# **Drought Emergency Response Report**

## OCTOBER 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, 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.



- Valley Water's retailers used 7% less water in September 2021 compared to September 2019.
- While we need to reach the 15% water use reduction as soon as possible, we do not expect it to be a straight line due to seasonal fluctuations.
- During the last drought, it took nine months before the mandatory reduction in water use was first reached.
- San Jose saw no rain in September, which can result in an increase in water use.
- Staff is increasing our media outreach encouraging residents, businesses, farms, and others to save water.

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 and shows that Valley Water retailers' total water use in September 2021 was 7% lower than in September 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.

	Total Wa	et (Jan - Sep 201	.9)	Total Water Use in Acre-Feet (Jan - Sep 2021)						
Water Retailer	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	21,780	49,757	-	14,832	86,369	42,522	46,296	-	795	89,613
Santa Clara, City	7,462	3,518	2,538	-	13,518	7,834	2,860	2,827	-	13,521
Sunnyvale	73	6,031	8,192	-	14,297	96	7,081	7,886	-	15,062
San Jose Municipal Water	719	8,576	3,639	-	12,934	784	8,900	3,506	-	13,190
California Water Service	1,889	7,378	-	-	9,267	3,234	6,046	-	-	9,280
Palo Alto	-	-	8,572	-	8,572	-	-	8,999	-	8,999
Mountain View	186	776	6,270	-	7,231	104	731	6,644	_	7,479
Great Oaks	7,941	-	-	-	7,941	8,258	-	-	-	8,258
Milpitas	-	2,381	4,643	-	7,024	-	2,645	4,372	_	7,017
Gilroy	5,865	-	-	-	5,865	6,247	-	_	-	6,247
Morgan Hill	5,518	-	-	-	5,518	5,830	-	-	-	5,830
Purissima Hills Water	_	-	1,335	-	1,335	-	-	1,616	-	1,616
Stanford	-	-	1,310	-	1,310	-	-	1,207	_	1,207
Total	51,433	78,416	36,499	14,832	181,180	74,907	74,559	37,056	795	187,317

#### Collaboration with the County, Retailers, and Cities

- As of October 31, 2021, the County of Santa Clara and 12 cities in Santa Clara County have taken action to their Councils or have implemented administrative measures 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 or implemented other conservation measures through operational means to meet Valley Water's water use reduction goal.
- 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 droughtrelated operational updates.
- On October 23, 2021, Valley Water virtually convened the Valley Water Drought Summit 2021 as an opportunity
  for experts to share community feedback and insights, water supply projections, and information on water
  conservation tools and resources with stakeholders in order to help lead communities through the drought
  emergency. The Drought Summit incorporated interactive break-out sessions and participants highlighted the
  following takeaways and goals from their small group discussions: unify stakeholder drought response
  messaging, strengthen partnerships and education, explore tailored drought response approaches to
  jurisdictions, highlight successful cases to serve as regional models, and partner with Valley Water to implement
  the Model Water Efficient New Development Ordinance (MWENDO). The Summit is described in further detail in
  Appendix A.

## 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 has received a significant increase in applications for our landscape rebates, requests for watersaving devices, and reports of water waste in 2021. The table below shows monthly participation data available from 2021. In October, Valley Water received 268 applications for the Landscape Rebate Program, 175 orders for water-efficient devices from our website, and 163 water waste reports. These are signs that people are taking this drought seriously and are taking actions to support water use reduction.
- Valley Water's website and rebate application have been updated to inform applicants of a backlog in application processing. An auto-reply describing the backlog is being sent for email inquiries.
- Onsite pre-inspection processes have been expanded to include expedited options through Google Earth or selfguided measurements.
- Procurement and Conservation continue to collaborate to bring on a vendor as soon as possible to mitigate and eliminate the backlog of field work.
- A vendor, AdMail, began processing orders on November 1, 2021 and to assist in mitigating and eliminating eCart backlog.

Program	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Total
Landscape Rebate	47	64	87	233	252	185	592	376	278	268	2,382
Program											
Applications <sup>1</sup>											
Water-saving	2	7	9	372	748	488	865	974	485	175	4,125
Device Orders <sup>2</sup>											
Water Waste	5	4	26	42	53	180	238	223	206	163	1,140
Reports											

<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 droughtready, and Valley Water's many conservation programs. The campaign includes ads on TV, radio, online, social media and print.

- In October, 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.
- The second half of October saw significant rain across the Bay Area and Santa Clara County. While the rain is good for the drought conditions, the drought emergency has not ended. Several messages, including a statement from Chair Estremera and other social media posts, included a call to shut off outdoor irrigation and continue to conserve.
- Valley Water participated in Imagine a Day Without Water 2021 on October 21, 2021 by posting messages, graphics and videos, including a statement from Chair Estremera, on social media platforms. The nationwide education campaign is designed to help raise awareness and educate America about the value of water.
- Outreach for the drought and conservation Speakers Bureau was increased on social media, including Nextdoor.
- Statistics for public outreach efforts are shown below.

Outreach Type	Oct 2021				
Social Media <sup>1</sup>					
Impressions <sup>2</sup>	2,987,051				
Engagements <sup>3</sup>	33,191				
Link Clicks	7,946				
Video Views	507,920				
Website Page Views					
Water conservation webpages	93,870				
BeHeard.ValleyWater.org/drought-	675				
information					
Media					
Media Mentions <sup>4</sup>	598				
Speakers Bureau					
Presentations <sup>5</sup>	4				

<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 October, the Education Outreach team reached 586 students through 24 virtual classroom presentations. The team also supported 24 educators through classroom programs. The team engaged 165 members of the public through four "Wonders of Water Wednesdays" after-school enrichment programs and one public library program. 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.

Program	May	Jun	Jul	Aug	Sept	Oct
Educators/Teachers	52	19	93	8	20	24
Classes/Groups	58	18	27	8	11	24
Students	1,483	415	499	99	292	586

 Additionally, in October, Valley Water's Water Ambassadors assisted in completing 200 Do-It-Yourself Water Wise Indoor Survey Kits to help support our Conservation team. One of our Water Ambassadors wrote an opinion piece that was featured in the Almaden Times (October 15 – 28, 2021) on the need for conservation. More Water Ambassadors have expressed similar interests in writing for their local papers and staff is working with them on those efforts.

#### 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 on October 4, 2021, Environmental and Water Resources Committee on October 18, 2021, Water Conservation and Demand Management Committee on October 25, 2021, and to the Santa Clara Valley Water Commission on October 27, 2021.

#### Water Supply Operations and Outlook

Following rainfall in October 2021, especially during the atmospheric river during October 22-24 timeframe, there was a slight increase in local reservoir storage. Between October 14 and October 27, 2021, local storage in Valley Water's 10 reservoirs increased by 0.6%. Local reservoir storage was 11.7% of capacity on October 27, 2021.

## Imported Water

- State Water Project (SWP) and Central Valley Project (CVP) allocations have remained stable at the following:
   SWP 5%
  - 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 October, total storage in San Luis Reservoir is approximately 200,000 AF. Valley Water continues to closely monitor the water quality at the reservoir and will adjust the treatment process as needed to mitigate water quality impacts.
- There were slight increases in State reservoir volumes as a result of precipitation events between October 19, 2021 and October 27, 2021. As a result, Shasta Reservoir's percentage of capacity filled increased from 21% to 22%, Oroville Reservoir's percentage of capacity filled increased from 22% to 27%, and San Luis Reservoir percentage of capacity filled increased from 10% to 11%.
- 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. Valley Water is coordinating with DWR and other Semitropic banking partners on delivery of Valley Water's banked water next year if 2022 is a dry year.

## Treated Water

- Due to the ongoing drought, San Luis Reservoir continued to remain at a low level. Cyanotoxins levels at the reservoir remained low in the month of October, while taste and odor causing compounds levels were elevated.
- Staff continued to carry out proactive process optimization at the affected treatment plants and there were no reports of treated water quality issues in October 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

- Releases for managed groundwater recharge have been higher during August-October timeframe relative to May-July 2021. Valley Water increased the recharge in the Los Gatos Ponds System and parts of the Guadalupe Ponds System, as well as to Coyote Creek downstream of Anderson Reservoir.
- The increase in imported water releases was possible due to additional Public Health and Safety supplies received this year. Despite the increased groundwater recharge in the last three months, we are still below normal recharge levels for an average year.

## 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 128% 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. However, the current water level has increased by four feet since last month and is about 26 feet above the minimum water level in 2014. The water level at this well has dropped about 9 feet compared to this time last year.
    - Groundwater levels are more than 55 to 100 feet above thresholds established to minimize the risk of permanent subsidence.
    - $\circ$   $\;$  No reports of dry wells have been received.

## Santa Clara Plain Index Well



- South County Conditions
  - Groundwater pumping is 117% to 102% 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 5 to 16 feet, respectively, compared to this time last year. However, the Coyote Valley index well water levels have risen about three feet since last month. The current water level in the Coyote Valley and Llagas Subbasin index wells is about 12 and 9 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



#### **State Coordination**

- The State Water Resources Control Board (State Water Board) delivered on its promise to manage water right curtailments in real time, based on actual water availability in particular watersheds. As weather forecasts showed the advance of atmospheric river storms that swept through California on October 22 - 25, the State Water Board suspended many of the curtailments of water rights in the Delta watershed, including on the Sacramento and San Joaquin Rivers and their tributaries.
- Also included were water rights for the Central Valley Project and the State Water Project both in the Supplemental Attachment 2
   Sacramento River watershed and in the "Legal Delta." By suspending the curtainments, the State Water Board
   Page 7 of 10

authorized diversions by water right holders. This benefits Valley Water through the increased storage of water in Lake Shasta and Lake Oroville which are sources of imported water supply for Santa Clara County.

## **Staffing and Resources**

- Two new Public Information Representative II staff were hired for drought response activities.
- Conservation finished recruiting a Management Analyst who started on October 18, 2021 and two Water Conservation Specialists who will start November 1, 2021. Recruitments for temporary Water Conservation Specialists to further increase program support are underway.
- The eCart Program that distributes water-efficient gear and resources to the public has transitioned to the vendor, AdMail Express, Inc. The vendor will begin shipping orders November 1, 2021.
- The Conservation and Procurement teams continue their collaboration to advance a vendor for outdoor conservation field services.
- 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 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 September FY22 totaled approximately \$23.65 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, and labor expenses for staff time bringing together Valley Water's drought response program.

## **Expanded Opportunities**

## 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.

• The UC Merced team conducting the study has made progress using a remote-sensing based data approach to determine patterns in crop distribution and irrigation technology verification. Staff will be providing a project update to the Water Conservation and Demand Management Committee at their November meeting.

## Appendix A: Valley Water Drought Summit 2021 – Overview and Summary

## <u>Overview</u>

- On Saturday, Oct. 23, Valley Water convened a diverse cross-section of elected officials, business leaders, water retailers, and environmental advocates from throughout Silicon Valley to engage in a working session at the Valley Water Drought Summit 2021 to discuss ways to address the drought together.
- The virtual Summit offered an opportunity for Valley Water subject matter experts to share community feedback and insights, water supply projections, and information on water conservation tools and resources with our stakeholders that we can use to lead our communities through this drought emergency.

## <u>Highlights</u>

- Chair Estremera provided welcoming and opening comments that emphasized Valley Water's commitment to partner with external partners on how they can take actions needed to help communities reduce water use, and help our region combat this drought emergency.
- The Chair introduced a pre-recorded video message by Ahmad Thomas, CEO of the Silicon Valley Leadership Group (SVLG). SVLG cosponsored the Summit, similar to their support of the previous 2015 Summit, and the CEO stated the importance of working together on solutions, including expanded conservation efforts and investments in technology, such as recycled and purified water as a truly drought-proof water supply.
- Chair Estremera then introduced keynote speaker, California State Senator John Laird, who spoke to his tenure as the California Secretary of Natural Resources during the previous drought emergency in our state, and how it is the responsibility of elected and community leaders to lead with the education and message of conservation. Senator Laird said it is up to individuals to conserve in order for us to get past a drought emergency, but that we all have to work together on resilient long-term solutions in order to truly meet the challenge of addressing ongoing water supply challenges.
- Chief Operating Officer Aaron Baker led a presentation titled "Multi-Year Droughts: Possible Solutions for a New Normal" on the current status of the drought. The presentation provided an overview of regional solutions and possibilities and covered the following topics:
  - Water Supply Outlook and Drought Emergency Response
  - Overview of Water Conservation and Rebate Programs
  - Reusing Water: Purified Water Project
  - Water Conservation Policies for New and Existing Developments
- Michael Mermelstein of Nichols Research provided a presentation drought attitudes based on recently conducted poll and focus groups providing insight on what our communities and constituencies feel is important to them and their water supply needs during this extreme drought.
- Director LeZotte provided closing remarks for the Drought Summit to conclude the event.

## Attendees

- 6 Directors were in attendance: Chair Tony Estremera, Vice Chair Gary Kremen, Director Barbara Keegan, Director Richard Santos, Director Linda J. LeZotte, Director Nai Hsueh
- At peak attendance, 61 people were present on the Zoom meeting, including:
  - Elected officials from the cities of: Campbell, Cupertino, Gilroy, Morgan Hill, Mountain View, Saratoga, and Sunnyvale
  - $\circ$   $\;$  Staff representing San Jose and the office Congressmember Anna Eshoo

## Key Takeaways from Breakout Sessions

## Formulating Regional Approaches to Drought Response

- A regional drought response starts with unified stakeholder messaging—retailers, cities, and Valley Water all need to be on same page and consistent with response to drought.
- There should be a focus on education, rather than messaging that utilizes "scare tactics."
- Partnerships are key on both the conservation and supply side; no one solution is the "silver bullet." Because different jurisdictions have different water-use portfolios, the one-size-fits-all approach does not work.
- There needs to be coordination on the uniformity and equity/fairness on incentives and also on enforcement.

## Implementing Regional Approaches to Drought Response

• Implementing regional approaches to drought response needs to include stronger partnerships between all stakeholders, and decisionmakers really need to help push the issue to drive conservation.

- Retailers are in lock-step with Valley Water in terms of messaging and conservation, but continued partnerships and a focus on consistent communication are key to addressing long-term responses to drought and water supply emergencies.
- Highlight cities, businesses, and organizations that can be used as "models" and lead by example for what successful conservation and water use efficiency should look like.
- Cities generally support water conservation but staff bandwidth is limited so continued partnerships with Valley Water are essential in implementing and prioritizing efforts like adopting a Model Water Efficient New Development Ordinance (MWENDO).