

# Groundwater Condition

## REPORT | SANTA CLARA COUNTY

February 2023

### SUMMARY

This report summarizes January 2023 groundwater storage, recharge, pumping, and level conditions for the Santa Clara Subbasin (the Santa Clara Plain and Coyote Valley groundwater management areas) and the Llagas Subbasin.

Groundwater levels are increasing in most areas due to the recent storms and seasonal recovery, Valley Water's managed recharge, and ongoing water conservation by the community. While groundwater levels in all monitoring wells are higher than last month, many are lower relative to January 2022, indicating that groundwater levels are still impacted by drought. The end of 2023 groundwater storage is estimated to be in low Stage 1 (Normal) of the Water Shortage Contingency Plan. Valley Water continues to plan for dry and rapidly evolving conditions.

- January managed recharge is 69% to 144% of the five-year average.
- December pumping is 95% to 105% of the five-year average.
- Groundwater levels in index wells for January 2023 range from 13 feet higher to 3 feet lower than the January levels of 2022.

**Table 1. Summary of Current Groundwater Conditions**

	Santa Clara Subbasin		Llagas Subbasin
	Santa Clara Plain	Coyote Valley	
January 2023 managed recharge estimate	6,200	900	1,000
January 2023 managed recharge as % of five-year average	144%	78%	69%
December 2022 pumping estimate	4,200	1,100	2,500
January to December 2022 pumping estimate	68,300	12,100	41,000
January to December 2022 pumping as % of five-year average	97%	105%	95%
Current index well groundwater levels compared to January of 2022	13 feet higher	3 feet lower	2 feet lower

All volumes are in acre-feet.

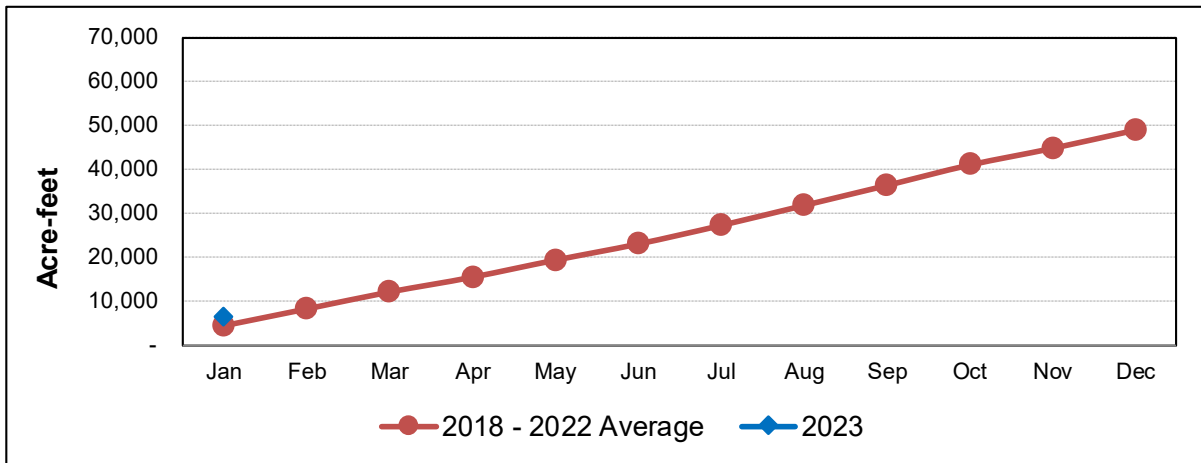
**Contact Us** For questions, contact  
**Scott Elkins at (408) 630-2885**



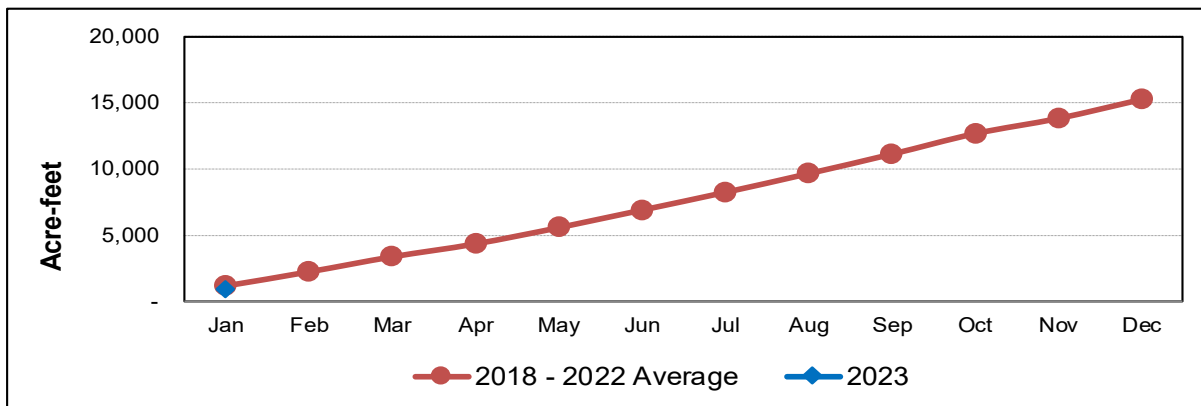
## Groundwater Recharge

- Figures 1, 2, and 3 show the cumulative managed recharge for 2023 compared to the average of the previous five years (2018 – 2022).
- Compared to the average of the previous five years, managed recharge for January 2023 was higher in the Santa Clara Plain and lower in Coyote Valley and the Llagas Subbasin.
- Managed recharge depends on many factors, including water demand and availability, regulatory needs, groundwater storage, and facility maintenance.

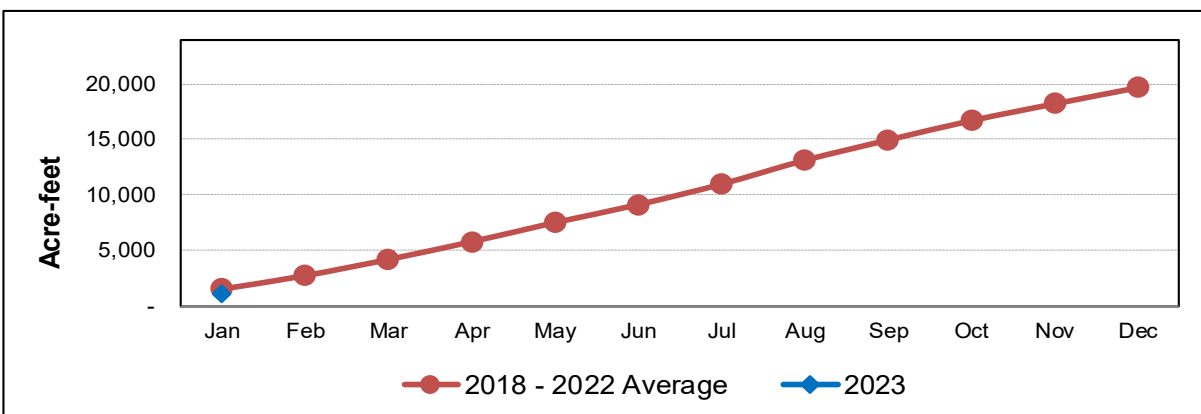
**Figure 1. Estimated Cumulative Managed Recharge in the Santa Clara Plain**



**Figure 2. Estimated Cumulative Managed Recharge in the Coyote Valley**



**Figure 3. Estimated Cumulative Managed Recharge in the Llagas Subbasin**

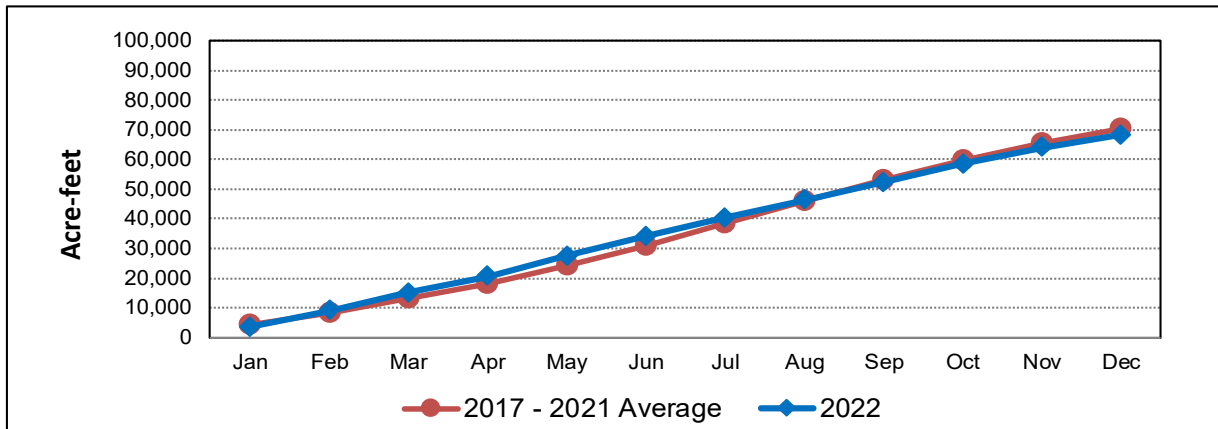


## February 2023 Groundwater Condition Report

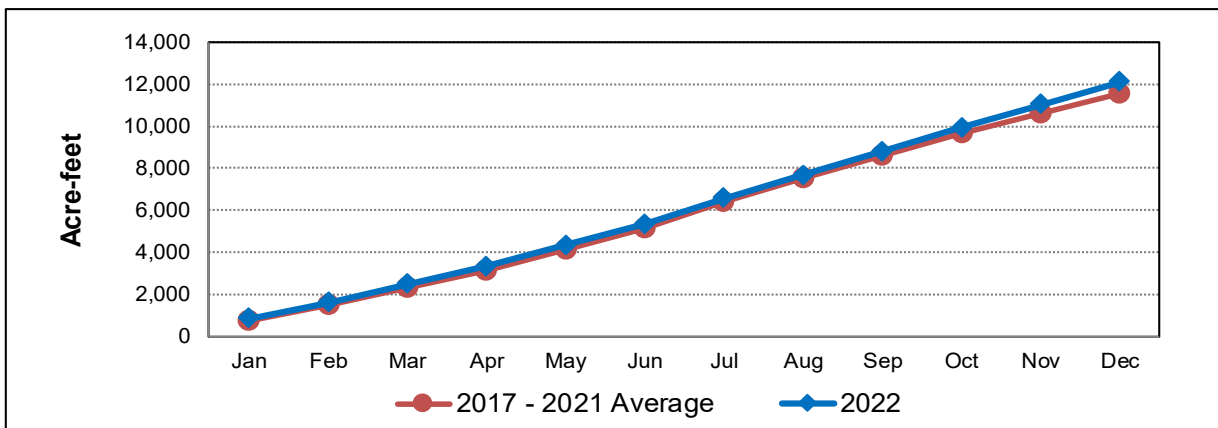
### Groundwater Pumping

- Figures 4, 5, and 6 show the cumulative groundwater pumping for 2022 compared to the average of the previous five years (2017 – 2021).
- Pumping estimates for December 2022 include monthly pumping data reported by water retailers and non-monthly pumping, primarily from domestic and agricultural uses.
- Compared to the average of the previous five years, pumping for December 2022 was higher in Coyote Valley and lower in the Santa Clara Plain and Llagas Subbasins.

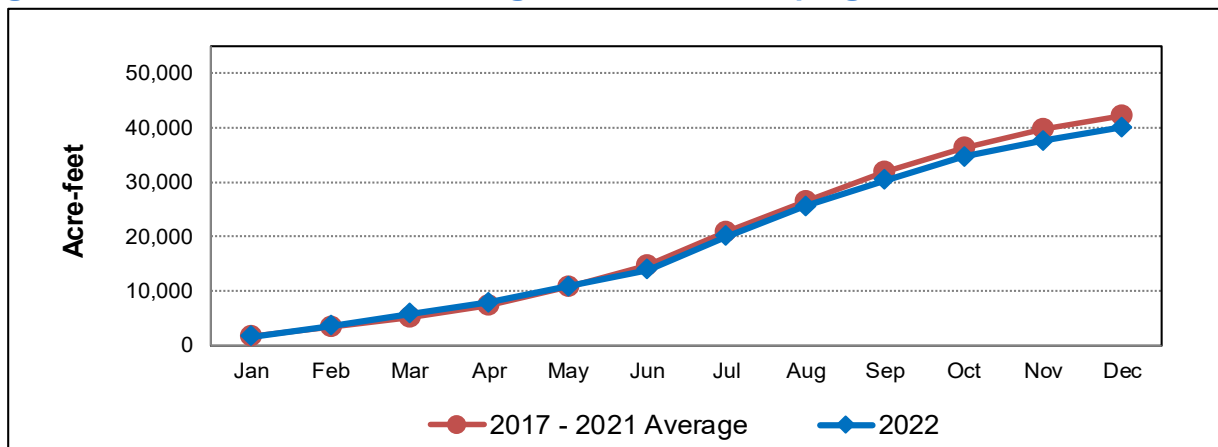
**Figure 4. Estimated Cumulative Santa Clara Plain Pumping**



**Figure 5. Estimated Cumulative Coyote Valley Pumping**



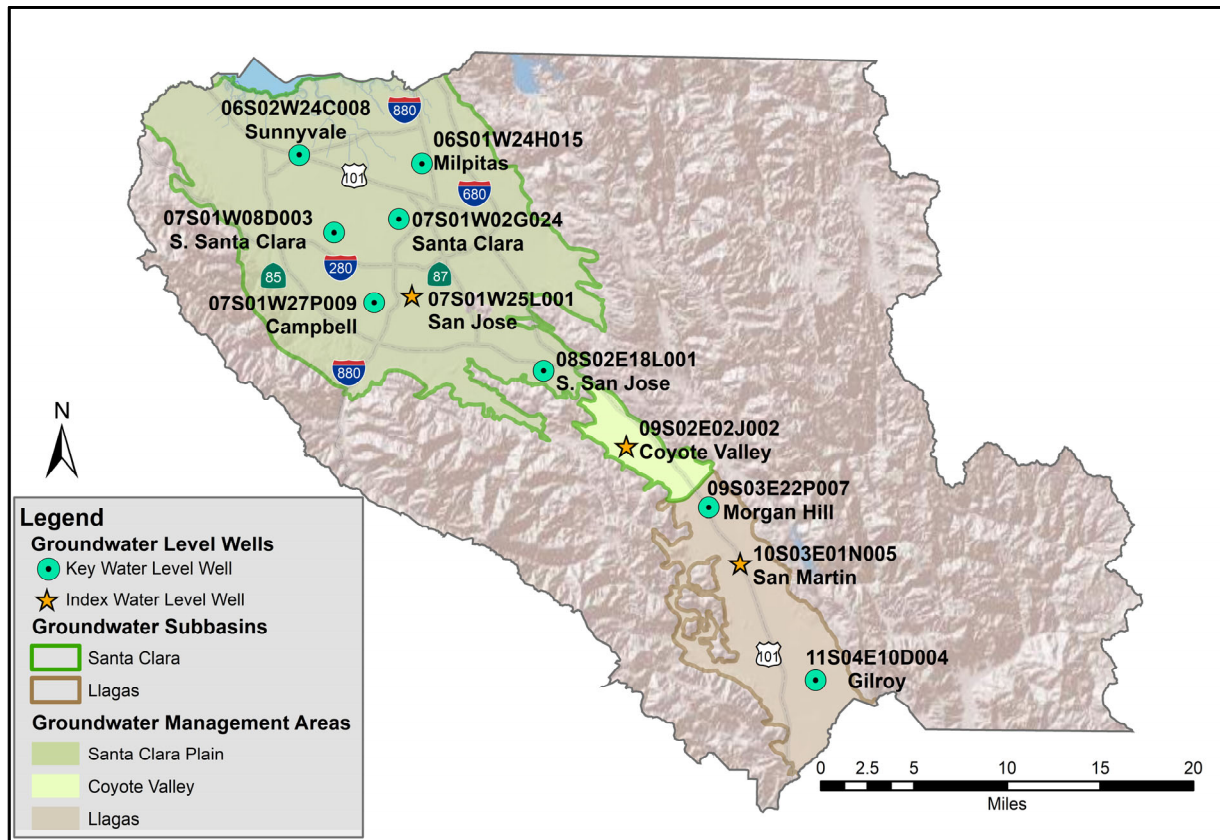
**Figure 6. Estimated Cumulative Llagas Subbasin Pumping**



## Groundwater Levels

Groundwater levels in all regional monitoring wells throughout the county have increased since last month, however many water levels remain lower than this time last year. Most wells are lower than the average of January for the previous five years. All monitoring wells remain higher than the lowest levels observed during the previous drought. Table 2 summarizes current groundwater levels with historical comparisons for eleven regional monitoring wells that are distributed across the three management areas, as shown in Figure 7.

**Figure 7. Locations of Regional Water Level Monitoring Wells**



This section intentionally left blank

## February 2023 Groundwater Condition Report

**Table 2. Comparisons to January 2023 Depth to Water (DTW) in Regional Wells**

Location	State Well ID	January 2023 DTW (feet)	Difference in January 2023 DTW (feet) Compared to:			
			December 2022	January 2022	Prior 5-year Average for January	Maximum DTW during 2012–2016 drought
Milpitas	06S01W24H015	-20 (artesian)	5	9	-4	41
Sunnyvale	06S02W24C008	-26 (artesian)	1	-2	-10	5
San Jose	07S01W25L001	81	6	13	6	57
Santa Clara	07S01W02G024	3	13	15	8	88
S. Santa Clara	07S01W08D003	71	9	7	-6	74
Campbell	07S01W27P009	108	13	18	14	90
S. San Jose	08S02E18L001	37	4	-6	-16	33
Coyote Valley	09S02E02J002	20	7	-3	-3	17
Morgan Hill	09S03E22P007	69	15	-13	-16	26
San Martin	10S03E01N005	52	18	-2	-13	28
Gilroy	11S04E10D004	16	12	3	-1	47

**Notes:** Depth to water is measured to the hundredth of a foot but data shown here are rounded to the nearest foot. Negative values in the last 4 columns indicate current groundwater levels are lower than the comparison time. The maximum DTW during the 2012–2016 drought occurred between July 2014 and December 2015, depending on the well. Well 09S03E22P005 was replaced with well 09S03E22P007; water level data from well 09S03E22P005 were used for historical comparison calculations.

Figures 8 through 18 show ten-year hydrographs for each of the eleven regional monitoring wells.

**Figure 8. Milpitas Well Hydrograph**

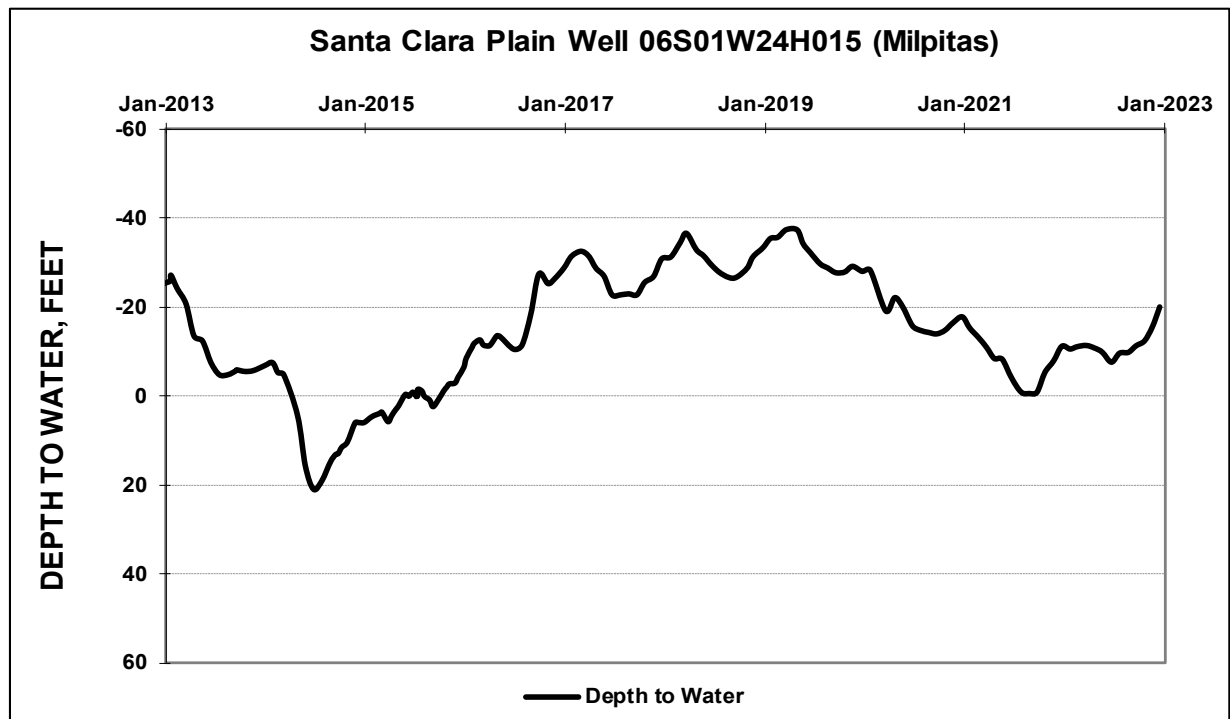


Figure 9. Sunnyvale Well Hydrograph

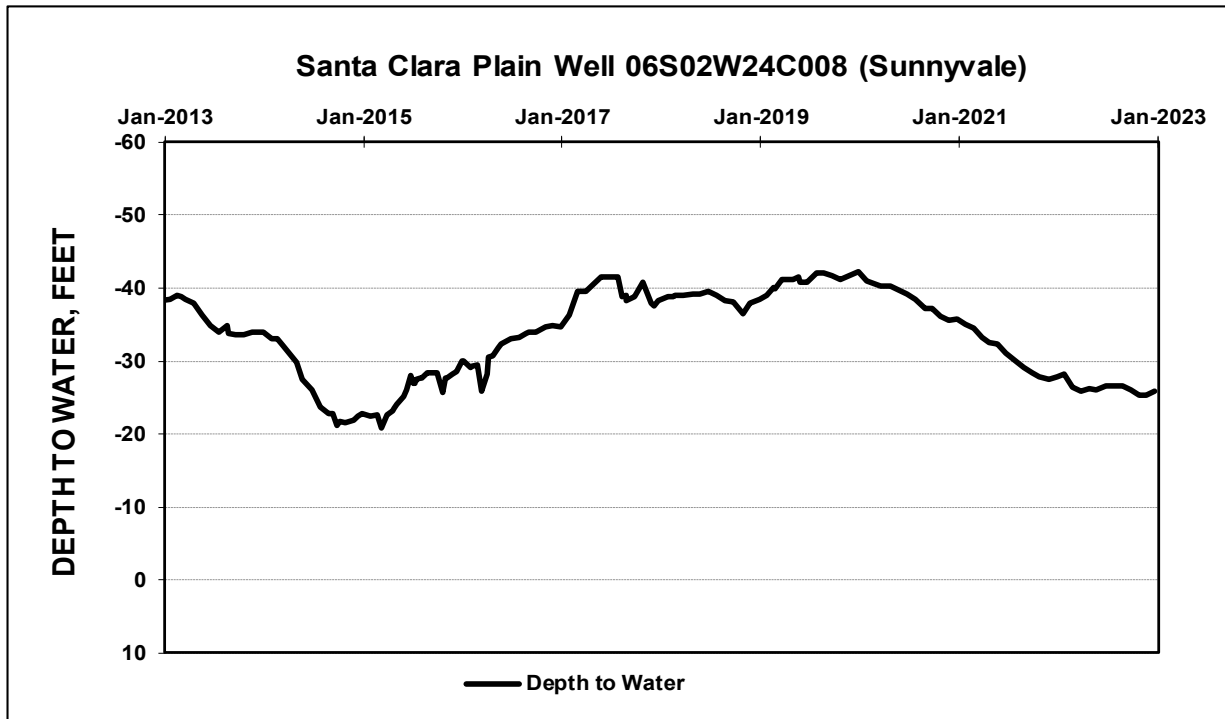


Figure 10. San Jose Well Hydrograph (Index Well for the Santa Clara Plain)

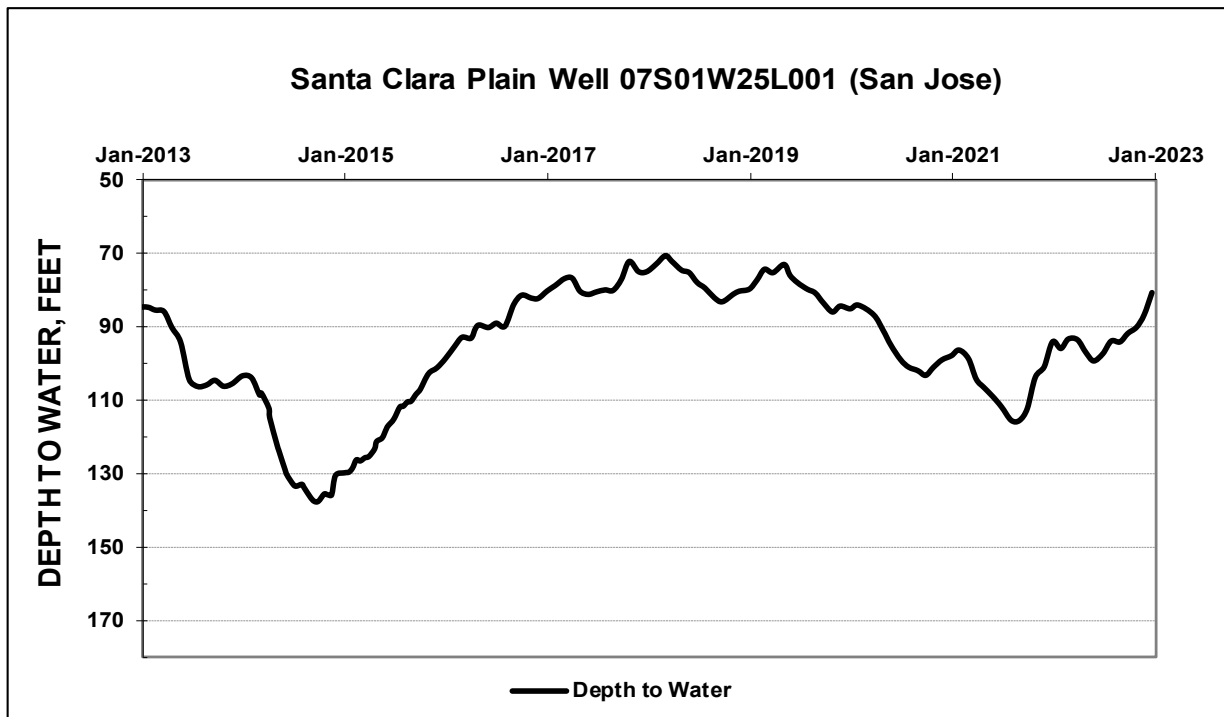


Figure 11. Santa Clara Well Hydrograph

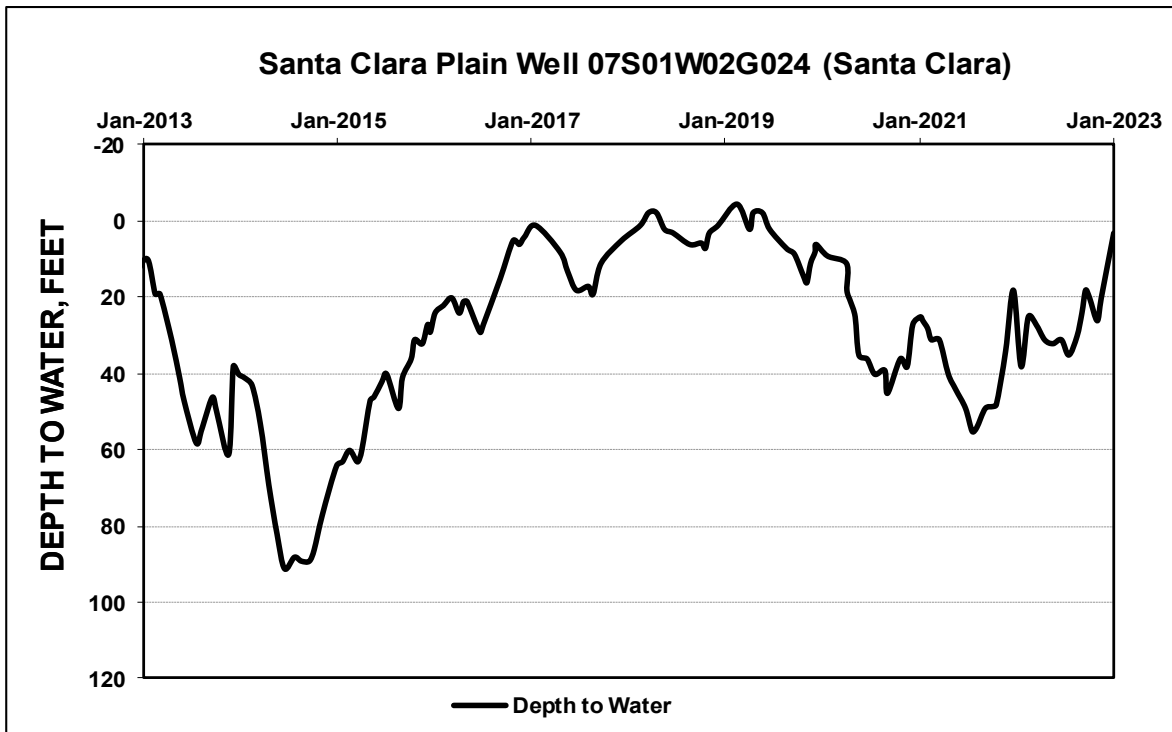
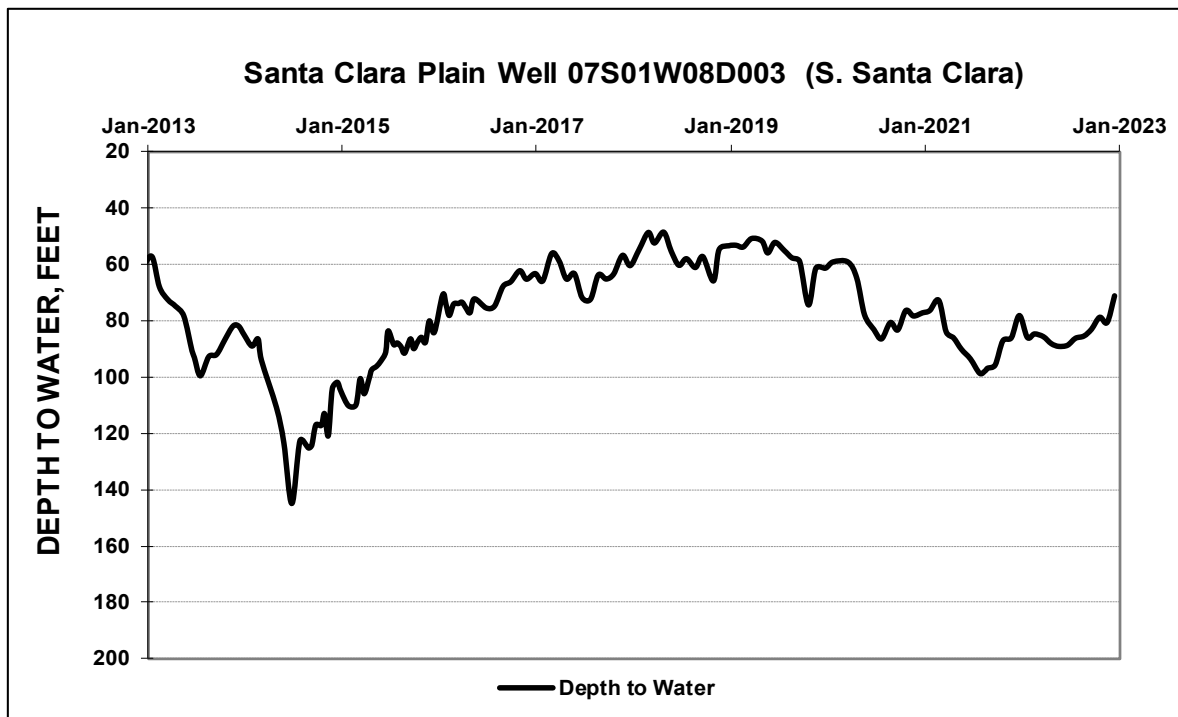
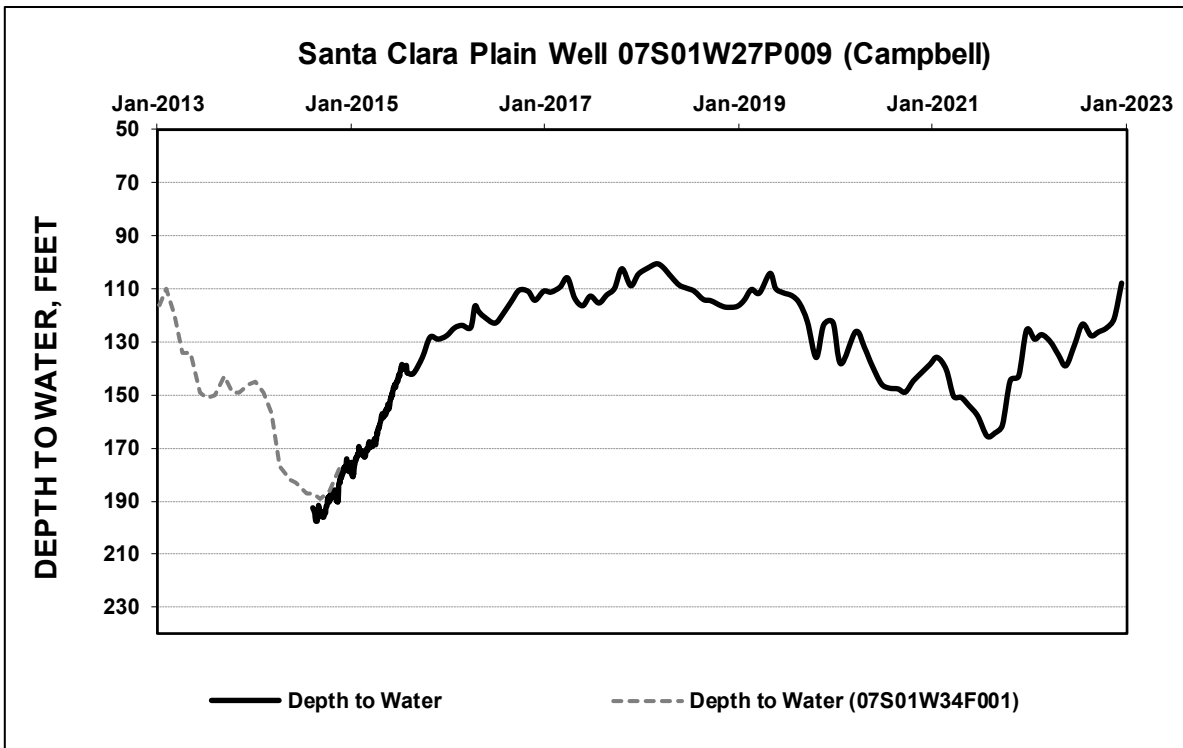


Figure 12. South Santa Clara Well Hydrograph



**Figure 13. Campbell Well Hydrograph**



The Campbell index well was replaced in August 2015 with a nearby well with similar water levels. Data in the chart prior to September 2014 is from the former index well (07S01W34F001).

**Figure 14. South San Jose Well Hydrograph**

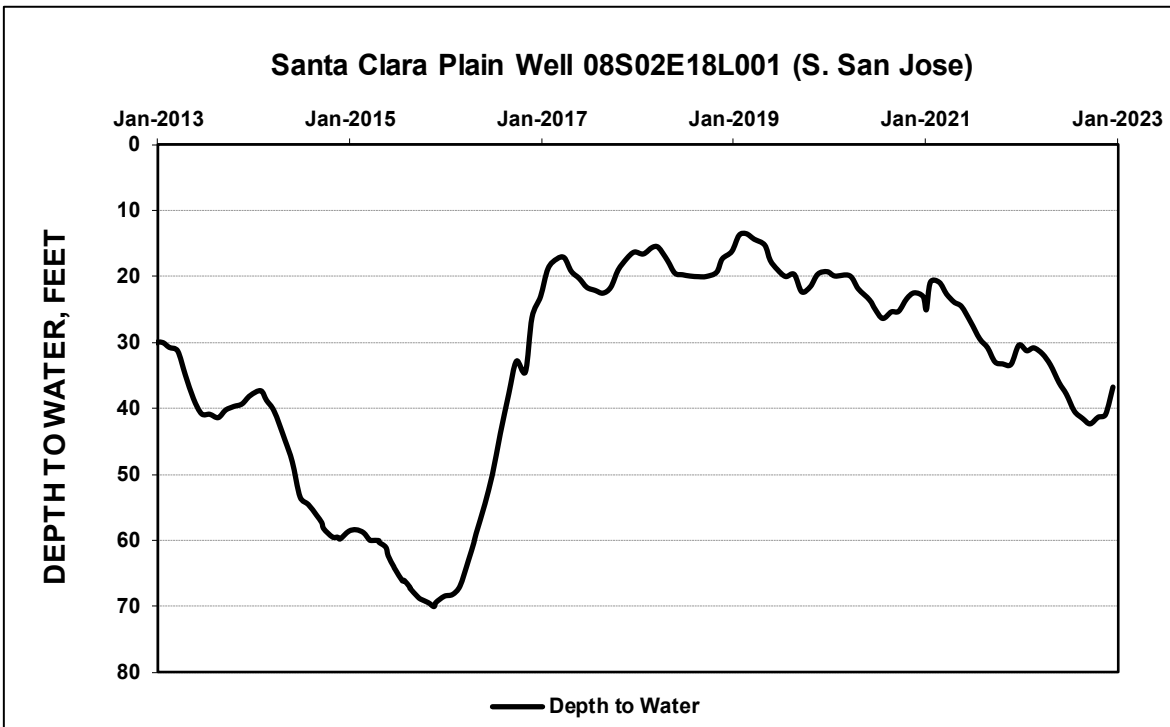




Figure 15. Coyote Valley Well Hydrograph (Index Well for the Coyote Valley)

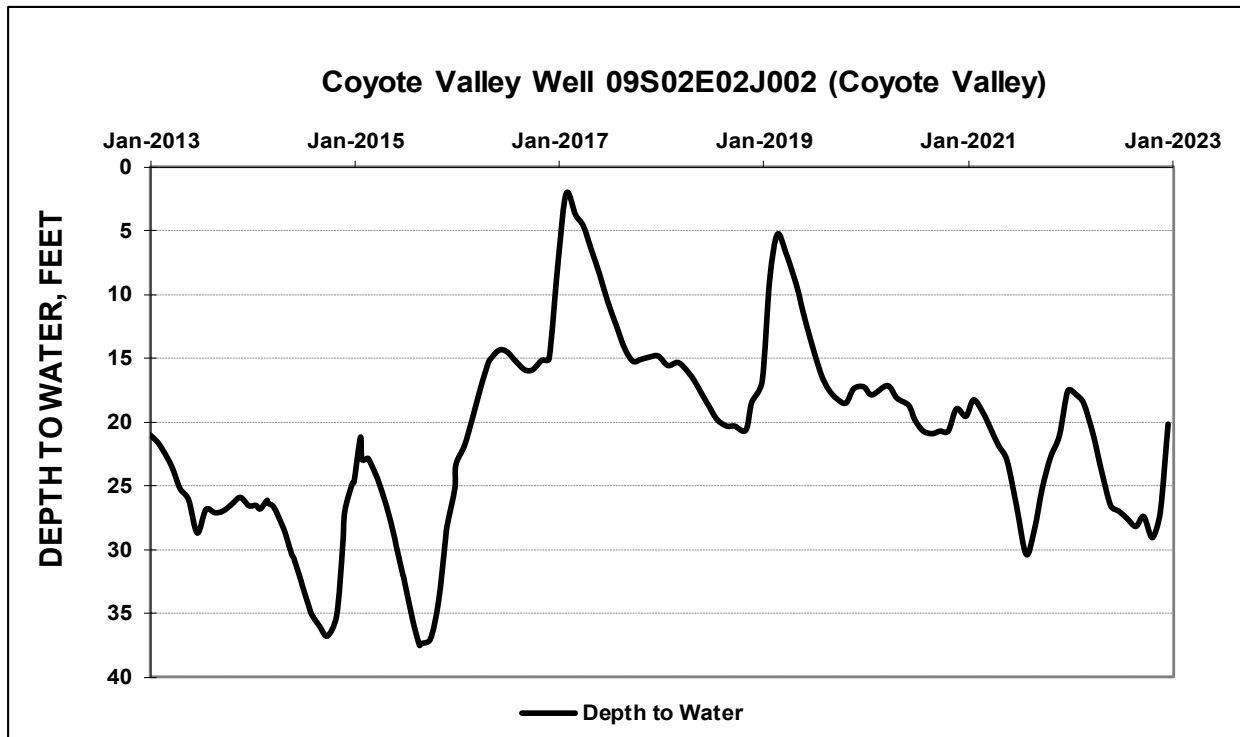
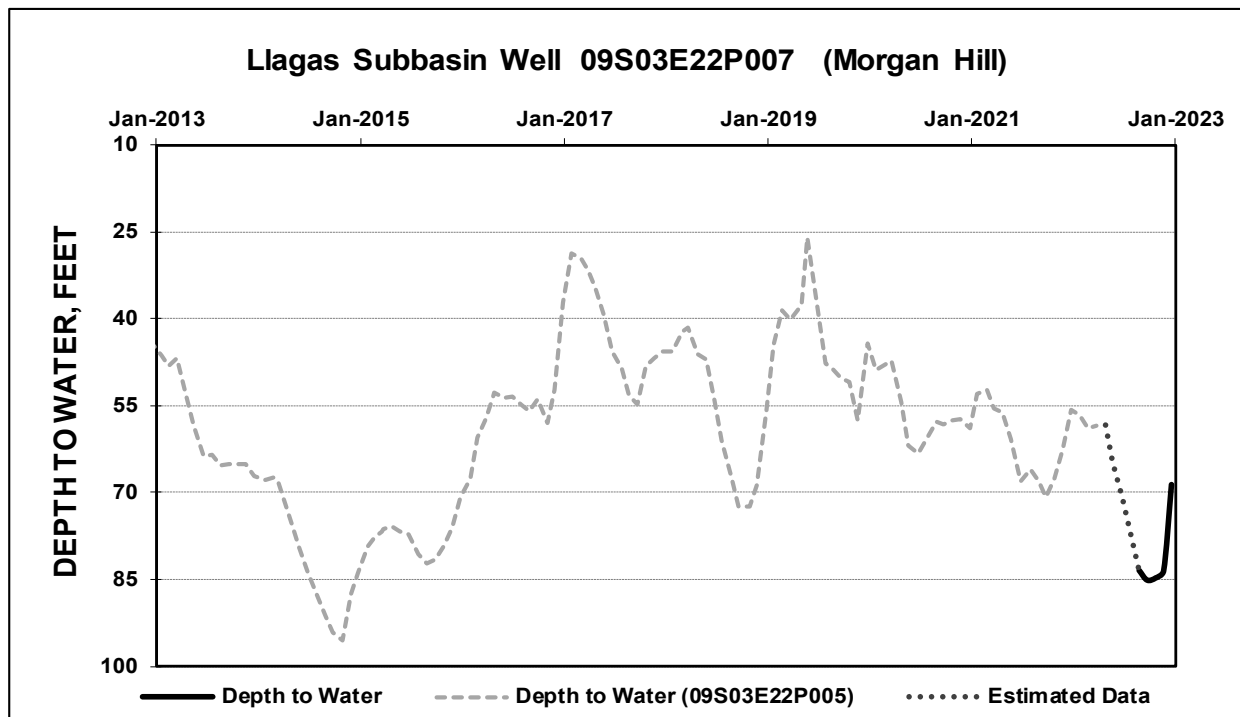


Figure 16. Morgan Hill Well Hydrograph



The Morgan Hill well 09S03E22P005 is no longer accessible and was replaced by well 09S03E22P007 in September 2022. Water levels from May 2022 to September 2022, represented by the dotted line, are estimated.

Figure 17. San Martin Well Hydrograph (Index Well for the Llagas Subbasin)

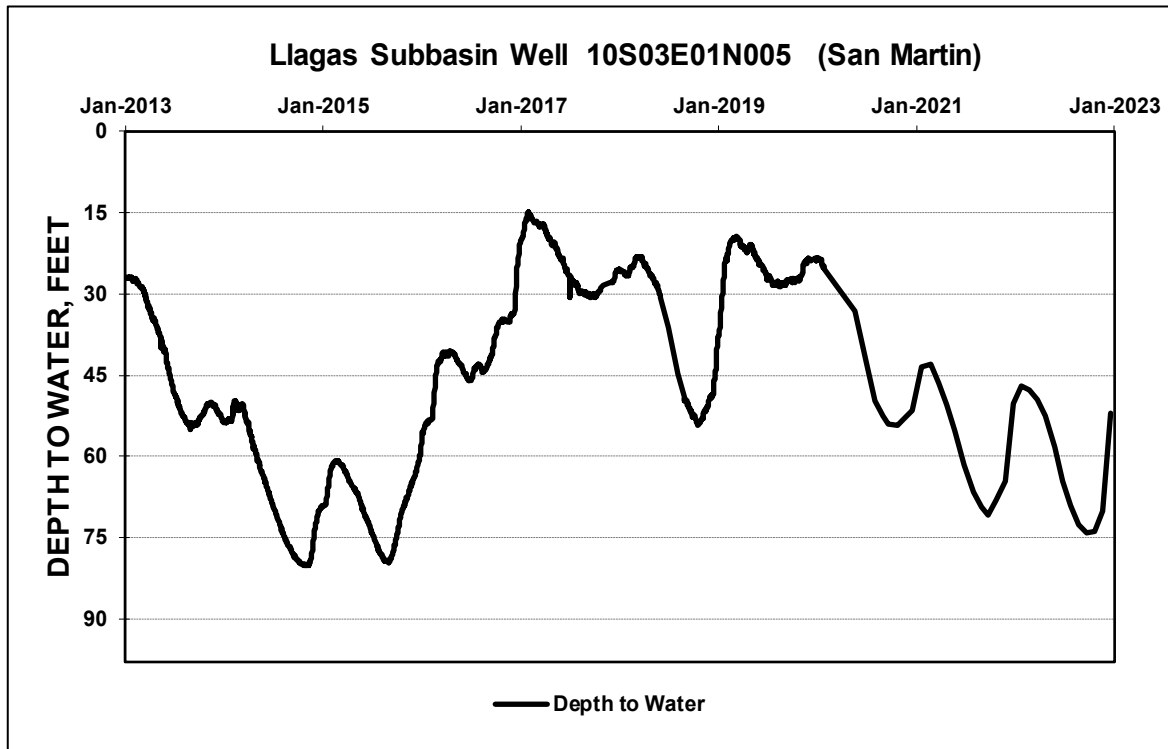


Figure 18. Gilroy Well Hydrograph

