Paso Robles Subbasin Water Year 2025 Annual Report

Paso Robles Area
Groundwater Authority

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ENGINEERING SOLUTIONS

Paso Robles Subbasin
Water Year 2025 Annual Report

This report was prepared by the staff of Confluence Engineering Solutions, Inc. under the supervision of professionals whose signatures appear below. The findings or professional opinions were prepared in accordance with generally accepted professional engineering and geologic practices.

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Annual Reports Elements Guide and Checklist

California Code of Regulations – GSP Regulation Sections	Annual Report Elements	Location in Annual Report
Article 7	Annual Reports and Periodic Evaluations by the Agency	
§ 356.2	Annual Reports	
	Each Agency shall submit an annual report to the Department by April 1 of each year following the adoption of the Plan. The annual report shall include the following components for the preceding water year:	
	(a) General information, including an executive summary and a location map depicting the basin covered by the report.	Executive Summary (§356.2[a])
	(b) A detailed description and graphical representation of the following conditions of the basin managed in the Plan:	Section 2.4 Monitoring Networks (§356.2[b])
	(1) Groundwater elevation data from monitoring wells identified in the monitoring network shall be analyzed and displayed as follows:	Section 3.1 Groundwater Elevations (§356.2[b][1])
	(A) Groundwater elevation contour maps for each principal aquifer in the basin illustrating, at a minimum, the seasonal high and seasonal low groundwater conditions.	Section 3.1.3 Seasonal High and Low (Spring and Fall) (§356.2[b][1][A])
	(B) Hydrographs of groundwater elevations and water year type using historical data to the greatest extent available, including from January 1, 2015, to current reporting year.	Section 3.1.4 Hydrographs (§356.2[b][1][B], and Appendix F)
	(2) Groundwater extraction for the preceding water year. Data shall be collected using the best available measurement methods and shall be presented in a table that summarizes groundwater extractions by water use sector, and identifies the method of measurement (direct or estimate) and accuracy of measurements, and a map that illustrates the general location and volume of groundwater extractions.	Section 3.2 Groundwater Extractions (§356.2[b][2])
	(3) Surface water supply used or available for use, for groundwater recharge or in-lieu use shall be reported based on quantitative data that describes the annual volume and sources for the preceding water year.	Section 3.3 Surface Water Use (§356.2[b][3])

California Code of Regulations – GSP Regulation Sections	Annual Report Elements	Location in Annual Report
Article 7	Annual Reports and Periodic Evaluations by the Agency	
§ 356.2	Annual Reports	
	(4) Total water use shall be collected using the best available measurement methods and shall be reported in a table that summarizes total water use by water use sector, water source type, and identifies the method of measurement (direct or estimate) and accuracy of measurements. Existing water use data from the most recent Urban Water Management Plans or Agricultural Water Management Plans within the basin may be used, as long as the data are reported by water year.	Section 3.4 Total Water Use (§356.2[b][4])
	(5) Change in groundwater in storage shall include the following:	Section 3.5 Change in Groundwater in Storage (§356.2[b][5])
	(A) Change in groundwater in storage maps for each principal aquifer in the basin.	Section 3.5.1 Annual Changes in Groundwater Elevation (§356.2[b][5][A])
	(B) A graph depicting water year type, groundwater use, the annual change in groundwater in storage, and the cumulative change in groundwater in storage for the basin based on historical data to the greatest extent available, including from January 1, 2015, to the current reporting year.	Section 3.5.2 Annual and Cumulative Change in Groundwater in Storage Calculations (§356.2[b][5][B])
	(c) A description of progress towards implementing the Plan, including achieving interim milestones, and implementation of projects or management actions since the previous annual report.	Section 4 Progress towards Basin Sustainability (§356.2[c])

Executive Summary

Introduction

This Water Year 2025 Annual Report for the Paso Robles Area Subbasin of the Salinas Valley Groundwater Basin (Paso Robles Subbasin or Subbasin) (see Figure 1) has been prepared in accordance with the Sustainable Groundwater Management Act (SGMA) regulations for Groundwater Sustainability Plans (GSPs). Pursuant to the SGMA regulations, a GSP Annual Report must be submitted to the California Department of Water Resources (DWR) by April 1 of each year following the adoption of the GSP.

With the submittal of the adopted Paso Robles Subbasin GSP on January 31, 2020, (M&A, 2020) the Groundwater Sustainability Agencies (GSAs) are required to submit an annual report for the preceding water year (WY) (October 1 through September 30) to DWR by April 1 of each subsequent year. These annual reports convey monitoring and water use data to DWR and Subbasin stakeholders on an annual basis to gauge performance of the Subbasin relative to the sustainability goals set forth in the GSP.

Sections of the WY 2025 Annual Report include the following:

Section 1. Introduction -- Paso Robles Subbasin Water Year 2025 Annual Report: A brief background of the formation and activities of the Paso Robles Subbasin GSAs and development and submittal of the GSP.

Section 2. Paso Robles Subbasin Setting and Monitoring Networks: A summary of the Subbasin setting, Subbasin monitoring networks, and ways in which data are used for groundwater management.

Section 3. 2024 Data and Subbasin Conditions

- **3.1 Groundwater Elevations (§356.2[b][1])**: A description of recent monitoring data with groundwater elevation contour maps for spring and fall monitoring events and representative hydrographs.
- **3.2 Groundwater Extractions (§356.2[b][2])**: A compilation of metered and estimated groundwater extractions by land use sector and location of extractions.
- **3.3 Surface Water Use (§356.2[b][3])**: A summary of reported surface water use.
- **3.4 Total Water Use (§356.2[b][4])**: A presentation of total water use by source and sector.
- **3.5 Change in Groundwater in Storage (§356.2[b][5])**: A description of the methodology and presentation of changes in groundwater in storage based on fall to fall groundwater elevation differences.
- **3.6 Additional Sustainability Indicators**: Descriptions of recent monitoring data with respect to land subsidence, interconnected surface water, and groundwater quality.
- **3.7 Summary of Changes in Subbasin Conditions**

Section 4. Progress towards Basin Sustainability (§356.2[c]): A summary of projects and management actions taken throughout the Subbasin by GSAs towards sustainability of the Subbasin.

Governance Update

The Paso Robles Area Groundwater Authority (Authority) was formed on March 14, 2025, through a Joint exercise of Powers Agreement (JPA) adopted by each of the GSAs, except San Miguel CSD GSA. The powers of the Authority include designation as GSP Plan Manager on behalf of the member GSAs, responsible for implementing the GSP, preparing and submitting GSP annual reports and five-year GSP evaluations.

Groundwater Elevations

Groundwater elevations observed in the Subbasin during WY 2025 were generally similar to those observed the previous year. Positive and negative changes in groundwater elevations from year to year are observed in various parts of the Subbasin, as has been observed historically. Seasonal trends of slightly higher spring groundwater elevations compared with fall levels are observed annually.

Groundwater elevations observed in the Subbasin during WY 2025 were generally similar to those observed in the previous year. In WY 2025, groundwater elevations in the Paso Robles Formation Aquifer representative monitoring site (RMS) wells were:

- Below the Minimum Threshold in 3 wells (each constituting an undesirable result as defined in the GSP),
- Between the Measurable Objective and the Minimum Threshold in 6 wells, and
- Above the Measurable Objective in 8 wells.

WY 2025 groundwater elevation data were not available for 6 RMS wells. WY 2025 groundwater elevation data and long-term trends are presented in greater detail in Section 3.1.4.1.

Groundwater Extractions

Total groundwater extractions in the Subbasin for WY 2025 are estimated to be 61,400 acre-feet (AF), which is nearly equivalent to the estimated long-term sustainable yield of the Subbasin[1]. These totals include municipal and small public water systems[2] (PWSs) pumping, rural domestic pumping, pumping to satisfy golf course water demand, and pumping to satisfy irrigated agricultural water demand (which makes up 91 percent of the total).

For the WY 2025 report, the irrigated agricultural water demand was calculated using newly available evapotranspiration (ET) and precipitation datasets, produced by Land IQ. The Land IQ datasets are better calibrated to local conditions than the previously used OpenET/GridMET datasets and are therefore considered to produce a more accurate result. For continuity with the analyses presented in previous annual reports, the OpenET/GridMET results are also presented in this WY 2025 report (see Section 3.2.3.1). Use of the Land IQ datasets produces a significantly lower estimated volume of irrigated agricultural groundwater extraction than the OpenET/GridMET datasets (55,900 AF vs 70,800

[1] The GSP states that the future estimated long-term sustainable yield of the Subbasin under reasonable climate change assumptions is 61,100 AFY (M&A, 2020).

[2] A PWS is defined as a system that provides water for human consumption to 15 or more connections or regularly serves 25 or more people daily for at least 60 days out of the year (https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/waterpartnerships/what_is_a_public_water_sys.pdf).

AF). This nearly 15,000 AF reduction in estimated irrigated agricultural water demand results in the total estimated groundwater extractions being nearly equivalent to the estimated long-term sustainable yield in WY 2025. It is important to understand that this perceived reduction is due to a change in methodology for irrigated agricultural water demand estimation. It is not attributable to an actual ~15,000 AF reduction in irrigated agricultural water demand in WY 2025 (as is demonstrated by the WY 2025 OpenET/GridMET analysis results, which are nearly equivalent to WY 2024 results). It is equally important to understand that this significantly reduced estimate of irrigated agricultural water demand may warrant an update to the water budget and a recalculation of the long-term sustainable yield to help ensure calculated/modeled conditions match observed conditions in the Subbasin.

Table ES- 1 summarizes the groundwater extractions by water use sector for each water year. The values for WYs 2017–2024 (grayed out) are included for reference purposes. This convention is carried throughout the report.

Table ES- 1. Groundwater Extractions by Water Use Sector

Water Year	Groundwater Extractions by Water Use Sector			Total (AF)
	Municipal PWS[1] (AF)	Small PWS, Golf and Rural Domestic (AF)	Agriculture (AF)	
2017	1,626	3,058	65,300	**70,000**
2018	1,677	3,880	80,200	**85,800**
2019	1,729	3,243	68,800	**73,800**
2020	1,509	3,906	72,600	**78,000**
2021	1,553	4,364	74,800	**80,700**
2022	1,982	3,790	76,900	**82,700**
2023	1,134	2,876	59,600	**63,600**
2024	1,044	3,134	70,900	**75,100**
2025	1,973	3,531	55,900	**61,400**
Method of Measure:	Metered	GSP Groundwater Model, varied by water year type	**OpenET/Land IQ**	---
Level of Accuracy:	high	low-medium	medium	---

Notes

[1] These volumes include any water produced as Salinas River underflow within the Paso Robles Subbasin.

— = not applicable

AF = acre-feet

PWS = public water system

Surface Water Use

The Subbasin currently can benefit from surface water entitlements from the Nacimiento Water Project (NWP) and the State Water Project to supplement municipal groundwater demands in the City of Paso Robles and the community of Shandon, respectively. In WY 2025, the City of Paso Robles used 1,909 AF of their NWP entitlement, but 768 AF of their NWP deliveries were recharged and extracted in the Atascadero Subbasin, so those volumes do not show up in this accounting. Locations of communities dependent on groundwater and with access to surface water are shown in Figure 11. There is currently no surface water available for agricultural or recharge project use within the Subbasin. A summary of total actual surface water use by source is provided in Table ES- 2.

Table ES- 2. Total Surface Water Use by Source

Water Year	Nacimiento Water Project (AF)	Imported Atascadero Basin Salinas River Underflow[1] (AF)	State Water Project (AF)	Total Surface Water Use (AF)
2017	1,650	2,609	42	**4,301**
2018	1,423	3,352	55	**4,829**
2019	1,142	3,075	43	**4,259**
2020	737	3,852	0	**4,589**
2021	1,250	3,612	0	**4,861**
2022	901	3,349	0	**4,250**
2023	1,432	3,130	0	**4,562**
2024	1,660	3,151	0	**4,811**
2025	1,141	2,990	0	**4,131**

Notes
[1] The City of Paso Robles produces Salinas River underflow, regulated as surface water by the State Water Resources Control Board, from its Thunderbird Wells located in the adjacent Atascadero Subbasin.
AF = acre-feet

Total Water Use

For WY 2025, quantification of total water use was completed through reporting of metered water production data from municipal wells (including imported Salinas River underflow[3]) (see Section 3.3.3), from metered surface water use, and from models used to estimate agricultural crop water supply requirements, including evaporative losses from agricultural storage ponds. In addition, rural water use, golf course irrigation demand, and small commercial PWS use was estimated. Table ES- 3 summarizes the total annual water use in the Subbasin by source and water use sector.

[3] Salinas River underflow is regulated as surface water by the State Water Resources Control Board.

Table ES- 3. Total Water Use in the Subbasin by Source and Water Use Sector

Water Year	Municipal PWS (AF)		Small PWS, Golf and Rural Domestic (AF)	Agriculture (AF)	Total (AF)
Source:	**Groundwater**	**Surface Water[1]**	**Groundwater**	**Groundwater**	**---**
2017	1,626	4,301	3,058	65,300	**74,300**
2018	1,677	4,829	3,880	80,200	**90,600**
2019	1,729	4,259	3,243	68,800	**78,000**
2020	1,509	4,589	3,906	72,600	**82,600**
2021	1,553	4,861	4,364	74,800	**85,600**
2022	1,982	4,250	3,790	76,900	**86,900**
2023	1,134	4,562	2,876	59,600	**68,200**
2024	1,044	4,811	3,134	70,900	**79,900**
2025	1,973	4,131	3,531	55,900	**65,500**
Method of Measure:	Metered	Metered	GSP Groundwater Model, varied by water year type	**OpenET/Land IQ**	---
Level of Accuracy:	high	high	low-medium	medium	---

Notes

[1] Includes imported Salinas River underflow, which is regulated as surface water by the State Water Resources Control Board.

— = not applicable

AF = acre-feet

PWS = public water system

Change in Groundwater in Storage

The calculation of change in groundwater in storage in the Subbasin was derived from comparison of fall groundwater elevation contour maps from one year to the next. For this analysis, the fall 2024 groundwater elevations were subtracted from the fall 2025 groundwater elevations resulting in maps depicting the changes in groundwater elevation that occurred during WY 2025 in both the Alluvial Aquifer and the Paso Robles Formation Aquifer.

The groundwater elevation change maps for WY 2025 (see Figure 14 and Figure 15) represent an overall moderate gain of groundwater in storage, with some areas showing higher elevation and other areas lower elevation compared to the previous fall.

The annual change of groundwater in storage calculated for WY 2025 is presented in Table ES- 4. Increases of groundwater in storage are presented as positive numbers and decreases of groundwater in storage are presented as negative numbers.

Table ES- 4. Annual Change of Groundwater in Storage

Water Year	Annual Change (AF)
2017	60,100
2018	6,400
2019	59,700
2020	-80,800
2021	-41,500
2022	-117,100
2023	120,700
2024	-25,500
2025	27,300

Note
AF = acre-feet

Additional Sustainability Indicators

Updated Interferometric Synthetic Aperture Radar (InSAR) data has been provided by DWR through October 2025. As discussed in the GSP (M&A, 2020), to minimize the influence of elastic subsidence, changes in ground level should be measured annually from June of one year to June of the following year (M&A, 2020). For this WY 2025 Annual Report, the single-year land subsidence was measured using InSAR from June 2024 through June 2025 and the 5-year land subsidence was measured from June 2020 through June 2025. Considering the range of potential error in the InSAR method (see Section 3.6.1), examination of the single-year change InSAR data from June 2024 to June 2025 show that zero land subsidence has occurred (Figure 18). Considering the same potential error for the 5-year cumulative change InSAR data from June 2020 to June 2025, it is apparent that as much as 0.20 feet of subsidence has occurred during this period (Figure 19). Although minor land subsidence is documented during the 5-year period, this result does not indicate an undesirable result as specified by the land subsidence minimum thresholds. The GSAs will continue to monitor and report annual subsidence as more data become available.

At this time, there are insufficient data available to adequately assess the interconnectivity of surface water and groundwater and the potential depletion of interconnected surface water. Although there is at present only a single Alluvial Aquifer RMS well in the Subbasin, 11 existing alluvial wells are monitored including six wells along the Salinas River, two wells next to the Estrella River near Airport Road and Jardine Road, one well along Cholame Creek just upstream of the confluence with San Juan Creek in Shandon, and one well along Huer Huero Creek just upstream of the State Highway 41 bridge. Additional Alluvial Aquifer wells will need to be established in the monitoring network before groundwater/surface water interaction can be more robustly analyzed. Two new Alluvial Aquifer monitoring wells were installed in 2025 as part of the DWR Technical Support Servies (TSS) initiative (see Section 4.3.3.4) and several other new Alluvial Aquifer monitoring wells are in the process of being installed as part of the Recommended Expanded Groundwater Level Monitoring Network for the Paso Basin produced by the Expanded Monitoring Network Technical Advisory Committee (TAC) (see Section 4.3.3.2).

There are no significant changes to groundwater quality since January 2015, as documented in the GSP, preceding annual reports, and this WY 2025 Annual Report. Implementation of sustainability projects and/or management actions, as presented in the GSP, in this WY 2025 Annual Report, or in future reports or GSP updates, are not anticipated to result in degraded groundwater quality in the Subbasin. Any potential changes in groundwater quality will be documented in future annual reports and GSP updates.

Progress towards Meeting Basin Sustainability

Several projects and management actions are in process or have been recently implemented in the Subbasin to attain sustainability, many of these efforts are supported by the DWR Sustainable Groundwater Management (SGM) Grant Program – Implementation Round 1 grant funding. These projects and actions include capital projects as well as basin-wide initiatives intended to reduce or optimize local groundwater use. Some of these projects were described in concept in the GSP and some are new initiatives designed to make new water supplies available to the Subbasin to reduce pumping and partially mitigate the degree to which management actions would be needed. Some of the ongoing efforts include:

- Cost of Service Study
- Expansion of Monitoring Networks
- Agricultural Groundwater (Non-De Minimis) Extraction Reporting
- Multi-benefit Irrigated Land Repurposing Program
- Supplemental State Water Supply Feasibility Study
- Drinking Water Well Impact Mitigation Program
- City of Paso Robles Recycled Water Program
- San Miguel Community Services District Recycled Water Project
- Blended Water Project

Since the publication of the GSP in 2020, there has been a mix of wet years, average years, and drought. Historical groundwater pumping in excess of the sustainable yield has created challenging conditions for sustainable management. Of particular concern are communities and rural residential areas that rely solely on groundwater for their water supply[4] (see Figure 11). During WY 2025, several dry wells were reported and/or replaced, a direct result of declining water levels. The distribution of these dry well replacements that occurred during WY 2025 is shown in Figure 11.

Actions are underway to collect data, improve the monitoring and data collection networks, and coordinate with affected agencies and entities throughout the Subbasin to develop solutions that address the shared mutual interest in the Subbasin's overall sustainability goal.

To mitigate declines in groundwater levels in some parts of the Subbasin, achieve the Subbasin sustainability goal by 2040, and avoid undesirable results as required by SMGA regulations, new water

[4] Affected communities may include Disadvantaged Communities (DACs), which are defined as: "the areas throughout California which most suffer from a combination of economic, health, and environmental burdens. These burdens include poverty, high unemployment, air and water pollution, presence of hazardous wastes as well as high incidence of asthma and heart disease" (https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/disadvantaged-communities). DACs occurring within the Subbasin as identified by San Luis Obispo Council of Governments are included on Figure 11.

supplies must be imported into the Subbasin [i.e., project(s)] and/or groundwater pumping must be reduced through management action(s). To date there have been no feasible projects identified that would materially benefit the Subbasin in meeting these goals. The composition of the Subbasin is non-homogeneous. Lateral hydrogeologic connectivity varies throughout, and there are likely distinct management zones that could be described. For this reason, it is unlikely that a “one size fits all” approach will work to achieve sustainability across the Subbasin. Management zones would be useful in implementing strategic management actions for the areas of highest concern at the lowest cost.

GSP implementation continued under the DWR SGM Grant Program work plan in WY 2025. Challenges experienced in WY 2025 include the defeat of the groundwater extraction fee proposed to fund the newly formed Authority, but there were also some big wins, including the addition of 75 new and existing wells to the Subbasin groundwater level monitoring network, completion of a full year’s acquisition of ground truthed satellite based ET data for irrigated agricultural fields, and progress towards implementation of a voluntary fallowing program. Additional time will be necessary to judge the effectiveness and quantitative impacts of these and other projects and management actions now underway. Continued implementation of the projects and management actions described in the GSP and in this WY 2025 Annual Report will be necessary to bring the Subbasin into sustainability.

1 Introduction – Paso Robles Subbasin Water Year 2025 Annual Report

The Water Year 2025 Annual Report for the Paso Robles Area Subbasin of the Salinas Valley Groundwater Basin (Paso Robles Subbasin or Subbasin) has been prepared for the Paso Robles Area Groundwater Authority in accordance with the Sustainable Groundwater Management Act (SGMA) regulations for Groundwater Sustainability Plans (GSPs) (§ 356.2. Annual Reports) (see Appendix A, SGMA Regulations for Annual Reports). Pursuant to the SGMA regulations, a GSP Annual Report must be submitted to the California Department of Water Resources (DWR) by April 1 of each year following the adoption of the GSP. Submittal of the adopted Paso Robles Subbasin GSP occurred on January 31, 2020. The GSAs are required to submit an annual report for the preceding water year (WY) (October 1 through September 30) to DWR by April 1 of each subsequent year. This WY 2025 Annual Report for the Paso Robles Subbasin documents groundwater production, water use data and water level data from October 1, 2024, through October 31, 2025.[5]

1.1 Setting and Background

The Paso Robles Subbasin GSP was prepared by Montgomery & Associates, Inc. (M&A, 2020), on behalf of and in cooperation with the Subbasin GSAs. The GSP, and subsequent annual reports including this WY 2025 Annual Report, covers the entire Paso Robles Subbasin (see Figure 1). The Subbasin lies in the northern portion of San Luis Obispo County. The majority of the Subbasin is comprised of gentle rolling topography and flatlands near the Salinas River Valley, ranging in elevation from approximately 450 to 2,400 feet above mean sea level (AMSL). The Subbasin is drained by the Salinas River and its tributaries, including the Estrella River, Huer Huero Creek, and San Juan Creek. Communities in the Subbasin are the City of Paso Robles and the communities of San Miguel, Creston, and Shandon. Highway 101 is the most significant north-south highway in the Subbasin, with Highways 41 and 46 running east-west across the Subbasin.

The GSP was jointly developed by four GSAs:

- City of Paso Robles GSA
- Paso Basin – County of San Luis Obispo GSA
- San Miguel Community Services District (CSD) GSA
- Shandon-San Juan GSA

The Estrella-El Pomar-Creston Water District (EPCWD) was formed in 2017 and was indirectly involved in development of the GSP through participation in public comment. On June 6, 2023, the EPCWD officially became a GSA in the Paso Robles Subbasin (EPCWD GSA).

The Paso Basin GSAs overlying the Subbasin entered into a Memorandum of Agreement (MOA) in September 2017. The purpose of the MOA was to establish a Paso Basin Cooperative Committee (PBCC) to develop a single GSP for the entire Subbasin to be considered for adoption by each GSA and subsequently submitted to DWR for approval. Under the framework of the original MOA, the GSAs engaged the public and coordinated to jointly develop the Paso Robles Subbasin GSP. At its November

[5] The required timeframe of the annual reports, pursuant to the SGMA regulations, is by water year, which is October 1 through September 30 of any year. However, because the County of San Luis Obispo Groundwater Level Monitoring Program measures water levels in October, the October 2025 measurements, for instance, are used to reflect conditions at the end of WY 2025.

20, 2019 meeting, in accordance with the MOA, the PBCC voted unanimously to recommend that the GSAs adopt the GSP and submit it to DWR by the SGMA deadline. Subsequent actions by each GSA resulted in unanimous approval of the GSP and a joint submittal of the GSP to DWR.

The original MOA included provisions for automatic termination upon approval of the GSP by DWR. Resolutions adopted by each GSA during the GSP approval process included an amendment to the MOA that removed automatic termination language because the GSAs intended to continue cooperating on the GSP and its implementation until such time as the long-term governance structure for implementation of the GSP is developed. On June 6, 2023, the EPCWD GSA became party to the MOA.

Each of the GSAs appointed a representative Member and Alternate to the PBCC to coordinate activities among the GSAs during the development of the GSP and the development and submittal of prior annual reports. On March 14, 2025, the MOA and PBCC were terminated due to the formation of the Paso Robles Area Groundwater Authority (Authority) through a Joint exercise of Powers Agreement (JPA) adopted by each of the GSAs, except San Miguel CSD GSA. The powers of the Authority include designation as GSP Plan Manager on behalf of the member GSAs, responsible for implementing the GSP, preparing and submitting GSP annual reports and five-year GSP evaluations. A copy of the JPA is attached as Appendix B.

1.2 Organization of this Report

The required contents of an annual report are provided in the SGMA Regulations (§ 356.2), included as Appendix A. Organization of the report is meant to follow the regulations where possible to assist in the review of the document. The sections are briefly described as follows:

Section 1. Introduction -- Paso Robles Subbasin Water Year 2025 Annual Report: A brief background of the formation and activities of the Paso Robles Subbasin GSAs and development and submittal of the GSP.

Section 2. Paso Robles Subbasin Setting and Monitoring Networks: A summary of the Subbasin setting, Subbasin monitoring networks, and ways in which data are used for groundwater management.

Section 3. 2025 Data and Subbasin Conditions

3.1 Groundwater Elevations (§356.2[b][1]): A description of recent monitoring data with groundwater elevation contour maps for spring and fall monitoring events and representative hydrographs.

3.2 Groundwater Extractions (§356.2[b][2]): A compilation of metered and estimated groundwater extractions by land use sector and location of extractions.

3.3 Surface Water Use (§356.2[b][3]): A summary of reported surface water use.

3.4 Total Water Use (§356.2[b][4]): A presentation of total water use by source and sector.

3.5 Change in Groundwater in Storage (§356.2[b][5]): A description of the methodology and presentation of changes in groundwater in storage based on fall to fall groundwater elevation differences.

3.6 Additional Sustainability Indicators: Descriptions of recent monitoring data with respect to land subsidence, interconnected surface water, and groundwater quality.

3.7 Summary of Changes in Subbasin Conditions

Section 4. Progress towards Basin Sustainability (§356.2[c]): A summary of projects and management actions taken throughout the Subbasin by GSAs towards sustainability of the Subbasin.

2 Paso Robles Subbasin Setting and Monitoring Networks

2.1 Introduction

This section provides a brief description of the basin setting and the groundwater management monitoring programs described in the GSP, as well as any notable events affecting monitoring activities or the quality of monitoring results in the reported WY 2025. Much of the background information reported on in this WY 2025 Annual Report was taken from the GSP prepared by Montgomery & Associates, Inc. (M&A, 2020).

2.2 Subbasin Setting

The Subbasin is a structural trough trending to the northwest filled with terrestrially derived sediments sourced from the surrounding mountains. The Subbasin is surrounded by relatively impermeable geologic formations, sediments with poor water quality, and structural faults. Land surface elevation ranges from approximately 2,000 feet AMSL in the southeast extent of the Subbasin to about 600 feet AMSL in the northwest extent, where the Salinas River exits the Subbasin. Agriculture is the dominant land use. The Subbasin includes the incorporated City of Paso Robles and unincorporated communities of San Miguel, Creston, and Shandon.

The Subbasin is the southernmost portion of the Salinas Valley Groundwater Basin. As originally defined by DWR (2003), the Subbasin was in both San Luis Obispo and Monterey counties. The 2019 DWR basin boundary modification process resulted in a revision of the northern boundary of the Paso Robles Subbasin to be coincident with the San Luis Obispo/Monterey county line, thereby placing the Subbasin entirely within San Luis Obispo County.

The top of the Subbasin is defined by land surface. The bottom of the Subbasin is defined by the base of the Paso Robles Formation. Sediments below the base of the Paso Robles Formation are typically much less permeable than the overlying sediments. Although the bedrock sediments often produce usable quantities of groundwater, the water is generally of poor quality, so they are not considered part of the Subbasin. As described in the GSP (M&A, 2020), the lateral boundaries of the Subbasin include the following:

- The western boundary is defined by the contact between the sediments in the Subbasin and the sediments of the Santa Lucia Range. A portion of the western boundary is defined by the Rinconada fault system, which separates the Paso Robles Subbasin from the Atascadero Subbasin.
- The eastern boundary of the Subbasin is defined by the contact between the sediments in the Subbasin and the sediments of the Temblor Range. The San Andreas Fault generally forms the eastern Subbasin boundary.
- The southern boundary of the Subbasin is defined by the contact between the sediments in the Subbasin and the sediments of the La Panza Range. To the southeast, a watershed and groundwater divide separates the Subbasin from the adjacent Carrizo Plain Basin; sedimentary layers are likely continuous across this divide.
- The northern boundary of the Subbasin is defined by the San Luis Obispo/Monterey county line.

Two principal aquifers exist in the Subbasin, including the Alluvial Aquifer and the Paso Robles Formation Aquifer. The Alluvial Aquifer is the youngest aquifer. It is unconfined and consists of predominantly coarse- grained sediments (sand and gravel) deposited along the Salinas River, Estrella River, Huer Huero Creek, and San Juan Creek. The Alluvial Aquifer varies in thickness but may be up to 100 feet thick along the channels. Much of the Alluvial Aquifer is characterized by relatively high transmissivity that may exceed 100,000 gallons per day per foot (gpd/ft). Wells screened in the Alluvial Aquifer can be very productive and may yield more than 1,000 gallons per minute (gpm).

The Paso Robles Formation Aquifer underlies the Alluvial Aquifer and outcrops in the Subbasin everywhere outside of the Holocene stream channels. The Paso Robles Formation represents the largest volume of sediments in the Subbasin, with a total thickness up to 3,000 feet in the northern Estrella area and up to 2,000 feet in the Shandon area. The Paso Robles Formation has a thickness of 700 to 1,200 feet throughout most of the Subbasin. It is generally characterized by interbedded, discontinuous lenses of sand and gravel that comprise the most productive strata within the aquifer, separated vertically by comparatively thick zones of fine-grained sediments (silts and clays). Well depths generally range from approximately 200 to 1,000 feet or more. As described in the GSP (M&A, 2020), reported aquifer transmissivity estimates in the Paso Robles Formation range from approximately 1,000 to 9,000 gpd/ft, and well yields generally range from approximately 150 to 850 gpm. Wells in certain parts of the Subbasin have been reported to be more productive (yielding upwards of 3,000 gpm).

The primary components of recharge to the Subbasin aquifers are percolation of precipitation and infiltration of surface water from rivers and streams. Natural discharge from the Subbasin aquifers occurs through springs and seeps, evapotranspiration (ET), and discharge to surface water bodies. The most significant component of discharge is pumping of groundwater from wells. The regional direction of groundwater flow is from the southeast to the northwest. As there is no hydrogeologic barrier to flow along the northern boundary of the Subbasin, groundwater exits the Subbasin along that boundary to the adjacent Salinas Valley Basin to the north.

2.3 Precipitation, Temperature and Climatic Periods

Annual precipitation recorded at the Paso Robles weather station (National Oceanic and Atmospheric Administration [NOAA] station 46730) is presented by water year in Figure 2. The total annual precipitation recorded at the Paso Robles weather station for WY 2025 is 9.86 inches. The long-term average annual precipitation for the period 1925 through 2025 is 14.7 inches per water year, as recorded at the Paso Robles weather station. The number of days with a maximum temperature above 100° Fahrenheit occurring each water year at the Paso Robles Municipal Airport are also shown in Figure 2. Daily temperature data from this site are only readily available since 1999. Climatic periods in the Subbasin have been determined based on analysis of data from the Paso Robles weather station using the Standardized Precipitation Index (SPI), which quantifies deviations from normal precipitation patterns. The WY 2025 SPI analysis uses a 24-month period instead of the 60-month period used in the GSP.[6] Climatic periods are categorized according to the following designations: wet, dry, and average/alternating wet and dry (see Figure 2). It is generally recognized that the eastern portion of the

[6] The 24-month period SPI analysis is considered an improvement over the 60-month period analysis because of its enhanced sensitivity to short-term climatic variations. The 24-month period SPI analysis provides insight into the relationship between water year type and groundwater elevation response (WMO, 2012).

Subbasin receives less annual rainfall than the rest of the Subbasin. Recently, the University of California Cooperative Extension (UCCE) installed a series of sophisticated weather stations across San Luis Obispo County and nine of these are now located in the Subbasin. Two California Irrigation Management Information System (CIMIS) stations were installed in the Subbasin during WY 2022. These new CIMIS stations include Paso Robles #265, located near the intersection of Wellsona and Airport Road at an elevation of 764 feet, and Shandon #266, located near the intersection of Starkey Road and Highway 41 at an elevation of 1,105 feet. CIMIS stations #265 and #266 began collecting data on March 1 and August 1, 2022, respectively. Station locations and rainfall totals for WY 2025 are presented in Figure 3, along with the spatial distribution of long-term average annual precipitation in the Paso Robles Subbasin.[7] Historical precipitation records for the Paso Robles weather station and monthly UCCE station records for WY 2025 are provided in Appendix C.

2.4 Monitoring Networks

This section provides a brief description of the monitoring programs currently in place and any notable events affecting monitoring activities or the quality of monitoring results. Monitoring networks are developed for each of the five sustainability indicators relevant to the Paso Robles Subbasin:

- Chronic lowering of groundwater levels
- Reduction of groundwater in storage
- Degraded water quality
- Land subsidence
- Depletion of interconnected surface water

Monitoring for the first two sustainability indicators (chronic lowering of water levels and reduction of groundwater in storage) is implemented using the representative monitoring sites (RMS), discussed in Section 2.4.1. Monitoring for the remaining three sustainability indicators (degraded water quality, land subsidence, and depletion of interconnected surface water) is discussed in Section 2.4.2.

2.4.1 Groundwater Elevation Monitoring Network (§ 356.2[b])

The GSP provided a summary of existing groundwater monitoring efforts currently promulgated under various existing local, state, and federal programs (M&A, 2020). SGMA requires that monitoring networks be developed in the Subbasin to provide sufficient data quality, frequency, and spatial distribution to evaluate changing aquifer conditions in response to GSP implementation.

The GSP identifies an existing network of 23 RMS wells for water level monitoring (M&A, 2020). Of these 23 wells, 22 are wells that are screened in the Paso Robles Formation, and one is an Alluvial Aquifer well. These RMS wells have been monitored biannually, in April and October, for various periods of record. The RMS groundwater monitoring network developed in the GSP is intended to monitor changes in groundwater conditions and demonstrate progress towards achieving measurable objectives and minimum thresholds documented in the GSP, quantify annual changes in groundwater in storage, and

[7] Average distribution of annual precipitation based on 30-year normal PRISM data calibrated to the Paso Robles Station (NOAA 46730).

monitor impacts to the beneficial uses and users of groundwater. The RMS wells are displayed in Figure 4, and a summary of information for each of the wells as provided in the GSP is included in Appendix D.

In WY 2025, six of the 22 Paso Robles Formation Aquifer RMS wells were inactive or inaccessible. These wells include:

- **27S/13E-30N01** (last measurement Fall 2016. Landowner requested discontinuation.)
- **27S/13E-30F01** (last measurement Spring 2022. Discontinued due to obstruction.)
- **26S/15E-29R01** (last measurement Fall 2021. Discontinued due to obstruction.)
- **26S/12E-14G02** (last measurement Spring 2021. Discontinued due to obstruction.)
- **26S/12E-26E07** (last measurement Fall 2018. Well paved over/potentially destroyed)
- **26S/13E-16N01** (last measurement Spring 2025. Landowner requested discontinuation.)

As requested in the DWR August 1, 2025 letter, providing review of the WY 2024 Annual Report, the Authority will reassess the monitoring network, consider replacing wells that are no longer in service, and will work to ensure the monitoring network module is updated accordingly. Progress towards these initiatives is further described in Section 4.3.3.

2.4.1.1 Monitoring Data Gaps

The GSP noted numerous data gaps in the current RMS network (M&A, 2020). Efforts are continuing during the implementation phase of the GSP to identify existing wells that can be added to the network, or to construct new wells for the network. As a start to this effort, the GSP identified nine additional wells that may be incorporated into the RMS network after the well depth and screened aquifer sections are identified. These wells are displayed in Figure 4, and a summary of available well information is included in Appendix E.

Expansion of the Subbasin monitoring networks is a major ongoing effort, which is described in detail in Section 4.3.3.

2.4.1.2 Basin Compartmentalization

The composition of the Subbasin is non-homogeneous. Lateral hydrogeologic connectivity varies throughout, and there are likely distinct management zones that could be described. These would be useful in implementing strategic management actions for the areas of highest concern at the lowest cost. The expanded monitoring effort along with recent improvements to the hydrogeologic conceptual model as informed by airborne electromagnetic (AEM) survey data provide evidence to justify delineating those potential management zones.

2.4.2 Additional Monitoring Networks

Evaluation of the water quality sustainability indicator is achieved through monitoring of an existing network of supply wells in the Subbasin. Constituents of concern (COCs) identified in the GSP that have the potential to impact suitability of water for public supply or agricultural use include salinity (as indicated by electrical conductivity), total dissolved solids (TDS), sodium, chloride, nitrate, sulfate, boron, and gross alpha.

COCs for drinking water are monitored at public water systems (PWSs),[8] including municipal and small PWSs. There are 41 PWSs in the Subbasin that serve potable water to small communities, schools, and rural businesses such as restaurants and wineries. PWSs constitute part of the monitoring network for water quality in the Subbasin. In addition, the GSP identified 28 agricultural supply wells that are monitored for COCs under the Irrigated Lands Regulatory Program (see GSP Figure 7-4 [M&A, 2020]).

Land subsidence in the Subbasin is monitored using Interferometric Synthetic Aperture Radar (InSAR) data collected using microwave satellite imagery provided by DWR. Available data to date indicate no significant subsidence in the Subbasin that impacts infrastructure. The GSAs will annually assess subsidence using the InSAR data provided by DWR.

A monitoring network to assess the sustainability indicator of groundwater/surface water interconnection is a current data gap that will be addressed during GSP implementation. There is at present only a single Alluvial Aquifer RMS well in the Subbasin. The revised GSP submitted to DWR in July 2022 includes an improved groundwater/surface water interaction discussion and identifies key data gaps that need to be filled before a sufficiently robust annual assessment of interconnected surface water can occur. As a result of the combined efforts of the GSAs and local stakeholders, a greatly expanded monitoring network has been identified for the monitoring of conditions in the Alluvial Aquifer (GSI, 2025). The collection of data from these wells will allow for improved resolution of seasonal water level contour maps in the Alluvial Aquifer. In addition, streamflow conditions will be documented that correspond to coincident water level conditions in the aquifer. When this monitoring network is fully established and adequate data (at least 1 to 2 years) have been collected, sustainable management criteria (SMCs) will be determined, and the new Alluvial Aquifer wells will be added to the RMS groundwater level monitoring network.

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[8] A PWS is defined as a system that provides water for human consumption to 15 or more connections or regularly serves 25 or more people daily for at least 60 days out of the year (https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/waterpartnerships/what_is_a_public_water_sys.pdf).

3 2025 Data and Subbasin Conditions

3.1 Groundwater Elevations (§ 356.2[b][1])

3.1.1 Introduction

This section provides a detailed report on groundwater elevations in the Subbasin measured during spring and fall of 2025. These maps present the most up-to-date seasonal conditions in the Subbasin. Monitoring data is reviewed for quality and an appropriate time frame is chosen to provide the highest consistency in the wells used for each reporting period. Data quality is often difficult to ascertain when measurements are taken by other agencies or private well owners, and well construction information may be incomplete or unavailable. This means that a careful review of the data is required before uploading it to DWR's Monitoring Network Module[9] to verify whether measurements are trending consistent with trends of previous years and with the current year's hydrology and level of extractions.

3.1.2 Principal Aquifers

As discussed in Section 2, there are two principal aquifers in the Subbasin. The Paso Robles Formation Aquifer is several hundreds of feet thick, represents the greatest volume of saturated sediments in the Subbasin, and is the aquifer that is most utilized for supply. The Alluvial Aquifer is limited in extent to the active channels of the streams in the Subbasin and is generally less than 100 feet thick.

3.1.3 Seasonal High and Low Groundwater Elevations (Spring and Fall) (§ 356.2[b][1][A])

The assessment of groundwater elevation conditions in the Subbasin as described in the GSP (M&A, 2020) is largely based on data from the San Luis Obispo County Flood Control and Water Conservation District (SLOCFCWCD) groundwater monitoring program. Groundwater levels are measured by the SLOCFCWCD through a network of public and private wells in the Subbasin. Data from many of the wells in the monitoring program are collected subject to confidentiality agreements between the SLOCFCWCD and well owners. Consistent with the terms of such agreements, the well owner information and specific locations for these wells are not published in the GSP and that convention is continued in this WY 2025 Annual Report. Beginning in 2021, monitoring network expansion efforts by Shandon-San Juan GSA (SSJ GSA) and EPCWD GSA have resulted in water level data being available from several additional wells, located strategically in previous data gap areas. Groundwater level data from up to 60 wells were used to create the spring and fall 2025 groundwater elevation contour maps for the Paso Robles Formation Aquifer and groundwater level data from up to 9 wells were used to create spring and fall maps for the Alluvial Aquifer. The well locations and data points are not shown on the maps to preserve confidentiality of the data between the well owner and the SLOCFCWCD. The owners of 23 of these wells have agreed to allow public use of their well data. These 23 wells are used as RMS wells for the purpose of monitoring sustainability indicators. As implementation of the GSP progresses, it is anticipated that additional wells will be added to the data set and that many of the wells with current confidentiality agreements will be modified to allow for public use of the data.

In accordance with the SGMA regulations, the following information is presented based on available data:

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[9] The Paso Robles Subbasin is no longer in the California Statewide Groundwater Elevation Monitoring (CASGEM) program since implementation of the GSP. The GSAs are now responsible for monitoring and reporting of groundwater elevation data.

- Groundwater elevation contour maps for the seasonal high and seasonal low groundwater conditions for the previous water year. Groundwater elevation contour maps are presented for spring 2025 and fall 2025.
- A map depicting the change in groundwater elevation for the preceding water year. A change in groundwater elevation map is shown here for the period of fall 2024 to fall 2025 (see Section 3.5).
- Hydrographs for wells with publicly available data (Appendix F).

3.1.3.1 Alluvial Aquifer Groundwater Elevation Contours

Spring and fall 2025 (high and low) groundwater elevation data for the Alluvial Aquifer in the Subbasin were contoured to assess spatial variations, yearly fluctuations, trends in groundwater conditions, groundwater flow directions, and horizontal groundwater gradients. Contour maps were prepared for the seasonal high Alluvial Aquifer groundwater levels, which typically occur in the spring, and the seasonal low Alluvial Aquifer groundwater levels, which typically occur in the fall. In general, the spring groundwater data are for April and the fall groundwater data are for October. Information identifying the owner or detailed location of private wells is not shown on the maps to preserve confidentiality.

Figure 5 and Figure 6 show contours of groundwater elevations in the Alluvial Aquifer for spring 2025 and fall 2025, respectively. In general, groundwater elevations range from approximately 1,400 feet AMSL in the southeastern portion of the Subbasin to approximately 600 feet AMSL near San Miguel. Groundwater flow direction in the Alluvial Aquifer generally follows the alignment of the creeks and rivers. Overall, groundwater in the Alluvial Aquifer flows from southeast to northwest across the Subbasin. On a basin-wide scale, the average horizontal hydraulic gradient in the alluvium is about 0.004 feet per foot (ft/ft) from the southeastern portion of the Subbasin to San Miguel.

3.1.3.2 Paso Robles Formation Aquifer Groundwater Elevation Contours

Spring and fall 2025 (high and low) groundwater elevation data for the Paso Robles Formation Aquifer in the Subbasin were contoured to assess spatial variations, yearly fluctuations, trends in groundwater conditions, groundwater flow directions, and horizontal groundwater gradients. Contour maps were prepared for the seasonal high groundwater levels, which typically occur in the spring, and the seasonal low groundwater levels, which typically occur in the fall. In general, the spring groundwater data are for April and the fall groundwater data are for October. Information identifying the owner or detailed location of private wells is not shown on the maps to preserve confidentiality.

Figure 7 and Figure 8 show contours of groundwater elevations in the Paso Robles Formation Aquifer for spring 2025 and fall 2025, respectively. Overall, groundwater conditions in the Subbasin in the spring and fall of 2025 were similar, with groundwater elevations in the fall generally lower than in the spring, a typical seasonal trend for the Subbasin. Groundwater flow direction is generally to the northwest and west over most of the Subbasin. In general, groundwater flow in the western portion of the Subbasin tends to converge toward areas of low groundwater elevations. These areas of low groundwater elevation are in the area between the City of Paso Robles and the communities of San Miguel and Whitley Gardens. Horizontal groundwater gradients range from approximately 0.002 ft/ft in the southeast portion of the Subbasin to approximately 0.02 ft/ft in the area southeast of Paso Robles.

Groundwater elevations observed in the Subbasin during WY 2025 are generally similar to those observed during the previous year. Positive and negative changes in groundwater elevations from year to year are observed in various parts of the Subbasin, as has been observed historically. Seasonal trends of slightly higher spring groundwater elevations compared with fall levels are observed annually.

3.1.4 Hydrographs (§ 356.2[b][1][B])

Groundwater elevation hydrographs are used to evaluate aquifer behavior over time. Changes in groundwater elevation at a given point in the Subbasin can result from many influencing factors, with all or some occurring at any given time. Factors can include changing climatic trends, seasonal variations in precipitation, varying Subbasin extractions, changing inflows and outflows along boundaries, availability of recharge from surface water sources, and influence from localized pumping conditions. Climatic variation can be one of the most significant factors affecting groundwater elevations over time. For this reason, the hydrographs also display periods of climatic variation categorized as wet, dry, or average/alternating wet and dry (see Figure 2).

3.1.4.1 Evaluation of Groundwater Elevation Sustainable Management Criteria

Groundwater elevation hydrographs and associated location maps for the 22 RMS wells that are constructed in and extract groundwater from the Paso Robles Formation Aquifer and the single Alluvial Aquifer RMS well are presented in Appendix F. These hydrographs also include information on well screen interval (if available), reference point elevation, as well as measurable objectives, minimum thresholds and interim milestones for each well that were developed during the preparation of the GSP. Many of the hydrographs illustrate a condition of declining water levels since the late 1990s, although some indicate relative water level stability during the same period.

As described in the GSP for the Paso Robles Formation Aquifer RMS wells[10], an average of the 2017 non-pumping groundwater levels was selected as the measurable objectives and minimum thresholds are set below those levels (M&A, 2020). Going forward from 2017, the average of the spring and fall measurements in any one water year will be the benchmark against which trends are assessed.

Eight of the 22 Paso Robles Formation Aquifer RMS wells have average WY 2025 groundwater elevations greater than their respective measurable objectives and groundwater elevations in three of these wells are greater than their respective 2025 interim milestones. Although groundwater elevations in several of the Paso Robles Formation Aquifer RMS wells are stable to slightly increasing during the past few years, groundwater elevations in several other RMS wells are continuing to trend downward. Three of the 22 Paso Robles Formation Aquifer RMS wells in the Subbasin groundwater monitoring network exhibit groundwater elevations below the minimum threshold established in the GSP. In WY 2025, each of these three wells are exhibiting groundwater elevations below the minimum threshold for two or more consecutive years (27S/13E-28F01 for the sixth consecutive year, 27S/13E-30J01 for the fourth consecutive year and 27S/12E-13N01 for the third consecutive year[11]). The condition exhibited in the three wells with groundwater elevations below the minimum threshold for two or more consecutive years constitutes a chronic lowering of groundwater elevation undesirable result as defined in the GSP.

[10] A measurable objective and minimum threshold were not set for the single Alluvial Aquifer monitoring network well because of a lack of available historical groundwater elevation data at the time of GSP submittal (M&A, 2020).

[11] Although there were no water level measurements completed in WY 2025 for well 27S/12E-13N01 it is assumed that the well was dry, based on the historical trend and below average precipitation received in WY 2025. The Authority will make a request to the County that continued monitoring of this well occurs going forward.

Based on initial observation this appears to be an isolated local issue. However, according to Section 8.4.5.1 of the GSP,[12] the GSAs must initiate an investigation to determine if local or Subbasin-wide actions are required to address this undesirable result. Work has continued on this investigation as part of monitoring network expansion efforts through 2025 (see Section 4.3.3) and will continue into 2026.

3.2 Groundwater Extractions (§ 356.2[b][2])

3.2.1 Introduction

This section presents the metered and estimated groundwater extractions from the Subbasin for WY 2025. The types of groundwater extraction described in this section include municipal PWSs (Table 1), agricultural (Table 3), rural domestic (Table 4), and golf courses and small PWSs[13] (Table 5). Each following subsection includes a description of the method of measurement and a qualitative level of accuracy for each estimate. The level of accuracy is rated on a qualitative scale of low, medium, and high. The annual groundwater extraction volumes for all water use sectors are shown in Table 6.

3.2.2 Municipal PWS Metered Well Production Data

The municipal PWS groundwater extractions documented in this report are metered data. Metered groundwater pumping extraction data are from the City of Paso Robles, San Miguel CSD, and the County of San Luis Obispo for Community Service Area (CSA) 16, providing service to the community of Shandon. The data shown in Table 1 reflect metered data reported by the respective agencies. The accuracy level rating of these metered data is high.

[12] Section 8.4.5.1 of the GSP – Criteria for Defining Undesirable Results includes the text: “A single monitoring well in exceedance for two consecutive years also represents an undesirable result for the area of the Basin represented by the monitoring well. Geographically isolated exceedances will require investigation to determine if local or Basin wide actions are required in response.”

[13] Golf courses and small PWSs in the Subbasin generally serve water produced from their own private wells.

Table 1. Municipal PWS Groundwater Extractions

Water Year	Metered Groundwater Extractions			Total (AF)
	City of Paso Robles[1] (AF)	San Miguel CSD (AF)	CSA 16 (AF)	
2017	1,261	295	70	**1,626**
2018	1,302	325	50	**1,677**
2019	1,392	289	48	**1,729**
2020	1,121	297	91	**1,509**
2021	1,157	300	96	**1,553**
2022	1,617	279	86	**1,982**
2023	778	278	77	**1,134**
2024	690	269	84	**1,044**
2025	1,579	313	81	**1,973**

Notes

[1] The City of Paso Robles produces water from wells located in both the Paso Robles Subbasin and the Atascadero Subbasin. Only the portion produced from within the Paso Robles Subbasin is included here. These volumes include any water produced as Salinas River underflow within the Paso Robles Subbasin.

AF = acre-feet

CSA = Community Service Area

CSD = Community Services District

PWS = public water system

3.2.3 Estimate of Agricultural Extraction

Agricultural water use constituted 91 percent of the total anthropogenic groundwater use in the Subbasin in WY 2025. Groundwater extraction for agricultural irrigation was estimated using two different analyses for WY 2025:

1. Using **OpenET ensemble model evapotranspiration (ET) data and GridMET precipitation data**, as has been done in previous annual reports,
2. Using **Land IQ ET and precipitation data**, as provided by the Authority.

In both analyses, groundwater extraction for agricultural irrigation was estimated using a satellite-based method that measures actual ET at the field level as well as an estimation of evaporative losses associated with agricultural storage ponds. The actual ET measurements used in these analyses capture the spatial and temporal variability of ET throughout the Subbasin and throughout the year, thereby capturing nuances in crop irrigation practices. Both methods of estimation use a WY 2025- specific crop mapping dataset from Land IQ, which represents actual planted acreage verified on the ground. Although not a significant factor in the Subbasin, the Land IQ dataset documents multi-cropping that occurs throughout the growing season.

The two agricultural irrigation estimation analyses are described below, followed by a discussion of the results from each.

Note that a 5-acre vineyard is irrigated with water supplied by the City of Paso Robles. The produced water associated with this vineyard is included in the total reported above in Section 3.2.2 and is omitted from the estimated agricultural irrigation analysis described here.

3.2.3.1 OpenET/GridMET-Based Analysis

To estimate agricultural groundwater extraction, WY 2025 specific crop mapping data from Land IQ was used in conjunction with the OpenET ensemble model.[14] OpenET provides satellite-based estimates of the total amount of water that is transferred from the land surface to the atmosphere through the process of ET, otherwise known as consumptive crop water demand. The OpenET ensemble model uses Landsat satellite data to produce ET data, in inches, at a spatial resolution of 30 meters by 30 meters (0.22 acres per pixel). Additional inputs include gridded weather variables such as solar radiation, air temperature, humidity, wind speed, and precipitation (OpenET, 2025).

OpenET provides estimates of ET for the entire land surface, or in other words, “wall to wall”. To produce an estimate of consumptive crop water demand specific to the irrigated crop acreage in the Subbasin the OpenET ensemble model results are screened by the Land IQ crop mapping data set, thereby removing any potential estimated ET volumes associated with bare ground, non-irrigated crops, or native vegetation. A total of 20 irrigated crop types were identified in the WY 2025 Land IQ spatial dataset. These 20 crop types have been grouped into six basic crop groups: orchard, pasture, alfalfa, vegetable, vineyard and nursery which are shown in Figure 9. A summary of acreage by crop type is presented in Table 2. Irrigated crop types were identified by inspection of monthly ET for each mapped crop type versus reference monthly ET for fallow ground. Crop types are considered irrigated if monthly ET remains high throughout the latter part of the growing season as opposed to diminishing monthly ET following the rainy season exhibited on fallow ground. The mapped acreage of each irrigated crop type multiplied by inches of ET derived from the OpenET ensemble model results in estimated AF of consumptive crop water demand by crop type.

To isolate the volume of consumptive crop water demand associated with applied irrigation water, the portion of ET resulting from effective precipitation[15] was removed from the analysis using an analytical approach presented in Food and Agriculture Organization (FAO) of the United Nations Irrigation Water Management Training Manual No. 4 (FAO,1986). The remaining ET associated with applied irrigation water was then scaled up using crop-specific factors to account for minor irrigation system losses[16]. The

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[14] OpenET uses reference ET data calculated using the American Society of Civil Engineers (ASCE) Standardized Penman-Monteith equation for a grass reference surface, and usually notated as ‘ETo’. For California, OpenET uses Spatial CIMIS meteorological datasets generated by the California DWR to compute ASCE grass reference ET. OpenET provides ET data from multiple satellite-driven models, and also calculates a single “ensemble value” from those models. The models currently included are ALEXI/DisALEXI, eeMETRIC, geeSEBAL, PT-JPL, SIMS, and SSEBop. More information about these models can be found at: https://openetdata.org/methodologies/. All of the models included in the OpenET ensemble have been used by government agencies with responsibility for water use reporting and management in the western U.S., and some models are widely used internationally (OpenET, 2024).

[15] Effective precipitation (the portion of rainfall that remains available to crops after runoff, evaporation, and deep percolation are removed) was calculated monthly for each field based on gridded precipitation values from gridMET using analytical formulas presented in FAO (1986). gridMET is a public domain dataset of daily high-spatial resolution (~4-km, 1/24th degree) surface meteorological data covering the contiguous United States from 1979-yesterday. The dataset is available through OpenET. The methodology behind gridMET is described in Abatzoglou (2013).

[16] Irrigation system efficiencies were assigned by crop type based on FAO (1989) and Martin (2011). Vineyard, the dominant crop in the Subbasin was assigned an irrigation efficiency of 90 percent.

resulting total is an estimate of total agricultural groundwater extraction. Deficit irrigation is captured through the measurement of actual ET. Groundwater extractions for frost protection or leaching of accumulated salts in the soil profile are captured to the extent that the produced water results in increased ET. It is assumed that the remainder of the water produced for frost protection or leaching remains within the Subbasin and percolates back to groundwater. The results of this analysis are presented in green text in Table 2, broken out by basic crop group.

3.2.3.2 Land IQ-Based Analysis

The analysis based on Land IQ data is similar to the analysis based on OpenET/GridMET data described above, except the ET data and precipitation data used are produced by Land IQ. To estimate agricultural groundwater extraction, WY 2025 specific crop mapping data from Land IQ was used in conjunction with ET data from Land IQ. The Land IQ ET data is derived from satellite-based estimates of consumptive crop water demand, similar to the OpenET ensemble model, but the data are calibrated to ET ground truthing stations located in the Subbasin (see Figure 3). Similarly, the precipitation data produced by Land IQ is based on daily precipitation data from the CIMIS, UCCE, and NOAA weather stations located in the Subbasin (see Figure 3), instead of the GridMET precipitation dataset which is calibrated at a coarser regional scale.

Similar to the analysis based on OpenET/GridMET data, the Land IQ ET data are screened by the Land IQ crop mapping data set, thereby removing any potential estimated ET volumes associated with bare ground, non-irrigated crops, or native vegetation. The mapped acreage of each irrigated crop type multiplied by inches of ET derived from Land IQ results in estimated AF of consumptive crop water demand by crop type. The same assumptions and processing steps as were applied to the OpenET/GridMET data were applied to the Land IQ ET data to account for effective precipitation, irrigation system losses, deficit irrigation, and frost protection. The results of this analysis are presented in blue text in Table 2, broken out by basic crop group.

3.2.3.3 Results and Discussion

The primary difference between the two evaluated agricultural irrigation groundwater extraction estimation analyses presented is the input data used for ET and precipitation. The analysis based on OpenET/GridMET data is presented in this annual report for the purpose of providing continuity with the analyses presented in previous annual reports. The Land IQ ET and precipitation datasets have not previously been available, prior to WY 2025. The Land IQ datasets are better calibrated to local conditions than the OpenET/GridMET datasets due to the use of ET ground-truthing stations and incorporation of precipitation data from numerous weather stations located within the Subbasin. In contrast, the OpenET and GridMET datasets are calibrated at a larger scale, primarily utilizing data from stations that are located outside of the Subbasin. For this reason, the Land IQ based analysis is considered to be an improvement over the previously used OpenET/GridMET based analyses. Results from the Land IQ based analysis are carried forward into the total water use calculations (see Section 3.4). The accuracy level rating of the Land IQ estimated irrigated agricultural groundwater extraction volumes is medium.

Although there was below average precipitation in WY 2025, the growing season was significantly cooler than observed in recent years. There were only 7 days with a maximum temperature above 100° Fahrenheit during the WY 2025 growing season, as recorded at the Paso Robles Municipal Airport (see

Figure 2). This is the lowest number of days with a maximum temperature above 100° Fahrenheit since at least 1999.

Evaporative losses associated with agricultural storage ponds was estimated based on the following assumptions: 1) the ponds are assumed to be full for April and May, and ¼ full from June through March; 2) the wetted area of the ponds at ¼ full is approximately 50 percent of the wetted area when the ponds are full. A review of recent aerial photography was completed to identify agricultural storage ponds in the Subbasin (see Figure 9). From this review it was determined that approximately 200 acres of wetted area is present in the Subbasin when the ponds are full (April and May) and approximately 100 acres of wetted area is present when the ponds are ¼ full (June through March). The total annual evaporative loss from agricultural storage ponds was calculated based on pan evaporation data from the Nacimiento Dam Station and the variable wetted acreage on a monthly time step. The estimated total evaporative loss from agricultural storage ponds is 470 AFY. This total is incorporated into the total estimated agricultural groundwater extraction numbers presented in Table 3.

Table 2. WY 2025 Irrigated Acreage, Estimated Agricultural Groundwater Extraction and Calculated Water Duty Factor by Basic Crop Group

Basic Crop Group	WY Irrigated Acreage	Agricultural GW Extractions (AF)			
		OpenET/ GridMET	Water Duty Factor (AF/acre)	Land IQ	Water Duty Factor (AF/acre)
Orchard	1,853	3,320	1.8	2,683	1.4
Pasture	1,050	3,341	3.2	2,377	2.3
Alfalfa	1,778	6,327	3.6	5,177	2.9
Vegetable	734	1,295	1.8	859	1.2
Vineyard	33,065	56,375 [1]	1.7	44,676 [1]	1.4
Nursery	82	132	1.6	106	1.3
Total	**38,562**	**70,800**	**Average: 1.8**	**55,900**	**Average: 1.4**

Notes

The **Land IQ** analysis results are carried forward into the Total Water Use calculations as indicated by the **bold black box**.

[1] This total include 470 AFY of estimated evaporative losses from agricultural storage ponds AF = acre-feet

Table 3. Estimated Annual Agricultural Groundwater Extractions

Water Year	Agricultural GW Extractions[1] (AF)		Irrigated Acres[2]	Water Year Type[3]
	OpenET/ GridMET	Land IQ		
2017	65,300	---	41,151 [4]	Wet/Hot
2018	80,200	---	40,356	Wet/Hot
2019	68,800	---	41,113	Avg/Avg
2020	72,600	---	38,601	Avg/Avg
2021	74,800	---	37,470	Dry/Hot
2022	76,900	---	37,419	Dry/Hot
2023	59,600	---	38,904	Wet/Avg
2024	70,900	---	39,774	Wet/Hot
2025	~~70,800~~	55,900	38,562	Dry/Cool

Notes

The **Land IQ** analysis results are carried forward into the Total Water Use calculations as indicated by the **bold black box**.

~~Strikethrough~~ text indicates value not used in Total Water Use calculations.

[1] These totals include 470 AFY of estimated evaporative losses from agricultural storage ponds

[2] Irrigated Acres based on WY specific crop mapping provided by Land IQ, unless otherwise noted.

[3] Water year types are based on 24-month period SPI analysis and number of days with a max temperature above 100F as recorded at the Paso Robles Municipal Airport (see Section 2.3).

[4] based on Land IQ crop mapping data from 2016

— = not applicable

AF = acre-feet

SPI = Standardized Precipitation Index

3.2.4 Rural Domestic and Small Public Water System Extraction

Rural domestic and small PWS groundwater extractions in the Subbasin were estimated using the methods described here.

3.2.4.1 Rural Domestic Demand

The projected future water budget presented in the GSP (M&A, 2020) assumes water neutral growth in rural domestic water demand from WY 2016 going forward. Therefore, the rural domestic demand had been held constant at the WY 2016 volume estimated from the GSP groundwater model (3,530 AF). In WY 2023, rural domestic pumping was re-evaluated based on the assumption of water neutral growth since 2016, but with the modification of annual fluctuations in outdoor water use based on water year type (GSI, 2024).

Rural domestic demand was completely reassessed in WY 2024 as part of the Cost of Service Study (see Section 4.3.2). For this WY 2025 annual report, the estimated annual rural domestic groundwater extractions are based on this work, as described in the WY 2024 Annual Report (ConfluenceES, 2025) and are varied by water year type. In addition, an analysis has been added to account for variations in outdoor landscaping water demand based on the number of days with maximum temperature above 100° Fahrenheit, as recorded at the Paso Robles Municipal Airport (see Figure 2). The resulting groundwater extractions for rural domestic demands are summarized in Table 4. The accuracy level rating of these estimated volumes is medium.

Table 4. Estimated Rural Domestic Groundwater Extractions

Water Year	Rural Domestic (AF)
2017	2,086
2018	3,359
2019	2,035
2020	2,483
2021	3,730
2022	3,136
2023	1,663
2024	2,089
2025	2,211

Notes
AF = acre-feet

3.2.4.2 Golf Course and Small Public Water System Extractions

The category of small PWSs includes a wide variety of establishments and facilities including small mutual water companies, golf courses, wineries, rural schools, and rural businesses. Various studies over the years used a mix of pumping data and estimates for type-specific water demand rates to estimate small PWS groundwater demand (Fugro, 2002; Todd Engineers, 2009). The 2012 San Luis Obispo County Master Water Report used the County of San Luis Obispo geographic information services mapping to define the distribution and number of commercial systems at the time and applied a single annual factor of 1.5 AFY per system (Carollo et al., 2012).

For the 2014 model update, actual pumping data were used as available to provide a monthly record over the study period (GSSI, 2014). Groundwater demand for four major golf courses (at the time) in the Subbasin (The Links, Hunter Ranch, Paso Robles, and River Oaks) was estimated using the following factors: reference evapotranspiration (ETo) data measured in Paso Robles, the crop coefficient for turf grass, monthly rainfall data, and golf course acreage (GSSI, 2014). Water use for wineries was estimated by identifying each winery and its permitted capacity and applying a water use rate of 5 gallons of water per gallon of wine produced. Minor landscaping, wine tasting/restaurant functions, and return flows were also accounted for (GSSI, 2014). Water use for several small commercial/institutional water systems was estimated using water duty factors specific to the water system type (i.e., camp, school, restaurant, and other uses) (GSSI, 2014).

The groundwater model update completed for the GSP (M&A, 2020) used a linear regression projection for the 2014 model update to estimate small PWS demand through WY 2016. The projected future water budget presented in the GSP (M&A, 2020) assumes water neutral growth in small PWS water demand from WY 2016 going forward. For this WY 2025 Annual Report, golf course and small PWS demand has been evaluated based on the assumption of water neutral growth since 2016, but with the modification of annual fluctuations based on water year type.

For the evaluation of golf course irrigation demand, annually estimated effective precipitation (see Section 3.2.3) was used to discount the volume of applied water. It is assumed that 25 percent of small PWS water use is used outdoors to irrigate minor landscaping. For the evaluation of small PWS water demand an estimation of effective precipitation for each water year was used to account for fluctuations in outdoor water use. These outdoor use totals were then summed with the non-fluctuating assumed 75 percent indoor water use for each year. For this WY 2025 Annual Report, an analysis has been added to account for variations in golf course and outdoor landscaping water demand based on the number of days with maximum temperature above 100° Fahrenheit, as recorded at the Paso Robles Municipal Airport (see Figure 2). The resulting groundwater extractions for golf course irrigation and small PWS demands are summarized in Table 5. The accuracy level rating of these estimated volumes is low-medium.

The total irrigated golf course acreage in the Subbasin is estimated to be 401 acres and the base water demand is assumed to be 4.0 AF/acre (Lyman, 2012). Each golf course is assumed to be deficit irrigated based on inspection of historical aerial photography and best management practices for water conservation on golf courses in California (Gross, 2012). The River Oaks Golf Course produces water from shallow alluvial wells accessing Salinas River underflow and likely also City of Paso Robles wastewater treatment plant effluent. River Oaks Golf Course pumping accounts for approximately 6 percent of the total annual golf course water demand.

Table 5. Estimated Golf Course and Small Public Water System Groundwater Extractions

Water Year	Small PWS (AF)	Golf Courses (AF)	Total Water Use (AF)
2017	300	985	1,285
2018	353	1,132	1,485
2019	298	970	1,268
2020	316	1,061	1,377
2021	368	1,148	1,516
2022	344	1,120	1,464
2023	282	835	1,117
2024	300	985	1,285
2025	305	1,015	1,320

Notes
AF = acre-feet
PWS = public water system

3.2.5 Total Groundwater Extraction Summary

Total groundwater extractions in the Subbasin for WY 2025 are estimated to be 61,400 AF. Table 6 summarizes the total groundwater use by sector and indicates the method of measure and associated level of accuracy. Approximate points of extraction were spatially distributed and colored according to a grid system to represent the relative pumping across the Subbasin in terms of AF per acre (see Figure 10).

Table 6. Total Groundwater Extractions

Water Year	Groundwater Extractions by Water Use Sector			Total (AF)
	Municipal PWS[1] (AF)	Small PWS, Golf and Rural Domestic (AF)	Agriculture (AF)	
2017	1,626	3,058	65,300	**70,000**
2018	1,677	3,880	80,200	**85,800**
2019	1,729	3,243	68,800	**73,800**
2020	1,509	3,906	72,600	**78,000**
2021	1,553	4,364	74,800	**80,700**
2022	1,982	3,790	76,900	**82,700**
2023	1,134	2,876	59,600	**63,600**
2024	1,044	3,134	70,900	**75,100**
2025	1,973	3,531	55,900	**61,400**
Method of Measure:	Metered	GSP Groundwater Model, varied by water year type	**OpenET/Land IQ**	---
Level of Accuracy:	high	low-medium	medium	---

Notes
[1] These volumes include any water produced as Salinas River underflow within the Paso Robles Subbasin.
— = not applicable
AF = acre-feet
PWS = public water system

3.3 Surface Water Use (§ 356.2[b][3])

3.3.1 Introduction

This section addresses the reporting requirement of providing surface water supplies used, or available for use, and describes the annual volume and sources for WY 2025. This section also reports quantities of Salinas River underflow, regulated as surface water by the SWRCB, produced and imported into the Subbasin by the City of Paso Robles from the adjacent Atascadero Subbasin. The method of measurement and level of accuracy is rated on a qualitative scale. The Subbasin has the potential to benefit from surface water entitlements from the Nacimiento Water Project (NWP) and the State Water Project to supplement municipal groundwater demands in the City of Paso Robles and the community of Shandon, respectively. Locations of communities dependent on groundwater and with access to surface water are shown in Figure 11.

3.3.2 Surface Water Available for Use

Table 7 provides a breakdown of surface water available for municipal use in the Subbasin based on contract annual entitlements. There is no guarantee that the full contract entitlement amount will be available to individual NWP or SWP subcontractors in any given year. There is currently no surface water available for agricultural or recharge project use within the Subbasin.

Table 7. Surface Water Available for Use

Water Year	Nacimiento Water Project[1] (AF)	State Water Project[2] (AF)	Total Available Surface Water (AF)
2017	6,488	100	**6,588**
2018	6,488	100	**6,588**
2019	6,488	100	**6,588**
2020	6,488	100	**6,588**
2021	6,488	100	**6,588**
2022	6,488	100	**6,588**
2023	6,488	100	**6,588**
2024	6,488	100	**6,588**
2025	6,488	100	**6,588**

Notes
[1] Contract annual entitlement to the City of Paso Robles
[2] Contract annual entitlement to CSA 16
AF = acre-feet
CSA = Community Service Area

3.3.3 Imported Salinas River Underflow

Salinas River underflow, which is regulated as surface water by the SWRCB, is produced by the City of Paso Robles from the adjacent Atascadero Subbasin and imported into the Subbasin. These imported underflow volumes are integrated into the City of Paso Robles water distribution system and served to municipal customers located predominantly within the Subbasin.[17] The annual volumes of imported Salinas River underflow production are presented in Table 8. The accuracy level rating of these metered data is high.

[17] A minor portion of the City of Paso Robles municipal water supply is used by customers located outside of the Subbasin.

Table 8. Imported Salinas River Underflow

Water Year	Imported Salinas River Underflow[1] (AF)
2017	2,609
2018	3,352
2019	3,075
2020	3,852
2021	3,612
2022	3,349
2023	3,130
2024	3,151
2025	2,990

Notes

[1] The City of Paso Robles produces Salinas River underflow, regulated as surface water by the State Water Resources Control Board, from wells located in both the Paso Robles Subbasin and the Atascadero Subbasin. Only the portion produced from within the Atascadero Subbasin is included here.

AF = acre-feet

3.3.4 Total Surface Water Use

A summary of total actual surface water use by source is provided in Table 9. The accuracy level rating of these metered data is high.

Environmental uses of surface water are also recognized but not estimated due to insufficient data to make an estimate of surface water use. It is expected that environmental uses will be quantified in future annual reports as more data become available.

Table 9. Surface Water Use

Water Year	Nacimiento Water Project (AF)	Imported Salinas River Underflow[1] (AF)	State Water Project (AF)	Total Surface Water Use (AF)
2017	1,650	2,609	42	**4,301**
2018	1,423	3,352	55	**4,829**
2019	1,142	3,075	43	**4,259**
2020	737	3,852	0	**4,589**
2021	1,250	3,612	0	**4,861**
2022	901	3,349	0	**4,250**
2023	1,432	3,130	0	**4,562**
2024	1,660	3,151	0	**4,811**
2025	1,141	2,990	0	**4,131**

Notes

[1] The City of Paso Robles produces Salinas River underflow, regulated as surface water by the State Water Resources Control Board, from its Thunderbird Wells located in the adjacent Atascadero Subbasin.

AF = acre-feet

3.4 Total Water Use (§ 356.2[b][4])

This section summarizes the total annual groundwater and imported surface water used to meet municipal, agricultural, and rural demands within the Subbasin. For WY 2025, the quantification of total water use was completed from reported metered municipal water production and metered surface water delivery, and from models used to estimate agricultural and rural water demand. Table 10 summarizes the total water use in the Subbasin by source and water use sector for WY 2025. Figure 12 and Figure 13 represent the WY 2025 total annual water use by water use sector and water source, respectively. The method of measurement and a qualitative level of accuracy for each estimate is rated on a qualitative scale of low, medium, and high.

Table 10. Total Water Use by Source and Water Use Sector

Water Year	Municipal PWS (AF)		Small PWS, Golf and Rural Domestic (AF)	Agriculture (AF)	Total (AF)
Source:	**Groundwater**	**Surface Water[1]**	**Groundwater**	**Groundwater**	**---**
2017	1,626	4,301	3,058	65,300	**74,300**
2018	1,677	4,829	3,880	80,200	**90,600**
2019	1,729	4,259	3,243	68,800	**78,000**
2020	1,509	4,589	3,906	72,600	**82,600**
2021	1,553	4,861	4,364	74,800	**85,600**
2022	1,982	4,250	3,790	76,900	**86,900**
2023	1,134	4,562	2,876	59,600	**68,200**
2024	1,044	4,811	3,134	70,900	**79,900**
2025	1,973	4,131	3,531	55,900	**65,500**
Method of Measure:	Metered	Metered	GSP Groundwater Model, varied by water year type	**OpenET/Land IQ**	---
Level of Accuracy:	high	high	low-medium	medium	---

Notes

[1] Includes imported Salinas River underflow, which is regulated as surface water by the State Water Resources Control Board.

— = not applicable

AF = acre-feet

PWS = public water system

3.5 Change in Groundwater in Storage (§ 356.2[b][5])

3.5.1 Annual Changes in Groundwater Elevation (§ 356.2[b][5][A])

Annual changes in groundwater elevation in the Alluvial Aquifer and the Paso Robles Formation Aquifer for WY 2025 are derived from a comparison of fall groundwater elevation contour maps from one year to the next. For this analysis, fall 2024 groundwater elevations were subtracted from the fall 2025 groundwater elevations resulting in maps depicting the changes in groundwater elevations that occurred during WY 2025 (see Figure 14 [Alluvial Aquifer] and Figure 15 [Paso Robles Formation Aquifer]). The WY 2025 maps are based on data from 56 Paso Robles Formation wells and 9 Alluvial Aquifer wells.

The Alluvial Aquifer groundwater elevation change map for WY 2025 (see Figure 14) shows that compared to the previous fall, water levels were lower in the Huer Huero Creek drainage near Creston and along the Salinas River between the City of Paso Robles and the confluence with the Estrella River.

The Paso Robles Formation Aquifer groundwater elevation change map for WY 2025 (see Figure 15) shows some areas of higher elevation and other areas of lower elevation compared to the previous fall.

The groundwater elevation change maps represent the difference in groundwater elevations between two snapshots in time, made approximately one year apart. Considering that groundwater elevations may fluctuate dynamically throughout each year in response to changing climatic conditions and groundwater pumping patterns, the specific patterns of 'higher' versus 'lower' water level areas shown on Figure 14 and Figure 15 may not necessarily be representative of conditions occurring throughout the entire water year.

3.5.2 Annual and Cumulative Change in Groundwater in Storage Calculation (§ 356.2[b][5][B])

The groundwater elevation change maps presented above represent a volume change within the Alluvial Aquifer (Figure 14) and the Paso Robles Formation Aquifer (Figure 15) for WY 2025. The volume change inferred from the groundwater elevation change maps represents a total volume, including the volume displaced by the aquifer material and the volume of groundwater stored within the void space of the aquifer. The portion of void space in the aquifer that can be used for groundwater storage is represented by the aquifer storage coefficient (S), a unitless factor, which is multiplied by the total volume change to derive the change in groundwater in storage. Based on work completed for the GSP, S is estimated to be 7 percent in the Paso Robles Formation Aquifer.[18] The aquifer storage coefficient value used for the Alluvial Aquifer is 20 percent.[19] The annual change of groundwater in storage calculated for WY 2025 is presented in Table 11 and the annual and cumulative change in groundwater in storage since 1981 are presented on Figure 16.

[18] Appendix G includes derivation of the S from the GSP groundwater model files and a sensitivity analysis.

[19] In the case of the alluvial aquifer, the aquifer storage coefficient is equivalent to the specific yield, a unitless factor, which is estimated to be 20 percent.

Table 11. Annual Change in Groundwater in Storage - Paso Robles Formation Aquifer

Water Year	Annual Change (AF)
2017	60,100
2018	6,400
2019	59,700
2020	-80,800
2021	-41,500
2022	-117,100
2023	120,700
2024	-25,500
2025	27,300

Notes
AF = acre-feet

Historical comparison of annually tabulated precipitation, total groundwater extractions, and annual change in groundwater in storage reveals a close correlation between annual total precipitation and change in groundwater in storage (see Figure 17). Specifically, years with well above average precipitation (i.e., 1983, 1993, 1995, 1998, 2005, 2017, and 2023) are all associated with years of large increases in groundwater in storage. Conversely, nearly all[20] below average precipitation years are associated with years of decline in groundwater in storage. Although there was below average precipitation in WY 2025, the growing season was significantly cooler than observed in recent years. There were only 7 days with a maximum temperature above 100° Fahrenheit during the WY 2025 growing season, as recorded at the Paso Robles Municipal Airport (see Figure 2). This is the lowest number of days with a maximum temperature above 100° Fahrenheit since at least 1999. This may help explain the moderate increase in groundwater in storage despite the below average precipitation in WY 2025.

The influence of total annual groundwater extractions on annual change in groundwater in storage is also apparent, although to a lesser degree. The influence of groundwater extractions on annual changes in groundwater in storage is most apparent during the drought of the mid-1980s through the early 1990s, when below average precipitation prevailed, but a trend of decreasing groundwater extractions resulted in decreasing amounts of negative annual change of groundwater in storage.

Annual Change in Groundwater in Storage was calculated using the GSP groundwater model for WYs 1981 through 2016 and by groundwater elevation change maps for WYs 2017 through present. The groundwater elevation method has been calibrated to GSP groundwater model results (see Appendix G), however, some noteworthy differences between the methods remain. While the estimated value of S, used in the groundwater elevation change method, is based on sound science and using the best readily available information, it is necessary to acknowledge that the true value of S in the Paso Robles

[20] The exceptions to this are WY 2018 and WY 2025, which were both below average precipitation years associated with moderate increases in groundwater in storage.

Formation Aquifer is spatially variable (as indicated in the GSP groundwater model) and ranges in value both above and below the estimated value of 7 percent. This, coupled with the necessity to rely on interpolated groundwater elevations through data gap areas in the groundwater level monitoring network (see Section 2.4.1), contributes to a moderate amount of method uncertainty. In addition, the groundwater elevation change method is susceptible to potential over- or under-estimation as a result of the method's inability to account for groundwater in transit.[21] Regardless, the groundwater elevation change method is considered the best available tool for estimating annual change in groundwater in storage until the GSP groundwater model can be updated. Inclusion of newly available water level data from monitoring network expansion efforts begun in 2021 has significantly improved the accuracy of the groundwater elevation change method.

3.6 Additional Sustainability Indicators

3.6.1 Subsidence

Land subsidence is the lowering of the land surface. As described in the GSP, several human-induced and natural causes of subsidence exist, but the only process applicable to SGMA are those due to permanently lowered ground surface elevations caused by groundwater pumping (M&A, 2020). Historical subsidence can be estimated using InSAR data provided by DWR. InSAR measures ground elevation using microwave satellite imagery data. The GSP documents minor subsidence in the Subbasin using data provided by DWR depicting the difference in InSAR measured ground surface elevations between June 2015 and June 2018. These data show that subsidence of up to 0.025 feet may have occurred during this 3-year period in a few small, isolated areas of the Subbasin (M&A, 2020). The GSP established minimum thresholds for InSAR measured land subsidence as "no more than 0.1 foot in any single year and a cumulative 0.5 foot in any five-year period" (M&A, 2020).

Updated InSAR data has been provided by DWR through October 2025. As discussed in the GSP, to minimize the influence of elastic subsidence, changes in ground level should be measured annually from June of one year to June of the following year (M&A, 2020). For this WY 2025 Annual Report, the single-year land subsidence was measured using InSAR from June 2024 through June 2025 and the 5-year land subsidence land subsidence was measured from June 2020 through June 2025. According to Towill, Inc. (2025) there is a potential error of +/- 20 millimeters, or 0.066 feet associated with the InSAR measurement and reporting methods. Therefore, an InSAR measured land surface change of less than 0.066 feet is within the noise of the data and is equivalent to no evidence of subsidence. Considering this range of potential error, examination of the single-year change InSAR data from June 2024 to June 2025 shows that zero land subsidence has occurred (see Figure 18). Considering the same potential error for the 5-year cumulative change InSAR data from June 2020 to June 2025 it is apparent that as much as 0.20 feet of subsidence has occurred during this period (see Figure 19). Although minor land subsidence is documented during the 5-year period of June 2020 to June 2025, this result does not indicate an undesirable result as specified by the land subsidence minimum thresholds. The GSAs will continue to monitor and report annual subsidence as more data become available.

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[21] Groundwater in transit refers to recharged groundwater that is in the process of percolating downward through the unsaturated zone and is not yet contributing to a measurable change in groundwater elevation. The amount of groundwater in transit is assumed to be highly spatially and temporally variable in the Subbasin.

3.6.2 Interconnected Surface Water

Ephemeral surface water flows in the Subbasin make it difficult to assess the interconnectivity of surface water and groundwater and to quantify the degree to which surface water depletion has occurred. The revised GSP submitted to DWR in July 2022 identifies potential surface water/alluvial groundwater connection along certain sections of the Salinas River, along the middle reach of the Estrella River (from Shedd Canyon to Martingale Circle) and along San Juan Creek upstream of Spring Creek (Paso Robles Subbasin GSAs, 2022). There is no evidence that the Salinas River surface water flows are connected to the underlying Paso Robles Formation Aquifer (Paso Robles Subbasin GSAs, 2022). The potential connection between the surface water system along the middle reach of the Estrella River (from Shedd Canyon to Martingale Circle) and along San Juan Creek upstream of Spring Creek, and the underlying Paso Robles Formation Aquifer is unknown but sufficient evidence exists that there could potentially be a connection, and therefore further investigation in these areas is recommended (Paso Robles Subbasin GSAs, 2022).

At this time, there are insufficient data available to adequately assess the interconnectivity of surface water and groundwater and the potential depletion of interconnected surface water. Although there is at present only a single Alluvial Aquifer RMS well in the Subbasin, 11 existing alluvial wells are monitored including six wells along the Salinas River, two wells next to the Estrella River near Airport Road and Jardine Road, one well along Cholame Creek just upstream of the confluence with San Juan Creek in Shandon, and one well along Huer Huero Creek just upstream of the State Highway 41 bridge. Additional Alluvial Aquifer wells will need to be established in the monitoring network before groundwater/surface water interaction can be more robustly analyzed. Two new Alluvial Aquifer monitoring wells were installed in 2025 as part of the DWR Technical Support Servies (TSS) initiative (see Section 4.3.3.4) and several other new Alluvial Aquifer monitoring wells are in the process of being installed as part of the Recommended Expanded Groundwater Level Monitoring Network for the Paso Basin produced by the Expanded Monitoring Network TAC (see Section 4.3.3.2).

3.6.3 Groundwater Quality

Although groundwater quality is not a primary focus of SGMA, actions or projects undertaken by GSAs to achieve sustainability cannot degrade water quality to the extent that they would cause undesirable results. As stated in the GSP, groundwater quality in the Subbasin is generally suitable for both drinking water and agricultural purposes (M&A, 2020). Eight COCs were identified and discussed in the GSP that have the potential to be impacted by groundwater management activities. These COCs identified in the GSP are salinity (as indicated by electrical conductivity), TDS, sodium, chloride, nitrate, sulfate, boron, and gross alpha. For this report, trends of concentrations of these eight COCs were analyzed through WY 2025 using data from the GeoTracker Groundwater Ambient Monitoring and Assessment (GAMA) database (GAMA, 2026). All COCs reviewed show a steady concentration trend since January 2015.

Overall, there are no significant changes to groundwater quality since January 2015, as documented in the GSP, preceding annual reports, and this WY 2025 Annual Report. Implementation of sustainability projects and/or management actions, as presented in the GSP, in this WY 2025 Annual Report, or in future reports or GSP updates, are not anticipated to result in degraded groundwater quality in the Subbasin. Any potential changes in groundwater quality will be documented in future annual reports and GSP updates.

3.7 Summary of Changes in Subbasin Conditions

Groundwater elevations observed in the Subbasin during WY 2025 are generally similar to those observed during the previous year. Although groundwater elevations in several of the Paso Robles Formation Aquifer RMS wells are stable to slightly increasing during the past few years, groundwater elevations in several other of the RMS wells are continuing to trend downward. Total groundwater extractions in the Subbasin for WY 2025 are estimated to be 61,400 AF, which is nearly equivalent to the estimated long-term sustainable yield of the Subbasin. These totals include municipal and small PWSs pumping, rural domestic pumping, pumping to satisfy golf course water demand, and pumping to satisfy irrigated agricultural water demand (which makes up 91 percent of the total).

For the WY 2025 report, the irrigated agricultural water demand was calculated using newly available ET and precipitation datasets, produced by Land IQ. The Land IQ datasets are better calibrated to local conditions than the previously used OpenET/GridMET datasets and are therefore considered to produce a more accurate result. For continuity with the analyses presented in previous annual reports, the OpenET/GridMET results are also presented in this WY 2025 report (see Section 3.2.3.1). Use of the Land IQ datasets produces a significantly lower estimated volume of irrigated agricultural groundwater extraction than the OpenET/GridMET datasets (55,900 AF vs 70,800 AF). This nearly 15,000 AF reduction in estimated irrigated agricultural water demand results in the total estimated groundwater extractions being nearly equivalent to the estimated long-term sustainable yield in WY 2025. It is important to understand that this perceived reduction is due to a change in methodology for irrigated agricultural water demand estimation. It is not attributable to an actual ~15,000 AF reduction in irrigated agricultural water demand in WY 2025 (as is demonstrated by the WY 2025 OpenET/GridMET analysis results, which are nearly equivalent to WY 2024 results). It is equally important to understand that this significantly reduced estimate of irrigated agricultural water demand may warrant an update to the water budget and a recalculation of the long-term sustainable yield to help ensure calculated/modeled conditions match observed conditions in the Subbasin.

4 Progress towards Basin Sustainability (§ 356.2[c])

4.1 Introduction

This section describes several projects and management actions that are in process, have been initiated, or have been recently implemented in the Subbasin as a means to improve groundwater conditions, avoid potential undesirable results, attain subbasin sustainability, and improve understanding of the Subbasin groundwater dynamics as well as implications of GSP implementation. These projects and actions include capital projects and policies intended to reduce or optimize local groundwater use. Some of these projects were described in concept in the GSP; some of the actions described herein are new initiatives designed to make new water supplies available to the Subbasin that may be implemented by the GSAs to reduce pumping and partially mitigate the degree to which the management actions would be needed.

As described in the GSP (M&A, 2020), the need for projects and management actions is based on emerging Subbasin conditions, including the following:

- Groundwater levels are declining in some parts of the Subbasin, indicating that the amount of groundwater pumping is more than the natural recharge.
- The calculated water budget of the Paso Robles Formation aquifer indicates that the amount of groundwater in storage is in decline and will continue to decline if there is no net decrease in groundwater extractions.

To mitigate declines in groundwater levels in some parts of the Subbasin, achieve the Subbasin sustainability goal by 2040, and avoid undesirable results as required by SMGA regulations, new water supplies must be imported into the Subbasin [i.e., project(s)] and/or groundwater pumping must be reduced through management action(s).

The projects and management actions described in this section are all intended to help achieve groundwater sustainability in the Subbasin and avoid undesirable results.

4.2 Implementation Approach

As described in the GSP, the volume of annual groundwater pumping in the Subbasin is greater than the estimated sustainable yield and, as a result, groundwater levels are persistently declining in some parts of the Subbasin. In response, the GSAs have initiated several projects and management actions designed to address the impacts of the decline in groundwater levels and reductions of groundwater in storage. It is anticipated that additional new projects and management actions, some of which are described herein, will be implemented in the future to continue progress towards avoiding or mitigating undesirable results.

4.3 Basin-Wide Projects and Management Actions

4.3.1 Sustainable Groundwater Management Grant Program – Sustainable Groundwater Management Implementation Round 1

In February 2022, the County of San Luis Obispo Groundwater Sustainability Director submitted an application for DWR Sustainable Groundwater Management (SGM) Grant Program – Implementation Round 1 grant funding on behalf of the PBCC. The application was for $10 million, of which $7.6 million was awarded by DWR in July 2022. This grant includes funding for recycled water projects, expansion/improvement of existing monitoring networks to fill data gaps, implementation of a well verification program, groundwater extraction reporting program, drinking well mitigation program, and a multi-benefit irrigated lands repurposing program, and to complete engineering studies of supplemental water projects and a cost of service study.

In April 2025, Amendment No. 1 to the grant agreement was executed, extending the grant deadline from April 2025 to April 2026. In 2025, SGM Grant Program implementation included general grant oversight and management, ensuring invoicing, reporting, and deliverables were properly submitted to DWR, and oversight and coordination of numerous consultants and contractors hired to implement the Round 1 SGM Grant Program work plan. The grant project timeline, as presented at the September 24, 2025, Authority board meeting, is included as Appendix H.

4.3.2 Cost of Service Study and Proposition 218 Process

In spring 2024, the GSAs commissioned a consultant study to evaluate potential options for a more permanent funding mechanism. A cost of service study was developed over the course of May 2024 through August 2025, culminating with a Proposition 218 hearing on August 1, 2025. The proposed groundwater extraction fee was defeated by protest votes numbering greater than 50 percent, plus one of the total number of noticed parcels. Work completed during WY 2025 includes:

- Rate scenarios and other pertinent considerations were reviewed with GSA staff.
- Rates based on three budget scenarios were presented at the January PBCC meeting. The PBCC selected a budget for use in the Rate Study.
- Data refinement was conducted for several groundwater user classes in preparation for Rate Study development. This included rural domestic extractors, agricultural extractors, and public water system extractors.
- San Miguel Community Services District's decision not to join the newly formed Joint Powers Authority prompted their exclusion from the Rate Study. The rate structure and foundational data were updated accordingly.
- A comprehensive review of rural domestic extractors was conducted in order to gauge the approach to the rate structure. While domestic extractors were included in initial rate scenarios based on an understanding of constitutional requirements, data refinement and cost of service considerations brought about a change in perspective. Based on an improved understanding of domestic groundwater use, this user class was removed from rate calculations. The rate structure and foundational data were updated accordingly.
- A draft Rate Study was prepared and submitted to legal counsel for review. The consultant team and legal counsel began refining this draft, particularly the legislative and legal understanding of the proposed Fee Program.
- The consultant team prepared and sent Proposition 218 notice mailings. This preparation includes identifying parcels affected by the Fee Program, consideration of groundwater use across multiple use classes, and other relevant information.
- The Proposition 218 public hearing was held on August 1, 2025, at which the proposed groundwater extraction fee was defeated by protest votes numbering greater than 50 percent, plus one of the total number of noticed parcels.

4.3.3 Expansion of Monitoring Networks

4.3.3.1 SSJGSA and EPCWD GSA Programs to Expand the Monitoring Well Network

SSJ GSA and EPCWD GSA both separately initiated programs in WY 2020 to enlist member well owners to join a pilot study to measure water levels in wells throughout their respective districts. Between the two programs, approximately 100 wells have been measured multiple times per year since 2020. The water level data from these expanded monitoring networks has been incorporated into the annual groundwater elevation and change in groundwater in storage analyses, infilling several prior data gaps and substantially reducing the uncertainty in these analyses.

4.3.3.2 Paso Robles Basin Groundwater Level Monitoring Network Expansion and Refinement

An Expanded Monitoring Network Technical Advisory Committee (Expanded Monitoring Network TAC) was formed by the PBCC in 2023 to spearhead the effort of expanding and refining the existing RMS groundwater level monitoring network. The purpose of expanding the monitoring network is to identify and address potential groundwater level impacts to domestic users, refine the hydrogeologic conceptual model, improve the understanding of interconnected surface water, improve the GSP groundwater model which will allow the GSAs to improve tracking progress towards achieving sustainability, and to address several of the DWR recommended corrective actions presented in their June 20, 2023 GSP determination letter.

The Expanded Monitoring Network TAC drafted the Recommended Expanded Groundwater Level Monitoring Network for the Paso Basin, which was adopted by the PBCC at the October 25, 2023 committee meeting. The adopted document details the recommendation to expand the existing 23-well RMS groundwater level monitoring network to 151 wells in the Subbasin. The work product of the Expanded Monitoring Network TAC is a recommended list of existing and new wells which constitutes a 'wish list'[22] for the Expanded Groundwater Level Monitoring Network in the Subbasin. Also included in the work product are selections of up to two backup wells for each well in the 'wish list' to resort to if the preferred well is not available.

The recommended list of 151 wells also includes 26 proposed new wells, including 10 additional wells identified under the Supplemental Environment Program (SEP) agreement (see Section 4.3.3.3), 8 wells identified for installation under the DWR Technical Support Services (TSS) program (see Section 4.3.3.4), and 8 Alluvial Aquifer wells recommended in the revised GSP (Paso Robles Subbasin GSAs, 2022).

Work in WY 2025 included outreach to existing well owners. This effort included compilation of all well network expansion coordinates/ownership/shapefiles/APN information, development of GIS files/maps for tracking and project summaries, evaluation of active well network in relation to expansion wells to identify issues encountered in the past (access/obstructions/oil/data quality/etc.), development of interactive mapping files for field use, development of initial outreach materials (letter/mailer) for property owners, development of concise access agreement for property owners, and development of detailed tracking spreadsheets for program tracking and reporting. Outreach efforts during WY 2025 resulted in the addition of 75 new and existing wells to the Subbasin monitoring network. This is an

[22] A majority of the wells in the recommended list are privately owned. It is expected that some portion of the well owners will not want their wells included in the expanded monitoring network.

exceptional result considering the loss of access to six of the current 23 Paso Robles Formation Aquifer RMS monitoring wells. The locations of these 75 wells are shown in Appendix I.

Well inspections for the implementation phase of the Monitorng Network Expansion Program were completed in WY 2025. These inspections were performed at wells where GSA's had been granted access agreements for water level monitoring, and consisted of gathering well construction and operation information, along with physical inspections to evaluate the feasibility of measuring water levels. Wells with agreements for continuous water level monitoring were also evaluated for pressure transducer installations with telemetry. Continuous water level monitoring systems were installed in 12 wells, and a total of 49 public and private wells are anticipated to be equipped with continuous water level monitoring in WY 2026. The locations of these wells are shown in Appendix I.

Work on the expansion of the Alluvial Aquifer monitoring network was somewhat limited in WY 2025. This work included easement acquisitions, well site screening for utilities, development work for permits associated with drilling activities, and completion of the well specifications and bid package. Easements on four of the anticipated eight sites were successfully executed (see Appendix I). As a result, efforts to identify additional potential well sites on public parcels were initiated, which would be for future well drilling cycles following the current drilling phase at the four easement sites, which is anticipated to be completed in early 2026.

Updates on the new TSS wells are provided in Section 4.3.3.4, below.

4.3.3.3 Supplemental Environmental Project

Under the terms of an agreement between the City of Paso Robles and the Central Coast Regional Water Quality Control Board (CCRWQCB), funding was made available through the City of Paso Robles for a Supplemental Environmental Project (SEP) that included the installation of additional monitoring wells and stream gages in the Subbasin. This has resulted in significant and ongoing efforts to improve the monitoring networks in the Subbasin.

In early 2021 two pairs of co-located, dedicated monitoring wells were installed at two separate locations: the City of Paso Robles 13th Street Bridge site and the Airport Road at Estrella Road site. The wells were designed as paired wells with one in the shallow Alluvial Aquifer and one in the deeper Paso Robles Formation aquifer. These paired well installations will collect important information describing the coincident groundwater elevations in both the alluvium and the deeper strata, which is important in characterizing the type of stream monitored (i.e., gaining, losing, disconnected), and in characterizing the vertical hydraulic gradient between formations.

Three stream gages were installed in early 2021 under the provisions of the SEP agreement. These SEP stream gage stations have been discussed in detail in previous annual reports. Graphs depicting time-series stage data for the three radar-based stream flow gage stations are included in Appendix J.

4.3.3.4 DWR Technical Support Services

California DWR administers a program offering Technical Support Services (TSS) to GSAs during the implementation of their GSPs in the state. The goal of the TSS program is to provide technical services and educational tools at regional and statewide scales to assist in developing the infrastructure required to achieve sustainability. Technical support services offered include monitoring well installation, groundwater monitoring training, video logging, and other field activities. The initial priority for funding under this program is focused on State-designated critically over-drafted basins, like the Paso Robles Subbasin.

DWR TSS monitoring wells were completed in WY 2025 at three locations: Whitley Gardens (Shandon-San Juan GSA), Creston (SLO County GSA), and at the Paso Robles Airport (City of Paso Robles GSA). Multiple PVC piezometers were completed at each location. The Whitley Gardens location included a shallow alluvial piezometer and two Paso Robles Formation piezometers. The Creston location included a shallow alluvial piezometer and three Paso Robles Formation piezometers. The Paso Robles Airport location included three Paso Robles Formation piezometers (no alluvial aquifer present).

These DWR TSS monitoring wells were equipped with pressure transducers and telemetry systems for continuous water level monitoring. Water level data from the Whitely Gardens location shows a downward vertical gradient between the alluvial aquifer (under greatest pressure) and the underlying Paso Robles Formation aquifer, although the vertical gradient is upward between the two Paso Robles Formation piezometers. At the Creston location, there is a general downward vertical gradient between the alluvial aquifer (under greatest pressure) and the deepest Paso Robles Formation piezometer monitored (under lowest pressure). The Paso Robles Airport transducer data show a downward vertical gradient between the upper and lower Paso Robles Formation piezometers. This vertical gradient information, along with water levels from the expanded monitoring well network, will improve the understanding of groundwater flow dynamics within the basin and assist with tracking water level trends, groundwater in storage calculations, surface water-groundwater interconnectivity evaluation, and basin model calibration.

4.3.4 Agricultural Groundwater (Non-De Minimis) Extraction Reporting

Due to the expensive cost and logistics of installing meters on all non-de minimis extraction wells throughout the Subbasin, the GSAs voted in early 2024 and approved a contract with a consultant (Land IQ) to use ground truthed satellite based ET and climatic data processing methods to estimate groundwater extraction on a field-by-field resolution in the Subbasin for each Water Year. Land IQ installed ET ground-truthing stations in August 2024. Work in 2025 included:

- Ground truth data collection and analysis continued for the months of October 2024 through September 2025.
- Deliverables of total monthly actual ET and precipitation for each mapped crop field in the Subbasin.
- Additional five-year retrospective land use and consumptive use study was completed for inclusion in the cost of service study (see Section 4.3.2).

4.3.5 Multi-benefit Irrigated Land Repurposing Program

A Multi-benefit Irrigated Land Repurposing Program Technical Advisory Committee (MILR Program TAC) was formed by the PBCC in 2023. The combined impacts to groundwater resources from the multi-year drought and lack of available and reliable supplemental surface water supplies may increase the likelihood of requiring some irrigated agriculture in the Subbasin to temporarily come out of production. Statewide, extreme recent drought conditions have created momentum for new voluntary incentivized programs for growers facing the difficult decision of taking land out of production and to support some amount of continued farming even if in a smaller irrigated footprint. Typically called repurposing, these programs can provide a strategically designed way to approach fallowing decisions and potentially find new uses for areas taken out of production. As one of the high priority management actions funded by the SGM Grant Program – Implementation Round 1 (see Section 4.3.1) the MILR Program is expected to be a critical component in achieving long-term groundwater sustainability in the Subbasin.

To date, the MILR Program TAC has met to conceptualize the project based on other agencies' experiences of similar land repurposing programs. In the summer of 2024, the County of San Luis Obispo, acting as the lead Agency, issued an RFP for consultant facilitation to develop, implement, and administer the specifics of a MILR Program. A team led by Land IQ was selected for the development of this important program. The Land IQ team made the following progress on this initiative in WY 2025:

- Drafted farming unit definition and eligibility criteria.
- Met with County and consultants on data needs.
- Drafted survey questions for outreach.
- Developed materials and attended Town Hall meeting.
- Began compiling a catalog of sustainability measures.
- Revised workplan per revised scope of work.
- Prepared presentation for early February steering committee meeting.
- Began parcel splits to develop Farm Units.
- Coordinated with County GIS consultants and County staff to acquire parcel boundary and ownership spatial data.
- Conducted GIS analysis to integrate ILRP, PUR, APN, and irrigation data into Farm Unit analysis; coordinated on project schedule and deliverables.
- Continued analysis to identify unique Farm Units and operators; collaborated with the project team to compile data.
- Planned and facilitated May Steering Committee meeting.
- Coordinated regularly with County and consultant staff to update project progress.
- Began audit on existing ordinances and legal considerations to implement a voluntary fallowing program.
- Developed irrigation type list and consulted growers; advanced sustainability and repurposing guidebook; coordinated draft delivery with project team.

4.3.6 Supplemental State Water Supply Feasibility Study

In April 2024, the County of San Luis Obispo sponsored a feasibility and engineering study to assess the feasibility of delivering water supplies from the State Water Project (SWP) to the Paso Robles Subbasin for various potential uses including recharge and/or for agricultural use as an in-lieu water supply to allow for reduced groundwater pumping in the Subbasin.

The County of San Luis Obispo currently has a maximum annual SWP allocation (Table A) of up to 25,000 AFY through the SLOCFCWCD, according to the 1963 long-term water supply contract with DWR. Eleven existing water purveyors in the County of San Luis Obispo currently have contracts to Table A SWP water through the SLOCFCWCD amounting to 4,830 AFY, plus an additional drought buffer of 5,707 AFY. Thus, at present, there is 14,463 AFY of excess allocation that represents an unsubscribed portion of the SLOCFCWCD's contracted (100 percent) allocation. It should be noted that state water deliveries are frequently less than the 100 percent contracted amount, based on statewide meteorological conditions, operational constraints, and other factors. However, considering the predicted future variability in SWP deliveries, the excess allocation could potentially provide an average of 8,858 AFY of water for the Paso Robles Subbasin.

Work completed in WY 2025 includes:

- Continued preparation of updated evaluation of current (2025) SWP cost data for various assumptions and summarized SWP costs
- Prepared alternative for consideration for future management of SLO County SWP water
- Completed draft report documenting SWP water supply availability and physical and contractual constraints which was provided to the County of SLO for review
- Refined project alternative configurations based on stakeholder input
- Developed preliminary cost estimates for major new raw water conveyance facilities from Devils Den (the end of Coastal Branch Phase 1) to Polonio Pass, from Polonio Pass to Cholame Creek and from Polonio Pass to Shandon delivery location.
- Developed preliminary cost estimates for identified project alternatives including costs for turnout, dichlorination facilities, conveyance to streams for recharge, artificial recharge basins and direct delivery in Shandon area.
- Completed draft report documenting the engineering features of SWP supplemental water supply to Paso Basin which was provided to the County of SLO for review
- Held meeting with Paso Basin working group to describe study scope and progress to date, and receive input on proposed project alternatives.

4.3.7 Drinking Water Well Impact Mitigation Program

During WY 2025, several dry wells were reported and/or replaced, a direct result of declining water levels. The distribution of these dry well replacements that occurred during WY 2025 is shown in Figure 11. SGMA is intended to support and implement policies that support sustainable groundwater management for all beneficial uses and users. The human right to water is a foundational assumption of SGMA and previous California water law and policy that recognizes that all human beings have the right to safe, clean, and accessible water adequate for domestic purposes. This issue was included as a recommended corrective action in the DWR June 20, 2023 GSP determination letter:

Recommended Corrective Action 3

The GSAs should consider including mitigation strategies describing how drinking water impacts that may occur due to continued overdraft during the period between the start of Plan implementation and achievement of the Subbasin’s sustainability goal will be addressed, or provide a thorough discussion, with supporting facts and rationale, explaining how and why the GSAs determined not to include specific actions or programs to monitor and mitigate drinking water impacts from continued groundwater lowering below 2015 levels. Department staff recommend that the GSAs review the Department’s April 2023 guidance document titled Considerations for Identifying and Addressing Drinking Water Well Impacts guidance to assist its adaptive management efforts.

In March 2023, DWR published the guidance document “Considerations for Identifying and Addressing Drinking Water Well Impacts”, to support the efforts of GSAs to address the issue of dry wells within their service areas. It is expected that the GSAs will utilize the expanded groundwater elevation monitoring network and newly installed continuous water level monitoring systems to improve threat assessment and early warning of impacts to rural domestic wells. This information will be incorporated into development of sustainable management criteria for the wells recently added to the network. The GSAs made progress on this initiative in WY 2025 including:

- Self Help Enterprises (SHE) SR. Analyst Emily McCague and Director Tami McVay attended the May 28, 2025, Authority board meeting where Emily presented SHE's services to the board and public participants at the meeting.
- Executed work contract on July 28, 2025, with SHE
- Hosted a Kickoff meeting between SLO County staff, Hallmark Group and SHE on August 31, 2025

4.4 Area Specific Projects

4.4.1 City of Paso Robles Recycled Water Program

In 2016, the City of Paso Robles completed a major upgrade of its Wastewater Treatment Plant to remove harmful pollutants efficiently and effectively from the wastewater. The City's master plan is to produce tertiary-quality recycled water and distribute it to various locations within and adjacent to the City, where it may be used for irrigation of city parks, golf courses, and vineyards. The City of Paso Robles Recycled Water Program will reduce the need to pump groundwater from the Subbasin and will further improve the sustainability of the City's water supply. In 2019, the City completed an upgrade to full tertiary treatment and began producing high-quality recycled water. Design and environmental permitting of the recycled water distribution system are complete.

In 2022, the City received $3.5 million in SGM Grant Program – Implementation Round 1 grant funding, via the County of San Luis Obispo (see Section 4.3.1), for construction of a difficult 1,900 lineal foot segment of the distribution system under the Salinas River. This Salinas River segment of pipeline was installed and completed in 2024, within the $3.5 million allocated budget. The City of Paso Robles Recycled Water Program will have the capacity to use up to 2,200 AFY of tertiary quality recycled water for in-lieu recharge inside the City of Paso Robles and in the central portion of the Subbasin. Water that is not used for recycled water purposes may be discharged to surface infiltration facilities, such as Huer Huero Creek, with the possibility for additional recharge benefits.

The primary benefit from the City's Recycled Water Program is higher groundwater elevations in the central portion of the Subbasin due to in lieu recharge from the direct use of the recycled water and potential surface recharge opportunities. As presented in Figure 9-3 of the GSP, the expected groundwater level benefit predicted by the GSP model after the project is fully implemented and operated for 10 years is estimated to be an increase in groundwater elevations locally by up to 20 feet in the central portion of the Subbasin.

Planning and design work for ancillary pipelines and conveyance infrastructure to connect to the Salinas River segment are currently part of other ongoing projects to be able to deliver the City's recycled water to specific properties in this portion of the Subbasin.

4.4.2 San Miguel Community Services District Recycled Water Project

The San Miguel CSD Recycled Water Project would upgrade the CSD wastewater treatment plant to meet California Code of Regulations Title 22 criteria for disinfected tertiary recycled water for irrigation use by vineyards. Potential customers include a group of agricultural irrigators on the east side of the Salinas River, and a group of agricultural customers northwest of the wastewater treatment plant. The project could provide between 200 AFY and 450 AFY of additional water supplies. The primary benefit from the CSD's Recycled Water project would be higher groundwater elevations in the vicinity of the community of San Miguel due to in lieu recharge from the direct use of the recycled water.

Work completed and updates on the San Miguel CSD Recycled Water Project in WY 2025 includes:

- San Miguel CSD publicly opened and reviewed bids for the project in October 2024
- San Miguel CSD continued to negotiate the offer package to E&J Gallo for the purchase of easements for the pipeline alignment
- San Miguel CSD Board of Directors voted to reject all bids for the construction of the project in November 2024, impeding the project's construction
- The project has been paused indefinitely.

4.4.3 Blended Water Project

The goal of the Blended Water Project is to design and construct a pipeline system to connect to the City of Paso Robles's Recycled Water Program and convey recycled water into the agricultural areas east of the City. Although there are many ways to use the Recycled Water Program water directly, certain challenges exist to make the water quality of the recycled water attractive to some agricultural users. Blending the recycled water with surplus NWP water, when available, may mitigate these challenges. The primary benefit from the Blended Water Project is higher groundwater elevations in the central portion of the Subbasin east of the City of Paso Robles due to reductions in groundwater pumping for irrigation and in-lieu recharge from the direct use of the blended water. Associated benefits may include improved groundwater quality from the use and recharge of high-quality irrigation water.

Round 1 SGM Grant Program funding was used to commission an engineering study to evaluate the feasibility of the Paso Basin Blended Water Supply Project (Project), which would deliver a blend of recycled water and Nacimiento project water to agricultural customers in the Subbasin. The Project is identified in the GSP. Water delivered by the Project would be used for agricultural irrigation in lieu of groundwater pumping to help achieve GSP objectives. The study assessed the project's feasibility and potential cost considering variations in the following project components:

- Water Availability
- Water Quality
- System Size
- Storage
- Blending Mechanisms
- Customer Level of Service
- Operational Approaches
- Pipeline Alignments
- Design Criteria

Three different sized project alternatives were considered: small system alternatives, medium system alternatives, and large system alternatives. The Blended Water Project Final Preliminary Engineering Report was delivered in January 2025. The general conclusion is that implementation of any of the considered project configurations are currently infeasible due to the economic downturn in the wine grape market.

4.5 Summary of Impacts of Projects and Management Actions

GSP implementation continued in WY 2025 under the DWR SGM Grant Program work plan, including completion of a cost of service study and Proposition 218 process, continued work on expansion and refinement of the Subbasin monitoring networks, as well as progress on other various basin-wide and area specific projects and management actions, as described in the sections above. WY 2025 saw some challenges, including the defeat of the groundwater extraction fee proposed to fund the newly formed Authority, but also some big wins, including the addition of 75 new and existing wells to the Subbasin groundwater level monitoring network, completion of a full year's acquisition of ground truthed satellite based ET data for irrigated agricultural fields, and progress towards implementation of a voluntary fallowing program. Additional time will be necessary to judge the effectiveness and quantitative impacts of these and other projects and management actions now underway.

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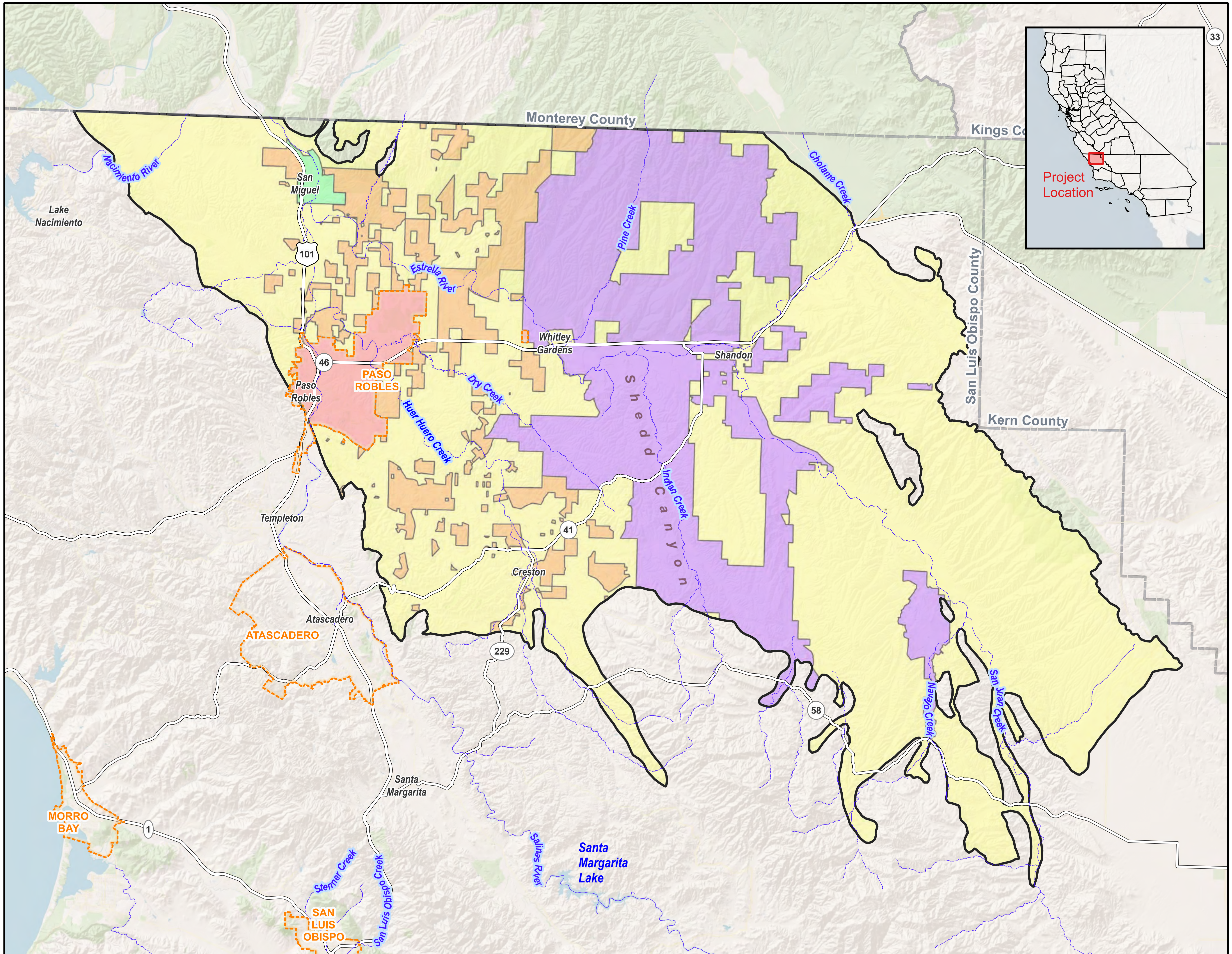

FIGURE 1

Extent of the Paso Robles Subbasin and Exclusive Groundwater Sustainability Agencies

Paso Robles Subbasin Water Year 2025 Annual Report

LEGEND

- County Boundary
- City Boundary
- Paso Robles Subbasin
- Major Creeks
- Major Roads

Exclusive Groundwater Sustainability Agencies

- San Miguel Community Services District
- City of Paso Robles
- Shandon - San Juan Water District
- Estrella - El Pomar - Creston Water District
- Paso Basin - County of San Luis Obispo

N

0 2 4 6 mi

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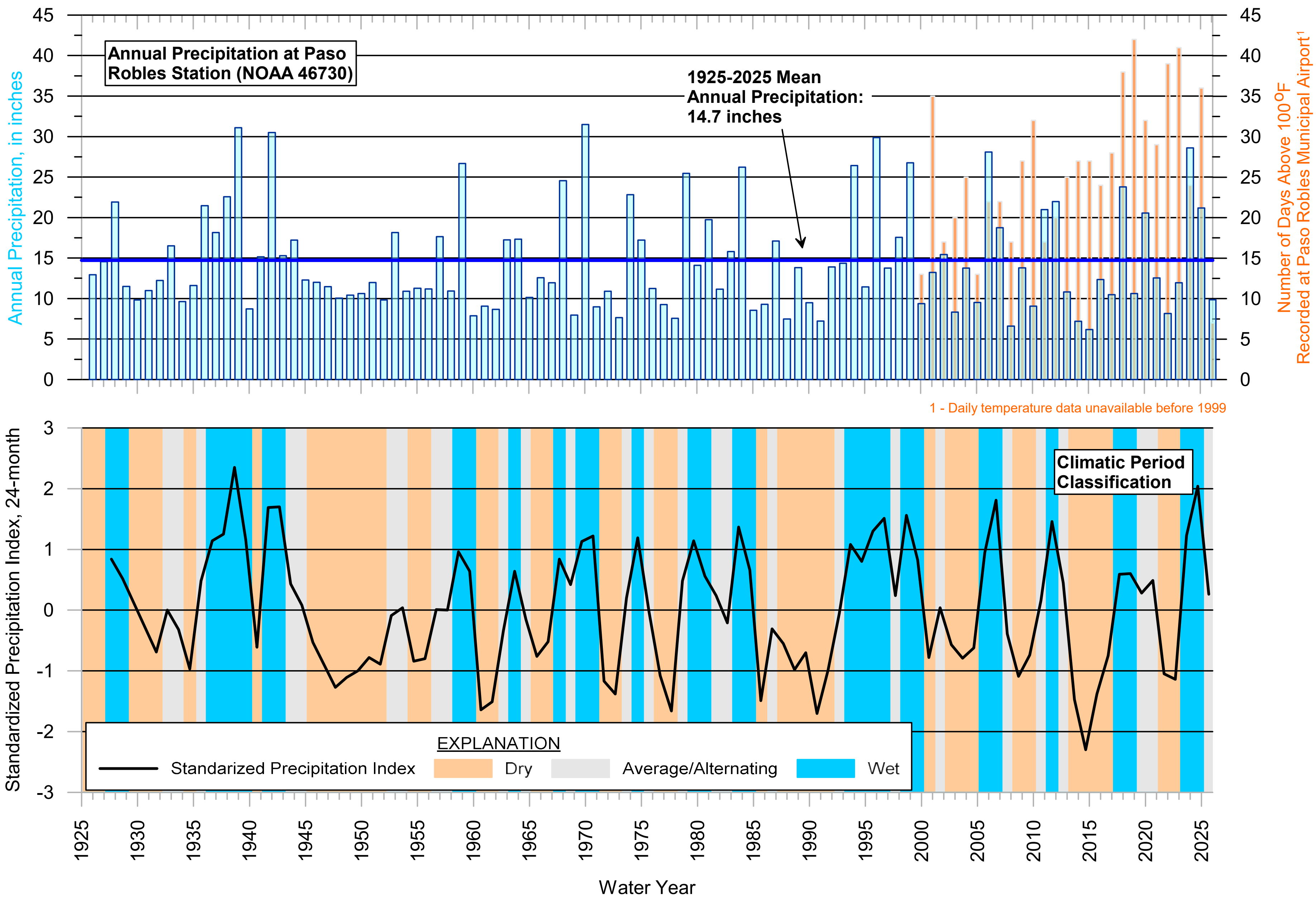
Date: 2026-02-02
Data Sources: CA DWR, SLOCO, ESRI

CONFLUENCE ENGINEERING SOLUTIONS



CONFLUENCE
ENGINEERING SOLUTIONS

FIGURE 2

Annual Precipitation and Climatic Periods in the Paso Robles Subbasin

Paso Robles Subbasin Water Year 2025 Annual Report

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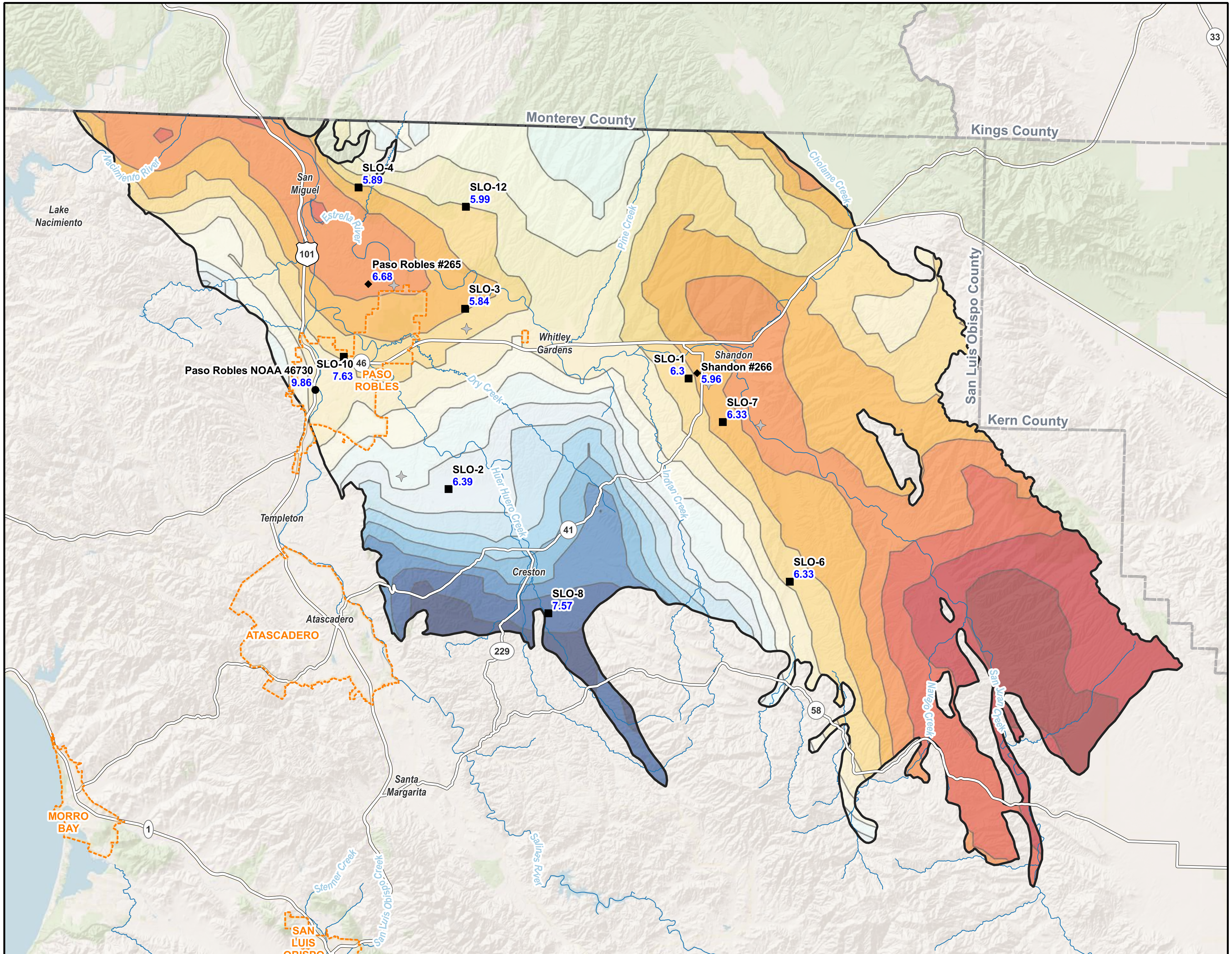


FIGURE 3

Water Year 2025 Precipitation Totals and Average Distribution of Annual Precipitation in the Paso Robles Subbasin

Paso Robles Subbasin
Water Year 2025 Annual Report

LEGEND

- County Boundary
- City Boundary
- Paso Robles Subbasin
- Major Creeks
- Major Roads
- 1 in. Precipitation Contour

Weather Station WY 2025 Precip Total (inches)

- CIMIS Station
- Paso Robles NOAA Precipitation Station
- UCCE Precipitation Station
- LandIQ ET Station

Annual Precipitation (in.)

8 - 9	16 - 17
9 - 10	17 - 18
10 - 11	18 - 19
11 - 12	19 - 20
12 - 13	20 - 21
13 - 14	21 - 22
14 - 15	22 - 23
15 - 16	23 - 24

NOTES:
Average distribution of annual precipitation based on 30-year normal PRISM data calibrated to the Paso Robles Station (NOAA 46730).

CIMIS: CA Irrigation Management Information System
UCCE University of California Cooperative Extension

N
0 2 4 6 mi
0 10,000 20,000 30,000 ft
1"= 4mi

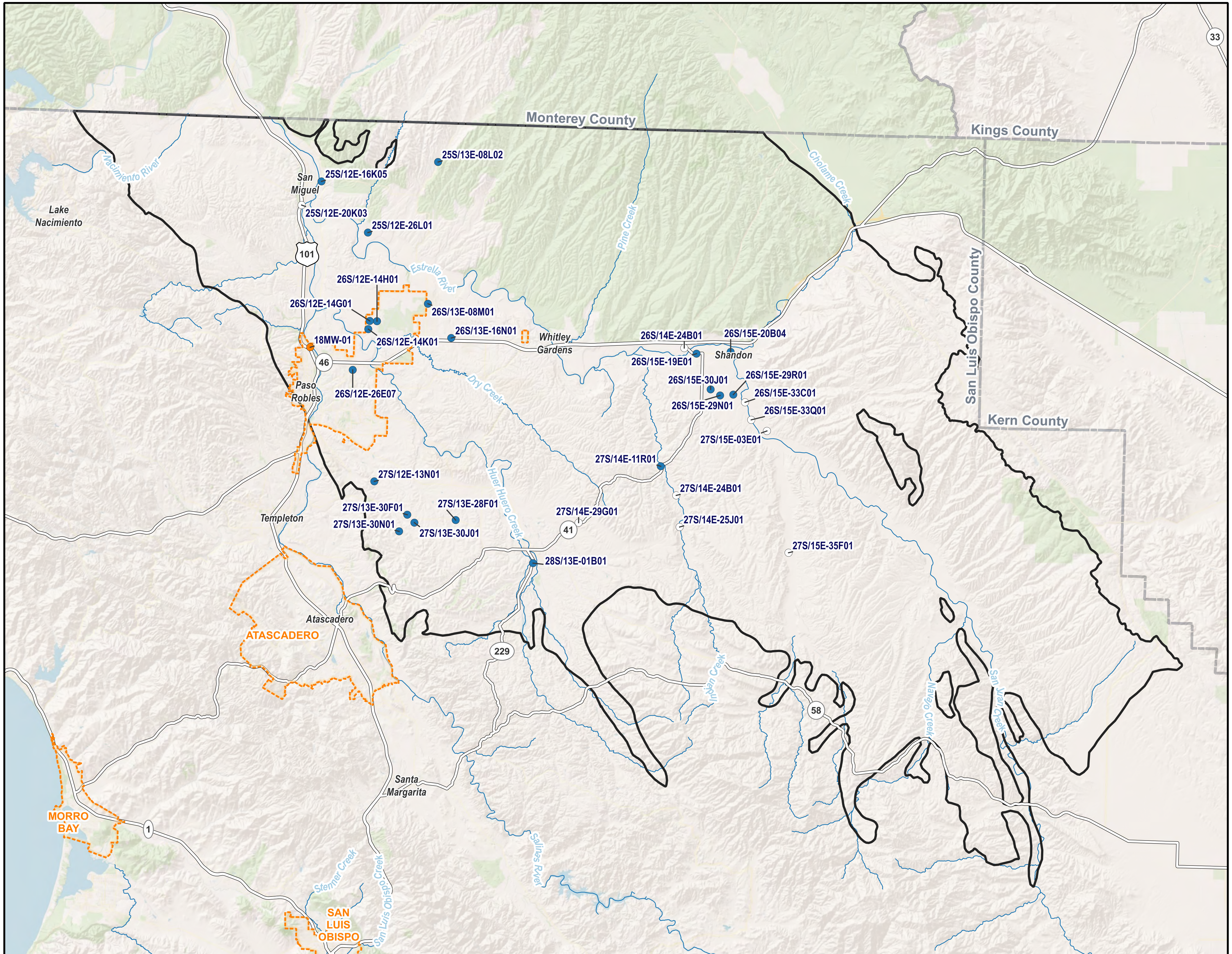
Date: 2026-02-11
Data Sources: CA DWR, SLO Co., USGS, PRISM, NOAA, UCCE

CONFLUENCE ENGINEERING SOLUTIONS

FIGURE 4

Groundwater Elevation
Monitoring Well Network
in the Paso Robles Subbasin

Paso Robles Subbasin
Water Year 2025 Annual Report



LEGEND

- County Boundary
- City Boundary
- Paso Robles Subbasin
- Major Creeks
- Major Roads

Wells

- RMS Well - Alluvial Aquifer
- RMS Well - Paso Robles Formation
- Potential Future Monitoring Well

NOTES:
RMS: Representative Monitoring Site

N

0 2 4 6 mi
1" = 4mi
0 10,000 20,000 30,000 ft

Date: 2026-02-10
Data Sources: CA DWR, SLOCO, ESRI

CONFLUENCE ENGINEERING SOLUTIONS

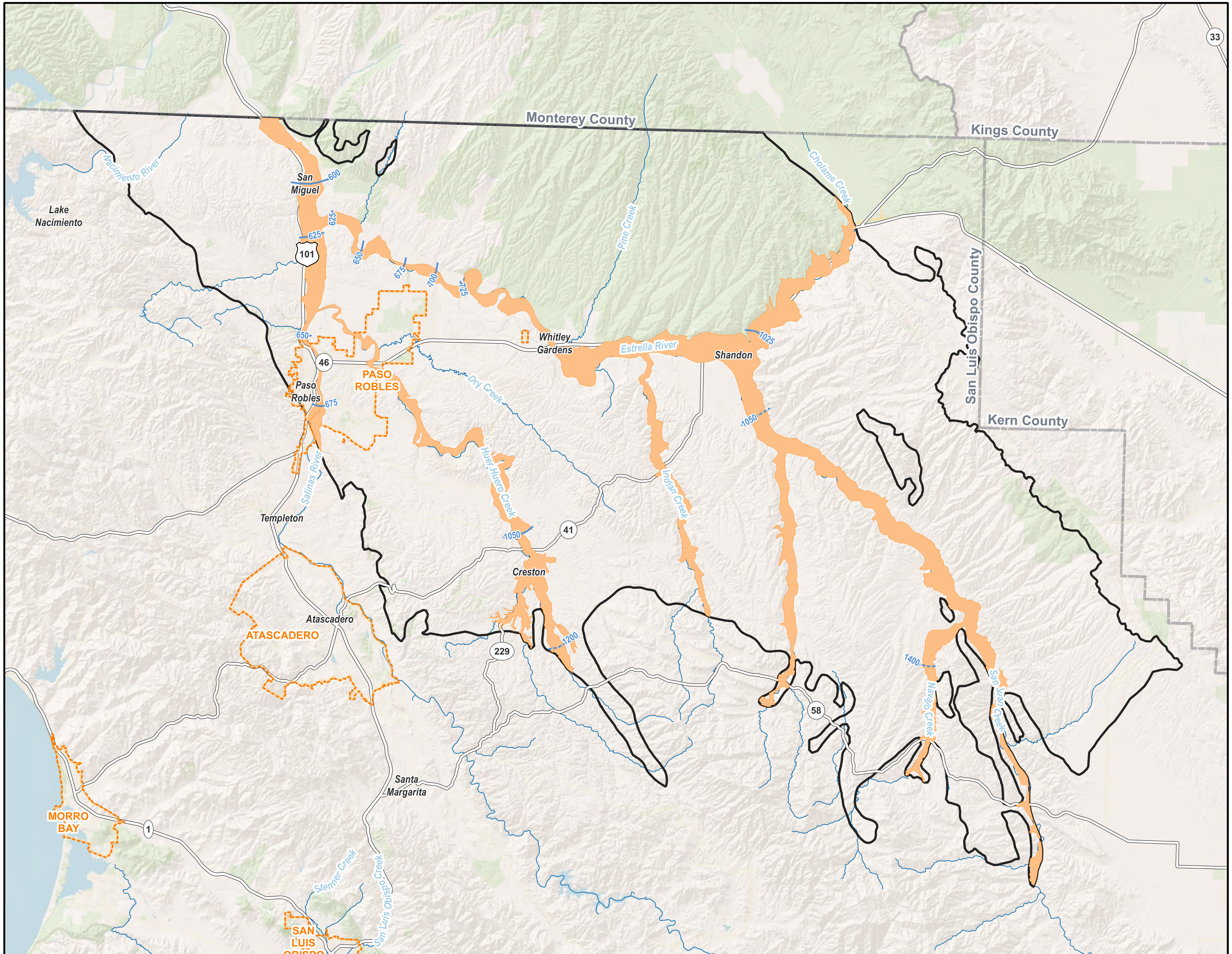


FIGURE 5

Alluvial Aquifer
Spring 2025
Groundwater Elevation Contours

Paso Robles Subbasin
Water Year 2025 Annual Report

LEGEND

- County Boundary
- City Boundary
- Paso Robles Subbasin
- Major Creeks
- Major Roads
- Qal: Alluvial Deposits
- Alluvial Groundwater Elevation Contour, in feet above mean sea level (dashed where inferred)

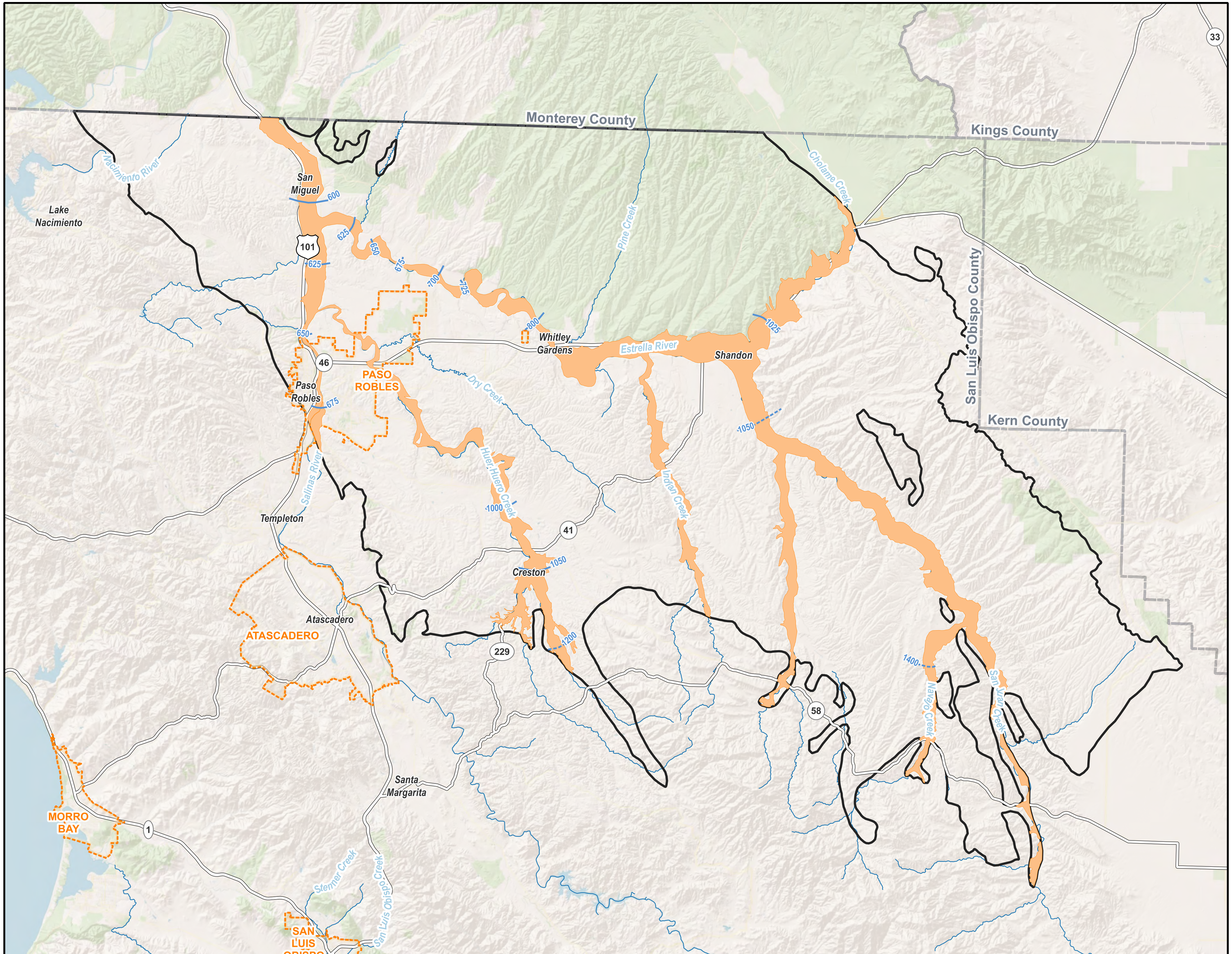
Date: 2026-03-05
Data Sources: CA DWR, SLOCO, ESRI

CONFLUENCE

FIGURE 6

Alluvial Aquifer
Fall 2025
Groundwater Elevation Contours

Paso Robles Subbasin
Water Year 2025 Annual Report



LEGEND

- County Boundary
- City Boundary
- Paso Robles Subbasin
- Major Creeks
- Major Roads
- Qal: Alluvial Deposits
- Alluvial Groundwater Elevation Contour, in feet above mean sea level (dashed where inferred)

N

0 2 4 6 mi
1"= 4mi
0 10,000 20,000 30,000 ft

Date: 2026-03-05
Data Sources: CA DWR, SLOCO, ESRI

CONFLUENCE

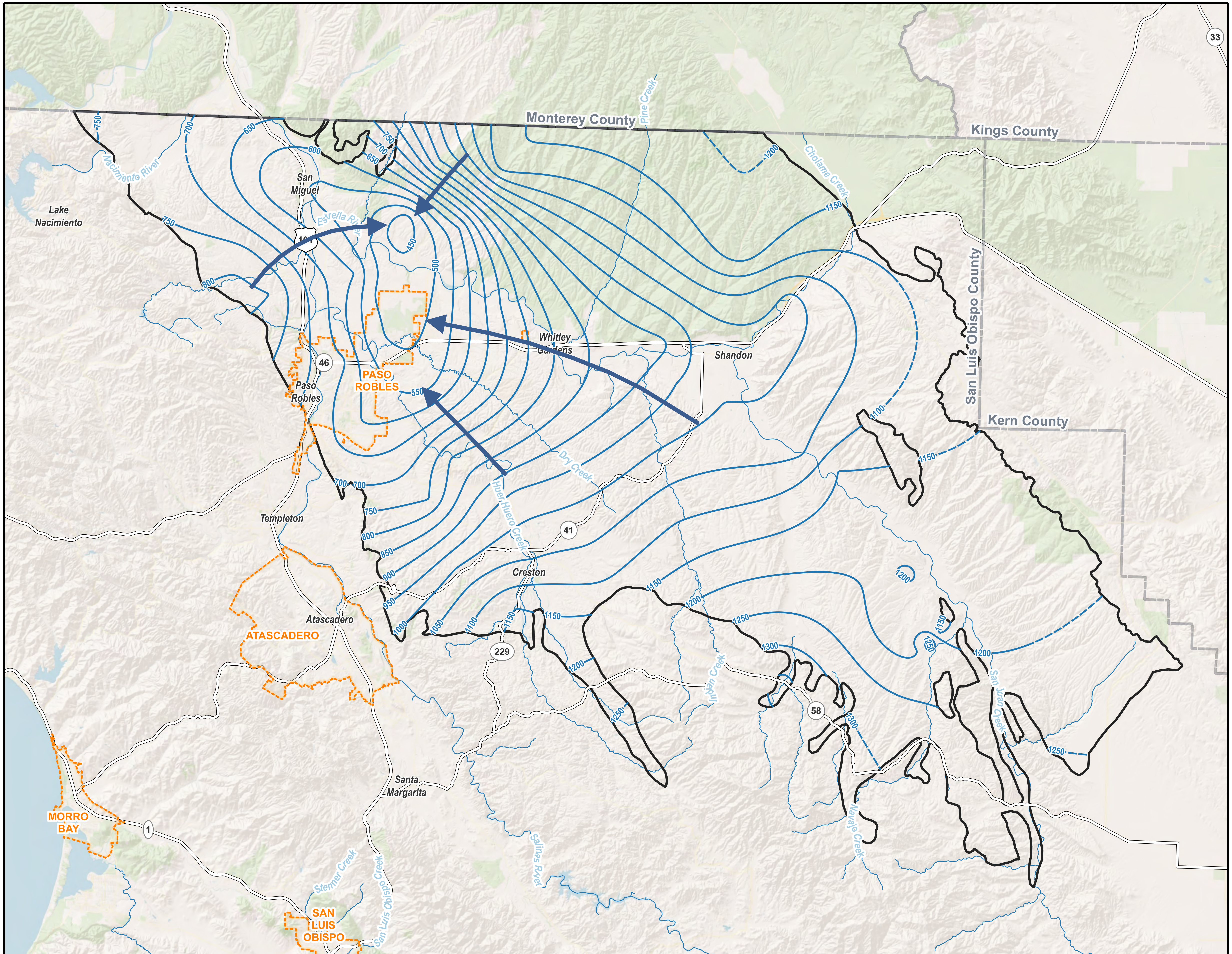


FIGURE 7

Paso Robles Formation
Spring 2025
Groundwater Elevation Contours

Paso Robles Subbasin
Water Year 2025 Annual Report

LEGEND

- County Boundary
- City Boundary
- Paso Robles Subbasin
- Major Creeks
- Major Roads
- Paso Robles Formatinon Groundwater Elevation Contour, in feet above mean sea level (dashed where inferred)
- Inferred Groundwater Flow Direction

N

0 2 4 6 mi
1" = 4mi
0 10,000 20,000 30,000 ft

Date: 2026-03-05
Data Sources: CA DWR, SLOCO, ESRI

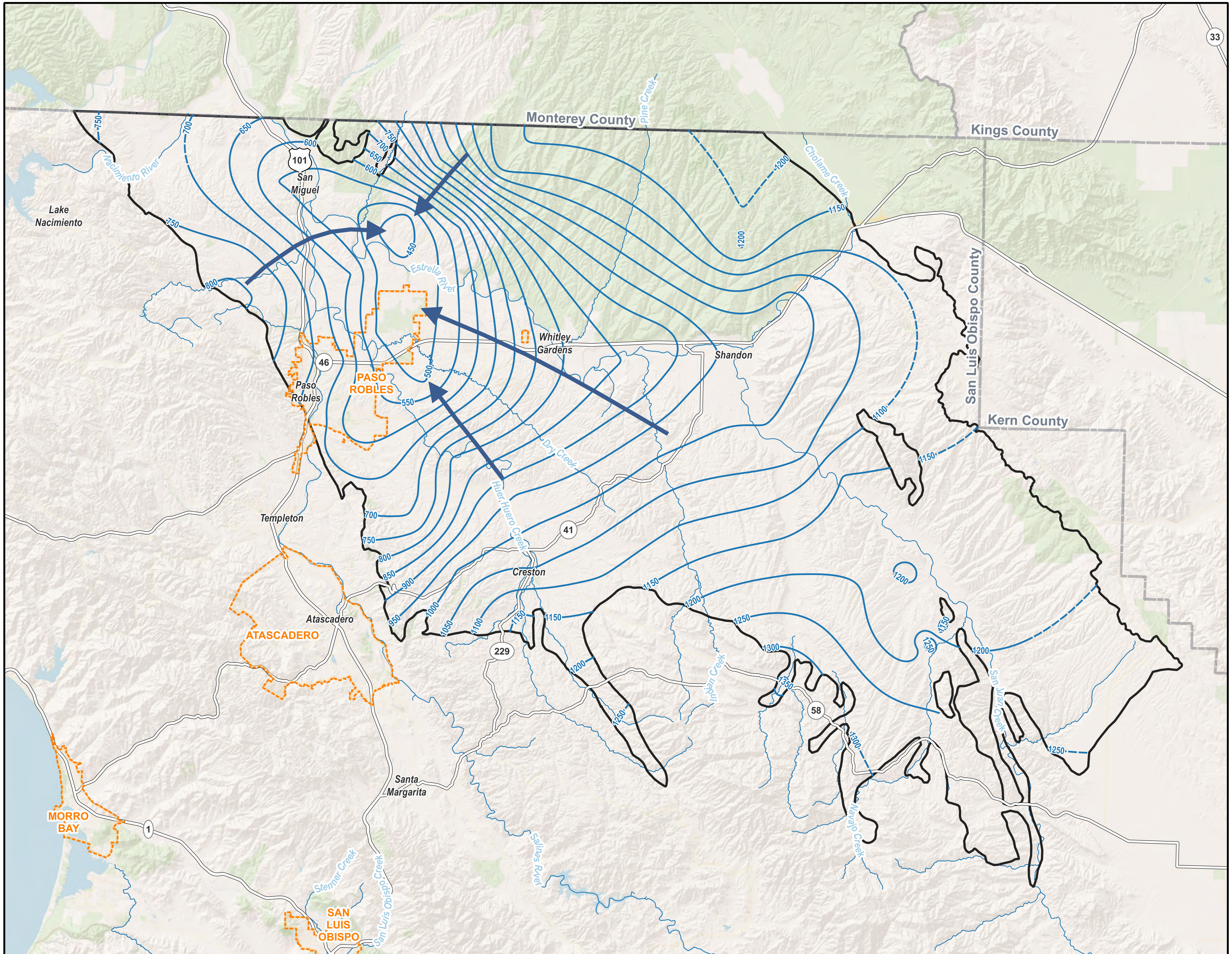


FIGURE 8

Paso Robles Formation
Fall 2025
Groundwater Elevation Contours

Paso Robles Subbasin
Water Year 2025 Annual Report

LEGEND

- County Boundary
- City Boundary
- Paso Robles Subbasin
- Major Creeks
- Major Roads
- Paso Robles Formatinon Groundwater Elevation Contour, in feet above mean sea level (dashed where inferred)
- Inferred Groundwater Flow Direction

N

0 2 4 6 mi
1"= 4mi
0 10,000 20,000 30,000 ft

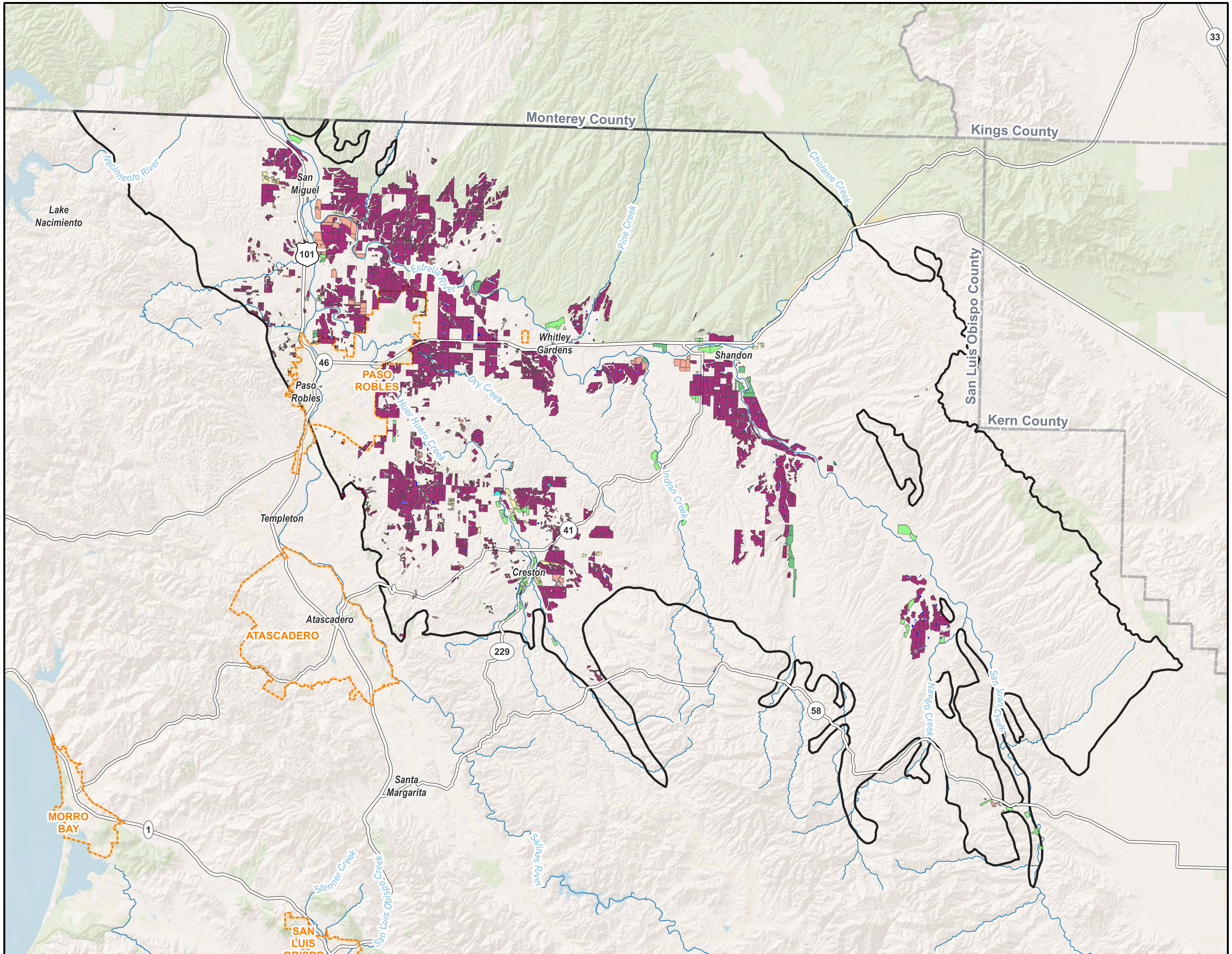
Date: 2026-03-05
Data Sources: CA DWR, SLOCO, ESRI

CONFLUENCE

FIGURE 9

Irrigated Agriculture
Water Year 2025

Paso Robles Subbasin
Water Year 2025 Annual Report



LEGEND

- County Boundary
- City Boundary
- Paso Robles Subbasin
- Major Creeks
- Major Roads
- Agricultural Storage Pond

Irrigated Agriculture

- Orchard
- Pasture
- Alfalfa
- Vegetable
- Vineyard
- Nursery

N

0 2 4 6 mi
1"= 4mi
0 10,000 20,000 30,000 ft

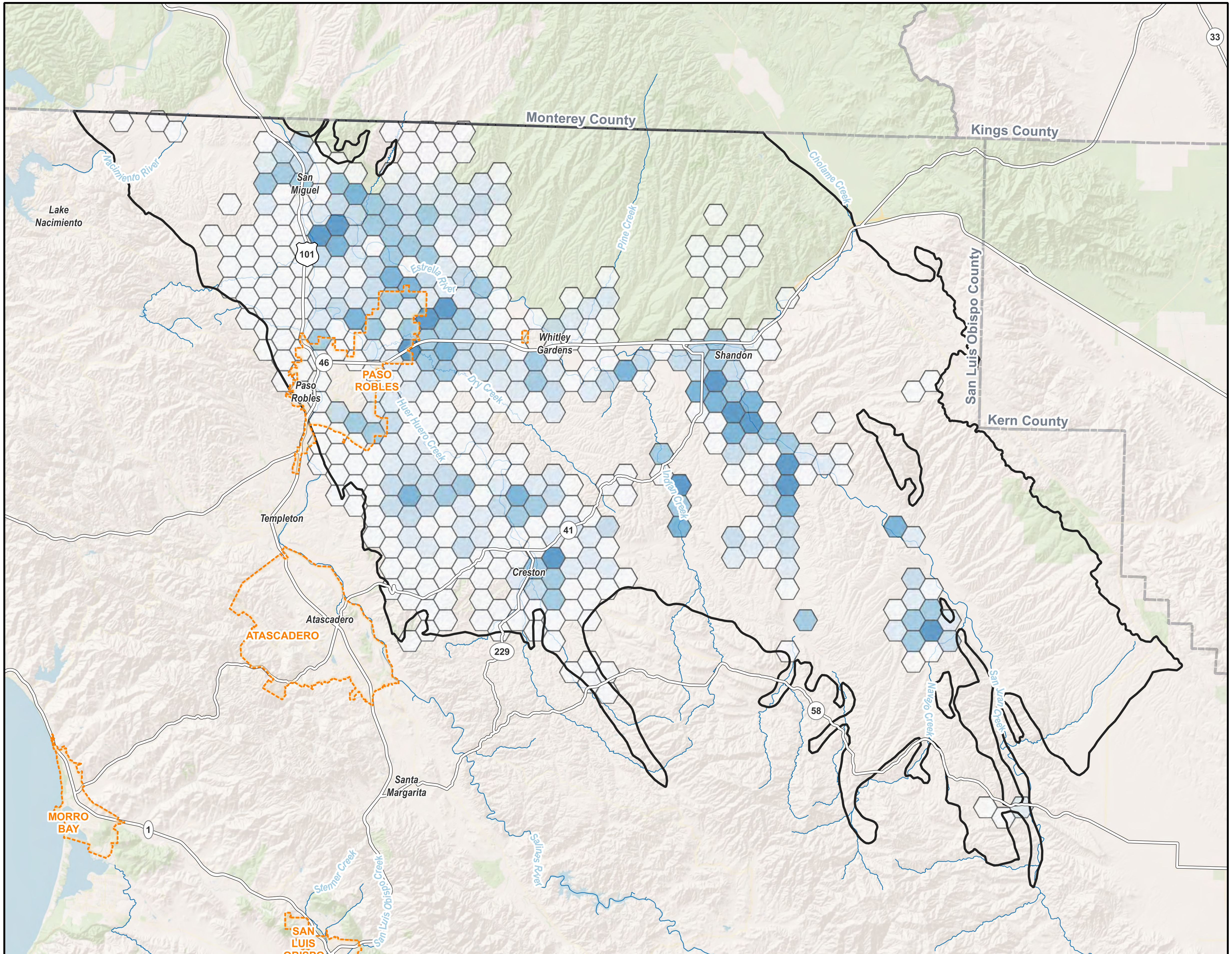
Date: 2026-02-10
Data Sources: CA DWR, SLOCO, LandIQ, ESRI

CONFLUENCE

FIGURE 10

General Locations and Volumes of Groundwater Extraction

Paso Robles Subbasin Water Year 2025 Annual Report



LEGEND

- County Boundary
- City Boundary
- Paso Robles Subbasin
- Major Creeks
- Major Roads

Water Year 2025 Groundwater Extraction (AFY)

- 1 - 100
- 100 - 200
- 200 - 300
- 300 - 400
- 400 - 500
- 500 - 600
- 600 - 700
- 700 - 800

NOTE:
AFY: Acre-Feet per Year

N

0 2 4 6 mi
1" = 4mi
0 10,000 20,000 30,000 ft

Date: 2026-02-10
Data Sources: CA DWR, SLOCO, LandIQ, ESRI

CONFLUENCE

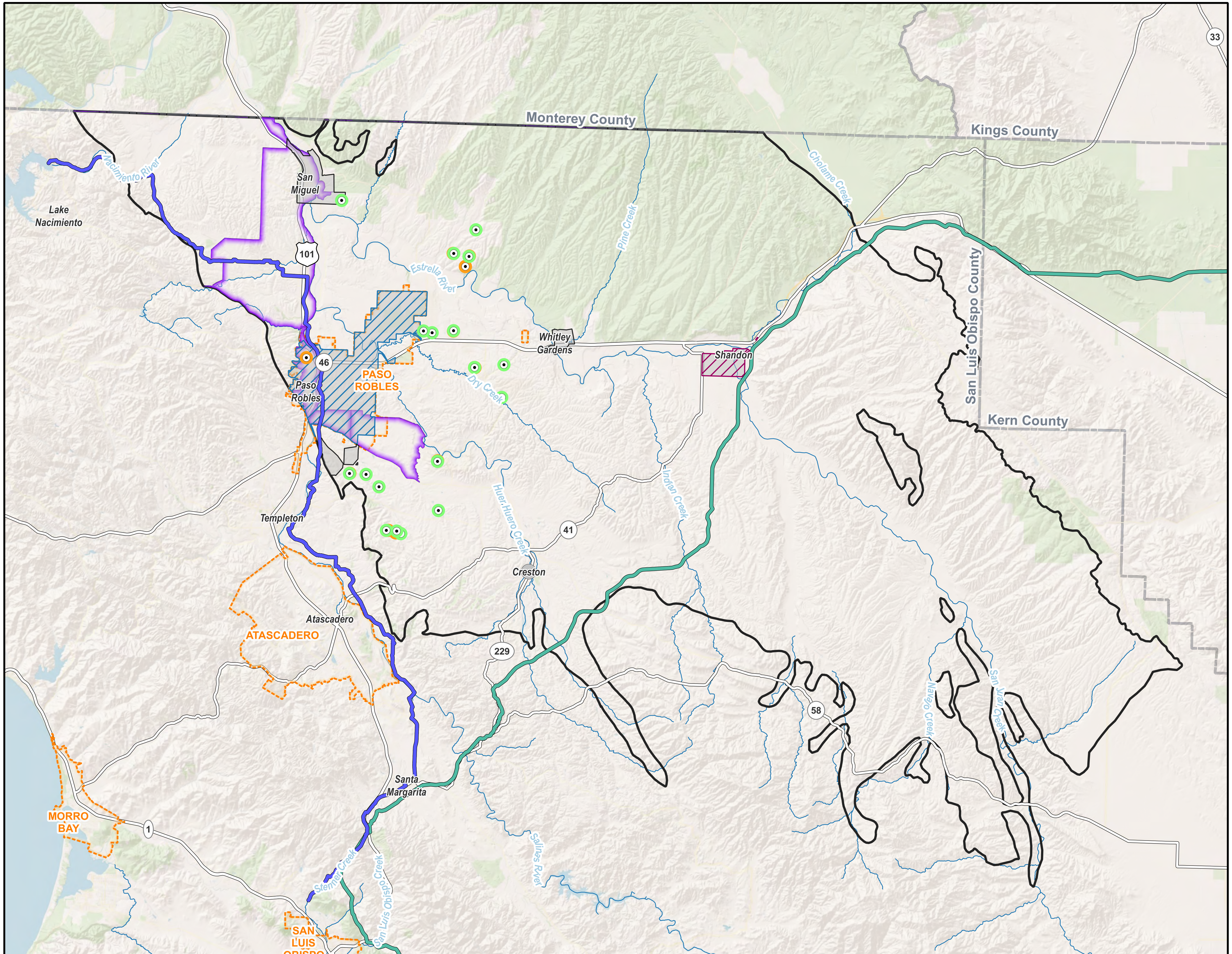


FIGURE 11

Communities Dependent on Groundwater and with Access to Surface Water

Paso Robles Subbasin
Water Year 2025 Annual Report

LEGEND

- County Boundary
- City Boundary
- Paso Robles Subbasin
- Major Creeks
- Major Roads
- State Water Project Pipeline
- Nacimiento Water Project Pipeline
- Dry Well Replacements Completed in WY 2025
- Dry Wells Reported to DWR in WY 2025
- Disadvantaged Communities (DACs)
- Communities Dependent Solely on Groundwater
- Communities Served by Groundwater and Nacimiento Water Project
- Communities Served by Groundwater and State Water Project

N

0 2 4 6 mi
1"= 4mi
0 10,000 20,000 30,000 ft

Date: 2026-02-10
Data Sources: CA DWR, SLOCO, ESRI, CA Energy Commission

CONFLUENCE

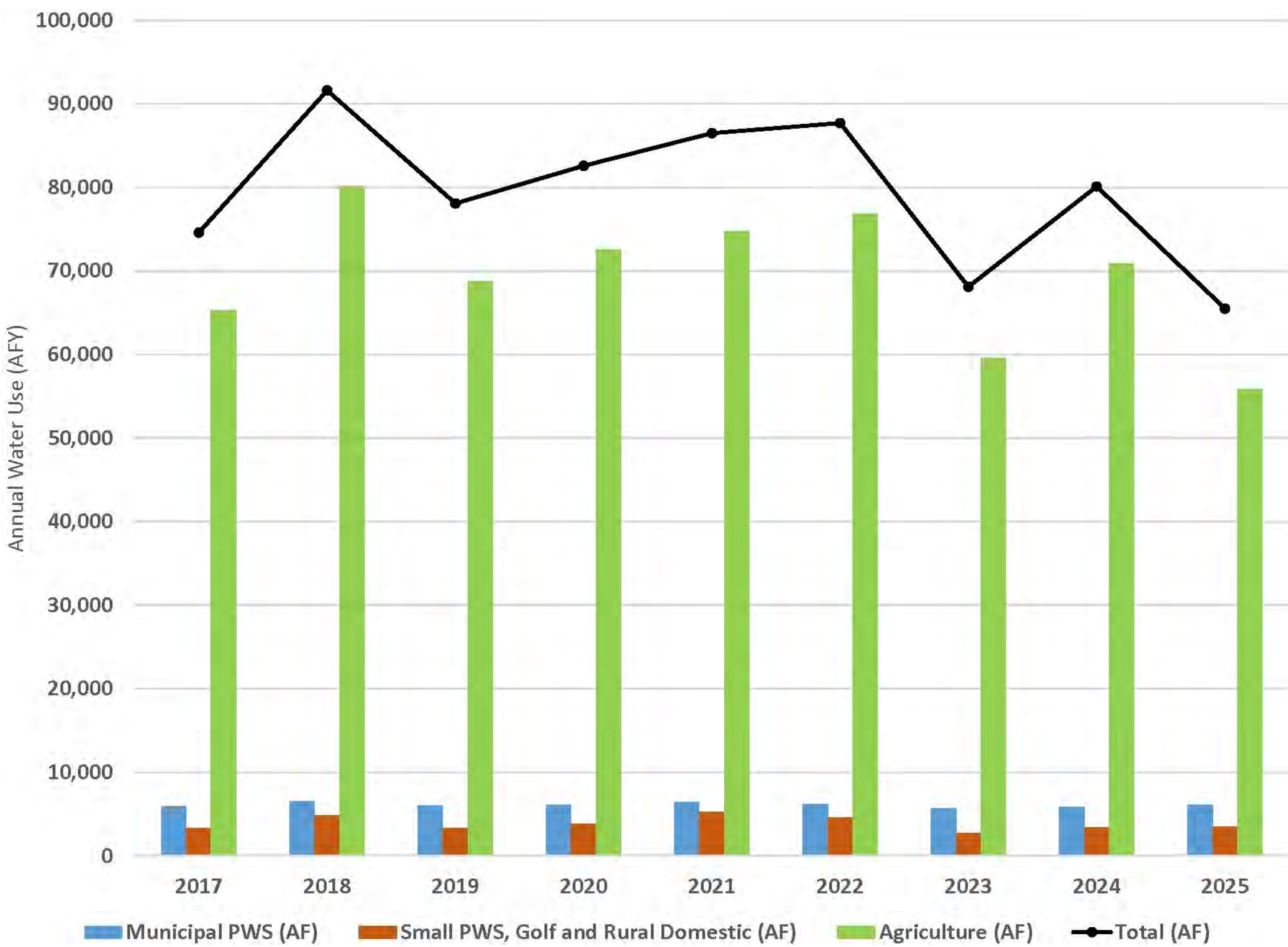
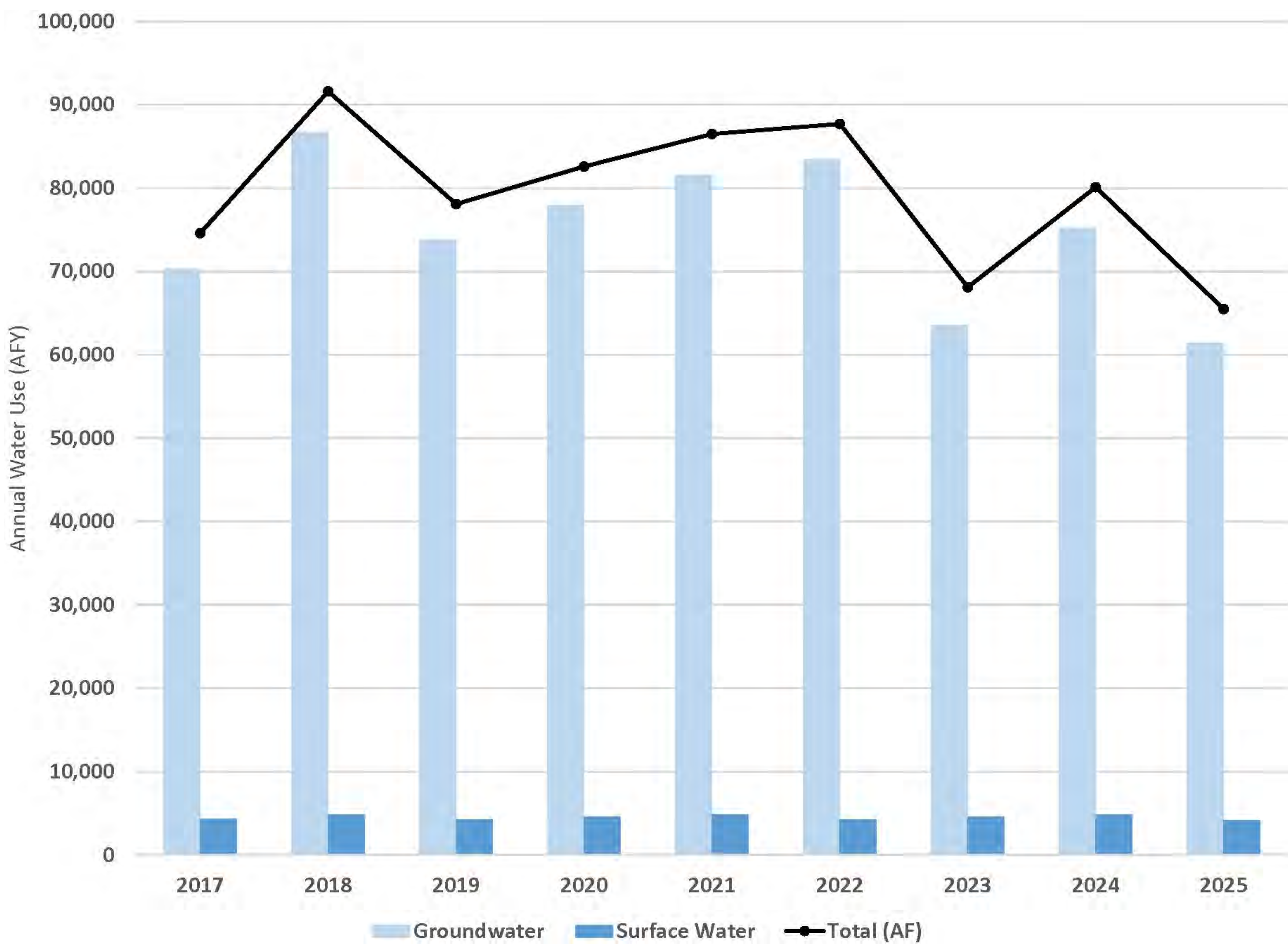


FIGURE 12
Total Annual Water Use
by Water Use Sector
Paso Robles Subbasin Water Year 2025 Annual Report



CONFLUENCE
ENGINEERING SOLUTIONS

FIGURE 13
Total Annual Water Use
by Water Source
Paso Robles Subbasin Water Year 2025 Annual Report

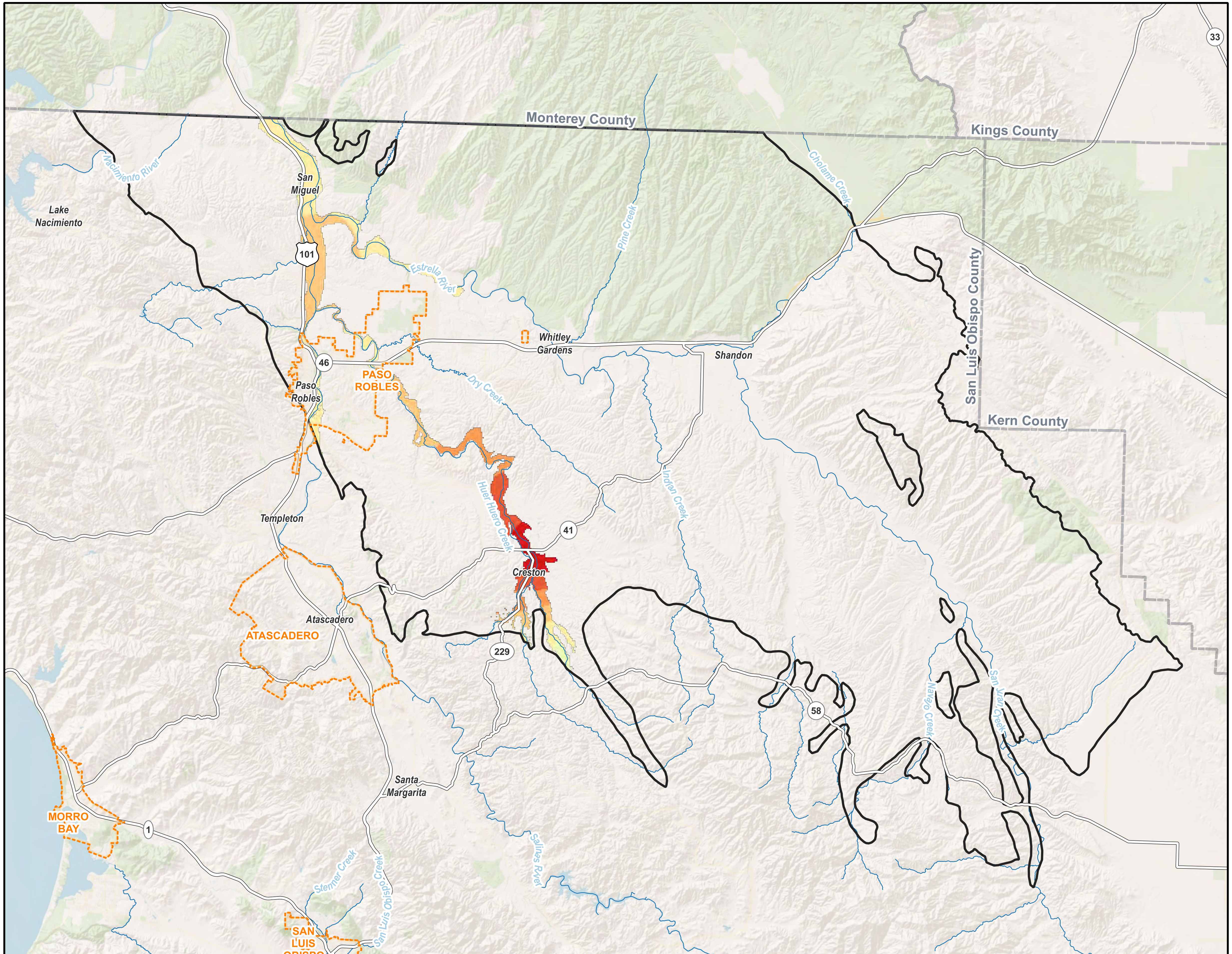


FIGURE 14

Alluvial Aquifer Change in Groundwater Elevation
Fall 2024 to Fall 2025

Paso Robles Subbasin
Water Year 2025 Annual Report

LEGEND

- County Boundary
- City Boundary
- Paso Robles Subbasin
- Major Creeks
- Major Roads

Fall 2024 to Fall 2025

- <= -8 feet
- -8 - -6 feet
- -6 - -4 feet
- -4 - -2 feet
- -2 - 0 feet
- 0 - 2 feet
- 2 - 4 feet
- 4 - 6 feet
- 6 - 8 feet
- > 8 feet

N

0 2 4 6 mi
1"= 4mi
0 10,000 20,000 30,000 ft

Date: 2026-02-02
Data Sources: CA DWR, SLOCO, ESRI

CONFLUENCE

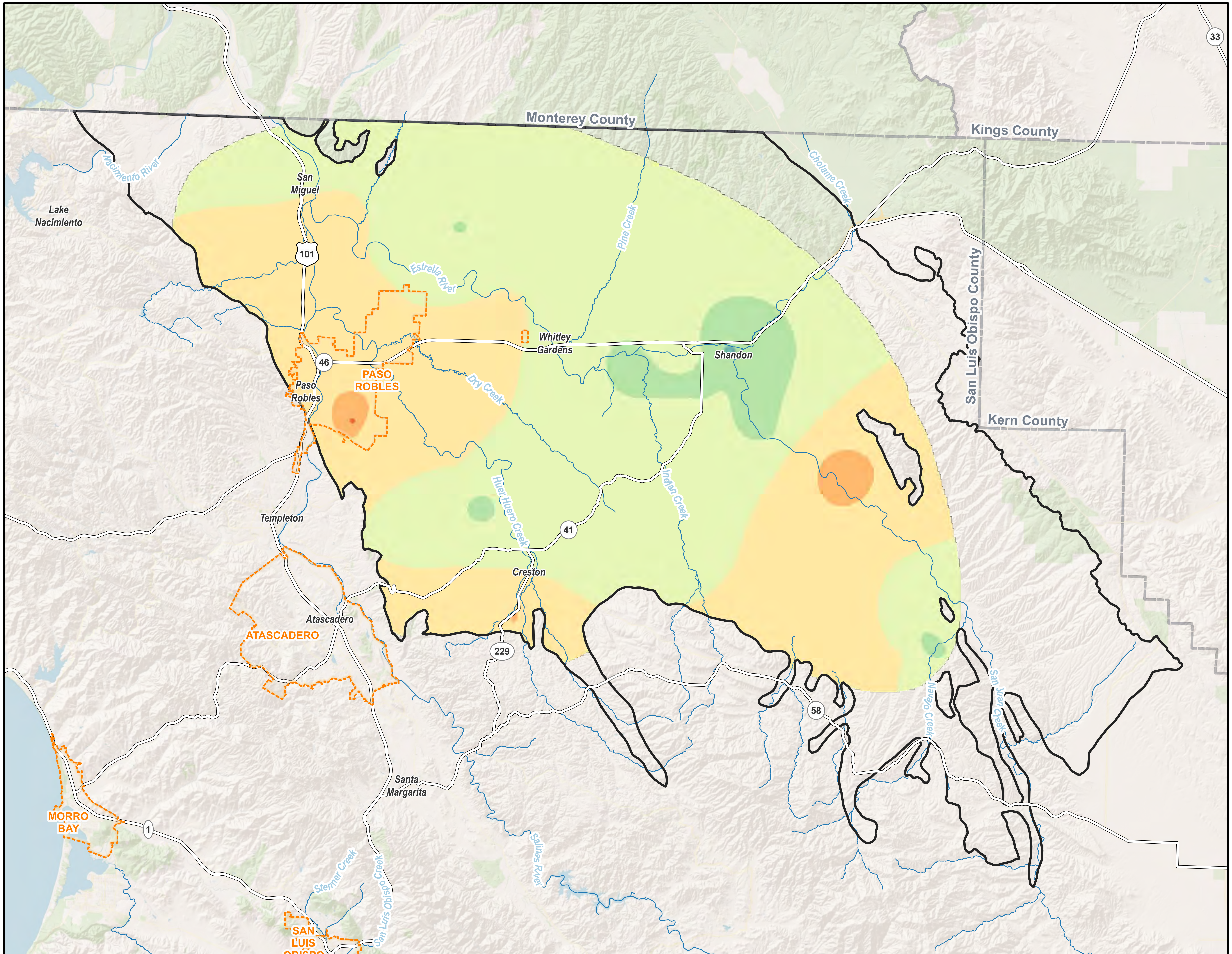


FIGURE 15

Paso Robles Formation Aquifer
Change in Groundwater Elevation
Fall 2024 to Fall 2025

Paso Robles Subbasin
Water Year 2025 Annual Report

LEGEND

- County Boundary
- City Boundary
- Paso Robles Subbasin
- Major Creeks
- Major Roads

Fall 2024 to Fall 2025

- <= -30 feet
- -30 - -20 feet
- -20 - -10 feet
- -10 - 0 feet
- 0 - 10 feet
- 10 - 20 feet
- 20 - 30 feet
- > 30 feet

N

0 2 4 6 mi
1"= 4mi
0 10,000 20,000 30,000 ft

Date: 2026-02-10
Data Sources: CA DWR, SLOCO, ESRI

CONFLUENCE

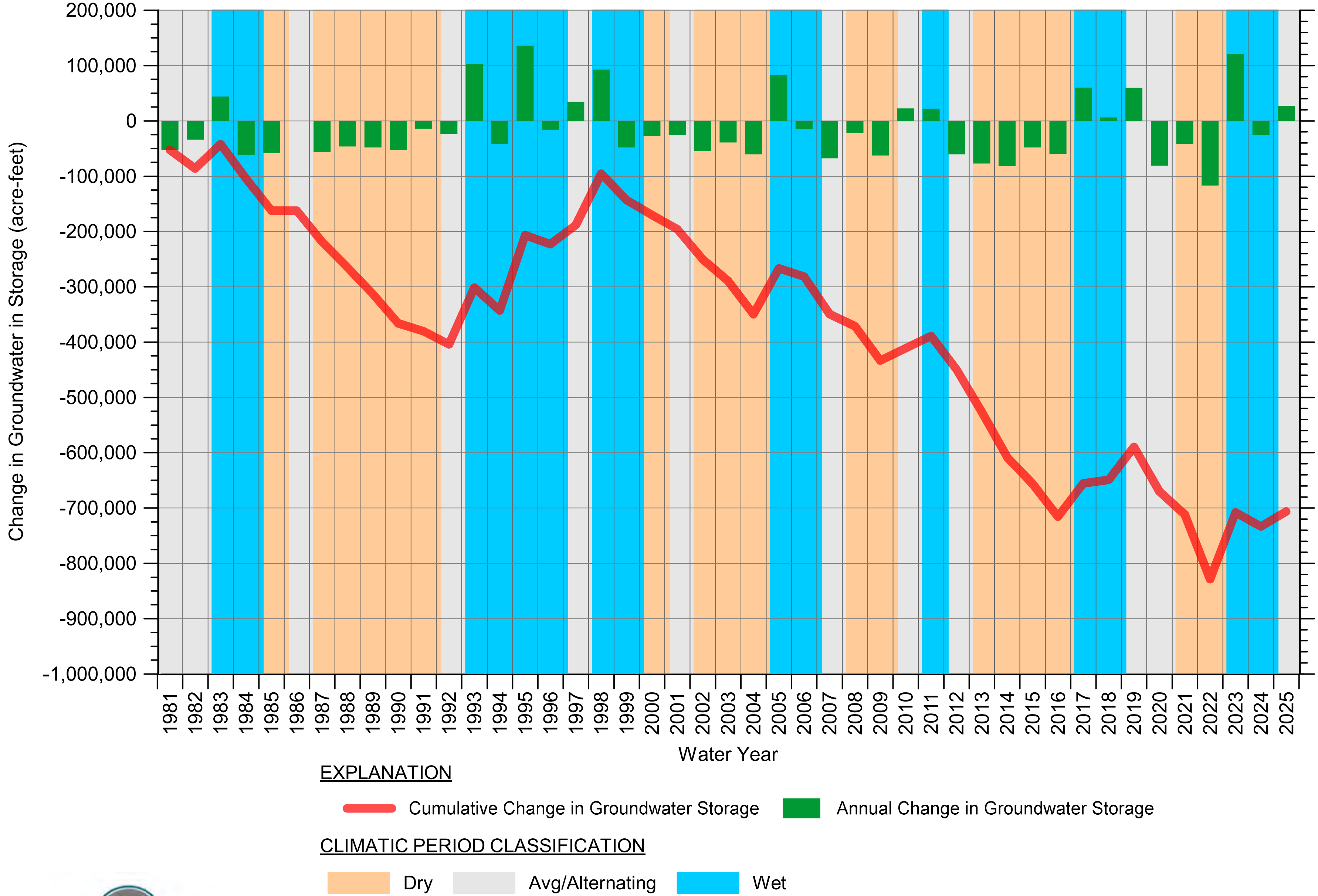


FIGURE 16

Estimated Annual and Cumulative Change in Groundwater in Storage in the Paso Robles Subbasin

Paso Robles Subbasin Water Year 2025 Annual Report

C:\Users\NatePage\confluencees.com\ConfluenceES - Projects\Paso Basin GSAs\Paso WY25-AR\5_Working Files\Analysis\Change in Storage\Grapher\GW_CumulativeChangeGWStoragePRannual_wTitle.gpj

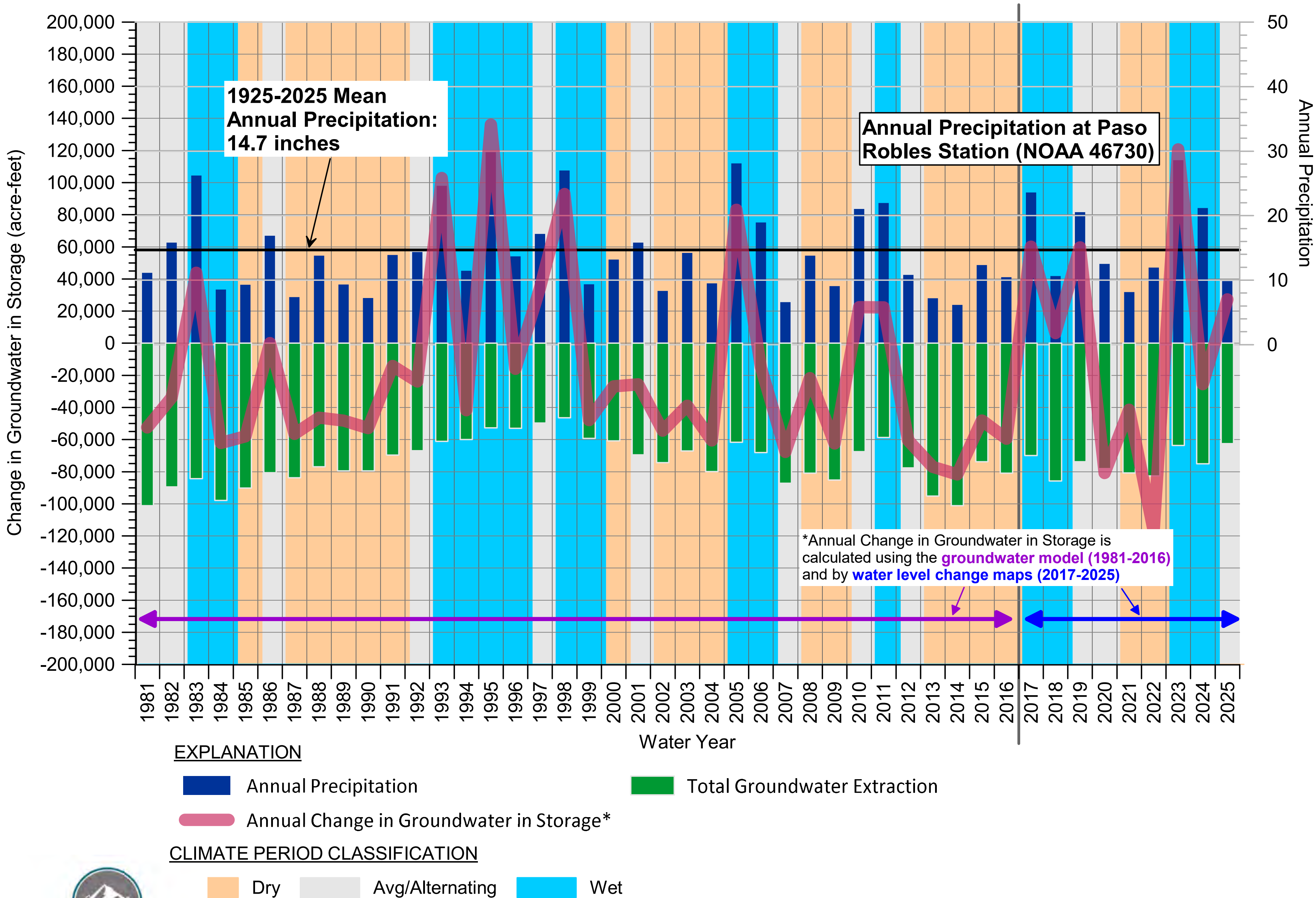


FIGURE 17

Annual Precipitation and Groundwater Extraction vs Annual Change in Groundwater in Storage

Paso Robles Subbasin Water Year 2025 Annual Report

C:\Users\NatePage\confluencees.com\ConfluenceES - Projects\Paso Basin GSAs\Paso WY25-AR\5_Working Files\Analysis\Change in Storage\Grapher\Annual Precipitation and Groundwater Extraction vs Annual Change in Groundwater in Storage.gpj

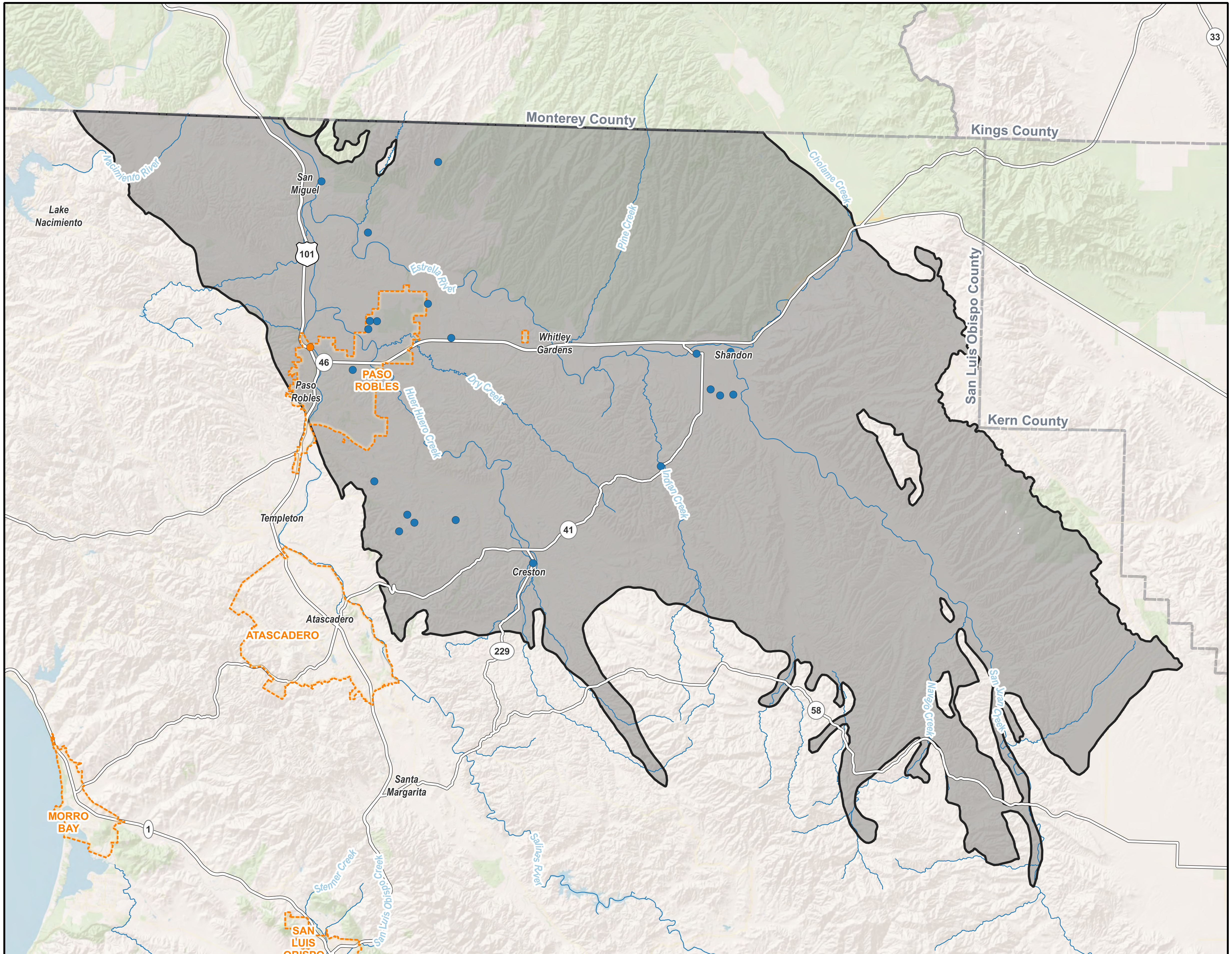


FIGURE 18

Single-Year Land Subsidence
Measured by InSAR
(June 2024 – June 2025)

Paso Robles Subbasin
Water Year 2025 Annual Report

LEGEND

County Boundary
City Boundary
Paso Robles Subbasin
Major Creeks
Major Roads

Wells

RMS Well - Alluvial Aquifer
RMS Well - Paso Robles Formation

Estimated Subsidence (decimal ft)
June 2024 - June 2025

Measurement within method error bars
(+/- 0.066 feet)

NOTES:
RMS: Representative Monitoring Site
InSAR: Interferometric Synthetic Aperture Radar

N

0 2 4 6 mi
1"= 4mi
0 10,000 20,000 30,000 ft

Date: 2026-02-03
Data Sources: CA DWR,
SLOCO, City of Paso Robles,
TRE Altamira InSAR dataset

CONFLUENCE

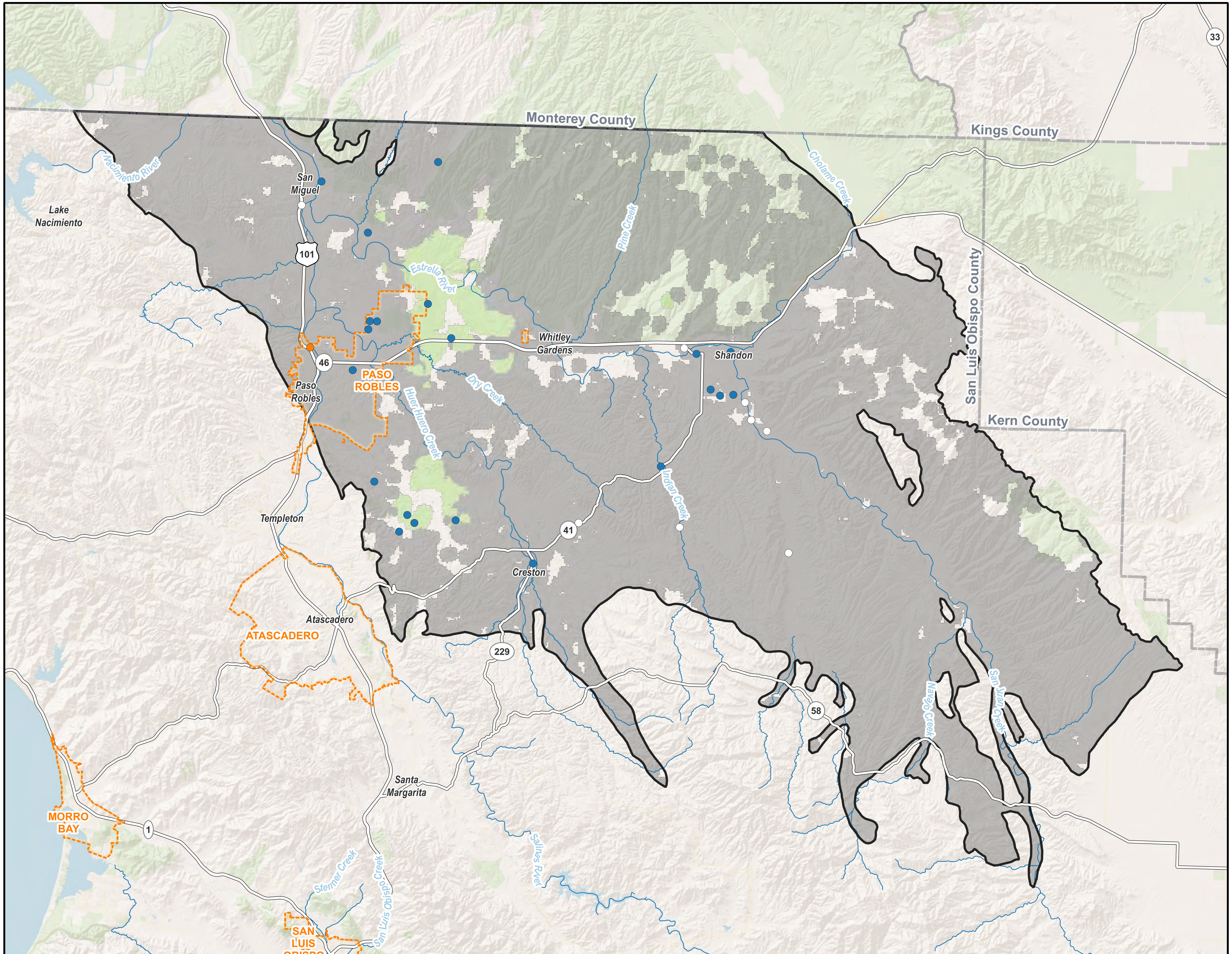


FIGURE 19

Five-Year Land Subsidence
Measured by InSAR
(June 2020 – June 2025)

Paso Robles Subbasin
Water Year 2025 Annual Report

LEGEND

- County Boundary
- City Boundary
- Paso Robles Subbasin
- Major Creeks
- Major Roads

Wells

- RMS Well - Alluvial Aquifer
- RMS Well - Paso Robles Formation

Estimated Subsidence (decimal ft)
June 2020 - June 2025

- Measurement within method error bars (+/- 0.066 feet)
- Land Subsidence of less than 0.2 feet

(blank areas indicate no available data)

NOTES:
RMS: Representative Monitoring Site
InSAR: Interferometric Synthetic Aperture Radar

N

0 2 4 6 mi
1"= 4mi
0 10,000 20,000 30,000 ft

Date: 2026-03-05
Data Sources: CA DWR, SLOCO, City of Paso Robles, TRE Altamira InSAR dataset

CONFLUENCE

Appendices

Appendix A: SGMA Regulations for Annual Reports

§ 356.2. Annual Reports

Each Agency shall submit an annual report to the Department by April 1 of each year following the adoption of the Plan. The annual report shall include the following components for the preceding water year:

(a) General information, including an executive summary and a location map depicting the basin covered by the report.

(b) A detailed description and graphical representation of the following conditions of the basin managed in the Plan:

(1) Groundwater elevation data from monitoring wells identified in the monitoring network shall be analyzed and displayed as follows:

(A) Groundwater elevation contour maps for each principal aquifer in the basin illustrating, at a minimum, the seasonal high and seasonal low groundwater conditions.

(B) Hydrographs of groundwater elevations and water year type using historical data to the greatest extent available, including from January 1, 2015, to current reporting year.

(2) Groundwater extraction for the preceding water year. Data shall be collected using the best available measurement methods and shall be presented in a table that summarizes groundwater extractions by water use sector, and identifies the method of measurement (direct or estimate) and accuracy of measurements, and a map that illustrates the general location and volume of groundwater extractions.

(3) Surface water supply used or available for use, for groundwater recharge or in-lieu use shall be reported based on quantitative data that describes the annual volume and sources for the preceding water year.

(4) Total water use shall be collected using the best available measurement methods and shall be reported in a table that summarizes total water use by water use sector, water source type, and identifies the method of measurement (direct or estimate) and accuracy of measurements. Existing water use data from the most recent Urban Water Management Plans or Agricultural Water Management Plans within the basin may be used, as long as the data are reported by water year.

(5) Change in groundwater in storage shall include the following:

(A) Change in groundwater in storage maps for each principal aquifer in the basin.

(B) A graph depicting water year type, groundwater use, the annual change in groundwater in storage, and the cumulative change in groundwater in storage for the basin based on historical data to the greatest extent available, including from January 1, 2015, to the current reporting year.

(c) A description of progress towards implementing the Plan, including achieving interim milestones, and implementation of projects or management actions since the previous annual report.

Note: Authority cited: Section 10733.2, Water Code.

Reference: Sections 10727.2, 10728, and 10733.2, Water Code.

Appendix B: Paso Robles Area Groundwater Authority Joint Exercise of Powers Agreement

JOINT EXERCISE OF POWERS AGREEMENT
FOR ADMINISTRATION OF
THE PASO ROBLES AREA GROUNDWATER SUBBASIN
GROUNDWATER SUSTAINABILITY PLAN

THIS AGREEMENT is entered into pursuant to the Joint Exercise of Powers Act, Government Code §§ 6500 et seq. ("JPA Act"), by and among the following Groundwater Sustainability Agencies ("GSAs") within the Paso Robles Area Groundwater Subbasin: the City of El Paso de Robles ("City"), the County of San Luis Obispo ("County"), the Shandon-San Juan Water District ("SSJWD") and the Estrella-El Pomar-Creston Water District ("EPCWD") (each referred to individually as a "Member" and collectively as the "Members"), for the purposes of forming a joint powers agency to serve as the groundwater authority within their combined service area within the Paso Robles Area Groundwater Subbasin.

RECITALS

WHEREAS, on September 16, 2014, Governor Jerry Brown signed into law Senate Bills ("SB") 1168 and 1319 and Assembly Bill ("AB") 1739, known collectively as the Sustainable Groundwater Management Act (Water Code §§ 10720 et seq.) ("SGMA"), which became effective on January 1, 2015 and which has been and may continue to be amended from time to time; and

WHEREAS, SGMA requires the establishment of a GSA or GSAs for all basins designated as medium or high priority by the California Department of Water Resources ("DWR") on or before June 30, 2017; and

WHEREAS, SGMA further requires the adoption of a Groundwater Sustainability Plan ("GSP") or coordinated GSPs for all basins designated by DWR as high or medium priority basins and subject to critical conditions of overdraft on or before January 31, 2020; and

WHEREAS, DWR designated the Paso Robles Area Subbasin (DWR Bulletin 118 Basin No. 3-004.06) ("Basin") as a high priority basin subject to critical conditions of overdraft; and

WHEREAS, each of the Members is a GSA duly established in accordance with SGMA within its respective service area overlying the Basin; and

WHEREAS, the Members, with the exception of EPCWD, and the San Miguel Community Services District ("SMCSD"), previously entered into a Memorandum of Agreement Regarding Preparation of a Groundwater Sustainability Plan for the Paso Robles Groundwater Basin ("MOA") on or about September 20, 2017 and an Amendment No. 1 to the MOA on or about March 13, 2020 for purposes of coordinating preparation of a single GSP for the Basin and for continued cooperation pending development of a long-term governance structure, including, but not limited to, through the Paso Basin Cooperative Committee ("PBCC"), an advisory committee created thereunder; and

WHEREAS, the EPCWD became a party to the MOA on or about June 6, 2023, and all of the Members and the SMCSD entered into an Amendment No. 2 to the MOA on or about July 9, 2024 expressly permitting the County to contract with consultants on behalf of the PBCC subject to the terms and conditions of the MOA while the Members and SMCSD continued to explore long-term governance options; and

WHEREAS, the Members, together with the SMCSD, collectively developed, and separately adopted, a single GSP to sustainably manage the Basin underlying their combined service area which was first submitted to DWR on January 30, 2020 with the exception of the EPCWD which was not yet a GSA; and

WHEREAS, in response to comments provided by DWR, each of the Members and SMCSD separately adopted a single updated GSP (the "GSP"), except for EPCWD; and

WHEREAS, the EPCWD has since agreed to implement the GSP within its service area; and

WHEREAS, the updated GSP was formally approved by letter from DWR on June 20, 2023; and

WHEREAS, each of the Members desires to create a single entity to perform GSP / SGMA administrative and regulatory compliance actions, development and implementation of certain management actions as described herein and establishment of the funding necessary to support said actions within their combined service area within the Basin; and

WHEREAS, more specifically, the Members are entering into this Agreement to form the Paso Robles Area Groundwater Authority, a public entity separate and apart from the Members, to serve as the more formal governance structure anticipated under the MOA, which MOA is now outdated and is being replaced hereby.

NOW, THEREFORE, in consideration of the mutual promises, covenants and conditions set forth herein, the Members agree as follows:

ARTICLE 1: INCORPORATION OF RECITALS

1.1 The foregoing recitals are true and correct and are incorporated herein by reference.

ARTICLE 2: DEFINITIONS

The following terms shall have the following meanings for purposes of this Agreement:

2.1 "Agreement" means this Joint Exercise of Powers Agreement forming the Paso Robles Area Groundwater Authority for the Members' combined service area within the Basin.

2.2 "Authority" means the Paso Robles Area Groundwater Authority formed pursuant to this Agreement.

2.3 "Basin" means the Paso Robles Area Groundwater Subbasin, California Department of Water Resources Basin No. 3-004.06 as its boundaries may be modified from time to time in accordance with Water Code section 10722.2.

2.4 "Board of Directors" or "Board" means the governing body of the Authority as established by Article 6.1 of this Agreement.

2.5 "Bulletin 118" means DWR's report entitled "California Groundwater: Bulletin 118" updated in 2016 and 2022, and as it may be subsequently updated or revised in accordance with Water Code section 12924.

2.6 "Director(s)" and "Alternate Director(s)" means a Director or Alternate Director appointed by a Member pursuant to Articles 6.1 and 6.2 of this Agreement.

2.7 "DWR" means the California Department of Water Resources.

2.8 "Effective Date" is the date this Agreement has been signed by all of the Members.

2.9 "Groundwater Sustainability Plan" or "GSP" means the Groundwater Sustainability Plan, as defined by SGMA in Water Code section 10727 et seq., adopted for the Basin and approved by DWR on June 20, 2023, and as may be subsequently amended by the Members.

2.10 "Joint Exercise of Powers Act" or "JPA Act" means Government Code section 6500 et seq., as amended from time to time.

2.11 "Member" means any of the signatories to this Agreement, and "Members" means all of the Signatories to this Agreement. Each Member is a GSA duly established in accordance with SGMA.

2.12 "Memorandum of Agreement" or "MOA" means the September 20, 2017 Memorandum of Agreement Regarding Preparation of a Groundwater Sustainability Plan for the Paso Robles Groundwater Basin, including any amendments thereto.

2.13 "Officer(s)" means the Chair, Vice Chair, or Secretary of the Authority to be appointed by the Board of Directors pursuant to Article 6.5 of this Agreement.

2.14 "SGMA" means the Sustainable Groundwater Management Act of 2014 and all regulations adopted under the legislation (SB 1168, SB 1319 and AB 1739) that collectively comprises the Act, as that legislation and those regulations may be amended from time to time.

2.15 "State" means the State of California.

ARTICLE 3: PURPOSE

3.1 The purpose of this Agreement is to establish the Paso Robles Area Groundwater Authority and to set forth the terms and conditions under which the Authority is authorized to implement the GSP and otherwise manage the Basin under SGMA within the collective service area of the Members. This Agreement also sets forth, without limitation, how the Authority will be funded and the way it will operate. Nothing in this Agreement is intended to modify, limit, or otherwise interfere with individual Members' municipal water use, authorities, or rights, including, but not limited to: police powers; land use authorities; well construction authorities; authorities to adopt or amend the GSP; authorities or rights regarding their respective water supplies and assets (including recycled water); and authorities or rights regarding their respective facilities, operations, or water management beyond those projects and initiatives identified in the GSP. By entering this Agreement, the Members make no commitment to contribute their water supply assets as part of the implementation of the GSP.

ARTICLE 4: CREATION OF THE AUTHORITY

4.1 Qualification of Members. Each Member certifies and declares that it is a public agency (as defined in Government Code Section 6500 et seq.) that is authorized to be a party to a joint exercise of powers agreement. Each Member certifies and declares that it is a GSA duly formed and existing pursuant to SGMA.

4.2 Creation of Authority. Pursuant to the JPA Act, the Members hereby create a joint powers agency which shall be known as the Paso Robles Area Groundwater Authority. The boundaries of the Authority shall be coterminous with the collective areas over which each Member is the GSA as of the Effective Date as depicted in Exhibit A attached hereto and incorporated herein by this reference or as may be modified over time. This Agreement forms the Authority as a public entity that is a separate and distinct legal entity from the Members. Should other local agencies become new Members of the Authority pursuant to Section 5.2 below after the Effective Date, the boundaries of the Authority shall be updated to include their service areas within the Basin.

4.3 Notice of Agreement. Within thirty (30) days after the Effective Date, and after any amendment hereto, the County on behalf of the Authority shall cause a notice of this Agreement to be prepared and filed with the office of the California Secretary of State containing the information required by Government Code section 6503.5. Within thirty (30) days after the Effective Date, the County on behalf of the Authority shall cause a statement of the information concerning the Authority, required by Government Code section 53051, to be filed with the office of the California Secretary of State and with the County Clerk, setting forth the facts required to be stated pursuant to Government Code section 53051, subd. (a).

4.4 Purposes of Authority. The purpose of the Authority is to establish the mechanism by which the Members will jointly carry out and fund (consistent with the provisions of Article 7 of this Agreement), certain administrative and regulatory functions under SGMA as well as development and implementation of certain management actions through coordinated exercise of the powers thereunder and other joint powers within the Basin subject to the limitations set forth herein. Nothing in this Section 4.4 is intended to modify, limit, or otherwise interfere with individual Members' municipal water use, authorities, or rights as set forth in Section 3.1 above.

4.5 Initial Powers of Authority. The following are the initial authorities granted to the Authority and for which further individual Member approval is not required:

a. Completion of the regulatory requirements under SGMA including, but not limited to, preparing and submitting the annual reports described in section 356.2 of Title 23 of the California Code of Regulations ("CCR") and section 9.3.1.3 of the GSP and the five-year GSP evaluations described in 23 CCR section 356.4 and section 9.3.1.4 of the GSP and serving as the plan manager on behalf of the Members as defined in 23 CCR section 351(z) in connection therewith.

b. Development and implementation of the Communication and Engagement Plan set forth in Appendix M of the GSP and to otherwise undertake stakeholder outreach within the Members' combined service area; however, this shall not preclude any Member from undertaking additional stakeholder outreach within its boundaries.

c. Development and implementation of the Data Gap Plan set forth in Appendix L2 of the GSP and to otherwise develop and implement an enhanced monitoring program within the Members' combined service area, provided that any update to the monitoring program shall not be in contravention of existing confidentiality or any other obligations under the existing San Luis Obispo Flood Control and Water Conservation District ("FCWCD") Water Level Measuring Program as determined by the County Director of Public Works or designee.

d. Development and implementation of a voluntary groundwater demand reduction program within the Members' combined service area, which may include fallowing and other water demand reduction or land repurposing strategies as described in section 9.3.4 of the GSP; and development and implementation of a mandatory demand reduction program should the voluntary program prove inadequate.

e. Development and adoption of an annual budget to exercise the authorities granted hereunder or as may be delegated by the Members in accordance with Section 4.7 below provided that nothing herein shall authorize the Authority to require Member contributions beyond those specifically identified in Section 7.1 below or otherwise approved by an affirmative vote of three (3) of the Directors consistent with Section 6.8(3) below.

f. Development and adoption of a plan to fund exercise of the authorities granted hereunder or as may be subsequently delegated by the Members, including but not limited to, adoption by the Authority of a fee(s) pursuant to Water Code section 10730 et seq. and all actions necessary for the Authority to establish and collect said fee(s) and application and receipt of grant funds.

g. Adoption or establishment of rules, regulations, policies, bylaws and procedures related to exercise of the authorities granted hereunder or as may be subsequently delegated by the Members, including, but not limited to, adoption of a procurement and purchasing policy and a conflict of interest code.

h. Retention of consultants, contractors, or employees to assist the Authority in carrying out its purposes and day-to-day operations, including, without limitation, a financial consultant, legal counsel, accountant, administrative personnel, hydrogeologist, executive director, or other specialty services as may be deemed appropriate to carry out the terms of this Agreement and as more specifically set forth in Section 4.10 below.

i. Perform all other acts reasonably necessary for the Authority to exercise the powers of the Authority set forth in this Section 4.5 or as subsequently delegated pursuant to Section 4.7 below. Without limiting any other provision of this Agreement, this includes authorization to: make and enter contracts; employ agents and employees; acquire, hold or dispose of property; incur debts, liabilities or obligations; and to sue or be sued in the Authority's own name.

4.6 Restriction on Exercise of Powers Designation. For purposes of Government Code section 6509, all powers of the Authority shall be exercised subject to the restrictions upon the manner of exercising such powers as are imposed on the County, and in the event of the withdrawal of the County as a Member under this Agreement, then the manner of exercising the Authority's powers shall be exercised subject to those restrictions imposed on the City.

4.7. Additional Powers-Subsequent Implementation Activities. With the exception of activities within the authorities set forth in Section 4.5 above or necessary for the full exercise thereof, the Authority shall not undertake any GSP implementation activities within the service area of a particular Member(s) or that impact water use within the service area of a particular Member(s) without that Member(s)' prior written approval; and the Authority shall not undertake any GSP implementation activities throughout the Members' combined service area with the exception of activities within the authorities set forth in Section 4.5 above or necessary for the full exercise thereof unless approved by the governing bodies of at least three (3) of the four (4) Members. Said approval or future delegation shall not be deemed and need not require an amendment to this Agreement unless said activities cannot be conducted consistent with the terms of this Agreement. However, nothing herein prohibits any Member from exercising its individual authority to enact an ordinance or regulation imposing mandatory extraction limitations or other demand reduction measures in furtherance of GSP implementation within its service area. In addition, without limiting the foregoing, nothing herein shall be construed as authorizing the Authority to acquire a right to appropriate or otherwise receive surface water from Santa Margarita Lake, Lake Nacimiento or the Salinas River or to utilize infrastructure owned or operated by any Member or the FCWCD related thereto without their prior approval.

4.8 Term. This Agreement shall be effective as of the Effective Date and shall remain in effect until terminated in accordance with Section 8.2 or Section 8.3 of this Agreement or until superseded by the Five-Party Agreement as defined and described in Section 9.10 below.

4.9 Role of Member Agencies. Although it is anticipated that the Authority will hire its own staff, the Members will provide support to the Board of Directors by making information and meeting facilities available, Member resources permitting and subject to the execution of any necessary acknowledgement of confidentiality agreement(s) (e.g. with respect to confidential private well data). The Members will endeavor to respond quickly to any recommendations or requests made by the Board of Directors or its staff.

4.10 Executive Director and Employees. The Board may appoint an Executive Director or other designated manager ("Executive Director") or other employees.

a. The Executive Director's compensation shall be determined by the Board.

b. The Executive Director shall serve at the pleasure of the Board and shall be responsible to the Board for the proper and efficient administration of the Authority. The Executive Director shall have the powers designated by the Board.

c. The Executive Director shall serve until s/he resigns or the Board terminates her/his appointment.

d. The Board shall have the power to employ such other consultants or personnel as set forth in Section 4.5(h) above.

ARTICLE 5: MEMBERSHIP

5.1 Members. The Members of the Authority shall be:

a. City of El Paso de Robles;

b. County of San Luis Obispo;

c. Shandon-San Juan Water District; and

d. Estrella-El Pomar-Creston Water District

as long as they have not, pursuant to the provisions hereof, withdrawn from this Agreement.

5.2 New Members. Any local agency, as defined by SGMA, that is not a Member on the Effective Date of this Agreement may become a Member upon all of the following:

a. Amendment of the Agreement in accordance with Section 9.2;

b. Successful enactment / establishment within the service area of the local agency of any applicable fee(s) or charges on extraction that have been levied by the Authority; and

c. The local agency is presumed to be the exclusive GSA within its service area as described in Water Code section 10723.8 and adoption of the GSP by the local agency.

ARTICLE 6: GOVERNANCE

6.1 Board of Directors. The business of the Authority will be conducted by a Board of Directors that is hereby established and that shall be initially composed of one primary representative appointed by each Member. Without amending this Agreement, the composition of the Board of Directors shall be altered from time to time to reflect the withdrawal of any Member or the admission of a Member pursuant to Section 5.2. Members of the Board of Directors are required to be members of the governing board of the appointing Member.

6.2 Alternate Directors. Each Member shall designate one alternate to serve in the absence of that Member's primary representative on the Board of Directors. Alternate Directors shall not vote or participate in any deliberations unless appearing as a substitute for a Director due to absence or conflict of interest. If the Director is not present, or if the Director has a conflict of interest which precludes participation by the Director in any decision-making process of the Board, the Alternate Director appointed to act in his/her place shall assume all rights of the Director and shall have the authority to act in his/her absence, including casting votes on matters before the Board. Alternate Directors are required to be members of the governing board of the appointing Member.

6.3 Statement of Economic Interests. All primary members of the Board of Directors and all alternates shall file a Statement of Economic Interests (FPPC Form 700). Each Member shall notify the Authority in writing of its designated primary and alternate representatives on the Board of Directors.

6.4 Term of Directors. Each Member of the Board of Directors will serve until replaced by the appointing Member.

6.5 Officers. The Board of Directors shall elect a Chair, Vice Chair, and Secretary. Officers shall be elected at the first Board meeting, and thereafter at the first Board meeting following January 1st of each year.

a. Chair. The Chair shall preside at all meetings of the Board of Directors.

b. Vice Chair. The Vice Chair shall exercise all powers of the Chair in the Chair's absence or inability to act.

c. Secretary. The Secretary or the Secretary in coordination with the Executive Director or other designee shall keep minutes of the Board of Director meetings.

Consistent with Government Code section 6505.6, it is anticipated that the Authority will appoint its Executive Director as Treasurer and Auditor of the Authority to comply with the duties and responsibilities of the offices as set forth in Government Code section 6505.1 and 6505.5, including, without limitation, causing an annual independent audit to be made by a certified public accountant, or public accountant, in compliance with Government Code section 6505. Nothing herein shall be construed as limiting the Executive Director's ability to otherwise retain the services of an accountant or bookkeeper to assist him or her in fulfillment of the obligations hereunder in a manner consistent with Authority procurement procedures or as otherwise authorized by the Board of Directors. In addition, nothing herein shall be construed as preventing the Authority from appointing someone other than the Executive Director as Treasurer and Auditor consistent with Government Code section 6505.6. At the first meeting of the Board of Directors, the Authority shall appoint one of the officers specifically identified above to the position of interim Treasurer and Auditor to comply with the duties and responsibilities described above pending retention of an Executive Director to serve in such position.

6.6 Powers and Limitations. All the powers and authority of the Authority shall be exercised by the Board, subject, however, to the rights reserved by the Members as set forth in this Agreement.

6.7 Quorum. A majority of the Members of the Board of Directors shall constitute a quorum. In the absence of a quorum, any meeting of the Board of Directors may be adjourned by a vote of the simple majority of Directors present, but no other business may be transacted.

6.8 Voting. On all matters considered by the Authority, each Director shall have one vote and action shall require a majority vote of the Board of Directors subject to the following matters, which shall require the affirmative vote of three (3) Directors regardless of how many Directors are present and voting: (1) approval of the annual budget and any amendment or adjustment thereto; (2) decisions related to the imposition of mandatory limitations on groundwater extractions; and (3) decisions related to requiring Member contributions beyond those identified in Section 7.1 to cover the cost of any budgeted costs not covered by extraction fees.

6.9 Meetings. The Board of Directors shall provide for regular and special meetings in accordance with Chapter 9, Division 2, Title 5 of the Government Code (the "Ralph M. Brown Act" commencing at section 54950), and any subsequent amendments of those provisions.

6.10 By-Laws. The Board of Directors may adopt by-laws to supplement this Agreement. In the event of conflict between this Agreement and the by-laws, the provisions of this Agreement shall govern.

6.11 Advisory Committees. The Board of Directors may establish one or more advisory committees, technical committees or other committees for any purpose.

6.12 Compensation. No Director or member of an advisory committee shall be compensated by the Authority for preparation for or attendance at meetings of the Board of Directors or meetings of any committee created by the Board. Nothing in this Section 6.12 is intended to prohibit a Member from compensating its representatives on the Board of Directors or on a committee for attending such meetings.

ARTICLE 7: FINANCIAL PROVISIONS

7.1 Contributions and Expenses. It is anticipated that the vast majority of costs associated with the GSP implementation activities described herein will be funded through a fee(s) on all extractors within the Members' combined service area within the Basin under Water Code section 10730 et seq. in effect not later than December 2025. Thus, the Members agree to contribute the Members' share of costs allocated under the Fiscal Year 2024-2025 PBCC budget previously approved by each of the Members under the terms of the MOA ("FY 2024-2025 PBCC Budget") to the Authority's initial and Fiscal Year 2025-2026 budgets. In addition, and without limiting the SMCSD's obligations under Section 9.1 of the MOA, should the SMCSD fail to continue to pay its share of consultant costs for the annual report and five-year GSP evaluation under development as of the Effective Date and included in the FY 2024-2025 PBCC Budget, the Members agree to contribute a pro rata share of said costs based on the same percentage shares approved by the Members in connection with said budget while the Members pursue any and all available remedies against SMCSD. To the extent the FY 2024-2025 PBCC Budget is insufficient to cover Authority costs through December 2025 and additional funding has been approved by an affirmative vote of three (3) of the four (4) Directors, the Members agree to contribute to the additional funding based on the same percentage shares approved by the Members in connection with the FY 2024-2025 PBCC Budget for costs through December 2025 adjusted to include a pro rata allocation of the share previously allocated to SMCSD. Payment will be made to the Treasurer or interim Treasurer.

7.2 Liability of Board, Officers and Members. The funds of the Authority may be used to defend, indemnify and hold harmless the Authority, any Member and any Director and Alternate Director, and any officer, employee, or agent for actions taken within the scope of the Authority. Nothing herein shall limit the right of the Authority to purchase insurance including, but not limited to, directors and officers liability insurance.

7.3 Repayment of Funds. No refund or repayment of the funds set forth in Section 7.1 above or otherwise approved by an affirmative vote of three (3) of the four (4) Directors consistent with Section 6.8(3) above will be made to a Member ceasing to be a Member of this Agreement pursuant to a withdrawal described in Section 8.1 except as expressly required thereby.

7.4 Budget. The Authority's fiscal year shall run from July 1 through June 30. Each fiscal year, the Board shall adopt a budget for the Authority for the ensuing fiscal year. Within ninety (90) days of the Effective Date of this Agreement, the Board shall adopt an initial budget that is consistent with the FY 2024-2025 PBCC Budget. Thereafter, a budget shall be adopted no later than April 30 of the preceding fiscal year.

7.5 Depositary. The Treasurer shall (i) be the depositary of the Authority, (ii) have custody of all funds of the Authority, and (iii) have the duties and obligations of the Treasurer as set forth in Section 6.5 above. All funds of the Authority shall be held in separate accounts in the name of the Authority and shall not be commingled with funds of any Member or any other person or entity.

7.6 Accounting. Full books and accounts shall be maintained for the Authority in accordance with practices established by, or consistent with, those utilized by the Controller of the State of California for like public entities. The books and records of the Authority shall be open to inspection by the Members at all reasonable times, and by bondholders and lenders as and to the extent provided by resolution or indenture.

7.7 Auditor. The Auditor shall have the duties and obligations of the Auditor of the Authority as set forth in Section 6.5 above. The Auditor shall ensure strict accountability of all receipts and disbursements of the Authority. Copies of reports from the annual audit described in Section 6.5 above shall be filed with the State Controller and each Member within six (6) months of the end of the fiscal year under examination.

7.8 Expenditures. All expenditures within the designations and limitations of the applicable approved budget shall be made upon the approval of any officer so authorized by the Authority Board of Directors. The Treasurer shall draw checks or warrants or make payments by other means for claims or disbursements not within an applicable budget only upon the approval and written order of the Board of Directors by 4/5 vote. The Board shall requisition the payments of funds only upon approval or claims or disbursements and requisition for payment in accordance with policies and procedures adopted by the Board.

ARTICLE 8: CHANGES TO MEMBERSHIP, WITHDRAWAL AND TERMINATION

8.1 Withdrawal of Members.

8.1.1. Automatic Withdrawal. A Member shall be deemed to have unilaterally withdrawn from this Agreement at the time it ceases to exist as a GSA provided that said withdrawal shall not be effective unless and until another Member(s) elects to include the withdrawing Member's service area within their boundaries such that fees can continue to be collected therein. However, this requirement shall not apply if the Member ceases to be a GSA because its service area is no longer subject to SGMA.

8.1.2. Voluntary Withdrawal. A Member may, in its sole discretion, unilaterally choose to withdraw from the Authority, effective upon ninety (90) days' prior written notice to the Authority provided that the withdrawing Member shall remain obligated to pay a percentage share of costs as outlined in the current Authority annual budget incurred, accrued or encumbered up to the date the withdrawing Member provides notice of withdrawal in an amount equal to the percentage of fees collected within the withdrawing Member's service area. The withdrawing Member will thereafter be solely responsible for funding SGMA compliance and GSP implementation within its service area. Notwithstanding the foregoing or anything in this Agreement to the contrary, the Authority shall not rely on funding from any Member that does not concur with (i) an approved annual budget, (ii) an amendment to the budget, or (iii) a Member contribution described in Section 6.8(3) above, and the non-concurring Member shall not be liable for any costs that are incurred, accrued or encumbered following the non-concurring Member's vote against an approved annual budget, amendment to the budget, or Member contribution, provided the non-concurring Member notices its intent to withdraw from the Authority in the manner provided for in this Section 8.1.2 within thirty (30) days of the Authority's approval of any annual budget, amendment to the budget, or Member contribution.

8.1.3. Voting following a Member's Withdrawal. In the event of the withdrawal of a Member, such that three (3) Members will remain, the remaining Members shall amend this Agreement in accordance with Section 9.2 below to address voting thresholds and other procedural matters. Without limiting Section 8.3 below, the failure of the remaining Members to agree to an amendment within sixty (60) days of the effective date of withdrawal will result in automatic termination of this Agreement.

8.2 Automatic Termination. This Agreement will automatically terminate on June 30, 2026 if the Authority has not yet established a fee or fees to fund its activities as described above. However, nothing herein shall be construed as preventing the Members or a subset thereof from entering into a subsequent agreement related to Basin management and implementation of the GSP. In the event of automatic termination under this Section 8.2, each of the Members shall remain obligated to pay the contributions described in Section 7.1 or otherwise approved by an affirmative vote of three (3) Directors consistent with Section 6.8(3) above accrued or encumbered prior to the date of termination.

8.3 Termination. This Agreement and the Authority may be terminated by the written consent of three (3) of the four (4) Members subject to the terms and conditions herein. Approval of a Member is valid only after that Member's governing body approves the termination at a public meeting. Neither individual Directors nor individual members of the Members' governing boards have the authority, express or implied, to terminate this Agreement. In the event of termination under this Section 8.3, each of the Members shall remain obligated to pay the contributions described in Section 7.1 above or otherwise approved by an affirmative vote of three (3) of the Directors consistent with Section 6.8(3) above accrued or encumbered prior to the date of termination.

8.4 Disposition of Property upon Termination. Upon termination of this Agreement, the assets of the Authority shall be transferred to the Authority's successor, provided that a public entity will succeed the Authority, or in the event that there is no successor public entity, to the Members in proportion to the contributions made by each Member. If the successor public entity will not assume all of the Authority's assets, the Board shall distribute the Authority's assets between the successor entity and the Members in proportion to the obligation described in Section 7.1 above or as otherwise approved by an affirmative vote of three (3) of the Directors consistent with Section 6.8(3) above. With respect to revenue collected by the Authority through a fee(s) on extractors within the Basin, upon termination of this Agreement in the event of no successor public entity, the Board shall distribute any such revenue on hand to the Members in proportion to the amount of revenue collected from extractors within each Member's service area or as otherwise required by law.

8.5 Use of Data and GSP. Upon withdrawal or termination, any Member shall be entitled to use any data or other information developed by the Authority during its time as a Member after signing and subject to an acknowledgement of confidentiality agreement with the Authority, FCWCD, County and any other Member or agency that provided confidential data to the Authority that prohibits the Member from disclosing confidential information, including but not limited to private well data, or privileged communications, including, but not limited to, attorney-client communications, or from otherwise making a disclosure in contravention of applicable law or agreement and that requires the Member to indemnify the providing parties from any breach of this prohibition.

ARTICLE 9: MISCELLANEOUS PROVISIONS

9.1 Liability and Indemnification.

9.1.1. In accordance with Government Code section 6508.1, the debts, liabilities and obligations of the Authority shall be the debts, liabilities and obligations of the Authority alone, and not the Members. The Members do not intend hereby to be obligated either jointly or severally for the debts, liabilities and obligations of the Authority, except as may be specifically provided in Government Code section 895.2. Provided, however, if any Member(s), under such applicable law, is held liable for the acts or omissions of the Authority, such Member(s) shall be entitled to contribution from the other Members so that after said contribution each Member shall bear a share of such liability in accordance with the percentages set forth in Section 7.1 of this Agreement as adjusted to reflect the absence of SMCSD in connection with Member contributions.

9.1.2. The Authority shall hold harmless, defend and indemnify the Members, and their agents, officers and employees from and against any liability, claims, actions, costs, damages or losses of any kind, including death or injury to any person and/or damage to property arising out of the activities of the Authority, or its agents, officers and employees under this Agreement. These indemnification obligations shall continue beyond the Term of this Agreement, as defined in Section 4.8 above, as to any acts or omissions occurring before or under this Agreement or any extension of this Agreement.

9.2 Amendments. This Agreement may be amended from time to time by the consent of the Members. Minor Amendments may be made by consent of a majority of the Members, whereas all other amendments shall require unanimous consent of all Members. A "Minor

Amendment" is one that does not change the overall substance of this Agreement and does not affect the rights and/or obligations of any or all of the Members, or that is required simply to comply with the procedural requirements of the JPA Act or other applicable law; all other amendments shall be considered "Major Amendments." Approval of a Member is valid only after that Member's governing body approves the amendment at a public meeting. Neither individual Directors nor individual members of the Members' governing boards have the authority, express or implied, to amend, modify, waive or in any way alter this Agreement or the terms and conditions hereof. To provide non-concurring Members an opportunity to withdraw from the Authority, any amendment to this Agreement shall be binding on all Members thirty (30) days after the required concurrence has been obtained. If an amendment to the Agreement results in there being more than four (4) Members and without limiting any additional revisions that may be negotiated, it is anticipated that said amendment will also revise all of the provisions of this Agreement requiring the affirmative vote of (3) of the four (4) Directors regardless of the number of Directors voting to requiring a 4/5 vote of the Board of Directors.

9.3 Binding on Successors. Except as otherwise provided in this Agreement, the rights and duties of the Members may not be assigned or delegated without the written consent of three (3) of the four (4) Members. Any approved assignment or delegation shall be consistent with the terms of any contracts, resolutions, indemnities and other obligations of the Authority then in effect. This Agreement shall inure to the benefit of, and be binding upon, the successors and assigns of the Members hereto.

9.4 Notice. Any notice or instrument required to be given or delivered under this Agreement may be made by: (a) depositing the same in any United States Post Office, postage prepaid, and shall be deemed to have been received at the expiration of 72 hours after its deposit in the United States Post Office; (b) transmission by facsimile copy to the addressee; (c) transmission by electronic mail; or (d) personal delivery. On the signature page of this Agreement, each party shall provide contact information for the purpose of notification and said contact information can be updated by written notice to each Member in accordance with this Section 9.4.

9.5 Counterparts. This Agreement may be executed by the Members in separate counterparts, each of which when so executed and delivered shall be an original. All such counterparts shall together constitute but one and the same instrument.

9.6 Choice of Law. This Agreement shall be governed by the laws of the State of California.

9.7 Severability. If one or more clauses, sentences, paragraphs or provisions of this Agreement is held to be unlawful, invalid or unenforceable, it is hereby agreed by the Members that the remainder of the Agreement shall not be affected thereby. Such clauses, sentences, paragraphs or provisions shall be deemed reformed so as to be lawful, valid and enforced to the maximum extent possible.

9.8 Headings. The paragraph headings used in this Agreement are intended for convenience only and shall not be used in interpreting this Agreement or in determining any of the rights or obligations of the Members to this Agreement.

9.9 Construction and Interpretation. This Agreement has been arrived at through negotiation and each Member has had a full and fair opportunity to revise the terms of this Agreement. As a result, the normal rule of construction that any ambiguities are to be resolved against the drafting Member shall not apply in the construction or interpretation of this Agreement.

9.10 Entire Agreement and Termination of MOA and Existence of PBCC; Action by SMCSD on or before March 14, 2025. This Agreement constitutes the entire agreement among the Members and supersedes all prior agreements and understandings, written or oral. Execution of this Agreement by all of the Members shall constitute each Member's written consent to terminate the MOA pursuant to section 9.2 of the MOA. Should the SMCSD refuse to consent to the termination of the MOA, then execution of this Agreement by the Members shall constitute each Member's decision to withdrawal from the MOA, and the County shall provide notice of said collective action to the SMCSD in accordance with section 9.1 of the MOA. Without limiting the powers of the Authority set forth in section 4.5 above, the Authority is hereby authorized to take actions necessary to resolve administrative matters related to SMCSD's choice not to become a Member as of the Effective Date, including, but not limited to, the SMCSD's continued obligation to fund the consultant costs identified in Section 7.1 above and consistent with Section 9.1 of the MOA which states that "a [p]arty that has withdrawn from the MOA shall remain obligated to pay its percentage cost share of expenses and obligations as outlined in the current budget incurred, accrued or encumbered up to the date the party provided notice of withdrawal, including, but not limited to, its cost share obligation under any existing consultant contract for which the City has issued a notice to proceed." If and only if the Members and SMCSD each execute a Joint Exercise of Powers Agreement for Administration of the Paso Robles Area Groundwater Subbasin Groundwater Sustainability Plan on or before March 14, 2025 that includes all five (5) as Members ("Five-Party Agreement"), the Five-Party Agreement shall supersede this Agreement. If no such Five-Party Agreement is so executed by the time prescribed, then SMCSD may become a member only in accordance with Section 5.2 of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused the Agreement to be executed on the dates set forth below:

CITY OF EL PASO DE ROBLES

By: ____________________

Date: March 14, 2025

Contact information: CHuot@PRCity.com

APPROVED AS TO FORM AND LEGAL EFFECT:

By: Wendy Y. Wang

Its: Attorney

Date: March 14, 2025

SHANDON SAN JUAN WATER DISTRICT

By: ____________________

Date: ____________________

Contact information: ____________

APPROVED AS TO FORM AND LEGAL EFFECT:

By: ____________________

Its: ____________________

Date: ____________________

COUNTY OF SAN LUIS OBISPO

By: ____________________
Dawn Ortiz-Legg, Chairperson

Date: March 4, 2025

ATTEST:

MATTHEW P. PONTES, Ex-Officio
Clerk of the Board of Supervisors

By: ____________________
Deputy Clerk

Contact information: Blaine Reely, Groundwater Sustainability Director
Phone: (805) 781-4206 | email: breely@co.slo.ca.us

APPROVED AS TO FORM AND LEGAL EFFECT:

By: ______________________

Its: Erica Stuckey, Deputy County Counsel

Date: March 4, 2025

ESTRELLA-EL POMAR-CRESTON WATER DISTRICT

By: ______________________

Date: ______________________

Contact information: ______________

APPROVED AS TO FORM AND LEGAL
EFFECT:

By: ______________________

Its: ______________________

Date: ______________________

IN WITNESS WHEREOF, the parties hereto have caused the Agreement to be executed on the dates set forth below:

CITY OF EL PASO DE ROBLES

By: ______________________

Date: ______________________

Contact information: ____________

APPROVED AS TO FORM AND LEGAL EFFECT:

By: ______________________

Its: ______________________

Date: ______________________

SHANDON SAN JUAN WATER DISTRICT

By: Willy Cunha Willy Cunha President of Board SSJ GSA and WD

Date: March 7, 2025

Contact information: willy.ssjwd@gmail.com

APPROVED AS TO FORM AND LEGAL EFFECT:

By: [signature]

Its: General Counsel

Date: 3/14/25

COUNTY OF SAN LUIS OBISPO

By: ______________________

Date: ______________________

Contact information: ______________

APPROVED AS TO FORM AND LEGAL EFFECT:

By: ____________________________

Its: ____________________________

Date: ____________________________

ESTRELLA-EL POMAR-CRESTON WATER DISTRICT

By: ____________________________

Date: 03-12-2025

Contact information: 805-354-5158

APPROVED AS TO FORM AND LEGAL EFFECT:

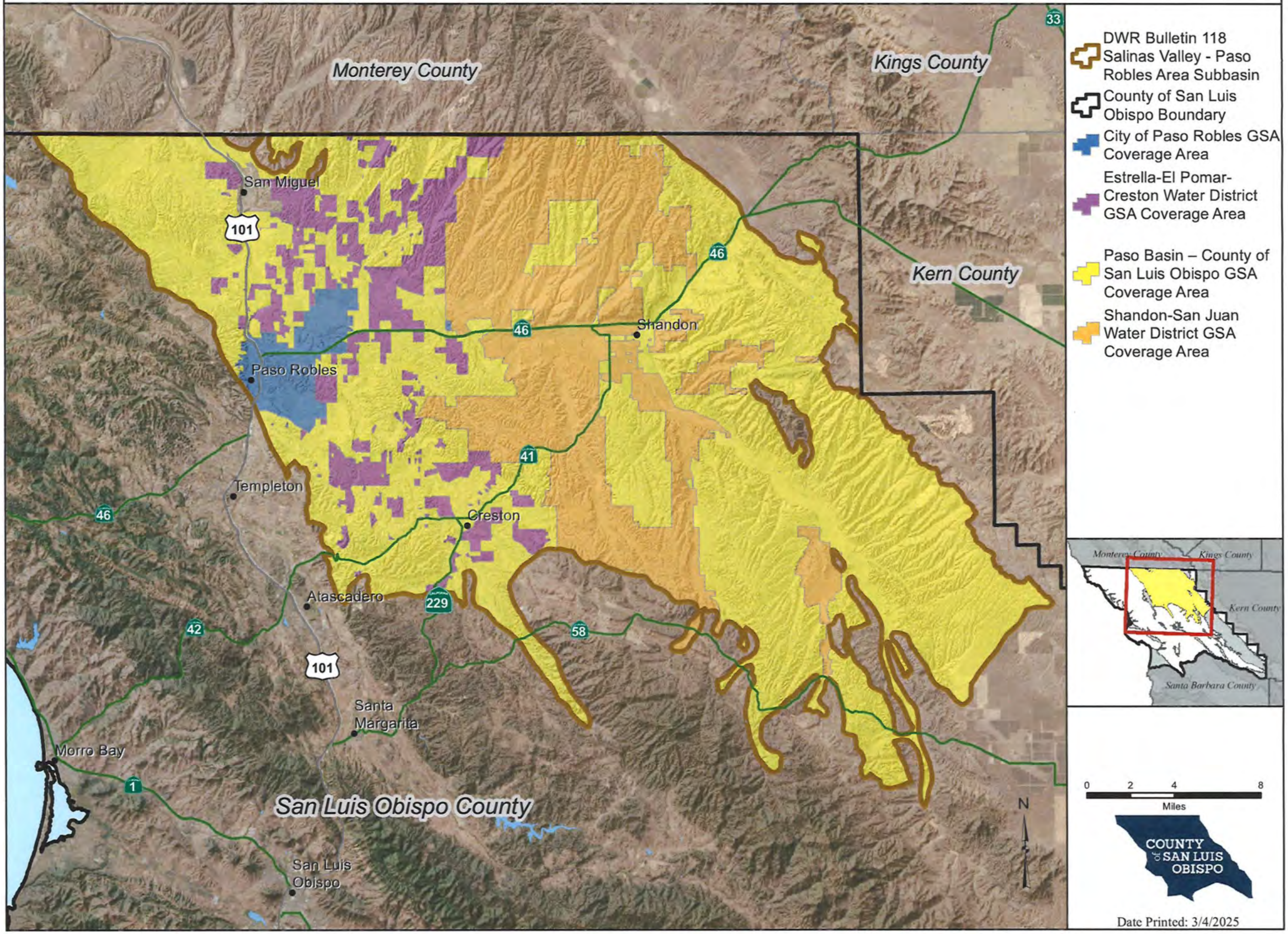
By: ____________________________

Its: General Counsel

Date: 3/14/25

EXHIBIT A

Paso Basin Groundwater Sustainability Agencies Boundaries



Appendix C: Precipitation Data

Monthly Precipitation at the Paso Robles Station (NOAA 46730)

(inches)

Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6730
Source: https://www.prcity.com/462/Rainfall-Totals

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WY Total
1925	0.34	2.44	2.57	2.01	2.41	0.08	0.09	0.12	0.02	0.17	0.21	1.98	**12.95**
1926	2.13	6.26	0.27	3.52	0.00	0.02	0.00	0.00	0.00	0.25	7.14	0.90	**14.56**
1927	1.84	9.04	1.45	1.27	0.00	0.02	0.00	0.00	0.00	1.33	2.02	1.63	**21.91**
1928	0.23	2.87	2.76	0.37	0.29	0.00	0.00	0.00	0.00	0.01	1.82	2.87	**11.50**
1929	1.27	1.65	1.22	0.49	0.00	0.49	0.00	0.00	-----	0.00	0.00	0.24	**9.82**
1930	4.32	1.80	3.00	0.54	1.01	0.04	0.00	0.00	0.04	0.00	1.64	0.16	**10.99**
1931	4.58	1.87	0.39	0.56	2.01	0.93	0.00	0.09	0.00	0.01	1.89	7.04	**12.23**
1932	2.74	3.89	0.50	0.30	0.13	0.00	0.00	0.00	0.00	0.04	0.11	1.28	**16.50**
1933	6.05	0.08	0.84	0.22	0.32	0.68	0.00	0.00	0.00	0.64	0.00	4.26	**9.62**
1934	2.06	3.75	0.04	0.00	0.12	0.75	0.00	0.00	0.00	1.56	2.61	2.66	**11.62**
1935	6.23	0.65	4.08	3.41	0.02	0.00	0.00	0.16	0.07	0.18	1.58	1.66	**21.45**
1936	0.61	11.07	1.24	1.52	0.01	0.04	0.25	0.00	0.00	1.93	0.00	6.10	**18.16**
1937	4.59	4.54	5.25	0.16	0.00	0.00	0.00	0.00	0.00	0.16	0.66	7.40	**22.57**
1938	1.73	12.74	6.77	0.93	0.30	0.00	0.00	0.00	0.41	0.23	0.33	1.45	**31.10**
1939	3.11	1.45	1.58	0.05	0.09	0.00	0.00	0.00	0.43	0.55	0.78	1.29	**8.72**
1940	5.28	5.57	1.13	0.54	0.00	0.00	0.00	0.00	0.00	0.19	0.13	8.18	**15.14**
1941	4.73	8.16	6.14	2.76	0.19	0.00	0.00	0.02	0.00	1.34	0.70	5.15	**30.50**
1942	2.40	0.76	1.77	3.01	0.15	0.00	0.00	0.00	0.00	0.58	1.01	1.64	**15.28**
1943	8.00	1.68	3.63	0.72	0.00	0.00	0.00	0.00	0.00	0.34	0.12	3.38	**17.26**
1944	0.94	5.96	0.64	0.65	0.13	0.00	0.00	0.00	0.00	0.26	2.64	1.38	**12.16**
1945	0.80	4.17	2.76	0.26	0.04	0.00	0.00	0.00	0.00	1.09	0.49	1.72	**12.31**
1946	0.31	1.64	3.01	0.05	0.72	0.00	0.26	0.00	0.10	0.00	4.57	2.17	**9.39**
1947	0.56	0.97	1.14	0.13	0.28	0.00	0.00	0.00	0.04	0.32	0.18	0.62	**9.86**
1948	0.00	1.85	3.51	3.50	0.45	0.00	0.00	0.00	0.00	0.06	0.00	3.04	**10.43**
1949	1.09	1.95	3.73	0.36	0.38	0.00	0.00	0.00	0.00	0.78	0.78	2.33	**10.61**
1950	2.39	2.43	1.65	0.89	0.05	0.00	0.68	0.00	0.00	1.24	1.18	2.50	**11.98**
1951	2.50	0.68	0.58	1.11	0.00	0.00	0.00	0.00	0.03	0.33	1.94	4.64	**9.82**
1952	5.54	0.20	3.92	1.50	0.03	0.00	0.07	0.00	0.02	0.02	1.76	4.78	**18.19**
1953	1.71	0.00	0.66	1.90	0.06	0.01	0.00	0.00	0.00	0.00	2.46	0.00	**10.90**
1954	3.06	1.89	3.12	0.64	0.10	0.00	0.00	0.00	0.00	0.00	1.29	1.51	**11.27**
1955	3.57	1.85	0.37	1.16	1.31	0.00	0.00	0.13	0.00	0.00	1.36	8.14	**11.19**
1956	3.82	1.00	0.01	1.87	1.45	0.00	0.00	0.00	0.00	1.07	0.00	0.17	**17.65**
1957	4.77	1.90	0.31	1.63	0.71	0.47	0.00	0.00	0.02	0.62	0.30	3.30	**11.05**
1958	2.93	6.02	6.35	5.22	0.37	0.00	0.00	0.38	1.20	0.00	0.13	0.48	**26.69**
1959	1.69	4.53	0.03	0.44	0.05	0.00	0.00	0.00	0.52	0.00	0.00	0.31	**7.87**
1960	2.42	4.20	0.70	1.40	0.04	0.00	0.00	0.00	0.00	0.10	3.63	1.17	**9.07**
1961	1.72	0.20	0.88	0.22	0.74	0.00	0.00	0.00	0.00	0.01	1.99	2.59	**8.66**
1962	2.05	8.49	1.98	0.00	0.12	0.00	0.00	0.00	0.00	0.79	0.01	2.52	**17.23**
1963	4.41	3.79	2.10	3.32	0.17	0.01	0.00	0.00	0.24	1.00	4.25	0.01	**17.36**
1964	1.87	0.15	1.46	0.68	0.55	0.06	0.00	0.08	0.03	1.05	2.27	2.37	**10.14**
1965	2.50	0.51	1.16	2.48	0.00	0.00	0.04	0.03	0.15	0.00	6.43	3.24	**12.56**
1966	1.17	0.68	0.08	0.00	0.01	0.14	0.08	0.00	0.11	0.00	2.43	8.60	**11.94**
1967	3.93	0.35	3.99	4.41	0.03	0.02	0.00	0.00	0.79	0.14	1.74	1.70	**24.55**
1968	1.19	0.68	1.76	0.70	0.04	0.00	0.00	0.00	0.00	1.83	1.14	3.13	**7.95**
1969	13.93	9.12	0.35	1.68	0.06	0.01	0.25	0.00	0.00	0.24	0.44	0.68	**31.50**

Monthly Precipitation at the Paso Robles Station (NOAA 46730)

(inches)

Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6730
Source: https://www.prcity.com/462/Rainfall-Totals

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WY Total
1970	3.71	1.66	1.83	0.37	0.00	0.04	0.00	0.00	0.00	0.08	3.14	4.56	8.97
1971	1.08	0.24	0.85	0.69	0.21	0.00	0.00	0.00	0.05	0.29	0.88	4.27	10.90
1972	1.35	0.30	0.00	0.53	0.00	0.00	0.00	0.00	0.03	1.68	4.14	0.85	7.65
1973	6.54	6.95	2.60	0.01	0.06	0.00	0.00	0.00	0.00	0.68	3.09	1.61	22.83
1974	6.39	0.05	4.56	0.91	0.00	0.00	0.00	0.00	0.00	0.64	0.43	2.33	17.29
1975	0.01	4.12	2.81	0.89	0.00	0.00	0.00	0.01	0.00	0.76	0.03	0.10	11.24
1976	0.00	2.61	1.09	0.66	0.00	0.08	0.00	1.02	2.90	0.58	0.55	1.80	9.25
1977	1.47	0.03	1.41	0.00	1.71	0.00	0.00	0.00	0.00	0.08	0.25	5.25	7.55
1978	5.77	7.31	3.10	2.77	0.00	0.00	0.00	0.00	0.92	0.00	2.47	1.04	25.45
1979	4.70	3.52	2.30	0.00	0.00	0.00	0.00	0.00	0.06	0.93	0.85	2.31	14.09
1980	4.47	8.05	1.88	0.65	0.24	0.00	0.35	0.00	0.00	0.00	0.02	0.44	19.73
1981	4.00	1.60	4.52	0.56	0.00	0.00	0.00	0.00	0.00	1.01	1.44	0.62	11.14
1982	2.65	0.88	5.10	3.05	0.00	0.02	0.00	0.00	1.04	0.90	3.98	1.96	15.81
1983	5.86	4.53	4.69	3.35	0.05	0.00	0.00	0.52	0.37	1.34	2.07	3.68	26.21
1984	0.20	0.24	0.66	0.35	0.00	0.00	0.00	0.00	0.00	0.38	2.10	3.01	8.54
1985	0.52	0.92	2.11	0.19	0.00	0.00	0.02	0.00	0.04	0.40	1.07	0.97	9.29
1986	2.11	6.73	4.64	0.32	0.00	0.00	0.03	0.00	0.62	0.02	0.15	0.64	16.89
1987	0.88	2.01	3.40	0.14	0.06	0.07	0.00	0.00	0.00	1.50	2.63	2.73	7.37
1988	1.94	2.54	0.10	2.02	0.21	0.14	0.00	0.00	0.00	0.00	1.16	2.87	13.81
1989	0.98	1.59	0.71	0.37	0.07	0.00	0.00	0.00	1.59	0.97	0.22	0.00	9.34
1990	3.02	1.48	0.24	0.12	0.66	0.00	0.00	0.00	0.51	0.00	0.14	0.20	7.22
1991	0.63	2.17	10.25	0.08	0.03	0.20	0.00	0.10	0.10	0.50	0.16	3.00	13.90
1992	1.44	6.09	2.99	0.10	0.00	0.03	0.03	0.00	0.01	0.79	0.00	3.59	14.35
1993	9.63	6.96	3.43	0.06	0.01	0.14	0.00	0.00	0.00	0.17	0.86	1.28	24.61
1994	1.90	3.37	1.16	0.49	1.05	0.00	0.00	0.00	1.17	0.70	2.32	0.93	11.45
1995	11.51	1.42	12.31	0.09	0.44	0.14	0.00	0.00	0.00	0.00	0.12	1.92	29.86
1996	1.84	6.52	2.03	0.72	0.55	0.00	0.00	0.00	0.00	1.78	1.52	5.78	13.70
1997	7.93	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.10	0.07	4.05	3.93	17.17
1998	2.99	9.06	2.71	1.96	2.05	0.11	0.00	0.00	0.08	0.21	0.99	0.73	27.01
1999	1.84	1.26	2.68	1.19	0.00	0.00	0.00	0.00	0.47	0.00	0.71	0.22	9.37
2000	3.16	5.89	1.55	1.56	0.05	0.04	0.00	0.00	0.03	1.34	0.05	0.16	13.21
2001	4.43	5.14	3.59	1.08	0.00	0.00	0.04	0.00	0.00	0.24	2.81	2.19	15.83
2002	0.87	0.33	1.40	0.23	0.25	0.00	0.00	0.00	0.00	0.00	2.54	4.52	8.32
2003	0.13	2.10	1.86	1.70	1.18	0.00	0.16	0.03	0.00	0.00	1.36	2.31	14.22
2004	0.91	4.31	0.30	0.32	0.00	0.00	0.00	0.00	0.00	5.11	1.39	6.75	9.51
2005	4.81	5.02	3.07	0.76	1.10	0.01	0.00	0.08	0.00	0.02	0.46	2.54	28.10
2006	5.78	1.23	4.50	2.92	1.48	0.00	0.00	0.00	0.00	0.61	0.28	1.13	18.93
2007	0.74	2.98	0.13	0.37	0.00	0.00	0.00	0.31	0.04	0.96	0.00	2.23	6.59
2008	8.44	1.83	0.00	0.33	0.01	0.00	0.00	0.00	0.00	0.14	1.26	1.13	13.80
2009	0.91	3.89	1.37	0.17	0.12	0.02	0.00	0.00	0.05	4.04	0.02	3.96	9.06
2010	6.09	3.38	0.64	2.75	0.12	0.00	0.03	0.00	0.00	1.06	1.57	7.14	21.03
2011	2.07	3.05	5.29	0.28	0.95	0.53	0.00	0.00	0.03	0.90	1.93	0.12	21.97
2012	2.38	0.25	2.44	2.60	0.18	0.00	0.00	0.00	0.00	0.28	0.75	3.94	10.80
2013	1.02	0.28	0.69	0.07	0.15	0.00	0.00	0.00	0.00	0.01	0.26	0.30	7.18
2014	0.00	2.75	1.96	0.85	0.00	0.00	0.03	0.00	0.00	0.00	1.00	5.48	6.16

Monthly Precipitation at the Paso Robles Station (NOAA 46730)

(inches)

Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6730

Source: https://www.prcity.com/462/Rainfall-Totals

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	WY Total
2015	0.32	2.16	0.10	0.37	0.05	0.00	2.82	0.00	0.05	0.07	1.45	0.89	**12.35**
2016	4.13	0.85	2.92	0.15	0.00	0.00	0.00	0.00	0.00	1.61	1.46	1.80	**10.46**
2017	9.50	6.44	0.92	1.45	0.24	0.00	0.00	0.00	0.16	0.08	0.22	0.04	**23.58**
2018	2.08	0.25	7.74	0.21	0.00	0.00	0.00	0.00	0.00	0.28	3.23	1.12	**10.62**
2019	5.30	6.72	3.01	0.08	0.82	0.00	0.00	0.00	0.00	0.00	1.40	5.22	**20.56**
2020	0.65	0.00	3.53	1.59	0.03	0.00	0.00	0.11	0.00	0.00	0.29	0.89	**12.53**
2021	6.07	0.01	0.90	0.00	0.00	0.00	0.00	0.00	0.00	2.02	0.05	7.70	**8.16**
2022	0.11	0.11	1.25	0.42	0.00	0.00	0.00	0.00	0.29	0.00	0.89	6.77	**11.95**
2023	10.46	3.13	7.17	0.00	0.15	0.00	0.00	0.02	0.00	0.00	1.97	4.82	**28.59**
2024	3.14	5.93	2.99	2.25	0.08	0.00	0.00	0.00	0.00	0.00	1.97	0.73	**21.18**
2025	0.22	3.88	2.67	0.24	0.00	0.00	0.00	0.00	0.15	1.47	3.03	4.03	**9.86**
												Water Year Average (1925 - 2025):	**14.66**

University of California Cooperative Extension Weather Stations in Paso Robles Subbasin
Total Monthly Precipitation for Water Year 2025
(inches)

Source: https://ucce-slo.westernweathergroup.com/

WY 2025	Shandon (SLO-1)	Creston Rd (SLO-2)	NE Paso Robles (SLO-3)	Cross Canyon Rd (SLO-4)	Shell Creek Rd (SLO-6)	South Shandon (SLO-7)	South Creston (SLO-8)	Experimental Station (SLO-10)	Von Dollen Road (SLO-12)
OCT	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NOV	1.18	1.14	1.37	1.27	1.17	1.17	1.44	1.60	1.34
DEC	0.26	0.59	0.36	0.37	0.36	0.21	0.40	0.46	0.35
JAN	0.18	0.12	0.13	0.09	0.12	0.11	0.32	0.20	0.07
FEB	1.33	2.08	1.78	1.67	1.46	1.50	2.78	3.13	1.82
MAR	1.90	2.15	1.57	1.95	2.13	1.85	2.28	2.00	1.76
APR	0.66	0.17	0.21	0.20	0.47	0.64	0.28	0.18	0.18
MAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JUN	0.00	0.00	0.04	0.02	0.00	0.00	0.00	0.00	0.00
JUL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AUG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEP	0.73	0.14	0.38	0.32	0.62	0.85	0.07	0.06	0.47
WY Total	**6.30**	**6.39**	**5.84**	**5.89**	**6.33**	**6.33**	**7.57**	**7.63**	**5.99**

Appendix D: Groundwater Level and Groundwater Storage Monitoring Well Network

Table C-1 – Groundwater Level and Groundwater Storage Monitoring Well Network

Well ID (alt ID)	Well Depth (feet)	Screen Interval(s) (feet bls)	Reference Point Elevation (feet AMSL)	First Year of Data	Last Year of Data	Years Measured	Number of Measurement	Aquifer
18MW-0191[1]	50	10-50	672 (LSE)	2018	2018	<1	1	Qa
25S/12E-16K05 (PASO-0345)	350	300-310, 330-340	669.8	1992	2019	27	56	PR
25S/12E-26L01 (PASO-0205)	400	200-400	719.72	1970	2019	49	107	PR
25S/13E-08L02 (PASO-0195)	270	110-270	1,033.81	2012	2019	7	15	PR
26S/12E-14G01 (PASO-0048)	740	---	789.3	1969	2019	50	121	PR
26S/12E-14G02 (PASO-0017)	840	640-840	787	1993	2019	26	28	PR
26S/12E-14H01 (PASO-0184)	1230	180-?	790	1969	2019	50	48	PR
26S/12E-14K01 (PASO-0238)	1100	---	786	1979	2019	40	84	PR
26S/12E-26E07 (PASO-0124)	400	---	835	1958	2018	60	131	PR
26S/13E-08M01 (PASO-0164)	400	260-400	827.92	2013	2019	6	16	PR
26S/13E-16N01 (PASO-0282)	400	200-400	890.17	2012	2019	7	16	PR
26S/15E-19E01 (PASO-0073)	512	223-512	1,020	1987	2019	32	56	PR
26S/15E-20B04 (PASO-0401)	461	297-461	1,036.36	1984	2019	35	71	PR
26S/15E-29N01 (PASO-0226)	350	---	1,135	1958	2019	61	127	PR
26S/15E-29R01 (PASO-0406)	600	180-600	1,109.5	2012	2019	7	12	PR
26S/15E-30J01 (PASO-0393)	605	195-605	1,123.3	1970	2019	49	83	PR
27S/12E-13N01 (PASO-0223)	295	195-295	972.42	2012	2019	7	15	PR
27S/13E-28F01 (PASO-0243)	230	118-212	1,072	1969	2019	50	108	PR
27S/13E-30F01 (PASO-0355)	310	200-310	1,043.2	2012	2019	7	14	PR
27S/13E-30J01 (PASO-0423)	685	225-685	1,095	2012	2019	7	10	PR
27S/13E-30N01 (PASO-0086)	355	215-235, 275-355	1,086.73	2012	2016	4	6	PR
27S/14E-11R01 (PASO-0392)	630	180-630	1,160.5	1974	2019	45	75	PR
28S/13E-01B01 (PASO-0066)	254	154-254	1,099.93	2012	2019	7	17	PR

NOTES: New alluvial monitoring well information provided by City of Paso Robles; well not included in County database.
"—" = unknown; AMSL – above mean sea level; PR Paso Robles Formation Aquifer; Qa Alluvial Aquifer

Appendix E: Potential Future Groundwater Monitoring Wells

Table D-1 – Potential Future Groundwater Monitoring Wells

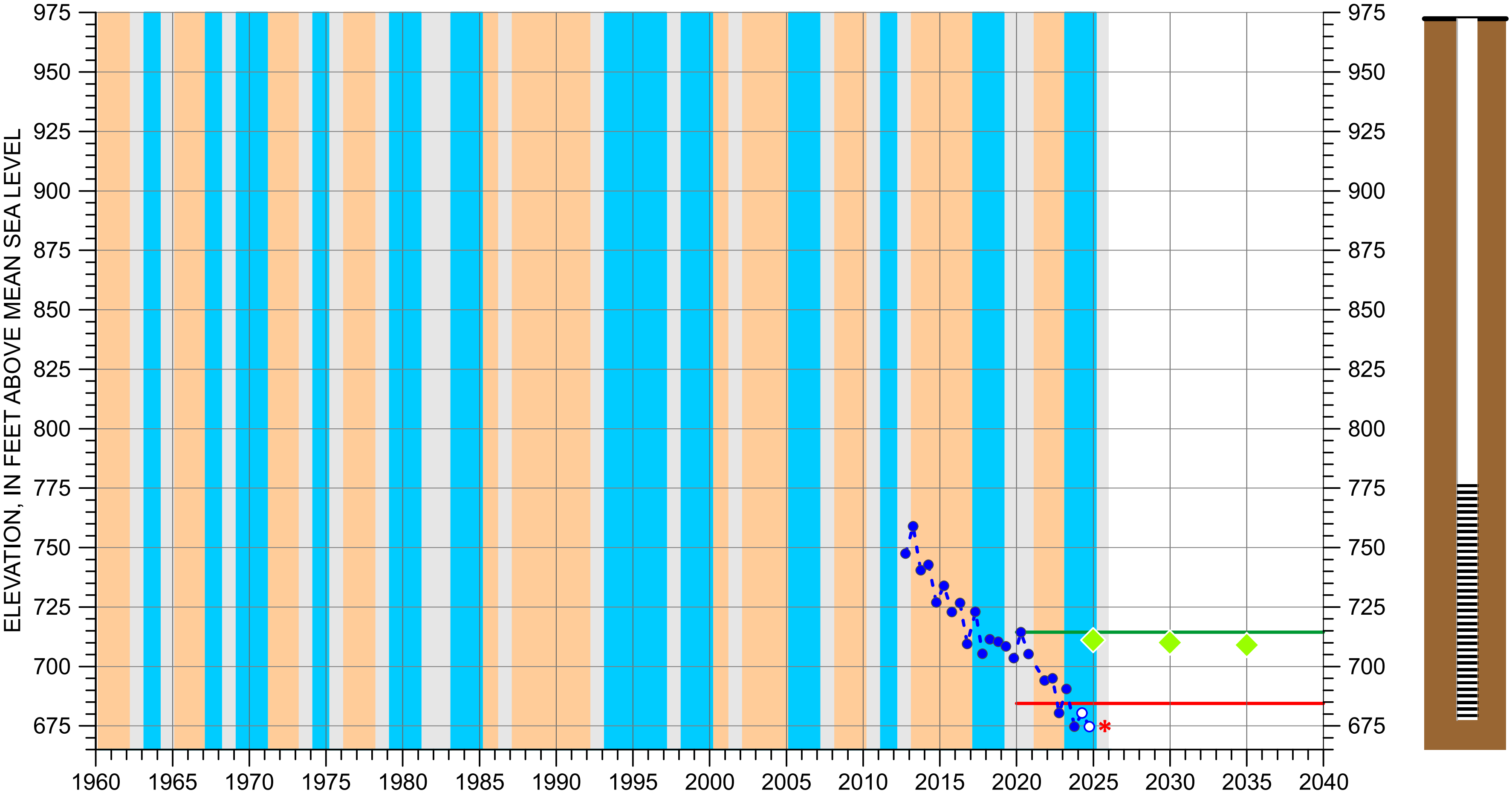
Well ID (alt ID)	Well Depth (feet)	Screen Interval(s) (feet bls)	Reference Point Elevation (feet AMSL)	First Year of Data	Last Year of Data	Years Measured (years)	Number of Measurements	Aquifer
25S/12E-20K03 (PASO-0304)	---	---	625	1974	2019	45	86	---
26S/14E-24B01 (PASO-0302)	---	---	1001	1962	2019	57	99	---
26S/15E-33C01 (PASO-0314)	---	---	1095	1973	2019	46	80	---
26S/15E-33Q01 (PASO-0381)	---	---	1102	1973	2019	46	82	---
27S/15E-03E01 (PASO-0277)	---	---	1120.8	1968	2019	51	109	---
27S/14E-24B01 (PASO-0391)	---	---	1180.5	1973	2019	46	74	---
27S/14E-25J01 (PASO-0074)	---	---	1,225.5	1972	2019	47	72	--
27S/14E-29G01 (PASO-0041)	---	---	1201.5	1974	2019	45	78	---
27S/15E-35F01 (PASO-0053)	---	---	1230	1965	2019	54	82	---

NOTES: "—" = unknown

Appendix F: Hydrographs

Paso Robles Formation Aquifer Hydrographs

HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 27S/12E-13N01



EXPLANATION

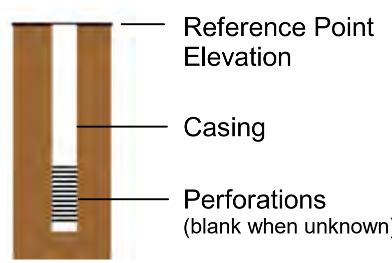
Groundwater Elevation

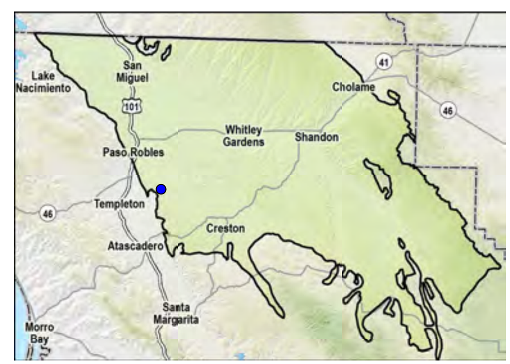
Measurement Not Verified

Measurable Objective

Minimum Threshold

Interim Milestones





Neal Springs Rd.

CLIMATE PERIOD CLASSIFICATION

Dry

Avg/Alternating

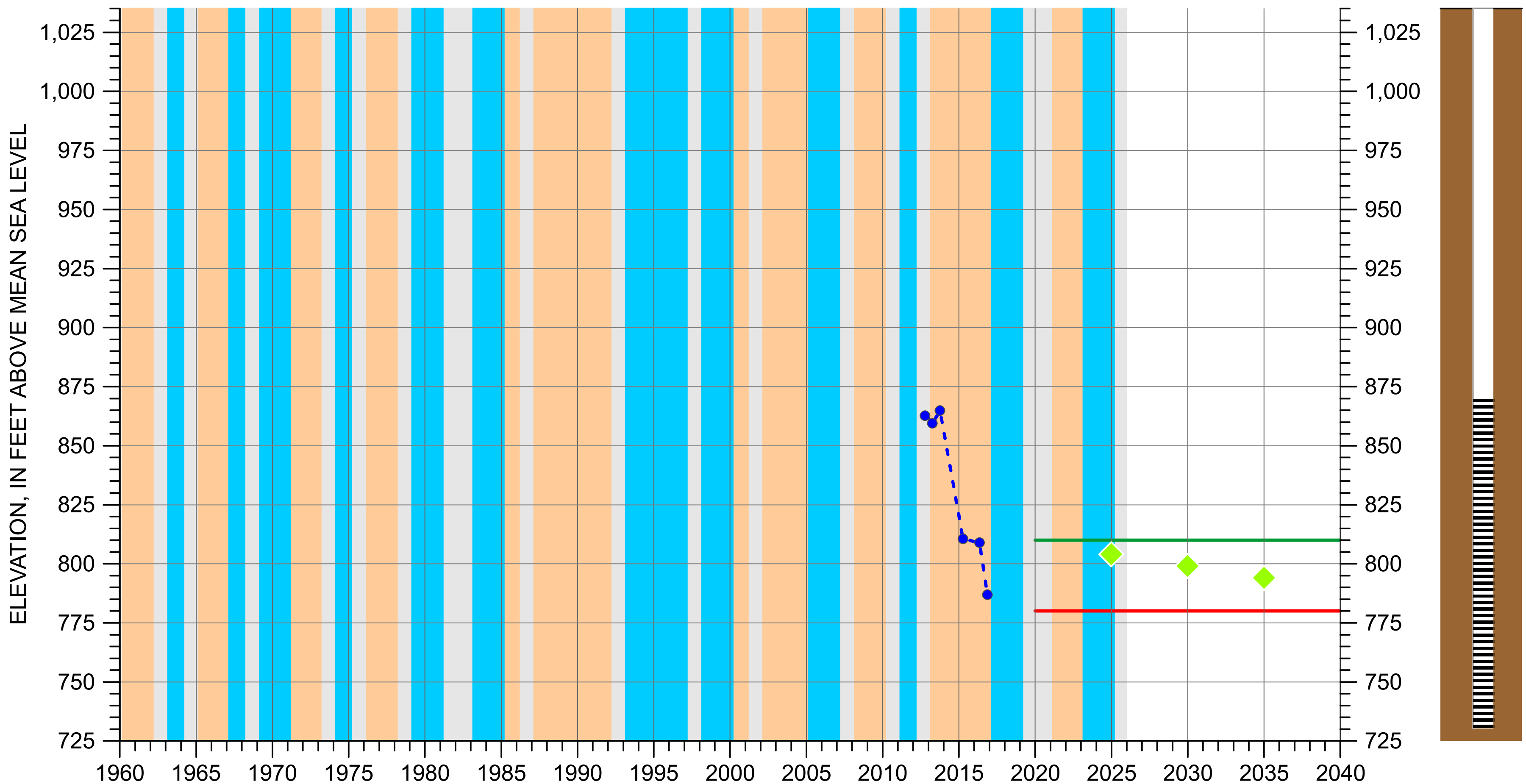
Wet

Well Depth: 295 feet
Screened Interval: 195-295 feet below ground surface
Reference Point Elevation: 972.4 feet above mean sea level

***No measurements made in WY 2025. Well is assumed to be Dry**

C:\Users\NatePage\confluencees.com\ConfluenceES - Projects\Paso Basin GSAs\Paso WY25-AR\5_Working Files\Analysis\Hydrograph\Grapher\01_Hydr_27S_12E-13N01_v2.gpj

HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 27S/13E-30N01



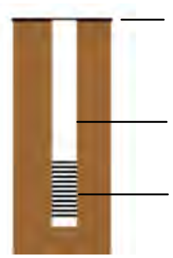
EXPLANATION

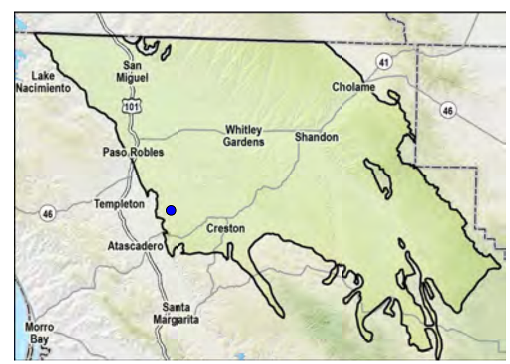
- Groundwater Elevation
- Measurement Not Verified
- Measurable Objective
- Minimum Threshold
- Interim Milestones

CLIMATE PERIOD CLASSIFICATION

- Dry
- Avg/Alternating
- Wet

Well Depth: 355 feet
Screened Interval: 215-235, 275-355 feet below ground surface
Reference Point Elevation: 1086.7 feet above mean sea level

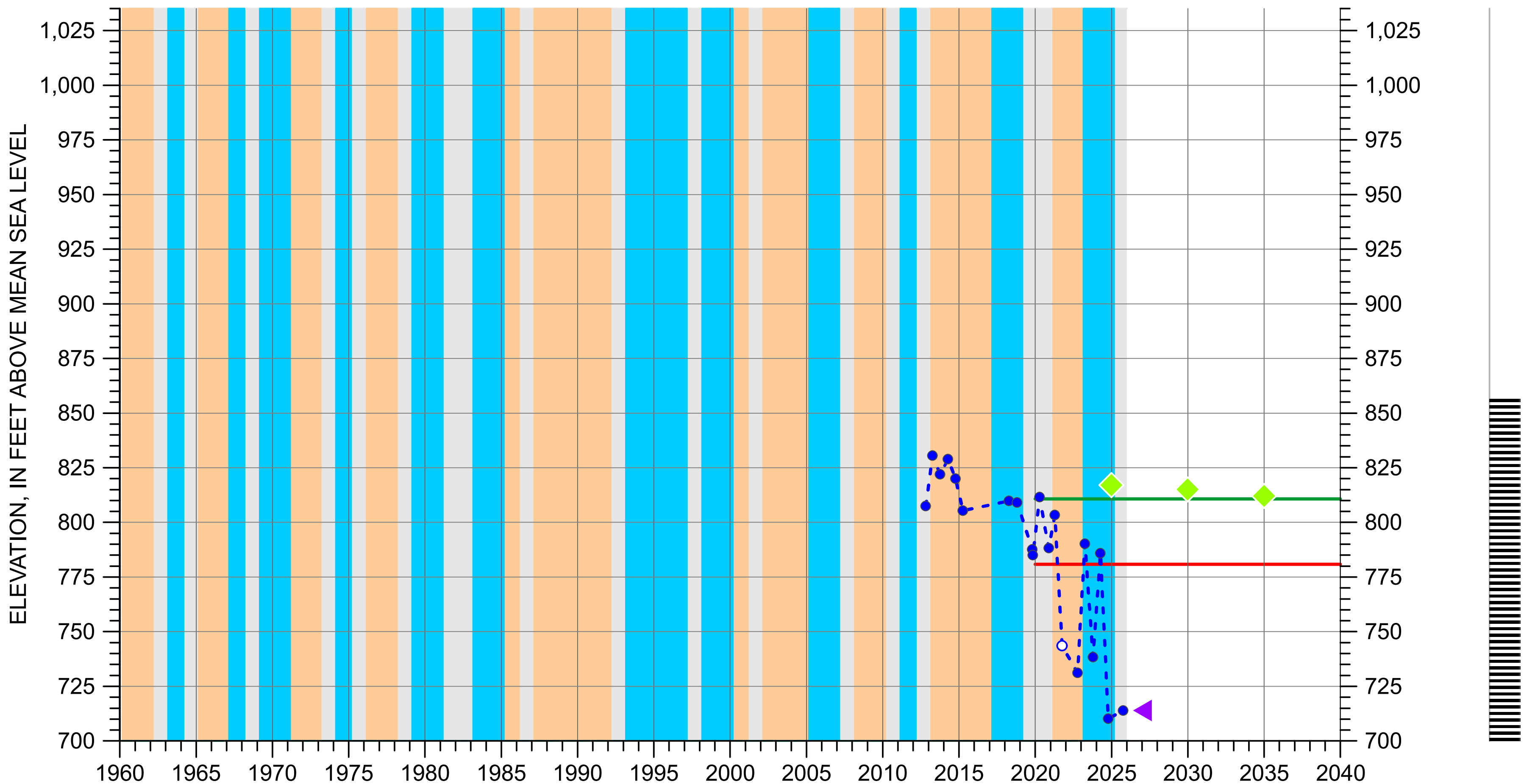




Almond Dr.

C:\Users\NatePage\confluencees.com\ConfluenceES - Projects\Paso Basin GSAs\Paso WY25-AR\5_Working Files\Analysis\Hydrograph\Grapher\02_Hydr_27S_13E-30N01_v2.gpj

HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 27S/13E-30J01



EXPLANATION

Groundwater Elevation

Measurement Not Verified

Measurable Objective

Minimum Threshold

Average of spring and fall 2025 water elevations

Interim Milestones

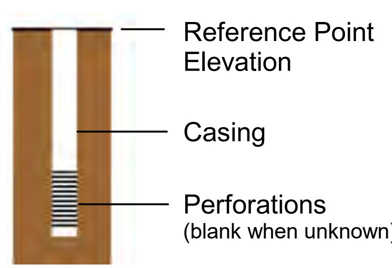
CLIMATE PERIOD CLASSIFICATION

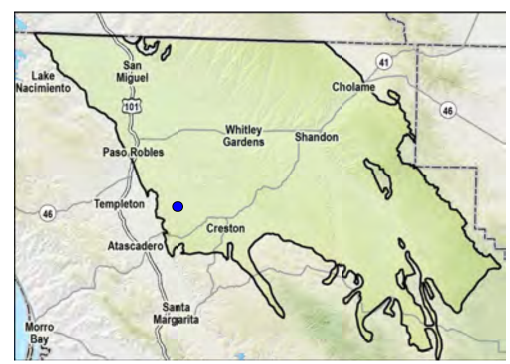
Dry

Avg/Alternating

Wet

Well Depth: 685 feet
Screened Interval: 225-685 feet below ground surface
Reference Point Elevation: 1095 feet above mean sea level

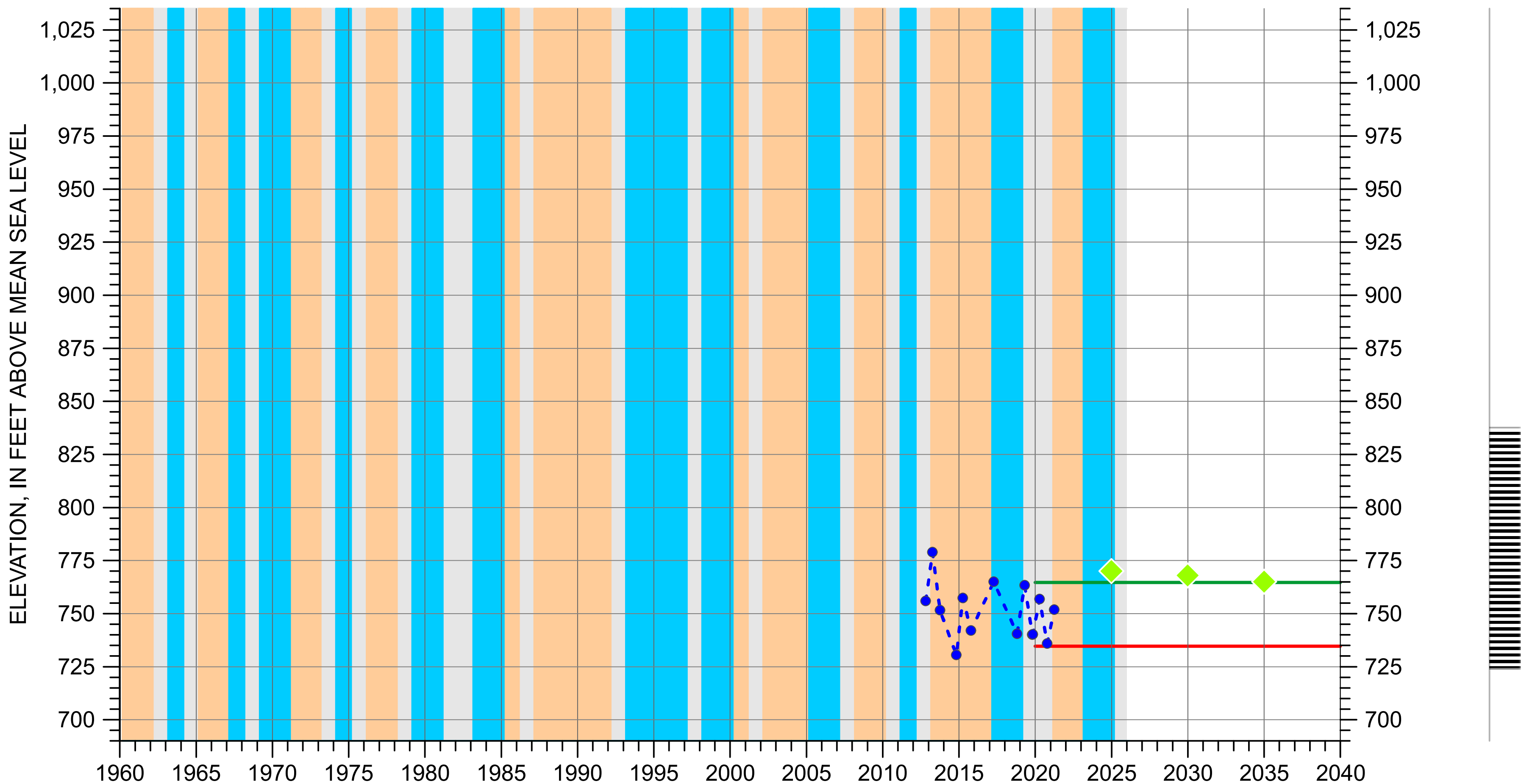




El Pomar Junction south

C:\Users\NatePage\confluencees.com\ConfluenceES - Projects\Paso Basin GSAs\Paso WY25-AR\5_Working Files\Analysis\Hydrograph\Grapher\03_Hydr_27S_13E-30J01_v2.gpj

HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 27S/13E-30F01



EXPLANATION

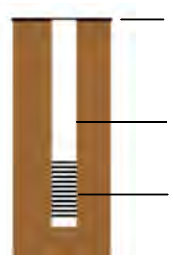
Groundwater Elevation

Measurement Not Verified

Measurable Objective

Minimum Threshold

Interim Milestones



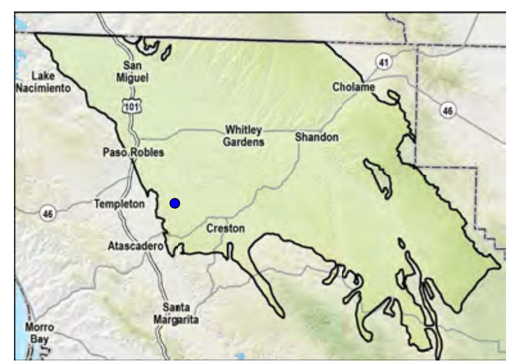
CLIMATE PERIOD CLASSIFICATION

Dry

Avg/Alternating

Wet

Well Depth: 310 feet
Screened Interval: 200-310 feet below ground surface
Reference Point Elevation: 1043.2 feet above mean sea level



El Pomar Junction west

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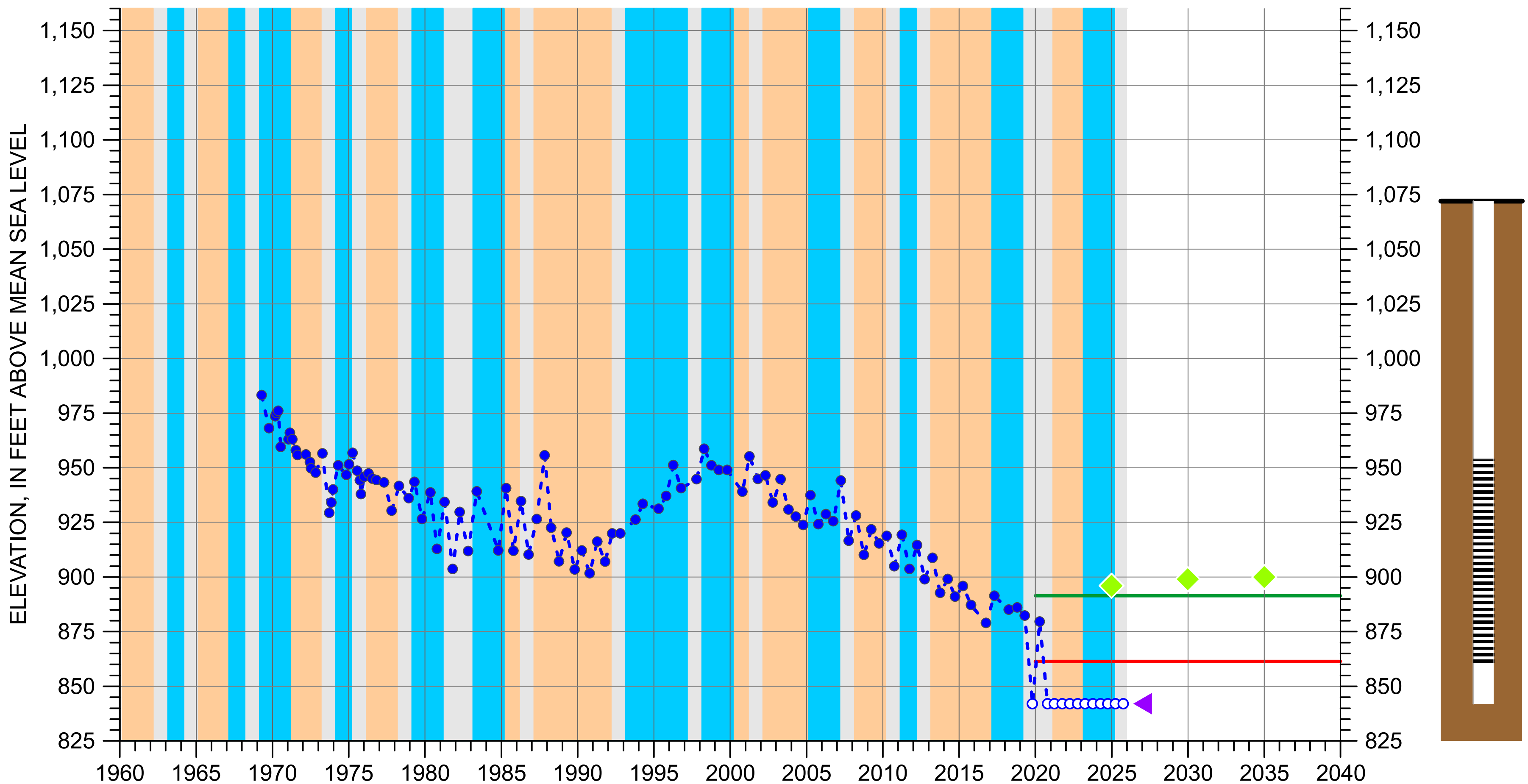
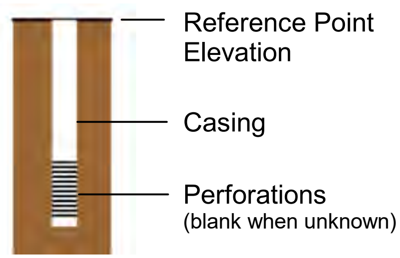
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 27S/13E-28F01



EXPLANATION

- Groundwater Elevation
- Measurement Not Verified*
- Measurable Objective
- Minimum Threshold
- Average of spring and fall 2025 water elevations
- Interim Milestones

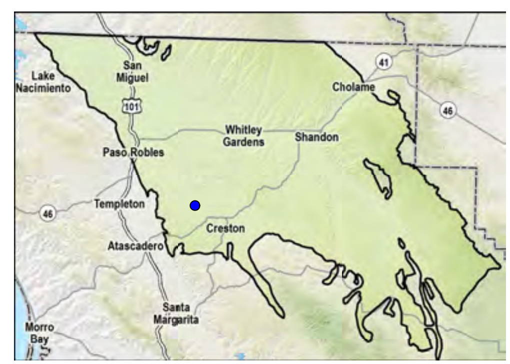


CLIMATE PERIOD CLASSIFICATION

Dry | Avg/Alternating | Wet

Well Depth: 212 feet
Screened Interval: 118-212 feet below ground surface
Reference Point Elevation: 1072 feet above mean sea level

* Measurement recorded at bottom of well (dry well). Actual elevation may be lower.



El Pomar Dr. east towards Cripple Creek Rd.

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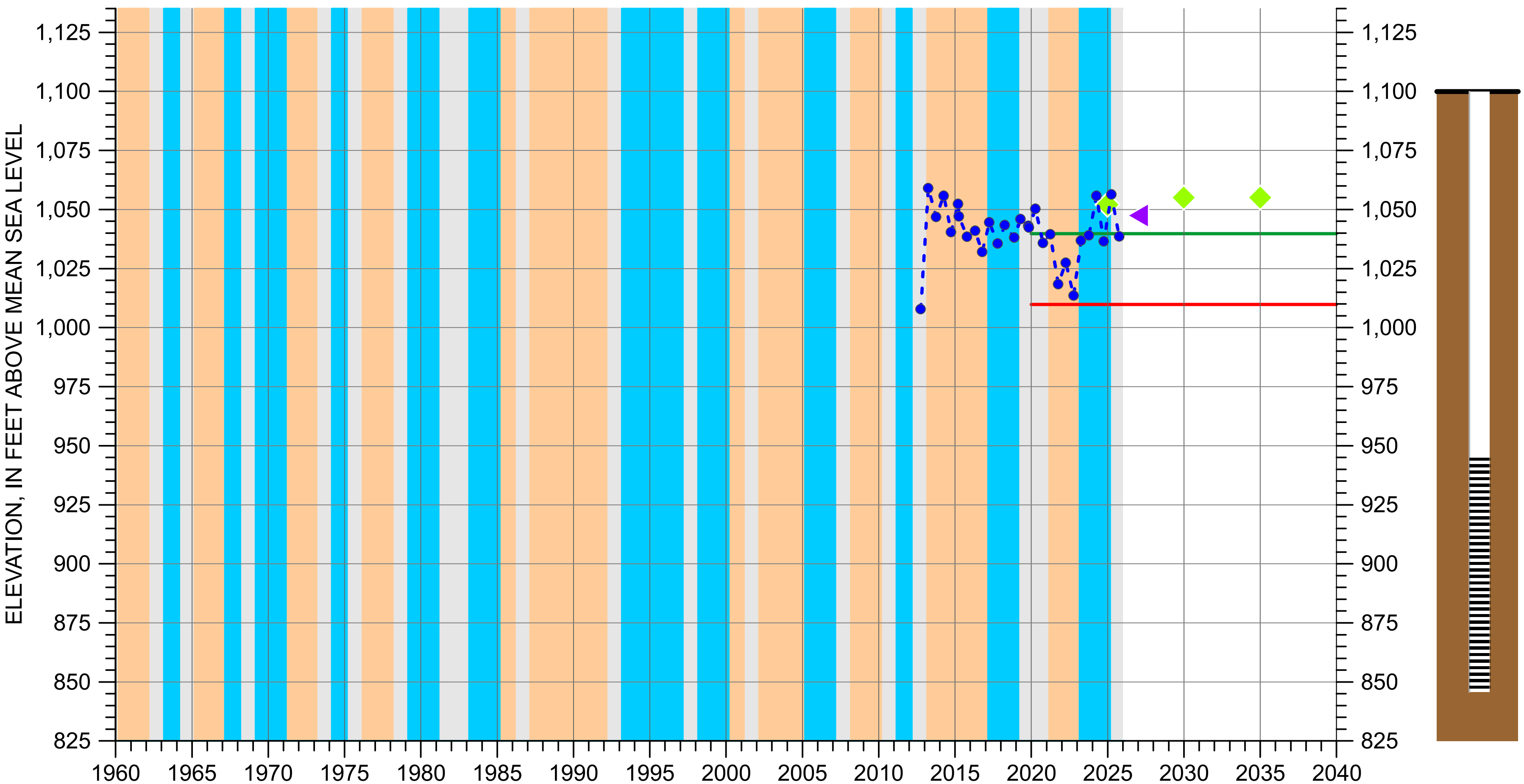
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 28S/13E-01B01



EXPLANATION

Groundwater Elevation

Measurable Objective

Average of spring and fall 2025 water elevations

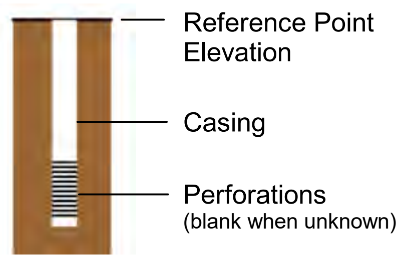
Measurement Not Verified

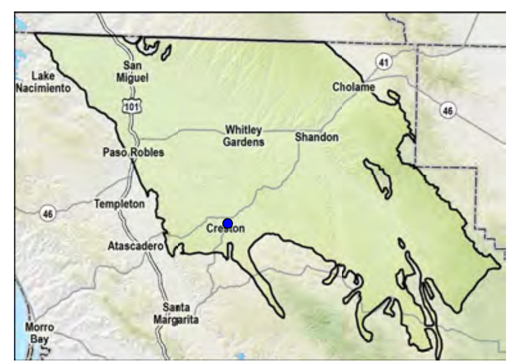
Minimum Threshold

Interim Milestones

CLIMATE PERIOD CLASSIFICATION

Dry | Avg/Alternating | Wet

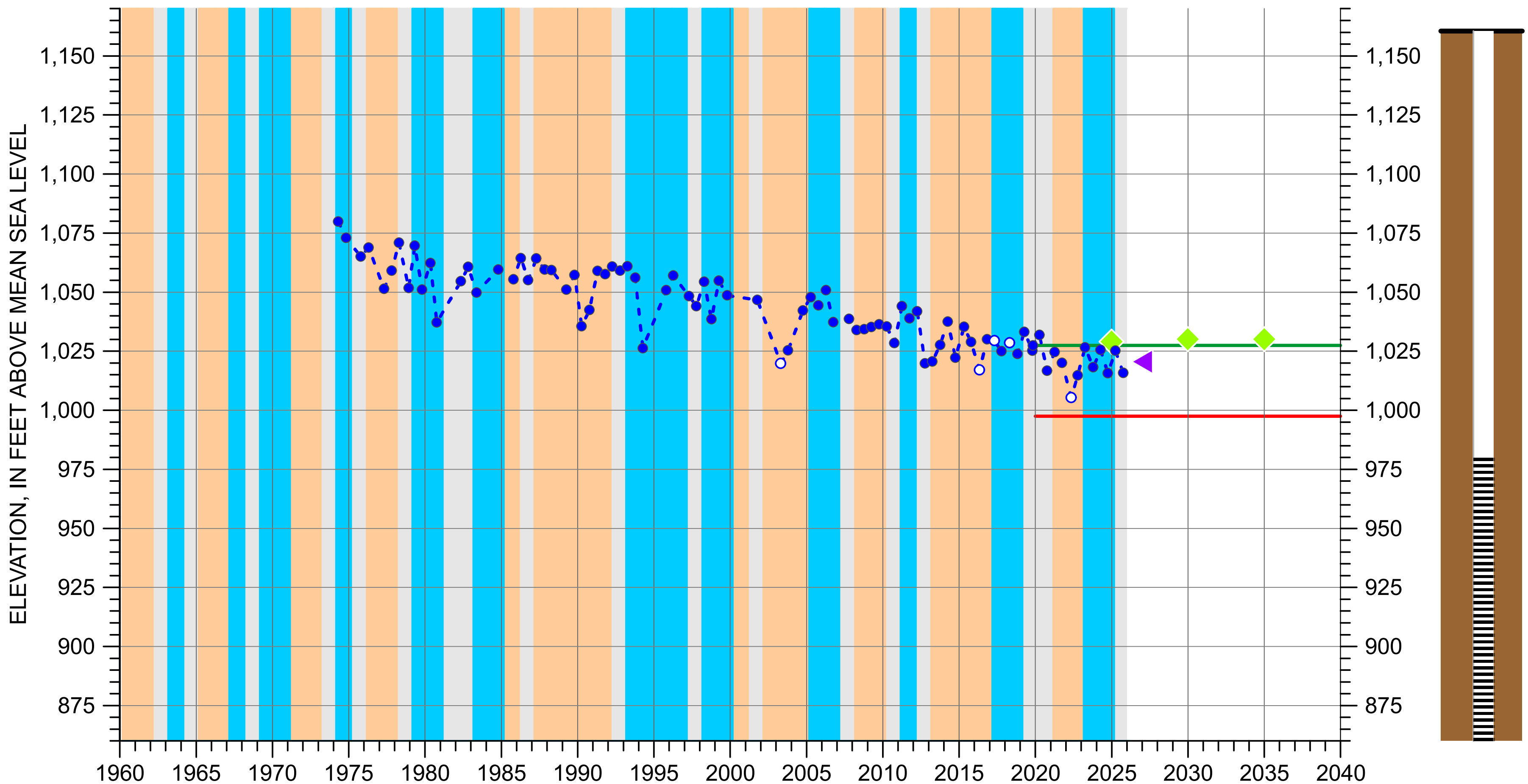




Well Depth: 254 feet
Screened Interval: 154-254 feet below ground surface
Reference Point Elevation: 1099.9 feet above mean sea level

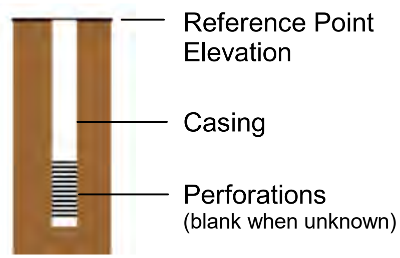
Creston

HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 27S/14E-11R01



EXPLANATION

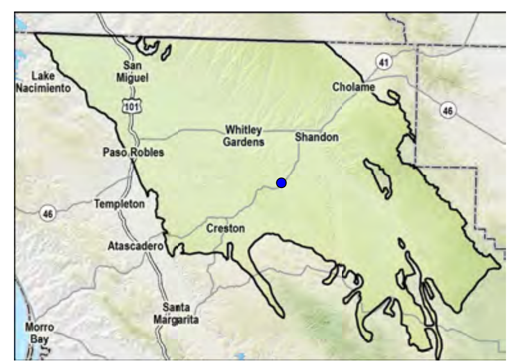
- Groundwater Elevation
- Measurement Not Verified
- Measurable Objective
- Minimum Threshold
- Average of spring and fall 2025 water elevations
- Interim Milestones



CLIMATE PERIOD CLASSIFICATION

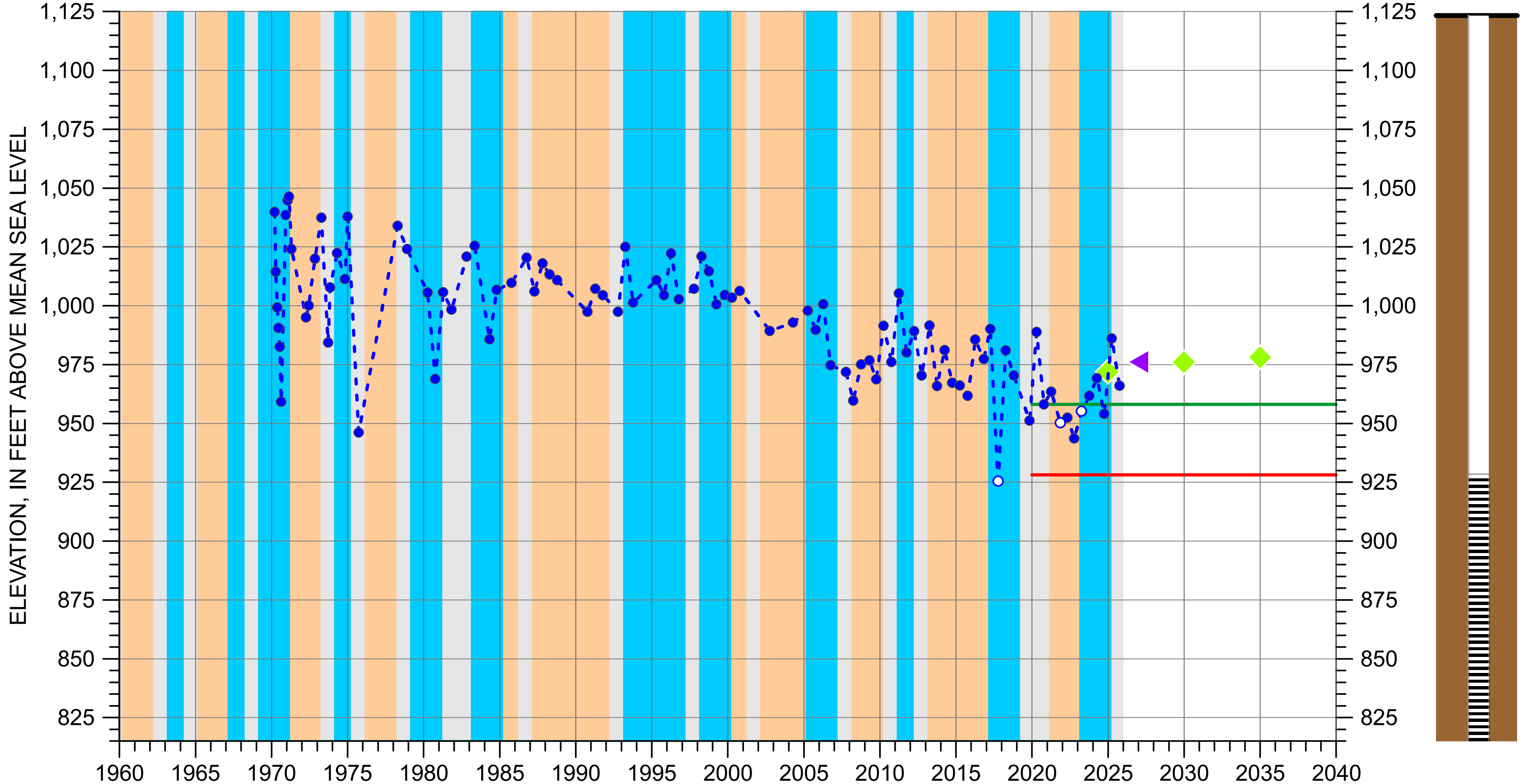
Dry Avg/Alternating Wet

Well Depth: 630 feet
Screened Interval: 180-630 feet below ground surface
Reference Point Elevation: 1160.5 feet above mean sea level



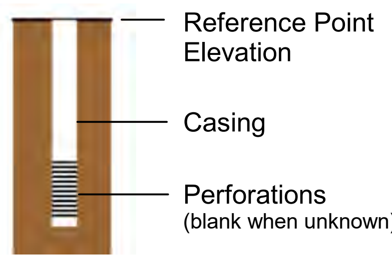
HWY 41 - Shedd Canyon

HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 26S/15E-30J01



EXPLANATION

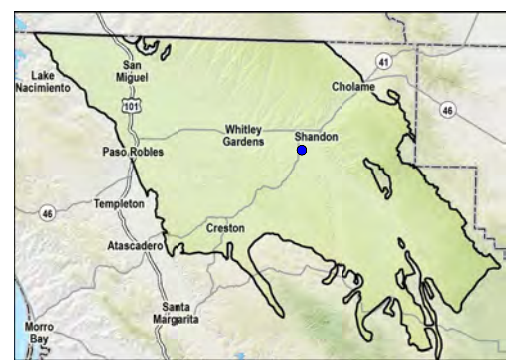
- Groundwater Elevation
- Measurement Not Verified
- Measurable Objective
- Minimum Threshold
- Average of spring and fall 2025 water elevations
- Interim Milestones



CLIMATE PERIOD CLASSIFICATION

Dry | Avg/Alternating | Wet

Well Depth: 605 feet
Screened Interval: 195-605 feet below ground surface
Reference Point Elevation: 1123.3 feet above mean sea level



HWY 41 and Clark Rd.

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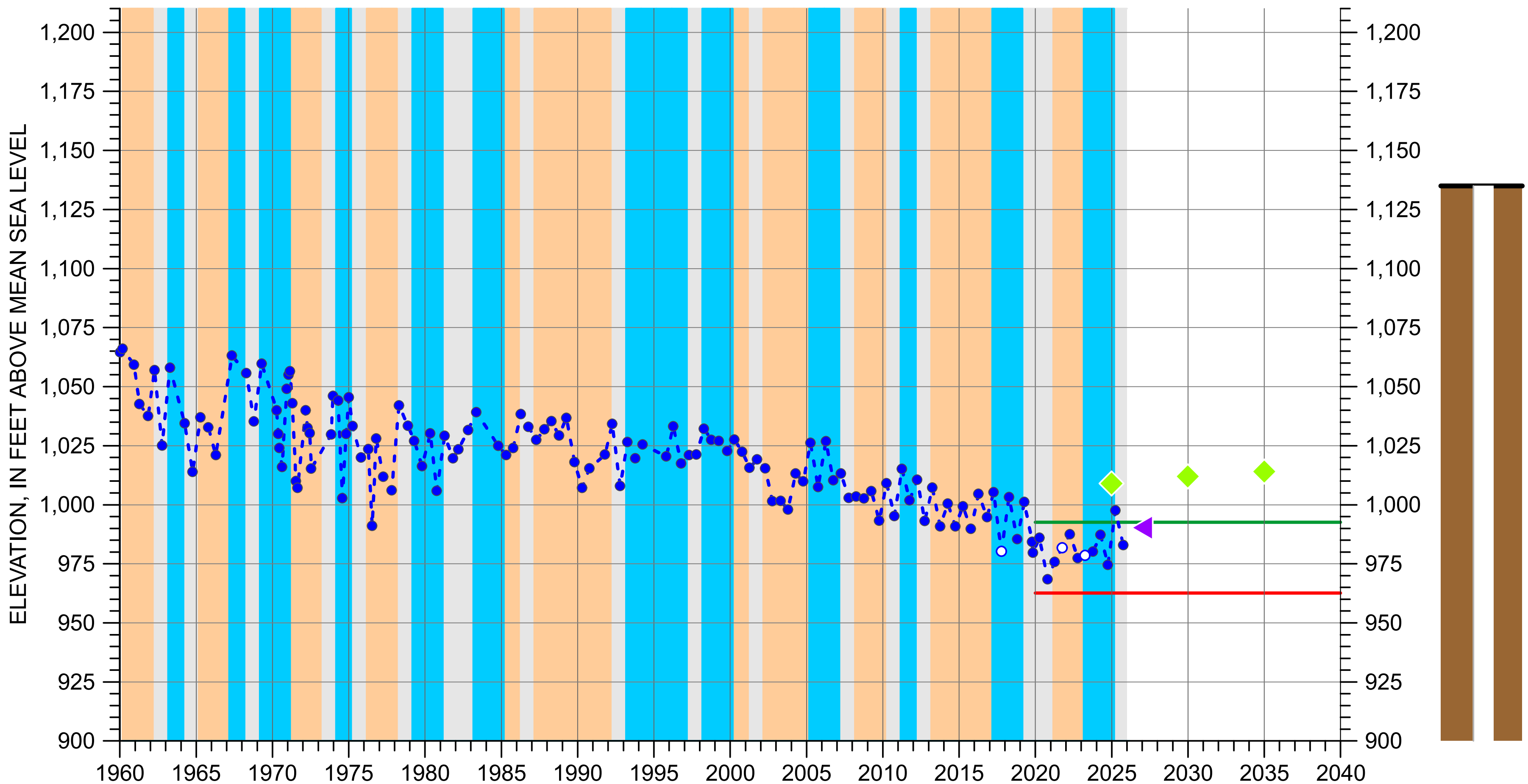
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 26S/15E-29N01



EXPLANATION

Groundwater Elevation

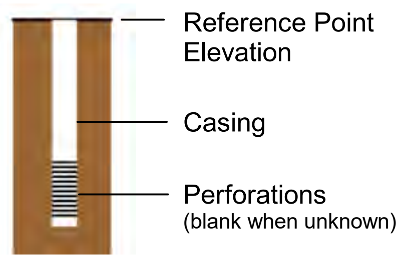
Measurable Objective

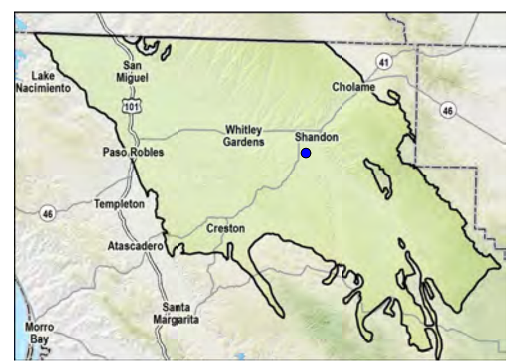
Average of spring and fall 2025 water elevations

Measurement Not Verified

Minimum Threshold

Interim Milestones





CLIMATE PERIOD CLASSIFICATION

Dry | Avg/Alternating | Wet

Well Depth: 350 feet
Screened Interval: unknown
Reference Point Elevation: 1135 feet above mean sea level

Clark Rd.

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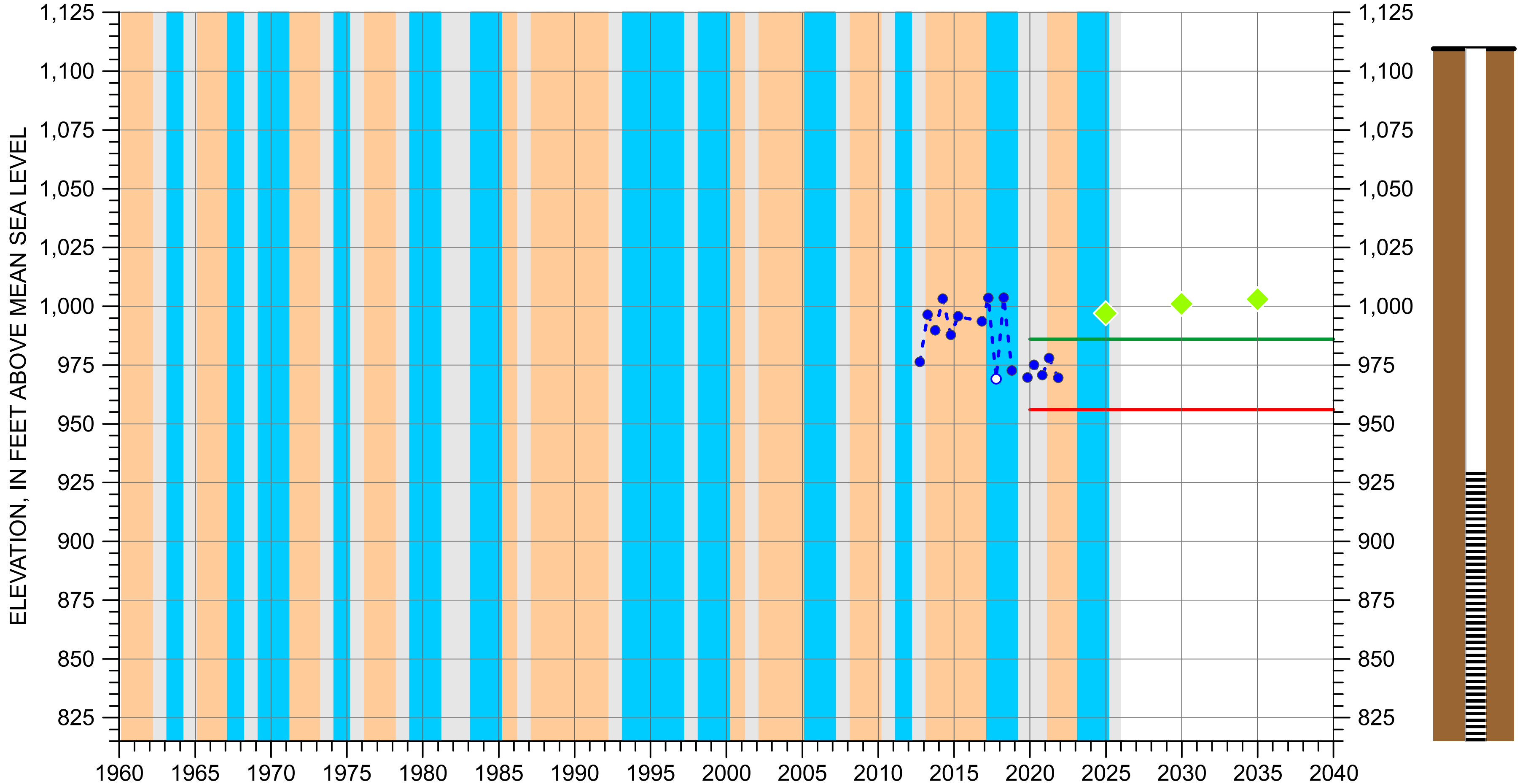
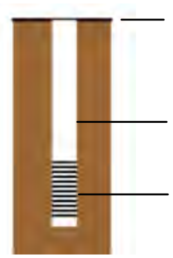
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 26S/15E-29R01



EXPLANATION

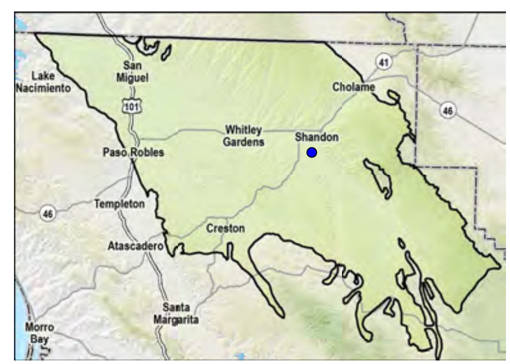
- Groundwater Elevation
- Measurement Not Verified
- Measurable Objective
- Minimum Threshold
- Interim Milestones



CLIMATE PERIOD CLASSIFICATION

Dry | Avg/Alternating | Wet

Well Depth: 600 feet
Screened Interval: 180-600 feet below ground surface
Reference Point Elevation: 1109.5 feet above mean sea level



Clark Rd. east of Truesdale Rd.

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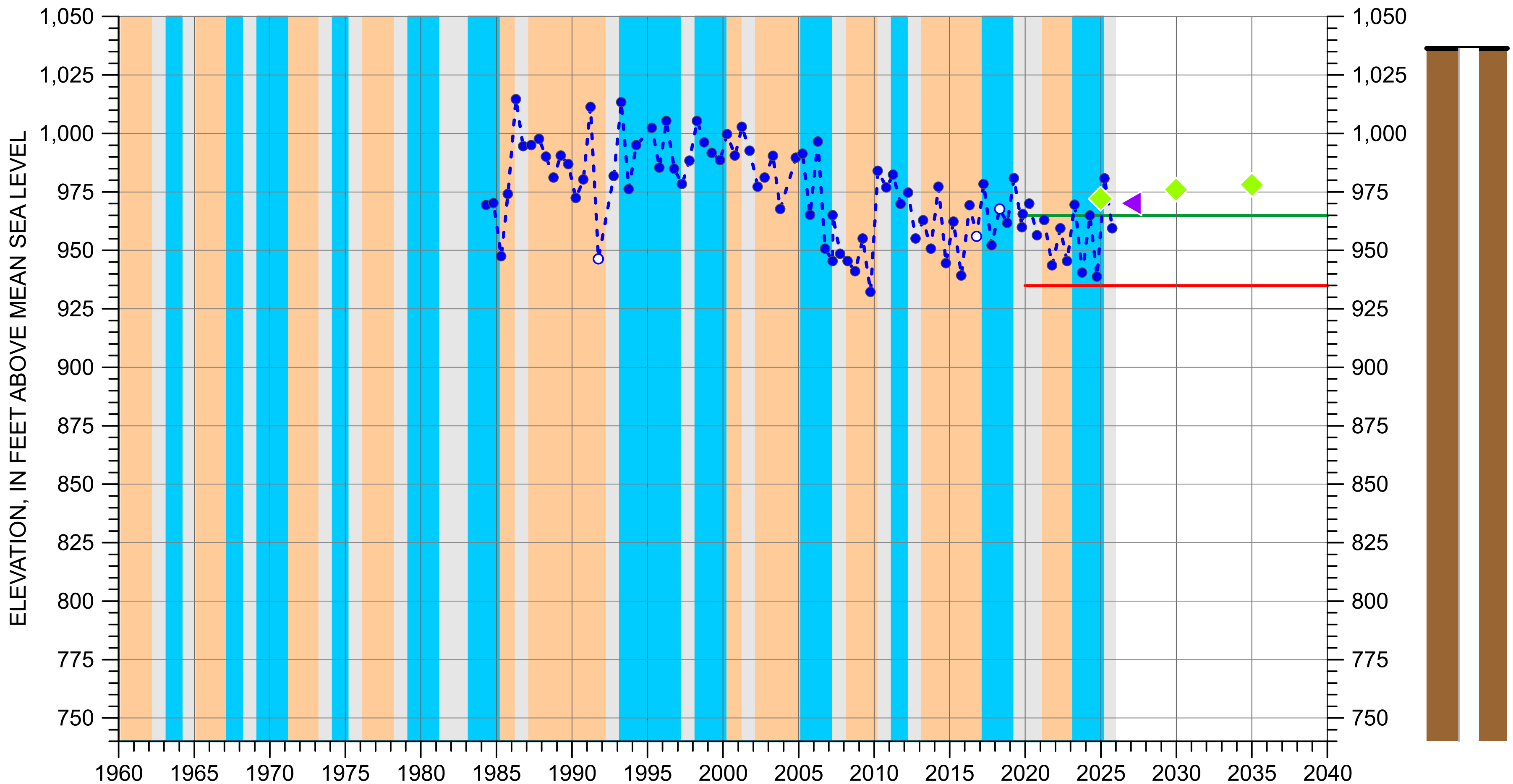
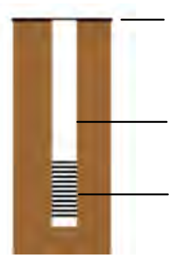
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 26S/15E-20B04



EXPLANATION

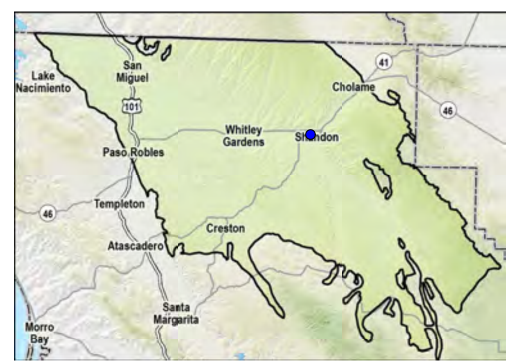
- Groundwater Elevation
- Measurement Not Verified
- Measurable Objective
- Minimum Threshold
- Average of spring and fall 2025 water elevations
- Interim Milestones



CLIMATE PERIOD CLASSIFICATION

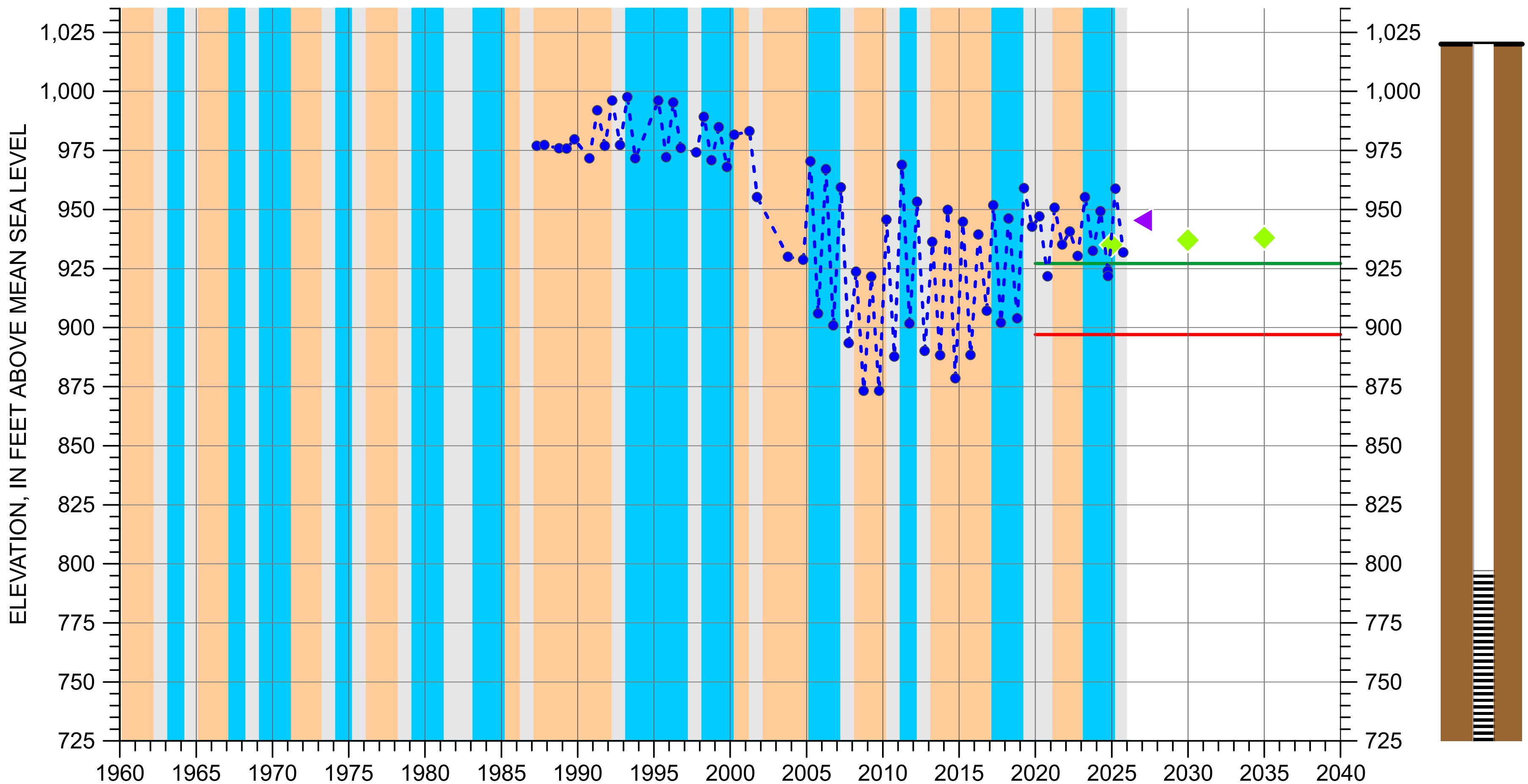
Dry | Avg/Alternating | Wet

Well Depth: 461 feet
Screened Interval: 297-461 feet below ground surface
Reference Point Elevation: 1036.36 feet above mean sea level



County CSA-13 Well

HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 26S/15E-19E01



EXPLANATION

Groundwater Elevation

Measurement Not Verified

Measurable Objective

Minimum Threshold

Average of spring and fall 2025 water elevations

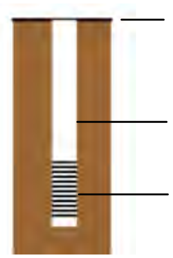
Interim Milestones

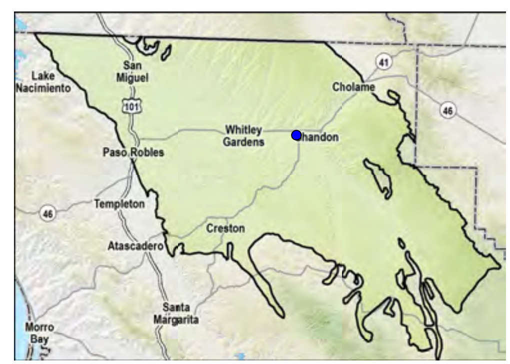
CLIMATE PERIOD CLASSIFICATION

Dry

Avg/Alternating

Wet





Well Depth: 512 feet
Screened Interval: 223-512 feet below ground surface
Reference Point Elevation: 1020 feet above mean sea level

West Centre St.

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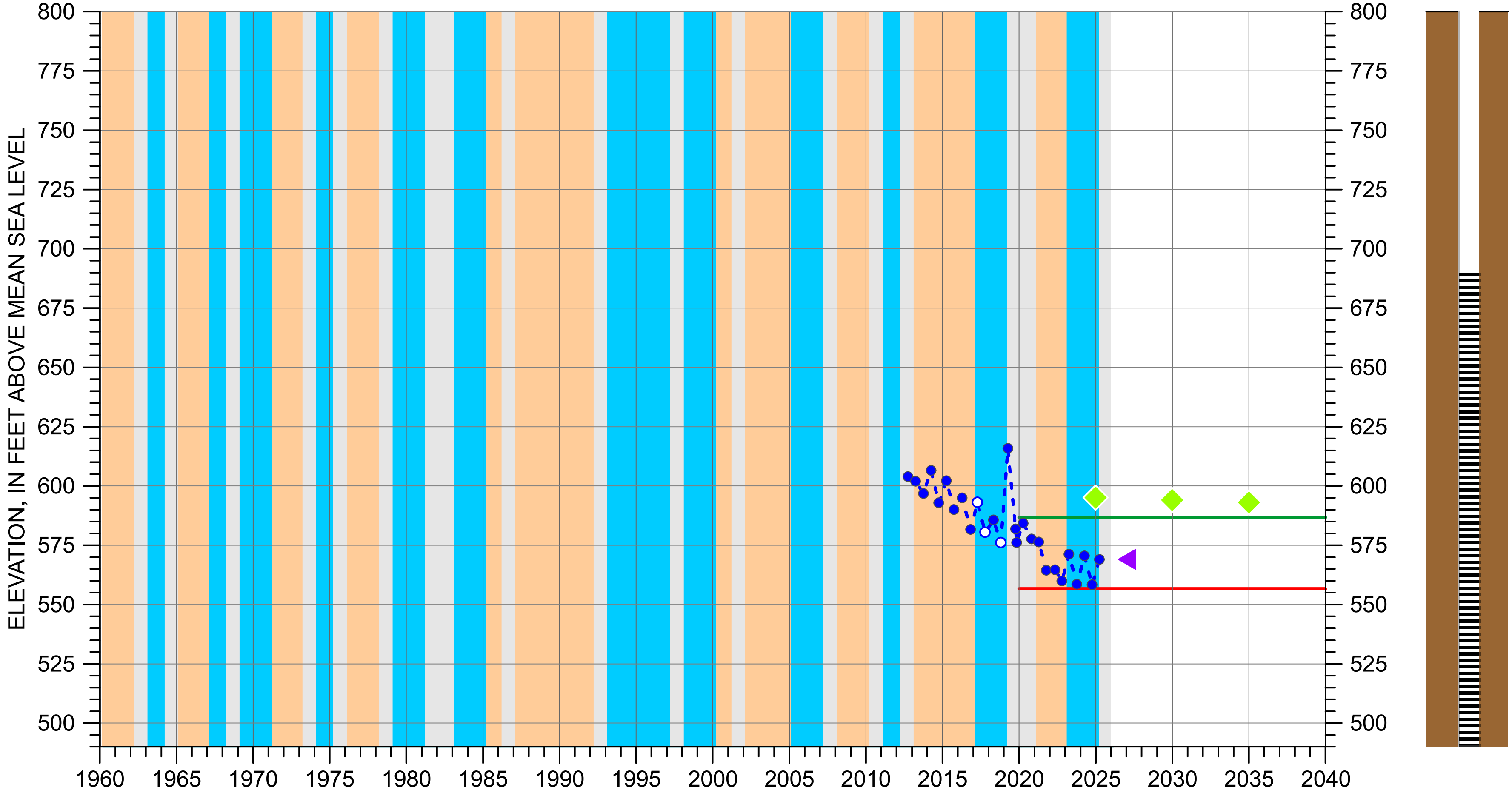
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 26S/13E-16N01



EXPLANATION

Groundwater Elevation

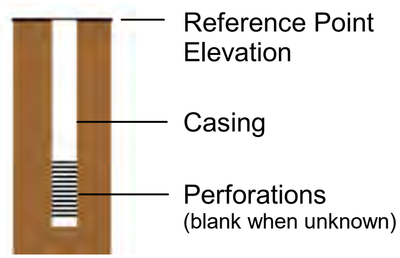
Measurement Not Verified

Measurable Objective

Minimum Threshold

Average of spring and fall 2025 water elevations

Interim Milestones



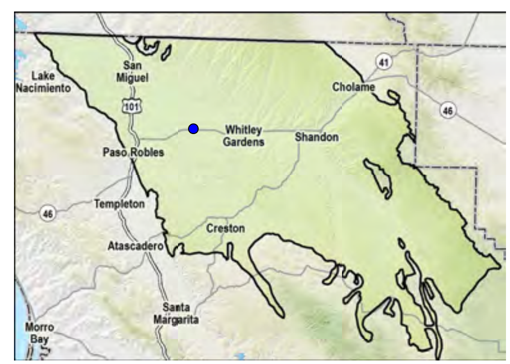
CLIMATE PERIOD CLASSIFICATION

Dry

Avg/Alternating

Wet

Well Depth: 400 feet
Screened Interval: 200-400 feet below ground surface
Reference Point Elevation: 890.2 feet above mean sea level



HWY 46 and Branch Dr.

Well owner opted out of monitoring program during Fall measurement attempt.

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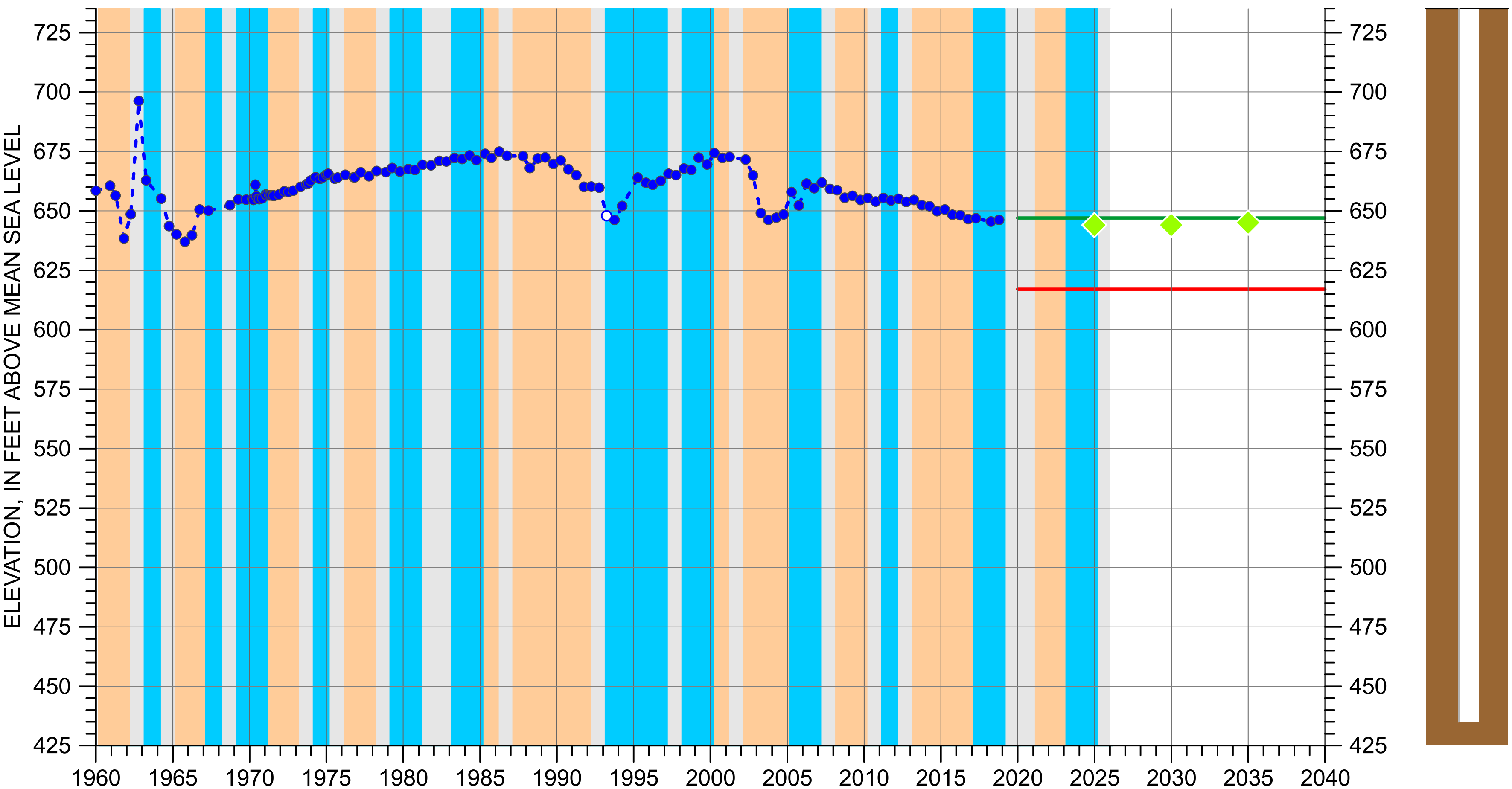
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 26S/12E-26E07



EXPLANATION

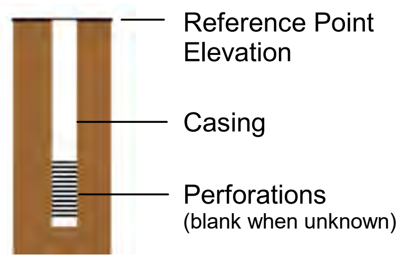
Groundwater Elevation

Measurement Not Verified

Measurable Objective

Minimum Threshold

Interim Milestones



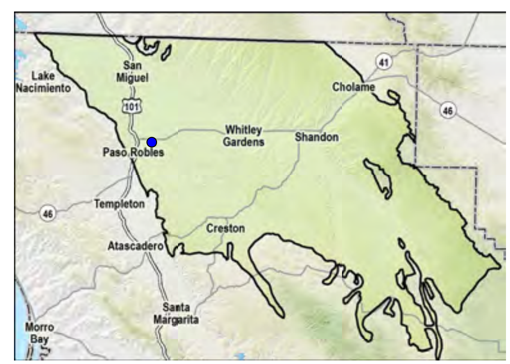
CLIMATE PERIOD CLASSIFICATION

Dry

Avg/Alternating

Wet

Well Depth: 400 feet
Screened Interval: unknown
Reference Point Elevation: 835 feet above mean sea level



Golden Hill Rd. and Union Rd.

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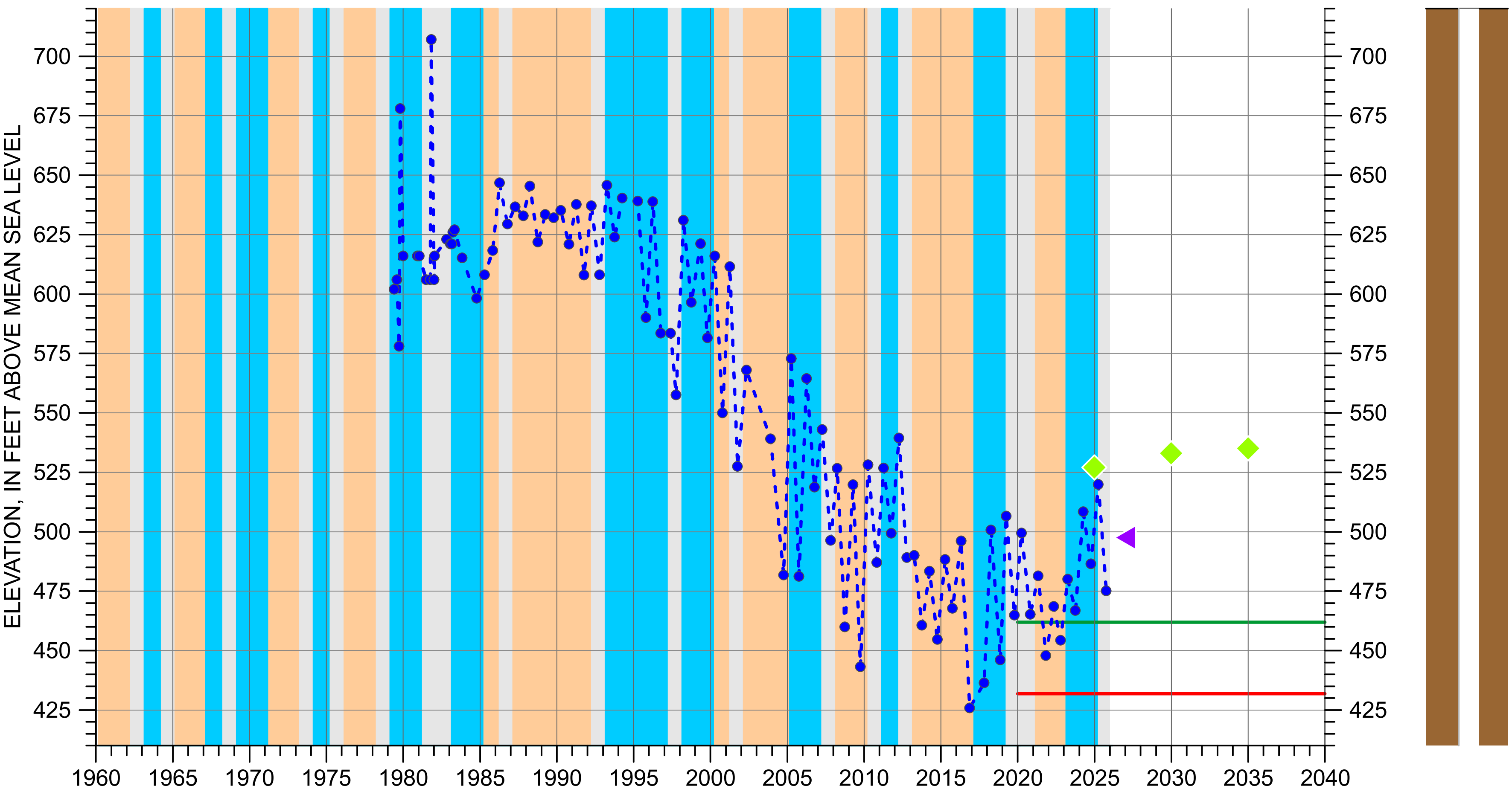
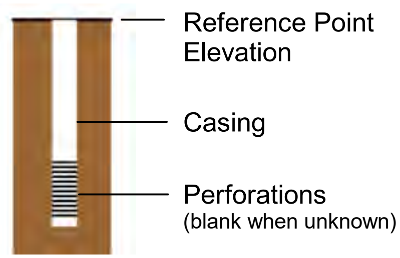
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 26S/12E-14K01



EXPLANATION

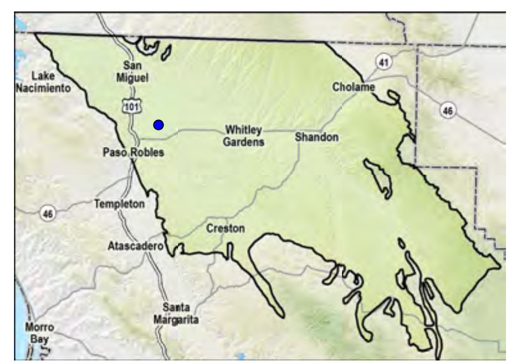
- Groundwater Elevation
- Measurement Not Verified
- Measurable Objective
- Minimum Threshold
- Average of spring and fall 2025 water elevations
- Interim Milestones



CLIMATE PERIOD CLASSIFICATION

Dry | Avg/Alternating | Wet

Well Depth: 1100 feet
Screened Interval: unknown
Reference Point Elevation: 786 feet above mean sea level



Youth Correctional Facility

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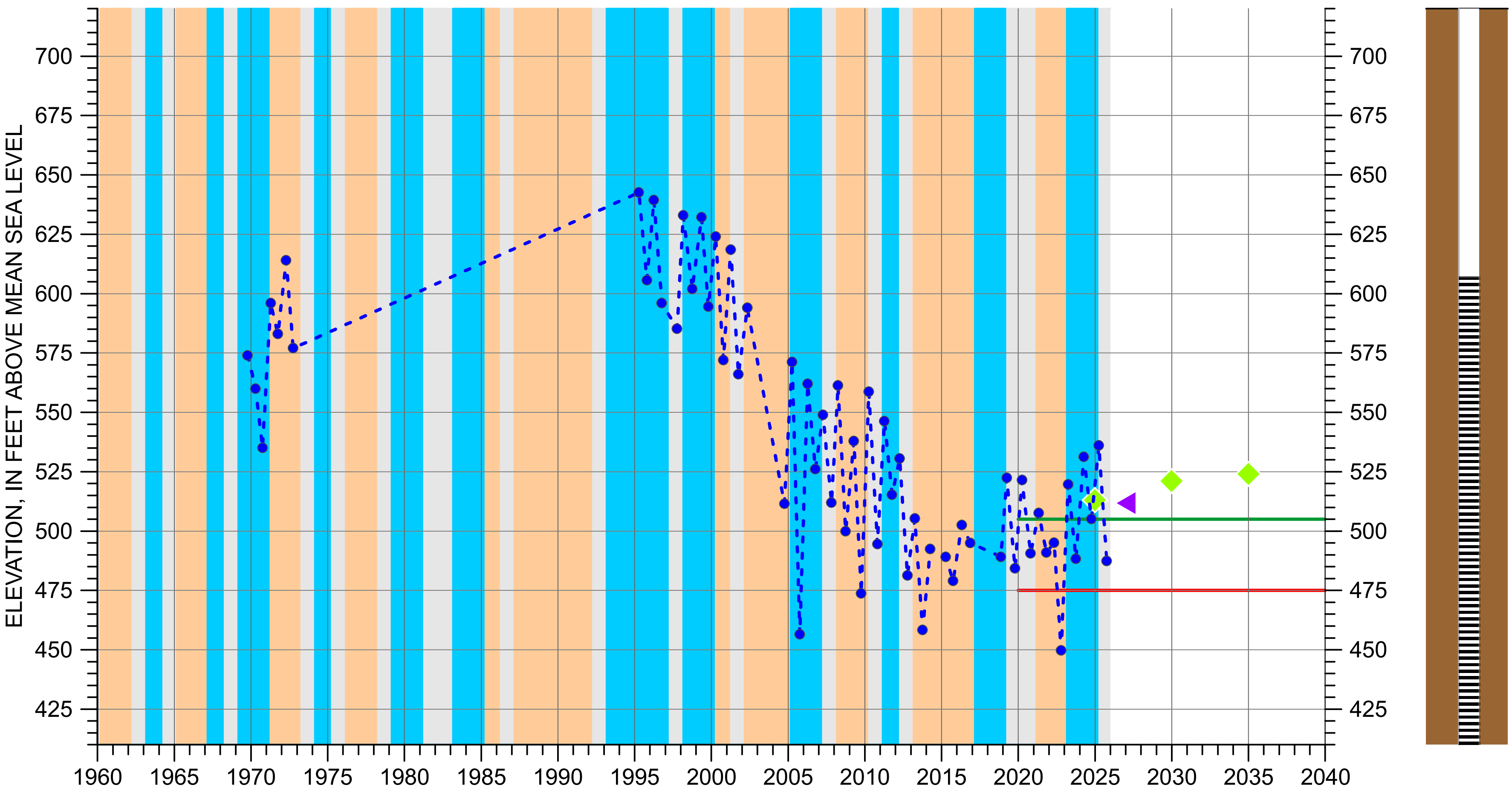
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 26S/12E-14H01



EXPLANATION

Groundwater Elevation

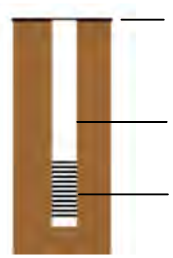
Measurement Not Verified

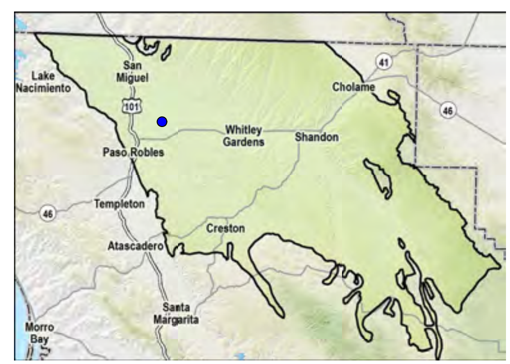
Measurable Objective

Minimum Threshold

Average of spring and fall 2025 water elevations

Interim Milestones





CLIMATE PERIOD CLASSIFICATION

Dry | Avg/Alternating | Wet

Well Depth: 1230 feet
Screened Interval: 180-1230 feet below ground surface
Reference Point Elevation: 790 feet above mean sea level

Airport Rd. and Paso Robles Municipal Airport Rd.

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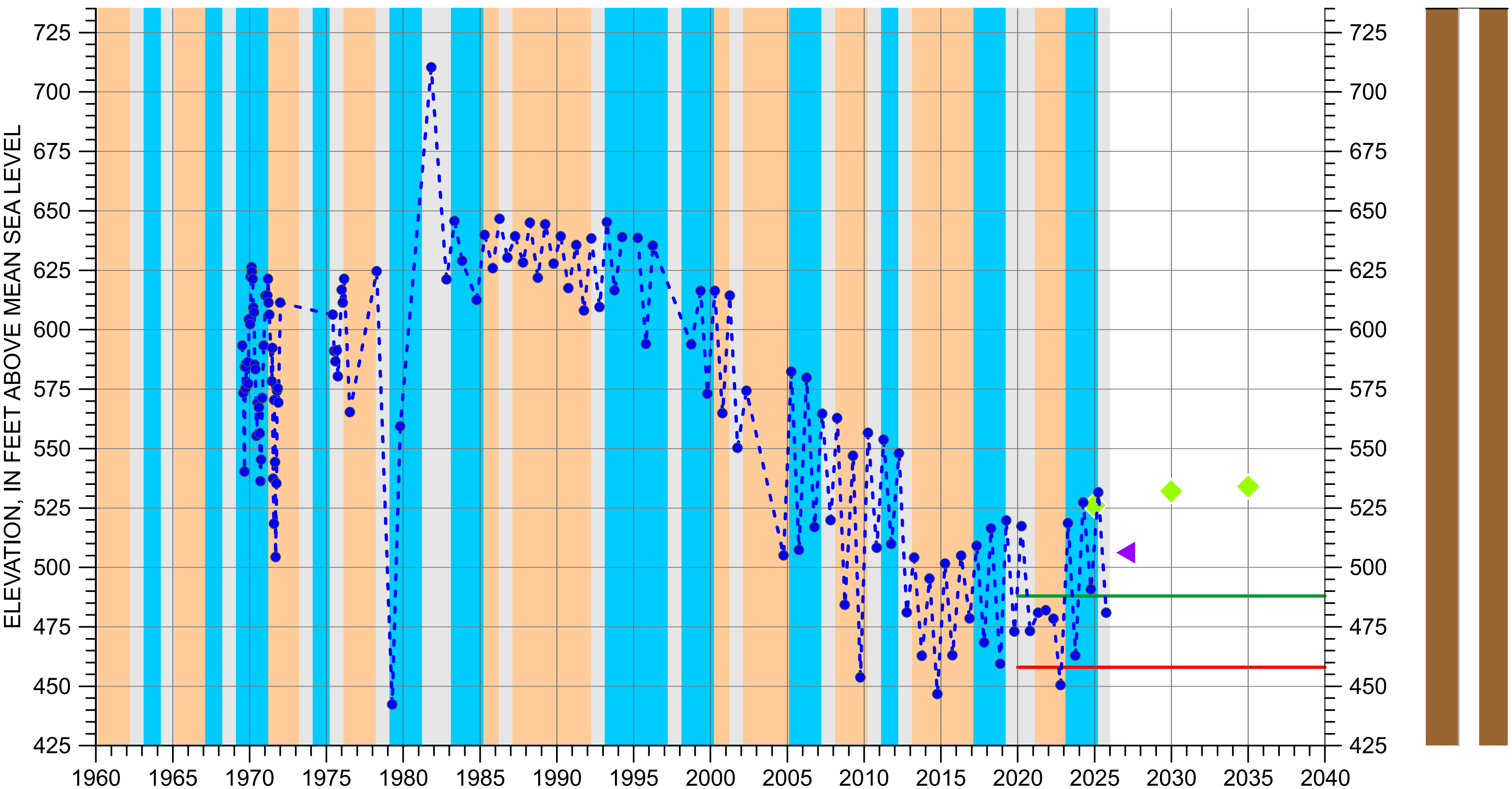
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 26S/12E-14G01



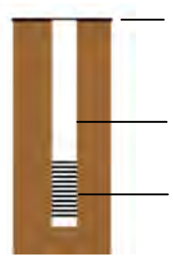
EXPLANATION

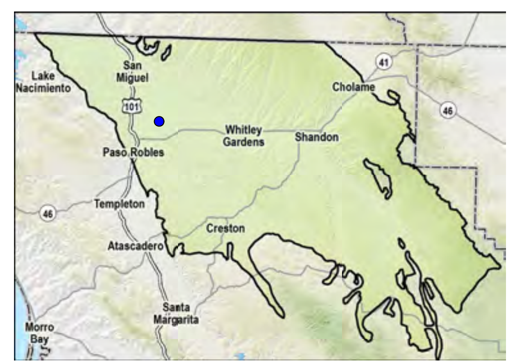
- Groundwater Elevation
- Measurement Not Verified
- Measurable Objective
- Minimum Threshold
- Average of spring and fall 2025 water elevations
- Interim Milestones

CLIMATE PERIOD CLASSIFICATION

Dry | Avg/Alternating | Wet

Well Depth: 740 feet
Screened Interval: unknown
Reference Point Elevation: 789.3 feet above mean sea level





Paso Robles Municipal Airport Rd. west

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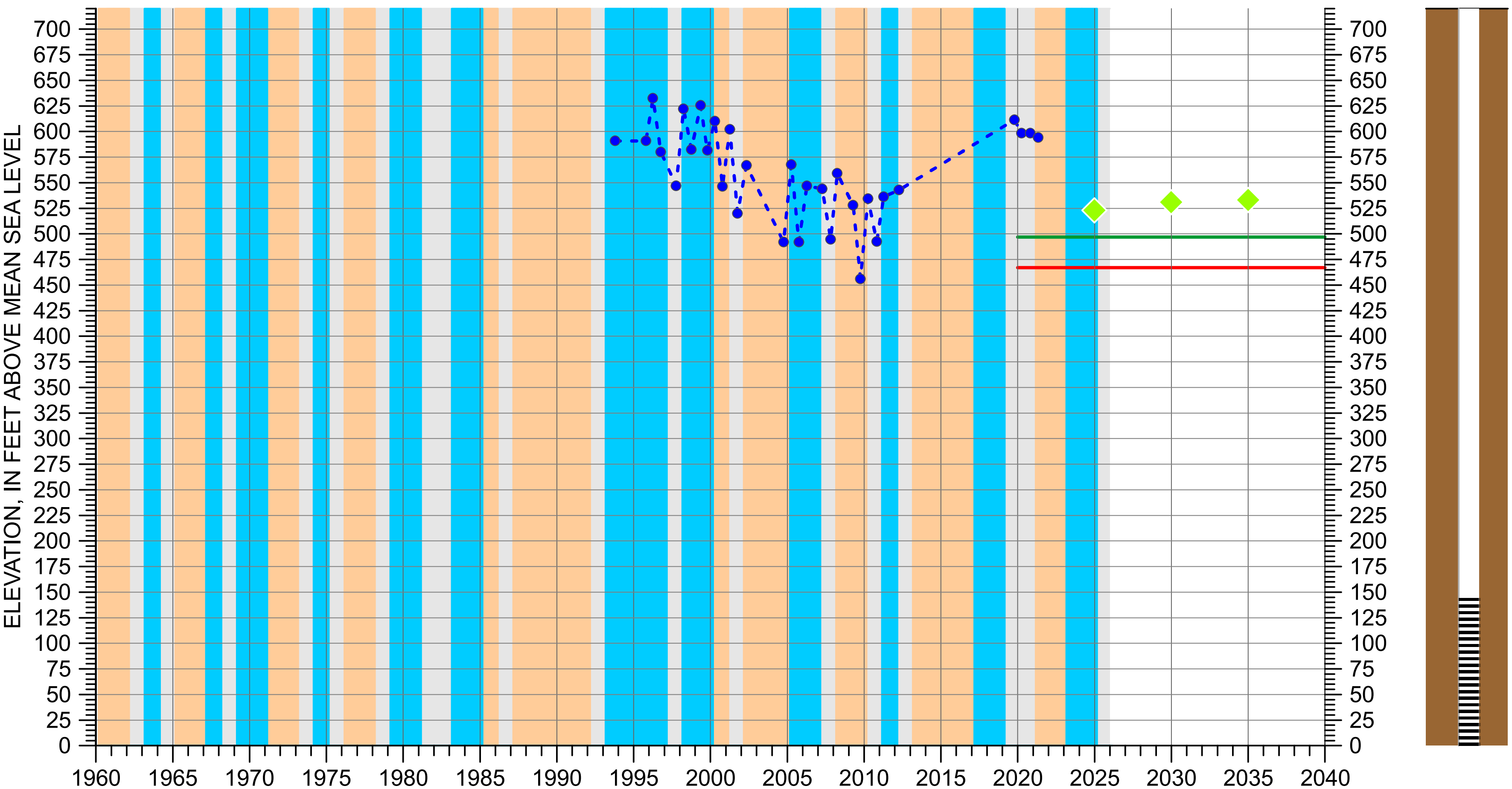
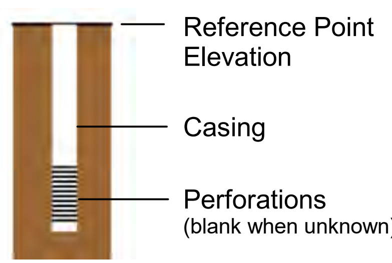
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 26S/12E-14G02



EXPLANATION

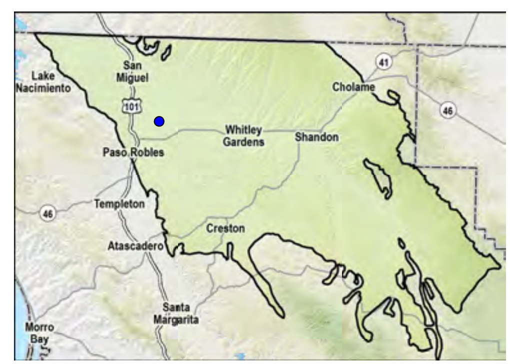
- Groundwater Elevation
- Measurement Not Verified
- Measurable Objective
- Minimum Threshold
- Interim Milestones



CLIMATE PERIOD CLASSIFICATION

Dry | Avg/Alternating | Wet

Well Depth: 840 feet
Screened Interval: 640-840 feet below ground surface
Reference Point Elevation: 787 feet above mean sea level



Paso Robles Municipal Airport Rd. west

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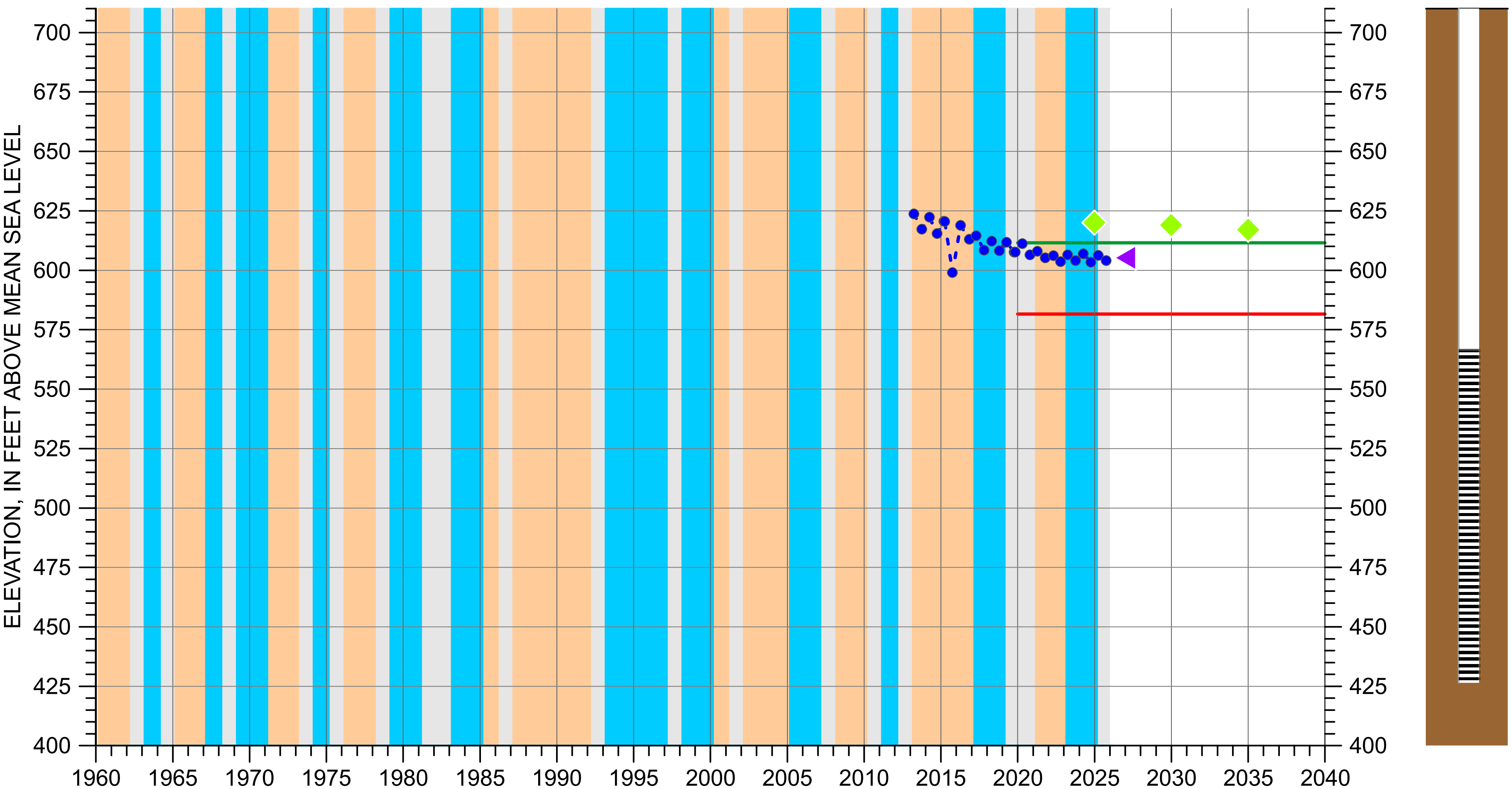
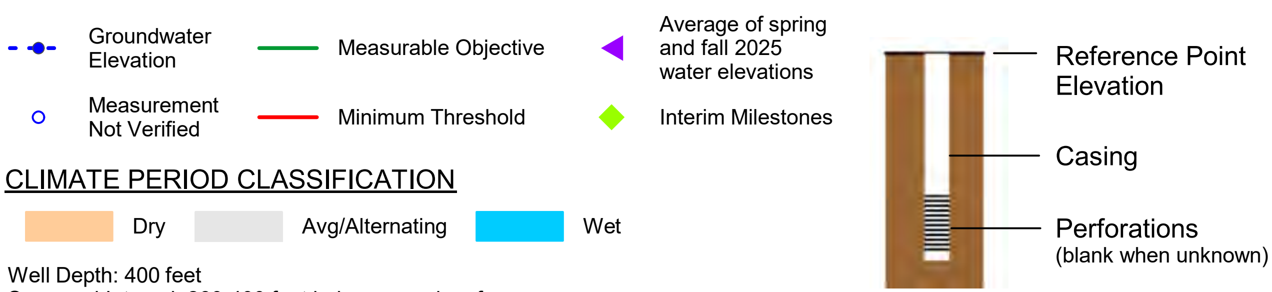
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 26S/13E-08M01



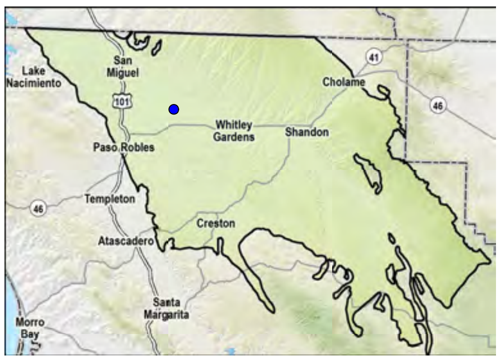
EXPLANATION



CLIMATE PERIOD CLASSIFICATION

Dry | Avg/Alternating | Wet

Well Depth: 400 feet
Screened Interval: 260-400 feet below ground surface
Reference Point Elevation: 827.9 feet above mean sea level



Jardine Rd.

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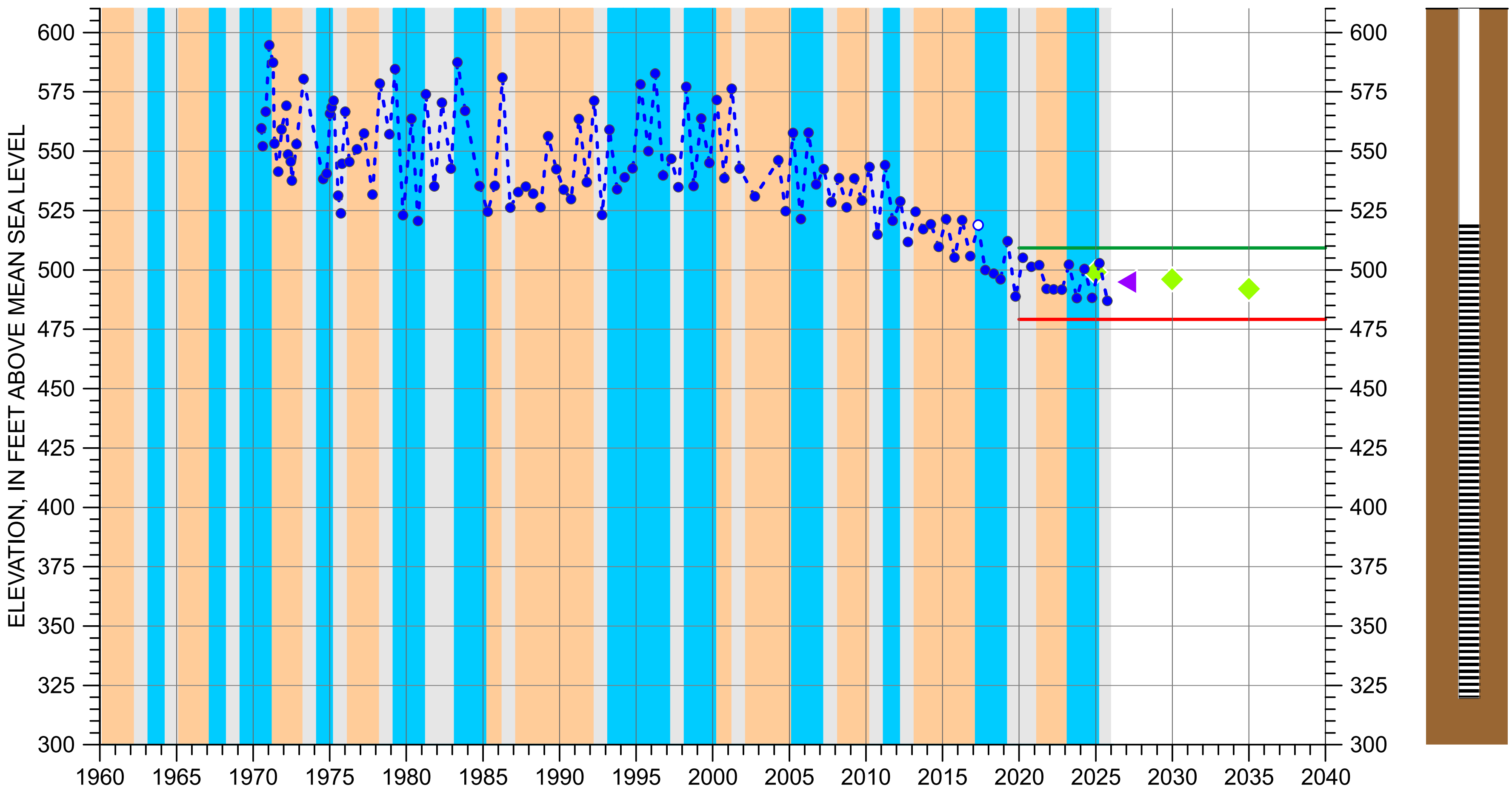
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 25S/12E-26L01



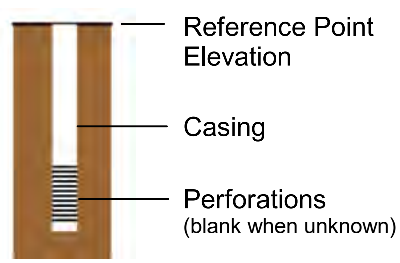
EXPLANATION

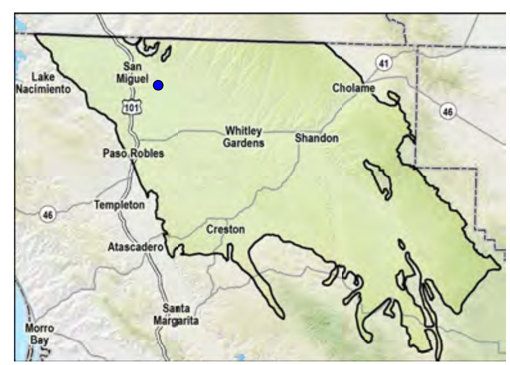
- Groundwater Elevation
- Measurement Not Verified
- Measurable Objective
- Minimum Threshold
- Average of spring and fall 2025 water elevations
- Interim Milestones

CLIMATE PERIOD CLASSIFICATION

- Dry
- Avg/Alternating
- Wet

Well Depth: 400 feet
Screened Interval: 200-400 feet below ground surface
Reference Point Elevation: 719.7 feet above mean sea level





Estrella Rd. and Airport Rd.

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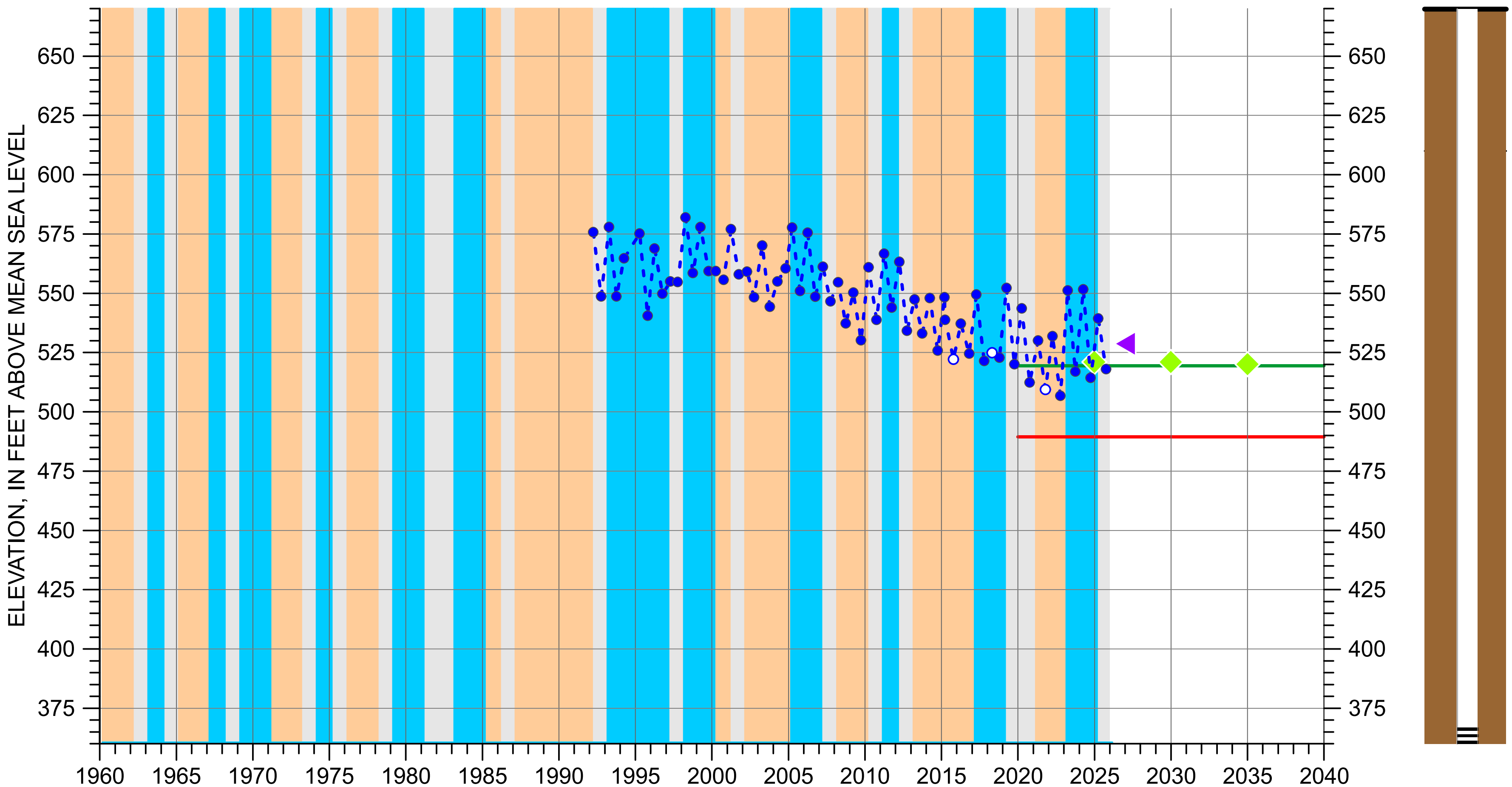
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 25S/12E-16K05



EXPLANATION

Groundwater Elevation

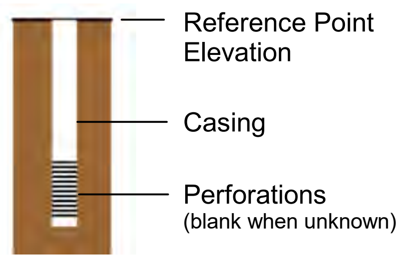
Measurable Objective

Average of spring and fall 2025 water elevations

Measurement Not Verified

Minimum Threshold

Interim Milestones



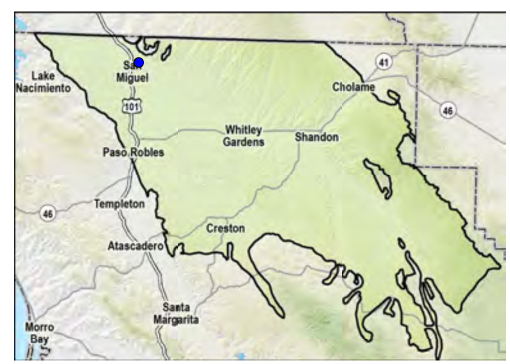
CLIMATE PERIOD CLASSIFICATION

Dry

Avg/Alternating

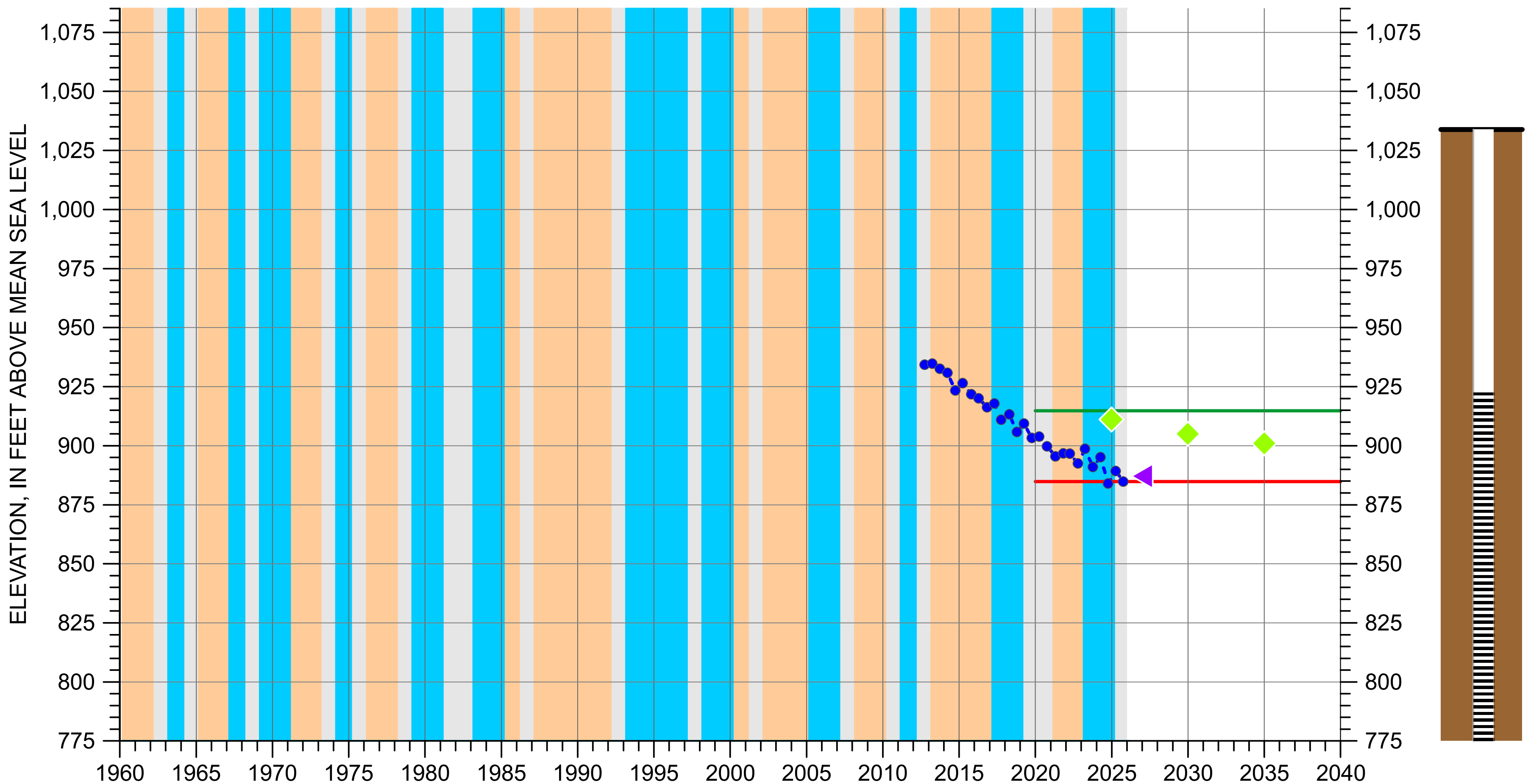
Wet

Well Depth: 350 feet
Screened Interval: 300-310, 330-340 feet below ground surface
Reference Point Elevation: 669.8 feet above mean sea level



North River Rd.

HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 25S/13E-08L02



EXPLANATION

Groundwater Elevation

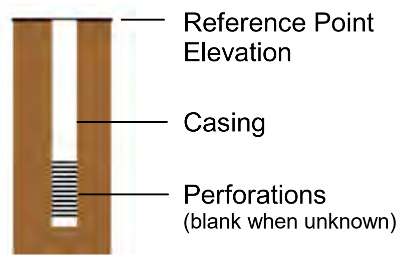
Measurement Not Verified

Measurable Objective

Minimum Threshold

Average of spring and fall 2025 water elevations

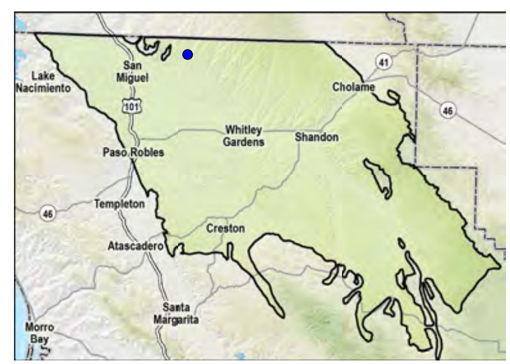
Interim Milestones



CLIMATE PERIOD CLASSIFICATION

Dry Avg/Alternating Wet

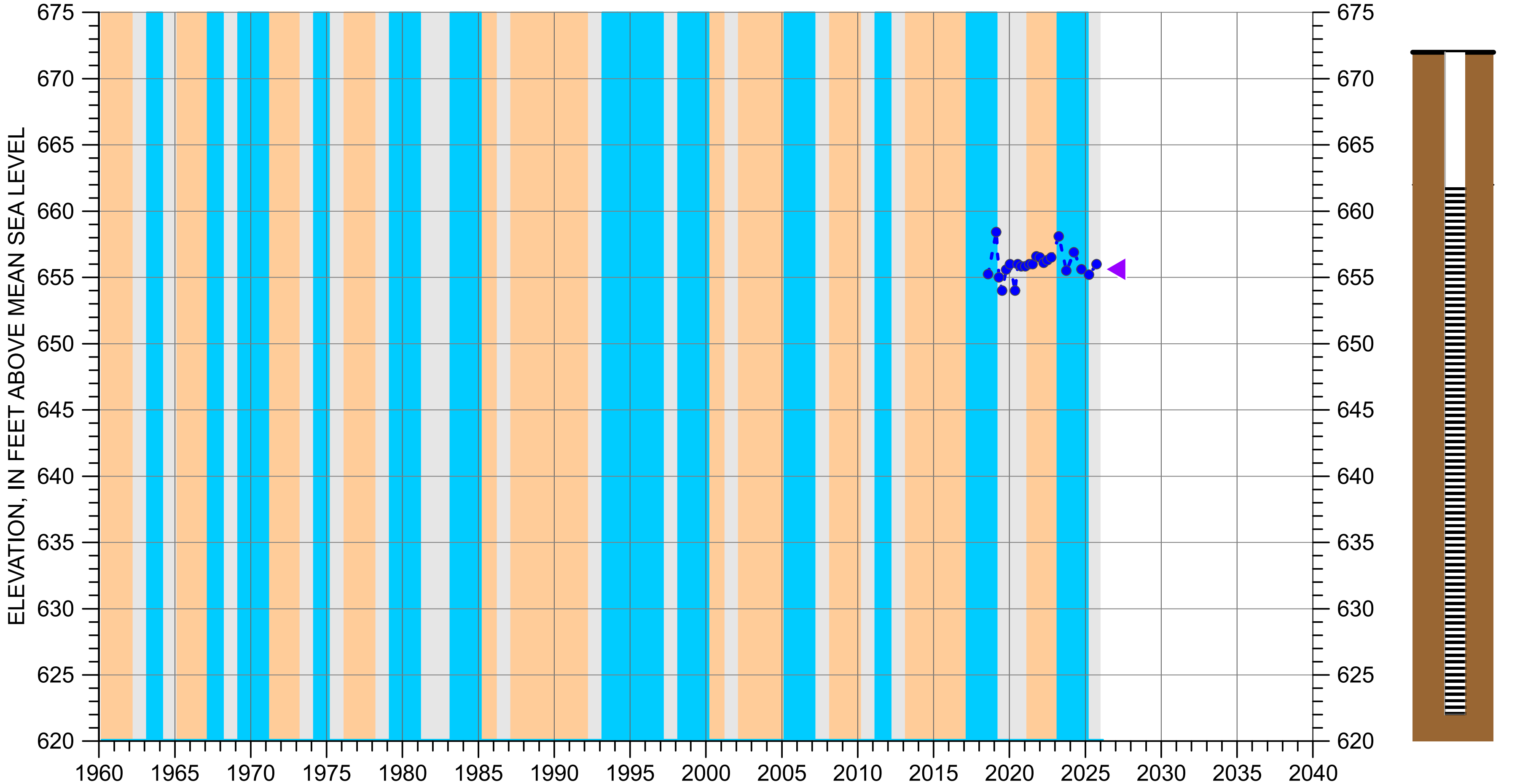
Well Depth: 270 feet
Screened Interval: 110-270 feet below ground surface
Reference Point Elevation: 1033.8 feet above mean sea level



Ranchita Canyon Rd.

Alluvial Aquifer Hydrographs

HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 18MW-0191



EXPLANATION

Groundwater Elevation

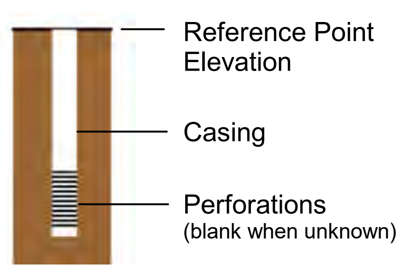
Average of spring and fall 2025 water elevations

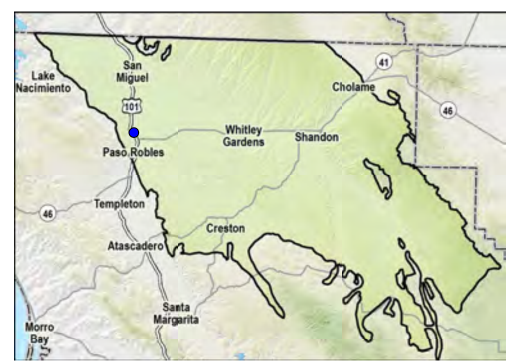
Measurement Not Verified

CLIMATE PERIOD CLASSIFICATION

Dry | Avg/Alternating | Wet

Well Depth: 50 feet
Screened Interval: 10-50 feet below ground surface
Reference Point Elevation: 672 feet above mean sea level





Salinas River Alluvial Monitoring Well

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Appendix G: Paso Robles Formation Aquifer Storage Coefficient Derivation and Sensitivity Analysis

Paso Robles Formation Aquifer Storage Coefficient Derivation and Sensitivity Analysis

The annual changes in groundwater in storage calculated for water years 2017, 2018, and 2019 in the Paso Robles Formation Aquifer presented in this first annual report are based on a fixed storage coefficient (S) value derived from groundwater modeling and groundwater elevation data presented in the Groundwater Sustainability Plan (GSP) for water year 2016. The derivation of S for the Paso Robles Formation Aquifer and a sensitivity analysis are presented below. It should be noted that while the GSP groundwater model utilizes a spatially variable S (both laterally and vertically) the S value derived here and used in this first annual report is a single average value representing the Paso Robles Formation Aquifer within the Subbasin.

1.1 Derivation of the Storage Coefficient Term

Derivation of S was accomplished through a back calculation using the change in groundwater in storage in the Paso Robles Formation Aquifer determined from the GSP groundwater model for water year 2016 and the total volume change represented by a Paso Robles Formation Aquifer groundwater elevation change map prepared for water year 2016. The change in groundwater in storage for water year 2016 in the Paso Robles Formation Aquifer is -59,459 acre-feet (AF) based on the GSP groundwater model.

The Paso Robles Formation Aquifer groundwater elevation change map for water year 2016 was prepared for this annual report by comparing the fall 2015 groundwater elevation contour map to the fall 2016 groundwater elevation contour map. The fall 2015 groundwater elevations were subtracted from the fall 2016 groundwater elevations resulting in a map depicting the changes in groundwater elevations in the Paso Robles Formation Aquifer that occurred during the 2016 water year (not pictured, but similar to Figures 12, 13, and 14 in this first annual report).

The groundwater elevation change map for water year 2016 represents a total volume change within the Paso Robles Formation Aquifer of -807,490 AF. As described in Section 7.2 of this annual report, this total volume change includes the volume displaced by the aquifer material and the volume of groundwater stored within the void space of the aquifer. The portion of void space in the aquifer that can be utilized for groundwater storage is represented by S. The change in groundwater in storage is equivalent to the product of S and the total volume change, as shown here:

$$Change\ of\ Groundwater\ in\ Storage = S \times Total\ Volume\ Change$$

This equation can be re-arranged and solved for S:

$$S = \frac{Change\ of\ Groundwater\ in\ Storage}{Total\ Volume\ Change} = \frac{-59{,}459\ AF}{-807{,}490\ AF} = 0.07$$

Therefore, based on analysis of data for water year 2016, an average S value for the Paso Robles Formation Aquifer in the Paso Robles Subbasin is 0.07.

1.2 Sensitivity Analysis

The annual changes in groundwater in storage in the Paso Robles Formation Aquifer calculated for water years 2017, 2018, and 2019 presented in this first annual report are 60,106, 6,398, and 59,682 AF, respectively. These values, calculated using an S value of 0.07, appear reasonable when compared to historical changes in groundwater in storage (see Figure 15 in this first annual report). While the calculated value of S, presented above, is based on sound science and using the best readily available information, it is necessary to acknowledge that the true value of S in the Paso Robles Formation Aquifer is spatially variable (as indicated in the GSP groundwater model) and ranges in value both above and below the calculated value of 0.07. A sensitivity analysis was performed to demonstrate the range of annual changes in groundwater in storage that result from using a range of S values. Table F1 shows that the annual change in groundwater in storage volumes can range from 27 percent less to 27 percent more than presented in this first annual report based on S values ranging from 0.05 to 0.09. This shows the sensitivity of the S value to determination of annual change in groundwater in storage. However, neither the 27 percent lower nor the 27 percent higher annual change in groundwater in storage volumes seem reasonable when compared to historical changes in groundwater in storage (as shown in Figure 15 in this first annual report). Based on this sensitivity analysis, GSI believes that the calculated value of S (0.07) is reasonable and defensible for the purposes of this first annual report.

Table F 1. Change in Groundwater in Storage Sensitivity Analysis

Water Year	Total Volume of Change (AF)	Change in Groundwater in Storage (AF), based on:								
		S = 0.05		S = 0.06		Calculated S [0.07]	S = 0.08		S = 0.09	
		(AF)	% Diff	(AF)	% Diff	(AF)	(AF)	% Diff	(AF)	% Diff
2017	816,274	43,781	-27%	51,943	-14%	60,106	68,269	14%	76,432	27%
2018	86,885	4,660		5,529		6,398	7,267		8,135	
2019	810,508	43,471		51,577		59,682	67,787		75,892	

notes:

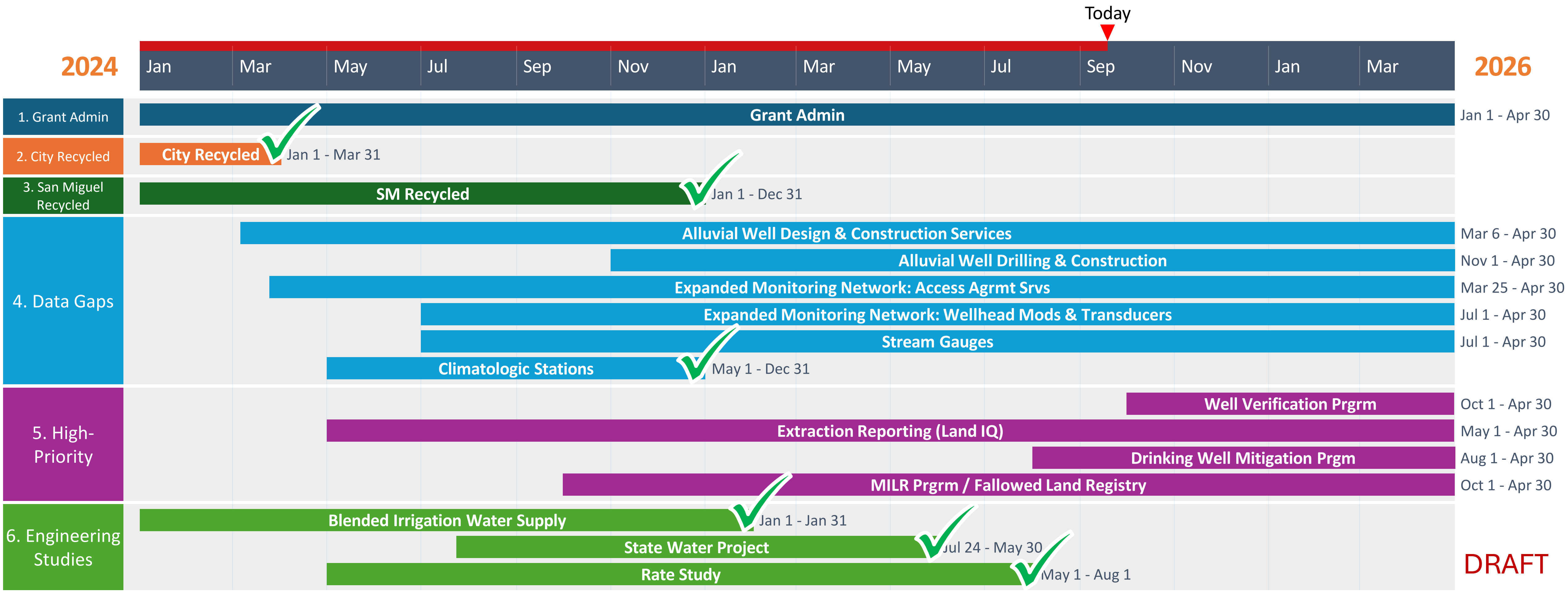
AF = acre-feet, S = storage coefficient, % Diff = percent difference from calculated S

Appendix H: DWR Sustainable Groundwater Management Grant Program Project Timeline

9a. Update on DWR Grant Schedule, Expenditures, and Projects

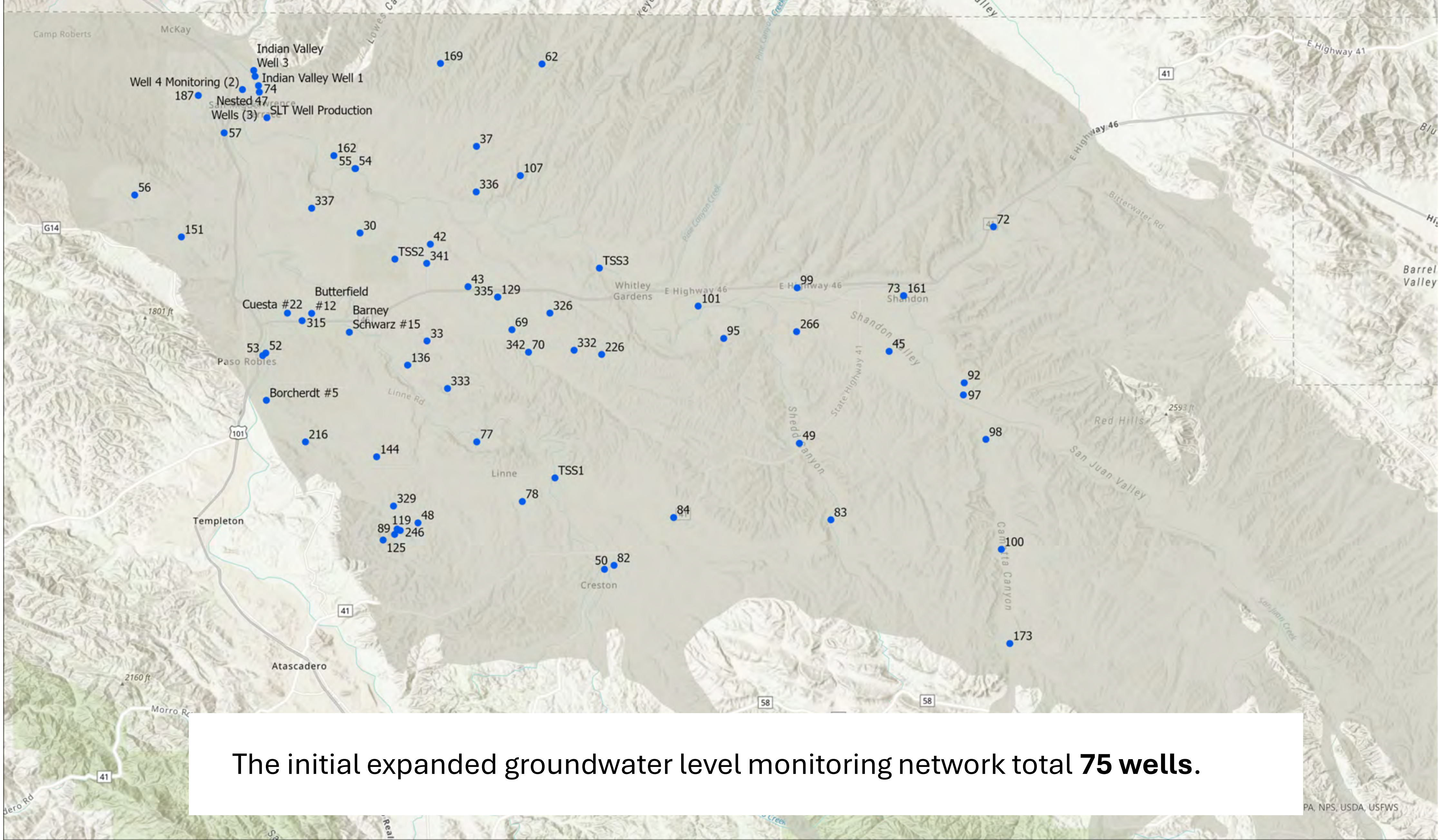
Blaine Reely

Grant Project Timeline (timeline begins on Jan 2024 for brevity)



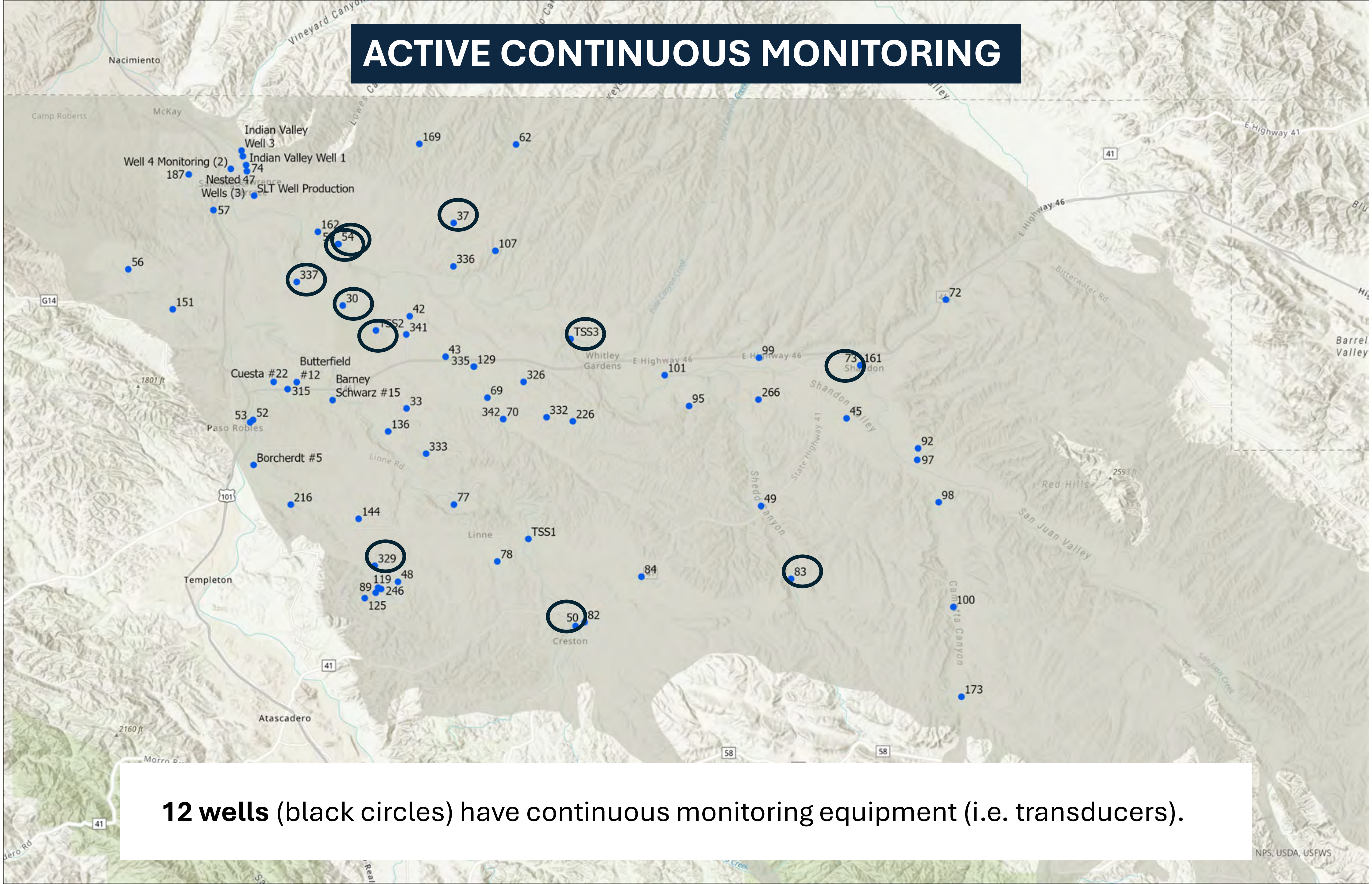
Appendix I: Wells Added to the Subbasin Groundwater Level Monitoring Network

EXPANDED MONITORING NETWORK



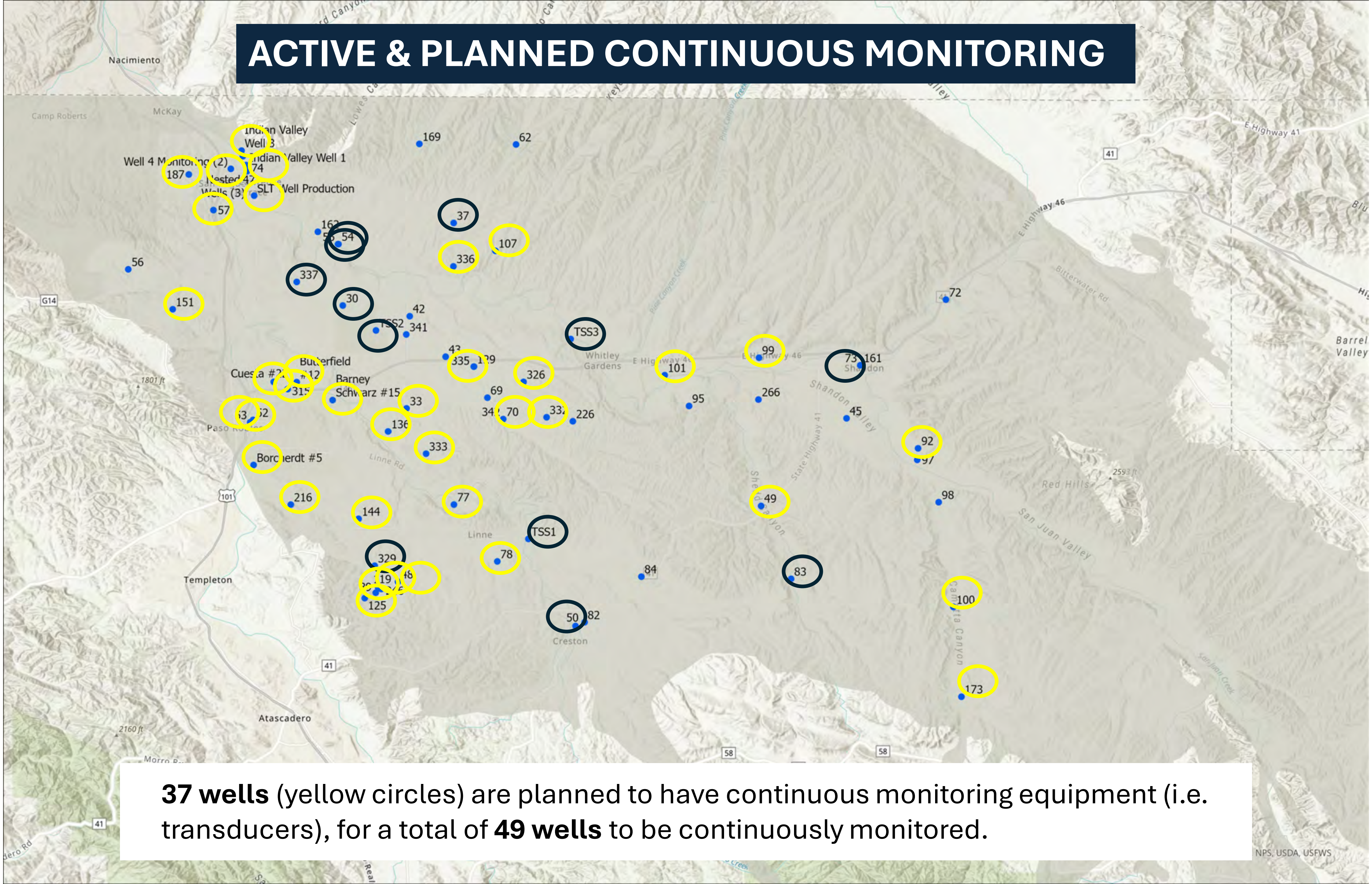
The initial expanded groundwater level monitoring network total **75 wells**.

ACTIVE CONTINUOUS MONITORING



12 wells (black circles) have continuous monitoring equipment (i.e. transducers).

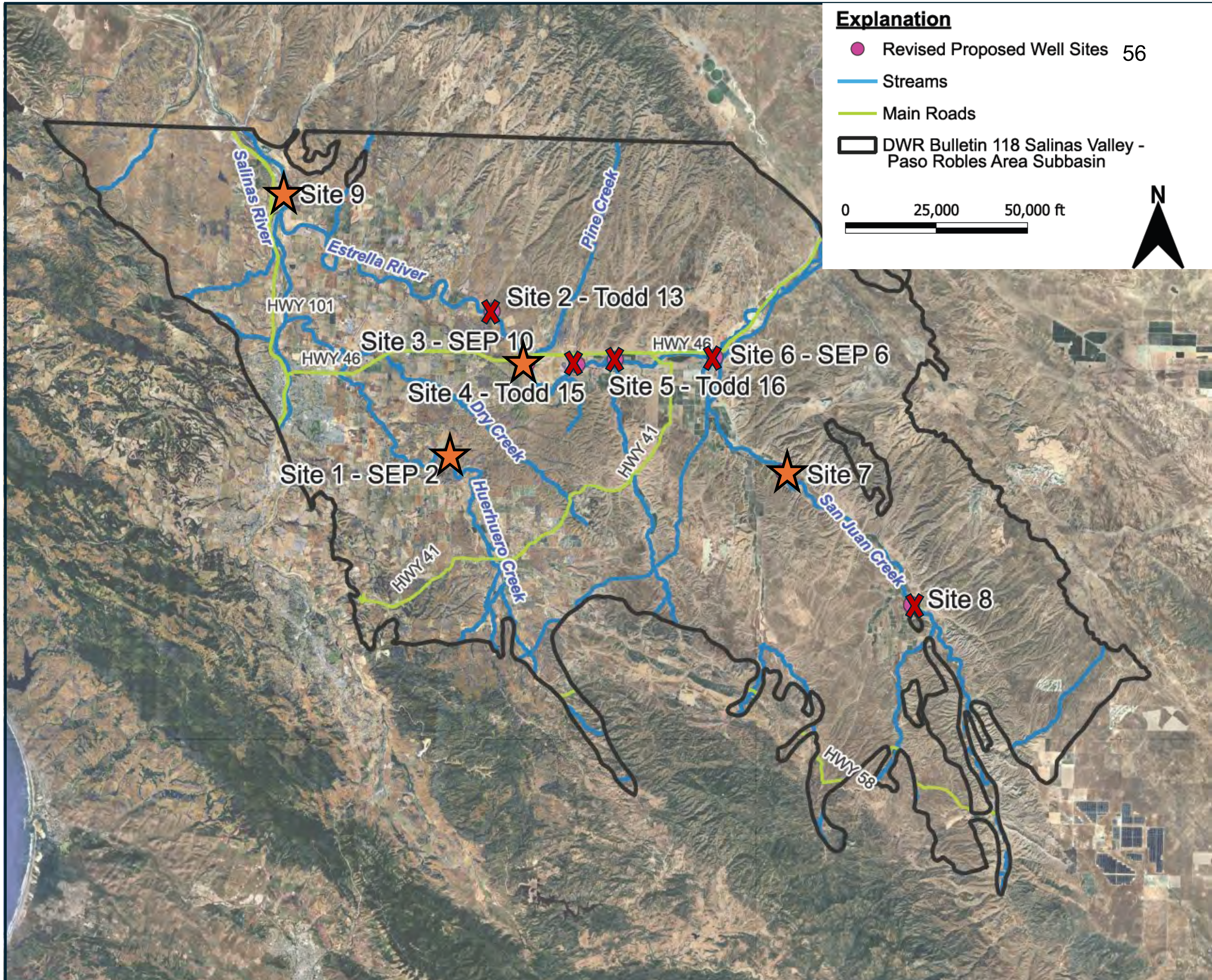
ACTIVE & PLANNED CONTINUOUS MONITORING



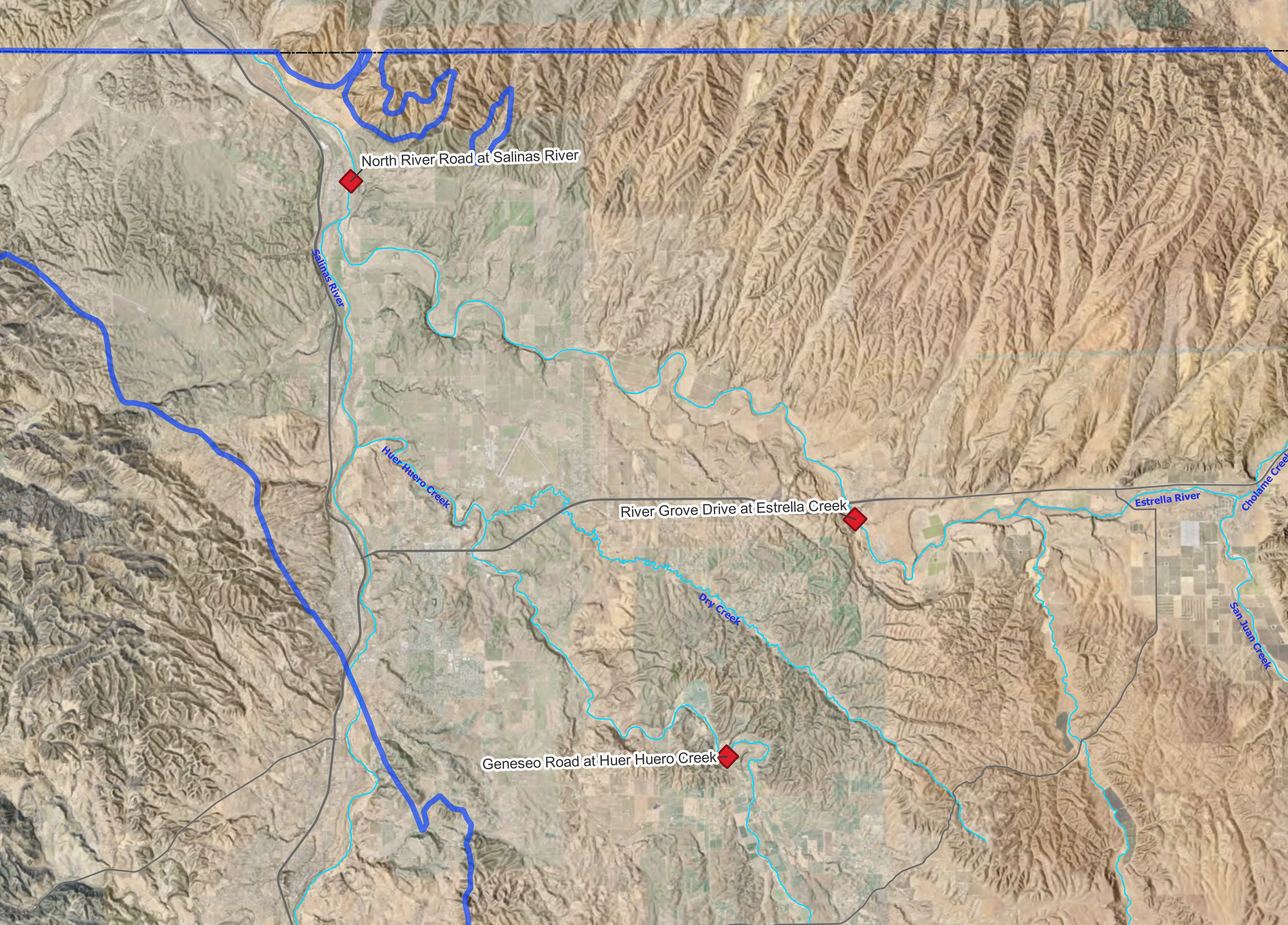
37 wells (yellow circles) are planned to have continuous monitoring equipment (i.e. transducers), for a total of **49 wells** to be continuously monitored.

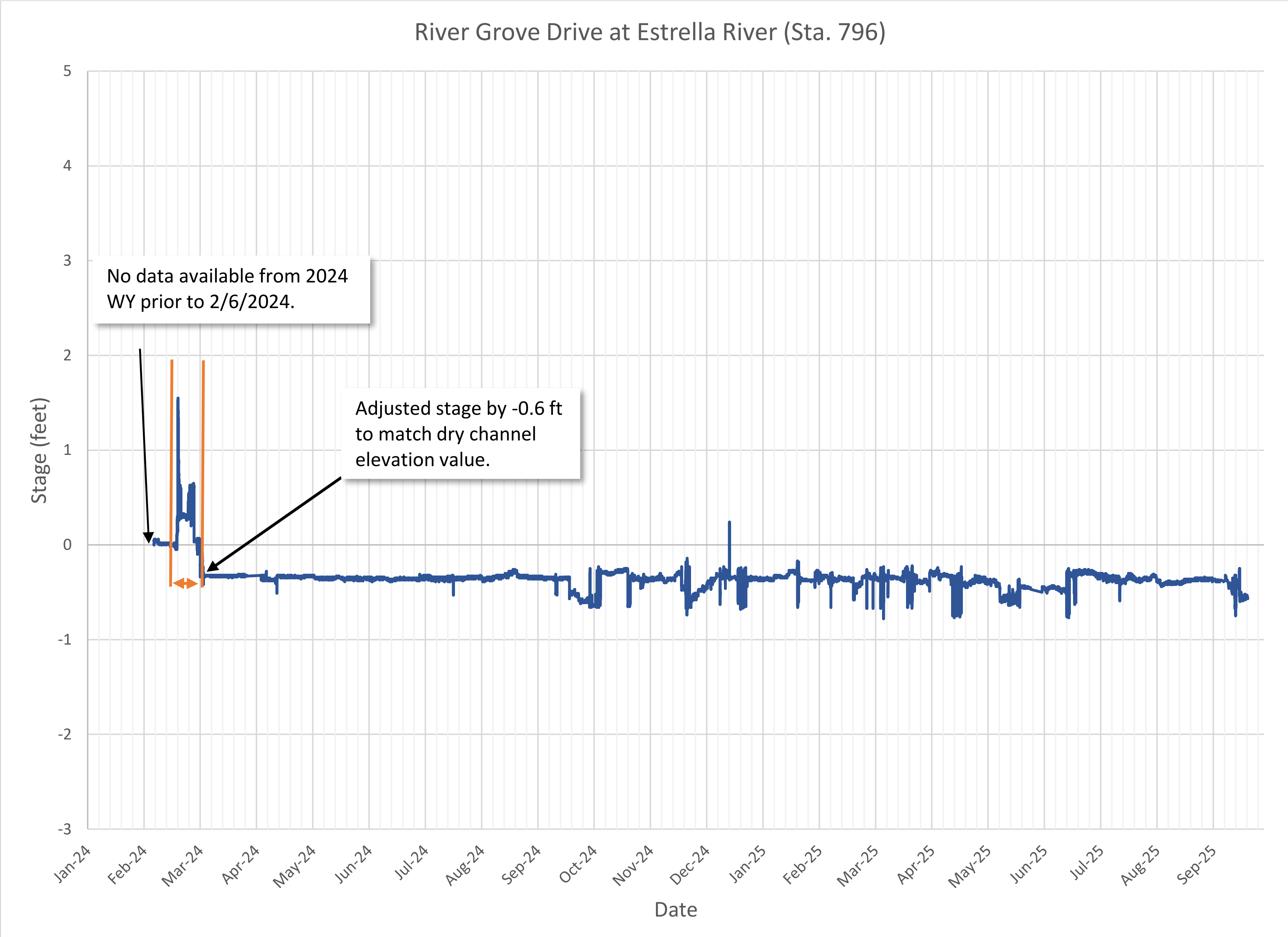
Alluvial Well Sites

- Eight (8) Sites were initially identified for alluvial wells.
- Several additional sites were evaluated due to lack of successful easement negotiations, and the project is moving forward with **four (4) sites**.

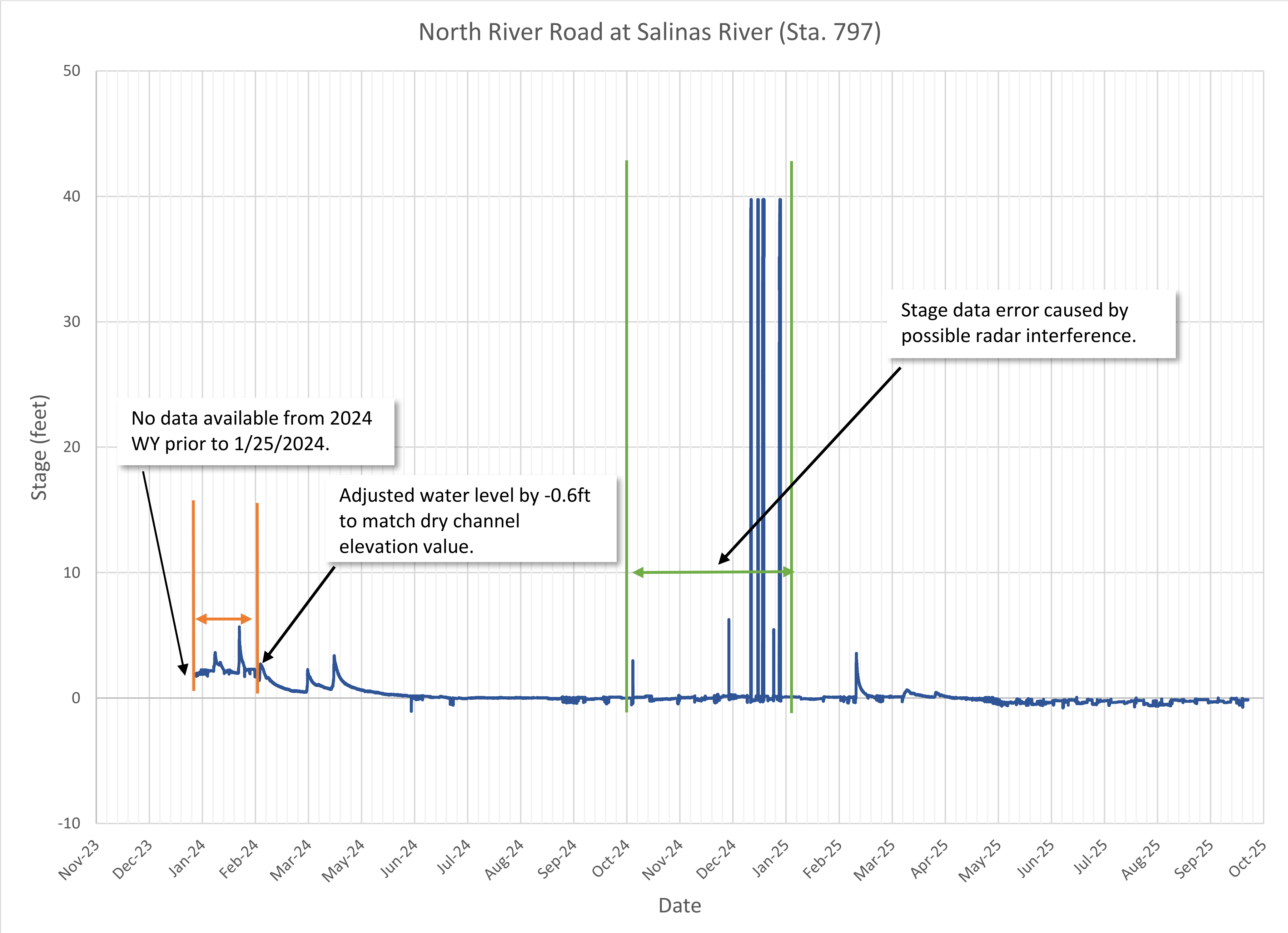


Appendix J: SEP Stream Gage Data

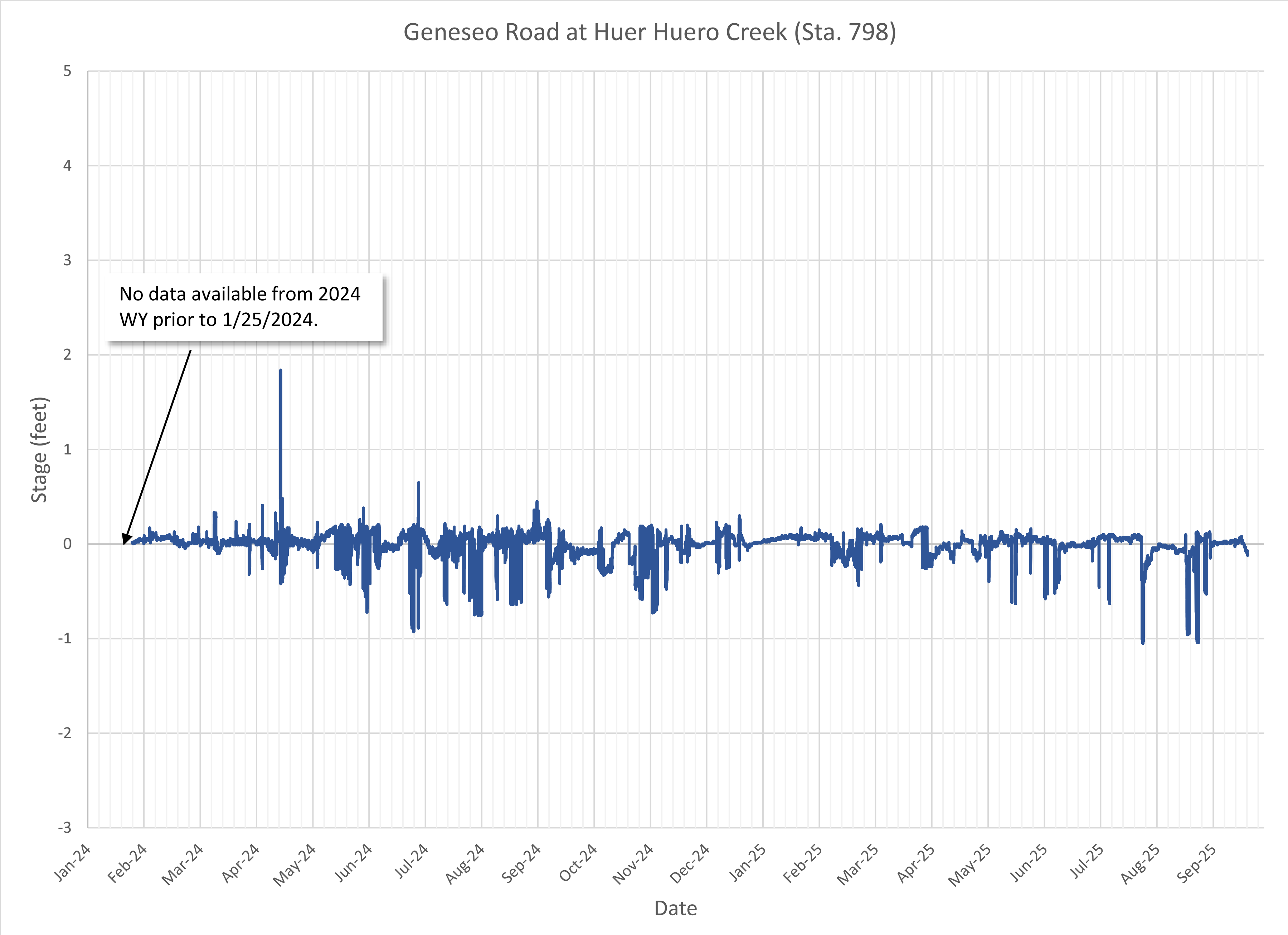

North River Road at Salinas River
Salinas River
Huer Huero Creek
River Grove Drive at Estrella Creek
Estrella River
Cholame Creek
Dry Creek
San Juan Creek
Geneseo Road at Huer Huero Creek



River Grove Drive at Estrella River (Sta. 796)
Stage (feet)
5
4
3
2
1
0
-1
-2
-3
No data available from 2024 WY prior to 2/6/2024.
Adjusted stage by -0.6 ft to match dry channel elevation value.
Jan-24
Feb-24
Mar-24
Apr-24
May-24
Jun-24
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
Jul-25
Aug-25
Sep-25
Date



North River Road at Salinas River (Sta. 797)
Stage (feet)
50
40
30
20
10
0
-10
Nov-23
Dec-23
Jan-24
Feb-24
Mar-24
May-24
Jun-24
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
Jul-25
Aug-25
Sep-25
Oct-25
Date
No data available from 2024 WY prior to 1/25/2024.
Adjusted water level by -0.6ft to match dry channel elevation value.
Stage data error caused by possible radar interference.


Geneseo Road at Huer Huero Creek (Sta. 798)
5
4
3
2
1
0
-1
-2
-3
Stage (feet)
No data available from 2024 WY prior to 1/25/2024.
Jan-24
Feb-24
Mar-24
Apr-24
May-24
Jun-24
Jul-24
Aug-24
Sep-24
Oct-24
Nov-24
Dec-24
Jan-25
Feb-25
Mar-25
Apr-25
May-25
Jun-25
Jul-25
Aug-25
Sep-25
Date

Appendix K: Paso Robles Subbasin Water Year 2025 Annual Report – Comments and Responses

Paso Robles Subbasin Water Year 2025 Annual Report – Comments and Responses

Commenter	Section	Page/ Figure/ Table	Comment	Response
Chris Winsor	Exec Summary	Pages 16	The tone of this report is an improvement over prior years by avoiding overly optimistic views of success. In particular I applaud the inclusion of the following: •Clearly stating that to address the continuous decline in ground water levels the basin needs either more water imports or a reduction in ground water extraction •Description of distinct management zones in the Compartmentalization section that may warrant individual management actions to address declining ground water levels in the areas of highest concern However, since many readers may only read the Executive Summary it should also state that to date no water import projects have been identified that will materially benefit that basin in meeting sustainability. It should also state that because of the basins compartmentalization it is likely that a "one size fits all" approach will not work in the Paso basin and that customized solutions for the distinct zones will be necessary.	The Executive Summary has been modified accordingly.
Chris Winsor	Sec. 3.1.4.1 / 4.3.1	Page 51-52	This section identified 3 wells that require an investigation to determine if local actions are required to address the undesirable result. The report states that the expansion of the ground water level monitoring network will address the undesirable results associated with these wells. However, as described in section 4.3.7, the DWR has requested mitigation strategies to avoid new dry wells between GSP development and achieving sustainability. Using available data from existing wells and the newly added 75 wells, section 3.1.4.1 should include short term actions and/or conclusions to avoid new dry wells. Further, this section should address the timeline to identify the Measurable Objectives and Minimum Thresholds for each of the newly added 75 wells.	Text has been modified accordingly. Relevant text added to 4.3.7 instead of 3.1.4.1
Chris Winsor	Sec. 4.2	Page 45	This section states additional new projects and actions will be implemented to continue progress towards avoiding undesirable results. The reality is however, that there are no current or future actions or projects that will result in sustainability other than ground water extraction reductions. As such, a plan and/or flow chart should be included that outlines critical path issues that need to be addressed in the short-term. Key critical path issues might include: •How to measure required ground water reductions •How to identify the location and the magnitude of ground water reductions •How will reductions be enforced •How to develop and share agricultural best practices for land repurposing At this time, it appears to a reader of this update that the GSP plan forward is "hope", hope that voluntary fallowing/wine industry corrections will solve the sustainability issue. Voluntary fallowing may resolve declining water levels in some areas of the basin but it will not likely be a basin wide solution. As noted above a flow chart is needed to illustrate to the reader and DWR the critical actions and issues that will need to be addressed to reach sustainability.	Comment noted. Beyond what is already in place and documented in the Annual Report, any further plan or policy would have to be at the direction of the Authority. No changes made.
Chris Winsor	Sec. 4.5	Page 54	This section states one of the "wins" for the water year is progress towards implementation of a voluntary fallowing program. Some details of this program should be included in this section or include a reference so the reader can understand the components and hurdles.	These details are already provided in Sec 4.3.5. More progress has been made since the end of WY25. This will be reported in the WY26 report. No changes made.