

Drought Emergency Response Report

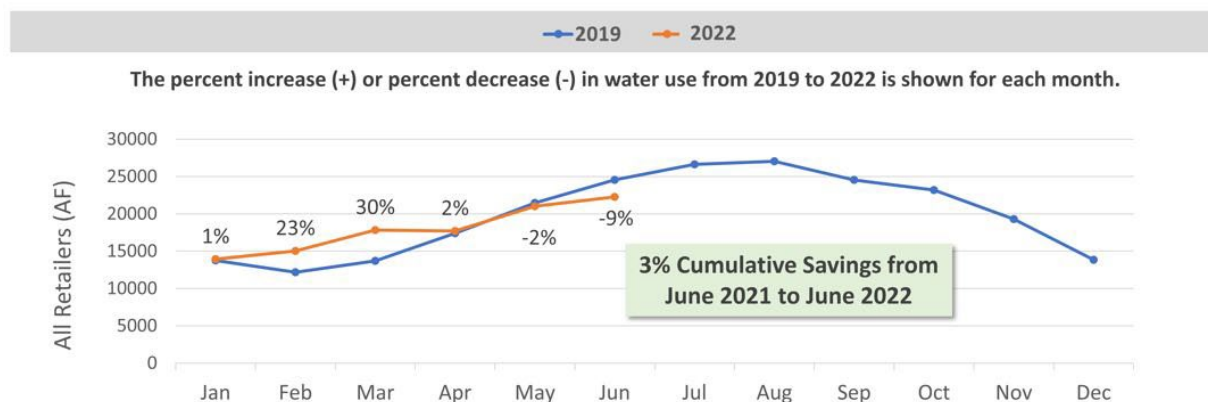
JULY 2022

Drought Resolution Implementation

On June 9, 2021, the Board adopted Valley Water Resolution 21-68 which declared a water shortage emergency condition pursuant to California Water Code §350, called for water use reduction of 15% compared to 2019, and urged the County of Santa Clara (County) to proclaim a local emergency. The County adopted a Resolution ratifying the proclamation of a local emergency due to the drought on June 22, 2021. California's Governor included Santa Clara County as part of a drought emergency proclamation on July 8, 2021, and this proclamation included all California counties on October 19, 2021. Valley Water activated its Emergency Operations Center (EOC) on June 16, 2021 to assist with resolution implementation and other drought-related efforts. Valley Water Resolution 22-20 amended Valley Water Resolution 21-68 on April 12, 2022 to call for no more than 2 days of irrigation in a week for ornamental lawns and prohibit excessive runoff, midday irrigation, and irrigation after rainfall. On May 24, 2022, the Board approved Ordinance 22-02 to enforce these restrictions. The ordinance went into effect on June 1, 2022.

Retailer Water Use Reduction

The graph below depicts total water use from the 13 retailers in Santa Clara County to help track progress towards achieving Valley Water's 15% call for water use reduction made in June 2021.



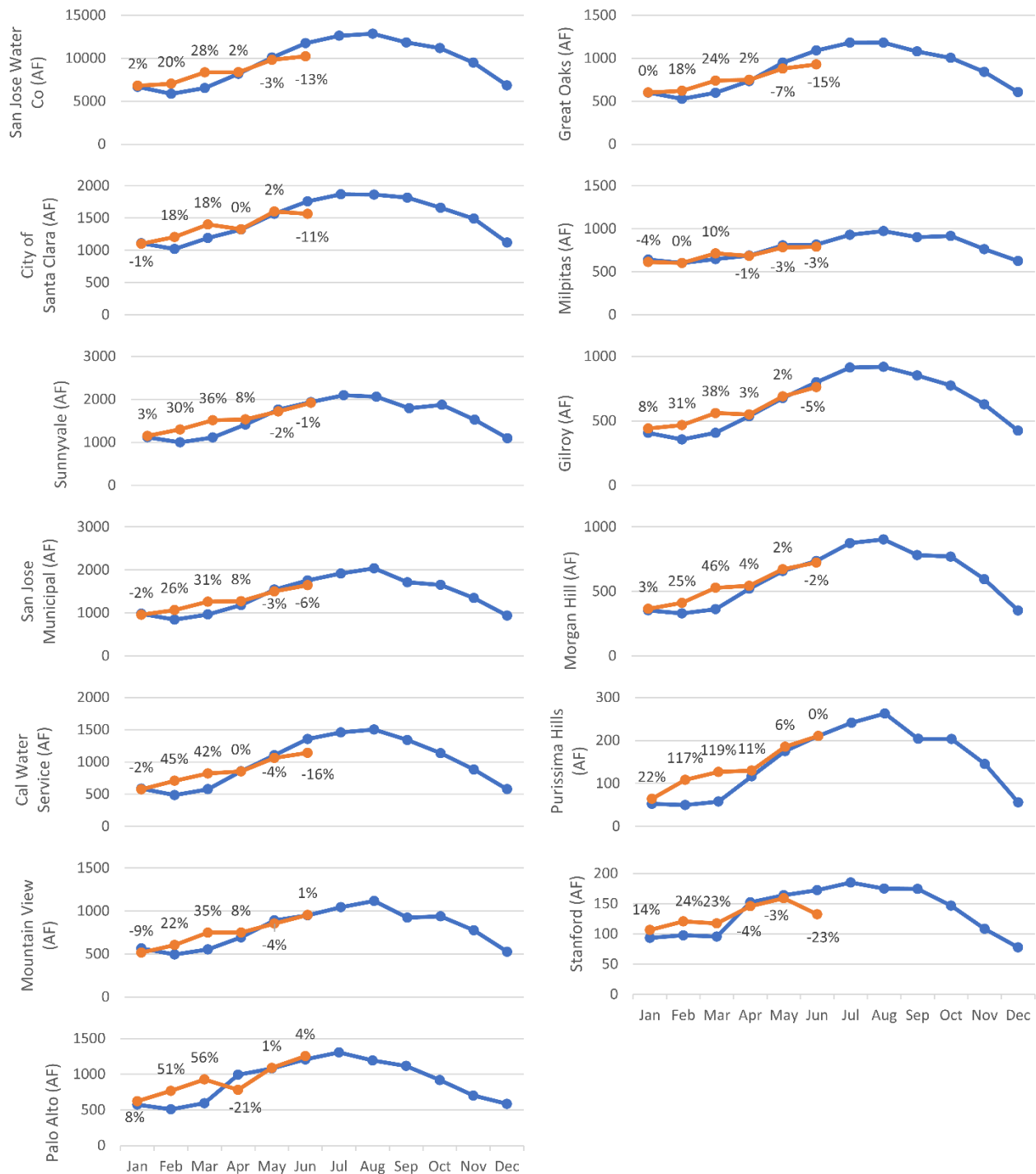
- Countywide water savings is trending in the right direction with savings in June greater than in May.
- Countywide water savings was 9% in June 2022 compared to June 2019.
- Santa Clara County's cumulative water savings from June 2021 – June 2022 is 3%, compared to 2019.
- Countywide water savings was 15% in June 2022 compared to June 2020, which means the county achieved the Governor's call for conservation. The county exceeded California's water savings of 7.6% in June 2022, compared to June 2020.
- California's cumulative water savings from July 2021 – June 2022 is 3%, compared to 2020. Santa Clara County's cumulative water savings during this time is 9%, compared to 2020.
- On June 1, 2022, Valley Water began enforcing outdoor water waste restrictions against runoff, midday watering, and watering after rainfall, and a limit of two days a week of watering for non-functional turf.
- Valley Water continues its conservation and drought-messaging with the "Say Yes to Saving Water" campaign. The multilingual, multi-platform campaign encourages residents, businesses, farms, and others to follow watering restrictions and take actions, both large and small, that can increase water savings.

These graphs depict water use by each of Valley Water’s 13 retailers to help track progress towards achieving the 15% call for water use reduction made in June 2021. Note that City of Palo Alto Utilities (Palo Alto) and Purissima Hills Water District (Purissima) normally do not use Valley Water sources of water. A large proportion of water used by the City of Mountain View Public Works (Mountain View) and Stanford Utilities (Stanford) is not from Valley Water sources.

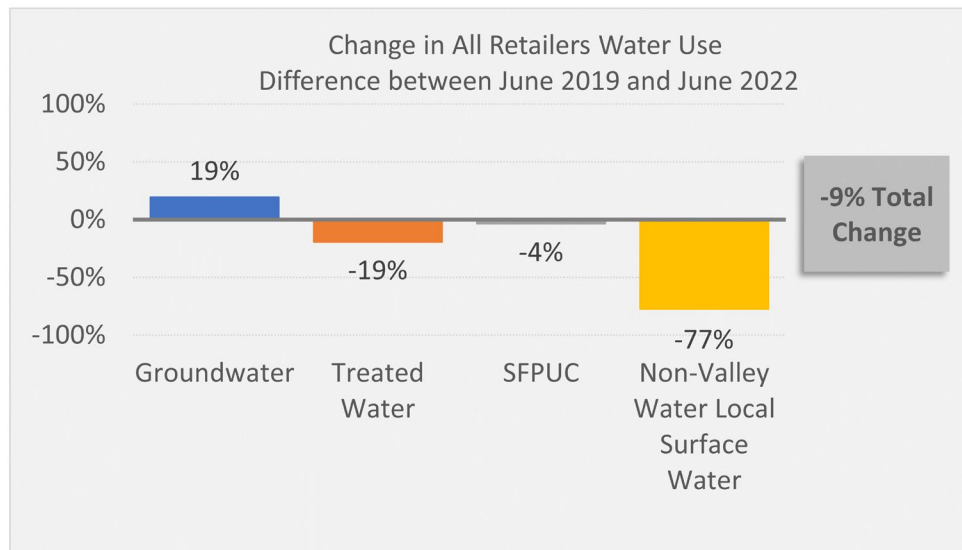
Monthly Water Use by Retailer (AF)

— 2019 — 2022

The percent increase (+) or percent decrease (-) in water use from 2019 to 2022 is shown for each month.



The graph below depicts changes between the retailers' different types of water use. As expected, the proportion of groundwater use tends to increase during drought.



The table below shows Valley Water retailers' water usage volumes by type.

| Water Retailer | Total Water Use in Acre-Feet (June 2019) | | | | | Total Water Use in Acre-Feet (June 2022) | | | | |
|--------------------------|--|---------------|--------------|--------------------------------------|---------------|--|---------------|--------------|--------------------------------------|---------------|
| | Groundwater | Treated Water | SFPUC | Non-Valley Water Local Surface Water | SUM | Groundwater | Treated Water | SFPUC | Non-Valley Water Local Surface Water | SUM |
| San Jose Water Company | 2,700 | 7,400 | - | 1,660 | 11,760 | 4,360 | 5,500 | - | 380 | 10,230 |
| Santa Clara, City | 1,000 | 460 | 300 | - | 1,760 | 1,000 | 300 | 260 | - | 1,570 |
| Sunnyvale | 10 | 910 | 1,020 | - | 1,940 | 10 | 810 | 1,100 | - | 1,920 |
| San Jose Municipal Water | 90 | 1,220 | 440 | - | 1,760 | 90 | 1,050 | 500 | - | 1,650 |
| California Water Service | 340 | 1,020 | - | - | 1,360 | 220 | 920 | - | - | 1,140 |
| Palo Alto | - | - | 1,210 | - | 1,210 | - | - | 1,250 | - | 1,250 |
| Mountain View | 20 | 110 | 820 | - | 950 | 10 | 100 | 850 | - | 950 |
| Great Oaks | 1,090 | - | - | - | 1,090 | 930 | - | - | - | 930 |
| Milpitas | - | 50 | 770 | - | 820 | - | 340 | 460 | - | 790 |
| Gilroy | 800 | - | - | - | 800 | 760 | - | - | - | 760 |
| Morgan Hill | 740 | - | - | - | 740 | 720 | - | - | - | 720 |
| Purissima Hills Water | - | - | 210 | - | 210 | - | - | 210 | - | 210 |
| Stanford | - | - | 170 | - | 170 | - | - | 130 | - | 130 |
| Total | 6,780 | 11,170 | 4,940 | 1,660 | 24,550 | 8,100 | 9,010 | 4,770 | 380 | 22,260 |

Collaboration with the County, Retailers, and Cities

- As of July 31, 2022, 14 cities in Santa Clara County have implemented a maximum two-day irrigation schedule, including five cities that have taken additional formal action to their elected boards in response to the ongoing drought emergency and Valley Water's Amended Resolution 22-20.
- In July, Valley Water continued to conduct outreach to the municipalities for their consideration and adoption of the Model Water Efficient New Development Ordinance (MWENDO), as part of ongoing efforts to support cities' and the County's interests in expanding water efficiency measures. Currently, the County and several cities are considering aligning the adoption of new MWENDO measures as part of their jurisdictions' Title 24 triennial building code update. The 2022 version of California's Title 24 is effective January 1, 2023.

Water Conservation Programs

Valley Water is actively promoting ways people can save water through rebates, free water-saving devices, and behaviors. The Shopping Cart (eCart) Program offers free water-saving devices to homes and businesses. The Landscape Rebate Program (LRP) provides rebates for converting high-water use landscapes to low-water-use landscape, as well as retrofitting existing irrigation equipment with approved high-efficiency irrigation equipment. With the close of the fiscal year at the end of June, over 1.3 million square feet of lawn have been converted to low water using landscape and a total of 1432 rebates were issued for landscape conversion, irrigation equipment and rainwater rebates. Valley Water partnered with local non-profit Our City Forest for the July Do-It-Yourself Lawn Busters workshop, which taught attendees how to convert an area of turfgrass lawn into a low-water use landscape.

Estimated conservation program applications received are shown below.

| Program | May | June | July |
|--|------------|-------------|-------------|
| Landscape Rebate Program Applications¹ | 343 | 417 | 318 |
| Water-saving Device Orders | 868 | 1,477 | 694 |

¹Starting July 1, 2021, the landscape rebate was increased from \$1 to \$2 per square foot and the maximum rebate was increased from \$2,000 to \$3,000 for single-family homes.

Water Waste Enforcement

Valley Water began enforcing outdoor water waste restrictions against runoff, midday watering, and watering after rainfall, and a limit of two days a week of watering for non-functional turf on June 1, 2022. The Water Waste Program is enforcing these restrictions while continuing its educational mission.

| Program | May | June | July |
|----------------------------|------------|-------------|-------------|
| Water Waste Reports | 207 | 516 | 217 |

Complaints of violations against water waste restrictions are submitted by members of the public. 217 total water waste complaints were received in July 2022. 135 of the complaints received are enforceable, as they relate to the restrictions listed in Ordinance 22-02 and occurred in service areas supplied by Valley Water sources; the remaining are not enforceable. Each complaint may include multiple reports of violations against water waste restrictions. Below is a breakdown of the numbers of water waste reported violations related to the restrictions listed in Ordinance 22-02. Not all violations are verified by staff to be occurring, such as those related to watering after rainfall.

| Enforceable Water Waste Violations | June 2022 | July 2022 |
|---|------------------|------------------|
| More than 2 days of watering per week | 70 | 39 |
| Watering from 9AM-6PM | 84 | 30 |
| Watering within 48 hours of rainfall | 10 | 4 |
| Runoff | 199 | 95 |

Drought and Water Conservation Outreach

- In a continued effort to highlight the Landscape Rebate Program, a second success story was published on Valley Water's social media channels. These stories offer a first-person, local perspective of the many benefits of transforming lawns into water-efficient, native plant yards. Staff created two videos highlighting how Valley Water is using its allocation of water from the Central Valley Project to fill percolation ponds and replenish groundwater supplies across the county. In addition, Valley Water's 30-second "Say Yes to Saving Water" video was distributed to movie theaters for a four-week run in San Jose, Sunnyvale, Santa Clara, Mountain View and Milpitas.
- Staff published a blog to Valley Water News to highlight the recent work at Anderson Dam of reinforcing the hillside in preparation for the tunneling work. The blog included a quote from Chair Pro Tem Varela and Deputy Operating Officer Chris Hakes. Staff also posted a timelapse video of this recent work to our social media platforms. Blogs on tree care during drought and refilling percolation ponds in Santa Clara County were also posted.
- In July, staff kicked off a social media campaign asking residents to test their knowledge of drought and conservation by taking Valley Water's new quiz. Upon completion of the quiz, participants are entered into a raffle to win a bucket full of water-saving tools from our Shopping Cart. Staff will use the quiz results to gauge how well residents understand and absorb Valley Water's drought-related messaging.
- The Speakers Bureau Program held four presentations in July. On July 11, Director Santos and CEO Callender conducted a virtual drought presentation to the Rotary Club of Milpitas. On July 13, staff gave a virtual drought presentation to the Doerr Neighborhood Association during their regular association meeting. On July 14, outreach staff supported the water conservation team with a landscape rebate program presentation to the Modern Management Inc. homeowners' association group in Morgan Hill. On July 25, Director Keegan and staff delivered a drought presentation to the Cory Neighborhood Association in San Jose.
- Statistics for public outreach efforts are shown below.

| Outreach Type | July 2022 |
|---|------------------|
| Social Media¹ | |
| Impressions ² | 2,947,787 |
| Engagements ³ | 50,028 |
| Link Clicks | 10,478 |
| Video Views | 320,518 |
| Website Page Views | |
| Water conservation webpages | 26,319 |
| BeHeard.ValleyWater.org/drought-information | 599 |
| Media | |
| Media Mentions ⁴ | 3,524 |
| Speakers Bureau | |
| Presentations ⁵ | 4 |

¹Includes Facebook, Twitter, Instagram, and LinkedIn

²Impressions are the number of times a post is displayed in a newsfeed.

³Engagements are the number of times a user interacts with a post, such a retweet, click, and more.

⁴Includes TV, radio, social media, online and print

⁵ Office of Communications and Government Relations

Drought and Water Conservation Education

- In July, the Education Outreach team (EO) supported 31 educators and reached 509 students through 25 in-person and virtual presentations. EO presented water conservation and drought awareness messaging to students and their families at two library story time programs and also supported 20 summer camp groups with the Boys and Girls Club of Silicon Valley, the YMCA and City of San Jose Parks, Recreation and Neighborhood

Services Program. All library program and camp attendees recited the Valley Water Water Conservation Pledge, signed the pledge poster, and received drought messaging water conservation stickers and drought-tolerant native plant seeds. EO also supported the South Bay Water Week Teacher Externship Week and presented water conservation activities to the Santa Clara County high school teachers attending the educator training and provided resources and information for teachers to use with their students in the future.

- The table below shows Educational Outreach efforts in 2022, all of which included drought and water conservation messaging.

| Program | May 2022 | Jun 2022 | Jul 2022 |
|--------------------|---------------------|---------------------|---------------------|
| Educators/Teachers | 74 | 16 | 31 |
| Classes/Groups | 62 | 20 | 22 |
| Students | 1,788 | 497 | 509 |

- Members of the Valley Water Youth Commission presented an overview of the Youth Commission and the Drought Awareness Social Media Campaign to high school teachers attending the South Bay Water Week Teacher Externship Week. The Commissioners also highlighted the Drought Awareness Campaign toolkit that is housed on the Youth Commission website and encouraged the teachers to engage their students in raising drought awareness in their communities.

Committee Updates

- Drought-related updates are being provided regularly at Committee meetings to receive feedback and guidance. These updates were provided to the Agricultural Water Advisory Committee and the Water Conservation and Demand Management Committee in July 2022.

Water Supply Operations and Outlook

- There was no rainfall in July in the Santa Clara County. The current rainfall year extends from July 1, 2022, through June 30, 2023.
- Total reservoir storage as percentage of unrestricted reservoir capacity is 20% for July 31, 2022, which is 38% of the (20-year) average total storage for the current month.

Imported Water

- While storms in October and December 2021 provided a wet start to the water year, January through March 2022 were the driest combined first three months on record in California. Additionally, Northern California received above average precipitation in April, but major reservoir levels generally remain below average. As of July 28, 2022, the northern Sierra Nevada snowpack, a primary source of imported water, is at 16% of normal for this date.
- As of July 28, 2022, total state reservoir storage is below the historical average. Shasta Reservoir is at 54% of average for this date, Oroville Reservoir is at 62% of average for this date, and Folsom Reservoir is at 96% of average for this date. Total storage in each of these three major reservoirs has decreased in July.
- As of July 28, 2022, storage in San Luis Reservoir is approximately 662 thousand acre-feet (TAF). San Luis Reservoir storage was reduced by approximately 129 TAF in July.
- Valley Water entered 2022 with over 65 TAF of imported supplies stored in San Luis Reservoir. This includes emergency transfer supplies purchased in 2021, previously undelivered State Water Project (SWP) supplies, and water recovered from the Semitropic Groundwater Bank. This amount is higher than normal and is intended to

provide water supply reliability in the event dry conditions continue in 2022, while also mitigating for the loss of storage in Anderson Reservoir.

- The California Department of Water Resources (DWR) has announced a 2022 SWP allocation of 5 percent, which equates to an allocation of 5 TAF for Valley Water. DWR has approved Valley Water's request for additional water to meet our critical human health and safety needs.
- The U.S. Bureau of Reclamation (Reclamation) Central Valley Project (CVP) water supply allocations for south-of-Delta CVP contractors, including Valley Water, are currently set to a municipal and industrial allocation of public health and safety water only and an agricultural allocation of zero percent. Reclamation has approved Valley Water's request for public health and safety water.
- Valley Water will continue to withdraw previously stored supplies from the Semitropic Groundwater Bank in 2022 if SWP and CVP allocations remain low. Staff continues to work with DWR and other Semitropic Banking partners and anticipates that at least 31.5 TAF would be available for delivery to Valley Water. As of June 30th, Valley Water has withdrawn approximately 16.9 TAF in 2022 from Semitropic Groundwater Bank.
- Valley Water previously executed several long-term water transfer agreements that could provide emergency transfer supplies in 2022, but transfer supply this year is severely limited due to the critically dry conditions across the state. To date in 2022, Valley Water has secured agreements for 18.3 TAF of emergency transfer supplies, after conveyance losses this is estimated to provide approximately 13 TAF of additional supply. Staff is also pursuing other water transfer opportunities for additional supplemental supplies.

Treated Water

- The taste and odor compound, geosmin, continued to be slightly elevated in water from the South Bay Aqueduct and the San Luis Reservoir. Valley Water was able to proactively optimize the water treatment process and mitigate potential impacts.
- Cyanotoxins levels had slight detection in the San Luis Reservoir source water but were non-detect in treated water.
- No reportable water quality issues for the treated water delivered and no complaint was received from retailers for the month of July.

Groundwater Recharge

- In June and July 2022, Valley Water expanded its recharge program in North County and increased the recharge in Coyote Creek after the approval of the Public Health and Safety water allocation by the US Bureau of Reclamation. Recharging the groundwater basins is one of the best ways to put the new water allocation to beneficial use.
- In early spring, Valley Water had only 26 percolation ponds filled with water. By early August, the number of filled ponds will exceed 65 ponds out of a total 102 ponds countywide.
- Managed recharge in 2022 is projected to end at 95% of normal (or the 20-year average).

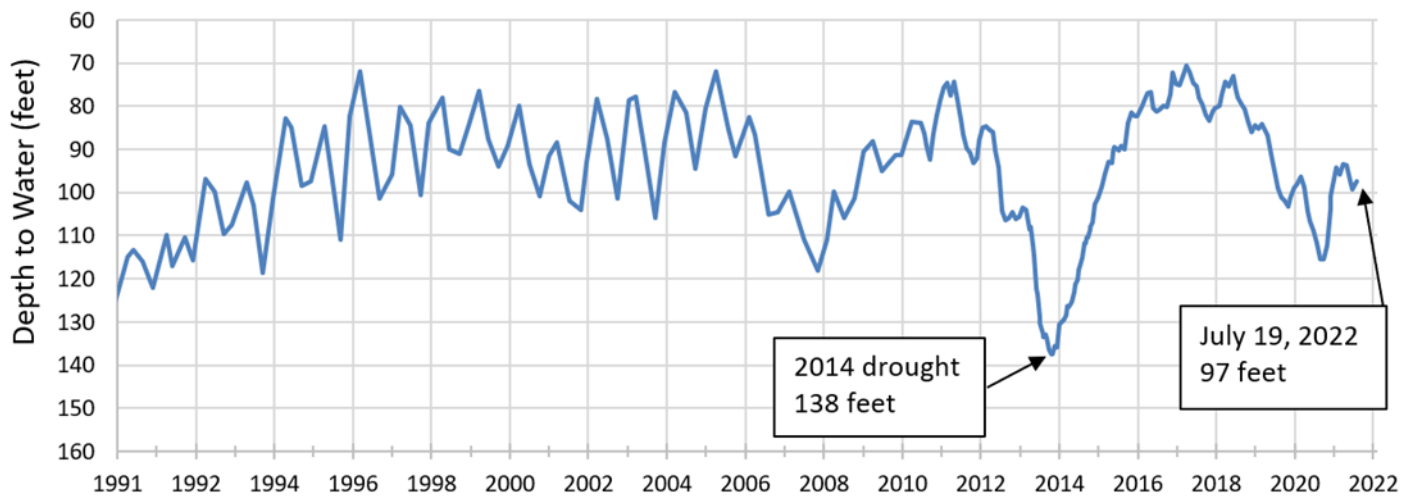
Groundwater Conditions:

Groundwater levels in July have continued the typical pattern of summer decline, but greater than average declines are expected this year because of the drought. Water use reduction is essential to minimize the risk of resumed subsidence in North County and wells going dry, particularly in South County. The risk of dry wells and subsidence increases as the drought persists. No new dry wells have been reported in July.

- North County Groundwater
 - o The current water level at the regional index well has increased by about 2 feet since last month and is about 41 feet above the minimum water level in 2014. The water level at this well is about 14 feet higher compared to this time last year.
 - o Groundwater levels are more than 52 to 100 feet above thresholds established to minimize the risk of permanent subsidence.

- o Since the onset of the current drought, a total of two dry wells have been reported in North County, all in the foothills where yield is generally less reliable.

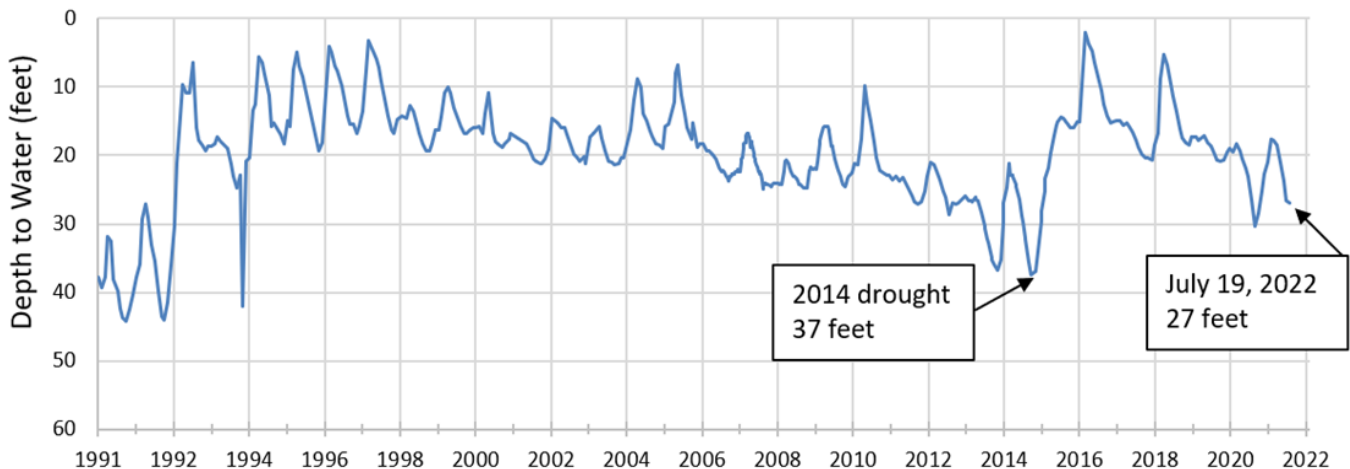
Santa Clara Plain Index Well



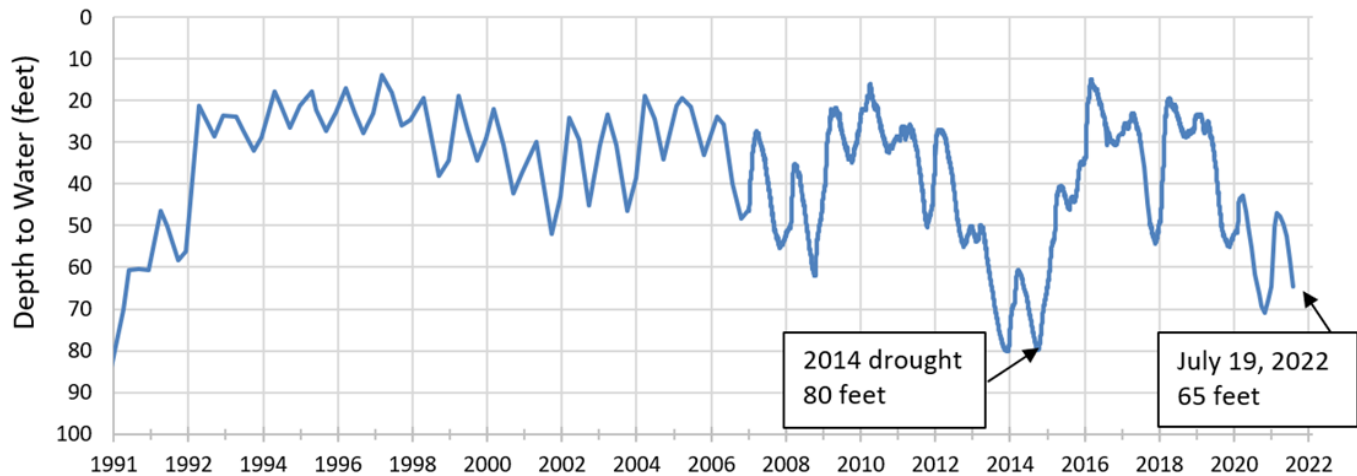
- South County Groundwater

- o The current water level in the Coyote Valley and Llagas Subbasin regional index wells have each decreased by about 0 and 7 feet since last month and are about 10 and 15 feet, respectively, above the minimum water level in 2014. Additionally, the water levels in these wells are each about 1 and 3 feet, respectively, lower compared to this time last year.
- o Since the onset of the current drought, a total of four dry domestic wells have been reported in South County, all in locations close to the foothills where yield is generally less reliable. Valley Water works to provide affected well owners with appropriate assistance, including information on available resources or billing support as needed.

Coyote Valley Index Well



Llagas Subbasin Index Well (San Martin)



State Coordination

- Governor Calls Water Agency Leaders to Sacramento – On July 29, 2022, Governor Newsom and senior administration officials met with water agency leaders in his Sacramento office. The meeting was a follow-up to a similar meeting held on May 23, 2022, to discuss the state’s failure to meet the Governor’s call to conserve water. In the meeting the Governor and other administration officials urged water retailers to report water conservation numbers early, asked that conservation efforts continue, urged that conservation savings be permanent to the degree possible, and asked that conservation successes be shared with the media.
- Valley Water developed a handout to highlight Santa Clara County’s conservation efforts and successes, including achieving the Governor’s call for conservation in June 2022. The handout is shown in Appendix A of this drought report.

Staffing and Resources

- For water conservation programs, four of six vacant intern positions were filled, with start dates in August. Recruitment is underway to fill the remaining positions.
- Additionally, two candidates were selected to fill these vacancies and will start in August 2020.
- Staff have requested resumes for the new vacant Temporary Water Conservation Specialist position and intend to hold interviews for this vacancy sometime in late August.
- Drought emergency expenses are expenditures supplemental to the regular budget that would not have been adopted had there been no drought. The FY 2022-23 Adopted Budget of \$37 million for drought emergency is comprised of \$17 million for emergency water purchases, \$7 million for water banking expenses to help bring approximately 32,000 acre-feet of water banked at Semitropic Water Storage District into the county, and \$13 million for conservation programs and drought related public relations.
- Due to the timing of monthly financial system closes, drought expenditures are reported one month behind the monthly Drought Emergency Report.
- FY 2021-22 preliminary year-end expenses between July 2021 through the month of June 2022 totaled approximately \$48.07 million spent or encumbered primarily for emergency water purchases tied to contracts executed either in FY 2020-21 or late FY 2021-22, relatively small draws of water from Semitropic Water Storage District in August, December, February, March, May, and June, operating supplies and services including communications contracts, and labor expenses for staff time implementing Valley Water’s drought response program. Of the \$48.07 expense, approximately \$11 million was encumbered in June for one existing and three new emergency water purchases contracts for which water will be received in FY2022-23.

Expanded Opportunities

Purified Water Project

The Purified Water Project will replenish groundwater supplies with purified water and expand usage of recycled and purified water, a drought-resilient, locally-controlled water source.

- Valley Water continued to develop the procurement and CEQA documents for the Purified Water Project.
- Valley Water continued outreach to cities and landowners along the pipeline route.

Drought Response Plan

Valley Water is developing a Drought Response Plan (DRP) to improve water supply reliability in Santa Clara County during times of future shortage through a WaterSMART grant from the Bureau of Reclamation. Valley Water's DRP will evaluate new approaches for determining when to request water use reductions from the public and develop a response framework to employ during future droughts.

- Work continues refining the draft Vulnerability Assessment that evaluates the risks and impacts of drought in the county, focusing on key factors that increase Valley Water's vulnerability to drought, such as climate change, existing and potential regulations, infrastructure conditions, and future water quality conditions. The consultant has also started working on the next phase of the DRP looking at drought triggers and water shortage actions in coordination with retailers.

Appendix A: Valley Water's water conservation handout

SANTA CLARA COUNTY IS IN A SEVERE DROUGHT.

 **LET'S SAY YES TO SAVING WATER**

WaterSavings.org


 **Valley Water**

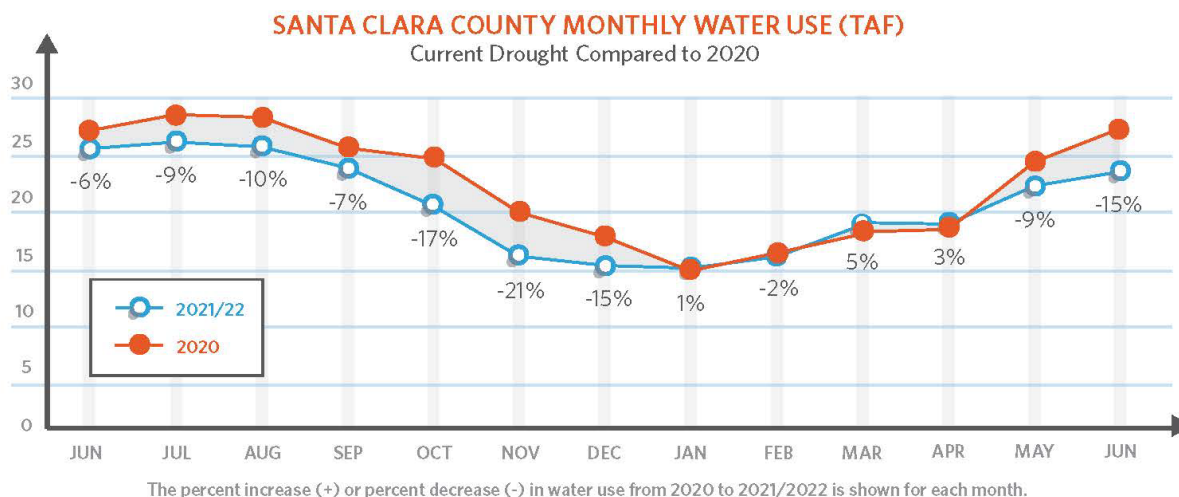
Valley Water Drought Impacts

The Santa Clara Valley Water District, Valley Water, is the regional wholesale water supplier and groundwater sustainability agency, serving 2 million people and thousands of job-creating businesses in Silicon Valley. The current drought has hit harder in our region due to the federally ordered draining and seismic retrofit of Anderson Dam, our largest drinking water reservoir. The county usually imports 50% of its water supply, but with local resources constrained, dependence on imported water is even greater.

With drought and reduced imported water supplies come the risk of groundwater overdraft and the return of historic land subsidence in the San José region, one of our state's major metropolitan areas. Valley Water has taken bold actions to lead the way in water conservation and the people of Santa Clara County are saying YES to saving water.

Valley Water Actions = Success

 **State Conservation Target Met** - Governor's call for 15% conservation compared to 2020 was met in June 2022. Santa Clara County also met this target in Fall 2021.



One Million Sq. Ft. of Turf Converted

In the Fiscal Year 2021-22, Valley Water converted over one million square feet of turf through our landscape rebate program.



Water Use Dropped 25% in the Last 5 Years

Water use was 148 gallons per person per day in 2017 and 111 gallons per person per day in 2022.



22 Water Conservation Programs Underway

Valley Water offers 16 programs for outdoor conservation and 6 programs for indoor conservation, for residents, businesses, and farms.



On Track for Long-Term Water Savings

Valley Water is on track to save 99,000 acre-feet per year by 2030 compared to 1992 and 109,000 acre-feet by 2040.



Robust Outreach Campaign

In 2021 and 2022, Valley Water outreach campaigns reach millions with conservation messages through TV and radio, movie theaters and billboards, buses and transit shelters, social media platforms and targeted influencers, text messages, and more. Our Speakers Bureau Program offers community organizations the opportunity to hear directly from Valley Water leaders about our water supply challenges and the need for conservation.



Drought Resources Increased

Valley Water doubled its water conservation staff and has spent nearly \$50 million on drought response in FY 2021-22, including emergency water transfers, bolstered water conservation programs, and aggressive outreach programs.



Total Water Use Down Amid Historic Population Growth

The population in Santa Clara County has increased by 25% over the past 30 years, while water demand has decreased by about 8% in that time (1990–2020).

Valley Water Drought Response Timeline

Conservation Programs Bolstered

MAY 2021

As drought becomes more severe, Valley Water doubles landscape rebate program incentive, ramps up outreach, launches new Online Shopping Cart for free water-saving devices delivered to residents and businesses.

JUNE 2021

Emergency Declared with Mandatory Conservation

Amid historically low imported water allocations, the Valley Water Board declares a Water Shortage Emergency Condition and calls for 15% mandatory water conservation compared to 2019, a more stringent baseline than 2020. A limit of 3 days per week watering is urged.

Conservation Target Met

OCT. 2021

Santa Clara County meets Valley Water's call to reduce water use by 15% compared to 2019, using 16% less water in October 2021 and 20% less water in November 2021 compared to 2019.

JAN-MAR. 2022

Driest On Record

Rainfall during this period in San José measured just 0.36 inches, the driest start to a calendar year on record. The dry spring skyrockets water use in comparison to 2019 and 2020.

Watering Limited Further

APR. 2022

With imported water allocations set at 5% or human health and safety levels, the Valley Water Board calls for restricting the watering of lawns and ornamental landscapes to no more than 2 days per week.

MAY 2022

First Ever Enforcement Ordinance

Valley Water Board adopts Water Waste Enforcement Ordinance to enforce and issue fines for water waste by individual water users, an unprecedented step for Valley Water and for any wholesale water agency.

State Target Met and "Say YES to Saving Water" Launched

JUNE 2022

Santa Clara County reaches Governor's call to reduce water use by 15% compared to 2020. Valley Water adds a new large landscape conversion program and increases rebate amounts to a maximum of \$100,000 per project. The innovative "Say YES to Saving Water" campaign is launched with a large budget.

SEPT. 2022

Commercial Turf Watering Ban to Be Enforced

Valley Water Board will consider incorporation of the state's Commercial Industrial & Institutional turf watering ban into our enforcement ordinance.