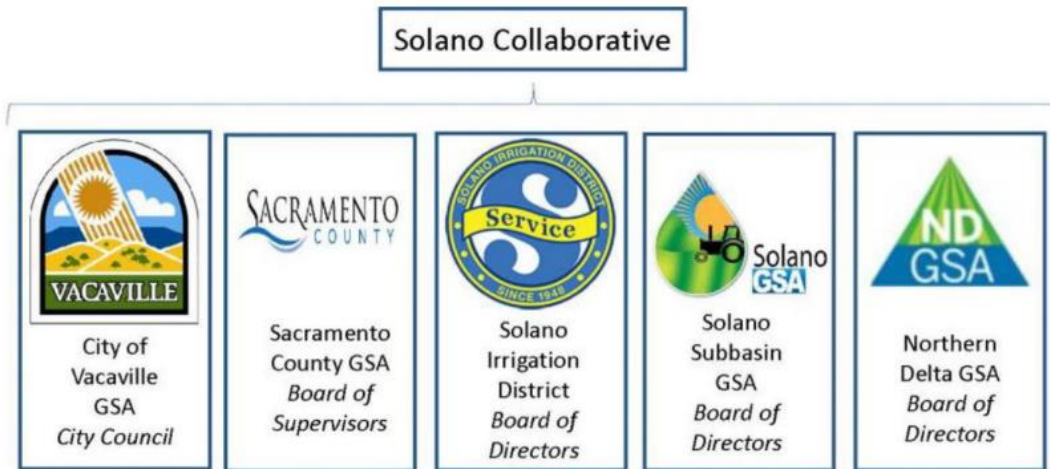
**Ongoing GSA  
Coordination/Outreach**

**SGMA Compliance**

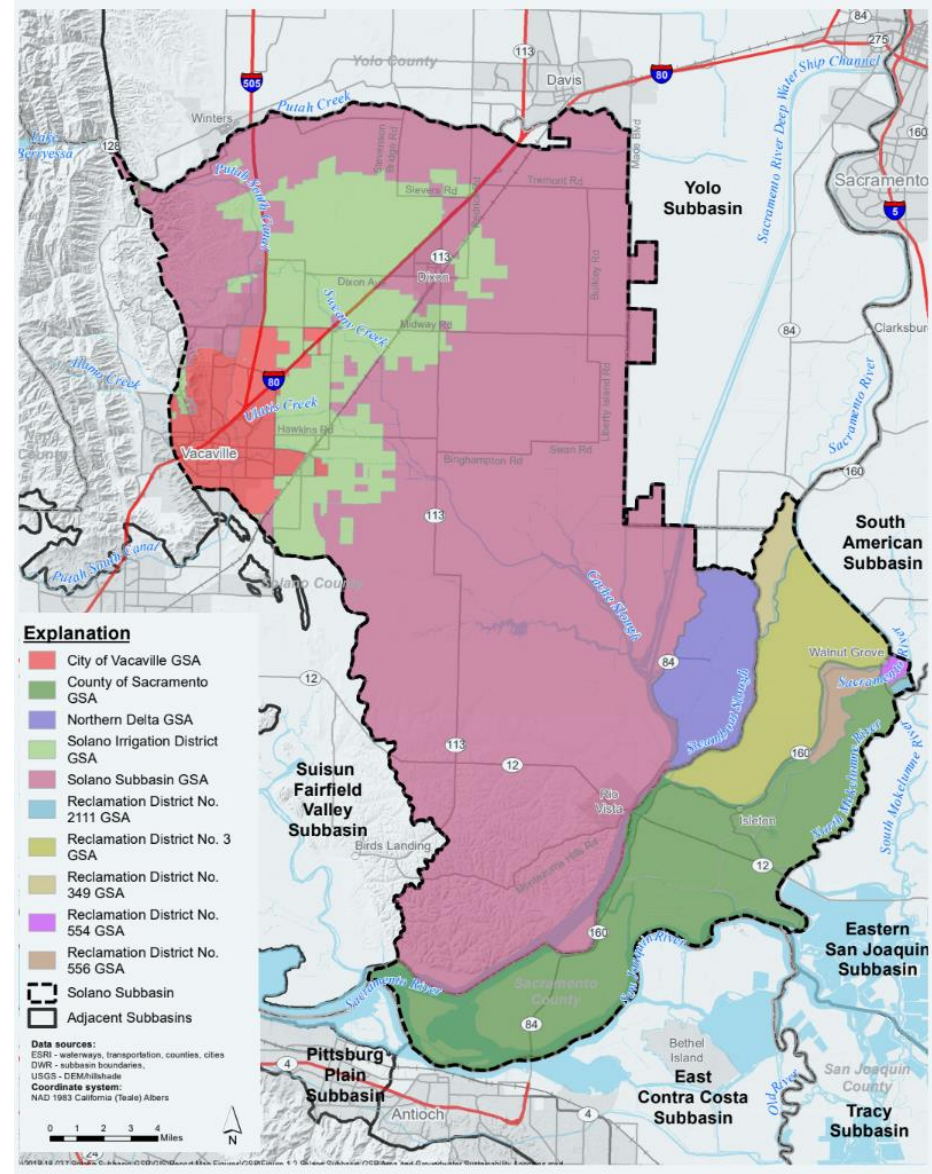
**Prepare/ Approve Five-  
Year GSP Updates**

# Solano Subbasin

- Solano Collaborative comprises of 5 GSAs that work together to manage subbasin



Independent Reclamation District (RD) GSAs; RD 3, RD 349, RD 555, RD 556, RD 2111, RD 317

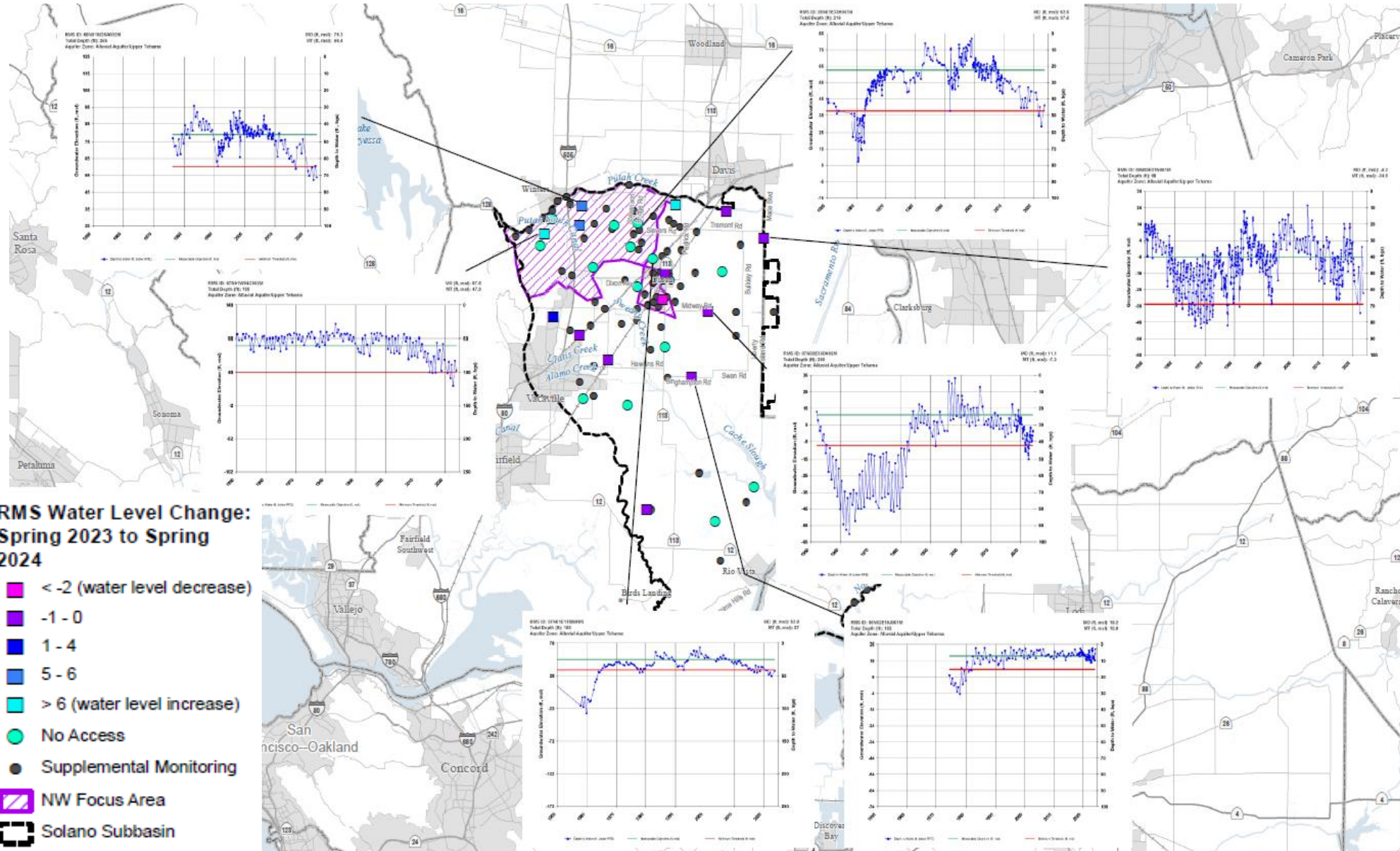


# Overview of Solano Subbasin Conditions and GSP Activities



- Solano Subbasin GSP approved in January 2024
- Emphasis on conditions and activities in the northwestern Subbasin
- Groundwater Conditions:
  - Water year 2023 was a wet year - increases in groundwater levels
- DWR GSP Implementation Grant activities:
  - Ongoing monitoring enhancements and interactive web map development ([Solano Subbasin Monitoring Web Map Application](#))
  - Well and surface water diversion inventory development
  - Cover cropping study and multi-benefit solution planning – enhance recharge and reduce stormwater runoff
  - Outreach and education efforts – workshops, town hall

# Spring 2024 Water Level Status

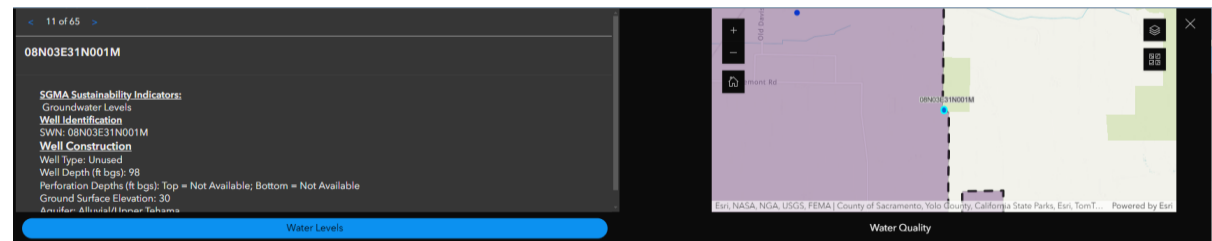
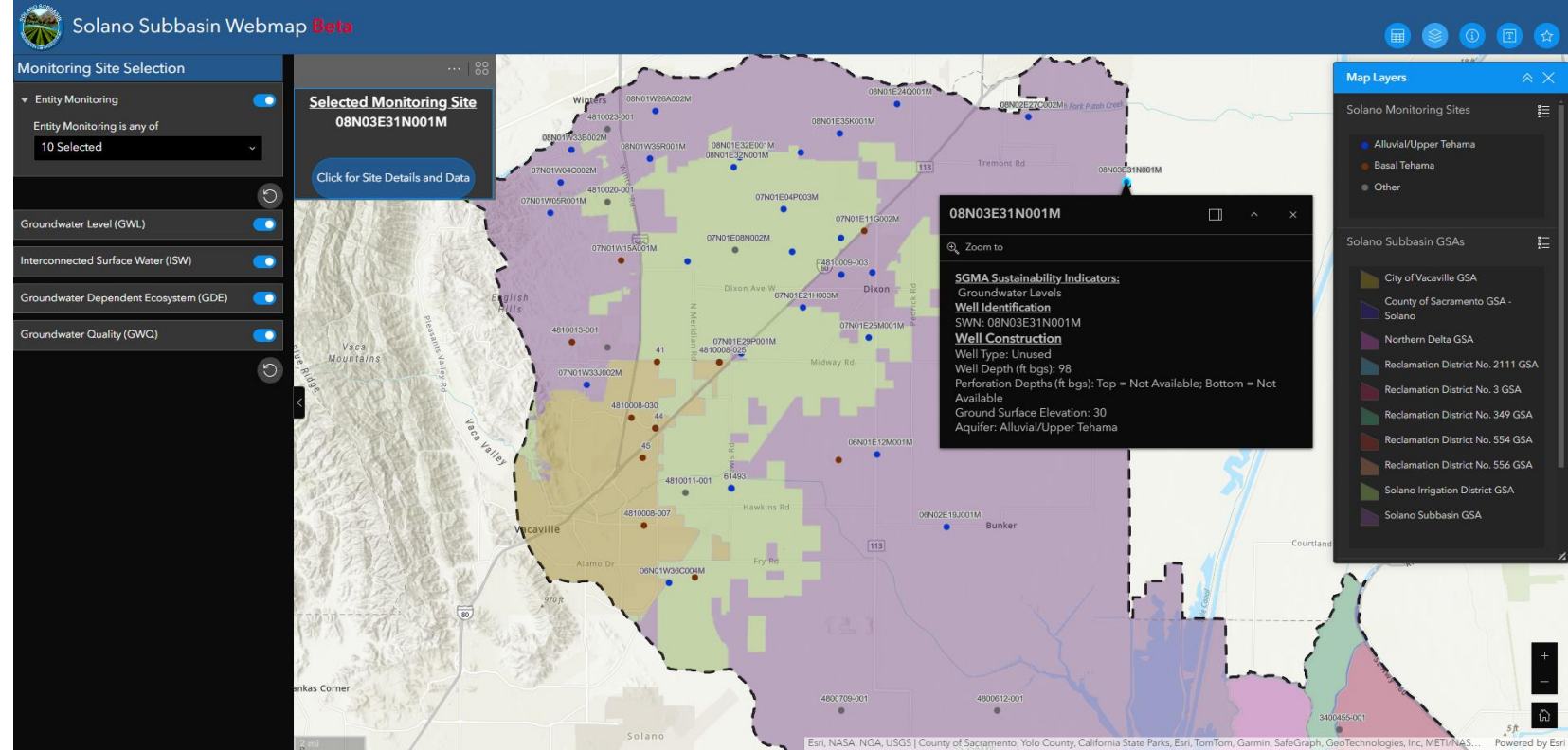


## Changes in Water Levels Spring 2023 to 2024:

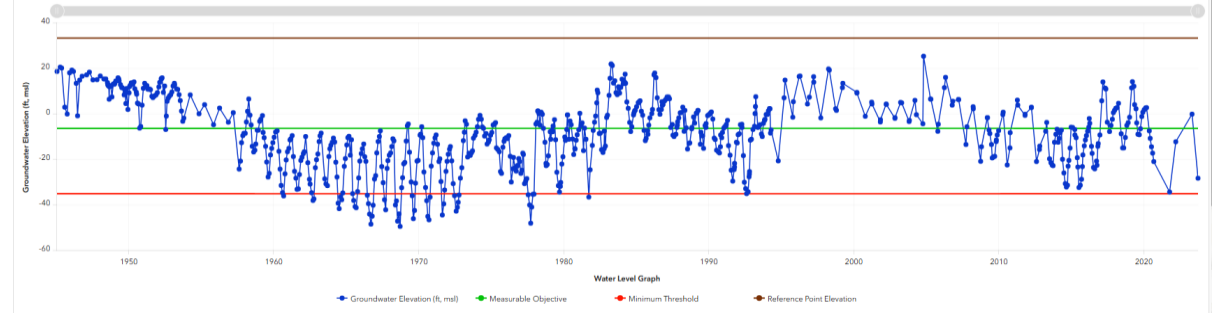
- Water levels rose in most wells
- Many wells had >5 ft increases
- Potential lagged effects from wet 2023

# Web Map Enhancements

- Expanded network of monitoring sites
- Other data layers of interest
  - Groundwater level contours
  - Subsidence
  - Soil and subsurface geologic characteristics



The application is experiencing intermittent errors filtering data during graph generation. The software bug causing these errors is being resolved. Please contact the site administrator if you have questions or need assistance.



Water levels shown do not include pumping levels or questionable data. MOs and MTs many not yet be assigned to new RMS or RMS without sufficient historical data.

# Groundwater Well and Surface Water Diversion Inventory



## Groundwater Wells

- DWR Well Completion Reports
- County Well Permits

## Surface Water Diversions

- SWRCB eWRIMS



## Irrigated Parcels

- Water source information from Irrigated Lands Regulatory Program



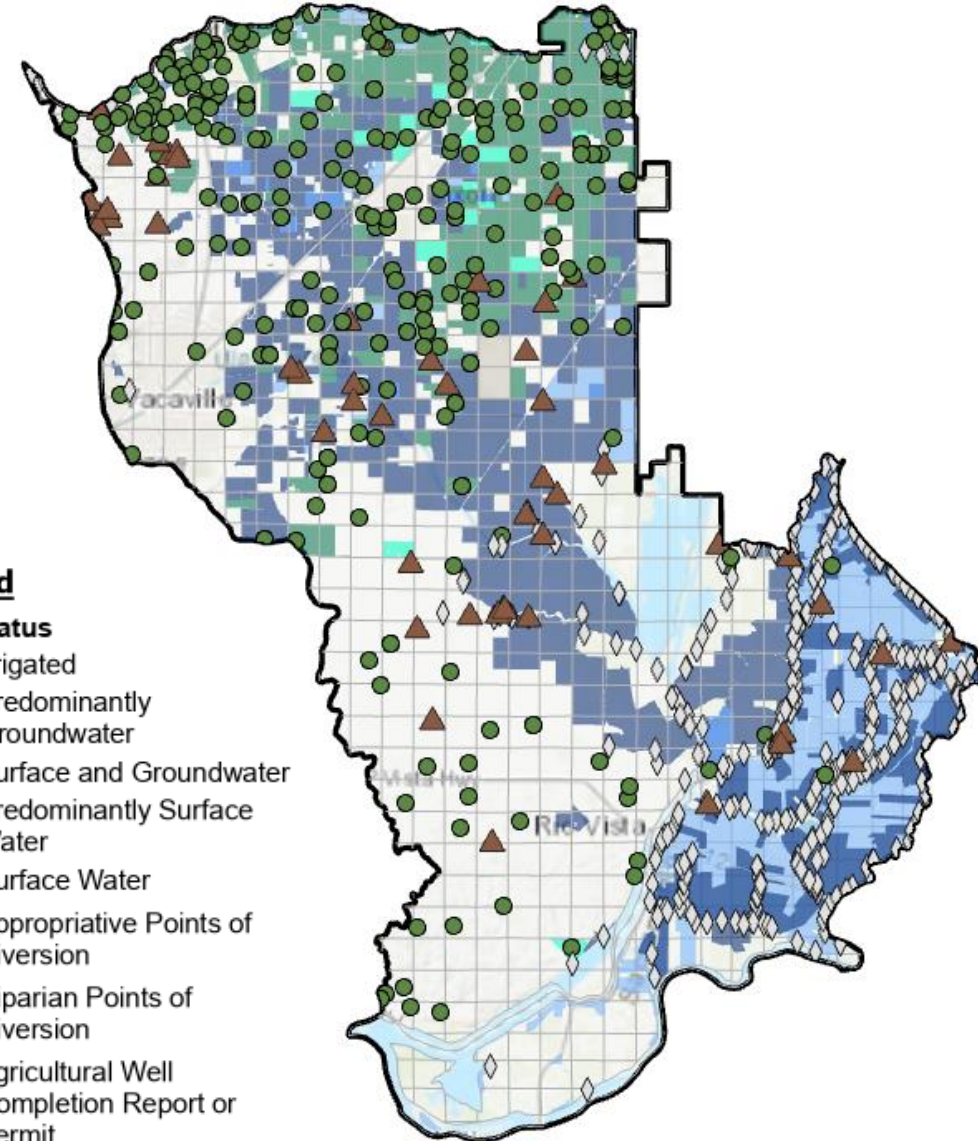
## Next Steps

- Targeted well sampling
- Hydrologic model refinements

### Legend

#### ILRP Status

- Irrigated
- Predominantly Groundwater
- Surface and Groundwater
- Predominantly Surface Water
- Surface Water
- ▲ Appropriative Points of Diversion
- ◆ Riparian Points of Diversion
- Agricultural Well Completion Report or Permit

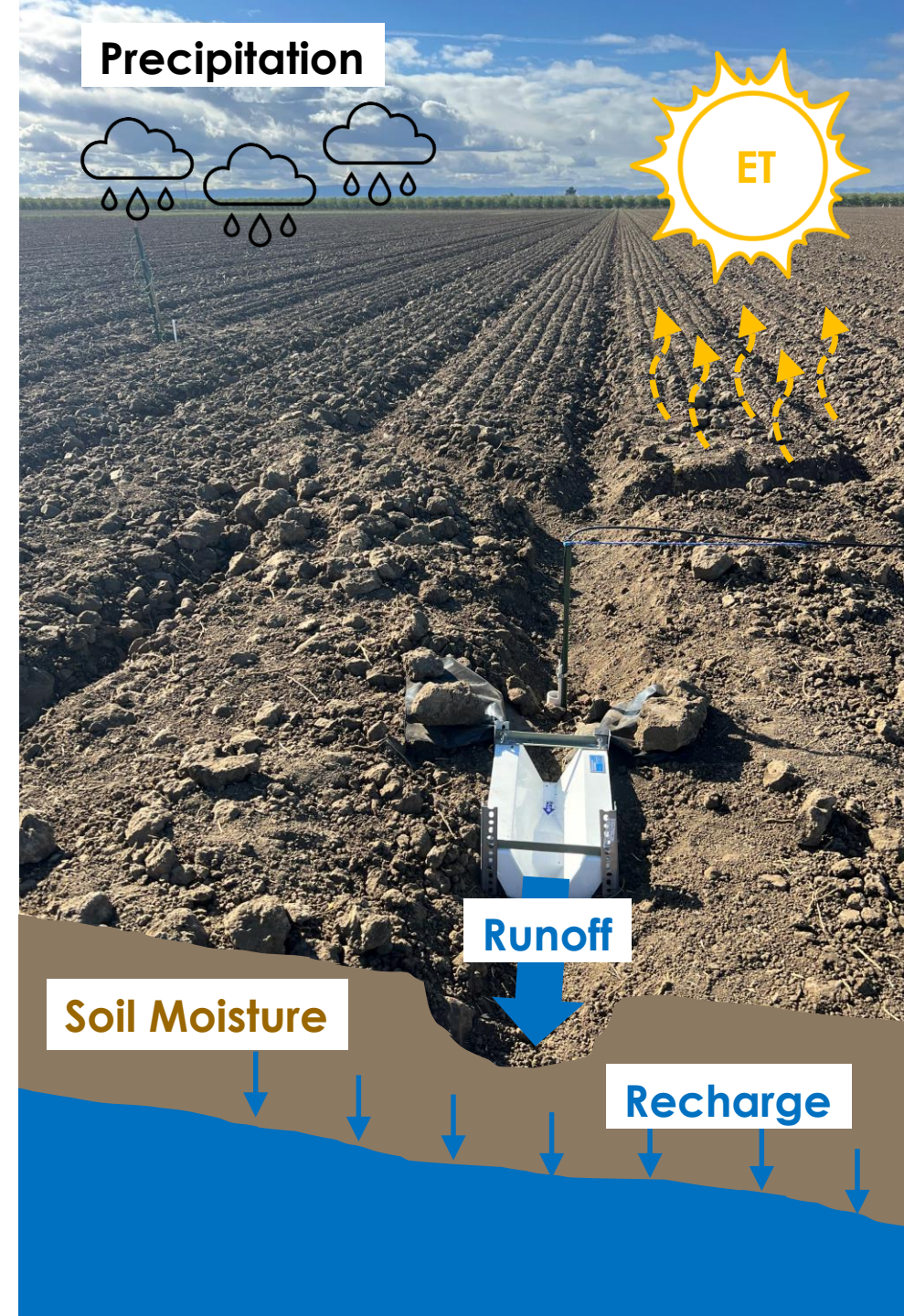


# Cover Crop Study



- Assess effectiveness of furrow cover cropping: enhanced rainfall infiltration and reduced stormwater runoff

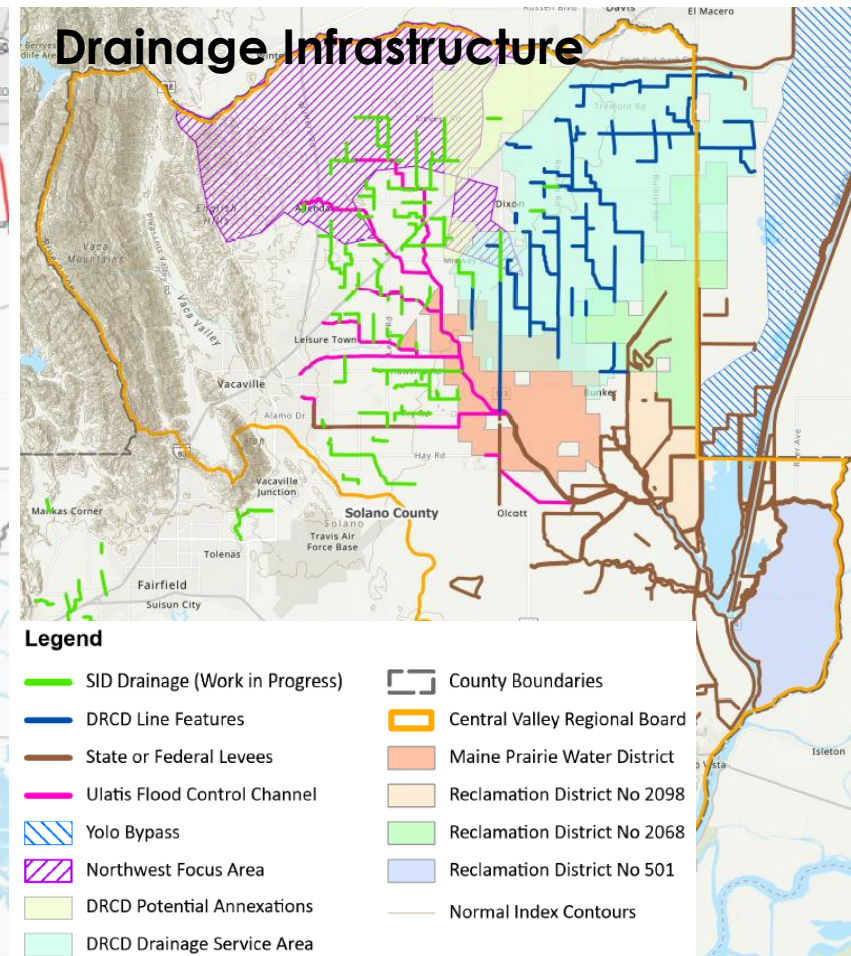
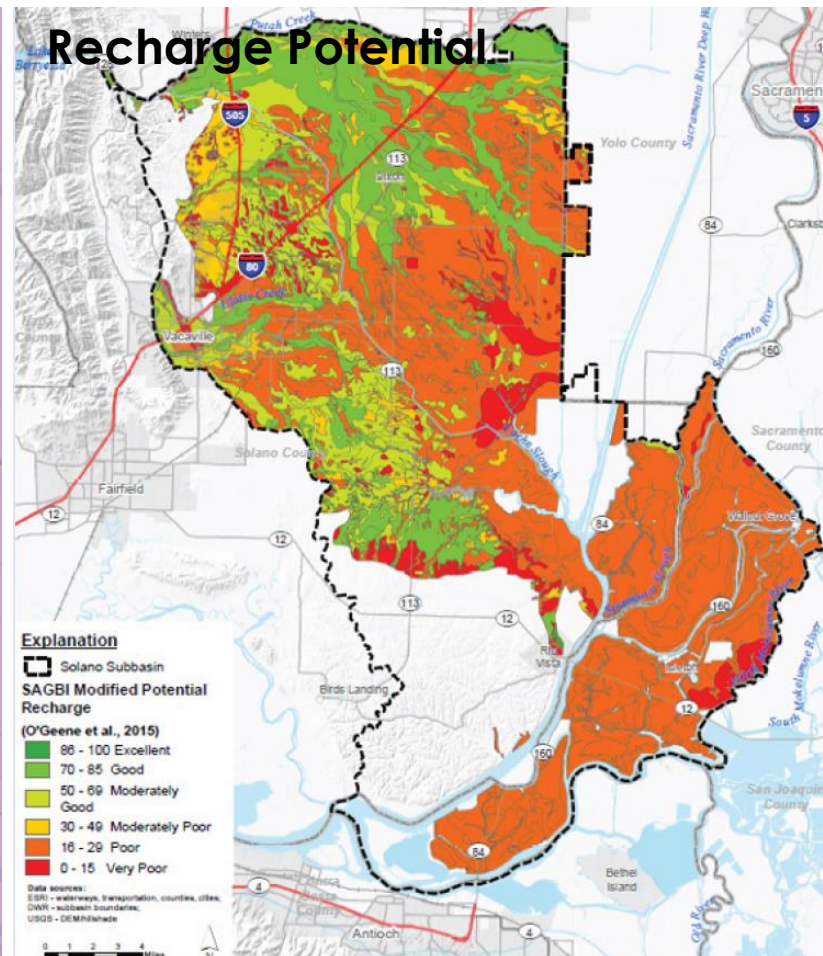
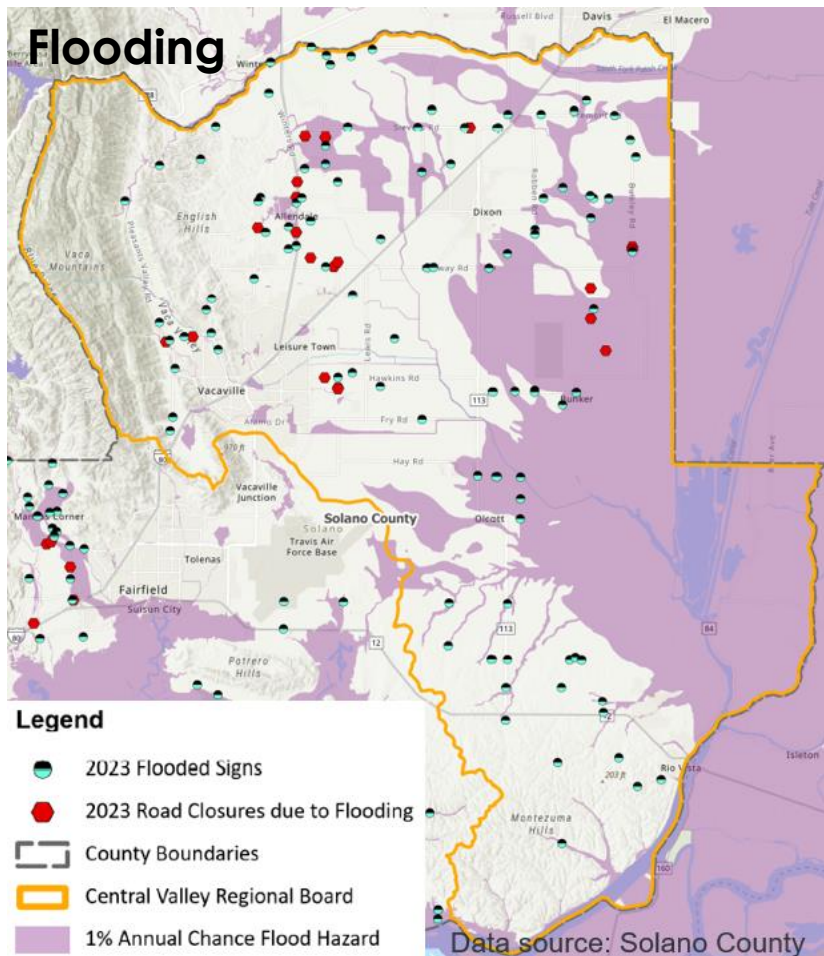
- Monitor water budget components:
  - Precip
  - Runoff
  - Evapotranspiration (ET)
  - Soil moisture
- Estimate infiltration and deep percolation (groundwater recharge)

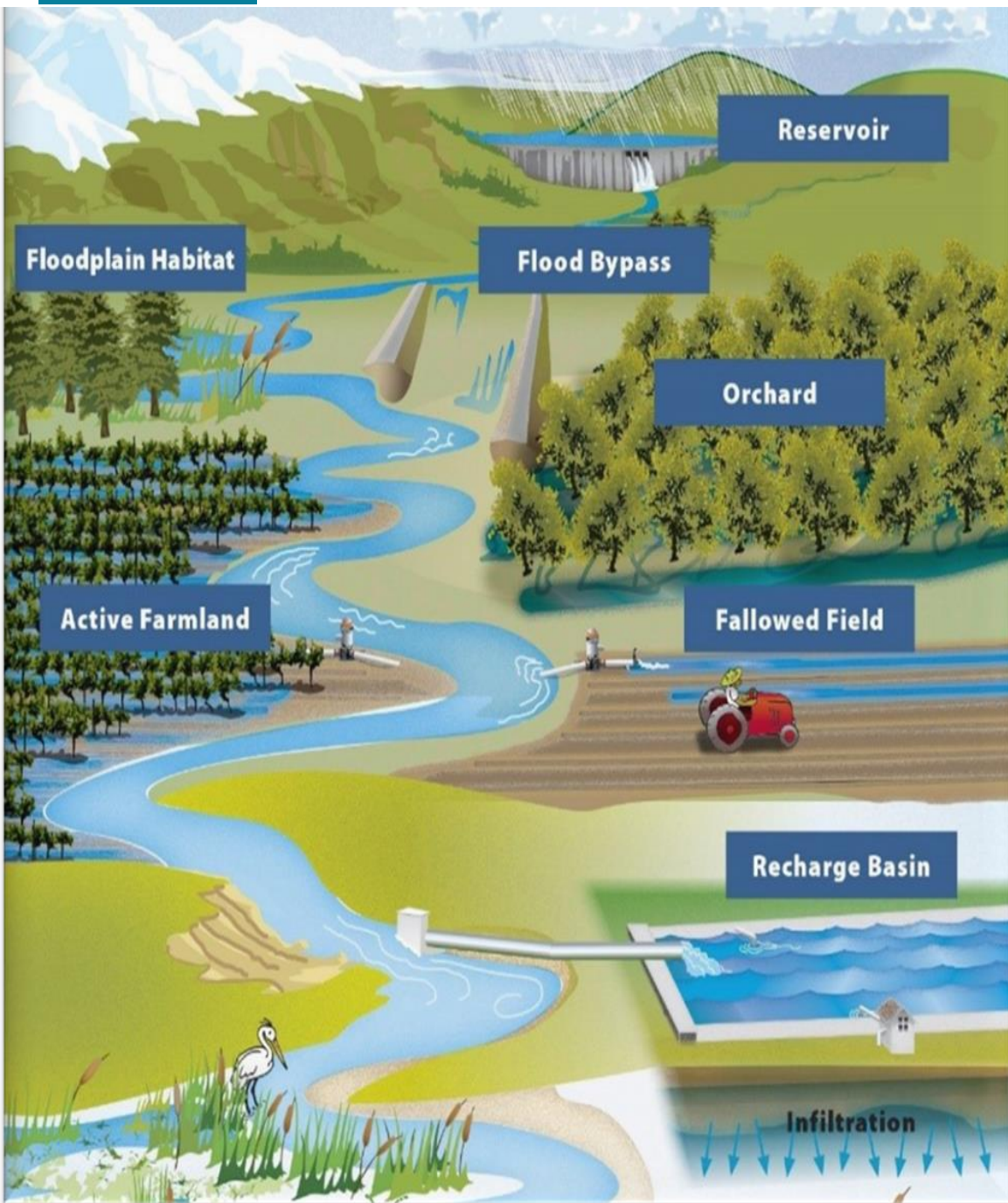




# Multi-Benefit Solutions

- GSAs and other stakeholders coordinating on solutions
- Objectives:
  - Enhance groundwater recharge (especially in NW Focus Area)
  - Reduce downstream flooding from stormwater runoff





# Incentives and Policies

- Exploring potential incentives and policies to promote actions that will improve Subbasin resilience and sustainability

# GSP Implementation Ongoing Grant Activities



## Component 1: Grant Administration

- Coordinating grant deliverables and goals with project partners (LSCE, Ag Innovations, Mark Grismer, DRCDC, SRCDC)
- Tracking budgets and invoice/progress report submissions



## Component 2: GSP Monitoring and Data Management Enhancements

- Well inventory efforts with the Solano County well permit database
- Well monitoring along Putah Creek
- Data Management System updates for remote monitoring and enhancements for water quality
- Interconnected surface and groundwater monitoring development



## Component 3: Supporting Groundwater Use Management Actions

- Surface water diversion inventory; refining place of use for diversions
- Solano Integrated Hydrologic Model updates
- Public outreach events to promote water conservation and groundwater recharge



## Component 4: Water Supply Replenishment and Reliability Projects

- Multibenefit recharge project coordination for the Northwest Focus Area/Upper Tremont 3 Watershed
- Cover crop study planning and coordination



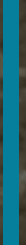
## Component 5: GSP Implementation, Outreach, and Compliance Activities

- Continuous GSA Collaborative Meetings.
- Continuous Project Team Meetings.
- Continuous GSA Technical Advisory Committee Meetings.
- Track and develop outreach materials.
- Prepare for and begin developing the 2024 Water Year Annual Report.

# Planned GSP Implementation Activities in 2025



- Water year 2024 (Oct 23-Sept 24) annual report in preparation by April 1, 2025 – close to average precipitation year
- DWR GSP Implementation Grant activities:
  - Continuation of monitoring enhancements and expanding interactive web map information
  - Cover cropping pilot study
  - Emphasis on multi-benefit solution planning to enhance recharge and reduce stormwater runoff
  - Evaluation of policies and incentives to ensure long-term sustainable groundwater management
  - Outreach and education efforts – workshops, town hall



**THANK YOU**