

Drought Emergency Response Report

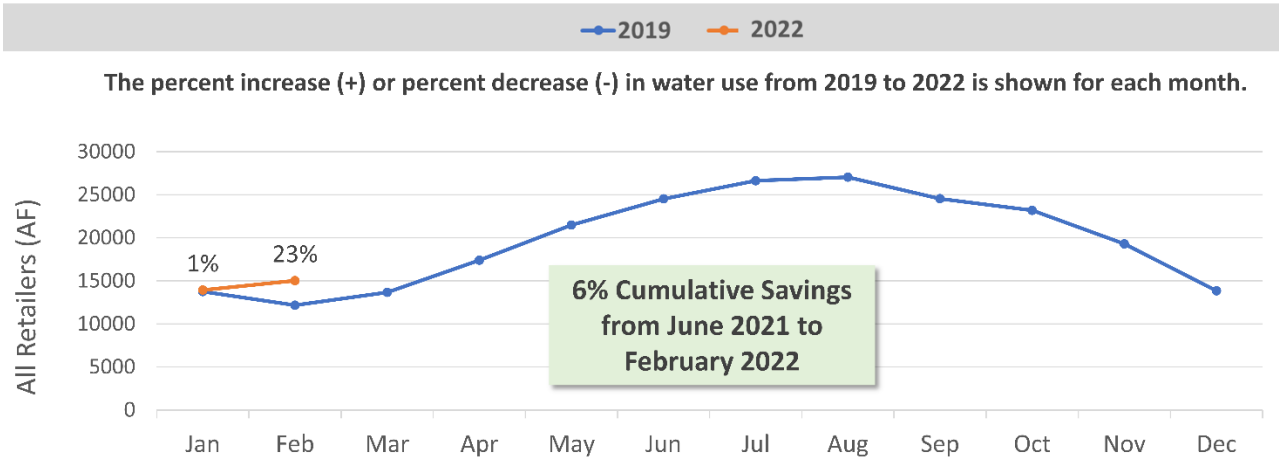
MARCH 2022

Resolution 21-68 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.

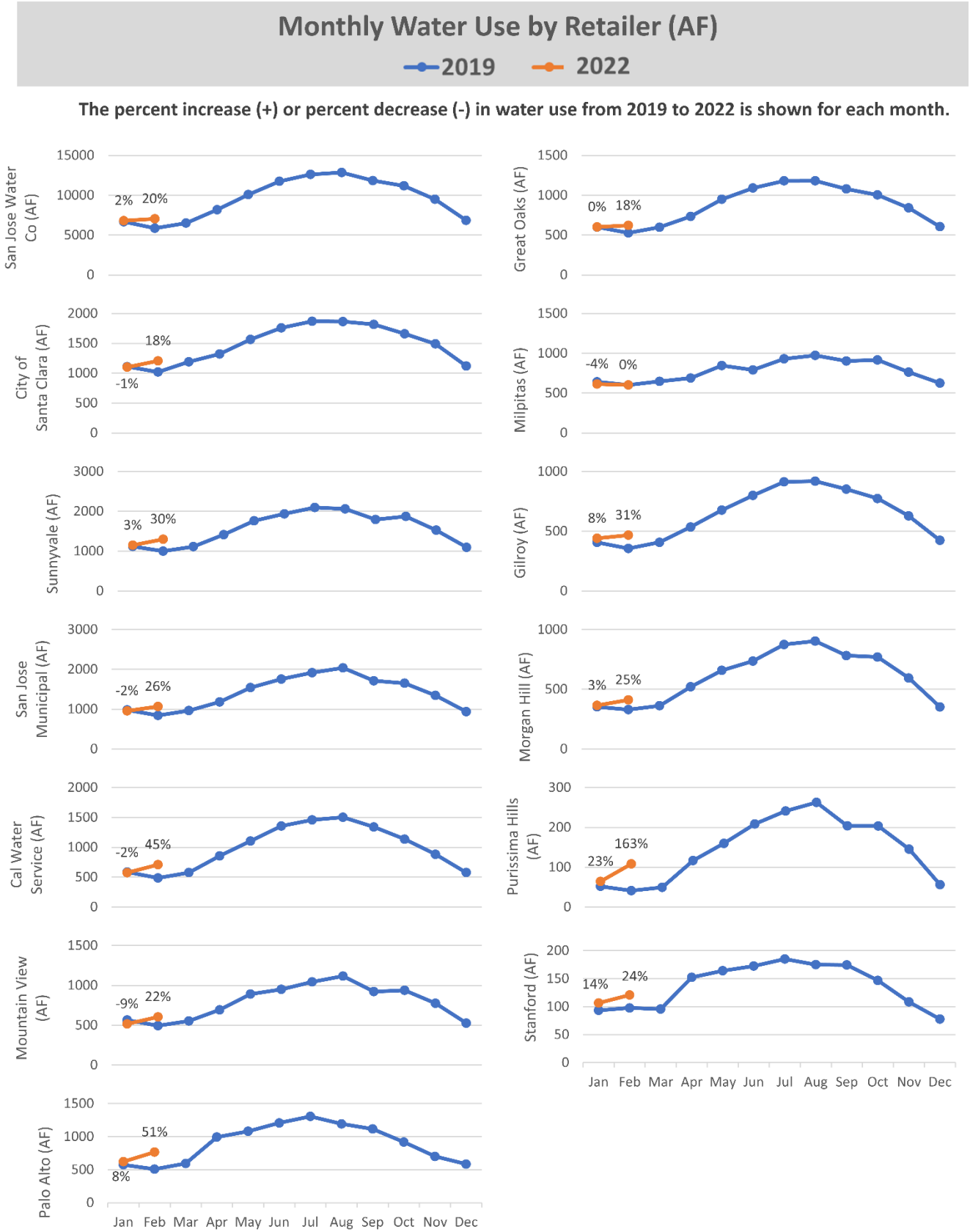
Retailer Water Use Reduction

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.

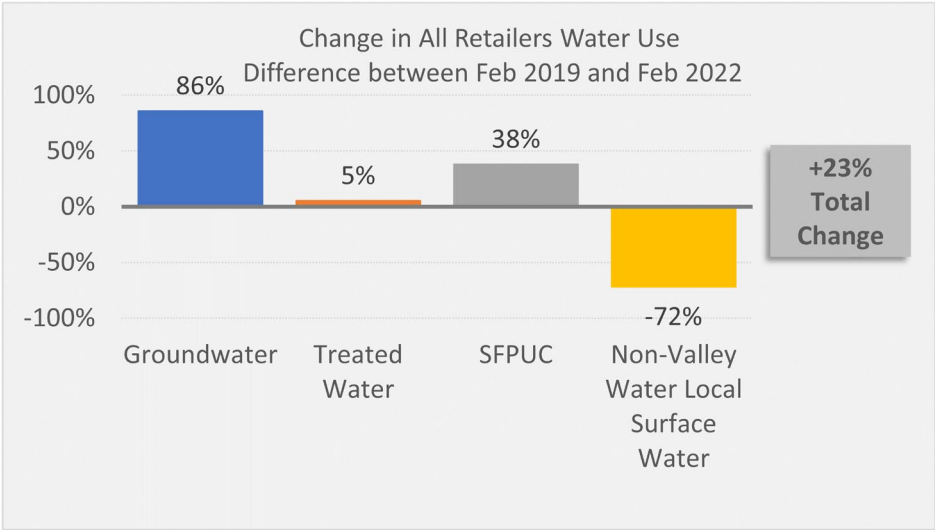


- Santa Clara County has made progress in reducing water use since Valley Water’s call to reduce water use in June 2021.
- The cumulative water savings from June 2021 – February 2022 is 6%, compared to the same months in 2019.
- February 2022 water use was 23% higher than February 2019. In February 2019, rainfall was 5.5 inches and in February 2022, our county received no measurable rainfall and had higher than average temperatures on some days. January, February, and March 2022 are the driest on record in California. Thus, it is likely that more people turned their outdoor irrigation systems on.
- Water use in February 2022 was 2% lower than February 2020.
- Winter months reflect primarily indoor water use as most homes reduce or shut off irrigation during these months. As indoor water use is less discretionary and more difficult to cut back than outdoor use, maintaining a 15% reduction in water use during winter months is particularly challenging. Valley Water strives to meet the 15% call on a cumulative basis in 2022.
- Valley Water continues its multilingual, multi-platform outreach to the media and community to encourage residents, businesses, farms, and others to save water in order to achieve a cumulative 15% reduction in water use in 2022.

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.



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 (Feb 2019)					Total Water Use in Acre-Feet (Feb 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	1,460	2,750	-	1,660	5,860	3,360	3,220	-	460	7,040
Santa Clara, City	520	280	220	-	1,020	800	180	230	-	1,210
Sunnyvale	10	550	450	-	1,000	10	450	840	-	1,300
San Jose Municipal Water	60	510	270	-	850	70	680	320	-	1,070
California Water Service	90	390	-	-	490	540	170	-	-	710
Palo Alto	-	-	510	-	510	-	-	770	-	770
Mountain View	20	40	440	-	490	10	60	540	-	600
Great Oaks	530	-	-	-	530	620	-	-	-	620
Milpitas	-	250	350	-	600	-	260	340	-	600
Gilroy	360	-	-	-	360	470	-	-	-	470
Morgan Hill	330	-	-	-	330	410	-	-	-	410
Purissima Hills Water	-	-	40	-	40	-	-	110	-	110
Stanford	-	-	100	-	100	-	-	120	-	120
Total	3,400	4,800	2,400	1,700	12,200	6,300	5,000	3,300	500	15,000

Collaboration with the County, Retailers, and Cities

- As of March 31, 2022, the County of Santa Clara and 14 cities in Santa Clara County have taken formal action to their elected boards in response to the drought and to Valley Water's call to reduce water use by 15% compared to 2019 levels. All cities in Santa Clara County have increased conservation messaging in response to the drought.
- In March, 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. Some cities are aligning the adoption of new MWENDO measures as part of the upcoming Title 24 triennial building code update. The 2022 version of California’s Title 24 is currently under development, with a publication date of July 1, 2022, and is expected to become effective on 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 Landscape Rebate Program (LRP) provides rebates for converting high-water use landscape to low-water use landscape, as well as retrofitting existing irrigation equipment with approved high-efficiency irrigation equipment. The Shopping Cart (eCart) Program offers free water-saving devices to homes and businesses. The Water Waste Program enables callers to confidentially report water waste and leaks, which Valley Water addresses by providing educational assistance to the owner of the leak.

- Valley Water received a significant increase in applications for our landscape rebates, requests for water-saving devices, and reports of water waste since 2021. In March 2022, LRP received a 123% increase in applications from March 2021. The eCart Program received over 900 orders in March 2022, compared to only 9 in March 2021. In March 2022, there was a 258% increase in water waste complaints from March 2021.

- Estimated applications received for 2022 are shown below.

Program	Jan	Feb	March
Landscape Rebate Program Applications ¹	106	149	216
Water-saving Device Orders	274	2,516	908
Water Waste Reports	70	66	93

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.

Drought and Water Conservation Outreach

- In March 2022, media interest focused on the drought and the record-setting dry start to the year, water conservation, water supply issues, the latest snowpack survey, and the diminishing water allocations from both the State Water Project and the Central Valley Project.
- On social media, staff shared a graphic highlighting the severity of the drought. It included a bar graph with the top five driest starts to a year, with 2022 the driest on record. Valley Water social media accounts recognized Fix a Leak Week and Ground Water Awareness Week highlighting our programs, including our Purified Water Project. Staff continues to post links to our conservation programs to promote participation and encourage water-saving habits.
- Valley Water has partnered with the City of Gilroy to run six advertisements highlighting the importance of purified water and conservation in the movie theater. Beginning on March 4, the ads began rotating for what will be a 26-week run. It is expected to produce more than 160,000 impressions.
- Staff is working on launching the Spring/Summer water conservation campaign which will support our call to reduce water use by 15% compared to 2019 levels. The campaign will promote our water conservation tools and rebates, such as landscape, irrigation and graywater rebates, as well as our indoor and outdoor water surveys and shopping cart. Valley Water is collaborating with water retailers to expand our outreach through bill inserts. We are also collaborating with community organizations to make our free water conservation tools easily available to disadvantaged communities.
- While there were no Speakers Bureau presentations hosted during the month of March, staff has scheduled several upcoming presentations.
- Statistics for public outreach efforts are shown below.

Outreach Type	March 2022
Social Media¹	
Impressions ²	2,822,048
Engagements ³	25,857
Link Clicks	8,707
Video Views	344,114
Website Page Views	
Water conservation webpages	21,992
BeHeard.ValleyWater.org/drought-information	199
Media	
Media Mentions ⁴	1,057
Speakers Bureau	
Presentations ⁵	0

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 March, the Education Outreach team supported 65 educators and reached 792 students through 36 virtual classroom presentations. The team supported one Science, Technology, Engineering, Arts, and Mathematics (STEAM) event, and engaged 92 members of the public through five Wonders of Water Wednesdays after-school enrichment programs and five public library programs.
- The table below shows Educational Outreach efforts in 2022, all of which included drought and conservation messaging.

Program	Jan 2022	Feb 2022	Mar 2022
Educators/Teachers	97	51	68
Classes/Groups	22	44	36
Students	563	1,210	792

- Valley Water launched its fourth annual Water 101 Academy on March 9, with a new cohort of participants. The participants have attended two sessions and have heard from several speakers about the drought conditions in our region and the need for conservation and other projects to ensure a reliable supply of safe, clean water into the future. These speakers included: Valley Water Board Chair Pro Tem John L. Varela and Maggie Macias from the Department of Water Resources. Valley Water staff speakers included: Gina Adriano, Chief Aaron Baker, CFO Darin Taylor, Janet Hedley, Jing Wu, and Nicholas Simard.

Committee and Retailer Updates

- Drought-related updates are being provided regularly at Committee meetings to receive feedback and guidance. These updates were provided to the Water Conservation and Demand Management Committee in February 2022. Updates were also provided at the Water Retailer Meeting.

Water Supply Operations and Outlook

Imported Water

- While storms in October and December provided a wet start to the water year, California and Santa Clara County experienced the driest first three months on record in 2022. Statewide runoff projections continue to decline, and reservoir levels remain below average. As of March 31, 2022, the northern Sierra Nevada snowpack, a primary source of Valley Water's imported water, is at 29% of normal for this date and 29% of the April 1 average, which is the date at which snowpack has historically been at its annual maximum. Statewide snowpack on April 1 is 38% of average for this date.
- As of March 27, 2022, total state reservoir storage is below the historical average. Shasta Reservoir is at 49% of normal for this date, Oroville Reservoir is at 67% of normal for this date, and Folsom Reservoir is at 95% of normal for this date. Storage levels did not change significantly in March, when reservoir levels typically increase.
- As of March 27, 2022, storage in San Luis Reservoir is approximately 905 TAF. San Luis Reservoir storage did not change significantly in March.
- 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 reliability in the event dry conditions continue in 2022, while also mitigating for the reduction in storage in Anderson Reservoir.
- On March 18, California Department of Water Resources (DWR) reduced the 2022 SWP allocation from 15 percent to 5 percent, which equates to an allocation of 5 TAF for Valley Water. This may be adjusted for human health and safety need. Valley Water continues to work with DWR to determine the amount allocated and requested an exception to the minimum health and safety need of 55 gallons per capita per day.
- On April 1, 2022, the U.S. Bureau of Reclamation reduced its water supply allocations on the Central Valley Project (CVP). For south-of-Delta CVP contractors, including Valley Water, the agricultural allocation is zero percent, and the municipal and industrial allocation was lowered from 25 percent to public health and safety water only.
- 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, which is the contractual minimum recovery amount at low SWP allocations.
- 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. Staff is also pursuing other water transfer opportunities for additional supplemental supplies.

Treated Water

- The taste and odor compound (Geosmin) level at the Delta was slightly elevated during the month of March. Staff were able to proactively optimize the water treatment process and mitigate potential impact.
- Cyanotoxins compound levels were low for all source water.
- Elevated total organic carbon (TOC) levels are reported for both Delta and San Luis Reservoir source water. Staff are monitoring water quality data closely and will implement mitigation and process optimization measures as needed.
- No reports of significant water quality issues for the treated water delivered in March 2022 and no complaints were received from retailers.

Groundwater Recharge

- Imported water releases for managed groundwater recharge in the latter half of March 2022 were reduced by over 50% relative to prior months due to the reduction in the State Water Project's allocations. The plan for the remainder of the calendar year is to maintain the reduced recharge level unless conditions change in the fall.

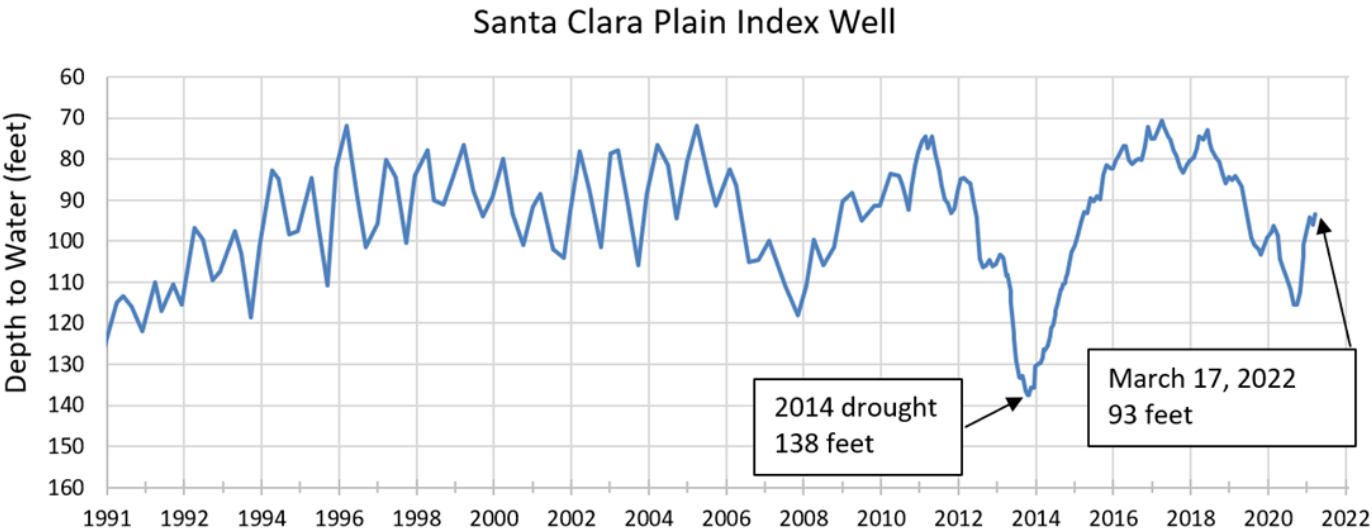
The majority of imported water releases will be in the Coyote Valley and Llagas Subbasin to support the South County that relies mostly on groundwater pumping for water supply.

- Water releases from local reservoirs will continue, albeit at lower levels than normal due to the current low storage.
- Due to limited local and imported water supplies, the countywide managed groundwater recharge for 2022 will hover around 60% of an average year.

Groundwater Conditions:

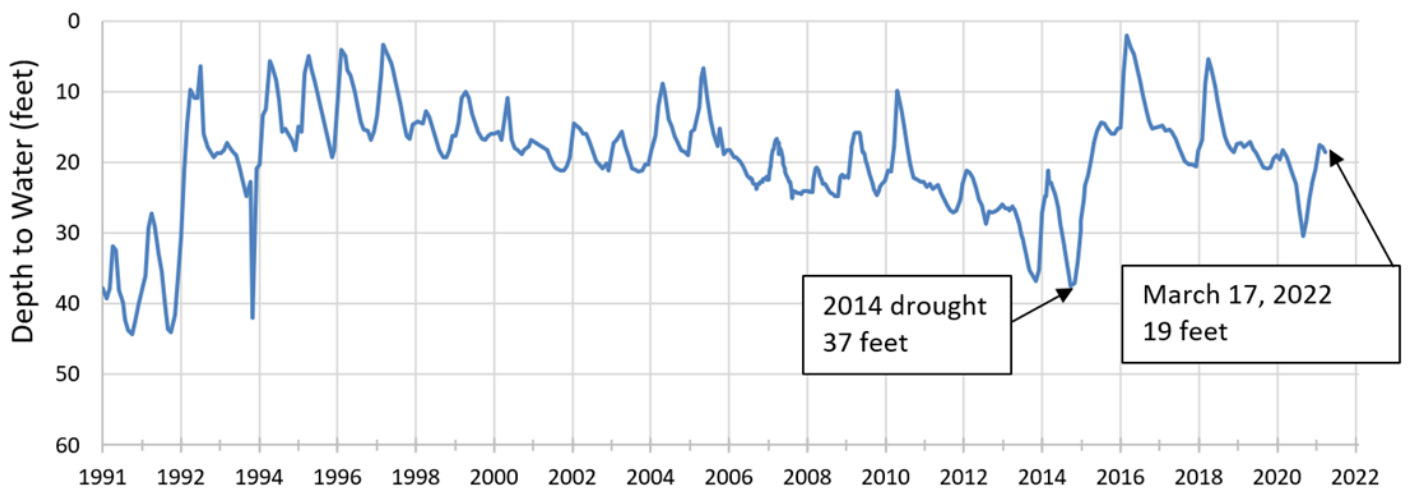
Although groundwater levels have declined over recent years due to the drought, groundwater conditions improved this winter due to seasonal recovery, emergency imported water supplies, and water use reduction by the community. Groundwater levels will begin to decline this spring as pumping increases due to higher temperatures and increased water needs. Given continued dry conditions, achieving the Board’s water use reduction target is essential to minimize the risk of resumed subsidence in North County and wells going dry, particularly in South County. That risk increases as the drought persists. Current conditions in both areas are described below.

- North County Conditions
 - o As shown below, water levels in the Santa Clara Plain index well have generally declined since 2018 due to dry conditions, with a similar pattern as the 2012–2016 drought. However, the current water level has increased by 3 feet since last month and is about 45 feet above the minimum water level in 2014. Additionally, the water level at this well is about 5 feet higher compared to this time last year.
 - o Groundwater levels are more than 60 to 100 feet above thresholds established to minimize the risk of permanent subsidence.
 - o No reports of dry wells have been received.

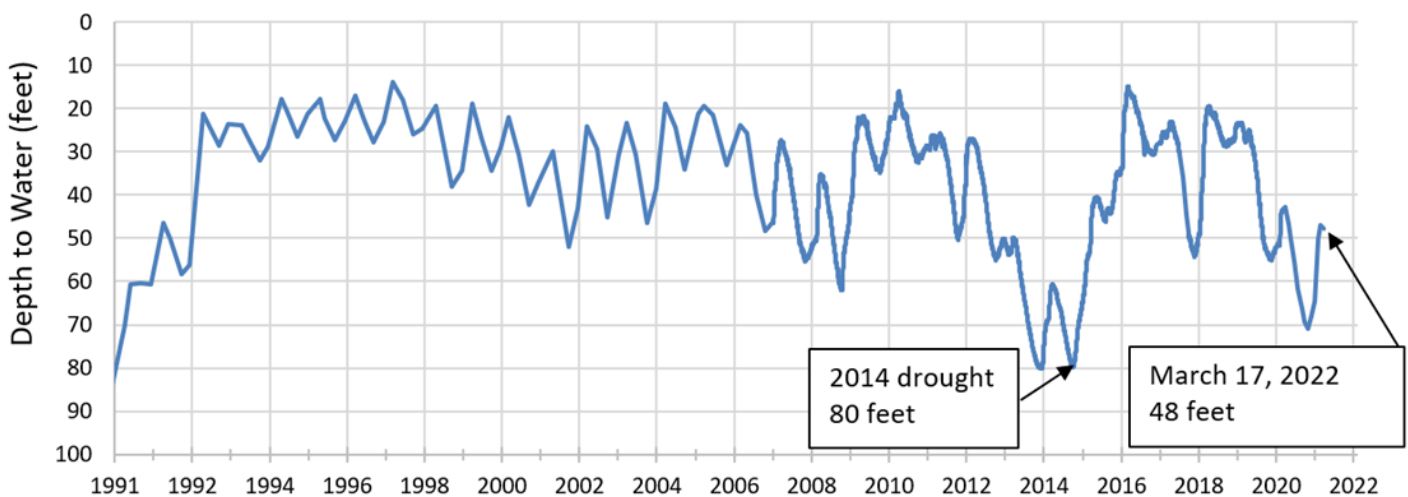


- South County Conditions
 - o As shown below, water levels in the Coyote Valley and Llagas Subbasin index wells have generally declined since 2018 due to dry conditions, with a similar pattern as the 2012–2016 drought. The current water level in these wells have each decreased by 1 foot since last month and are about 18 and 32 feet, respectively, above the minimum water level in 2014. Additionally, the water levels in these wells are about 1 foot higher and 5 feet lower, respectively, compared to this time last year.
 - o Valley Water has received one report of a dry well. The well is in unincorporated area within the southwestern Coyote Valley and is close to the foothills where well yield is generally less reliable.

Coyote Valley Index Well



Llagas Subbasin Index Well



State Coordination

- **Governor's Executive Order** - On March 28, Governor Newsom issued Executive Order N-7-22 which calls on local water suppliers to implement Stage 2 of their water shortage contingency plans, at a minimum, and orders the State Water Board to consider emergency regulations by May 25, 2022 to ban watering non-functional turf around commercial, industrial, and institutional buildings. As proposed by the Governor, the ban would not include residential lawns or grass used for recreation. Executive Order N-7-22 includes permit streamlining for actions that protect fish and wildlife where drought conditions threaten their health and survival and for groundwater recharge projects. The order also requires the permission of a groundwater sustainability agency before new wells can be constructed and directs the State Water Board to expand site inspections to detect and stop illegal diversions of water. Staff is reviewing the order for potential benefits to the timing or implementation of Valley Water projects.

Federal Coordination

- Chair Pro Tem Varela led the directors and senior staff in a series of successful advocacy visits in March with officials in Washington, DC. Among the priority issues discussed was the drought and the importance of our Public Health and Safety allocation. Staff will continue to work closely with the Bureau of Reclamation to secure as much water as possible for Santa Clara County.

Staffing and Resources

- Drought emergency expenses are expenditures supplemental to the regular budget that would have been adopted had there been no drought. The only expenses for drought emergency costs included in the FY 2021-22 Adopted Budget are \$20 million for supplemental water and an additional \$3.3 million for water banking expenses to bring approximately 32,000 acre-feet of water banked at Semitropic Water Storage District into the county. Budget adjustments will be brought to the Board for any additional expenses incurred during the year.
- Expenses through the month of February FY22 totaled approximately \$29.14 million spent or encumbered primarily for supplemental water tied to contracts executed in FY21, a relatively small draw of water from Semitropic Water Storage District in August, December and February, operating supplies, and labor expenses for staff time bringing together Valley Water's drought response program.

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 continues developing the Request for Proposal and draft Environmental Impact Report for the Purified Water Project.
- Valley Water continues to work with our partners, cities, and property owners along the proposed 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.

- The Benchmark Study was presented to the Water Conservation Demand Management Committee in March and it is going to be presented to the Environmental and Water Resources Committee in April.