

# Drought Emergency Response Report

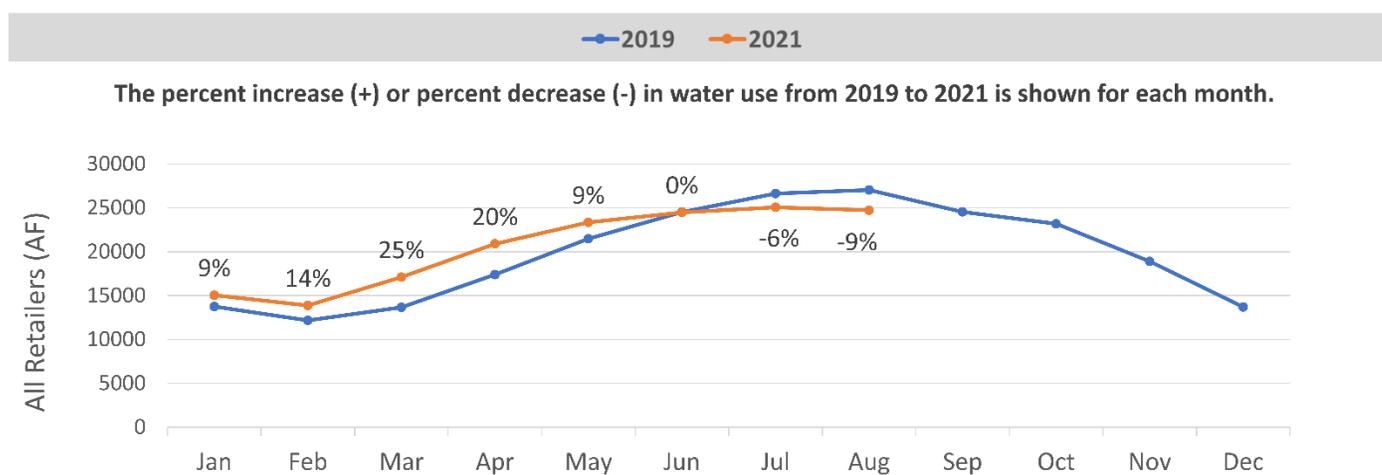
SEPTEMBER 2021

## 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 restrictions 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. 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.



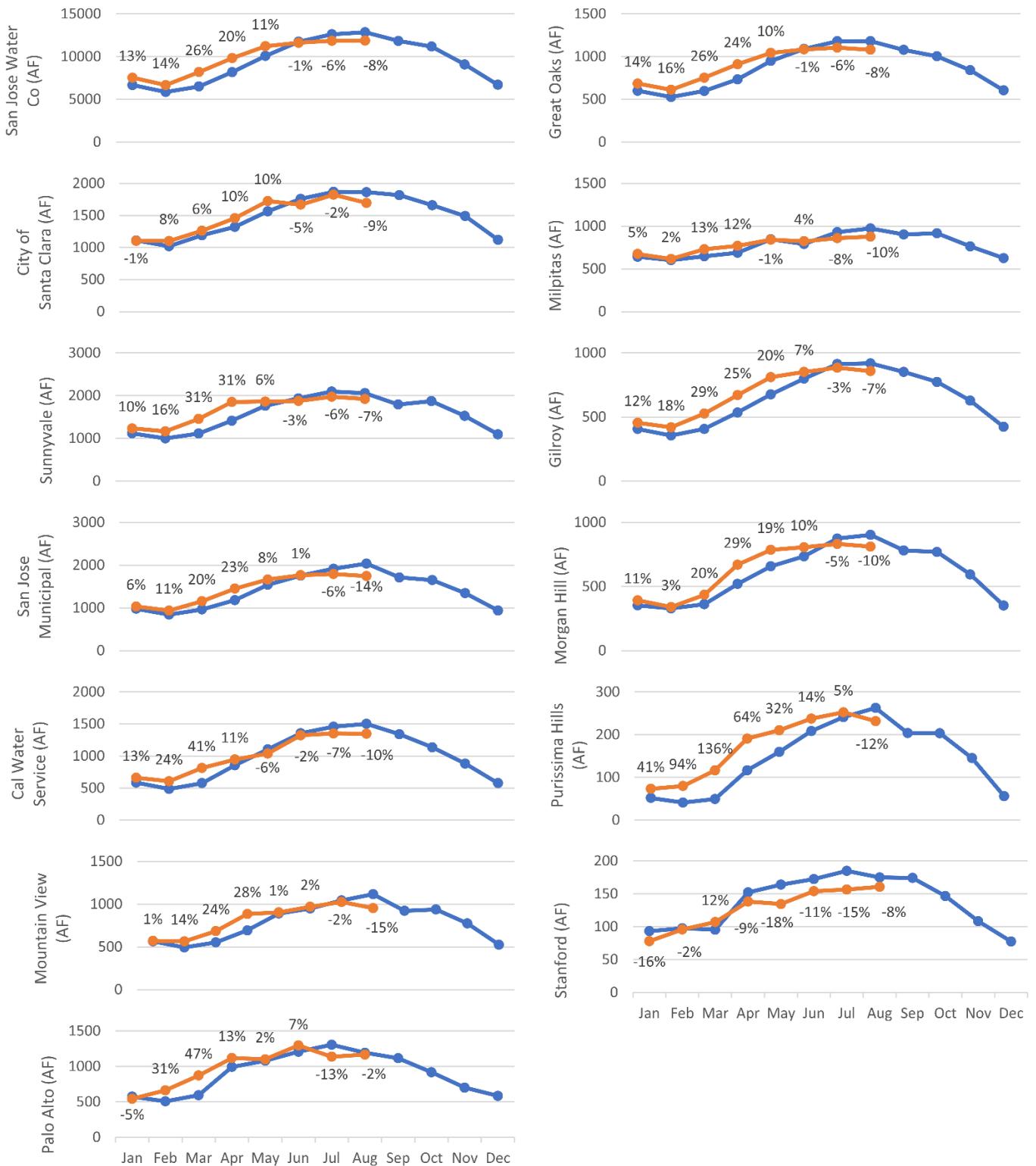
- Countywide, the percent change of water used compared to 2019 has steadily decreased since March 2021, showing that retailers, cities, and our communities are responding to the call for conservation.
- In March 2021, water use in Santa Clara County was 25% higher when compared to March 2019. In August 2021, Santa Clara County used 9% less water compared to August 2019. It’s encouraging to see the numbers trending in the right direction.
- Valley Water anticipated that reducing water use countywide by 15% would be a gradual process. During the last drought, the 20% call for water use reduction made on February 25, 2014 was first reached nine months later, in November 2014.
- Valley Water thanks jurisdictions and the community for the significant progress made so far in reducing water use countywide. Valley Water encourages everyone to find ways to reduce their water use. Every drop saved today is one we can use tomorrow.

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.

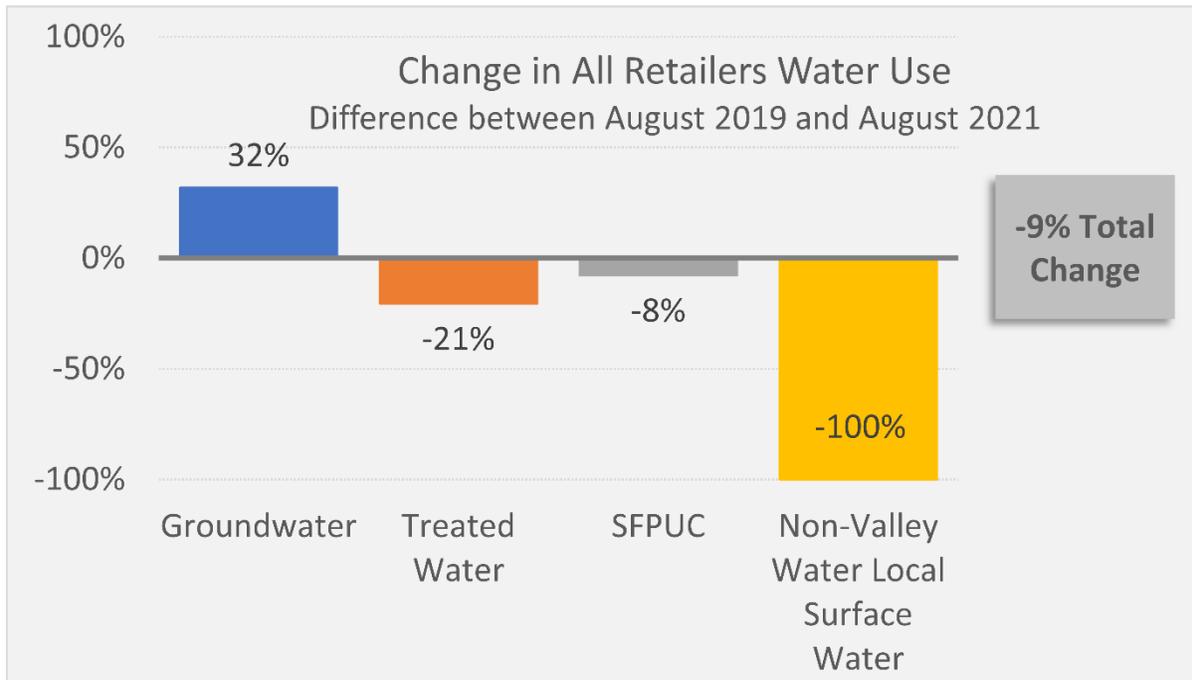
## Monthly Water Use by Retailer (AF)

—●— 2019    —●— 2021

The percent increase (+) or percent decrease (-) in water use from 2019 to 2021 is shown for each month.



The graph below depicts changes between the retailers' different types of water use and shows that Valley Water retailers' total water use in August 2021 was 9% lower than in August 2019. 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 (Jan - Aug 2019)					Total Water Use in Acre-Feet (Jan - Aug 2021)				
	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	18,381	42,112	-	14,033	74,525	37,701	40,304	-	795	78,800
Santa Clara, City	6,391	3,073	2,237	-	11,701	6,783	2,566	2,491	-	11,840
Sunnyvale	67	5,098	7,339	-	12,503	65	6,361	6,930	-	13,355
San Jose Municipal Water	629	7,383	3,209	-	11,221	621	7,859	3,070	-	11,549
California Water Service	1,691	6,235	-	-	7,926	2,892	5,202	-	-	8,094
Palo Alto	-	-	7,456	-	7,456	-	-	7,900	-	7,900
Mountain View	165	667	5,478	-	6,309	91	634	5,834	-	6,559
Great Oaks	6,862	-	-	-	6,862	7,274	-	-	-	7,274
Milpitas	-	2,035	4,086	-	6,121	-	2,322	3,870	-	6,192
Gilroy	5,014	-	-	-	5,014	5,480	-	-	-	5,480
Morgan Hill	4,736	-	-	-	4,736	5,075	-	-	-	5,075
Purissima Hills Water	-	-	1,131	-	1,131	-	-	1,393	-	1,393
Stanford	-	-	1,135	-	1,135	-	-	1,026	-	1,026
<b>Total</b>	<b>43,935</b>	<b>66,603</b>	<b>32,071</b>	<b>14,033</b>	<b>156,641</b>	<b>65,981</b>	<b>65,248</b>	<b>32,513</b>	<b>795</b>	<b>164,537</b>

Collaboration with the County, Retailers, and Cities

- As of September 30, 2021, the County of Santa Clara and 11 cities in Santa Clara County have taken action to their Councils in response to the extreme drought conditions and to Valley Water's call to reduce water use by 15% compared to 2019 levels. These actions ranged from adopting local emergency resolutions to encouraging residents and businesses to use less water through ceremonial drought awareness proclamations and social media campaigns, as well as providing information on Valley Water's water conservation rebates and programs on cities' websites. Many jurisdictions also activated their citywide Water Shortage Contingency Plans to immediately implement mandatory water-use restrictions and other conservation measures.
- Although formal actions have not yet been considered by all City Councils, retailers like San José Municipal Water System have implemented several administrative measures in response to the drought, including expanding their water conservation messaging and outreach, as well as making other operational changes like encouraging a three-day-a-week watering restriction to meet Valley Water's water use reduction goal.
- Retailers' latest restrictions are posted on their websites, and links are provided by Valley Water (<https://www.valleywater.org/your-water/find-your-water-retailer>).
- The investor-owned retailers water reduction measures are shown in the table below. These retailers must obtain California Public Utilities Commission (CPUC) approval to implement restrictions and other water use reduction measures.

Investor-owned Water Retailers			
	San Jose Water Company (SJWC)	Great Oaks Water Company	California Water Service
Surcharge for Exceeding Drought Allocation <sup>1</sup>	TBD if necessary <sup>2</sup>	\$6.9804/CCF	TBD if necessary
Enforcement Structure for Violations of Water Waste Restrictions <sup>3</sup>	1 <sup>st</sup> Offense: Written notice 2 <sup>nd</sup> Offense: Install flow restrictor	1 <sup>st</sup> Offense: Written notice 2 <sup>nd</sup> Offense (same restriction): \$25 fee Additional Offense (same restriction): \$25 more than previous fee	1 <sup>st</sup> Offense: Written notice & install real time water measurement device 2 <sup>nd</sup> Offense (same restriction): \$25 fee 3 <sup>rd</sup> Offense (same restriction): \$50 4 <sup>th</sup> Offense: Install flow restrictor
<sup>1</sup> A drought allocation is a predetermined budget of how much water an individual customer may be expected to use during a billing period. An allocation may be calculated using a customer's historical water use, or by using a customer type average reduced by a specific amount (15%). When a customer exceeds their allocation, the excess water use has a surcharge applied to each billed unit of water. Retailers may set a minimum drought allocation in recognition of customers who already conserve water so that reducing use any further is not feasible. <sup>2</sup> SJWC received CPUC approval on 9/3/21 for their strategy to implement drought allocations and surcharges. The decision to implement this strategy is still under review by SJWC and will require additional CPUC approval if/when that decision is made. <sup>3</sup> Violations of water waste restrictions include actions that do not follow retailer restrictions, such as irrigating on the wrong day or in a manner that causes runoff. Repeated violations of water waste restrictions may result in a fee or penalty issued by the retailer.			

- Valley Water continues to meet with retailers at numerous Subcommittee meetings to provide drought updates, track progress towards drought response efforts, and ensure consistent messaging. Valley Water has also initiated a monthly Ad Hoc Retailer Drought Subcommittee, and a monthly Subcommittee meeting for drought-related operational updates.
- A Drought Summit will be held to convene elected officials and community leaders from throughout Silicon Valley to discuss ways to address the drought together. The summit will take place virtually on October 23, 2021 from 9:30 a.m.-12:30 p.m. and is expected to be attended by local, state, and federal officials and stakeholders representing the region. The Model Water Efficient New Development Ordinance (MWENDO) will be highlighted during the summit as a call to action to ensure water conservation becomes a way of life in Santa Clara County. The goal of MWENDO is to ensure new developments meet strong water efficiency standards. The Drought Summit will incorporate interactive break-out sessions and the topics that will be discussed include community feedback and insights, water supply projections, and information on water conservation tools and resources that can be used to help lead communities through this emergency.

## 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 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 also developed a new guidebook which provides instructions on sustainable landscaping.

Valley Water has received a significant increase in applications for our landscape rebates, requests for water-saving devices, and reports of water waste. The table below shows monthly participation data available from 2021. In September, Valley Water received 269 applications for the Landscape Rebate Program, 469 orders for water-efficient devices from our website, and 206 water waste reports. These are signs that people are taking this drought seriously and are taking actions to support water use reduction.

<b>Program</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>	<b>Total</b>
<b>Landscape Rebate Program Applications<sup>1</sup></b>	47	64	87	233	252	185	592	376	269	2,105
<b>Water-saving Device Orders<sup>2</sup></b>	2	7	9	372	750	490	865	974	469	3,938
<b>Water Waste Reports</b>	5	4	26	42	53	180	238	223	206	977

<sup>1</sup>Starting 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.

<sup>2</sup>The eCart Program, launched in April, led to an increase in conservation device orders.

## Drought and Water Conservation Outreach

- Valley Water’s multilingual water conservation campaign promotes water conservation as a way of life, being drought-ready, and Valley Water’s many conservation programs. The campaign includes ads on TV, radio, online, social media and print.
- In September, multilingual business advertorials ran in several targeted newspapers.
- Multilingual business videos are now available on YouTube promoting Valley Water’s commercial Landscape Rebate Program and Water Efficiency Technology (WET) rebate program.
- Multilingual yard signs and stickers are now available in Valley Water’s online shopping cart.
- Media interest continues to be high for drought and water-conservation content. Requests come in frequently for information and interviews. Valley Water continues to generate drought and water conservation awareness through proactive media outreach.
- On September 1, 2021, Valley Water held a media event at a home in Cupertino to showcase a laundry-to-landscape graywater system, how it can help people conserve water, and Valley Water’s rebate program.
- Valley Water held a media event on September 23, 2021 to highlight the Purified Water Program, water conservation, and Valley Water’s partnerships.
- Valley Water is running three campaigns on social media:
  - “Save our Water, Save our Trees” social media campaign has reached 90,000 people and led to 1,900 link clicks.
  - “Water Savings Contest” social media campaign has reached 15,800 people and garnered 2,000 engagements.
  - “Your Neighbors are transforming their yards and you can too” campaign has reached 37,140 people and garnered 3,630 engagements.

- Statistics for public outreach efforts are shown below.

<b>Outreach Type</b>	<b>Sept 2021</b>
<b>Social Media<sup>1</sup></b>	
Impressions <sup>2</sup>	4,250,538
Engagements <sup>3</sup>	44,658
Link Clicks	13,221
<b>Website Page Views</b>	
Water conservation webpages	95,001
BeHeard.ValleyWater.org/drought-information	3,275
<b>Media</b>	
Media Mentions <sup>4</sup>	912
<b>Speakers Bureau</b>	
Presentations <sup>5</sup>	10

<sup>1</sup>Includes Facebook, Twitter, Instagram, and LinkedIn.

<sup>2</sup>Impressions are the number of times a post is displayed in a newsfeed.

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

<sup>4</sup>Includes TV, radio, social media, online and print.

<sup>5</sup> Office of Communications and Government Relations

### Drought and Water Conservation Education

In September, the Education Outreach team reached 292 students from 12 virtual classroom presentations. The team also supported 11 educators through classroom programs and an educator training workshop. The team engaged 147 members of the public through four “Wonders of Water Wednesdays” after-school enrichment programs and three public library programs. All programs contain drought and water conservation messaging. The table below shows participation rates in the education programs in 2021. Participation tends to be higher when school is in session.

<b>Program</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sept</b>
Educators/Teachers	52	19	93	8	11
Classes/Groups	58	18	27	8	12
Students	1,483	415	499	99	292

Additionally, in September, Valley Water coordinated volunteer opportunities for the Water Ambassadors to help assemble the Do-It-Yourself (DIY) Water Wise Indoor Survey Kits.

### Committee 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 on September 27, 2021.

### Water Supply Operations and Outlook

#### Imported Water

- State Water Project (SWP) and Central Valley Project (CVP) allocations have remained stable at the following:
  - SWP – 5%
  - CVP Agricultural - 0%
  - CVP Municipal and Industrial (M&I) – 25%
- Additional CVP M&I Public Health and Safety increment of 28,500 AF is to be delivered during the second half of 2021.
- As of the end of September, total storage in San Luis Reservoir is approximately 250,000 AF or 12% of total capacity, which has been impacting water quality. Valley Water has been managing water quality by making process adjustments at the treatment plants. California Department of Water Resources (DWR)’s current projection is that San Luis Reservoir will reach a low point of approximately 200,000 AF in November 2021.
- To date in 2021, Valley Water has secured agreements for about 58,000 AF of emergency transfer supplies, before taking into account conveyance losses across the Delta.
- In addition, recovery of Valley Water’s supplies at the Semitropic Groundwater Storage Bank continue as scheduled with Valley Water regularly coordinating with DWR to secure reliable delivery of this supply, about 35,000 AF in 2021. Project planning has begun with Valley Water, DWR, and Semitropic Groundwater Storage Bank to coordinate delivery of Valley Water’s banked water if 2022 is a dry year.

## Treated Water

- Due to the ongoing drought condition and San Luis Reservoir reaching a low level, Valley Water’s raw water sources continued to be impacted by taste and odor and cyanotoxins compounds in the month of September.
- Staff continued to conduct proactive process optimization at affected treatment plants and collected additional samples to gauge process effectiveness.
- There were no reports of taste or odor issues for treated water in September 2021. All other treated water quality parameters continued to be within acceptable ranges.
- To encourage less groundwater pumping and offset groundwater usage with that of surface water; the treated water contract delivery schedule amounts for the months of October, November, and December have been increased by 10%.

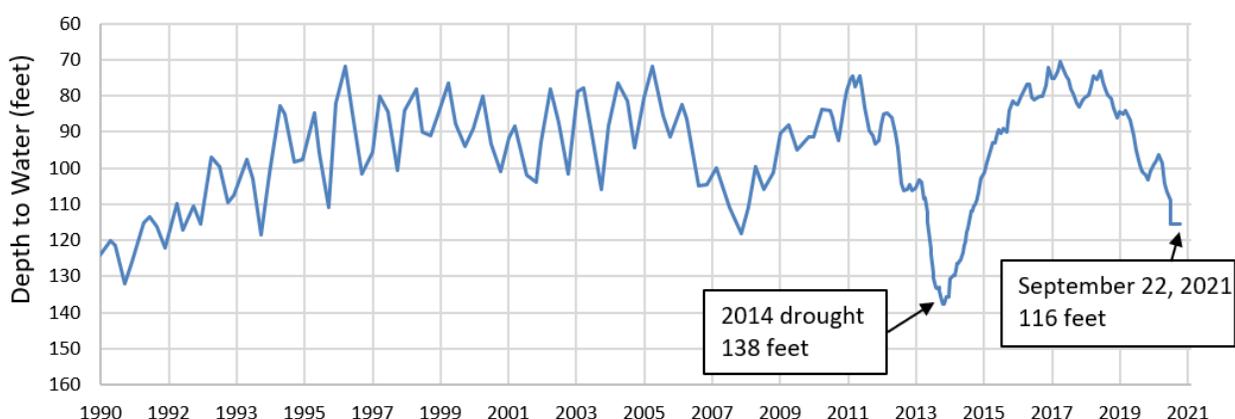
## Groundwater Recharge

- Beginning in August 2021, releases for managed groundwater recharge were increased to the Los Gatos Ponds System and parts of the Guadalupe Ponds System, as well as to Coyote Creek downstream of Anderson Reservoir. These increased releases were possible due to increased imported water supplies made available through Public Health and Safety Supplies and expected emergency water transfers and exchanges.

## Groundwater Conditions:

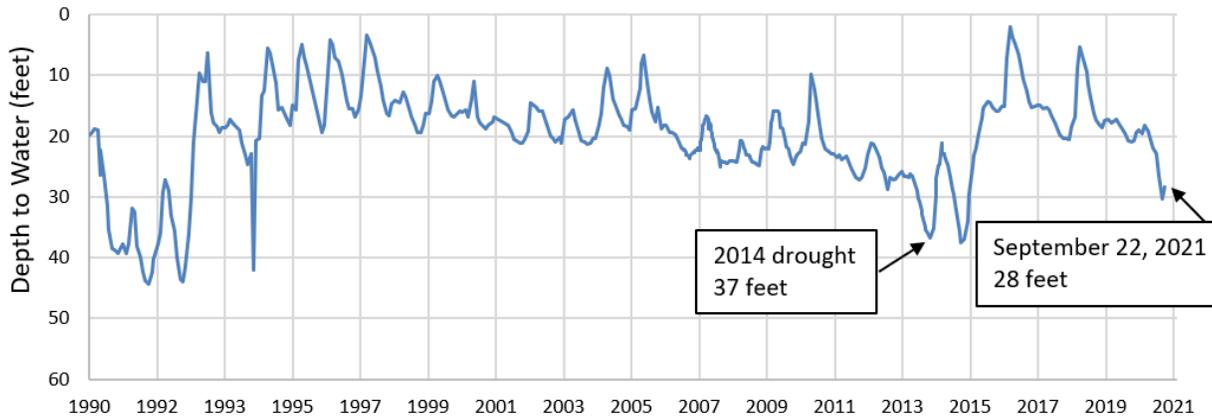
- Since last month, groundwater levels have continued to decline in some parts of the county, while they have stabilized or increased in other areas of the county. Emergency imported water supplies and additional water use reduction by the community have begun to help slow groundwater level declines. However, projected 2022 groundwater storage is similar to what was observed in 2014, which would increase the risk in 2022 of resumed subsidence in North County and wells going dry, particularly in South County. Current conditions in both areas are described below.
- North County Conditions
  - Groundwater pumping is 132% of the five-year average.
  - As shown below, groundwater levels in the Santa Clara Plain index well have declined over recent months, with a similar pattern as the 2012–2016 drought. The current water level has dropped less than one foot since last month and remains about 22 feet above the minimum water level in 2014. The water level at this well has dropped about 14 feet compared to this time last year.
  - Groundwater levels are more than 30 to 100 feet above thresholds established to minimize the risk of permanent subsidence.
  - No reports of dry wells have been received.

Santa Clara Plain Index Well

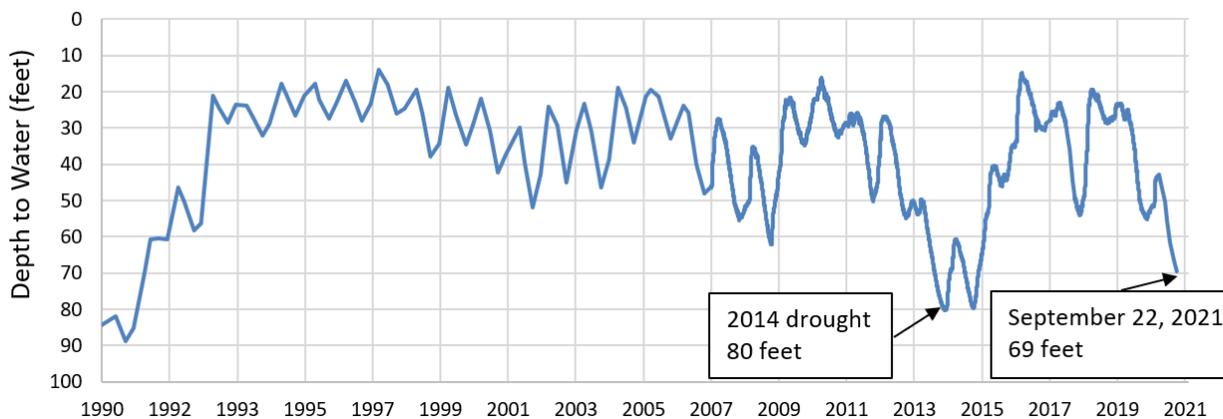


- South County Conditions
  - Groundwater pumping is 120% to 103% of the five-year average in the Coyote Valley and Llagas Subbasin, respectively.
  - Groundwater levels in the Coyote Valley and Llagas Subbasin index wells have dropped about 8 to 18 feet compared to this time last year. However, the Coyote Valley index well water levels have risen about two feet since last month. The current water level in the Coyote Valley and Llagas Subbasin index wells is about 9 to 11 feet above the respective minimum water levels in 2014.
  - One report of a dry well has been received. 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 and Federal Coordination

### State Coordination

- The FY 2021-22 State Budget was signed by the Governor on September 23. At over \$260 billion, it is the largest budget in California history.
  - \$5.2 Billion for Water and Drought Resilience – Funded programs support immediate drought response and long-term water resilience, including drought relief projects to secure and expand water supplies; support drinking water and wastewater infrastructure; Sustainable Groundwater Management Act implementation to improve water supply and quality; and projects to support wildlife and habitat restoration efforts.
  - \$3.7 Billion for Climate Resilience - Provides funding to address various climate change impacts including extreme heat and sea level rise through urban greening, coastal protection, and other adaptation measures that may be used to address drought-impacted habitat and species.
- Staff is reviewing the enacted budget for grant funding opportunities for Valley Water projects and will be following grant solicitations closely for funding opportunities that would benefit Santa Clara County.

### Federal Coordination

- Staff continues to advocate for federal drought relief funding in several legislative vehicles:
  - The *bipartisan infrastructure bill* includes funding for storage and large-scale recycled water projects, such as Valley Water’s Recycled and Purified Water projects.
  - The *House budget reconciliation bill* includes additional funding for recycled water projects.
  - The House-introduced *disaster supplemental funding bill* includes \$200 million for drought relief, which would go to the Bureau of Reclamation for drought-related programs and activities.
- All three bills remained under consideration in late September.

## Staffing and Resources

- Conservation is in active recruitment for a Management Analyst position. Recruitment was completed for 2 Water Conservation Specialist positions with start dates to be determined.
- Conservation and Procurement teams are collaborating to advance vendors for the eCart Program and outdoor conservation field services. The eCart Program contract is nearly complete.
- Drought emergency expenses are expenditures supplemental to the regular budget that would have been adopted had there been no drought. The only expense for drought emergency costs included in the Fiscal Year (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 Santa Clara County. Budget adjustments will be brought to the Board for any additional expenses incurred during the year.
- Expenses for the month of August FY22 totaled approximately \$21.2 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, and labor expenses for staff time towards Valley Water's drought response program.

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## 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 to make progress in implementing the Purified Water Project, including review of Statements of Qualifications, development of needed agreements with our wastewater partners, outreach and education, and technical and regulatory efforts. Monthly updates are provided to the Recycled Water Committee.

### Leak Assistance Program Pilot

Valley Water and the Bay Area Water Supply and Conservation Agency (BAWSCA) are developing a pilot to create a leak detection certification program for professionals. California Water Efficiency Partnership (CalWEP) is the contractor for this pilot.

- Valley Water is reviewing a draft Memorandum of Agreement.

### Agricultural Water Use Baseline Study

Valley Water is conducting an Agricultural Water Use Baseline Study (Study), expected to be completed in 2022. The Study aims to better understand current agricultural water use practices and identify opportunities to expand water conservation programs offered to the agricultural community.

- Through a new agreement with the UC Regents, the UC Merced team has made progress using a remote-sensing based data approach to determine patterns in crop distribution and irrigation technology verification. The team will continue their analysis and the Study is on track to be completed by the end of 2022.

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