NORTH AMERICAN Subbasin

Groundwater Sustainability Plan

Water Year 2024 Annual Report

March 2025

SGA SUTTER COUNTY

RECLAMATION DISTRICT NO. 1001

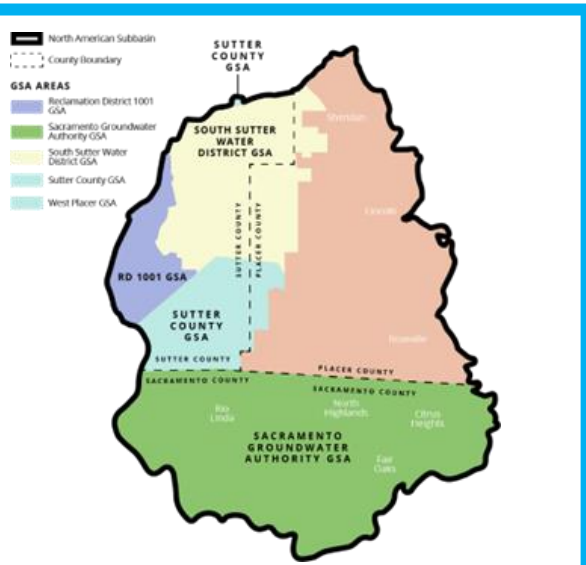
SSWD South Sutter Water District

WEST PLACER GROUNDWATER SUSTAINABILITY AGENCY

North American Groundwater Subbasin Water Year 2024 Annual Report and DWR SGM Grant Round II Update

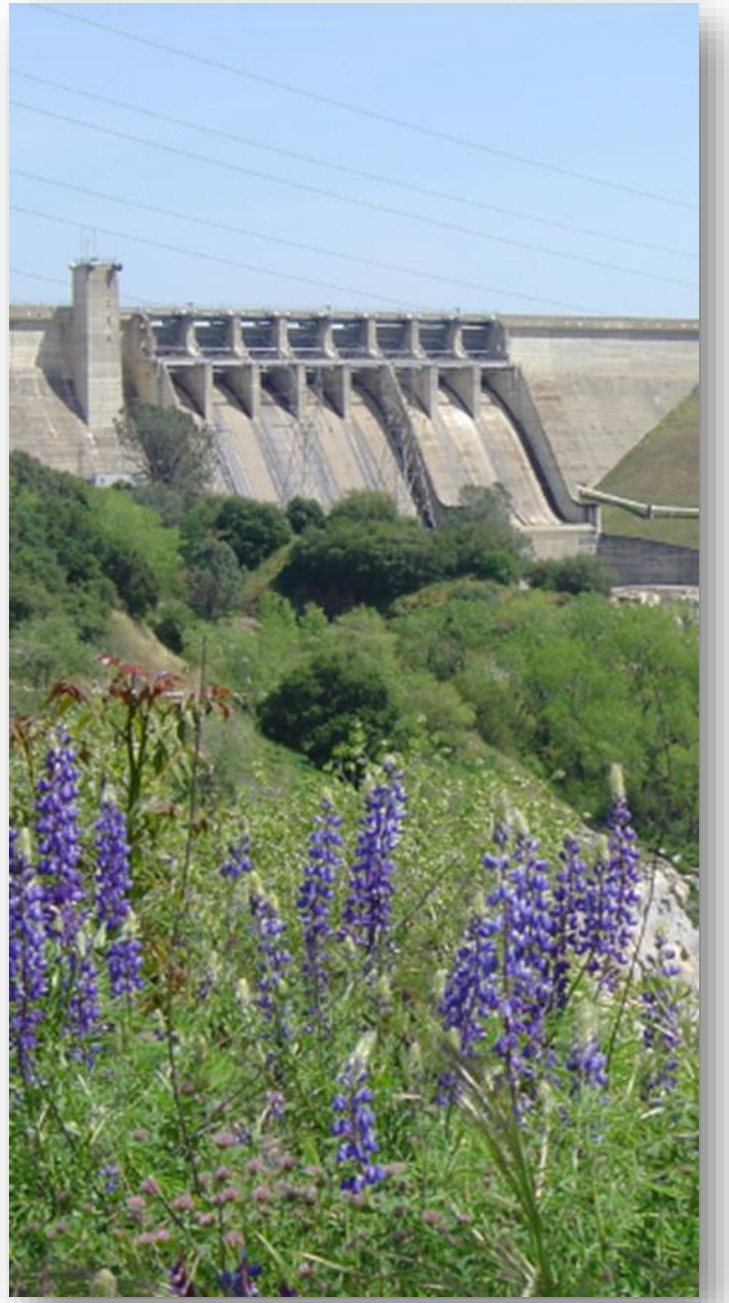
2025 Public Meeting
July 2, 2025

NORTH AMERICAN Subbasin



Agenda

- Welcome and Meeting Purpose
- NASb Introduction/SGMA Overview
- 2024 Annual Report Overview
- DWR SGM Grant Round 2 Component Updates
- Questions/Comments



NORTH AMERICAN Subbasin

Welcome and Meeting Purpose

NORTH AMERICAN Subbasin

Acknowledgement of State Funding

Funding for this project has been provided in part from The California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018 and through an agreement with the State Department of Water Resources.

NORTH AMERICAN Subbasin

Meeting Purpose

The purpose of todays meeting is to:

- Present groundwater conditions based on data and information obtained and analyzed within the North American Subbasin (NASb) Water Year (WY) 2024 Annual Report
- Strengthen public understanding of groundwater conditions and update/seek input from the public and other interested parties
- Provide an update on the progress and status of the DWR SGM Grant Round 2 Components and GSP and SGMA implementation

This meeting is being **recorded** and a copy of the presentation, along with additional meeting materials, will be uploaded and available at https://nasbgroundwater.org/

NORTH AMERICAN Subbasin

How to Engage During the Meeting

- **On Zoom**:
  - “Raise hand” function to speak or
  - Type question in comment box
- **Via telephone**:
  - *9 to “Raise Hand”
  - *6 to unmute when called on

This meeting is being **recorded** and a copy of the presentation, along with additional meeting materials, will be uploaded and available at https://nasbgroundwater.org/

NORTH AMERICAN Subbasin

SGMA Background/Refresher

NORTH AMERICAN Subbasin

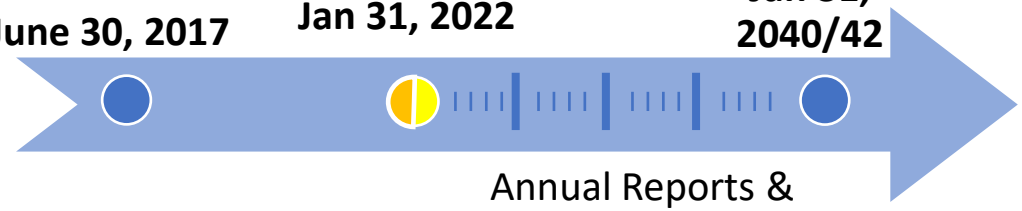
Sustainable Groundwater Management Act (SGMA)

Local Control

"A central feature of these bills is the recognition that groundwater management in California is best accomplished locally."
Governor Jerry Brown, September 2014

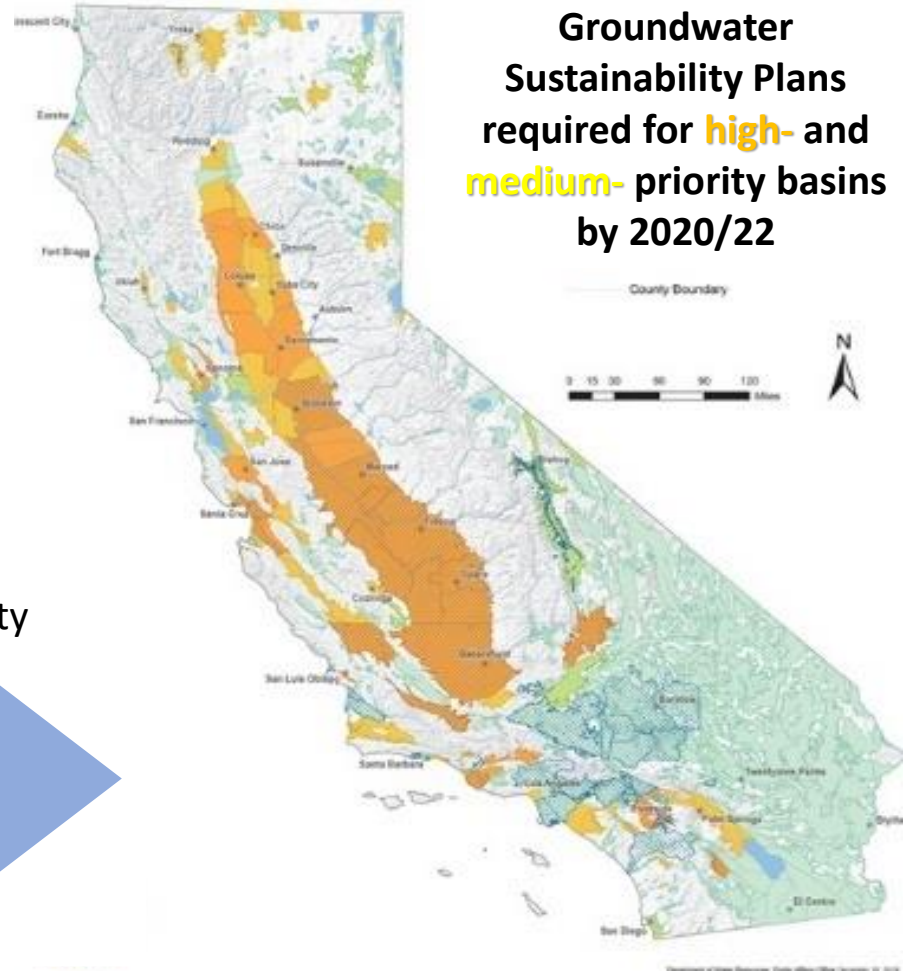
Roles

SGMA Timeline



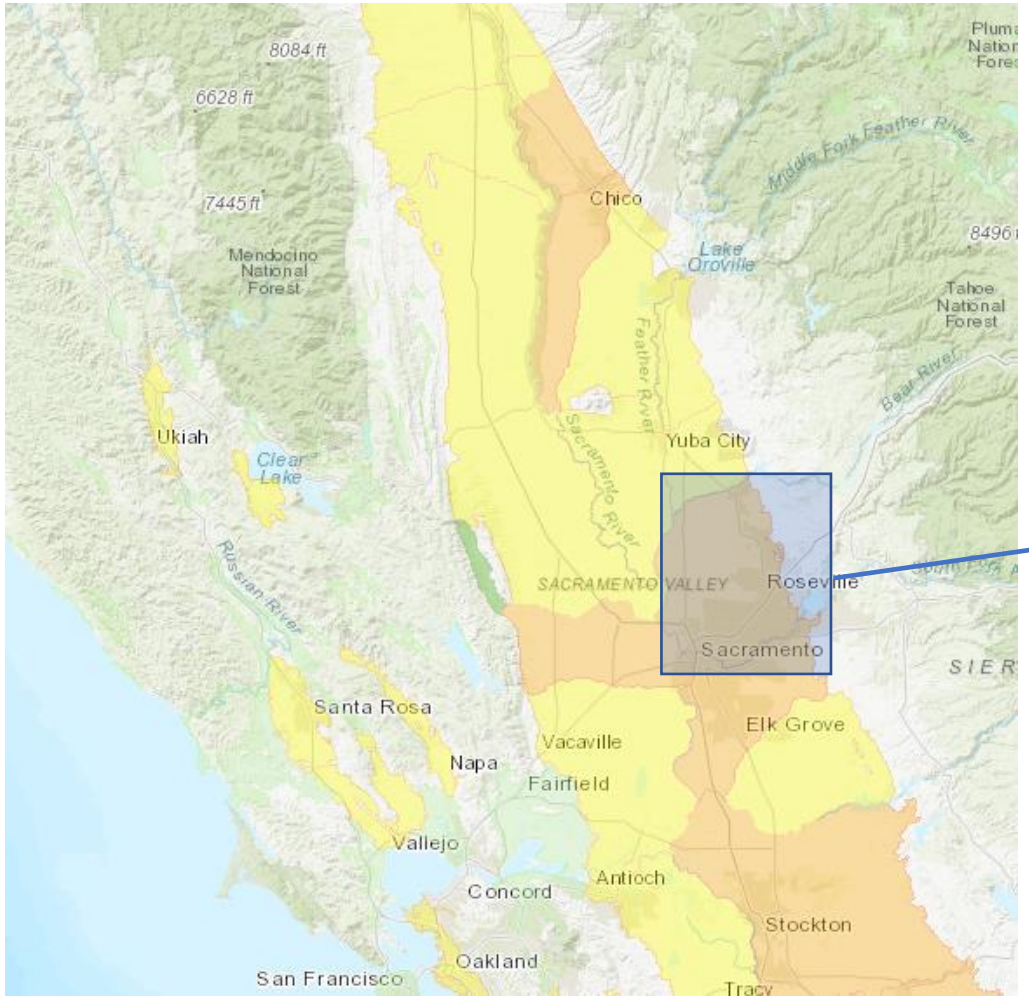
Groundwater Basins

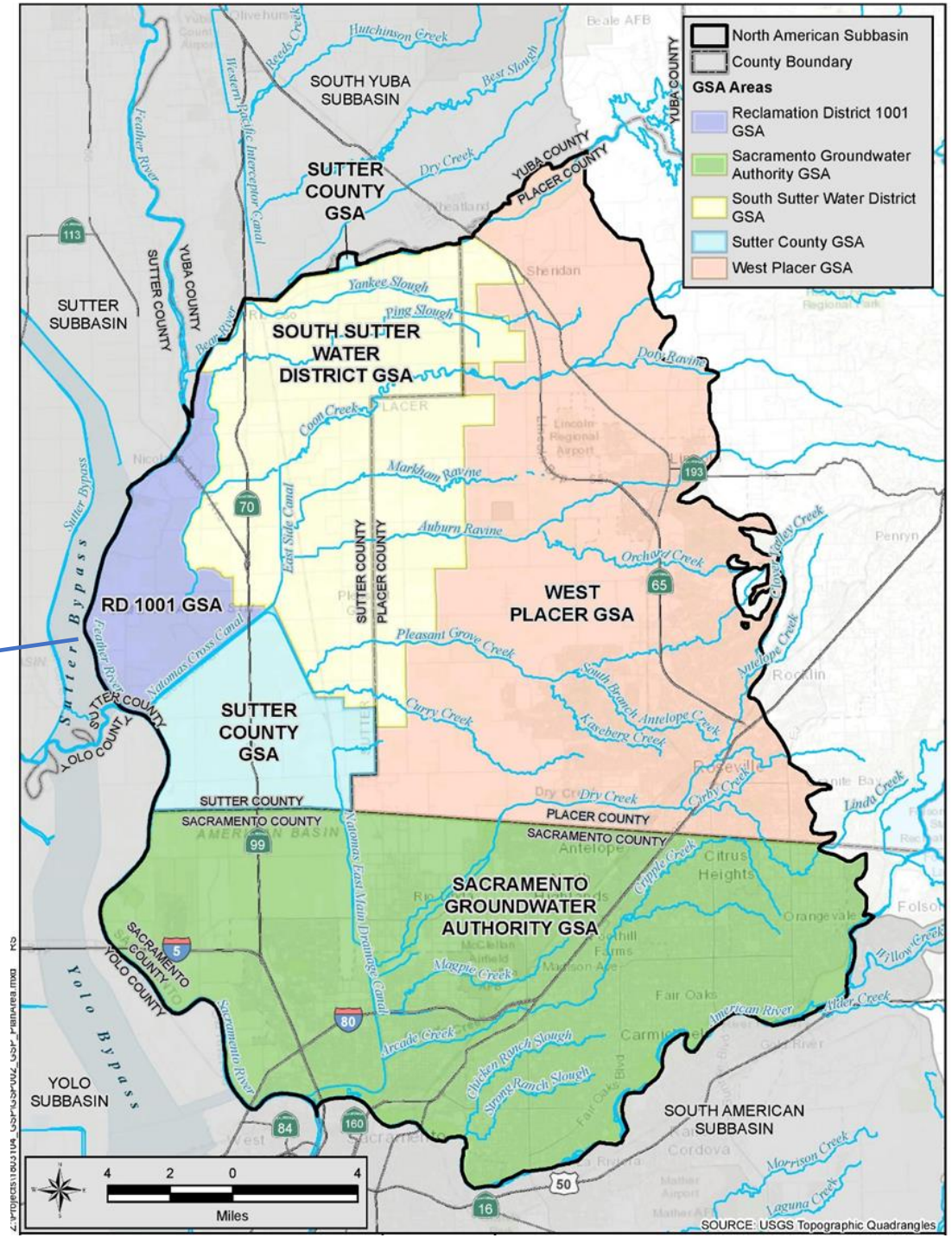
Groundwater Sustainability Plans required for high- and medium- priority basins by 2020/22



NORTH AMERICAN Subbasin

Groundwater Sustainability Agencies (GSAs)





NORTH AMERICAN Subbasin

NASb Overview/GSA Introduction

Reclamation District 1001 (RD 1001 GSA)

Kimberly Reese | Reclamation District 1001
1959 Cornelius Ave | Rio Oso, CA 95674
530-656-2318 | kreese@rd1001.org

Sacramento Groundwater Authority GSA (SGA GSA)

Trevor Joseph | Manager of Technical Services | Sacramento Groundwater Authority
2295 Gateway Oaks Drive, Suite 100 | Sacramento, CA 95833
(916) 967-7692 | tjoseph@rwah2o.org

South Sutter Water District GSA

Hayden Cornwell| General Manager | South Sutter Water District
2464 Pacific Ave | Trowbridge, CA 95659
530-656-2242 |hcornwell@southsutterwd.com

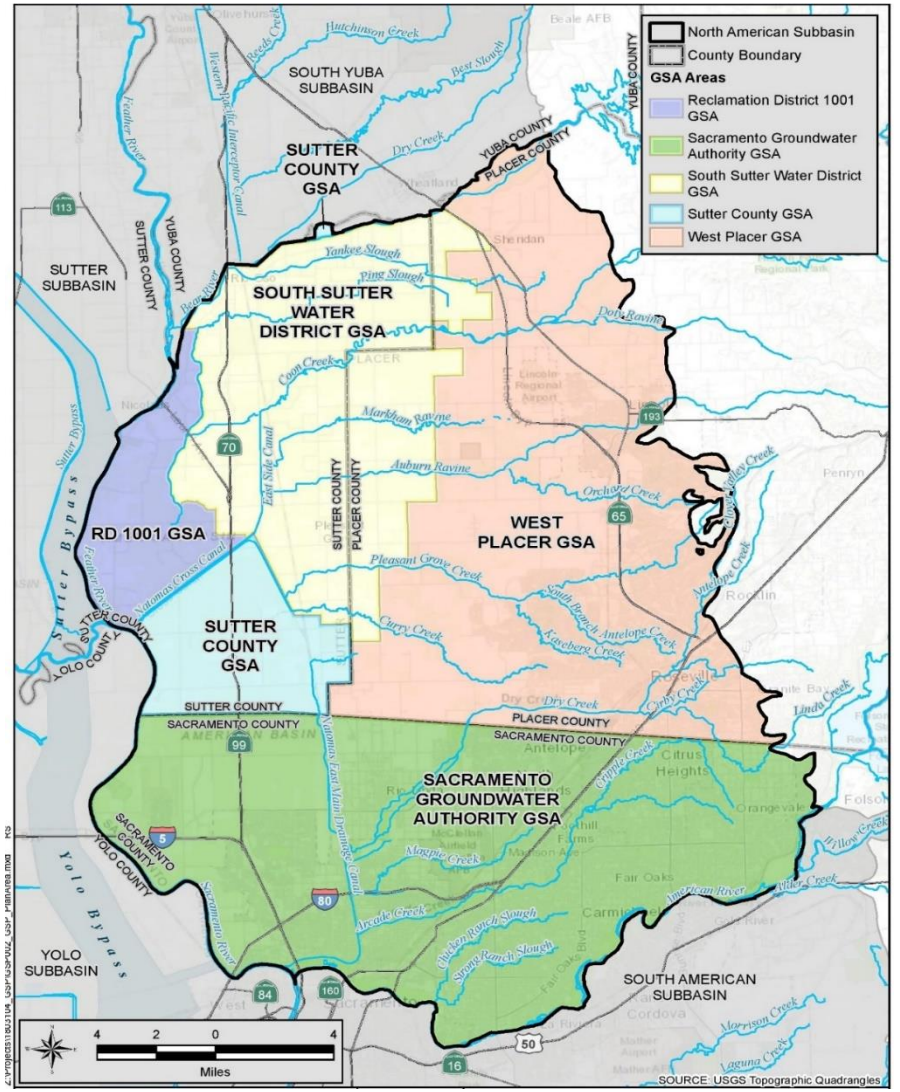
Sutter County GSA

Guadalupe Rivera | Principal Engineer | Sutter County
1130 Civic Center Blvd. | Yuba City, CA 95993
530-822-7400 | grivera@co.sutter.ca.us

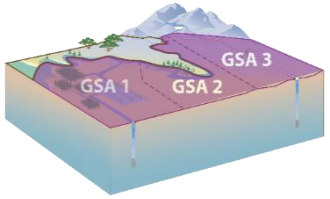
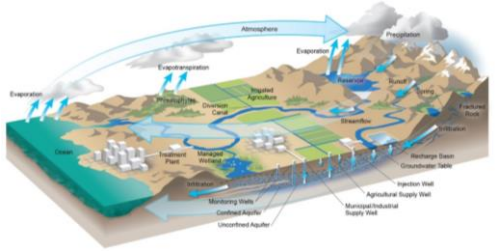
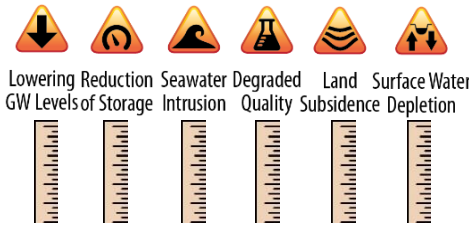
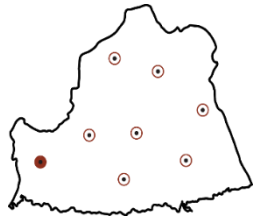
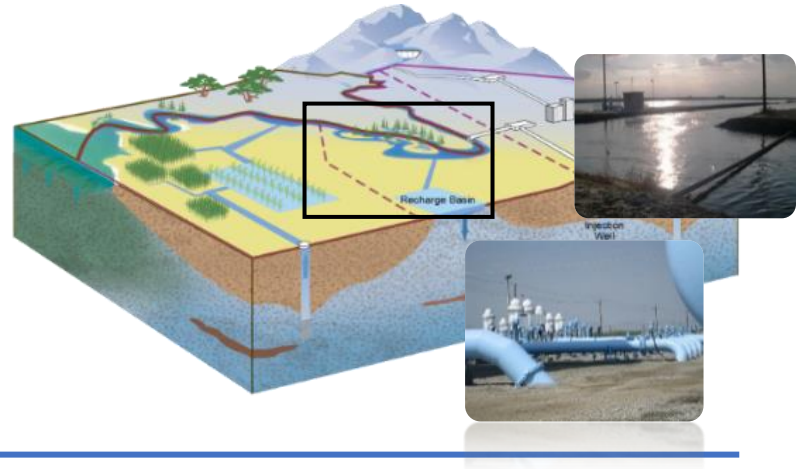
West Placer GSA

Christina Hanson | Supervising Planner | Placer County
3091 County Center Drive, Suite 170 | Auburn, CA 95603
530-886-4965 | chanson@placer.ca.gov

NASb Website: nasbgroundwater.org



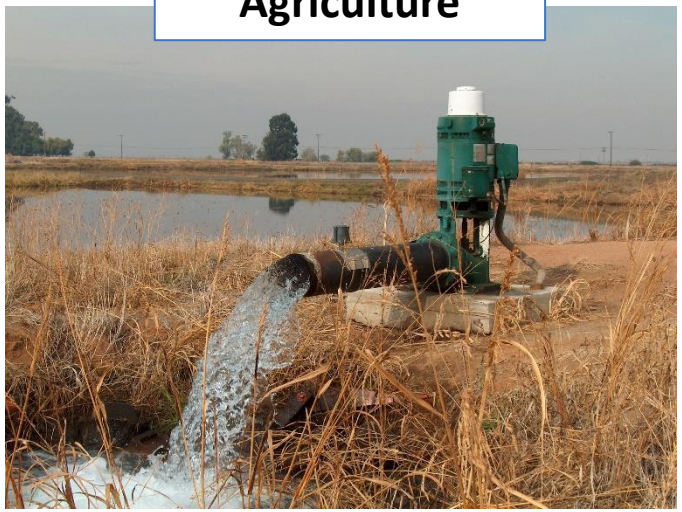
Groundwater Sustainability Plan (GSP) Regulations & NASb Sections

GSP Development Phases	1. Understand water users and existing basin conditions	2. Develop criteria that consider beneficial uses and users	3. Develop and implement management actions and/or projects to ensure basin is sustainable
GSP Regulation Requirements	**Who** *- Administrative Information -*  **What** *- Basin Setting -* 	**Where** *- Sustainable Management Criteria -*  *- Monitoring Network -* 	**How** *- Projects & Management Actions -* 
NASb GSP Sections	**1. Administrative Information** 1. Introduction 2. Agency Information 3. Description of Plan Area 4. Notice and Communications **2. Basin Setting** 1. Hydrogeologic Conceptual Model 2. Groundwater Conditions 3. Water Budgets	**3. Sustainable Management Criteria** **4. Monitoring Network**	**5. Projects & Management Actions** **6. Plan Implementation**

NORTH A
Subb

Beneficial Uses and Users

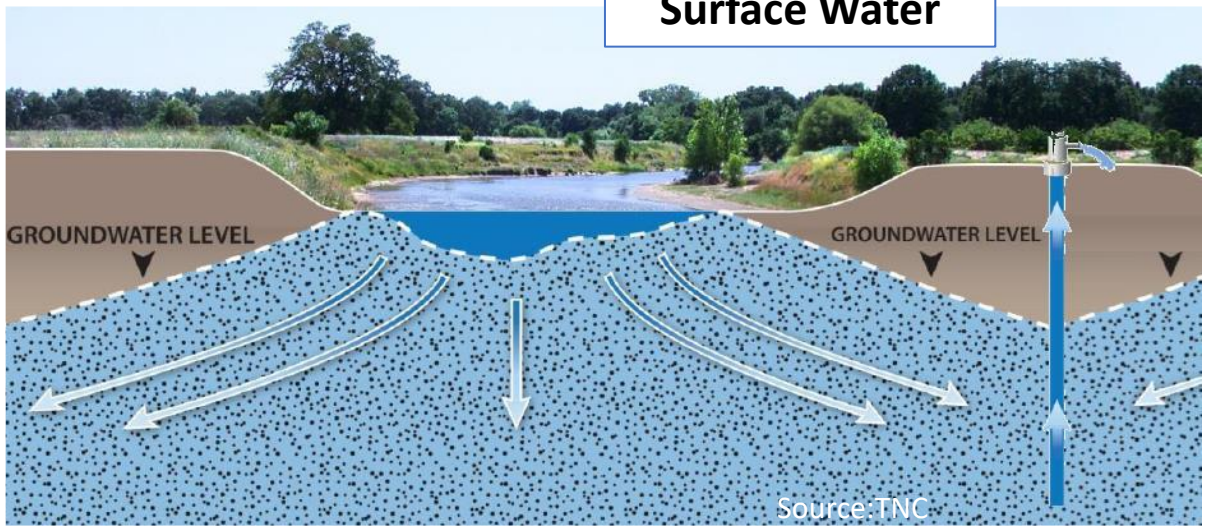
Agriculture



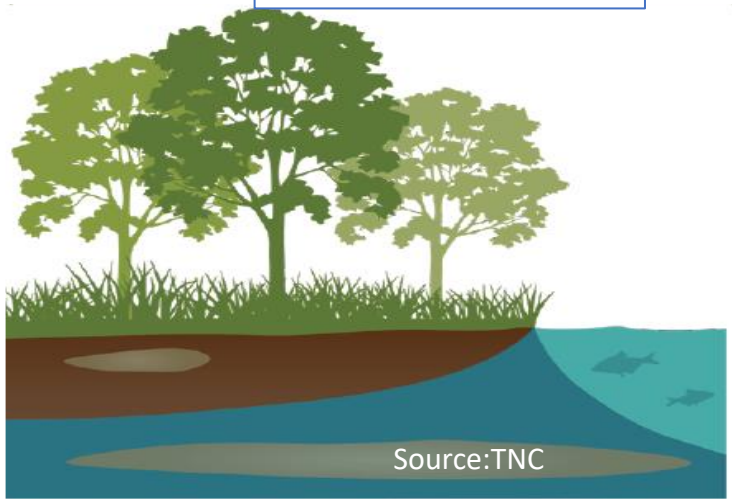
Municipal

Domestic

Surface Water



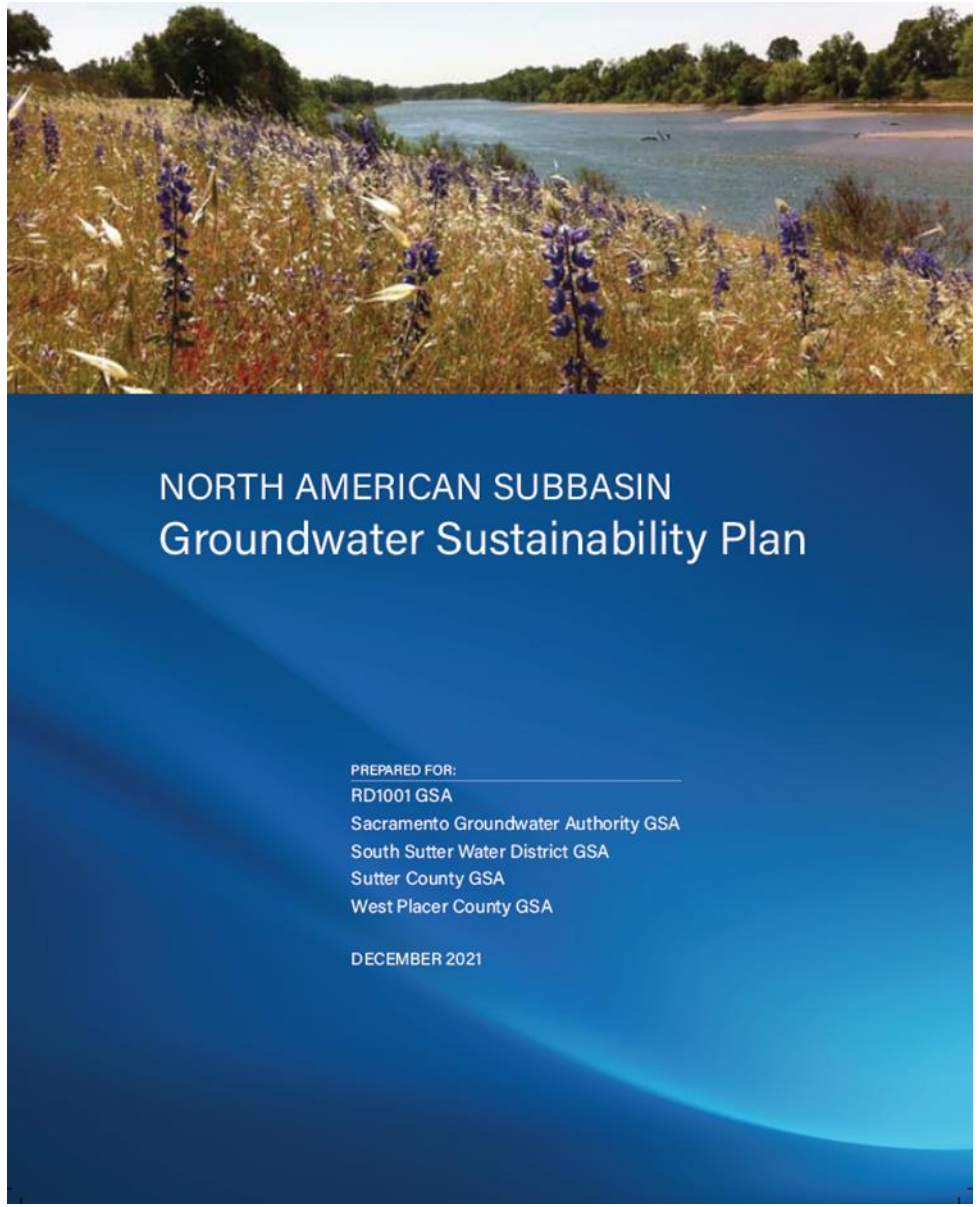
Environment



NORTH AMERICAN Subbasin

SGMA GSP vs Annual Reports

NORTH AMERICAN Subbasin



GSP vs Annual Report

- Current Status: Submitted in December 2021 - Department of Water Resources (DWR) initiated their review
  - Determination of Approved GSP received from DWR in July 2023
  - Six recommended corrective actions
- Timing: Periodic evaluation every 5-years (or whenever plan is amended)
- Goal: Ensuring sustainability through projects and programs that will assist in meeting goal

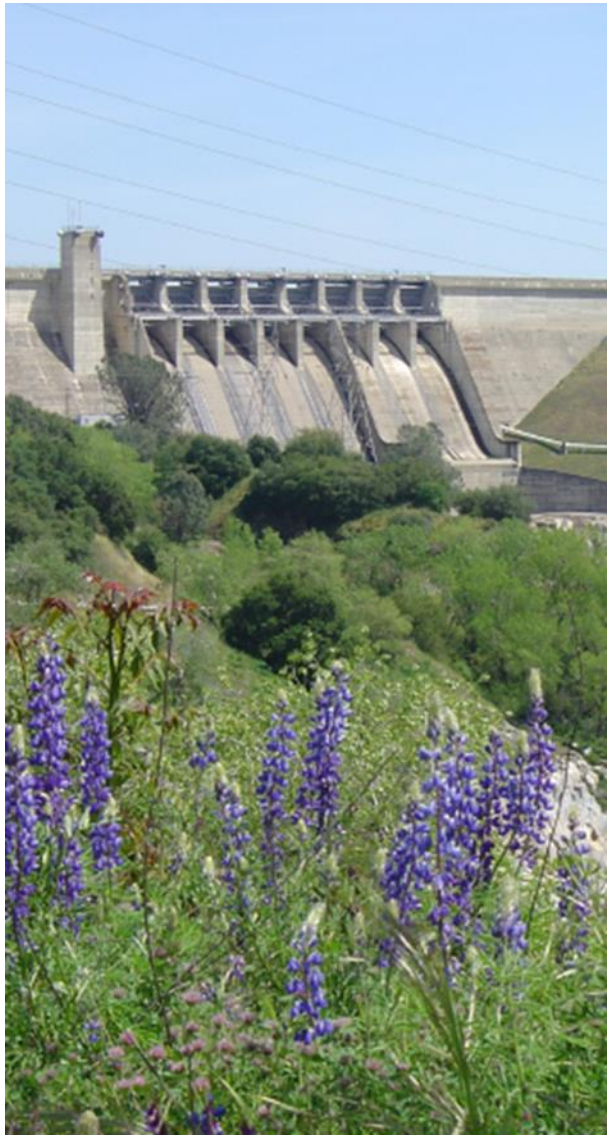
- Water Year: October 1 to September 30
- Current Status: The fourth annual report for Water Year 2024 was submitted to DWR in March
- Timing: Each year submitted to DWR by April 1
- Goal: Non-interpreted data transmittal to DWR, that provides information on groundwater conditions and implementation of GSP for the prior water year

NORTH AMERICAN Subbasin

GSP and Annual Report(s) available at: nasbgroundwater.org

A Break for Questions/ Discussion

- **On Zoom**:
  - “Raise hand” function to speak or
  - Type question in comment box
- **Via telephone**:
  - *9 to “Raise Hand”
  - *6 to unmute when called on



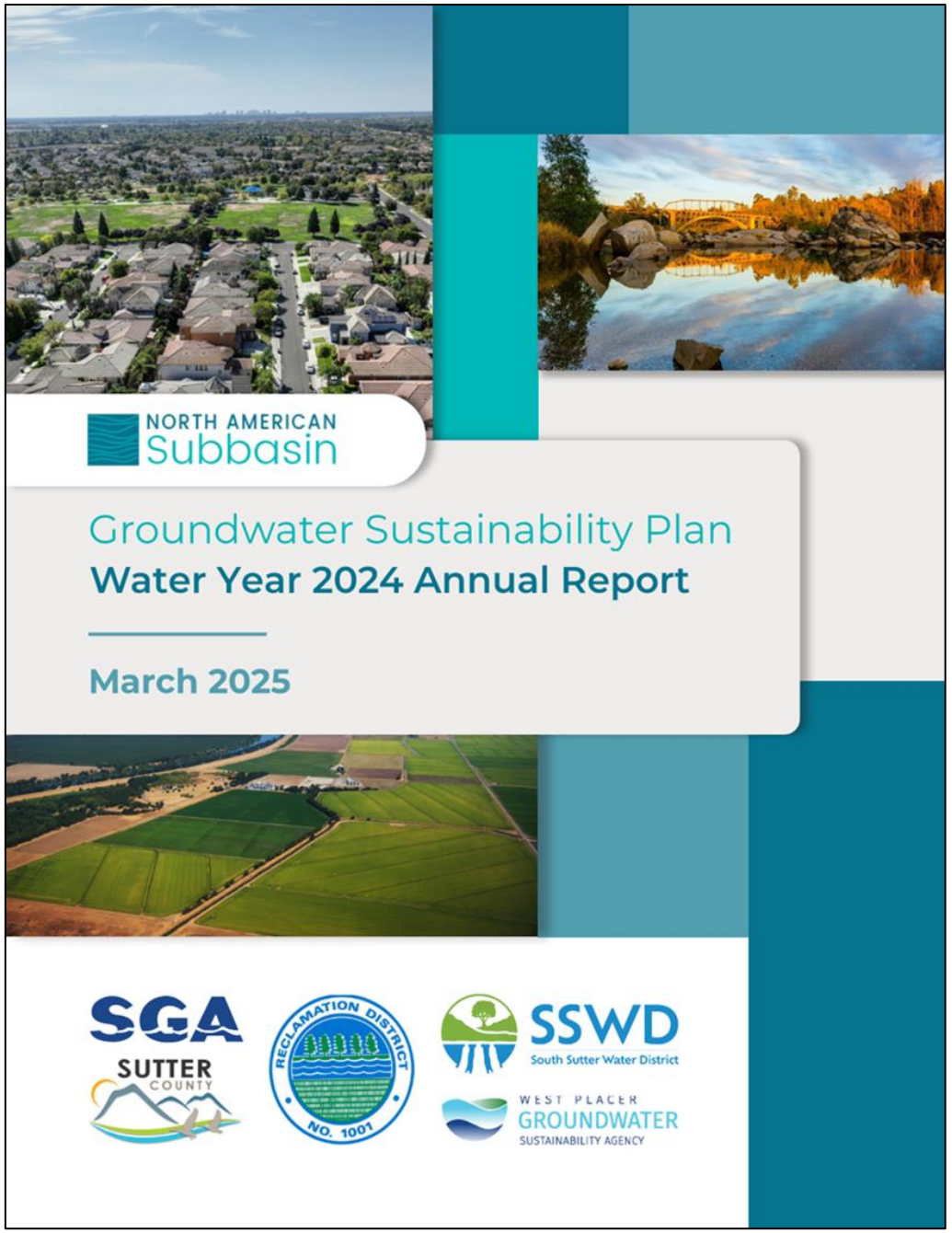
NORTH AMERICAN Subbasin

2024 Annual Report Overview

NORTH AMERICAN Subbasin

Annual Report

- Hydrologic Conditions
- Water Supply
- Groundwater Levels
- Change in Groundwater Storage
- GSP Implementation
- Sustainability Indicators



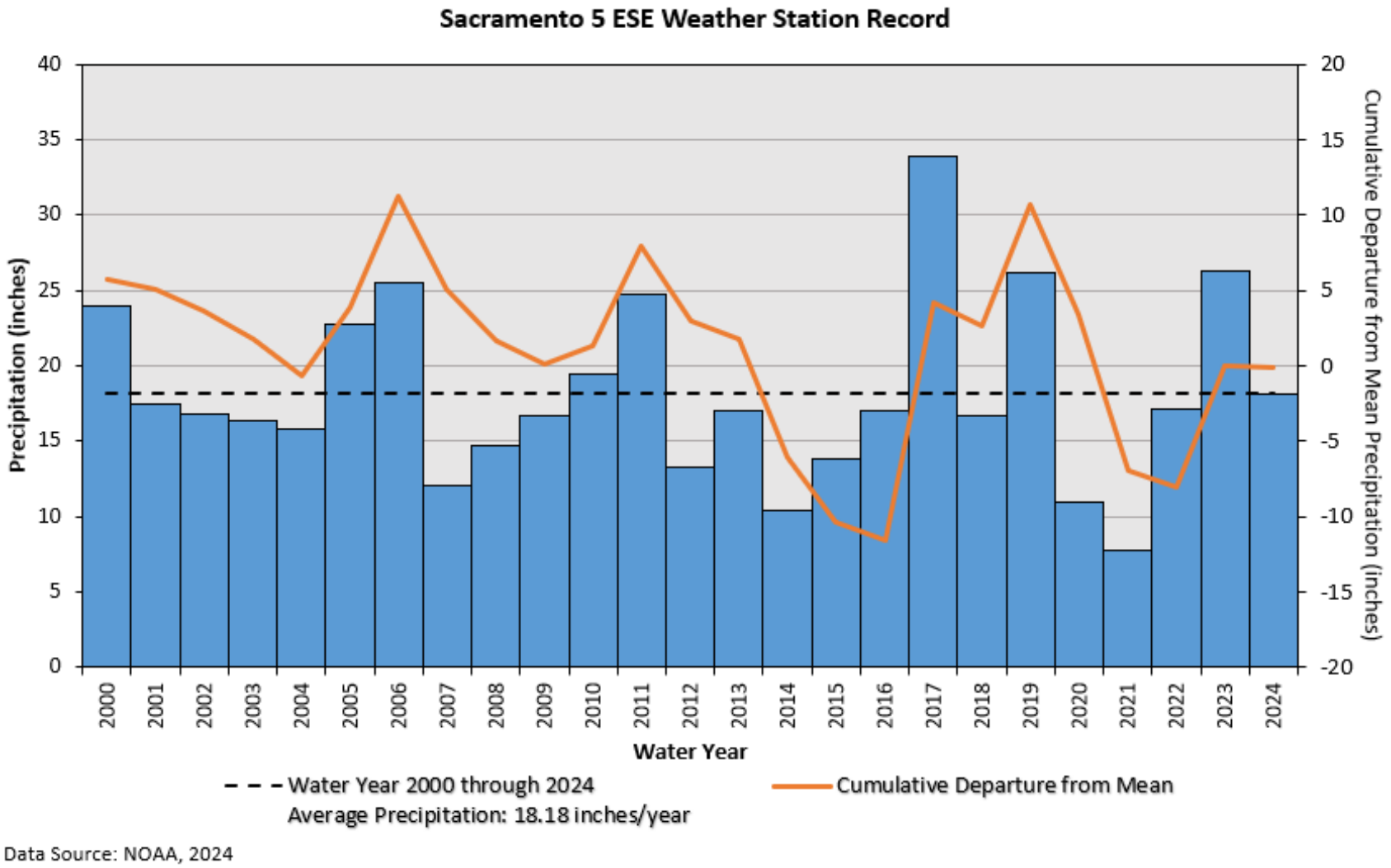
NORTH AMERICAN
Subbasin

Hydrologic Conditions

NORTH AMERICAN Subbasin

Average Annual Precipitation

- During WY 2024, annual precipitation was 18.1 inches
- Measured localized precipitation data at Sacramento 5 ESE weather station

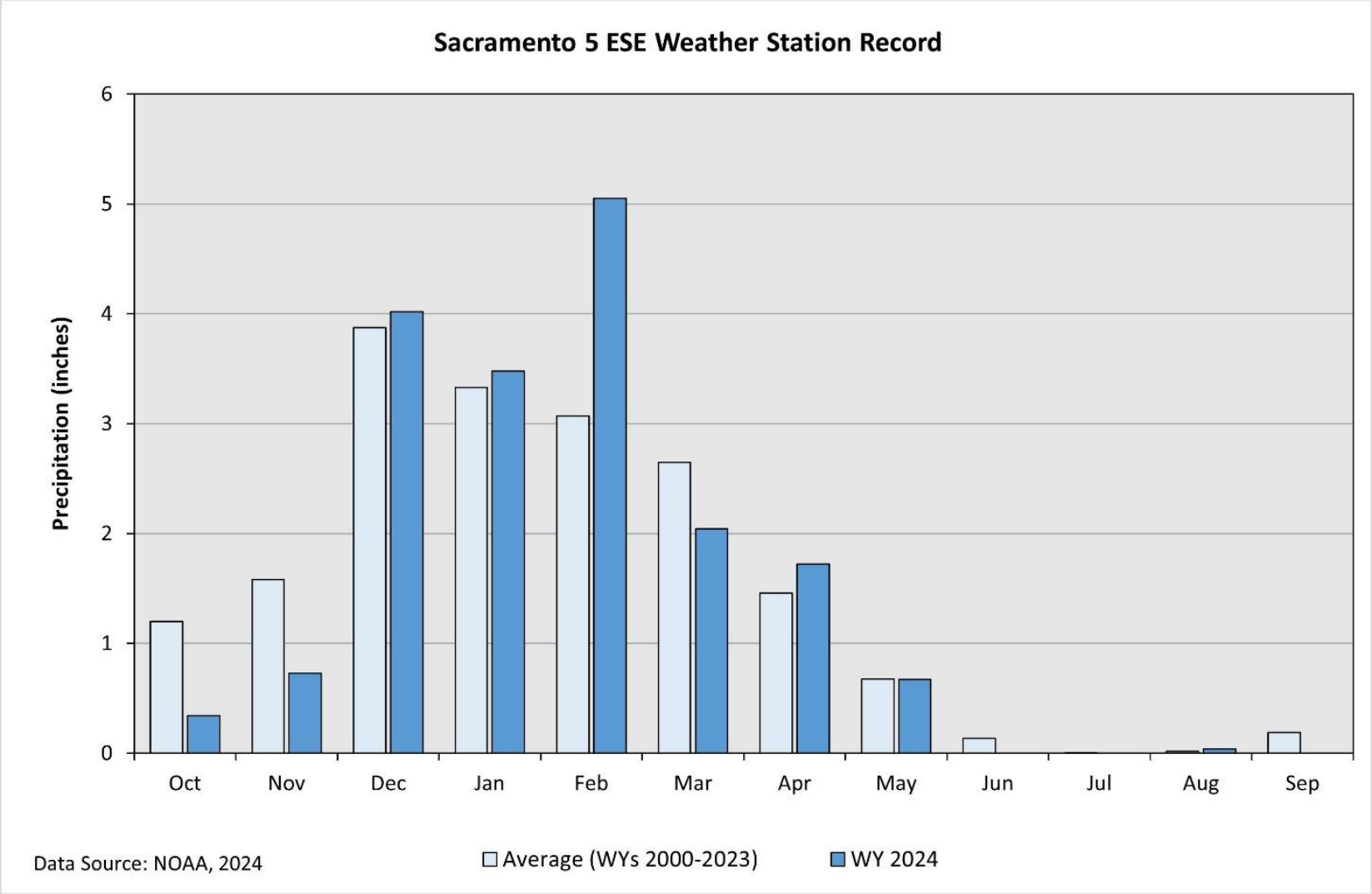


Data Source: NOAA, 2024

NORTH AMERICAN Subbasin

Average Monthly Precipitation

- Four months in WY 2024 received higher than average monthly precipitation
- Five months in WY 2024 received less than average monthly precipitation
- Three months (June, July, and September) received no precipitation



NORTH AMERICAN Subbasin

Water Supply

NORTH AMERICAN Subbasin

WY 2024 Total Water Use by Sector/Source

TABLE 3-4: TOTAL WATER USE BY SECTOR

Sector	WY 2020	WY 2021	WY 2022	WY 2023	WY 2024	Method
Municipal & Industrial	198,200	200,000	197,700	183,900	179,900	Metered
Agricultural	461,400	421,100	386,900	381,200	377,600	Metered and CoSANA
Managed Wetlands	0	0	0	0	0	-
Managed Recharged	900	0	200	1,800	0	Metered
Native Vegetation	0	0	0	0	0	-
Recycled Water	0	6,600	2,700	6,000	6,100	Metered
Remediation	4,300	7,100	7,300	3,500	3,100	Metered
Total	**664,800**	**634,800**	**594,800**	**576,400**	**566,700**	

***Note**: Volumes are reported in acre-feet (AF).*

TABLE 3-5: TOTAL WATER USE BY SOURCE

Sector	WY 2020	WY 2021	WY 2022	WY 2023	WY 2024	Methods
Groundwater	346,300	378,700	297,100	241,300	237,100	Metered and CoSANA
Surface Water	314,200	242,400	287,700	325,600	320,400	Metered
Recycled Water	0	6,600	2,700	6,000	6,100	Metered
Remediation	4,300	7,100	7,300	3,500	3,100	Metered
Total	**664,800**	**634,800**	**594,800**	**576,400**	**566,700**	

***Note**: Volumes are reported in acre-feet (AF).*

WY 2024 Surface Water Use Sector

TABLE 3-2: SURFACE WATER USE BY SECTOR

Sector	WY 2020	WY 2021	WY 2022	WY 2023	WY 2024	Method
Municipal & Industrial	115,600	112,100	108,300	123,700	133,000	Metered
Agricultural	197,700	130,300	179,200	200,100	187,400	Metered
Managed Wetlands	0	0	0	0	0	-
Managed Recharged	900	0	200	1,800	0	Metered
Native Vegetation	0	0	0	0	0	-
Recycled Water	0	6,600	2,700	6,000	6,100	Metered
Total	**314,200**	**249,000**	**290,400**	**331,600**	**322,900**	

***Note**: Volumes are reported in acre-feet (AF).*

WY 2024 Groundwater Use Sector

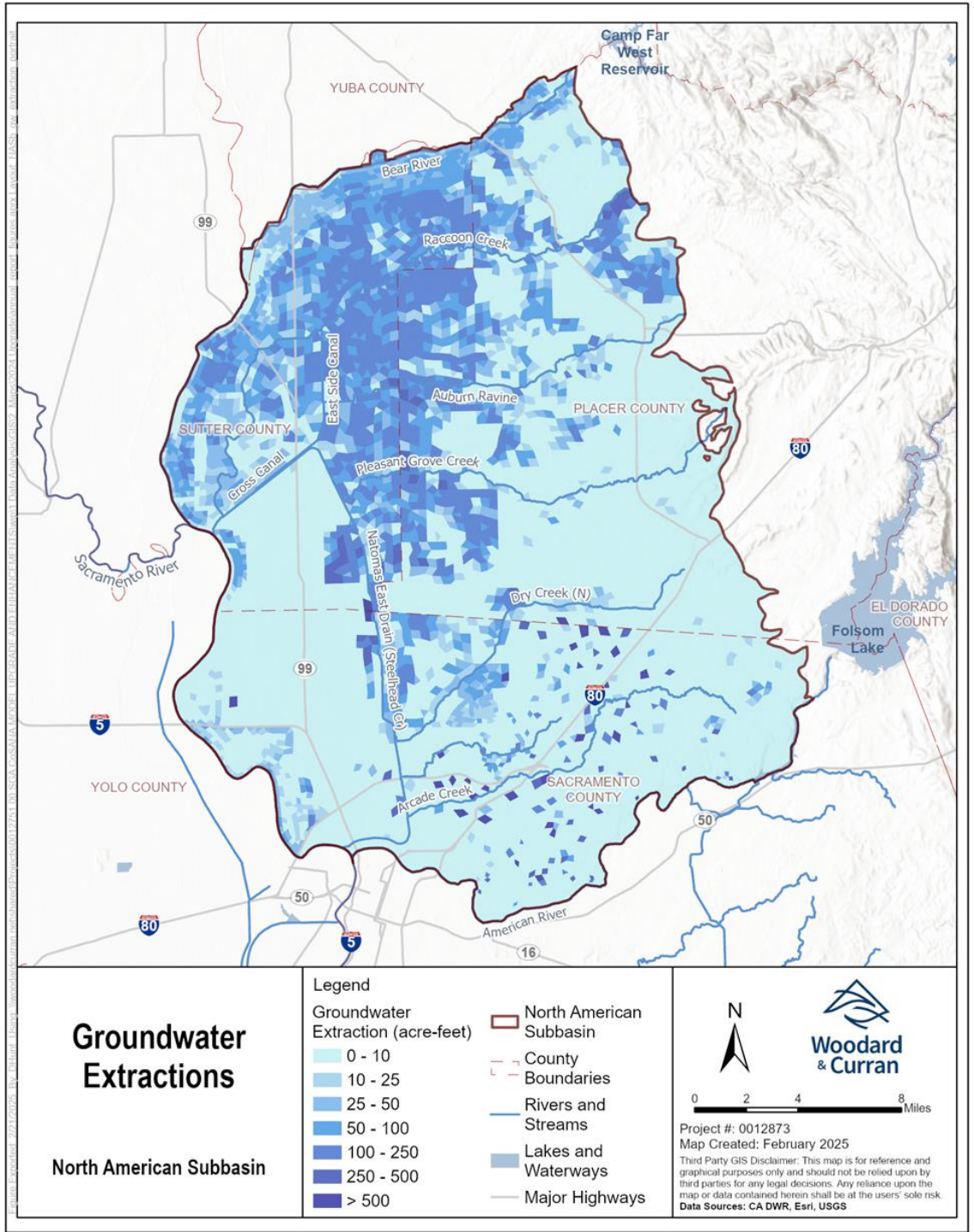
TABLE 3-3: GROUNDWATER USE BY SECTOR

Sector	WY 2020	WY 2021	WY 2022	WY 2023	WY 2024	Methods
Municipal & Industrial	82,600	87,900	89,400	60,200	46,900	Metered
Agricultural	263,700	290,800	207,700	181,100	190,200	Metered and CoSANA
Managed Wetlands	0	0	0	0	0	-
Managed Recharged	0	0	0	0	0	-
Native Vegetation	0	0	0	0	0	-
Total	**350,600**	**385,800**	**304,400**	**244,800**	**240,200**	

***Note**: Volumes are reported in acre-feet (AF).*

NORTH AMERICAN Subbasin

CoSANA Model – Groundwater Extractions for WY 2024



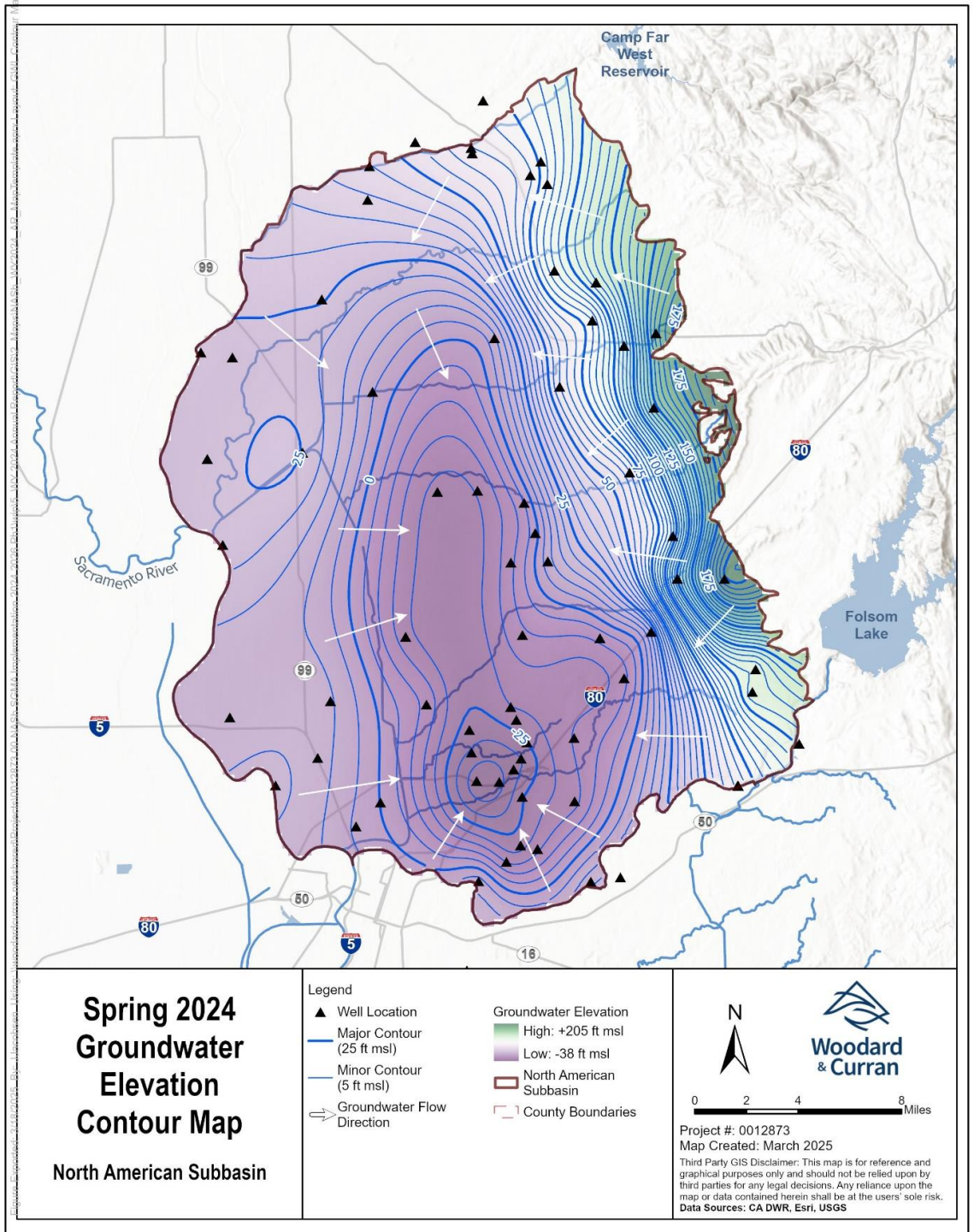
NORTH AMERICAN Subbasin

Groundwater Levels

NORTH AMERICAN Subbasin

WY 2024 Groundwater Contour Map - Spring

- Spring groundwater elevations ranged from a high of 149 ft in the eastern portion of the Subbasin, to a low of -22 ft within the central portion of the Subbasin

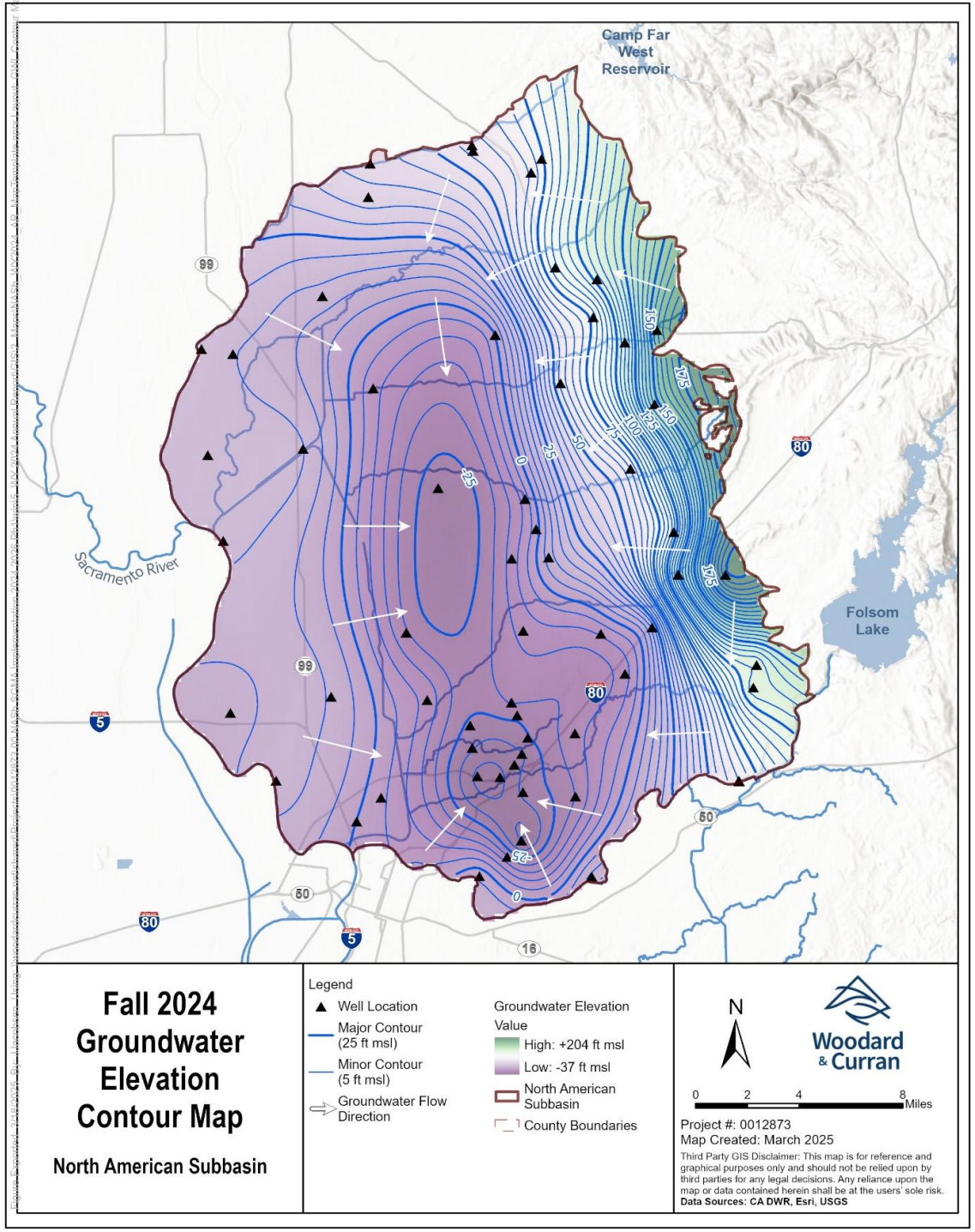


NORTH AMERICAN Subbasin

WY 2024 Groundwater Contour Map - Fall

- Fall groundwater elevations tend to be lower than the spring due to greater groundwater pumping during summer months and lower volumes of recharge

- Fall groundwater elevations ranged from a high of 148 ft in the eastern portion of the Subbasin, to a low of -28 ft within the central portion of the Subbasin



NORTH AMERICAN Subbasin

Change in Groundwater Storage

NORTH AMERICAN Subbasin

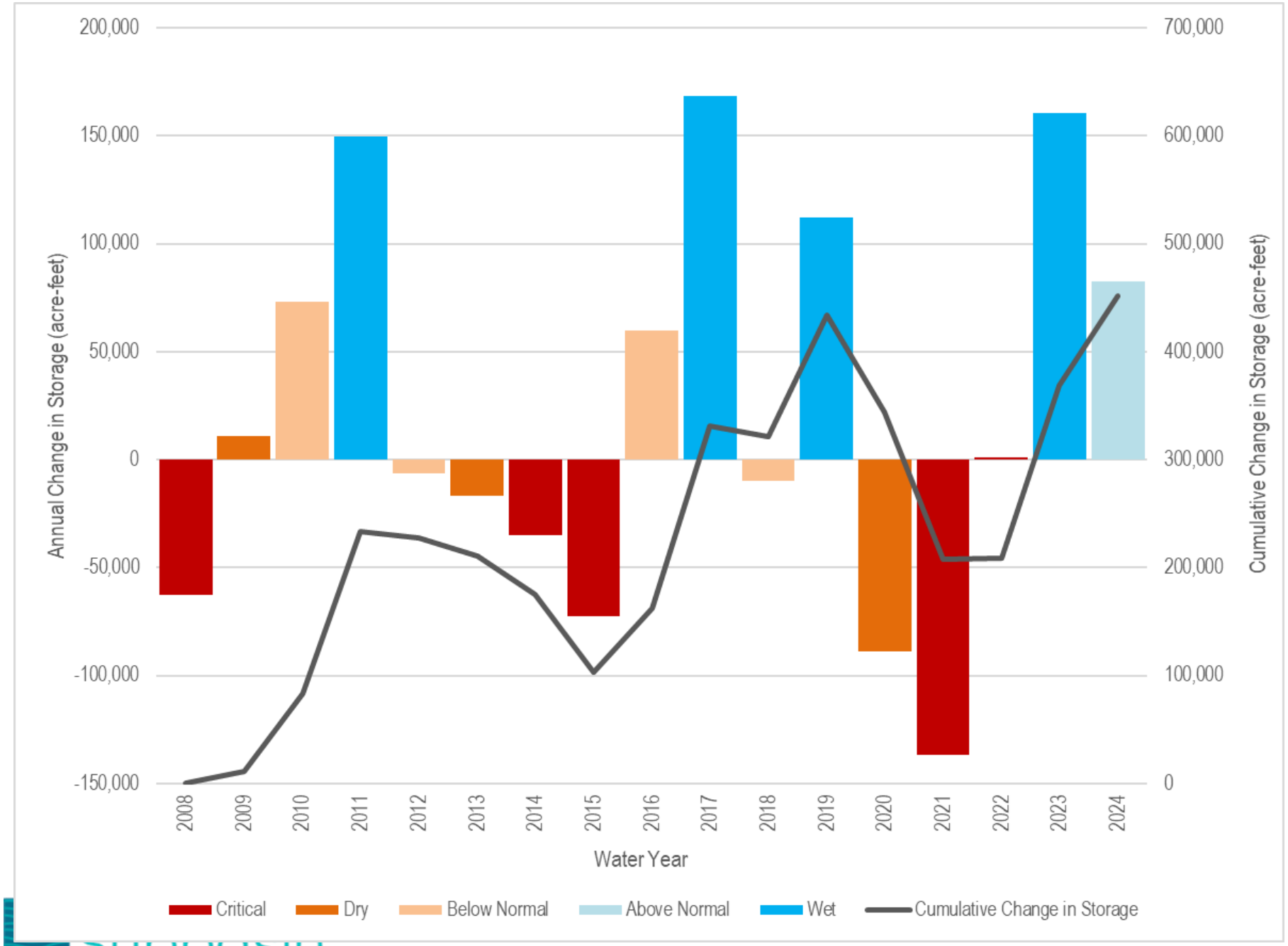
WY 2024 Change in Groundwater Storage

TABLE 5-1: MODELED ANNUAL CHANGE IN GROUNDWATER STORAGE, WATER YEARS 2020-2024

	WY 2020	WY 2021	WY 2022	WY 2023	WY 2024	Method
Water Year Classification	**Dry**	**Critically Dry**	**Critically Dry**	**Wet**	**Above Normal**	
Groundwater Extractions	350,600	382,200	300,400	244,800	240,200	Metered and CoSANA
Difference to Sustainable Yield[1]	-14,600	-46,200	35,600	91,200	95,800	
Estimated Change in Storage	**-90,000**	**-134,800**	**2,800**	**161,100**	**82,500**	CoSANA

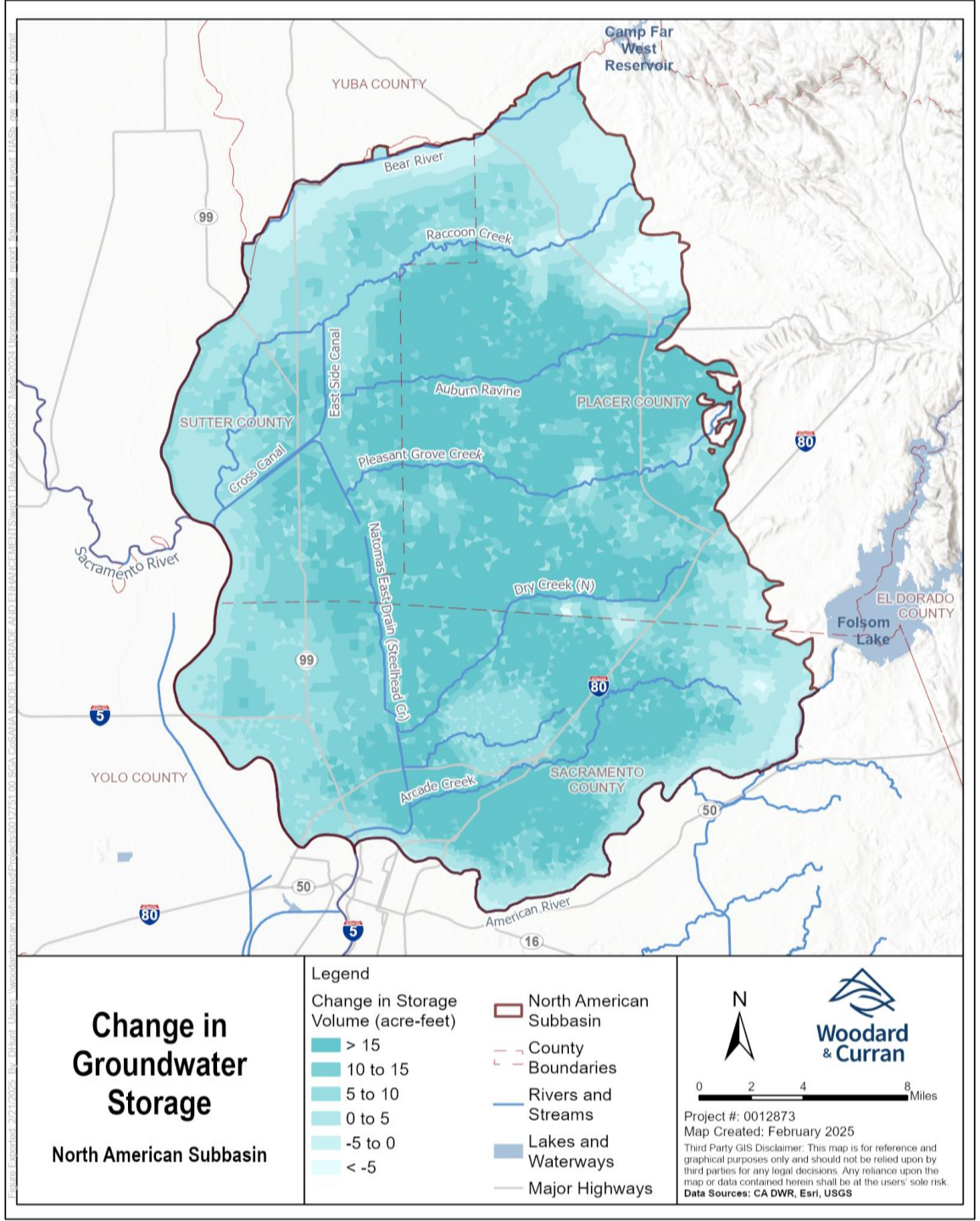
***Note**: Volumes are reported in acre-feet (AF).*

NORTH AMERICAN Subbasin



Cumulative Change in Groundwater Storage for WY 2024 (and WYs 2008 – 2023)

CoSANA Model (Fall 2023 - Fall 2024) Estimated Change in Groundwater Storage for WY 2024



NORTH AMERICAN Subbasin

GSP Implementation

NORTH AMERICAN Subbasin

Projects and Management Actions

Project #1: Regional Conjunctive Use Expansion – Phase 1

- Continuation of implementing conjunctive use in accordance with Water Accounting System (WAS). Additional conjunctive use expansion will occur when Sacramento Regional Water Bank becomes operational.

Project #2: Natomas Cross Canal Stability Berm and Channel Habitat Enhancement Project

- Project is currently in progress. CVFPB permit and USACE Letter of Permission are pending. Design and Environmental Review started in late spring of 2020. Construction is planned for late 2025 or 2026.

Projects and Management Actions

Management Action #1: Complete Planning for Sacramento Regional Water Bank

- In WY 2024, participating local public agencies, including the NASb GSAs:
  - Completed the Water Bank governance document
  - Began advanced modelling improvements
  - Initiated CEQA documentation
  - Completed the development of the water accounting system
- Completion of the Water Bank is expected in WY 2026

Management Action #2: Explore Improvements with NASb Well Permitting Programs

- The GSAs developed and implemented a well standards process to adapt to EO N-7-22 during WY 2024
- WPGSA and Placer County Environmental Health now conduct GSA reviews of applications but do not require reports regarding drawdown/subsidence.
- SGA received no well applications and WPGSA received one well application for WY 2024

Management Action #3: Proactive Coordination with Land Use Agencies

- The GSAs continue to regularly coordinate with land use planning agencies regarding GSP analysis and implementation
- The GSAs are evaluating active land use plans to evaluate potential future impacts on groundwater management within their jurisdictions
- The WPGSA and the Placer County Planning Department developed and distributed a SGMA Guidance Document for Analysis of Groundwater Impacts for Development Requiring CEQA Analysis

Projects and Management Actions

Management Action #4: Domestic/Shallow Well – Data Collection and Communication Program

- The GSAs are using DWR's Online System for Well Completion Reports and assessor parcel number data to identify potential domestic well owners and develop a mailing list for areas with high concentrations of domestic wells to:
  - Confirm the presence of a domestic well
  - Establish a voluntary group of domestic well owners interested in local groundwater conditions
  - Provide regular information to interested domestic well owners and well permitting agencies
- SGA completed its analysis in October 2024 and is preparing a summary report and coordinating outreach methods
- WPGSA is in the process of updating an outreach mailing list of domestic well owners

Management Action #5: GDE Assessment Program

- NASb GSAs are enhancing their monitoring well network, identifying new locations to potential set sustainable management criteria to protect GDEs.
- With the use of the CoSANA groundwater model, NASb GSAs plan to further evaluate the presence and conditions of GDEs present within the NASb using the Normalized Difference Vegetation Index (NDVI) to track vegetation health and confirm the likelihood that the vegetation is groundwater-supported to reflect current conditions.

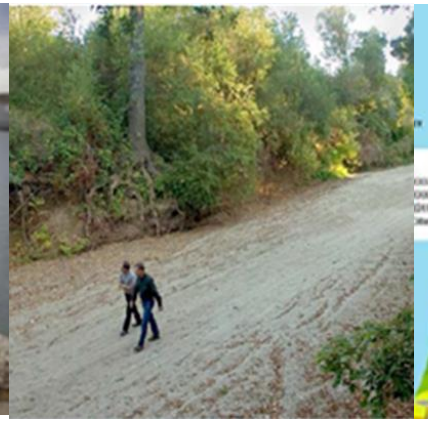
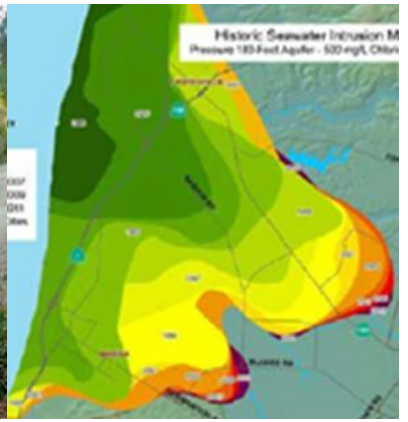
Sustainable Management Criteria

NORTH AMERICAN Subbasin

Sustainability Indicators

"effects caused by groundwater conditions throughout the basin that, when significant and unreasonable, cause undesirable results…"

NASb Applicable Sustainability Indicators

Chronic Lowering of Groundwater Levels	Reduction of Groundwater In Storage	Degraded Water Quality	Inelastic Land Subsidence	Depletions of Interconnected Surface Waters	Seawater Intrusion (Not Applicable)
					

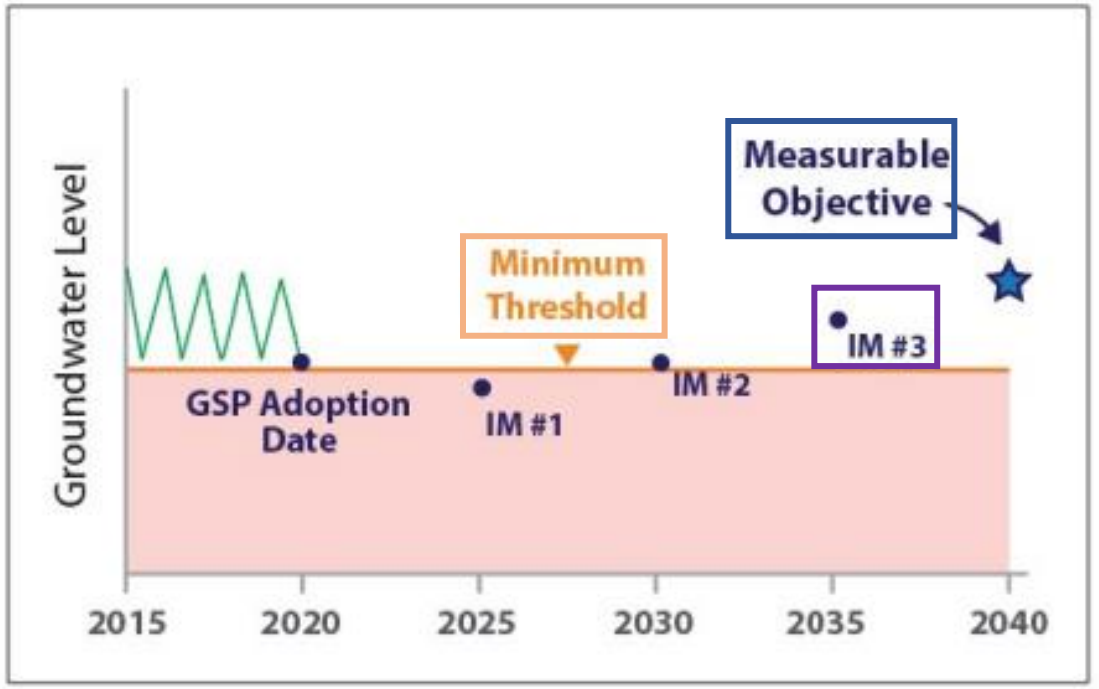
NORTH AMERICAN Subbasin

Measurable Objectives and Minimum Thresholds

Measurable Objective (MO) = specific, quantifiable goals for the maintenance or improvement of specified groundwater conditions that have been included in an adopted GSP to achieve the sustainability goal for the basin

Interim Milestone (IM) **=** *a target value representing measurable groundwater conditions, in five-year increments.*

Minimum Threshold (MT) = a numeric value for each sustainability indicator used to define undesirable results



Source: DWR

NORTH AMERICAN Subbasin

Sustainability Indicators – Fall 2024 Status

Sustainability Indicator	Minimum Threshold	Interim Milestones	Measurable Objective	Undesirable Result Definition	Fall 2024 Status
Groundwater Levels	Average fall 2014 & 2015 groundwater levels incorporated with change in groundwater levels projected over 50-year period.	Projected in 5-year intervals to meet Measurable Objectives by 2042.	Average spring groundwater level from 2010 through 2019.	20% (8 out of 40 wells) or more of all RMSs have MT exceedances for two consecutive fall measurements.	4 out of 40 wells (10%) exceeded their minimum thresholds for two consecutive years. Thus, an undesirable result did not occur.
Groundwater Storage	Groundwater levels are used as a proxy for this sustainability indicator. Sustainable Management Criteria and conditions are identical to those of groundwater levels.				

NORTH AMERICAN Subbasin

Sustainability Indicators – Fall 2024 Status

Sustainability Indicator	Minimum Threshold	Interim Milestones	Measurable Objective	Undesirable Result Definition	Fall 2024 Status
Water Quality	Secondary Maximum Contaminant Level (SMCL) for **TDS**: 500 mg/L Primary Maximum Contaminant Level (MCL) for **Nitrate (as N)**: 10 mg/L	Identical to Measurable Objectives	<u>Public Water Supply Wells</u> **TDS**: 300 mg/L **Nitrate**: 3 mg/L <u>Shallow Aquifer Wells</u> 10% greater than recently observed **TDS** & **Nitrate** concentrations in each RMS.	<u>Public Water Supply Wells</u> **TDS**: Basin-wide average >400 mg/L in all public water supply wells *Or* **Nitrate**: Basin-wide average >8 mg/L in all public water supply wells. <u>Shallow Aquifer Wells</u> **TDS** & **Nitrate** MCLs are exceeded in 25% RMS.	The average public water supply well concentration for TDS and Nitrate were below concentrations defined for undesirable results. Shallow aquifer sites were all below minimum thresholds.

Sustainability Indicators – Fall 2024 Status

Sustainability Indicator	Minimum Threshold	Interim Milestones	Measurable Objective	Undesirable Result Definition	Fall 2024 Status
Land Subsidence	Groundwater levels are used as a proxy for this sustainability indicator, equating 1 foot of groundwater level decline to 0.01 feet of subsidence.			The rate of subsidence exceeds 0.5 feet over a 5-year period over an area covering approximately 5 or more square miles.	2 out of 40 wells (5%) exceeded their minimum threshold. Thus, there was not an undesirable result.

NORTH AMERICAN Subbasin

Sustainability Indicators – Fall 2024 Status

Sustainability Indicator	Minimum Threshold	Interim Milestones	Measurable Objective	Undesirable Result Definition	Fall 2024 Status
Depletions of Interconnected Surface Waters	Groundwater levels are used as a proxy, using a subset of the groundwater level representative monitoring network. Sustainable Management Criteria are identical to those established for groundwater levels.			20% (5 out of 24 wells) or more of the interconnected surface water RMSs have MT exceedances for two consecutive fall measurements.	2 out of 24 wells (8%) exceeded their minimum threshold. Thus, there was not an undesirable result.

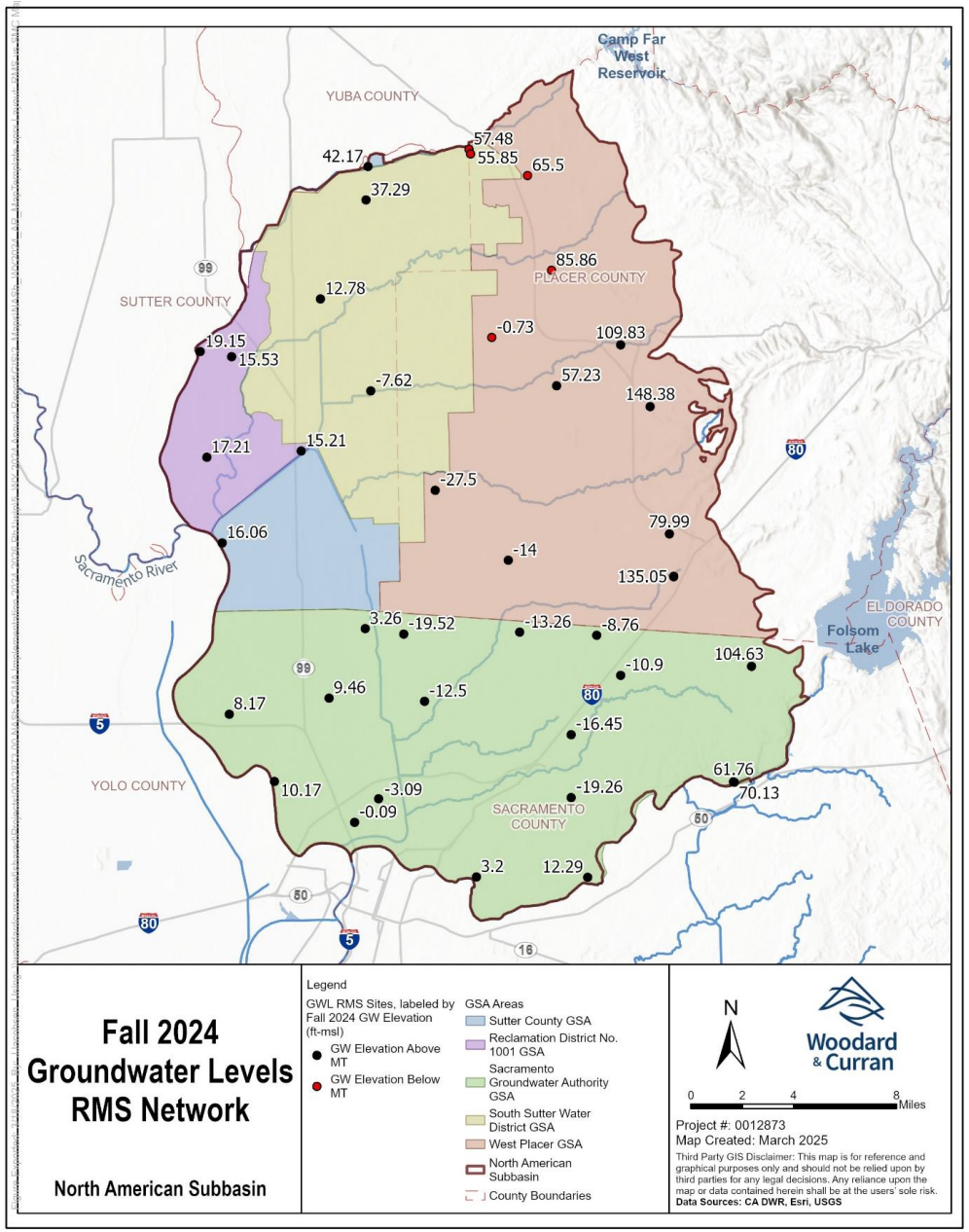
Chronic Lowering of Groundwater and Reductions of Groundwater in Storage

- 40 wells analyzed in WY 2024
  - MT: Varies based on well
  - MO: Varies based on well
  - Minimum: -27.50 ft.
  - Maximum: 148.38 ft.

- 5 out of 40 representative monitoring wells exceeded the MT
  - 4 of these wells observed consecutive fall MT exceedance
  - See hydrographs on following slides

- An undesirable result is not occurring

Note: An undesirable result occurs if 20% of representative monitoring network wells exceed their MTs



Chronic Lowering of Groundwater Levels

Reduction of Groundwater In Storage

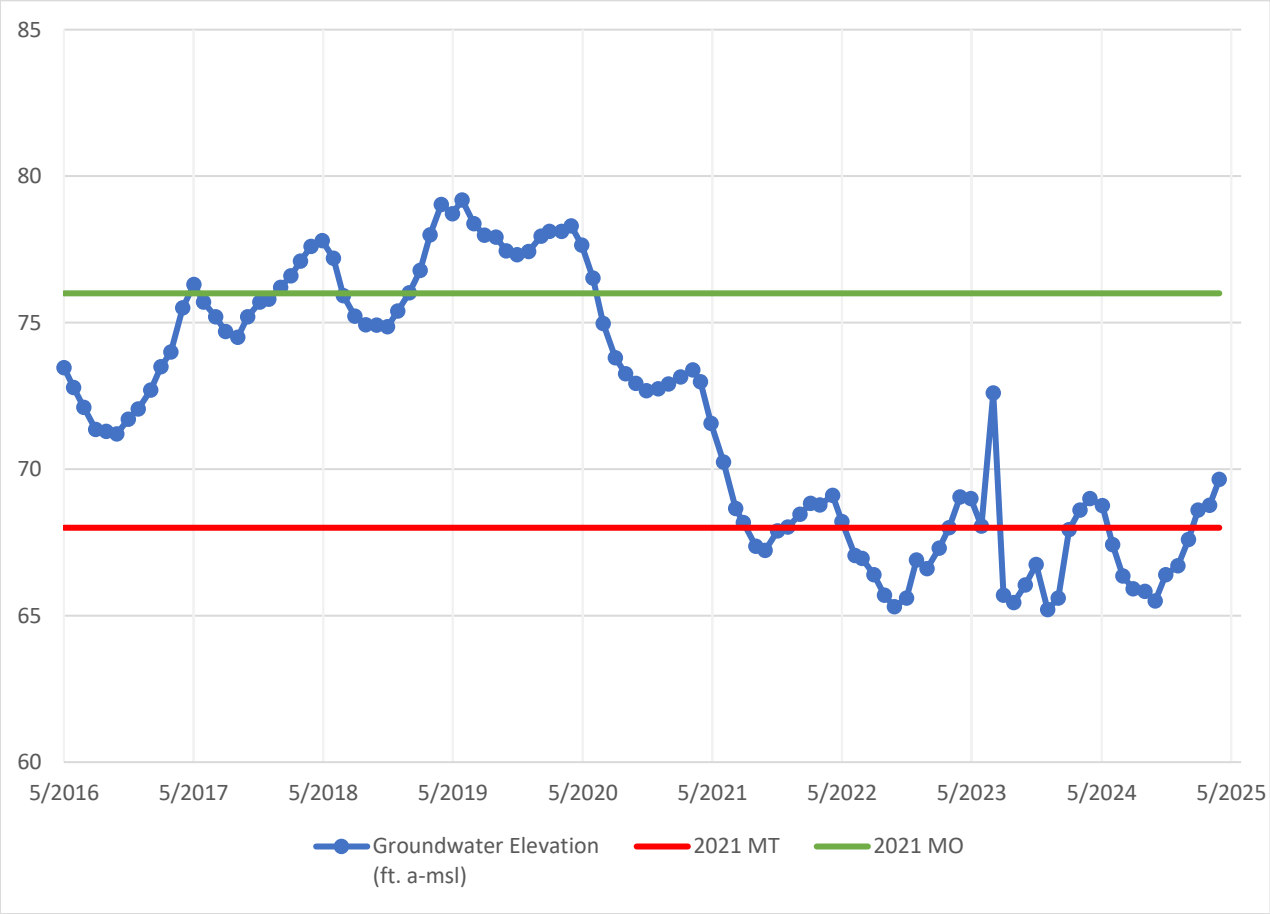
Degraded Water Quality

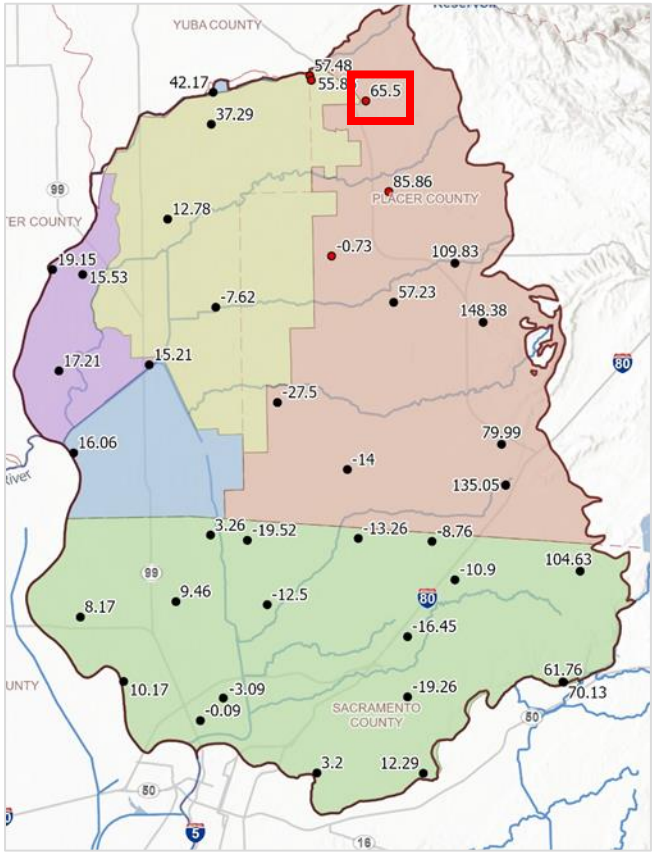
Inelastic Land Subsidence

Depletions of Interconnected Surface Waters

NORTH AMERICAN Subbasin

Old Well #2
Historic Groundwater Levels (2016-Present)





Chronic Lowering of Groundwater Levels

Reduction of Groundwater In Storage

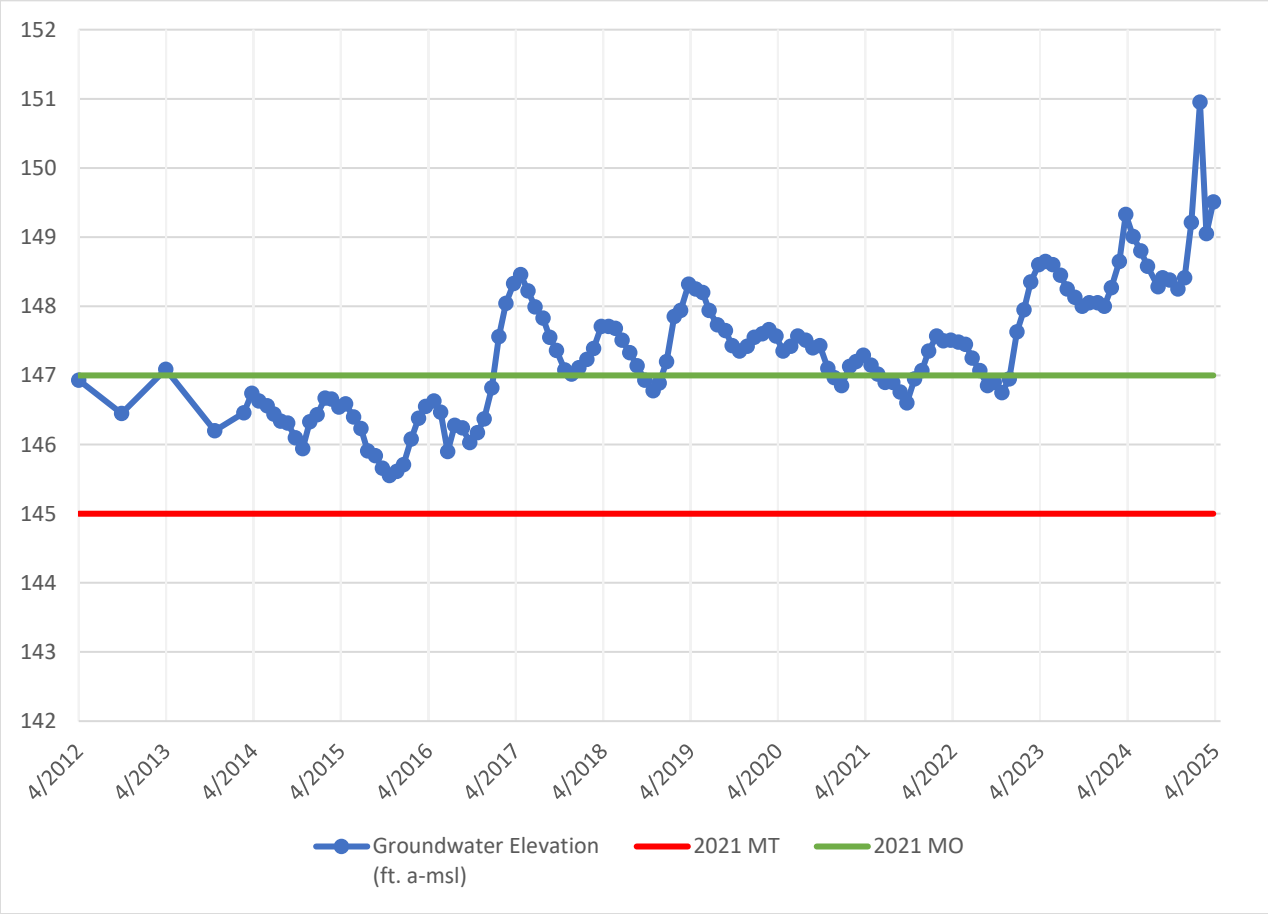
Degraded Water Quality

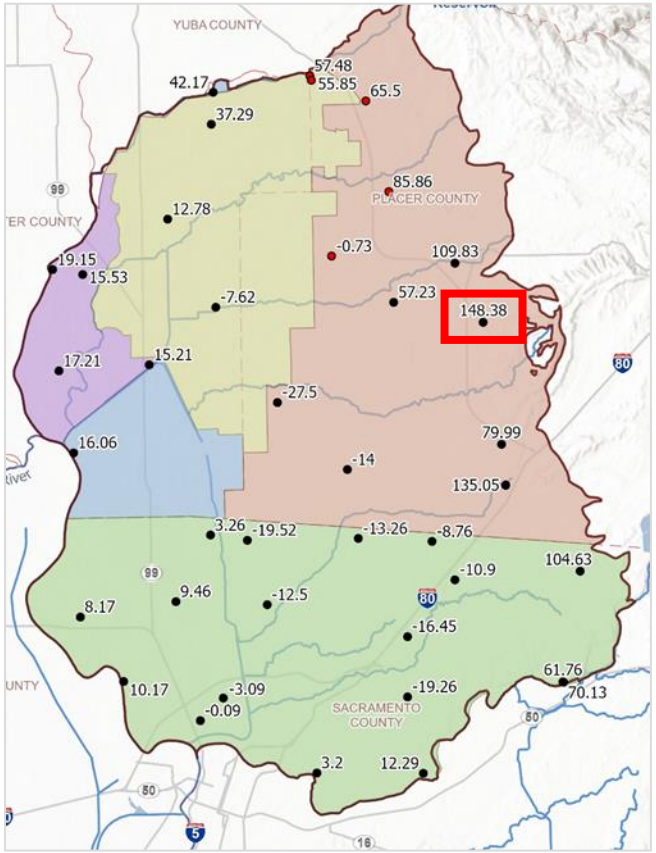
Inelastic Land Subsidence

Depletions of Interconnected Surface Waters

NORTH AMERICAN Subbasin

WPMW-3A
Historic Groundwater Levels (2012-Present)





Chronic Lowering of Groundwater Levels

Reduction of Groundwater In Storage

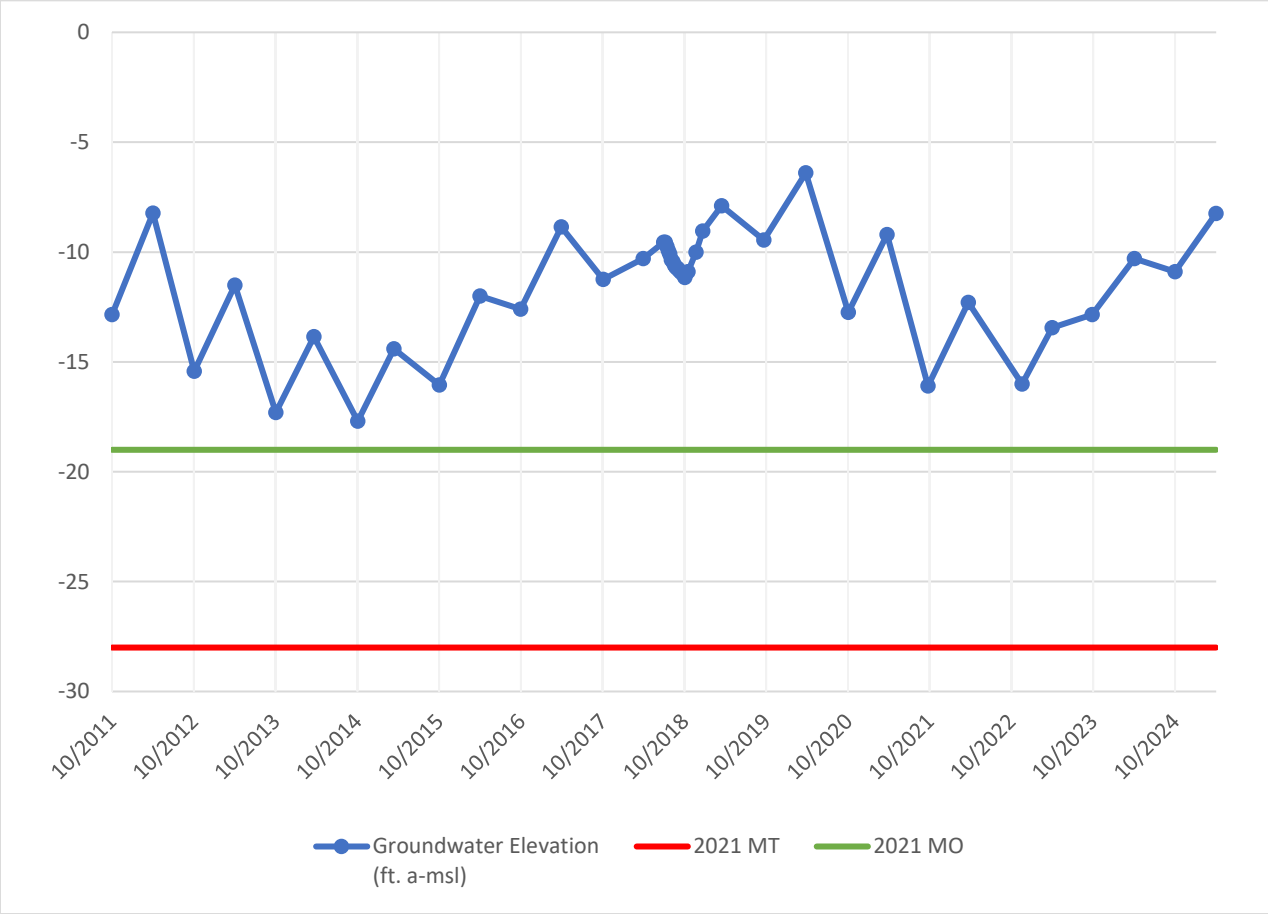
Degraded Water Quality

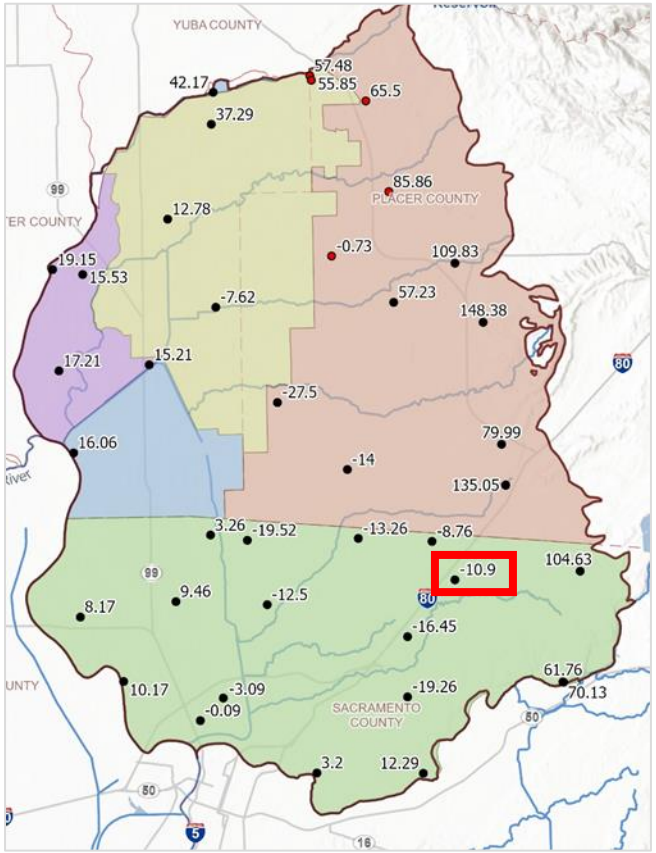
Inelastic Land Subsidence

Depletions of Interconnected Surface Waters

NORTH AMERICAN Subbasin

Twin Creeks Park
Historic Groundwater Levels (2011-Present)





Chronic Lowering of Groundwater Levels

Reduction of Groundwater In Storage

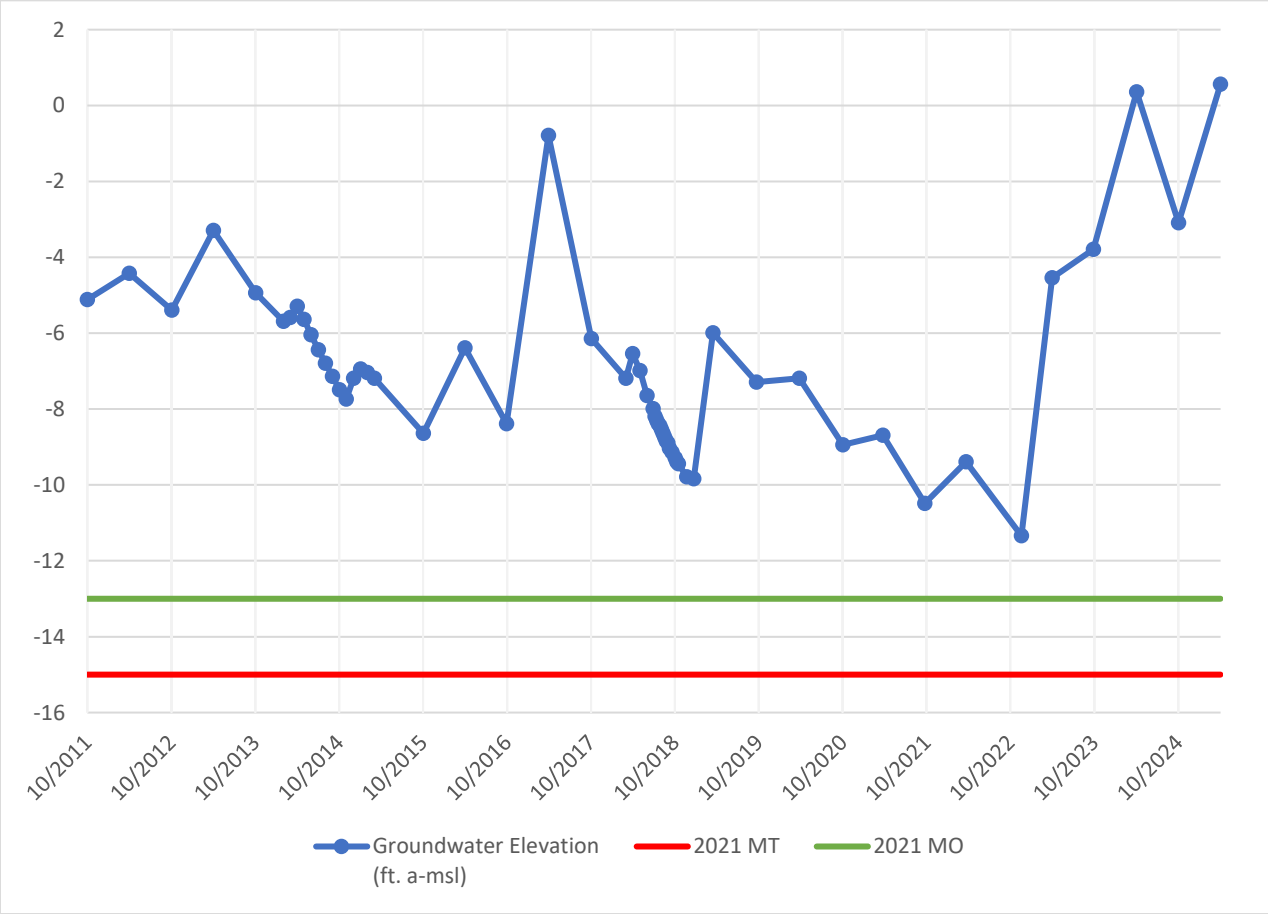
Degraded Water Quality

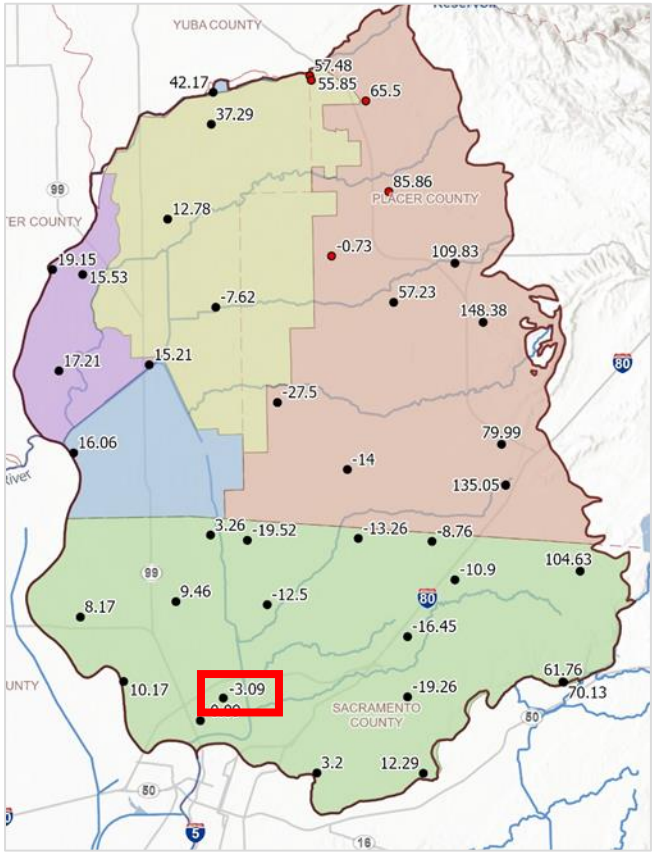
Inelastic Land Subsidence

Depletions of Interconnected Surface Waters

NORTH AMERICAN Subbasin

Chuckwagon Park
Historic Groundwater Levels (2011-Present)





Chronic Lowering of Groundwater Levels

Reduction of Groundwater In Storage

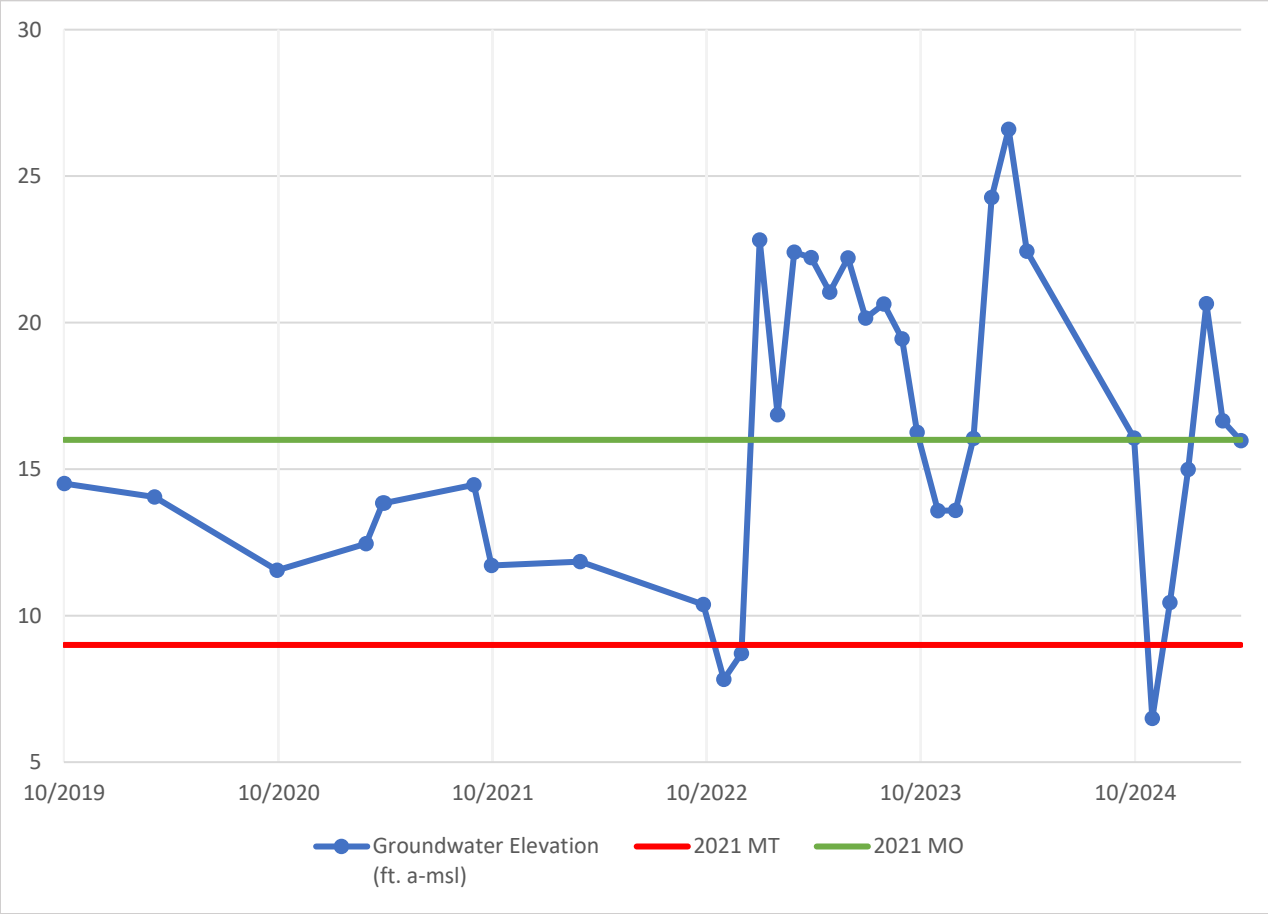
Degraded Water Quality

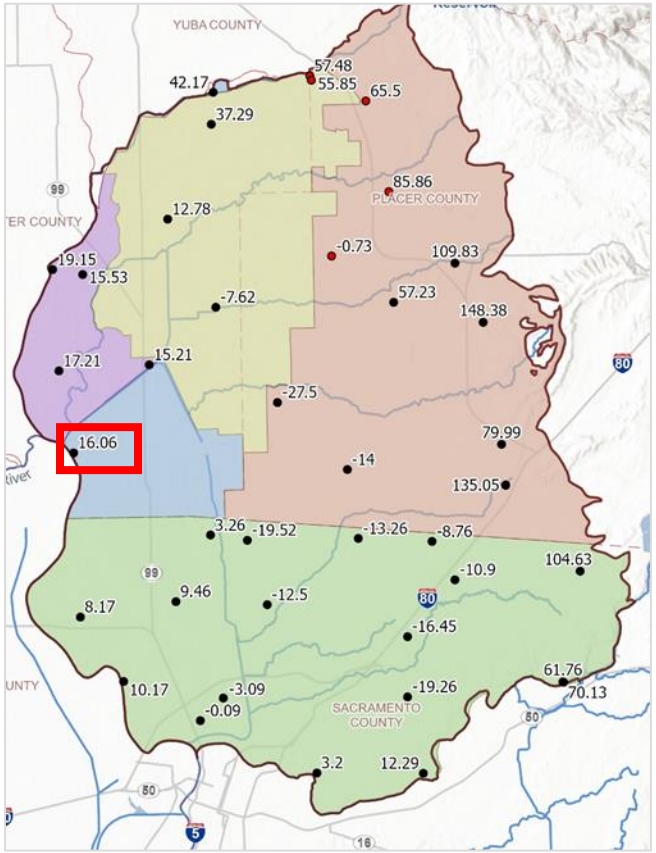
Inelastic Land Subsidence

Depletions of Interconnected Surface Waters

NORTH AMERICAN Subbasin

SREL-1-27-F1
Historic Groundwater Levels (2019-Present)





Chronic Lowering of Groundwater Levels

Reduction of Groundwater In Storage

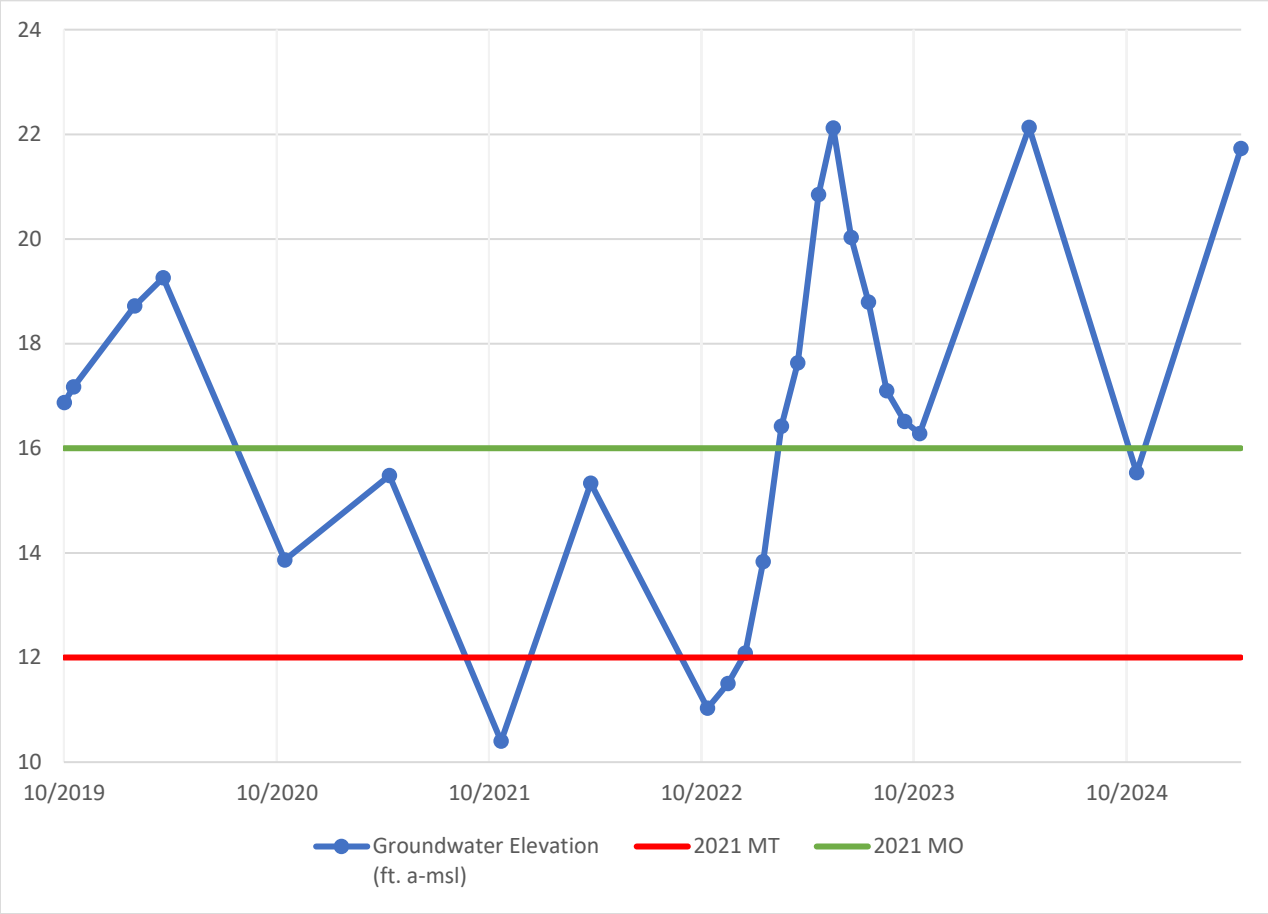
Degraded Water Quality

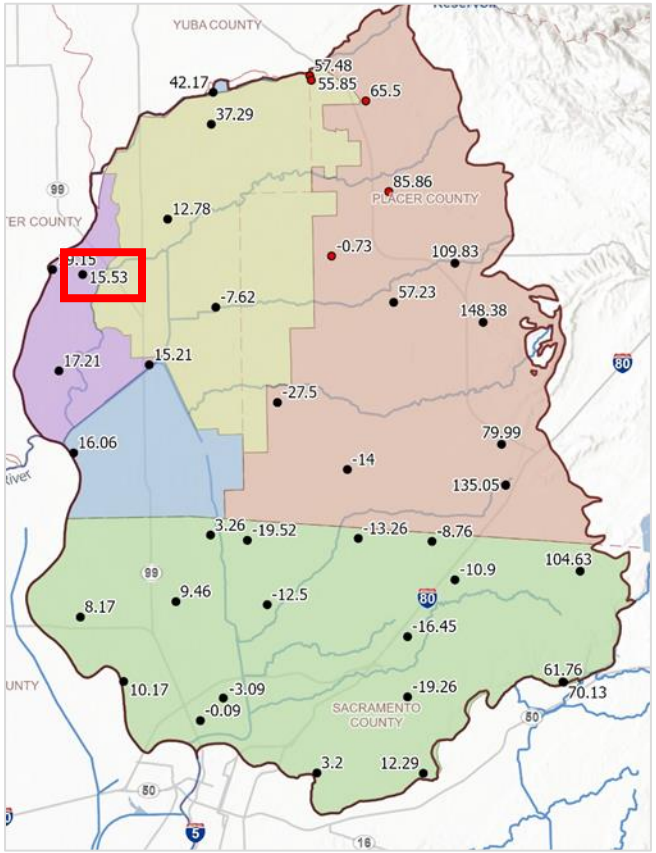
Inelastic Land Subsidence

Depletions of Interconnected Surface Waters

NORTH AMERICAN Subbasin

RDMW-102
Historic Groundwater Levels (2019-Present)





Chronic Lowering of Groundwater Levels

Reduction of Groundwater In Storage

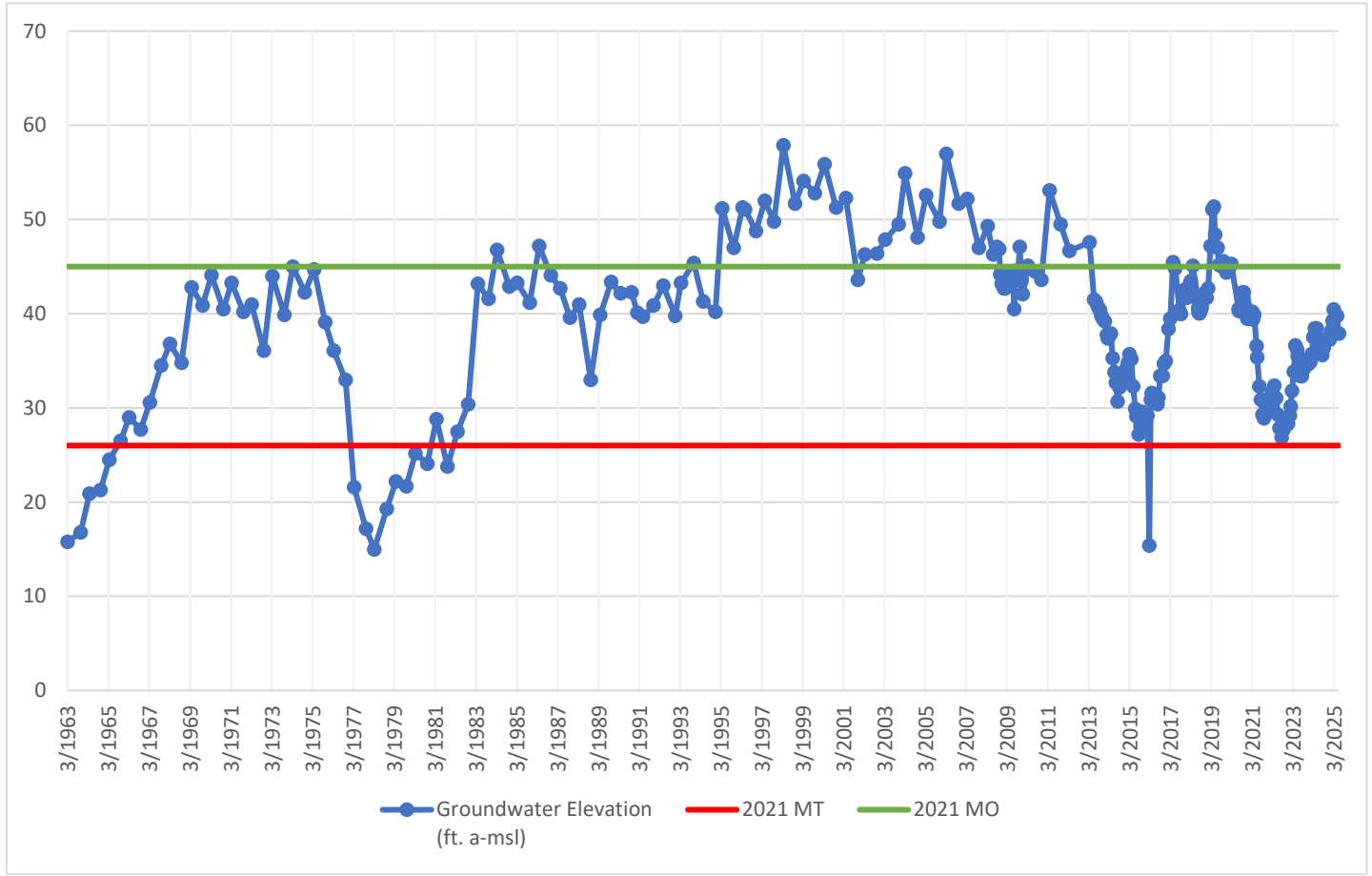
Degraded Water Quality

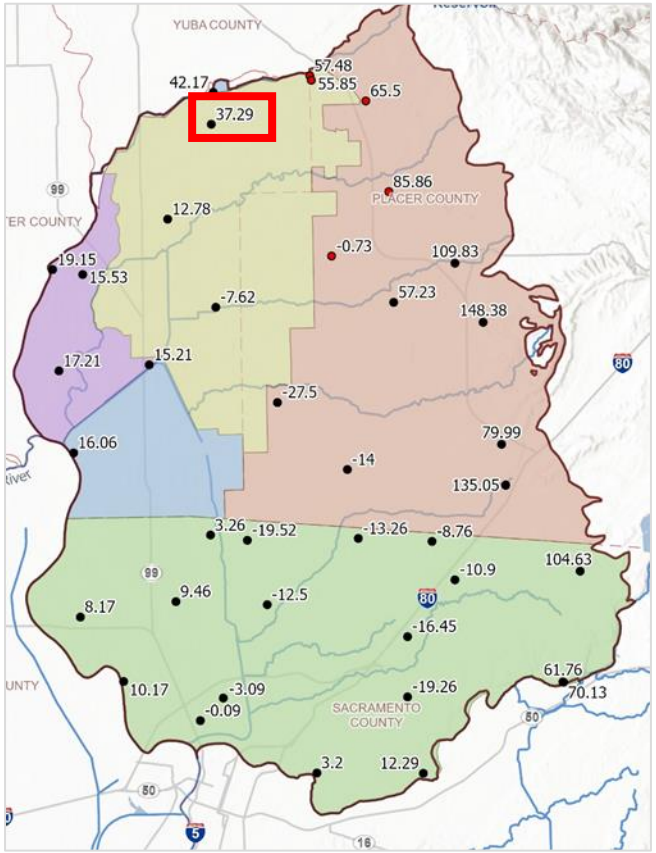
Inelastic Land Subsidence

Depletions of Interconnected Surface Waters

NORTH AMERICAN Subbasin

13N04E23A002M
Historic Groundwater Levels (1963-Present)





Chronic Lowering of Groundwater Levels

Reduction of Groundwater In Storage

Degraded Water Quality

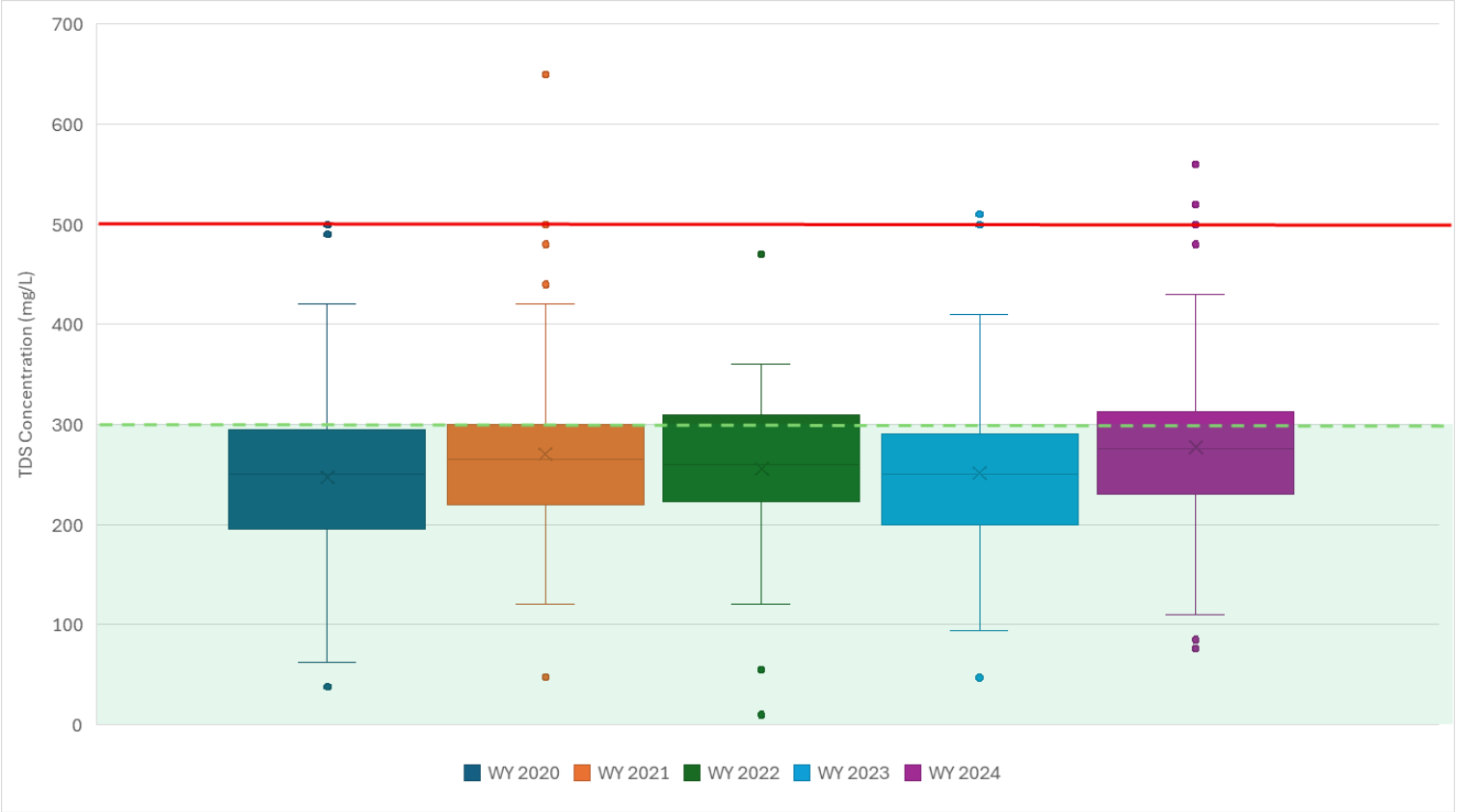
Inelastic Land Subsidence

Depletions of Interconnected Surface Waters

NORTH AMERICAN Subbasin

Degraded Water Quality – PWS – Total Dissolved Solids (TDS)

TABLE 7-2: AVERAGE TDS CONCENTRATIONS, WATER YEARS 2020-2024



- 62 wells analyzed in WY 2024
  - MT: 500 mg/L
  - MO: 300 mg/L
  - Average: 277 mg/L
  - Minimum: 76 mg/L
  - Maximum: 560 mg/L
- 3 public water supply wells exceeded the Minimum Threshold for TDS
- An undesirable result is not occurring

Chronic Lowering of Groundwater Levels

Reduction of Groundwater In Storage

Degraded Water Quality

Inelastic Land Subsidence

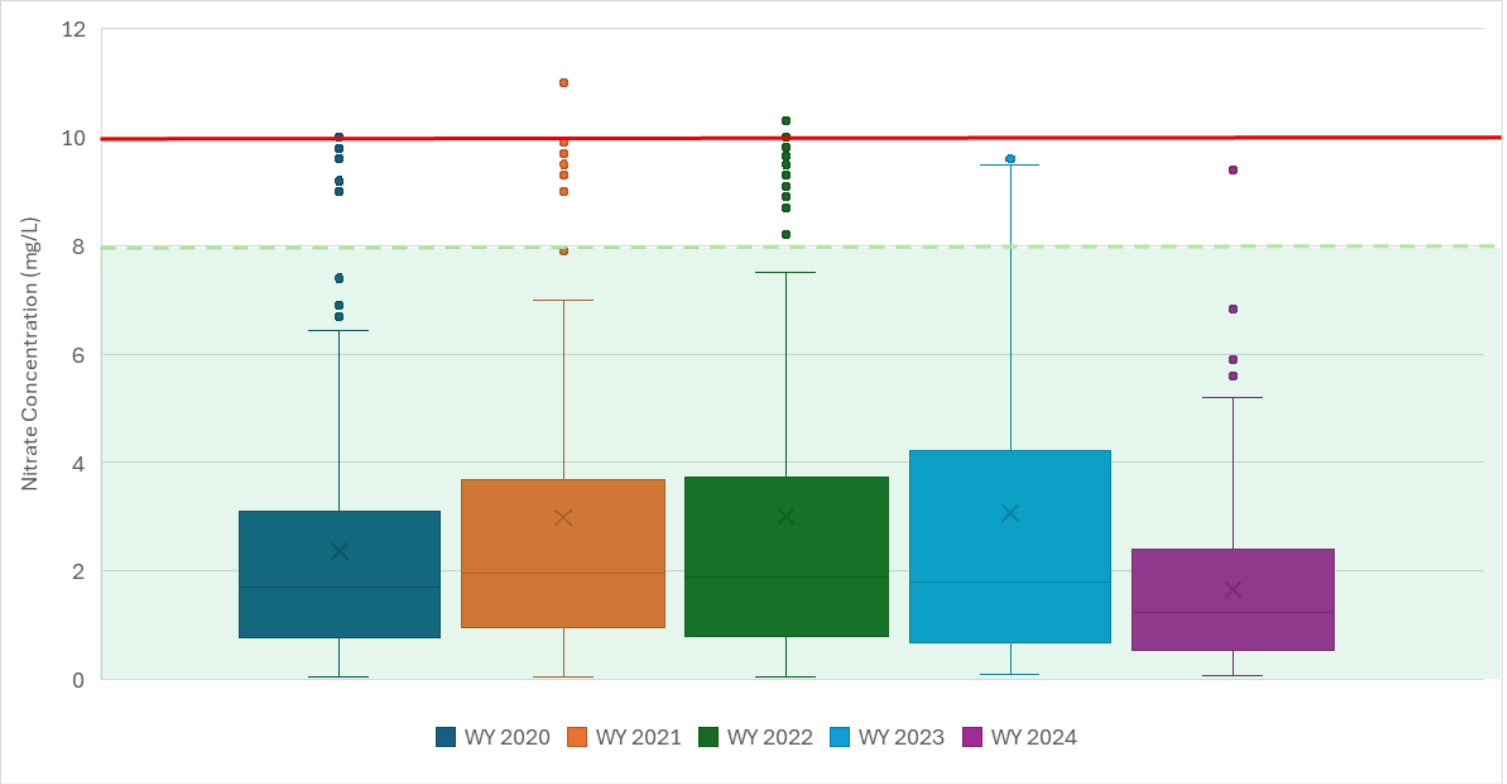
Depletions of Interconnected Surface Waters

NORTH AMERICAN Subbasin

Note: An undesirable result occurs if the basin wide average TDS concentrations for all PWS wells exceeds 400 mg/L.

Degraded Water Quality – PWS – Nitrate (as N)

TABLE 7-2: AVERAGE NITRATE (AS N) CONCENTRATIONS, WATER YEARS 2020-2024



- 200 wells analyzed in WY 2024
  - MT: 10 mg/L
  - MO: 8 mg/L
  - Average: 1.66 mg/L
  - Minimum: <0.5 mg/L
  - Maximum: 9.40 mg/L
- 0 public water supply wells exceeded the Minimum Threshold for Nitrate (as N)
- An undesirable result is not occurring

Chronic Lowering of Groundwater Levels

Reduction of Groundwater In Storage

Degraded Water Quality

Inelastic Land Subsidence

Depletions of Interconnected Surface Waters

NORTH AMERICAN Subbasin

Note: An undesirable result occurs if the basin wide average Nitrate (as N) concentrations for all PWS wells exceeds 8 mg/L.

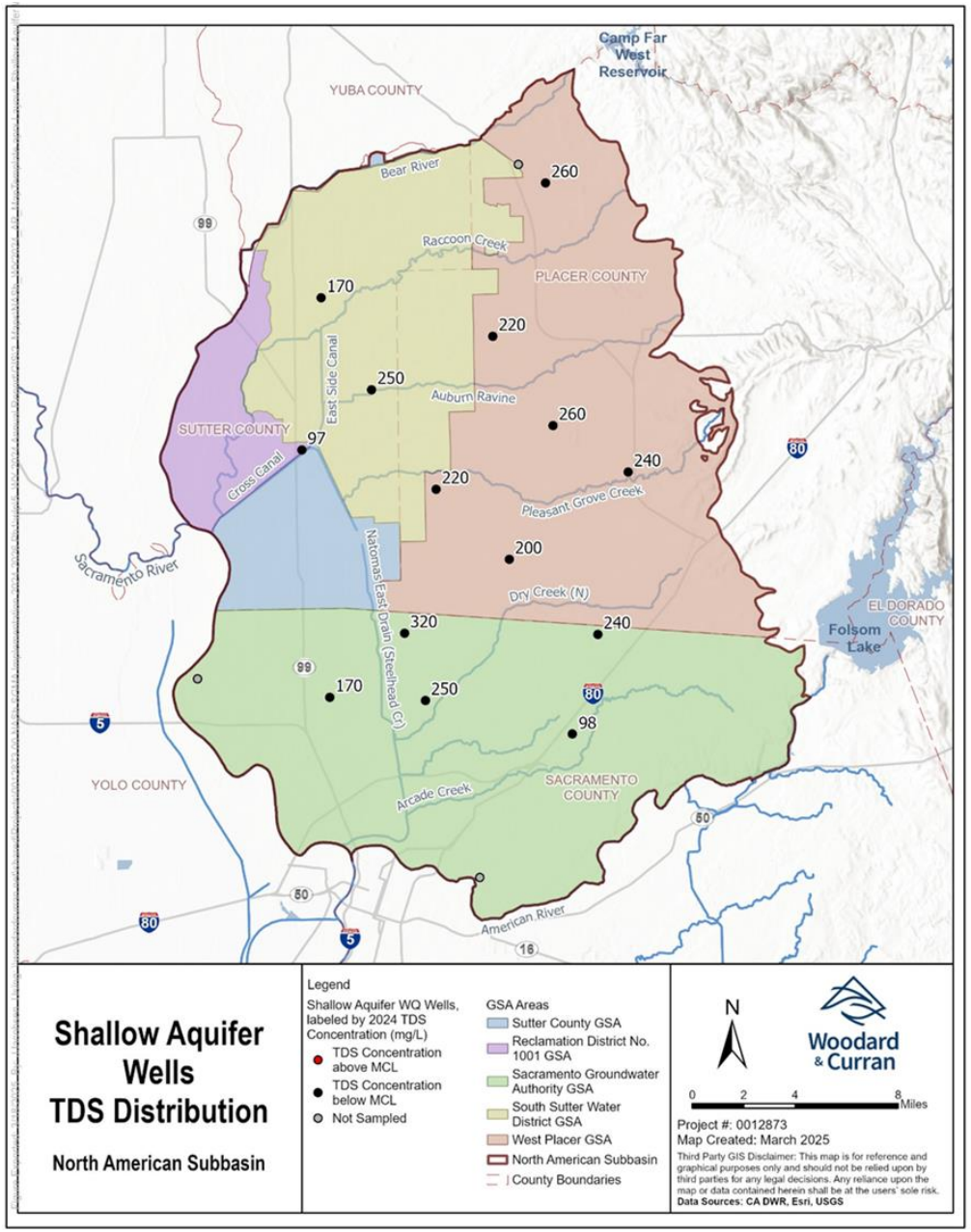
Degraded Water Quality – Shallow Aquifer – Total Dissolved Solids (TDS)

- 14 wells analyzed in WY 2024
  - MT: 500 mg/L
  - MO: Varies based on well
  - Minimum: 97mg/L
  - Maximum: 320 mg/L

- No shallow aquifer wells exceeded the Minimum Threshold for TDS

- An undesirable result is not occurring

Note: An undesirable result occurs if TDS concentrations exceed MTs in 25% of the representative monitoring network



NORTH AMERICAN Subbasin

Chronic Lowering of Groundwater Levels

Reduction of Groundwater In Storage

Degraded Water Quality

Inelastic Land Subsidence

Depletions of Interconnected Surface Waters

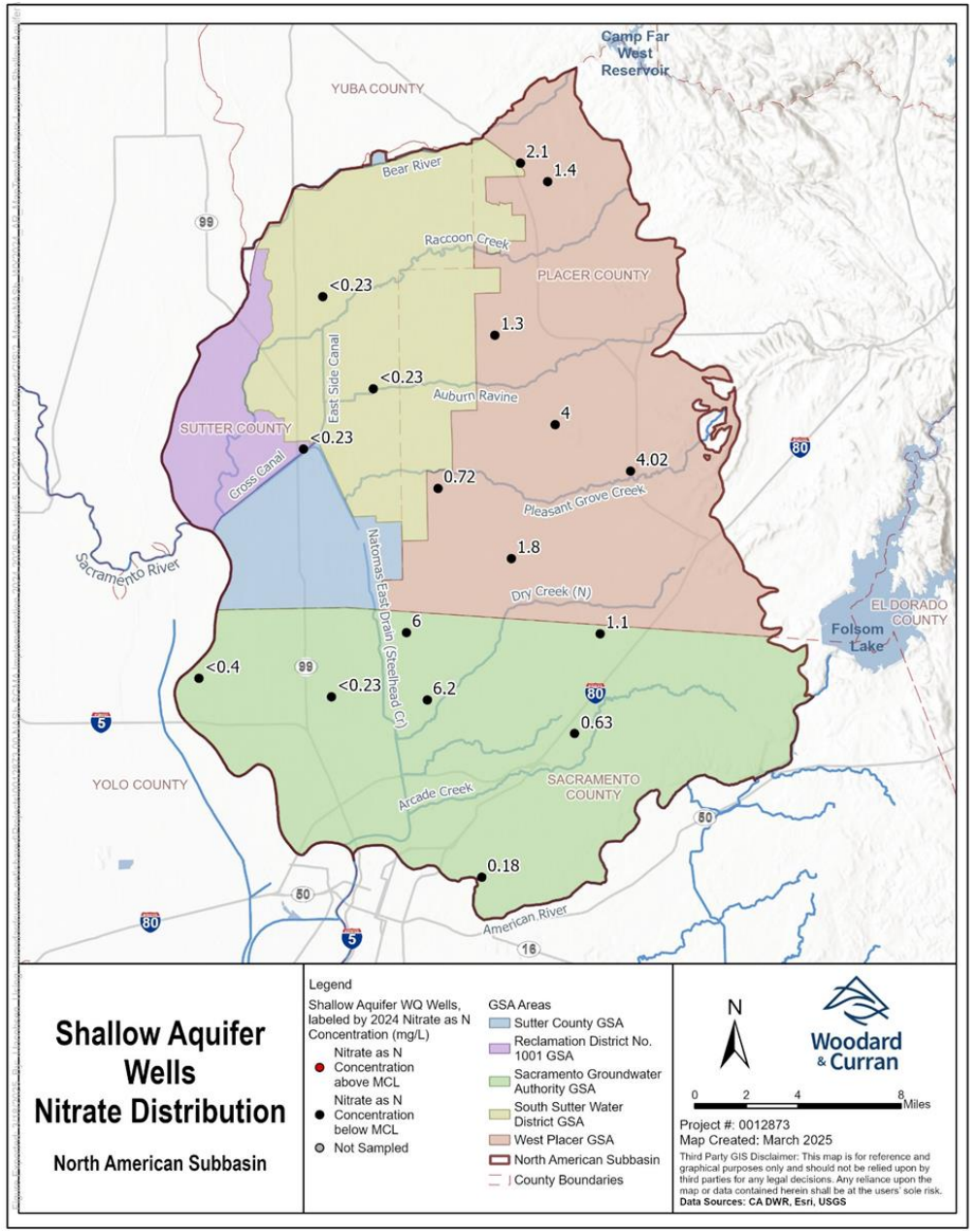
Degraded Water Quality – Shallow Aquifer – Nitrate (as N)

- 17 wells analyzed in WY 2024
  - MT: 10 mg/L
  - MO: Varies based on well
  - Minimum: <0.40 mg/L
  - Maximum: 4.0 mg/L

- No shallow aquifer wells exceeded the Minimum Threshold for Nitrate (as N)

- An undesirable result is not occurring

Note: An undesirable result occurs if Nitrate (as N) concentrations exceed MTs in 25% of the representative monitoring network



Chronic Lowering of Groundwater Levels

Reduction of Groundwater In Storage

Degraded Water Quality

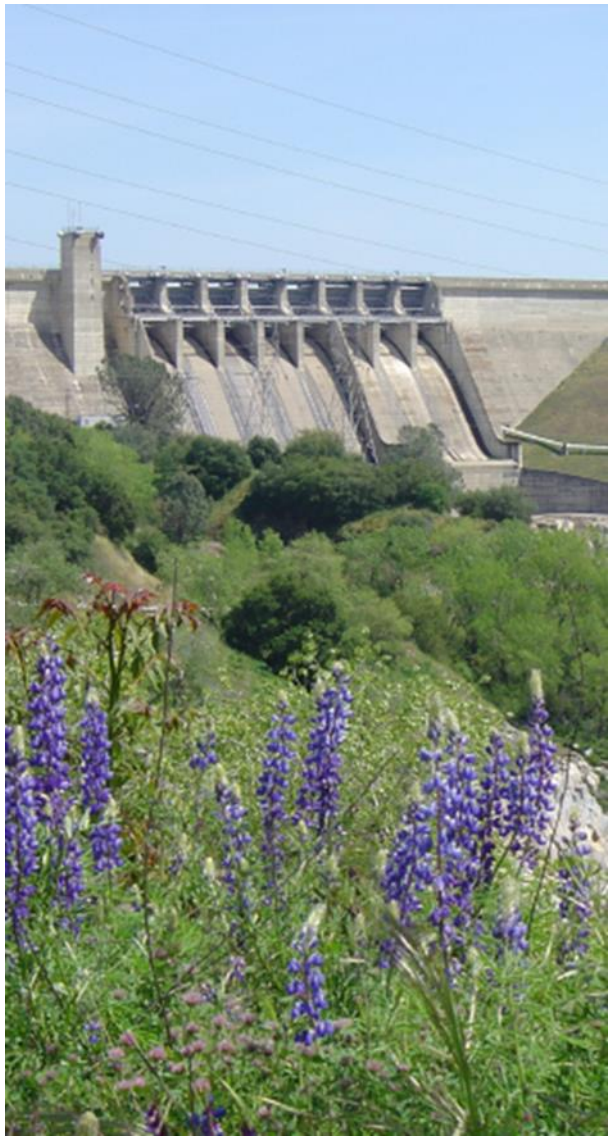
Inelastic Land Subsidence

Depletions of Interconnected Surface Waters

NORTH AMERICAN Subbasin

A Break for Questions/ Discussion

- **On Zoom**:
  - “Raise hand” function to speak or
  - Type question in comment box
- **Via telephone**:
  - *9 to “Raise Hand”
  - *6 to unmute when called on



NORTH AMERICAN Subbasin

DWR SGM Grant Round 2 Component Updates

NORTH AMERICAN Subbasin

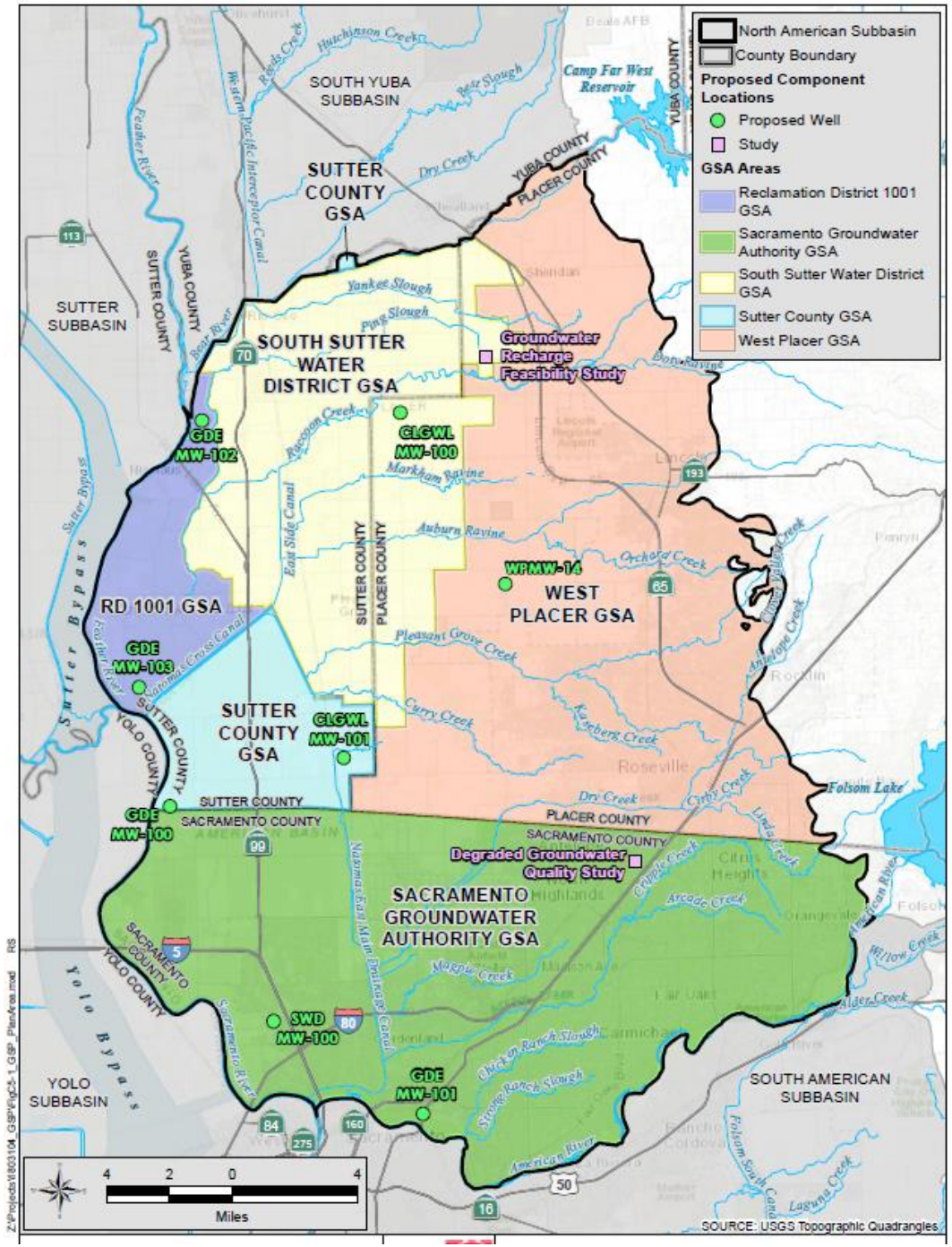
DEPARTMENT OF WATER RESOURCES · STATE OF CALIFORNIA

NASb DWR Grant

DWR awarded NASb the full requested grant amount of $3,560,500 for Advancing NASb Sustainable Groundwater Management

Advancing NASb SGM Components

1. Grant Administration
2. Groundwater Recharge Feasibility Study
3. Groundwater Quality Degradation Study
4. Groundwater Monitoring Wells Construction
   - GDE (4)
   - Lowering of Levels (2)
   - SW Depletion (1)
5. Groundwater Monitoring Well/Emergency Supply Well
   - Domestic and Emergency Supply (1)
6. GSP Update and Annual Reporting
7. CoSANA Model Upgrade and Enhancements



Exact locations of components may vary

Component 2 – Groundwater Recharge Feasibility Study

Presented by Brett Storey

NORTH AMERICAN Subbasin

Component 3 – Groundwater Quality Degradation Study

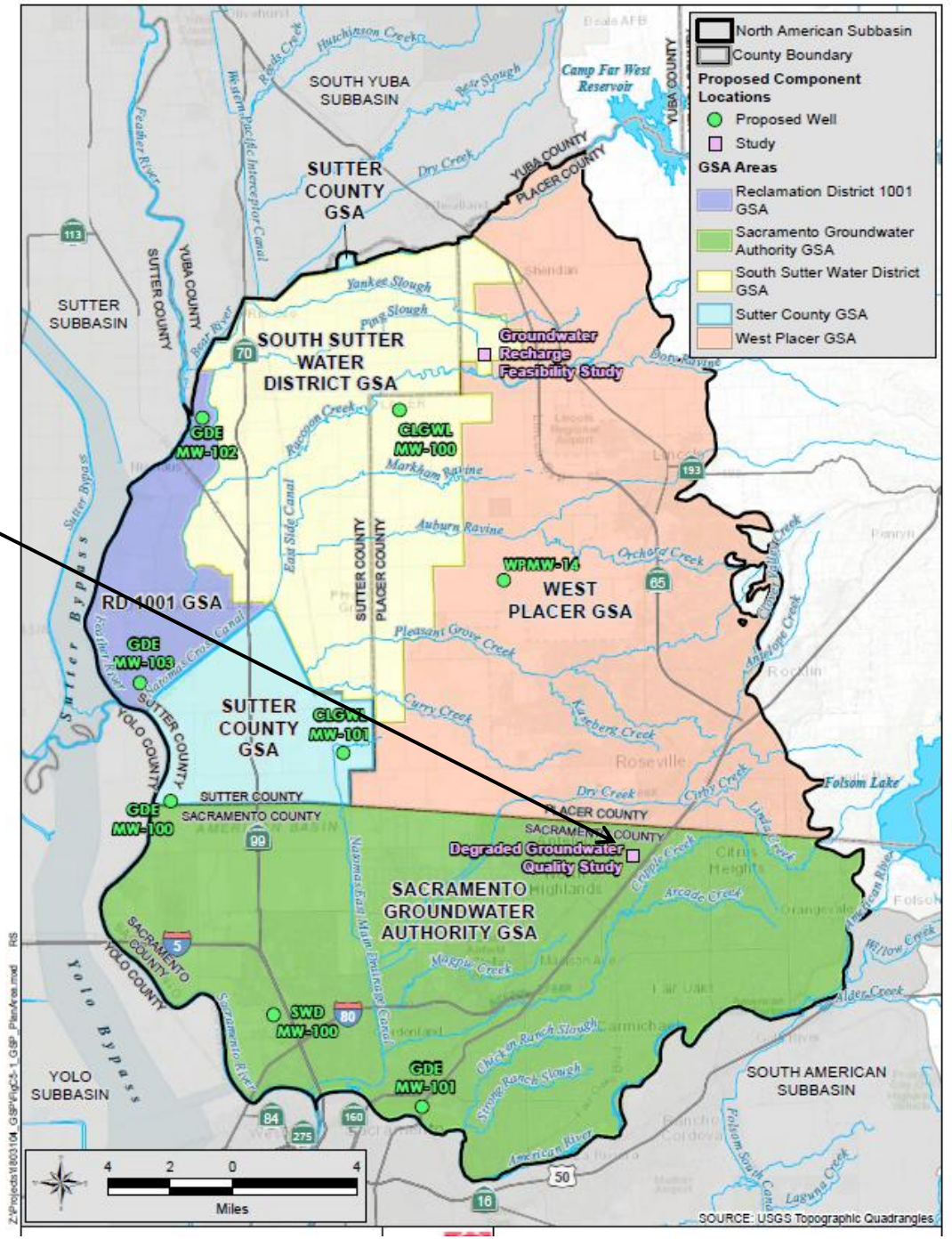
NORTH AMERICAN Subbasin

DEPARTMENT OF WATER RESOURCES · STATE OF CALIFORNIA

NASb Grant Components

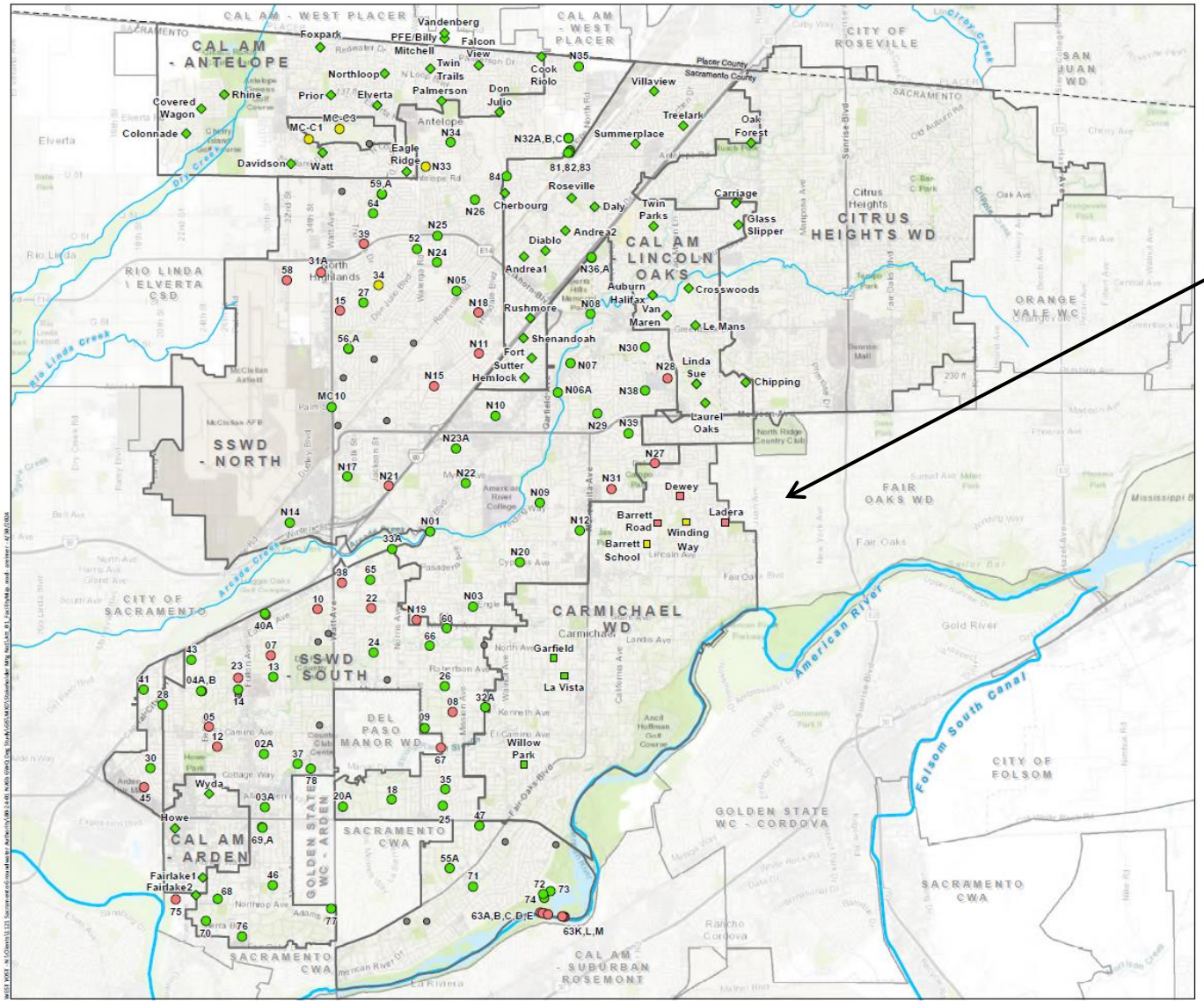
Component 3: Groundwater Quality Degradation Study

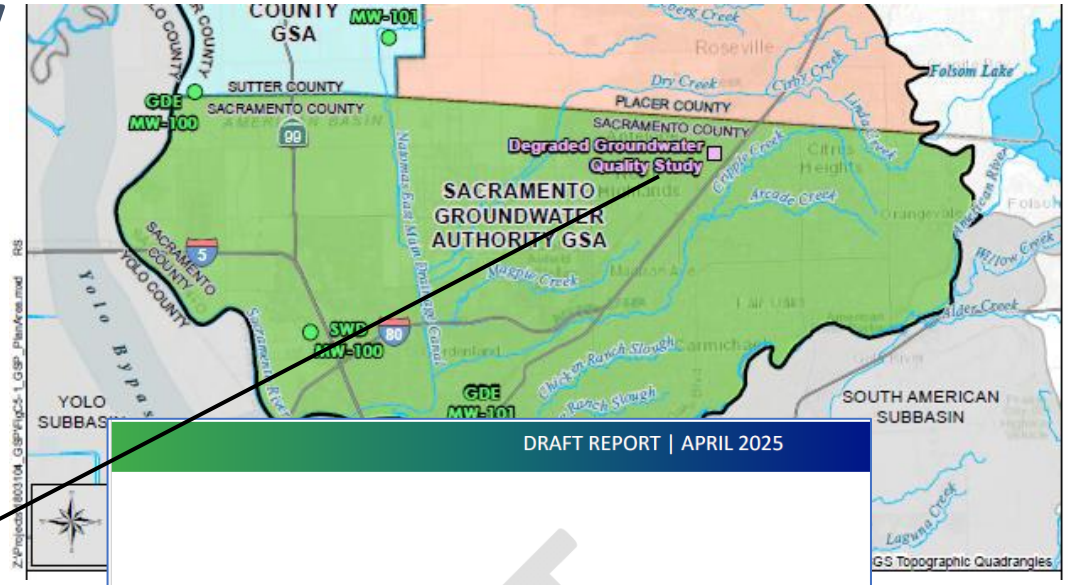
- Task 1: Review Existing Studies
- Task 2: Groundwater Model Forecast



Exact locations of components may vary

Component 3 –Groundwater Quality Degradation Study





DRAFT REPORT | APRIL 2025

DRAFT

North American Subbasin
Groundwater Quality Degradation Study

PREPARED FOR

Sacramento Groundwater Authority

SGA

PREPARED BY

WEST YOST
Water. Engineered.

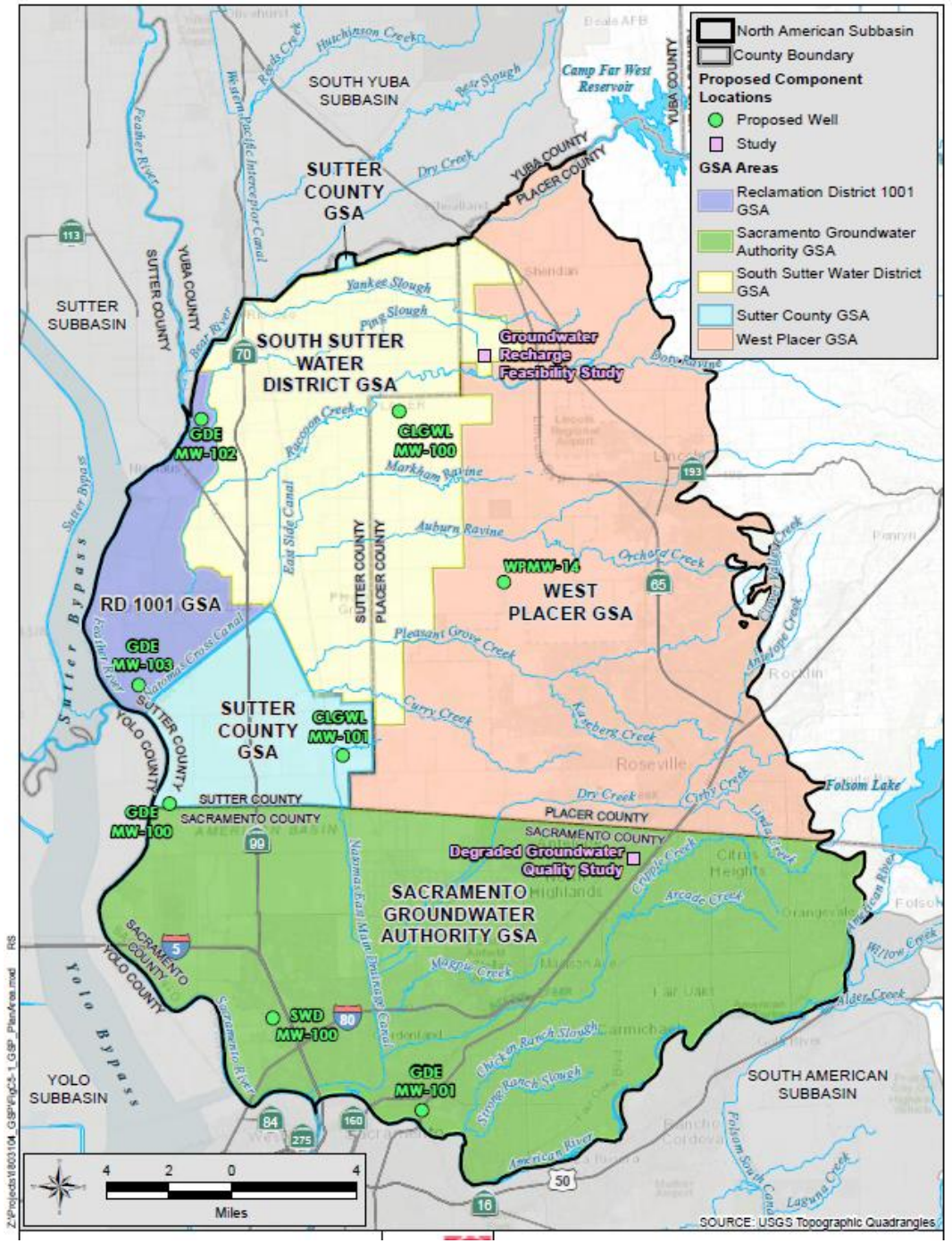
DEPARTMENT OF WATER RESOURCES
STATE OF CALIFORNIA

NASb Grant Components

Components 4 and 5: Groundwater Monitoring Wells Construction

Eight proposed monitoring well throughout the Subbasin

Groundwater Dependent Ecosystem	Chronic Lowering of Groundwater Levels	Surface Water Depletion
GDE MW-100 GDE MW-101 GDE MW-102 GDE MW-103	CLGWL MW-100 CLGWL MW-101 WPMW-14	SWD MW-100



Exact locations of components may vary

NASb Grant Components

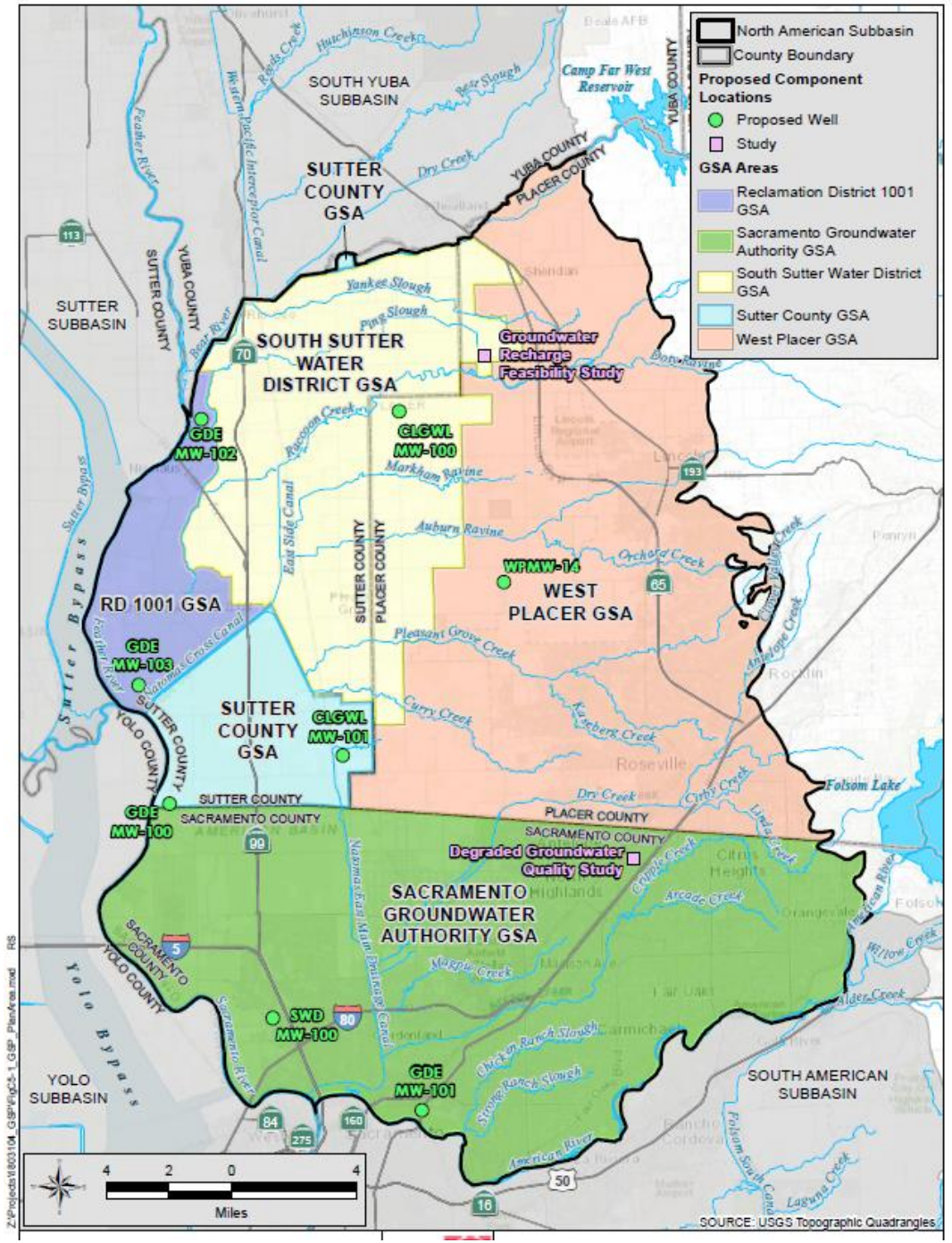
Component 6: GSP Update and Annual Report

- Task 1: DMS Maintenance – *in progress*
- Task 2: Groundwater Levels and Quality Monitoring – *Groundwater Levels collected for Water Year (WY) 2022, 2023, and 2024* **completed,** *Water Quality Analysis for WY2023* **completed,** *work on WY 2025 Water Quality Analysis to kick-off shortly*
- Task 3: Prepare Annual Reports (WYs 2022, 2023, 2024, and 2025) – *WYs 2022, 2023 and 2024* **completed**, *work on WY 2025 to begin around October 2025*
- Task 4: Develop and Implement Well Permit/Construction Practices – *in progress*
- Task 5: Domestic/Shallow Well Data Collection and Communication – *in progress*
- Task 6: Groundwater Dependent Ecosystem (GDE) Assessment Program – *effort part of task 7*
- Task 7: Prepare GSP Update – *in progress*

NASb Grant Components

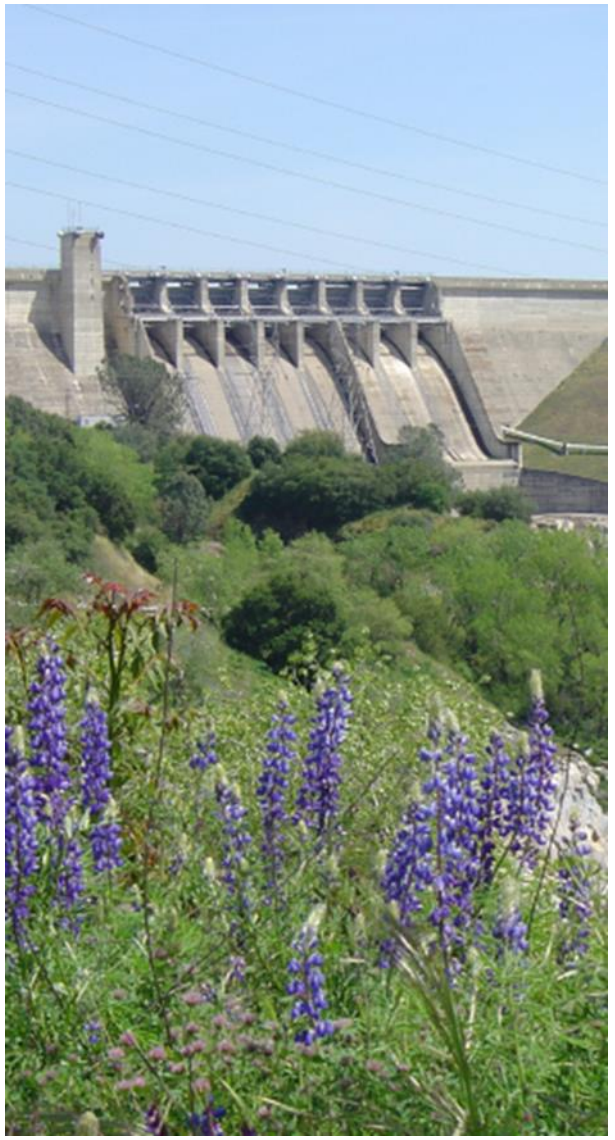
Component 7: CoSANA Model Upgrade and Enhancements

- Task 1: Data Gap Analysis and Enhancement to Integrated Water Resources Model – *in progress*
- Task 2: Calibration and Refinement of Integrated Water Resources Model - *in progress*
- Task 3: Update Model Baseline Conditions and Perform Sustainability Scenarios - *in progress*



Exact locations of components may vary

Final Questions/Comments?



NORTH AMERICAN Subbasin

Thank You!

NORTH AMERICAN Subbasin