

# GROUNDWATER CONDITIONS REPORT – CUYAMA VALLEY GROUNDWATER BASIN

July 2024

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Cuyama Basin Groundwater Sustainability Agency



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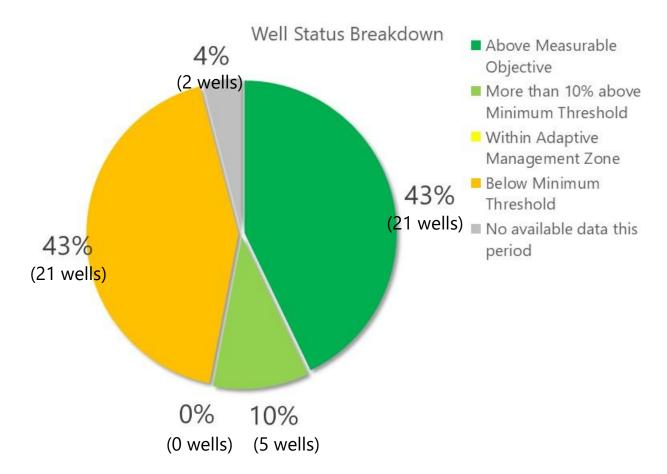
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### 1. INTRODUCTION

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



There are currently 21 wells with groundwater levels exceeding minimum thresholds. 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, 22% of representative monitoring wells (i.e. 11 wells) have exceeded the minimum threshold for 24 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 and the measurement from the same time period in the previous year. 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 are also incorporated into the Cuyama DMS, which may be accessed at <a href="https://opti.woodardcurran.com/cuyama/login.php">https://opti.woodardcurran.com/cuyama/login.php</a>.



**Table 1: Recent Groundwater Levels for Representative Monitoring Network** 

	Table 1: Kec	Jan-24	Apr-24	Jul-24		st Year	
Well	Region	GWL	GWL	GWL	GWL	Month/	Elevation
		(ft. msl)	(ft. msl)	(ft. msl)	(ft. msl)	Year	Change
72	Central	2027	2034	-	2016	Jul-23	-
74	Central	1940	1941	1947	1949	Jul-23	-1.8
77	Central	1804	1795	1754	1781	Jul-23	-27.7
91	Central	1811	1813	1804	1802	Jul-23	2.5
95	Central	1850	2389	1868	1837	Jul-23	31
96	Central	2273	2269	2266	2269	Jul-23	-3.3
98	Central	-	-	-	-	-	-
99	Central	2216	2218	2137	2181	Jul-23	-43.3
102	Central	-	-	-	1598	Jul-23	-
103	Central	2046	2050	2046	2035	Jul-23	11.3
112	Central	2041	2042	2042	2053	Jul-23	-10.8
114	Central	1879	1880	1881	-	1	-
316	Central	1810	1812	1804	1803	Jul-23	0.9
317	Central	1811	1814	1806	1805	Jul-23	0.7
322	Central	2216	2217	2134	2174	Jul-23	-40.2
324	Central	2215	2216	2168	2189	Jul-23	-21.7
325	Central	2215	2216	2194	2202	Jul-23	-8.1
420	Central	1803	1794	1750	1780	Jul-23	-29.9
421	Central	1802	1800	1778	1787	Jul-23	-9.6
474	Central	2228	2232	2234	2206	Jul-23	28.1



		Jan-24	Apr-24	Jul-24	Las	st Year	
Well	Region	GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	GWL (ft. msl)	Month/ Year	Elevation Change
568	Central	1874	1874	1873	1869	Jul-23	4.4
604	Central	1655	1655	1661	1669	Jul-23	-7.7
608	Central	-	1778	1740	1799	Jul-23	-59.3
609	Central	1721	1723	1691	1727	Jul-23	-35
610	Central	1808	1808	1797	1806	Jul-23	-9
612	Central	1797	1796	1780	1779	Jul-23	0.8
613	Central	1799	1797	1814	1780	Jul-23	34
615	Central	1808	1806	1794	1812	Jul-23	-17.7
629	Central	1817	1821	1791	1845	Jul-23	-53.9
633	Central	1796	1800	1794	1851	Jul-23	-56.6
62	Eastern	2793	2806	-	2783	Jul-23	-
85	Eastern	2883	2891	2902	2848	Jul-23	54
100	Eastern	2911	2939	2939	2911	Jul-23	28.8
101	Eastern	2653	2658	2654	2634	Jul-23	20.4
841	Northwestern	1706	1709	1695	1680	Jul-23	15.3
845	Northwestern	1641	1643	1632	1638	Jul-23	-5.6
2	Southeastern	3697	3706	3704	3702	Jul-23	2
89	Southeastern	3390	3413	3411	3440	Jul-23	-29.3
106	Western	2175	2175	2176	2184	Jul-23	-8.3
107	Western	2422	2419	2421	2414	Jul-23	7
117	Western	1947	1947	1945	1947	Jul-23	-2.2



		Jan-24	Apr-24	Jul-24	Las	st Year		
Well	Region	GWL	GWL	GWL	GWL	Month/	Elevation	
		(ft. msl)	(ft. msl)	(ft. msl)	(ft. msl)	Year	Change	
118	Western	2211	2213	2212	2216	Jul-23	-4	
124	Western	-	-	-	-	-	-	
571	Western	2240	2236	2230	2238	Jul-23	-8.6	
573	Western	2010	2010	2012	2015	Jul-23	-3.3	
830	Far-West Northwestern	1512	1511	1515	1523	Jul-23	-7.5	
832	Far-West Northwestern	1604	1604	1606	1596	Jul-23	10.3	
833	Far-West Northwestern	1433	1433	1435	1427	Jul-23	8	
836	Far-West Northwestern	1479	1479	1478	1459	Jul-23	18.7	

\*Well 608 is now confirmed to be "destroyed" and is no longer available for monitoring. The landowner and monitoring staff have identified a well within 100 ft that is suitable to continue monitoring in this location, and the groundwater level monitoring network will be modified to remove well 608 and add in this new well. The new well is in the process of being incorporated into Opti and being assigned an ID number.



**Table 2: Well Status Related to Thresholds** 

		Curre	nt Month		Within 10%				GSA
Well	Region	GWL	Date	Minimum	Minimum	Measurable	Well	Status	Action
		(DTW)		Threshold	Threshold	Objective	Depth		Required?
72	Central	-	-	169	165	124	790	No available data this period (More than 10% above Mininum Threshold in April 2024)	No
74	Central	240	7/31/2024	256	255	243		Above Measurable Objective	No
77	Central	531	8/1/2024	450	445	400	980	Below Minimum Threshold (47 months)	No
91	Central	677	8/2/2024	625	620	576	980	Below Minimum Threshold (47 months)	No
95	Central	588	8/2/2024	573	570	538	805	Below Minimum Threshold (1 month)	No
96	Central	340	8/1/2024	333	332	325	500	Below Minimum Threshold (4 months)	No
98	Central	-	-	450	449	439	750	No available data this period	No
99	Central	368	7/31/2024	311	310	300	750	Below Minimum Threshold (1 month)	No
102	Central	-	-	235	231	197		No data available this period (Below MT in Oct 2023, 45 months)	No
103	Central	237	8/1/2024	290	285	235	1030	More than 10% above Minimum Threshold	No
112	Central	84	8/2/2024	87	87	85	441	Above Measurable Objective	No
114	Central	44	8/2/2024	47	47	45	58	Above Measurable Objective	No
316	Central	677	8/2/2024	623	618	574	830	Below Minimum Threshold (47 months)	No



		Currei	nt Month		Within 10%				GSA
Well	Region	GWL	Date	Minimum	Minimum	Measurable	Well	Status	Action
		(DTW)		Threshold	Threshold	Objective	Depth		Required?
317	Central	675	8/2/2024	623	618	573	700	Below Minimum Threshold (47 months)	No
322	Central	371	7/31/2024	307	306	298	850	Below Minimum Threshold (1 month)	No
324	Central	338	7/31/2024	311	310	299	560	Below Minimum Threshold (1 month)	No
325	Central	311	7/31/2024	300	299	292	380	Below Minimum Threshold (1 month)	No
420	Central	535	8/1/2024	450	445	400	780	Below Minimum Threshold (47 months)	No
421	Central	507	8/1/2024	446	441	398	620	Below Minimum Threshold (47 months)	No
474	Central	128	8/2/2024	188	186	169	213	Above Measurable Objective	No
568	Central	35	7/31/2024	37	37	36	188	Above Measurable Objective	No
604	Central	454	8/1/2024	526	522	487	924	Above Measurable Objective	No
608*	Central	470	8/1/2024	436	433	407	745	Below Minimum Threshold (1 month)	No
609	Central	466	8/1/2024	458	454	421	970	Below Minimum Threshold (1 month)	No
610	Central	641	8/1/2024	621	618	591	780	Below Minimum Threshold (40 months)	No
612	Central	489	8/1/2024	463	461	440	1070	Below Minimum Threshold (31 months)	No
613	Central	510	8/1/2024	503	500	475	830	Below Minimum Threshold (45 months)	No
615	Central	526	8/1/2024	500	497	468	865	Below Minimum Threshold (44 months)	No



		Curre	nt Month		Within 10%				GSA
Well	Region	GWL	Date	Minimum	Minimum	Measurable	Well	Status	Action
		(DTW)		Threshold	Threshold	Objective	Depth		Required?
629	Central	587	8/1/2024	559	556	527	1000	Below Minimum Threshold (1 month)	No
633	Central	569	8/1/2024	547	542	493	1000	Below Minimum Threshold (10 months)	No
62	Eastern	-	-	182	178	142	212	No data available this period (Above MO in April 2024)	No
85	Eastern	146	8/1/2024	233	225	147	233	Above Measurable Objective	No
100	Eastern	67	8/1/2024	181	175	125	284	Above Measurable Objective	No
101	Eastern	92	8/1/2024	111	108	81	200	More than 10% above Minimum Threshold	No
841	Northwestern	64	7/20/2024	203	198	153	600	Above Measurable Objective	No
845	Northwestern	77	7/20/2024	203	198	153	380	Above Measurable Objective	No
2	Southeastern	16	7/31/2024	72	70	55	73	Above Measurable Objective	No
89	Southeastern	23	7/31/2024	64	62	44	125	Above Measurable Objective	No
106	Western	141	8/1/2024	154	153	141	228	Above Measurable Objective	No
107	Western	70	8/1/2024	91	89	72	200	Above Measurable Objective	No
117	Western	153	7/31/2024	160	159	151	212	More than 10% above Minimum Threshold	No
118	Western	50	7/31/2024	124	117	57	500	Above Measurable Objective	No
124	Western	-	-	73	71	57	161	No available data this period	No
571	Western	85	7/31/2024	144	142	121	280	Above Measurable Objective	No
573	Western	66	8/2/2024	118	113	68	404	Above Measurable Objective	No
830	Far-West Northwestern	45	7/31/2024	59	59	56	77	Above Measurable Objective	No



		Currei	nt Month		Within 10%				GSA
Well	Region	GWL	Date	Minimum	Minimum	Measurable	Well	Status	Action
		(DTW)		Threshold	Threshold	Objective	Depth		Required?
832	Far-West Northwestern	31	7/31/2024	45	44	30	132	More than 10% above Minimum Threshold	No
833	Far-West Northwestern	19	7/31/2024	96	89	24	504	Above Measurable Objective	No
836	Far-West Northwestern	29	7/31/2024	79	75	36	325	Above Measurable Objective	No

\*Well 608 is now confirmed to be "destroyed" and is no longer available for monitoring. The landowner and monitoring staff have identified a well within 100 ft that is suitable to continue monitoring in this location, which is where the measurement shown was taken. The groundwater level representative network will be modified to remove well 608 and add in this new well. The new well is in the process of being incorporated into Opti and being assigned an ID number.

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



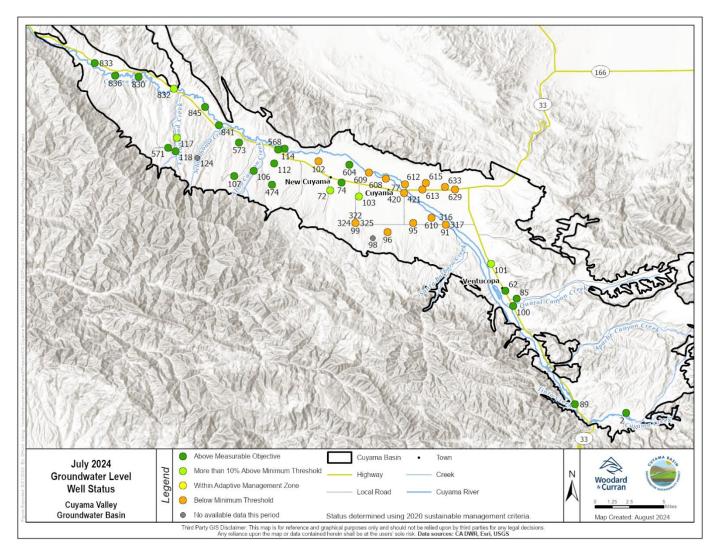


Figure 1: Groundwater Level Representative Wells and Status in July 2024



## 4. HYDROGRAPHS

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

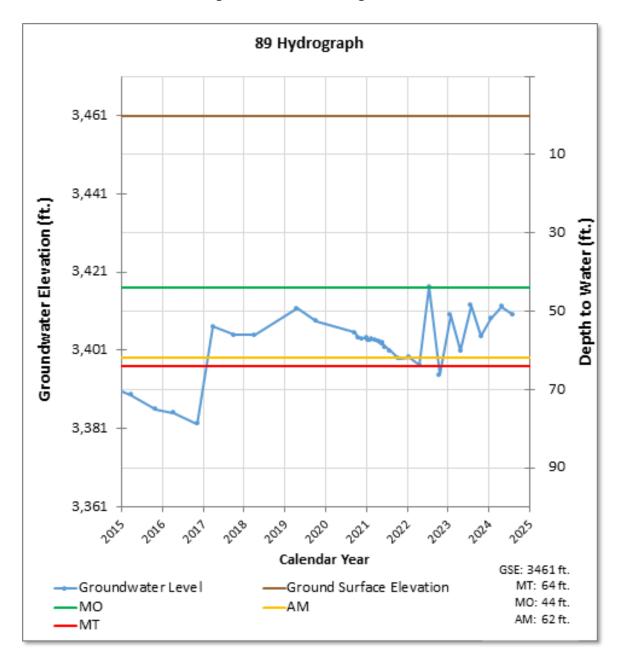


Figure 2: Southeast Region – Well 89



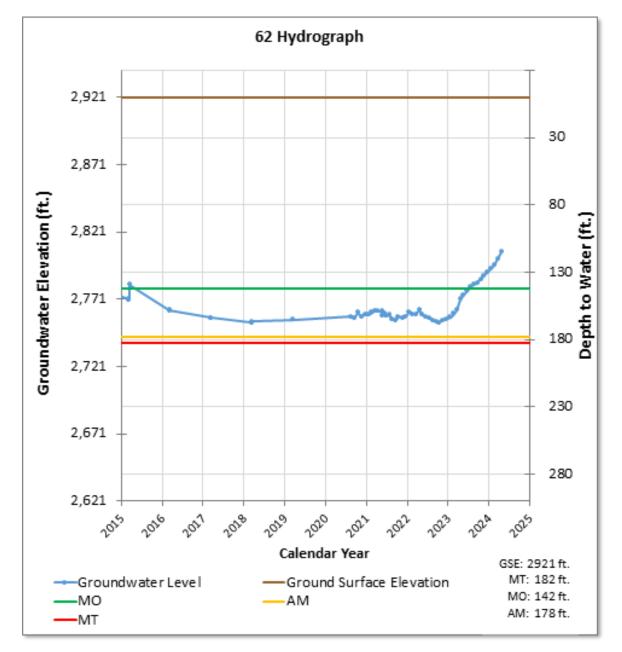
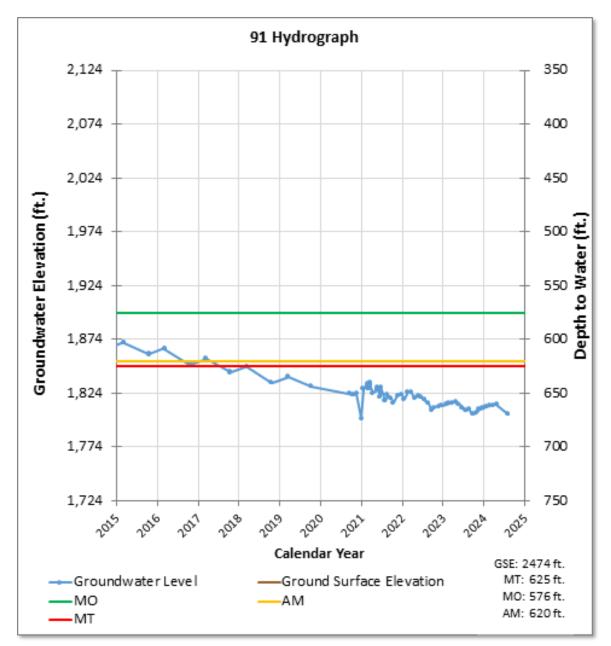


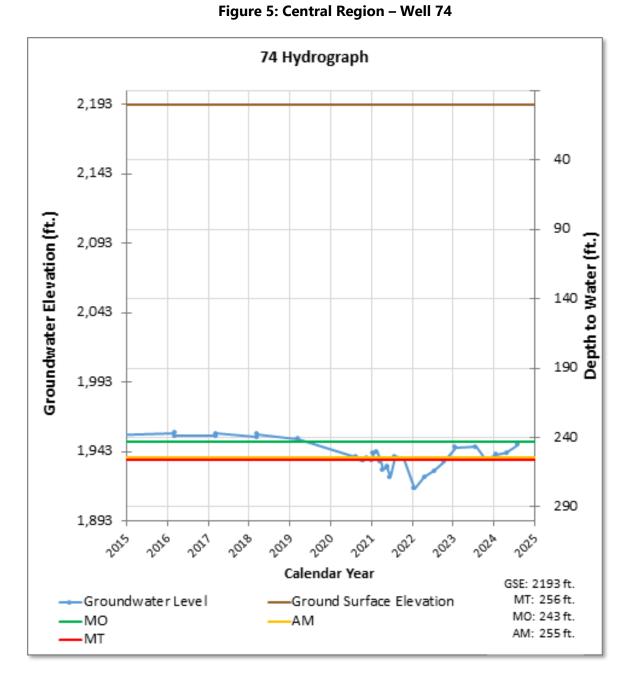
Figure 3: Eastern Region – Well 62



Figure 4: Central Region – Well 91



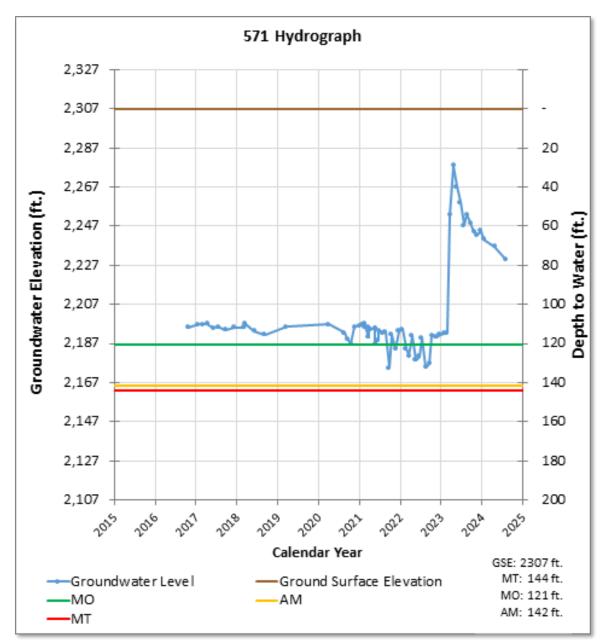




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Figure 6: Western Region – Well 571





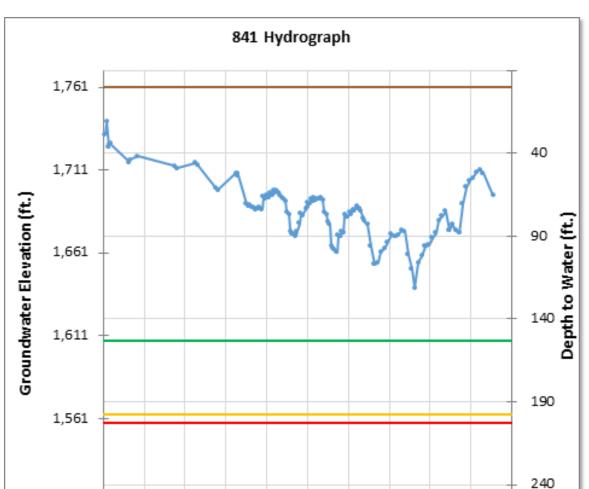


Figure 7: Northwestern Region – Well 841

1,511

-MO

-MT

-Groundwater Level

Calendar Year

AM

Ground Surface Elevation

GSE: 1761 ft. MT: 203 ft.

MO: 153 ft.

AM: 198 ft.



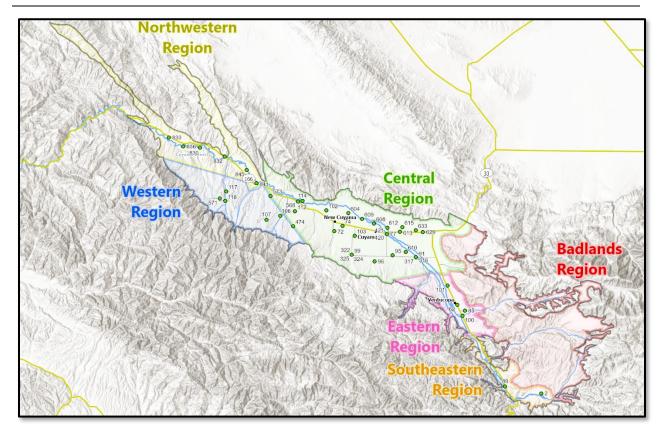


Figure 8: Threshold Regions in the Cuyama Groundwater Basin

### 5. MONITORING NETWORK UPDATES

As shown in Table 2, there are five 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:
  - o Wells 98, 124
- Data not yet available due to transducer malfunction:
  - o Wells 62, 102
- Measurement was not possible at the time that the field technician went to take measurements:
  - o Well 72

Additionally, well 608 is now confirmed to be "destroyed" and is no longer available for monitoring. The landowner and monitoring staff have identified a well within 100 ft that is suitable to continue monitoring in this location; the data from that new well is reported for well 608 in this version of the report. The groundwater level monitoring network will be modified to remove well 608 and add in this new well. The new well is in the process of being incorporated into Opti. The new well will use historical data from Well 608 as a proxy for future analysis conducted for GSP implementation.



