Groundwater Sustainability Plan

Periodic Evaluation Update

San Antonio Creek Valley Groundwater Basin

October 20, 2026

GSI Water Solutions, Inc.



Photo credit: Nomada

GSP Implementation

Periodic Evaluation

1. Purpose and context
   - GSP – conditions through WY 2018
   - 5-Year Periodic Eval – conditions from WY 2019 though 2025
     - Focused on how GSA has demonstrated GSP implementation to meet sustainability goal.
2. Contents
   - Sections 1-4
   - Sections 5-10
3. Next Steps



2. Periodic Evaluation Contents

1. Executive Summary
2. New Information Collected
3. Groundwater Conditions Relative to SMC
4. Status of Project and Management Actions
5. Basin Setting Based on New Information or Changes in Water Use
6. Monitoring Networks
7. Authorities and Enforcement Actions
8. Outreach, Engagement, and Coordination with Other Agencies
9. Other Information
10. Summary of Proposed or Completed Revisions to Plan Elements

2. Periodic Evaluation Contents

Chapter 5 – Basin Setting Based on New Information or Changes in Water Use (1)

- Hydrogeologic Conceptual Model (HCM)
  - SACIM (extended from WY 2018 though WY 2021) for Future Climate Scenarios (WYs 2022 through 2051) (Cromwell et al., 2025)
- Physical Setting and Characteristics of Principal Aquifers
  - DWR Statewide Airborne Electromagnetic Surveys (~12 flight paths, distribution of grain size)
  - Updated Hydrologic Conditions and Basin Evaluation (Annual Reports)

2. Periodic Evaluation Contents

Chapter 5 – Basin Setting Based on New Information or Changes in Water Use (2)

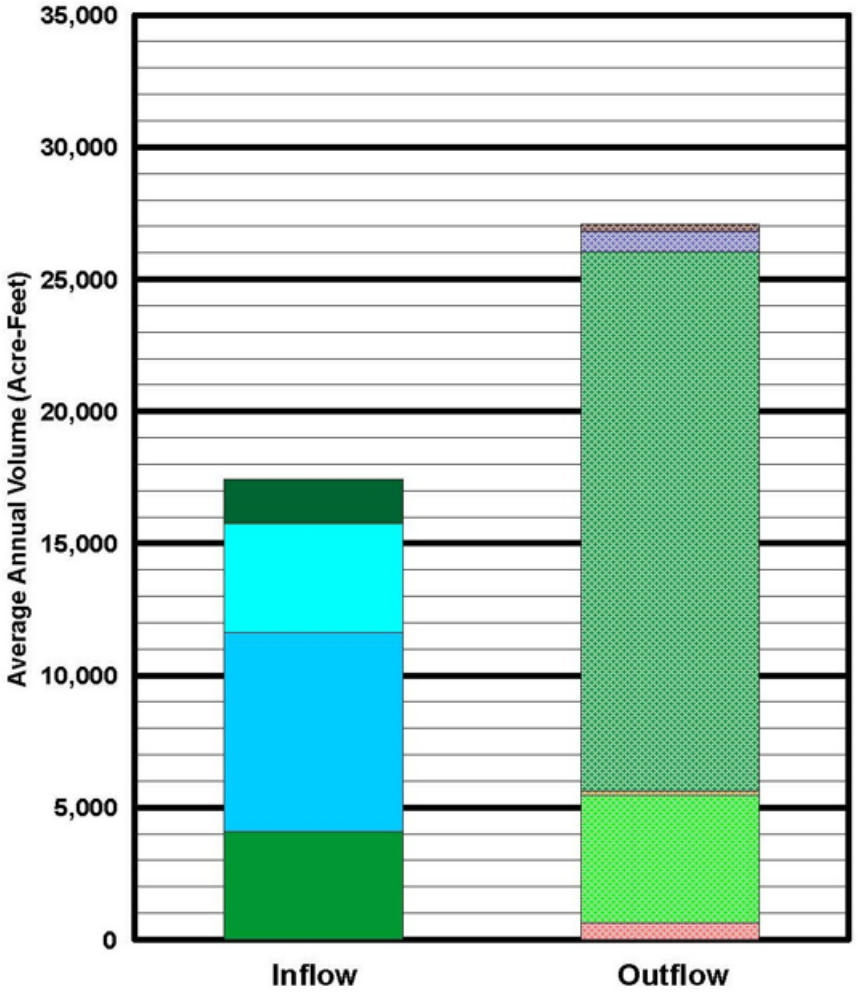
- Groundwater Conditions
  - Publication of USGS (2021 [SACIM]) and (2022 [HCM])
- Water Supply and Use
  - Agricultural Water Use Estimates Accuracy Improvements (Land IQ and OpenET)
  - Water Quality (COGG Program, publication of Anders et al., 2022)
  - Groundwater Dependent Ecosystems (EVI Analysis Update to include WYs 2021 to 2025)
  - Depletion of Interconnected Surface Water (draft BMP documents from DWR)

2. Periodic Evaluation Contents

Chapter 5 – Basin Setting Based on New Information or Changes in Water Use (3)

- Water Use Changes and Associated Water Budget
  - Land Use and Cropping Patterns (~872 fewer acres of agricultural land use since WY 2018)
  - Basin Yield and Change in Groundwater in Storage (*sustainable* yield remains unchanged)
  - *Current* Water Budget Updated through WY 2025 (see next slide)

2. Periodic Evaluation Contents



Current Groundwater Budget
Average Volumes

Updated Current Water Budget (2011-2025)

Average Total Inflows: **17,400 AFY**

Average Total Outflows: **27,100 AFY**

Average Annual Change in Groundwater in Storage: **-9,700 AFY**

Inflow	Outflow
Mountain Front Recharge	LACSD Pumping
Streamflow Percolation	VSFB Pumping
Deep Percolation of Direct Precipitation	Agricultural Pumping
Septic Return Flow	Rural Domestic Pumping
Agricultural Irrigation Return Flow	Riparian Evapotranspiration
Urban Irrigation Return Flow	Discharge to Surface Water

Notes:
LACSD - Los Alamos Community Services District
VSFB - Vandenberg Space Force Base

GSP Current Water Budget (2011-2018)

Average Total Inflows: **13,500 AFY**

Average Total Outflows: **30,500 AFY**

Average Annual Change in Storage: **-17,000 AFY**

2. Periodic Evaluation Contents

Chapter 6 – Monitoring Networks Assessment

- **Groundwater Levels / Change in Storage**
  - Review and Modification of Existing Monitoring Network (50)
    - Additions (5), Removals (2 during evaluation period + 19 during review), RMS Replacements (6), SMC Establishment
    - Revisions to SMC Definitions (DWR RCA 1)
  - Data Gaps within Existing Monitoring Network
    - Low Well Density
      - Grant Funding (included construction of monitoring wells)
      - Well Registration Program – Identified Candidate Wells
    - RPE Survey (determine accurate elevation information) and Video Logging (determine well construction information)

2. Periodic Evaluation Contents

Chapter 6 – Monitoring Networks Assessment

- **Degraded Water Quality**
  - Review of and Modification of Existing Monitoring Network
    - 89 wells (8 DDW and 81 ILRP)
    - Revisions to SMC definitions (DWR RCA 2)
    - No formal changes have occurred or are proposed
  - Data Gaps within Existing Monitoring Network
    - Lack of Well Construction Information
      - Collaboration with CCWQP (ILRP) and County (WCRs)
      - Video Logging (determine well construction information)

2. Periodic Evaluation Contents

Chapter 6 – Monitoring Networks Assessment

- **Interconnected Surface Water**
  - Review and Modification of Existing Monitoring Network
    - Casmalia Stream Gage
    - Installation of additional upstream and downstream gages
    - Installation of Shallow Piezometers
  - Data Gaps within Existing Monitoring Network
    - Quantifying the interconnectivity of surface water and groundwater and the degree to which depletion has occurred
      - EVI Analysis, SACIM, reactivated gages, and DWR BMPs

2. Periodic Evaluation Contents

Chapter 6 – Monitoring Networks Assessment

- **Land Subsidence**
  - Review and Modifications of Existing Monitoring Network
    - UNAVCO CGPS Station in Los Alamos
    - Revisions to SMC Definitions (DWR RCA 5)
      - Formally incorporate InSAR
  - Data Gaps within Existing Monitoring Network
    - No Data Gaps Identified

2. Periodic Evaluation Contents

Chapter 7 – SABGSA Authorities and Enforcement Actions

- GSP Adoption
- Joint Powers Agreement (governance structure has remained unchanged)
- Administrative Enforcement Policy for Well Registration, Metering, and Groundwater Extraction Reporting (Resolution No. 25-001)
- Well Registration Rules and Regulations (Well Registration Program) (Ordinance No. 22-001)
- Well Metering and Extraction Reporting Program (Ordinance No. 25-001)
- Well Verification Policy (Resolution 22-001) (Rescinded)

2. Periodic Evaluation Contents

Chapter 8 – Outreach, Engagement, and Coordination with Other Agencies

- Outreach and Engagement
  - Board of Directors Meetings
  - Posting of Agendas and Materials Online
  - Mailing and Distributing Materials
  - Public Workshops
  - Public Comment Opportunities
- Responsibilities of SABGSA Board
  - SABGSA Board activities documented in meeting minutes
- Coordination with Other Agencies
  - SABWD, County, LACSD, VSFB, CCWQPI, GSAs, DWR, USGS

2. Periodic Evaluation Contents

Chapter 9 – Other Information

- **Consideration of Adjacent Basins**
  - No formal coordination has been required due to minimal hydrologic connection
  - No water resource is shared or SMC impacted by the adjacent Basins' activities
- **Challenges Not Previously Discussed**
  - Technical and Financial challenges are consistent with those identified in the GSP
  - Proposed Development Activities
- **Legal Challenges**
  - GSP implementation has not been impeded or otherwise affected by any legal challenges

2. Periodic Evaluation Contents

Chapter 10 – Summary of Proposed or Completed Revisions to Plan Elements

- No immediate GSP revisions are proposed
- Based on the findings of this Periodic Evaluation, DWR's RCAs, and the results of the monitoring network review, the SABGSA has identified several GSP elements that will be revised prior to or in tandem with the 10-Year Periodic Evaluation

4. Next Steps

Implementation Schedule

- **October 20, 2026 –** Present Sections 5-10
- **November 17, 2026** – Final DRAFT to SABGSA, BoD Meeting (Conditional Approval)
- **December 18, 2026** -- Revised Final DRAFT to SABGSA
- **By January 21, 2027** – Submit Periodic Evaluation to DWR

Thank you!

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