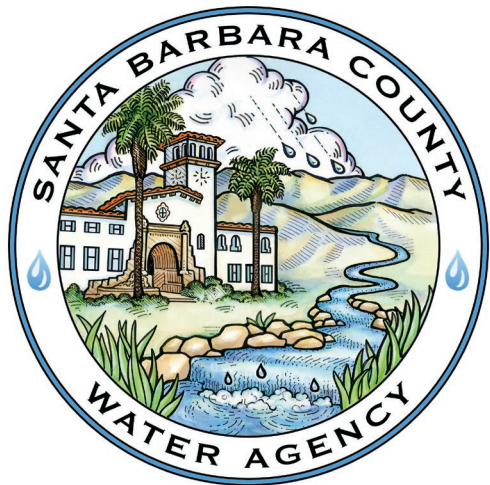


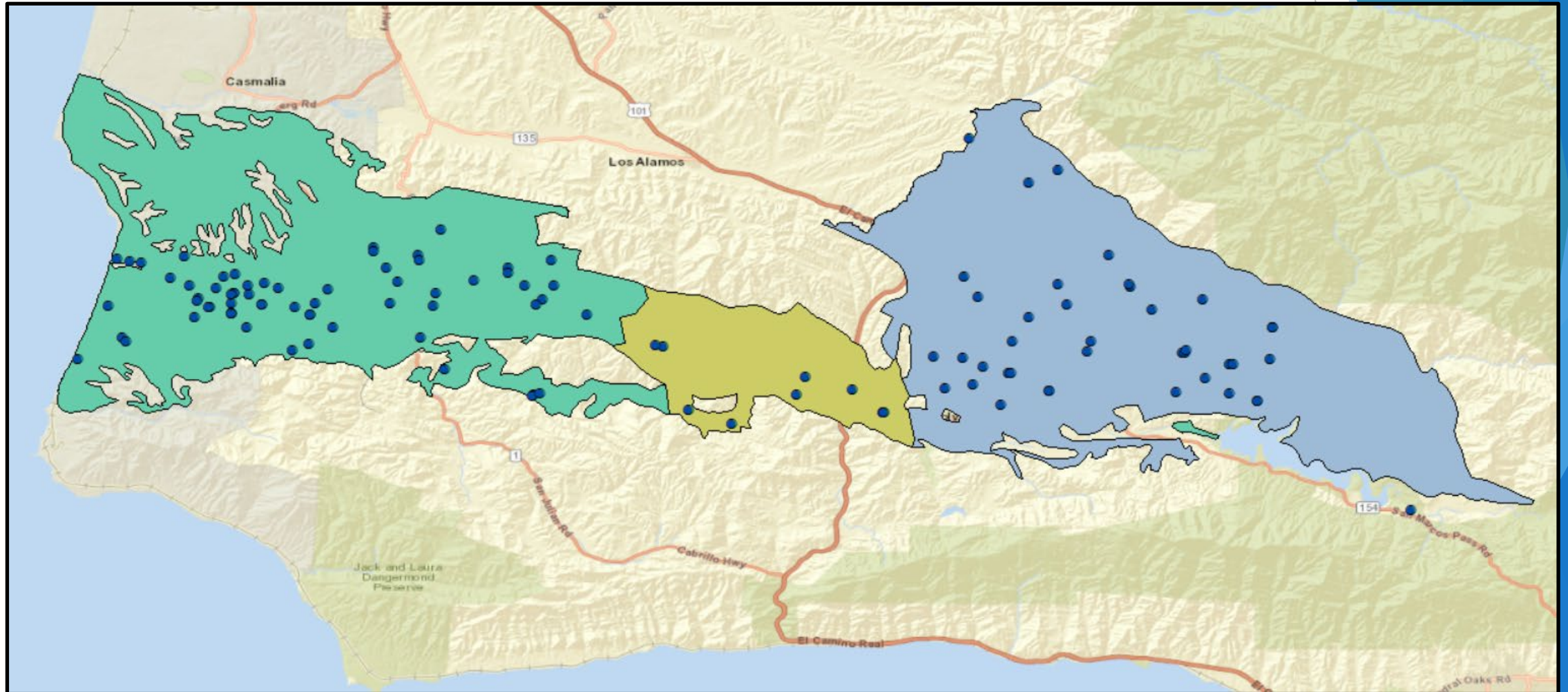
SANTA YNEZ RIVER VALLEY GROUNDWATER BASIN

EASTERN MANAGEMENT AREA

OVERVIEW OF HISTORICAL WATER LEVEL TRENDS AND
RECENT OCTOBER 2022 MEASUREMENTS

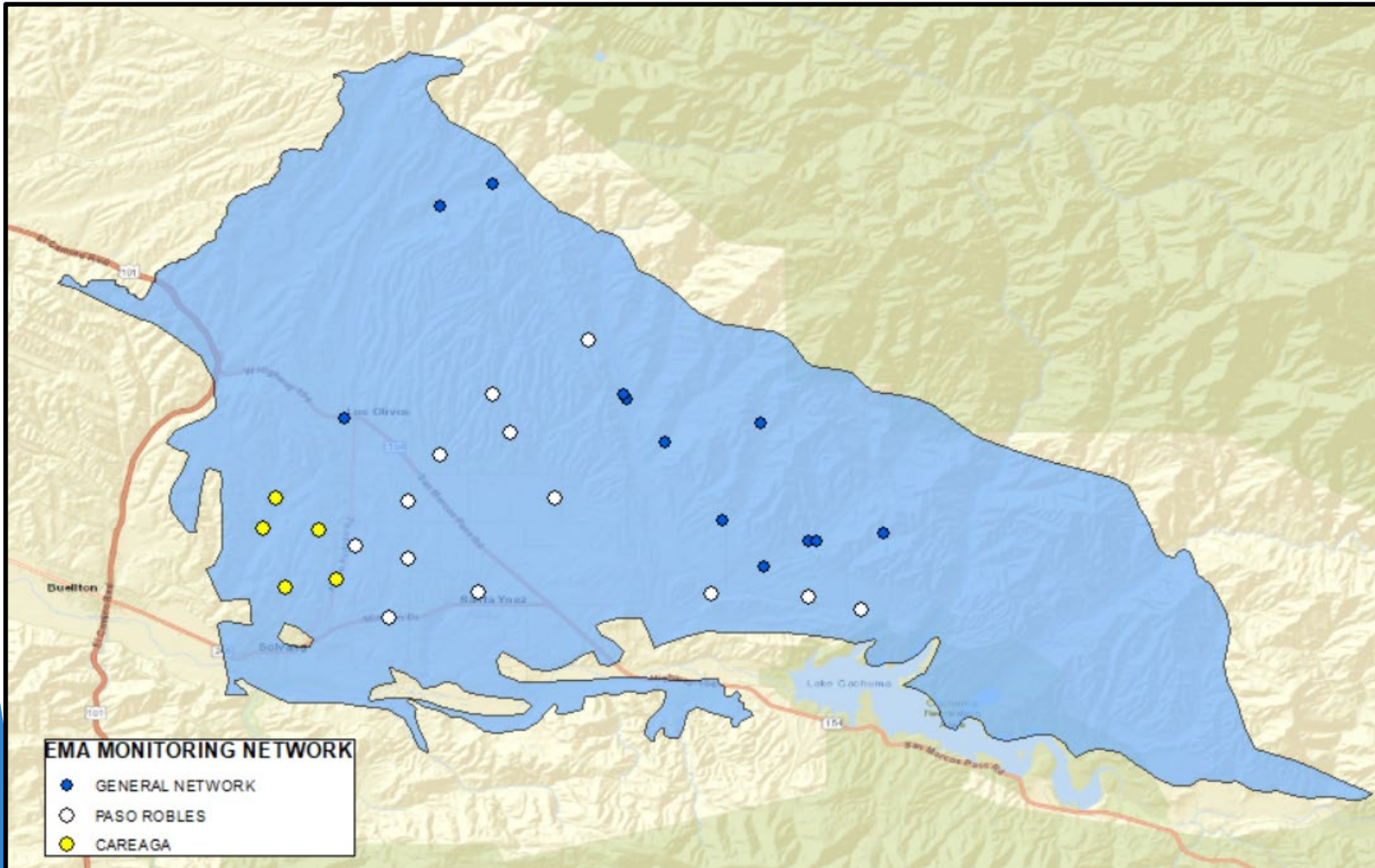


NETWORK OF 111 WELLS THROUGHOUT THE ENTIRE SANTA YNEZ GROUNDWATER BASIN



NETWORK OF 34 WELLS WITHIN THE EMA

(20 ARE REPRESENTATIVE WELLS IN GSP)



- Water level measurements are completed biannually in March (hydrologic maximum) and October (hydrologic minimum).
- Depth below land surface elevation is adjusted to mean sea level.
- 29 of the 34 wells measured in October 2022.
- Water levels decrease in ~90% of measured wells

OCTOBER 2022 EMA WATER LEVEL MEASUREMENTS SHOWING 1-YEAR CHANGE

WELL ID	DATE	DEPTH TO WATER (FT)	FALL 2021 (FT)	1-YEAR CHANGE (FT)
6N/29W-5A1	10/11/2022			
6N/29W-6F1	10/11/2022	24.37		
6N/29W-6G1	10/11/2022	54.62	54.60	(0.02)
6N/29W-7L1	10/11/2022	259.35	257.31	(2.04)
6N/29W-8P1	10/11/2022			
6N/29W-8P2	10/11/2022	265.52	255.32	(10.20)
6N/30W-11G1	10/11/2022			
6N/30W-11G4	10/18/2022	221.79	206.51	(15.28)
6N/30W-1R3	10/11/2022	177.53		
6N/30W-7G5	10/4/2022	100.48	91.01	(9.47)
6N/30W-7G6	10/4/2022	101.96	90.50	(11.46)
6N/31W-13D1	10/4/2022	122.57	121.18	(1.39)
6N/31W-1P3	10/4/2022	128.57	118.28	(10.29)
7N/30W-16B1	10/6/2022	34.84	29.05	(5.79)
7N/30W-19H1	10/6/2022	179.77	179.14	(0.63)
7N/30W-22E1	10/18/2022	10.07	10.39	0.32
7N/30W-22E2	10/6/2022			

WELL ID	DATE	DEPTH TO WATER (FT)	FALL 2021 (FT)	1-YEAR CHANGE (FT)
7N/30W-24Q1	10/11/2022	55.99		
7N/30W-27H1	10/6/2022	21.47	21.00	(0.47)
7N/30W-29D1	10/6/2022	62.31	59.58	(2.73)
7N/30W-30M(?)	10/6/2022		289.74	
7N/30W-33M1	10/18/2022	268.87		
7N/30W-35R?(R)	10/11/2022	376.13		
6N/31W-10F1	10/4/2022	89.74	87.68	(2.06)
6N/31W-11D4	10/4/2022	69.47	68.40	(1.07)
6N/31W-2K1	10/4/2022	57.14	55.45	(1.69)
6N/31W-3A1	10/4/2022	170.82	166.53	(4.29)
6N/31W-4A1	10/4/2022	115.92	113.65	(2.27)
7N/31W-23P?(R)	10/4/2022	95.30	85.26	(10.04)
7N/31W-34M2	10/4/2022	184.99	182.74	(2.25)
7N/31W-36L2	10/4/2022	130.24	124.07	(6.17)
8N/30W-30R1	10/18/2022	72.97	73.36	0.39
8N/30W-30R2	10/18/2022	86.44		
8N/31W-36H1	10/18/2022	48.66	48.76	0.10

EMA SUSTAINABLE MANAGEMENT CRITERIA

EMA MIMIMUM THRESHOLDS

▶ PASO ROBLES FORMATION

- Measured in 15 wells
- 15 feet below Spring 2018 water levels

▶ CAREAGA SAND FORMATION

- Measured in 9 wells (5 measured by SBCWA)
- 12 feet below Spring 2018 water levels

Undesirable results: water levels are measured at or below Minimum Thresholds at 50% of representative monitoring wells for two consecutive years of average or above average rainfall.

EMA REPRESENTATIVE EMA WELL MEASUREMENTS

PASO ROBLES FORMATION			
WELL IDENTIFICATION	MINIMUM THRESHOLD (FT)	SPRING 2022 (FT)	FALL 2022 (FT)
6N/29W-7L1	637.31	610.46	609.55
6N/29W-8P1	675.71	DRY	DRY
DRY, WELL DEPTH 237 (678.2 ft above LSD)			
6N/29W-8P2	653.24	640.42	630.48
6N/30W-7G5	512.59	514.13	503.82
6N/30W-7G6	511.04	512.63	500.34
6N/30W-11G4	509.99	493.63	459.31
6N/31W-1P3	514.25	515.14	504.53
6N/31W-2K1	555.88	564.04	562.46
6N/31W-13D1	493.42	504.37	502.53
7N/30W-16B1	1017.64	1034.97	1031.56
7N/30W-19H1	896.63	910.89	910.33
7N/30W-29D1	848.88	858.19	855.49
7N/30W-30M(?)	563.49	530.57	NO DATA
7N/30W-33M1	513.98	513.16	495.43
7N/31W-36L2	614.49	604.16	592.36

CAREAGA SAND FORMATION			
WELL IDENTIFICATION	MINIMUM THRESHOLD (FT)	SPRING 2022 (FT)	FALL 2022 (FT)
7N/31W-34M2	482.0	488.89	486.11
6N/31W-3A1	571.9	575.07	567.68
6N/31W-4A1	481.1	488.01	485.18
6N/31W-10F1	462.9	468.09	465.86
6N/31W-11D4	506.5	498.37	495.83
6N/31W-9Q2	NOT IN SBCWA NETWORK		
6N/31W-16N7			
6N/31W-XXX			
Solvang HCA			

Spring 2022 - 8 of 20 wells below MT

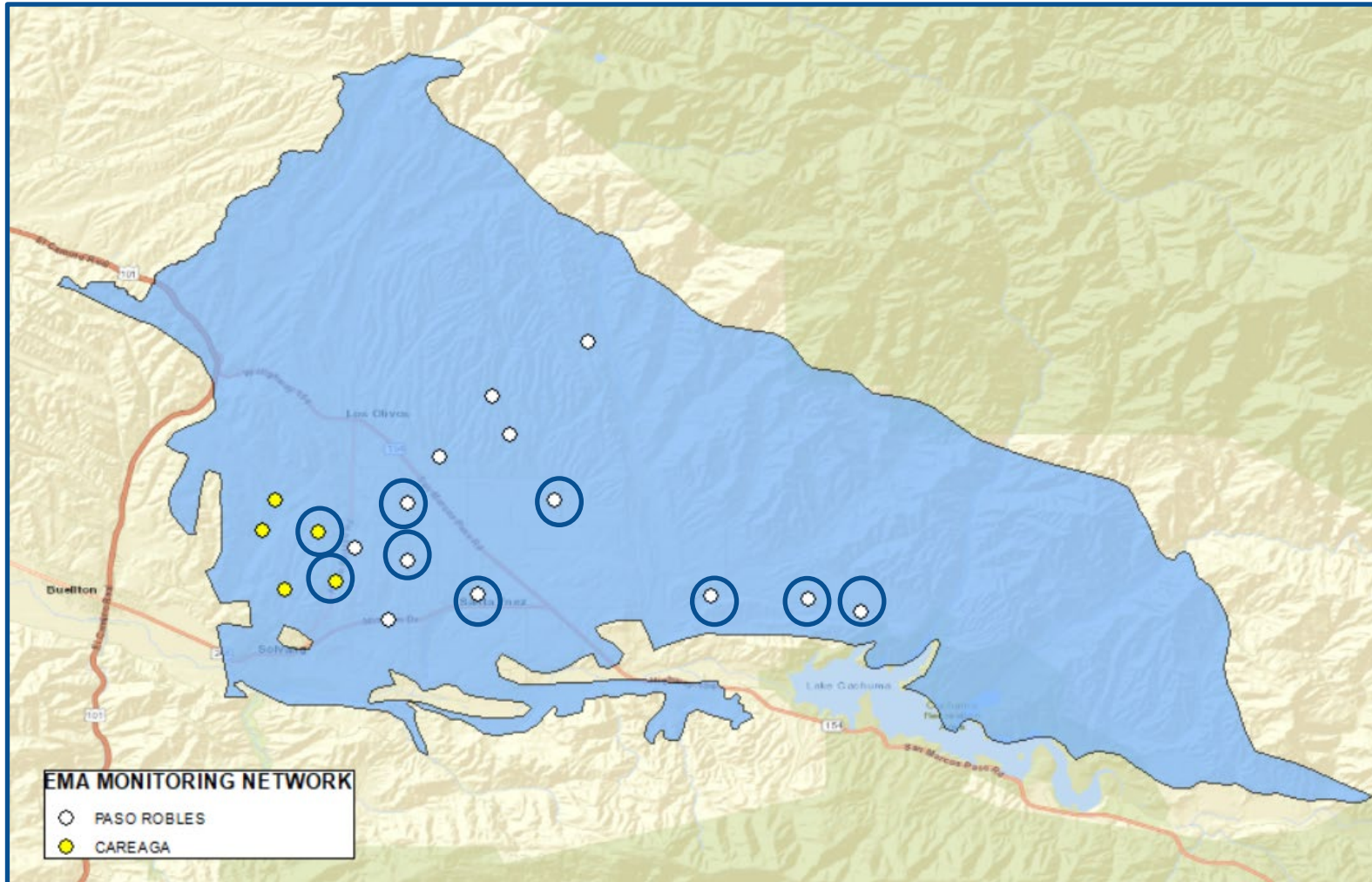
- 7 Paso Robles, 1 Careaga

Fall 2022 - 11 of 20 wells below MT

- 9 Paso Robles, 2 Careaga

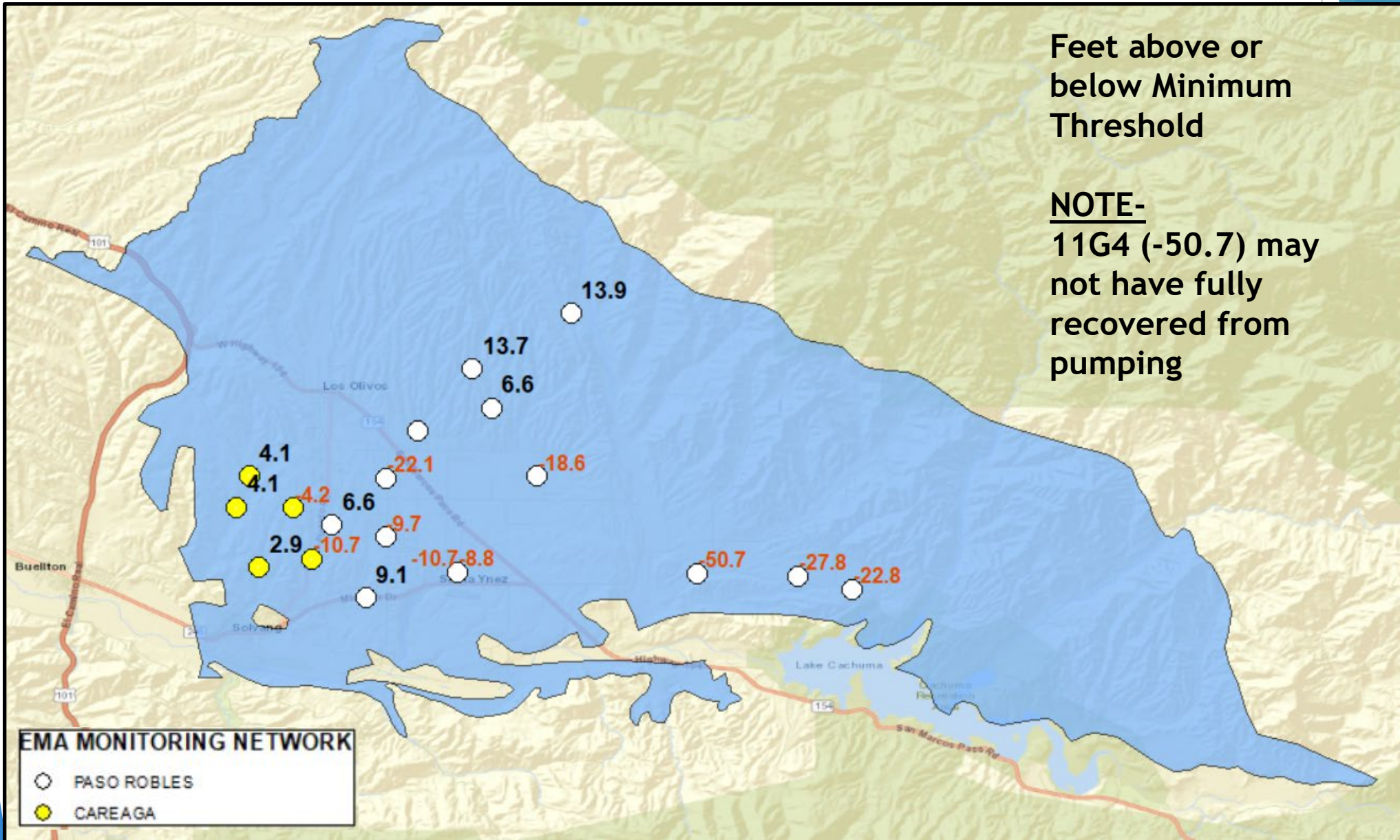
Wells highlighted **YELLOW** are below Minimum Threshold elevation

EMA REPRESENTATIVE WELLS BELOW MT FALL 2022



- Circled wells were below Minimum Threshold in Fall 2022
- Total of 11 wells

EMA REPRESENTATIVE WATER LEVELS VS. MT



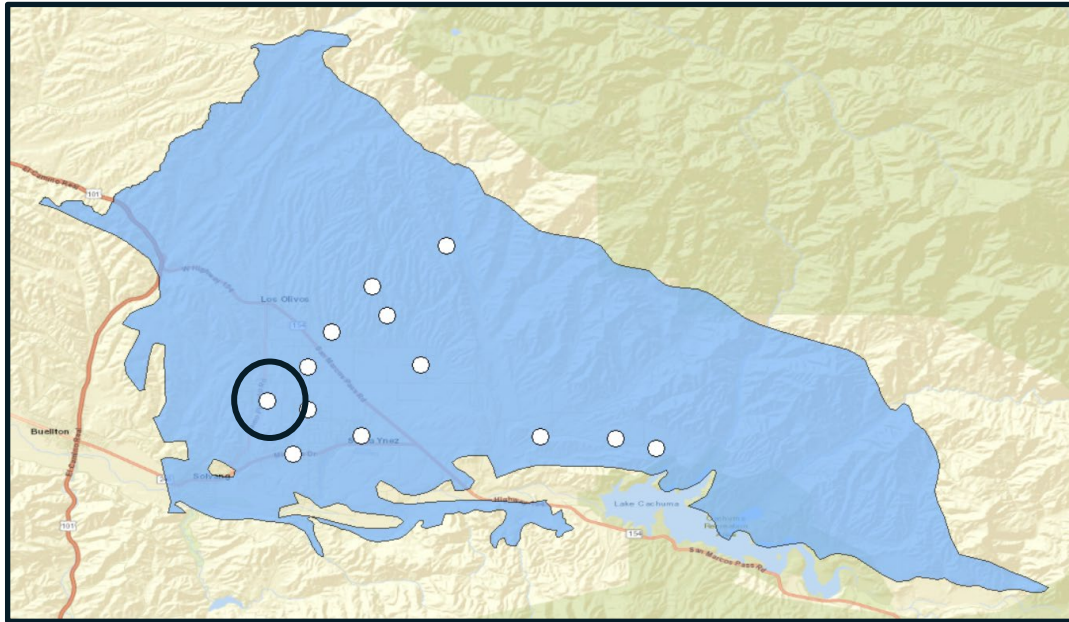
EMA PASO ROBLES FORMATION WELLS

15 wells measured by Water Agency

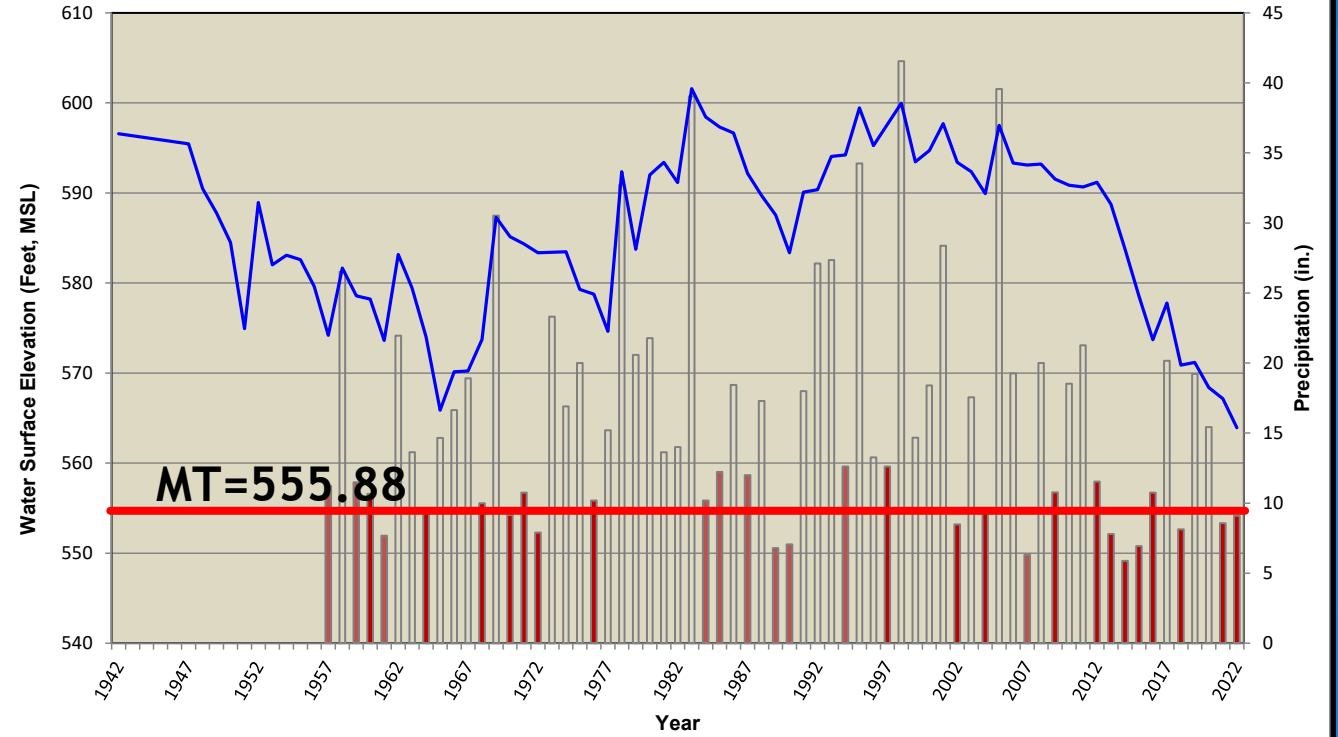
Representative Well ID	Well Use	Well Depth (ft)	Screen Interval(s) (ft bgs)	Ground Elevation (ft NAVD 88)	Reference Point Elevation (ft NAVD 88)	First Date Measured	Last Date Measured	Years
6N/29W-07L01	Agricultural	—	—	868.9	870.7	1960	2021	62
6N/29W-08P01	Domestic	—	210 to ?	915.2	915.4	1934	2021	88
6N/29W-08P02	Domestic	—	—	896.0	897.0	1966	2021	56
6N/30W-07G05	Municipal	166	—	604.3	606.7	1962	2021	60
6N/30W-07G06	Municipal	566	305 to 410	602.3	604.3	1962	2021	60
6N/30W-11G04	Agricultural	400	130 to 390	681.1	683.1	2010	2021	12
6N/31W-01P03	Municipal	505	195 to 490	633.1	634.7	1967	2021	55
6N/31W-02K01	Domestic	—	—	619.6	620.8	1942	2021	80
6N/31W-13D01	Domestic	152	—	625.1	626.6	1941	2021	81
7N/30W-16B01	Agricultural	—	—	1,066.4	1,069.3	1950	2021	72
7N/30W-19H01	Agricultural	—	—	1,090.1	1,105.9	1954	2021	68
7N/30W-29D01	Agricultural	—	—	917.8	919.3	1905	2021	117
7N/30W-30M01	Agricultural	—	—	806.5	807.5	1905	2021	117
7N/30W-33M01	Agricultural	349	150 to 340	764.3	764.7	1954	2021	68
7N/31W-36L02	Domestic	—	—	722.6	723.6	1942	2021	80

6N/31W-2K1 (Paso)

Well Hole Depth=71.0 feet

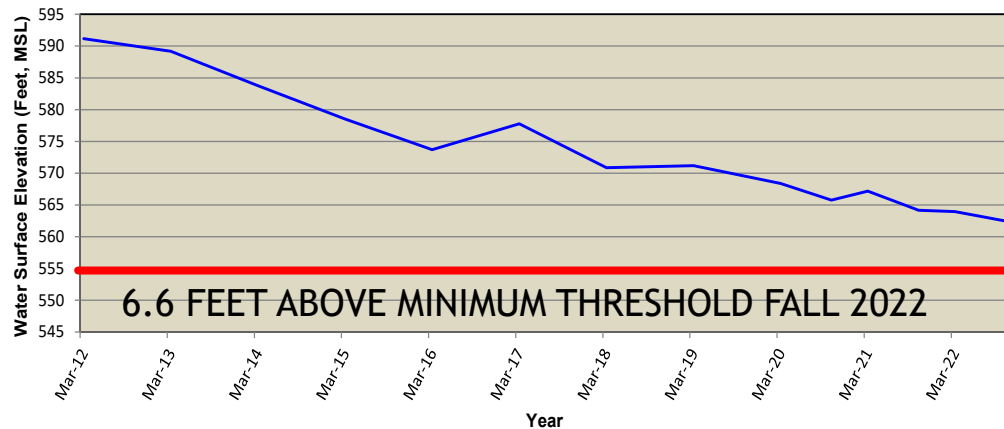
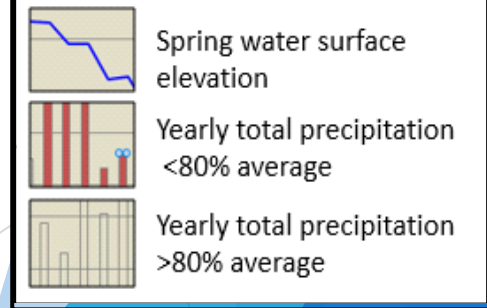


MARCH VALUES



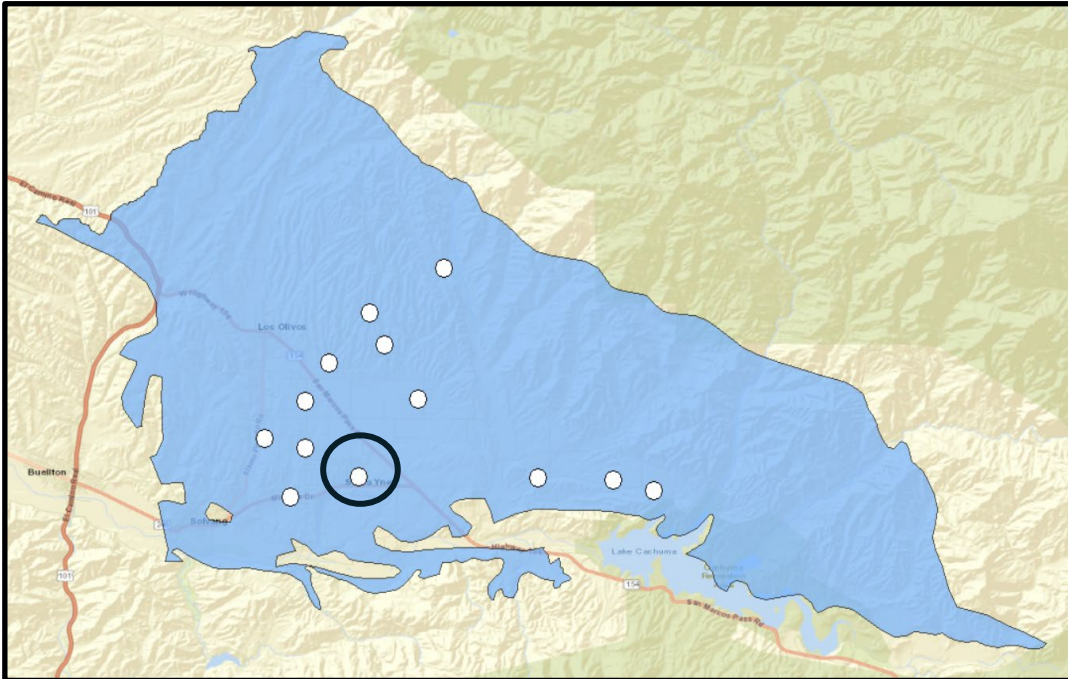
October 2021 to 2022 comparison

-1.69 feet

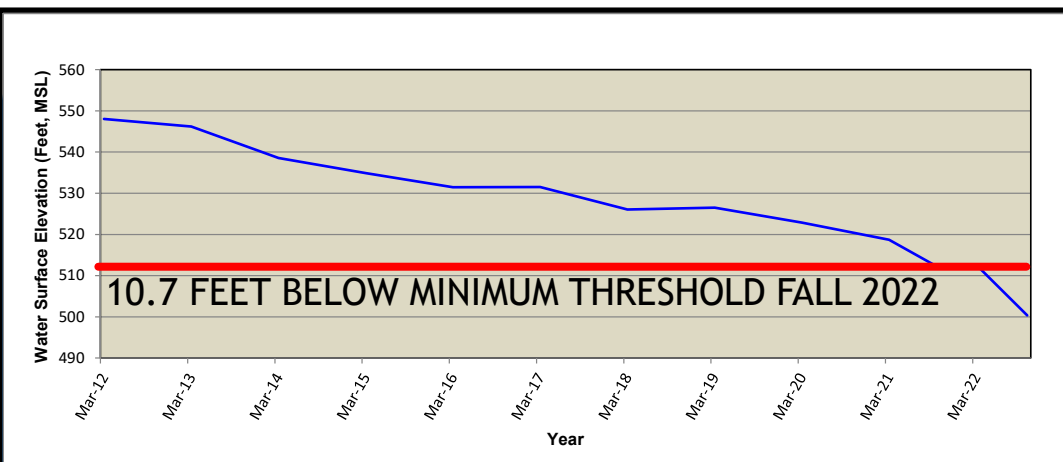
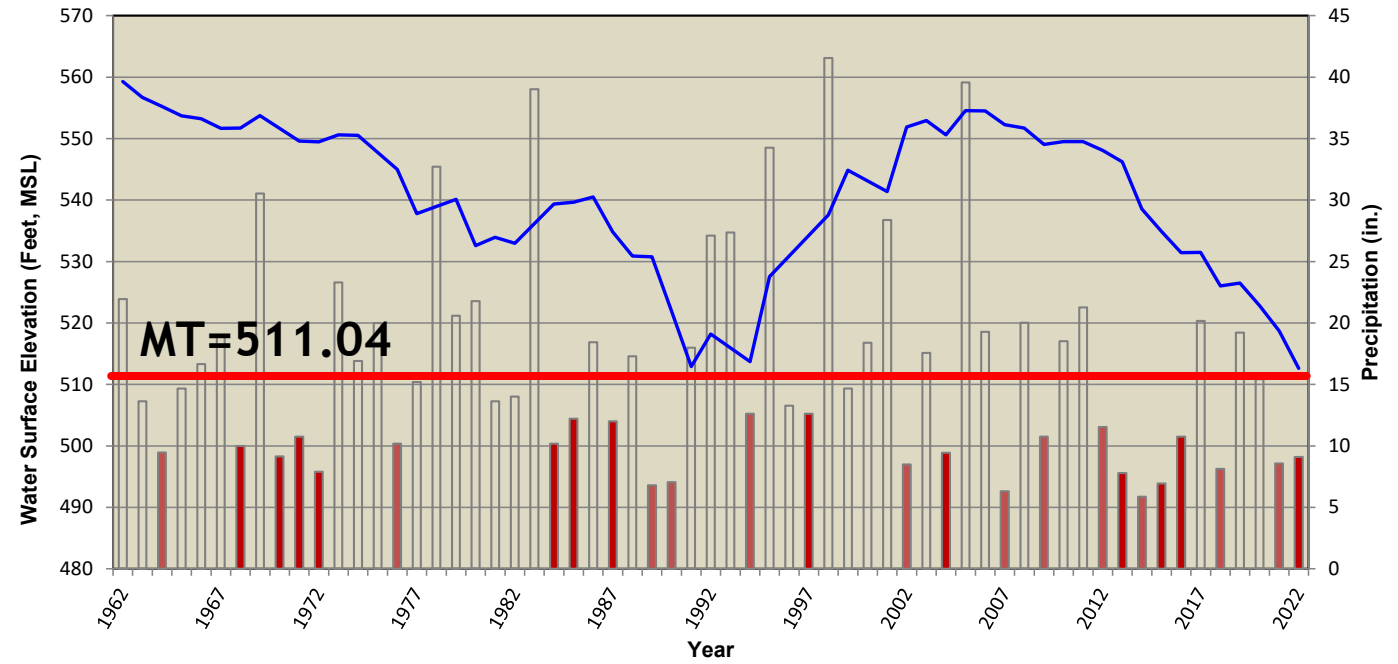


6N/30W-7G6 (Paso)

Well Depth=566 feet

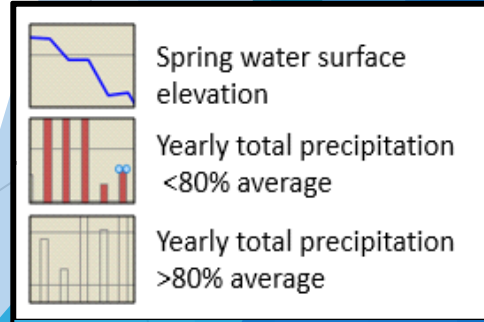


MARCH VALUES



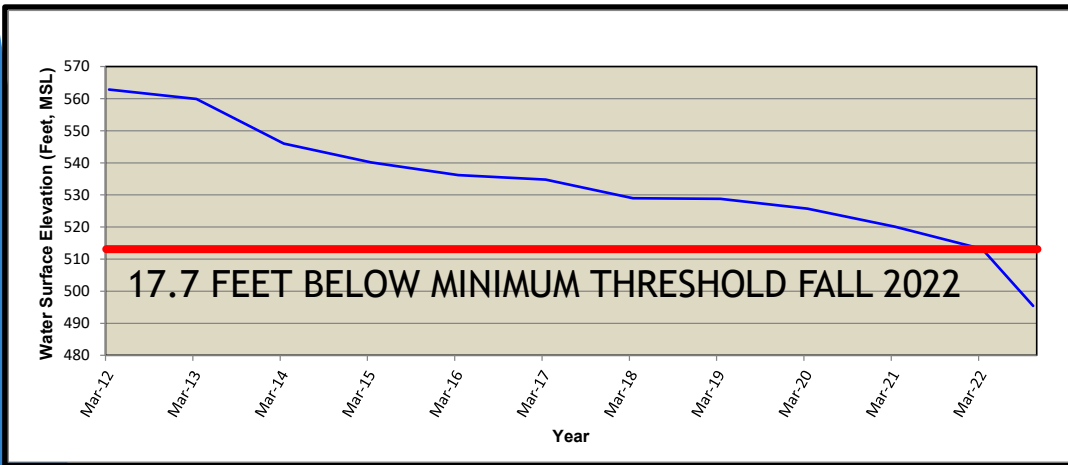
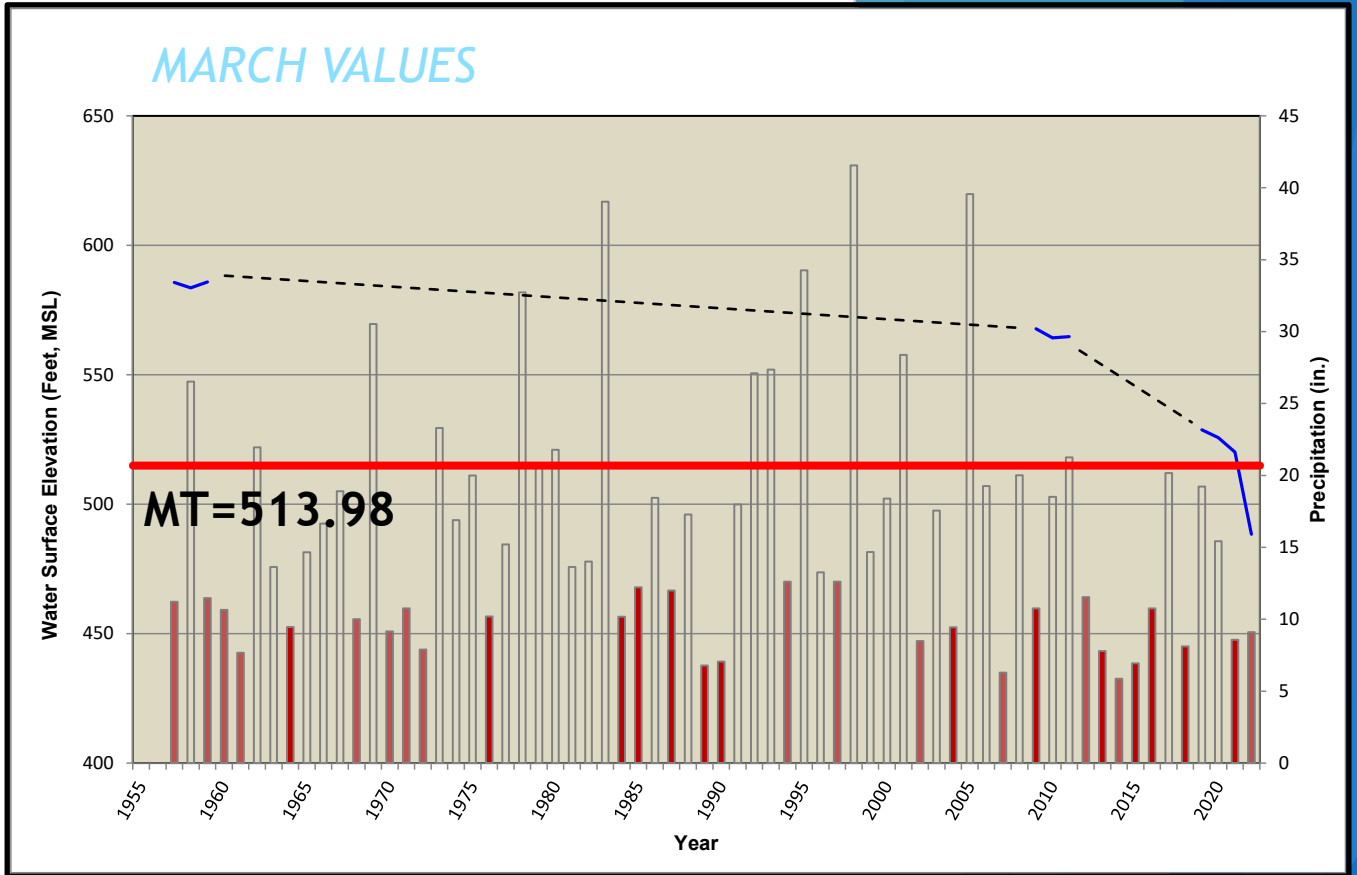
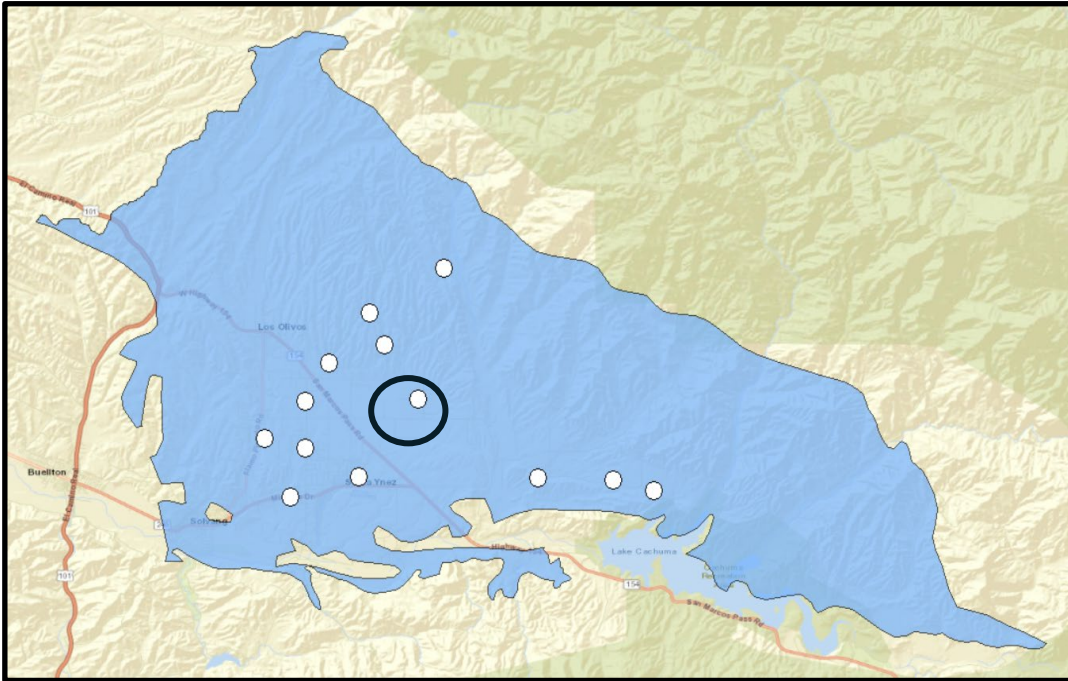
October 2021 to 2022 comparison

-11.46 feet

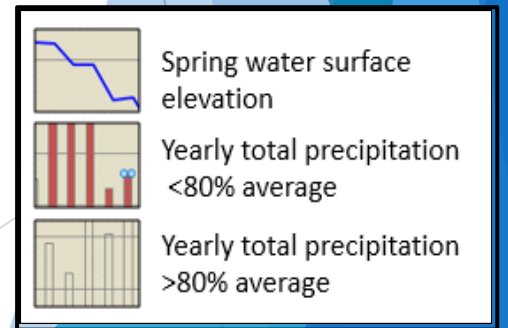


7N/30W-33M1 (Paso)

Well Depth=349 feet

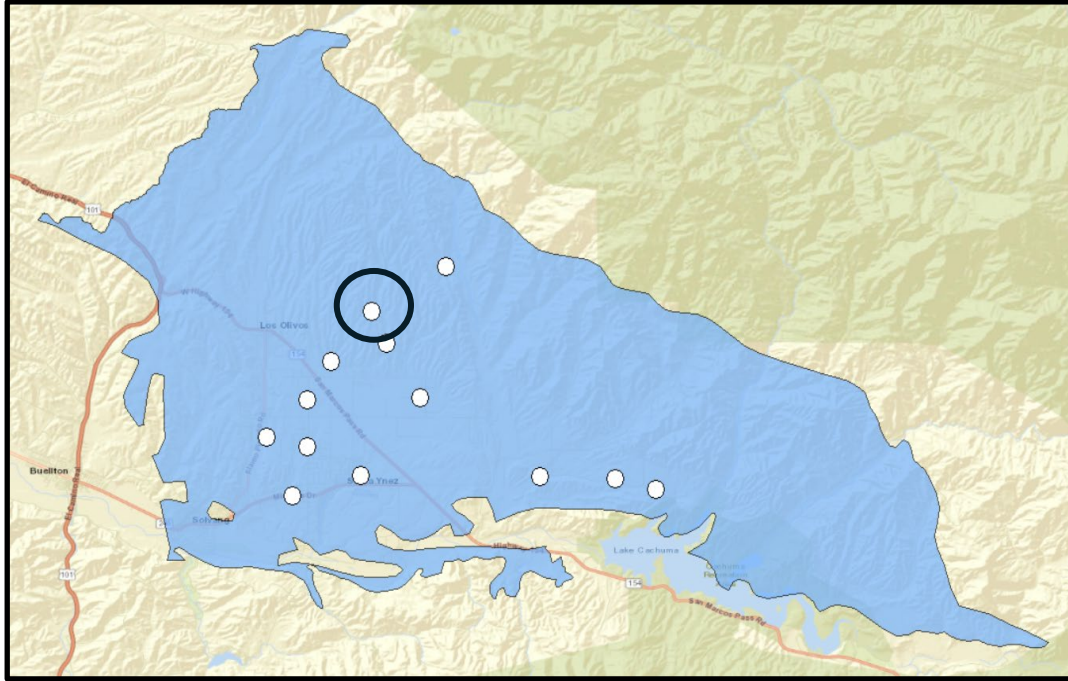


October 2021 to 2022 comparison
(PUMPING, NO 2021 DATA)

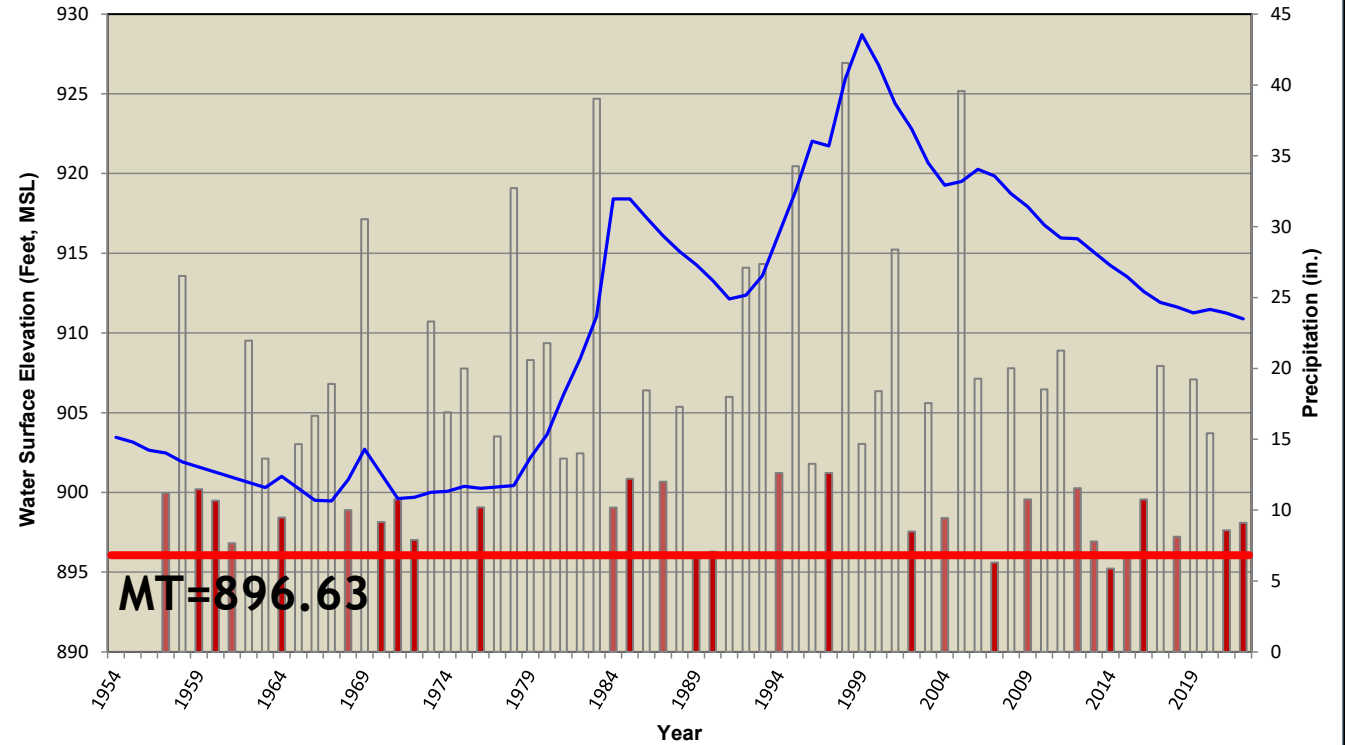


7N/30W-19H1

Well Depth=180 feet

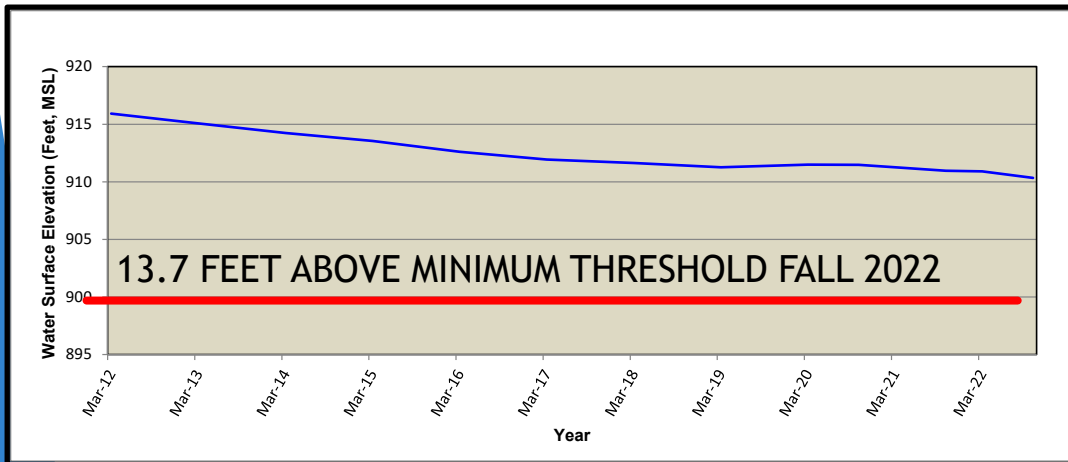





MARCH VALUES



October 2021 to 2022 comparison

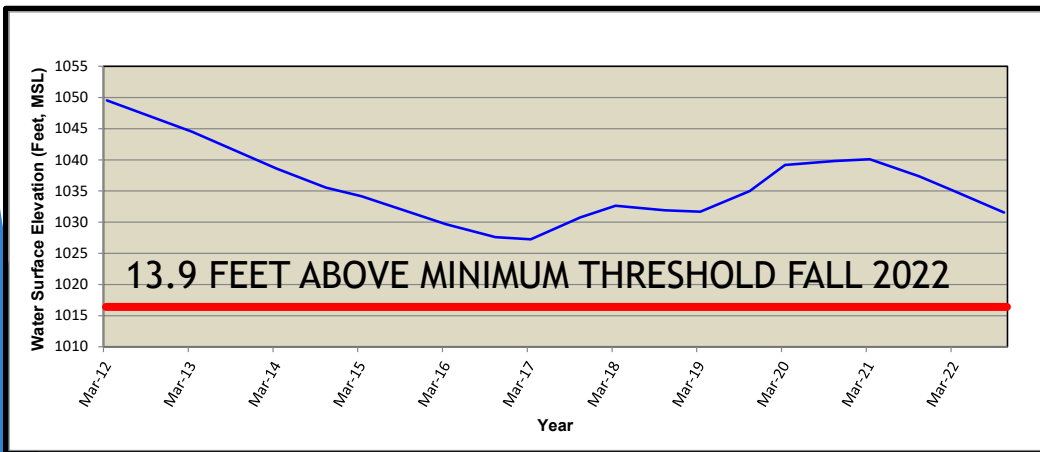
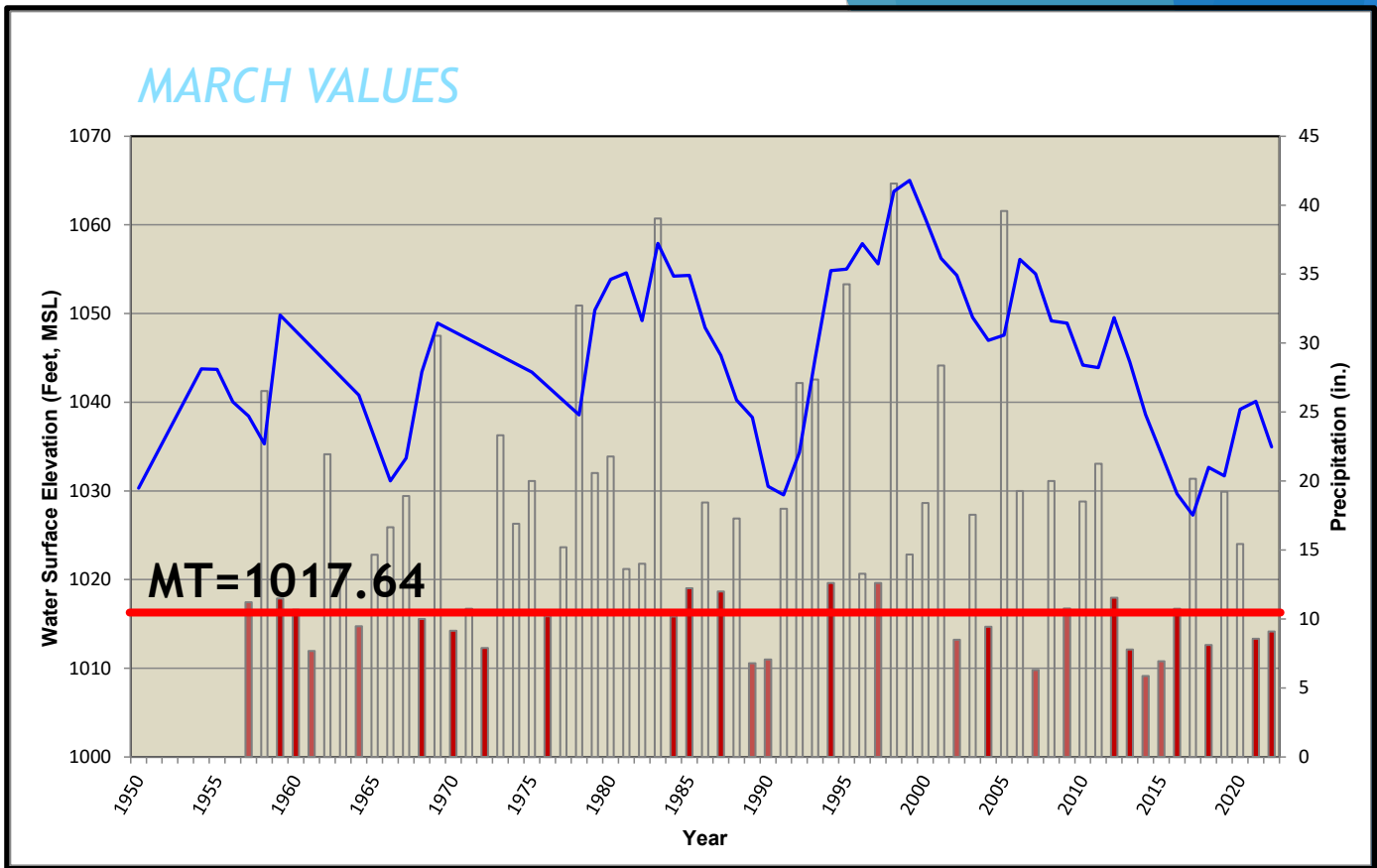
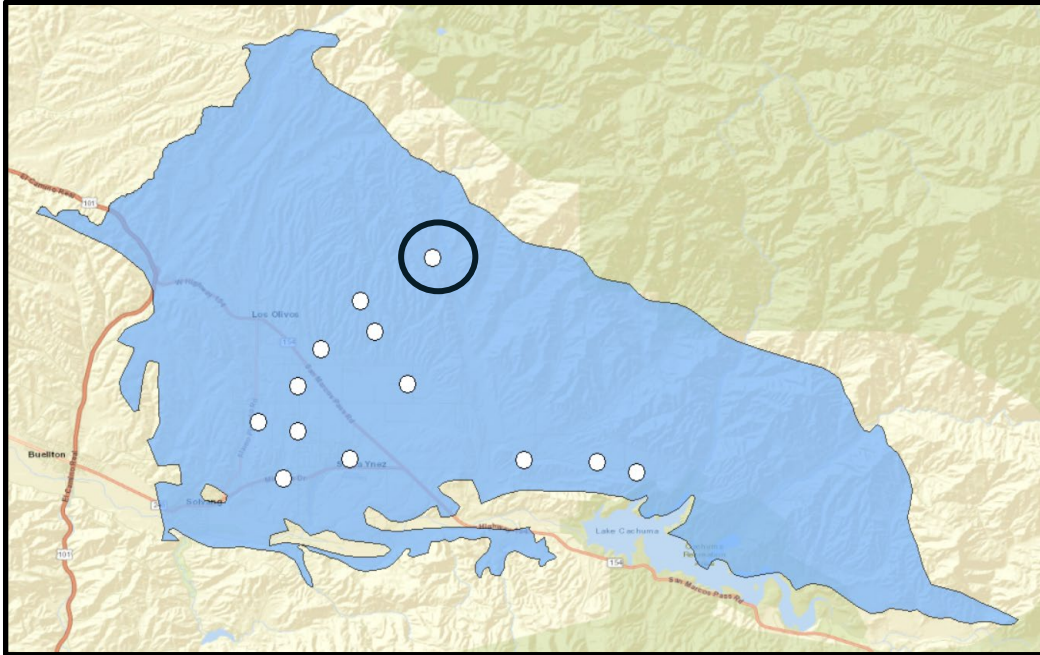
-0.63 feet



-  Spring water surface elevation
-  Yearly total precipitation <80% average
-  Yearly total precipitation >80% average

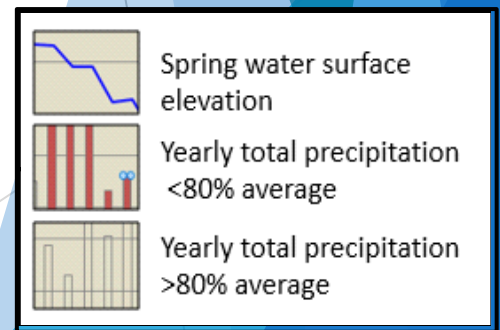
7N/30W-16B1

Well Hole Depth=150 feet



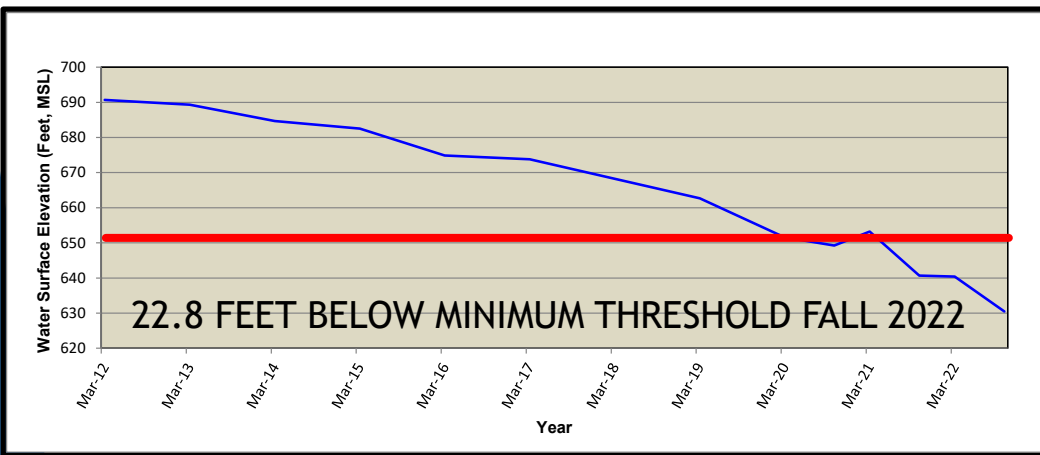
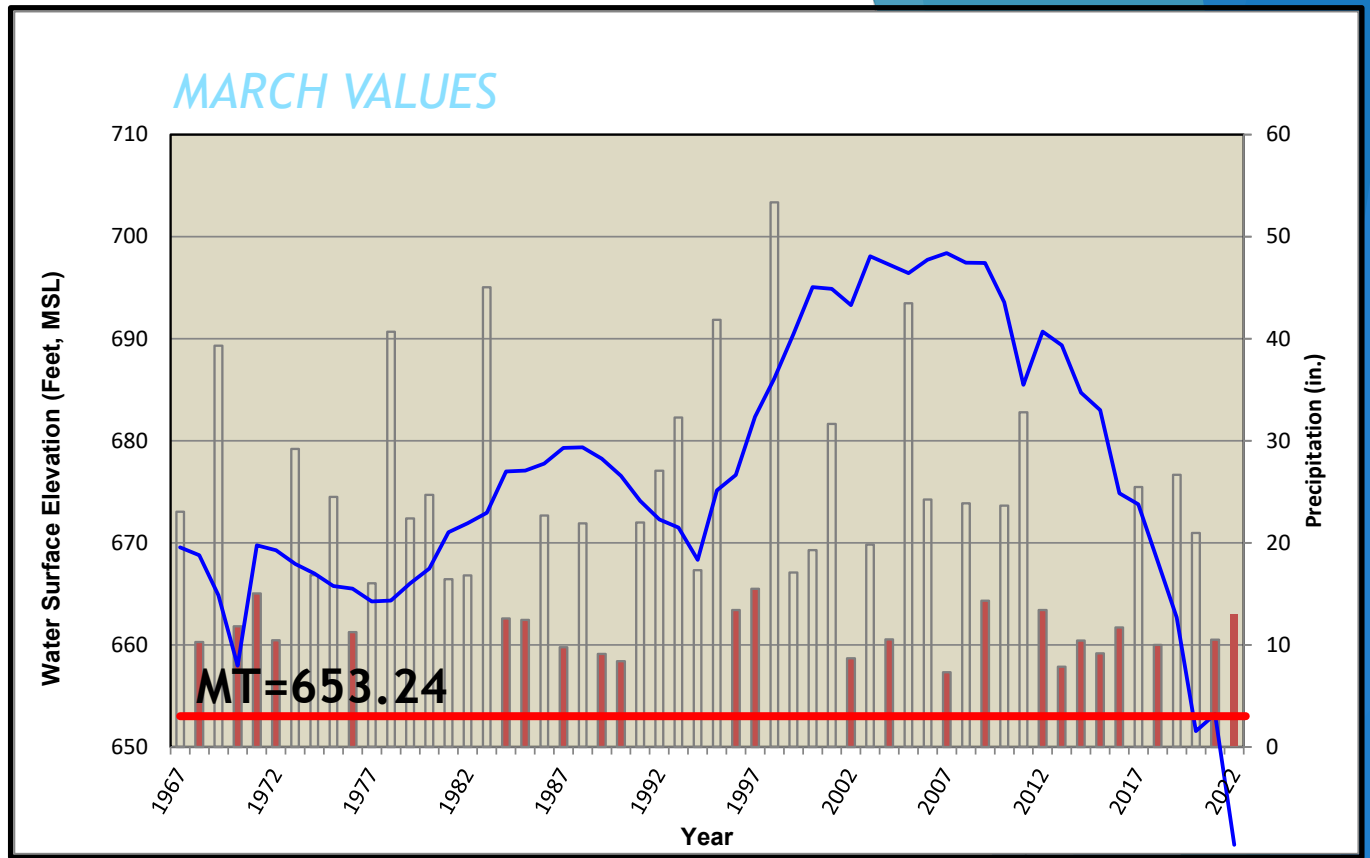
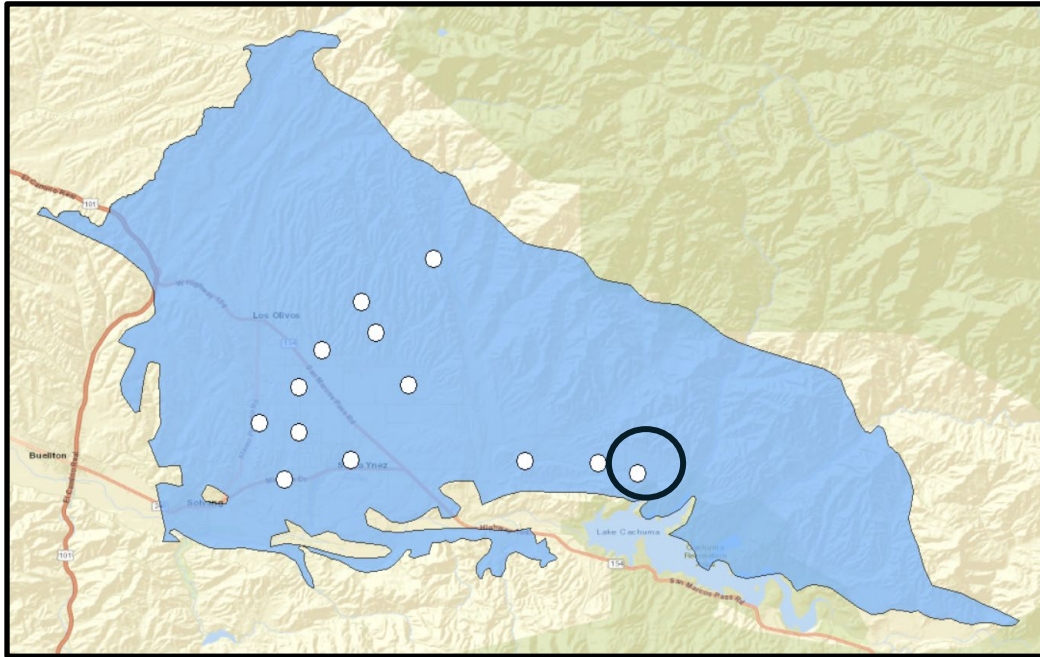
October 2021 to 2022 comparison

-5.79 feet



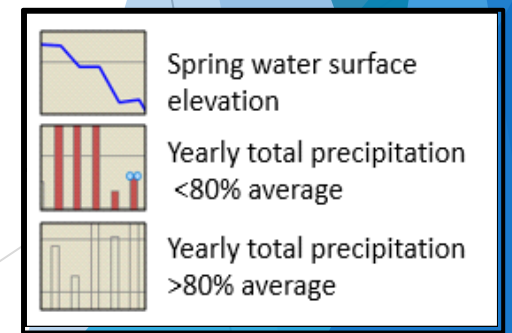
6N/29W-8P2 (Paso)

Well Depth=NA



October 2021 to 2022 comparison

-10.20 feet



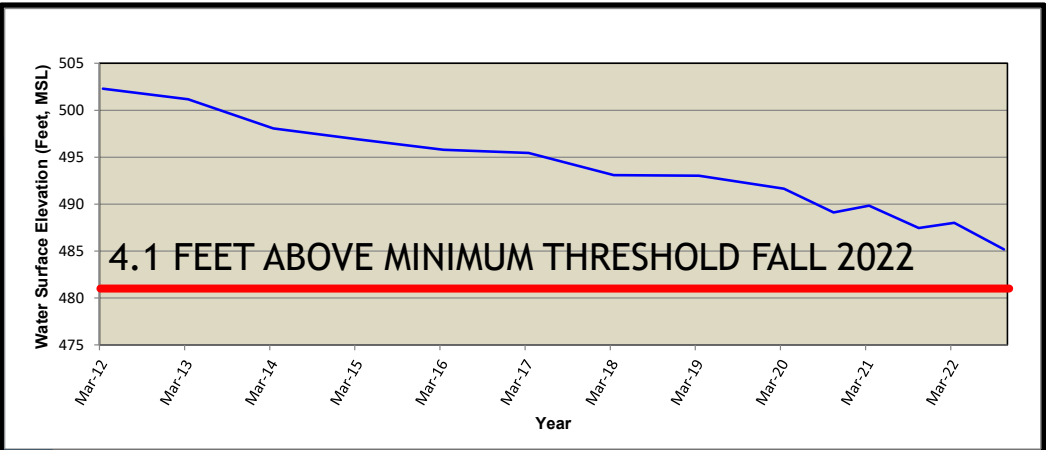
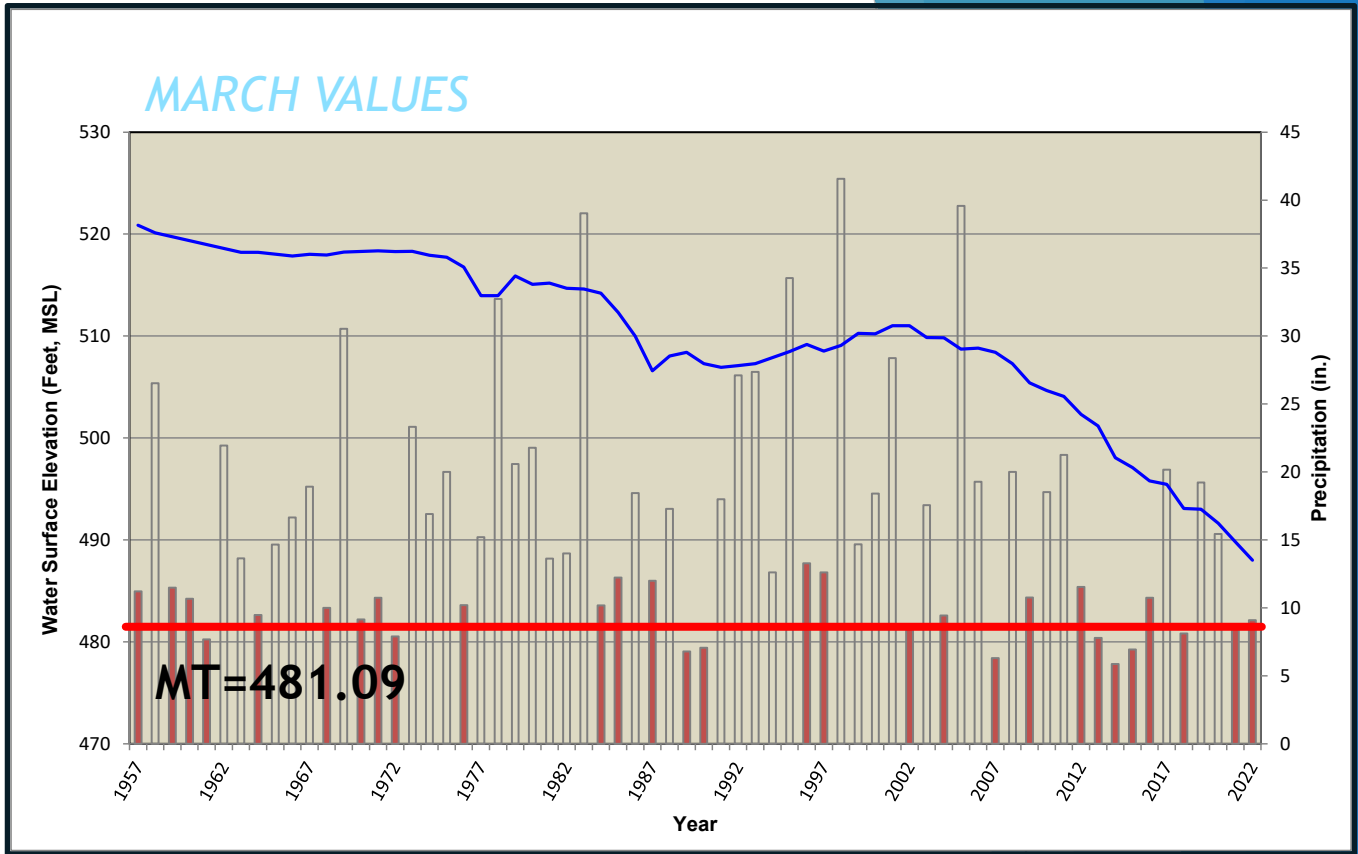
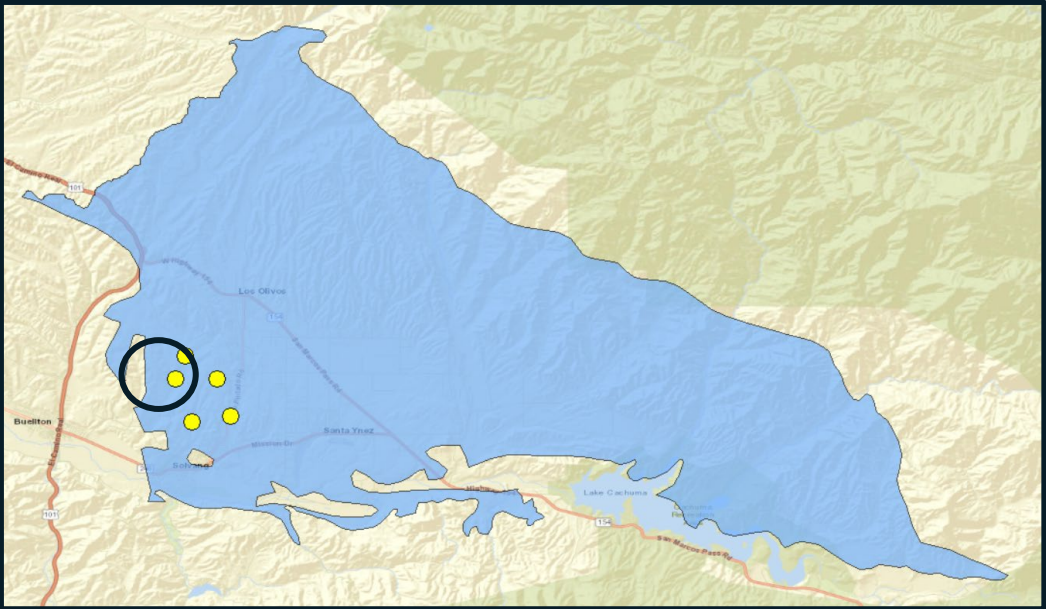
CAREAGA SAND FORMATION WELLS

9 wells, 5 measured by Water Agency


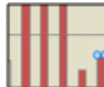

Representative Well ID	Well Use	Well Depth (ft)	Screen Interval(s) (ft bgs)	Ground Elevation (ft NAVD 88)	Reference Point Elevation (ft NAVD 88)	First Date Measured	Last Date Measured	Years
7N/31W-34M02	Agricultural	—	—	671.1	673.1	2014	2021	8
6N/31W-03A01	Domestic	—	—	738.5	740.0	1963	2021	59
6N/31W-04A01	Domestic	259	—	601.1	603.1	1956	2021	66
6N/31W-09Q02	Municipal	550	250 to 540	756.9	754.0	2011	2021	11
6N/31W-10F01	Agricultural	265	—	555.6	556.7	1966	2021	56
6N/31W-11D04	Agricultural	447	93 to ?	565.3	560.6	1955	2021	67
6N/31W-16N07	Municipal	145	99 to 127	479.3	478.2	2011	2021	11
6N/31W-xxxx ¹	Municipal	329	190 to 325	503.2	500.9	2011	2021	11
Solvang HCA ¹	Municipal	490	180 to 470	398.0	402.8	2011	2021	11

6N/31W-4A1 (Careaga)

Well Depth=259

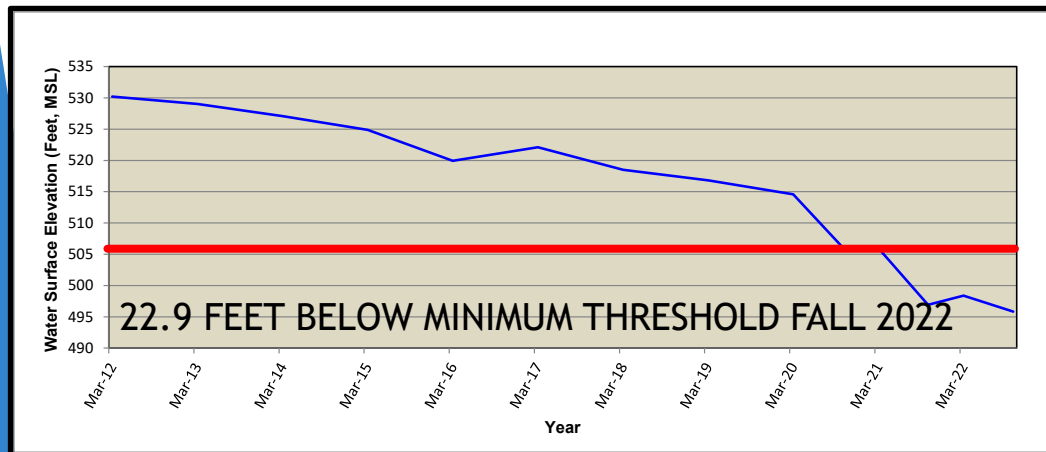
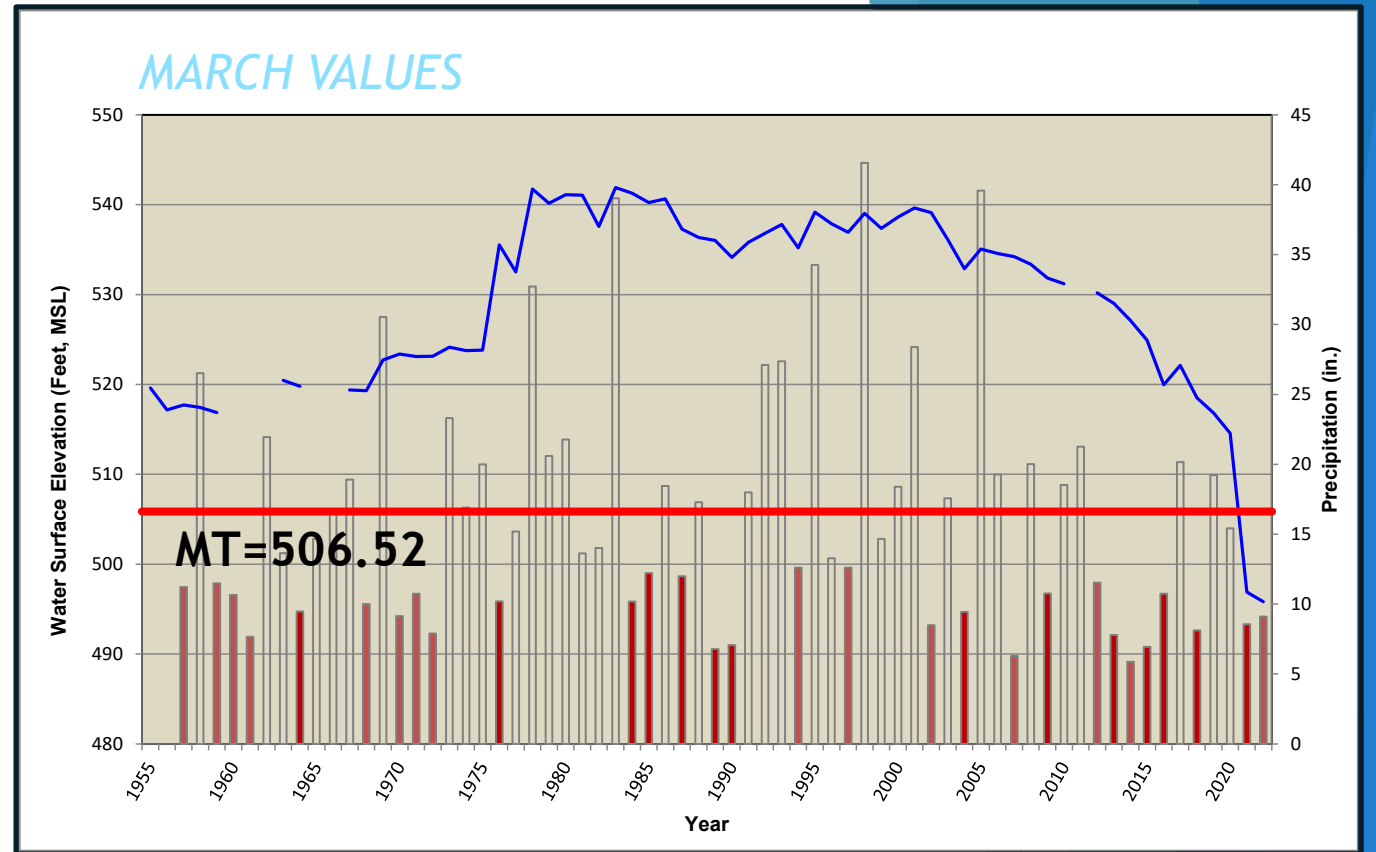
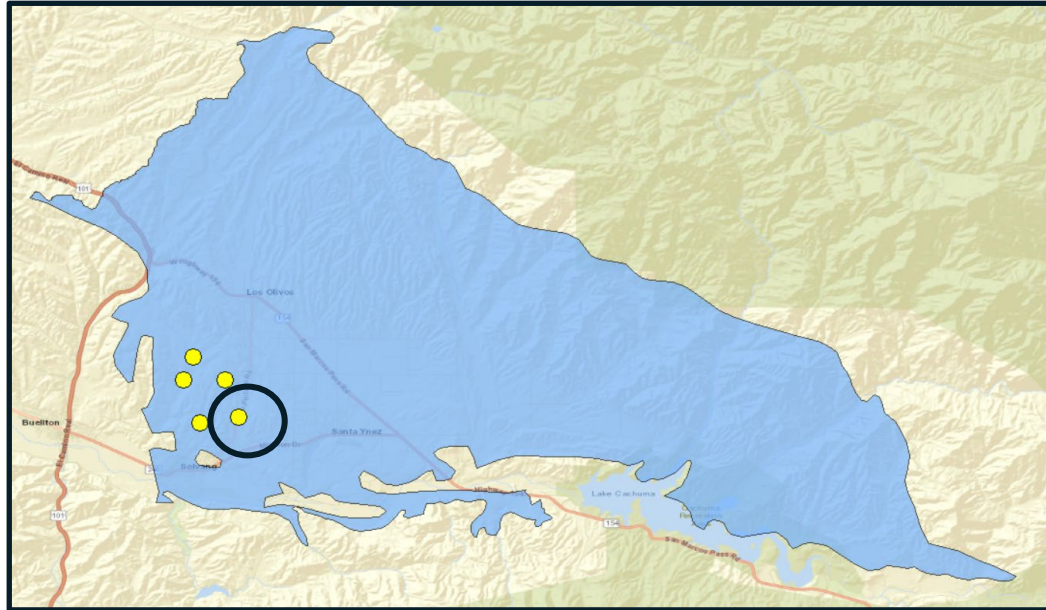


October 2021 to 2022 comparison
-2.27 feet

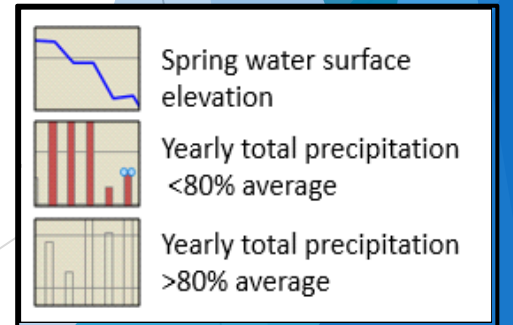
-  Spring water surface elevation
-  Yearly total precipitation <80% average
-  Yearly total precipitation >80% average

6N/31W-11D4 (Careaga)

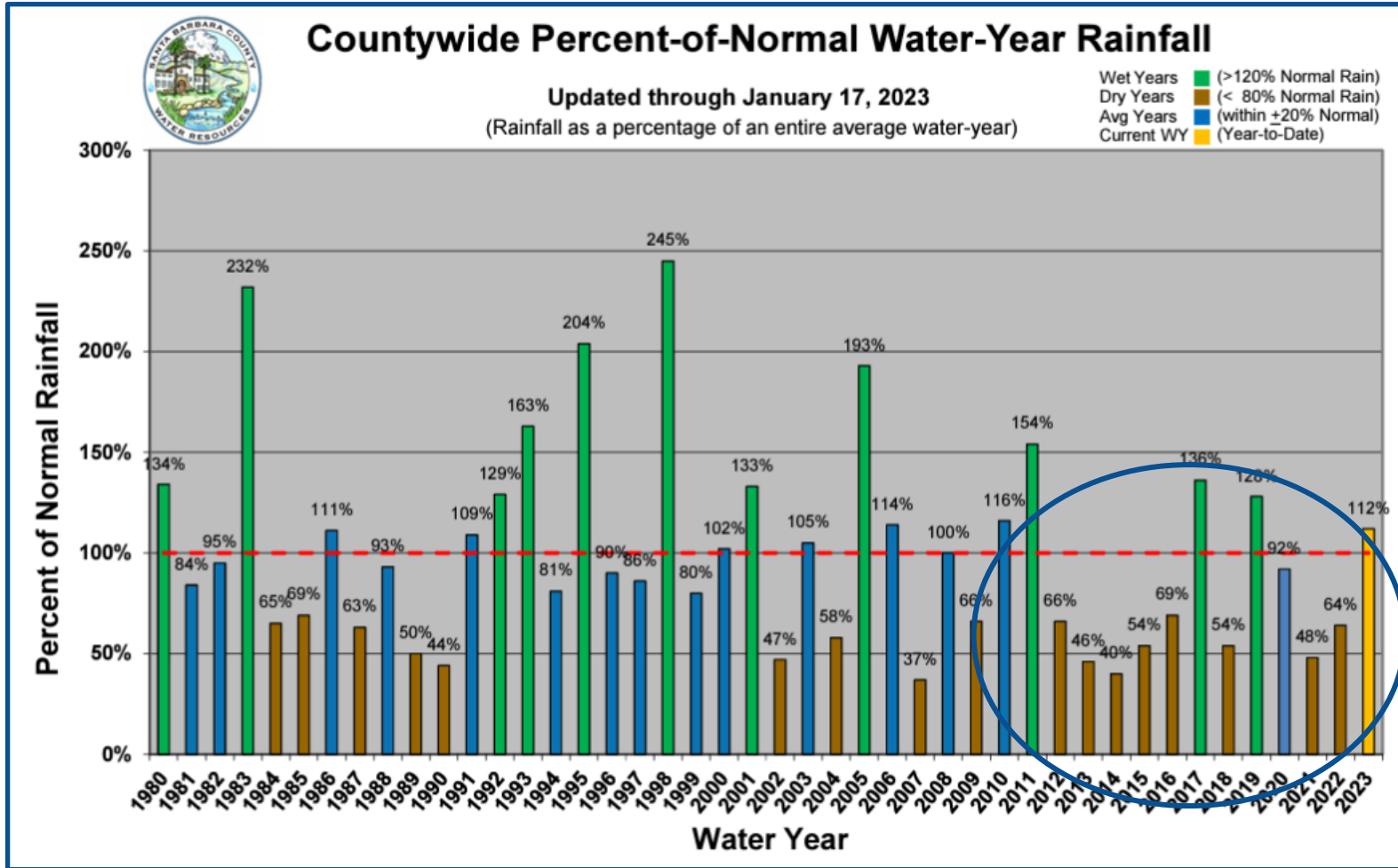
Well Depth=447 feet



October 2021 to 2022 comparison
-1.07 feet

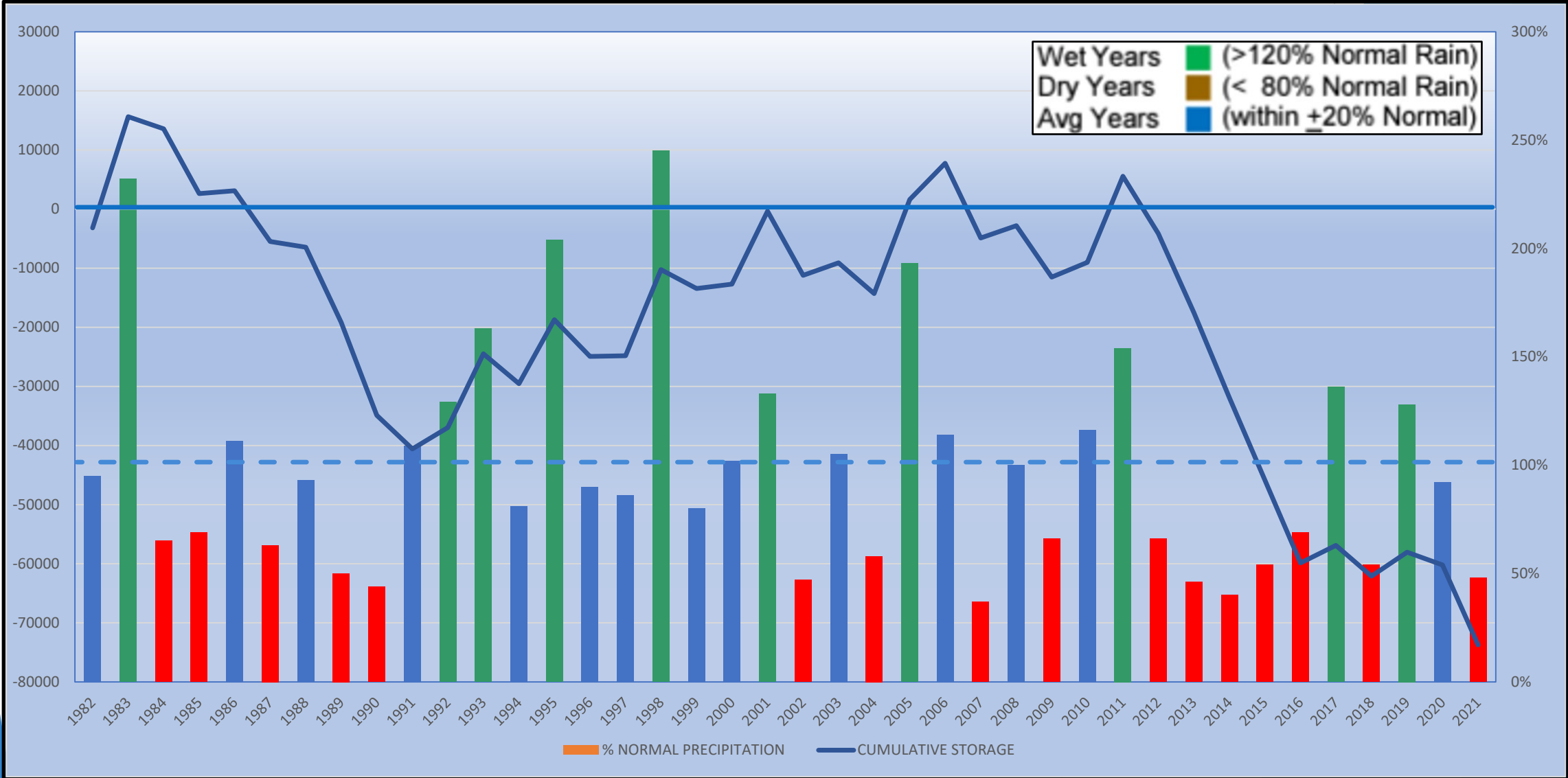


PRECIPITATION TREND

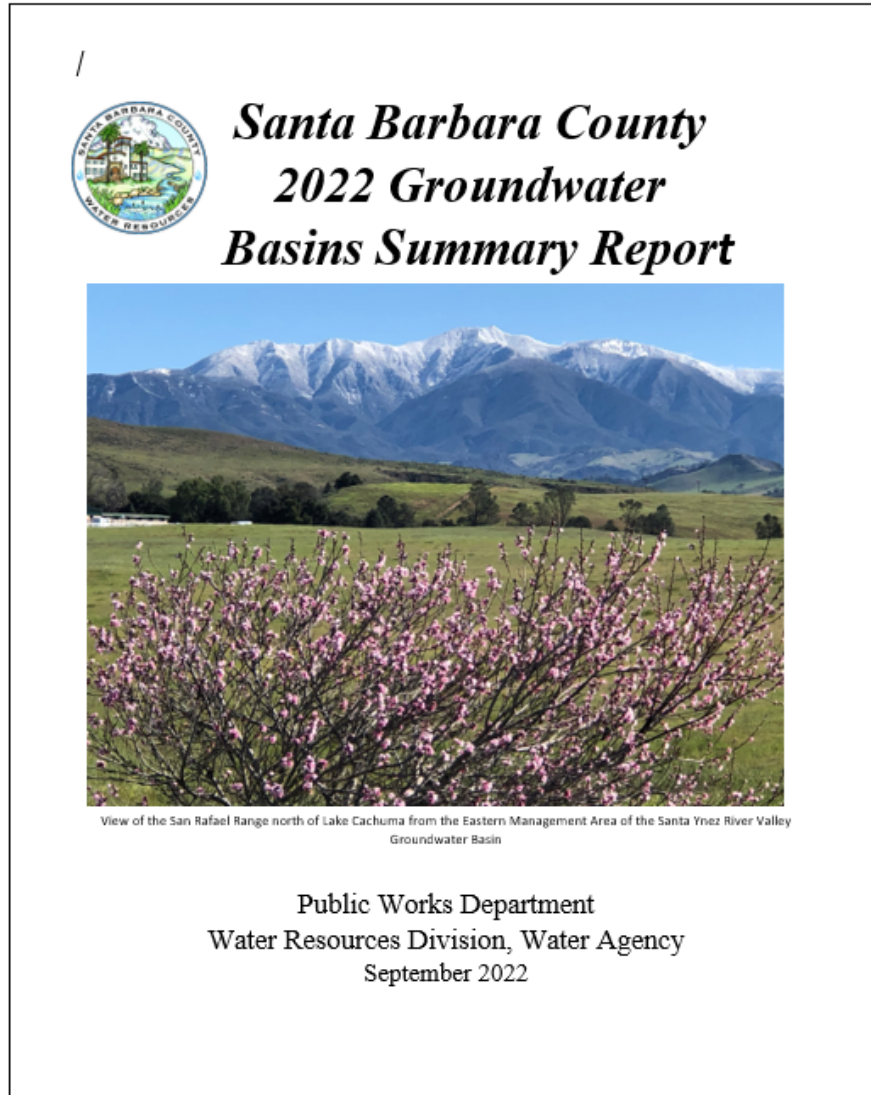


- 2021 Climate Normal Report from NOAA indicates warmer than average temperatures, and a 10% decrease in average annual precipitation in the Southwest.
- 9 of the last 12 years had below average precipitation.
- 5 of the last 12 years were near 50% or less of normal

CUMULATIVE CHANGE IN STORAGE WITH COUNTY % NORMAL PRECIPITATION



AVAILABLE BASIN INFORMATION



GROUNDWATER IN SANTA BARBARA COUNTY

<https://www.countyofsb.org/2523/Groundwater-in-Santa-Barbara-County>

SANTA YNEZ RIVER VALLEY GROUNDWATER

<https://www.countyofsb.org/2543/Santa-Ynez-River-Valley-Groundwater-Basin>

GEOLOGY & GROUNDWATER

<https://www.countyofsb.org/2543/Santa-Ynez-River-Valley-Groundwater-Basin>

QUESTIONS?

