

December 15, 2025
Project No: 20-10008

Bryan Bondy, PG, CHG
Executive Director
Upper Ventura River Groundwater Agency
202 West El Roblar Drive
Ojai, California 93023
Via email: bbondy@uvrgroundwater.org

**Subject: Annual Data Deliverable Memorandum for 2025 Water Year
Upper Ventura River Groundwater Agency, Ventura County, California**

Dear Mr. Bondy:

Rincon Consultants, Inc. (Rincon) has prepared the attached Annual Data Deliverable Memorandum for the 2025 Water Year (October 1, 2024, through September 30, 2025) for groundwater elevation monitoring activities performed at seventeen monitoring wells located within the Upper Ventura River Groundwater Basin in Ventura County California. This memorandum includes data from October 1, 2024, through November 21, 2025. The memorandum was prepared for the Upper Ventura River Groundwater Agency (UVRGA) under the supervision of a licensed California Professional Geologist and in accordance with UVRGA's *Monitoring and Data Collection Protocols and Data Quality Control Review Procedures*.

We are pleased to support UVRGA on this important project and look forward to discussing any questions you may have regarding the data presented in this report.

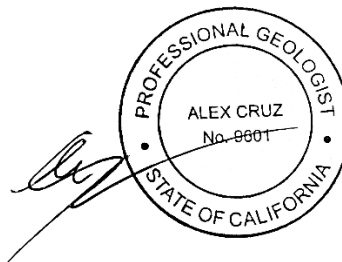
Sincerely,
Rincon Consultants, Inc.



Emily McCord
Watershed Scientist



Kiernan Brtalik, CPSWQ, QSD/P
Director, Watershed Sciences



Alex Cruz, PG
Senior Environmental Geologist



Annual Data Deliverable Memorandum 2025 Water Year

Groundwater Level Monitoring Ventura County, California

prepared for
Upper Ventura River Groundwater Sustainability Agency

prepared by
Rincon Consultants, Inc.

December 15, 2025

Table of Contents

1	Introduction	1
2	Monitoring Data Summary	5
2.1	Quality Assurance and Control Observations	5
2.2	County of Ventura Manual Measurements	7
3	References	14

Tables

Table 1	Groundwater Monitoring Well Information	4
---------	---	---

Figures

Figure 1	Groundwater Monitoring Well Locations	3
Figure 2a	Groundwater Depth Below Reference Points – Kennedy, Miramonte/Meiners Oaks, and Robles Hydrogeologic Areas	8
Figure 2b	Groundwater Depth Below Reference Points – Santa Ana Hydrogeologic Area	9
Figure 2c	Groundwater Depth Below Reference Points – Casitas Hydrogeologic Area	10
Figure 3a	Groundwater Elevation – Kennedy, Miramonte/Meiners Oaks, and Robles Hydrogeologic Areas	11
Figure 3b	Groundwater Elevation – Santa Ana Hydrogeologic Area	12
Figure 3c	Groundwater Elevation – Casitas Hydrogeologic Area	13

Appendices

Appendix A	Field Data Sheets
Appendix B	Raw Pressure Transducer Data (Provided Electronically)
Appendix C	Processed Pressure Transducer Data (Provided Electronically)

This page intentionally left blank.

1 Introduction

This Annual Data Deliverable Memorandum (memorandum) for the 2025 Water Year (October 1, 2024 through September 30, 2025) presents data collected between October 1, 2024, and November 21, 2025 from a network of groundwater monitoring wells located within the Upper Ventura River Groundwater Basin (Basin) in Ventura County California (Figure 1). This memorandum was prepared for the Upper Ventura River Groundwater Agency (UVRGA) under the supervision of a licensed California Professional Geologist. Rincon Consultants, Inc. (Rincon) conducted monitoring activities and data collection, as well as preparation of this memorandum in accordance with the UVRGA's *Monitoring and Data Collection Protocols and Data Quality Control Review Procedures*.

The groundwater monitoring program provides groundwater level and elevation data necessary for the implementation of UVRGA's Groundwater Sustainability Plan (GSP). Currently, the project's monitoring network is comprised of a total of 17 wells (Table 1).

In early 2017, UVRGA initially established a monitoring network comprised of six groundwater monitoring wells located throughout the Basin. This monitoring network was expanded in November 2019 by installing pressure transducers two in groundwater monitoring wells located at Foster Park (MW 1 and MW 4). Additionally, in 2019, Meiners Oaks Water District (MOWD) and Ventura River Water District (VRWD) agreed to provide groundwater level data from pressure transducers maintained by those districts in their production wells MOWD # 2 (state well no. 05N23W33B04S) and VRWD No. 5 (state well no. 04N23W15B01S), respectively. As of August 16, 2021, VRWD has made VRWD No. 5 accessible to UVRGA to collect depth-to-water measurements and to download pressure transducer data from the district-owned pressure transducer directly.

The monitoring network was further expanded during the 2024 Water Year, with monitoring resuming at state well no. 03N23W05B01S on November 21, 2023 and the installation of pressure transducers on December 20, 2023, in two wells: state well no. 04N23W32Q01S and a hand dug well that predates the assignment of state well numbers. Additionally in Water Year 2024 on May 15, 2024, a pressure transducer was installed in state well no. 04N23W32C03 and monitoring resumed at state well no. 04N23W20A01S. During the second half of the 2024 Water Year, transducers were installed in two additional wells: County of Ventura monitoring wells TT-2 and TT-8 on September 3, 2024, which are located on the Live Oak Levee.

Two wells were added to the monitoring network during the 2025 Water Year. During the Fall 2024 groundwater data download event, a transducer was installed in City of Ventura observation well OW-2 on November 20, 2024. Additionally, a transducer was installed in Casitas Mutual Water Company's state well no. 03N23W05H01S during the November 2025 download event following modification of the well head to allow for manual water levels and equipment installation. This well will serve as a backup location to state well no. 03N23W05B01S, which is slated for destruction according to the owner.

With the transducer installations that occurred during the 2024 and 2025 Water Years, all groundwater level data gaps identified in the GSP have now been addressed.

As discussed during the previous Semi-Annual Data Deliverable Memorandum (Rincon, 2025), during the semi-annual water level measurements on November 19 and 20, 2024, a California-licensed Professional Land Surveyor conducted a survey of the locations and reference point elevations for all 17 current monitoring network wells. Survey information was incorporated into the prior year data memorandum. Concurrent with these activities, Rincon replaced six (6) UVRGA-

owned transducers and two (2) barometric loggers to ensure that the entire monitoring network is equipped with latest-generation Solinst Canada, Inc. (Solinst) transducer hardware. The following presents a groundwater monitoring well location map (Figure 1) and well information table (Table 1), as well as figures presenting groundwater level as depth-to-water (Figure 2a, through Figure 2c) and groundwater elevation as feet above mean sea level (ft. amsl) using the North American Vertical Datum of 1988 (NAVD 88) (Figure 3a through Figure 3c). Appendices include field data sheets, raw pressure transducer data, and the processed pressure transducer data..

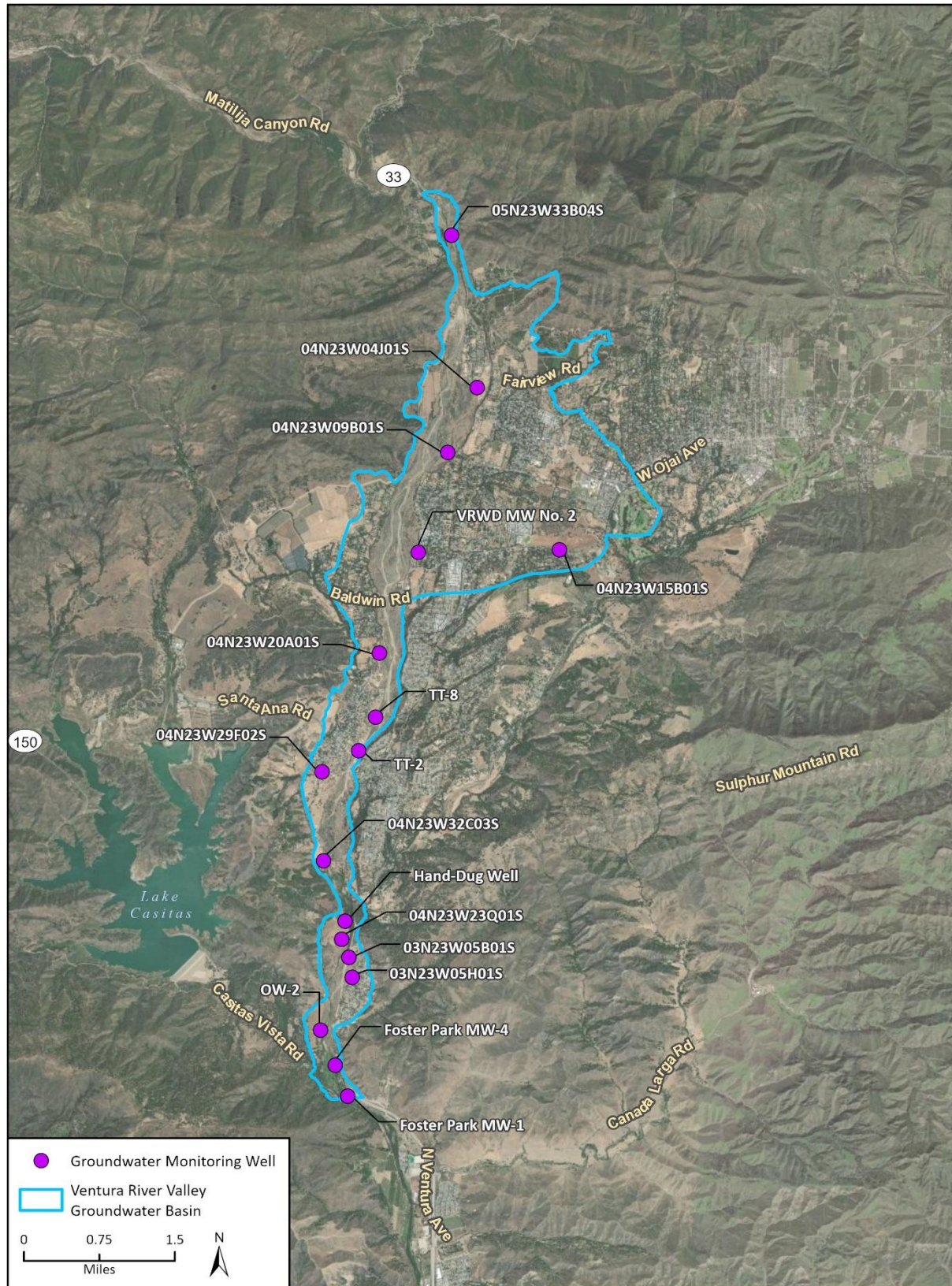
Figure 1 Groundwater Monitoring Well Locations

Table 1 Groundwater Monitoring Well Information

State Well Number	Other Name	Owner	Well Type	Hydrogeologic Area	Data Source	Surveyed Reference Point Elevation (NAVD 88) (ft.)	Coordinates (NAD 83)
05N23W33B04S	MOWD # 2	MOWD	Municipal	Kennedy	MOWD Pressure Transducer	831.97	34.4771809, -119.291636
04N23W04J01S	MOWD # 8	MOWD	Municipal	Robles	UVRGA Pressure Transducer	718.26	34.4552614, -119.2868565
04N23W09B01S	N/A	Private	Agricultural	Robles	Well Owner Pressure Transducer	661.20	34.445844, -119.291794
N/A	VRWD MW No. 2	VRWD	Monitoring	Robles	UVRGA Pressure Transducer	575.70	34.431363, -119.296737
04N23W15B01S	VRWD No. 5	VRWD	Municipal (Inactive)	Mira Monte/ Meiners Oaks	VRWD Pressure Transducer	686.13	34.4320185, -119.2721482
04N23W20A01S	N/A	Private	Agricultural	Santa Ana	UVRGA Pressure Transducer	491.13	34.4168, -119.303224
N/A	TT-8	County of Ventura	Monitoring	Santa Ana	UVRGA Pressure Transducer	437.44	34.407533, -119.303745
N/A	TT-2	County of Ventura	Monitoring	Santa Ana	UVRGA Pressure Transducer	419.78	34.402631, -119.306634
04N23W29F02S	N/A	Private	Domestic/ Agricultural	Santa Ana	UVRGA Pressure Transducer	398.09	34.399551, -119.312975
04N23W32C03S	N/A	Private	Agricultural	Casitas Springs	UVRGA Pressure Transducer	343.84	34.386672, -119.312473
N/A	Hand Dug Well	Private	Domestic	Casitas Springs	UVRGA Pressure Transducer	310.84	34.378005, -119.308624
04N23W32Q01S	N/A	Private	Domestic	Casitas Springs	UVRGA Pressure Transducer	299.66	34.375415, -119.309151
03N23W05B01S	N/A	Private	Domestic	Casitas Springs	UVRGA Pressure Transducer	296.30	34.3728, -119.3079
03N23W05H01S	CMWC ¹	CMWC	Domestic	Casitas Springs	UVRGA Pressure Transducer	283.13	34.369945, -119.307238
N/A	OW-2	City of Ventura	Observation	Casitas Springs	UVRGA Pressure Transducer	254.97	34.36207, -119.3127
N/A	Foster Park MW-4	City of Ventura	Monitoring	Casitas Springs	UVRGA Pressure Transducer	242.84	34.3572222, -119.310
N/A	Foster Park MW-1	City of Ventura	Monitoring	Casitas Springs	UVRGA Pressure Transducer	227.23	34.3527778, -119.307778

CMWC – Casitas Mutual Water Company

MOWD – Meiners Oaks Water District

UVRGA – Upper Ventura River Groundwater Agency

VRWD – Ventura River Water District

N/A – Not Available

ft. amsl – Feet Above Mean Sea Level

NAD 83 – North American Datum of 1983

NAVD 88 – North American Vertical Datum of 1988

¹ CMWC Transducer installed 11/21/2025; no data collected during this monitoring period

2 Monitoring Data Summary

As part of the 2025 Water Year annual monitoring period, Rincon conducted field monitoring activities on May 15, 2025, May 29, 2025, June 4, 2025, November 12, 2025 and November 21, 2025. During the field monitoring events, manual depth-to-water measurements were collected, and pressure transducer data were downloaded.

Manual depth-to-water measurements are provided as Appendix A. Raw pressure transducer data are provided as Appendix B. Processed data, including a compilation of raw pressure transducer level data are provided as Appendix C. The processed data (Appendix C) includes a metadata and Quality Assurance and Quality Control (QA/QC) worksheet to summarize the processed data file deliverable, raw data processing activities, and QA/QC considerations.

Pressure transducer data recorded by Solinst Levelloggers were exported to Microsoft Excel to process groundwater level and elevation. Groundwater level (depth to groundwater) was calculated by subtracting raw pressure transducer level data from the effective logger depth for each pressure transducer.¹ Groundwater elevation was calculated by subtracting the groundwater level from the reference point elevation, which is typically at the top of well casing. Groundwater level data provides insight into how groundwater changes in relation to the land surface, whereas elevation data can provide insight into the direction of groundwater flow and gradient. Groundwater levels are presented in Figure 2a through Figure 2c, and groundwater elevations are presented in Figure 3a through Figure 3c. For presentation purposes, these figures present monitoring wells located in the Kennedy, Mira Monte/Meiners Oaks, and Robles Hydrogeologic Areas, Santa Ana Hydrogeologic Area, and Casitas Springs Hydrogeologic Area respectively. Hydrogeologic Areas are defined in the Upper Ventura River Valley Basin Groundwater Sustainability Plan (Bondy Groundwater Consulting, Inc. et al., 2022).

2.1 Quality Assurance and Control Observations

The following provides a summary of specific QA/QC observations for the second half of the 2025 Water Year that were identified during the preparation of this data deliverable. A list of QA/QC comments is provided in the “MetaData and QAQC” tab of Appendix C.

Barometric Compensation

As summarized in previous reports and most recently in the 2025 Semi-Annual Data Deliverable (Rincon Consultants, 2025), Rincon understands that the effect of barometric fluctuations on groundwater levels do not greatly affect the evaluation of long-term trends in these groundwater monitoring wells; therefore, groundwater pressure transducer data were not barometrically compensated. However, barometric pressure is measured continuously using Solinst Barologgers at two locations in the basin, and these data are available for data compensation if determined necessary by UVRGA.

The barometric pressure recorded at the sites between October 1, 2024, and November 12, 2025, had a range of 3.7 kilopascals (kPa) (98.6 – 102.3 kPa), a range equivalent to approximately 1.3 feet

¹ This effective logger depth is developed using raw pressure transducer level data (including both water pressure and atmospheric pressure) and manual depth to water measurements.

of water. Groundwater level fluctuations during this period were on the order of 5 feet or more. As indicated above, groundwater pressure transducer data were not barometrically compensated, which was noted in the 2018 report (Kear Groundwater, 2018) and the processed data file included in the 2020 report (Kear Groundwater, 2020). For purposes of consistency, Rincon followed previous data processing procedures and did not compensate for barometric fluctuations.

Data Calibration at State Well No. 04N23W29F02S, State Well No. 04N23W15B01S (VRWD No. 5), VRWD MW No. 2, Foster Park MW #1, and Foster Park MW #4

During the November 2024 data download, new transducers and cables were installed at state well no. 04N23W29F02S, 04N23W15B01S (VRWD No. 5), VRWD MW No. 2, Foster Park MW #1, and Foster Park MW #4. Data from this download event through the remaining monitoring period were calibrated to manual water levels taken by Rincon, either during the Fall 2024 or the Spring 2025 download event, to account for the change of transducer depth following deployment of the new equipment. Manual levels for recalibration were chosen based on the highest confidence of manual level data accuracy between the Fall 2024 or Spring 2025 at each well.

Data Calibration at State Well No. 04N23W32C03S

During the November 2024 data download, the transducer at state well no. 04N23W32C03S was reinstalled following well pump replacement. Data from this download event through the remaining monitoring period were calibrated to the manual water level taken by Rincon in May 2025 to account for a change of transducer depth following redeployment of the transducer.

Data Shift Removal at State Well No. 03N23W05B01S

During the November 2024 data download, the direct read cable at state well no. 03N23W05B01S became entangled with the well pump and the transducer was unable to be downloaded. The cable was disentangled and replaced in the well on January 29, 2025. Data following this replacement were shifted for approximately 24 hours following this replacement, indicating the transducer depth may have been affected by the pump during this period. Data during this event were recalibrated by subtracting the calculated change in effective transducer depth.

Data Calibration and Data Shift Removal at State Well No. 04N23W04J01S (MOWD #8)

During the November 2024 data download, a new transducer was installed at state well no. 04N23W04J01S. Data from this download event through the remaining monitoring period were calibrated to the manual water level taken by Rincon in November 2024 to account for a change of transducer depth following redeployment of the transducer.

On January 8, 2025, data from the well indicate that the transducer was briefly removed from the well, and the transducer had a slight change in effective depth following replacement. The May 2025 manual water level was deemed to be erroneous, and data from transducer reinstallation on January 8, 2025, through the remaining monitoring period were recalibrated by subtracting the calculated change in effective transducer depth.

Data Gap at State Well No. 05N23W33B04S (MOWD #2)

MOWD transmitted data to Rincon for MOWD #2 and provided notification of a Supervisory Control and Data Acquisition (SCADA) reporting connection issue that resulted in data loss from April 9, 2025, through May 22, 2025. As observed in the previous monitoring report, Rincon noted that data quality appears to have issues beginning on September 9, 2024, and data from September 9, 2024, through February 26, 2025, were flagged, deemed erroneous, and removed from the record. This is noted in QA/QC documentation accompanying this Memorandum.

Data Calibration at Hand Dug Well

During the May 2025 data download, the transducer at Hand Dug Well was removed to download the data. Data from this download event through the remaining monitoring period were calibrated to the manual water level taken by Rincon in May 2025 to account for a change of transducer depth following reinstallation of the transducer.

Data Gap at TT-2

TT-2 was observed to be dry during the November 2025 data download. Data from August 11, 2025 through the remainder of the monitoring period where the transducer was assumed to not be submerged were removed from the record.

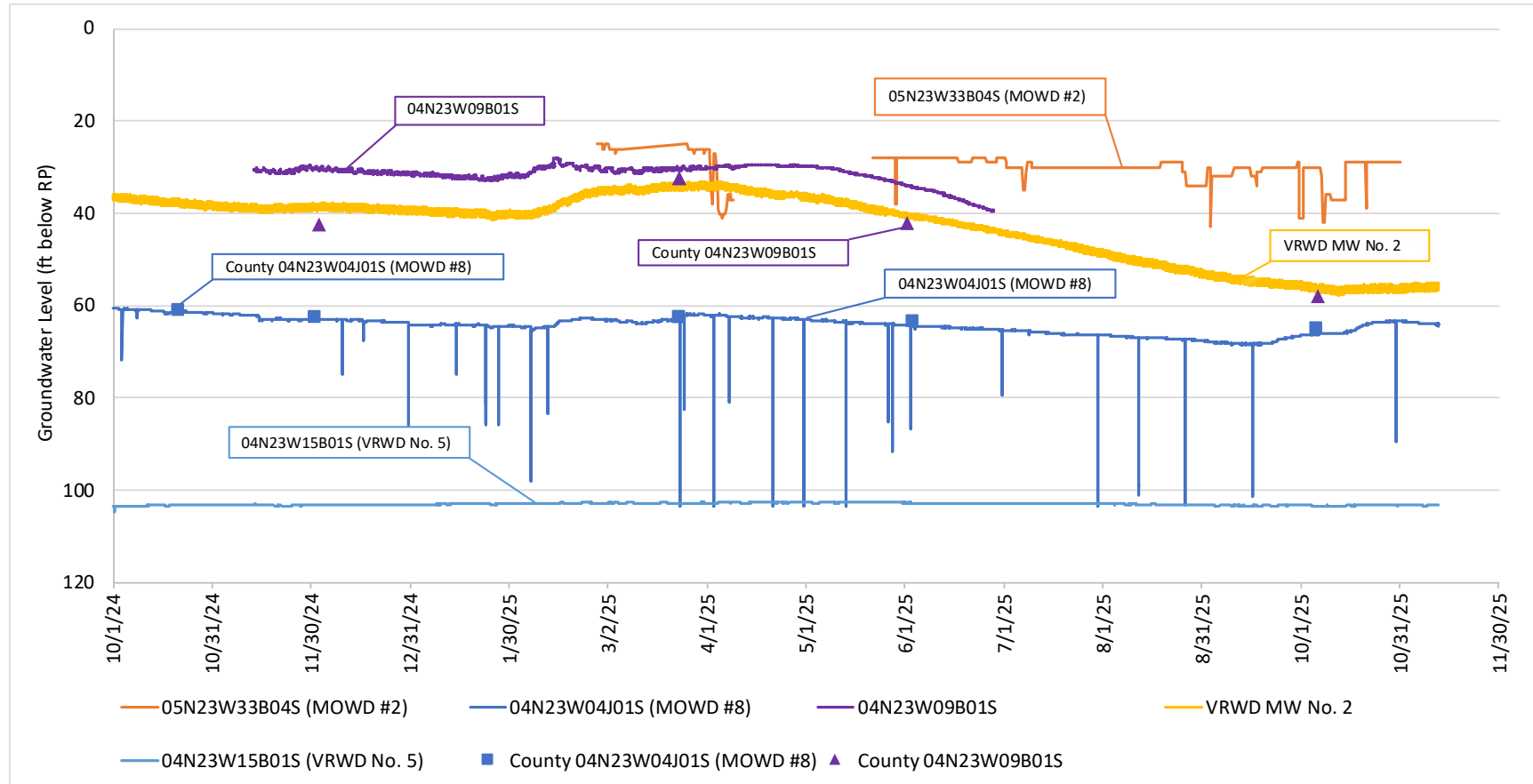
Data Gap at State Well No. 04N23W09B01S

Data downloaded for State Well 04N23W09B01 from the owner provided portal was missing data from June 28, 2025 through the remainder of the monitoring period.

2.2 County of Ventura Manual Measurements

Manual depth to water measurement data collected by the County of Ventura (County) is included in a separate tab in the Processed Pressure Transducer Data file (Appendix C). Groundwater elevations for these manual measurements are calculated using the reference point elevations surveyed in November 2024. These data are presented in the figures below to allow comparison between the County's manual measurements and continuous pressure transducer measurements. This comparison provides an additional layer of QA/QC insight to reveal both similarities and discrepancies in the dataset.

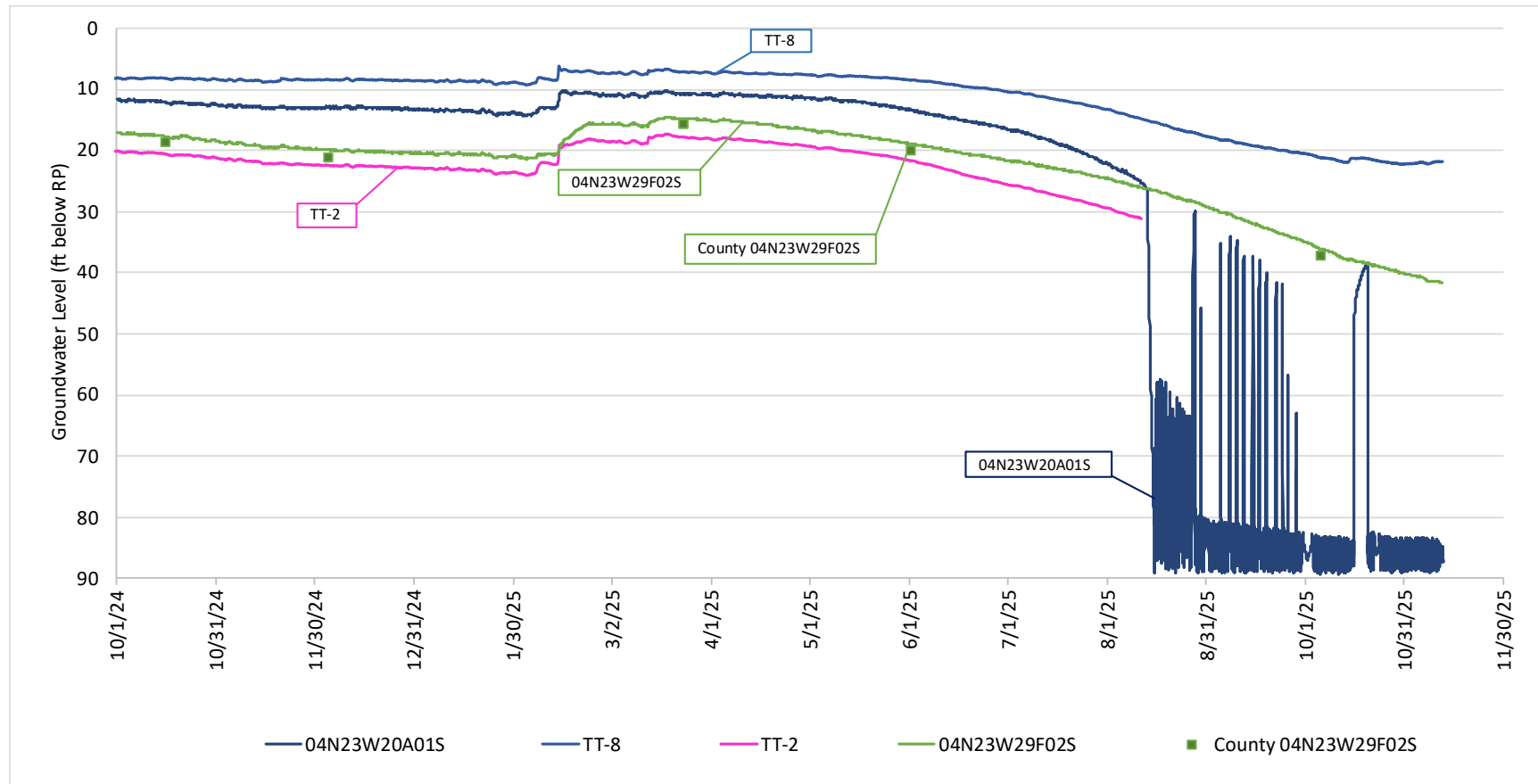
Figure 2a Groundwater Depth Below Reference Points – Kennedy, Miramonte/Meiners Oaks, and Robles Hydrogeologic Areas



Notes:

To present depth to water relative to the monitoring well's reference point (RP) at ground surface, the y-axis is presented in reverse order.

County of Ventura manual depth to water measurements are presented on this chart for quality assurance purposes.

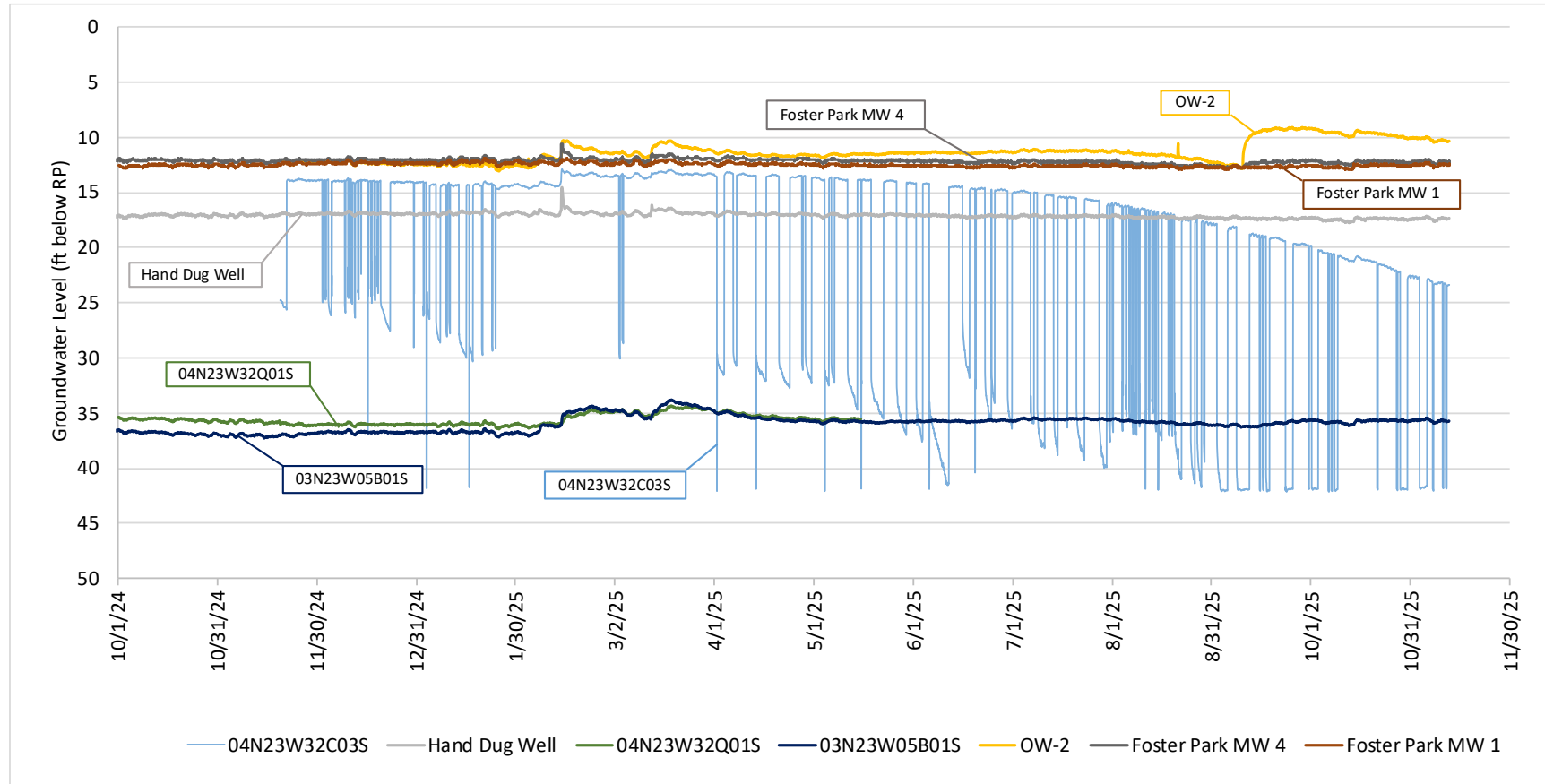
Figure 2b Groundwater Depth Below Reference Points – Santa Ana Hydrogeologic Area**Notes:**

To present depth to water relative to the monitoring well's reference point (RP) at ground surface, the y-axis is presented in reverse order.

County of Ventura manual elevation measurements are presented on this chart for quality assurance purposes.

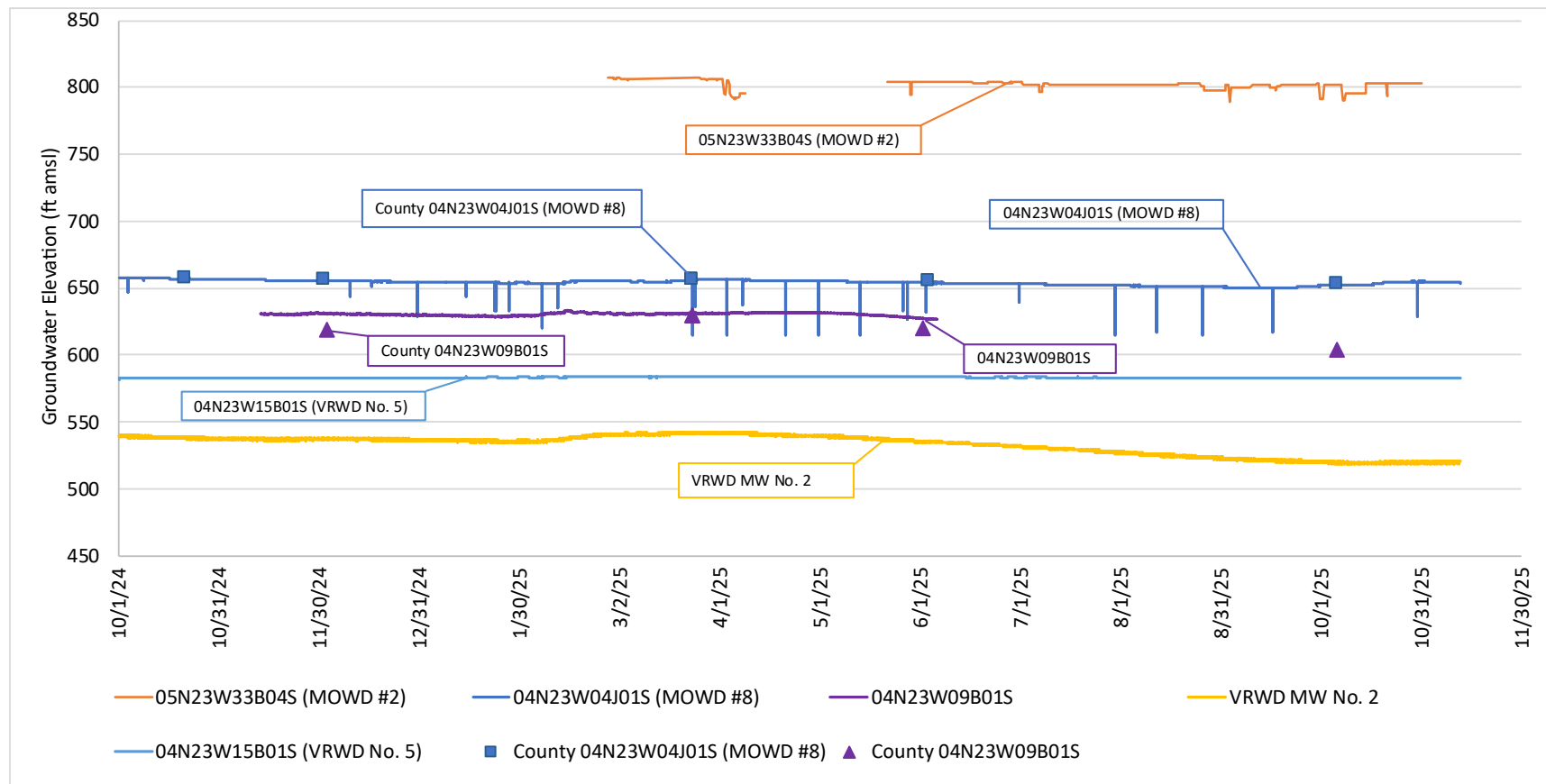
TT-2 was observed to be dry during the November 2025 data download. Data for this well from August 11, 2025 through the remainder of the monitoring period where the transducer was assumed to not be submerged were removed from the record.

Figure 2c Groundwater Depth Below Reference Points – Casitas Hydrogeologic Area



Notes:

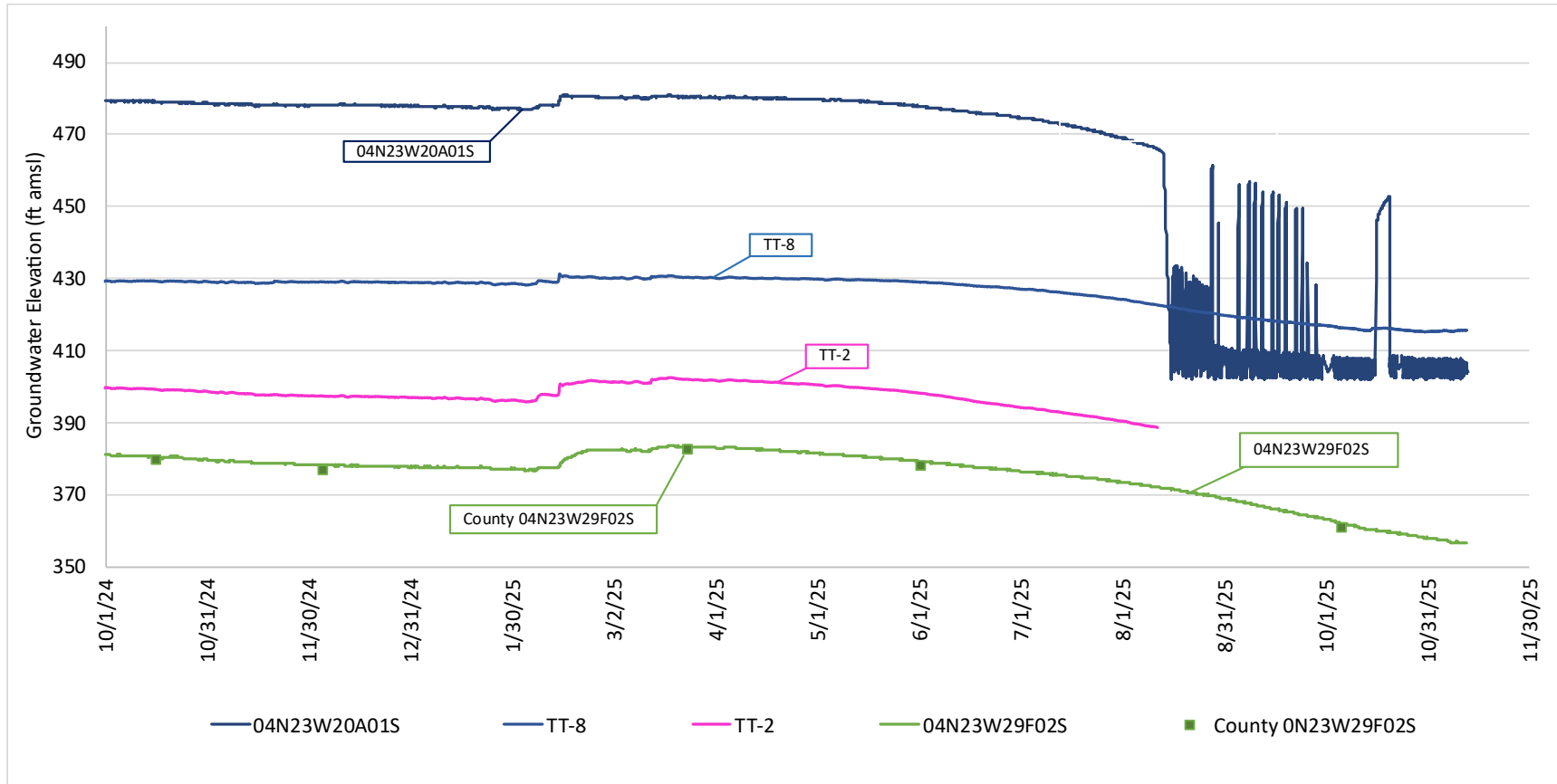
To present depth to water relative to the monitoring well's reference point (RP) at ground surface, the y-axis is presented in reverse order.

Figure 3a Groundwater Elevation – Kennedy, Mira Monte/Meiners Oaks, and Robles Hydrogeologic Areas

Note:

County of Ventura manual elevation measurements are presented on this chart for quality assurance purposes.

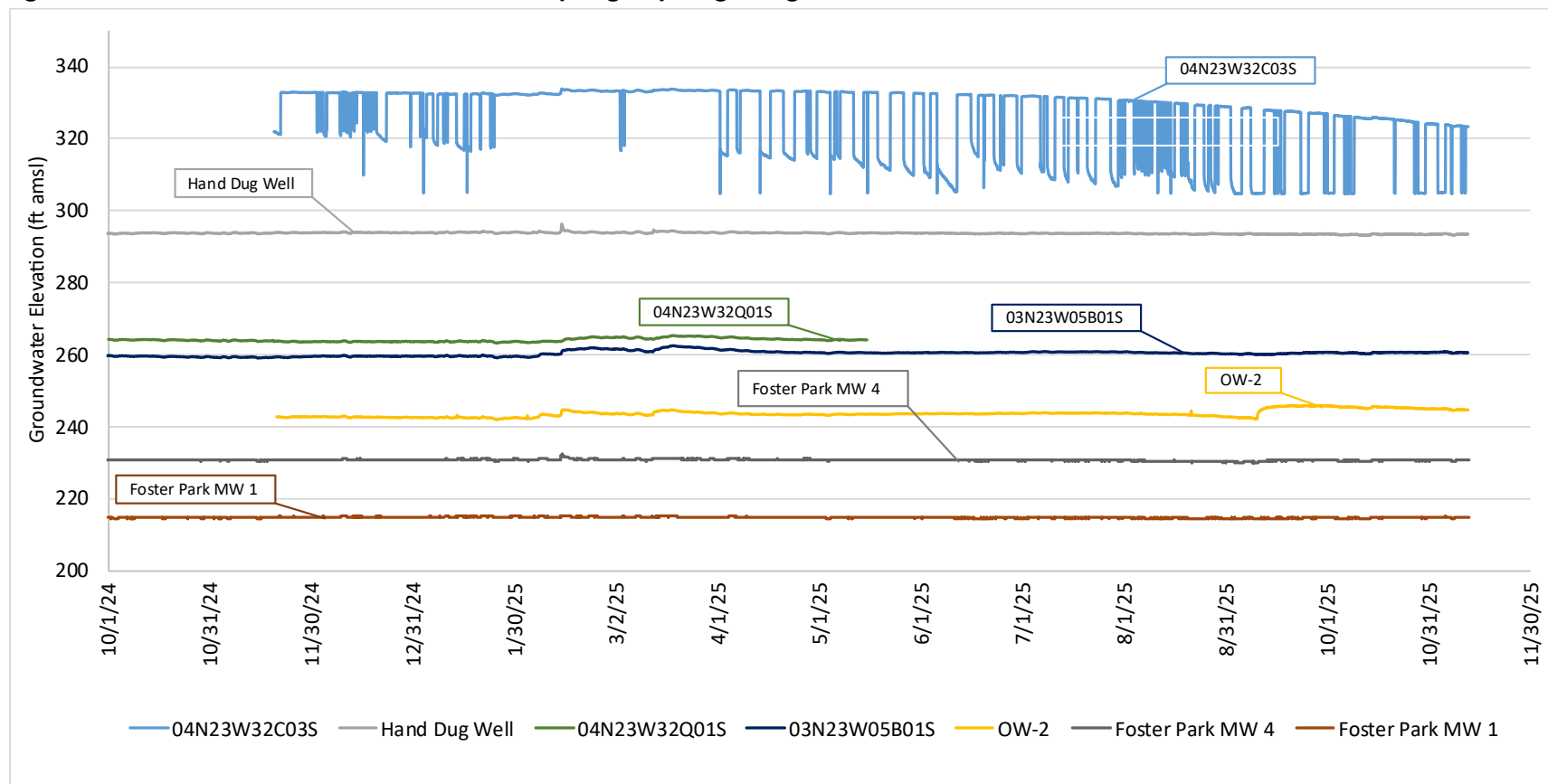
Figure 3b Groundwater Elevation – Santa Ana Hydrogeologic Area



Notes:

County of Ventura manual elevation measurements are presented on this chart for quality assurance purposes.

TT-2 was observed to be dry during the November 2025 data download. Data for this well from August 11, 2025 through the remainder of the monitoring period where the transducer was assumed to not be submerged were removed from the record.

Figure 3c Groundwater Elevation – Casitas Springs Hydrogeologic Area**Notes:**

County of Ventura manual elevation measurements are presented on this chart for quality assurance purposes.

3 References

Bondy Groundwater Consulting, Inc., Intera Incorporated, 2022. *Upper Ventura River Valley Basin Groundwater Sustainability Plan*. January 2022.

Kear Groundwater, 2018. *Report of Groundwater Level and Temperature data, Spring 2017 to Summer 2018 Upper Ventura River Groundwater Basin Ventura County, California*. September 30, 2018.

_____. 2020, *Report of Groundwater Level and Temperature Data, Spring 2017 to September 2019, Upper Ventura River Groundwater Basin, Ventura County, California*. January 31, 2020.

Rincon Consultants, Inc. 2025. *Semi-Annual Data Deliverable Memorandum for the First Half of the - 2025 Water Year*. June 13, 2025.

UVRGA Monitoring and Data Collection Protocols, Updated and Adopted November 13, 2018.

Appendix A

Field Data Sheets



GROUNDWATER LEVEL MEASUREMENT FIELD DATA SHEET

A	B	C	D	E	F	G	H
Well ID	DATE	TIME	RPE (ft amsl)	OFFSET (ft)	DTW (ft)	GWE (ft amsl)	Notes
<i>Researched</i>	<i>Record</i>	<i>Record</i>	<i>Surveyed</i>	<i>Measured</i>	<i>Measured</i>	<i>D+E-F</i>	
MOWD #8	11/12/2025	11:45	718.26	-	55.14	663.12	
MOWD #2	-	-	831.97	-	-	-	Well data provided by MOWD
04N23W09B01S	-	-	661.20	-	-	-	Well data provided by owner
VRWD MW No. 2	11/12/2025	12:50	575.70	-	56.52	519.18	
04N23W29F02S	11/12/2025	10:45	398.09	-	42.80	355.29	Barologger data downloaded
Foster Park MW-4	11/12/2025	13:20	242.84	-	12.57	230.27	Barologger data downloaded
Foster Park MW-1	11/12/2025	14:00	227.23	-	17.80	209.43	
VRWD #5	11/12/2025	12:20	686.13	-	103.40	582.73	Access provided by VRWD. Measured DTW from ST.
04N23W32Q01S	11/12/2025	9:30	299.66	-	35.50	264.16	Transducer fell off line; unable to be retrieved from well
04N23W32Q01S	11/21/2025	9:37	299.66		32.25	267.41	Reinstalled on 53' stainless steel cable with additional nylon line and sleeves
Hand Dug Well	11/12/2025	9:45	310.84	-	17.13	293.71	
03N23W05B01S	11/12/2025	8:20	296.30	-	35.66	260.64	
04N23W20A01S	11/12/2025	11:15	491.13	-	79.79	411.34	

Upper Ventura River Groundwater Agency
Annual Data Deliverable Memorandum 2025 Water Year

A	B	C	D	E	F	G	H
Well ID	DATE	TIME	RPE (ft amsl)	OFFSET (ft)	DTW (ft)	GWE (ft amsl)	Notes
04N23W32C03S	11/12/2025	10:10	343.84	2.93	17.98	328.79	
03N23W05H01S	11/21/2025	9:05	283.13	-	20.56	262.57	Installed new transducer on 55' direct read cable
TT-2	11/12/2025	10:55	419.78	-	-	-	Dry
TT-8	11/12/2025	7:40	437.44	-	21.90	415.54	
OW-2	11/12/2025	9:50	254.97	-	10.19	244.78	
GWE = Groundwater Elevation Ft amsl = Feet Above Mean Sea Level RPE = Reference Point Elevation OFFSET = Offset distance between surveyed reference point and groundwater measurement point. Positive value indicates groundwater level measurement point is above surveyed reference point and vice versa.							

Appendix B

Raw Pressure Transducer Data (Provided Electronically)

Appendix C

Processed Pressure Transducer Data (Provided Electronically)