



GROUNDWATER CONDITIONS REPORT – CUYAMA VALLEY GROUNDWATER BASIN

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COMMITMENT & INTEGRITY DRIVE RESULTS

**Cuyama Basin
Groundwater
Sustainability Agency**

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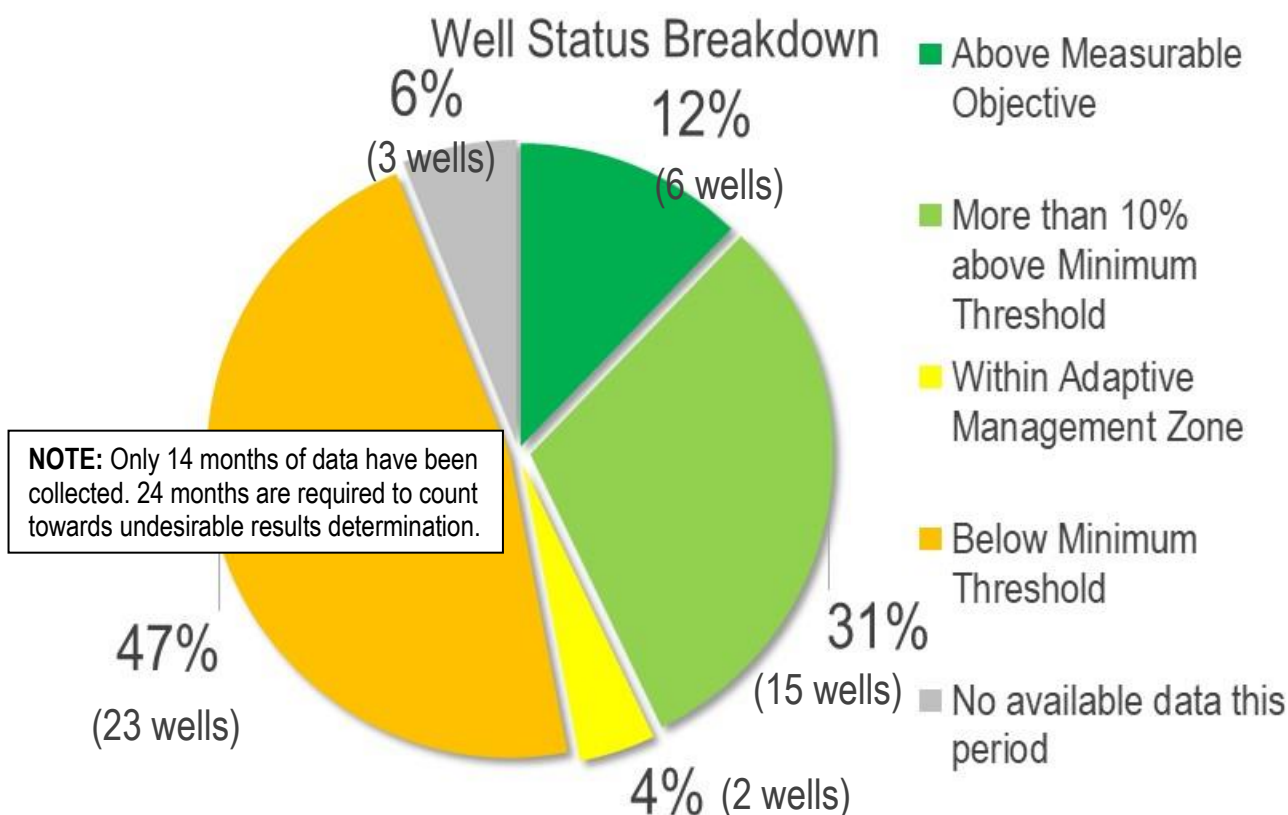
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1. INTRODUCTION

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.

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).

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 | Jun-21 | Jul-21 | Oct-21 | Last Year | | Annual Elevation Change (ft) |
|------|---------|---------------|---------------|---------------|---------------|------------|------------------------------|
| | | GWL (ft. msl) | GWL (ft. msl) | GWL (ft. msl) | GWL (ft. msl) | Month/Year | |
| 72 | Central | 1816 | 1999 | 1994 | - | - | |
| 74 | Central | 1927 | 1943 | 1941 | 1939 | Oct-20 | 2 |
| 77 | Central | 1783 | 1776 | 1787 | 1793 | Oct-20 | -6 |
| 91 | Central | 1815 | 1811 | 1809 | 1816 | Oct-20 | -7 |
| 95 | Central | 1850 | 1848 | 1845 | 1852 | Oct-20 | -7 |
| 96 | Central | 2272 | 2272 | 2273 | 2271 | Oct-20 | 2 |
| 98 | Central | - | - | - | - | - | |
| 99 | Central | 2196 | 2155 | 2154 | 2161 | Oct-20 | -7 |
| 102 | Central | 1764 | 1711 | 1668 | - | - | |
| 103 | Central | 1970 | 1976 | 1962 | 1960 | Oct-20 | 2 |
| 112 | Central | 2054 | 2054 | 2054 | 2055 | Oct-20 | -1 |
| 114 | Central | - | 1879 | 1879 | 1880 | Oct-20 | -1 |
| 316 | Central | 1817 | 1813 | 1809 | 1811 | Oct-20 | -2 |
| 317 | Central | 1817 | 1813 | 1809 | 1811 | Oct-20 | -2 |
| 322 | Central | 2193 | 2146 | 2144 | 2158 | Oct-20 | -14 |
| 324 | Central | 2199 | 2169 | 2165 | 2174 | Oct-20 | -9 |
| 325 | Central | 2204 | 2204 | 2199 | 2197 | Oct-20 | 2 |
| 420 | Central | 1775 | 1763 | 1775 | 1792 | Oct-20 | -17 |
| 421 | Central | 1784 | 1776 | 1779 | 1796 | Oct-20 | -17 |
| 474 | Central | 2203 | 2204 | 2205 | 2197 | Oct-20 | 8 |

| Well | Region | Jun-21 | Jul-21 | Oct-21 | Last Year | | Annual Elevation Change (ft) |
|------|--------------|---------------|---------------|---------------|---------------|------------|------------------------------|
| | | GWL (ft. msl) | GWL (ft. msl) | GWL (ft. msl) | GWL (ft. msl) | Month/Year | |
| 568 | Central | 1867 | 1867 | 1866 | 1867 | Oct-20 | -1 |
| 604 | Central | 1643 | - | 1644 | 1641 | Oct-20 | 3 |
| 608 | Central | - | - | 1762 | 1809 | Oct-20 | -47 |
| 609 | Central | 1738 | - | - | 1791 | Oct-20 | |
| 610 | Central | 1816 | 1813 | 1811 | 1813 | Oct-20 | -2 |
| 612 | Central | 1796 | 1811 | - | 1808 | Oct-20 | |
| 613 | Central | 1812 | 1809 | 1806 | - | - | |
| 615 | Central | 1817 | 1817 | 1814 | 1818 | Oct-20 | -4 |
| 629 | Central | - | - | 1801 | 1882 | Oct-20 | -81 |
| 633 | Central | - | - | 1785 | - | - | |
| 62 | Eastern | 2764 | 2763 | 2761 | 2764 | Oct-20 | -3 |
| 85 | Eastern | 2848 | 2847 | 2847 | 2844 | Oct-20 | 3 |
| 100 | Eastern | 2854 | 2852 | 2851 | 2852 | Oct-20 | -1 |
| 101 | Eastern | 2614 | 2617 | 2631 | - | - | |
| 841 | Northwestern | 1680 | 1667 | 1663 | 1672 | Oct-20 | -9 |
| 845 | Northwestern | 1645 | 1640 | 1642 | 1643 | Oct-20 | -1 |
| 2 | Southeastern | - | - | - | 3695 | Oct-20 | |
| 89 | Southeastern | 3429 | 3428 | 3426 | 3432 | Oct-20 | -6 |
| 106 | Western | 2183 | 2184 | 2183 | 2184 | Oct-20 | -1 |
| 107 | Western | 2395 | 2393 | 2392 | 2399 | Oct-20 | -7 |
| 117 | Western | - | 1946 | - | - | - | |

| Well | Region | Jun-21 | Jul-21 | Oct-21 | Last Year | | Annual Elevation Change (ft) |
|------|-----------------------|---------------|---------------|---------------|---------------|------------|------------------------------|
| | | GWL (ft. msl) | GWL (ft. msl) | GWL (ft. msl) | GWL (ft. msl) | Month/Year | |
| 118 | Western | 2211 | 2217 | 2211 | 2215 | Oct-20 | -4 |
| 124 | Western | - | - | - | - | - | |
| 571 | Western | 2180 | 2183 | 2183 | 2178 | Oct-20 | 5 |
| 573 | Western | - | 2013 | 2013 | 2014 | Oct-20 | -1 |
| 830 | Far-West Northwestern | 1513 | - | 1511 | - | - | |
| 832 | Far-West Northwestern | 1592 | 1592 | 1591 | 1593 | Oct-20 | -2 |
| 833 | Far-West Northwestern | - | 1429 | 1431 | 1405 | Oct-20 | 26 |
| 836 | Far-West Northwestern | 1449 | 1448 | 1448 | - | - | |

Table 2: Well Status Related to Thresholds

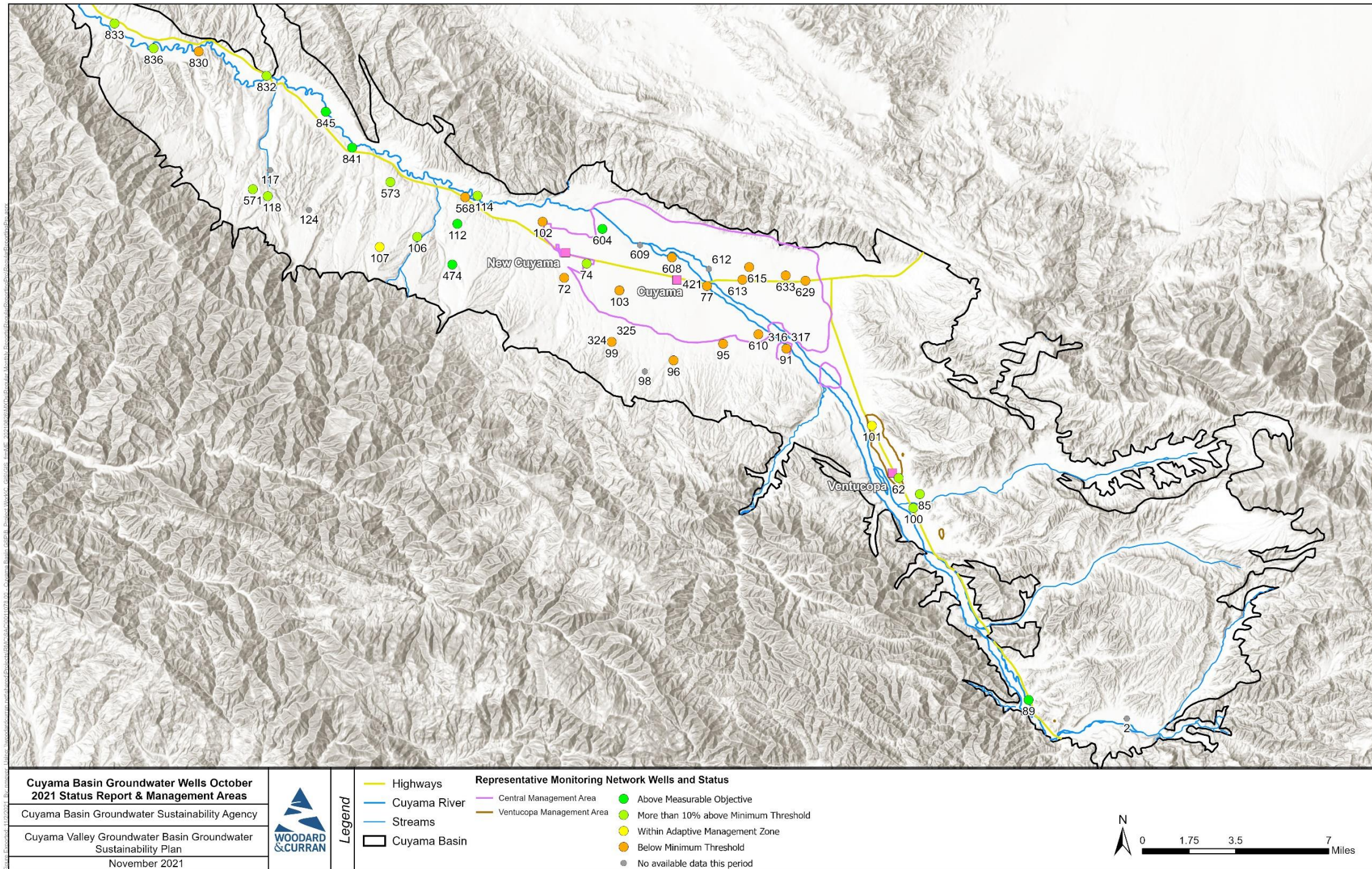
| Well | Region | Current Month | | Minimum Threshold | Within 10% Minimum Threshold | Measurable Objective | Well Depth | Status | GSA Action Required? |
|------|---------|---------------|------------|-------------------|------------------------------|----------------------|------------|-----------------------------------------------------------------------|----------------------|
| | | GWL (DTW) | Month/Year | | | | | | |
| 72 | Central | 178 | 10/14/2021 | 169 | 165 | 124 | 790 | Below Minimum Threshold (5 months) | No |
| 74 | Central | 252 | 10/14/2021 | 256 | 255 | 243 | | More than 10% above Minimum Threshold | No |
| 77 | Central | 498 | 10/14/2021 | 450 | 445 | 400 | 980 | Below Minimum Threshold (14 months) | No |
| 91 | Central | 665 | 10/14/2021 | 625 | 620 | 576 | 980 | Below Minimum Threshold (14 months) | No |
| 95 | Central | 604 | 10/14/2021 | 573 | 570 | 538 | 805 | Below Minimum Threshold (15 months) | No |
| 96 | Central | 334 | 10/14/2021 | 333 | 332 | 325 | 500 | Below Minimum Threshold (11 months) | No |
| 98 | Central | - | N/A | 450 | 449 | 439 | 750 | No available data this period (No available data in past 6 months) | No |
| 99 | Central | 359 | 10/14/2021 | 311 | 310 | 300 | 750 | Below Minimum Threshold (5 months) | No |
| 102 | Central | 378 | 10/14/2021 | 235 | 231 | 197 | | Below Minimum Threshold (10 months) | No |
| 103 | Central | 327 | 10/14/2021 | 290 | 285 | 235 | 1030 | Below Minimum Threshold (7 months) | No |
| 112 | Central | 85 | 10/13/2021 | 87 | 87 | 85 | 441 | Above Measurable Objective | No |
| 114 | Central | 47 | 10/13/2021 | 47 | 47 | 45 | 58 | More than 10% above Minimum Threshold | No |
| 316 | Central | 665 | 10/14/2021 | 623 | 618 | 574 | 830 | Below Minimum Threshold (14 months) | No |
| 317 | Central | 665 | 10/14/2021 | 623 | 618 | 573 | 700 | Below Minimum Threshold (14 months) | No |
| 322 | Central | 369 | 10/14/2021 | 307 | 306 | 298 | 850 | Below Minimum Threshold (6 months) | No |
| 324 | Central | 348 | 10/14/2021 | 311 | 310 | 299 | 560 | Below Minimum Threshold (5 months) | No |
| 325 | Central | 314 | 10/14/2021 | 300 | 299 | 292 | 380 | Below Minimum Threshold (5 months) | No |
| 420 | Central | 511 | 10/14/2021 | 450 | 445 | 400 | 780 | Below Minimum Threshold (14 months) | No |
| 421 | Central | 507 | 10/14/2021 | 446 | 441 | 398 | 620 | Below Minimum Threshold (14 months) | No |

| Well | Region | Current Month | | Minimum Threshold | Within 10% Minimum Threshold | Measurable Objective | Well Depth | Status | GSA Action Required? |
|------|--------------|---------------|------------|-------------------|------------------------------|----------------------|------------|-----------------------------------------------------------------------|----------------------|
| | | GWL (DTW) | Month/Year | | | | | | |
| 474 | Central | 163 | 10/13/2021 | 188 | 186 | 169 | 213 | Above Measurable Objective | No |
| 568 | Central | 39 | 10/13/2021 | 37 | 37 | 36 | 188 | Below Minimum Threshold (5 months) | No |
| 604 | Central | 480 | 10/14/2021 | 526 | 522 | 487 | 924 | Above Measurable Objective | No |
| 608 | Central | 462 | 10/14/2021 | 436 | 433 | 407 | 745 | Below Minimum Threshold (6 months) | No |
| 609 | Central | - | 10/14/2021 | 458 | 454 | 421 | 970 | No available data this period (>10% above MT in Jun 2021) | No |
| 610 | Central | 631 | 10/14/2021 | 621 | 618 | 591 | 780 | Below Minimum Threshold (6 months) | No |
| 612 | Central | - | 10/14/2021 | 463 | 461 | 440 | 1070 | No available data this period (>10% above MT in Jul 2021) | No |
| 613 | Central | 524 | 10/14/2021 | 503 | 500 | 475 | 830 | Below Minimum Threshold (12 months) | No |
| 615 | Central | 514 | 10/14/2021 | 500 | 497 | 468 | 865 | Below Minimum Threshold (11 months) | No |
| 629 | Central | 578 | 10/14/2021 | 559 | 556 | 527 | 1000 | Below Minimum Threshold (7 months) | No |
| 633 | Central | 579 | 10/14/2021 | 547 | 542 | 493 | 1000 | Below Minimum Threshold (7 months) | No |
| 62 | Eastern | 160 | 10/14/2021 | 182 | 178 | 142 | 212 | More than 10% above Minimum Threshold | No |
| 85 | Eastern | 200 | 10/14/2021 | 233 | 225 | 147 | 233 | More than 10% above Minimum Threshold | No |
| 100 | Eastern | 152 | 10/14/2021 | 181 | 175 | 125 | 284 | More than 10% above Minimum Threshold | No |
| 101 | Eastern | 110 | 10/14/2021 | 111 | 108 | 81 | 200 | Within Adaptive Management Zone | No |
| 841 | Northwestern | 98 | 10/14/2021 | 203 | 198 | 153 | 600 | Above Measurable Objective | No |
| 845 | Northwestern | 70 | 10/14/2021 | 203 | 198 | 153 | 380 | Above Measurable Objective | No |
| 2 | Southeastern | - | N/A | 72 | 70 | 55 | 73 | No available data this period (No available data in past 6 months) | No |
| 89 | Southeastern | 35 | 10/14/2021 | 64 | 62 | 44 | 125 | Above Measurable Objective | No |

| Well | Region | Current Month | | Minimum Threshold | Within 10% Minimum Threshold | Measurable Objective | Well Depth | Status | GSA Action Required? |
|------|-----------------------|---------------|------------|-------------------|------------------------------|----------------------|------------|--------------------------------------------------------------------------------|----------------------|
| | | GWL (DTW) | Month/Year | | | | | | |
| 106 | Western | 143 | 10/13/2021 | 154 | 153 | 141 | 228 | More than 10% above Minimum Threshold | No |
| 107 | Western | 91 | 10/13/2021 | 91 | 89 | 72 | 200 | Within Adaptive Management Zone | No |
| 117 | Western | - | 10/13/2021 | 160 | 159 | 151 | 212 | No available data this period (<i>>10% above MT in Jul 2021</i>) | No |
| 118 | Western | 59 | 10/13/2021 | 124 | 117 | 57 | 500 | More than 10% above Minimum Threshold | No |
| 124 | Western | - | N/A | 73 | 71 | 57 | 161 | No available data this period (<i>No available data in past 6 months</i>) | No |
| 571 | Western | 124 | 10/13/2021 | 144 | 142 | 121 | 280 | More than 10% above Minimum Threshold | No |
| 573 | Western | 71 | 10/13/2021 | 118 | 113 | 68 | 404 | More than 10% above Minimum Threshold | No |
| 830 | Far-West Northwestern | 60 | 10/13/2021 | 59 | 59 | 56 | 77 | Below Minimum Threshold (4 months) | No |
| 832 | Far-West Northwestern | 39 | 10/13/2021 | 45 | 44 | 30 | 132 | More than 10% above Minimum Threshold | No |
| 833 | Far-West Northwestern | 26 | 10/13/2021 | 96 | 89 | 24 | 504 | More than 10% above Minimum Threshold | No |
| 836 | Far-West Northwestern | 38 | 10/13/2021 | 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



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

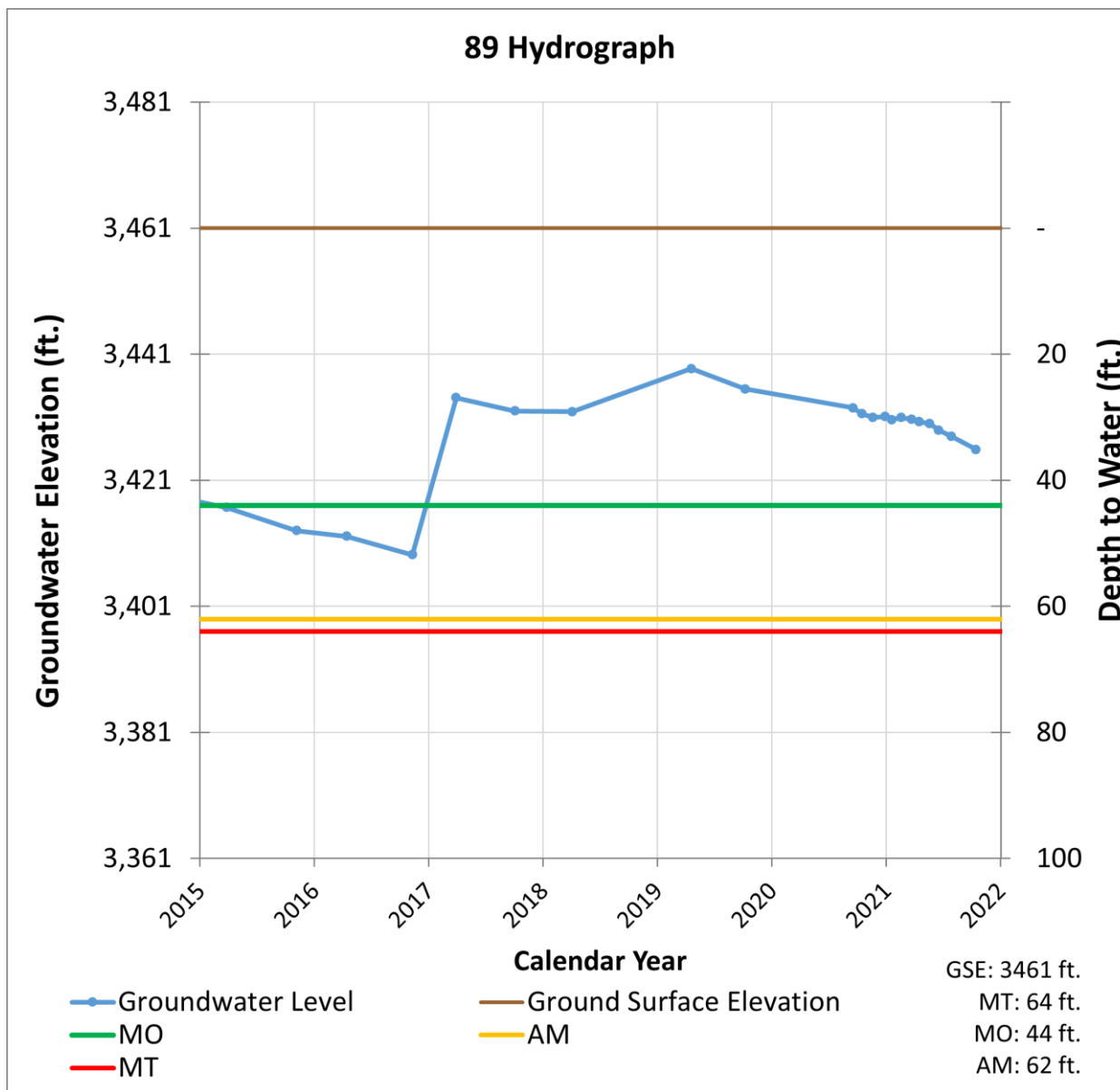


Figure 3: Eastern Region – Well 62

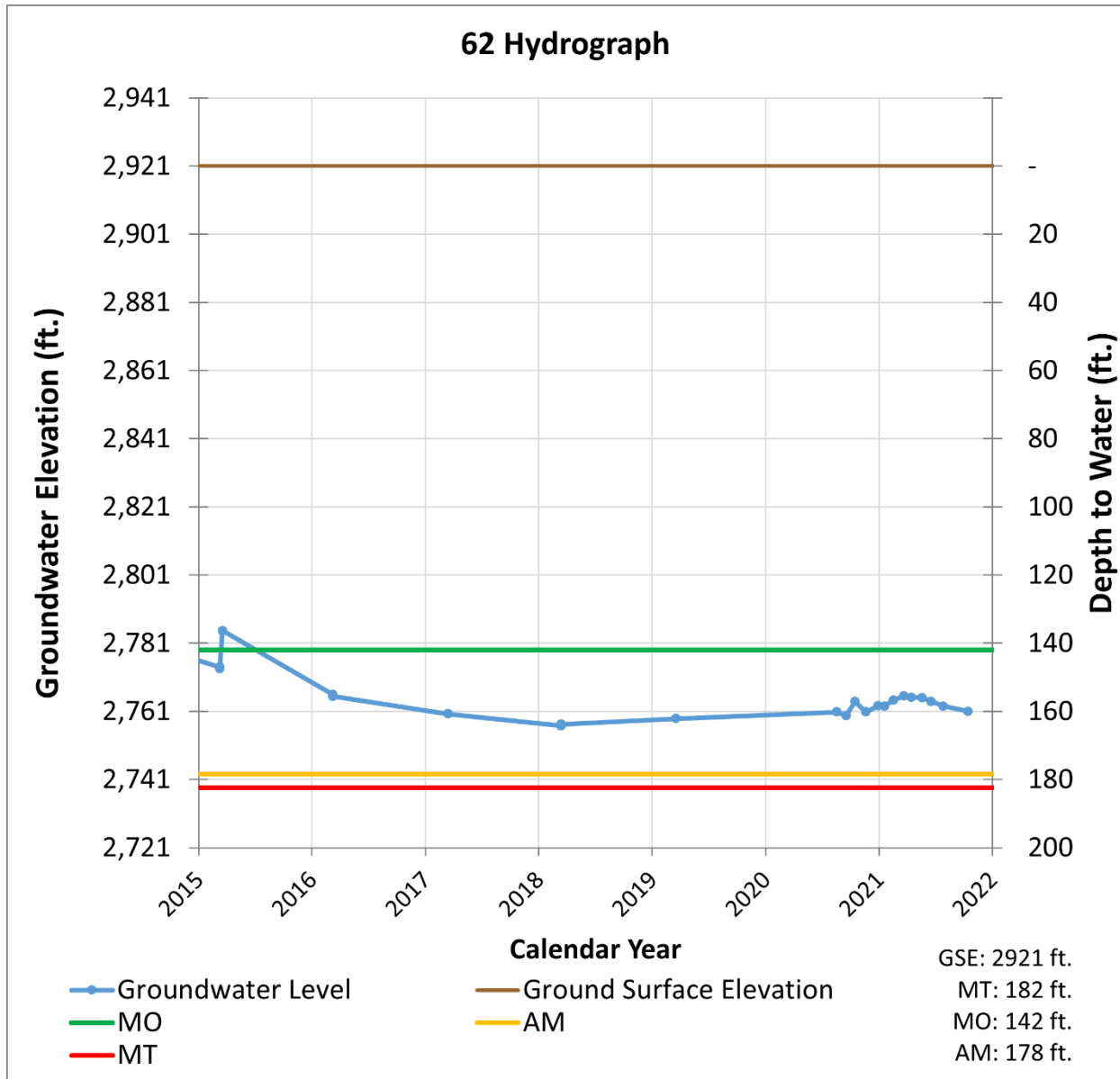


Figure 4: Central Region – Well 91

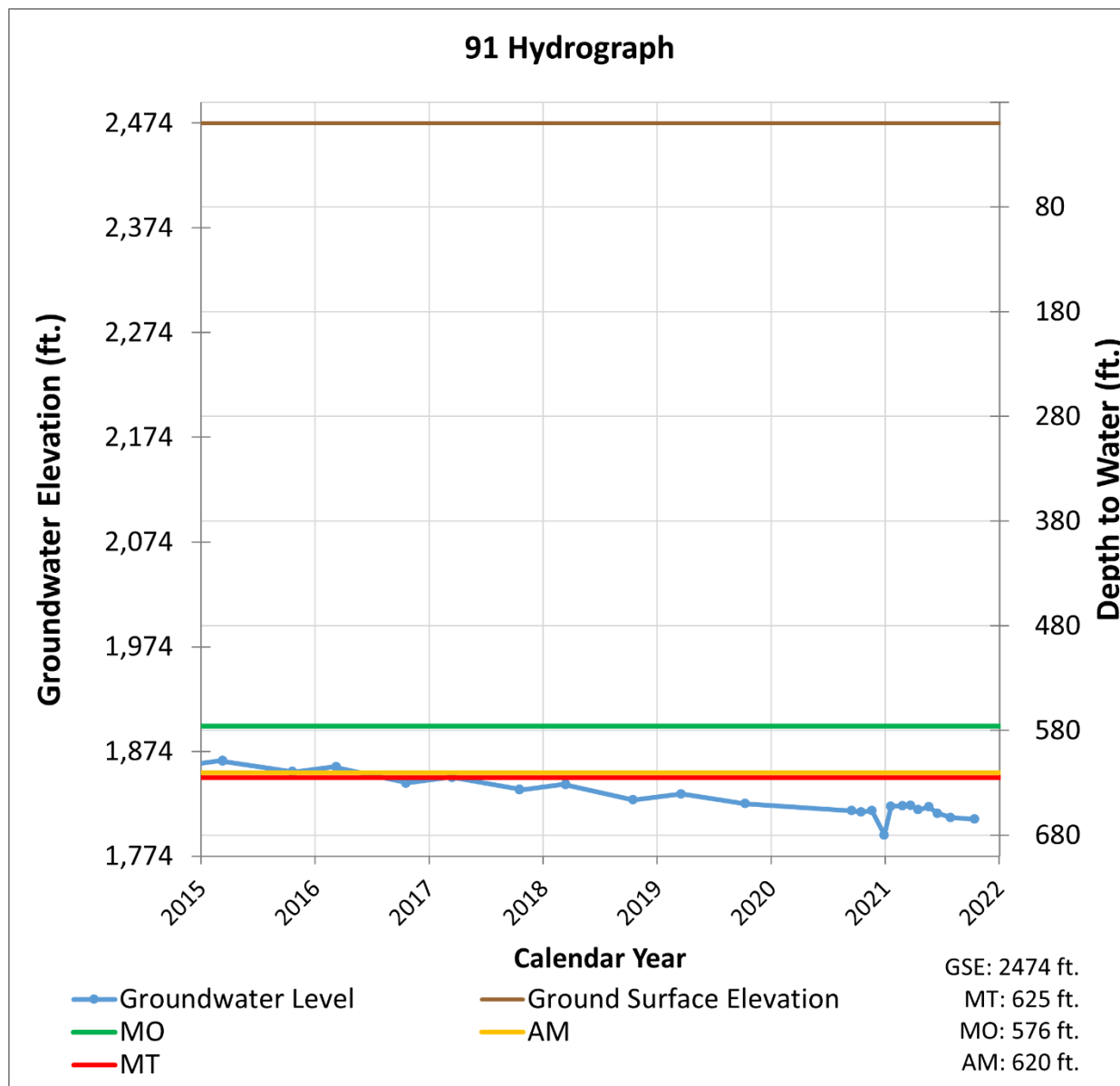


Figure 5: Central Region – Well 74

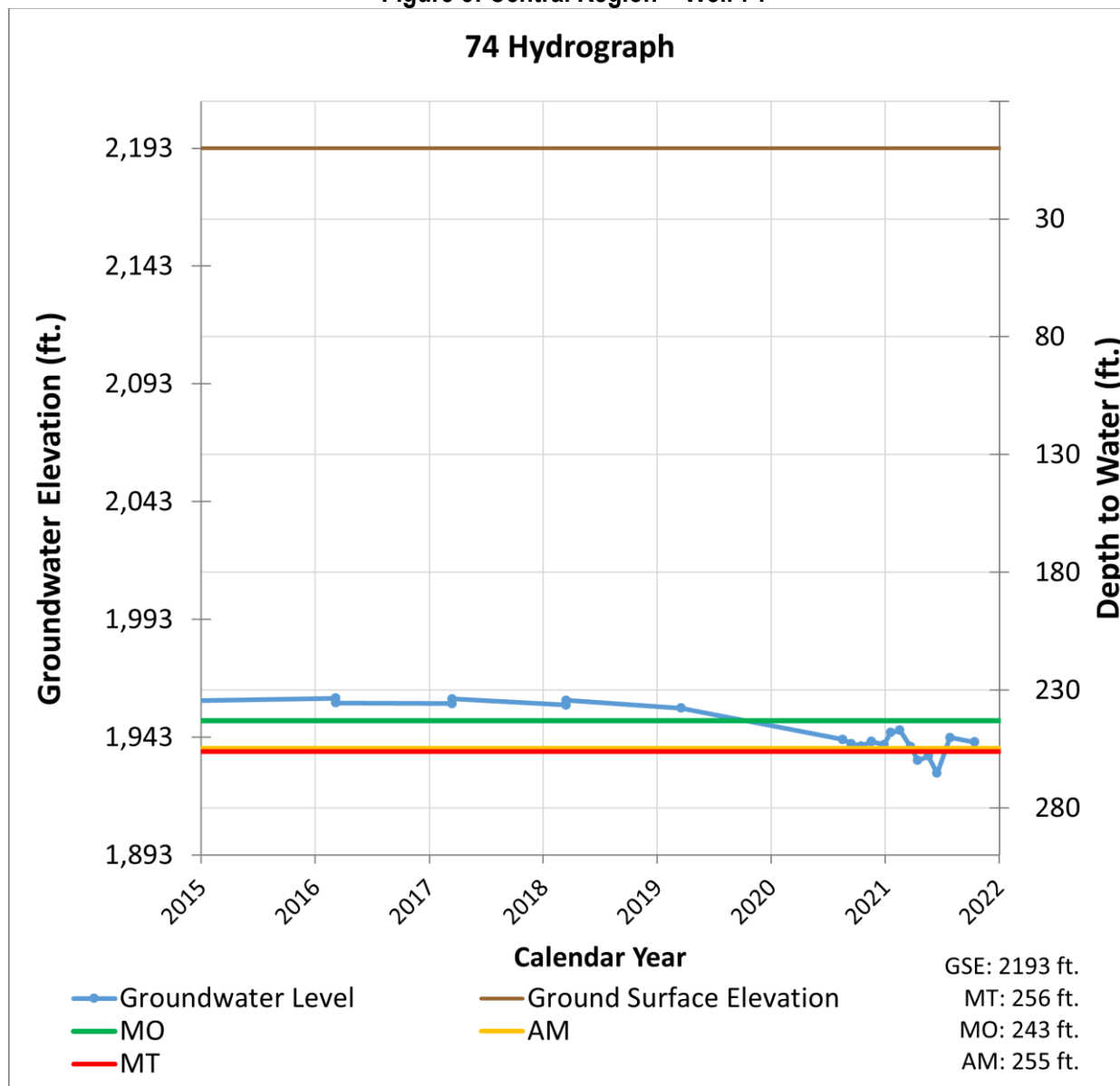


Figure 6: Western Region – Well 571

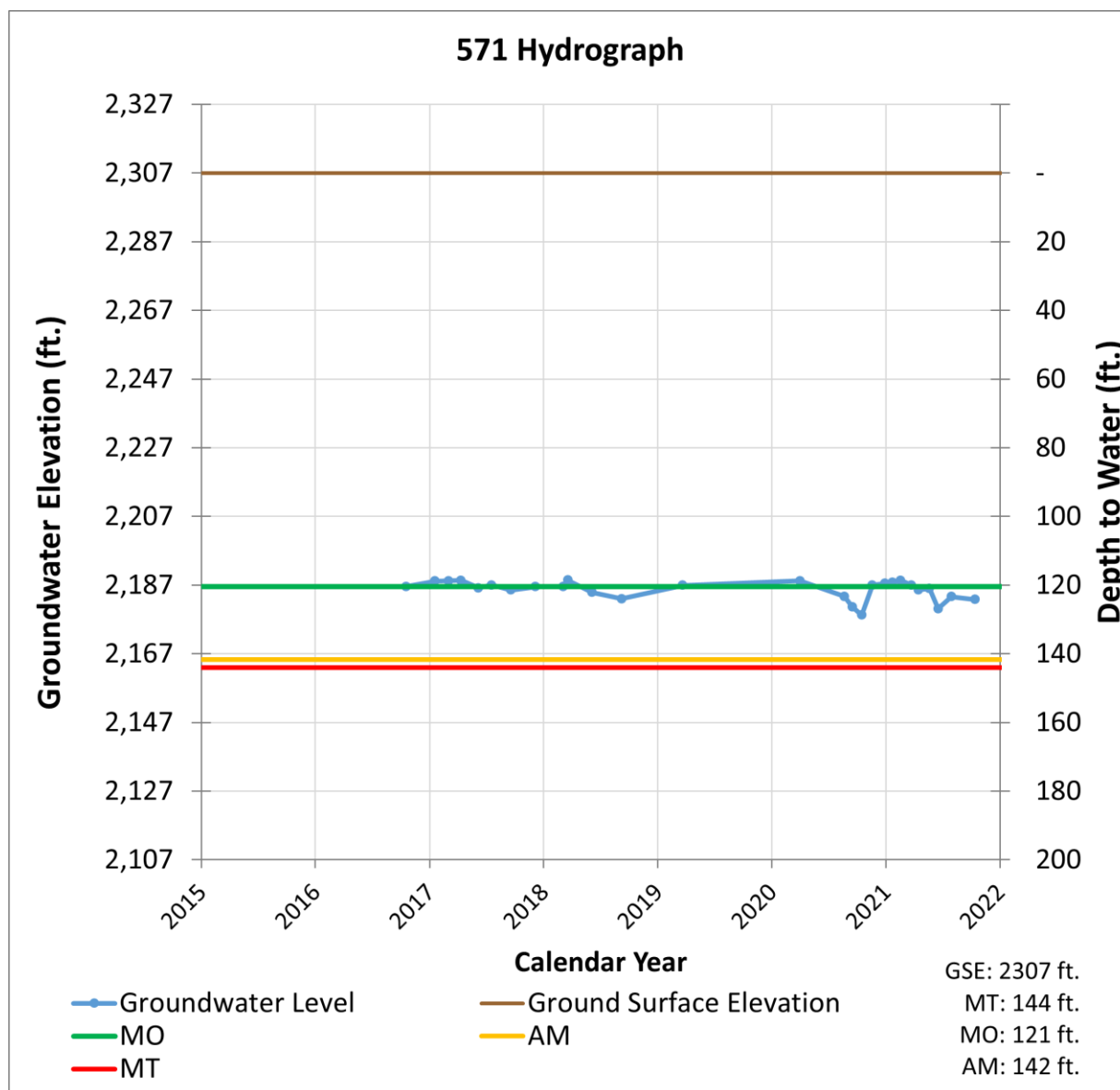
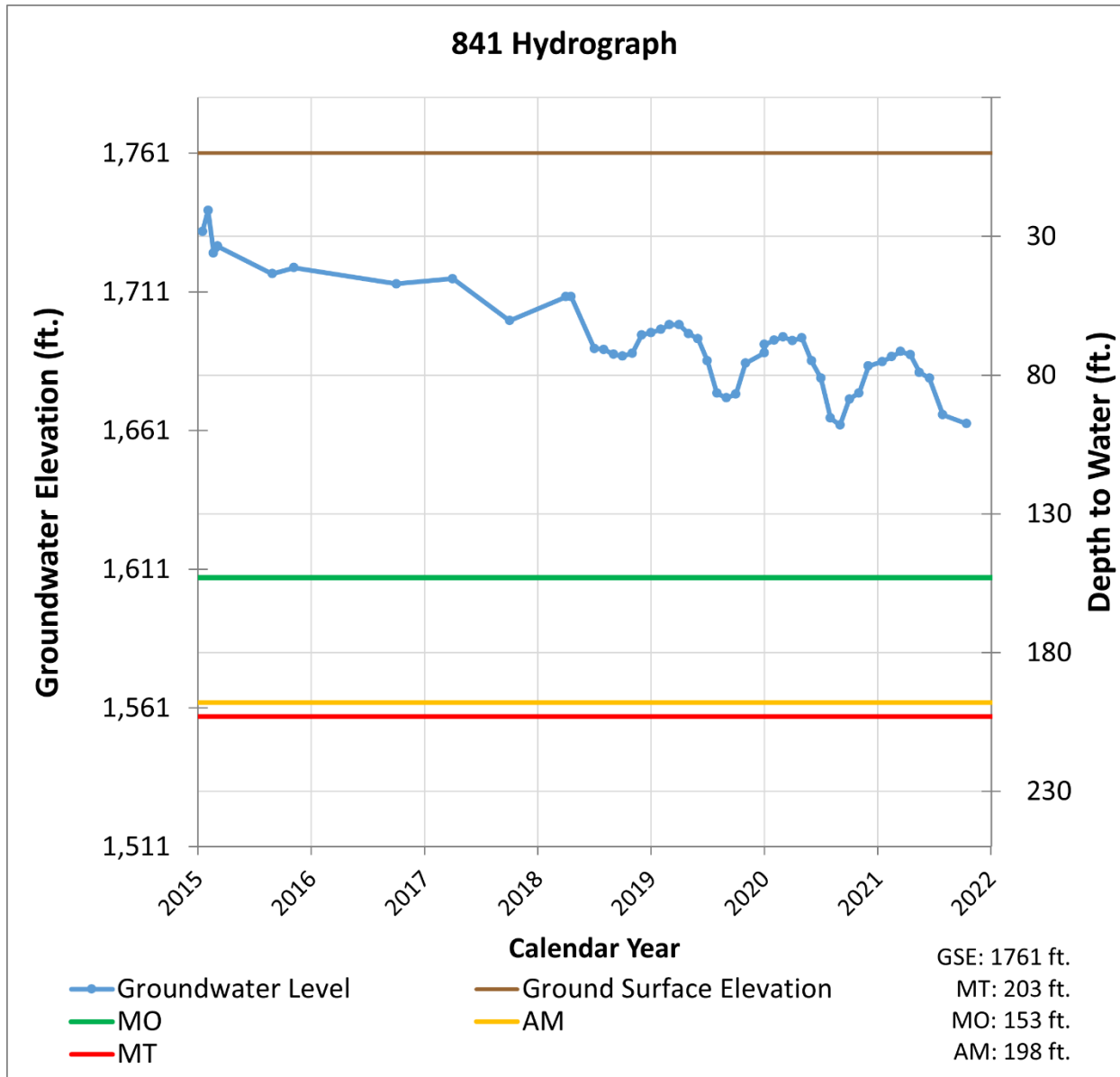


Figure 7: Northwestern Region – Well 841



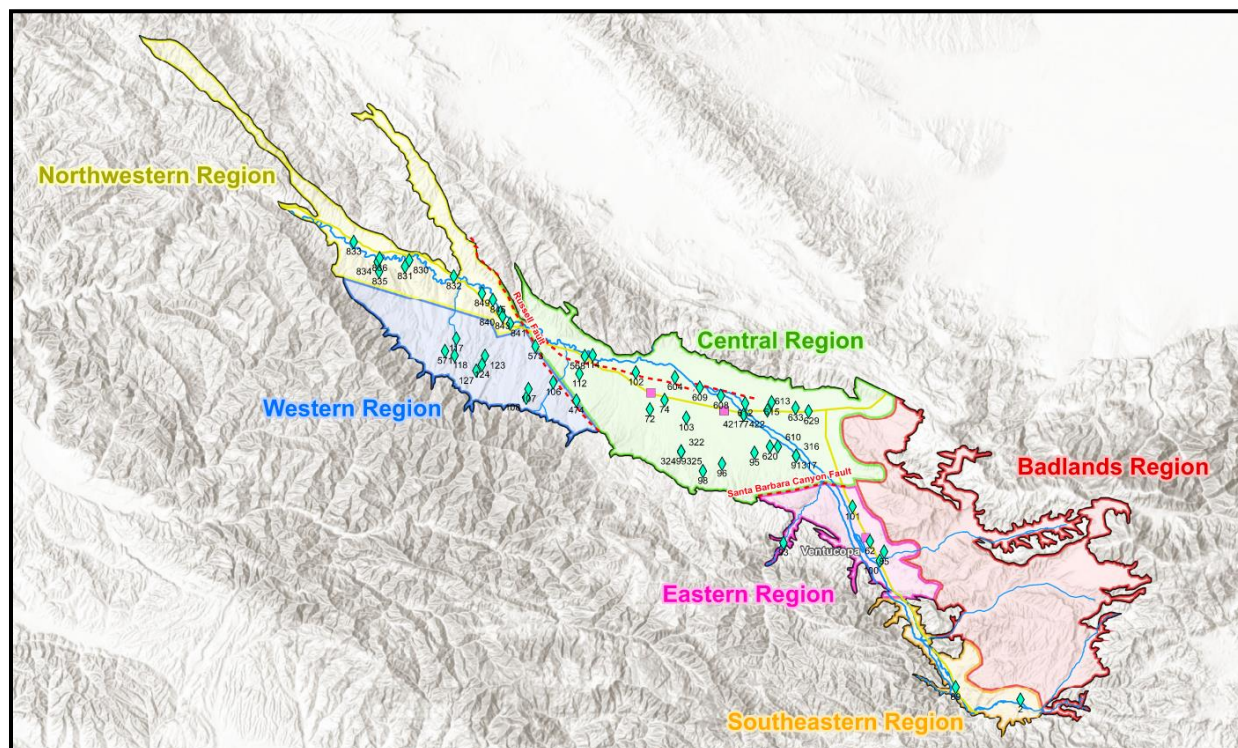


Figure 8: Threshold Regions in the Cuyama Groundwater Basin

5. MONITORING NETWORK UPDATES

As shown in the Summary Statistics Section, there are 9 wells without current measurements. These “no measurement codes” can have different causes as described below.

- Access agreements have not yet been established with the landowner, access has not been granted yet, or no access at time of measurement:
 - Wells 2, 98, 124
- Measurement was not possible at the time when the field technician went to take measurements:
 - Wells 609, 612
- Water level was taken but data was not saved:
 - Well 117



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