

# Groundwater Condition

## REPORT | SANTA CLARA COUNTY

December 2022

### SUMMARY

This report summarizes November 2022 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 have stabilized in much of the county and continue to increase in many areas due to Valley Water's managed recharge operations and ongoing water conservation by the community. Groundwater levels in many monitoring wells are currently higher than last month and November 2021. The end of 2022 groundwater storage is projected to be in low Stage 1 (Normal) of the Water Shortage Contingency Plan.

- November managed recharge is 71% to 111% of the five-year average.
- October pumping is 98% to 111% of the five-year average.
- Groundwater levels in index wells for November 2022 range from 14 feet higher to 6 feet lower than the November levels of 2021.

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

	Santa Clara Subbasin		Llagas Subbasin
	Santa Clara Plain	Coyote Valley	
November 2022 managed recharge estimate	3,400	700	1,100
YTD managed recharge estimate	51,800	10,500	18,400
YTD managed recharge as % of five-year average	111%	71%	103%
October 2022 pumping estimate	6,300	1,200	4,700
YTD pumping estimate through October 2022	58,500	10,800	36,900
YTD pumping as % of five-year average	98%	111%	101%
Current index well groundwater levels compared to November of 2021	14 feet higher	6 feet lower	6 feet lower

All volumes are in acre-feet. YTD = Year-to-date.

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

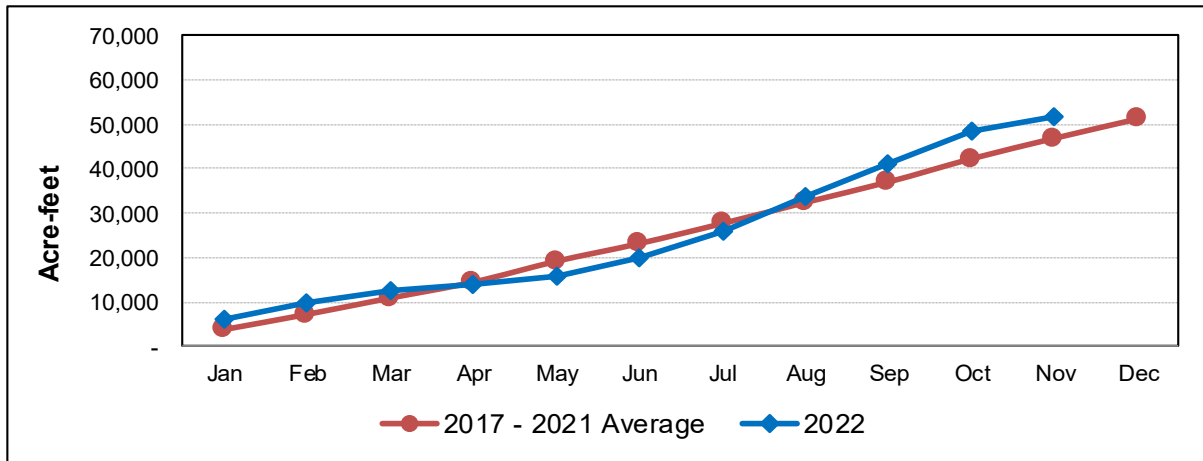


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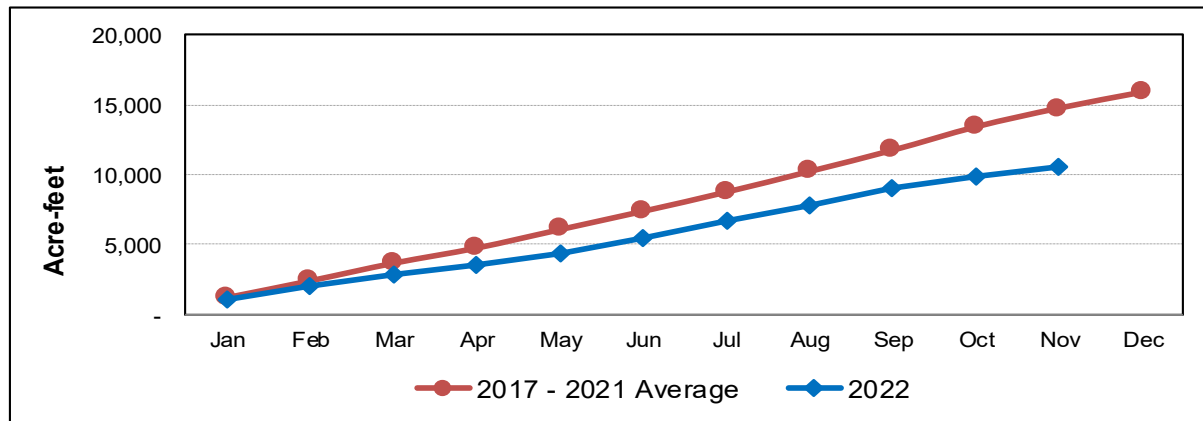
### Groundwater Recharge

- Figures 1, 2, and 3 show the cumulative managed recharge for 2022 compared to the average of the previous five years (2017 – 2021).
- Compared to the average of the previous five years, managed recharge for November 2022 was higher in the Santa Clara Plain, lower in Coyote Valley, and slightly higher in the Llagas Subbasin.
- Managed recharge depends on many factors, including water demand and availability, regulatory needs, groundwater storage, and facility maintenance.

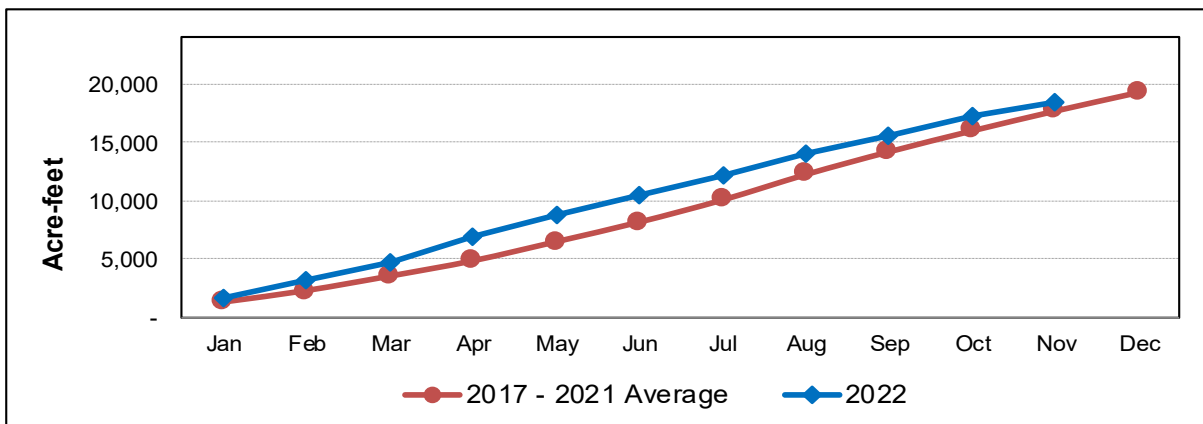
**Figure 1. Estimated Cumulative Managed Recharge in the Santa Clara Plain**



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



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

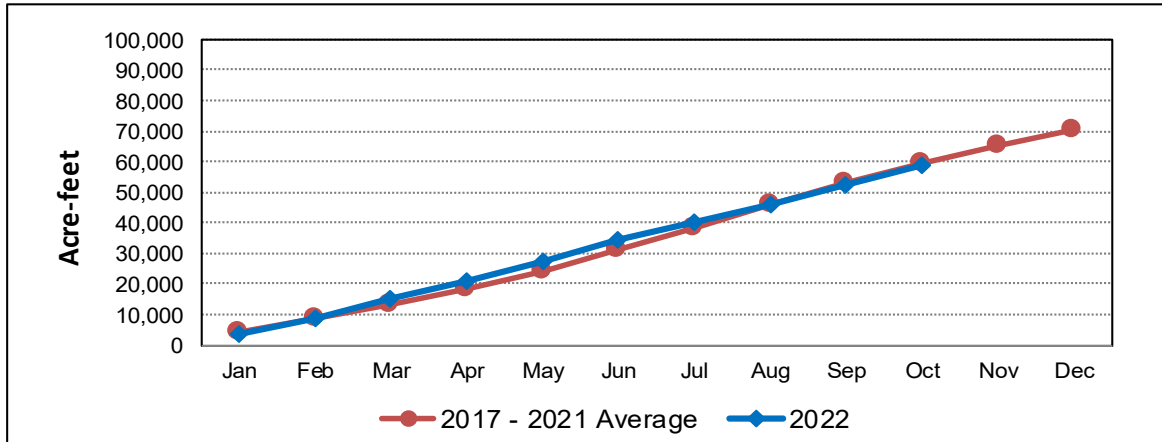


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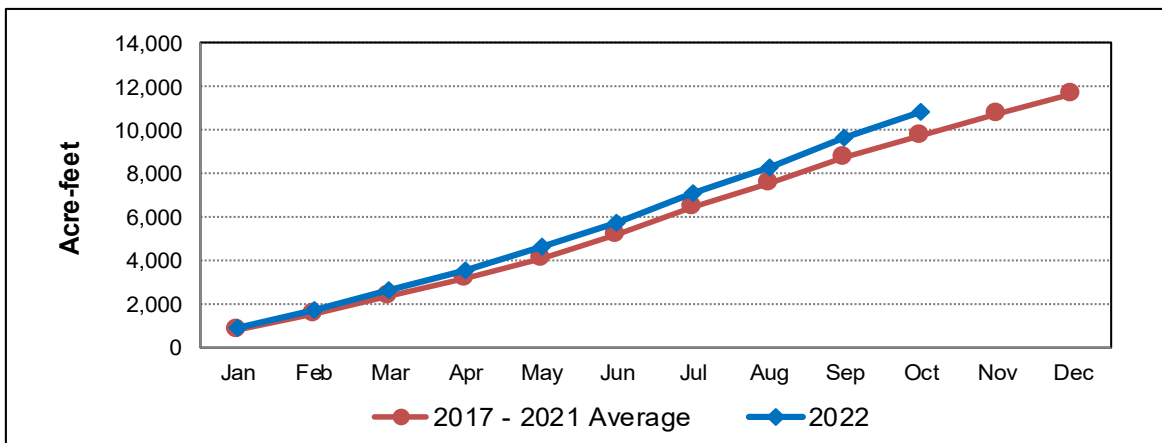
### Groundwater Pumping

- 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 October 2022 are based on monthly pumping data reported by water retailers. October is the most recent available pumping data.
- Compared to the average of the previous five years, pumping for October 2022 was slightly lower in the Santa Clara Plain, higher in Coyote Valley, and slightly higher in the Llagas Subbasin.

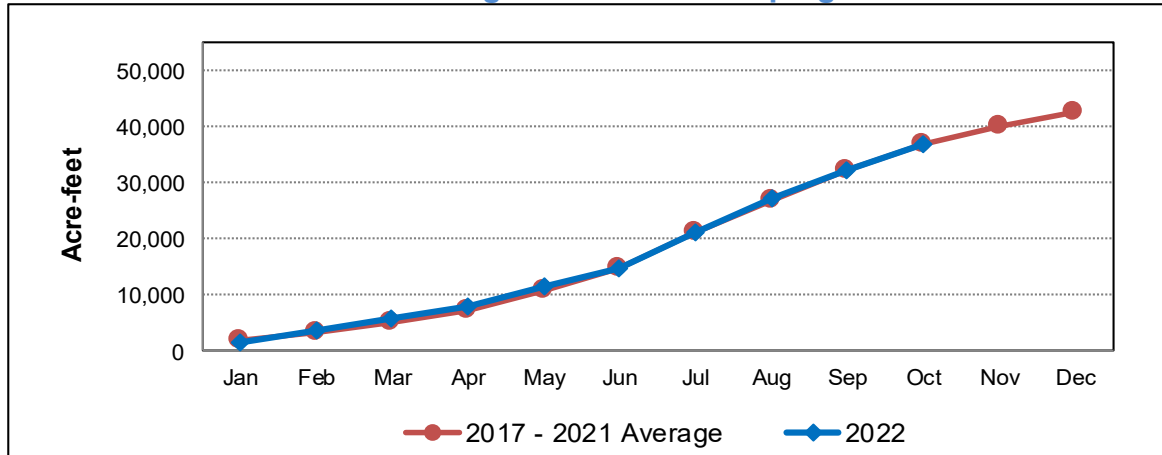
**Figure 4. Estimated Cumulative Santa Clara Plain Pumping**



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



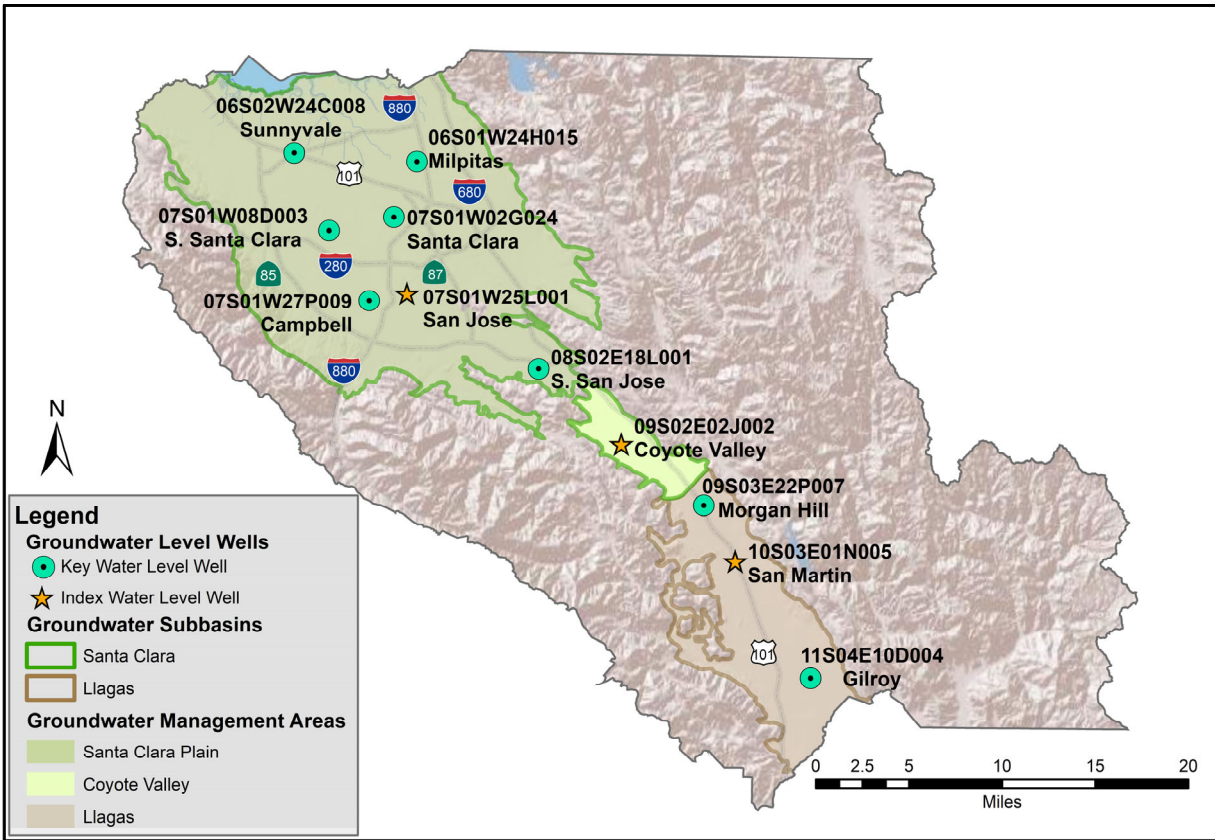
**Figure 6. Estimated Cumulative Llagas Subbasin Pumping**



## Groundwater Levels

Groundwater levels in regional monitoring wells throughout the county have stabilized and most have increased since last month. However, over half of water levels are lower than this time last year and all except two are lower than the average of November 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**



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**Table 2. Comparisons to November 2022 Depth to Water (DTW) in Regional Wells**

Location	State Well ID	November 2022 DTW (feet)	Difference in November 2022 DTW (feet) Compared to:			
			October 2022	November 2021	Prior 5-year Average for November	Maximum DTW during 2012–2016 drought
Milpitas	06S01W24H015	-13 (artesian)	1	7	-8	33
Sunnyvale	06S02W24C008	-25 (artesian)	-1	-3	-11	5
San Jose	07S01W25L001	90	2	14	-1	47
Santa Clara	07S01W02G024	20	1	28	3	71
S. Santa Clara	07S01W08D003	79	4	8	-6	66
Campbell	07S01W27P009	125	2	20	4	73
S. San Jose	08S02E18L001	41	1	-8	-18	29
Coyote Valley	09S02E02J002	29	-2	-6	-10	8
Morgan Hill	09S03E22P007	85	0	-17	-25	10
San Martin	10S03E01N005	74	0	-6	-27	6
Gilroy	11S04E10D004	37	10	-5	-14	26

**Notes:** 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**

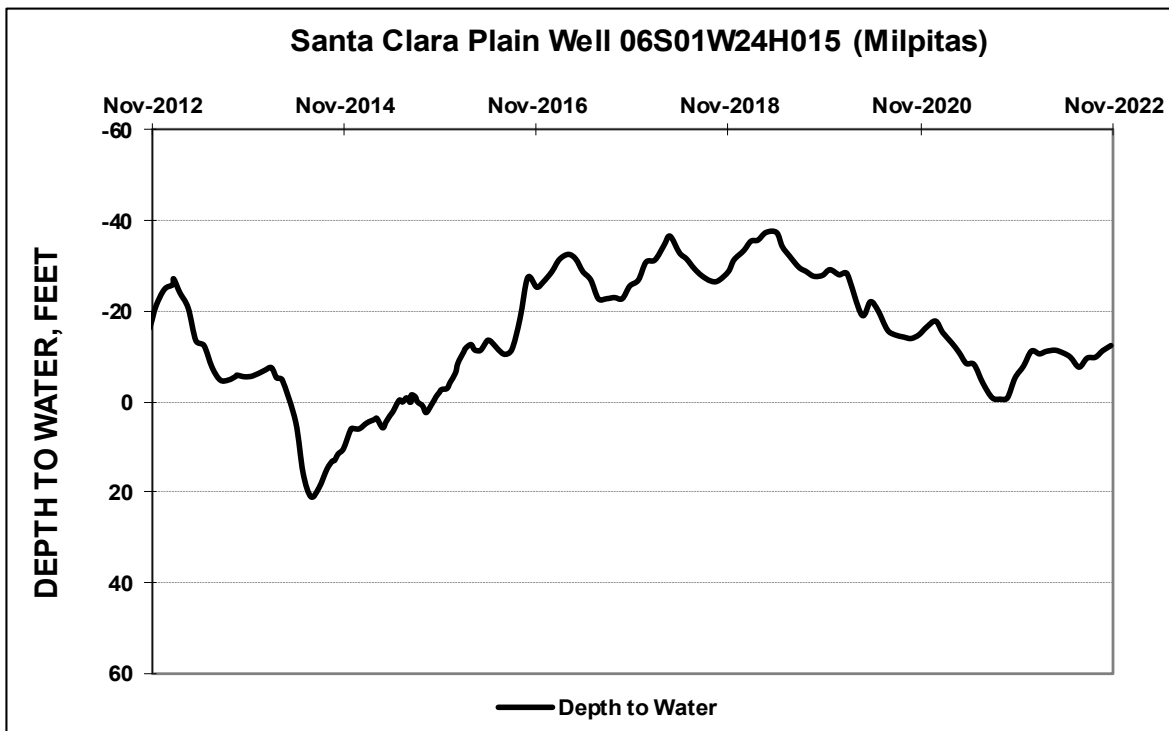


Figure 9. Sunnyvale Well Hydrograph

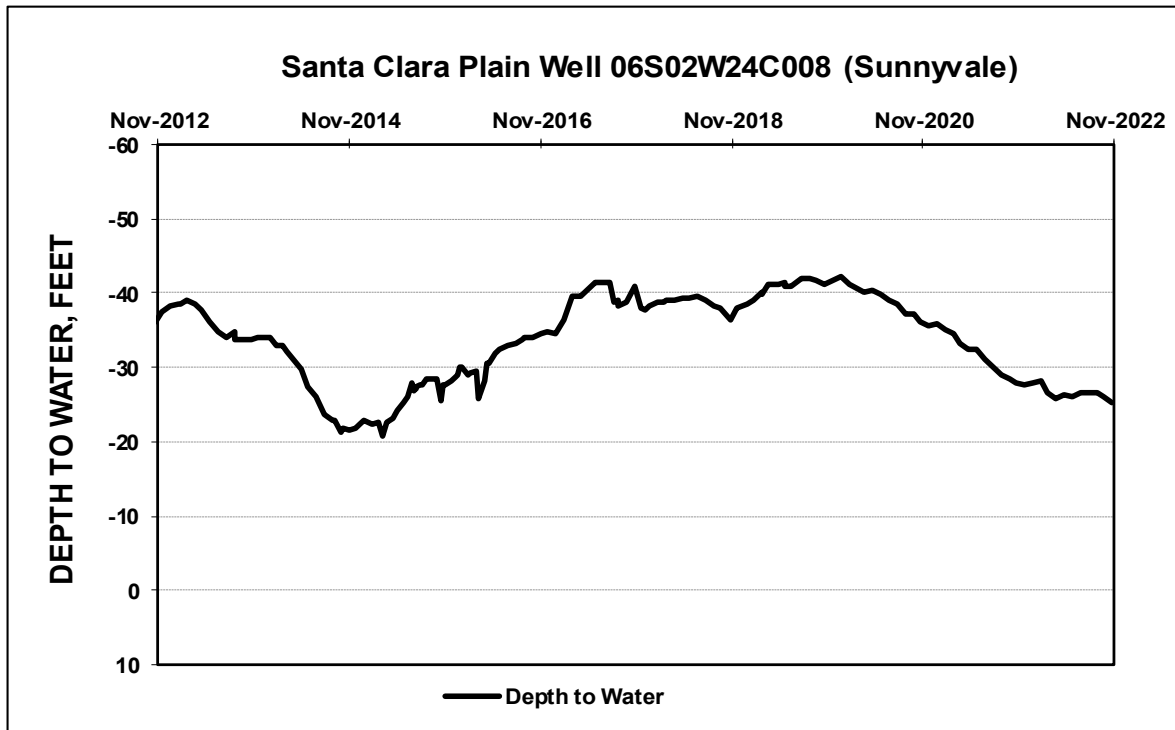


Figure 10. San Jose Well Hydrograph (Index Well for the Santa Clara Plain)

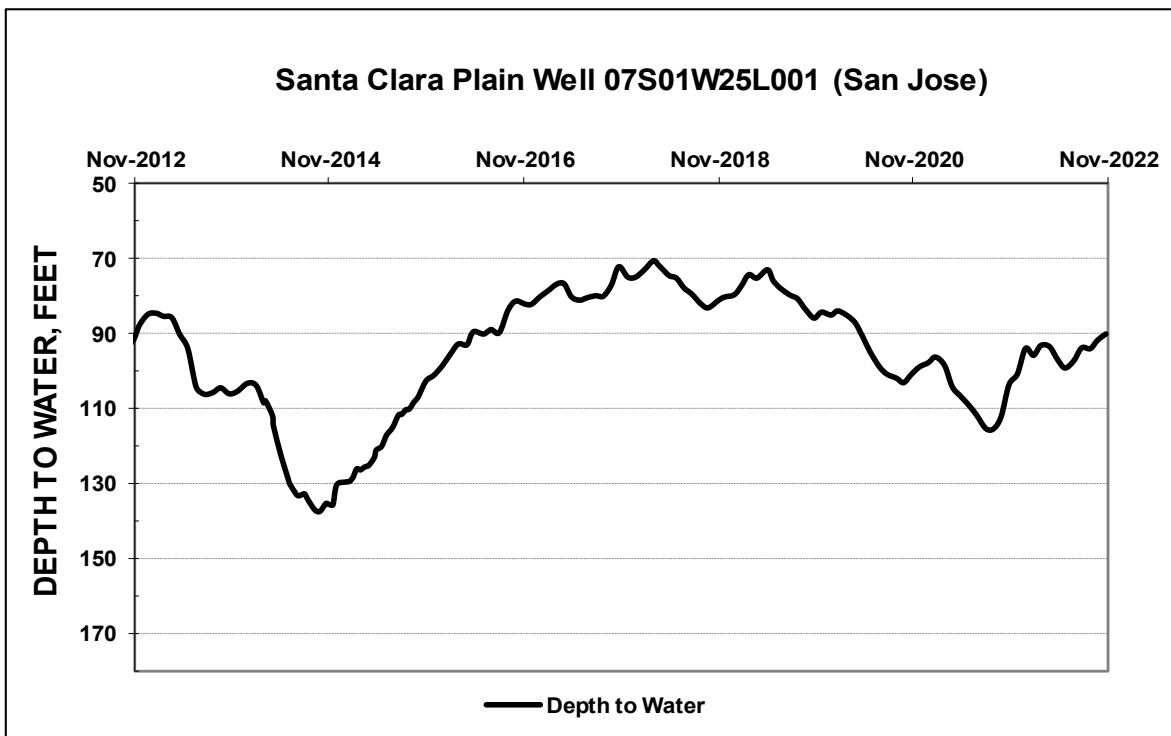


Figure 11. Santa Clara Well Hydrograph

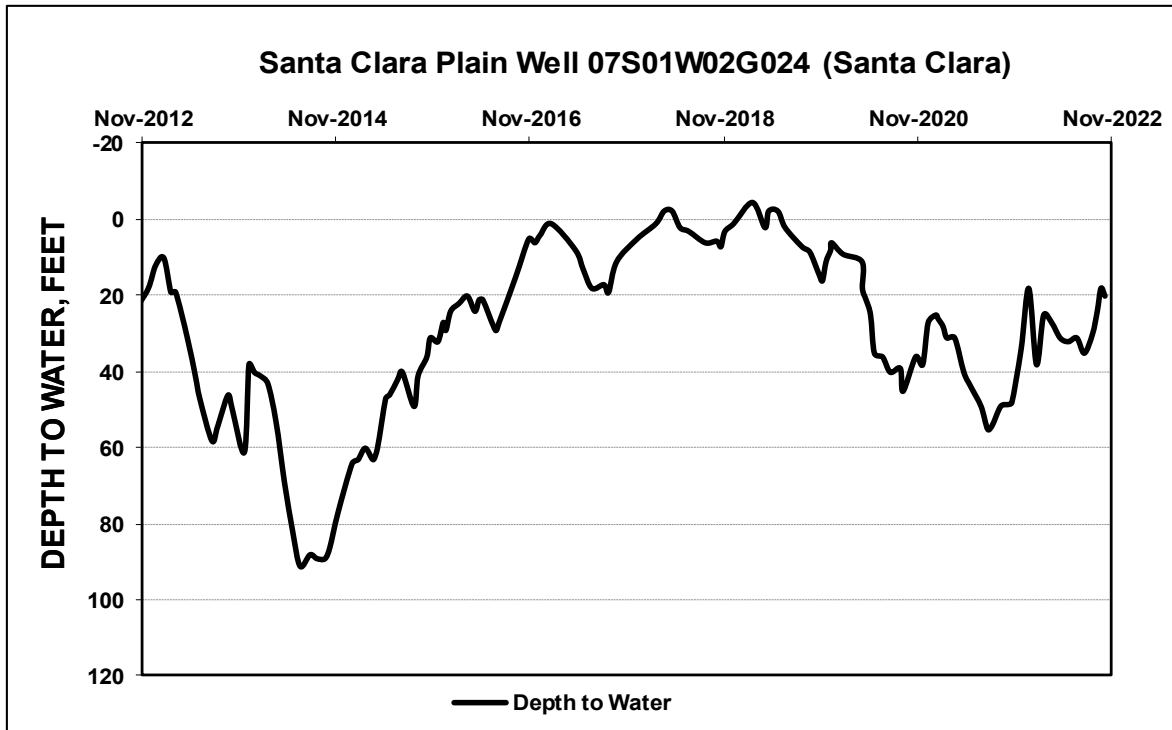
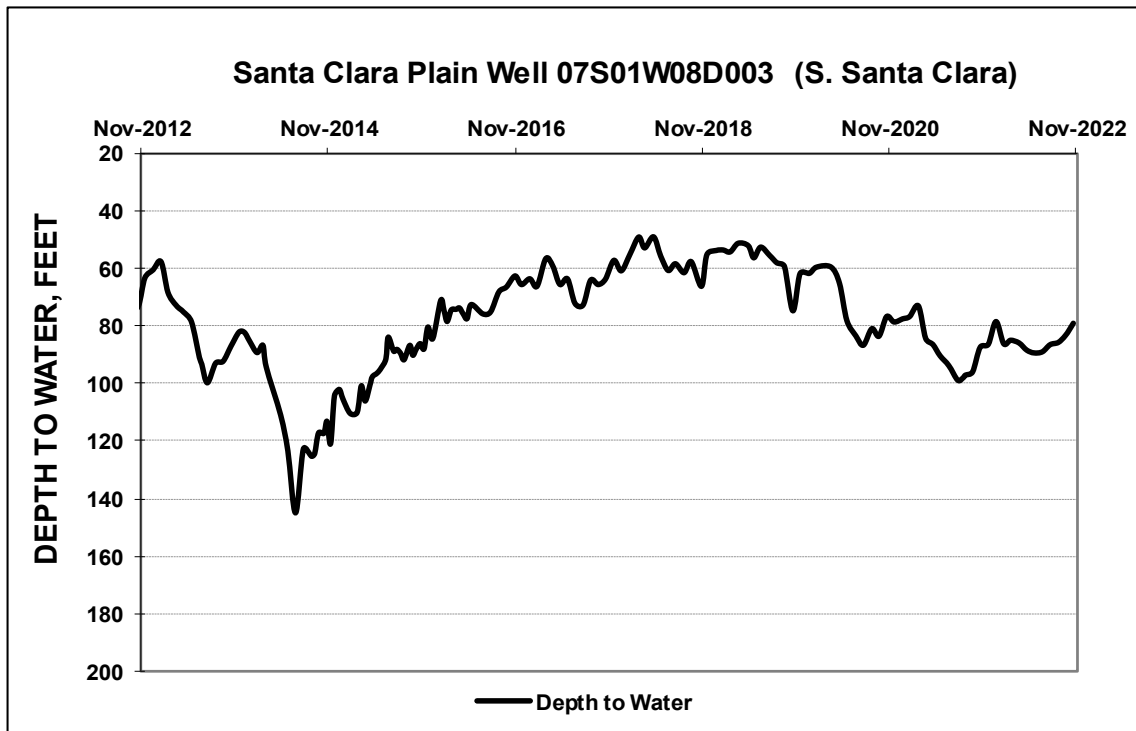
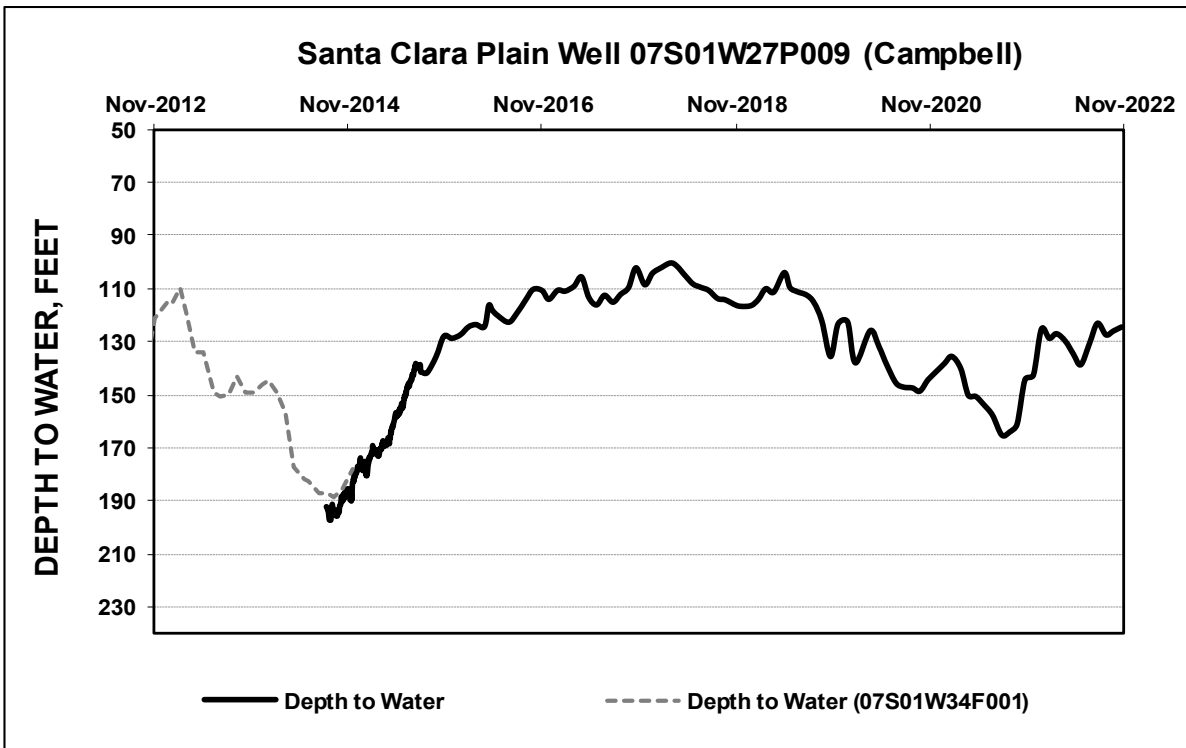


Figure 12. South Santa Clara Well Hydrograph



**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**

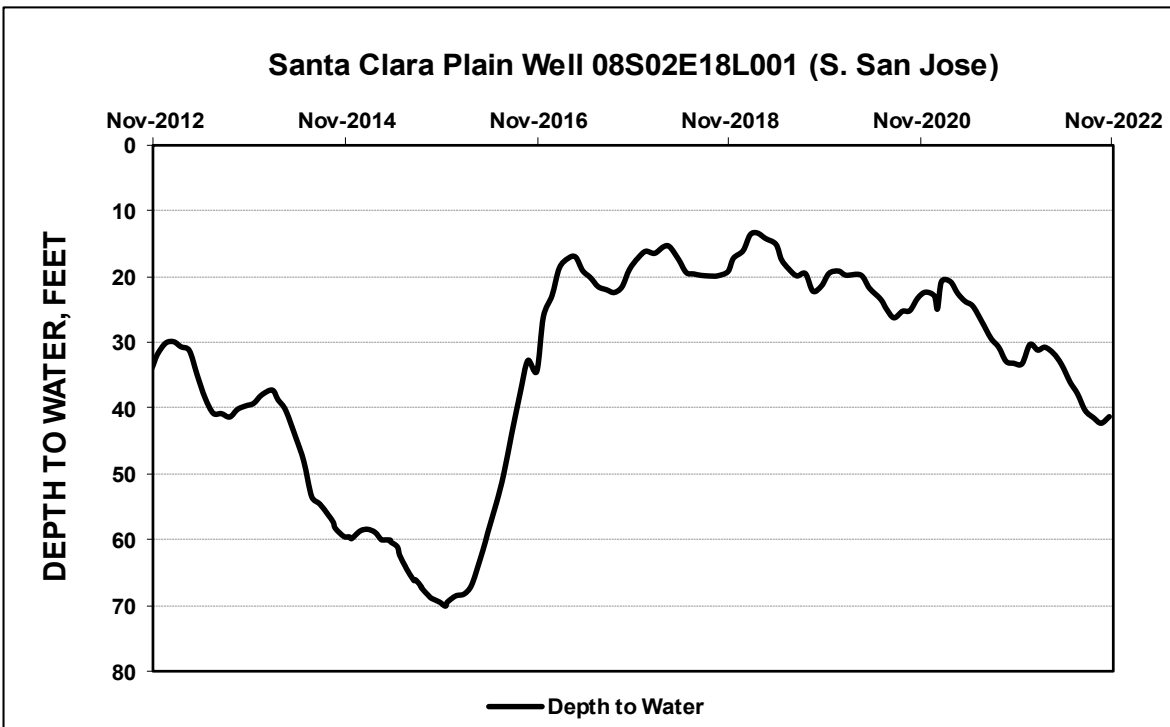


Figure 15. Coyote Valley Well Hydrograph (Index Well for the Coyote Valley)

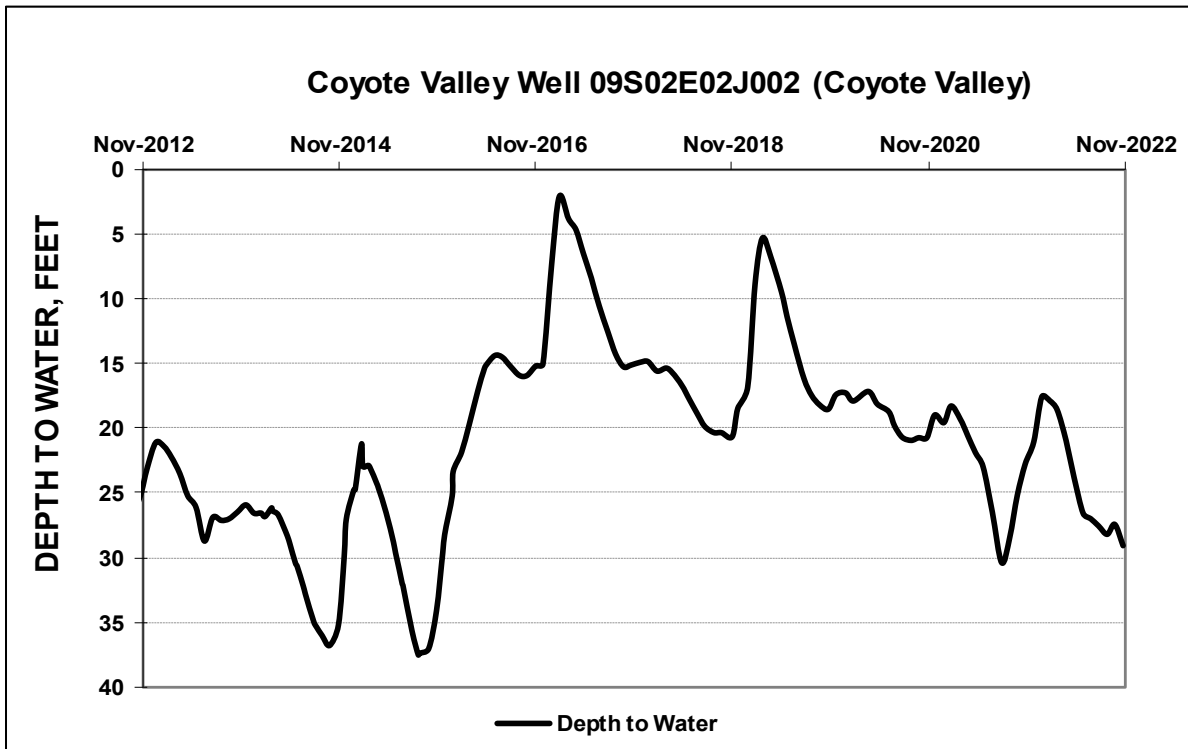
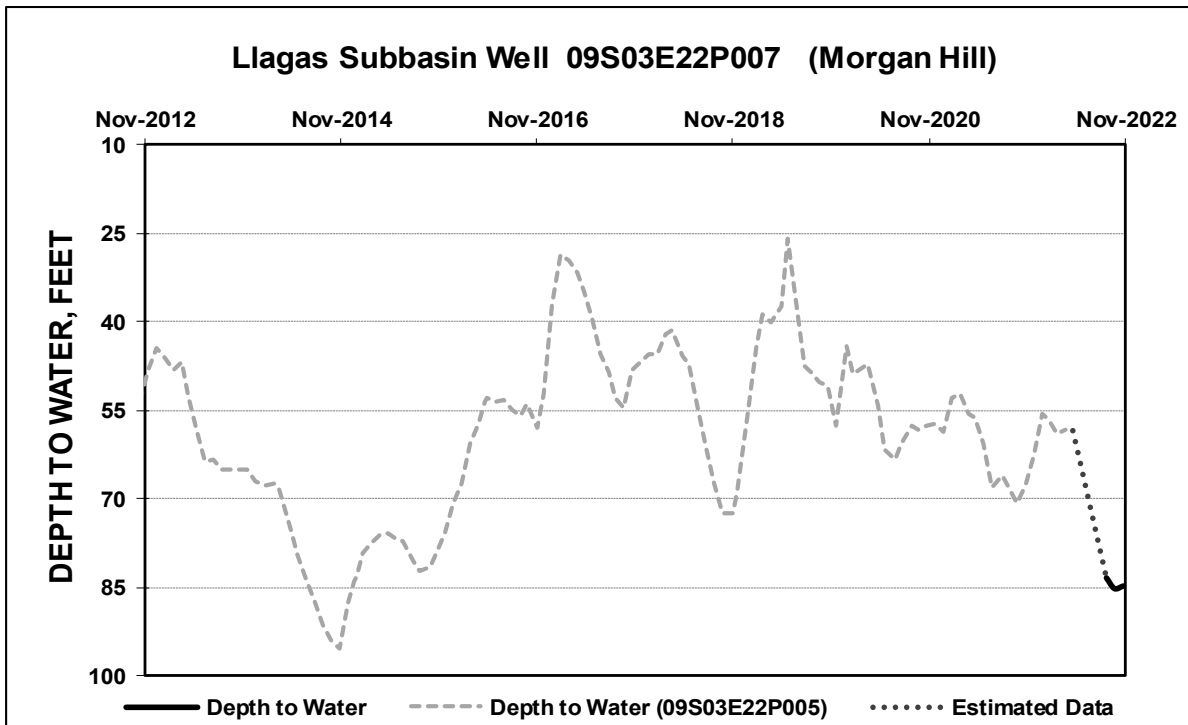


Figure 16. Morgan Hill Well Hydrograph



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)

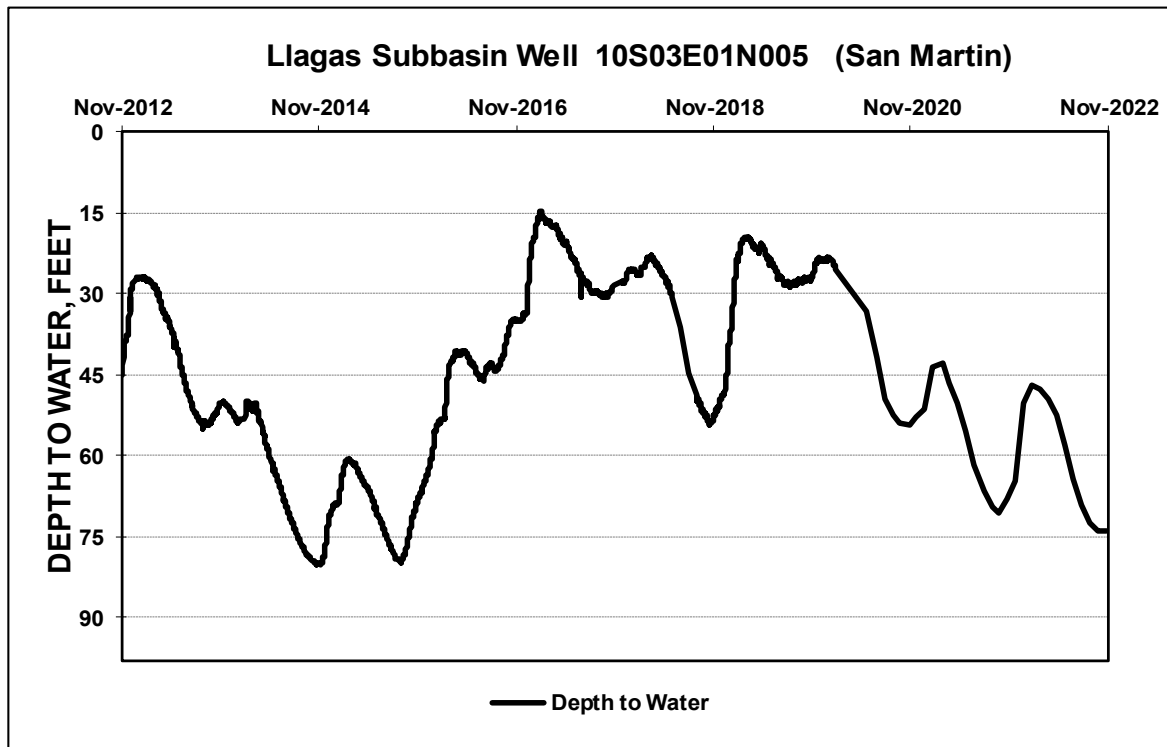


Figure 18. Gilroy Well Hydrograph

