

SUSTAINABLE GROUNDWATER MANAGEMENT

SASb Executive Committee:

- County of Sacramento
- Northern Delta
- Omochumne-Hartnell Water District
- Sacramento Central Groundwater Authority
- Sloughhouse RCD

February 25, 2025

South American Subbasin – Executive Committee Meeting



Agenda

1. Welcome and Greetings
2. Communications Update
3. Project Update – Harvest Water
4. Annual Report
5. Annual Budget and Accounting
6. Updated Schedule and Budget Approach for the DWR Required 5-Year Evaluation
7. Other Updates, Announcements
8. Future Meeting Schedule, Requested Agenda Items
9. Closing Comments
10. Adjourn

Communications Update

2024 Joint Public Meetings

- 2 Executive Committee Meetings
- 1 Domestic Well Advisory Committee Meeting

General Outreach

- 1 Newsletter

GSA Specific Outreach

- Board Discussion Items and Manager Reports in Regularly Scheduled Meetings

Annual Report Update

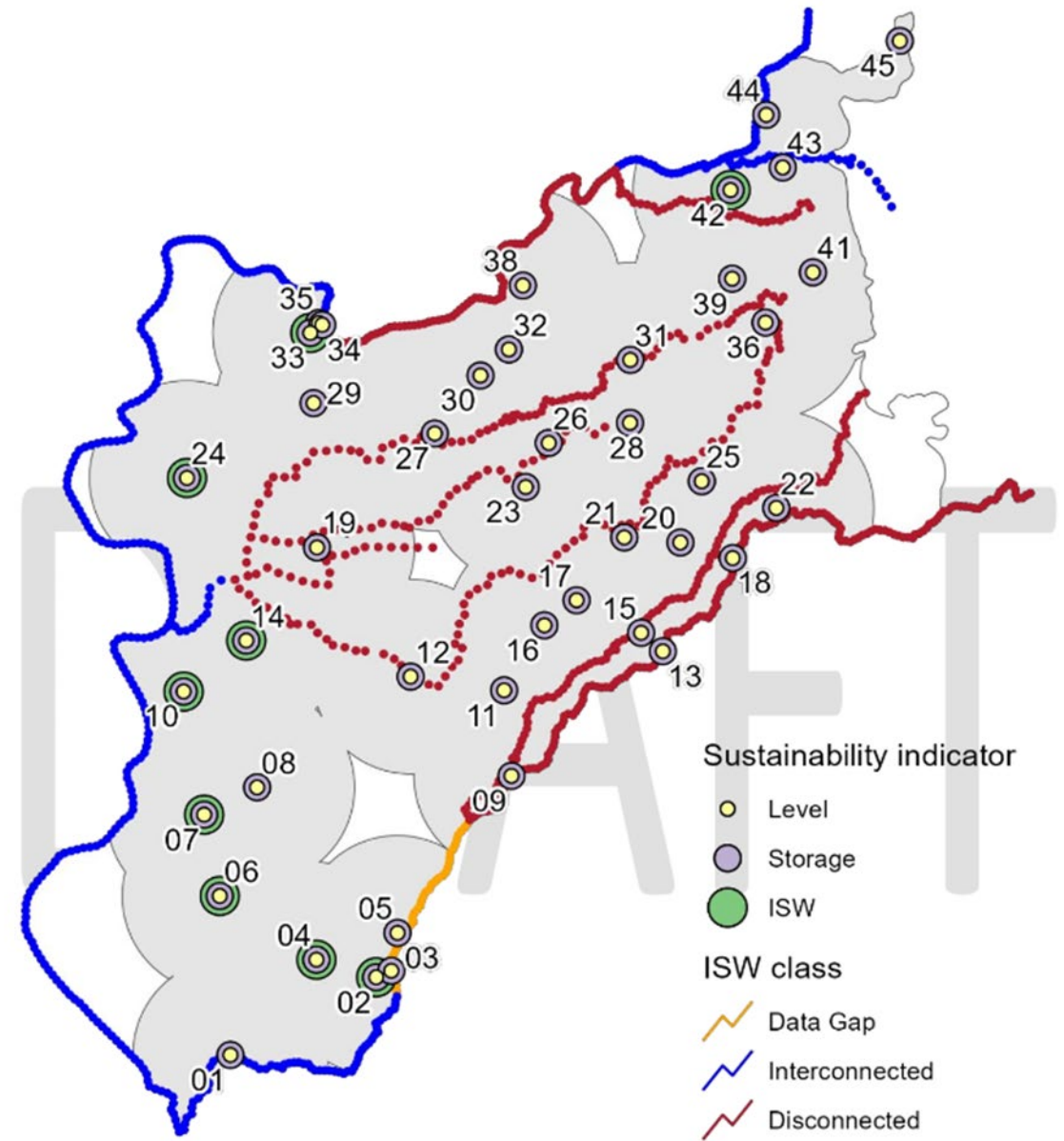
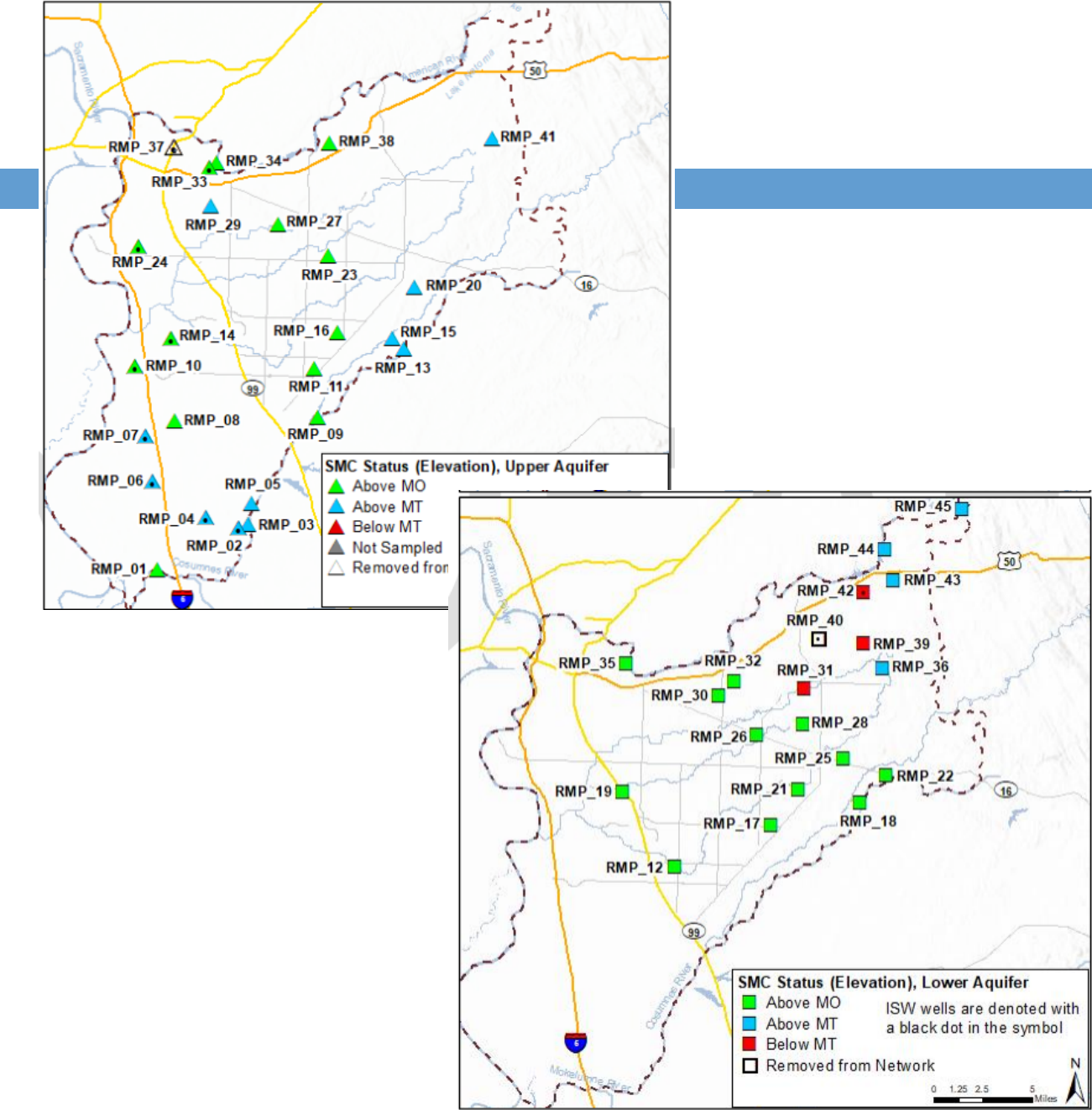


Figure 2-1: Groundwater Levels Monitoring Network (red dots indicate probable disconnected reaches, blue dots indicate probable interconnected reaches). Network coverage is depicted with grey, circular 24.25 square mile buffers around each monitoring point.

Table 2-1: Measured Elevations in Water Year 2024 Compared to Sustainability Criteria and 2027 Interim Milestones

RMP	Aquifer Zone	WY 2024 Date Measured	WY 2024 Measured Elevation (feet amsl)	Minimum Threshold (feet)	Measurable Objective (feet)	Status Compared to MT and MO	2027 Interim Milestone (feet)	Status compared to 2027 IM
01	upper	10/16/2024	7.5	-3	1	Above MO	-2	Above IM
02	upper	10/4/2024	-12.0	-29	12	Above MT	-18	Above IM
03	upper	10/17/2024	-4.8	-14	14	Above MT	-6	Above IM
04	upper	10/16/2024	-16.9	-46	-10	Above MT	-36	Above IM
05	upper	10/17/2024	5.0	-15	31	Above MT	-3	Above IM
06	upper	10/4/2024	-13.9	-28	9	Above MT	-18	Above IM
07	upper	10/25/2024	-8.1	-12	-3	Above MT	-9	Above IM
08	upper	10/16/2024	-15.5	-28	-19	Above MO	-25	Above IM
09	upper	10/15/2024	33.1	-3	26	Above MO	5	Above IM
10	upper	10/16/2024	-6.6	-11	-7	Above MO	-9	Above IM
11	upper	10/18/2024	-17.8	-33	-22	Above MO	-30	Above IM
12	lower	10/16/2024	-28.4	-41	-34	Above MO	-38	Above IM
13	upper	10/15/2024	-23.5	-37	-20	Above MT	-32	Above IM
14	upper	10/16/2024	-8.0	-18	-14	Above MO	-16	Above IM
15	upper	10/15/2024	30.6	-34	31	Above MT	-17	Above IM
16	upper	10/15/2024	-27.1	-42	-33	Above MO	-39	Above IM
17 ⁽²⁾	lower	10/15/2024	-10.8	-47	-38	Above MO	-44	Above IM
18	lower	10/15/2024	14.0	5	10	Above MO	7	Above IM
19	lower	10/16/2024	-10.5	-23	-17	Above MO	-21	Above IM
20	upper	10/15/2024	-8.4	-17	-8	Above MT	-14	Above IM
21	lower	10/16/2024	-18.4	-54	-37	Above MO	-49	Above IM
22	lower	10/15/2024	38.4	14	35	Above MO	20	Above IM
23	upper	10/15/2024	-25.2	-34	-29	Above MO	-32	Above IM
24	upper	10/17/2024	-5.2	-12	-7	Above MO	-10	Above IM
25	lower	10/15/2024	11.4	4	10	Above MO	6	Above IM
26	lower	10/25/2024	-21.8	-34	-28	Above MO	-32	Above IM
27	upper	10/17/2024	-13.0	-50	-34	Above MO	-45	Above IM
28	lower	10/15/2024	-13.5	-21	-14	Above MO	-18	Above IM
29	upper	10/25/2024	-0.3	-5	1	Above MT	-3	Above IM
30	lower	10/15/2024	-11.8	-41	-29	Above MO	-37	Above IM
31	lower	10/25/2024	-23.3	-22	-10	Below MT	-18	Below IM
32	lower	10/16/2024	-4.6	-16	-6	Above MO	-13	Above IM
33	upper	10/29/2024	6.1	-5	-1	Above MO	-3	Above IM
34	upper	11/1/2024	3.8	-6	-1	Above MO	-4	Above IM
35	lower	10/31/2024	4.0	-8	-4	Above MO	-6	Above IM
36	lower	10/15/2024	68.2	68	75	Above MT	71	Below IM
37 ⁽¹⁾	upper	n/a	n/a	1	5	Unknown	3	Unknown
38	upper	10/25/2024	29.4	15	19	Above MO	17	Above IM
39	lower	10/15/2024	96.5	99	105	Below MT	101	Below IM
40 ⁽¹⁾	lower	n/a	n/a	14	48	Unknown	24	Unknown
41	upper	10/16/2024	100.1	90	123	Above MT	99	Above IM
42	lower	10/16/2024	100.3	102	110	Below MT	105	Below IM
43	lower	10/15/2024	198.6	198	206	Above MT	201	Below IM
44	lower	10/15/2024	132.2	130	133	Above MT	132	Above IM
45	lower	10/15/2024	362.7	362	366	Above MT	363	Below IM

1. RMP removed from the network due to the RMP being sealed (RMP_37) or destroyed (RMP_40).



Sustainable Yield

- Total Water Extractions for WY2024 estimated to be 178,000 AF
 - Less than sustainable yield of 235,000 AF estimated in GSP

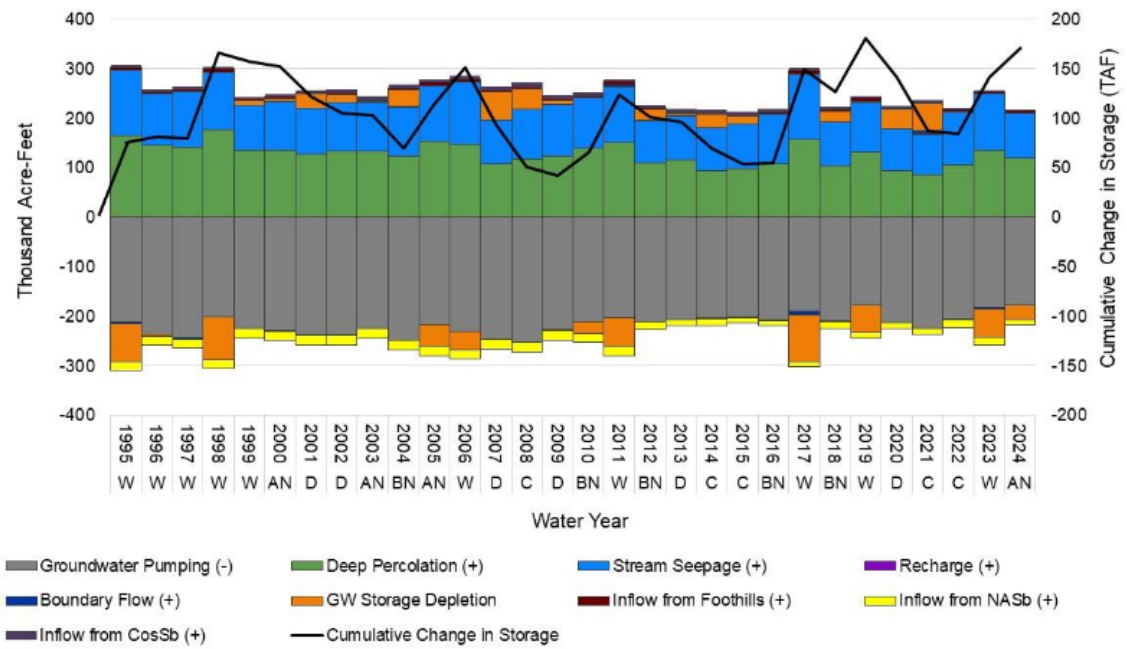
Table 2-2: Monthly Groundwater Extractions (AF) by Water Use Sector, Water Year 2024

Month	Municipal & Industrial (AF)	Agricultural (including Ag Res) (AF)	Remediation (AF)	Total Groundwater Extractions (AF)
Oct-23	3,600	8,600	2,200	14,400
Nov-23	2,700	4,400	2,100	9,200
Dec-23	2,200	1,200	2,500	5,900
Jan-24	1,900	1,000	2,600	5,500
Feb-24	2,700	1,500	2,200	6,400
Mar-24	2,400	3,100	2,600	8,100
Apr-24	2,900	7,300	2,300	12,500
May-24	4,000	12,000	2,300	18,300
Jun-24	4,600	15,500	2,300	22,400
Jul-24	5,300	19,400	2,500	27,200
Aug-24	4,900	20,400	2,300	27,600
Sep-24	4,600	13,600	2,300	20,500
Total	41,700	108,000	28,300	178,000

Change in Storage

- Increase in basin storage of 29,800 AF, per CoSANA model
- Estimated cumulative increase in GW storage from 1995-2024 to be 171,200 AF

AF per year



Type	Volume Estimate in WY2024 (AF)
Total Extractions	178,000
Surface Water Diversions	138,300
Total Water Use	316,200
By Water Sector*	287,900

*Does not include remediation water

Water Quality

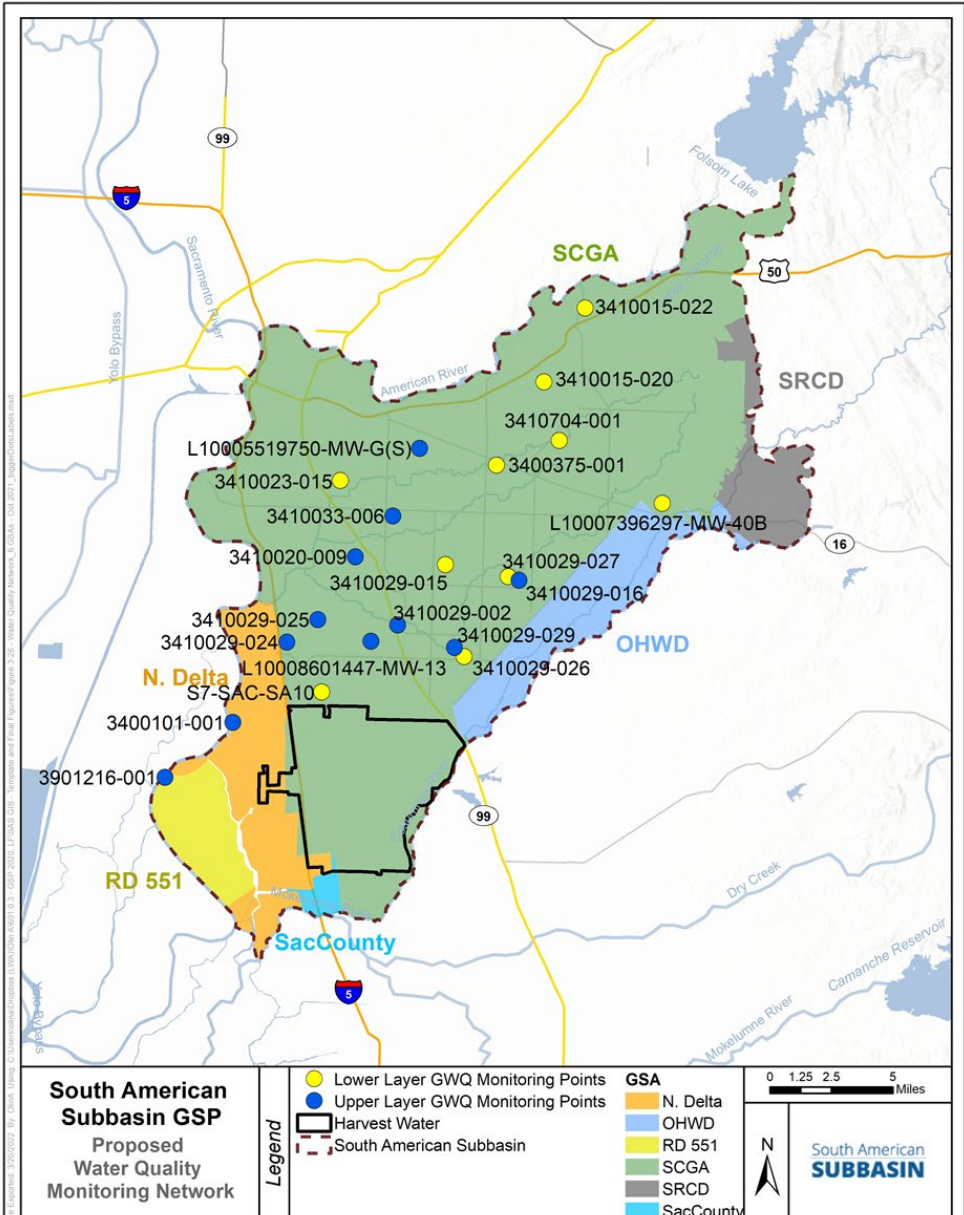


Table 2-6: Water Year 2024 Groundwater Quality (Nitrate MT is 10 mg/L; Specific Conductance MT is 1600 micromhos/cm)

Aquifer Zone	RMP	Nitrate as Nitrogen (mg/L)		Specific Conductance (micromhos/cm)	
		Measurable Objective	Maximum Concentration, WY 2024	Measurable Objective	Maximum Measurement, WY 2024
Upper	3410020-009	3.8	3.7	492	507
Upper	3410029-002	3.0	3.5	470	not monitored
Upper	3410029-016	1.1	0.57	246	not monitored
Upper	3410029-029	2.0	2.0	494	not monitored
Upper	3410033-006	7.2	3.7	520	not monitored
Upper	L10005519750-MW-G(S)	9.0	6.1	967 ⁽¹⁾	1,091
Upper	L10008601447-MW-13	4.2	0.35	640 ⁽¹⁾	450
Upper	3400101-001	0.5	0.23 ⁽²⁾	1,200	not monitored
Upper	3410029-024	0.9	0.23 ⁽²⁾	595	not monitored
Upper	3410029-025	0.5	0.1 ⁽²⁾	1,440	not monitored
Upper	3901216-001	1.3	0.4 ⁽²⁾	1,440	2,180
Lower	3400375-001	5.0	0.45	180	not monitored
Lower	3410015-020	2.1	1.4	240	not monitored
Lower	3410015-022	1.6	0.4 ⁽²⁾	340	not monitored
Lower	3410023-015	1.0	not monitored	915	not monitored
Lower	3410029-015	0.5	0.23 ⁽²⁾	670	200
Lower	3410029-026	0.5	0.06 ⁽²⁾	232	230
Lower	3410029-027	0.5	0.06 ⁽²⁾	230	not monitored
Lower	3410704-001	0.5	0.23 ⁽²⁾	170	160
Lower	L10007396297-MW-40B	1.9	1.7	359 ⁽¹⁾	284
Lower	S7-SAC-SA10	1.7	not monitored	404	not monitored

Minimum threshold and measurable objective both exceeded

Minimum threshold not exceeded, measurable objective exceeded

What we accomplished

Table 3-3. Project and Management Action Implementation Summary

GSA	Project	Project Mechanism	First Year Facilities Available for Use	Status	WY2024 Accomplishments	WY2025 Proposed Activities
SCGA and North Delta	Harvest Water Project	Increased Recharge and Reduced Groundwater Pumping	2027	Implementing	Construction has begun on segment 2 of the Elk Grove Transmission Pipeline, the Franklin Eschinger Pipelines, Central/South Pipelines and West Pipelines. See https://www.regionalsan.com/harvest-water	Complete planning early implementation EcoPlan projects with targeted landowners. Construction is anticipated to continue in 2025. Construction for the Harvest Water Pump Station and Elk Grove transmission pipeline segment 1 is anticipated to begin in 2025. See https://www.regionalsan.com/harvest-water
OHWD	OHWD Groundwater Recharge Project	Increased Recharge	2020	Implementing	Five-year temporary permit from State Water Board granted in January 2023. A net 343.5 acre-feet from the Cosumnes River was recharged.	Continued operation per five-year temporary permit conditions for diversions from the Cosumnes River obtained from the SWRCB.
SCGA	Regional Conjunctive Use Program	Increased Recharge and Reduced Groundwater Pumping	2000	Implementing	Work on developing water bank and ASR well at Vineyard SWP continued.	Continue work on developing water bank and ASR well at Vineyard SWP.
SCGA	Vineyard ASR well (part of Regional Conjunctive Use Program)	Increased Recharge	2020	Implementing	Initiated 3-cycle ASR pilot test during late 2023 and completed early April 2024.	Continue work on the development of a strategic plan for the implementation of the ASR program, including the potential use of the three Excelsior Road supply wells.
SCGA, SRCD and OHWD	Sacramento Area Flood Control Agency (SAFCA) Flood-MAR	Increased Recharge	2030	Planned	Two exploratory borings completed in water year 2023 in coordination with SAFCA and DWR TSS. Boring results used to calibrate the geophysical tTem results for use in siting vadose zone recharge wells. Results are available to support developing a pilot recharge program.	Coordinate with SAFCA, RWA and SASb GSAs to determine approvals needed to develop a pilot program.

What we accomplished

GSA	Project	Project Mechanism	First Year Facilities Available for Use	Status	WY2024 Accomplishments	WY2025 Proposed Activities
All	Shallow/Vulnerable Well Protection Program	Outreach and collaboration	2022	Implementing	The Domestic Well Advisory Group (DWAG), formed in water year 2023, continued to coordinate outreach through the Volunteer Monitoring Program (VMP) and other methods. Regular water level measurements were collected and reported through the DMS and to DWR in spring and fall seasons. Continued engagement with domestic well owners through outreach.	Improve domestic well inventory through outreach and coordination with VMP. Evaluate voluntary monitoring data.
All	Sacramento County Environmental Management Wells Program	Outreach and collaboration	2022	Implementing	Implementation of Governor's Executive Order and approved well permits.	GSAs intend to continue discussions with the Sacramento County Environmental Management Department (SCEMD) to develop ordinance modifications pertaining to wells in the jurisdiction of SCEMD in WY2025.
All	GSP Monitoring Network Data Gaps	Data Collection	2023	Planned	The DWAG members were selected, and a charter was developed in 2023. The DWAG is intended to facilitate coordination with the VMP to help fill data gaps ongoing in 2025. Plans were developed to collect missing well construction information from RMPs with incomplete information. A group charter was formed and the first DWAG meeting was held in January 2024 and a second meeting in October 2024.	Spatial data gaps in the monitoring network potentially filled by continuing the development of the Voluntary Monitoring Network (VMN). Well construction information for RMPs will be collected to address data gaps.

Scope and Budget

SASB GSP Evaluation and Update - DRAFT Scope and Budget

1/16/2025

Task and Subtask	Total
1.0 Project Management	\$45,000
2.0 Update Hydrogeologic Conceptual Model	\$12,500
2.1 Evaluate AEM Data	\$12,500
3.0 Develop and Summarize New Information	\$55,000
3.1 GW Levels and WQ Data and Trends	\$30,000
3.2 Land/Water Use	\$10,000
3.3 Evaluate Regional Characterization of Climate Change	\$10,000
3.4 GSA Authorities and Enforcement Actions	\$5,000
4.0 CoSANA Model Updates	\$0
5.0 CoSANA Model Scenarios	\$88,000
5.1 ISW Depletion Analysis	\$80,000
5.2 Support and Oversee Modeling	\$8,000
6.0 Assess Monitoring Networks	\$150,000
6.1 Assess Water Level Monitoring Network	\$20,000
6.2 Determine Depths and Screened Intervals of Water Level Wells	\$10,000
6.3 Assess Water Quality Monitoring Network and Add Arsenic	\$20,000
6.4 Address DWR Comments on Subsidence Network	\$5,000
6.5 Add Stream Gages on Cosumnes River (potential grant funded)*	\$80,000
6.6 Monitoring and Maintenance of stream gage (year 1)	\$15,000

7.0 Evaluate SMCs	\$50,000
7.1 Evaluate Water Level SMCs and Consider Revisions	\$30,000
7.2 Evaluate and Modify WQ SMC	\$15,000
7.3 Evaluate Subsidence SMC	\$5,000
8.0 Status of Projects and Management Actions	\$45,000
8.1 Describe Domestic Well Number and Occurrence	\$10,000
8.2 Update Domestic Well Vulnerability Analysis	\$20,000
8.3 Summarize DWAG and VMP	\$10,000
8.4 Summarize Progress on Projects	\$5,000
9.0 Prepare Evaluation Report and GSP Update	\$150,500
9.1 Update HCM Section	\$10,000
9.2 Update Water Budget Section	\$10,000
9.3 Prepare ISW Analysis Section	\$37,500
9.4 Update SMC Section	\$15,000
9.5 Update CoSANA Model Documentation	\$5,000
9.6 Update Sustainable Yield Section	\$8,000
9.7 Update PMA Section	\$10,000
9.8 Prepare Periodic Evaluation Sections	\$20,000
9.9 Assemble Report and GSP Amendments	\$30,000
9.10 Hearings and Adoption of GSP Amendments	\$5,000
10.0 Outreach, Engagement and Coordination	\$50,000
10.1 GSP Working Group Meetings	\$30,000
10.2 Public Meetings	\$20,000

Budget

SubTotal	*Task 6.5 dependent on grant funding	\$646,000
Total	Local funding less Task 6.5	\$571,000
Contingency	10%	\$628,100

GSA Cost Share Amounts	Percentage	Amount
SCGA	74.9%	\$470,446.90
OHWD	13.0%	\$81,653.00
NDGSA	5.8%	\$36,429.80
SRCD	3.7%	\$23,239.70
Sac County	2.6%	\$16,330.60
Total	100.0%	\$628,100.00

Other

1. Updated Schedule
2. Other Updates, Announcements
3. Future Meeting Schedule, Requested Agenda Items
4. Closing Comments
5. Adjourn