

Sustainable Groundwater Management (SGMA) North American Groundwater Subbasin (NASb)

Water Year (WY) 2025 Annual Report (Post Filing)

Presentation to SGA Board Members

Trevor Joseph, P.G., C.Hg., Manager of Technical Services

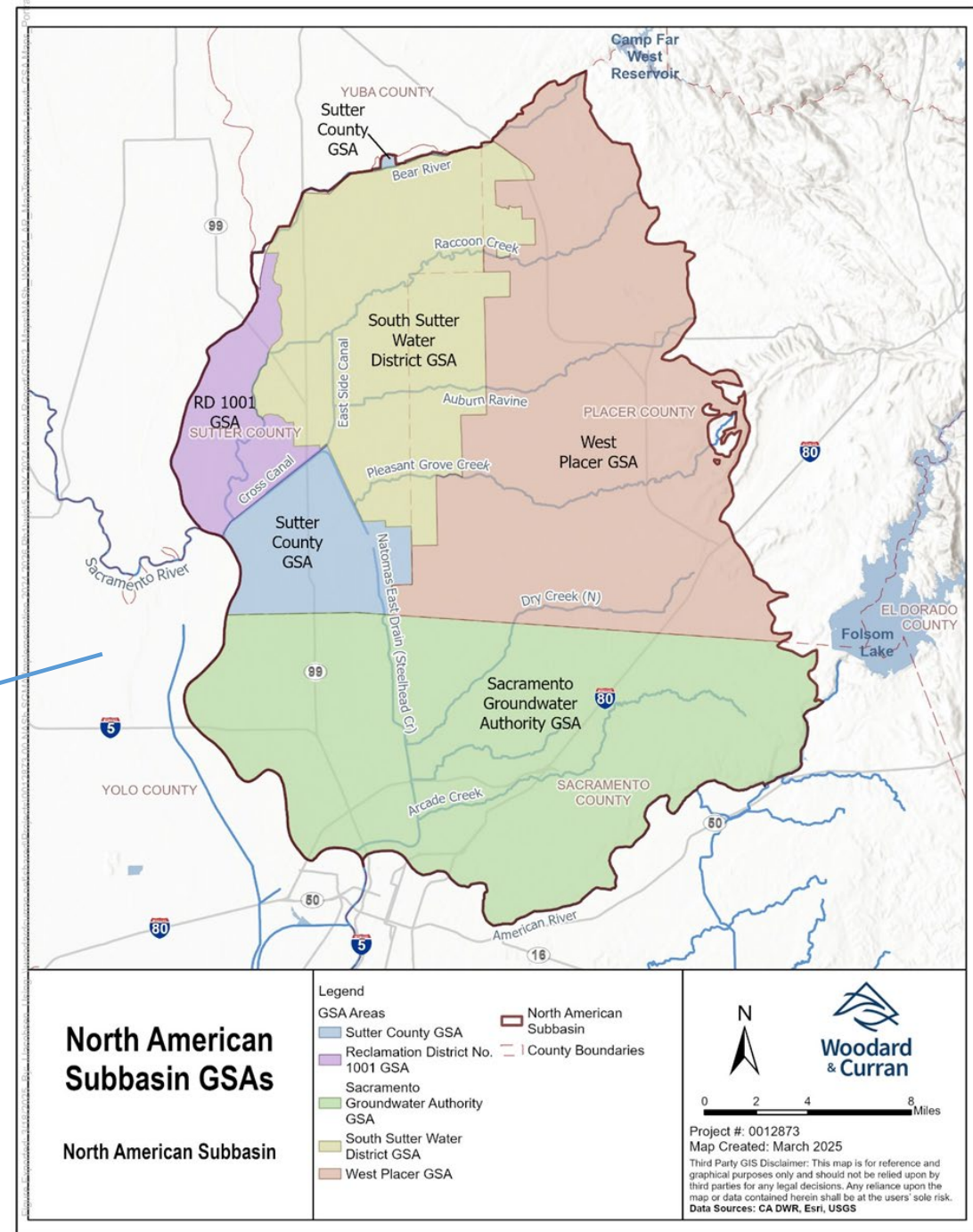
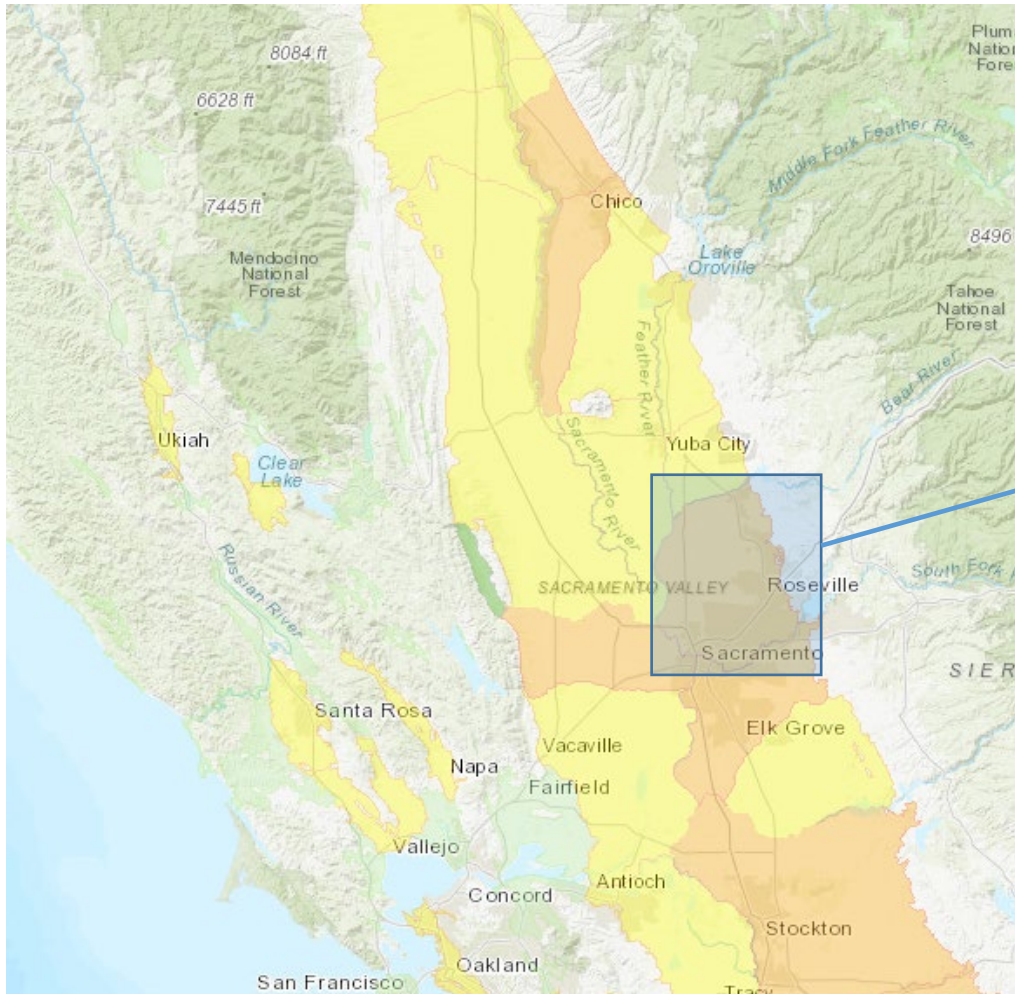
April 9, 2026

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.

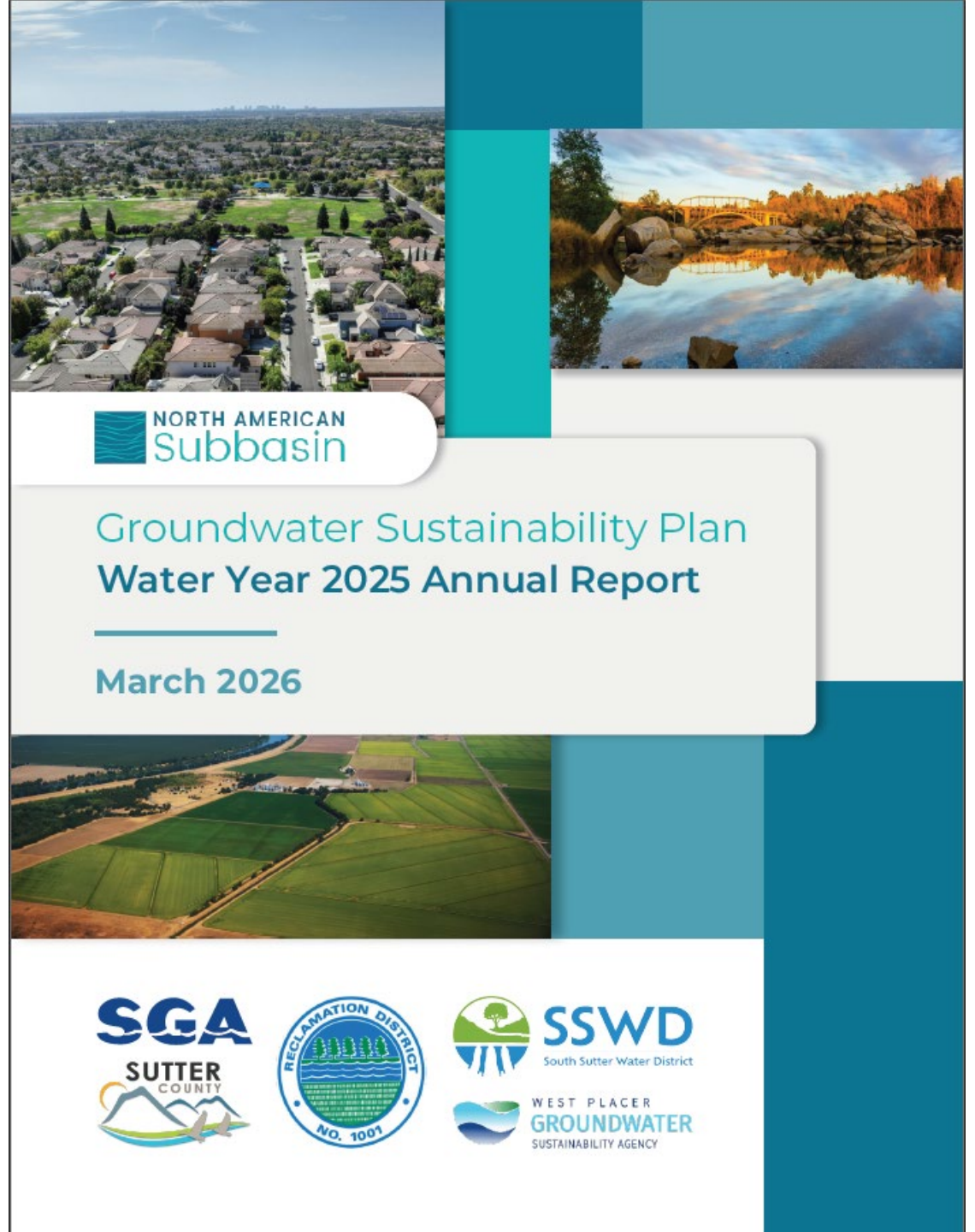


Groundwater Sustainability Agencies (GSAs)



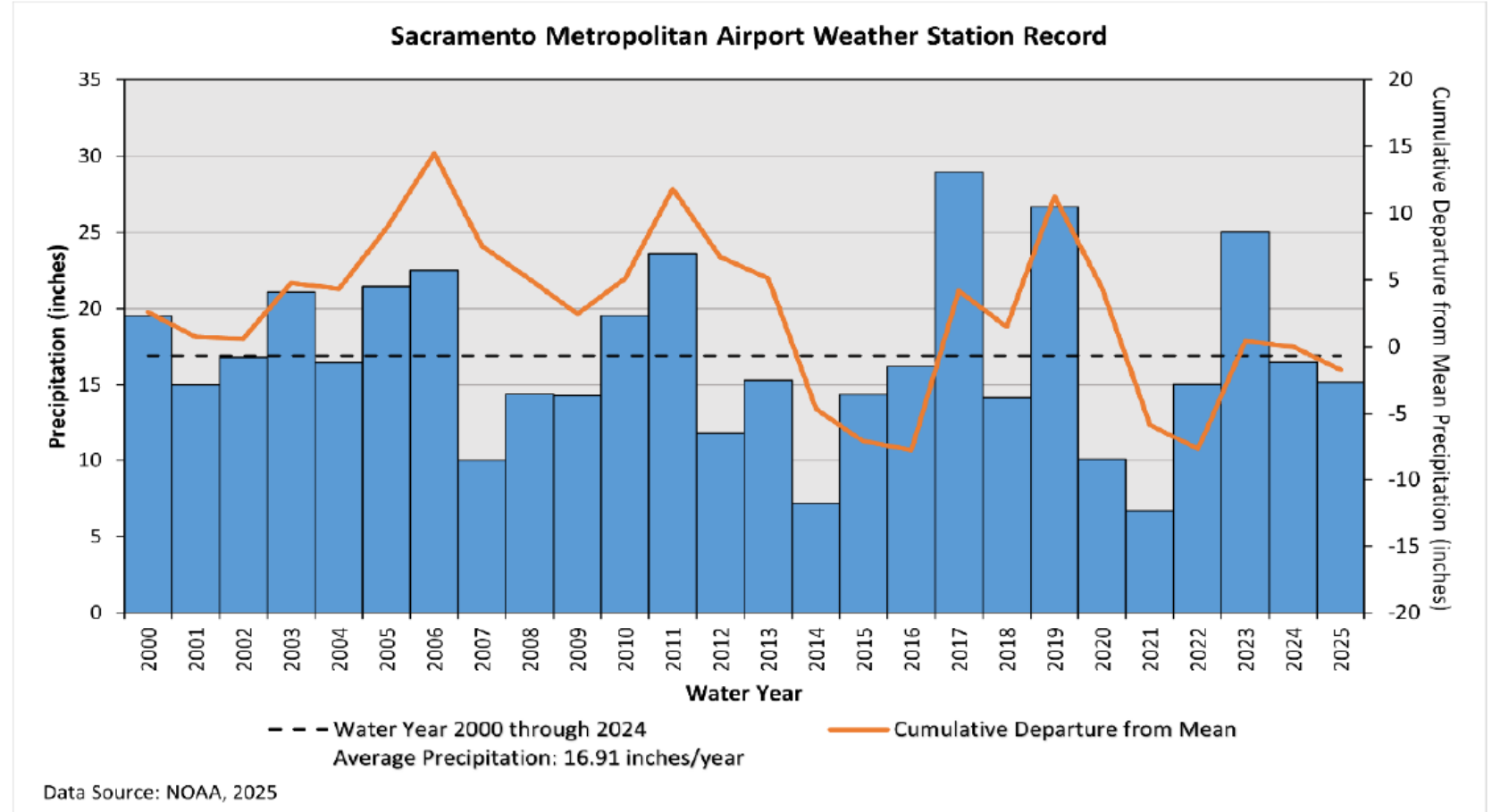
Annual Report

- Hydrology
- Water Use
- Water Budget
- Groundwater Levels
- Groundwater Storage
- GSP Implementation
- Sustainability Indicators



Hydrologic Conditions

FIGURE 2-1: PRECIPITATION RECORD, WATER YEARS 2000-2025



WY 2025 annual precipitation was 15.20 inches/year

Total Water Use By Sector & Source

TABLE 3-4: TOTAL WATER USE BY SECTOR

Sector	WY 2021	WY 2022	WY 2023	WY 2024	WY 2025	Method
Municipal & Industrial	200,900	188,900	178,300	180,800	184,800	Metered
Agricultural	450,000	400,000	410,600	406,100	426,900	Metered and CoSANA
Managed Wetlands	0	0	0	0	0	-
Managed Recharged	0	200	1,800	0	0	Metered
Native Vegetation	0	0	0	0	0	-
Recycled Water	6,600	2,700	6,000	6,100	4,700	Metered
Remediation	3,500	3,300	3,500	3,100	3,500	Metered
Total	654,400	592,200	592,400	590,000	619,900	

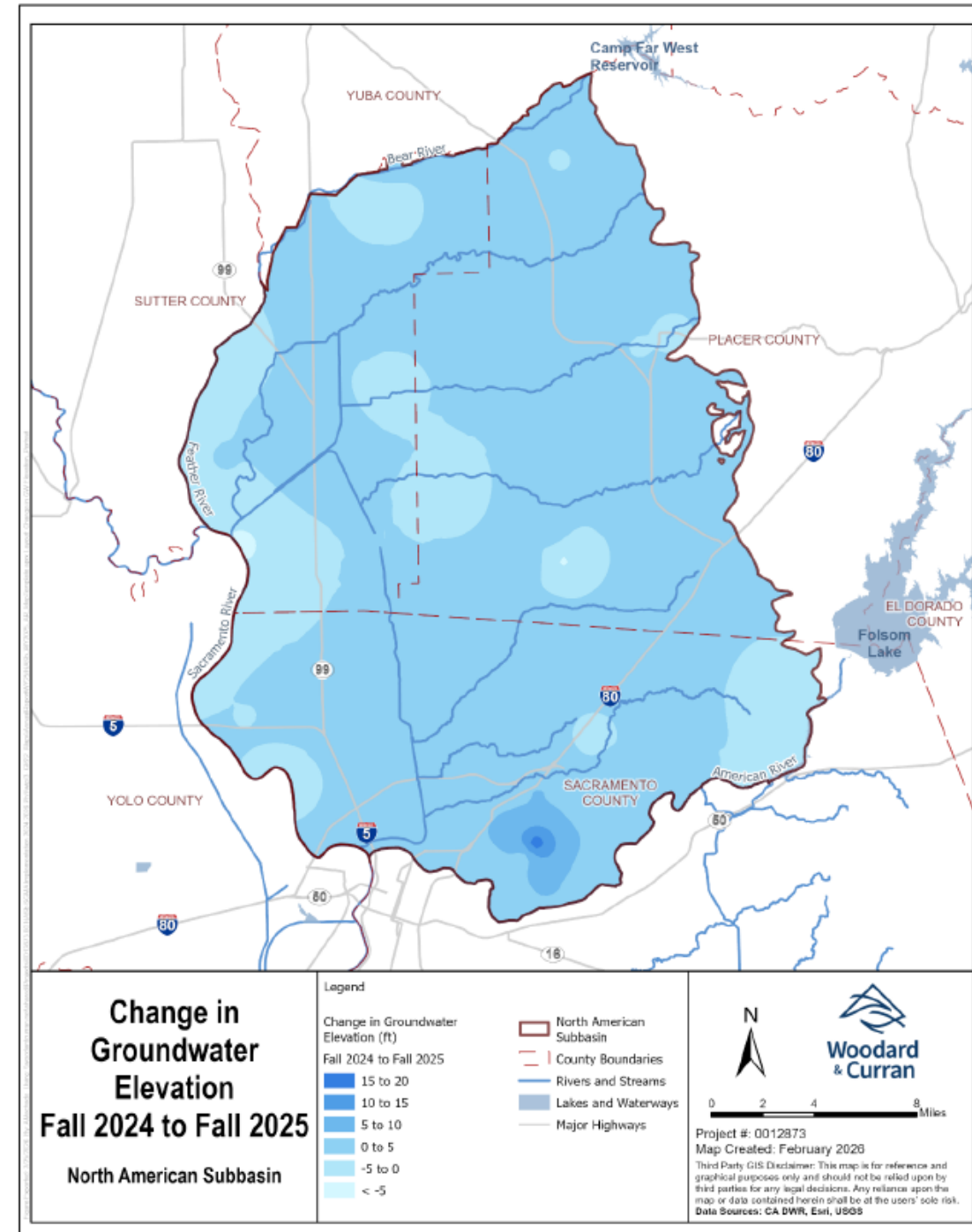
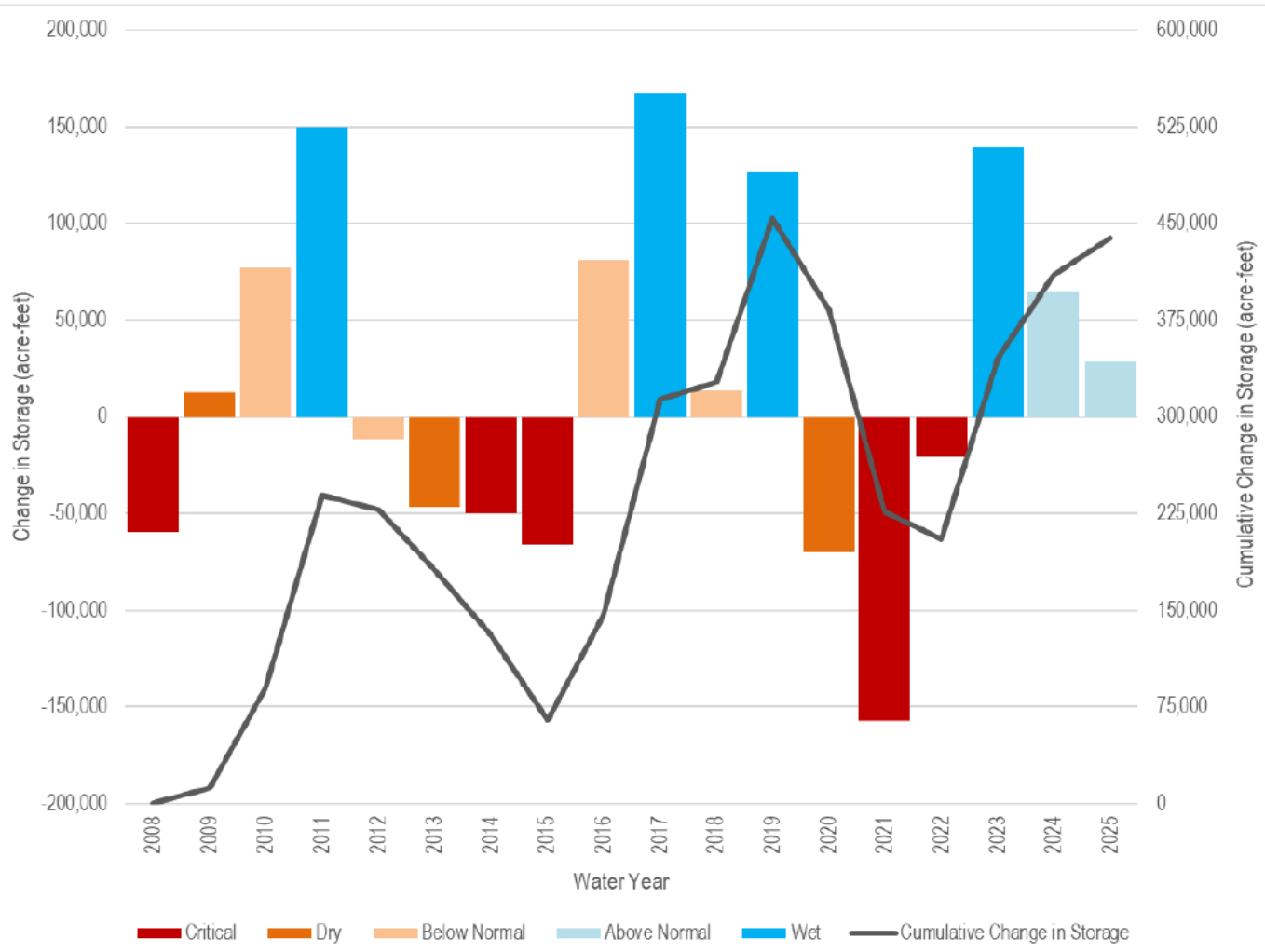
Note: Volumes are reported in acre-feet.

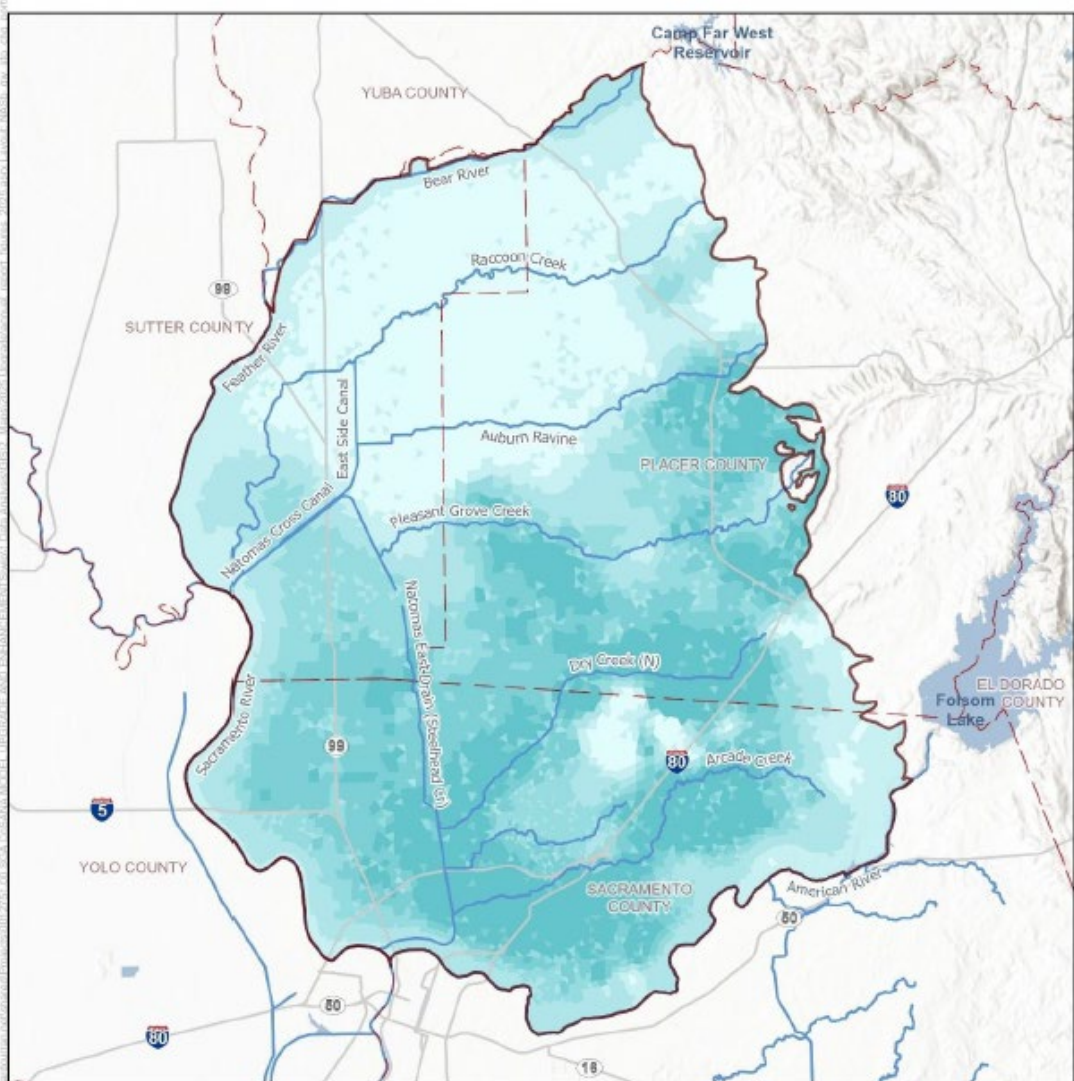
TABLE 3-5: TOTAL WATER USE BY SOURCE

Sector	WY 2021	WY 2022	WY 2023	WY 2024	WY 2025	Methods
Groundwater	400,700	317,600	260,200	263,500	281,400	Metered and CoSANA
Surface Water	250,200	271,300	328,700	323,400	330,300	Metered
Recycled Water	6,600	2,700	6,000	6,100	4,700	Metered
Remediation	3,500	3,300	3,500	3,100	3,500	Metered
Total	654,400	592,200	592,400	590,000	619,900	

Note: Volumes are reported in acre-feet.

CoSANA Model (fall 2024 to fall 2025) Estimated Change in Groundwater Storage for WY 2025





Change in Groundwater Storage

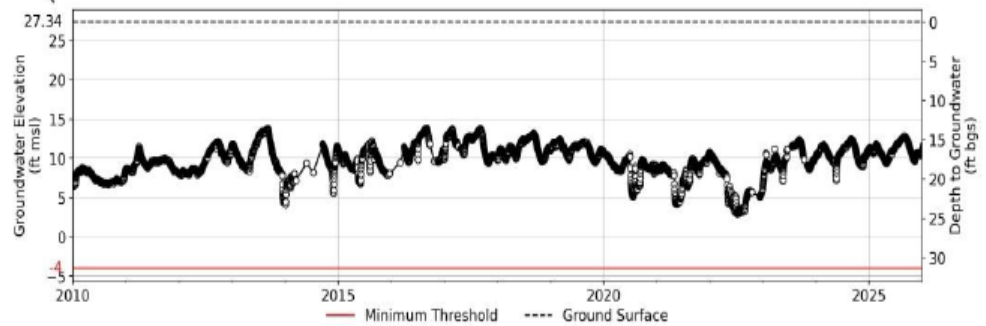
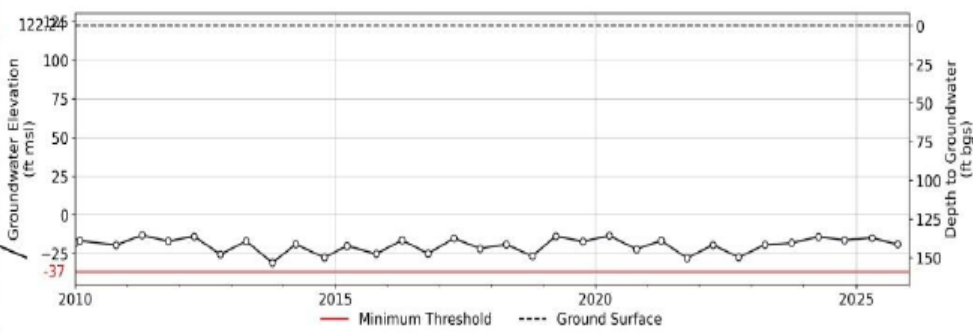
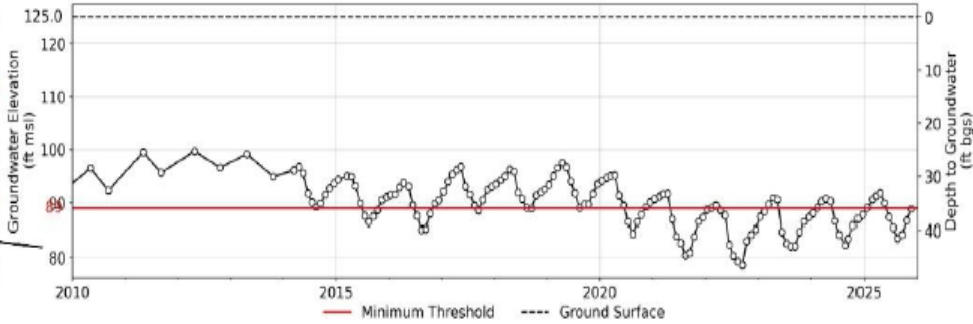
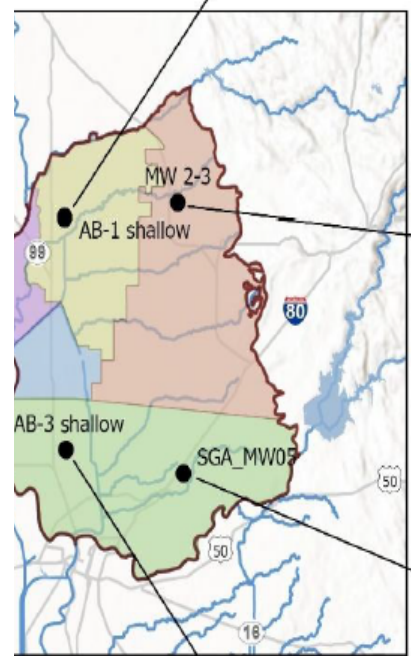
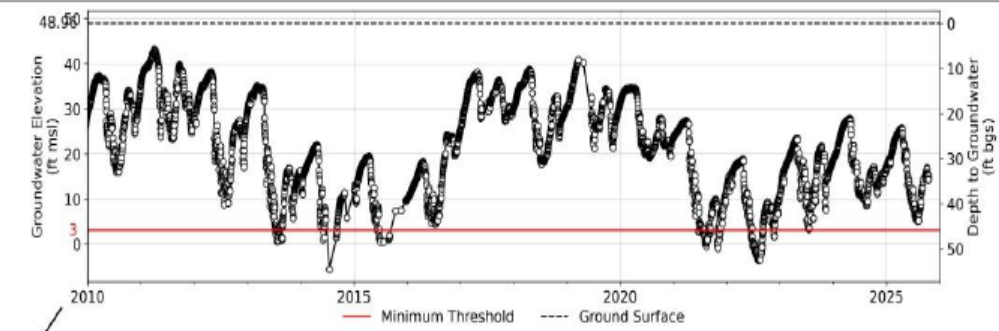
North American Subbasin

- Legend**
- Change in Storage Volume (acre-feet)
 - > 15
 - 10 to 15
 - 5 to 10
 - 0 to 5
 - 5 to 0
 - < -5
 - North American Subbasin
 - County Boundaries
 - Rivers and Streams
 - Lakes and Waterways
 - Major Highways

Project #: 0012873
 Map Created: February 2026
 Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk.
 Data Sources: CA DWR, Esri, USGS

Regional Representative Graphs

North American Subbasin

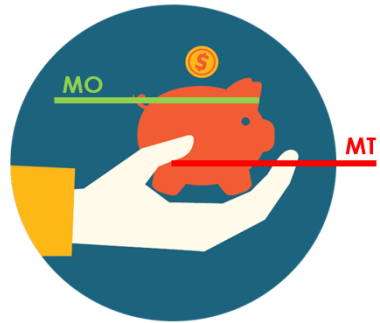


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Sustainability Indicators

Measurable Objectives and Minimum Thresholds

Measurable Objective (MO) = levels that reflect desired conditions...that enable GSA to achieve sustainability



Minimum Threshold (MT) = levels at a site that when exceeded, either individually or at a combination of sites, may cause undesirable results







Sustainability Indicator	Minimum Threshold	Interim Milestones	Measurable Objective	Undesirable Result Definition	Fall 2025 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.	Five out of 40 wells (13%) 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.				
 Seawater Intrusion	This sustainability indicator is not applicable in the Subbasin.				
 Water Quality	<p>Secondary Maximum Contaminant Level (SMCL) for TDS: 500 mg/L</p> <p>Primary Maximum Contaminant Level (MCL) for Nitrate (as N): 10 mg/L</p>	Identical to Measurable Objectives	<p><u>Public Water Supply Wells</u> TDS: 300 mg/L Nitrate: 3 mg/L</p> <p><u>Shallow Aquifer Wells</u> 10% greater than recently observed TDS & Nitrate concentrations in each RMS.</p>	<p><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.</p> <p><u>Shallow Aquifer Wells</u> TDS & Nitrate MCLs are exceeded in 25% RMS.</p>	The average public water supply well concentration for TDS and Nitrate were below concentrations defined for undesirable results. One out of 16 (6%) shallow aquifer sites was equal to the minimum threshold.
 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.	One out of 40 wells (2%) exceeded their minimum threshold. Thus, there was not an undesirable result.
 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.	Three out of 24 wells (13%) exceeded their minimum threshold. Thus, there was not an undesirable result.

TABLE 7-1: SUSTAINABILITY INDICATORS AND UNDESIRABLE RESULT DEFINITIONS

Sustainability Indicator	Undesirable Result Definition	Occurrence of Undesirable Result
Groundwater Levels	20% (8 out of 40 wells) or more of all representative monitoring sites have minimum threshold exceedances for two consecutive fall measurements.	No
Groundwater Storage		No
Water Quality	<p>Public Water Supply Wells The Subbasin-wide average TDS concentrations of all public water system wells exceeds 400 mg/L. <u>or</u> The Subbasin-wide average nitrate (as N) concentration of all public water system wells exceeds 8 mg/L.</p> <p>Shallow Aquifer Wells (i.e., domestic and self-supplied) TDS and nitrate (as N) concentrations exceed minimum thresholds in 25% of the representative monitoring sites.</p>	No
Land Subsidence	The rate of inelastic subsidence exceeds 0.5 feet over a 5-year period over an area covering approximately 5 or more square miles.	No
Depletions of Interconnected Surface Water	20% (5 out of 24 wells) or more of the interconnected surface water representative monitoring sites have minimum threshold exceedances for two consecutive fall measurements.	No

Notes: mg/L = milligrams per liter; TDS = total dissolved solids

Source: NASb, 2021

Chronic Lowering of Groundwater Level

Wells with two or more consecutive Fall MT exceedances:

- RDMW-104
- Old Well #2
- MW 2-3
- WPMW-11A

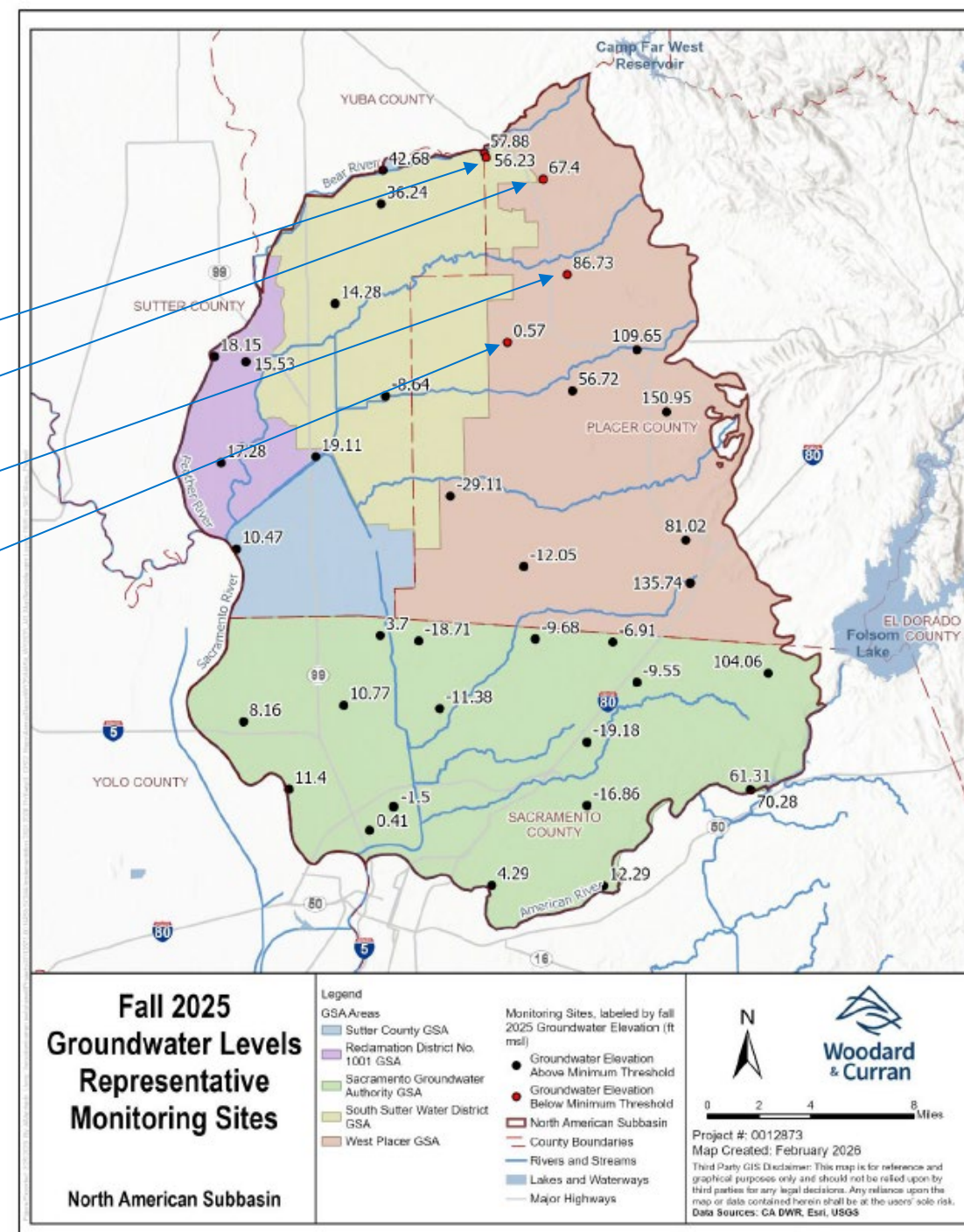


TABLE 7-3: SUMMARY OF TDS IN PUBLIC WATER SUPPLY WELLS, WATER YEARS 2021-2025

	WY 2021	WY 2022	WY 2023	WY 2024	WY 2025
Number of Wells with Analytical Results	70	46	69	62	47
Date Range of Samples	11/19/2020 - 8/25/2021	12/7/2021 - 8/30/2022	10/6/2022 - 9/19/2023	10/4/2023 - 8/7/2024	12/19/2024 - 8/27/2025
Minimum Concentration	48	10	47	76	43
Maximum Concentration	650	471	510	560	540
Average Concentration	270	256	250	277	255
Minimum Threshold ¹	500	500	500	500	500
Measurable Objective	300	300	300	300	300
Number of Wells Exceeding Minimum Threshold	2	0	2	3	1

Notes: Total dissolved solids (TDS) concentrations are reported in milligrams per liter (mg/L).

- (1) The minimum threshold for TDS, as established in the GSP, is the secondary drinking water standard, which has a recommended SMCL of 500 mg/L. An undesirable result for public water supply wells would occur if the average concentration of TDS exceeds 400 mg/L.

FIGURE 7-2: AVERAGE TDS CONCENTRATIONS, WATER YEARS 2021-2025

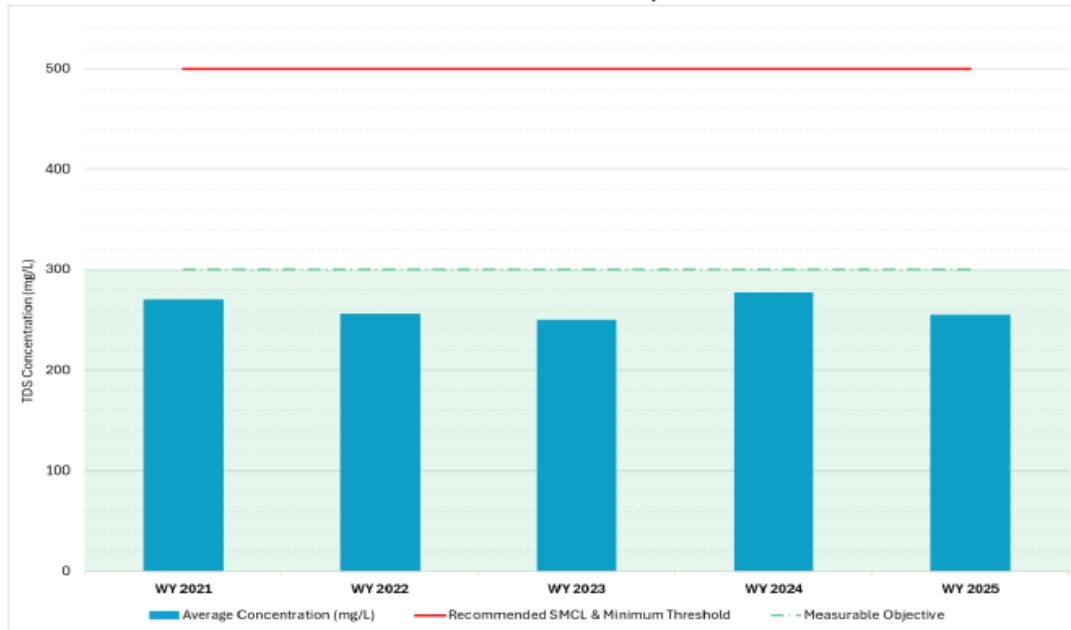


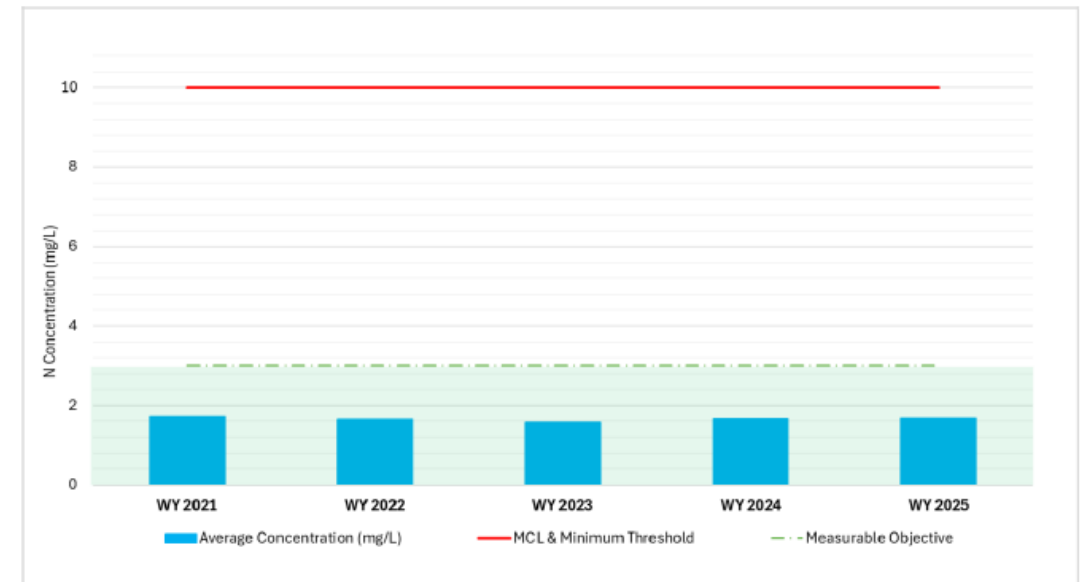
TABLE 7-4: SUMMARY OF NITRATE (AS N) IN PUBLIC WATER SUPPLY WELLS, WATER YEARS 2021-2025

	WY 2021	WY 2022	WY 2023	WY 2024	WY 2025
Number of Wells with Analytical Results	211	208	206	200	200
Date Range of Samples	10/9/2020 - 9/27/2021	11/17/2021 - 9/27/2022	10/13/2022 - 9/25/2023	10/16/2023 - 9/10/2024	10/1/2024 - 9/30/2025
Minimum Concentration	<0.5	<0.5	<0.5	<0.5	<0.1
Maximum Concentration	9.80	9.40	9.10	9.40	9.15
Average Concentration ¹	1.72	1.65	1.58	1.66	1.67
Minimum Threshold ²	10	10	10	10	10
Measurable Objective	8	8	8	8	8
Number of Wells Exceeding Minimum Threshold	0	0	0	0	0

Notes: Nitrate (as N) concentrations are reported in milligrams per liter (mg/L).

- (1) For average concentrations, values below laboratory reporting limits were calculated as half the reporting limit.
- (2) The minimum threshold for nitrate (as N), as established in the GSP, is the state drinking water standard, which has a primary MCL of 10 mg/L. An undesirable result for public water supply wells would occur if the average concentration of nitrate exceeds 8 mg/L.

FIGURE 7-3: AVERAGE NITRATE (AS N) CONCENTRATIONS, WATER YEARS 2021-2025



Degraded Water Quality

Public Water Supply

Degraded Water Quality – Shallow Aquifer

TABLE 7-5: SHALLOW AQUIFER TDS CONCENTRATIONS, WATER YEARS 2021-2025

RMS Number	Local Well Name	WY 2021	WY 2022	WY 2023	WY 2024	WY 2025	MT	MO
Shallow Aquifer Monitoring Sites								
39	AB-1 shallow	---	---	---	170	340	500	150
17	AB-2 shallow	---	---	---	250	500	500	220
27	AB-3 shallow	---	---	---	170	230	500	170
80	Cemetery (IRLP)	---	240	---	260	280	500	290
133	LW-1 ¹	200	220	240	260	250	500	220
89	Roseview Park - 315	---	---	---	240	210	500	210
109	SGA_MW01	---	---	---	320	440	500	360
24	SGA_MW02	---	---	---	250	290	500	300
20	SGA_MW05	---	---	---	98	79	500	300
37	SUT-P1	---	---	---	97	360	500	120
46	SVMW West - 1A	---	180	---	200	200	500	TBD
91	WPMW-11A	---	210	---	220	230	500	240
90	WPMW-12A	200	210	---	220	220	500	230
Public Water System Wells								
99	Main Well	---	---	---	---	---	500	TBD
177	Well 22 – Northop	---	---	94	---	---	500	120
298	Tinker Road Well	280	200	241	240	220	500	240
299	Well 03	---	260	---	---	230	500	290

Notes:

¹ – SWRCB, 2025b

Total dissolved solids (TDS) concentrations are reported in milligrams per liter (mg/L).

“---” represents no measurement available.

Measurable Objectives under development for Shallow Aquifers sites are marked To Be Determined (“TBD”)

TABLE 7-6: SHALLOW AQUIFER NITRATE (AS N) CONCENTRATIONS, WATER YEARS 2021-2025

RMS Number	Local Well Name	WY 2021	WY 2022	WY 2023	WY 2024	WY 2025	MT	MO
Shallow Aquifer Monitoring Sites								
39	AB-1 shallow	---	---	---	<0.23	0.22	10.0	TBD
17	AB-2 shallow	---	---	---	<0.23	1.40	10.0	TBD
27	AB-3 shallow	---	---	---	<0.23	<0.10	10.0	TBD
80	Cemetery (IRLP)	---	---	1.50	1.40	1.40	10.0	TBD
133	LW-1 ¹	3.60	3.00	3.90	4.00	4.30	10.0	4.00
89	Roseview Park - 315	---	---	---	1.10	0.85	10.0	TBD
109	SGA_MW01	---	---	---	6.00	9.70	10.0	1.00
24	SGA_MW02	---	---	---	6.20	5.50	10.0	4.50
20	SGA_MW05	---	---	---	0.63	0.90	10.0	1.70
37	SUT-P1	---	---	---	<0.23	<0.10	10.0	TBD
46	SVMW West - 1A	---	---	1.60	1.80	1.60	10.0	TBD
91	WPMW-11A	1.00	---	1.20	1.30	1.40	10.0	1.10
90	WPMW-12A	0.58	0.33	0.73	0.72	0.47	10.0	0.64
Public Water System Wells								
99	Main Well	<0.40	<0.40	<0.40	<0.40	<0.40	10.0	TBD
177	Well 22 – Northop	<0.40	<0.40	<0.23	0.18	0.18	10.0	TBD
298	Tinker Road Well	3.83	3.75	3.72	4.00	3.80	10.0	4.26
299	Well 03	---	1.82	---	2.10	2.00	10.0	1.42

Notes:

¹ – SWRCB, 2025b

Nitrate (as N) concentrations are reported in milligrams per liter (mg/L).

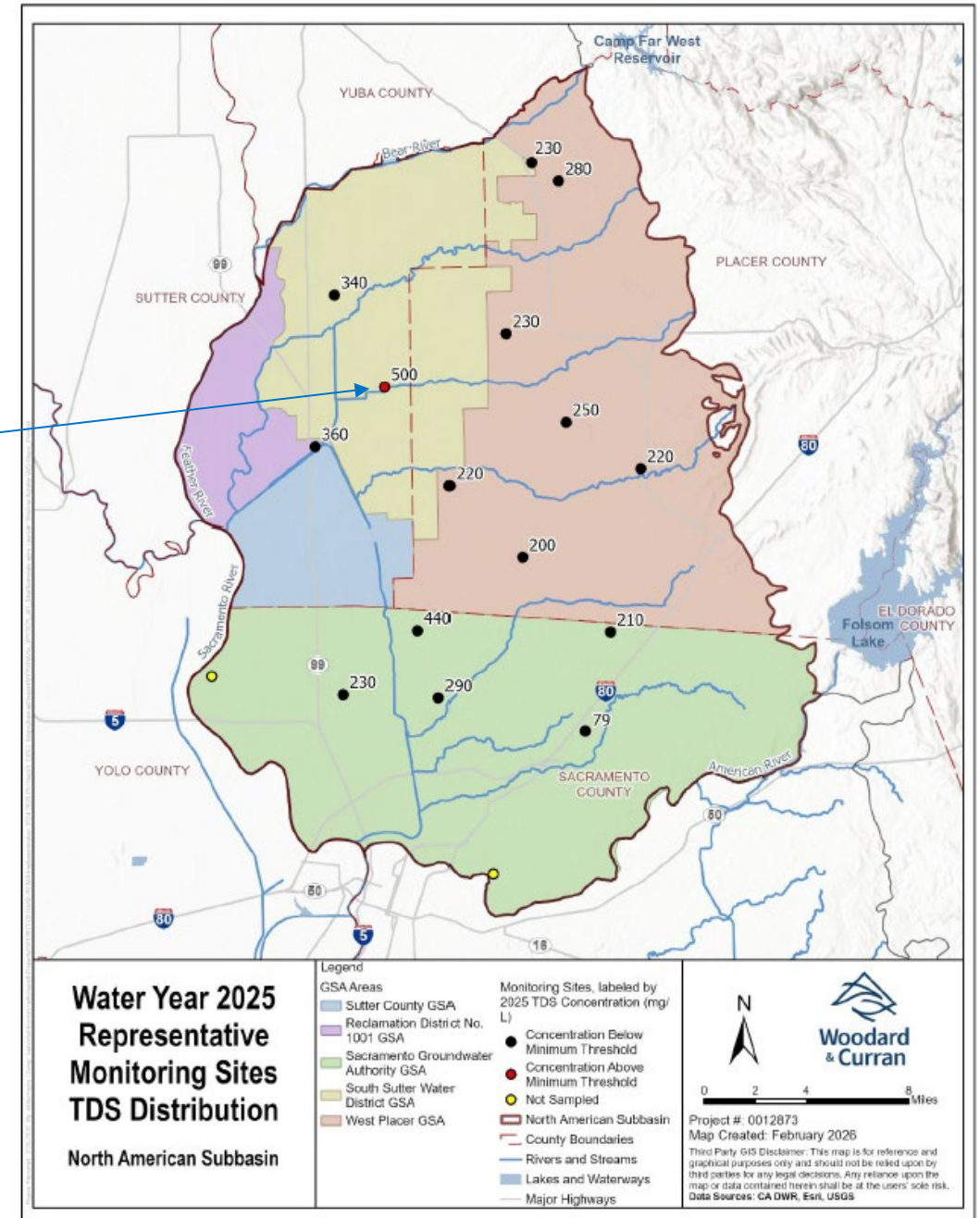
“---” represents no measurement available.

Measurable Objectives under development for Shallow Aquifer sites are marked “TBD”

Degraded Water Quality (TDS)

Well with Fall 2025 MT exceedances (not exceeded but at MT):

- AB-2 shallow

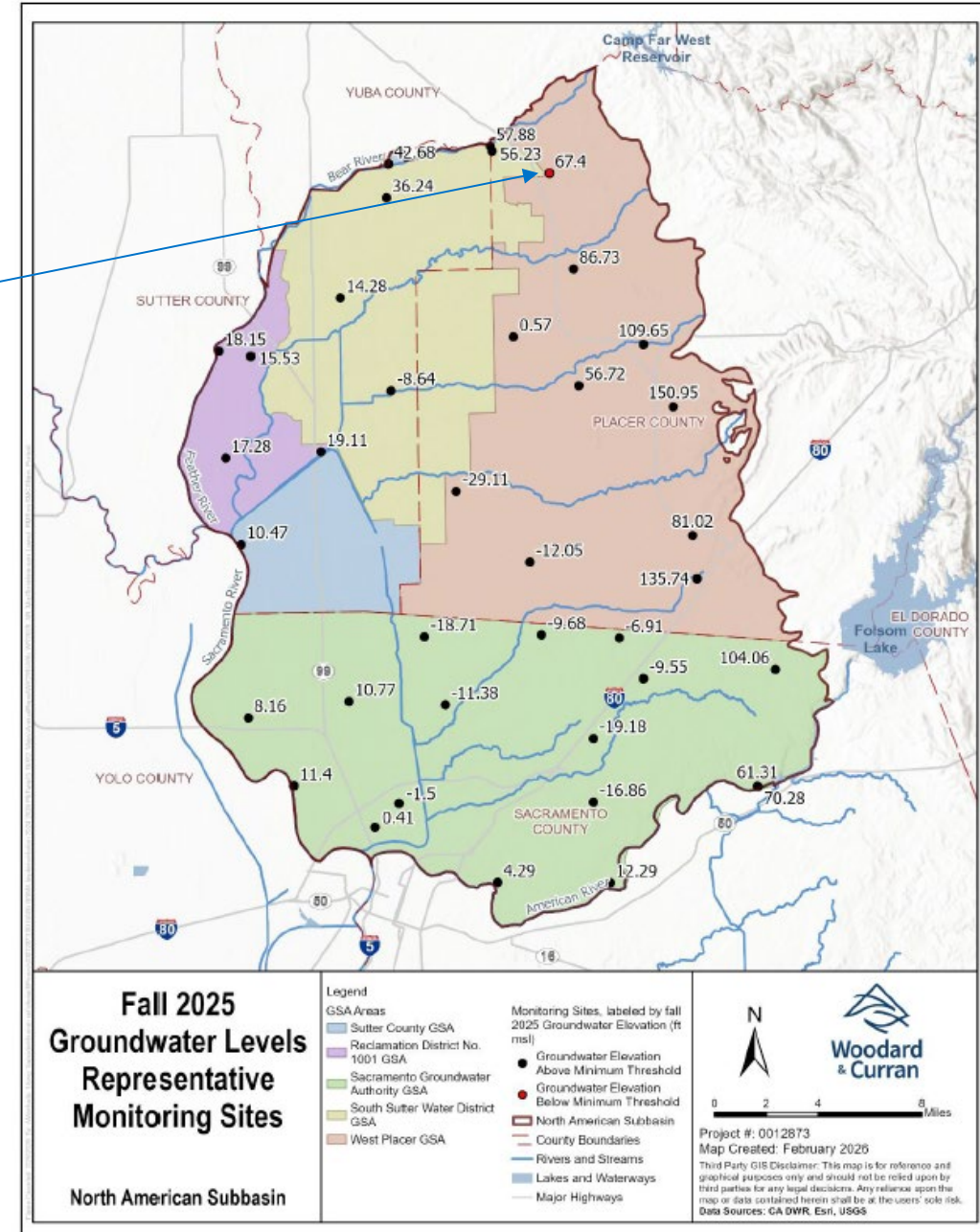


Land Subsidence

FIGURE 7-6: INELASTIC LAND SUBSIDENCE REPRESENTATIVE MONITORING, FALL 2025

Well with Fall 2025 MT exceedances:

- Old Well #2

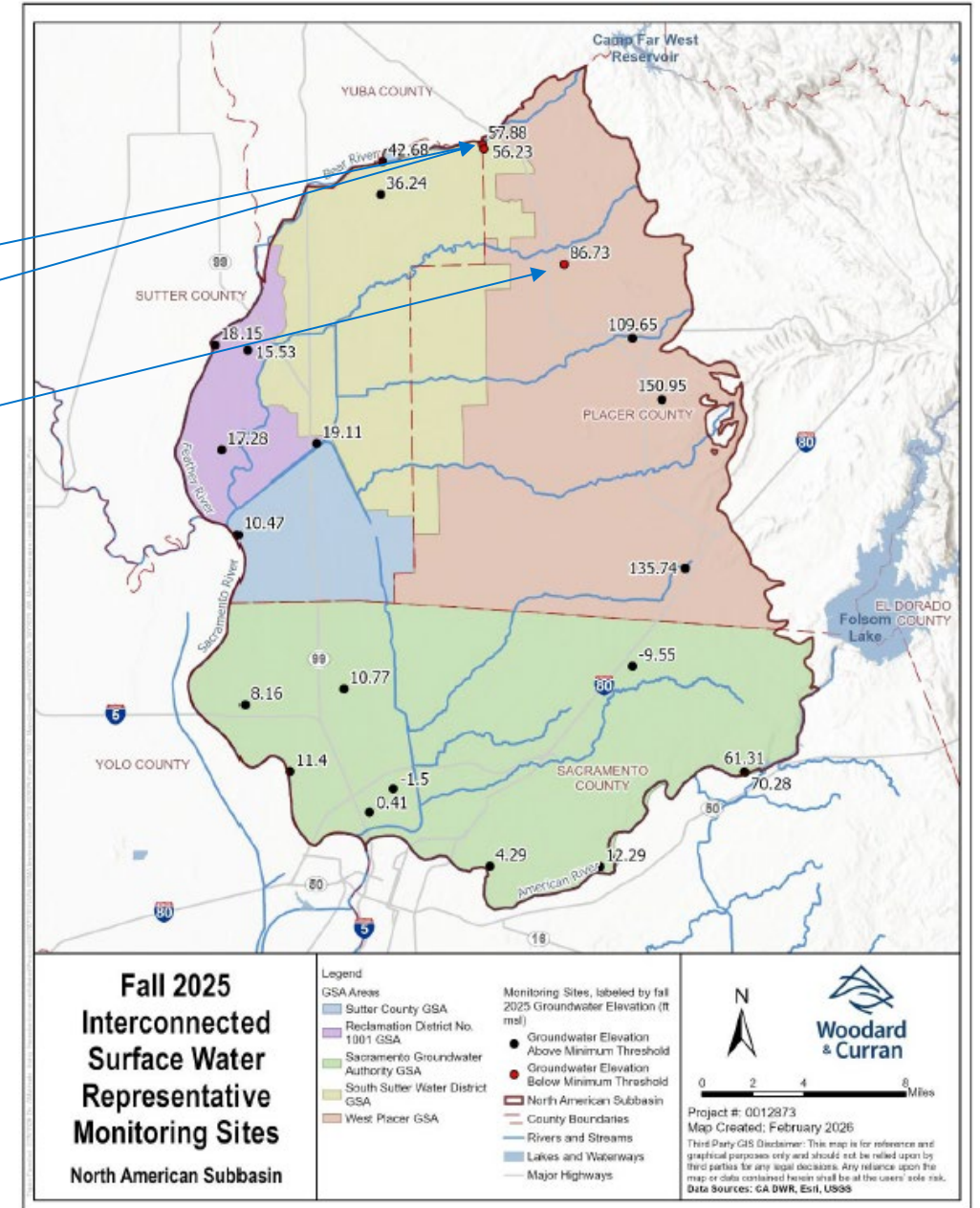


Depletion of Interconnected Surface Water

FIGURE 7-7: DEPLETIONS OF INTERCONNECTED SURFACE WATER REPRESENTATIVE MONITORING, FALL 2025

Wells with Fall 2025 MT exceedances:

- RDMW-103
- RDMW-104
- MW 2-3



2026 Timeline of Activities

- ★ NASb GSA Coordination Meetings
- ★ SGA Board Meeting

