SUMMARY

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

- Estimated groundwater storage is above average and is projected to remain within the Stage 1 (Normal) range of Valley Water’s Water Shortage Contingency Plan throughout 2020.

- Santa Clara Plain:
  - The February managed recharge estimate is 3250 acre-feet. The 2020 managed recharge to date is 7,000 acre-feet which is 117% of the five-year average.
  - The January groundwater pumping estimate is 3,000 acre-feet, which is 69% of the five-year average.
  - The groundwater level in the Santa Clara Plain (San Jose) index well is 4 feet lower than it was last February and 9 feet higher than the five-year average.

- Coyote Valley:
  - The February managed recharge estimate is 900 acre-feet. The 2020 managed recharge to date is 1,950 acre-feet, which is 102% of the five-year average.
  - The January groundwater pumping estimate is 500 acre-feet, which is 72% of the five-year average.
  - The groundwater level in the Coyote Valley index well is about 1 foot lower than last February and 1 foot higher than the five-year average.

- Llagas Subbasin:
  - The February managed recharge estimate is 900 acre-feet. The 2020 managed recharge to date is 2,200 acre-feet, which is 125% of the five-year average.
  - The January groundwater pumping estimate is 2300 acre-feet, which is 123% of the five-year average.
  - The groundwater level in the Llagas Subbasin (San Martin) index well is about 6 feet higher than last February and about 10 feet higher than the five-year average.
Groundwater Recharge

Compared to the February averages of the last five years (2015-2019), the estimated February 2020 managed recharge is higher for the Santa Clara Plain and the Llagas Subbasin and about the same for the Coyote Valley. The amount of managed recharge depends on several factors, including water demand, water availability, regulatory requirements, storage levels, and facility maintenance schedules. Figures 1, 2, and 3 compare monthly managed recharge in 2020 to the averages of the previous five years.

Figure 1 - Estimated Managed Recharge in the Santa Clara Plain

![Estimated Managed Recharge - Santa Clara Plain](image1)

Figure 2 - Estimated Managed Recharge in the Coyote Valley

![Estimated Managed Recharge - Coyote Valley](image2)

Figure 3 - Estimated Managed Recharge in the Llagas Subbasin

![Estimated Managed Recharge - Llagas Subbasin](image3)
Groundwater Pumping

Pumping data for January 2020 is estimated for this report due to the unavailability of actual data. When compared to the January average of the last five years (2015-2019), January 2020 pumping is estimated to be lower for the Santa Clara Plain and Coyote Valley, and higher for the Llagas Subbasin. Figures 4, 5, and 6 show comparisons of the 2020 monthly estimated groundwater pumping to the five-year monthly averages.

Figure 4 – Estimated Santa Clara Plain Pumping

![Estimated Groundwater Pumping - Santa Clara Plain](image)

Figure 5 – Estimated Coyote Valley Pumping

![Estimated Groundwater Pumping - Coyote Valley](image)

Figure 6 – Estimated Llagas Subbasin Pumping

![Estimated Groundwater Pumping - Llagas Subbasin](image)
Groundwater Levels

February 2020 groundwater levels at eleven selected monitoring wells (Figure 7) are compared to January 2020, February 2019, February 2004 (a normal year), February 1987 (a dry year), and the prior five-year average of February measurements (2015 through 2019). This information is presented in individual well groundwater hydrographs in Figures 8 through 18.

February 2020 groundwater levels were higher than January 2020 levels in eight index wells, lower in one well, and the same in two wells. From February 2019 to February 2020, four index wells showed water level increases ranging from 3 to 7 feet and seven wells showed water level decreases of between 1 and 22 feet. The February 2020 levels were higher than February 2004 normal year levels by 1 to 23 feet in 9 of the ten available index wells with 2004 data and lower by 16 feet in one well. February 2020 levels were higher than the five-year average of February measurements in ten index wells by between 1 and 17 feet and lower in one well by 11 feet. February 2020 groundwater levels were higher than February 1987 dry year levels in all eleven index wells.

Figure 7 - Location of Selected Monitoring Wells
A measured value for 2004 is not available for comparison for this well. Between March 1998 and October 2006, this well was flowing artesian and not measured. In October 2006, the well was modified to allow measurement of artesian pressures.
Figure 10 - San Jose Well Hydrograph

Figure 11 - Santa Clara Well Hydrograph
The Campbell index well was replaced in August 2015 with a nearby well with similar water levels. Historic comparisons for 1987, 2004, and 5-year average use data from the former index well (07S01W34F001).
Figure 14 - South San Jose Well Hydrograph

Santa Clara Plain Well 08S02E18L001 (S. San Jose)

Figure 15 - Coyote Valley Well Hydrograph

Coyote Valley Well 09S02E02J002 (Coyote Valley)
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Figure 16 - Morgan Hill Well Hydrograph

Figure 17 - San Martin Well Hydrograph

The San Martin index well was replaced in November 2019 with a nearby well with similar water levels. Historic comparison data for 1987, 2004, and 5-year average use data from the former index well (10S03E13D003).
Figure 18 - Gilroy Well Hydrograph