Atascadero Basin GSP Development

Section 7 – Monitoring Networks

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July 1, 2020

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Section 7 – Monitoring Networks

- Satisfies GSP Regulations §354.32 and §354.34
- A description of the existing monitoring networks and improvements to be made during GSP implementation
  - For each sustainability indicator:

- Monitoring Objectives:
  - Demonstrate progress toward achieving measurable objectives described in the GSP
  - Monitor impacts to the beneficial uses and users of groundwater
  - Monitor changes in groundwater conditions relative to measurable objectives and minimum thresholds
  - Quantify annual changes in water budget components
- Data Gaps

Groundwater Level Monitoring Network

~200 wells analyzed from sources including:

SLOFCWCD, USGS NWIS, DWR, City of Paso Robles, AMWC, and TCSD

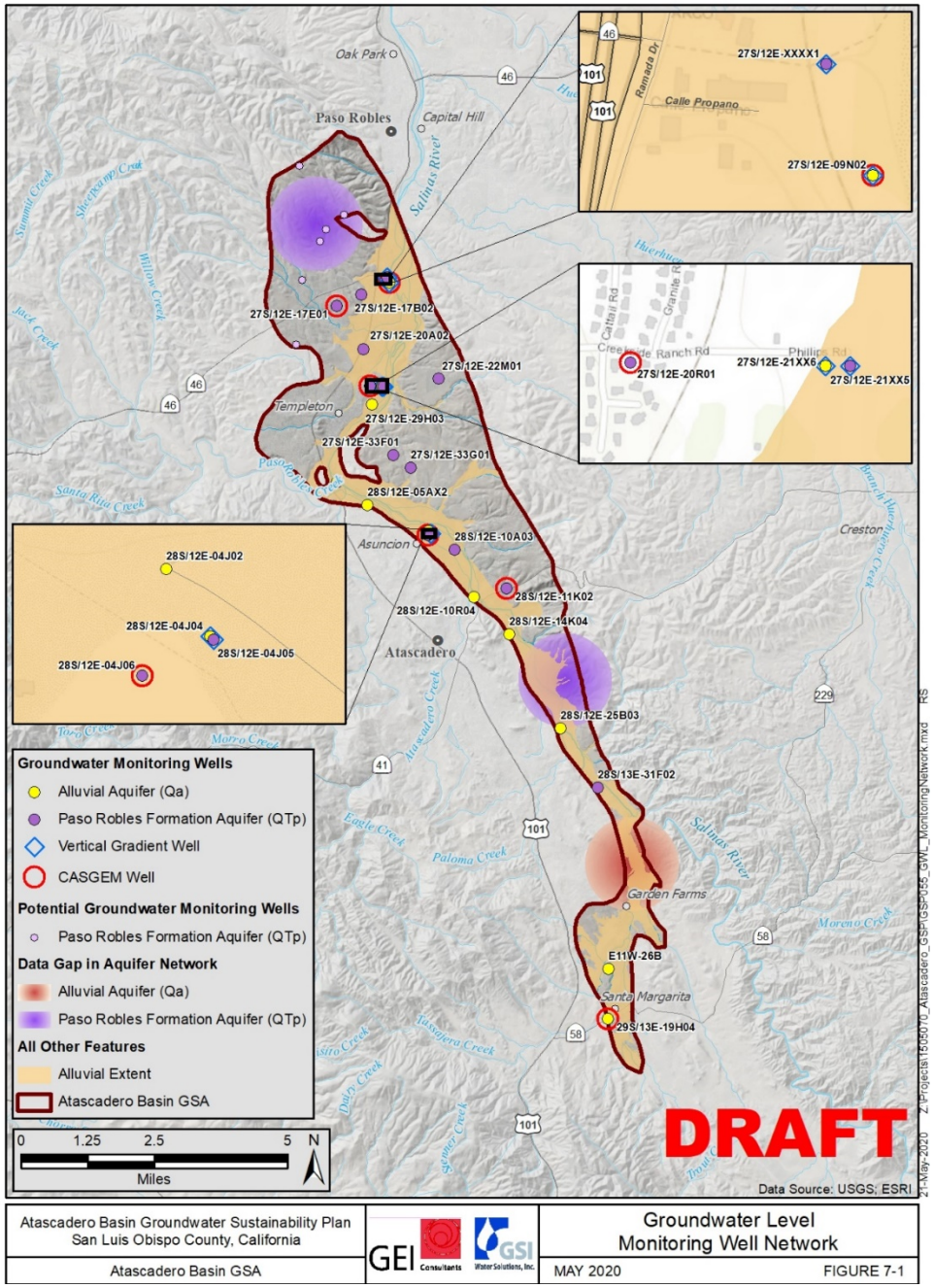
Criteria:

- Include Only Currently Measured Wells
- Remove Confidential Wells
- Prioritize Wells with Known Well Completion Information
- Prioritize CASGEM wells
- Optimize spatial distribution within each Principal Aquifer

26 Wells in GSP Groundwater Level Monitoring Network

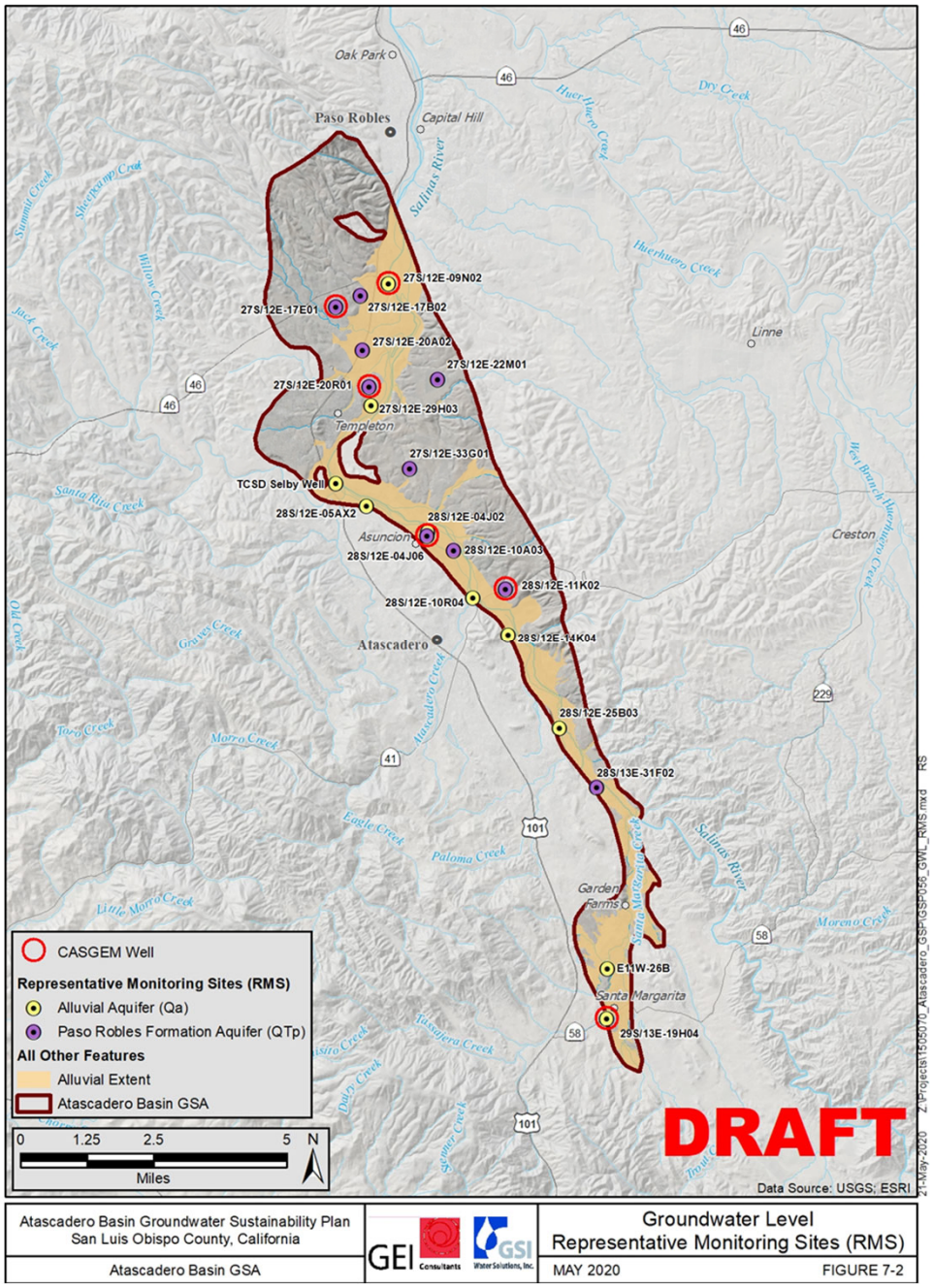
- 12 in Alluvial Aquifer
- 14 in Paso Robles Formation Aquifer

Data Gaps



Representative Monitoring Sites (RMS)

- A subset of wells from the GSP groundwater level monitoring network that are representative of conditions in the Basin.
- RMS wells are evaluated in terms of sustainable management criteria in GSP Section 8.

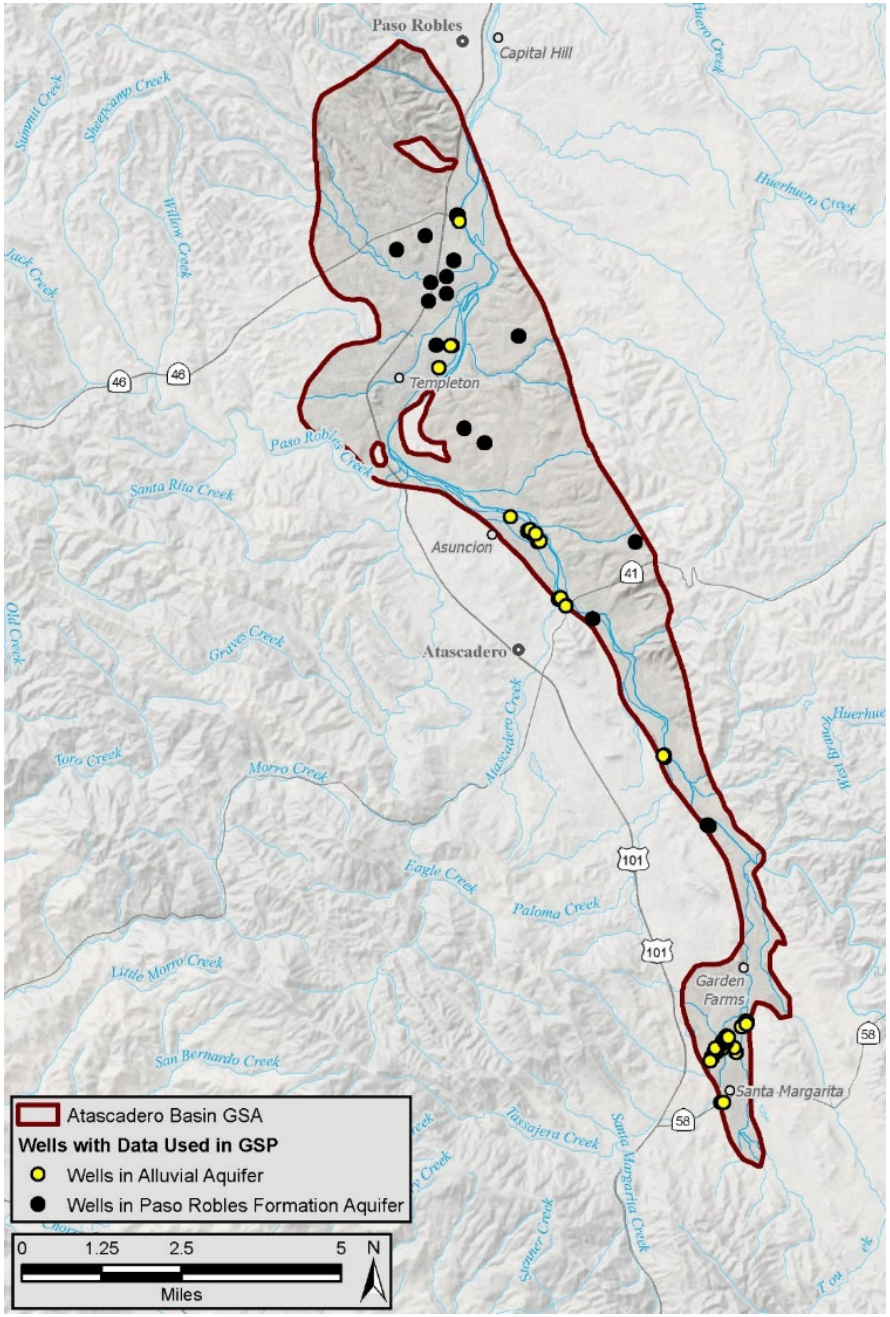


Groundwater Storage Monitoring Network

Includes:

- Groundwater Level Monitoring Network, Plus:
- Several additional wells subject to confidentiality agreements or otherwise do not meet groundwater level monitoring network selection criteria.
- ~128 wells (depending on year)

Same Data Gaps as Groundwater Level Monitoring Network



Groundwater Quality Monitoring Network

Includes:

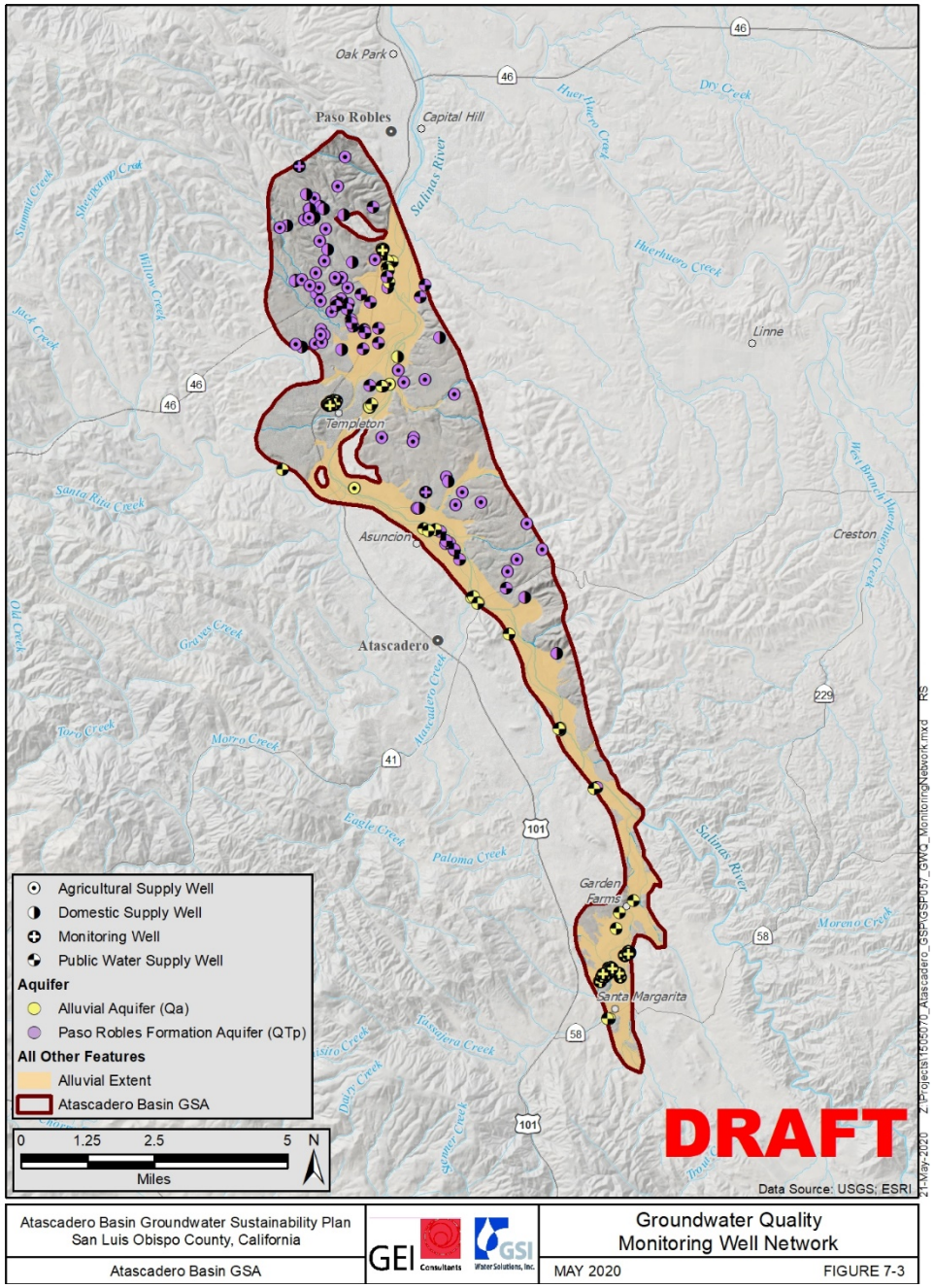
- 54 public water supply wells (26 Alluvial, 28 Paso Robles Formation Wells),
- 24 domestic supply wells and 49 agricultural supply wells (5 Alluvial, 68 Paso Robles Formation Wells),
- 55 environmental monitoring wells (all Alluvial)

Drinking water quality standards assessed at:

- public water supply wells,
- domestic wells, and
- monitoring wells associated with environmental sites.

Separate standards for agricultural supply wells.

No Data Gaps other than missing well completion information for some wells.



Land Subsidence Monitoring Network

- Evaluated using interferometric synthetic-aperture radar (InSAR) data provided by DWR.
- No Data Gaps

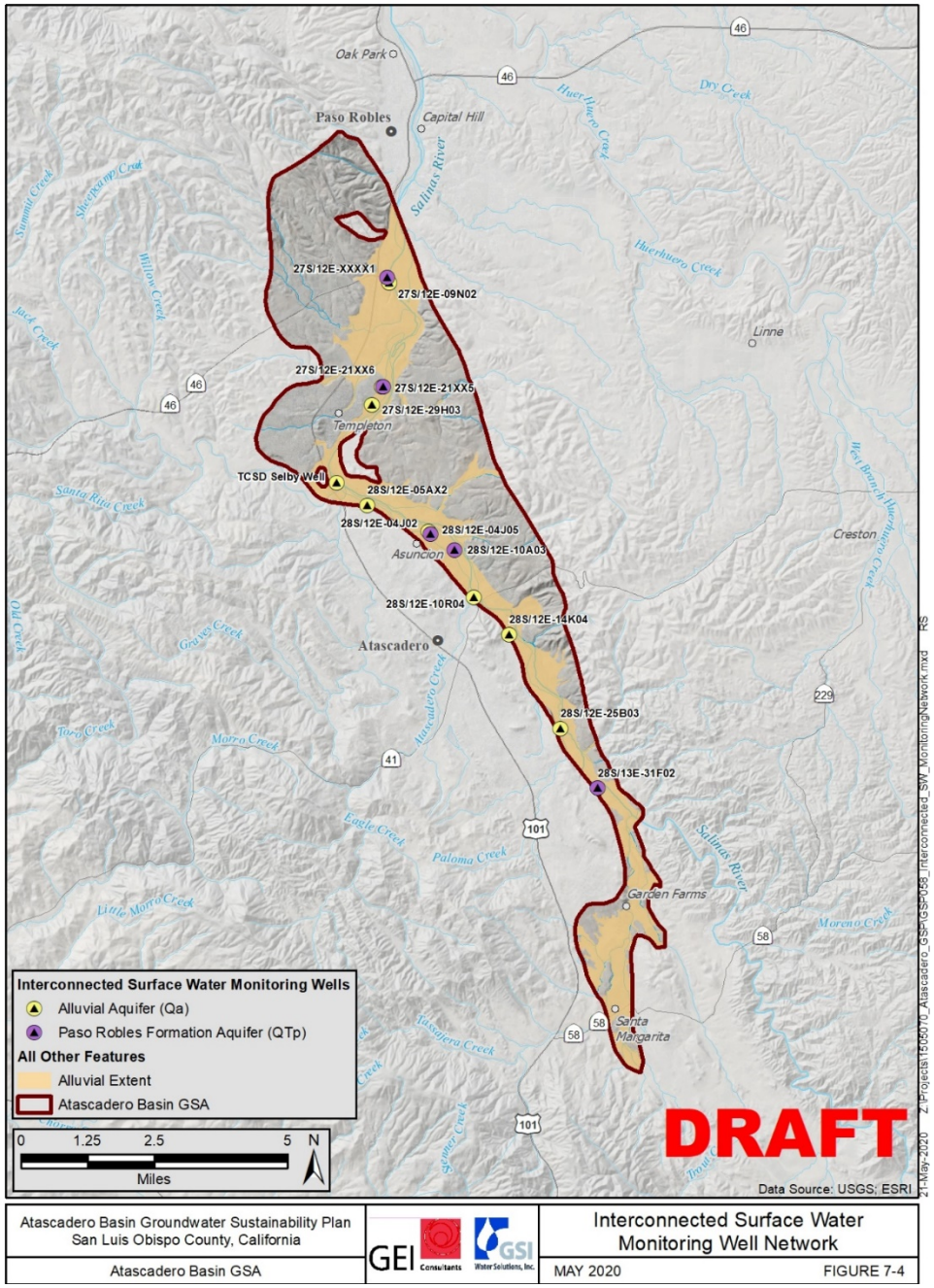
Interconnected Surface Water (Surface Water Depletion) Monitoring Network

Includes:

- 9 Alluvial Wells and 5 Paso Robles Formation Wells in Groundwater Level Monitoring Network, Plus:
- Several additional wells subject to confidentiality agreements or otherwise do not meet groundwater level monitoring network selection criteria.

Data Gaps

- Temporal
- Surface Water gaging.



Monitoring Networks Summary

Existing monitoring networks generally satisfy monitoring objectives for each applicable sustainability indicator:

Data gaps are minor:

- Spatial gaps: may be filled with existing wells
- Temporal gaps: to be assessed
- Missing well construction information: to be addressed
- Additional surface water gaging: to be assessed.

Questions?