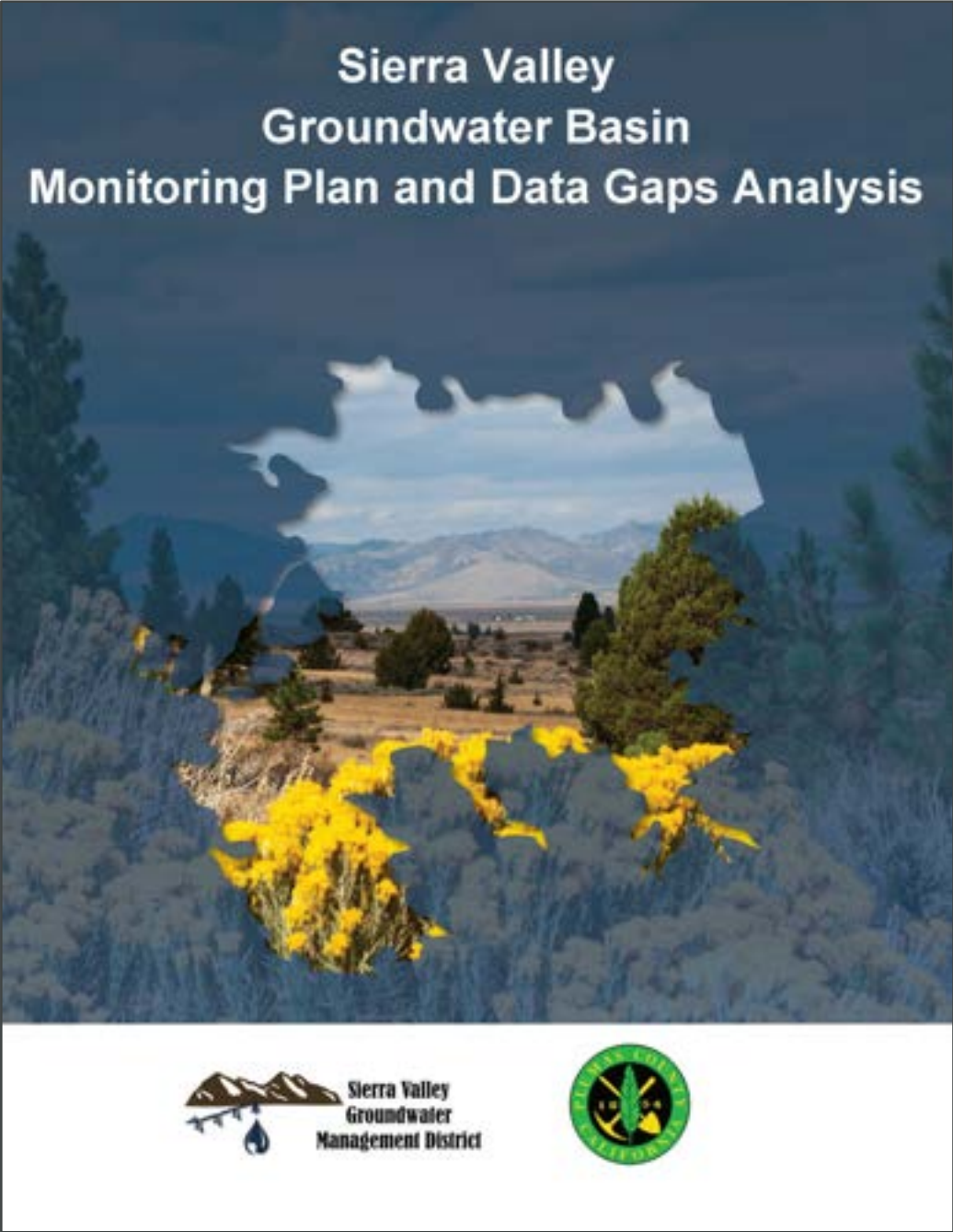


Monitoring Network and Data Gaps Analysis

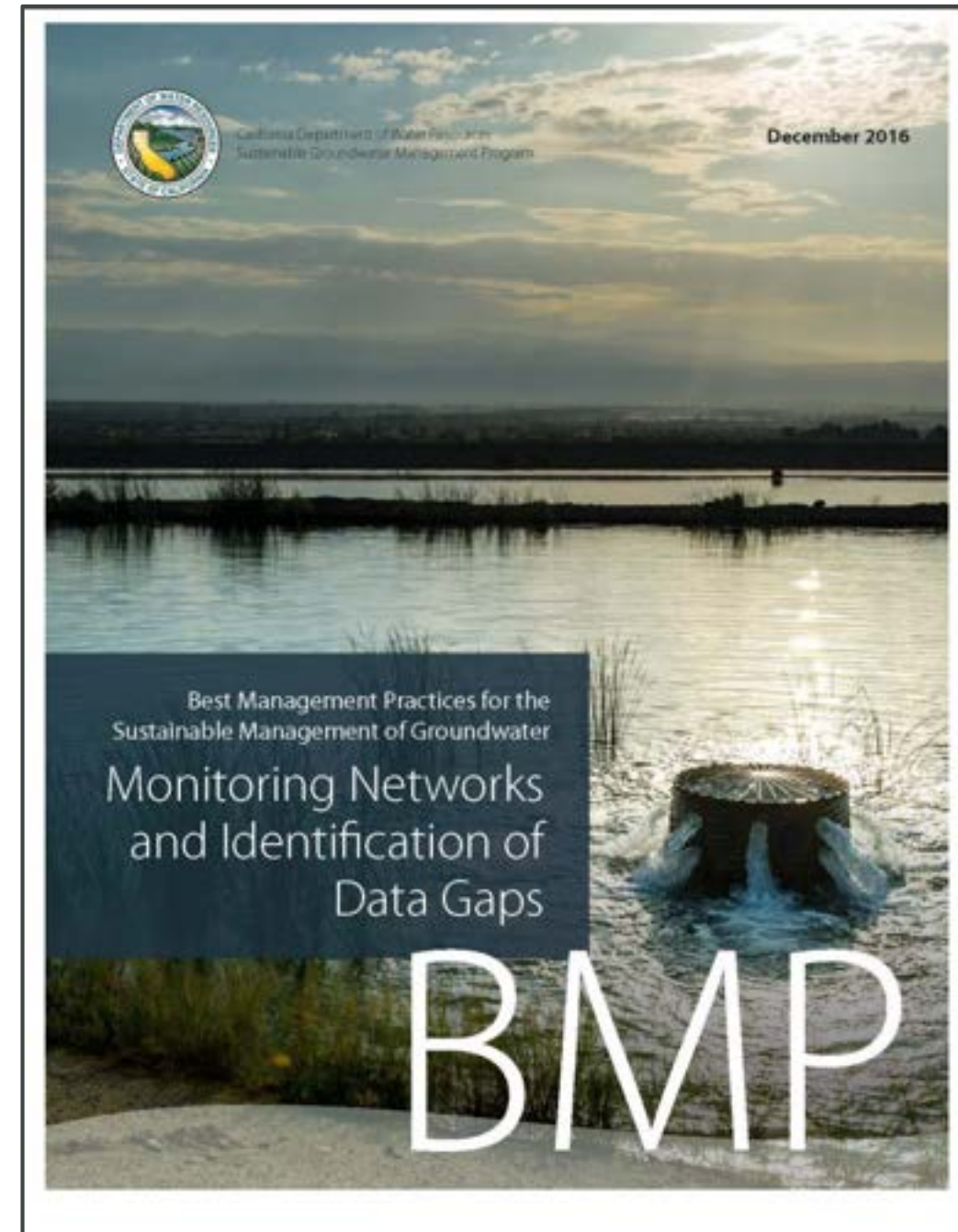


Monitoring Networks and Data Gaps Approach and Evaluation

- Reviewed Existing Monitoring Networks
 - Groundwater level and quality
 - Surface water flow and quality
 - Land subsidence
 - Soil moisture (presented w/ Irrigation Efficiencies)
- Existing Data Sources (1950's to present)
 - SVGMD groundwater level and extraction records
 - Well Inventory
 - GAMA water quality records
 - DWR surface water flow records
 - Precipitation and temperature records

Monitoring Point Type	Records
Wells and Borings	1,132
Soil Moisture	12
Spring/Seep	8
Subsidence Control Point	11
Surface-Water Gage or Sampling Point	107
Unknown	437
TOTAL	1,707

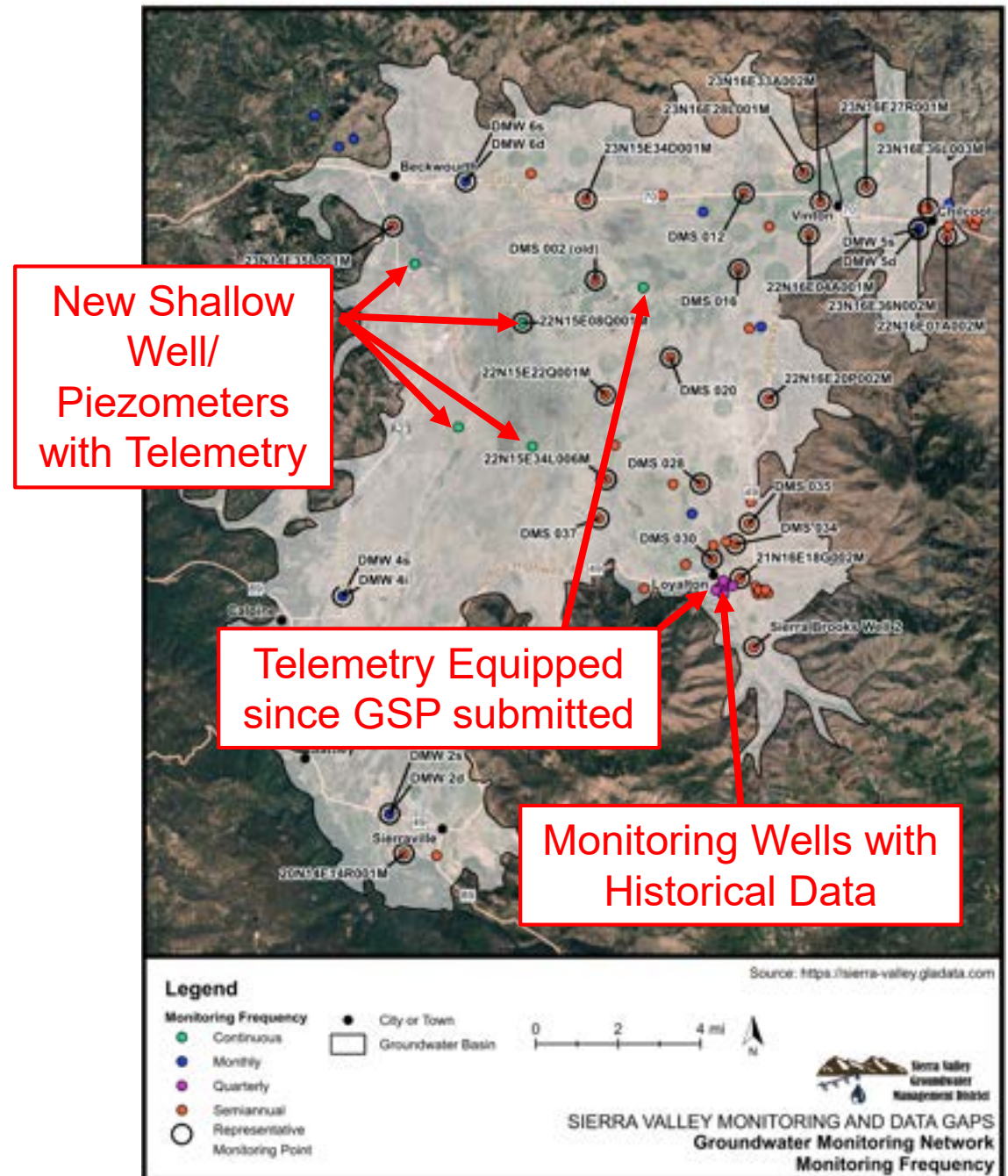
Data Type	Records
Groundwater Elevations	19,796
Water Quality	21,667
Lithology	4,963



Monitoring Networks and Data Gaps Analysis

Groundwater Elevation Monitoring Frequency

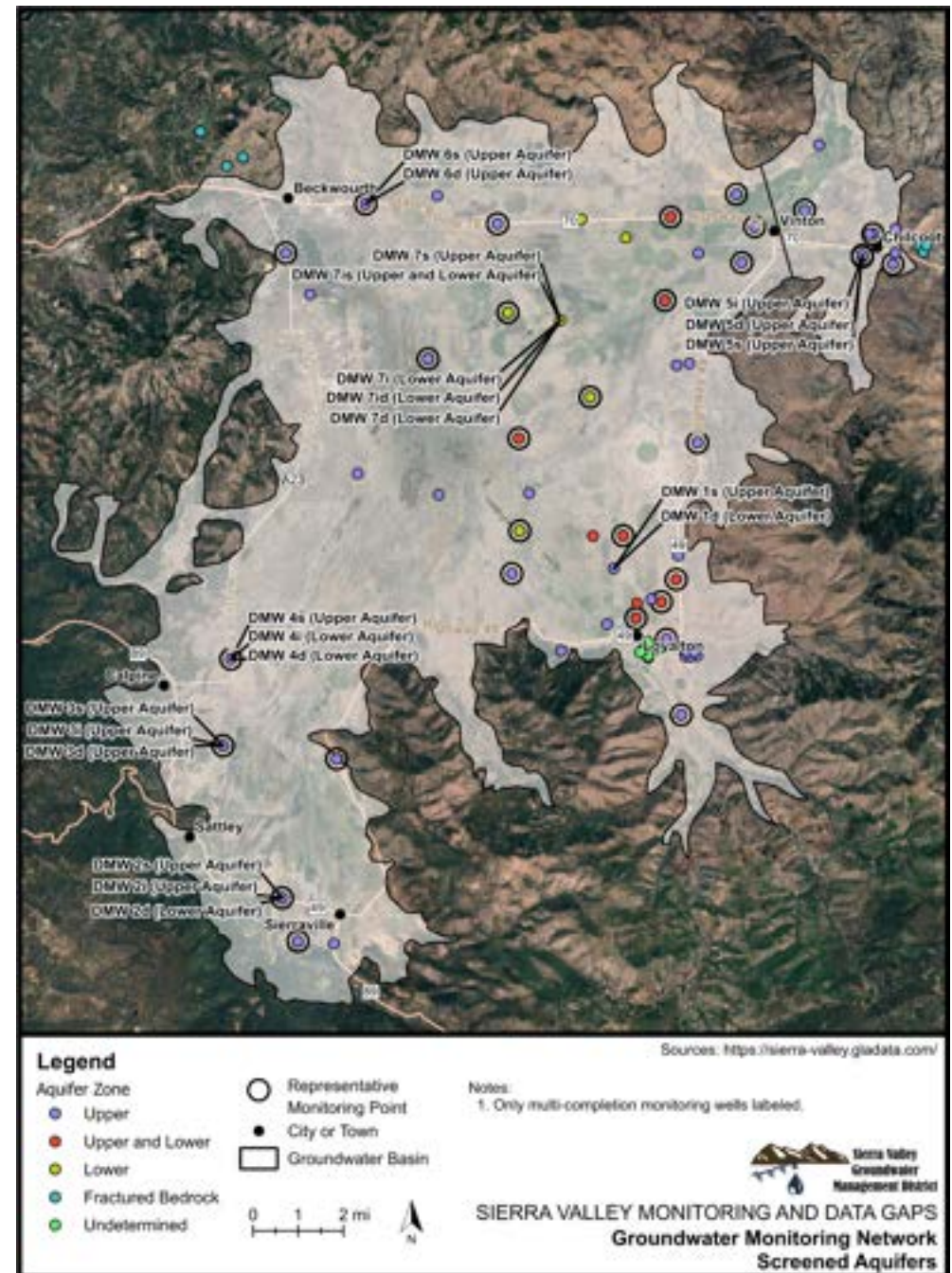
- Very good monitoring frequency
 - Multiple continuous stations with telemetry
 - High and low monitoring frequency wells spread out spatially



Monitoring Networks and Data Gaps Analysis

Groundwater Elevation Monitoring by Aquifer

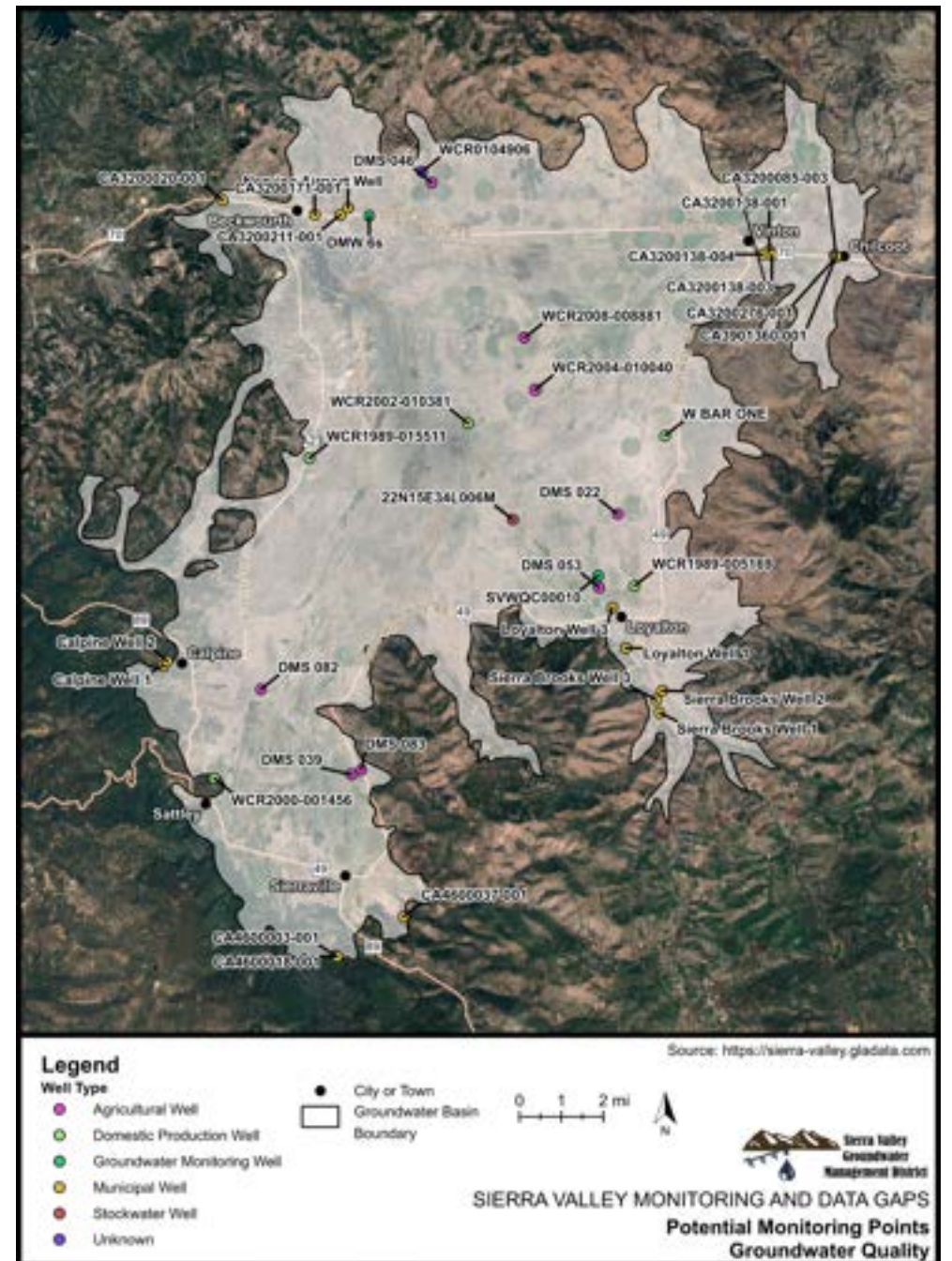
- Generally good coverage for both upper and lower aquifers
 - Greater number of monitoring wells in the upper aquifer



Monitoring Networks and Data Gaps Analysis

Groundwater Quality

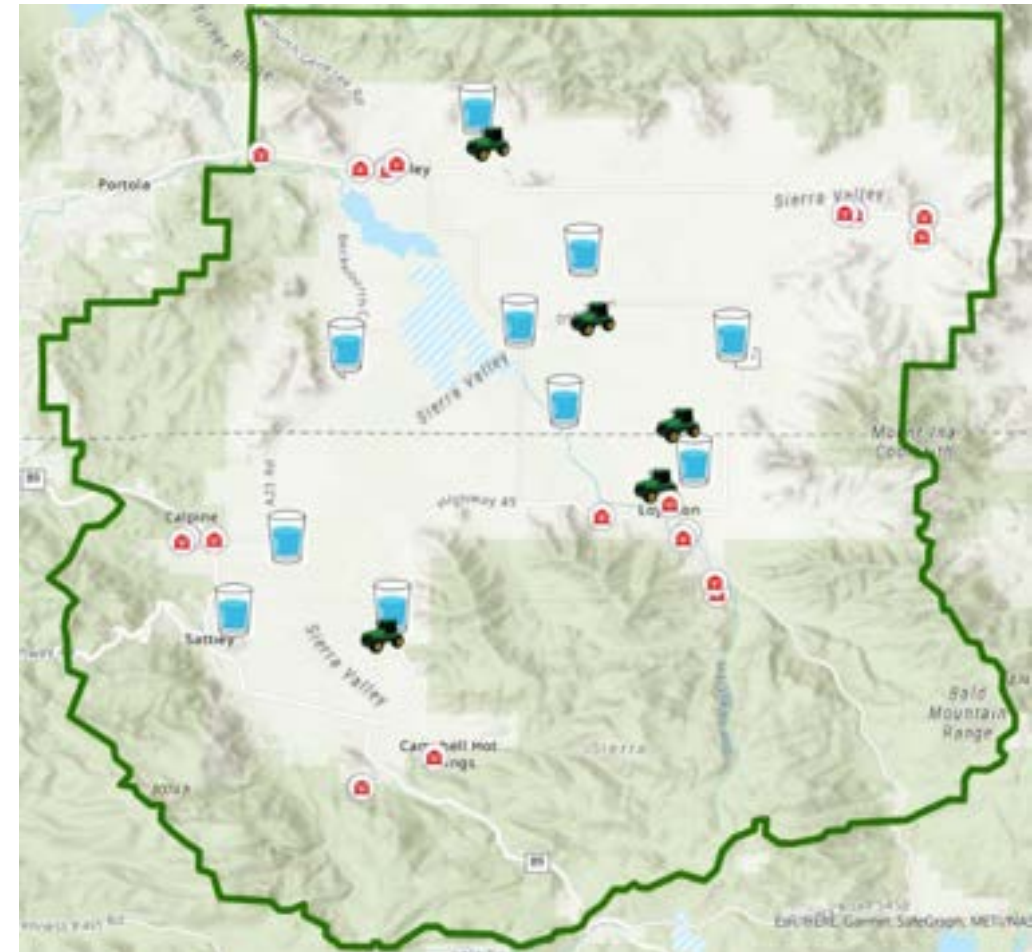
- Generally good spatial coverage across the basin
 - Sporadic monitoring currently
 - UCCE 2021 & 2025 sampling
 - District to perform at least two additional rounds at selected wells over the next 5 years



Monitoring Networks and Data Gaps Analysis

UCCE Water Quality Monitoring

- UCCE conducted monitoring in 2021 and 2025 for nitrogen, boron, arsenic and TDS in 10 domestic and 5 irrigation wells
- Results were well below drinking water standards with the exception of one domestic well that tested high for arsenic levels in both 2021 and 2025.
- Additional water quality monitoring is being conducted near the recharge projects with an initial monitoring event conducted in January 2026

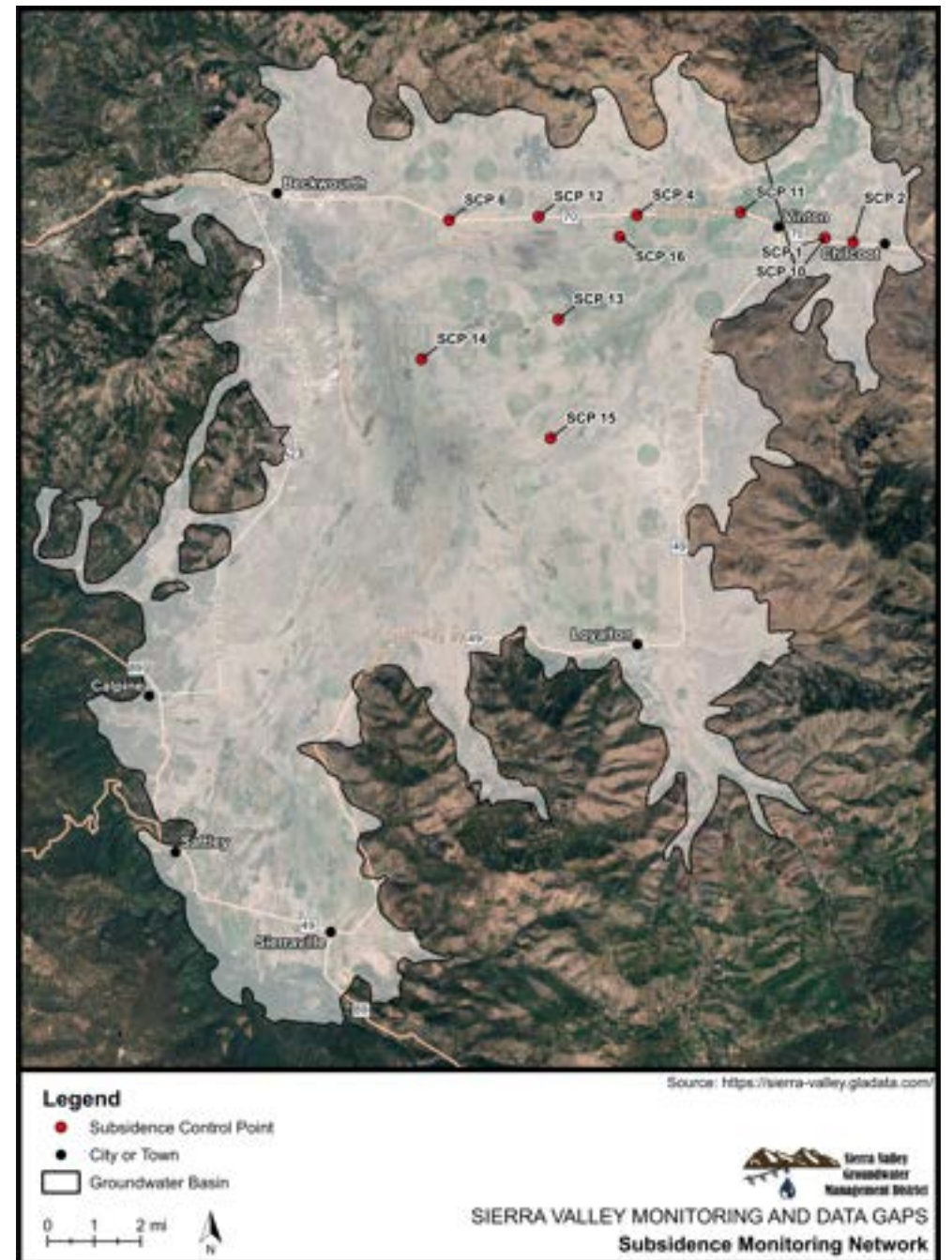


- Private domestic wells analyzed in study
- Private agricultural wells analyzed in study
- Municipal wells with publicly available data

Monitoring Networks and Data Gaps Analysis

Subsidence

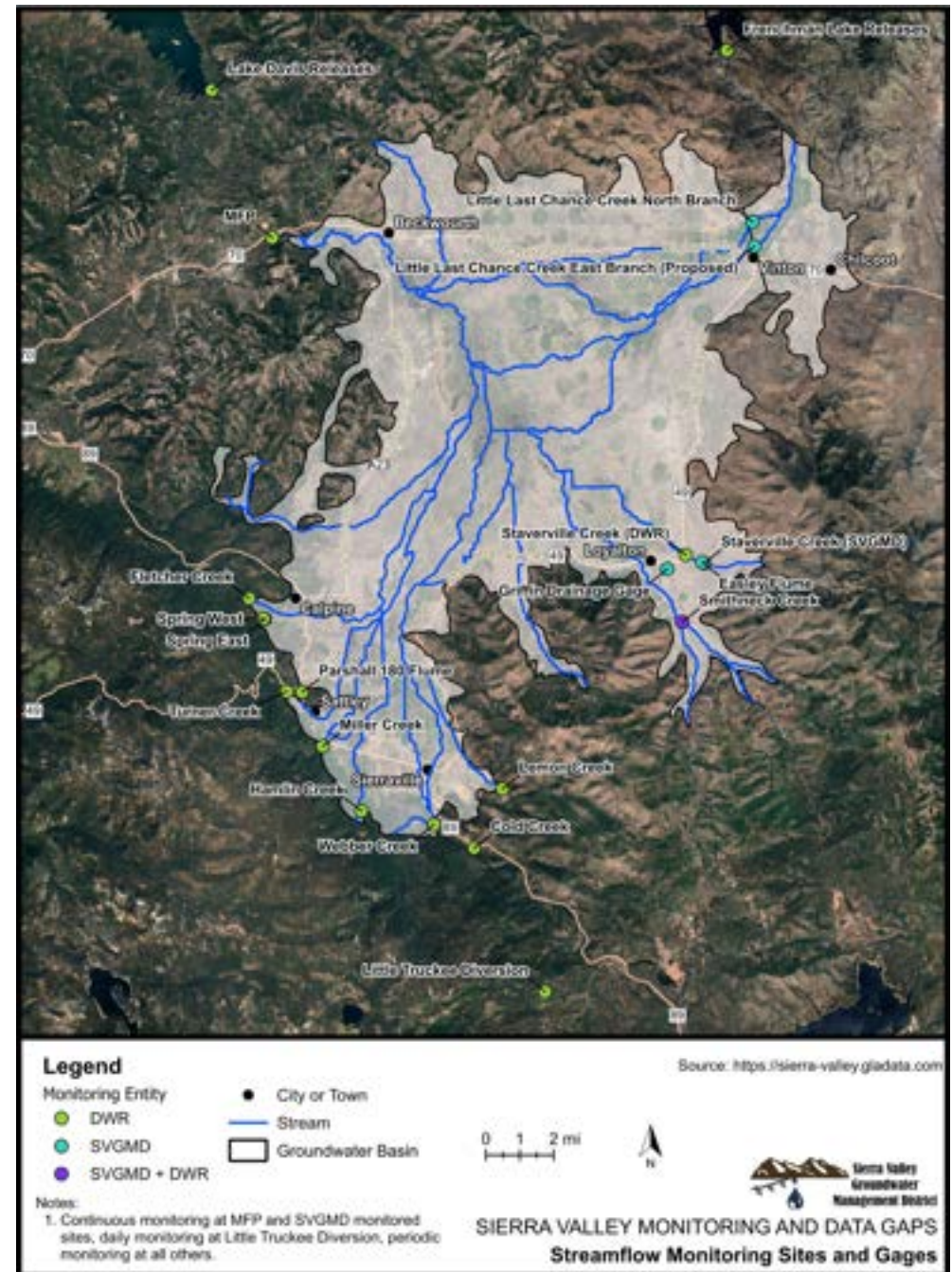
- 11 locations where land elevation is measured
- Includes 4 newly installed monuments
- Monthly InSAR (satellite) data



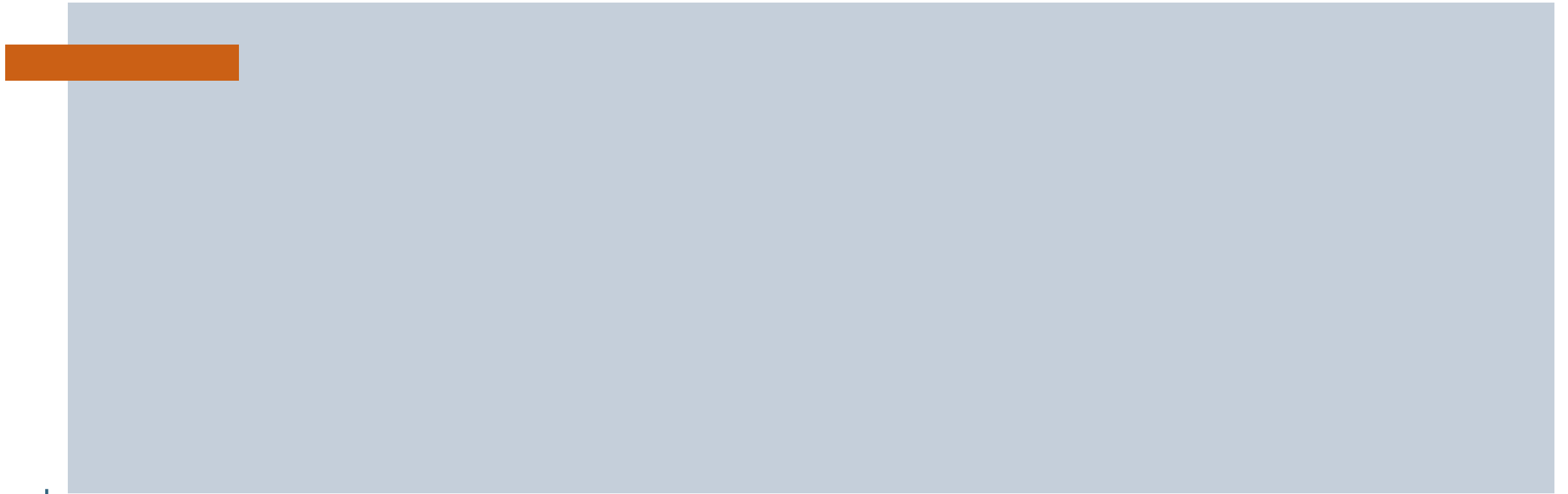
Monitoring Networks and Data Gaps Analysis

Streamflow

- 21 surface water monitoring locations
 - 2 reservoir release locations (DWR)
 - 13 periodic gaging locations (DWR)
 - 6 continuous gaging locations (SVGMD)
 - 1 proposed, 1 coincident with DWR periodic gaging (Smithneck Creek)



Well Inventory



Well Inventory - Overview

- Well inventory objective was to begin addressing the data gap of incomplete or missing well data, e.g., location and construction information
- Well inventory was successful in improving the well information for existing wells in the DMS, and new wells were added to the DMS through county records

Well Inventory Review	Number of wells
GSP Total Well Inventory (DMS)	1221
DMS wells with low spatial accuracy	574
DMS wells with improved spatial accuracy	258
New Well Information Obtained	
Parcels with land use likely to contain a well	265 parcels
County records with well summary information	88
County records with well completion report geologic data	48

Well Inventory – Updating GSP analyses

- Updated well inventory provides a more complete dataset for considering the impacts of groundwater conditions on wells within the basin,
- Next step is to understand the risk of becoming dry if Basin is at minimum threshold



GSP Version
(OSCWR data
uncorrected)

Updated Well
Inventory

Well Inventory – Local Monitoring

- Local monitoring process was begun with equipment purchasing and initial outreach to the community at the county fair.
- GSP implementation team will support outreach to identify and coordinate with interested well owners.

