

Drought Emergency Response Report

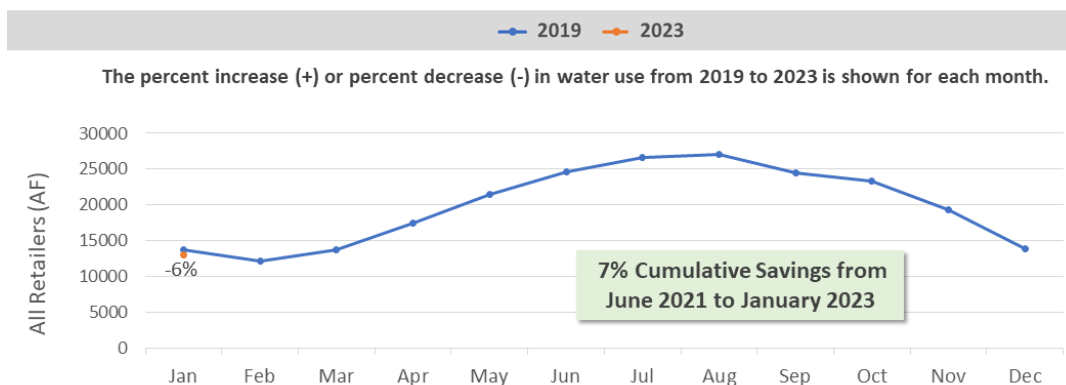
FEBRUARY 2023

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. On September 13, the Board amended Ordinance 22-02 to include the State's ban against watering commercial, industrial, and institutional (CII) non-function turf amongst its list of enforceable restrictions.

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.

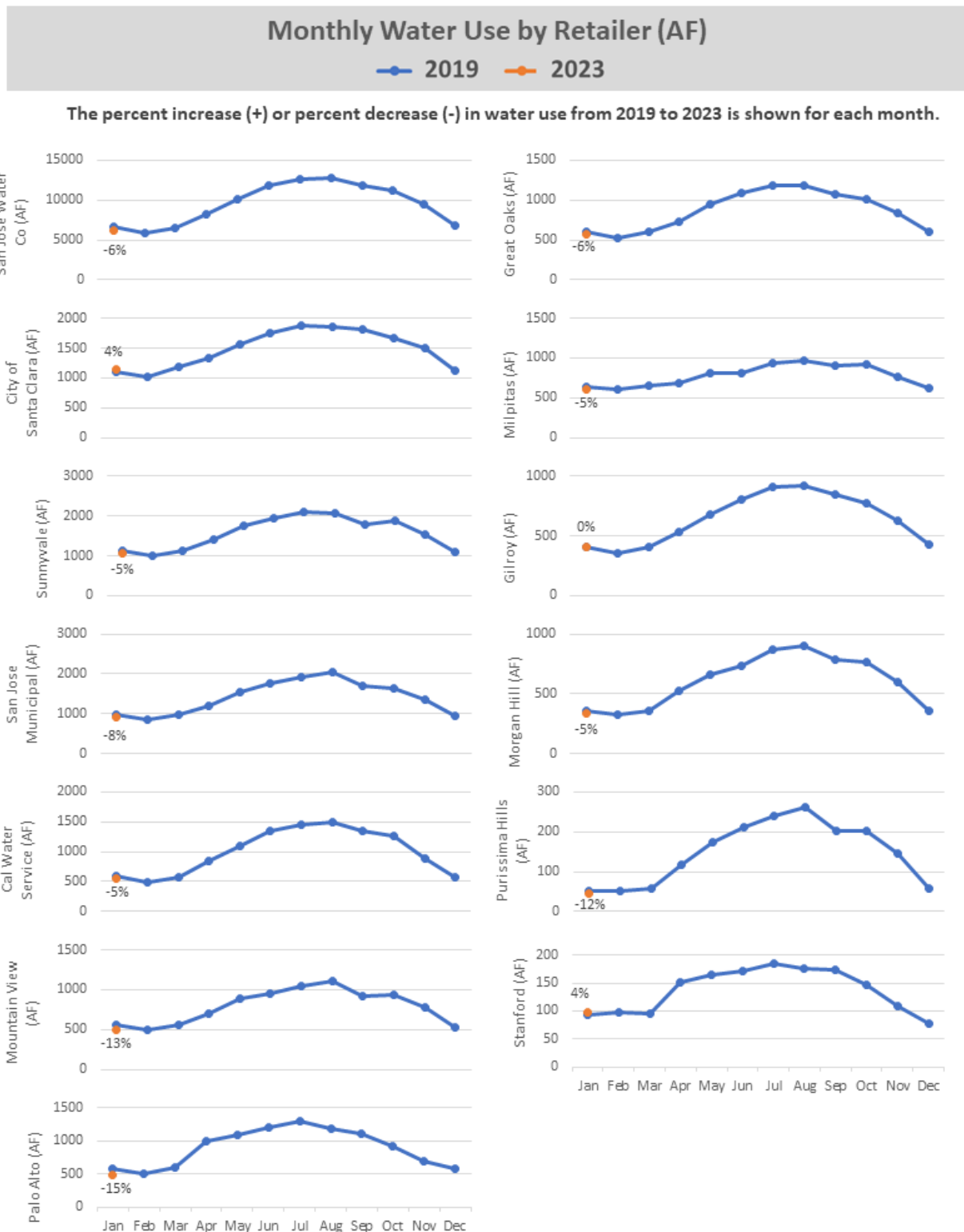


- December 2022 through February 2023 precipitation has increased the water levels in our local reservoirs and also increased the snowpack in the Sierra. According to the U.S. Drought Monitor, Santa Clara County is now abnormally dry, the lowest drought stage.
- Countywide water savings were 6% in January 2023 compared to January 2019 and January 2020, both pre-COVID months. Winter use represents indoor water use, which increased following COVID generally due to increased water use for sanitation.
- January 2023 water use was the lowest January water use since 2016.

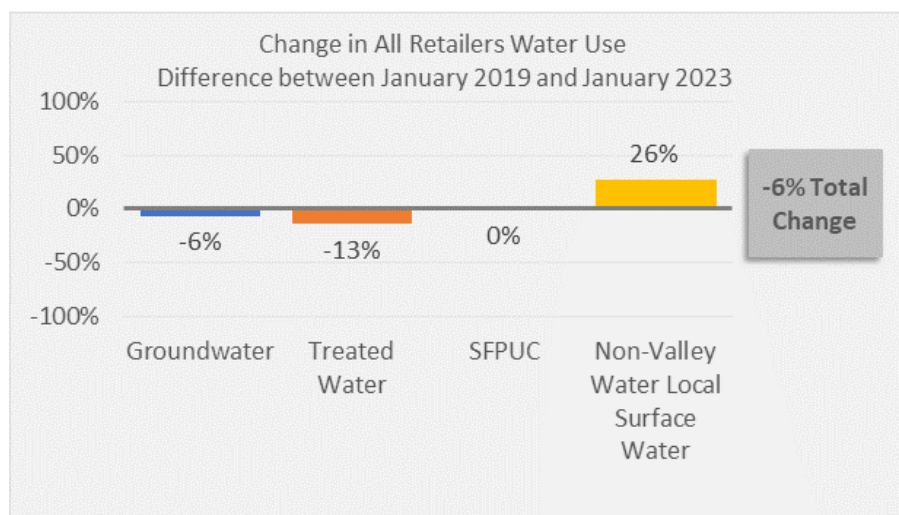
- Valley Water continues its conservation and drought-messaging with the “Say Yes to Saving Water” campaign. The multilingual, multi-platform campaign encourages residents, businesses, farms, and others to follow watering restrictions and take actions, both large and small, that can increase water savings.

	Santa Clara County	
Baseline Year	2019	2020
January 2023 Savings	6%	6%
Cumulative*	7%	12%
* Cumulative for 2019 baseline begins in June 2021 and for 2020 baseline begins in July 2021		

The graphs below 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.



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

Water Retailer	Total Water Use in Acre-Feet (January 2019)					Total Water Use in Acre-Feet (January 2023)				
	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	2,270	3,400	-	1,000	6,670	1,700	3,290	-	1,260	6,250
Santa Clara, City	620	250	240	-	1,110	700	210	250	-	1,150
Sunnyvale	10	610	490	-	1,120	10	440	610	-	1,060
San Jose Municipal Water	60	610	310	-	980	60	570	270	-	900
California Water Service	50	540	-	-	590	330	230	-	-	550
Palo Alto	-	-	570	-	570	-	-	490	-	490
Mountain View	20	80	460	-	570	10	50	430	-	490
Great Oaks	600	-	-	-	600	570	-	-	-	570
Milpitas	-	290	360	-	640	-	230	370	-	610
Gilroy	410	-	-	-	410	410	-	-	-	410
Morgan Hill	350	-	-	-	350	340	-	-	-	340
Purissima Hills Water	-	-	50	-	50	-	-	50	-	50
Stanford	-	-	90	-	90	-	-	100	-	100
Total	4,390	5,780	2,580	1,000	13,750	4,120	5,010	2,570	1,260	12,960

Collaboration with the County, Retailers, and Cities

- As of February 28, 2023, 13 cities in Santa Clara County (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. Of the current jurisdictions that have implemented a two-day irrigation schedule, two cities further restricted outdoor watering to one-day-a-week through the end of February.
- In February, Valley Water continued to monitor actions related to the adoption of the Model Water Efficient New Development Ordinance (MWENDO) and provide staff support to municipalities as part of ongoing efforts

to support cities' and the County's interests in expanding water efficiency measures. While the 2022 version of California's Title 24 building code update was effective January 1, 2023, jurisdictions can adopt additional measures like MWENDO at any time.

Water Conservation Programs

Valley Water is actively promoting ways our community 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 landscapes, as well as retrofitting existing irrigation equipment with approved high-efficiency irrigation equipment. As expected, the application submittal rate reduced during winter months, but it is higher than in non-drought years. Estimated conservation program applications received over the last few months are shown below.

Program	December	January	February
Landscape Rebate Program Applications	96	126	120
Water-saving Device Orders	113	116	114

The Landscape Summit is a forum for professional landscapers to learn about water issues and how water relates to the landscaping industry, and to provide feedback, collaborate, and exchange ideas. The 8th Landscape Summit was held on February 16, 2023 with 60 attendees in person and 104 virtual attendees. The next Landscape Summit will be held in early 2024.

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. On September 13, 2022, Valley Water's Board of Directors amended the Ordinance 22-02 to allow Valley Water to enforce the State of California's ban against watering non-functional turf on commercial, industrial, and institutional properties. The Water Waste Program is enforcing these restrictions while continuing its educational mission. The number of water waste reports since program launch in June 2022 is shown below.

	June '22	July '22	Aug '22	Sept '22	Oct '22	Nov '22	Dec '22	Jan '23	Feb '23
Water Waste Reports	515	236	484	286	221	156	79	58	45

Complaints of violations against water waste restrictions are submitted by members of the public. A total of 45 water waste complaints were received in February 2023. Twelve 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 but are addressed through education. Each complaint may include multiple reports of violations against water waste restrictions. Below is a breakdown of the numbers of reported water waste 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. Nine second complaints on the same violation have been received between the launch of the enforcement program through the end of January.

Enforceable Water Waste Violations	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb
More than 2 days of watering per week	76	39	113	83	54	26	17	12	8
Watering from 9AM-6PM	84	30	92	45	29	14	4	0	2
Watering within 48 hours of rainfall	11	4	3	21	4	19	17	19	7
Runoff	199	95	210	129	118	46	21	18	7
Watering CII non-functional turf	n/a	n/a	n/a	15	38	18	5	1	4
Total	370	168	418	293	243	123	64	50	28

Drought and Water Conservation Outreach

- In February, media interest focused on continued rain events, their effect on the drought and Santa Clara County's water supply. In response to a District News statement from Board Chair Varela, staff discussed the significance of recent state and federal water allocation amounts in interviews with CBS Bay Area, NBC Bay Area, ABC7, Univision and Telemundo. Board Chair Varela, Assistant Officer Kirsten Struve and PIR III Lakeisha Bryant were featured interview subjects of an ABC News/Hulu documentary filming at the Silicon Valley Advanced Water Purification Center. They discussed Valley Water's purified water initiatives, innovative technology, how water conservation is a way of life and the award-winning purification center's daily functions. The program is scheduled to air this spring.
- Our Say Yes campaign encouraging quick and easy water conservation actions continued during February. Multilingual ads were shared through social media and digital channels, as well as on grocery shopping carts. Staff launched a new campaign aimed at helping Commercial, Industrial and Institutional (CII) entities apply for our large landscape and WET rebates. An easy-to-use interest form was created on watersavings.org to allow CIIs to book a meeting with a conservation specialist to launch their projects. Ads for CII are running on audio and video streaming platforms, as well as LinkedIn. A marketing agency completed a pilot program to contact CII managers to facilitate rebate participation directly.
- On social media, staff shared a video featuring H2Cool explaining that we are still in moderate drought. Staff also shared posts on our landscape rebate program, water-saving tips and where to find water-efficient products. With each rain event, reminders were shared for people to turn off their sprinklers.
- Community outreach conducted three Speakers Bureau presentations in February. On February 9, staff gave a drought presentation to Sons in Retirement: Branch 54 during the group's monthly meeting at Three Flames Restaurant. On February 13, Chair Varela and staff gave a drought presentation to the Rotary Club of Evergreen Valley during the club's monthly meeting at The Creek Eatery. On February 14, outreach and water conservation staff presented virtually to the Santa Clara County Sustainability Working Group.

- Statistics for public outreach efforts are shown below.

Outreach Type	February 2023
Social Media¹	
Impressions ²	5,524,022
Engagements ³	42,474
Link Clicks	15,472
Video Views	203,565
Website Page Views	
Water conservation webpages	85,819
BeHeard.ValleyWater.org/drought-information	389
Media	
Media Mentions ⁴	1,650
Speakers Bureau	
Presentations ⁵	3

¹Includes Facebook, Twitter, Instagram, YouTube 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 February, the Education Outreach Program (EO) supported 32 educators and 879 students through 26 in-person and five virtual school presentations. EO staff presented to 90 middle school students at San Jose State University's annual "Science Extravaganza" STEAM event, engaging students in discussions on water conservation and stewardship, pollution prevention and careers in water. All students and educators received Water Conservation Pledge posters, bookmarks and either drought awareness stickers or drought-tolerant native wildflower seeds after every presentation. Educators also receive a link to the EO "Carla The Conscious Conservationist" drought awareness video to share with their students to increase engagement and reinforce understanding of the importance of saving water every day.
- The table below shows Education Outreach efforts in Fiscal Year 2023, all of which included drought and water conservation messaging.

EDUCATION OUTREACH PRESENTATION NUMBERS			
MONTH	STUDENTS & EDUCATORS	PUBLIC ATTENDEES	FY23 YEAR TO DATE
July – January	7,236	529	7,765
February	911	0	911
Total	8,147	529	8,676

- On February 23, 50 Santa Clara County high school students attended the annual Valley Water Job Shadow Day, sponsored and supported by the Valley Water Youth Commission. Attendees heard from Chair Varela, Valley Water staff and Youth Commission and also learned about the future of water in Santa Clara County from members of the Recycled and Purified Water Unit, who showcased the Silicon Valley Advanced Water Purification Center and emphasized the importance of a drought-proof water supply.

Committee Updates

- Drought-related updates are being provided regularly at Committee meetings to receive feedback and guidance. These updates were provided to the Environmental and Water Resources Committee (EWRC) in January 2023.

Water Supply Operations and Outlook

- The cumulative rainfall in San José in this rainfall year through March 1, 2023, is 17.24 inches or 166% of the long-term average for the valley floor for this date. The current rainfall year extends from July 1, 2022, to June 30, 2023.
- Total reservoir storage as a percentage of unrestricted reservoir capacity is 52% for March 1, 2023, which is 96% of the (20-year) average storage for March.

Imported Water

- California's water year runs from October 1 to September 30 and is the official timeframe used to compare hydrologic records. Water Year 2020 to 2022 was the driest three-year period on record, breaking the old record set by the last drought from Water Year 2013 to 2015.
- Water Year 2023 saw below average precipitation in October and November. Nine atmospheric rivers reached California between late December and January, resulting in the wettest three-week period on record in California. However, the storms were followed by an unseasonably dry beginning of February.
- On February 13, 2023, Governor Newsom signed an executive order to protect the state's water supplies from the impacts of climate-driven extremes in weather. On February 21, 2023, the State Water Resources Control Board conditionally issued a temporary suspension of certain Delta outflow requirements through March to maintain Delta export and to allow for more storage in the Central Valley reservoirs, though pumping in the Sacramento-San Joaquin Delta continues at reduced levels to protect fisheries and comply with other environmental regulations.
- As of February 28, 2023, Shasta Reservoir is at 84% of average of this date, Oroville Reservoir is at 116% of average for this date, and Folsom Reservoir is at 111% of average of this date. Total storage in each of these three major reservoirs continued to increase in February.
- As of February 28, 2023, storage in San Luis Reservoir is approximately 1,546 thousand acre-feet (TAF), which is 94% of the average for this date. San Luis Reservoir increased by approximately 268 TAF in February.
- On February 22, 2023, the California Department of Water Resources announced an increase to the 2023 State Water Project (SWP) allocation from 30% to 35%. This allocation equates to an allocation of 35 TAF for Valley Water.
- On February 22, 2023, the U.S. Bureau of Reclamation announced an initial 2023 Central Valley Project (CVP) allocation of 35% for South-of-Delta Agricultural contractors and 75% for South-of-Delta Municipal & Industrial contractors. Combined, they equate to an allocation of 109 TAF for Valley Water.

Treated Water

- Due to the rain events and stormwater runoff in the month of February, total organic carbon and turbidity levels continued to be elevated in our source water (South Bay Aqueduct and Calero Reservoir) to the plants. Valley Water took proactive measures to optimize the treatment process and mitigate impact.
- Source water algal toxins and taste and odor compounds were below our internal triggers and treated water delivered met all applicable drinking water standards.

Groundwater Recharge

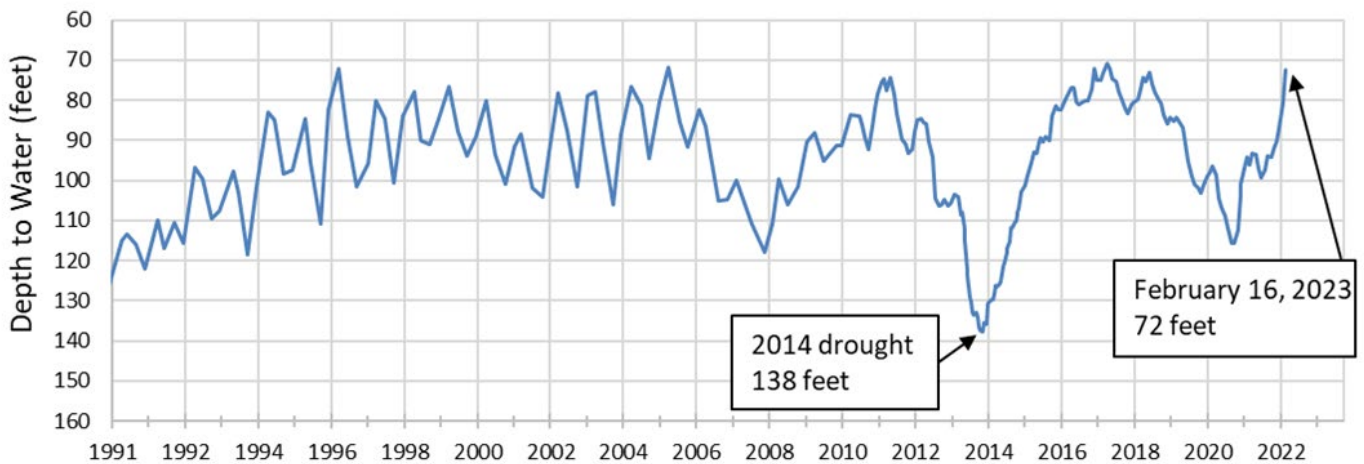
- Valley Water has been maintaining a high level of groundwater recharge operations since the beginning of calendar year (CY) 2023 in North County facilities due to the availability of imported water carryover and local water.
- Managed groundwater recharge in the Llagas Subbasin has been low due to a pipeline shutdown since November 1, 2022. Normal recharge operations in off-stream facilities are expected to resume around mid-March 2023.
- Recharge operations in creeks downstream of local reservoirs remain high since January due to a series of storms and increased reservoir releases.
- Countywide recharge in CY 2022 was 100% of normal and CY 2023 recharge is projected to be 125% of normal.

Groundwater Conditions:

Groundwater levels are increasing throughout Santa Clara County due to the recent storms and seasonal recovery, Valley Water's managed recharge, and ongoing water conservation by the community. While groundwater levels in all monitoring wells are higher than last month and most are higher compared to February 2022, many are lower than the five-year average, indicating that groundwater levels are still impacted by drought. No new dry wells were reported in February.

- North County Groundwater
 - The current water level at the regional index well has increased about 8 feet since last month and is about 66 feet above the minimum water level in 2014. The water level at this well is about 24 feet higher compared to this time last year.
 - Groundwater levels are more than 57 to 100 feet above thresholds established to minimize the risk of permanent subsidence.
 - No dry wells were reported in February. 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.

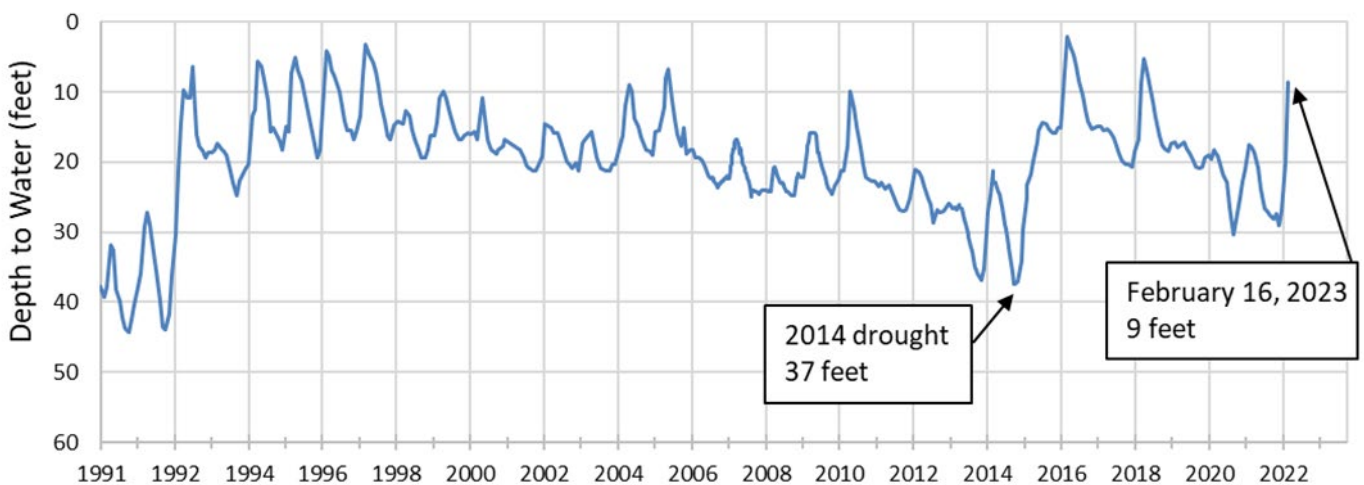
Santa Clara Plain Index Well

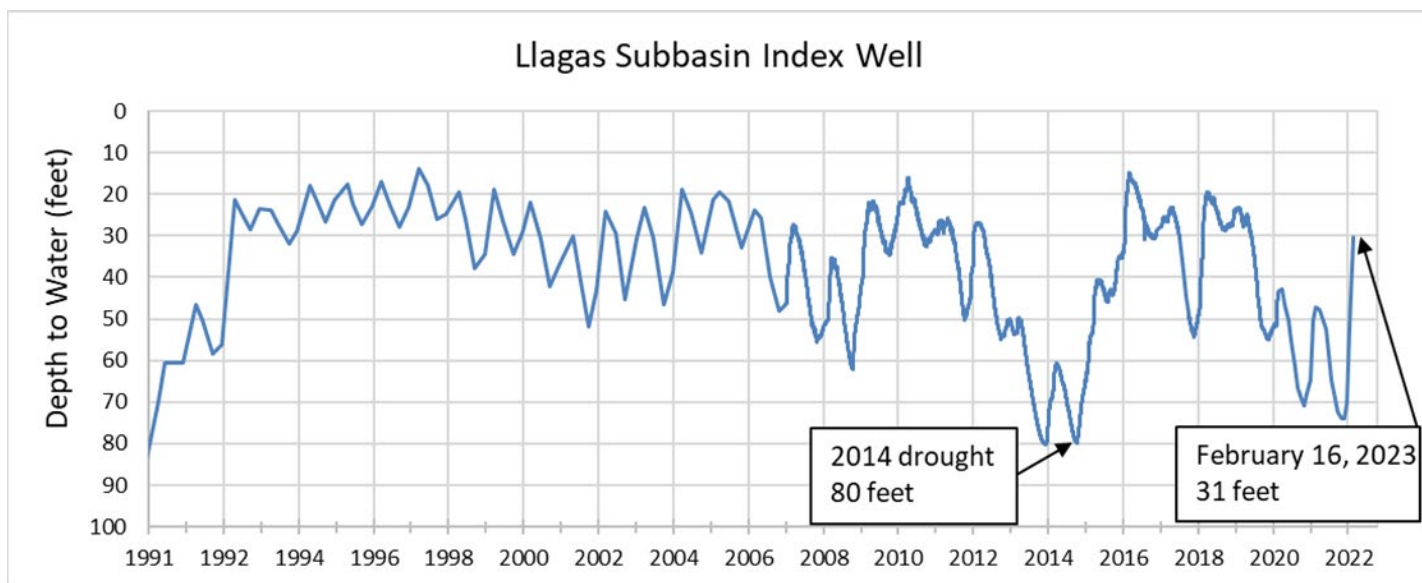


- South County Groundwater

- o The current water level in the Coyote Valley and Llagas Subbasin regional index wells have increased by about 12 and 22 feet, respectively, since last month and are about 28 and 49 feet, respectively, above the minimum water level in 2014. Additionally, the water levels in these wells are about 9 and 17 feet higher, respectively, compared to this time last year.
- o No dry wells were reported in February. Since the onset of the current drought, a total of six dry domestic wells have been reported in South County, with most located near 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





State Coordination

- Governor's Executive Order on Drought Response
 - Governor Newsom issued an Executive Order on February 13 directing state agencies to review and provide recommendations on the state's drought response actions by the end of April, including the possibility of terminating specific emergency provisions related to drought that may no longer be needed.
 - The Governor's January State Budget Proposal set aside \$125 million for drought response, contingent on the state's water supply condition at the end of April. A good water year could result in a reduction or elimination in state General Fund dollars going to support drought response grants; however, that may be offset by drought response investments in a natural resources bond now being discussed for the 2024 statewide ballot.
- Snowpack Conditions Reported by DWR
 - The California Department of Water Resources (DWR) conducted the third snow survey of the season on March 3. DWR announced that statewide, the snowpack is 190 percent of the average for this date. This level is just behind the record snow year of 1982-83.
 - The critical Northern Sierra, which includes the watersheds for both Lake Shasta and Lake Oroville, is at 136 percent of its average for April 1.
 - The Southern is at 209 percent, and the Central Sierra, which includes Hetch Hetchy Reservoir, is at 175 percent of its April 1 average.

Staffing and Resources

- Drought emergency expenses are expenditures supplemental to the regular budget that would not have been adopted had there been no drought. Due to the timing of monthly financial system closes, drought expenditures are reported one month behind the monthly Drought Emergency Report.
- 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. Budget adjustments will be brought to the Board for any additional expenses incurred during the year.

- January 2023 expenses totaled approximately \$14.5 million spent or encumbered primarily for emergency water purchases tied to contracts executed in prior years, recovery of stored water from Semitropic Water Storage District, operating supplies and services for public relations including conservation related communications, rebates, eCart supplies, temps and interns, and labor expenses for staff time directly supporting 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.

- Staff continues to work with our partner agencies on agreements, technical requirements, and the draft EIR.
- Staff participated in Palo Alto's Development Review Committee to present the project to staff from multiple departments for feedback and placed a sign for the upcoming project at the site.
- A groundwater tracer study is currently being performed at the Budd Ponds to confirm the speed of groundwater flow to inform the zone of controlled drinking water well construction.

Flood-Managed Aquifer Recharge (Flood-MAR) Study

Valley Water is collaborating with a team of water experts from the University of California system (referred to as UC Water) to complete a reconnaissance study for Flood-MAR implementation in Santa Clara County. The study began in 2021. Study deliverables include a GIS-based tool to identify potential sites for Flood-MAR projects in Santa Clara County and an evaluation of institutional/regulatory requirements for implementing Flood-MAR projects.

- Drafts are currently being reviewed by staff.
- Staff expects to provide a study update in mid-2023.
- Valley Water is applying for a Proposition 1 Integrated Regional Watershed Management grant to begin the first phase of a feasibility study.

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.

- Internal work continues to develop potential drought triggers and water shortage actions.