Cuyama Basin
Groundwater Sustainability Plan—
Final Annual Report for 2024-2025 Water Year

Prepared by:

Woodard & Curran

March 2026

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Abbreviations and Acronyms

AF	acre-feet
CBGSA	Cuyama Basin Groundwater Sustainability Agency
CBWD	Cuyama Basin Water District
CBWRM	Cuyama Basin Water Resources Model
CCSD	Cuyama Community Services District
DMS	Data Management System
DWR	California Department of Water Resources
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
MoOF	
SAC	Standing Advisory Committee
SBCWA	Santa Barbara County Water Agency
SGMA	Sustainability Groundwater Management Act
SR	State Route
TSS	Technical Support Services
USGS	United States Geological Survey

Executive Summary

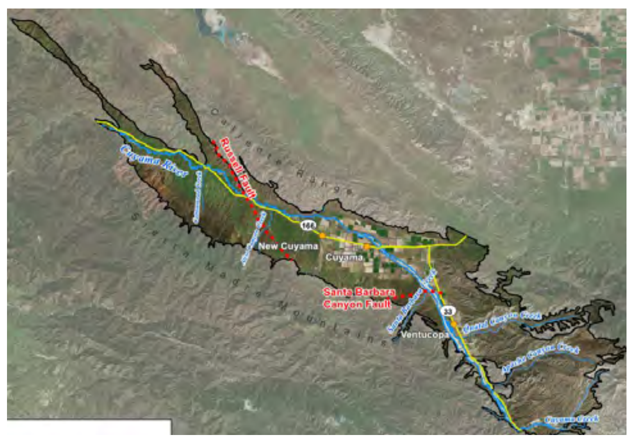
§356.2 (a)	General information, including an executive summary and a location map depicting the basin covered by the report.

ES-1 Introduction

In 2014, the California legislature enacted the Sustainable Groundwater Management Act (SGMA) in response to continued overdraft of California's groundwater resources. The Cuyama Groundwater Basin (Basin) is one of 21 basins and subbasins identified by the California Department of Water Resources (DWR) as being in a state of critical overdraft. SGMA requires that a Groundwater Sustainability Plan (GSP) be prepared to address the measures necessary to attain sustainable conditions in the Cuyama Groundwater Basin. Within the framework of SGMA, sustainability is generally defined as the conditions that result in long-term reliability of groundwater supply and the absence of undesirable results.

In response to SGMA, the Cuyama Basin Groundwater Sustainability Agency (CBGSA) was formed in 2017. The CBGSA is a joint-powers agency that is comprised of Kern, Santa Barbara, San Luis Obispo and Ventura Counties, plus the Cuyama Community Services District and the Cuyama Basin Water District. The CBGSA is governed by an 11-member Board of Directors, with one representative from Kern, San Luis Obispo and Ventura counties, two representatives from Santa Barbara County, one member from the Cuyama Community Services District, and five members from the Cuyama Basin Water District.

Figure ES-1: GSP Plan Area



The Draft Cuyama Basin GSP was adopted on December 4, 2019 by the CBGSA and submitted to DWR on January 28, 2020. SGMA requires that the CBGSA develop a GSP that achieves groundwater sustainability in the Basin by the year 2040.

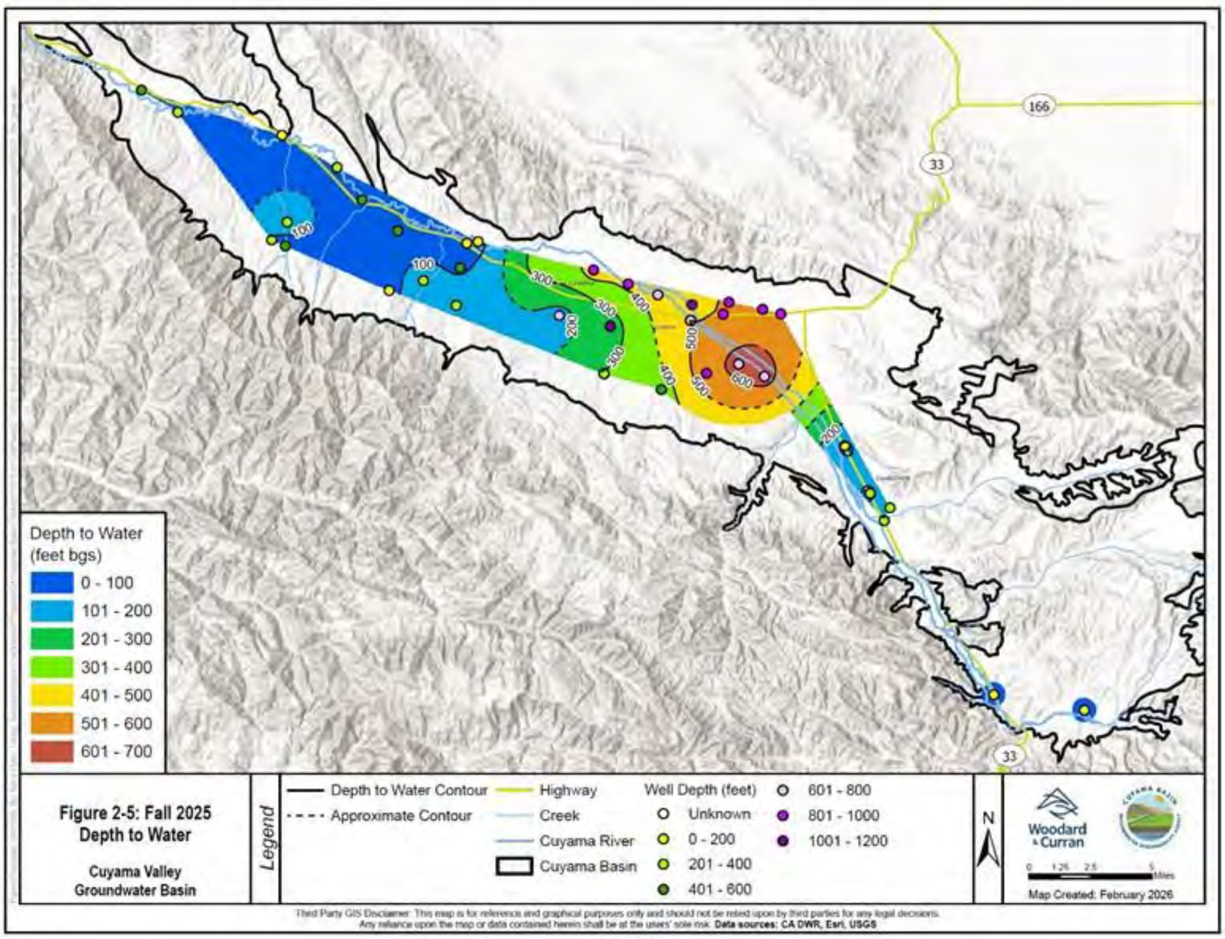
On January 21, 2021, DWR determined that the GSP was "incomplete" and recommended CBGSA to amend the GSP to address four corrective actions. To address these corrective actions, CBGSA developed supplemental sections to the GSP and resubmitted to DWR on July 18, 2022. On March 2, 2023, DWR announced that the Revised GSP had been Approved.

In compliance with SGMA Regulations the 2025 GSP Update was developed and approved by the CBGSA in November of 2024. The 2025 GSP update incorporated recent monitoring data, an updated groundwater model, new information and studies, and updated monitoring networks and sustainable management criteria (SMC). The updated GSP was submitted to DWR on January 29, 2025. The jurisdictional area of the CBGSA is defined by DWR's Bulletin 118, 2013, the 2016 Interim Update, and the latest 2020 update. The Cuyama Groundwater Basin generally underlies the Cuyama Valley, as shown in **Figure ES-1**.

ES-2 Groundwater Levels

The Annual Report for the 2025 water year includes groundwater contours for Spring and Fall of 2025, and updated hydrographs for the groundwater level monitoring network identified in the Cuyama Basin GSP. The Cuyama Basin consists of a single principal aquifer, and water levels in Basin monitoring wells are considered representative of conditions in that aquifer. Groundwater levels in some portions of the Basin have been declining for many years while other areas of the Basin have experienced no significant change in groundwater levels. Groundwater levels vary across the Basin, with the highest depth to water occurring in the central portion of the Basin (**Figure ES-2**). The western and eastern portions of the Basin have generally shallower depth to water. Generally, depth to water and groundwater elevation in 2025 have changed a small amount in the central basin compared to 2024 levels with little change in other parts of the basin.

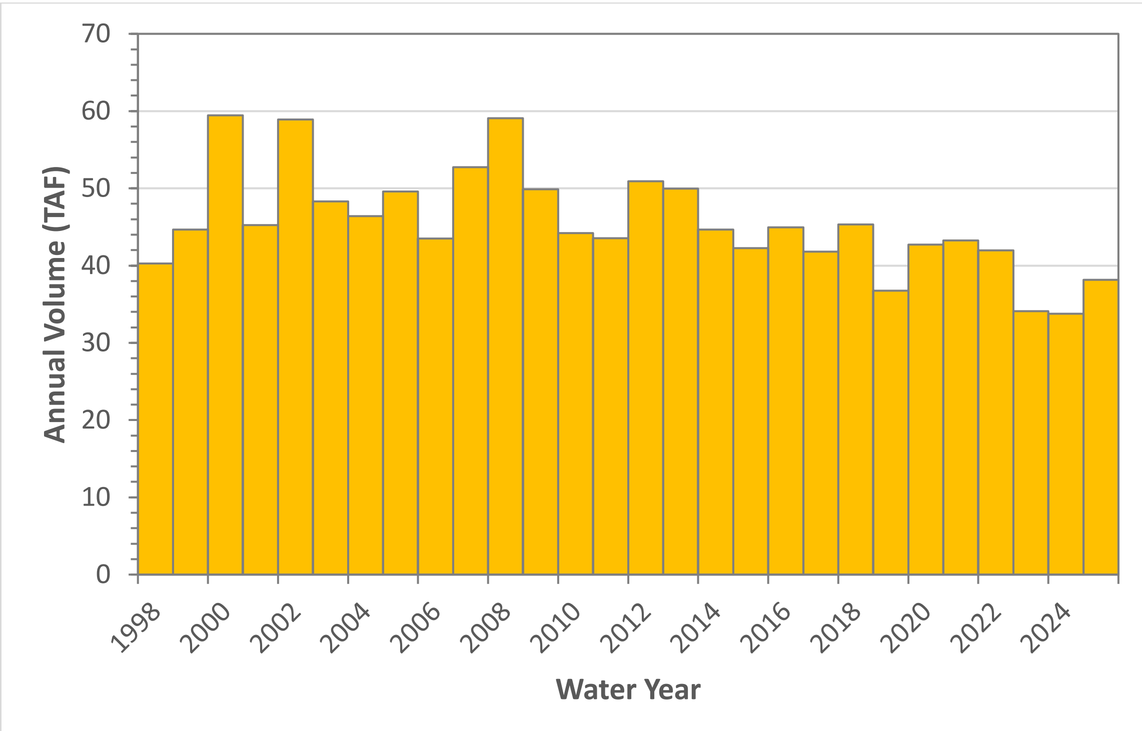
Figure ES-2: Cuyama Basin Depth to Water Contour Map (Fall 2025)



ES-3 Water Use

The Cuyama Groundwater Basin is supplied entirely by groundwater, with minimum surface water use. Groundwater pumping in the Basin is estimated to have been about 38,200 AF in WY 2025. This reflects an increase of about 4,500 AF as compared to WY 2024. (See **Figure ES-3**).

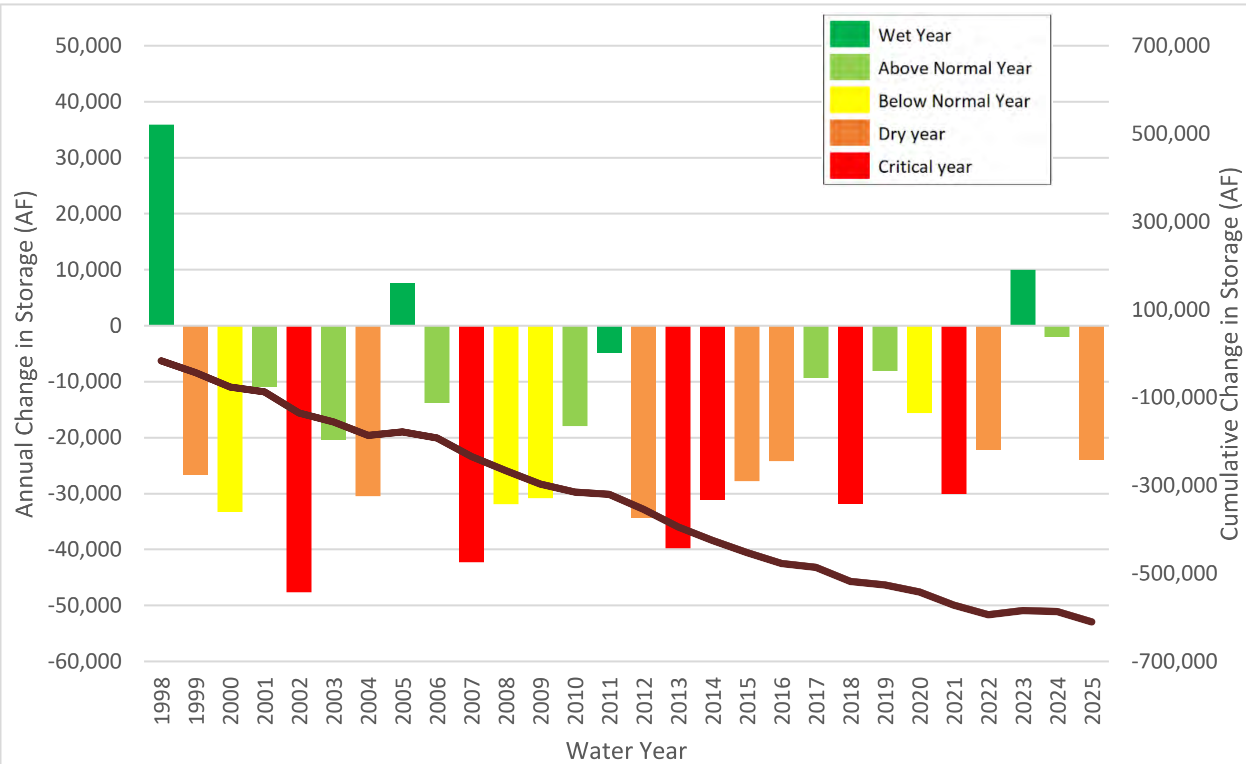
Figure ES-3: Annual Groundwater Extraction in the Cuyama Basin in Water Years 1998-2025



ES-4 Change in Groundwater Storage

It is estimated that there was a decrease in Basin groundwater storage of 23,900 AF in 2025. There continues to be a long-term trend of groundwater storage reduction in the Basin since 1999. **Figure ES-4** shows the historical change in groundwater storage by year, water year type,[1] and cumulative water volume in each year for the period from 1998 through 2025.

Figure ES-4: Change in Groundwater Storage by Year, Water Year Type, and Cumulative Water Volume



[1] Water year types are customized for the Basin watershed based on annual precipitation as follows:

- Wet year = more than 19.6 inches
- Above normal year = 13.1 to 19.6 inches
- Below normal year = 9.85 to 13.1 inches
- Dry year = 6.6 to 9.85 inches
- Critical year = less than 6.6 inches.

ES-5 Groundwater Quality

Only 86% (25 of 29) of monitoring wells were sampled for total dissolved solids (TDS) in 2025. Eight wells exceeded (were better) than their measurable objective, 17 wells were between the measurable objective and minimum threshold, and no wells exceeded (were worse) than the minimum threshold. 14% of wells were not sampled due to access limitations.

ES-6 Land Subsidence

Observed subsidence rates in the Basin are well below the minimum threshold, and thus undesirable results for subsidence are not occurring in the Basin.

ES-7 Plan Implementation

The following plan implementation activities were accomplished in 2025:

- Implementation of a groundwater extraction fee and supplemental fee, which is expected to generate revenue to cover the administrative costs of the CBGSA for the period from July 1, 2025 through June 30, 2026.
- A total of 14 public meetings were conducted at which GSP development and implementation was discussed.
- The Cuyama Basin Groundwater Sustainability Agency (CBGSA) Board continued implementation of the groundwater levels monitoring network, includes quarterly monitoring at each monitoring well.
- The CBGSA continued to utilize the COD SGMA Implementation Grant for $7.6 million in funding for implementation activities.
- The CBGSA and Cuyama Basin Water District (CBWD) continued implementation of management actions in the Central management area.

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Section 1. Introduction

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

1.1 Introduction and Agency Information

This section describes the Cuyama Basin Groundwater Sustainability Agency (CBGSA), its authority in relation to the Sustainable Groundwater Management Act (SGMA), and the purpose of this Annual Report.

This Annual Report meets regulatory requirements established by the California Department of Water Resources (DWR) as provided in Article 7 of the California Code of Regulations, Title 23, Division 2, Chapter 1.5, Subchapter 2.

The CBGSA was created by a Joint Exercise of Powers Agreement among the following agencies:

- Counties of Kern, San Luis Obispo, and Ventura
- Santa Barbara County Water Agency (SBCWA), representing the County of Santa Barbara
- Cuyama Basin Water District (CBWD)
- Cuyama Community Services District (CCSD)

The CBGSA Board of Directors includes the following individuals:

- Steve Jackson – Chairperson, Cuyama Basin Water District
- Arne Anselm – Vice Chair, County of Ventura
- Cory Bantilan – Santa Barbara County Water Agency
- Mark Ellsworth– Cuyama Basin Water District
- Brian Grant – Cuyama Basin Water District
- Jimmy Paulding – County of San Luis Obispo
- Kyle Richardson – Cuyama Basin Water District
- Deborah Williams –Cuyama Community Services District
- Matthew Young – Santa Barbara County Water Agency
- Derek Yurosek – Cuyama Basin Water District
- Katelyn Zenger – County of Kern

The CBGSA's established boundary corresponds to DWR's California's Groundwater Bulletin 118 – Update 2003 (Bulletin 118) groundwater basin boundary for the Cuyama Valley Groundwater Basin (Basin) (DWR, 2003). No additional areas were incorporated.

1.1.1 Management Structure

The CBGSA is governed by an 11-member Board of Directors that meets bi-monthly (i.e. six-times a year). A General Manager manages day-to-day operations of the CBWD, while Board Members vote on actions of the CBGSA; the Board is the CBGSA's decision-making body. The Board also formed a Standing

Advisory Committee comprised of nine stakeholders to provide recommendations to the Board on key technical issues which also meets regularly.

1.1.2 Legal Authority

Per Section 10723.8(a) of the California Water Code, the Santa Barbara County Water Agency (SBCWA) gave notice to DWR on behalf of the CBGSA of its decision to form a GSA, which is Basin 3-013, per DWR's Bulletin 118.

1.1.3 Groundwater Sustainability Plan

The CBGSA Board of Directors approved the first iteration of the Cuyama Groundwater Sustainability Plan (GSP) on December 4, 2019. The GSP was submitted to DWR for approval on January 28, 2020.

On January 21, 2021, DWR determined that the GSP was "incomplete" and recommended CBGSA amend the GSP to address the following four corrective actions:

- Provide justification for, and effects associated with, the sustainable management criteria;
- Use of groundwater levels as a proxy for depletion of interconnected surface water;
- Further address degraded water quality; and
- Provide explanation for how overdraft will be mitigated in the basin.

To address these corrective actions, the CBGSA developed the following supplement sections to the GSP and resubmitted to DWR on July 18, 2022:

- Supplemental Section 2.2.7: Basin Settings, Groundwater Conditions, Groundwater Quality performed additional data collection efforts for nitrate and arsenic measurements.
- Supplemental Section 3.3: Undesirable Results, Evaluation of the Presence of Undesirable Results provided additional information regarding the rationale for the criteria used in the GSP to define the point at which Basin conditions cause significant and unreasonable effects to occur.
- Supplemental Section 4.10: Monitoring Networks, Depletions of Interconnected Surface Water Monitoring Network identifies a subset of groundwater level representative monitoring wells for use in ISW monitoring and provides a rational for their selection and adequate data collection and monitoring for ISWs.
- Supplemental Section 5.2: Minimum Thresholds, Measurable Objectives, and Interim Milestones, Chronic Lowering of Groundwater Levels performed two technical analyses to provide additional information related to the effects of the GSP's groundwater levels minimum thresholds and undesirable results on well infrastructure and on environmental uses of groundwater.
- Supplemental Section 5.5: Minimum Thresholds, Measurable Objectives, and Interim Milestones, Degraded Water Quality provides information on why groundwater management is unlikely to affect nitrate and arsenic concentrations.
- Supplemental Section 7.2: Projects and Management Actions, Management Areas provide additional information regarding the Ventucopa management area and the northwestern region of the Basin.
- Supplemental Section 7.6: Projects and Management Actions, Adaptive Management explains the circumstances of when adaptative management strategies may be also triggered for other reasons.

On March 2, 2023, DWR announced that the Revised GSP had been Approved.

The CBGSA prepared an updated GSP, which was approved in November 2024 and submitted to DWR in January 2025. The updated GSP incorporates newly collected data and updated groundwater model, updated sustainable management criteria, and updates to projects and management actions. The resubmitted 2022 GSP and Updated 2025 GSP are available for viewing online at http://cuyamabasin.org/.

1.2 Plan Area

Figure 1-1 shows the Basin and its key geographic features. The Basin encompasses an area of about 378 square miles[2] and includes the communities of New Cuyama and Cuyama, which are located along State Route (SR) 166, and Ventucopa, which is located along SR 33. The Basin encompasses an approximately 55-mile stretch of the Cuyama River, which runs through the Basin for much of its extent before leaving the Basin to the northwest and flowing toward the Pacific Ocean. The Basin also encompasses stretches of Wells Creek in its north-central area, Santa Barbara Creek in the south-central area, the Quatal Canyon drainage and Cuyama Creek in the southern area of the Basin. Most of the agriculture in the Basin occurs in the central portion east of New Cuyama, and along the Cuyama River near SR 33 through Ventucopa.

Figure 1-2 shows the CBGSA boundary. The CBGSA boundary covers all of the Cuyama Valley Groundwater Basin.

[2] The 2003 version of Bulletin 118 section on the Cuyama Valley Groundwater Basin incorrectly stated that the Basin area is 230 square miles. The estimate of 378 square miles shown here and in the GSP is consistent with the mapping shown on DWR's GSA Map Viewer.

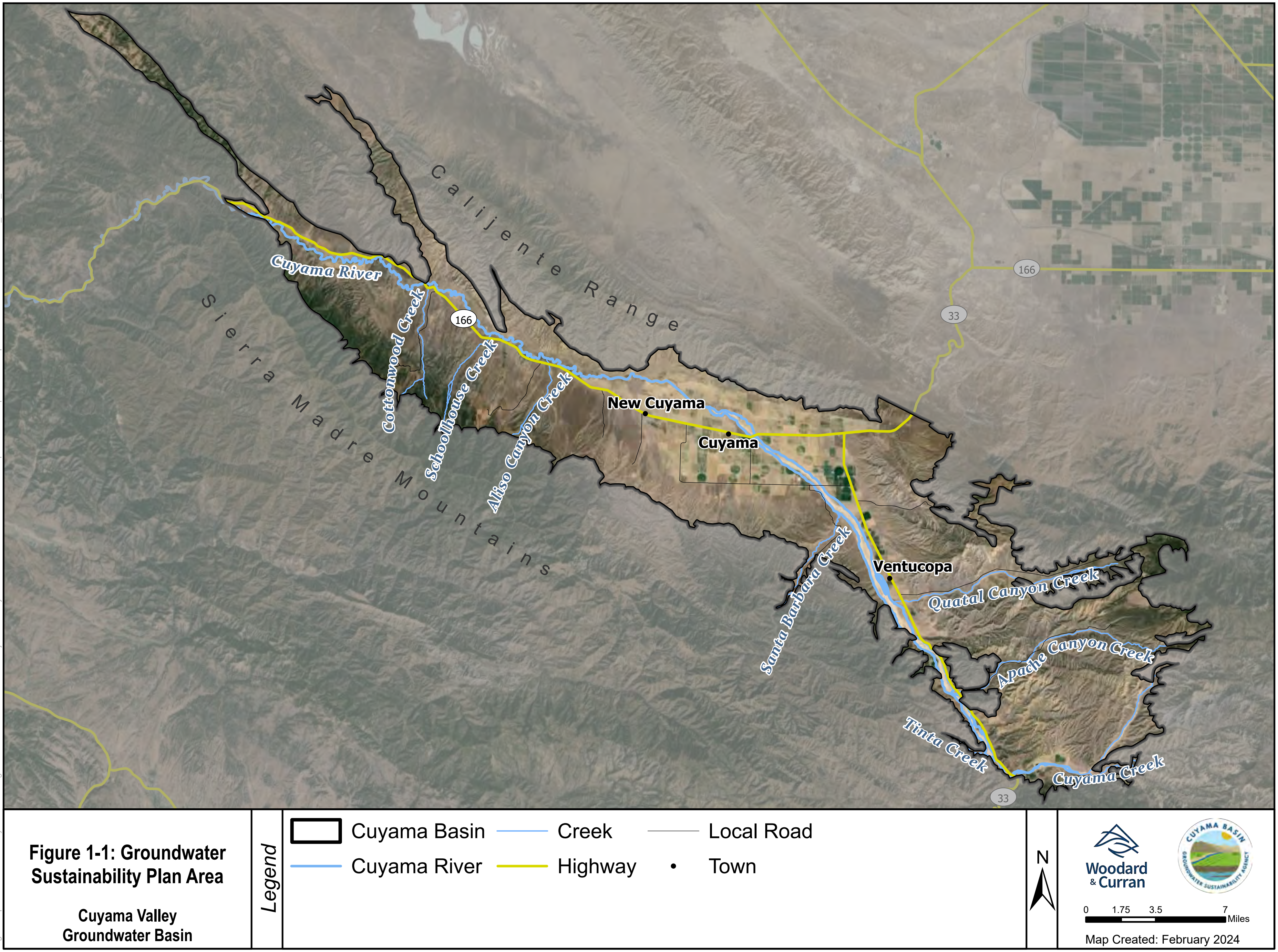

Figure 1-1: Groundwater Sustainability Plan Area

Cuyama Valley Groundwater Basin

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Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data sources: CA DWR, Esri, USGS**

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Figure 1-2: Groundwater Sustainability Agency Boundary

Cuyama Valley Groundwater Basin

Map Created: February 2024

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Section 2. Groundwater Levels

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

2.1 Groundwater Levels Representative Monitoring Network

As required by DWR's SGMA regulations, a monitoring network and representative monitoring network were identified in the Cuyama Basin GSP utilizing existing wells. The current groundwater levels representative monitoring network that was approved by the CBGSA Board is shown on **Figure 2-1.** The Cuyama Basin consists of a single principal aquifer, and water levels in monitoring network wells are considered representative of conditions in that aquifer. The objective of the representative monitoring network is to detect undesirable results in the Basin related to groundwater levels using the sustainability thresholds described in the GSP. Other related objectives of the monitoring network are defined via the SGMA regulations as follows:

- Demonstrate progress toward achieving measurable objectives described in the GSP.
- Monitor impacts to the beneficial uses or users of groundwater.
- Monitor changes in groundwater conditions relative to measurable objectives and minimum thresholds.
- Quantify annual changes in water budget components.
- Monitoring that has occurred on the groundwater level monitoring network since the development of the Cuyama Basin GSP is included in this Annual Report. Collected groundwater level data has been analyzed to prepare contour maps and updated hydrographs, which are presented in the following sections.

In advance of the 2025 GSP Update, the CBGSA Board voted to modify the representative monitoring network to remove two wells for which the CBGSA has not been able to get a landowner agreement. In addition, CBGSA Board approved updated minimum thresholds and measurable objectives that take into consideration beneficial uses and users of groundwater and data collected over the last several years of Basin implementation. These changes have been reflected in the Updated 2025 GSP and in this Annual Report.

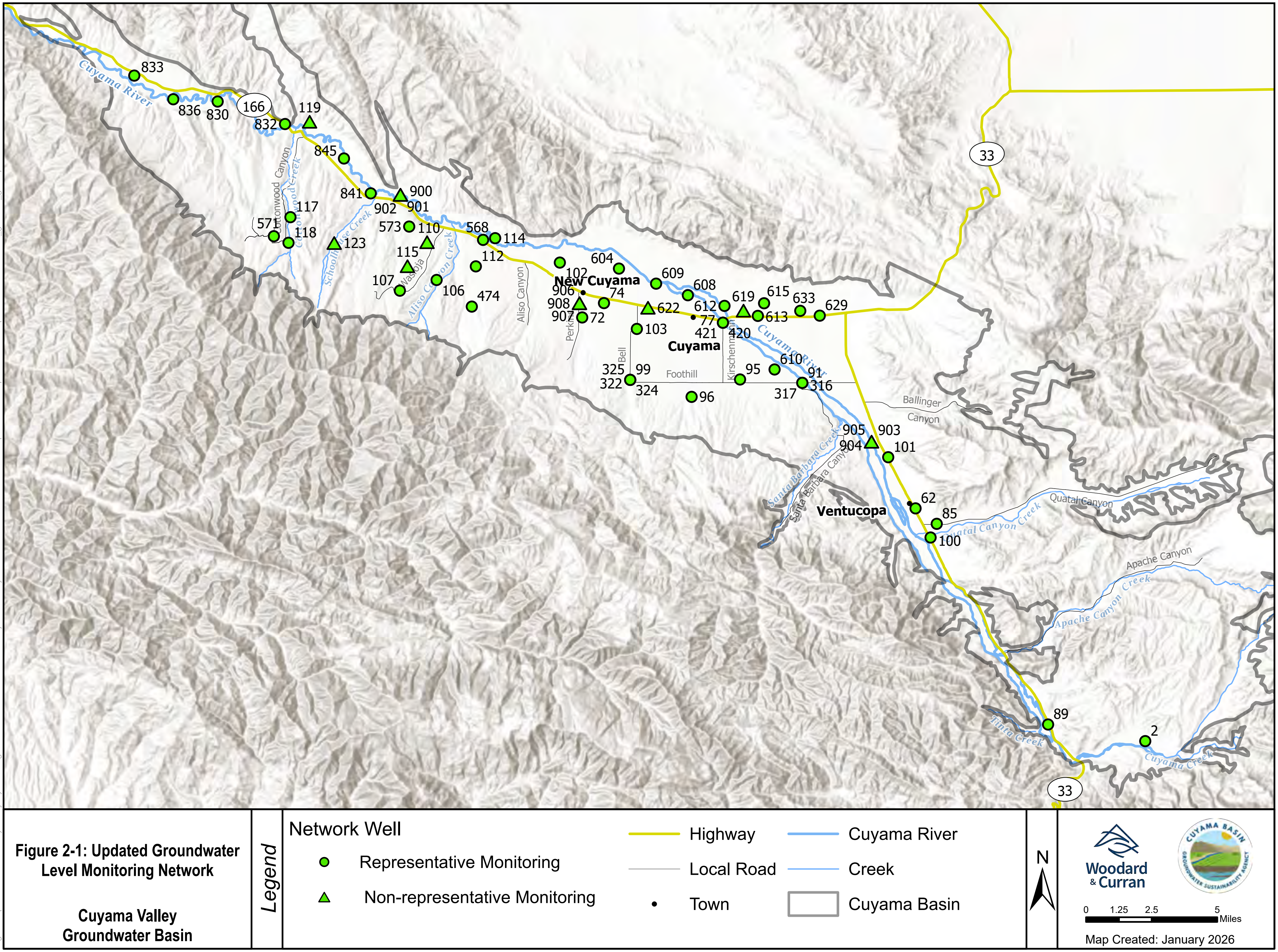

Figure 2-1: Updated Groundwater Level Monitoring Network

Cuyama Valley Groundwater Basin

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2.2 Groundwater Contour Maps

The Updated 2025 GSP submitted in January 2025, included contour maps up through the spring of 2024. The previous Annual Reports included contour maps for spring and fall of 2019 through 2024. For this Annual Report, analysis was conducted to incorporate data through October 2025 that was collected by the CBGSA and local landowners. Data was then added to the Data Management System (DMS) and processed to analyze the current groundwater conditions by creating seasonal groundwater contour/raster maps for the spring and fall of 2025 and hydrographs of Basin monitoring wells.

A contour map shows changes in groundwater elevations by interpolating groundwater elevations between monitoring sites. The elevations are shown on the map with the use of a contour line, which indicates that at all locations that line is drawn, the line represents groundwater at the elevation indicated. There are two versions of contour maps used in this section: one that shows the elevation of groundwater above mean sea level, which is useful because it can be used to identify the horizontal gradients of groundwater, and one that shows contours of depth to water, the distance from the ground surface to groundwater, which is useful because it can identify areas of shallow or deep groundwater.

Analysts prepared groundwater contour maps under the supervision of a Certified Hydrogeologist in the State of California for both groundwater elevation and depth to water for both spring and fall of 2025.

Each contour map is contoured at a 50-foot contour interval, with contour elevations indicated in white numeric label. The groundwater contours were also based on assumptions in order to accumulate enough data points to generate useful contour maps. Assumptions are as follows:

- Measurements from wells of different depths are representative of conditions at that location and there are no significant known vertical gradients. Due to the limited spatial amount of monitoring points, data from wells of a wide variety of depths were used to generate the contours.
- Measurements collected by the CBGSA monitoring program in April 2025 were used to develop the spring contours and in October 2025 to develop the fall contours. It is assumed that these measurements are representative of conditions during the spring or fall season, and conditions have not changed substantially from the time of the earliest measurement used to the latest.

These assumptions generate contours that are useful at the planning level for understanding groundwater levels across the Basin, and to identify general horizontal gradients and regional groundwater level trends. The contour maps are not indicative of exact values across the Basin because groundwater contour maps approximate conditions between measurement points, and do not account for topography. Therefore, a well on a ridge may be farther from groundwater than one in a canyon, and the contour map will not reflect that level of detail.

Figure 2-2 shows groundwater elevation contours for Spring of 2025. Based on data that was collected by local landowners and the CBGSA. The contours developed using the available data show two general trends in the Basin. First, in most of the Basin, groundwater generally reflects the topography of the Basin. For example, groundwater elevations decrease moving from the highest portions of the Valley in the Southeastern portion of the Basin towards the central portion, and groundwater also travels down slope in a northern direction off of the southern foothills towards the Cuyama River. The second trend and potential exception to the first, is the central portion of the Basin where there is a depression and deviation from the topography (more clearly seen in the following figure). Groundwater levels near the town of Cuyama and slightly towards the east are much deeper and do not match the surface topography. There is also a greater decline in groundwater elevations between the Ventucopa area and the central portion of the Basin.

Figure 2-3 shows the depth to groundwater contours for Spring 2025 and more clearly shows a depression in the central portion of the Basin greater than 600 ft below ground surface. Groundwater levels then increase toward the west reaching depths of less than 100 ft in the western portion of the Basin. These levels align with trends seen in previous contour maps provided in previous Annual Reports.

Figure 2-4 shows the groundwater elevation contours for Fall of 2025. Groundwater elevations show a depression in the central portion of the Basin and a steep gradient between the central portion of the Basin and the Ventucopa area, which is consistent with contour maps for 2015 through 2024 conditions and previous Annual Reports. Contours indicate a groundwater flow down the Basin from south to north before turning east to west generally following the Cuyama River in the central portion of the Basin, with a decrease in gradient through the central portion of the Basin.

Figure 2-5 shows the depth to groundwater contours for the Fall of 2025. Depth to water contours indicate a depression in the central portion of the Basin, and a steep gradient between the central portion of the Basin and the Ventucopa area, which is consistent with contour maps for 2015 through 2024 conditions and previous Annual Reports.

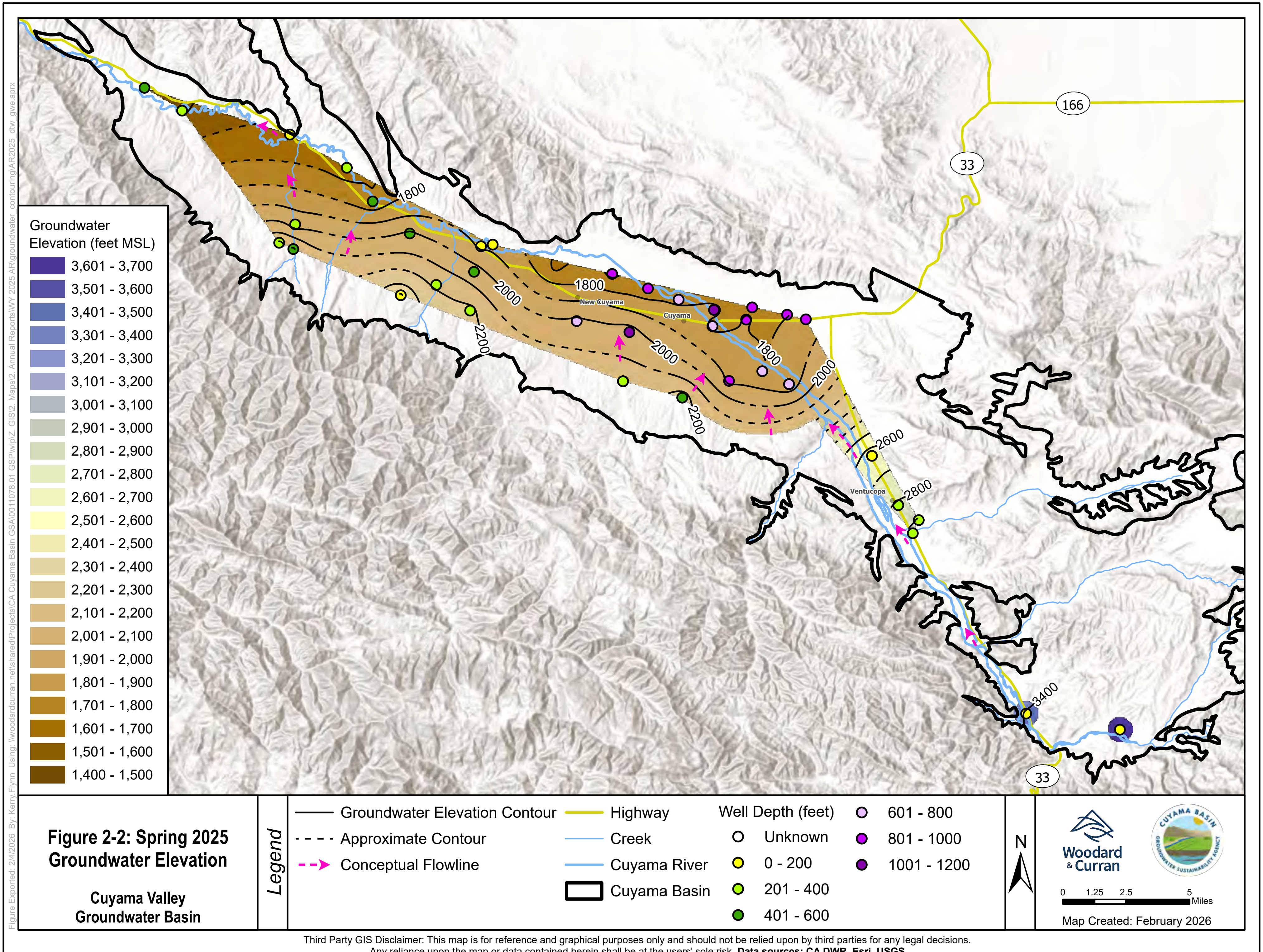

Figure 2-2: Spring 2025 Groundwater Elevation

Cuyama Valley Groundwater Basin

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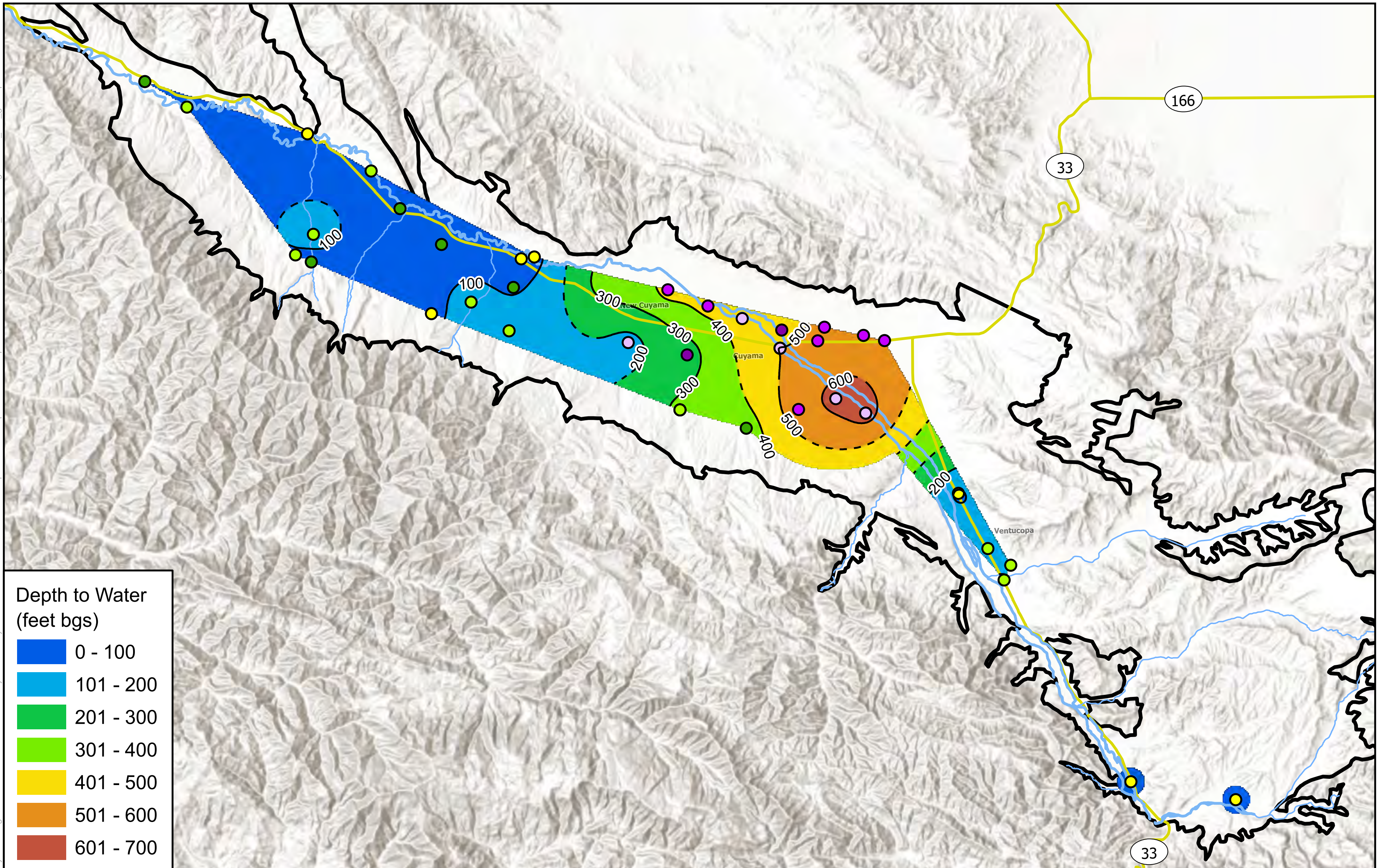

Figure 2-3: Spring 2025 Depth to Water

Cuyama Valley Groundwater Basin

Legend

- Depth to Water Contour
- Approximate Contour
- Highway
- Creek
- Cuyama River
- Cuyama Basin

Well Depth (feet)

- Unknown
- 0 - 200
- 201 - 400
- 401 - 600
- 601 - 800
- 801 - 1000
- 1001 - 1200

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CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

0 1.25 2.5 5 Miles

Map Created: February 2026

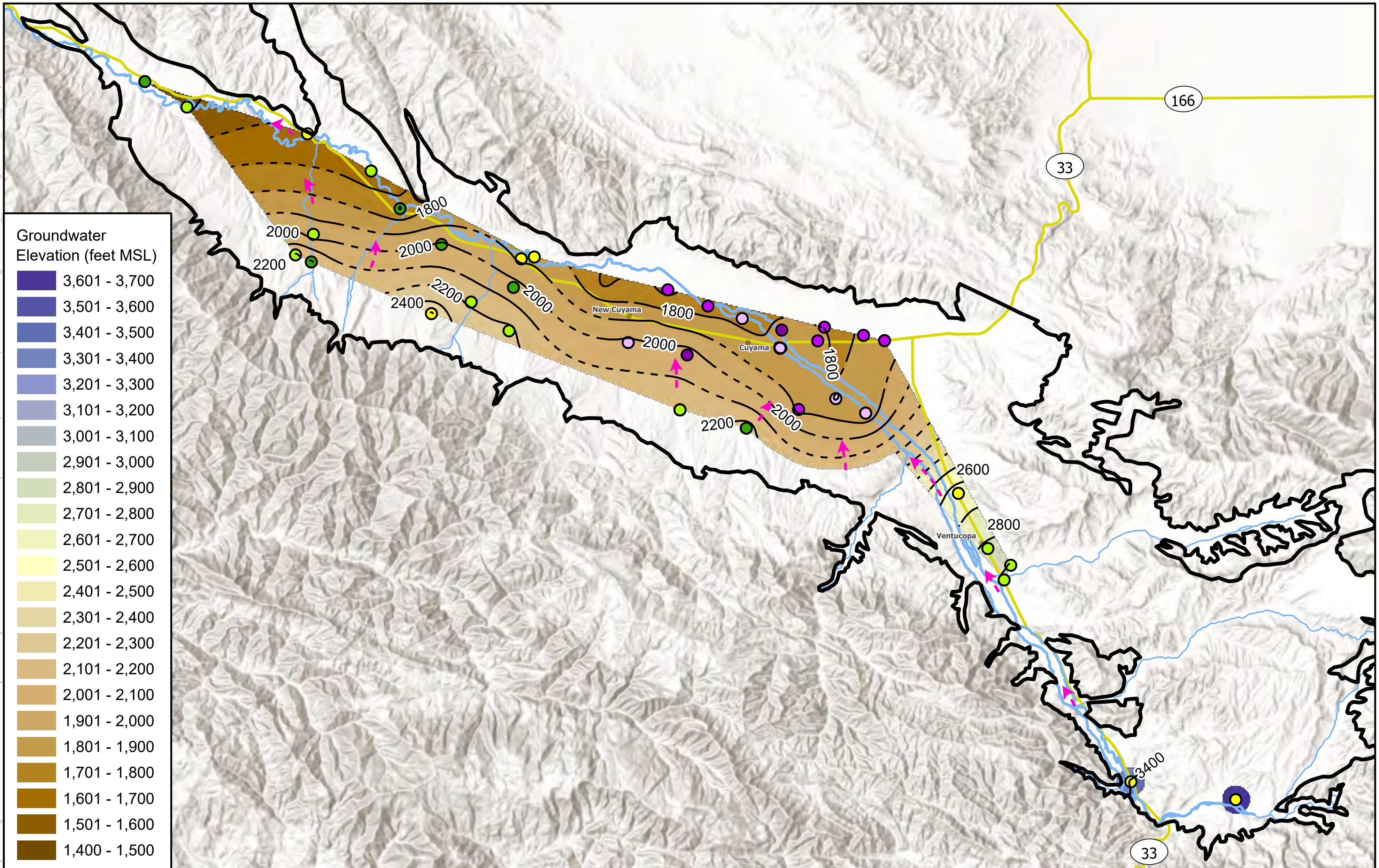

Figure 2-4: Fall 2025 Groundwater Elevation

Cuyama Valley Groundwater Basin

Legend

Groundwater Elevation Contour
Approximate Contour
Conceptual Flowline
Highway
Creek
Cuyama River
Cuyama Basin

Well Depth (feet)
Unknown
0 - 200
201 - 400
401 - 600
601 - 800
801 - 1000
1001 - 1200

N

0 1.25 2.5 5 Miles

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Cuyama Basin Groundwater Sustainability Agency

Map Created: February 2026

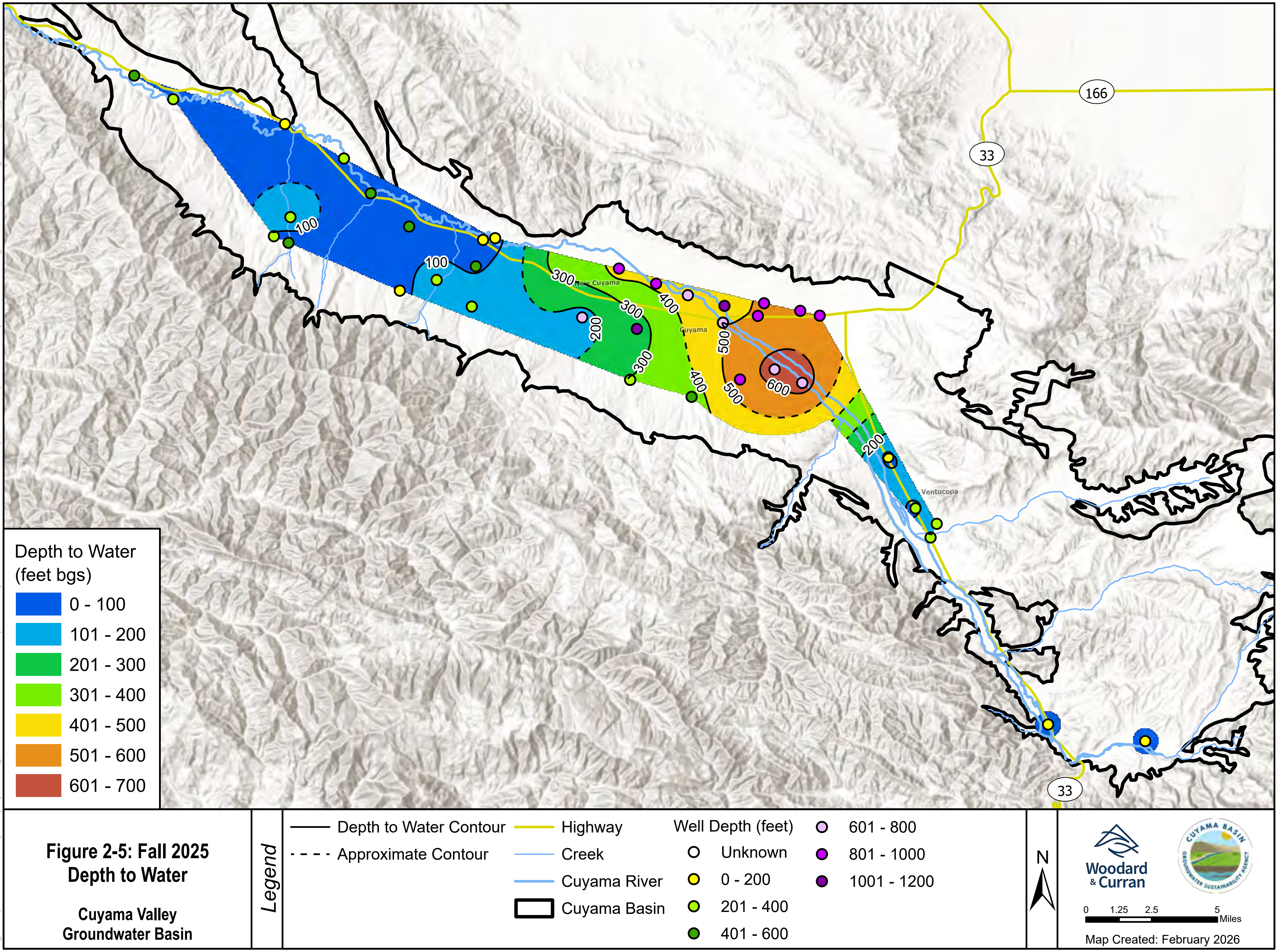

Figure 2-5: Fall 2025 Depth to Water

Cuyama Valley Groundwater Basin

Map Created: February 2026

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2.3 Hydrographs

Groundwater hydrographs were developed for each representative monitoring network well to provide indicators of groundwater trends throughout the Basin. Measurements from each well with historical monitoring data were compiled into one hydrograph for each well. A selection of wells from each threshold region are provided below, while hydrographs for every groundwater level representative network well are presented in Appendix A.

In many cases, changes in historical groundwater conditions at particular wells have been influenced by climactic patterns in the Basin. Historical precipitation is highly variable, with several relatively wet years and some multi-year droughts.

Groundwater conditions generally vary in different parts of the Basin. To provide a comparative analysis general groundwater trends are provided in **Table 2-1** and are accompanied by hydrographs for an example well in each threshold region. A map of threshold regions is provided in **Figure 2-6**, which also shows the locations of example wells used in each threshold region.

Table 2-1: Groundwater Trends by Threshold Regions

Threshold Region	Groundwater Trend	Example Well(s)
Northwestern Region	Seasonal trends with an overall similar levels seen in the previous water year. Although there are recent changes in land use that have begun to pump groundwater, levels have remained relatively similar over the past water year. Levels are approximately 100 ft above the Measurable Objective.	841 (**Figure 2-7**)
Western Region	Levels in this region showed a significant recovery due to previous wet water years to within 40 feet of ground surface. Current levels are approximately 20 ft above the Measurable Objective.	571 (**Figure 2-8**)
Central Region	Levels have historically had a steady downward trend with some seasonal fluctuations. This pattern remains for some wells but with slight bumps correlated with the wet year (Well 91) with trends continuing downward and, in some cases, levels surpassing minimum thresholds. There is some indication of recovery in some wells such as Well 74 where groundwater levels improved and then begin to level off.	74 and 91 (**Figure 2-9 & Figure 2-10**)
Eastern Region	This region has seen an overall decline over several decades. However, with the wet conditions, groundwater trends appear to be improving consistently and are far above the MO.	62 (**Figure 2-11**)
Southeastern Region	Levels in this relatively small region decreased slightly during the last drought but have recovered over the past few years and are well above the Measurable Objective.	89 (**Figure 2-12**)

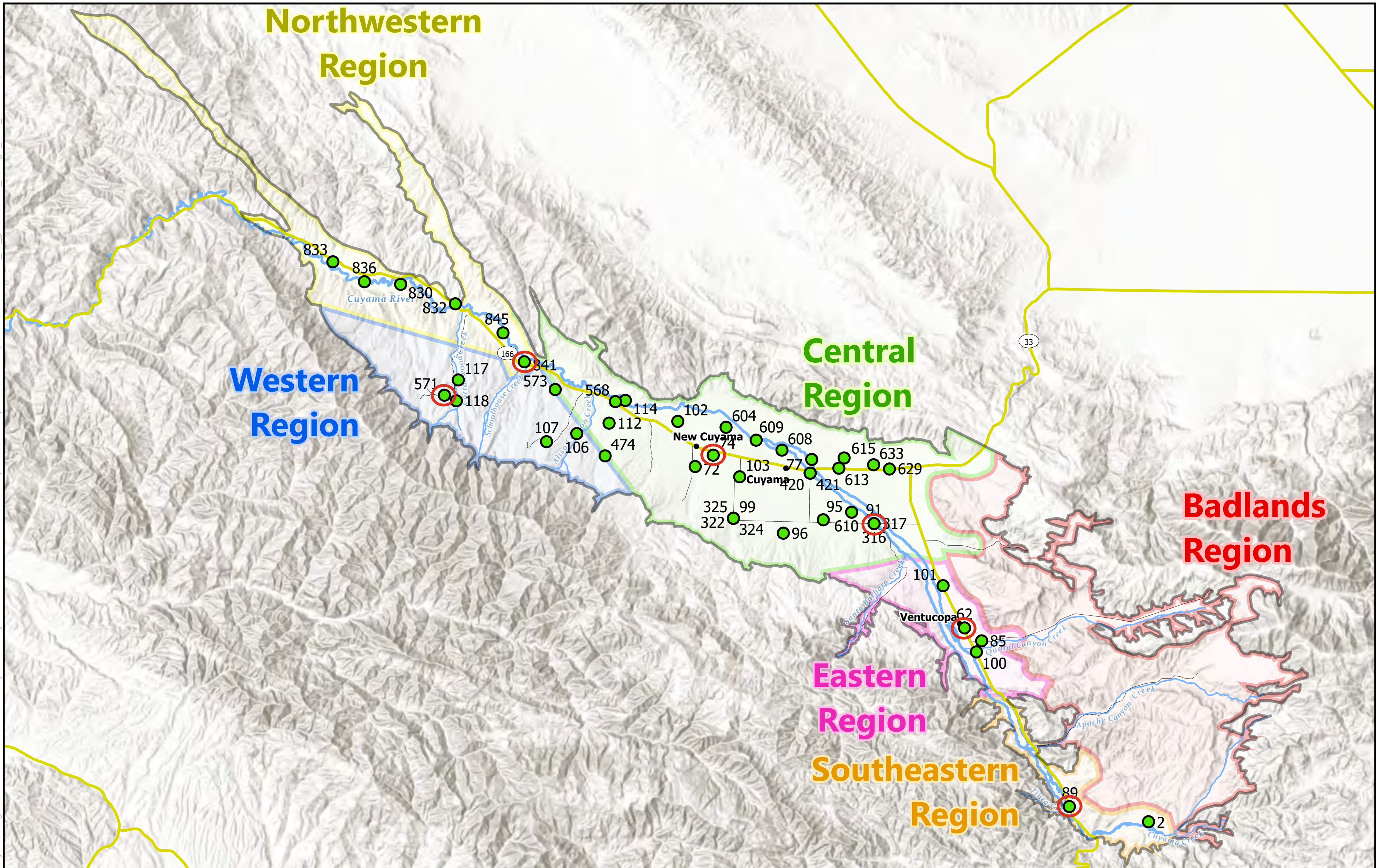

Figure 2-6: Representative Groundwater Monitoring Network and Threshold Regions

Cuyama Valley Groundwater Basin

Legend

- Representative Well
- **Threshold Regions**
  - Badlands Region
  - Central Region
  - Eastern Region
  - Northwestern Region
  - Southeastern Region
  - Western Region
- Highway
- Local Road
- Town
- Creek
- Cuyama River
- Cuyama Basin

N

0 1.75 3.5 7 Miles

Map Created: January 2026

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Cuyama Basin Groundwater Sustainability Agency

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Figure 2-7: Example Well Hydrographs – Northwestern Region

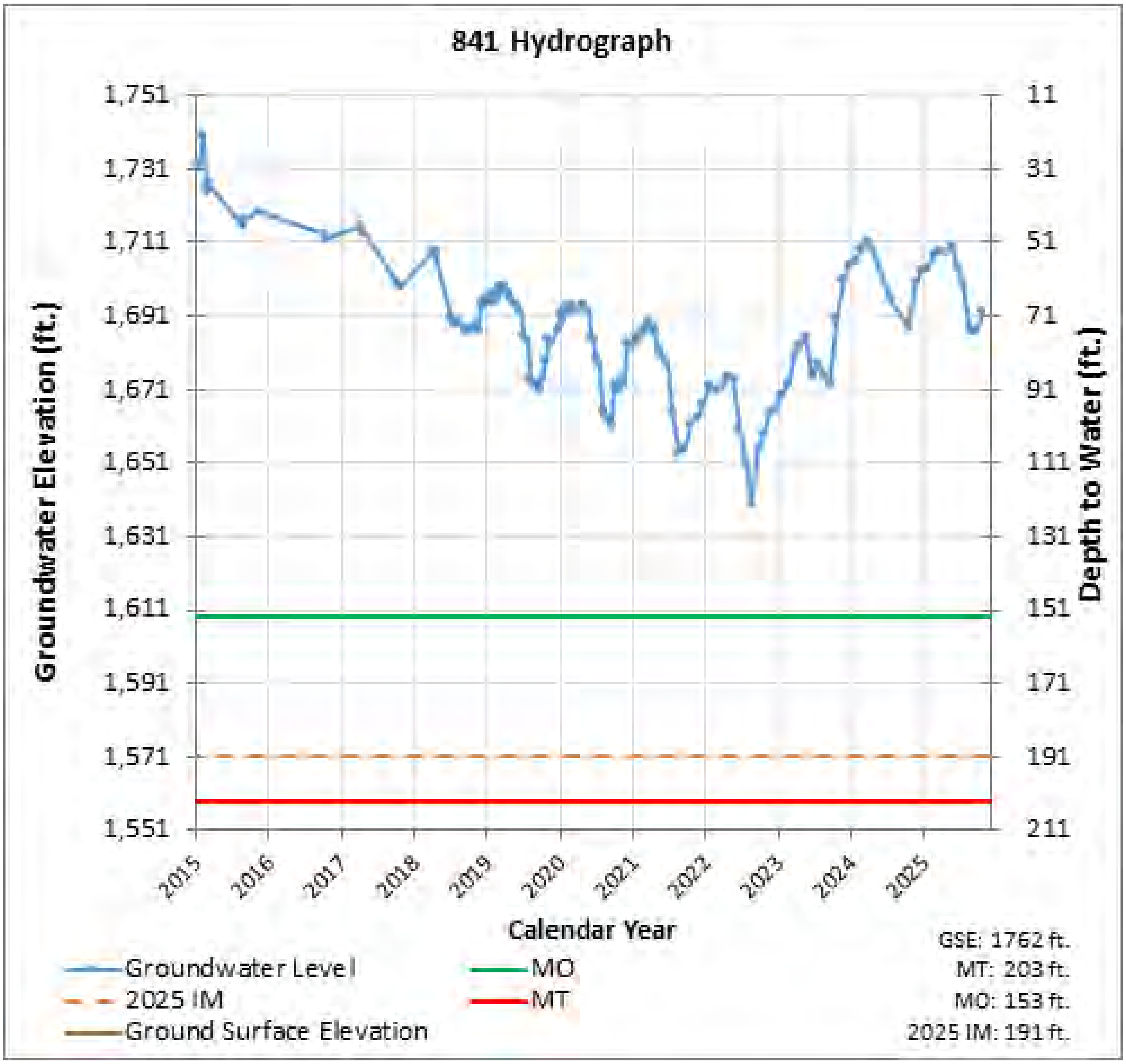


Figure 2-8: Example Well Hydrographs – Western Region

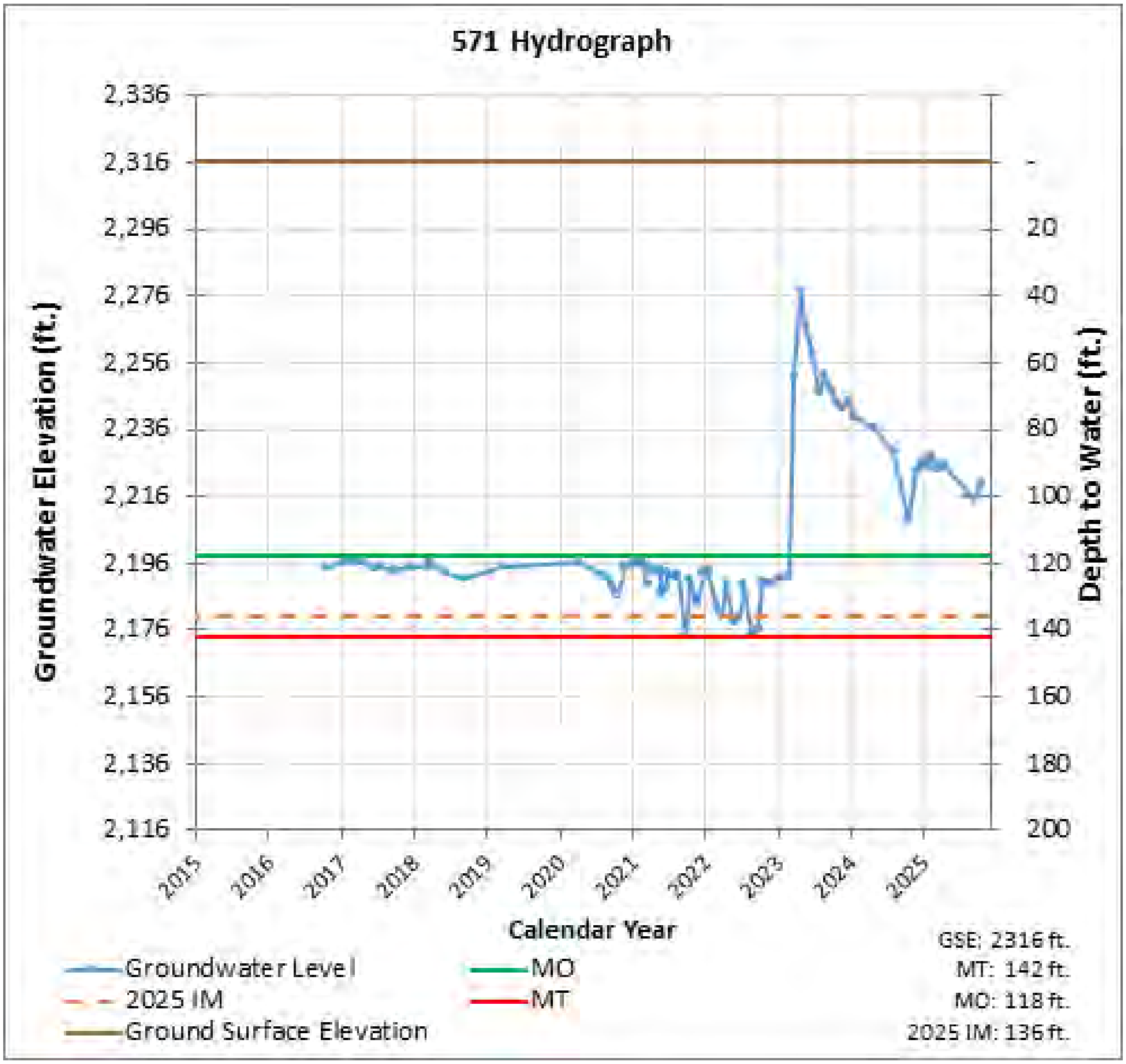


Figure 2-9: Example Well Hydrographs – Central Region

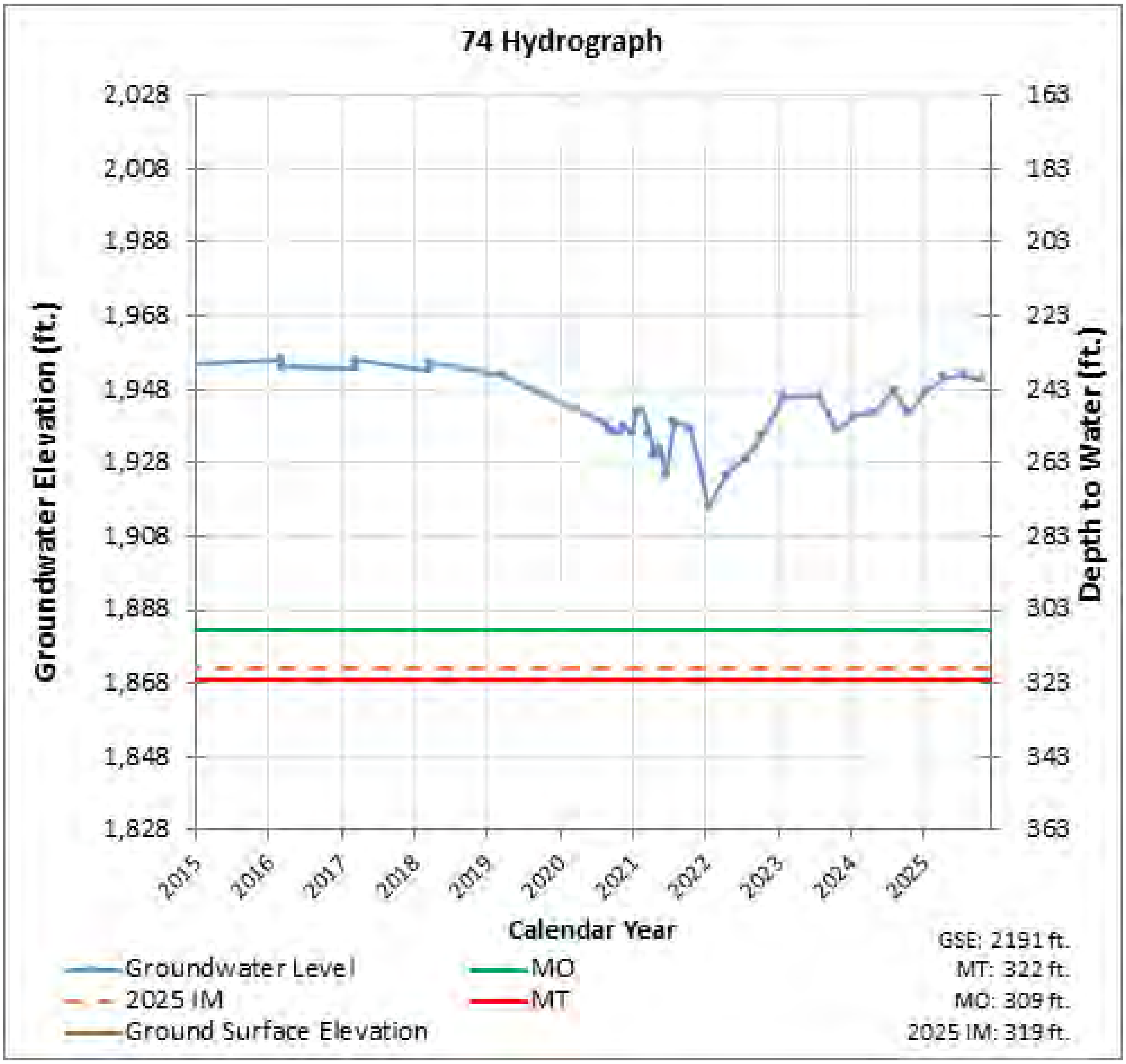


Figure 2-10: Example Well Hydrographs – Central Region

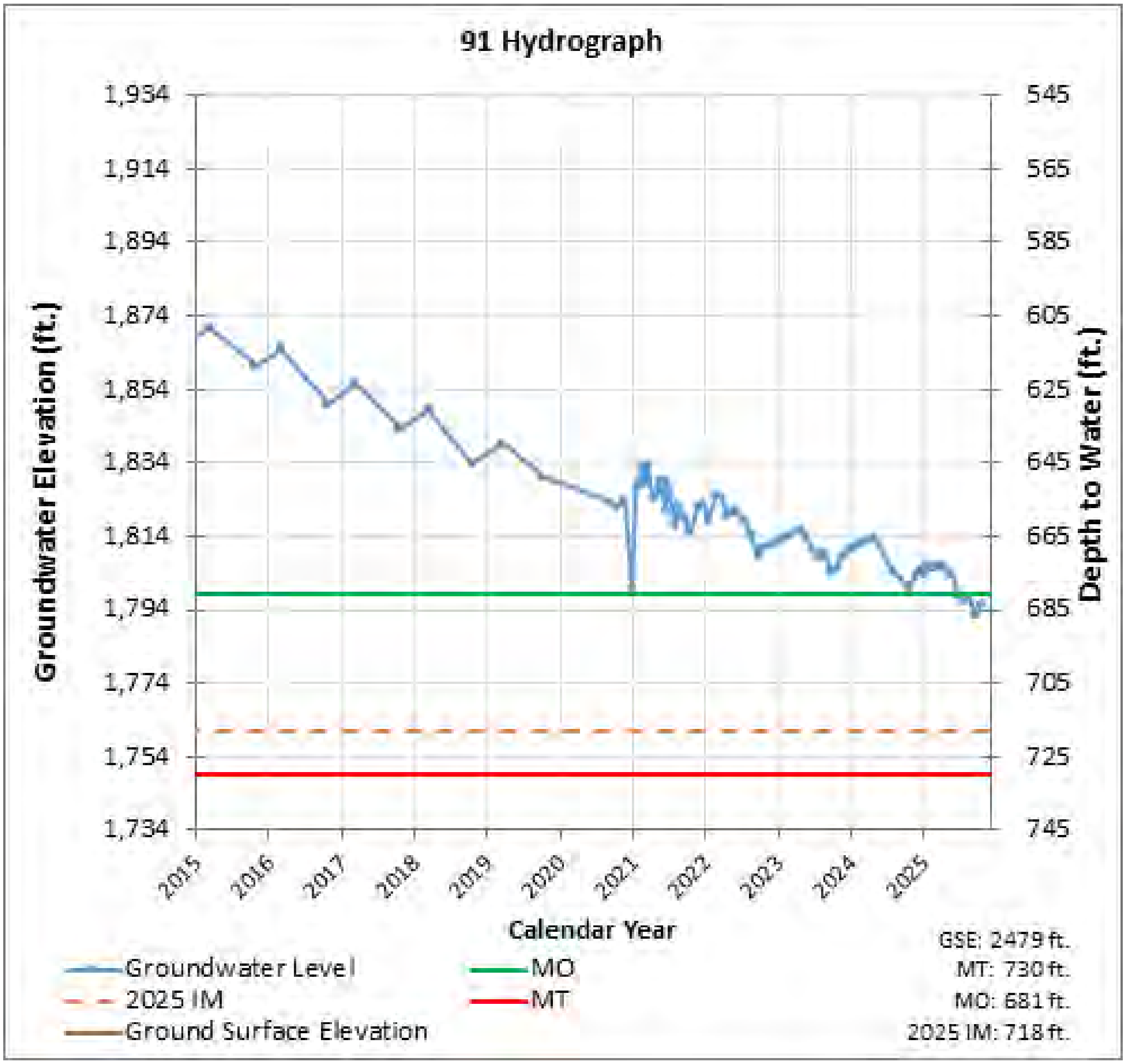


Figure 2-11: Example Well Hydrographs – Eastern Region

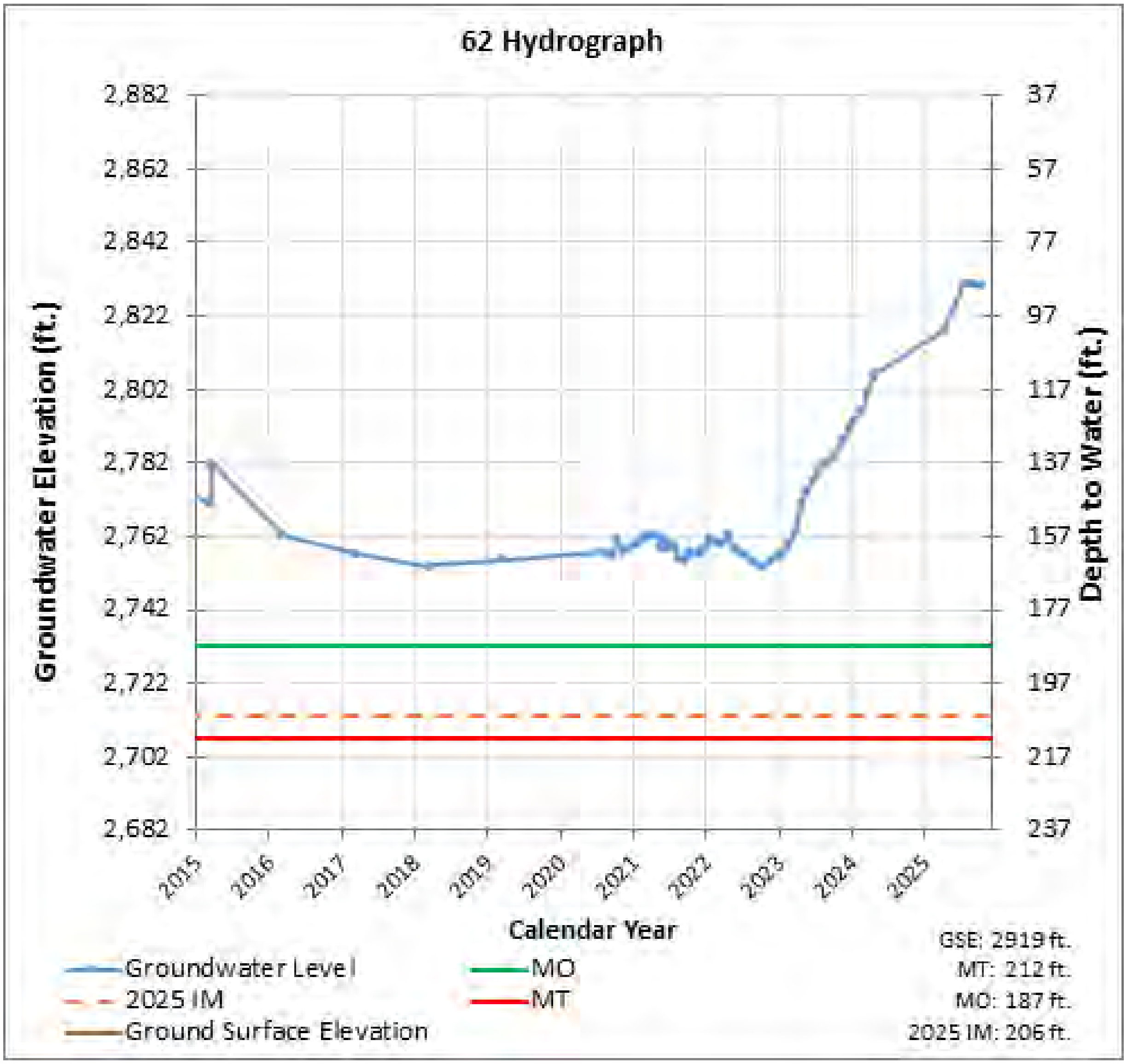
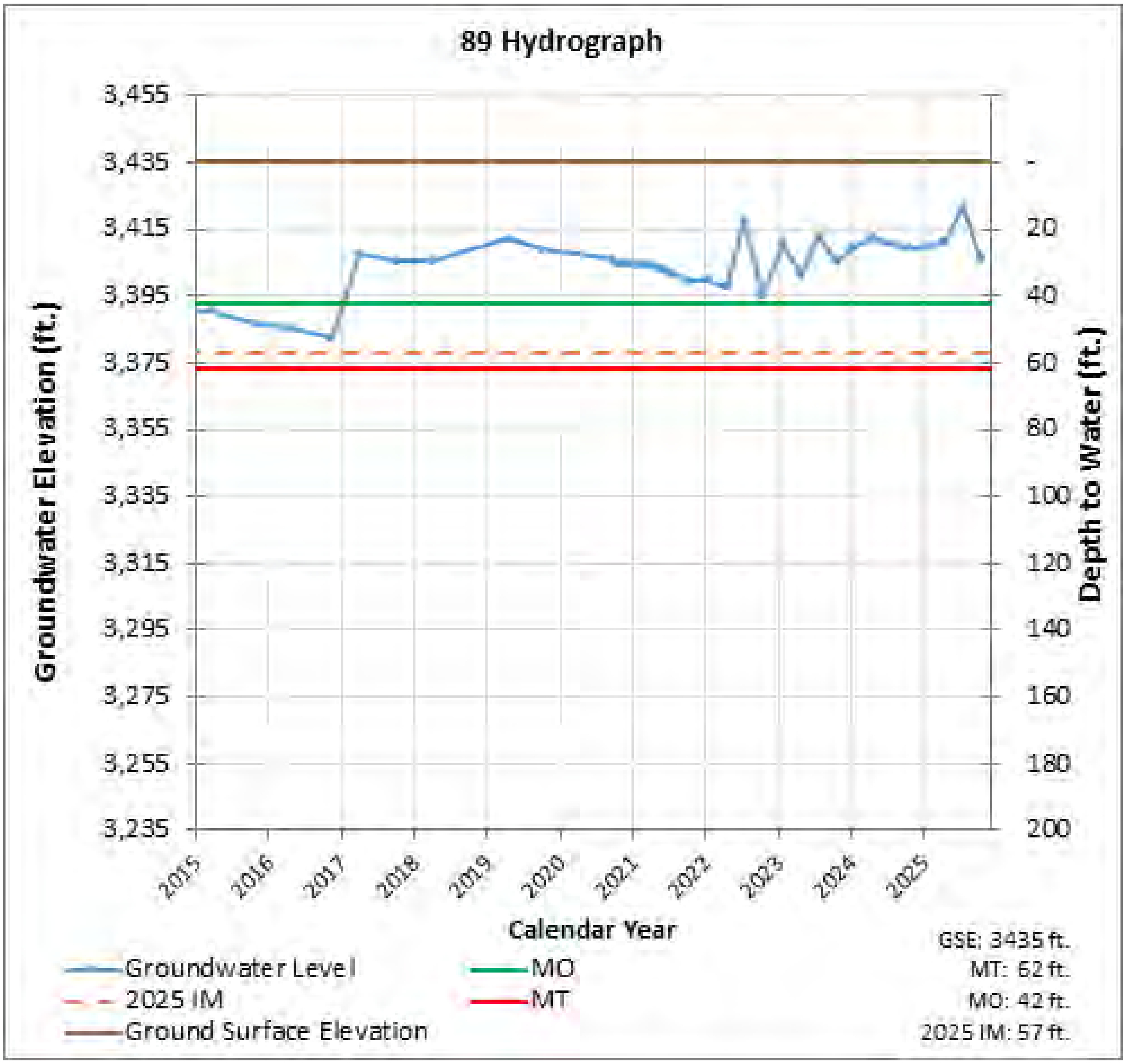


Figure 2-12: Example Well Hydrographs – Southeastern Region



Section 3. Water Use

§356.2 (b) (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.
§356.2 (b) (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.
§356.2 (b) (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.

3.1 Groundwater Extraction

The Annual Report provides both landowner reported groundwater extraction (on a calendar year basis) and modeled groundwater extraction estimates (on a water year basis). Landowner reported groundwater extraction volumes are used to set extraction fees, verify landowners are pumping less than or equal to their allocations, and to validate the groundwater model. Modeled extraction estimates are used to develop the basin water budgets.

3.1.1 Landowner Reported Groundwater Extractions

Landowners within the CMA have been required to report groundwater pumping on a calendar year basis since 2023. The total groundwater extraction volumes reported for each year are shown in Table 3-1 below. [Note: 2025 results will be compiled and included in table and discussion in final Annual Report.] Note that while these quantities are used to calibrate the model, they won't match exactly with the model reported values below because of the differences between calendar and water year reporting and because the model estimation of pumping is based on land use and evapotranspiration assumptions and may not exactly match real-world results in any given year.

Table 3-1: Basin-Wide Extractions Reported by Landowners

Calendar Year	Landowner Reported Extractions (Acre-feet)
2023	34,391
2024	37,338
2025	34,219

3.1.2 Model Estimated Groundwater Extractions

Water budgets in the Cuyama Basin GSP were developed using the Cuyama Basin Water Resources Model (CBWRM) model, which is a fully integrated surface and groundwater flow model covering the Basin. The CBWRM was used to develop a historical water budget that evaluated the availability and reliability of past surface water supply deliveries, aquifer response to water supply, and demand trends relative to water year type. For the 2020 GSP, the CBWRM was used to develop water budget estimates for the hydrologic period of 1998 through 2017. An update of the model, including re-calibration based on recently available data, was completed for the 2025 GSP Update and is based on the best available data and information as of September 2023. An assessment of model uncertainty included in the GSP estimated an error range in overall model results of about +/- 10%. It is expected that the model will be refined in the future as improved and updated monitoring information becomes available for the Basin. For the current Annual Report, the CBWRM model was extended to include the 2025 water year, utilizing updated land use, reference evapotranspiration, and precipitation[3] data from those years.

Figure 3-1 shows the annual time series of groundwater pumping for the water years 1998 through 2025.[4] The CBWRM estimates a total groundwater extraction amount of 38,200 AF in the Cuyama Basin in the 2025 water year. This reflects a increase of about 4,500 AF as compared to 2024. Almost all groundwater extraction in the Basin is for agriculture use. There is approximately 200 AF of domestic use in each year, with the remainder in each year being for agricultural use.

The total pumping volume in the basin in water year 2025 was significantly higher than the sustainable yield of 16,800 AF estimated in the GSP. The GSP included a pumping allocations management action to reduce pumping levels to sustainable levels by 2040. See section 7.5.2 for an update on progress made to implement this management action.

[3] Precipitation data provided by PRISM was updated and there are minor changes to some historical (pre-2020) data reflected in the water budget results when compared to previous reports.

[4] Groundwater extraction estimates for years 1998 through 2024 may differ from estimates reported in previous Cuyama Basin Annual Reports due to the model update and re-calibration that was performed for the 2025 GSP Update.

Figure 3-1: Annual Groundwater Extraction in the Cuyama Basin in Water Years 1998-2025

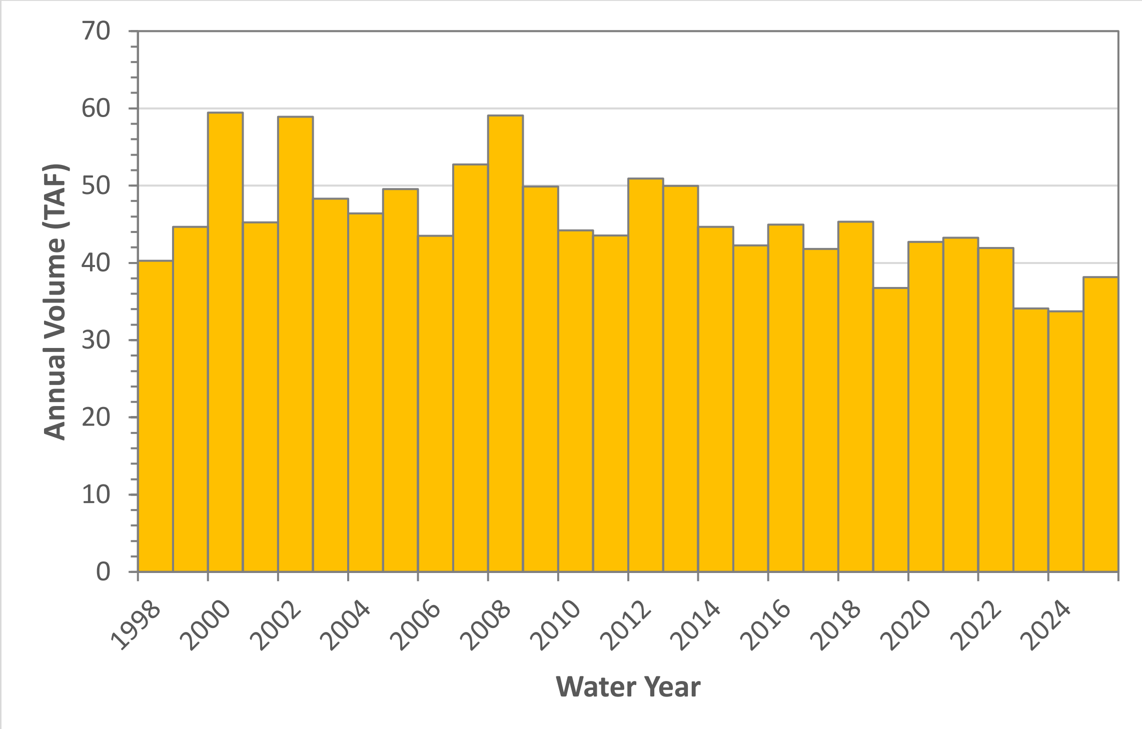


Table 3-2 shows groundwater extractions by water use sector. The primary use of groundwater extractions in the basin is agricultural, accounting for 99% of the groundwater utilized. Urban water use is primarily in Cuyama and New Cuyama for drinking water supply. Groundwater use for other sectors in the Cuyama Basin is minimal.

As shown in **Table 3-3,** the groundwater extraction estimates were developed using the CBWRM model developed by the CBGSA. The model uses crop acreage from local landowners and LandIQ to estimate crop demands.

Table 3-2: Groundwater Extraction By Water Use Sector (WY 2025)

Groundwater Extraction Sector	Total Water Use (Acre-feet)
Agricultural	38,000
Urban	200
Industrial	0
Managed Wetlands	0
Managed Recharge	0
Native Vegetation	0
Other	0
Total	**38,200**

Table 3-3: Groundwater Extraction Measurement Volume Methods and Accuracy Table

Groundwater Extraction Volume	Measurement Type	Method Description	Accuracy	Accuracy Description
38,200	CBRWM	Indirect estimate of groundwater extraction based upon a calculated demand. Crop demand is estimated using locally reported crops per field with the spatial support of LandIQ.	+/-10%	CBWRM utilizes available land use, precipitation, evapotranspiration, soil survey, geological survey, population and per-capita water use data in the subbasin. Since the primary water use sector is agriculture, LandIQ was correlated with local survey data to better estimate crop demand.

Figure 3-2 shows the locations where groundwater is applied in the Basin. The locations of groundwater use have not changed significantly since completion of the GSP.

Figure 3-3: Shows the active pumping wells within the Cuyama Basin Boundary.

3.2 Surface Water Use

Figure 3-2 shows some specific land areas in which landowners reported that surface water was supplied. In addition, there are some areas that are supplied by small seeps and washes but are not shown on the figure. However, overall surface water use in the Cuyama Basin was unmeasured and minimal in quantity during the reporting period.

3.3 Total Water Use

Since there is minimal surface water use in the Cuyama Basin, the total water use equals the groundwater extraction in each year, as shown in Section 3.1.

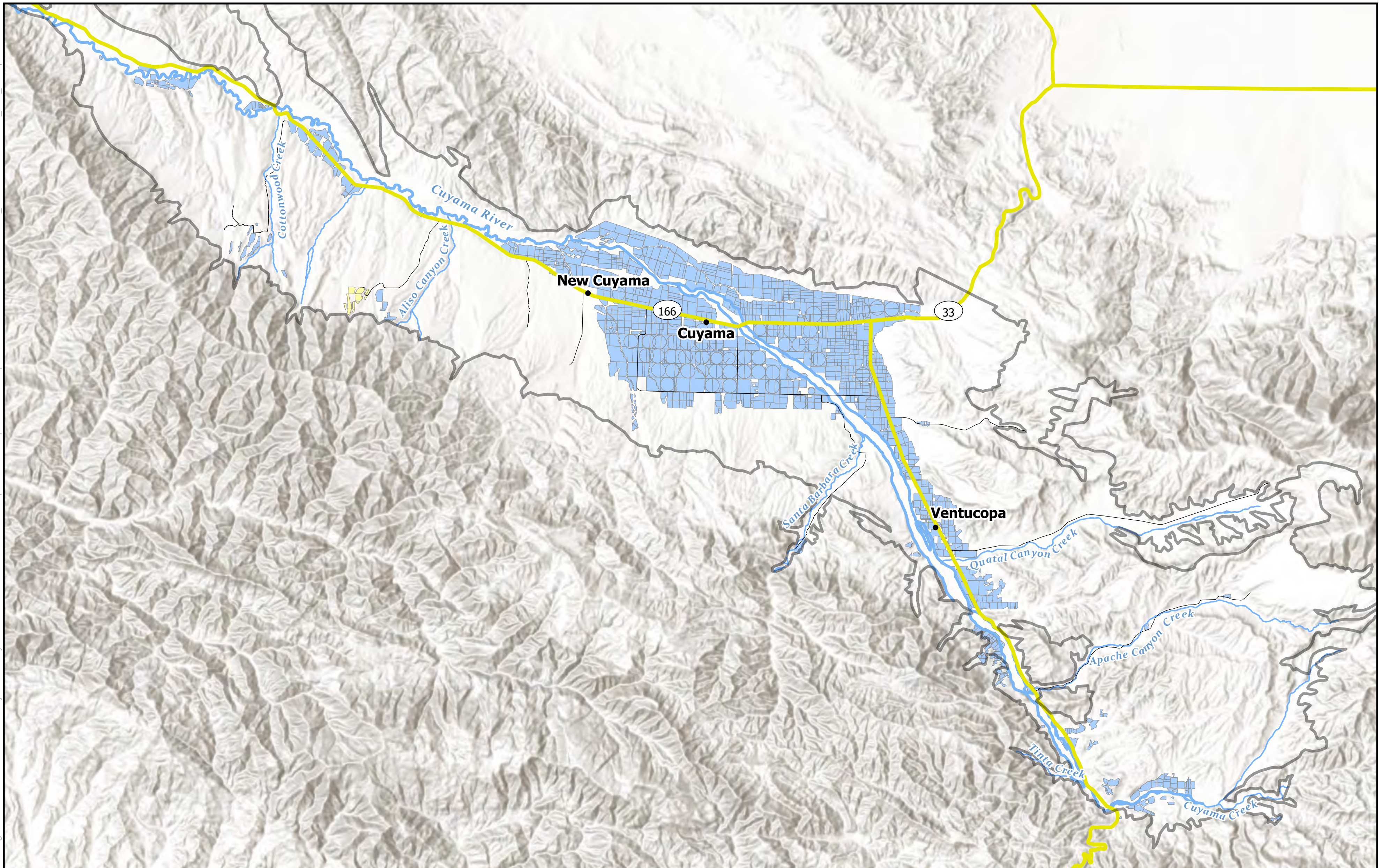


Figure 3-2: Land Use by Water Source

Cuyama Valley Groundwater Basin

Legend

- Irrigated by Surface Water*
- Irrigated by Surface and Groundwater*
- Irrigated by Groundwater
- Highway
- Local Road
- Town
- Cuyama River
- Creek
- Cuyama Basin

*Some areas are supplied by small seeps and washes and are not designated as surface water on the map.

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CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

Map Created: February 2026

Figure Exported: 2/17/2026 By: DHunt Using: \\woodardcurran.net\shared\Projects\CA Cuyama Basin GSA\0011078.01 GSP\wip\Z_GIS\2_Maps\2_Annual Reports\WY 2025 AR\LandUse\LandUse_waterSource\historical_land_use.aprx

 Data sources: CA DWR, Esri, USGS. Water source from 2024 LandIQ and locally reported 2025 land use data.

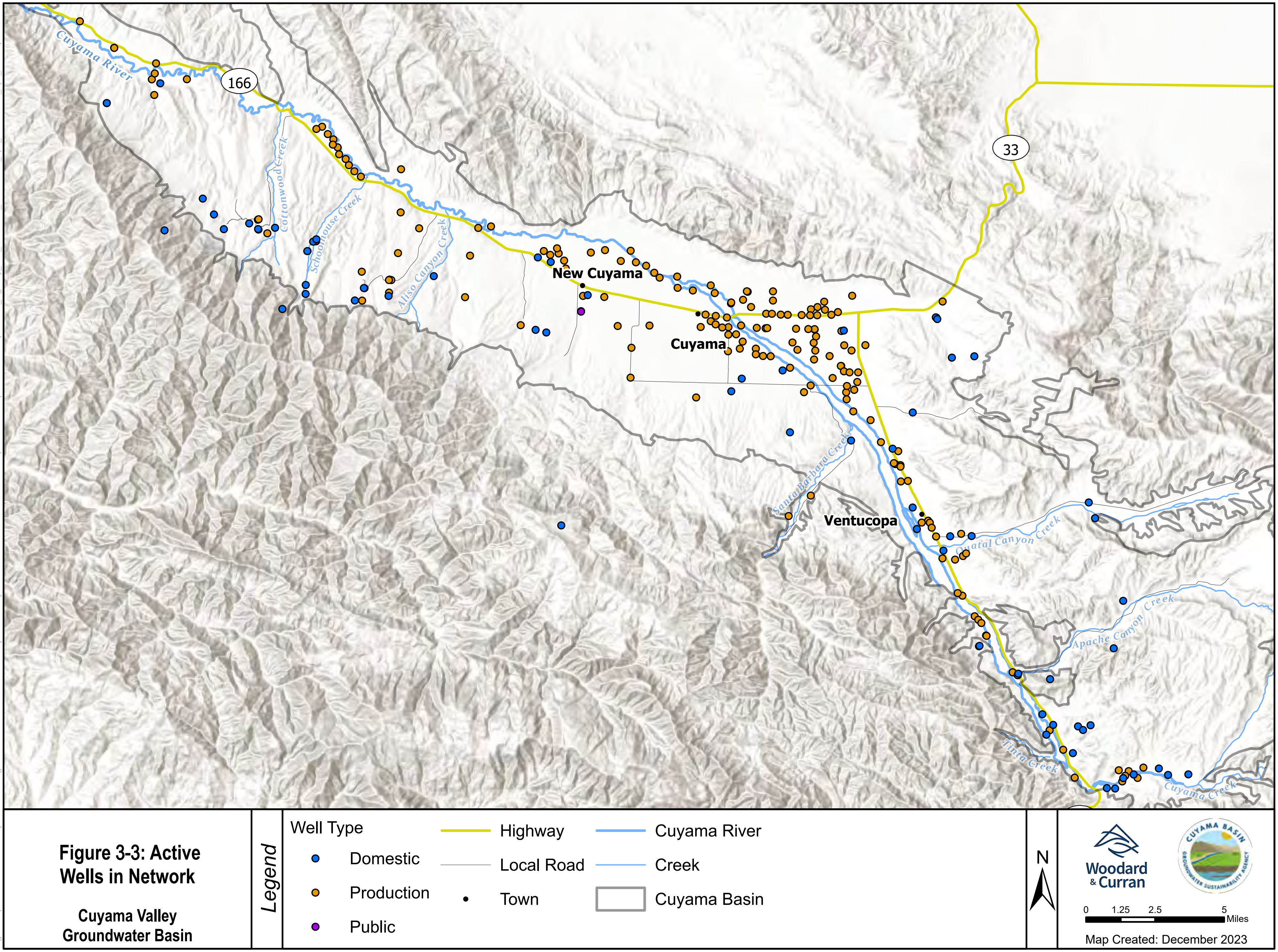

Figure 3-3: Active Wells in Network

Cuyama Valley Groundwater Basin

Section 4. Change in Groundwater Storage

§356.2 (b) (5)	Change in groundwater in storage shall include the following:
§356.2 (b) (5) (A)	Change in groundwater in storage maps for each principal aquifer in the basin.
§356.2 (b) (5) (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.

Figure 4-1 shows contours of the estimated change in groundwater levels in the Cuyama Basin between fall 2024 and fall 2025. The changes shown are based on historical measurements of groundwater elevations in Cuyama Basin representative wells that have recorded measurements in the fall period of each year. These contours are useful at the planning level for understanding groundwater levels across the Basin, and to identify general horizontal gradients and regional groundwater level trends. Additionally, the changes in groundwater levels as represented in **Figure 4-1** are influenced by the period range of sampling, local hydrologic and geologic conditions, localized groundwater extraction, and precipitation events. The contour map is not indicative of exact values across the Basin because groundwater contour maps approximate conditions between measurement points, and do not account for topography. The methodology behind the production of **Figure 4-1** has been updated as compared to previous versions. First, all measurements from multi-completion (or multi-depth) wells are no longer included in the figure, only the shallowest completion data is provided. This removes conflicting data from wells experiencing vertical gradients and provides more accurate storage data. In addition, the contours and symbology were updated so that storage changes between -5 and 5 feet are shown together as representing a range of nominal positive or negative change during the year.

The CBWRM model was used to develop a quantitative estimate of the annual change in groundwater storage. The CBWRM model was used to estimate the full groundwater budget for each year in the Cuyama Basin, which consists of a single principal aquifer. The estimated values for each water budget component in each of the past three years are shown in **Table 4-1**. The CBWRM estimates an increase in groundwater storage of 9,900 AF in 2023, a reduction of 2,100 AF in 2024, and a reduction of 23,900 in 2025.

Table 4-1: Groundwater Budget Estimates for Water Years 2023, 2024, and 2025

Component	Water Year 2023 (AFY)	Water Year 2024 (AFY)	Water Year 2025 (AFY)
Inflows			
Deep percolation	26,900	21,300	10,500
Stream seepage	11,800	8,100	2,200
Subsurface inflow	5,300	2,300	1,600
Total Inflow	44,000	31,700	14,300
Outflow			
Groundwater pumping	34,100	33,800	38,200
Total Outflow	34,100	33,800	38,200
Change in Storage	**+9,900**	**-2,100**	**-23,900**

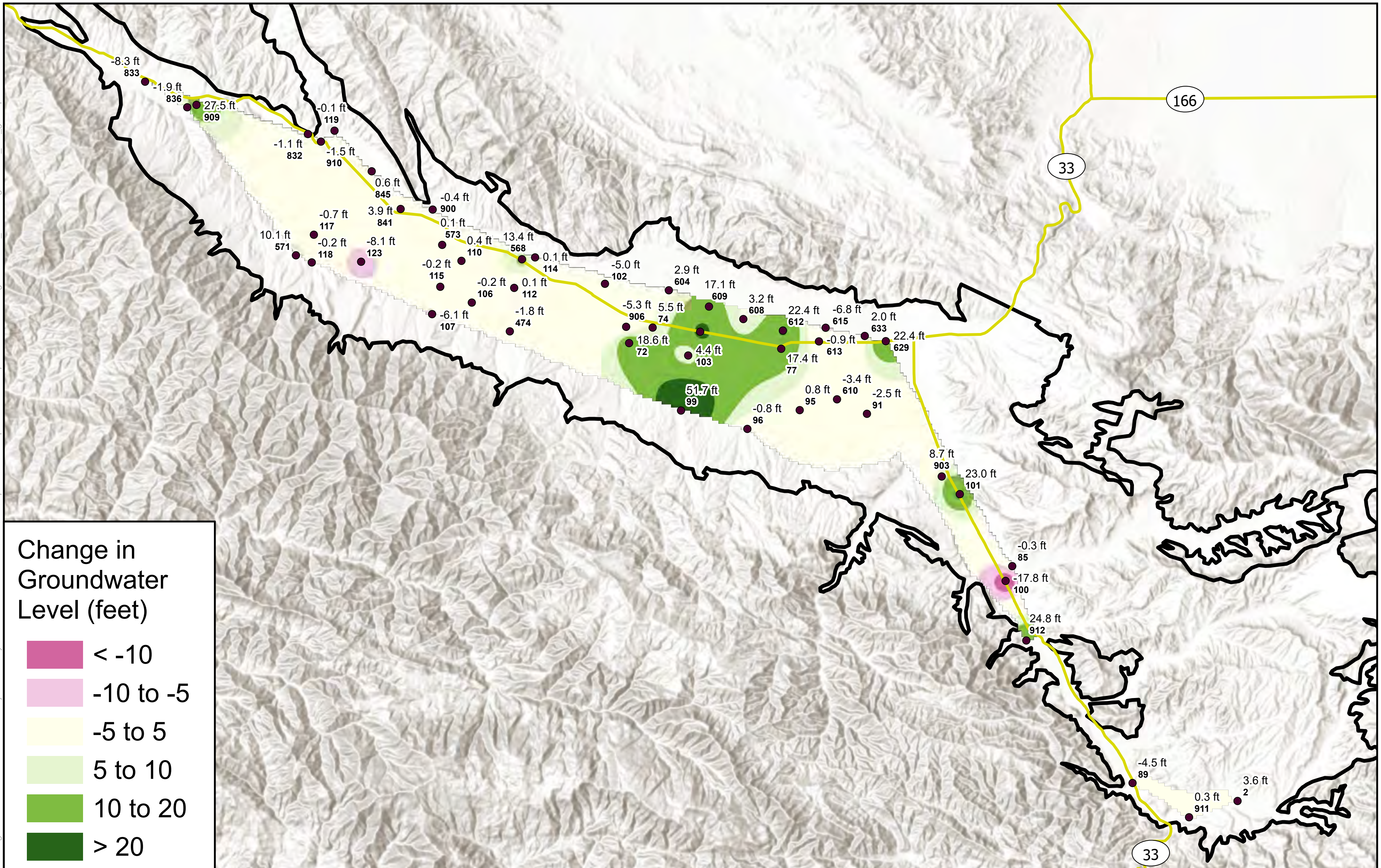

Figure 4-1: Groundwater Level Change - Fall 2024 to Fall 2025

Cuyama Valley Groundwater Basin

Legend

- Measurement Well
- Cuyama Basin
- Highway

GWL difference was calculated from wells with measurements collected in both October 2024 and 2025. Opti ID numbers are located underneath the difference in groundwater level (feet) label - refer to individual well hydrographs for a more informative view of GWL change.

N

0 1.25 2.5 5 Miles

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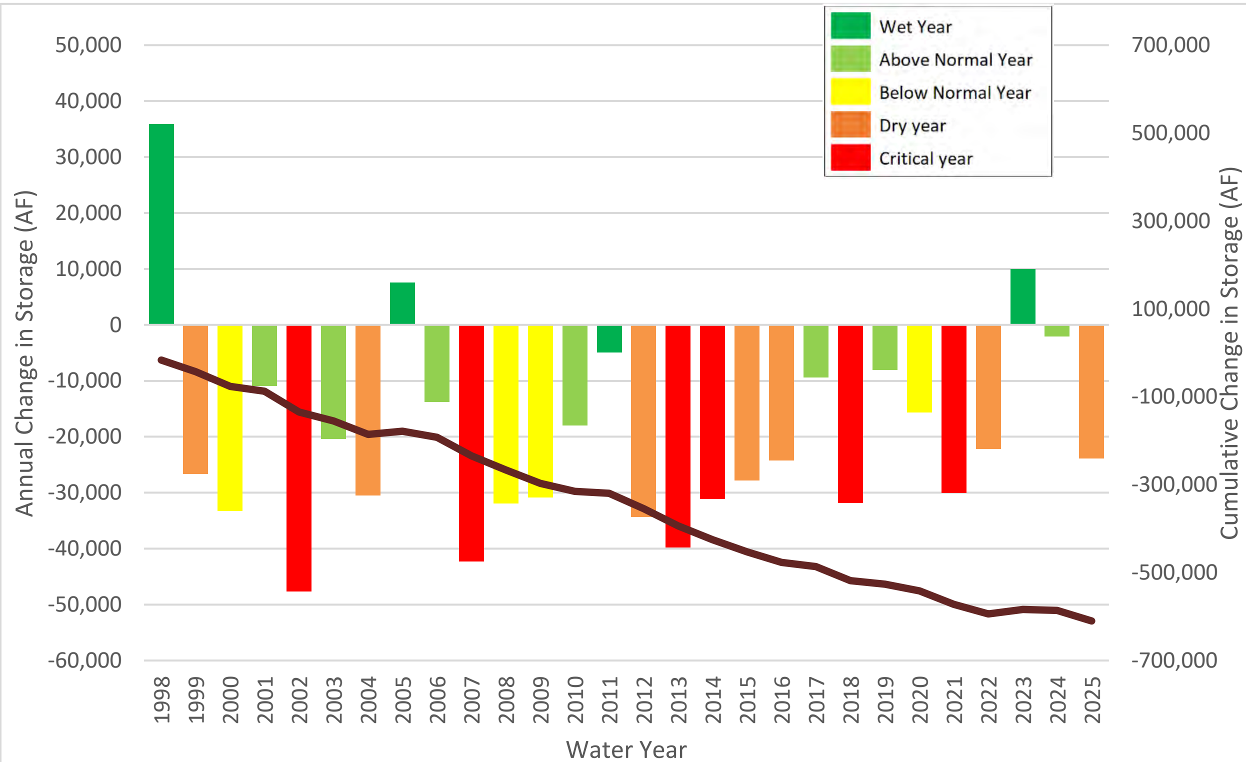
Cuyama Basin Groundwater Sustainability Agency

Map Created: February 2026

Figure 4-2 shows the historical change in groundwater storage by year, water year type,[5] and cumulative water volume in each year for the period from 1998 through 2025.[6] The change in groundwater storage in each year was estimated by the CBWRM model. The color of bar for each year of change in storage correlates with a water year type defined by Basin precipitation.

Figure 4-2: Change in Groundwater Storage by Year, Water Year Type, and Cumulative Water Volume



[5] Water year types are customized for the Basin watershed based on annual precipitation as follows:

- Wet year = more than 19.6 inches
- Above normal year = 13.1 to 19.6 inches
- Below normal year = 9.85 to 13.1 inches
- Dry year = 6.6 to 9.85 inches
- Critical year = less than 6.6 inches.

[6] Groundwater storage change estimates for years 1998 through 2024 may differ from estimates reported in previous Cuyama Basin Annual Reports due to model updates using the most recent land use data.

Section 5. Groundwater Quality

As discussed in Section 4.8 of the Cuyama GSP, the CBGSA's groundwater quality network is designed to monitor salinity levels (as total dissolved solids (TDS)). In 2023 a comprehensive review of the groundwater quality network was conducted after three years of annual sampling for TDS had been performed. Wells were evaluated with respect to the following issues: lack of landowner agreements for monitoring, access issues at well sites, access issues due to weather. Based on this analysis, the CBGSA board approved a revised water quality network in November 2023, which includes 29 representative wells and 12 non-representative wells, is shown in **Figure 5-1.** This revised network took effect when the 2025 GSP Update was completed and will provide adequate coverage in the Basin while ensuring continued and consistent monitoring during the GSP implementation period.

In 2025, the CBGSA collected TDS measurements at 25 of the 29 representative wells (86%) in the groundwater quality monitoring network. The results are listed in **Table 5-1** and shown on **Figure 5-2.** Of the 25 representative wells measured in water year 2025, eight wells were lower (i.e. better) than their measurable objective, 17 wells were between the measurable objective and minimum threshold, and no wells exceeded the minimum threshold. 14% of wells were not sampled due to limitations in gaining access to well sites. Water quality results (as compared to minimum thresholds) can be found in **Table 5-1** and **Figure 5-3**. While TDS levels are relatively high in many parts of the Basin, they are consistent with historical measurements and therefore do not exceed the minimum thresholds established in the GSP. The CBGSA will continue to sample for TDS on an annual basis and will assess the appropriateness of sustainability criteria for TDS in the future.

The CBGSA conducts its own sampling for nitrate and arsenic once every five years. In the interim years the CBGSA leverages existing monitoring programs for nitrate and arsenic through California State Water Resource Control Board Groundwater Ambient Monitoring and Assessment (GAMA) Database, which includes in particular data from the Central Coast Regional Water Board's Irrigated Lands Program for nitrates as part of its database. Nitrate and arsenic data are shown on **Figure 5-4** for nitrate and on **Figure 5-5** for arsenic. These maps include data downloaded from GAMA and the sampling results from the CBGSA's sampling for these constituents conducted in 2022 and reported in the WY 2022 Annual Report. Because few measurements were available for WY 2023 through WY 2025, these maps include data for water years 2022 through 2025 in order to provide a more complete picture of the presence of each constituent in the Cuyama Basin.

These recent measurements for nitrate and arsenic can be compared to those that were reported in the 2025 GSP for the 2010-2020 period for nitrate (GSP Figure 2-80) and for arsenic (GSP Figure 2-81) to assess what changes may have occurred. As reported in the GSP, from 2010-2020, there were multiple wells with nitrate concentrations over the MCL, mostly located in the central part of the Basin. The more recent data from 2022-2025 shows fewer wells with high nitrate concentrations; these wells are also located in the central part of the Basin. For arsenic, both the data from 2010-2020 and that from 2022-2025 show high concentrations in wells located just south and east of New Cuyama. Therefore, the available data indicates that the wells with high concentrations of both nitrate and arsenic are at similar locations to historical measurements.

The CBGSA will continue to rely on these third-party sources as described in Chapter 2 of the 2025 GSP.

Table 5-1: Groundwater Quality Network Wells and TDS Measurements

Opti ID	TDS						
	Date	Measurement (mg/L)	MO (mg/L)	MT (mg/L)	MT Status	2025 Interim Milestone (mg/L)	Interim Milestone Status
61	-	-	585	1000	-	896	-
72	10/3/2025	895	900	1106	Below MO	1055	Below IM
74	10/3/2025	1340	1310	1872	Below MT	1732	Below IM
77	10/20/2025	1164	1120	1682	Below MT	1542	Below IM
79	10/2/2025	1620	1500	2318	Below MT	2114	Below IM
83	10/2/2025	1040	1120	1816	Below MO	1642	Below IM
88	12/3/2025	349	320	1000	Below MT	830	Below IM
90	10/2/2025	1170	1400	1596	Below MO	1547	Below IM
91	10/20/2025	1057	1020	1558	Below MT	1424	Below IM
95	10/2/2025	1340	1340	1950	Below MT	1798	Below IM
96	10/2/2025	1240	1100	1676	Below MT	1532	Below IM
99	10/3/2025	1100	1140	1658	Below MO	1529	Below IM
101	10/2/2025	1310	1210	1735	Below MT	1604	Below IM
102	10/2/2025	1660	1500	2551	Below MT	2288	Below IM
157	-	-	1360	2468	-	2191	-
204	12/3/2025	369	380	1000	Below MO	845	Below IM
242	10/2/2025	598	780	1656	Below MO	1437	Below IM
316	10/20/2025	1106	1060	1524	Below MT	1408	Below IM
317	10/20/2025	1120	692	1444	Below MT	1256	Below IM
322	10/3/2025	1220	1140	1504	Below MT	1413	Below IM
324	10/3/2025	749	740	1000	Below MT	935	Below IM
325	10/3/2025	1090	1070	1687	Below MT	1533	Below IM
420	10/20/2025	1119	1080	1560	Below MT	1440	Below IM
421	10/20/2025	1394	1280	1761	Below MT	1640	Below IM
424	10/3/2025	1230	1260	1658	Below MO	1559	Below IM
467	10/2/2025	926	1070	1846	Below MO	1652	Below IM
568	10/2/2025	931	860	1118	Below MT	1054	Below IM
841	-	-	561	1000	-	890	-
845	-	-	1250	1250	-	1250	-

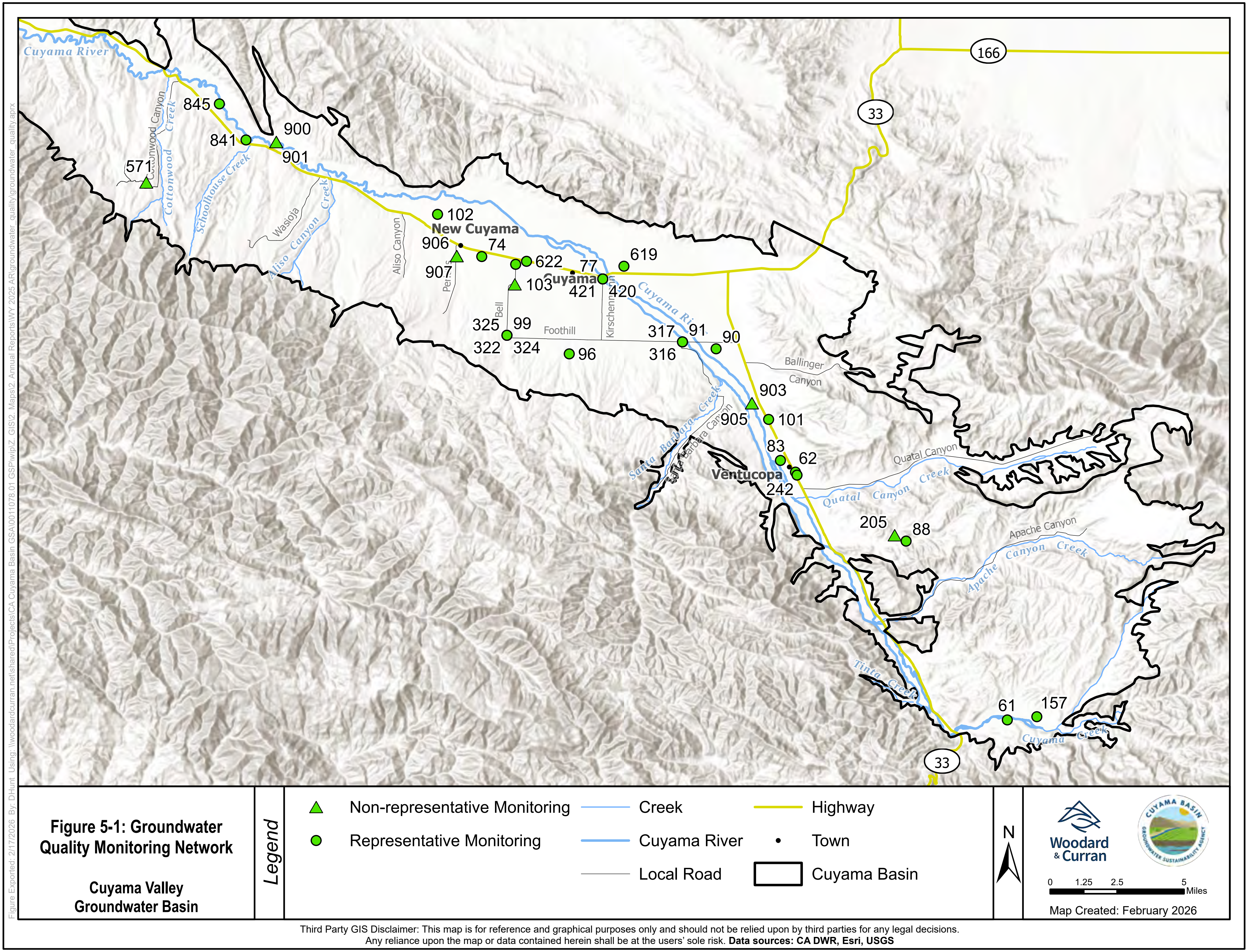


Figure 5-1: Groundwater Quality Monitoring Network

Cuyama Valley Groundwater Basin

Map Created: February 2026

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data sources: CA DWR, Esri, USGS**

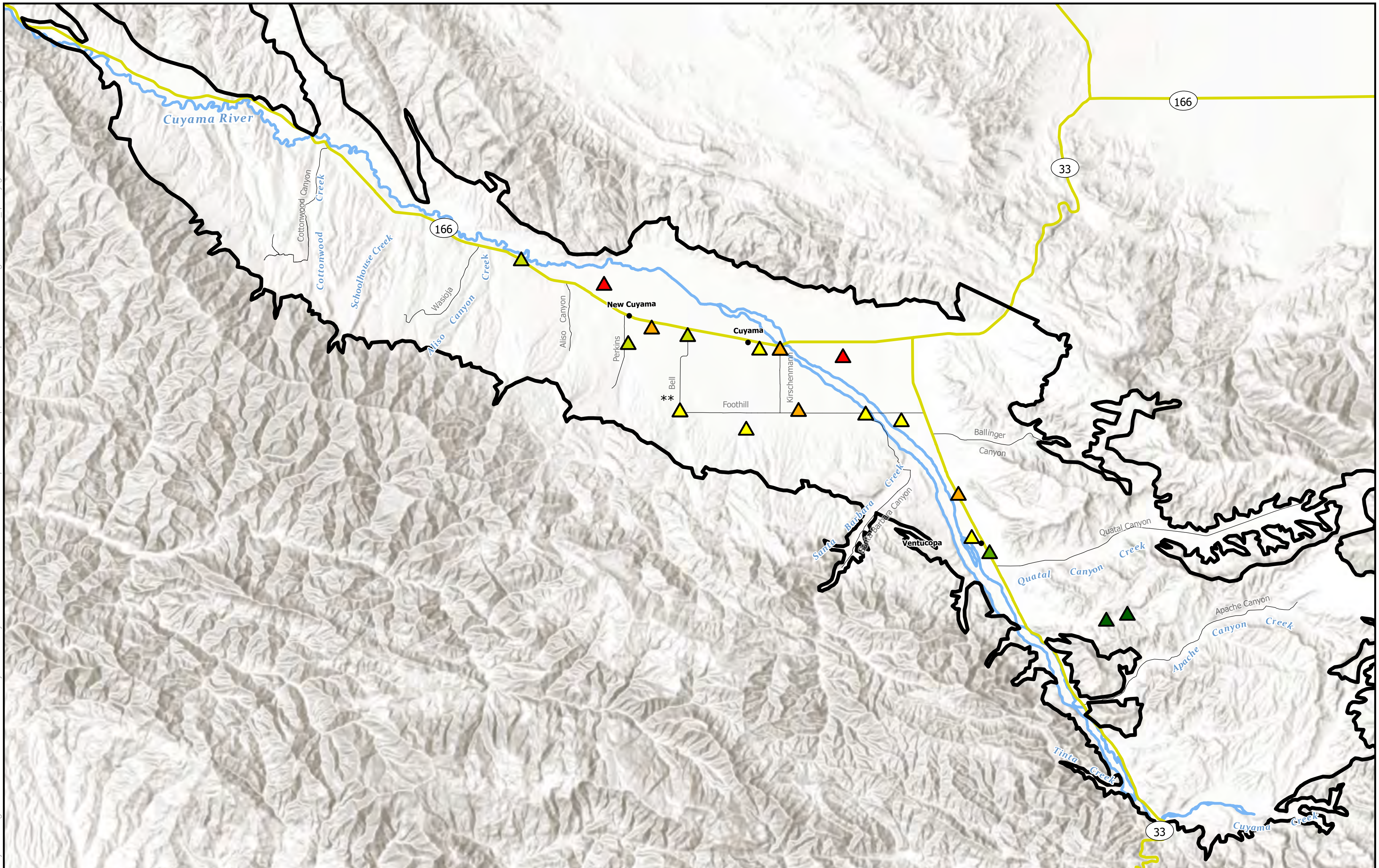


Figure 5-2: Groundwater Quality Measurements - TDS

October 2025 Data

Cuyama Valley Groundwater Basin

Legend

- < 500 mg/L
- 501 - 750 mg/L
- 751 - 1,000 mg/L
- 1,001 - 1,250 mg/L
- 1,251 - 1,500 mg/L
- 1,501 - 1,750 mg/L
- 1,751 - 2,000 mg/L
- 2,001 - 2,250 mg/L
- Highway
- Local Road
- Town
- Creek
- Cuyama River
- Cuyama Basin

**Nested well at this location.

N

0 1.25 2.5 5 Miles

Map Created: January 2026

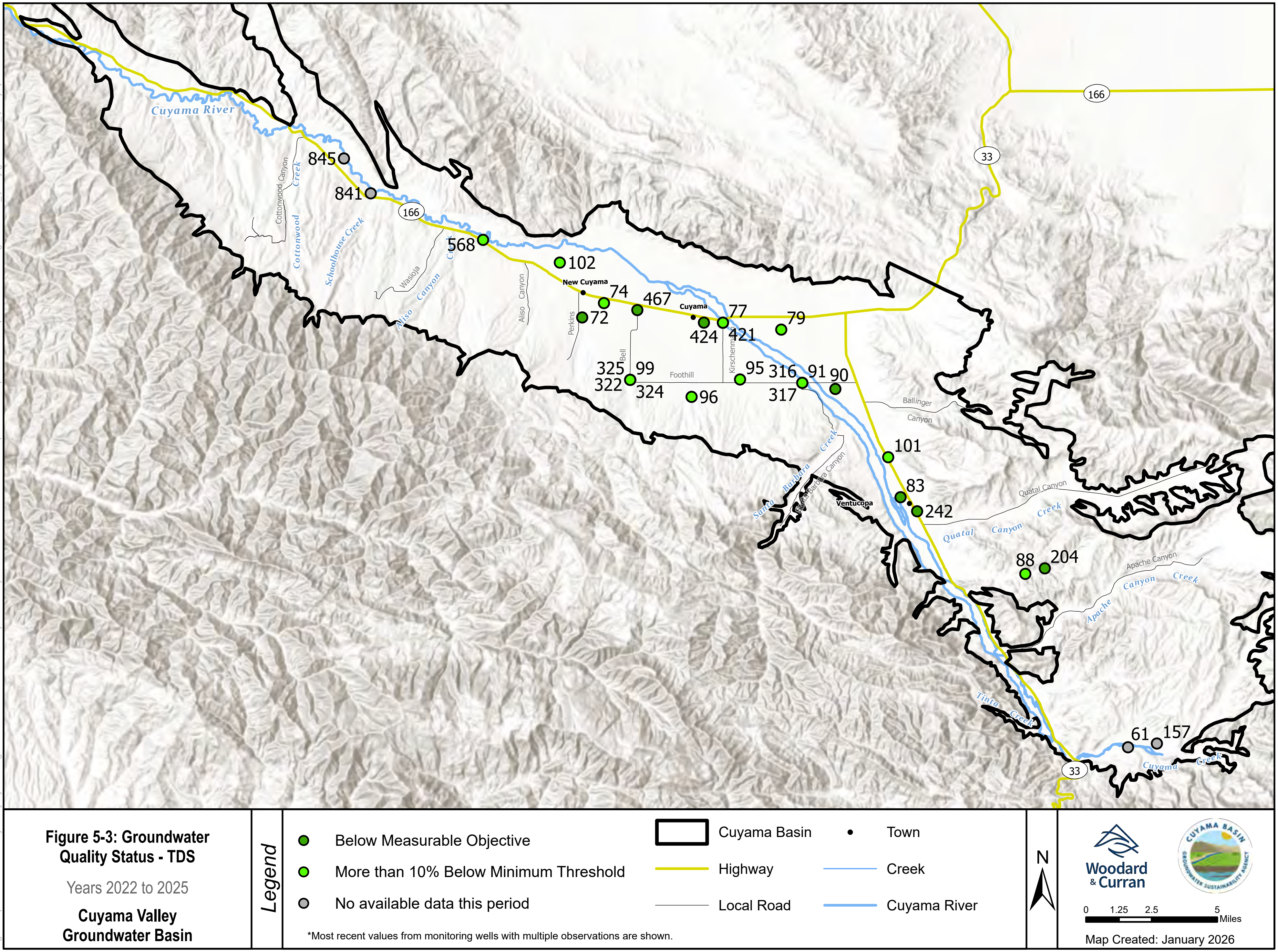


Figure 5-3: Groundwater Quality Status - TDS

Years 2022 to 2025

Cuyama Valley Groundwater Basin

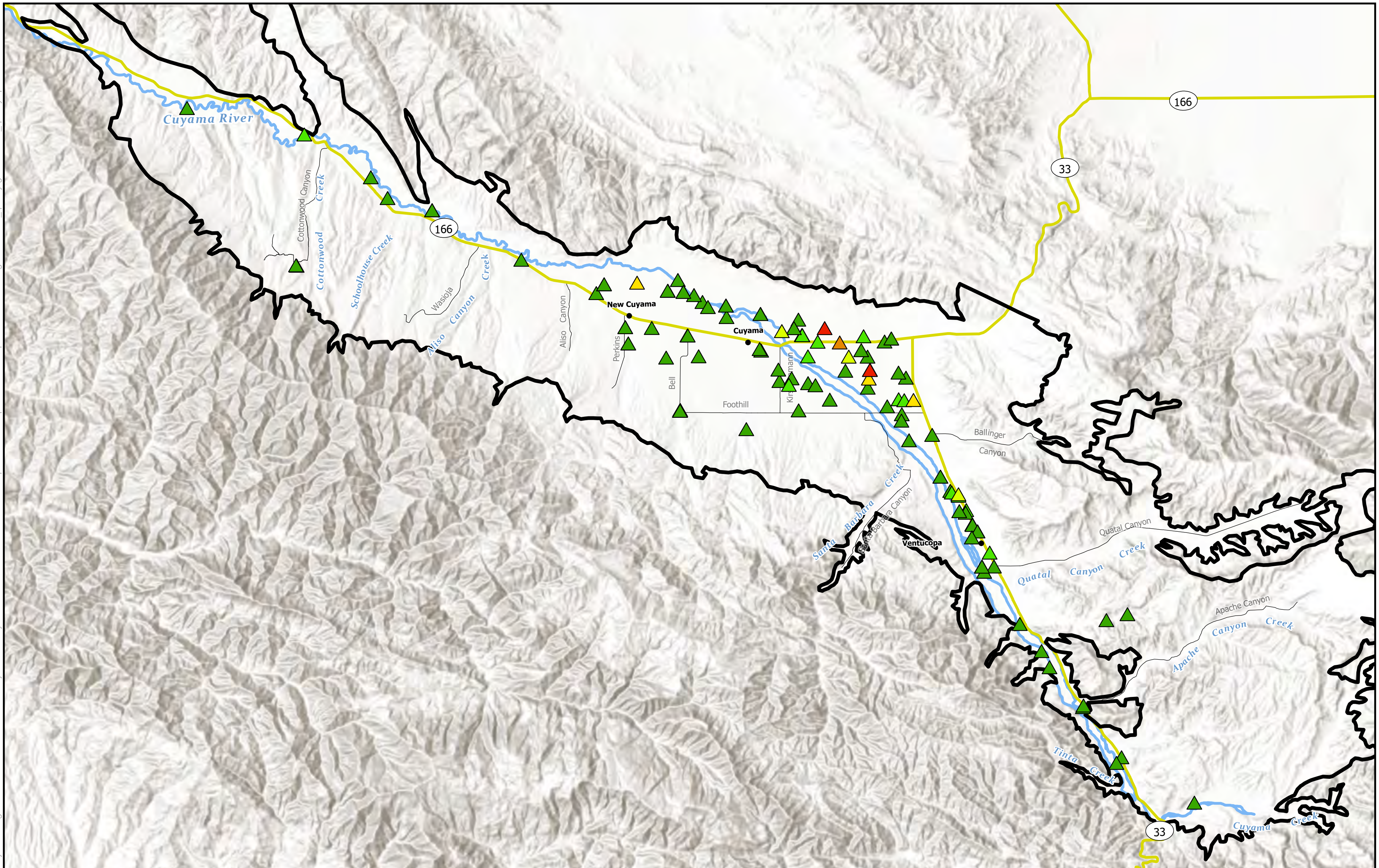


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Figure 5-4: Groundwater Quality Measurements - Nitrate as NO3-N

Years 2022 to 2025

Cuyama Valley Groundwater Basin

Legend

- 0 - 5 mg/L
- 5 - 8 mg/L
- 8 - 10 mg/L
- 10 - 15 mg/L
- 15 - 20 mg/L
- > 20 mg/L
- Highway
- Local Road
- Town
- Creek
- Cuyama River
- Cuyama Basin

*Most recent values from monitoring wells with multiple observations are shown.

N

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0 1.25 2.5 5 Miles

Map Created: January 2026

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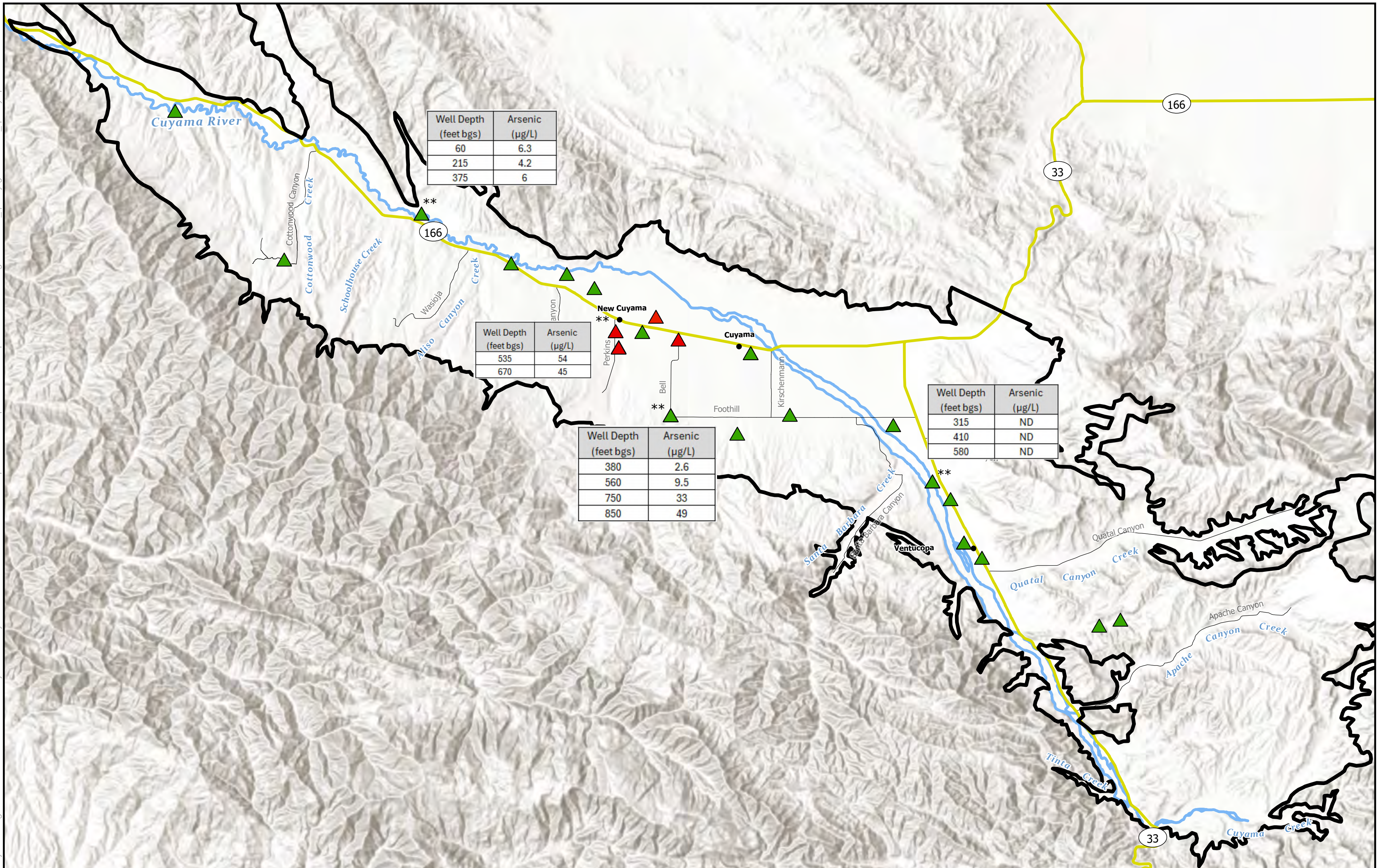

Well Depth (feet bgs)	Arsenic (µg/L)
60	6.3
215	4.2
375	6

Well Depth (feet bgs)	Arsenic (µg/L)
535	54
670	45

Well Depth (feet bgs)	Arsenic (µg/L)
380	2.6
560	9.5
750	33
850	49

Well Depth (feet bgs)	Arsenic (µg/L)
315	ND
410	ND
580	ND

Figure 5-5: Groundwater Quality Measurements - Arsenic

Years 2022 to 2025

Cuyama Valley Groundwater Basin

Legend

- ▲ < 5 µg/L
- ▲ 5 - 8 µg/L
- ▲ 8 - 10 µg/L
- ▲ 10 - 15 µg/L
- ▲ 15 - 20 µg/L
- ▲ > 20 µg/L
- Highway
- Local Road
- • Town
- Creek
- Cuyama River
- Cuyama Basin

*Most recent values from monitoring wells with multiple observations are shown. **Nested well at this location.

N

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CUYAMA BASIN GROUNDWATER SUSTAINABILITY AGENCY

0 1.25 2.5 5 Miles

Map Created: January 2026

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data sources: CA DWR, Esri, USGS**

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Section 6. Land Subsidence

Section 4.9 of the Cuyama Basin GSP describes the monitoring network for land subsidence in the Basin, which is composed of five continuous geographic positioning system (CGPS) stations in and around the Basin to monitor lateral and vertical ground movements. Two of the five stations, the Cuyama Valley High School (CUHS) and the Ventucopa (VCST) stations, are within the Basin boundary. The other three stations are outside of the Basin and provide data comparative data for vertical movements that are more likely related to tectonic displacement rather than land subsidence.

The undesirable result for subsidence, as described in Section 3.2.5, is detected when 30 percent of representative subsidence monitoring sites (i.e. 1 of 2 sites) exceed the minimum threshold for subsidence over two years. The minimum threshold for subsidence, as defined in GSP Section 5.6.3, is 2 inches per year.

At the time the GSP was submitted in 2020, subsidence rates for the CUHS station were -0.56 inches per year. As shown in **Figure 6-1** data through 2025 was downloaded from the USGS Earthquakes Hazards Program, Central California Network[7]. Data was formerly downloaded from UNAVCO[8] and the subsidence trend for CUHS was recalculated. Subsidence rates for the last few years have shown positive or near no change in ground surface elevation. USGS applied a manual adjustment in 2024 (clear shown by the jump up in vertical displacement) for station CUHS[9]. Other stations have also had historical data sets updated or edited while using the new online interface[7]. To use a conservative analysis, “Trended” data for each statin is downloaded and analyzed and shown in **Figure 6-1.**

Subsidence rates are calculated by taking the rate of subsidence for the current and previous water years (two-year time span) and calculating the slope of the rate over that period. Because USGS applied a manual adjustment in 2024, this slope for CUHS was calculated to be a positive 4.02 inches over the last two water years. However, because of the manual adjustment, this could be seen as a misrepresentation of the rates of subsidence and an artifact of USGS’s data correction. Therefore, the CBGSA has for this Annual Report “removed” that adjustment in 2024 and normalized the data. This was done by:

1. Identifying the date of the manual adjustment = April 5, 2024.
2. Finding the difference between 4/4/2024 and 4/5/2024 and using this as the vertical displacement manual adjustment value. This difference = -0.29724 inches.
3. Taking all data from 4/5/2024 through the end of WY 2025 (9/30/2025) and manual adjusting that data by the -0.29724 so that the points simulate a non-corrected trend over the rate evaluation period
4. Recalculating the slope with the “non-adjusted” data over that time. Found to be 0.15 inches per year.

Applying this adjustment results in a more realistic estimate of the rate of subsidence for the period of interest presented in this report.

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[7] https://earthquake.usgs.gov/monitoring/gps/CentralCalifornia_ITRF2014/.

[8] https://www.unavco.org/data/web-services/documentation/documentation.html#!/GNSS47GPS/getPositionByStationId

[9] https://earthquake.usgs.gov/monitoring/gps/CentralCalifornia_ITRF2014/cuhs

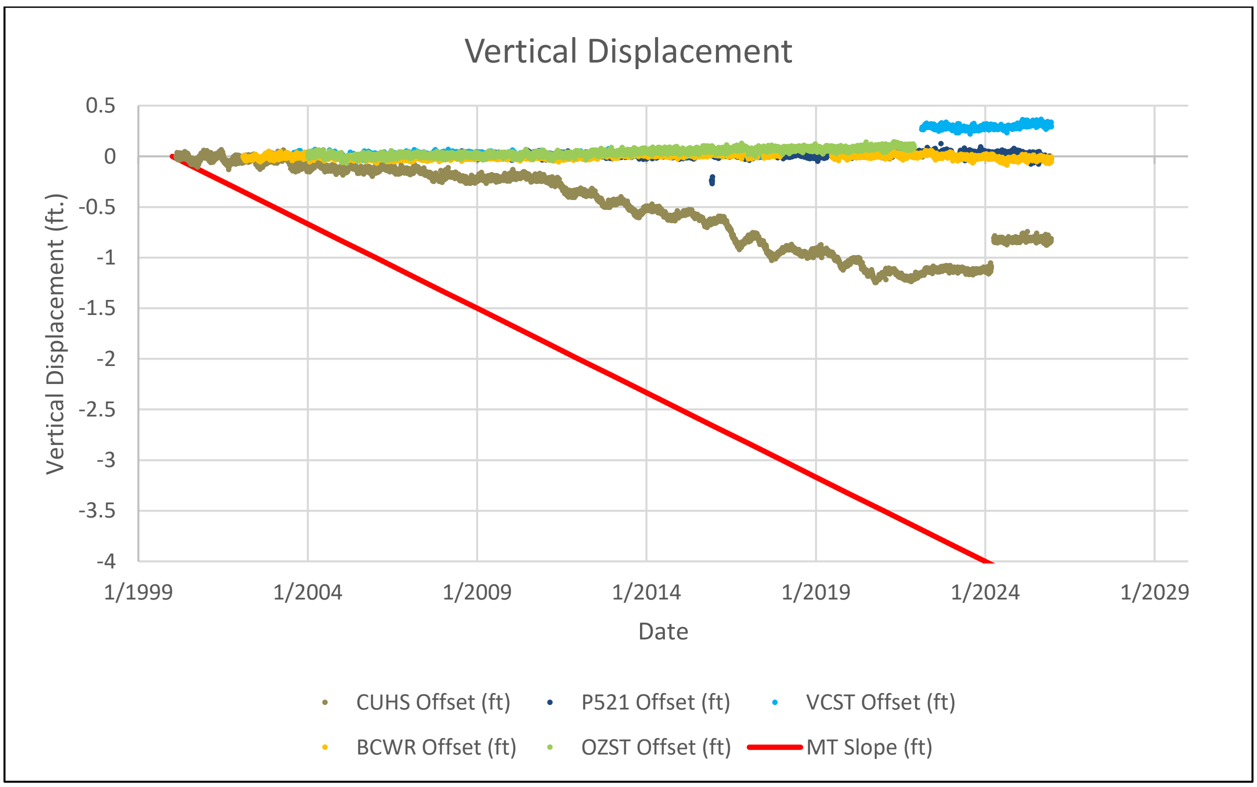
Table 6-1 shows the summary trends and statistics for the subsidence monitoring stations within the Basin. Several different comparisons are shown for transparency, however, the rate over the last two WYs is used to assess whether URs are occurring.

All current rates are below the minimum threshold, and thus undesirable results for subsidence are not occurring in the Basin.

Table 6-1: Summary of Subsidence Trends

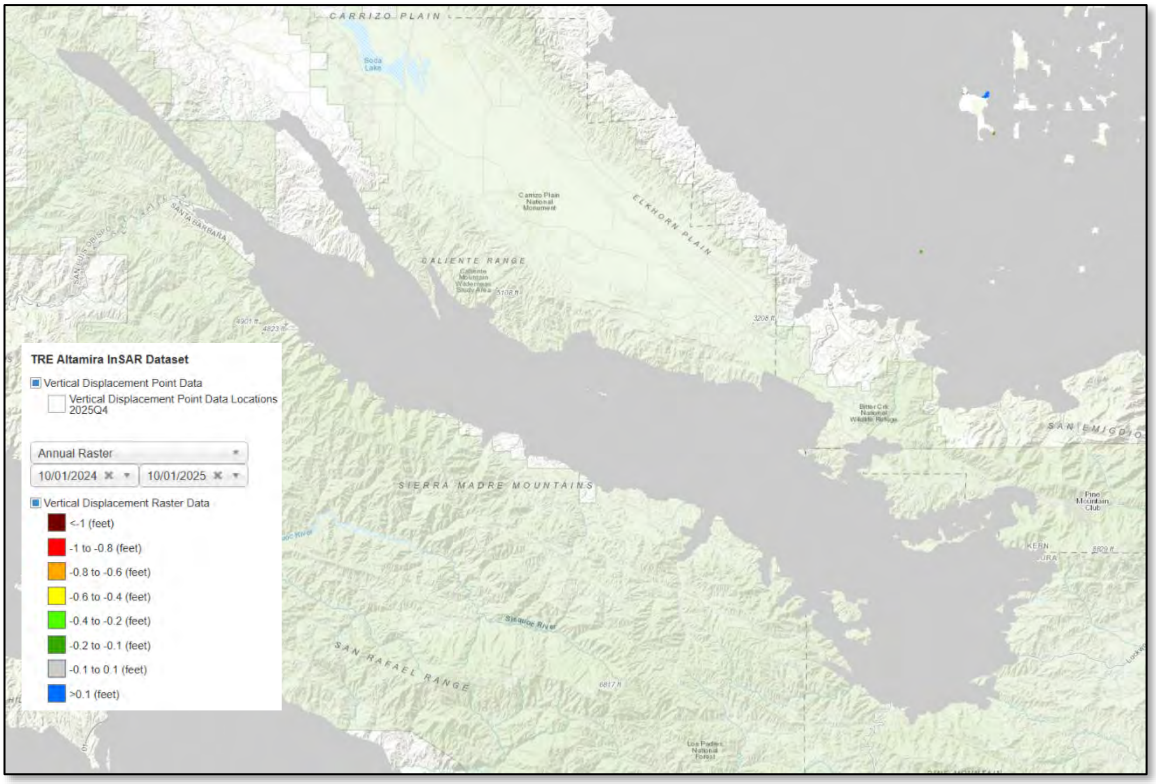
Station	Rate of Subsidence – All Records	Rate of Subsidence – WY 2024 & 2025	MT (in/yr)	MT Exceedance?
CUHS (with USGS Adjustment)	-0.62	+2.01	-2	No
CUHS (**without** USGS Adjustment)	N/A	+0.07	-2	No
VCST	+0.17	+0.31	-2	No

Figure 6-1: Subsidence Monitoring Data



Additional subsidence data is available through TRE Altamira InSAR Dataset from DWR, which was used to verify that no detrimental or drastic changes had occurred. Raster results for the change over the water year are presented in **Figure 6-2** and show no discernable change (between -0.1 and +0.1 feet) in any part of the Basin over that period.

Figure 6-2: Cuyama Subsidence Raster from SGMA Data Viewer – TRE Altamira InSAR Data – WY2025



Section 7. Plan Implementation

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

This section describes management activities taken by the CBGSA to implement the Cuyama Basin GSP from adoption of the GSP through preparation of this Annual Report.

7.1 Progress Toward Achieving Interim Milestones

Since the original GSP was adopted by the CBGSA Board recently and CBGSA data collection efforts began in the second half of 2020, progress toward achieving interim milestones is in its early stages.

To track changes in groundwater conditions and the Basins progress towards sustainability, the GSA compiles a quarterly groundwater condition reports based on the data collected to monitoring groundwater levels. Current data collection occurs quarterly with corresponding reports. Data collection prior to 2022 was conducted monthly, but the CBGSA determined quarterly data collection was sufficient after a full year of monthly monitoring had been performed.

The Updated 2025 GSP included a reevaluation of thresholds for the groundwater level sustainability indicator, as described in Section 5 (Minimum Thresholds, Measurable Objectives, and Interim Milestones). As described in the 2025 GSP Update, the minimum threshold calculation now uses a stepwise function that takes a conservative approach to protect wells (production and domestic) across the Basin while providing flexibility, when possible, to accommodate the CBGSA planned pumping allocations and reductions strategy. The stepwise function has four potential calculation outcomes:

1. **Combined Well protection and GDE protection depth:** The well protection depth and GDE protection depth were merged together in a GIS analysis process that interpolated the data into a 3-dimensional coverage across the Basin, in the same process elevation points make a topographic map of the surface elevation. For each RMW's location, the interpolated protection depth was then extracted to get the final Well Protection / GDE protection depth value.
    a. **Well Protection Depth**: The well protection depth is used to ensure that active production and domestic wells within the Basin are protected from harm to their beneficial uses. The well protection depth is a numerical value representing the approximate depth at which, if exceeded, beneficial uses could be impacted in a well. This value is unique and calculated for each active production and domestic well within the Basin where there is available data. Where data is not available, generalized or regional proxy data is utilized. Some wells are screened from this analysis either because they are too far removed from the representative well network (and therefore conditions at the nearest RMW are not indicative of conditions at the active well because of distance and/or other conditions such as geology or topology) or wells were already dry in 2015. The well protection depth is calculated for each pumping well as a four-part stepwise function, with a slight difference in the fourth step between domestic and production wells (Figure 7-1).
    b. **GDE Protection Depth**: All potential GDE locations in the Basin were assigned a protection depth of 30 ft bgs via a dense spatial point-cloud within each GDE polygon in

GIS. The point-clouds allow GIS to utilize the same data type (points instead of polygons) in the processing required for the protection depth calculation.

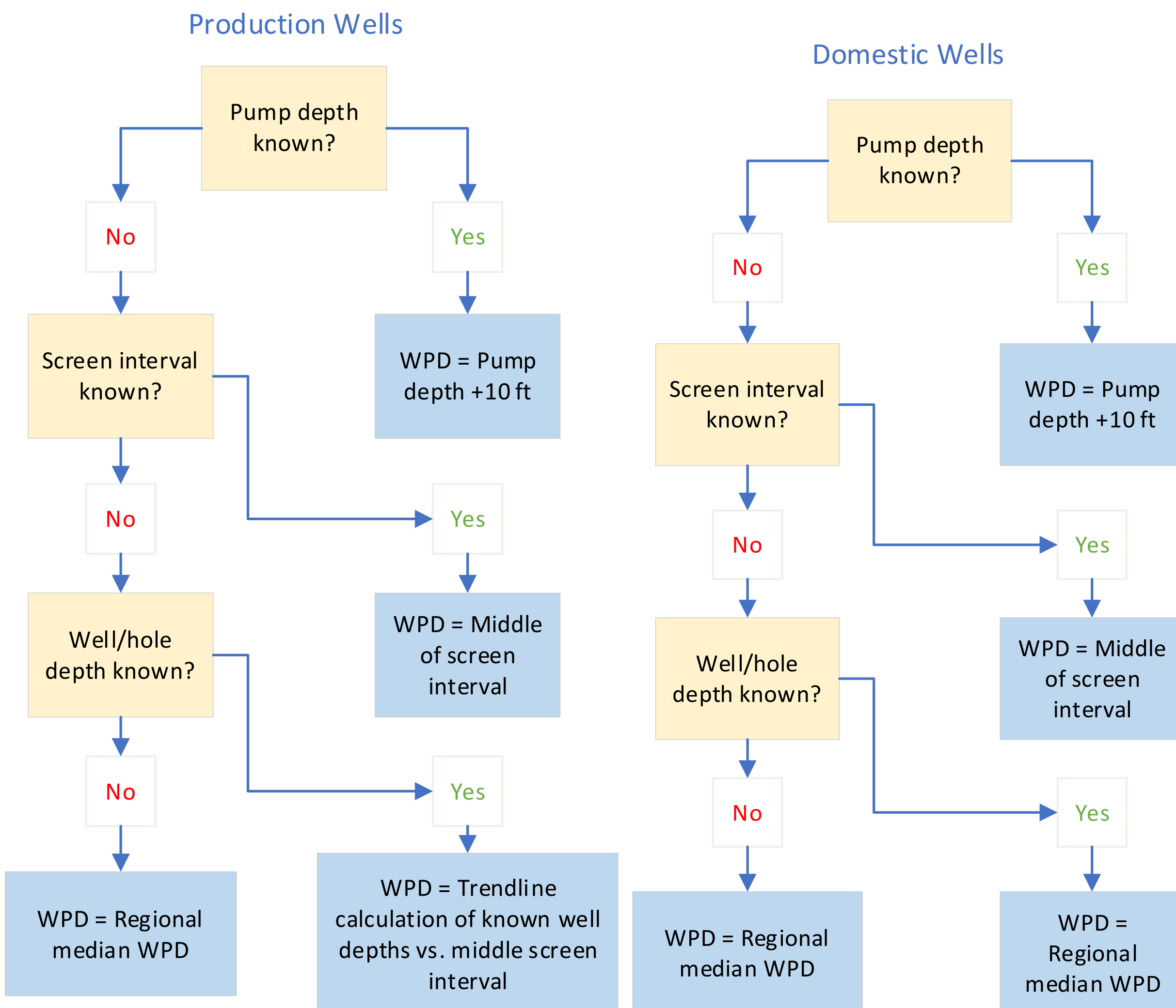


Figure 7-1: Well Protection Depth Stepwise Diagram for Production and Domestic Wells

2. **Recent deepest measurement plus 10 ft or 5% buffer (whichever is greater):** Historical data for the last ten years (2013-2023 based on the timing of the development of this methodology) was analyzed to find the deepest depth to water during that period. A buffer of the greater of either 10 ft or 5% of the depth to water value was then added to the max depth. This methodology helps utilize, where appropriate, historical and recently collected data that captures both wet and dry periods. This criteria allows for the flexibility for regions of the Basin that experience significant drawdown and recovery during dry and wet hydrologic cycles to manage those variations in groundwater elevation.
3. **Projected depth of water in 2040 based on modeled glidepath**: The Cuyama Basing Groundwater Model (updated in 2024 for the 2025 GSP) was used to project the depth of water in 2040 based on the CBGSA's planned allocation and glidepath pumping reductions. In regions of

the Basin where there is significant pumping, this allows for groundwater levels to decline to where the model predicts they will be in 2040 given the anticipated schedule for pumping reductions.

4. **Saturated thickness in areas of greater geologic understanding:** The calculation for this strategy uses the localized region's total average saturated thickness for the primary storage area and calculating 15 percent of that depth. Because there is an area in the northwestern portion of the Basin with greater geological research and understanding, the saturated thickness provides a measurable and defined direct relationship between available water in the aquifer, storage capacity, and undesirable conditions. As discussed in the following section, additional analysis has also been conducted to ensure that the calculated MTs in this area do not impact beneficial uses or uses at any nearby active wells or potential GDEs.

Using these four options above, the stepwise function to determine the appropriate MT for each RMW is as follows:

1. For RMWs that used the saturated thickness approach in the approved 2020 GSP, utilize that same approach.
2. For RMWs that did not utilize the saturated thickness approach in the approved 2020 GSP,
    a. First find the deeper of these two values:
        i. Deepest depth to water (DTW) from 2013-2023 + buffer
        ii. Cuyama Basin groundwater model projected DTW in 2040
3. Then find the shallower value between Step 2a, the WPD and the GDE protection depth

As outlined in the GSP, undesirable results for the chronic lowering of groundwater levels occurs, "when 30 percent of representative monitoring wells… fall below their minimum groundwater elevation threshold for two consecutive years." (Cuyama GSP, pg. 3-2). As of October 2025, 2% of representative wells (1 of 46) was below the minimum threshold (Cuyama Groundwater Conditions Report, pg. 1). Undesirable results conditions have therefore not been met.

Table 7-1: Measured Depths to Groundwater Compared to 2025 Minimum Thresholds

Well	Region	Depth to Water (feet)	Measurement Month	Minimum Threshold	Status
72	Central	142	October 2025	373	Above Measurable Objective
74	Central	240	October 2025	322	Above Measurable Objective
77	Central	501	October 2025	514	More than 10% above Minimum Threshold
91	Central	683	October 2025	730	More than 10% above Minimum Threshold
95	Central	588	October 2025	597	More than 10% above Minimum Threshold
96	Central	341	October 2025	369	Above Measurable Objective
99	Central	309	October 2025	379	Above Measurable Objective
102	Central	375	October 2025	470	Above Measurable Objective
103	Central	229	October 2025	379	Above Measurable Objective
112	Central	83	October 2025	102	Above Measurable Objective
114	Central	47	October 2025	58	Above Measurable Objective
316	Central	685	October 2025	731	More than 10% above Minimum Threshold
317	Central	683	October 2025	700	More than 10% above Minimum Threshold
322	Central	310	October 2025	387	Above Measurable Objective
324	Central	306	October 2025	365	Above Measurable Objective
325	Central	300	October 2025	331	Above Measurable Objective
420	Central	502	October 2025	514	More than 10% above Minimum Threshold
421	Central	503	October 2025	514	More than 10% above Minimum Threshold
474	Central	130	October 2025	197	Above Measurable Objective
568	Central	37	October 2025	47	Above Measurable Objective
604	Central	463	October 2025	544	Above Measurable Objective
935	Central	438	October 2025	504	Above Measurable Objective
609	Central	419	October 2025	499	Above Measurable Objective
610	Central	646	October 2025	557	Below Minimum Threshold (63 months)

612	Central	441	October 2025	513	Above Measurable Objective
613	Central	507	October 2025	578	Above Measurable Objective
615	Central	523	October 2025	588	Above Measurable Objective
629	Central	556	October 2025	613	Above Measurable Objective
633	Central	556	October 2025	605	More than 10% above Minimum Threshold
62	Eastern	89	October 2025	212	Above Measurable Objective
85	Eastern	141	October 2025	200	Above Measurable Objective
100	Eastern	89	October 2025	186	Above Measurable Objective
101	Eastern	68	October 2025	138	Above Measurable Objective
841	Northwestern	69	October 2025	203	Above Measurable Objective
845	Northwestern	79	October 2025	203	Above Measurable Objective
2	Southeastern	31	October 2025	52	Above Measurable Objective
89	Southeastern	29	October 2025	62	Above Measurable Objective
106	Western	141	October 2025	164	Above Measurable Objective
107	Western	78	October 2025	122	Above Measurable Objective
117	Western	154	October 2025	163	More than 10% above Minimum Threshold
118	Western	51	October 2025	72	More than 10% above Minimum Threshold
571	Western	96	October 2025	142	Above Measurable Objective
573	Western	66	October 2025	93	More than 10% above Minimum Threshold
830	Far-West Northwestern	-	October 2025	63	No available data this period (Above MO in July 2024)
832	Far-West Northwestern	33	October 2025	50	Above Measurable Objective
833	Far-West Northwestern	26	October 2025	48	More than 10% above Minimum Threshold
836	Far-West Northwestern	31	October 2025	49	More than 10% above Minimum Threshold

Note: Wells only count towards the identification of undesirable results if the level measurement is below the minimum threshold for 24 consecutive months.

7.2 Funding to Support GSP Implementation

On May 22, 2025, the CBGSA Board held a rate hearing and set a groundwater extraction fee of $5 per acre-foot for FY 2025-26.

Additionally, the CBGSA has been awarded a $7.6 million in grant fund under the Critically Overdrafted Basin (COD) SGMA Implementation Round 1 grant opportunity, with funding awarded for the following activities:

- Ongoing Monitoring and Enhancements
    - Installation of Piezometers
    - installation of dedicated monitoring wells
    - DMS maintenance and enhancements
    - Groundwater level and quality monitoring
    - USGS stream gage maintenance
- Project and Management Action Implementation
    - CBWRM model update and re-calibration
    - Develop and implement framework for pumping allocations
    - Analysis of management actions implementation options
    - Adaptive management support
    - Precipitation enhancement technical analysis
    - Flood and stormwater capture technical analysis
- GSP Implementation and Outreach Activities
    - GSP implementation program management
    - Stakeholder engagement and community outreach
    - Prepare annual reports
    - Modify GSP in response to DWR determination
    - 5-year GSP update
- Improving Understanding of Basin Water Use
    - Perform updated land use survey
    - Perform river channel survey
    - Enhance existing CIMIS station and implement new stations

While the original grant agreement specified a completion date of April 30, 2025, this has been extended to March 31, 2026.

7.3 Stakeholder Outreach Activities in Support of GSP Implementation

The following is a list of public meetings where GSP development and implementation was discussed during the 2024-2025 water year.

- CBGSA Board meetings[10]: November 6, January 15, January 27, March 5, May 7, May 22, July 9, and September 3
- Standing Advisory Committee (SAC) meetings[11]: October 31, January 9, February 27, May 1, June 26, and August 28

7.4 Progress on Implementation of GSP Projects

Table 7-2 shows the projects and management actions that were included in the GSP. The following subsections describe the progress of implementation of each GSP project.

[10] https://cuyamabasin.org/board-of-directors

[11] https://cuyamabasin.org/standing-advisory-committee

Table 7-2: Summary of Projects and Management Actions included in the GSP

Activity	Current Status	Anticipated Timing	Estimated Cost[a]
Project 1: Flood and Stormwater Capture	A water rights analysis of potential water supplies was completed during WY 2024-2025.	• Feasibility study: 0 to 5 years • Design/Construction: 5 to 15 years	• Study: $1,000,000 • Flood and Stormwater Capture Project: $600-$800 per AF ($2,600,000 – 3,400,000 per year)
Project 2: Precipitation Enhancement	A cloud seeding effects study was completed by the Desert Research Institute during WY 2024-2025.	• Refined project study: 0 to 5 years • Implementation of Precipitation Enhancement: 5 to 15 years	• Study: $200,000 • Precipitation Enhancement Project: $25 per AF ($150,000 per year)
Project 3: Water Supply Transfers/Exchanges	Not yet begun	• Feasibility study/planning: 0 to 5 years • Implementation in 5 to 15 years	• Study: $200,000 • Transfers/Exchanges: $600-$2,800 per AF (total cost TBD)
Project 4: Improve Reliability of Water Supplies for Local Communities	The CCSD received a grant for a new well and is pursuing installation; not yet begun for other communities	• Feasibility studies: 0 to 2 years • Design/Construction: 1 to 5 years	• Study: $100,000 • Design/Construction: • $1,800,000
Management Action 1: Basin-Wide Economic Analysis	Completed	• December 2020	• $60,000
Management Action 2: Pumping Allocations in Central Basin Management Area	Additional allocations developed for Central Management Area for 2025 through 2029	• Allocations implemented: 2023 through 2040	• Plan: $300,000 • Implementation: $150,000 per year
Adaptive Management	Board ad-hoc committee was formed and considered potential actions; standard operating procedures were developed	Only implemented if triggered; timing would vary	TBD

[a] Estimated cost based on planning documents and professional judgment
AF = acre-feet

7.4.1 Project 1: Flood and Stormwater Capture

The CBGSA application for COD SGMA Implementation Grant funding from DWR includes a task to understand the feasibility of future flood and stormwater capture. Specifically, funding was sought to perform a water rights analysis on flood and stormwater capture flows in the Basin to understand the feasibility of further developing a stormwater capture project in the Basin given water availability and existing water rights. A technical and legal water rights analysis was completed during WY 2025, which concluded that while there may be potential water supply benefits from stormwater capture, there are also potential challenges related to the water rights of existing downstream users that could affect the feasibility of a potential project.

7.4.2 Project 2: Precipitation Enhancement

The CBGSA application for COD SGMA Implementation Grant funding from DWR, which includes a task to understand the feasibility of precipitation enhancements efforts. Specifically, funding was sought to perform a study of the precipitation enhancement action identified in the GSP to determine if this action should be pursued and implemented in the Basin. The CBGSA contracted with the Desert Research Institute (DRI) to assess cloud seeding effects on Santa Barbra County and the Cuyama Valley; DRI completed their study and provided a final report to the CBGSA in January 2025. While the study indicated that there may be some potential water supply benefits from the implementation of cloud seeding, cost and implementation concerns may preclude development of a cloud seeding project in the Basin.

7.4.3 Project 3: Water Supply Transfers or Exchanges

No progress was made toward implementation of this project since completion of the GSP in January 2020. This project will be explored if Project 1 mentioned above: flood and stormwater capture was feasible but greater volumes of water are desired.

7.4.4 Project 4: Improve Reliability of Water Supplies for Local Communities

This management action includes consideration of opportunities to improve water supply reliability for Ventucopa within CCSD service area. Potential projects include a replacement well for CCSD and improvement of Ventucopa Water Supply Company (VWSC's) existing well. Since the 2020 GSP adoption DWR's IRWM program awarded CCSD a grant to install a new production well. Installation of a new well was initiated in WY2025 but has yet to become operational.

7.5 Management Actions

Table 7-2 shows the projects and management actions that were included in the GSP. The following subsections describe the progress of implementation of each GSP management action.

7.5.1 Management Action 1: Basin-Wide Economic Analysis

A Basin-wide direct economic analysis of proposed GSP actions was completed. The results of this analysis were presented to the GSP Board on December 4, 2019, and the final report was completed in December 2019. The final Basin-wide economic analysis report was provided in the 2020 Annual Report. This management action is 100% complete.

7.5.2 Management Action 2: Pumping Allocations in Central Basin Management Area

CBGSA staff has worked and continues to work with the Board and stakeholders to implement pumping allocations in the Central Management Area which began in the 2023 calendar year. As directed by the Board, in July 2022, CBGSA staff developed pumping allocations for 2023 and 2024 for each parcel located within the Central Management Area. These allocations reflected a 5% reduction in 2023 and a 10% reduction in 2024 relative to baseline levels.

Allocations for 2025 through 2029 were developed using the updated version of the CBWRM model developed as part of the 2025 GSP Update and were approved by the Board in January 2025. These new allocations take into consideration a new management area boundary developed using the same methodology as the previous management area, but utilizing the updated model and recent monitoring data. These allocations are available for review on the CBGSA website.

Table 7-3 compares the total Central Management Area allocation quantities in 2023 through 2025 with actual pumping, which was recorded by pumping meters by water users in the Central Management Area in each year. All users were at or below their pumping allocation amount in both 2023 and 2024. [Note: 2025 results will be compiled and included in table and discussion in final Annual Report.]

Table 7-3: Total Central Management Area Allocations and Extractions

Calendar Year	Allocations (Acre-feet)	Extractions (Acre-feet)
2023	47,246	23,454
2024	45,350	25,940
2025	44,295	25,747

The CBGSA intends to develop additional allocations for the period beyond 2029 that would achieve the overall target reduction volume specified in the GSP to reach sustainable conditions. The specific approaches for determining the allocation amounts will be developed and implemented during WY 2029 to take advantage of future data improvements and an anticipated update of the CBWRM model.

7.5.3 Consideration of Pumping Allocations Outside of Central Management Area

The 2025 GSP Update included a Ventucopa Management Area but did not include a management action to implement pumping allocations outside the Central Management Area. Instead the GSP specified that the CBGSA would develop a management plan for the Ventucopa Management Area in the future. During the summer and fall of 2025, the CBGSA performed an analysis of the available data and current CBWRM model capability to simulate the water budgets in the Ventucopa portion of the Basin. The analysis concluded that while the CBWRM model can simulate general trends, seasonal fluctuations, and small recoveries in groundwater levels, the model needs further adjustments to the overall estimates of water budgets and in the simulation of groundwater level recoveries during wet periods. Recommended model improvements were identified; the CBGSA Board will consider whether to fund these improvements during future fiscal years.

In addition, the CBGSA developed an approach to manage potential increased water use outside of the Central Management Area. This approach includes making an initial assessment on an annual basis that considers changes in groundwater pumping, groundwater levels, land use and well permits to determine if a more detailed assessment is required. If it is determined that increased water use is occurring or likely to occur in the near-term for land outside the Central Management Area, the CBGSA will consider performing a more detailed analysis which may include additional ground truthing and analysis of potential impacts to beneficial uses and users. If impacts are identified, appropriate management actions may then be considered, including establishing a "watch area", additional monitoring, implementing localized allocations, or temporary pumping restrictions on individual wells.

7.6 Adaptive Management

As discussed in the previous annual report, some wells in the Basin were trending towards undesirable results. The CBGSA Board undertook efforts to review wells that exceeded minimum thresholds, investigate potential causes of the exceedances, and identify if any domestic or production wells are affected by declining groundwater levels. This effort was incorporated into the updates included in the 2025 GSP, and are reflected in the revised SMCs, which utilize GSA collected data to protect beneficial uses and users of groundwater within the Basin. As discussed above, only one well had exceeded its minimum threshold during the October 2025 monitoring.

In addition, the CBGSA has established new standard operating procedures for the adaptive management process that outlines steps that the CBGSA would take to investigate the cause of changing conditions and develop adaptive management strategies for Board consideration. The procedures include forming an ad-hoc committee, performing an investigation, developing draft adaptive management response strategies, and implementing potential response strategies to correct the change in Basin conditions.

7.7 Progress Toward Implementation of Monitoring Networks

This section provides updates about implementation of the monitoring networks identified during GSP development.

7.7.1 Groundwater Levels Monitoring Network

In October 2021 the CBGSA transitioned to quarterly groundwater monitoring from its groundwater levels network. The CBGSA goes out in the field and collects Depth to Water measurements quarterly and attempts to take measurements from each of the representative and non-representative wells in the monitoring network. The results of this groundwater level monitoring are shown in Table 7-1. In September 2023, the CBGSA board voted to revise the monitoring network; the revised monitoring network has been included in the 2025 GSP Update and is reflected in this Annual Report.

Additionally, CBGSA Staff worked with the SGMA Portal team at DWR to ensure that GWL RMN changes are accurately reflected.

7.7.2 Surface Water Monitoring Network

Under a Category 1 grant from DWR, two new surface flow gages were installed on the Cuyama River during 2021. These gages are managed by the United States Geologic Survey (USGS), and data collected at the gage locations are available on the USGS website at the following links:

https://waterdata.usgs.gov/nwis/uv?site_no=11136500

https://waterdata.usgs.gov/ca/nwis/uv?site_no=11136710

Section 8. References

California Department of Water Resources (DWR). 2003. *California's Groundwater Bulletin 118—Update 2003*. https://water.ca.gov/LegacyFiles/groundwater/bulletin118/basindescriptions/3-13.pdf

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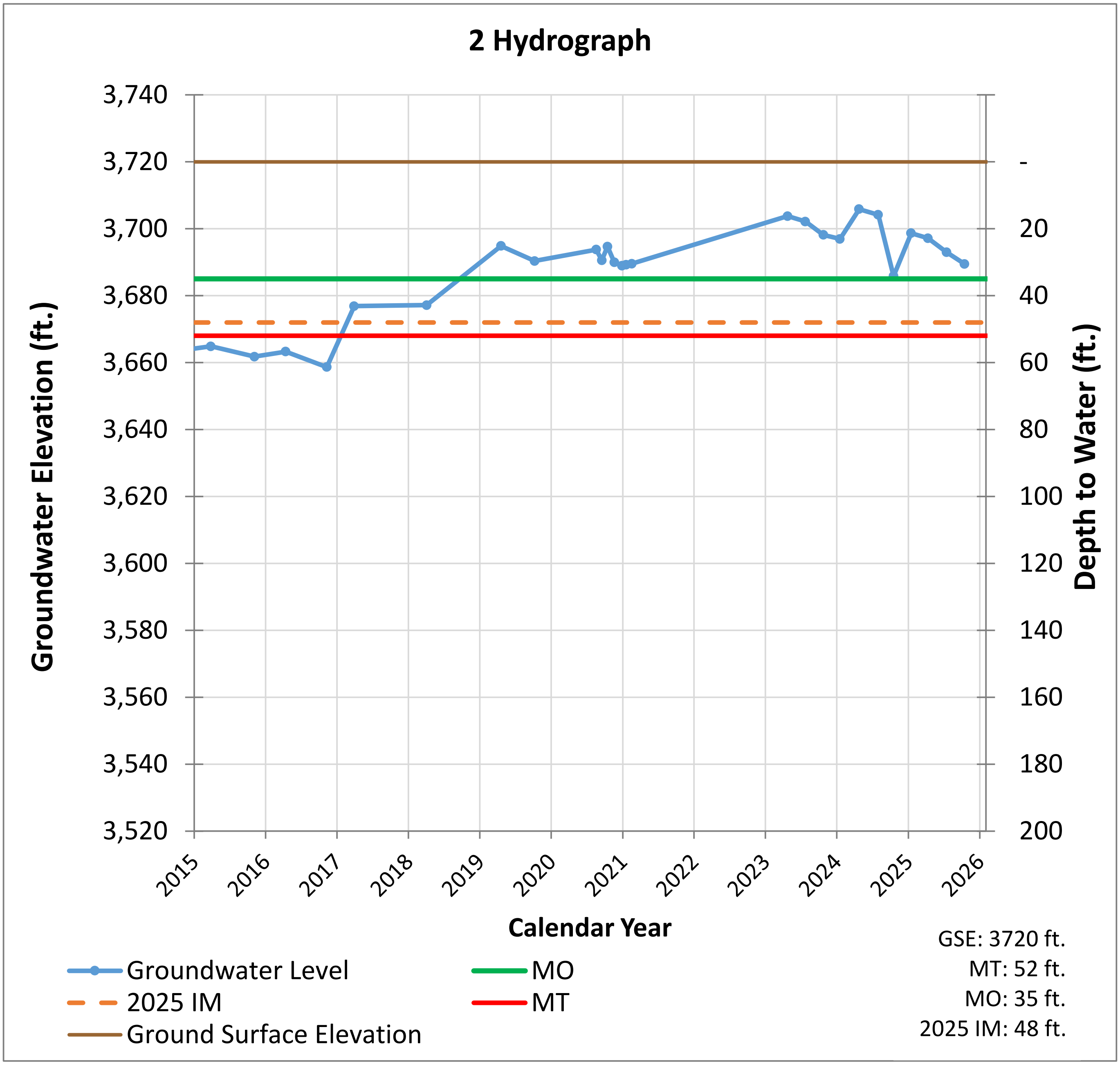
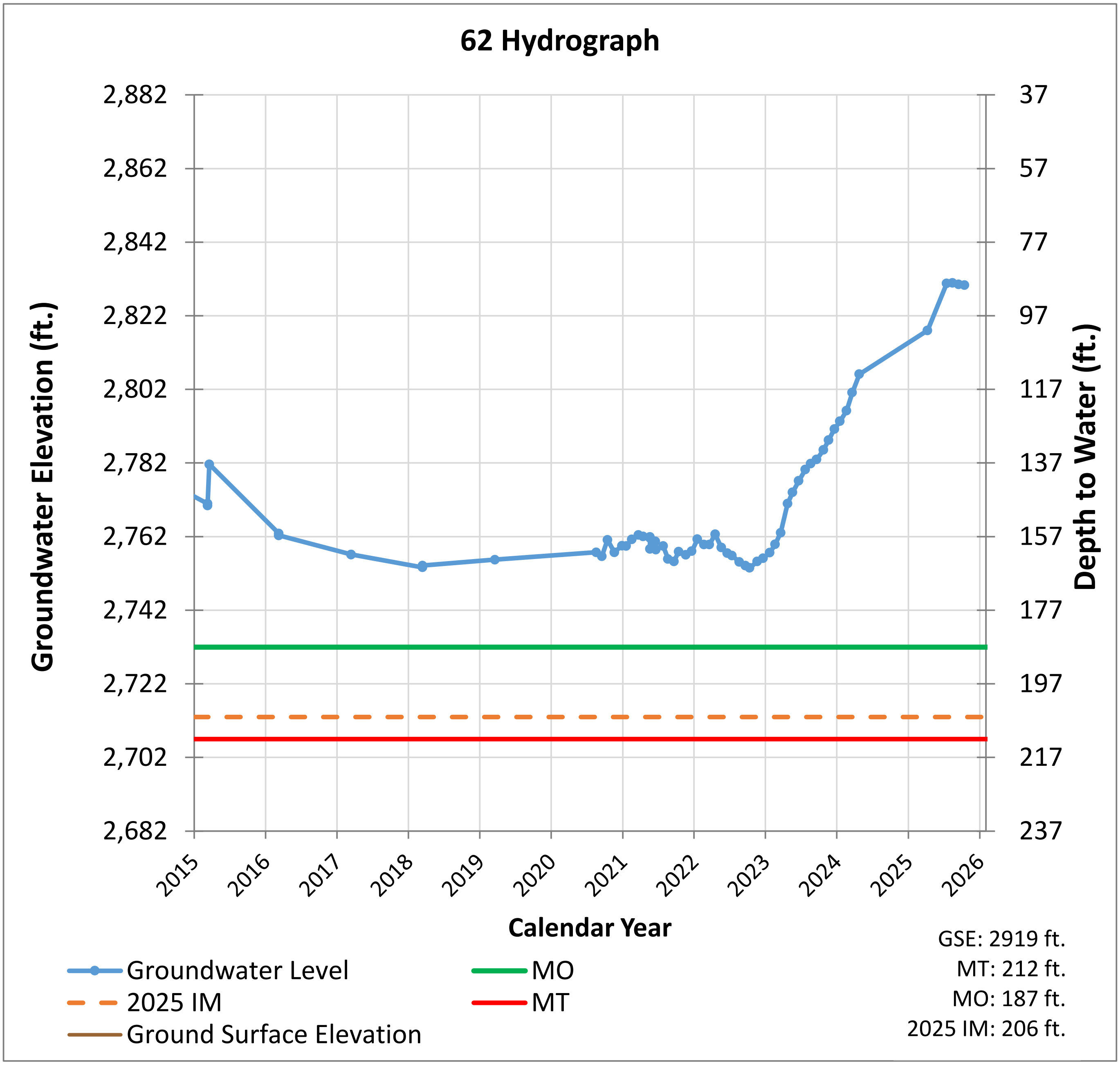
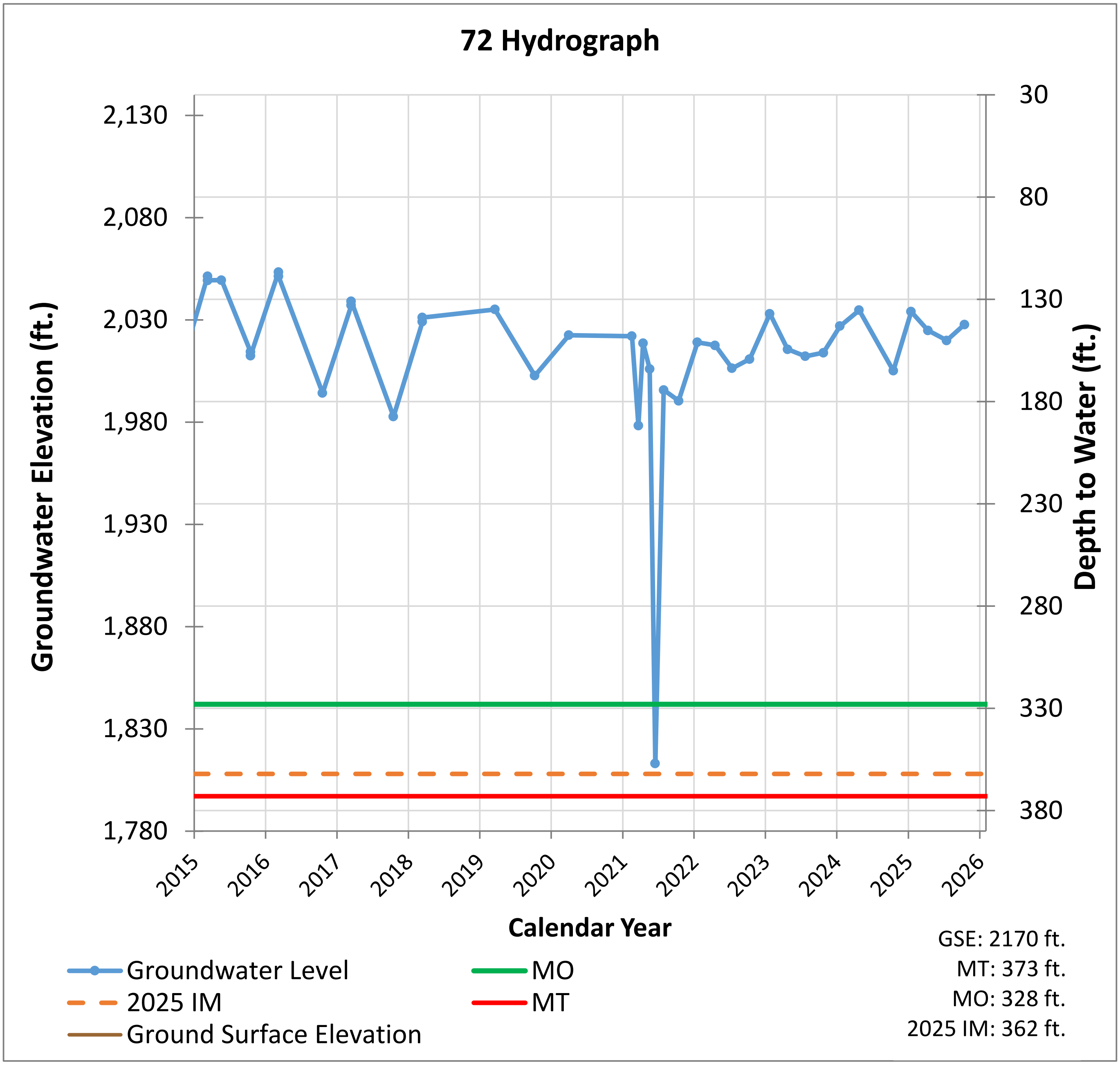
Appendix A
Updated Hydrographs for Representative Wells

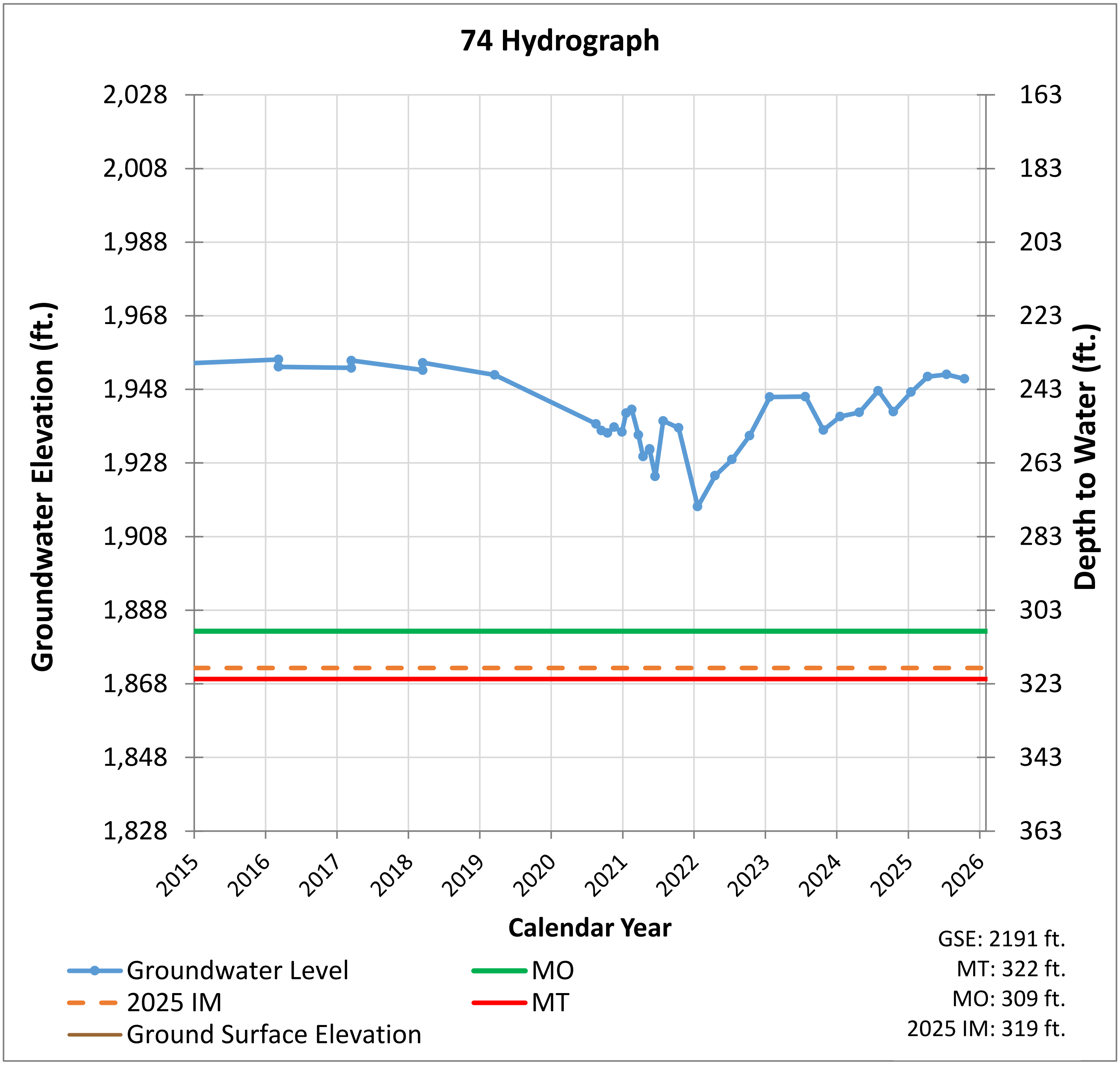


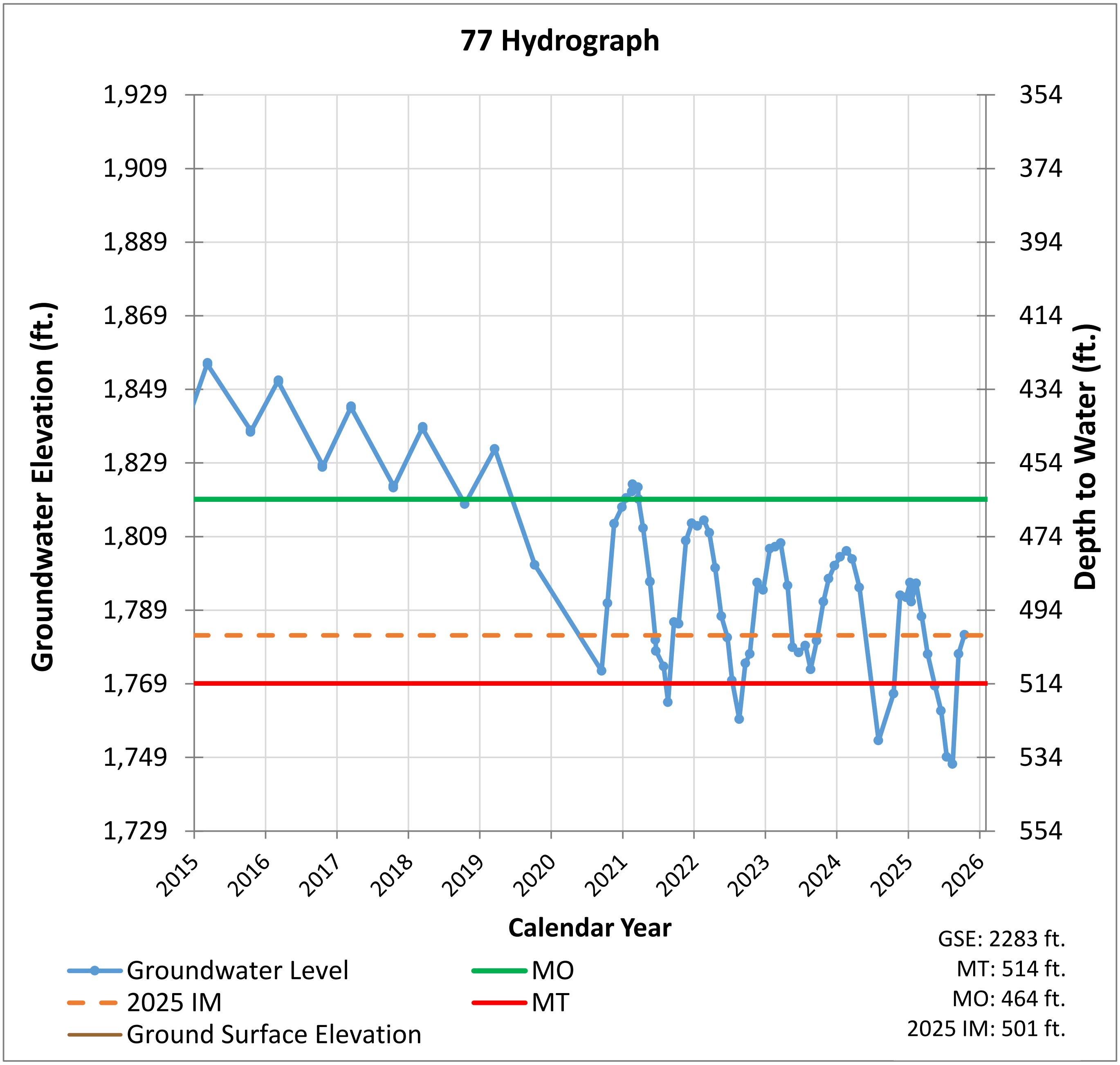
2 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
3,740
3,720
3,700
3,680
3,660
3,640
3,620
3,600
3,580
3,560
3,540
3,520
-
20
40
60
80
100
120
140
160
180
200
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 3720 ft.
MT: 52 ft.
MO: 35 ft.
2025 IM: 48 ft.

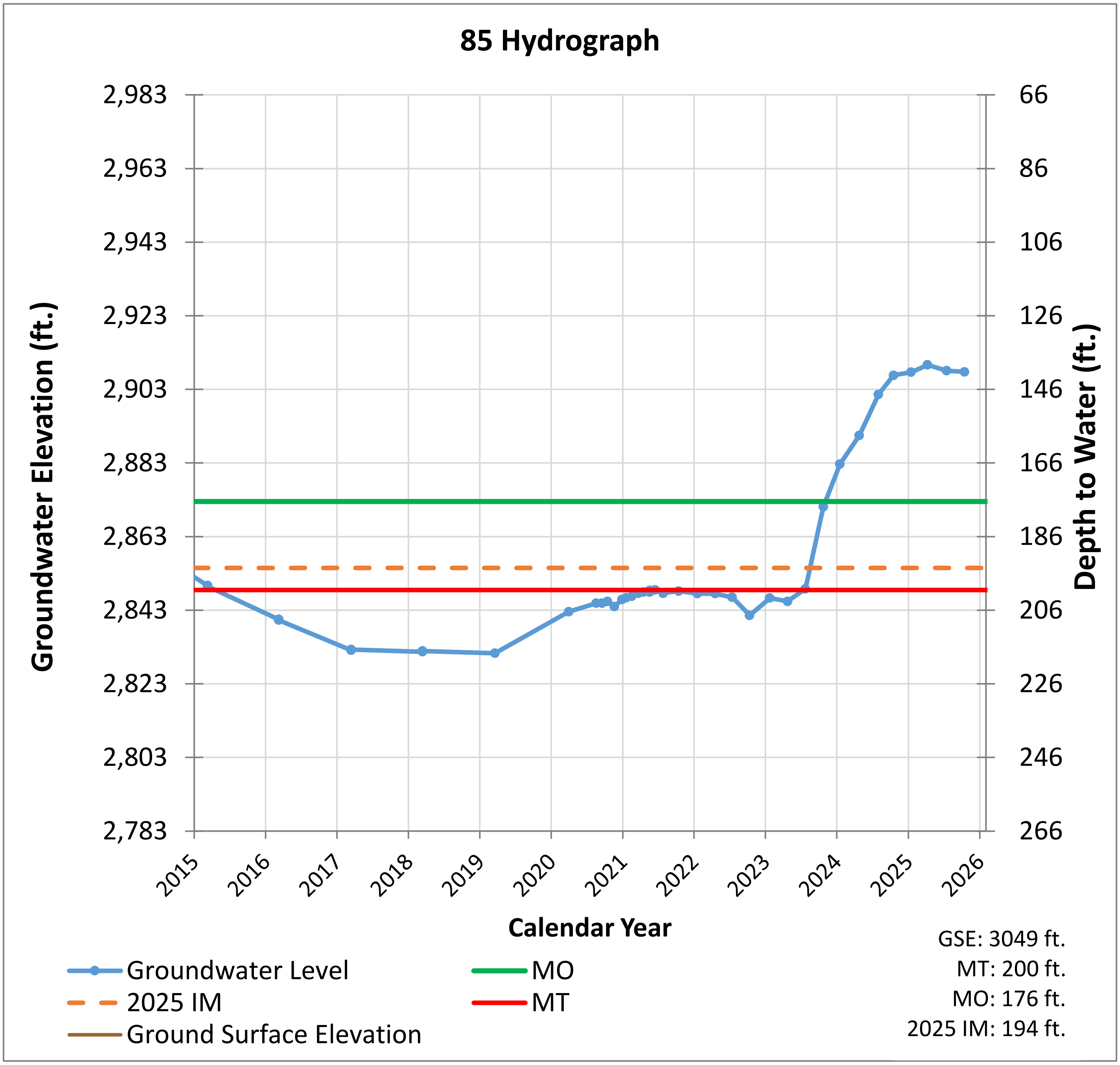

62 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,882
2,862
2,842
2,822
2,802
2,782
2,762
2,742
2,722
2,702
2,682
37
57
77
97
117
137
157
177
197
217
237
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2919 ft.
MT: 212 ft.
MO: 187 ft.
2025 IM: 206 ft.

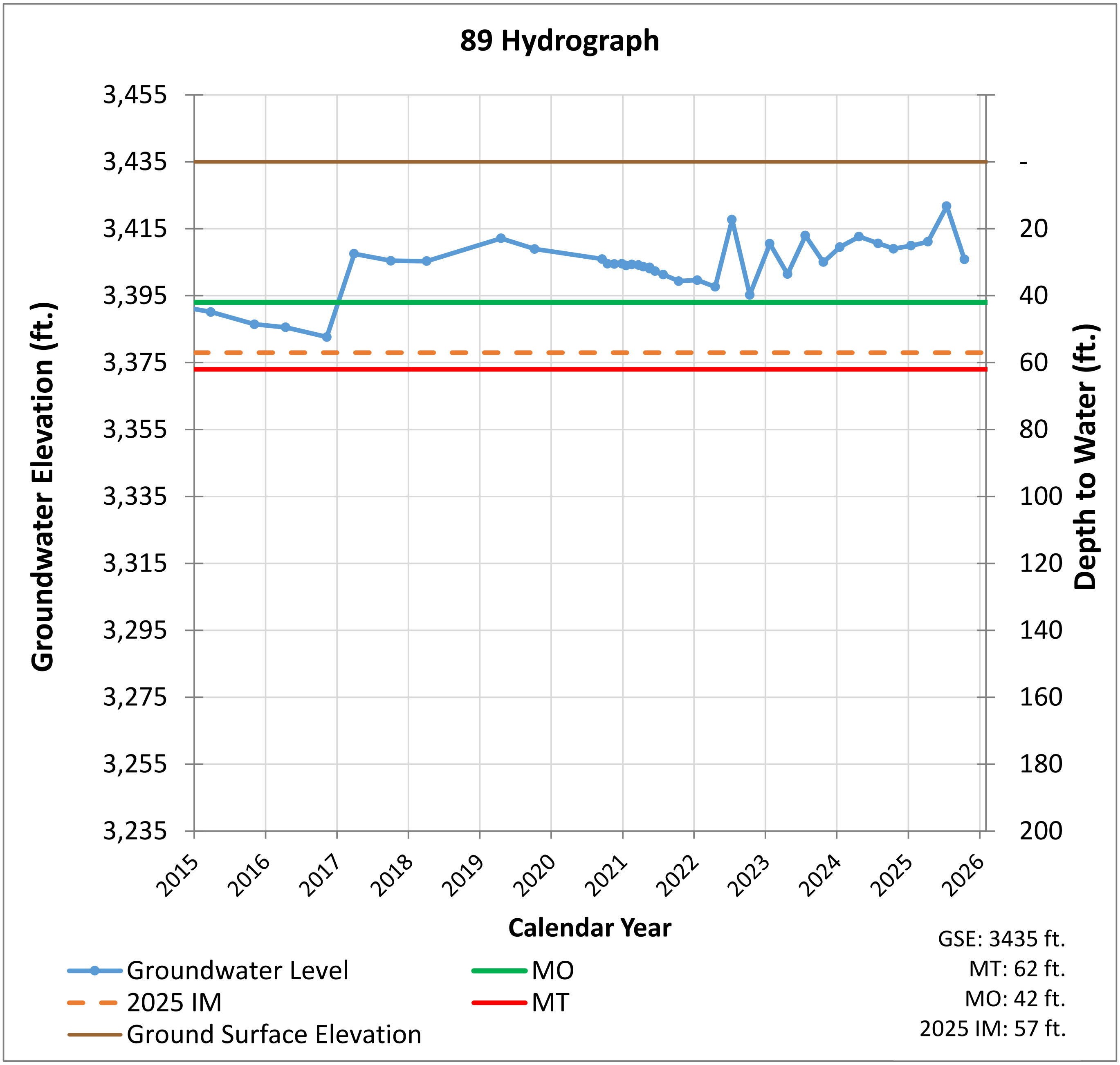


72 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,130
2,080
2,030
1,980
1,930
1,880
1,830
1,780
30
80
130
180
230
280
330
380
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 2170 ft.
MT: 373 ft.
MO: 328 ft.
2025 IM: 362 ft.

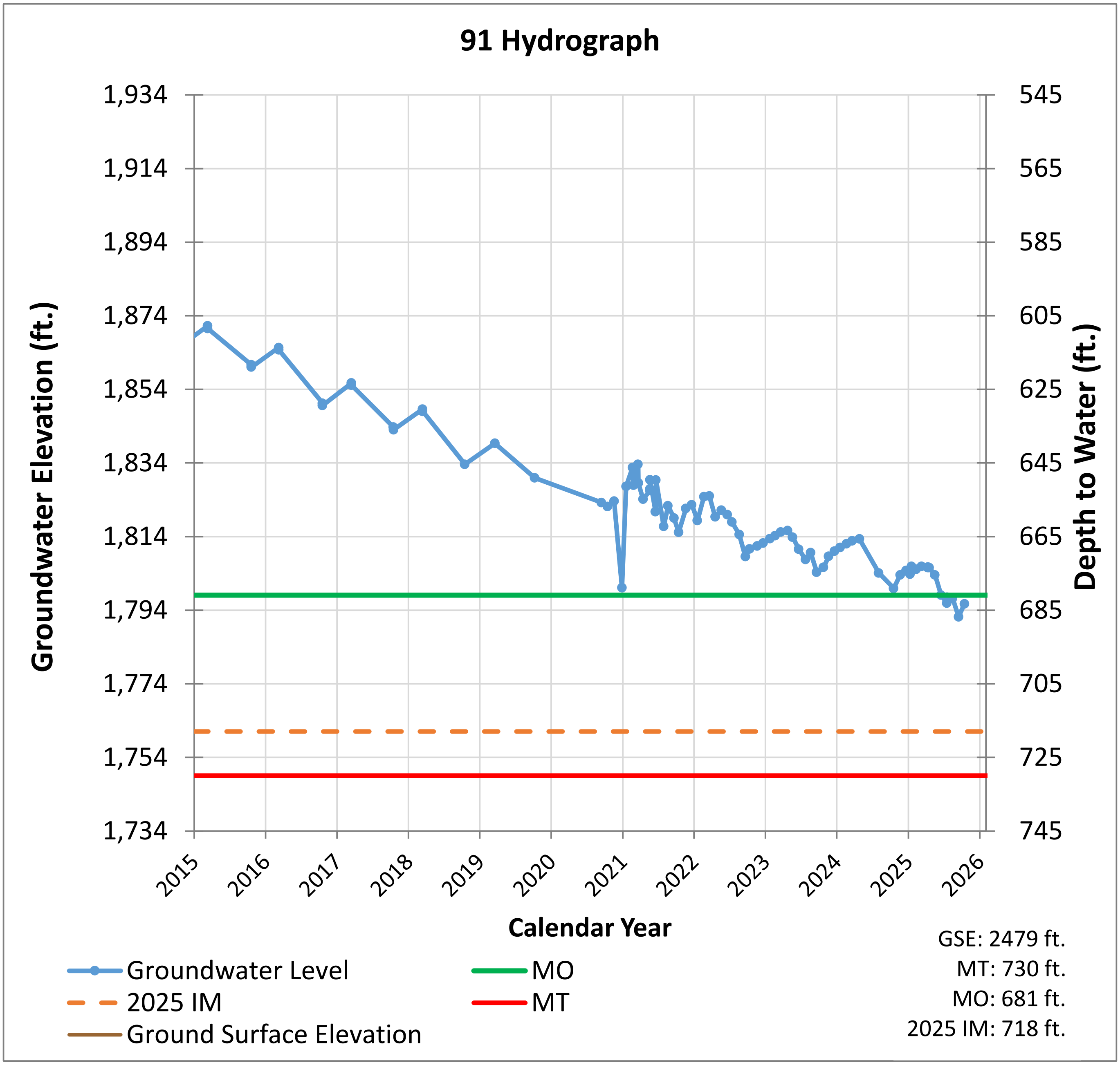

74 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,028
2,008
1,988
1,968
1,948
1,928
1,908
1,888
1,868
1,848
1,828
163
183
203
223
243
263
283
303
323
343
363
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 2191 ft.
MT: 322 ft.
MO: 309 ft.
2025 IM: 319 ft.


77 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,929
1,909
1,889
1,869
1,849
1,829
1,809
1,789
1,769
1,749
1,729
354
374
394
414
434
454
474
494
514
534
554
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2283 ft.
MT: 514 ft.
MO: 464 ft.
2025 IM: 501 ft.

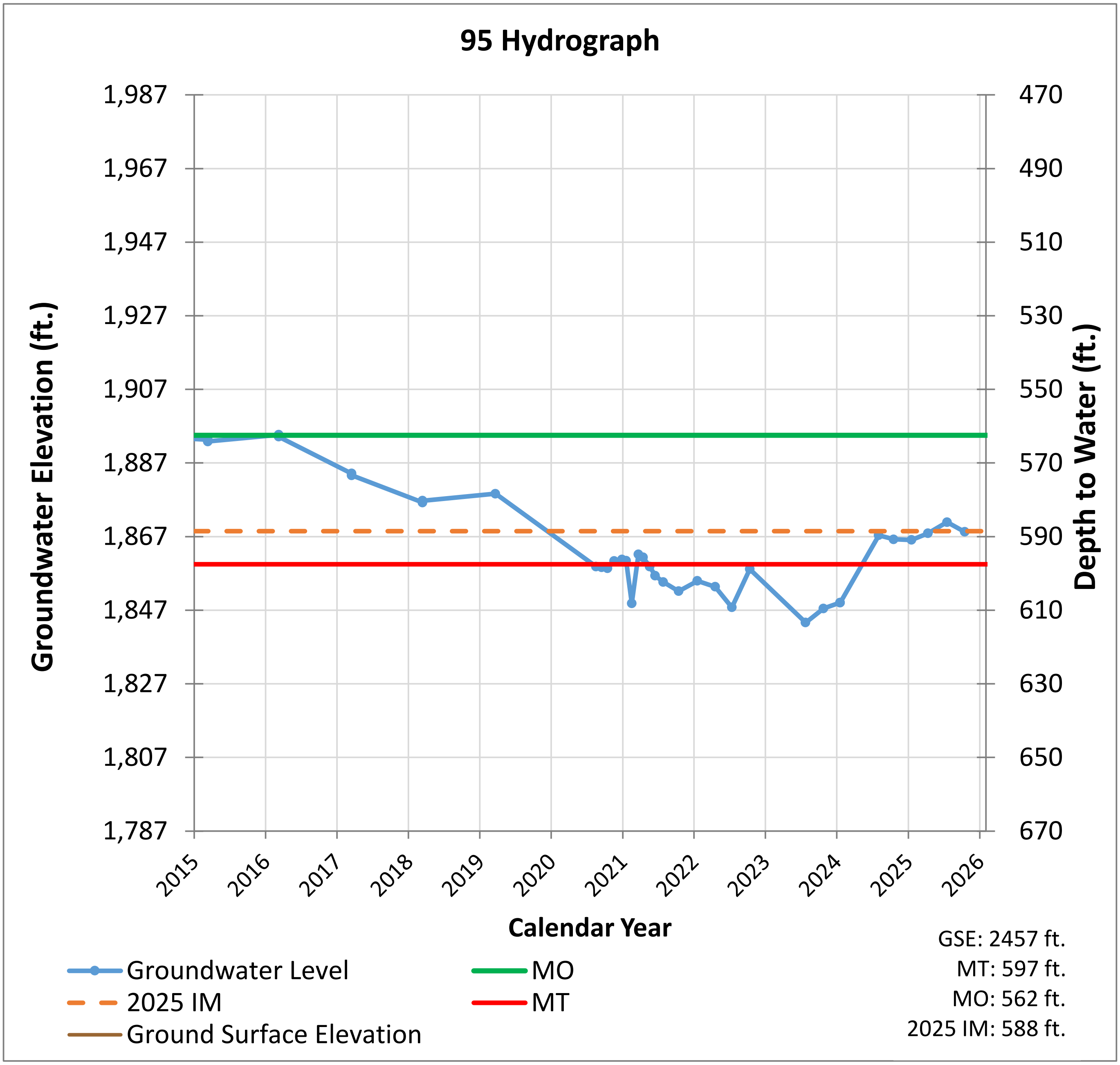

85 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,983
2,963
2,943
2,923
2,903
2,883
2,863
2,843
2,823
2,803
2,783
66
86
106
126
146
166
186
206
226
246
266
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 3049 ft.
MT: 200 ft.
MO: 176 ft.
2025 IM: 194 ft.

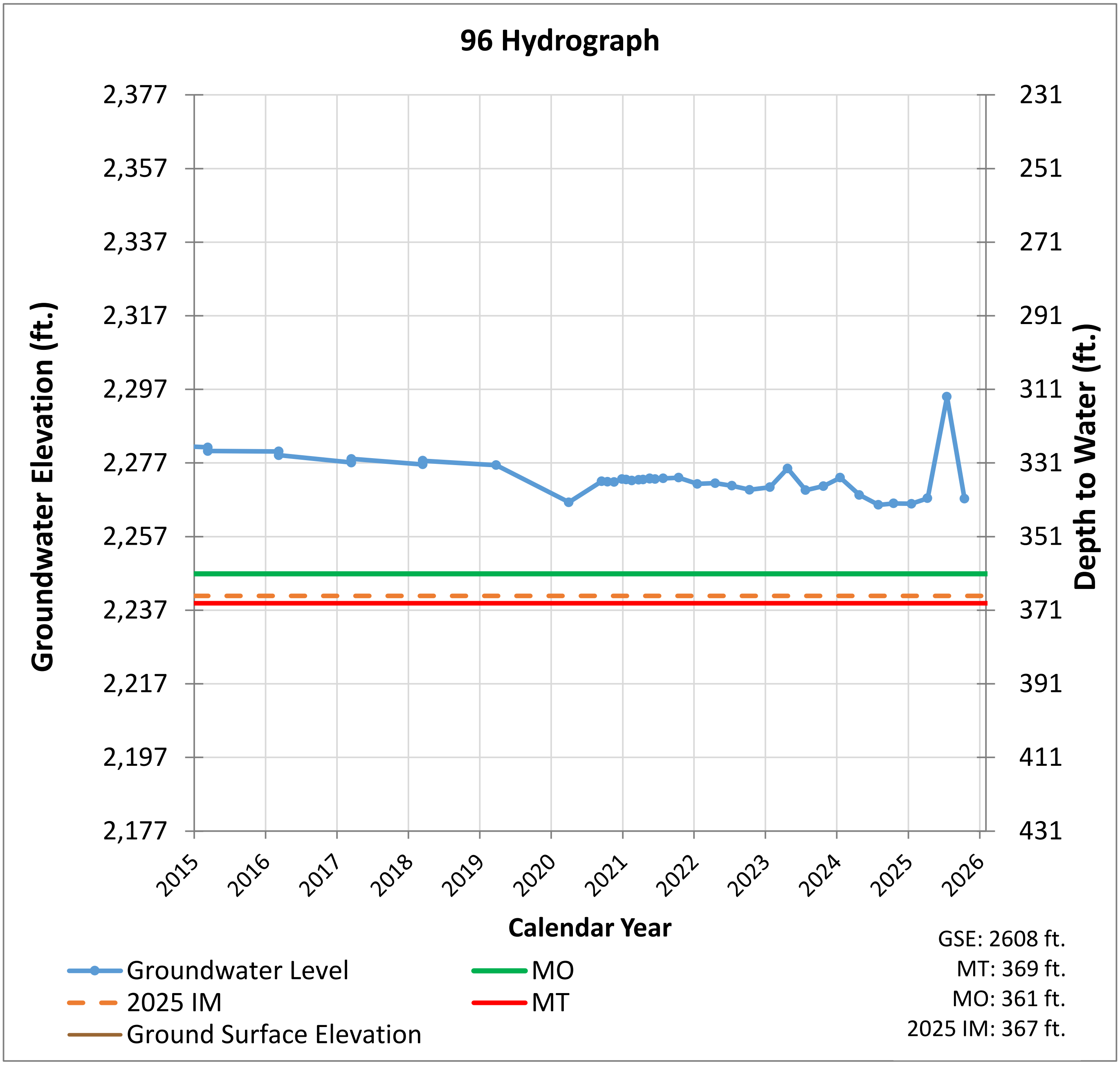


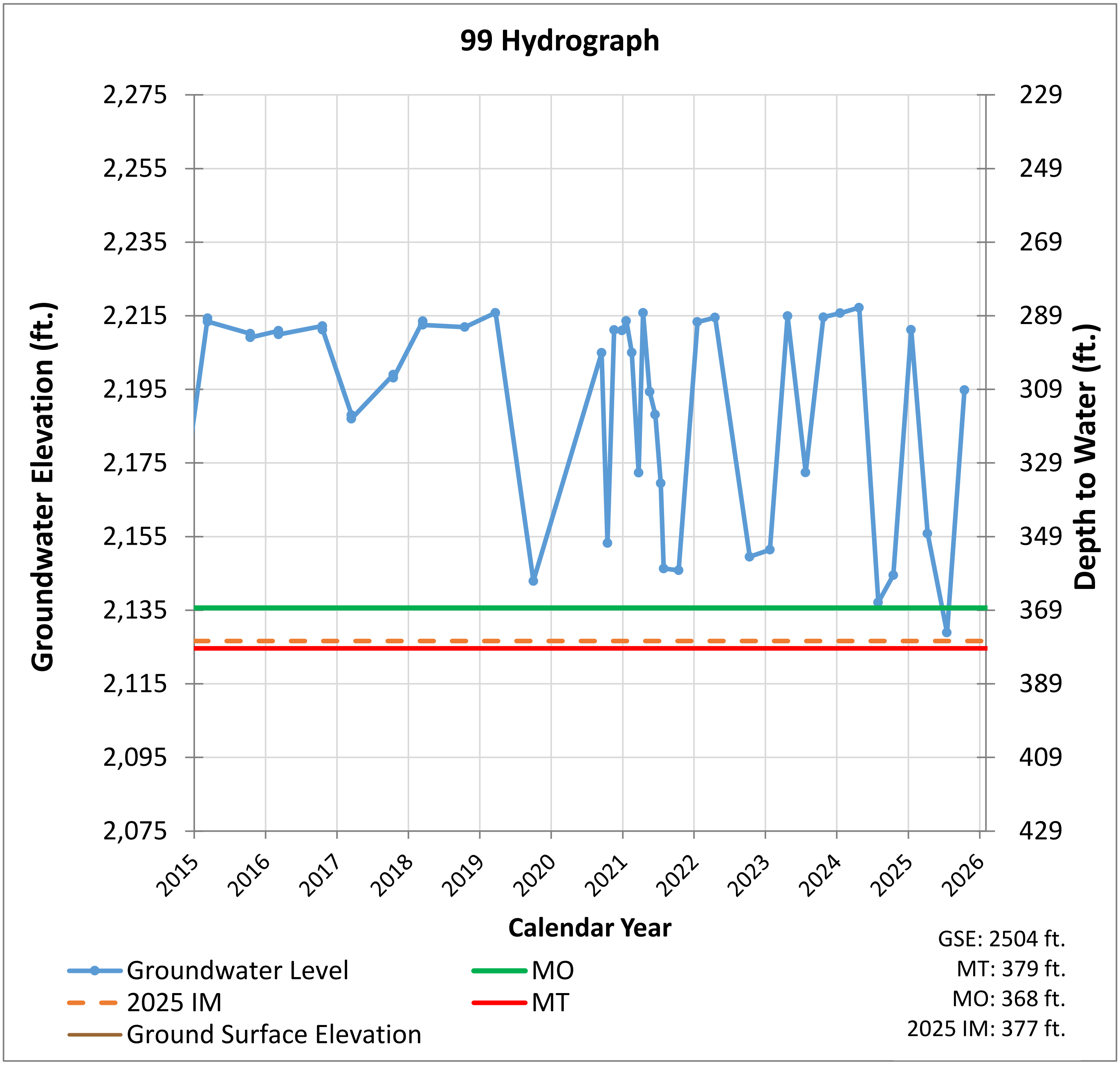
89 Hydrograph
3,455
3,435
3,415
3,395
3,375
3,355
3,335
3,315
3,295
3,275
3,255
3,235
Groundwater Elevation (ft.)
-
20
40
60
80
100
120
140
160
180
200
Depth to Water (ft.)
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 3435 ft.
MT: 62 ft.
MO: 42 ft.
2025 IM: 57 ft.

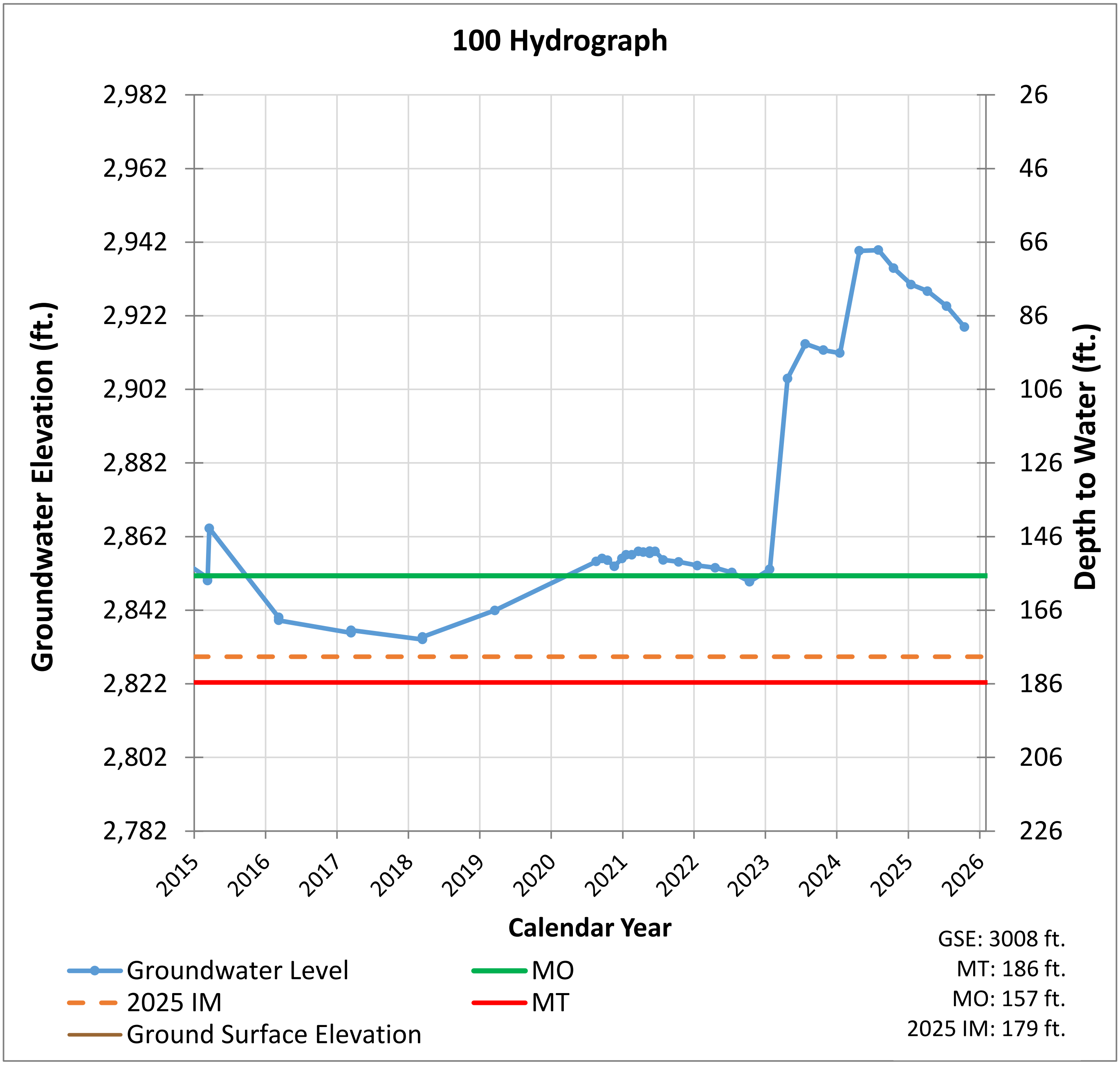


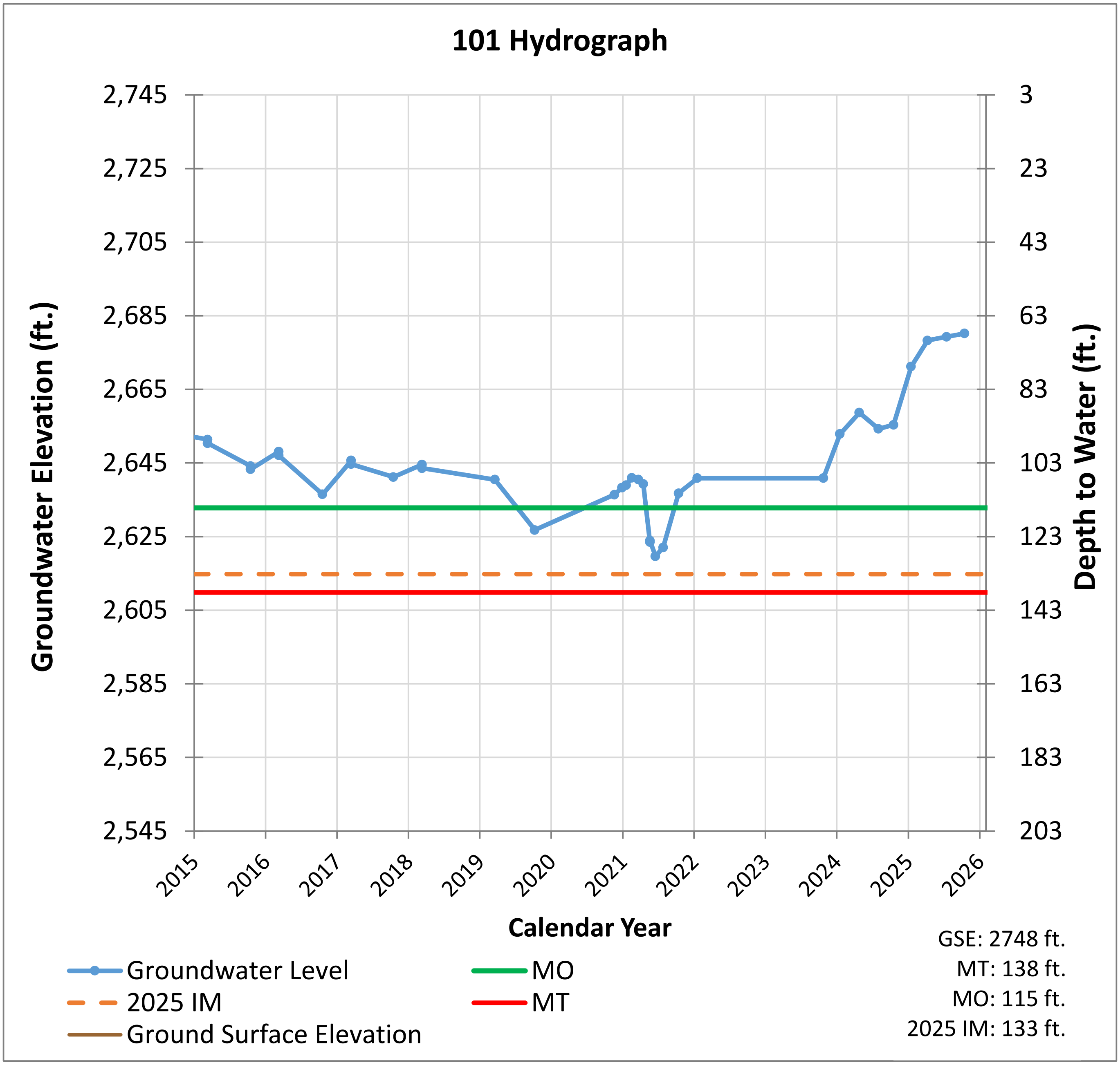
91 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,934
1,914
1,894
1,874
1,854
1,834
1,814
1,794
1,774
1,754
1,734
545
565
585
605
625
645
665
685
705
725
745
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2479 ft.
MT: 730 ft.
MO: 681 ft.
2025 IM: 718 ft.

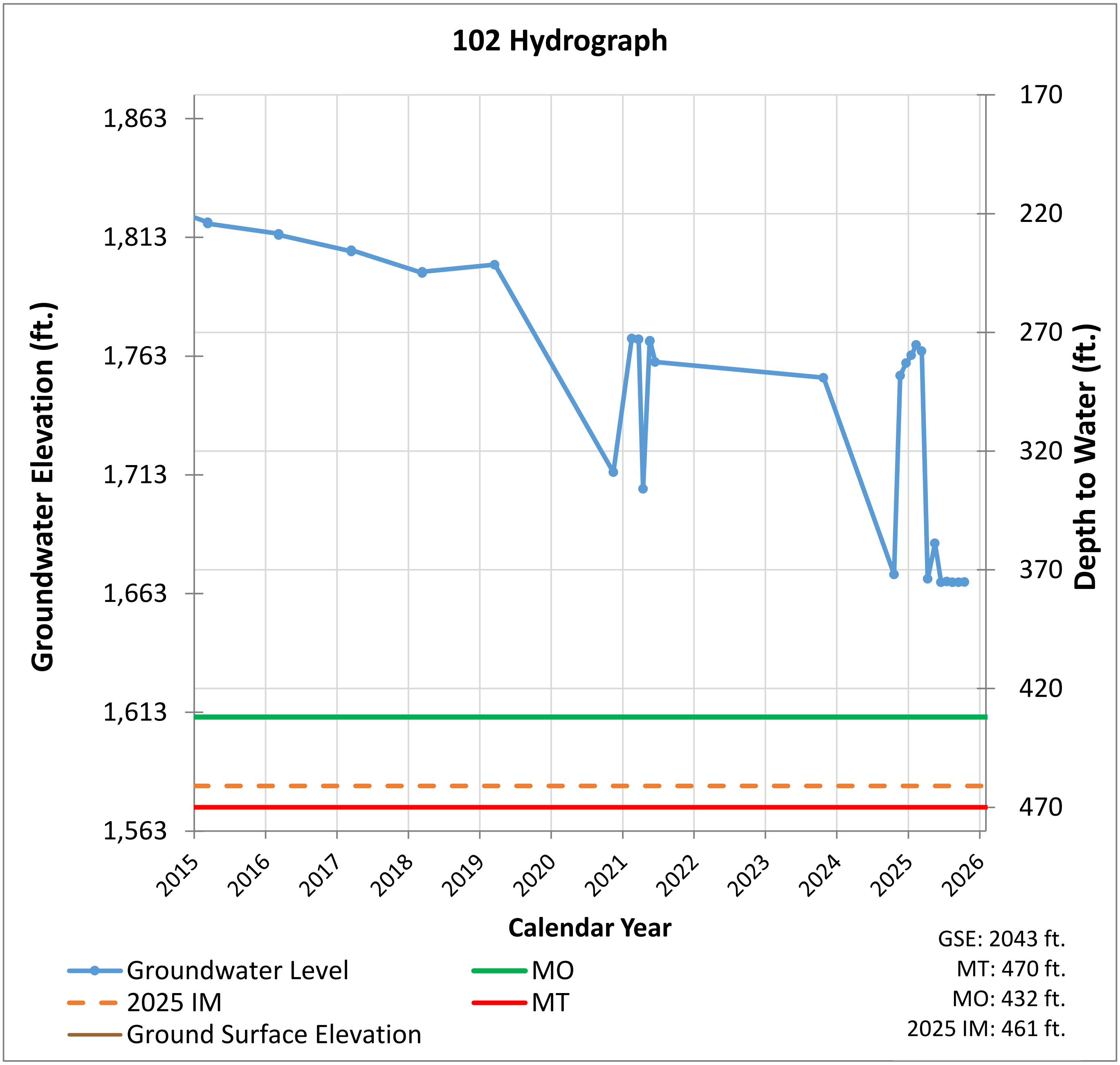

95 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,987
1,967
1,947
1,927
1,907
1,887
1,867
1,847
1,827
1,807
1,787
470
490
510
530
550
570
590
610
630
650
670
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2457 ft.
MT: 597 ft.
MO: 562 ft.
2025 IM: 588 ft.

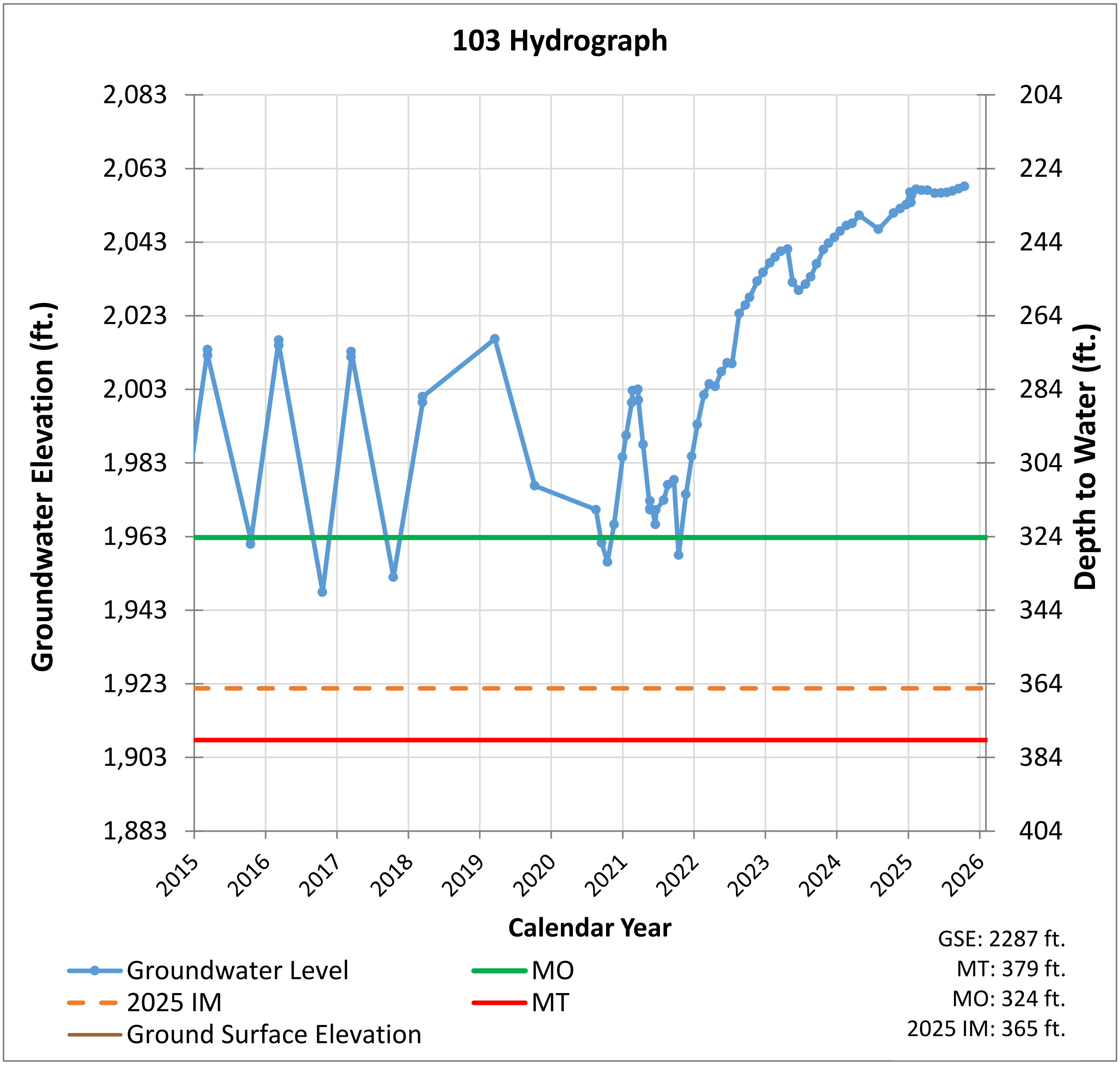

96 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,377
2,357
2,337
2,317
2,297
2,277
2,257
2,237
2,217
2,197
2,177
231
251
271
291
311
331
351
371
391
411
431
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2608 ft.
MT: 369 ft.
MO: 361 ft.
2025 IM: 367 ft.


99 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,275
2,255
2,235
2,215
2,195
2,175
2,155
2,135
2,115
2,095
2,075
229
249
269
289
309
329
349
369
389
409
429
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2504 ft.
MT: 379 ft.
MO: 368 ft.
2025 IM: 377 ft.

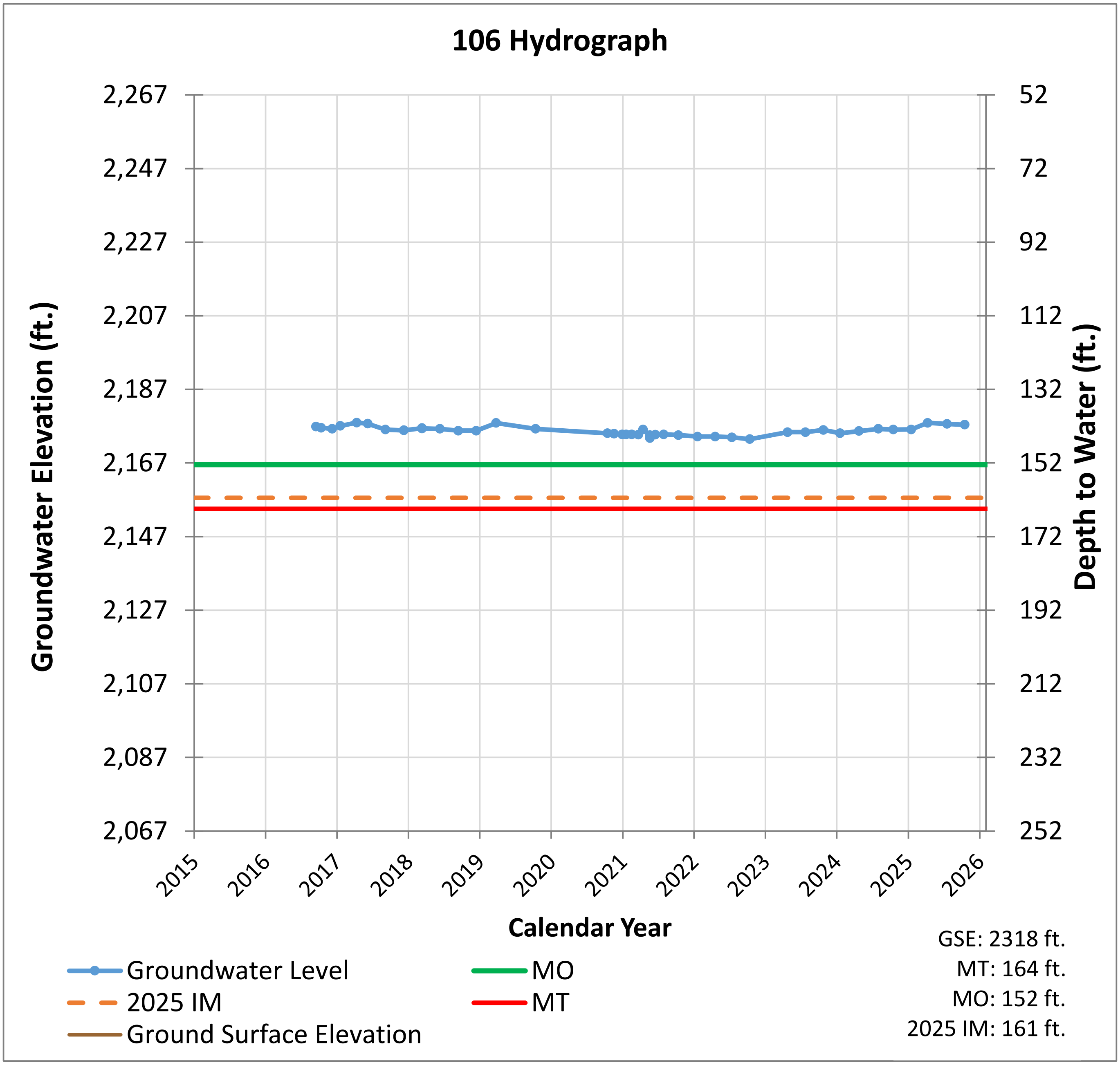

100 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,982
2,962
2,942
2,922
2,902
2,882
2,862
2,842
2,822
2,802
2,782
26
46
66
86
106
126
146
166
186
206
226
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 3008 ft.
MT: 186 ft.
MO: 157 ft.
2025 IM: 179 ft.


101 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,745
2,725
2,705
2,685
2,665
2,645
2,625
2,605
2,585
2,565
2,545
3
23
43
63
83
103
123
143
163
183
203
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2748 ft.
MT: 138 ft.
MO: 115 ft.
2025 IM: 133 ft.

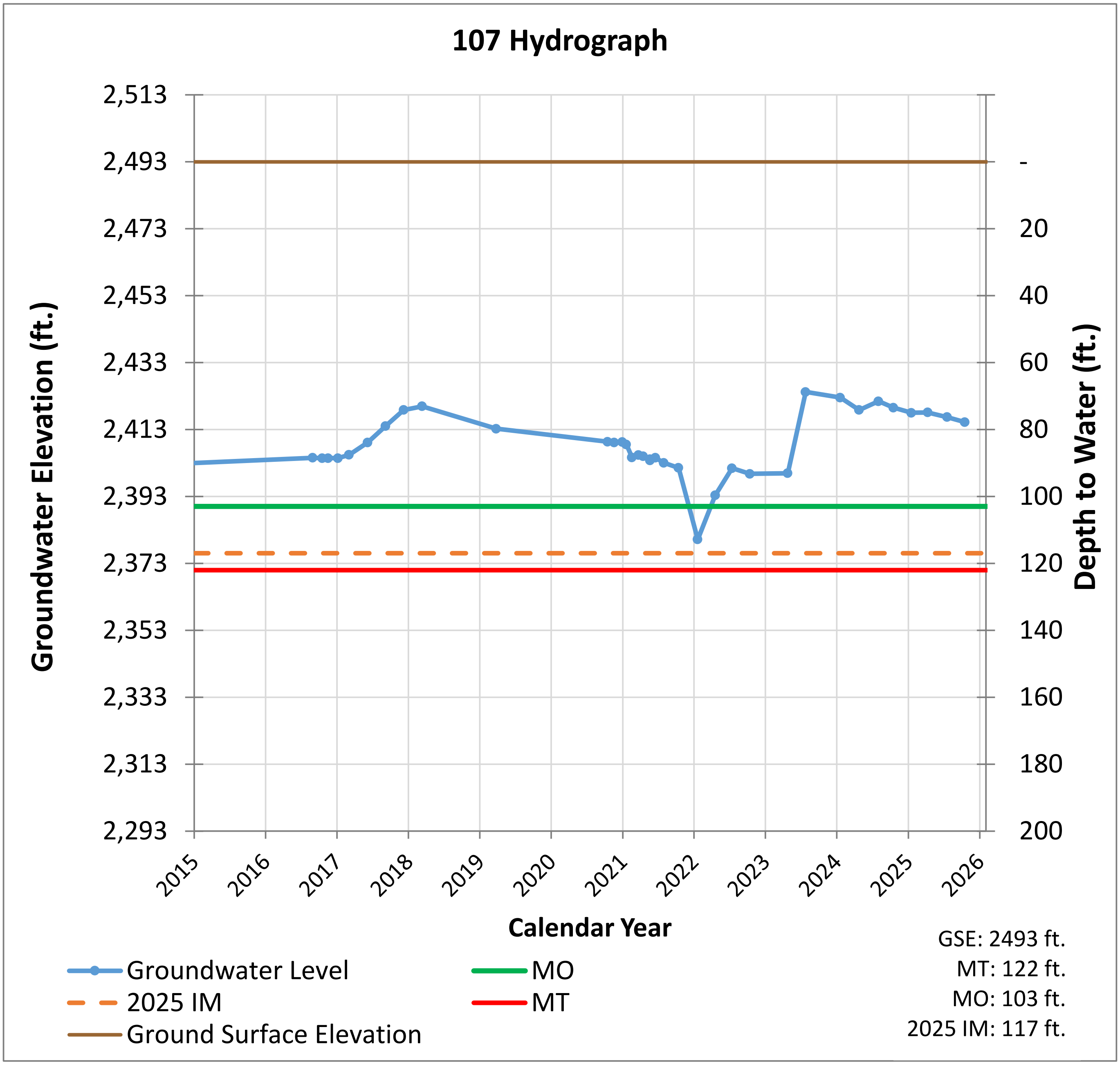

102 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,863
1,813
1,763
1,713
1,663
1,613
1,563
170
220
270
320
370
420
470
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2043 ft.
MT: 470 ft.
MO: 432 ft.
2025 IM: 461 ft.

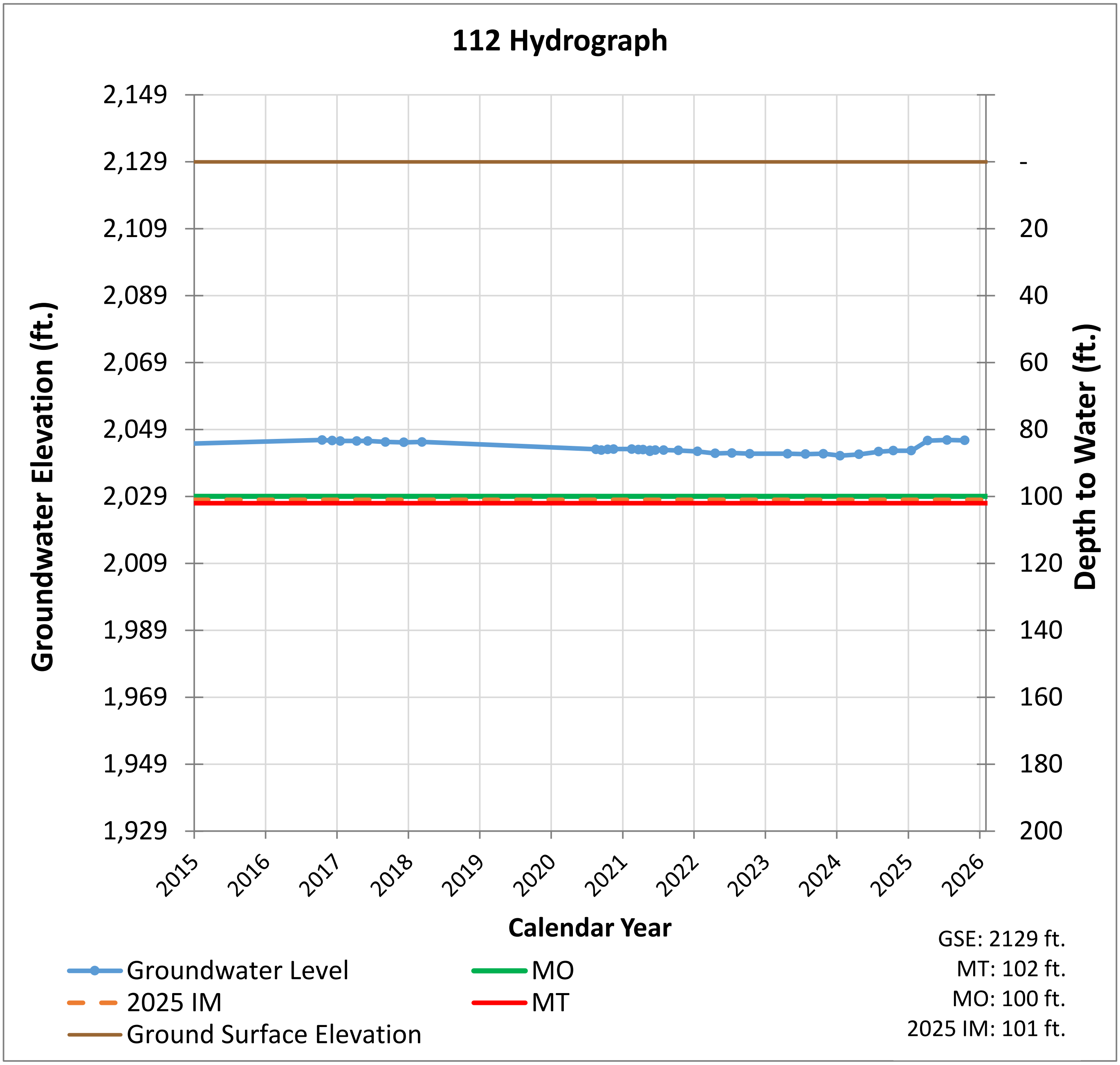


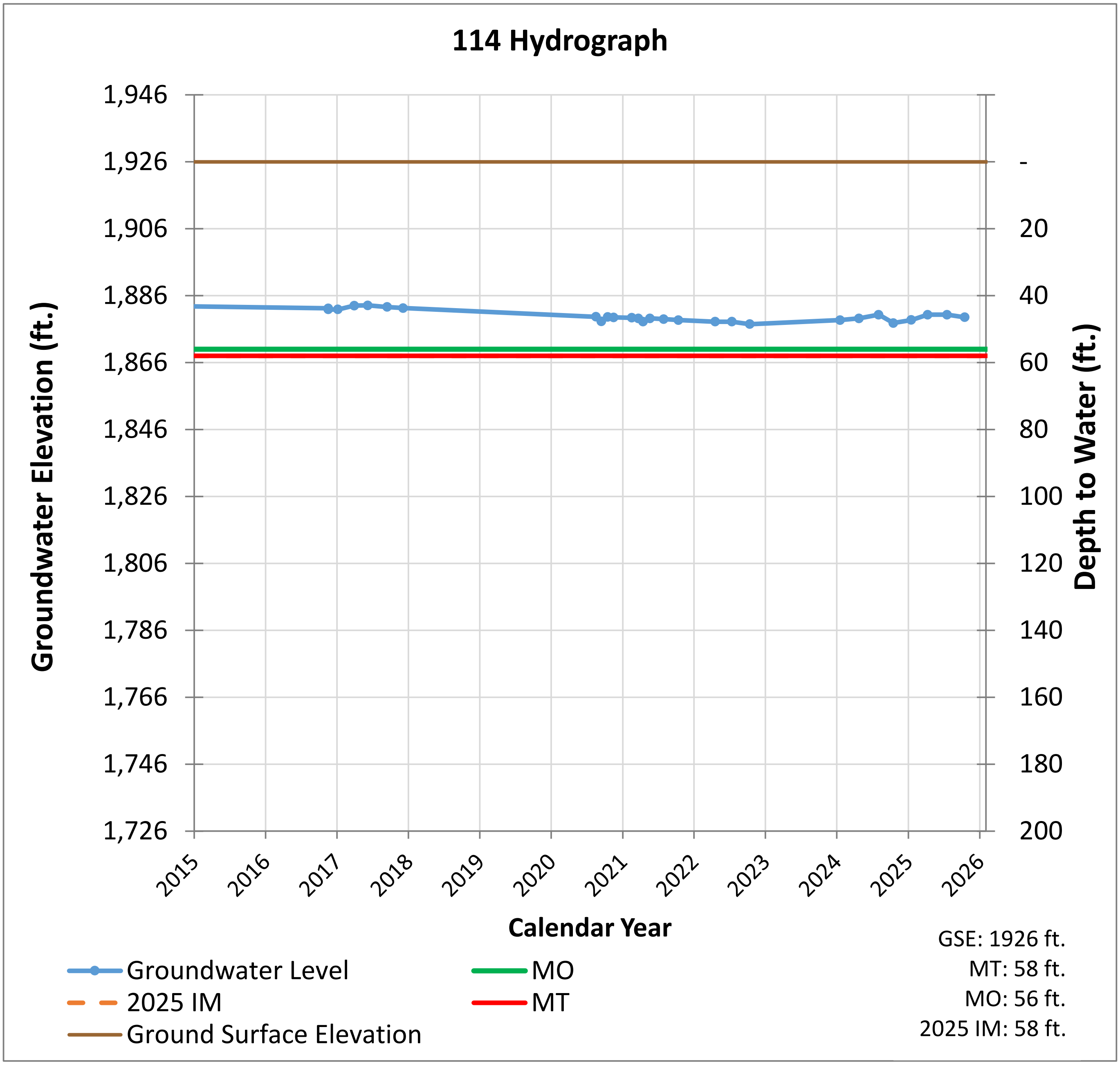
103 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,083
2,063
2,043
2,023
2,003
1,983
1,963
1,943
1,923
1,903
1,883
204
224
244
264
284
304
324
344
364
384
404
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2287 ft.
MT: 379 ft.
MO: 324 ft.
2025 IM: 365 ft.

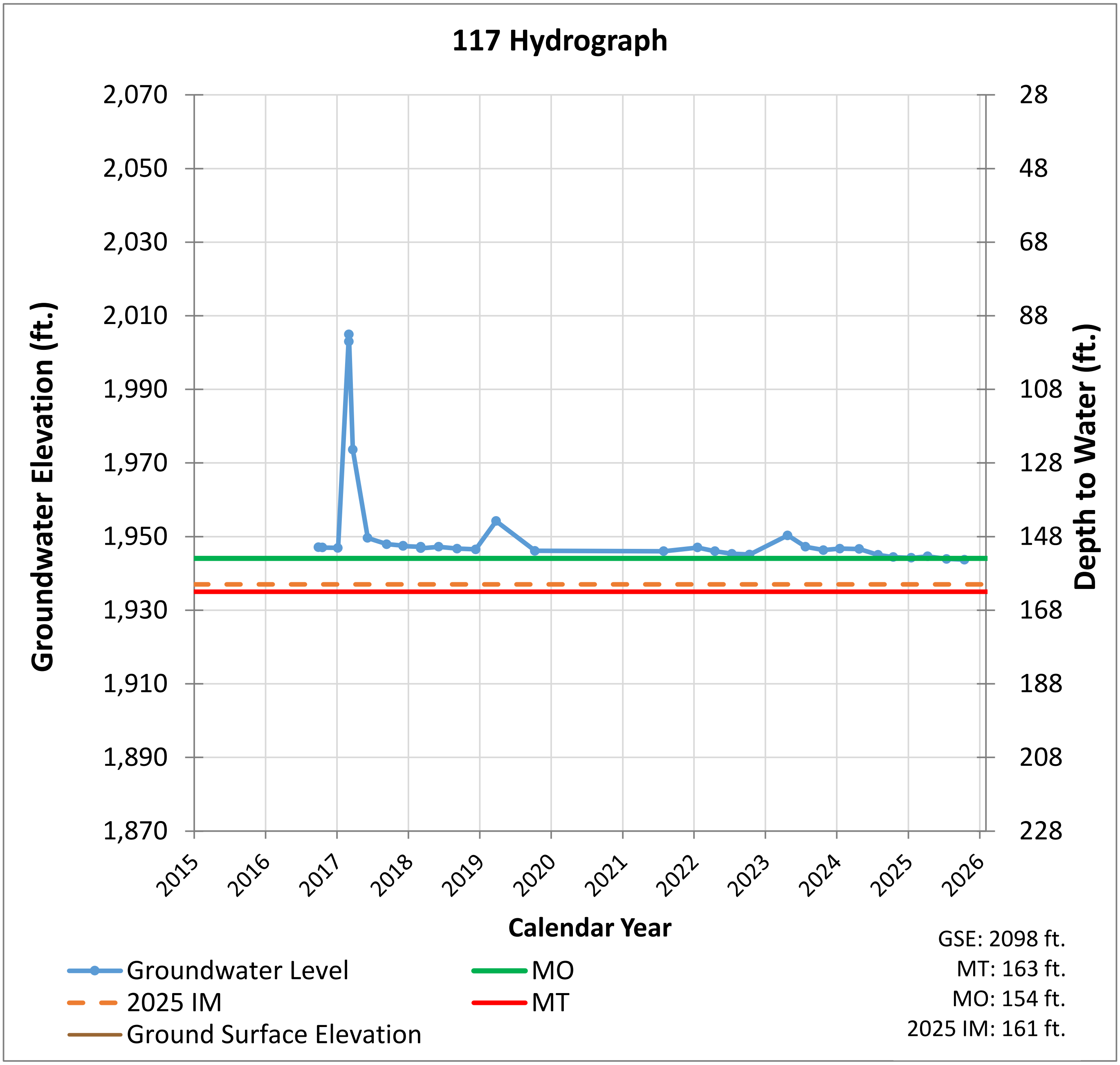


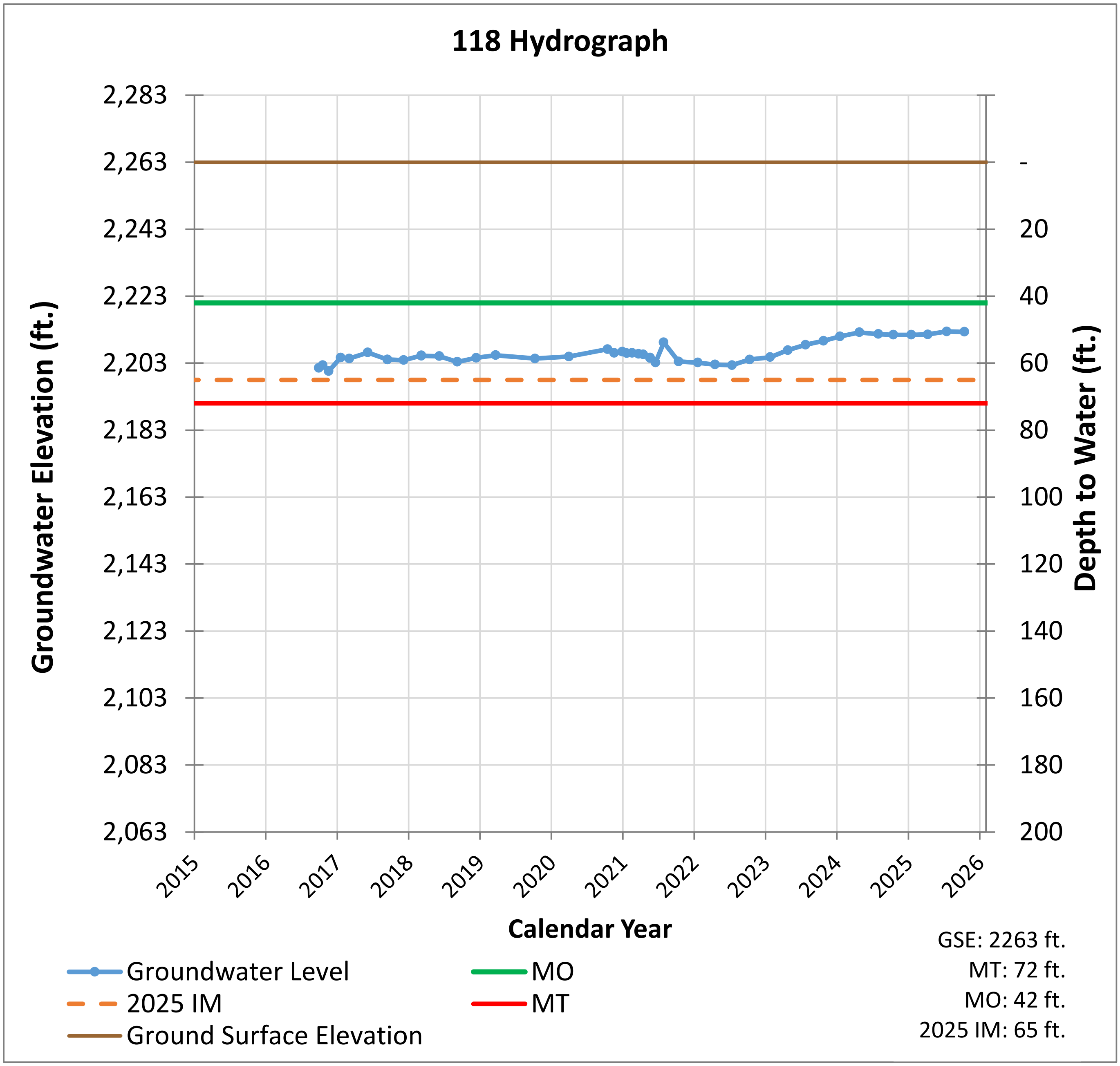
106 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,267
2,247
2,227
2,207
2,187
2,167
2,147
2,127
2,107
2,087
2,067
52
72
92
112
132
152
172
192
212
232
252
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2318 ft.
MT: 164 ft.
MO: 152 ft.
2025 IM: 161 ft.


107 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,513
2,493
2,473
2,453
2,433
2,413
2,393
2,373
2,353
2,333
2,313
2,293
-
20
40
60
80
100
120
140
160
180
200
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2493 ft.
MT: 122 ft.
MO: 103 ft.
2025 IM: 117 ft.

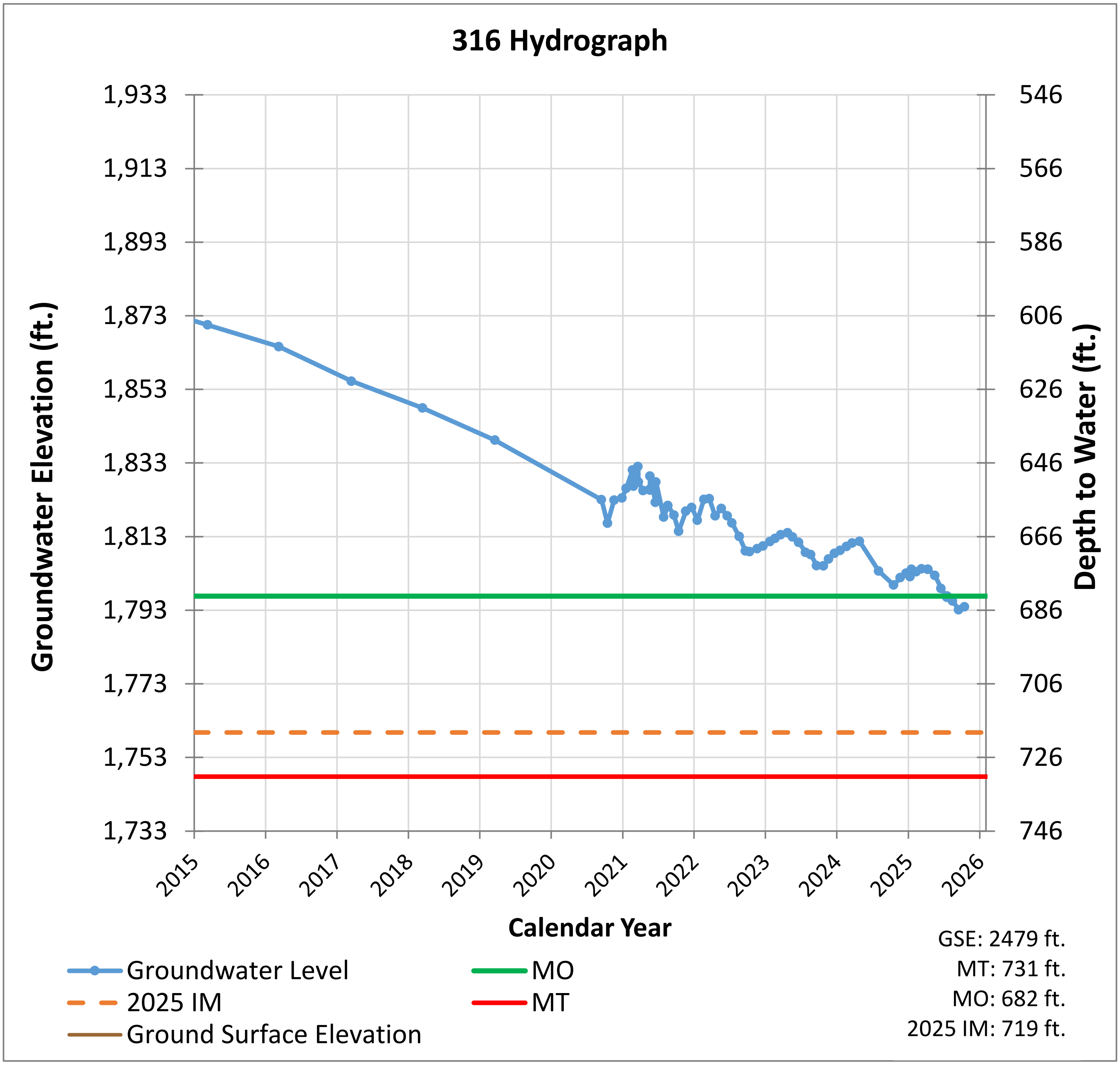

112 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,149
2,129
2,109
2,089
2,069
2,049
2,029
2,009
1,989
1,969
1,949
1,929
-
20
40
60
80
100
120
140
160
180
200
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2129 ft.
MT: 102 ft.
MO: 100 ft.
2025 IM: 101 ft.

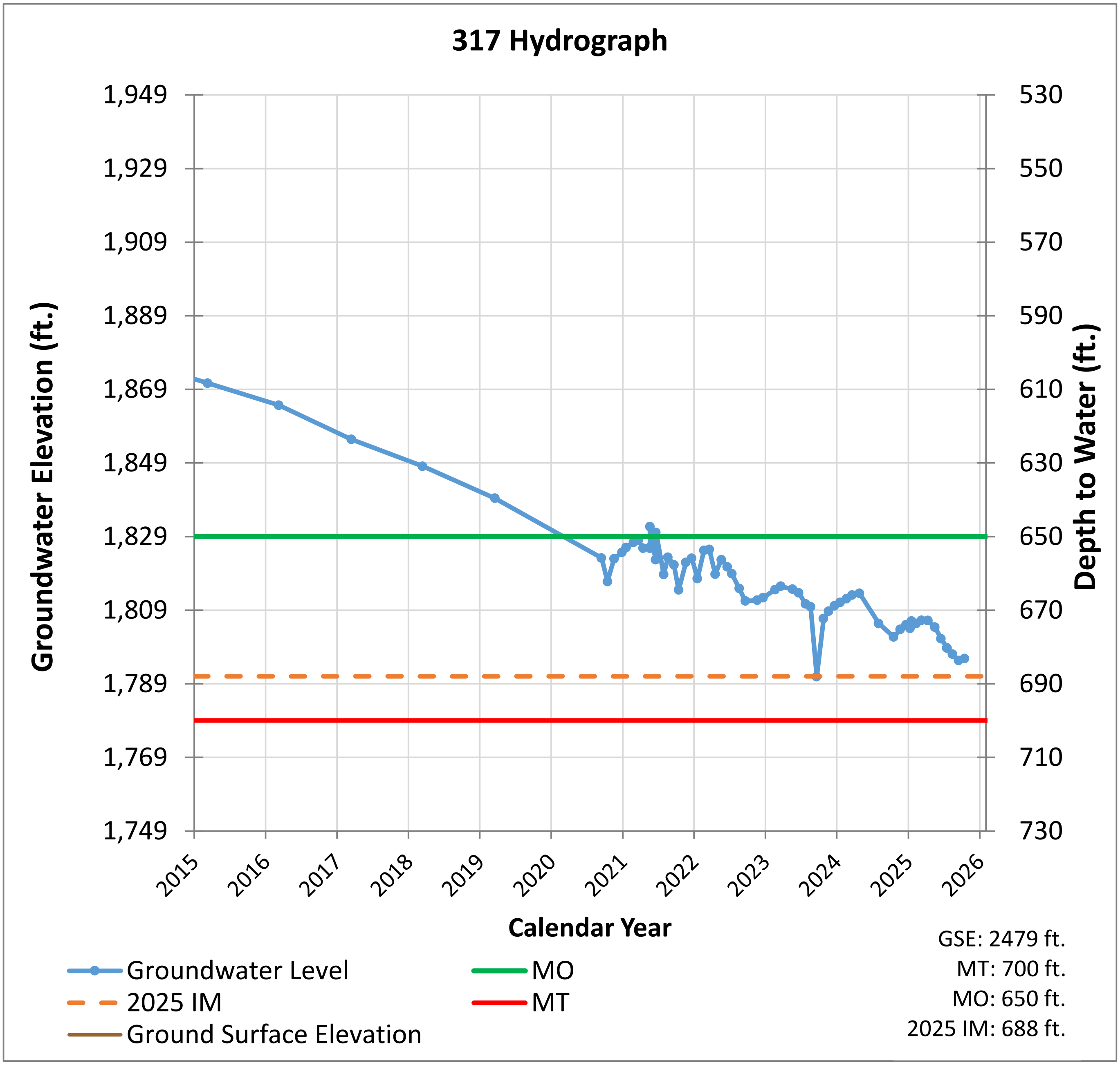

114 Hydrograph
Groundwater Elevation (ft.)
1,946
1,926
1,906
1,886
1,866
1,846
1,826
1,806
1,786
1,766
1,746
1,726
Depth to Water (ft.)
-
20
40
60
80
100
120
140
160
180
200
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 1926 ft.
MT: 58 ft.
MO: 56 ft.
2025 IM: 58 ft.

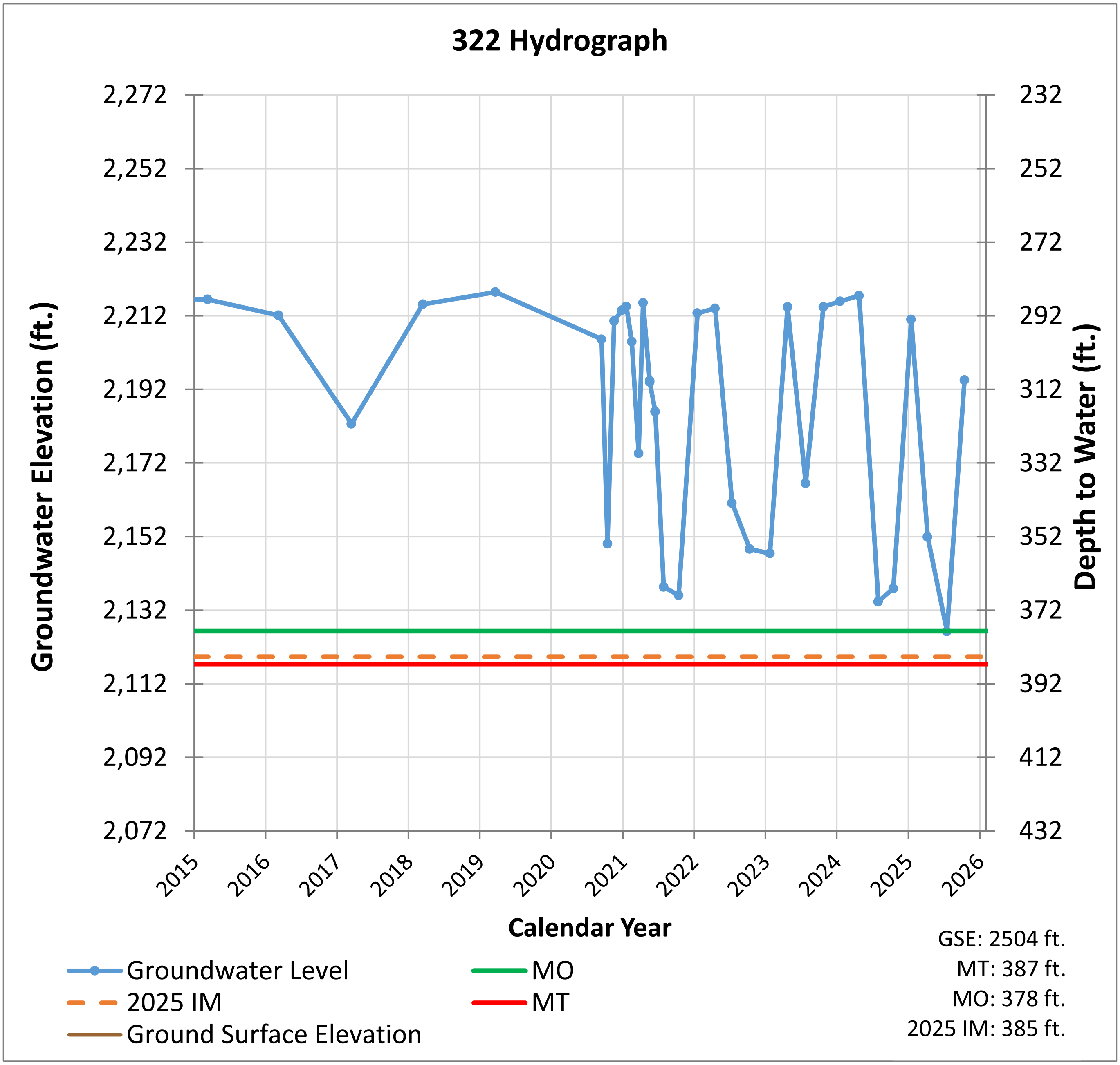

117 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,070
2,050
2,030
2,010
1,990
1,970
1,950
1,930
1,910
1,890
1,870
28
48
68
88
108
128
148
168
188
208
228
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2098 ft.
MT: 163 ft.
MO: 154 ft.
2025 IM: 161 ft.

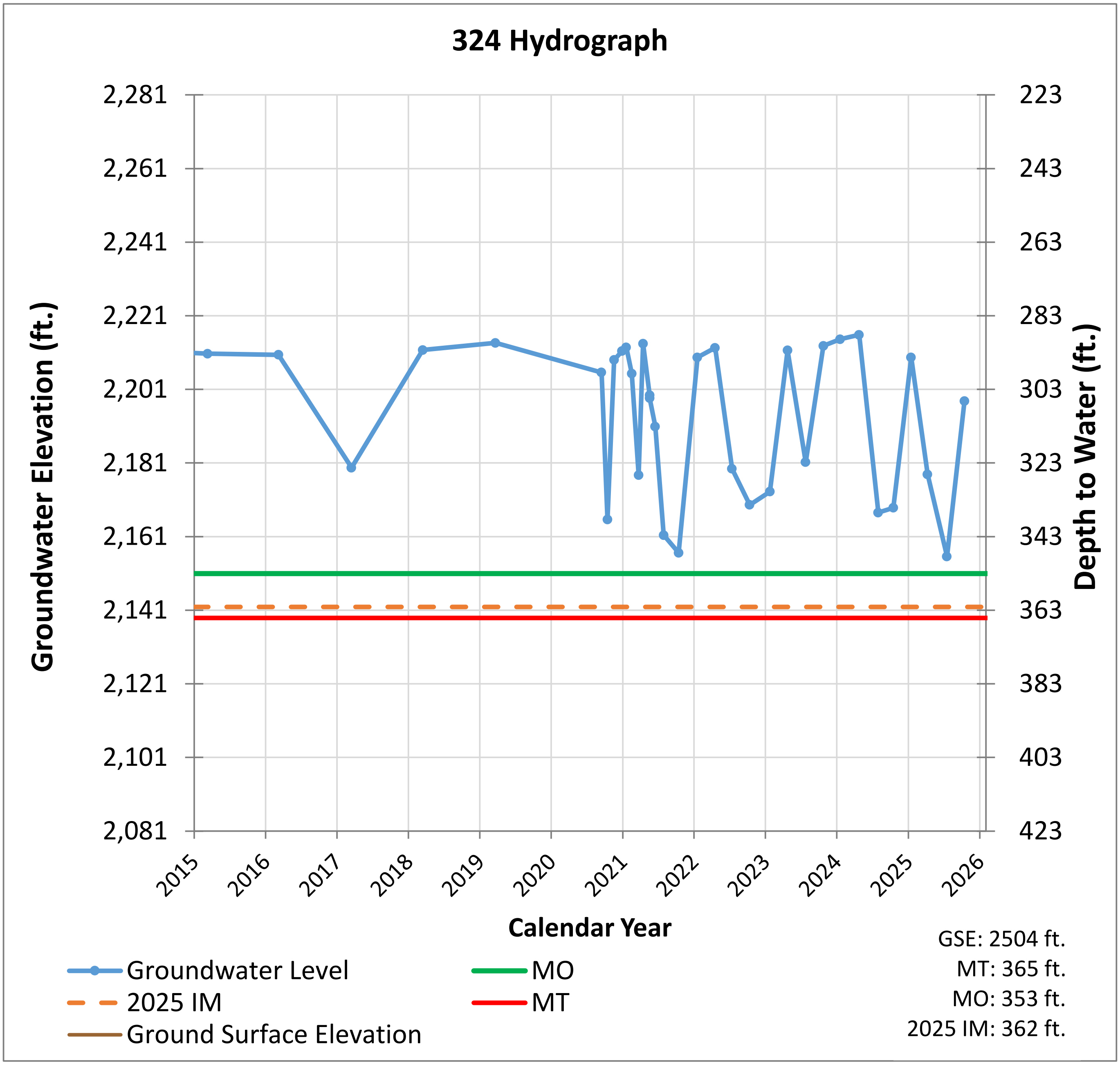


118 Hydrograph
Groundwater Elevation (ft.)
2,283
2,263
2,243
2,223
2,203
2,183
2,163
2,143
2,123
2,103
2,083
2,063
Depth to Water (ft.)
-
20
40
60
80
100
120
140
160
180
200
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 2263 ft.
MT: 72 ft.
MO: 42 ft.
2025 IM: 65 ft.

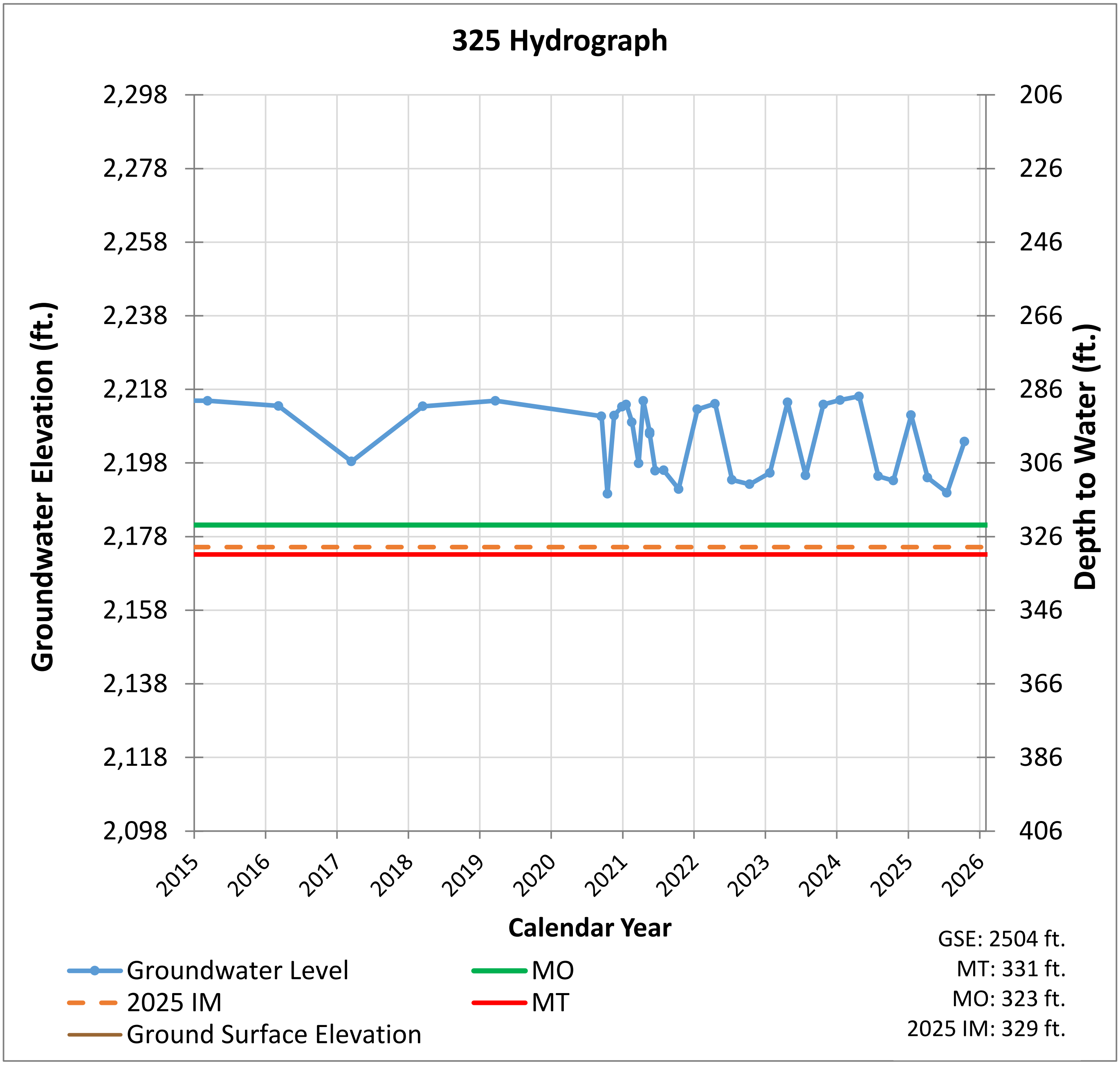

316 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,933
1,913
1,893
1,873
1,853
1,833
1,813
1,793
1,773
1,753
1,733
546
566
586
606
626
646
666
686
706
726
746
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 2479 ft.
MT: 731 ft.
MO: 682 ft.
2025 IM: 719 ft.

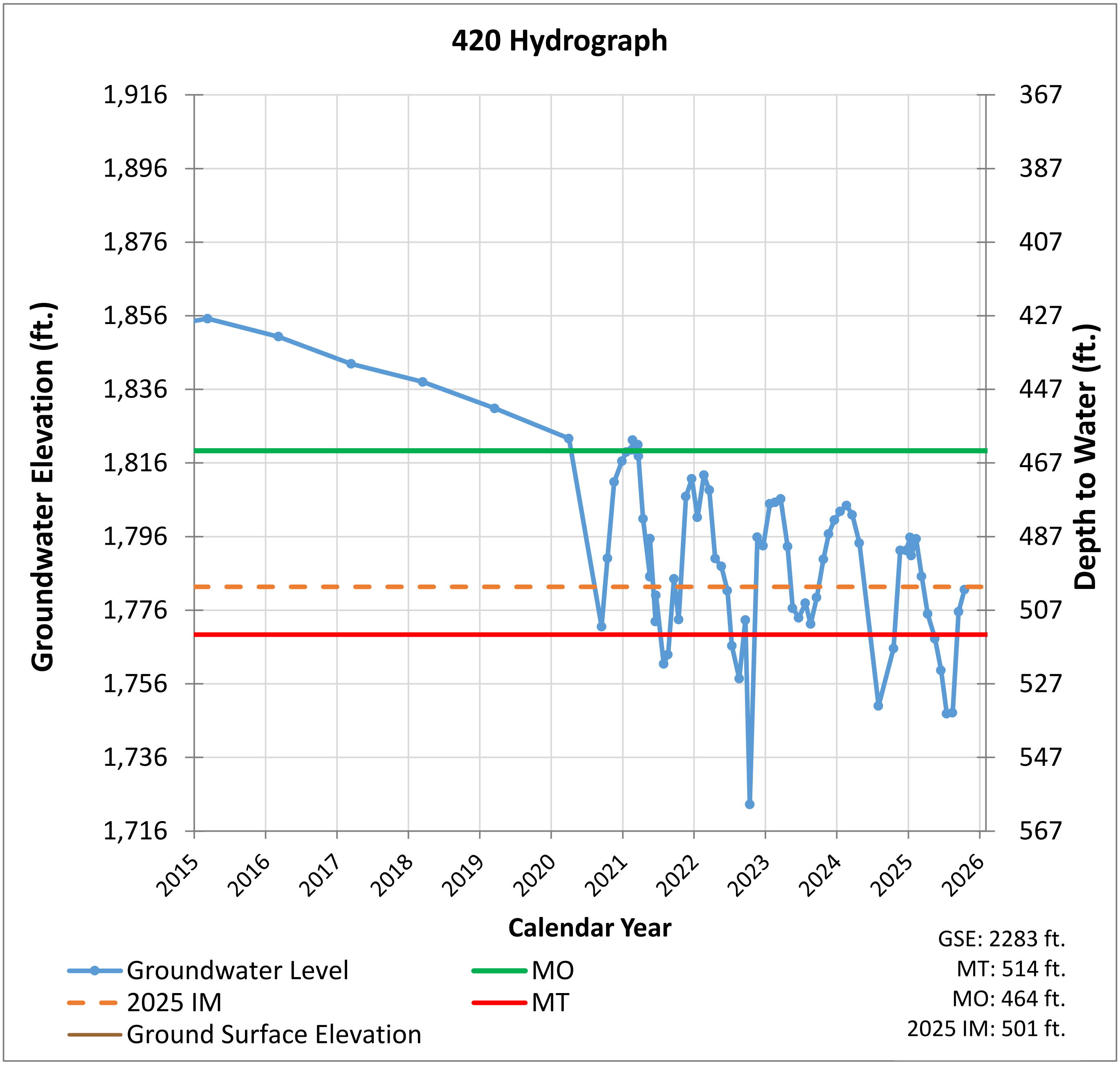

317 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,949
1,929
1,909
1,889
1,869
1,849
1,829
1,809
1,789
1,769
1,749
530
550
570
590
610
630
650
670
690
710
730
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 2479 ft.
MT: 700 ft.
MO: 650 ft.
2025 IM: 688 ft.

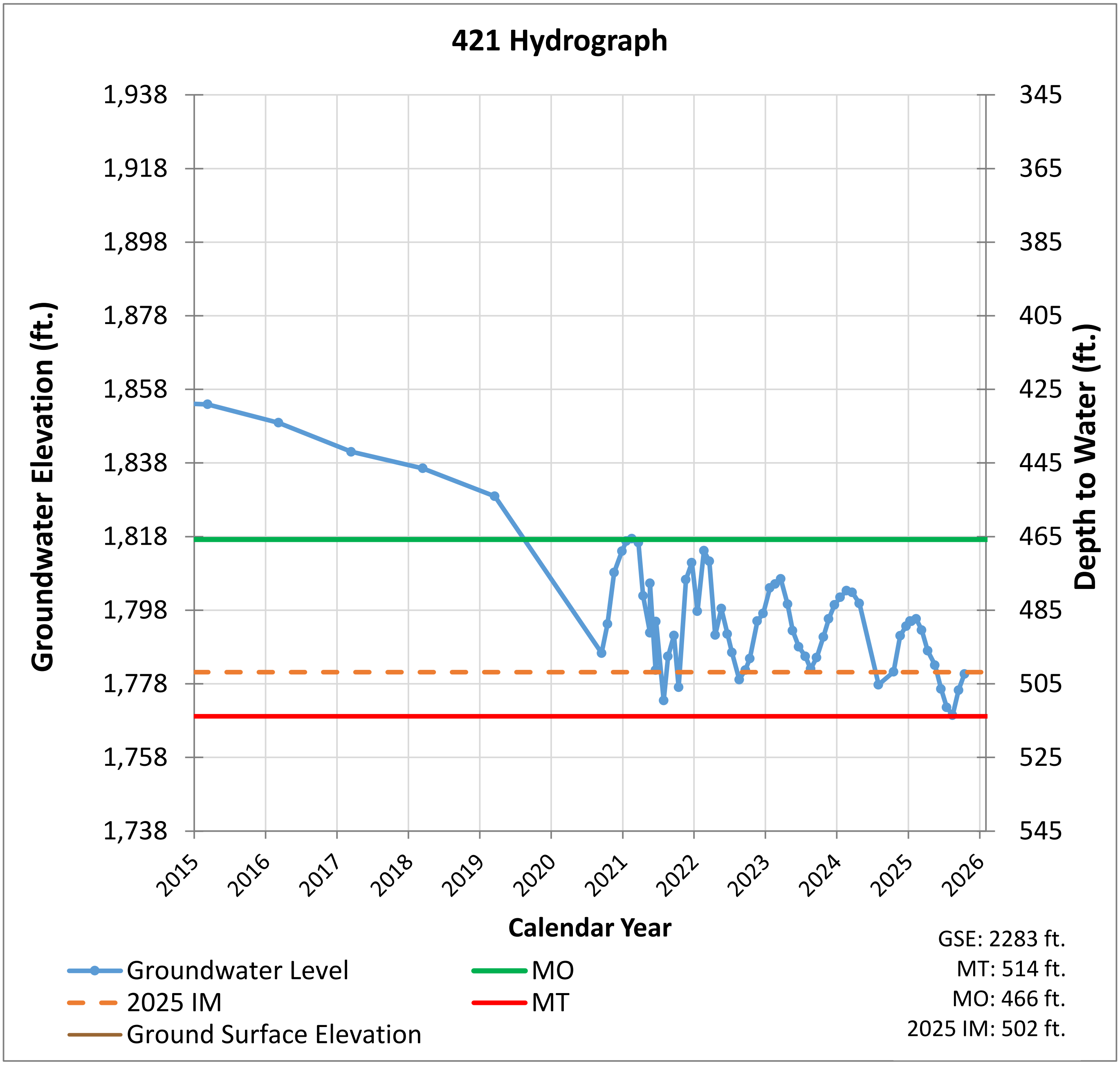

322 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,272
2,252
2,232
2,212
2,192
2,172
2,152
2,132
2,112
2,092
2,072
232
252
272
292
312
332
352
372
392
412
432
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 2504 ft.
MT: 387 ft.
MO: 378 ft.
2025 IM: 385 ft.

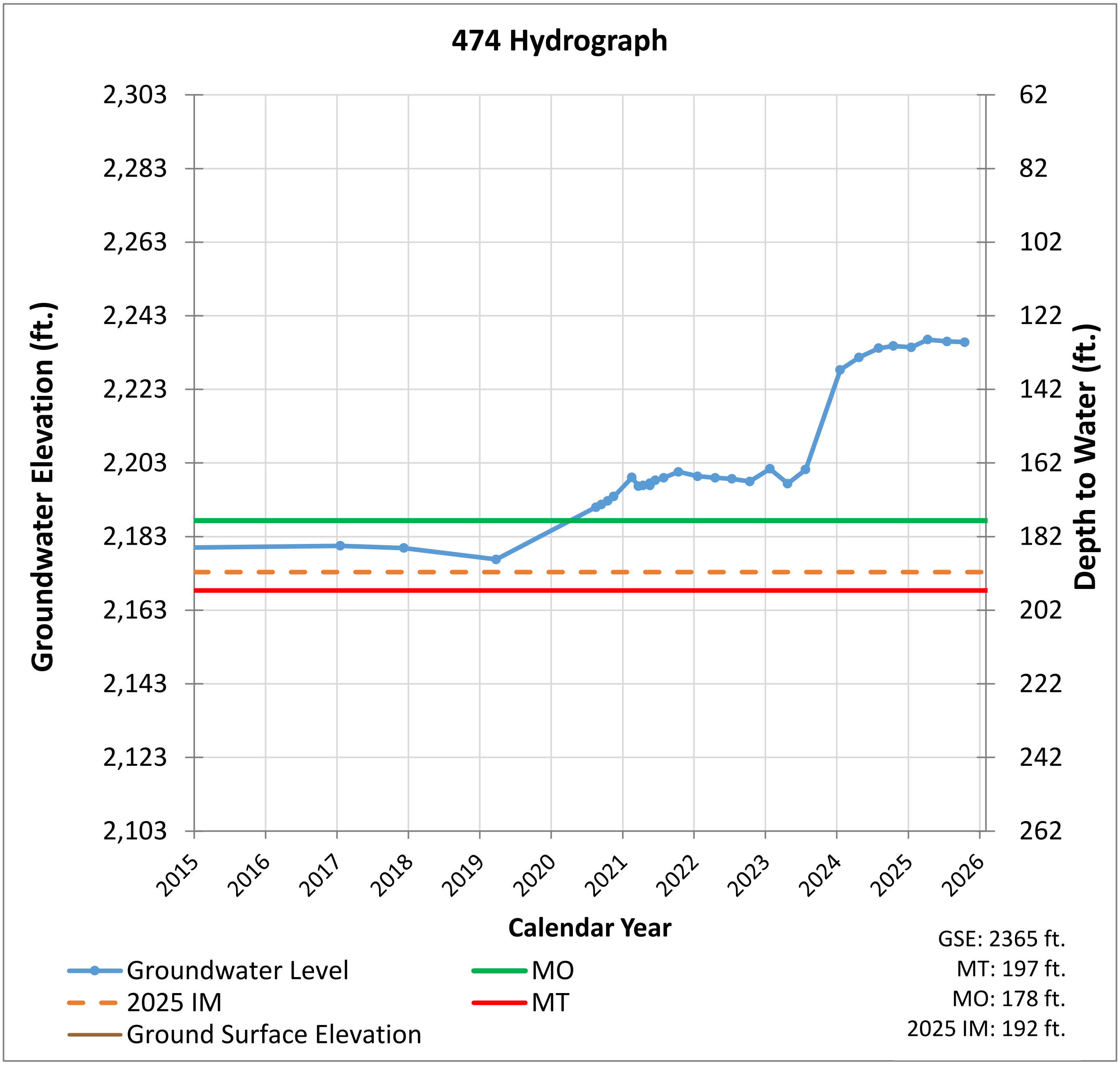


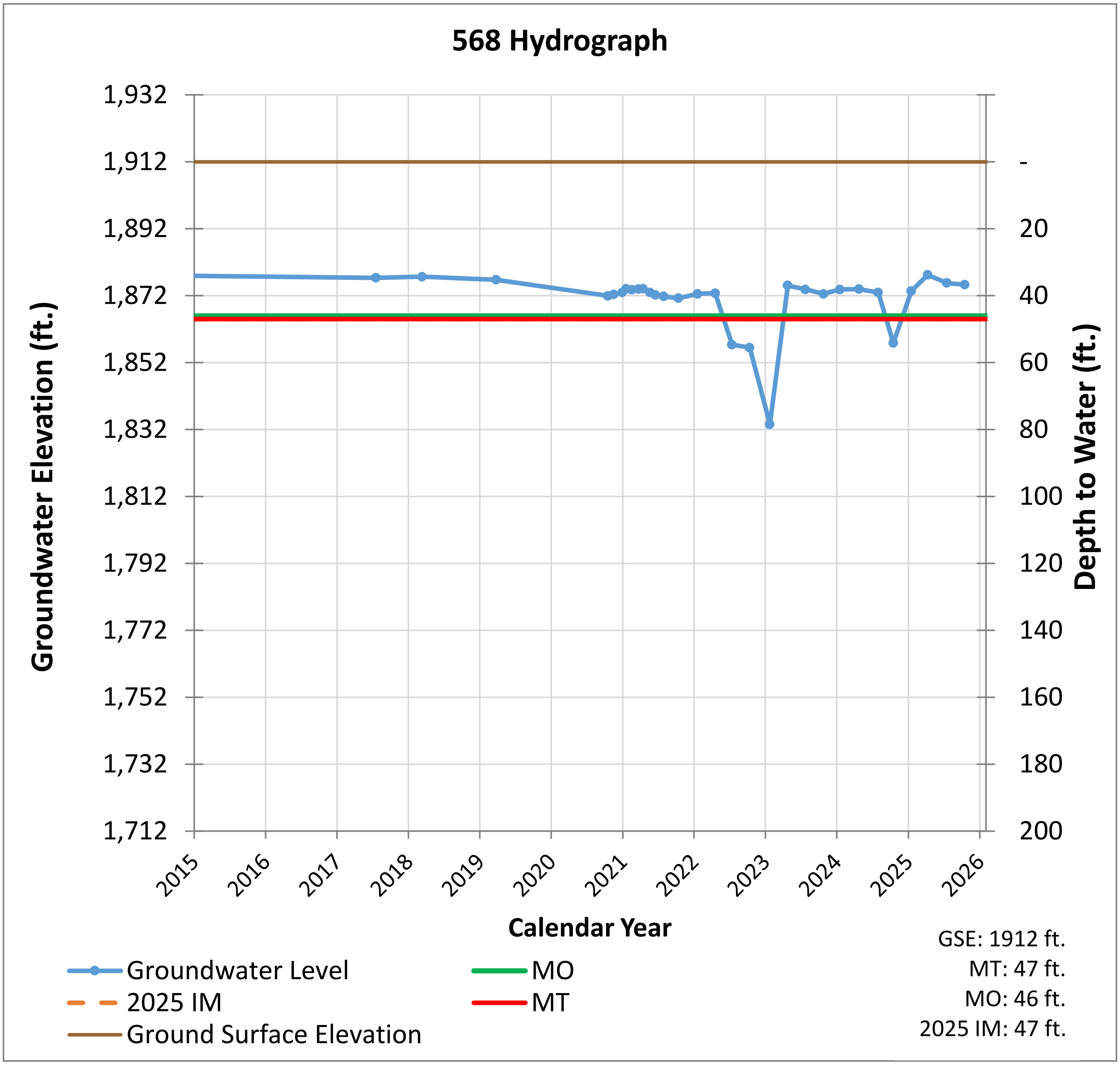
324 Hydrograph
Groundwater Elevation (ft.)
2,281
2,261
2,241
2,221
2,201
2,181
2,161
2,141
2,121
2,101
2,081
Depth to Water (ft.)
223
243
263
283
303
323
343
363
383
403
423
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 2504 ft.
MT: 365 ft.
MO: 353 ft.
2025 IM: 362 ft.


325 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,298
2,278
2,258
2,238
2,218
2,198
2,178
2,158
2,138
2,118
2,098
206
226
246
266
286
306
326
346
366
386
406
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2504 ft.
MT: 331 ft.
MO: 323 ft.
2025 IM: 329 ft.

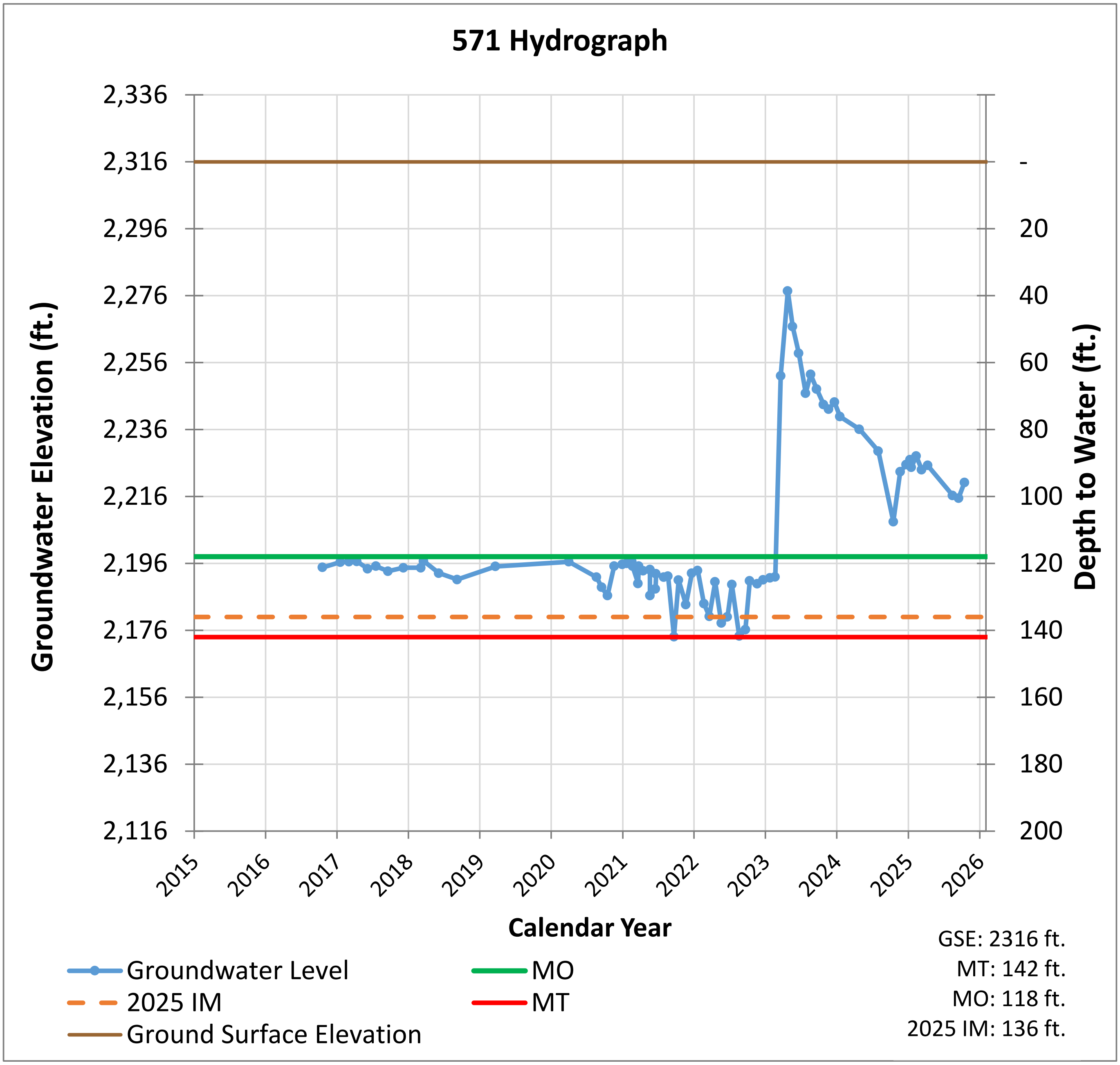

420 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,916
1,896
1,876
1,856
1,836
1,816
1,796
1,776
1,756
1,736
1,716
367
387
407
427
447
467
487
507
527
547
567
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2283 ft.
MT: 514 ft.
MO: 464 ft.
2025 IM: 501 ft.

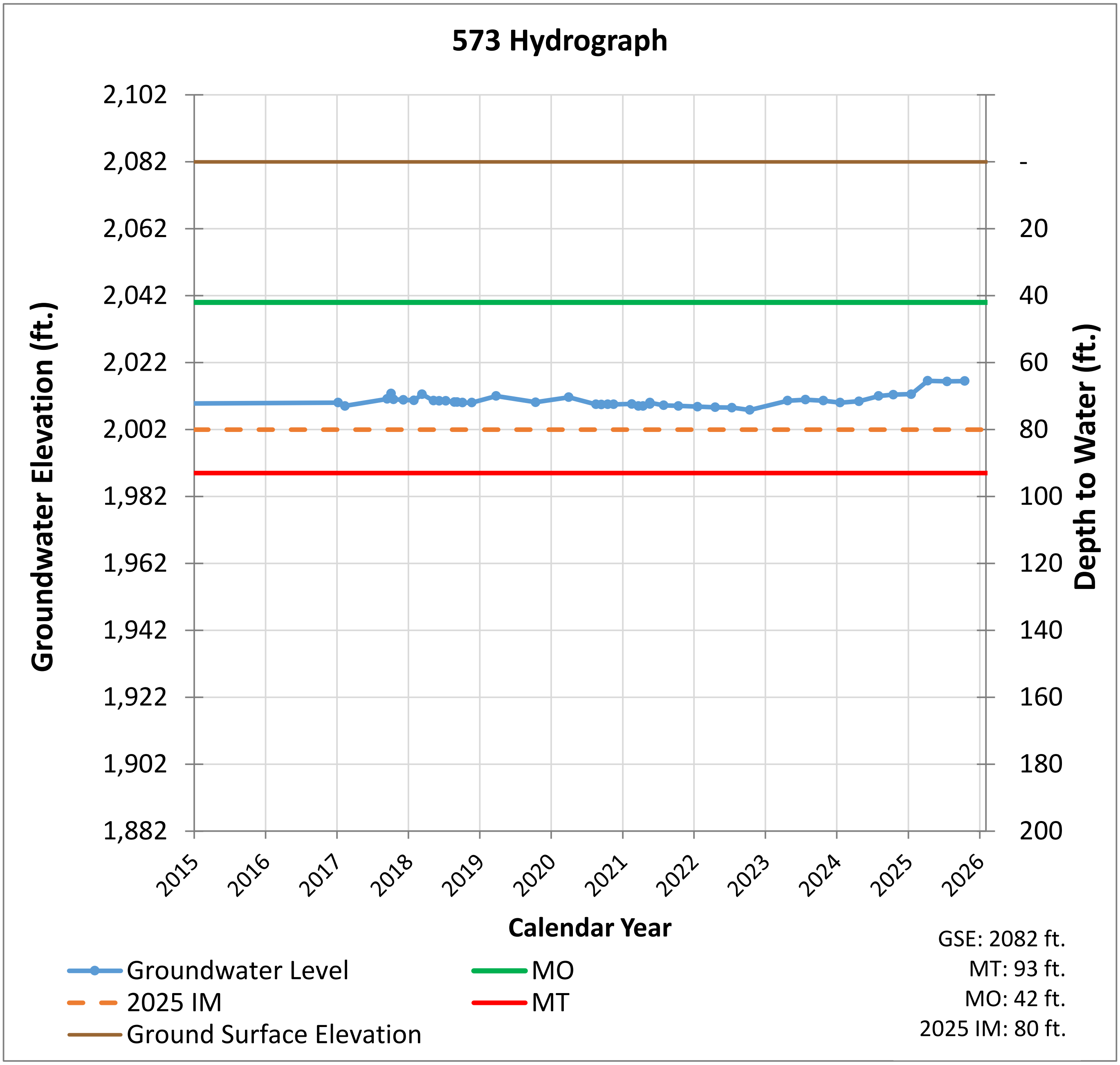

421 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,938
1,918
1,898
1,878
1,858
1,838
1,818
1,798
1,778
1,758
1,738
345
365
385
405
425
445
465
485
505
525
545
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2283 ft.
MT: 514 ft.
MO: 466 ft.
2025 IM: 502 ft.

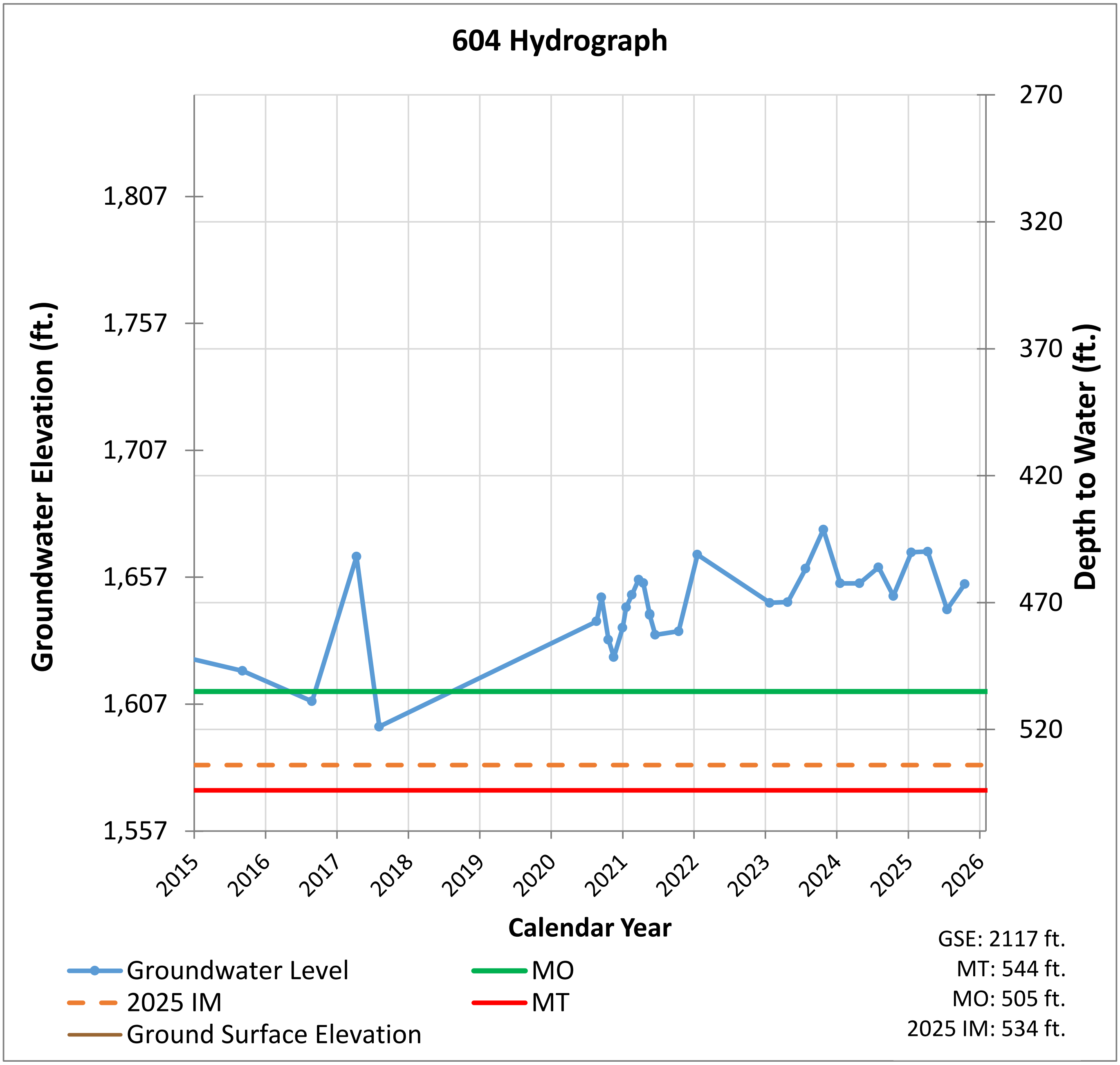

474 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,303
2,283
2,263
2,243
2,223
2,203
2,183
2,163
2,143
2,123
2,103
62
82
102
122
142
162
182
202
222
242
262
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2365 ft.
MT: 197 ft.
MO: 178 ft.
2025 IM: 192 ft.

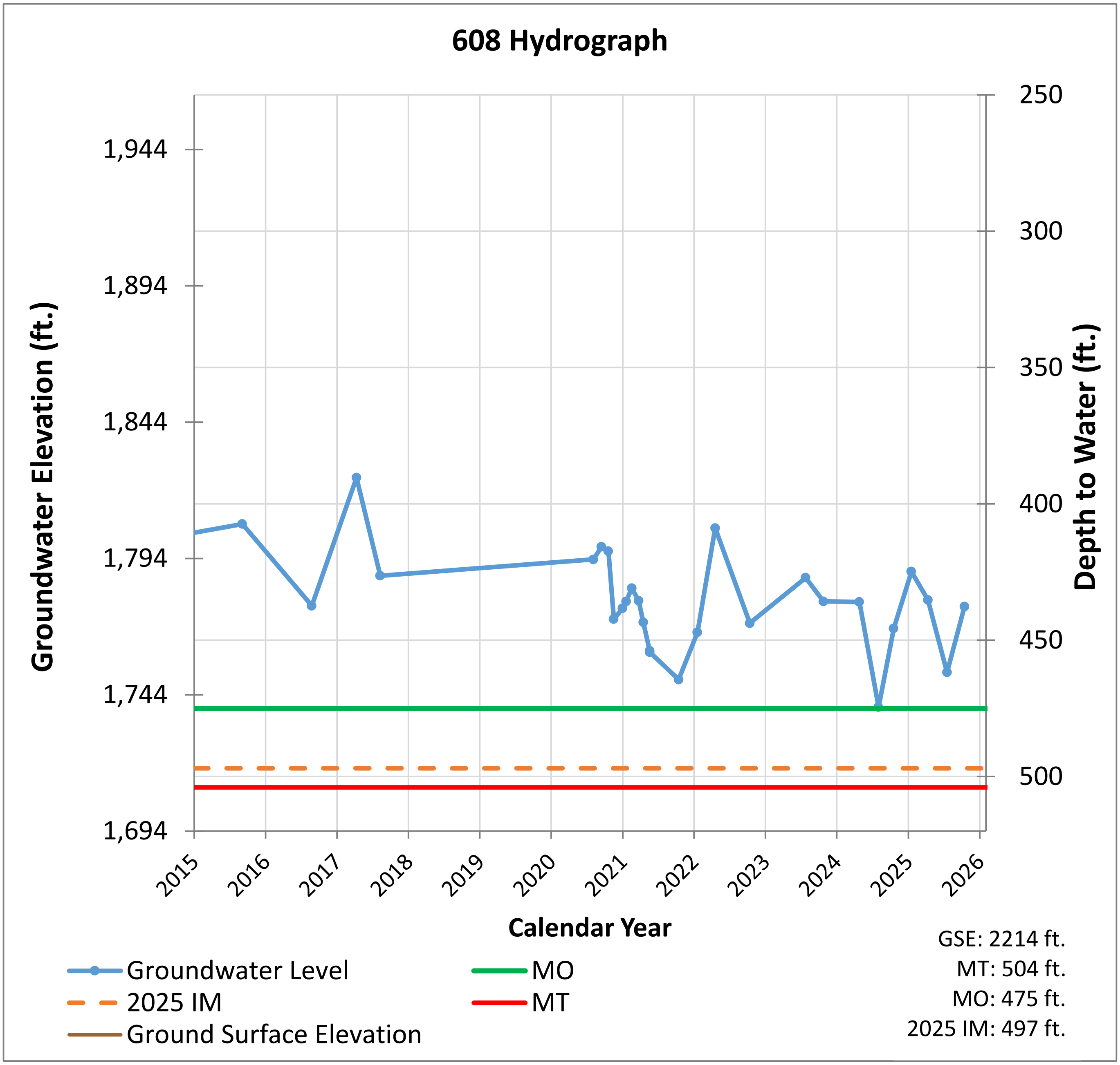


568 Hydrograph
1,932
1,912
1,892
1,872
1,852
1,832
1,812
1,792
1,772
1,752
1,732
1,712
Groundwater Elevation (ft.)
-
20
40
60
80
100
120
140
160
180
200
Depth to Water (ft.)
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 1912 ft.
MT: 47 ft.
MO: 46 ft.
2025 IM: 47 ft.

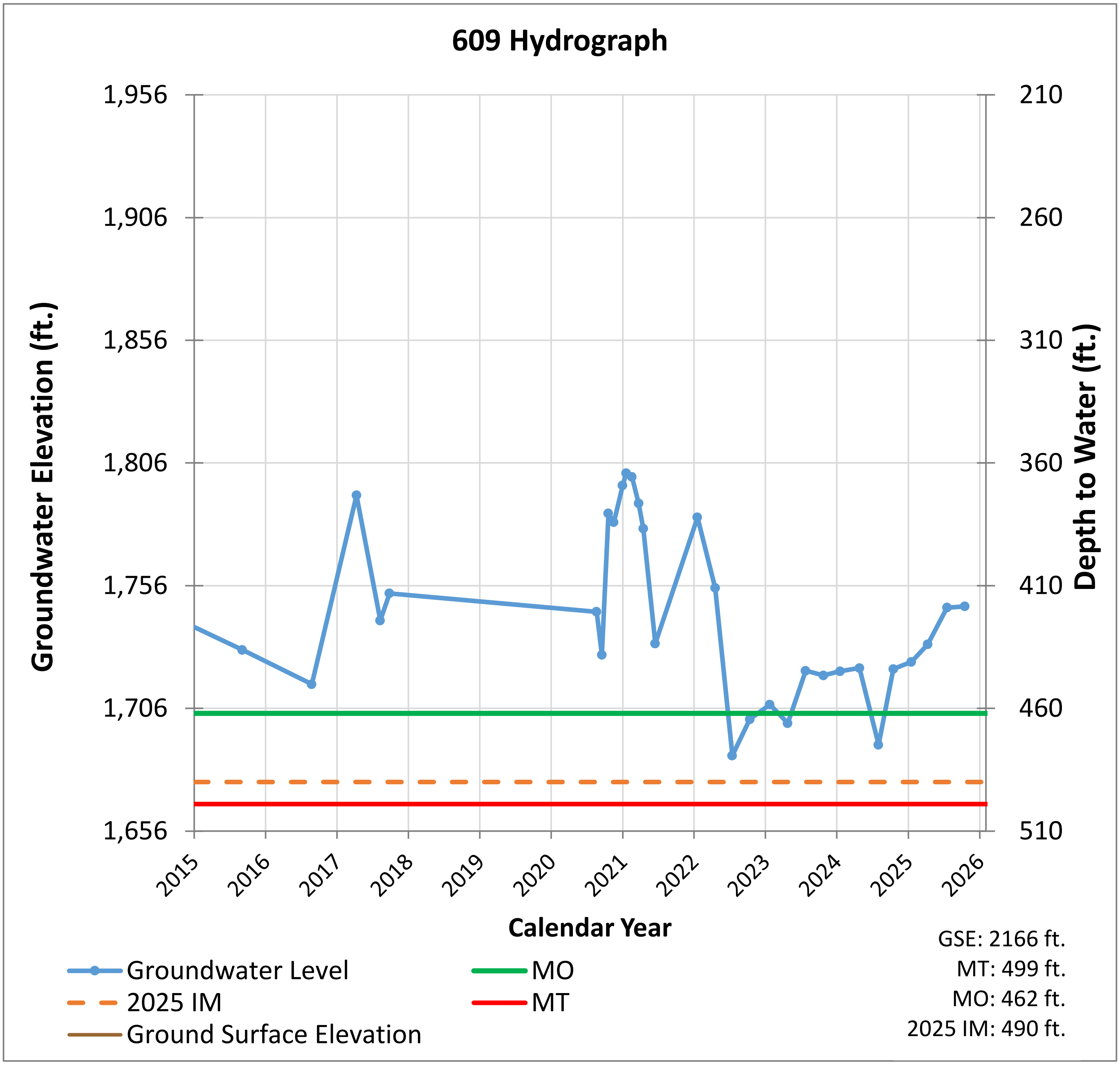

571 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
2,336
2,316
2,296
2,276
2,256
2,236
2,216
2,196
2,176
2,156
2,136
2,116
-
20
40
60
80
100
120
140
160
180
200
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 2316 ft.
MT: 142 ft.
MO: 118 ft.
2025 IM: 136 ft.

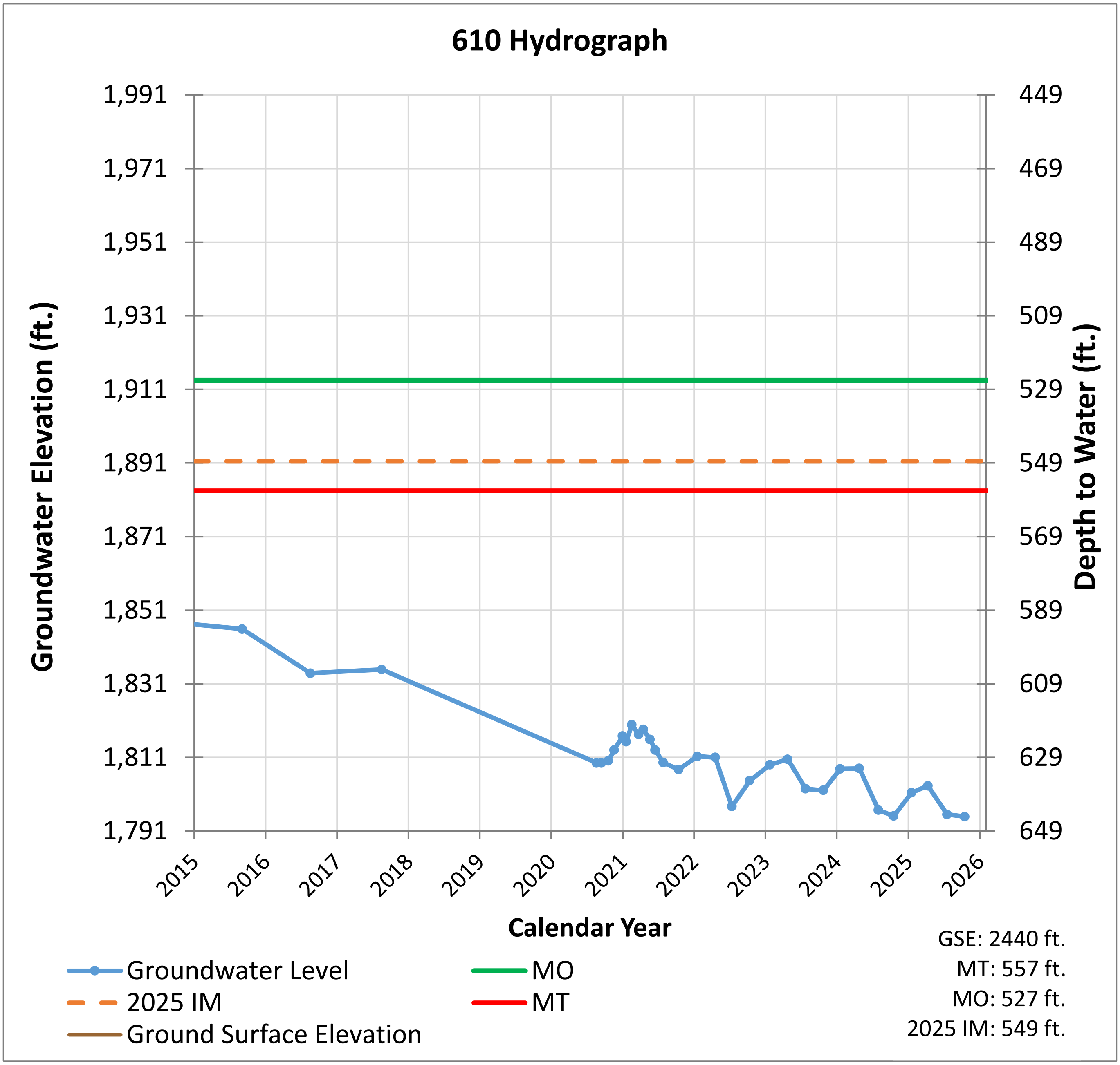

573 Hydrograph
2,102
2,082
2,062
2,042
2,022
2,002
1,982
1,962
1,942
1,922
1,902
1,882
-
20
40
60
80
100
120
140
160
180
200
Groundwater Elevation (ft.)
Depth to Water (ft.)
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2082 ft.
MT: 93 ft.
MO: 42 ft.
2025 IM: 80 ft.

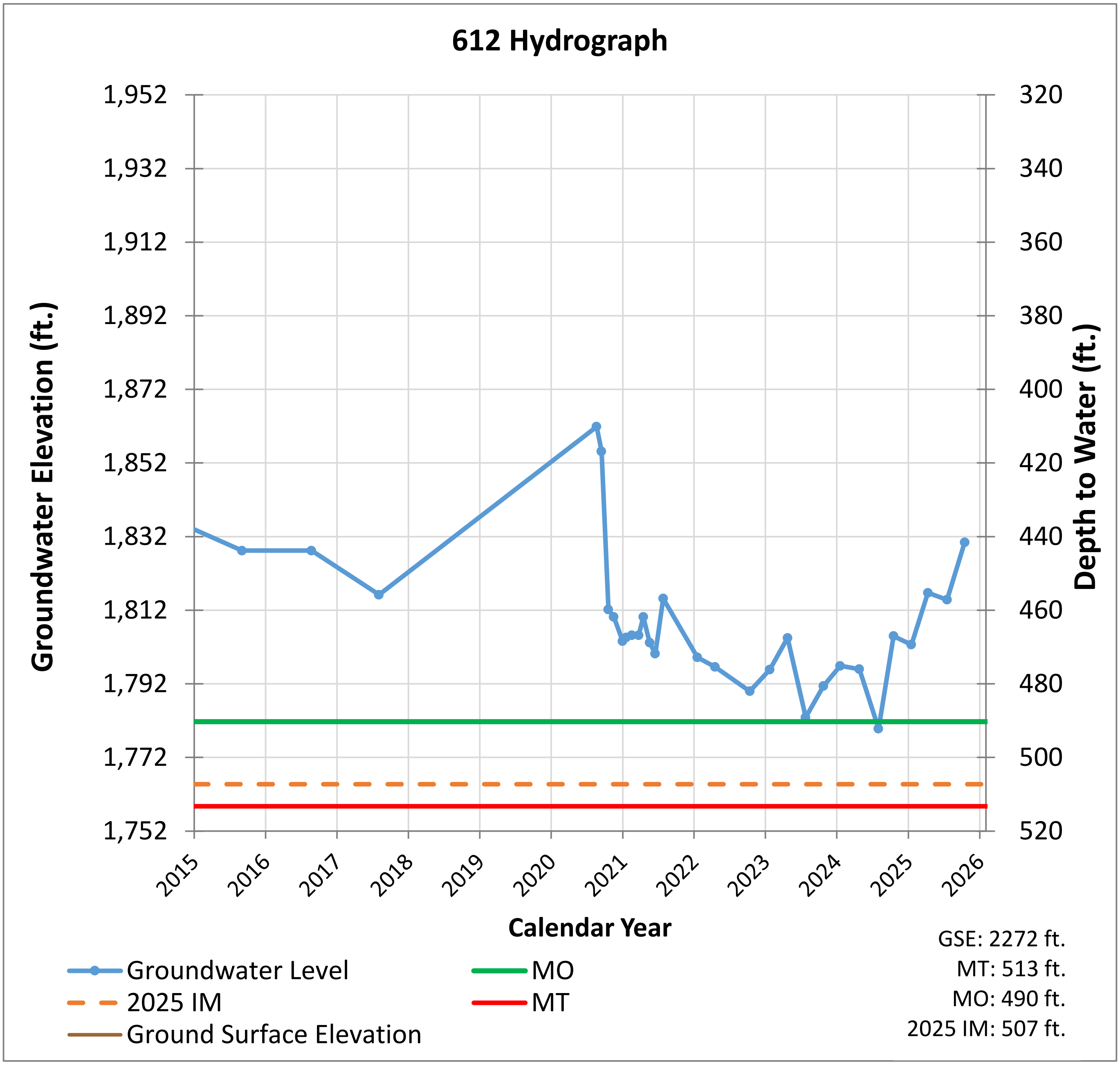

604 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,807
1,757
1,707
1,657
1,607
1,557
270
320
370
420
470
520
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 2117 ft.
MT: 544 ft.
MO: 505 ft.
2025 IM: 534 ft.



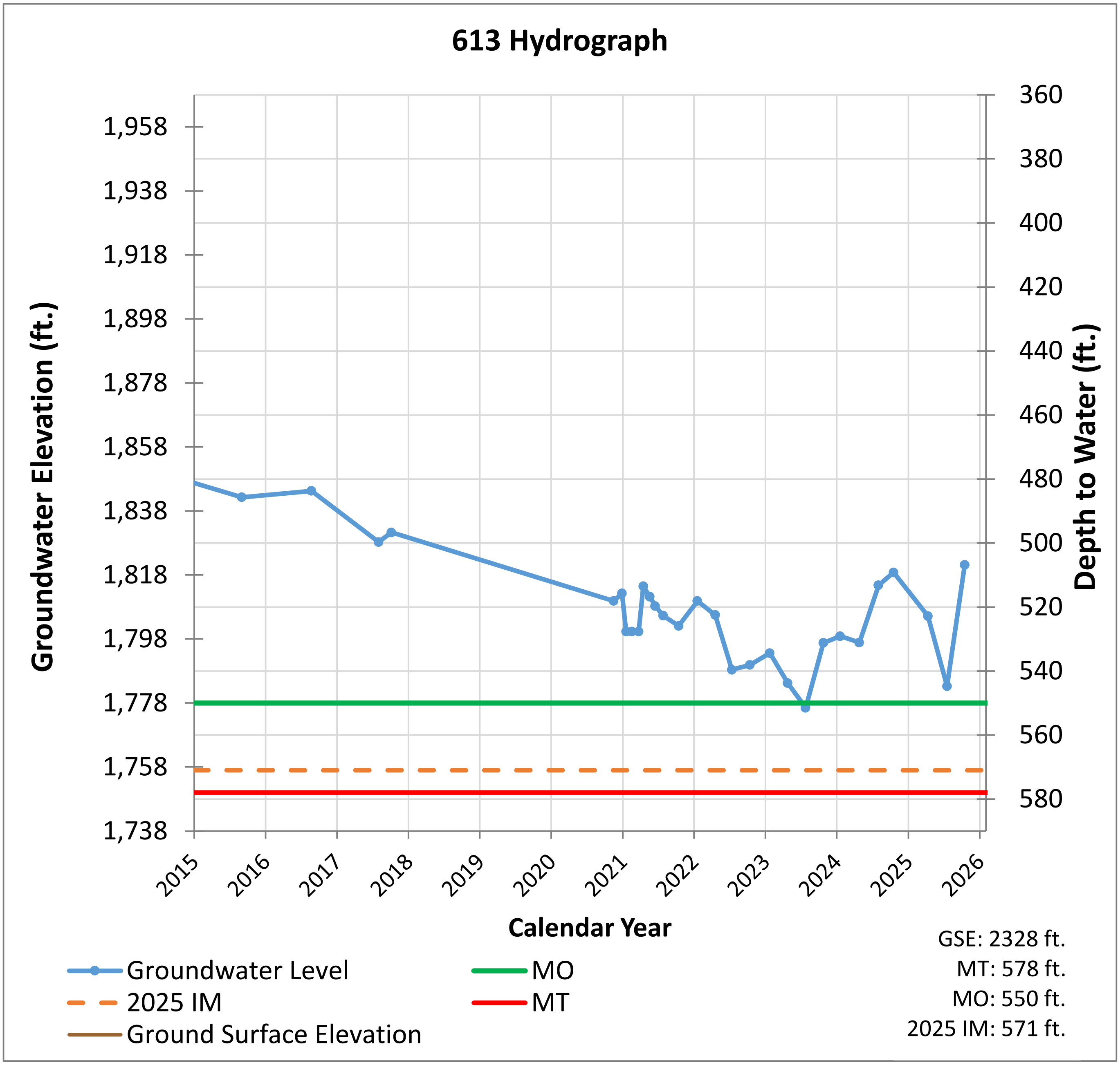
608 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,944
1,894
1,844
1,794
1,744
1,694
250
300
350
400
450
500
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2214 ft.
MT: 504 ft.
MO: 475 ft.
2025 IM: 497 ft.


609 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,956
1,906
1,856
1,806
1,756
1,706
1,656
210
260
310
360
410
460
510
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2166 ft.
MT: 499 ft.
MO: 462 ft.
2025 IM: 490 ft.

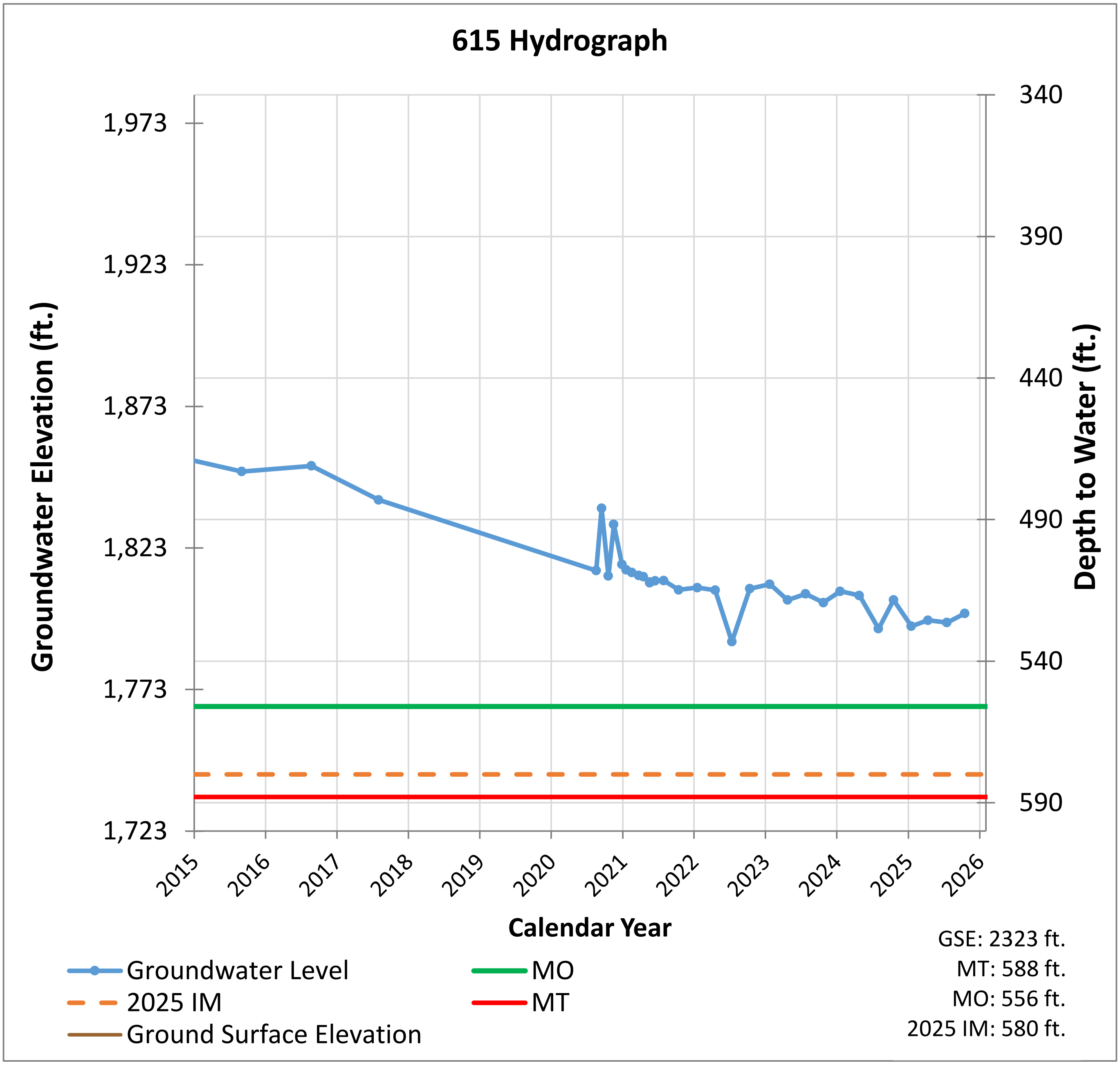

610 Hydrograph
Groundwater Elevation (ft.)
1,991
1,971
1,951
1,931
1,911
1,891
1,871
1,851
1,831
1,811
1,791
Depth to Water (ft.)
449
469
489
509
529
549
569
589
609
629
649
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 2440 ft.
MT: 557 ft.
MO: 527 ft.
2025 IM: 549 ft.

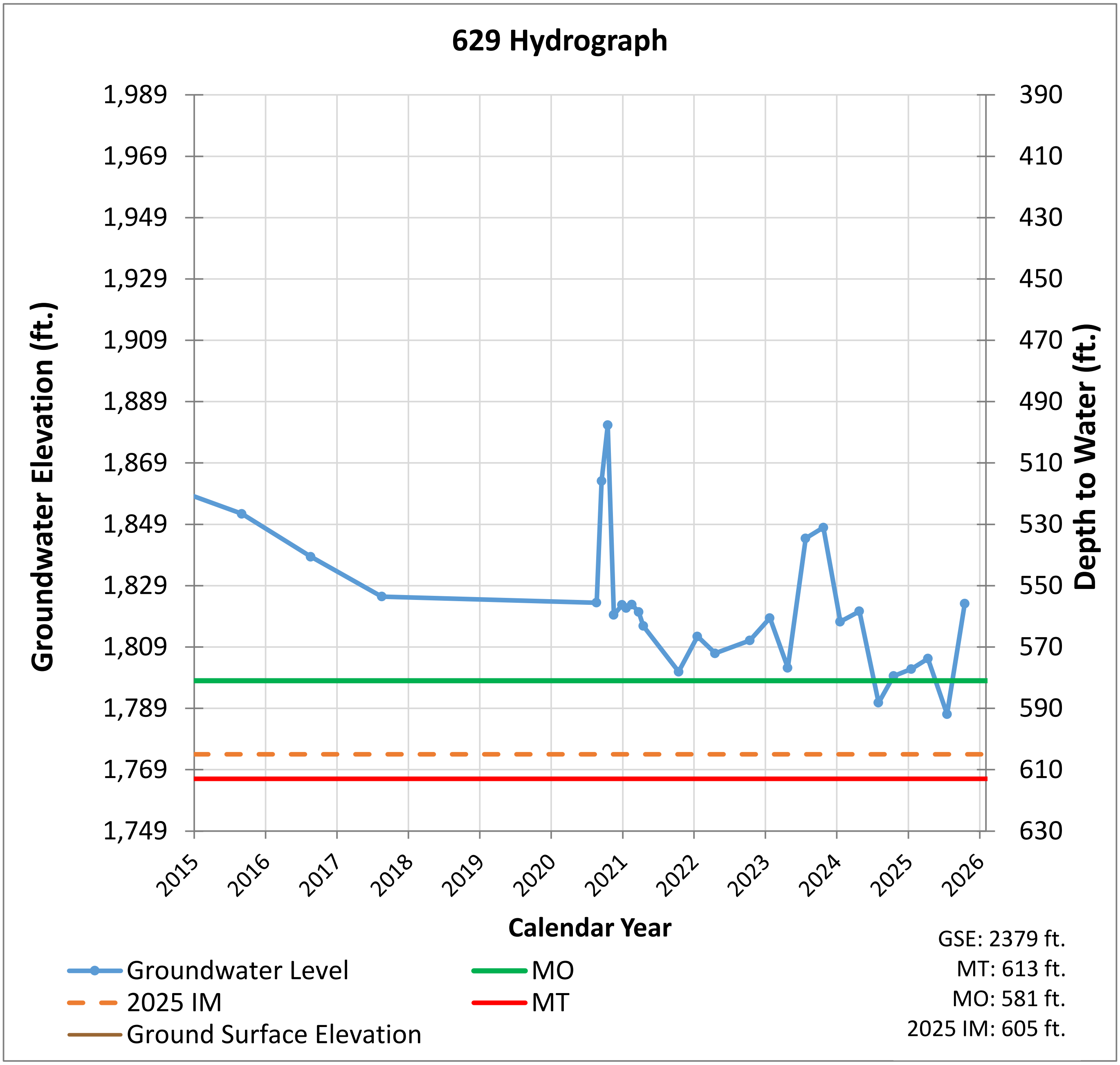


612 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,952
1,932
1,912
1,892
1,872
1,852
1,832
1,812
1,792
1,772
1,752
320
340
360
380
400
420
440
460
480
500
520
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 2272 ft.
MT: 513 ft.
MO: 490 ft.
2025 IM: 507 ft.

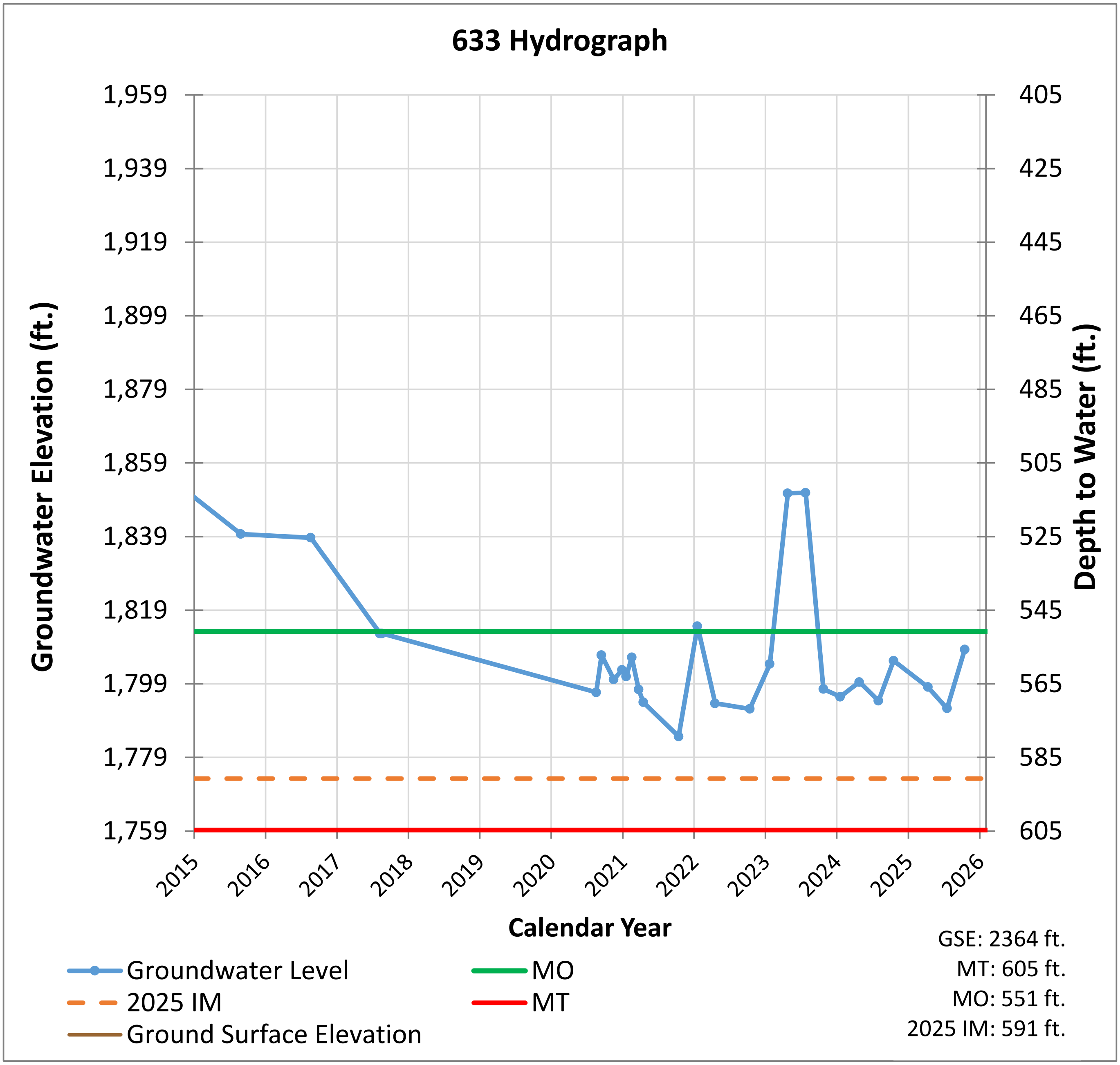


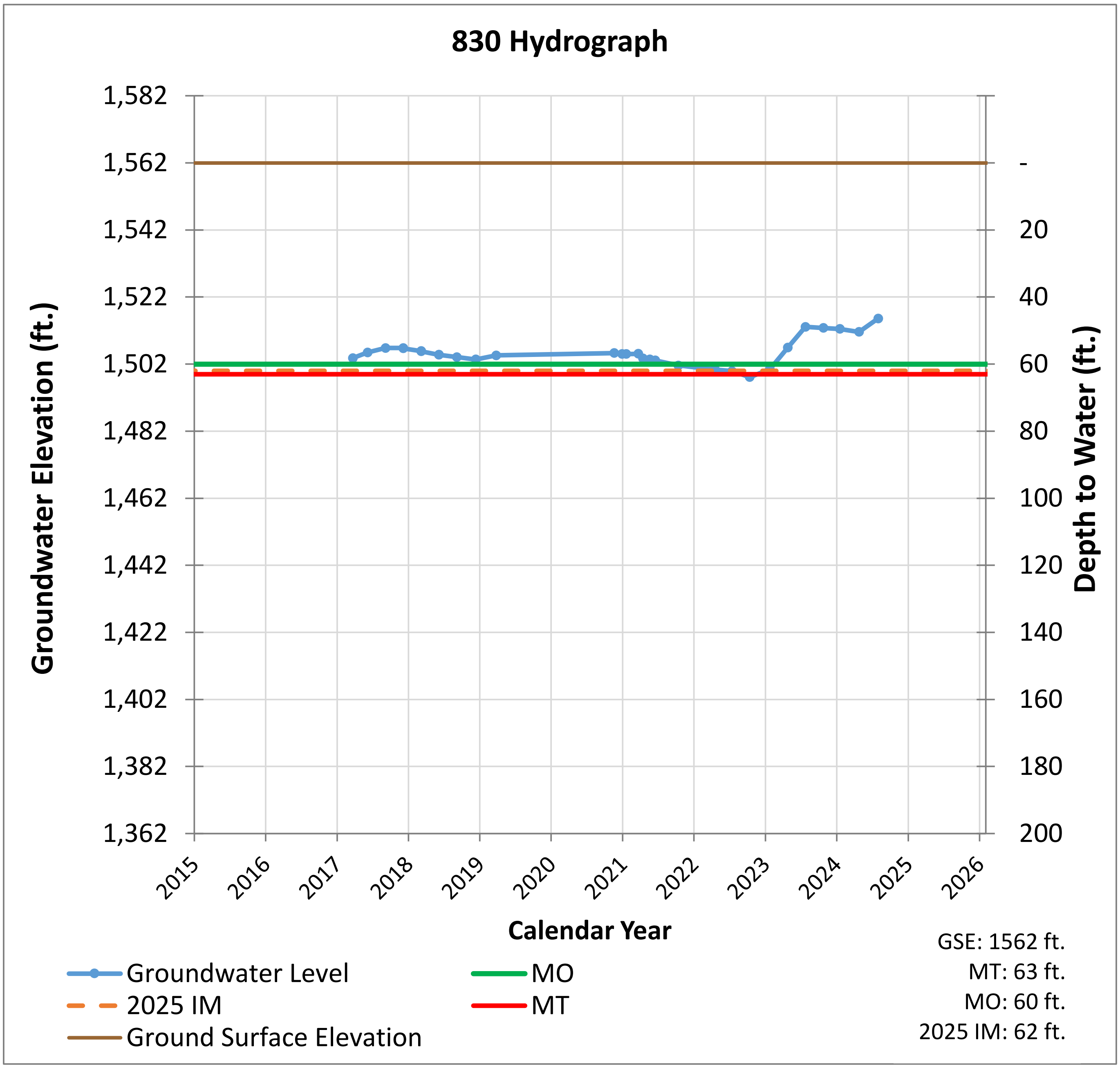
613 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,958
1,938
1,918
1,898
1,878
1,858
1,838
1,818
1,798
1,778
1,758
1,738
360
380
400
420
440
460
480
500
520
540
560
580
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2328 ft.
MT: 578 ft.
MO: 550 ft.
2025 IM: 571 ft.

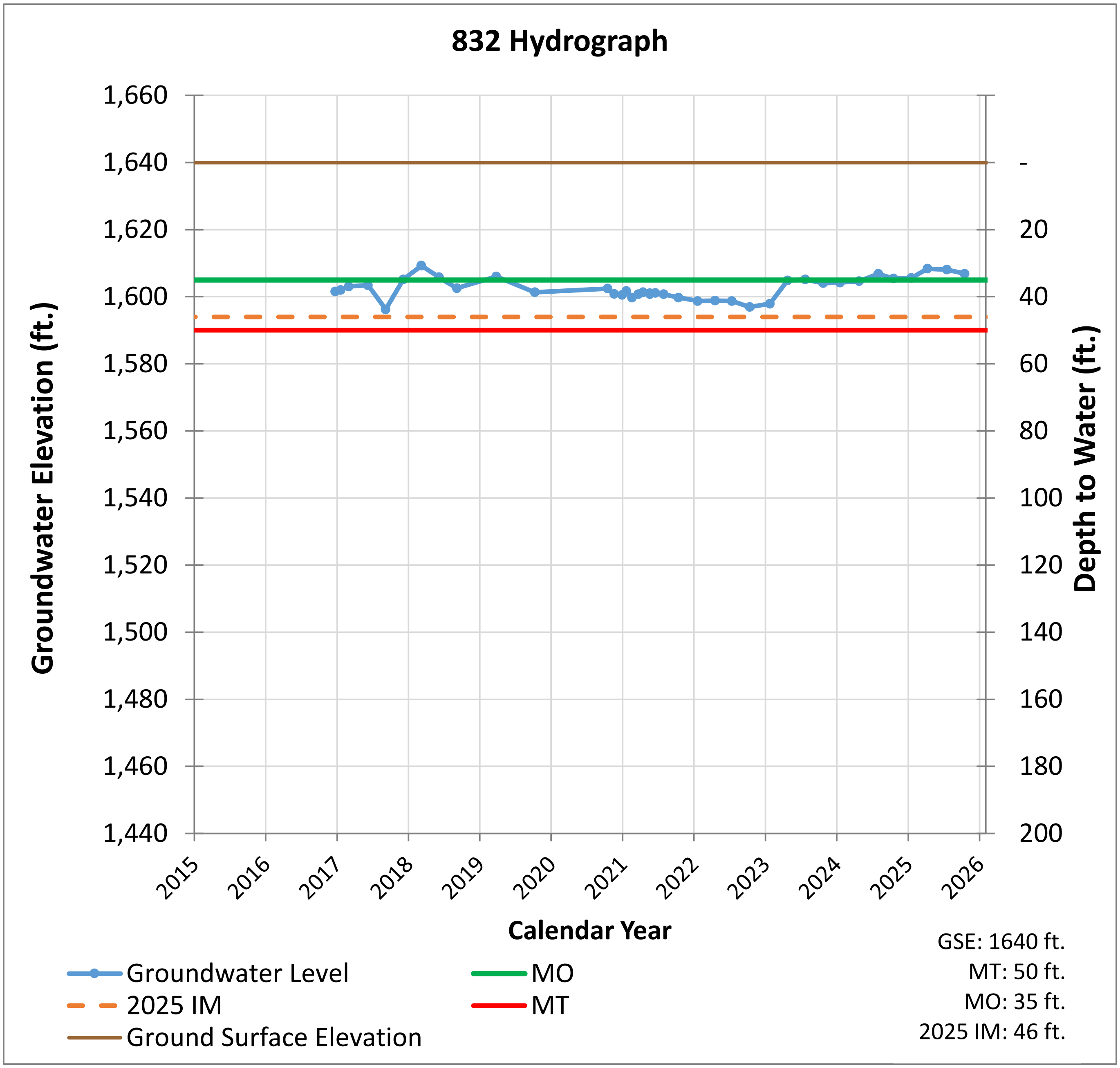

615 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
Calendar Year
1,973
1,923
1,873
1,823
1,773
1,723
340
390
440
490
540
590
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2323 ft.
MT: 588 ft.
MO: 556 ft.
2025 IM: 580 ft.

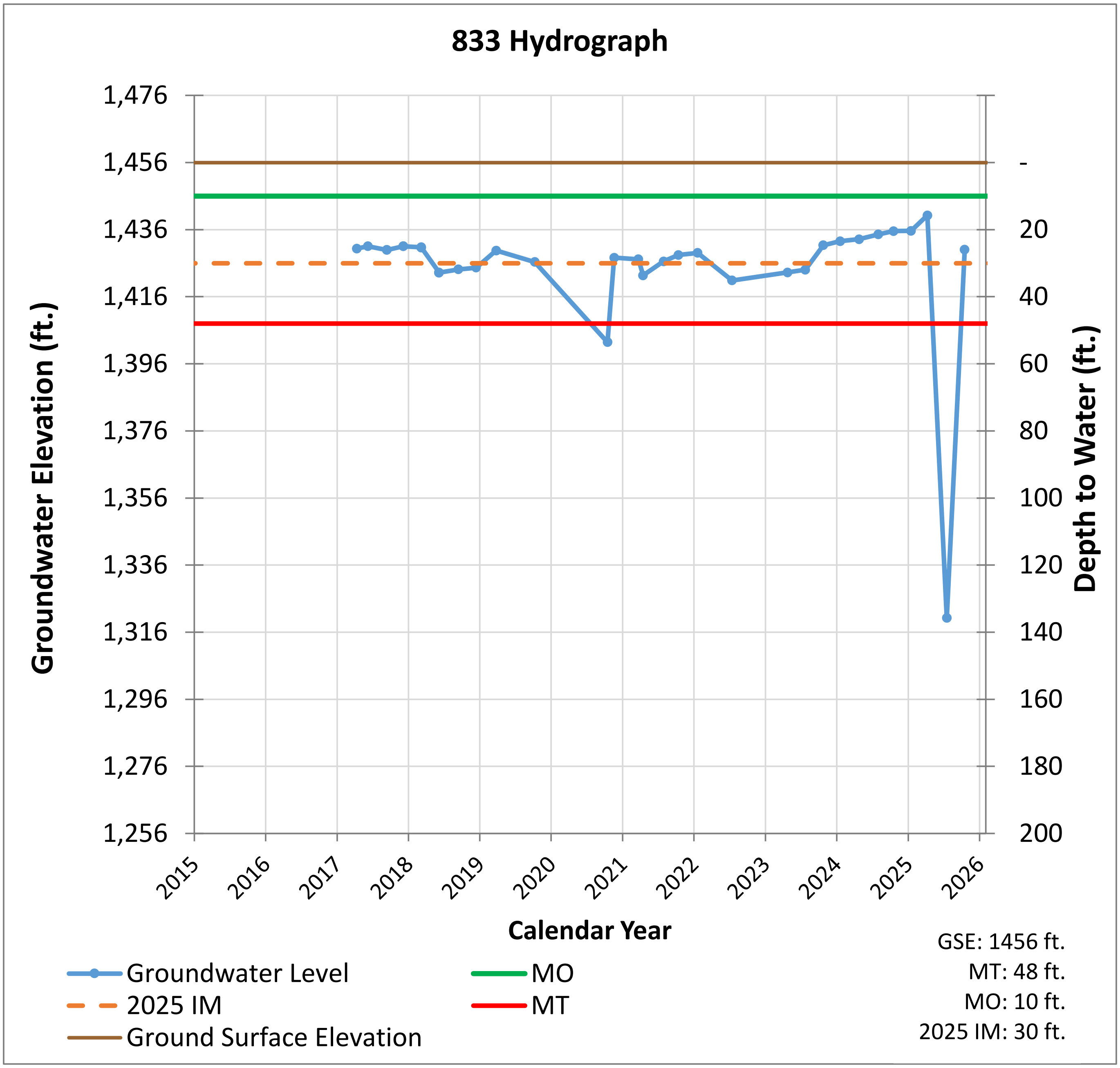


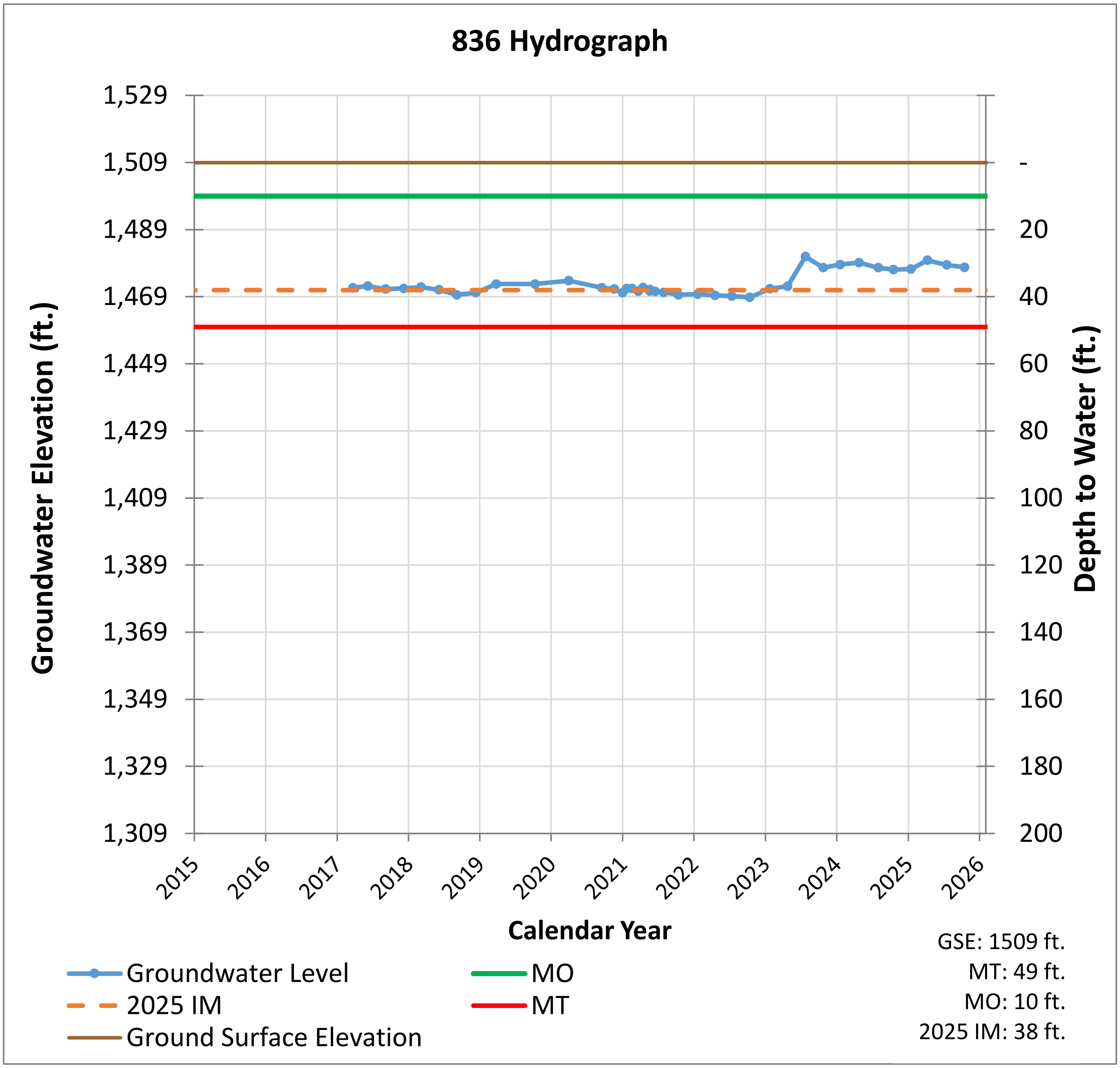
629 Hydrograph
Groundwater Elevation (ft.)
1,989
1,969
1,949
1,929
1,909
1,889
1,869
1,849
1,829
1,809
1,789
1,769
1,749
Depth to Water (ft.)
390
410
430
450
470
490
510
530
550
570
590
610
630
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 2379 ft.
MT: 613 ft.
MO: 581 ft.
2025 IM: 605 ft.

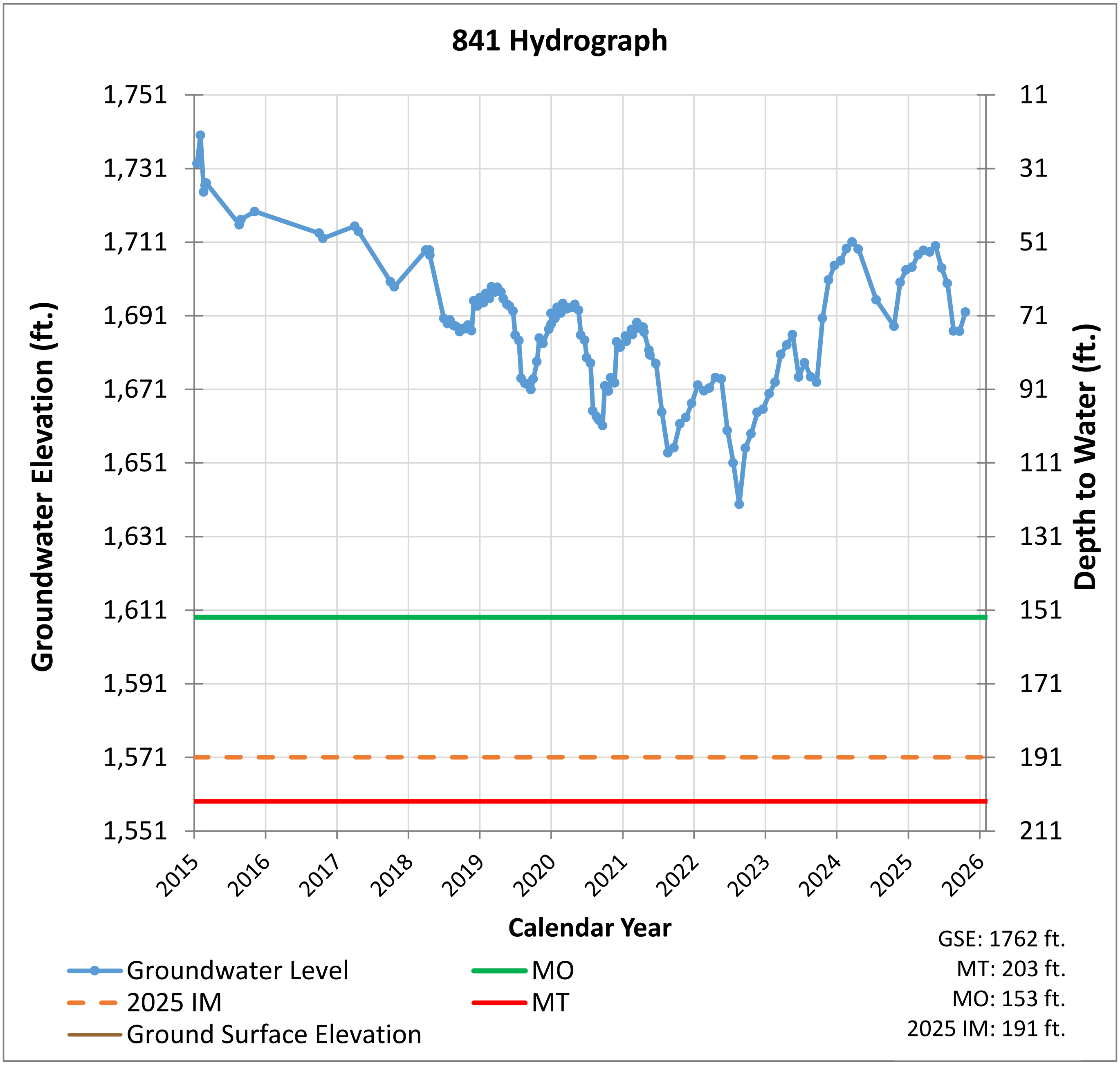

633 Hydrograph
1,959
1,939
1,919
1,899
1,879
1,859
1,839
1,819
1,799
1,779
1,759
Groundwater Elevation (ft.)
405
425
445
465
485
505
525
545
565
585
605
Depth to Water (ft.)
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 2364 ft.
MT: 605 ft.
MO: 551 ft.
2025 IM: 591 ft.


830 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,582
1,562
1,542
1,522
1,502
1,482
1,462
1,442
1,422
1,402
1,382
1,362
-
20
40
60
80
100
120
140
160
180
200
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 1562 ft.
MT: 63 ft.
MO: 60 ft.
2025 IM: 62 ft.

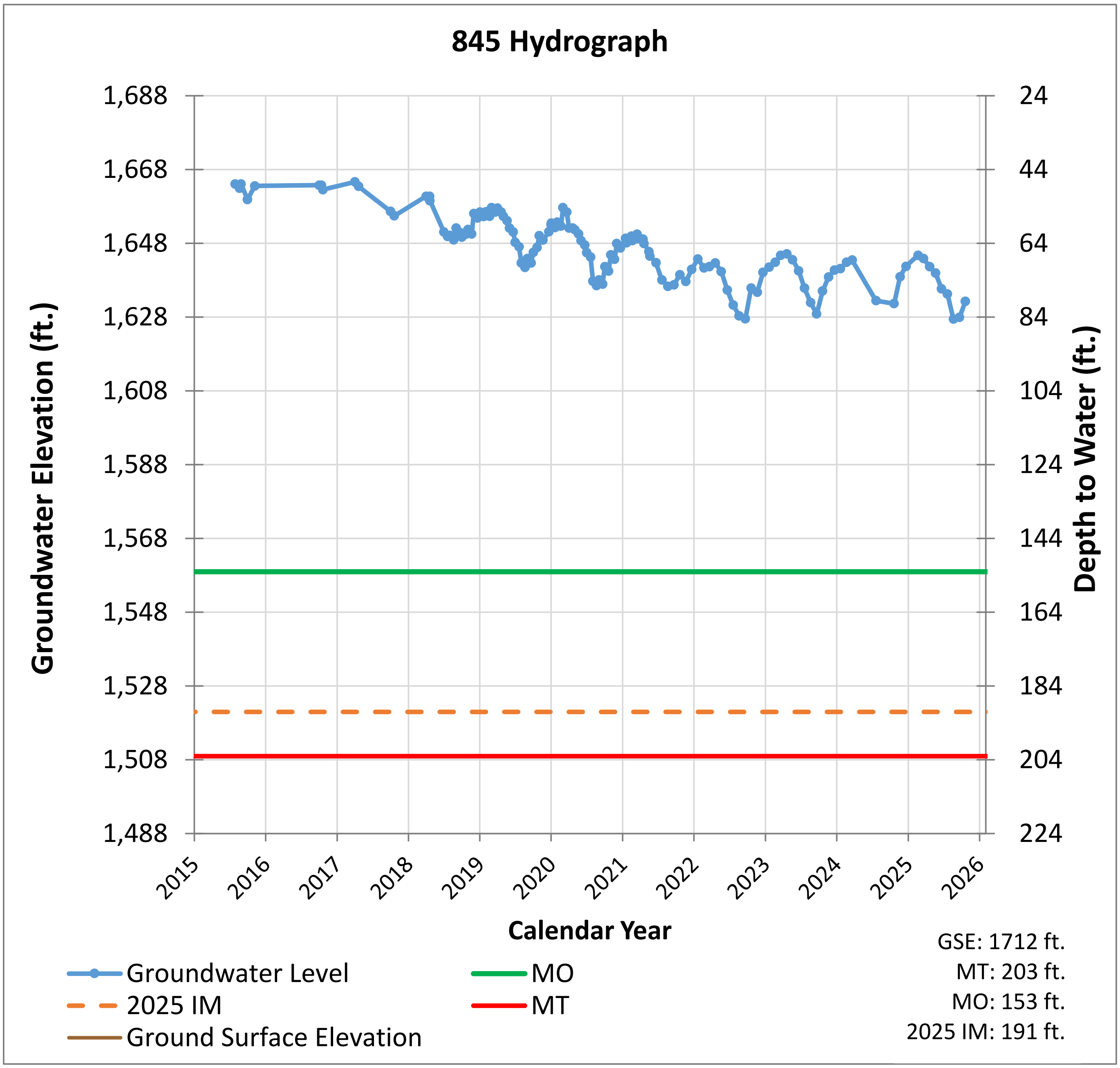

832 Hydrograph
Groundwater Elevation (ft.)
1,660
1,640
1,620
1,600
1,580
1,560
1,540
1,520
1,500
1,480
1,460
1,440
Depth to Water (ft.)
-
20
40
60
80
100
120
140
160
180
200
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 1640 ft.
MT: 50 ft.
MO: 35 ft.
2025 IM: 46 ft.


833 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,476
1,456
1,436
1,416
1,396
1,376
1,356
1,336
1,316
1,296
1,276
1,256
-
20
40
60
80
100
120
140
160
180
200
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 1456 ft.
MT: 48 ft.
MO: 10 ft.
2025 IM: 30 ft.


836 Hydrograph
Groundwater Elevation (ft.)
1,529
1,509
1,489
1,469
1,449
1,429
1,409
1,389
1,369
1,349
1,329
1,309
Depth to Water (ft.)
-
20
40
60
80
100
120
140
160
180
200
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
2025 IM
Ground Surface Elevation
MO
MT
GSE: 1509 ft.
MT: 49 ft.
MO: 10 ft.
2025 IM: 38 ft.



841 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,751
1,731
1,711
1,691
1,671
1,651
1,631
1,611
1,591
1,571
1,551
11
31
51
71
91
111
131
151
171
191
211
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 1762 ft.
MT: 203 ft.
MO: 153 ft.
2025 IM: 191 ft.


845 Hydrograph
Groundwater Elevation (ft.)
Depth to Water (ft.)
1,688
1,668
1,648
1,628
1,608
1,588
1,568
1,548
1,528
1,508
1,488
24
44
64
84
104
124
144
164
184
204
224
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
Calendar Year
Groundwater Level
MO
2025 IM
MT
Ground Surface Elevation
GSE: 1712 ft.
MT: 203 ft.
MO: 153 ft.
2025 IM: 191 ft.