Groundwater Condition

REPORT | SANTA CLARA COUNTY

June 2022

SUMMARY

This report summarizes May 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 in May have continued the seasonal decline, which typically occurs in spring and summer due to higher temperatures, increased water demand, and associated increased pumping. Current water levels in many wells are equal to or lower than those of May 2021 and are expected to end this year lower than last year because of the drought. Groundwater storage at the end of 2022 is projected to be in Stage 2 (Alert) of the Water Shortage Contingency Plan, and Valley Water continues to plan for dry and rapidly evolving conditions.

- May managed recharge is 70% to 131% of the five-year average.
- April pumping is 100% to 112% of the five-year average.
- Groundwater levels in index wells for May 2022 range from 10 feet higher to 2 feet lower than the May levels of 2021.

Table 1. Summary of Current Groundwater Conditions

	Santa Clara Subbasin		Llagas Subbasin
	Santa Clara Plain	Coyote Valley	
May 2022 managed recharge estimate	2,200	700	1,800
YTD managed recharge estimate	15,800	4,300	8,500
YTD managed recharge as % of five-year average	83%	70%	131%
April 2022 pumping estimate	5,600	800	2,300
YTD pumping estimate	20,200	3,200	7,400
April 2022 pumping as % of five-year average	112%	101%	100%
Current index well groundwater levels compared to May of 2021	10 feet higher	2 feet lower	2 feet lower

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

Contact Us For questions, contact **Roger Pierno** at **(408) 630-2738**

Valley Water
Clean Water • Healthy Environment • Flood Protection

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).
- For May, managed recharge was higher in the Llagas Subbasin, but lower in the Santa Clara Plain and the Coyote Valley than the average of the previous five years.
- 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

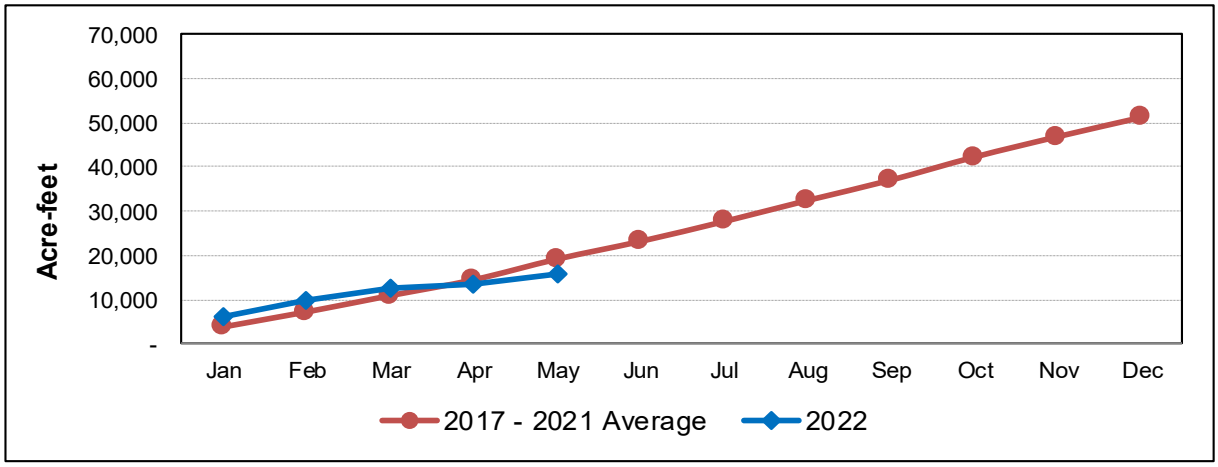


Figure 2. Estimated Cumulative Managed Recharge in the Coyote Valley

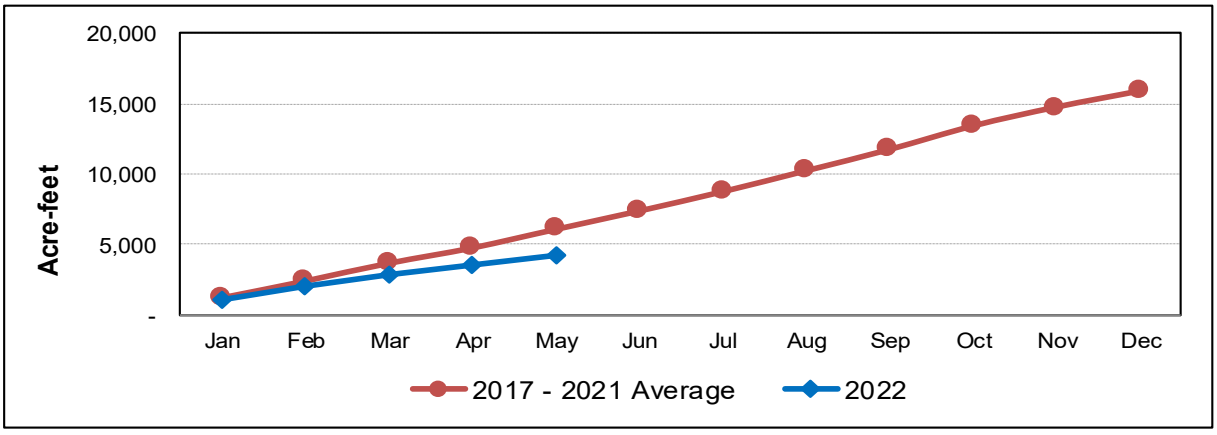
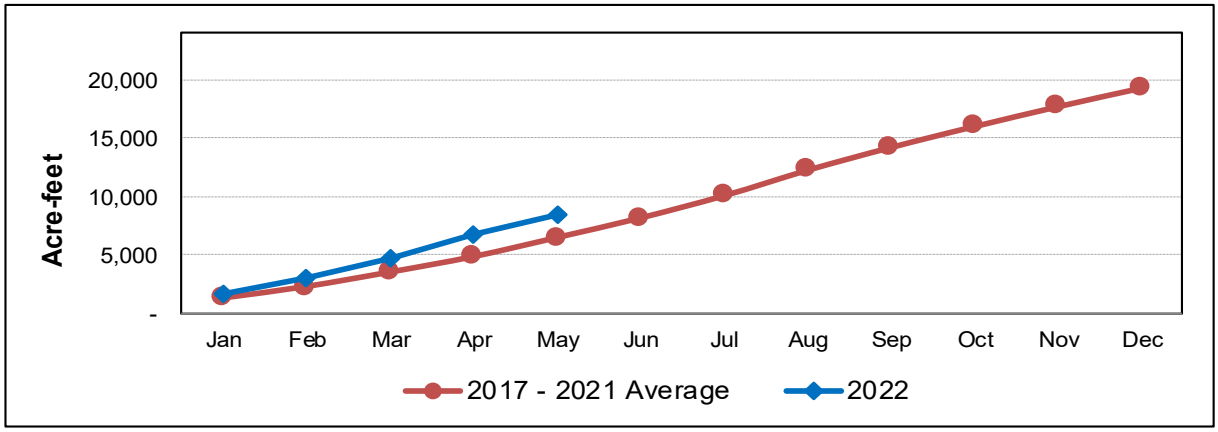


Figure 3. Estimated Cumulative Managed Recharge in the Llagas Subbasin



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 April 2022 are based on monthly reporting pumping data and pumping data from water retailers. April is most recent available pumping data.
- Compared to the average of the previous five years, pumping for April 2022 was essentially the same in Coyote Valley and the Llagas Subbasin and higher in the Santa Clara Plain.

Figure 4. Estimated Cumulative Santa Clara Plain Pumping

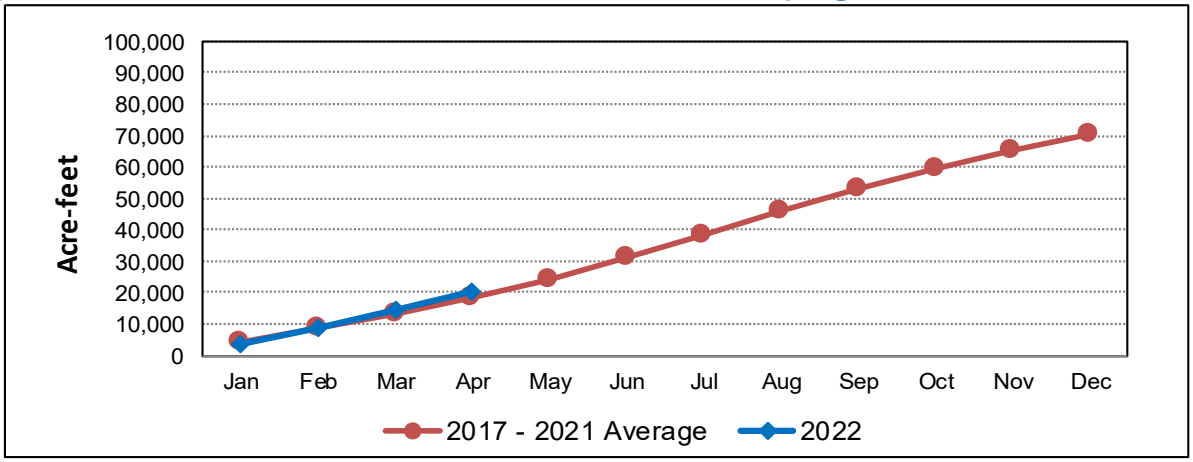


Figure 5. Estimated Cumulative Coyote Valley Pumping

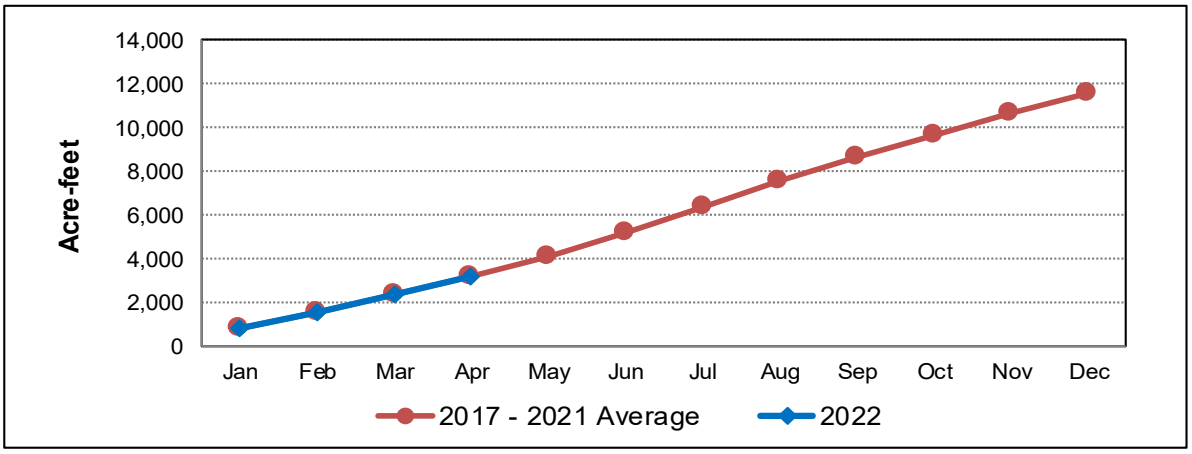
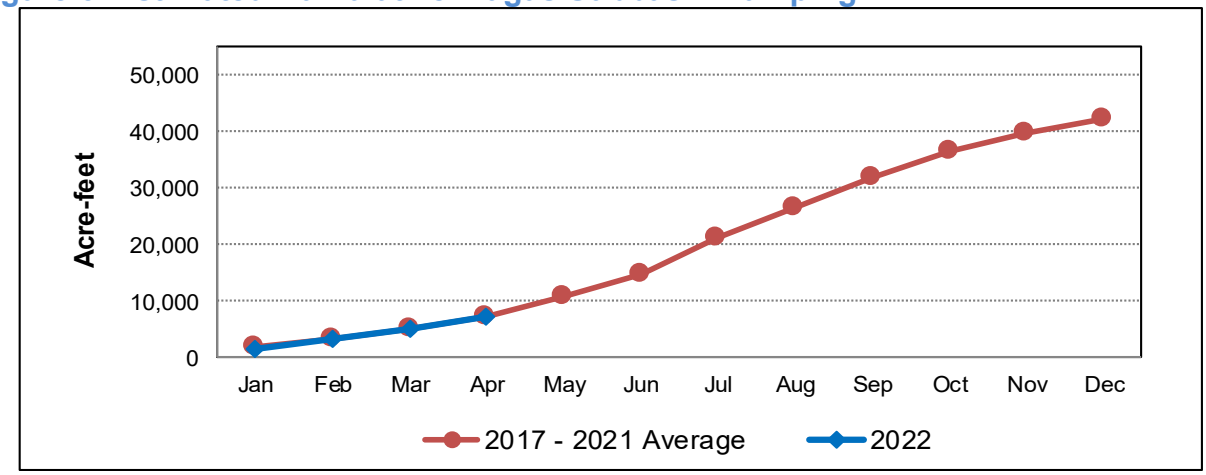


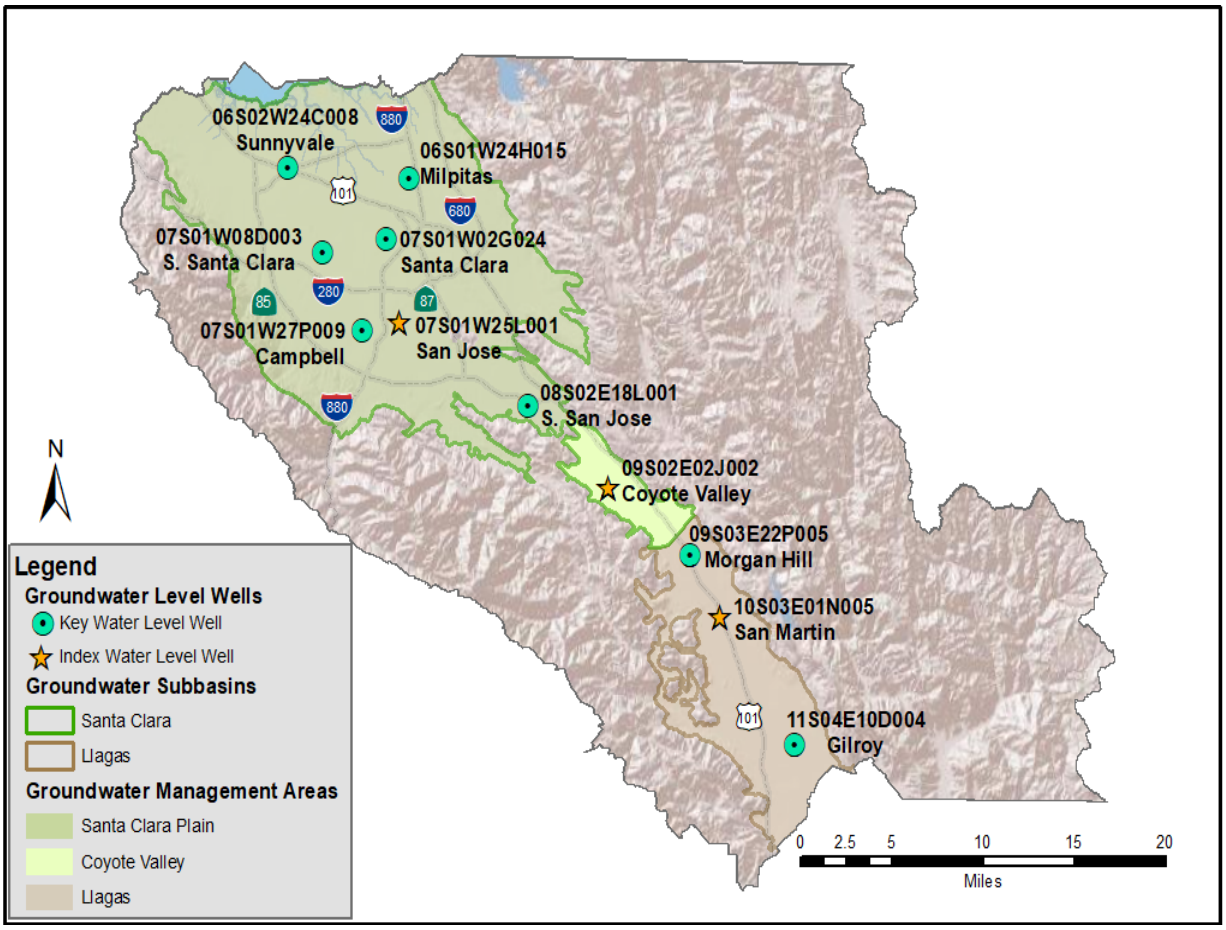
Figure 6. Estimated Cumulative Llagas Subbasin Pumping



Groundwater Levels

Groundwater levels in regional monitoring wells throughout the county have begun their seasonal declines. Many current water levels are at or below the levels at this time last year and all are lower than the average of May for the previous 5 years. However, they are all higher than the lowest levels 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

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

Location	State Well ID	May 2022 DTW (feet)	Difference in May 2022 DTW (feet) Compared to:			
			April 2022	May 2021	Prior 5-year Average for May	Maximum DTW during 2012–2016 drought
Milpitas	06S01W24H015	-11 (artesian)	-1	2	-15	32
Sunnyvale	06S02W24C008	-26 (artesian)	0	-6	-12	6
San Jose	07S01W25L001	97	-3	10	-12	41
Santa Clara	07S01W02G024	31	-4	9	-18	60
S. Santa Clara	07S01W08D003	88	-3	-2	-25	57
Campbell	07S01W27P009	135	-5	16	-14	63
S. San Jose	08S02E18L001	33	-2	-10	-14	37
Coyote Valley	09S02E02J002	24	-3	-2	-10	14
Morgan Hill	09S03E22P005	NA	NA	NA	NA	NA
San Martin	10S03E01N005	53	-3	-2	-23	28
Gilroy	11S04E10D004	NA	NA	NA	NA	NA

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. NA: Wells 09S03E22P005 & 11S04E10D004 could not be monitored in May 2022 so no comparisons was possible.

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

Figure 8. Milpitas Well Hydrograph

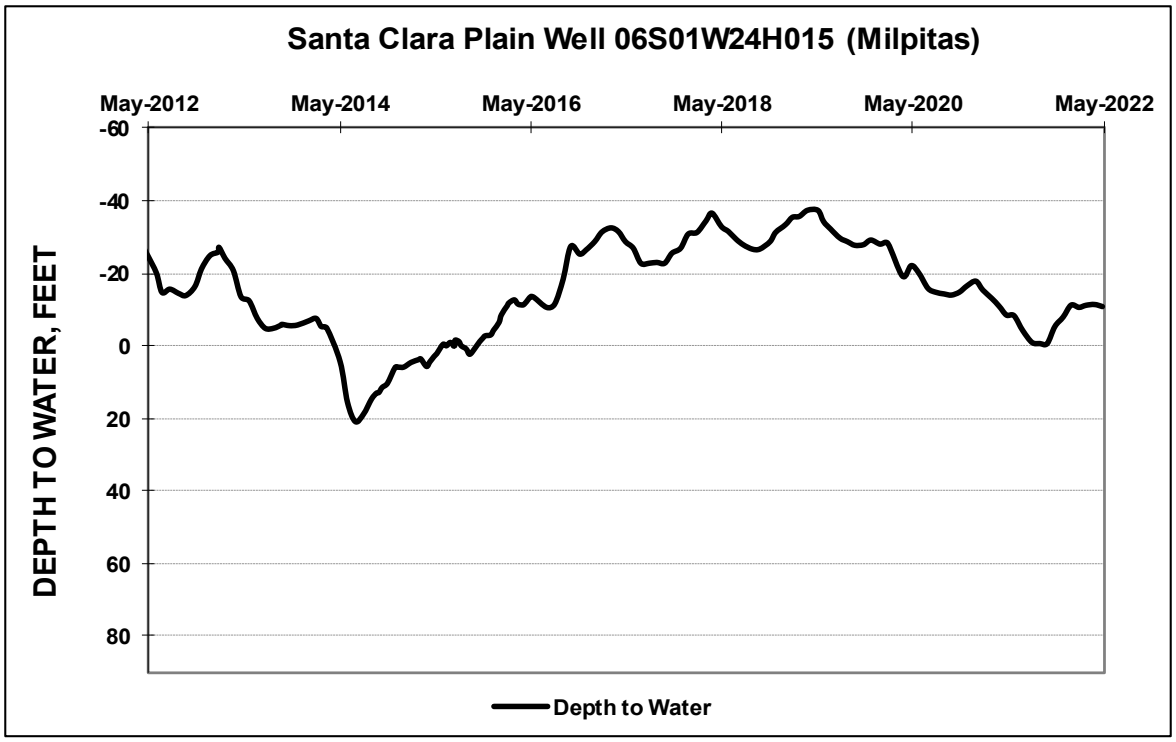


Figure 9. Sunnyvale Well Hydrograph

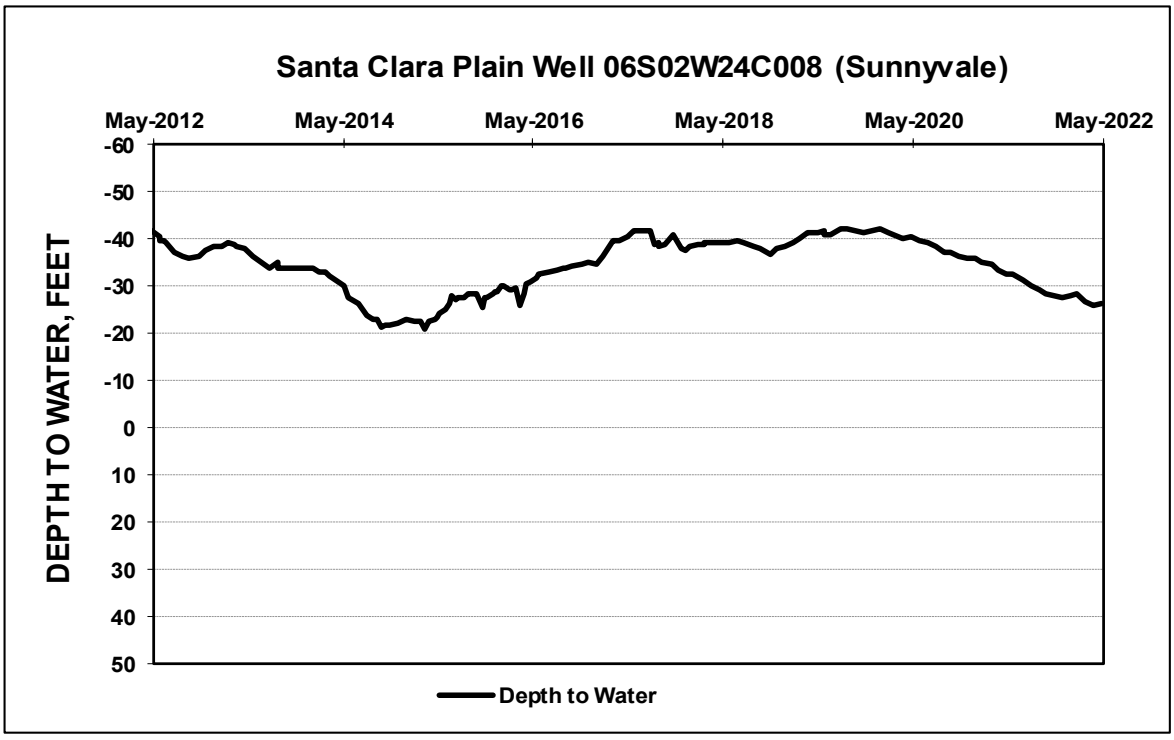


Figure 10. San Jose Well Hydrograph (Index Well for the Santa Clara Plain)

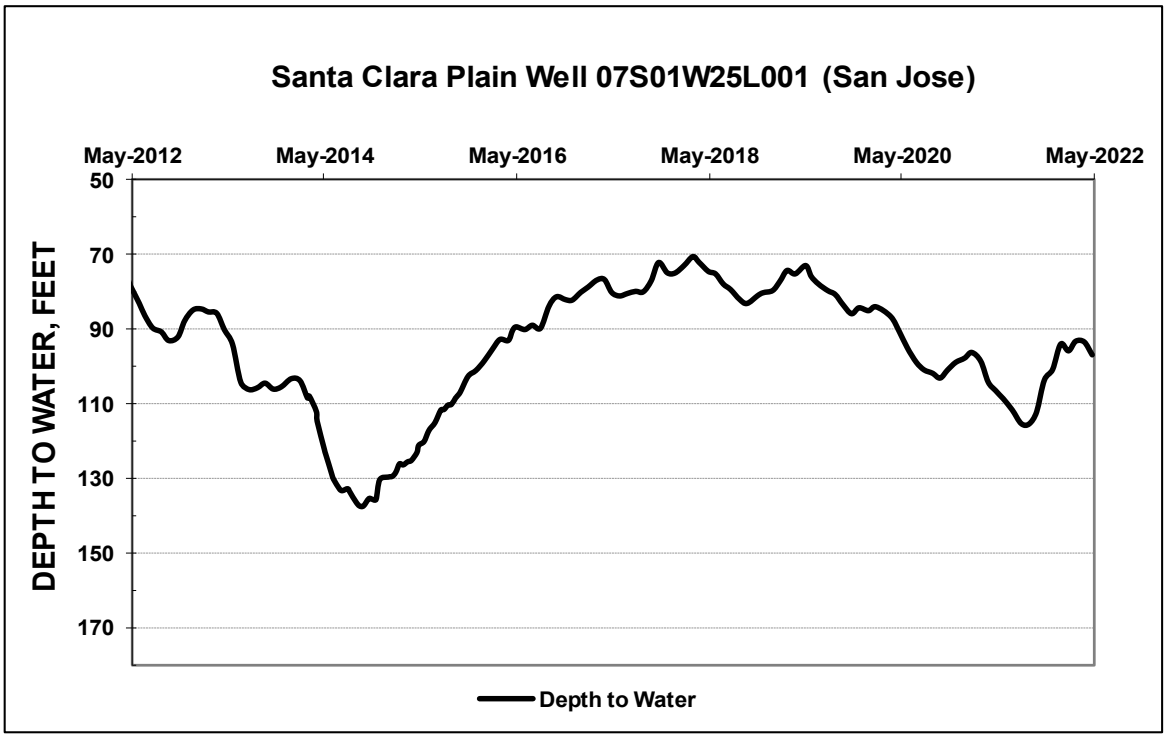


Figure 11. Santa Clara Well Hydrograph

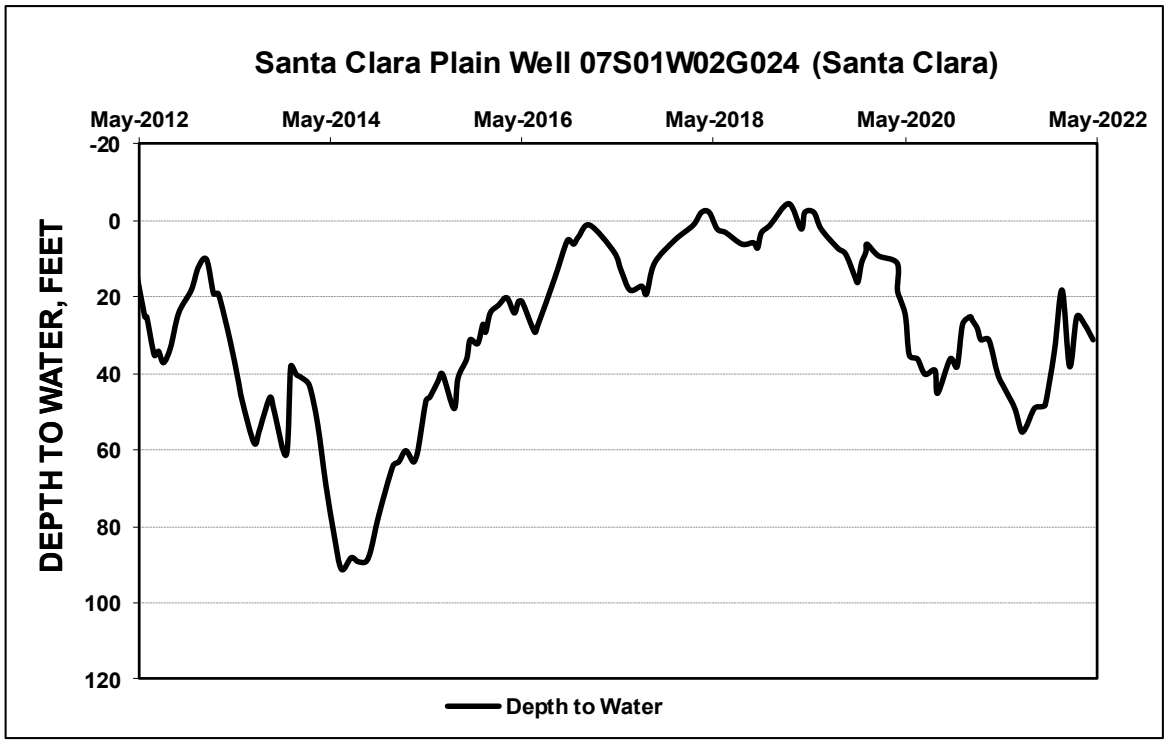


Figure 12. South Santa Clara Well Hydrograph

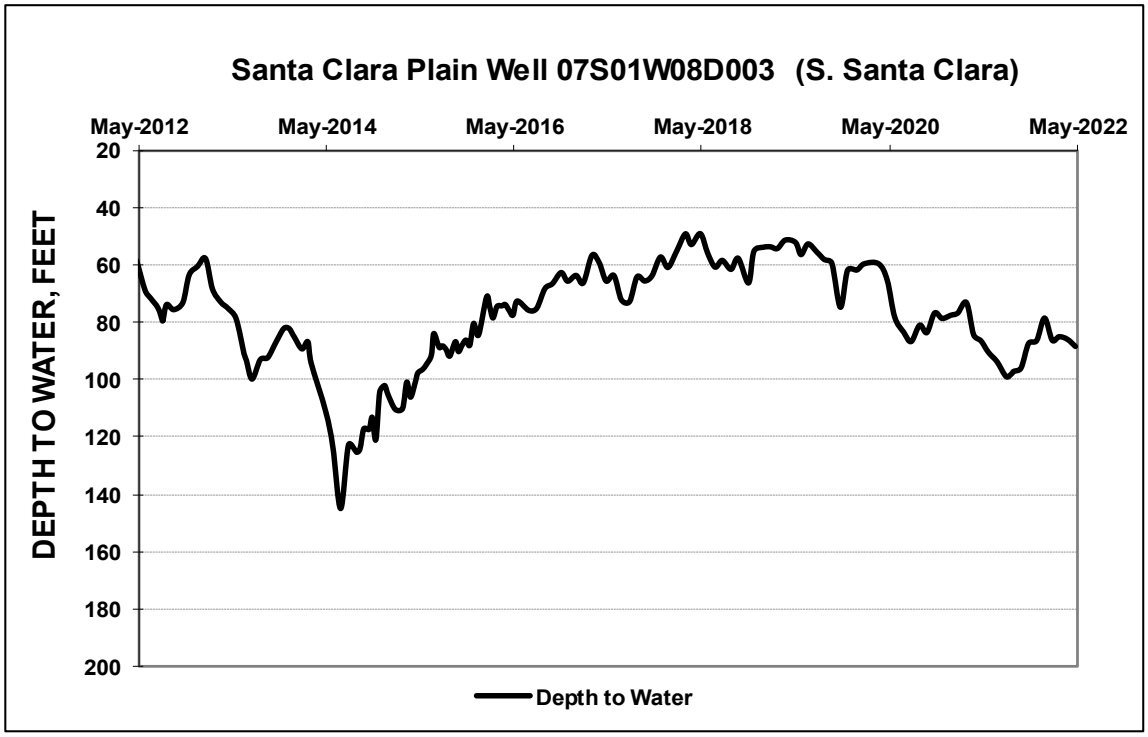
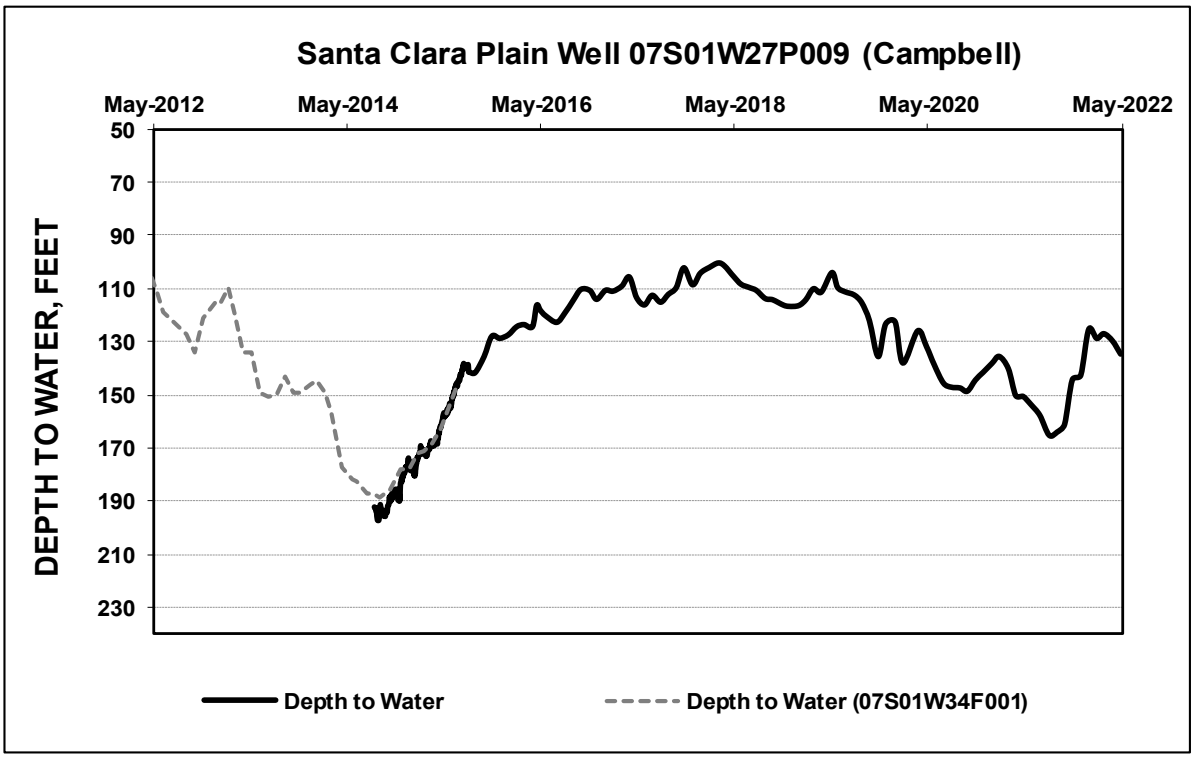


Figure 13. Campbell Well Hydrograph



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

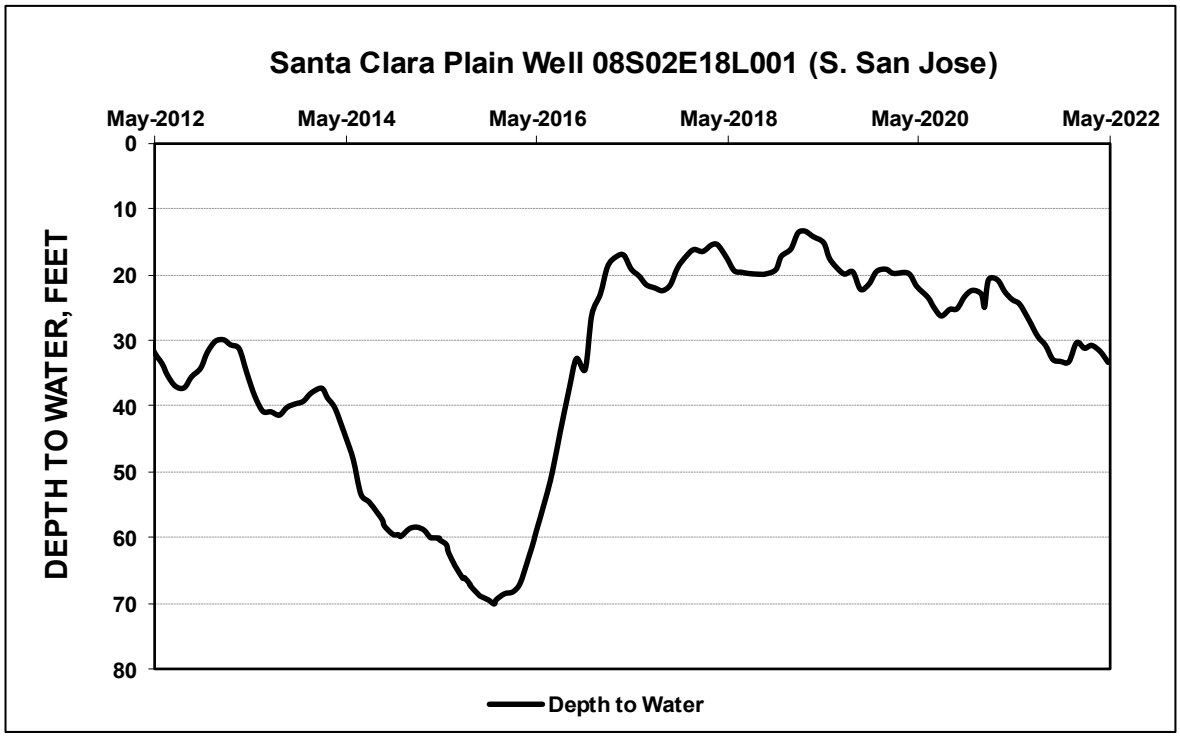


Figure 15. Coyote Valley Well Hydrograph (Index Well for the Coyote Valley)

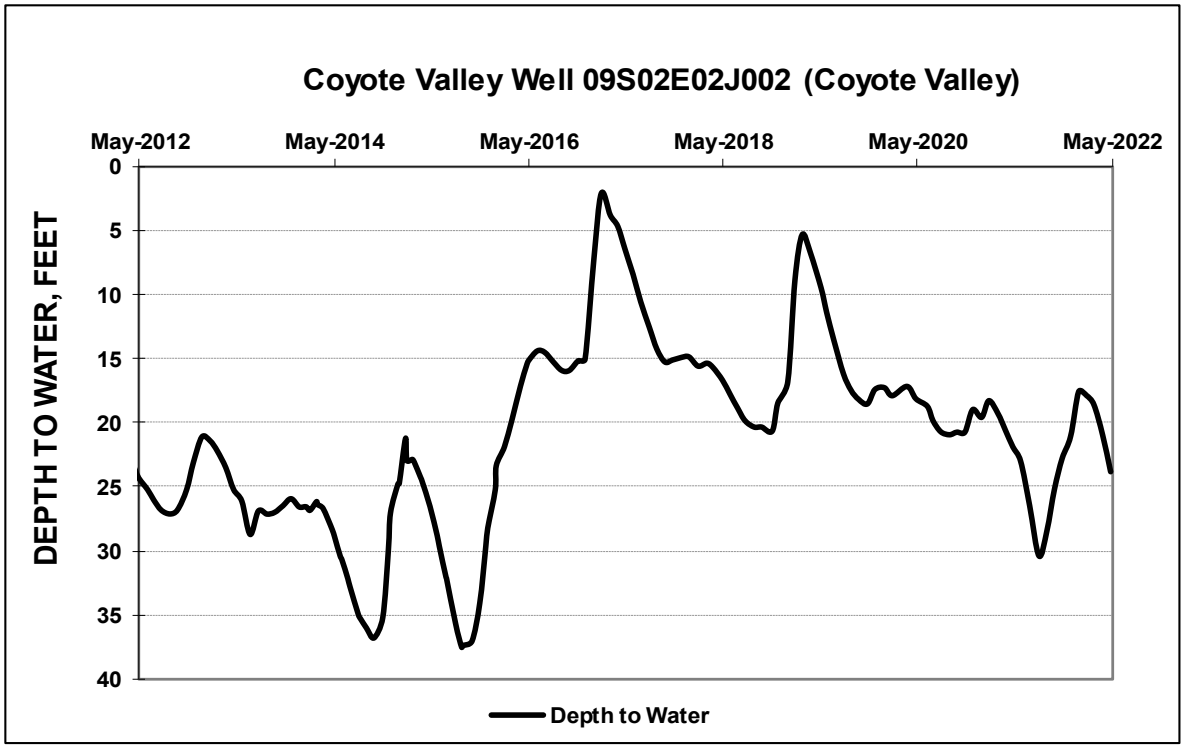


Figure 16. Morgan Hill Well Hydrograph

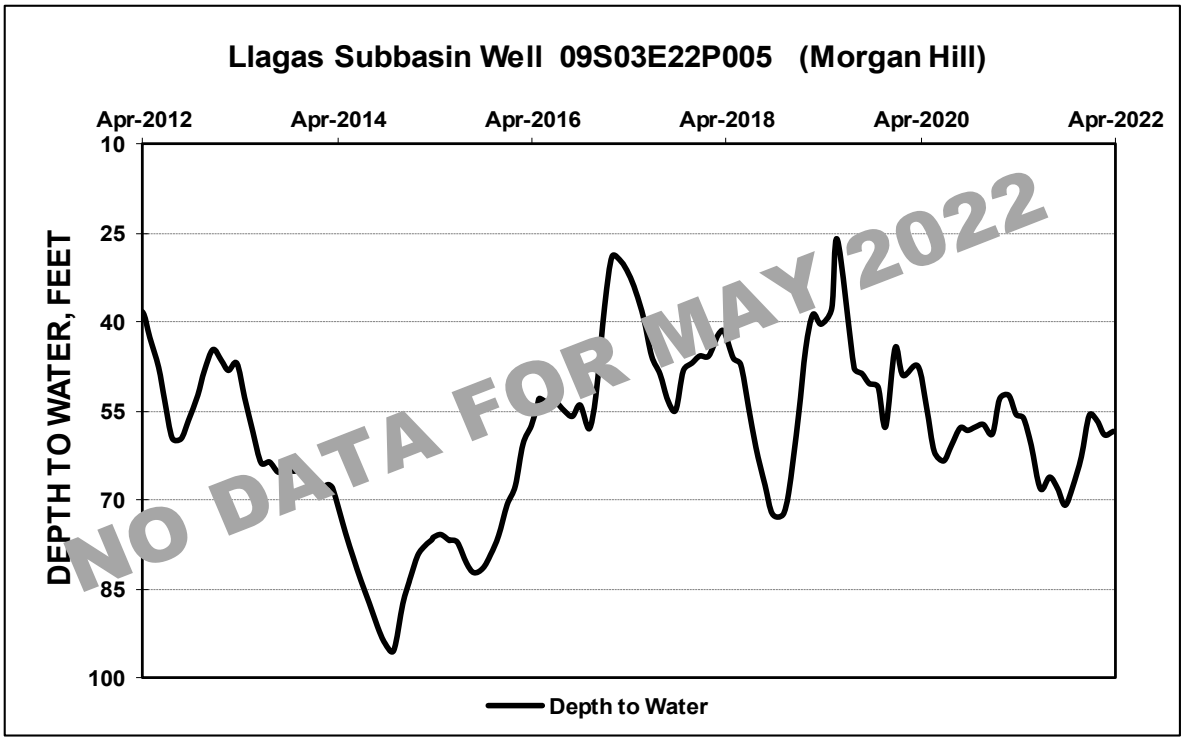


Figure 17. San Martin Well Hydrograph (Index Well for the Llagas Subbasin)

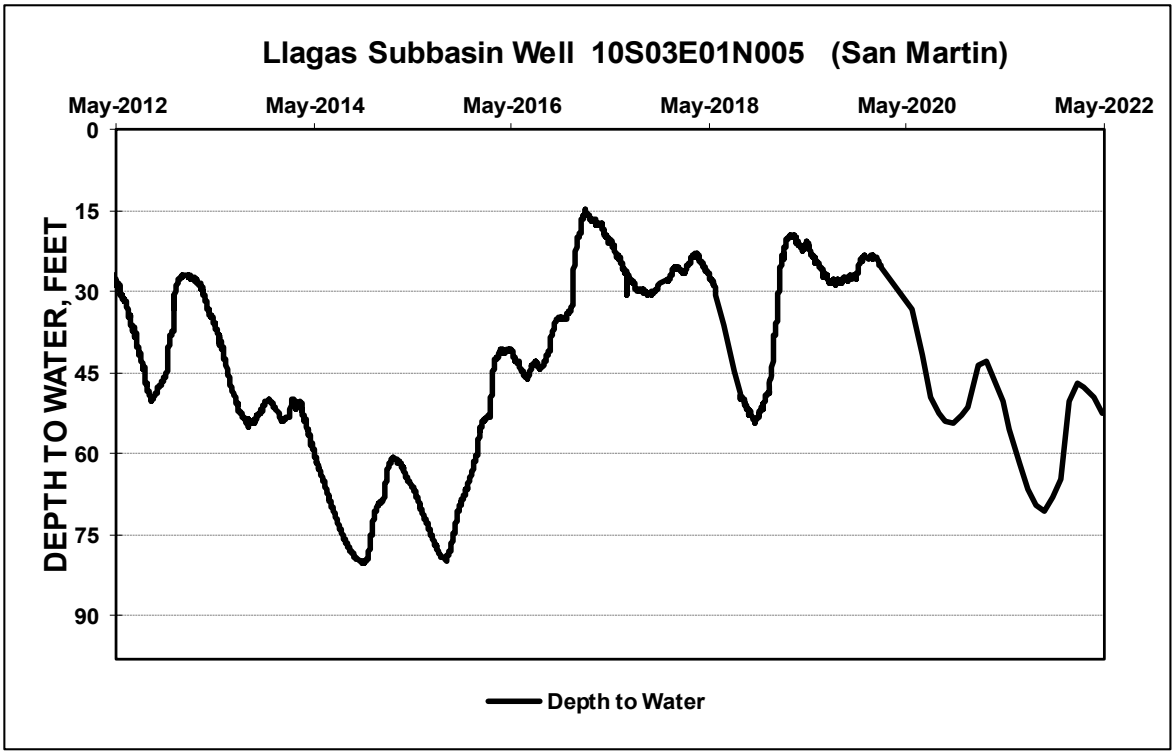


Figure 18. Gilroy Well Hydrograph