



**GROUNDWATER
CONDITIONS
REPORT –
CUYAMA VALLEY
GROUNDWATER
BASIN**

October 2022

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**Cuyama Basin
Groundwater
Sustainability Agency**

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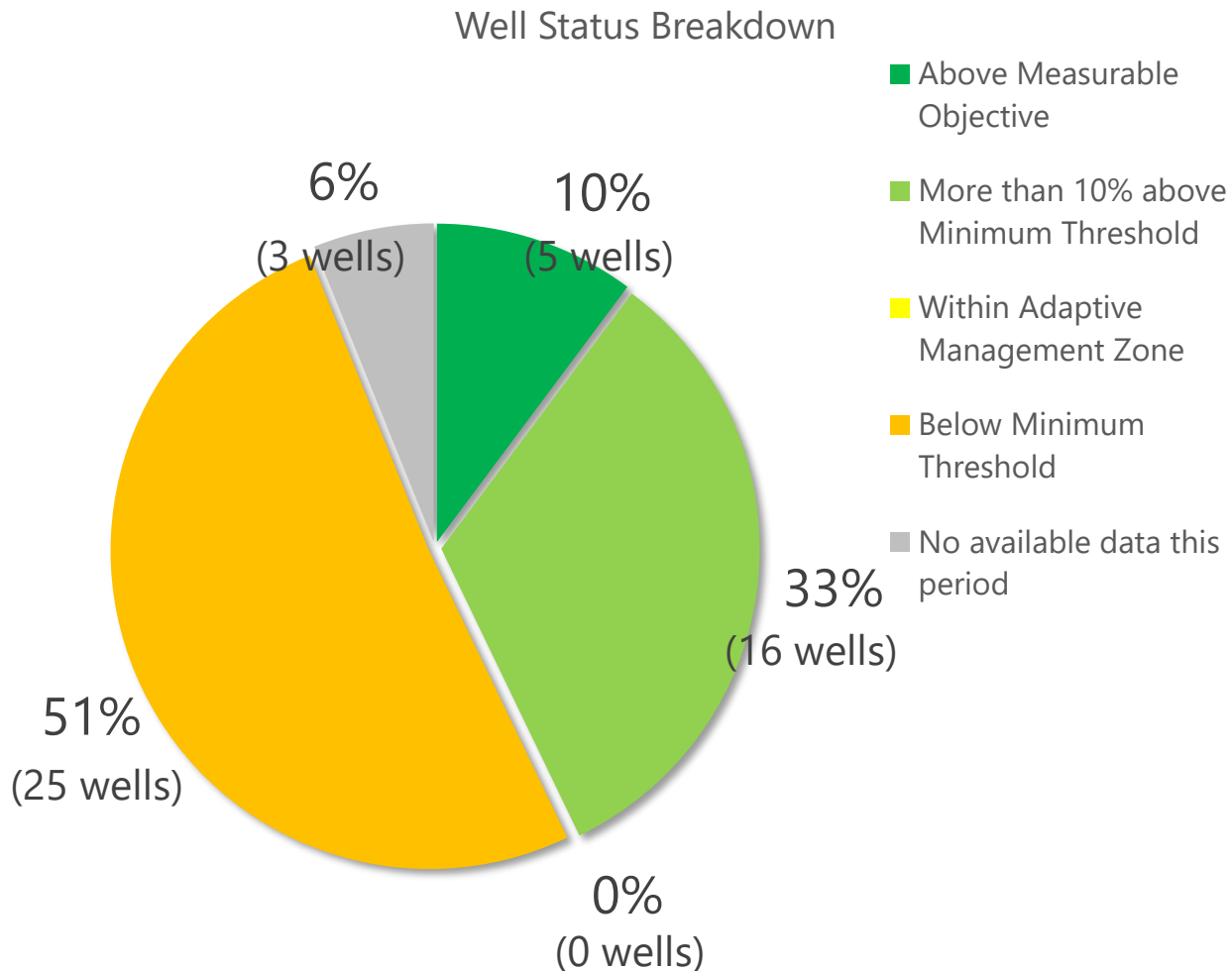
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1. INTRODUCTION

This report is intended to provide an update on the current groundwater level conditions in the Cuyama Valley Groundwater Basin. This work is completed by the Cuyama Basin Groundwater Sustainability Agency (CBGSA), in compliance with the Sustainable Groundwater Management Act (SGMA).

2. SUMMARY STATISTICS



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). Currently, 33% of representative monitoring wells (i.e. 16 wells) have been below the minimum threshold for 17 or more consecutive months.

3. CURRENT CONDITIONS

Table 1 includes the most recent groundwater level measurements taken in the Cuyama Basin from representative wells included in the Cuyama GSP Groundwater Level Monitoring Network, as well as the previous two measurements. Table 2 includes all of the wells and their current status in relation to the thresholds applied to each well. This information is also shown on Figure 1.

All measurements have also been incorporated into the Cuyama DMS, which may be accessed at <https://opti.woodardcurran.com/cuyama/login.php>.

Table 1: Recent Groundwater Levels for Representative Monitoring Network

| Well | Region | Apr-22 | Jul-22 | Oct-22 | Last Year | | Annual Elevation Change (ft) |
|------|---------|---------------|---------------|---------------|---------------|------------|------------------------------|
| | | GWL (ft. msl) | GWL (ft. msl) | GWL (ft. msl) | GWL (ft. msl) | Month/Year | |
| 72 | Central | 2021 | 2010 | 2014 | 1994 | Oct-21 | 20 |
| 74 | Central | 1928 | 1932 | 1939 | 1941 | Oct-21 | -2 |
| 77 | Central | 1803 | 1772 | 1779 | 1787 | Oct-21 | -8 |
| 91 | Central | 1813 | 1812 | 1805 | 1809 | Oct-21 | -4 |
| 95 | Central | 1847 | 1841 | 1851 | 1845 | Oct-21 | 6 |
| 96 | Central | 2271 | 2270 | 2269 | 2273 | Oct-21 | -3 |
| 98 | Central | - | - | - | - | - | - |
| 99 | Central | 2223 | 2178 | 2158 | 2154 | Oct-21 | 4 |
| 102 | Central | 1622 | - | - | 1668 | Oct-21 | - |
| 103 | Central | 2007 | 2014 | 2032 | 1962 | Oct-21 | 70 |
| 112 | Central | 2053 | 2053 | 2053 | 2054 | Oct-21 | -1 |
| 114 | Central | 1878 | 1878 | 1877 | 1879 | Oct-21 | -1 |
| 316 | Central | 1813 | 1811 | 1803 | 1809 | Oct-21 | -5 |
| 317 | Central | 1813 | 1813 | - | 1809 | Oct-21 | - |
| 322 | Central | 2222 | 2169 | 2156 | 2144 | Oct-21 | 13 |
| 324 | Central | 2220 | 2187 | 2178 | 2165 | Oct-21 | 13 |
| 325 | Central | 2222 | 2201 | 2200 | 2199 | Oct-21 | 1 |
| 420 | Central | 1792 | 1768 | 1725 | 1775 | Oct-21 | -50 |
| 421 | Central | 1793 | 1789 | 1787 | 1779 | Oct-21 | 8 |
| 474 | Central | 2204 | 2203 | 2203 | 2205 | Oct-21 | -3 |

| Well | Region | Apr-22 | Jul-22 | Oct-22 | Last Year | | Annual Elevation Change (ft) |
|------|--------------|------------------|------------------|------------------|------------------|----------------|------------------------------------|
| | | GWL (ft. msl) | GWL (ft. msl) | GWL (ft. msl) | GWL (ft. msl) | Month/ Year | |
| 568 | Central | 1868 | 1852 | 1851 | 1866 | Oct-21 | -15 |
| 604 | Central | - | - | - | 1644 | Oct-21 | - |
| 608 | Central | 1817 | - | 1782 | 1762 | Oct-21 | 21 |
| 609 | Central | 1760 | 1692 | 1707 | - | - | - |
| 610 | Central | 1814 | 1801 | 1808 | 1811 | Oct-21 | -3 |
| 612 | Central | 1793 | - | 1786 | - | - | - |
| 613 | Central | 1809 | 1792 | 1794 | 1806 | Oct-21 | -12 |
| 615 | Central | 1813 | 1795 | 1814 | 1814 | Oct-21 | 0 |
| 629 | Central | 1807 | - | 1812 | 1801 | Oct-21 | 10 |
| 633 | Central | 1794 | - | 1792 | 1785 | Oct-21 | 8 |
| 62 | Eastern | 2766 | 2760 | 2757 | 2761 | Oct-21 | -4 |
| 85 | Eastern | 2847 | 2846 | 2841 | 2847 | Oct-21 | -7 |
| 100 | Eastern | 2850 | 2849 | 2846 | 2851 | Oct-21 | -5 |
| 101 | Eastern | - | - | - | 2631 | Oct-21 | - |
| 841 | Northwestern | 1676 | 1653 | 1661 | 1663 | Oct-21 | -3 |
| 845 | Northwestern | 1645 | 1633 | 1638 | 1642 | Oct-21 | -4 |
| 2 | Southeastern | - | - | - | - | - | - |
| 89 | Southeastern | 3425 | 3445 | 3422 | 3426 | Oct-21 | -4 |
| 106 | Western | 2183 | 2183 | 2182 | 2183 | Oct-21 | -1 |
| 107 | Western | 2383 | 2392 | 2390 | 2392 | Oct-21 | -2 |
| 117 | Western | 1946 | 1945 | 1945 | - | - | - |

| Well | Region | Apr-22 | Jul-22 | Oct-22 | Last Year | | Annual Elevation Change (ft) |
|------|--------------------------|------------------|------------------|------------------|------------------|----------------|------------------------------------|
| | | GWL (ft. msl) | GWL (ft. msl) | GWL (ft. msl) | GWL (ft. msl) | Month/ Year | |
| 118 | Western | 2210 | 2210 | 2212 | 2211 | Oct-21 | 1 |
| 124 | Western | - | - | - | - | - | - |
| 571 | Western | 2182 | 2181 | 2182 | 2183 | Oct-21 | 0 |
| 573 | Western | 2013 | 2012 | 2012 | 2013 | Oct-21 | -1 |
| 830 | Far-West Northwestern | 1510 | 1509 | 1508 | 1511 | Oct-21 | -4 |
| 832 | Far-West Northwestern | 1590 | 1590 | 1588 | 1591 | Oct-21 | -3 |
| 833 | Far-West Northwestern | - | 1423 | - | 1431 | Oct-21 | - |
| 836 | Far-West Northwestern | 1448 | 1447 | 1447 | 1448 | Oct-21 | -1 |

Table 2: Well Status Related to Thresholds

| Well | Region | Current Month | | Minimum Threshold | Within 10% Minimum Threshold | Measurable Objective | Well Depth | Status | GSA Action Required? |
|------|---------|---------------|------------|-------------------|------------------------------|----------------------|------------|---|----------------------|
| | | GWL (DTW) | Date | | | | | | |
| 72 | Central | 157 | 10/12/2022 | 169 | 165 | 124 | 790 | More than 10% above Minimum Threshold | No |
| 74 | Central | 254 | 10/12/2022 | 256 | 255 | 243 | | More than 10% above Minimum Threshold | No |
| 77 | Central | 507 | 10/13/2022 | 450 | 445 | 400 | 980 | Below Minimum Threshold (26 months) | No |
| 91 | Central | 669 | 10/12/2022 | 625 | 620 | 576 | 980 | Below Minimum Threshold (26 months) | No |
| 95 | Central | 598 | 10/13/2022 | 573 | 570 | 538 | 805 | Below Minimum Threshold (26 months) | No |
| 96 | Central | 337 | 10/12/2022 | 333 | 332 | 325 | 500 | Below Minimum Threshold (23 months) | No |
| 98 | Central | - | - | 450 | 449 | 439 | 750 | No available data this period (no available data in past 15 months) | No |
| 99 | Central | 355 | 10/12/2022 | 311 | 310 | 300 | 750 | Below Minimum Threshold (4 months) | No |
| 102 | Central | - | - | 235 | 231 | 197 | | No available data this period (below MT in Apr 2022, 22 months) | No |
| 103 | Central | 257 | 10/12/2022 | 290 | 285 | 235 | 1030 | More than 10% above Minimum Threshold | No |
| 112 | Central | 86 | 10/13/2022 | 87 | 87 | 85 | 441 | More than 10% above Minimum Threshold | No |
| 114 | Central | 48 | 10/13/2022 | 47 | 47 | 45 | 58 | Below Minimum Threshold (7 months) | No |
| 316 | Central | 671 | 10/12/2022 | 623 | 618 | 574 | 830 | Below Minimum Threshold (26 months) | No |
| 317 | Central | - | - | 623 | 618 | 573 | 700 | No available data this period (below MT in Jul 2022, 26 months) | No |

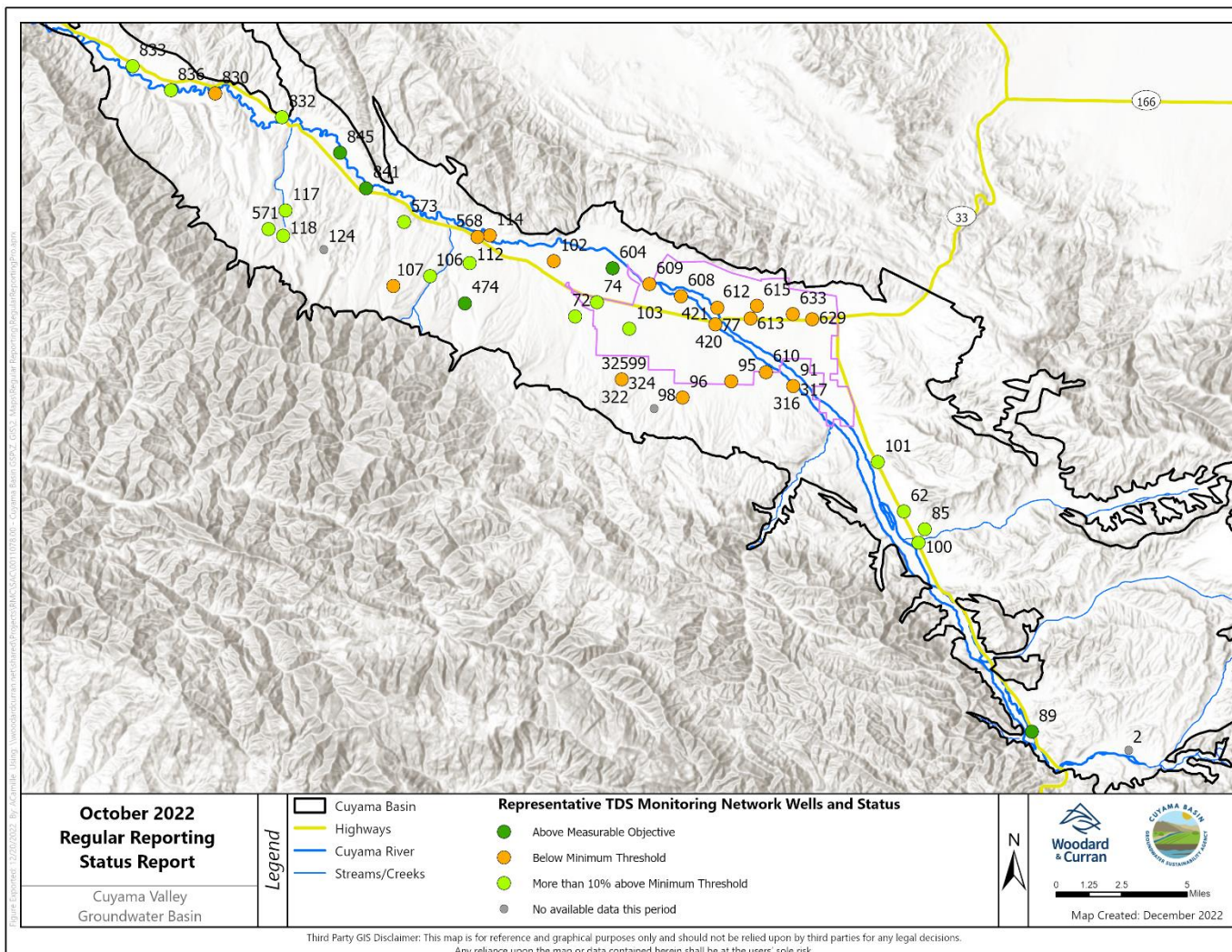
| Well | Region | Current Month | | Minimum Threshold | Within 10% Minimum Threshold | Measurable Objective | Well Depth | Status | GSA Action Required? |
|------|---------|---------------|------------|-------------------|------------------------------|----------------------|------------|--|----------------------|
| | | GWL (DTW) | Date | | | | | | |
| 322 | Central | 356 | 10/12/2022 | 307 | 306 | 298 | 850 | Below Minimum Threshold (4 months) | No |
| 324 | Central | 335 | 10/12/2022 | 311 | 310 | 299 | 560 | Below Minimum Threshold (4 months) | No |
| 325 | Central | 313 | 10/12/2022 | 300 | 299 | 292 | 380 | Below Minimum Threshold (4 months) | No |
| 420 | Central | 561 | 10/13/2022 | 450 | 445 | 400 | 780 | Below Minimum Threshold (26 months) | No |
| 421 | Central | 499 | 10/13/2022 | 446 | 441 | 398 | 620 | Below Minimum Threshold (26 months) | No |
| 474 | Central | 166 | 10/13/2022 | 188 | 186 | 169 | 213 | Above Measurable Objective | No |
| 568 | Central | 54 | 10/12/2022 | 37 | 37 | 36 | 188 | Below Minimum Threshold (17 months) | No |
| 604 | Central | - | - | 526 | 522 | 487 | 924 | No available data this period (above MO in Jan 2022) | No |
| 608 | Central | 441 | 10/13/2022 | 436 | 433 | 407 | 745 | Below Minimum Threshold (1 month) | No |
| 609 | Central | 460 | 10/13/2022 | 458 | 454 | 421 | 970 | Below Minimum Threshold (4 months) | No |
| 610 | Central | 634 | 10/12/2022 | 621 | 618 | 591 | 780 | Below Minimum Threshold (18 months) | No |
| 612 | Central | 480 | 10/13/2022 | 463 | 461 | 440 | 1070 | Below Minimum Threshold (10 months) | No |
| 613 | Central | 536 | 10/13/2022 | 503 | 500 | 475 | 830 | Below Minimum Threshold (24 months) | No |
| 615 | Central | 513 | 10/13/2022 | 500 | 497 | 468 | 865 | Below Minimum Threshold (23 months) | No |
| 629 | Central | 567 | 10/13/2022 | 559 | 556 | 527 | 1000 | Below Minimum Threshold (19 months) | No |

| Well | Region | Current Month | | Minimum Threshold | Within 10% Minimum Threshold | Measurable Objective | Well Depth | Status | GSA Action Required? |
|------|--------------|---------------|------------|-------------------|------------------------------|----------------------|------------|---|----------------------|
| | | GWL (DTW) | Date | | | | | | |
| 633 | Central | 572 | 10/13/2022 | 547 | 542 | 493 | 1000 | Below Minimum Threshold (19 months) | No |
| 62 | Eastern | 164 | 10/12/2022 | 182 | 178 | 142 | 212 | More than 10% above Minimum Threshold | No |
| 85 | Eastern | 206 | 10/12/2022 | 233 | 225 | 147 | 233 | More than 10% above Minimum Threshold | No |
| 100 | Eastern | 158 | 10/12/2022 | 181 | 175 | 125 | 284 | More than 10% above Minimum Threshold | No |
| 101 | Eastern | - | - | 111 | 108 | 81 | 200 | No available data this period (>10% above MT in Jan 2022) | No |
| 841 | Northwestern | 100 | 10/13/2022 | 203 | 198 | 153 | 600 | Above Measurable Objective | No |
| 845 | Northwestern | 74 | 10/13/2022 | 203 | 198 | 153 | 380 | Above Measurable Objective | No |
| 2 | Southeastern | - | - | 72 | 70 | 55 | 73 | No available data this period (no available data in past 12 months) | No |
| 89 | Southeastern | 39 | 10/13/2022 | 64 | 62 | 44 | 125 | Above Measurable Objective | No |
| 106 | Western | 144 | 10/13/2022 | 154 | 153 | 141 | 228 | More than 10% above Minimum Threshold | No |
| 107 | Western | 92 | 10/13/2022 | 91 | 89 | 72 | 200 | Below Minimum Threshold (1 month) | No |
| 117 | Western | 153 | 10/12/2022 | 160 | 159 | 151 | 212 | More than 10% above Minimum Threshold | No |
| 118 | Western | 58 | 10/12/2022 | 124 | 117 | 57 | 500 | More than 10% above Minimum Threshold | No |
| 124 | Western | - | - | 73 | 71 | 57 | 161 | No available data this period (no available data in past 12 months) | No |
| 571 | Western | 124 | 10/12/2022 | 144 | 142 | 121 | 280 | More than 10% above Minimum Threshold | No |
| 573 | Western | 72 | 10/13/2022 | 118 | 113 | 68 | 404 | More than 10% above Minimum Threshold | No |

| Well | Region | Current Month | | Minimum Threshold | Within 10% Minimum Threshold | Measurable Objective | Well Depth | Status | GSA Action Required? |
|------|-----------------------|---------------|------------|-------------------|------------------------------|----------------------|------------|--|----------------------|
| | | GWL (DTW) | Date | | | | | | |
| 830 | Far-West Northwestern | 63 | 10/13/2022 | 59 | 59 | 56 | 77 | Below Minimum Threshold (16 months) | No |
| 832 | Far-West Northwestern | 42 | 10/12/2022 | 45 | 44 | 30 | 132 | More than 10% above Minimum Threshold | No |
| 833 | Far-West Northwestern | - | - | 96 | 89 | 24 | 504 | No available data this period (> 10% above MT in Jul 2022) | No |
| 836 | Far-West Northwestern | 39 | 10/13/2022 | 79 | 75 | 36 | 325 | More than 10% above Minimum Threshold | No |

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

Figure 1: Groundwater Level Representative Wells and Status in October 2022



4. HYDROGRAPHS

The following hydrographs provide an overview of conditions in each of the six areas threshold regions identified in the GSP.

Figure 2: Southeast Region – Well 89

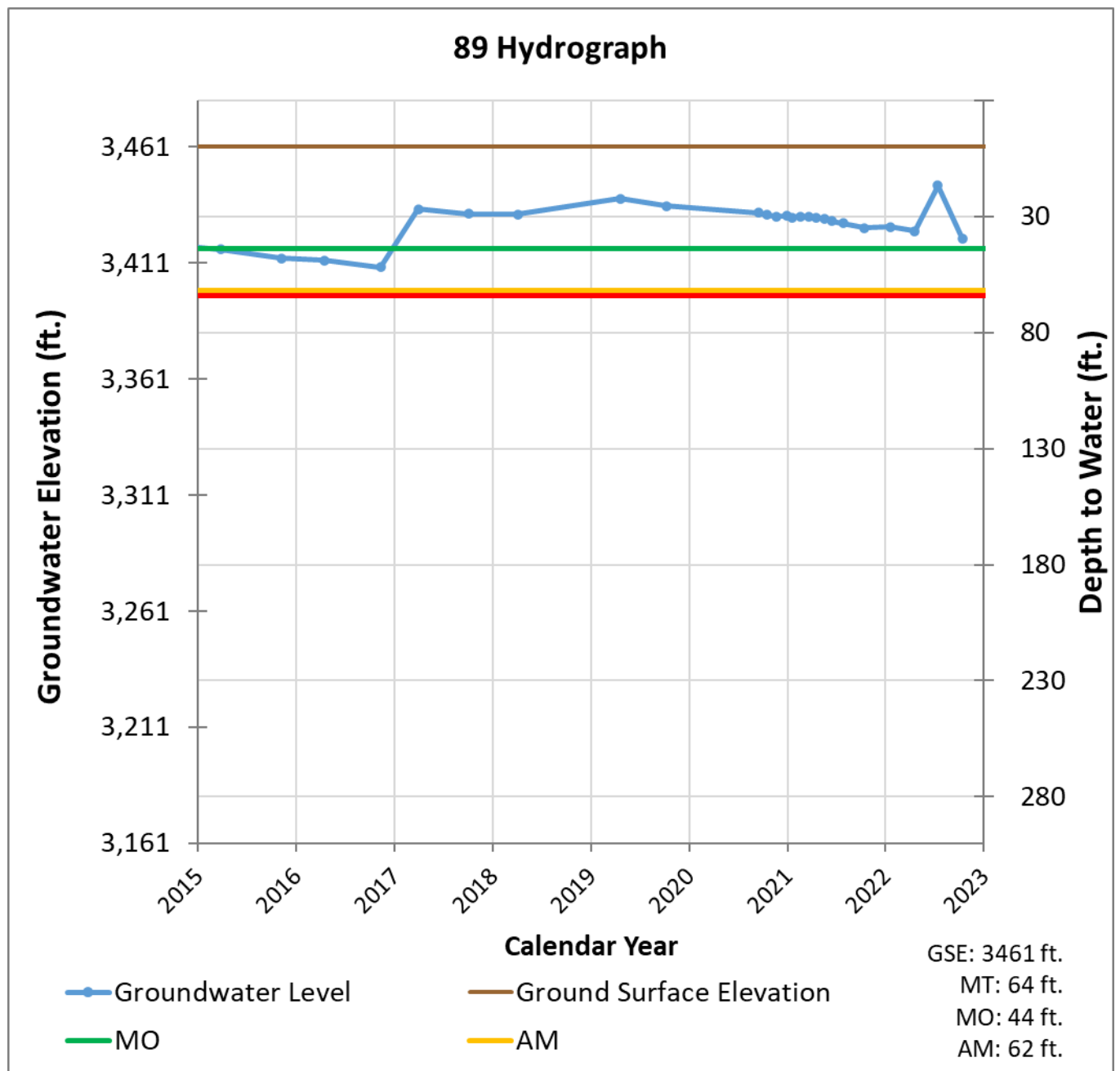


Figure 3: Eastern Region – Well 62

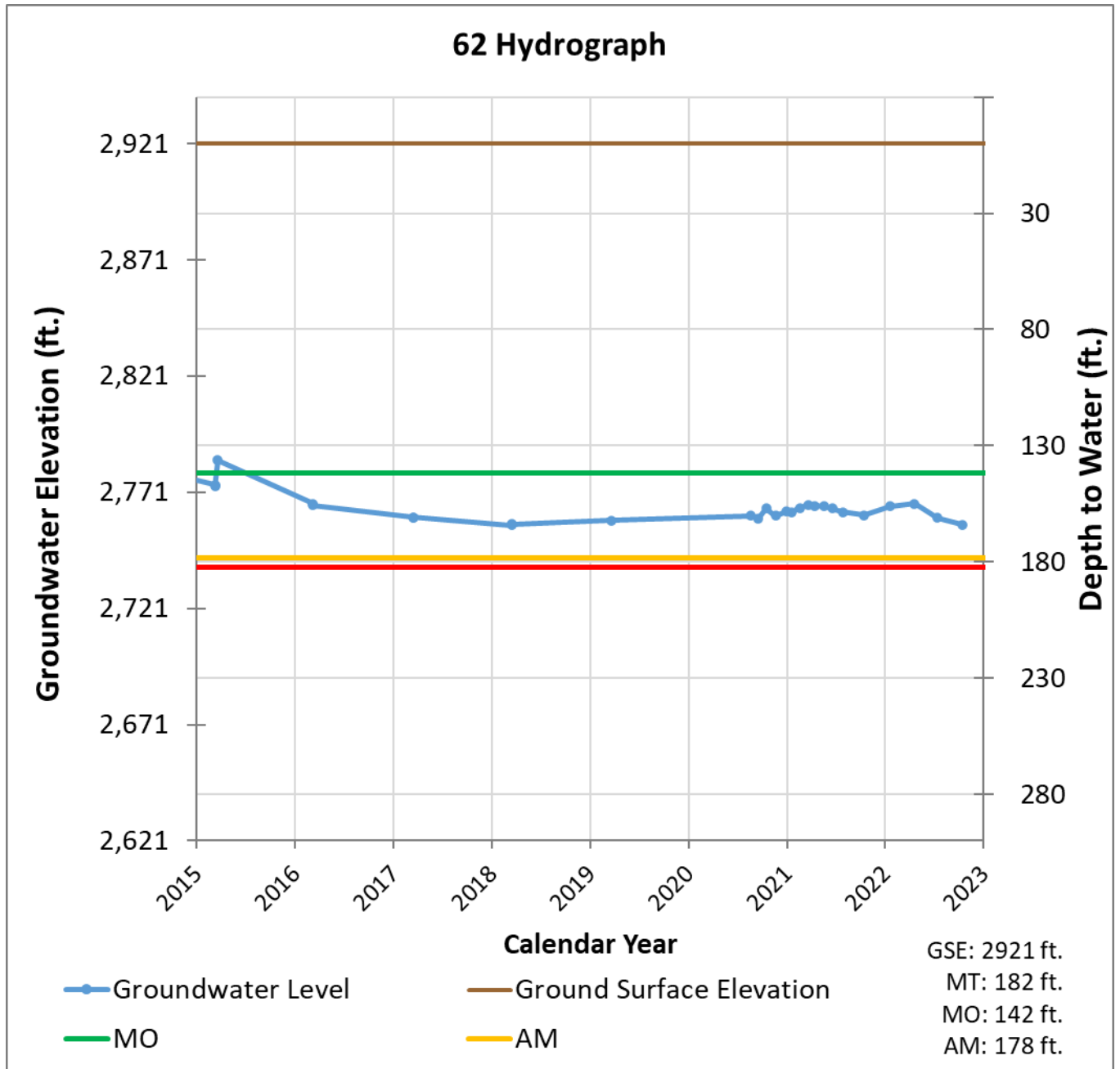


Figure 4: Central Region – Well 91

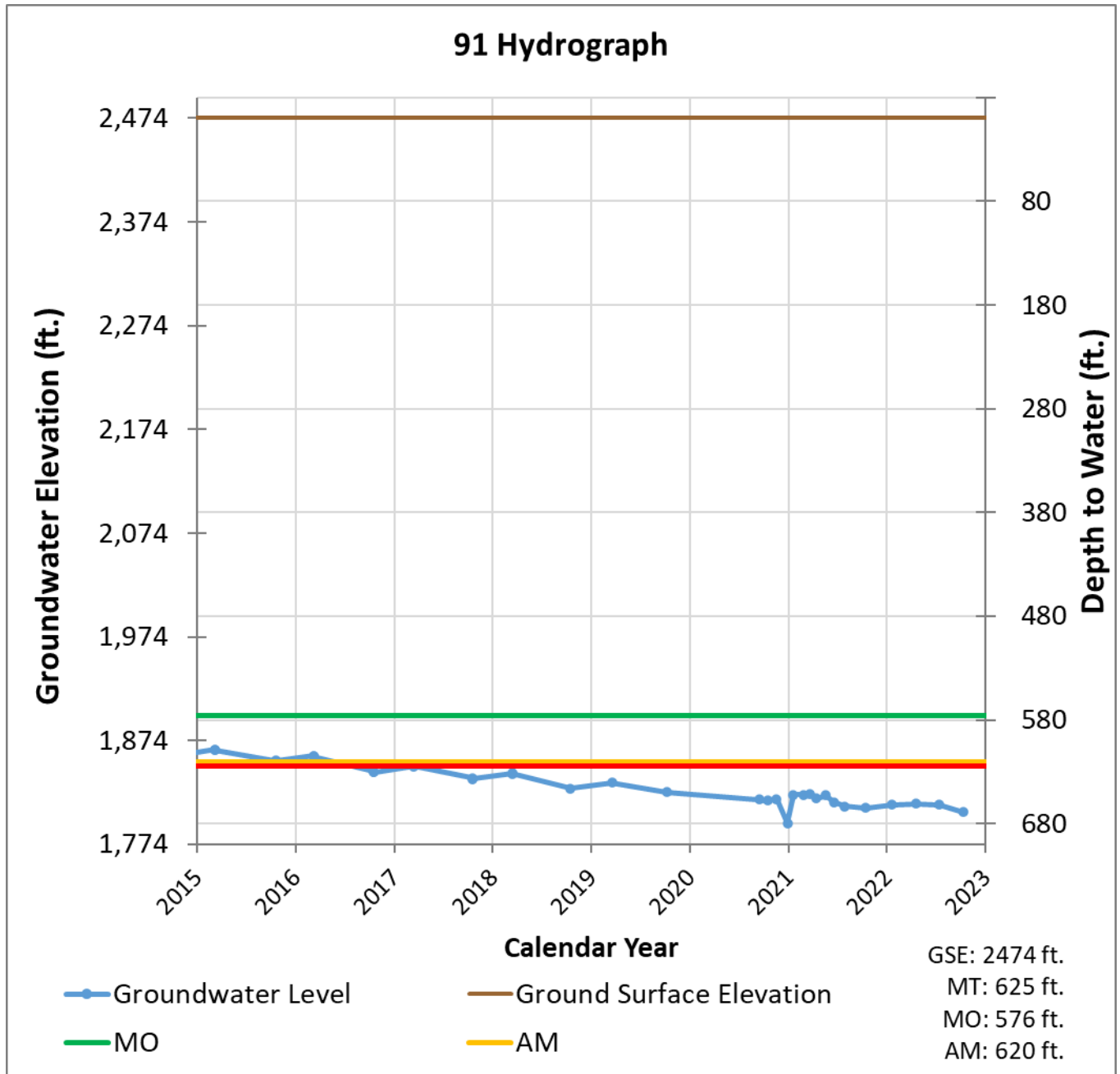


Figure 5: Central Region – Well 74

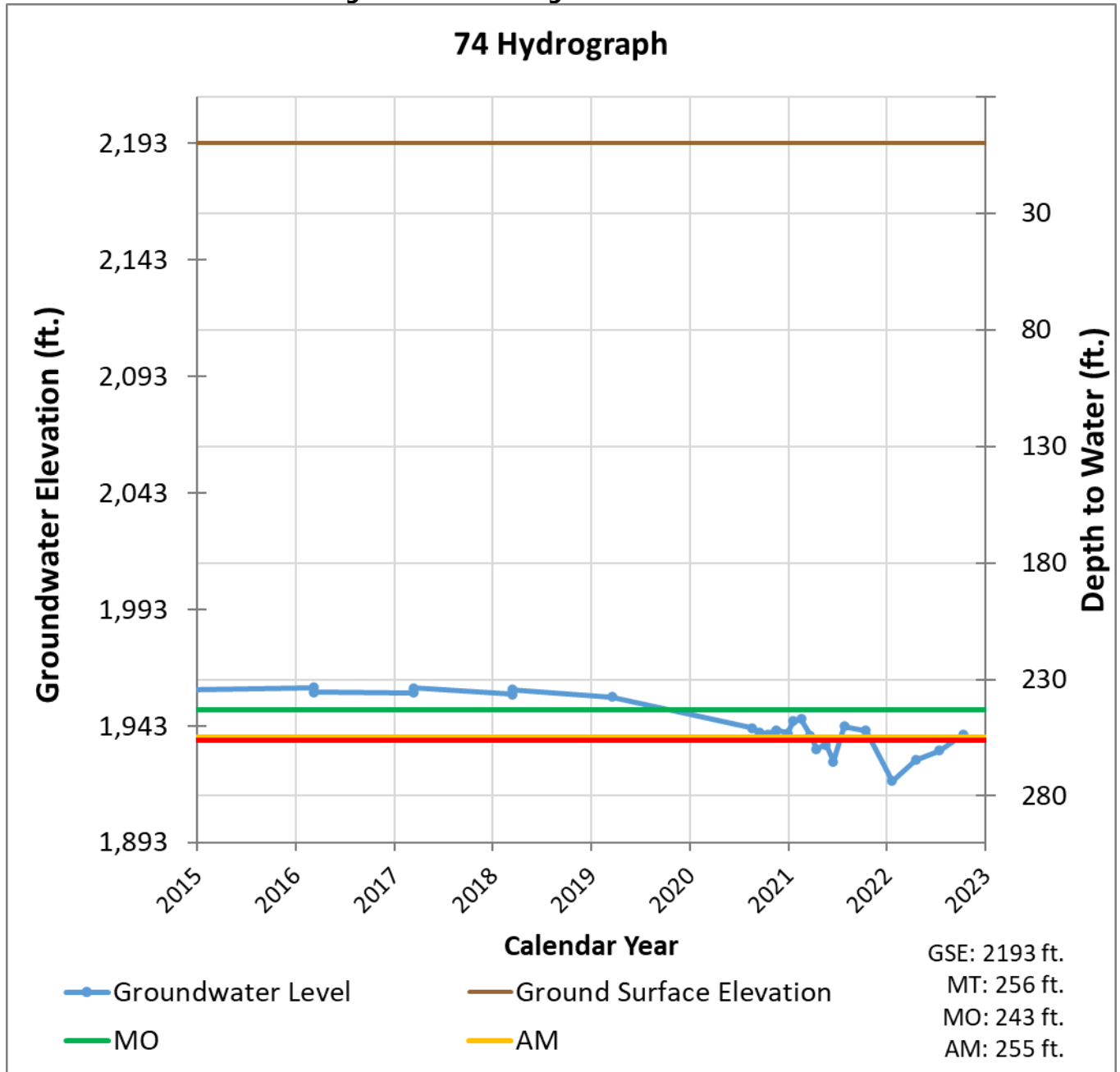


Figure 6: Western Region – Well 571

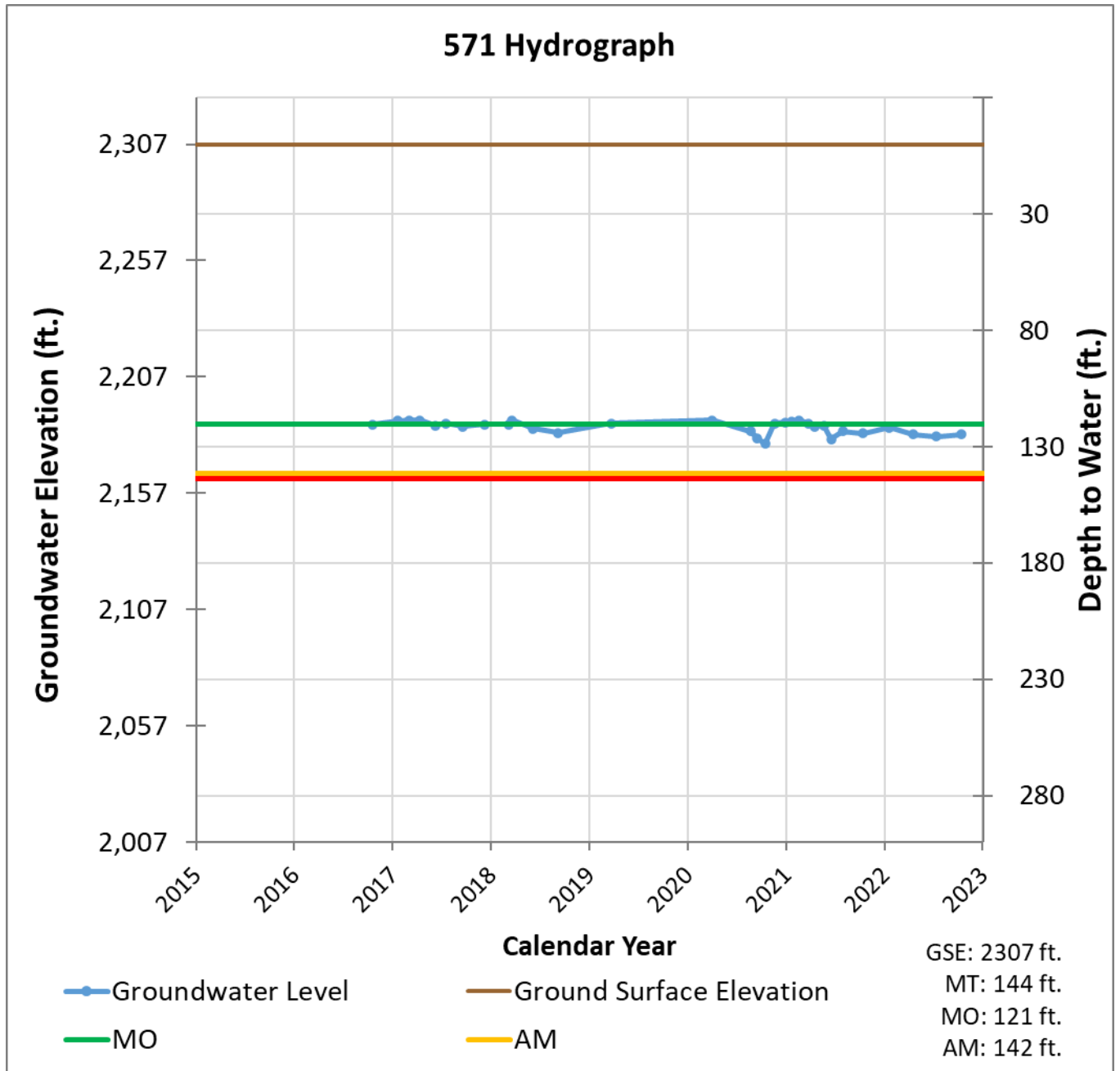
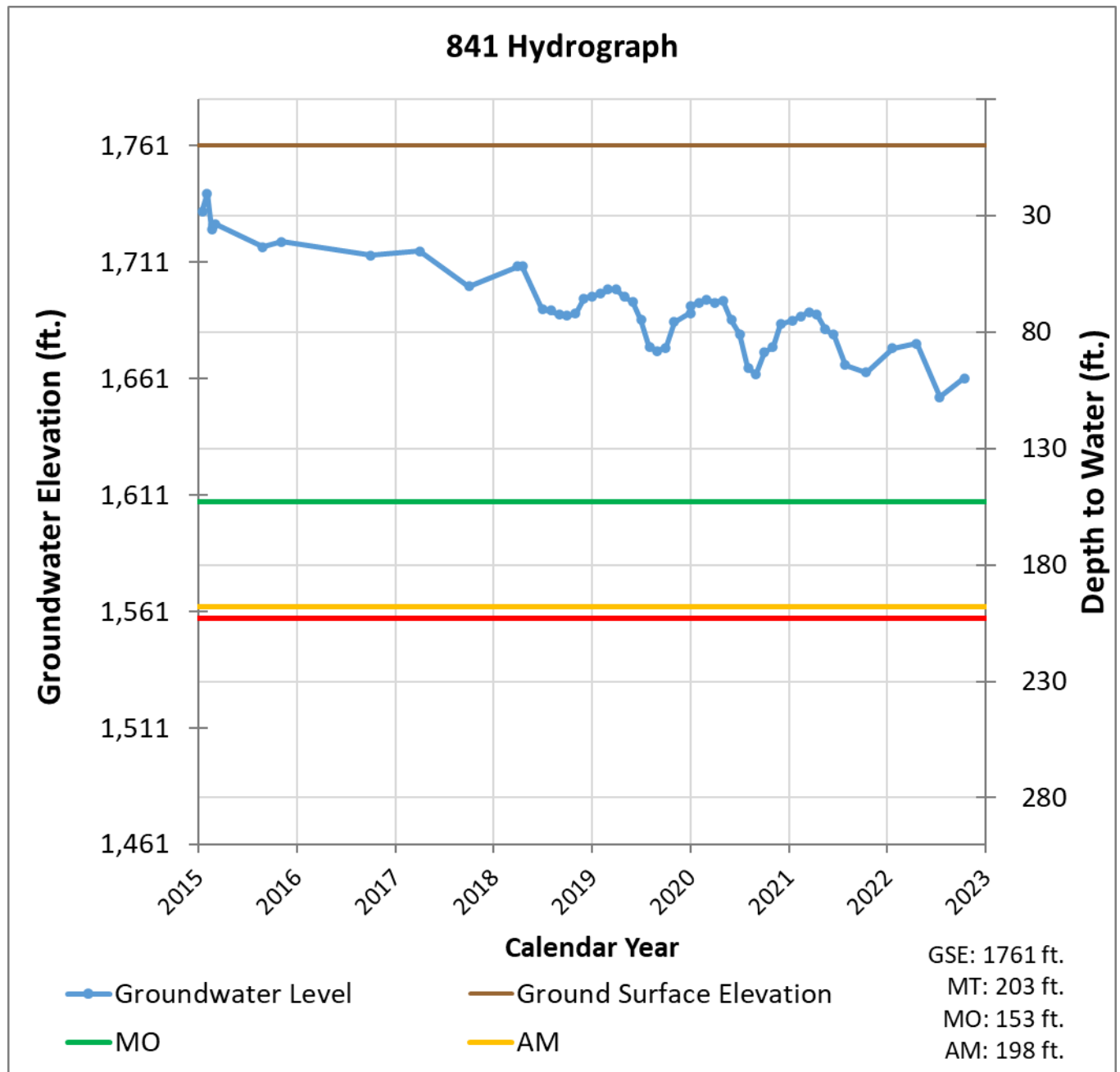


Figure 7: Northwestern Region – Well 841



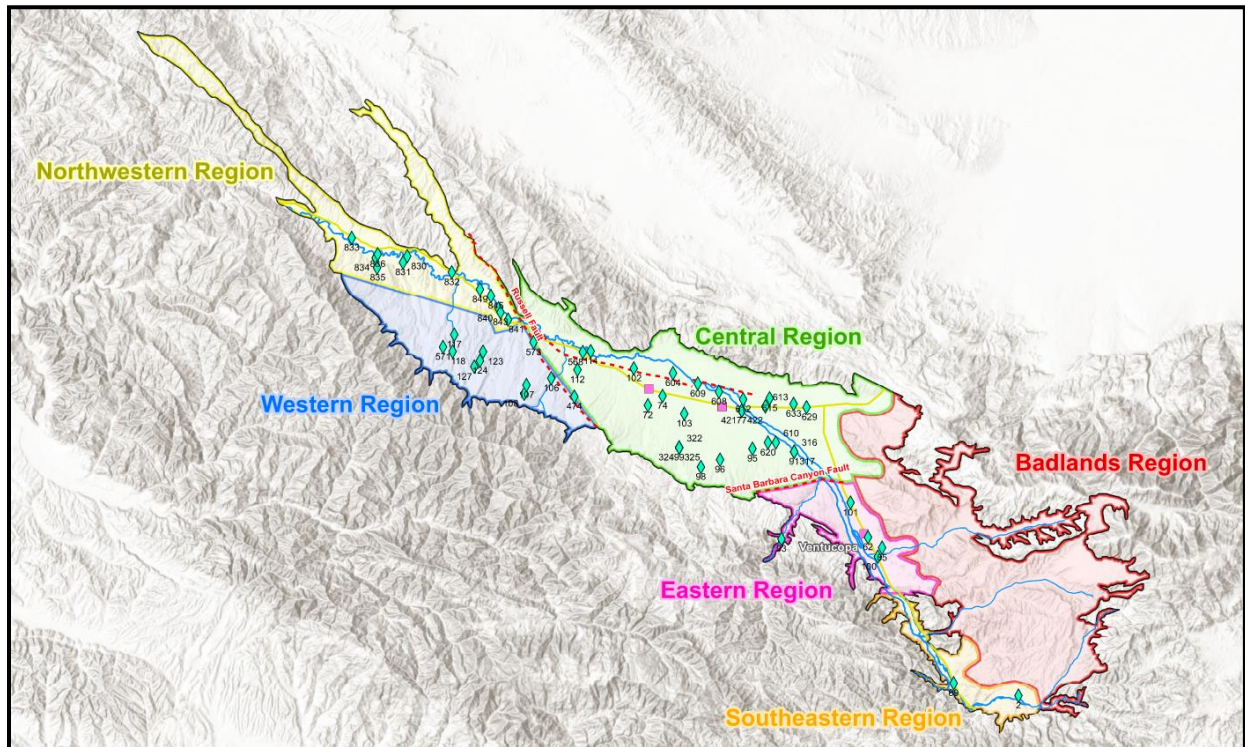


Figure 8: Threshold Regions in the Cuyama Groundwater Basin

5. MONITORING NETWORK UPDATES

As shown in Table 2, there are 8 wells with no measurement during the current monitoring period. These “no measurement codes” can have different causes as described below.

- Access agreements have not been established with the landowner:
 - Wells 2, 98, 124
- Transducer data was not able to be downloaded:
 - Wells 102, 317
- Measurement was not possible at the time when the field technician went to take measurements:
 - Wells 101, 604, 833



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