

Drought Response Report

JULY 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) for drought on June 16, 2021 to assist with resolution implementation and other drought-related efforts.

Collaboration with the County, Retailers, and Cities

- As part of the ongoing drought response outreach, Valley Water continues to engage with local government officials to agendaize drought response actions on Council calendars. To date, 6 of 15 City Councils in Santa Clara County have taken drought response action to support water use reduction.
- Retailers, including those that are cities, are implementing water waste restrictions based on their policies and Water Shortage Contingency Plans (WSCPs). Investor-owned retailers must obtain California Public Utilities Commission (CPUC) approval to implement restrictions and other water use reduction measures. Valley Water’s Resolution 21-68 includes some examples of restrictions from CPUC Resolution W-4976. While Valley Water encourages retailers to implement consistent restrictions, retailers are implementing them per their policies and WSCPs.
- 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>). As requested by the Water Conservation and Demand Management Committee on July 26, 2021, a detailed summary of each retailer’s restrictions has been provided in Appendix A.
- The investor-owned retailers additional water reduction measures are shown in the table below.

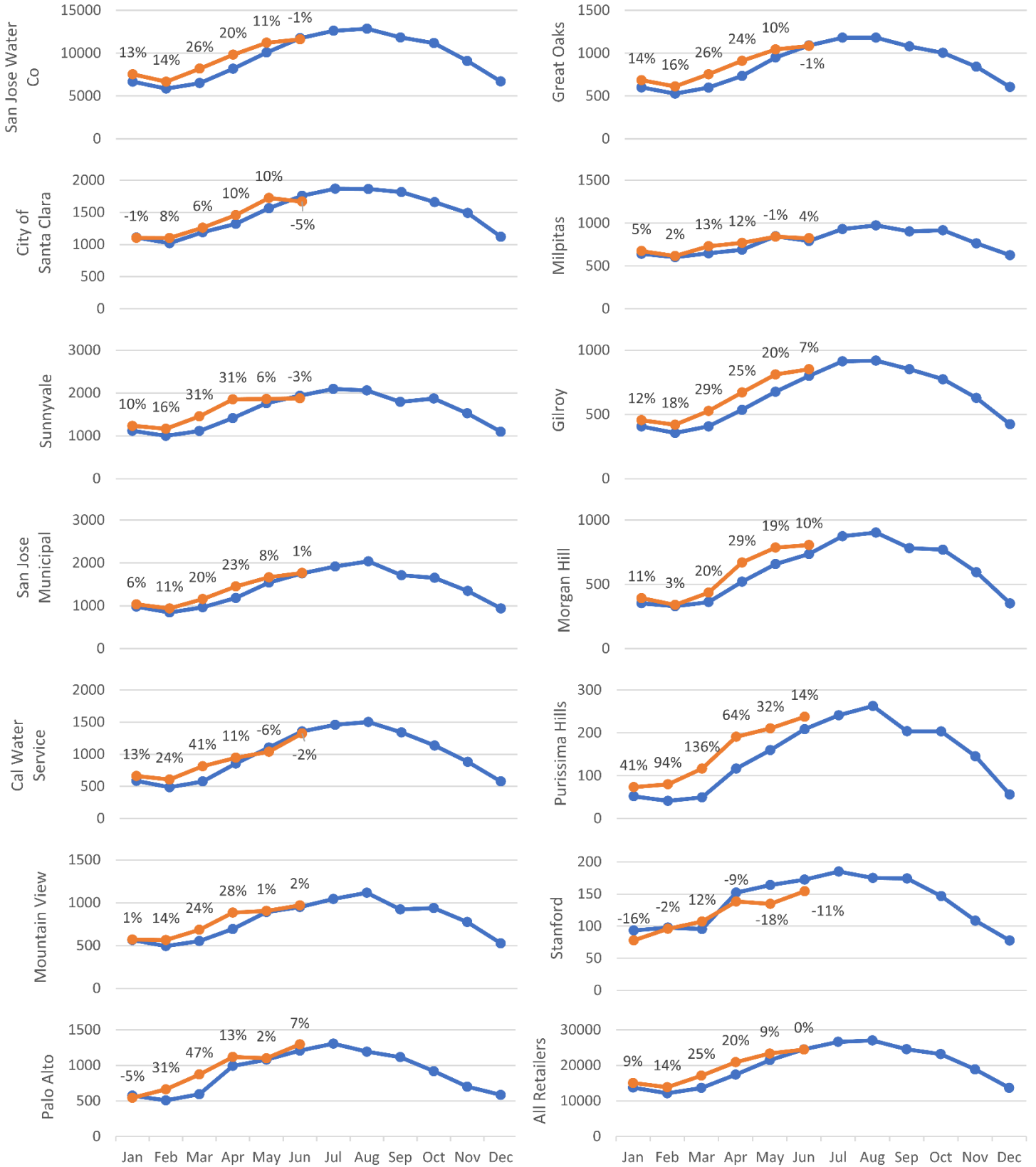
Investor-owned Water Retailers			
	San Jose Water Company	Great Oaks Water Company	California Water Service
CPUC Status	Pending	Approved	Approved
Surcharge for Exceeding Drought Allocation	No	\$6.9804/CCF	No
Penalties for Violating Water Waste Restrictions	No	Yes	Yes

- Valley Water meets with retailers at numerous Subcommittee meetings to provide drought updates, track progress towards drought response efforts, and ensure consistent messaging. Valley Water has also planned a new Ad Hoc Retailer Drought Subcommittee focused on these purposes and has scheduled the first meeting for August 9, 2021.
- The graphs on the next page depict total water use by Valley Water’s 13 retailers. Water usage is primarily Municipal and Industrial (M&I). Nearly all agricultural water use in Santa Clara County is through independently owned and managed groundwater wells rather than through Valley Water’s 13 retailers. Agricultural well owners generally report their water use every six months.

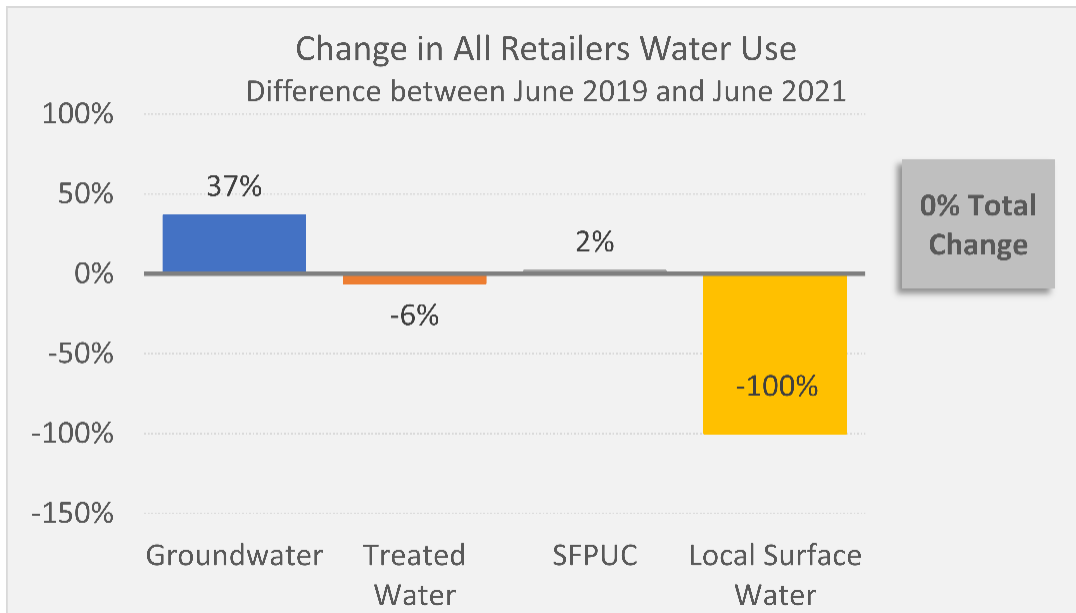
Monthly Water Use by Retailer (AF)

— 2019 — 2021

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



The graph below shows that water use between June 2019 and June 2021 is similar. It also 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 (Jan - Jun 2019)					Total Water Use in Acre-Feet (Jan - Jun 2021)				
	Ground Water	Treated Water	SFPUC	Local Surface Water	Total	Ground Water	Treated Water	SFPUC	Local Surface Water	Total
San Jose Water Company	11,900	26,500	-	10,600	49,100	26,700	27,600	-	800	55,100
Santa Clara, City	4,300	2,100	1,500	-	8,000	4,600	1,900	1,800	-	8,300
Sunnyvale	-	3,100	5,200	-	8,300	-	4,700	4,700	-	9,500
San Jose Municipal Water	400	4,700	2,200	-	7,300	400	5,500	2,200	-	8,000
California Water Service	1,100	3,800	-	-	5,000	2,100	3,300	-	-	5,400
Palo Alto	-	-	5,000	-	5,000	-	-	5,600	-	5,600
Mountain View	100	400	3,600	-	4,100	100	400	4,100	-	4,600
Great Oaks	4,500	-	-	-	4,500	5,100	-	-	-	5,100
Milpitas	-	1,300	2,900	-	4,200	-	1,600	2,800	-	4,500
Gilroy	3,200	-	-	-	3,200	3,700	-	-	-	3,700
Morgan Hill	3,000	-	-	-	3,000	3,400	-	-	-	3,400
Purissima Hills Water	-	-	600	-	600	-	-	900	-	900
Stanford	-	-	800	-	800	-	-	700	-	700
Total	28,500	41,900	21,800	10,600	103,100	46,100	45,000	22,800	800	114,800

The table below depicting water used per person per day (Residential Gallons Per Capita Day or R-GPCD) is provided in response to the Water Conservation and Demand Management Committee’s request on July 26, 2021 that population be accounted for in water use tracking. Though data on retailers’ population and water usage by sector is not available to Valley Water, the latest R-GPCD by retailer from the State Water Resources Control Board is shown below.

Water Retailer	Residential Gallons Per Capita Day (R-GPCD)		
	May 2019	May 2021	Percent Change
San Jose Water Company	73	77	+ 5%
Santa Clara, City	60	76	+ 27%
Sunnyvale	69	83	+ 20%
San Jose Municipal Water	87	80	-8%
California Water Service	119	120	0%
Palo Alto	113	110	-2%
Great Oaks	73	79	+ 8%
Milpitas	39	49	+ 28%
Gilroy	81	-	-
Morgan Hill	92	110	+ 19%

R-GPCD data not available for Mountain View, Purissima Hills Water, and Stanford. Data sourced from the State Water Resources Control Board Urban Water Supplier Monthly Reports.

Water Conservation Programs

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 Program offers free water conservation 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. The table below shows the latest monthly participation data available from 2021.

Program	Jan	Feb	Mar	Apr	May	Jun	Jul	Total
Landscape Rebate Program Applications ¹	47	62	86	251	221	185	592	1223
Conservation Device Orders ²	2	7	9	372	750	490	823	2,453
Water Waste Reports	5	4	28	42	53	181	222	535

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.

²The Shopping Cart 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.

- Valley Water launched the summer conservation campaign featuring the “drought ready” slogan. The multilingual ads and videos are running on digital, social media, radio and print.
- Ads promoting water conversation through behavioral changes are running on KCBS, Telemundo and NBC Bay Area. The spots are presented by well-known radio and television personalities.
- Statistics for public outreach efforts are shown below.

Outreach Type	July 2021
Social Media¹	
Impressions ²	1,812,855
Engagements ³	23,195
Link Clicks	3,733
Website Page Views	
Water conservation webpages	94,617
BeHeard.ValleyWater.org/drought-information	605
Media	
Media Mentions ⁴	687

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.

In addition to wholesale water supply, Valley Water supplies 63 customers with surface water from untreated water pipelines and streams for irrigation of agriculture, golf courses and residential lawns. Surface water users generally account for less than 1% of the water use in Santa Clara County. As discussed earlier, agricultural water use in the county is primarily through independently owned and managed groundwater wells. On average, agricultural groundwater pumpers account for approximately 10% of the water use in Santa Clara County.

- Valley Water mailed letters to surface water users in June 2021 and to agricultural groundwater pumpers in July 2021 to inform them of the call for water use reduction and encourage participation in Valley Water’s conservation programs. Valley Water has not received responses to the letters.

Drought and Water Conservation Education

Valley Water’s Education Outreach Program created a drought messaging video for student audiences, “Carla the Conscious Conservationist.” The video portrays a knowledgeable character who is aware of her water usage, knows how to save water every day, and is happy to share the information with her friends. Being a “conscious conservationist” is discussed during presentations when discussing ways to save water and hearing feedback from students. The table below shows participation rates in the education programs. Participation tends to be higher when school is in session.

Program	May	Jun	Jul
Educators/Teachers	52	19	93
Classes/Groups	58	18	27
Students	1,483	415	499

Valley Water also conducted a Town Hall presentation to provide drought information to employees on July 22, 2021.

Committee Updates

Drought-related updates are being provided regularly at Committee meetings to receive feedback and guidance. An update was provided at to the Agricultural Water Advisory Committee on July 12, 2021, the Water Conservation and Demand Management Committee on July 26, 2021, and the Water Commission on July 28, 2021.

Water Supply Operations and Outlook

Imported Water

- In July, the U.S. Bureau of Reclamation (Reclamation) conditionally approved Valley Water's Public Health & Safety (PHS) request which could provide up to 71,500 acre-feet (AF) for Valley Water's Central Valley Project (CVP) M&I allocation. Due to supply limitations, Reclamation may not be able to provide the full PHS allocation. Valley Water continues to coordinate with Reclamation to better understand the amount and timing of deliveries.
- Reclamation will be borrowing water from the California Department of Water Resources (DWR) in San Luis Reservoir to meet demands of CVP contractors, including Valley Water's PHS request. The borrowing of water in San Luis is anticipated to bring the reservoir down to levels which may impact water quality.
- To date in 2021, Valley Water has secured agreements for ~58,000 AF of transfer supplies, before taking into account conveyance losses across the Delta.
- It is possible that some transfer supplies could be subject to water rights curtailment, which could reduce the final transfer amount.
- Semitropic recoveries continue as scheduled with Valley Water regularly coordinating with DWR to secure reliable delivery of this supply as well as various transfer supplies.

Treated Water

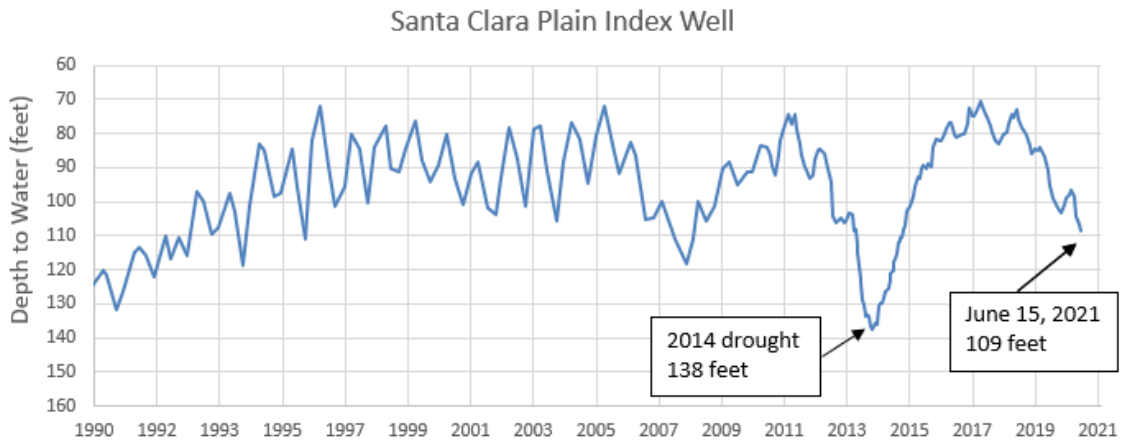
- There were no reports of taste or odor issues for treated water in July 2021.

Groundwater Recharge

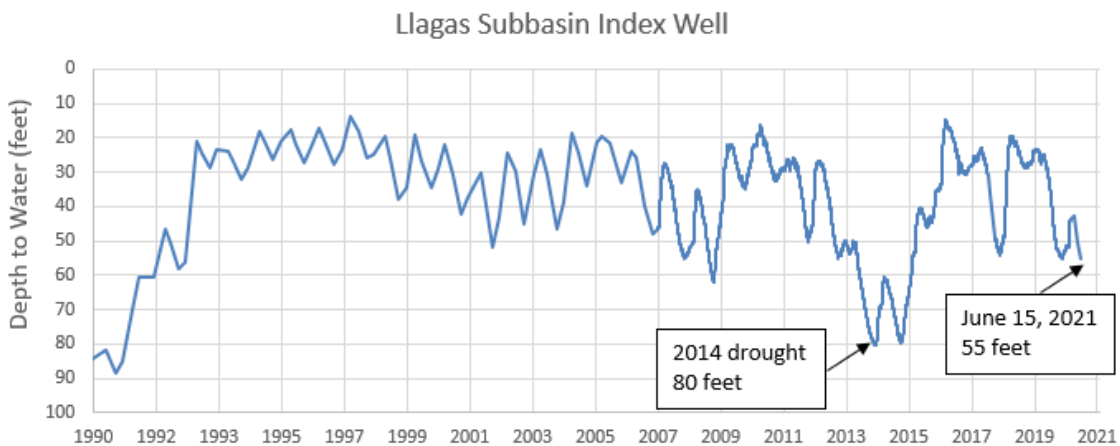
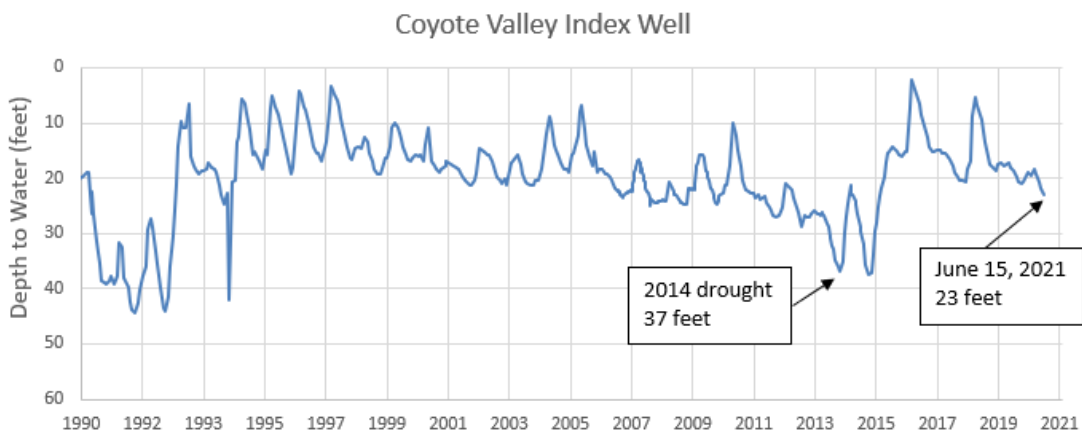
- Starting in May 2021, the managed groundwater recharge program was scaled back due to the reduction in imported water allocations.
- The operations plan for calendar year (CY) 2021 currently provides a total of about 46,000 AF of managed groundwater recharge in Santa Clara County. However, if Valley Water obtains additional imported supplies later this summer, the operations plan will be modified to provide additional groundwater recharge.
- Currently, imported water is not being released into Santa Clara County streams except for up to 9 cfs into Coyote Creek.
- Due to low storage conditions in Valley Water's reservoirs after an exceptionally dry winter, minimal water releases are being made from local reservoirs to provide groundwater recharge and benefit the aquatic and riparian habitats.

Groundwater Conditions:

- Countywide groundwater levels and storage continue to decline due to the extreme drought and increased pumping. Without emergency imported water supplies and additional water use reduction by the community, groundwater levels and storage in 2022 are projected to drop well below what was observed in the 2012 to 2016 drought. This would greatly increase the risk 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 conditions continue to worsen due to the drought and increased pumping, which is 134% of the five-year average.
 - As shown below, groundwater levels in the Santa Clara Plain index well continue to decline, with a similar pattern as the 2012-2016 drought. The current water level is about 26 feet above the minimum water level in 2014. The water level at this well has dropped about 15 feet within the last year.
 - Groundwater levels are more than 35 to 100 feet above thresholds established to minimize the risk of permanent subsidence.
 - No reports of dry wells have been received.



- South County Conditions
 - Groundwater pumping is 108% to 117% 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 7 to 20 feet over the last year and continue to decline as shown below. The current water level in the Coyote Valley and Llagas Subbasin index wells is about 10 to 18 feet above the respective minimum water levels in 2014.
 - No reports of dry wells have been received.



State and Federal Coordination

- At the state level, Valley Water continues to work to ensure that water rights curtailments in the Delta watershed do not impact emergency water transfers needed this fall. To that end, Valley Water submitted comments to the State Water Resources Control Board on proposed emergency regulations titled “Enhanced Water Use Reporting and Curtailment of Diversions due to Lack of Water Availability in the Sacramento-San Joaquin Delta Watershed.” The comments underscore the critical consideration regarding the conditions prerequisite to continued diversion by a water rights holder based on the provision of water for minimum human health and safety needs. Valley Water coordinated on these comments with the State Water Contractors and the San Luis Delta Mendota Water Authority.

- Valley Water met the Reclamation Regional Director and staff to discuss the outlook for Valley Water receiving additional water in 2021.
 - Valley Water advocated with congressional staff for including federal funding for drought relief, water storage, and recycled water in the bipartisan infrastructure package that, at press time, is under consideration in the Senate.
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Staffing and Resources

- One of Valley Water's two full-time Water Conservation Specialists is leaving the position. Valley Water is working to expedite the filling of this vacancy.
 - Three interns started in July, and three more interns are in active recruitment. Four part-time temporary positions are in the final recruitment stages.
 - Valley Water is encountering recruitment challenges to fill one of the remaining temporary positions to support the online Shopping Cart.
 - Two full-time limited term positions are in recruitment to support the increased demand for conservation programs.
 - For Fiscal Year (FY) 2020-21, Valley Water spent approximately \$14.8 million on emergency drought expenses primarily in the month of June. Two agreements for supplemental water were executed. Both are funded over two fiscal years. The agreement with South Feather Water and Power Agency totals \$5.6 million for 8,000 AF, with a FY 2020-21 budget allotment of \$1.0 million. The agreement with Glenn Colusa Irrigation District totals \$22.75 million for 35,000 AF with a FY 2020-21 budget allotment of \$12.2 million. Additionally, 9,274 AF of water were called from Semitropic Water Storage District at a cost of \$1.57 million primarily for fees and energy related to water transportation. Environmental and ancillary expenses round out costs for the year.
 - For Fiscal Year 2021-22, month end expenditure data will become available the following month. As such, July will be reported in the August Drought Report.
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Expanded Opportunities

Advanced Purified Water

- Valley Water continued to negotiate a lease and Reverse Osmosis (RO) concentrate management agreement with Palo Alto.
- Seven responses to the Request for Qualifications (RFQ) for the Purified Water Project Public Private Partnership (P3) that was posted April 30, 2021 were received on July 23, 2021.

Model Water Efficient Ordinance for New Development

The Model Water Efficient New Development Ordinance (MWENDO) was developed in 2015 and updated in 2018 by a task force consisting of Valley Water, Santa Clara County, cities, and other stakeholders to ensure new development meets strong water efficiency standards.

- Valley Water continues to actively work to have the MWENDO adopted by the 15 cities and County within Valley Water's service area. However, the ramifications of the COVID-19 pandemic and the economic fallout shifted various cities' priorities and staffing capacity.
- With the timing of the Title 24 triennial code adoption update beginning later this year and the current drought emergency, Valley Water has begun to engage with Cities towards adoption of the MWENDO, beginning with the reintroduction of the topic to the Santa Clara Valley Water Commission on July 28, 2021.

Leak Assistance Program Pilot

Valley Water and BAWSCA are conducting a pilot leak detection certification program for professionals. California Water Efficiency Partnership (CalWEP) is the contractor for this pilot.

- A Memorandum of Agreement is in development between parties.

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 contractor for this Study, University of California, Merced, began work on the Study in July 2021.

Flood-Managed Aquifer Recharge (Flood-MAR) Study

Valley Water is collaborating with a team of experts from the University of California Security and Sustainability Research Initiative (UC Water) to conduct a prefeasibility study on implementing Flood-Managed Aquifer Recharge (Flood-MAR) in Santa Clara County. The study will provide Valley Water a GIS-based tool for identifying potential Flood-MAR sites in Santa Clara County and provide an evaluation on institutional requirements for implementing Flood-MAR projects. The study is expected to be completed December 2022. Updates as of July 2021 are below.

- The UC Water team and Valley Water have held two workshops to discuss water supply operations in Santa Clara County and the potential for Flood-MAR implementation.
- UC Water has collected the majority of the spatial data required to develop the GIS-based tool for identifying potential Flood-MAR sites.

APPENDIX A: Retailer Water Use Restrictions as of July 27, 2021

The following table is a summary of water use restrictions implemented by water retailers and cities within Santa Clara County. Some of these restrictions are permanently in place while others are temporary, such as 2-day or 3-day per week irrigation limits. The temporary restrictions become active when an agency activates their respective Water Shortage Contingency Plan (WSCP). All water retailers must develop and adopt their own WSCP. Cities that do not manage their own water system, such as Campbell, Los Altos, and Los Gatos, may rely on the water use restrictions of their water retailer in lieu of adopting and implementing their own WSCP; however, these cities may also have codified drought measures within their respective municipal codes.

Agencies activate their WSCP as a call to action in response to local drought conditions and/or mandated reduction targets imposed by Valley Water or the State. An agency activates their WSCP through either City Council approval, or, in the case of the investor-owned retailers, through approval by the California Public Utilities Commission. Within a WSCP, there are multiple stages, typically 4-6, that relate to specific ranges of water shortages; as the stages increase, so does the severity of corresponding water use restrictions, however, the stages and restrictions are not consistent county wide.

The text of the water use restrictions in the table below has been generalized to compare restrictions that may not use the exact same language but share the same intent.

Active Water Use Prohibitions (7/27/2021) (R=Retailer, CR=City Retailer)	SJWC (R)	Great Oaks (R)	Cal Water (R)	Campbell	Cupertino	Gilroy (CR)	Los Gatos	Milpitas (CR)	Morgan Hill (CR)	Mountain View (CR)	Palo Alto (CR)	San Jose - Muni (CR)	Santa Clara (CR)	Sunnyvale (CR)
Has action been taken in response to the drought?	X	X	X	Council Action on 8/3/2021	X	Council Action on 8/2/2021	Council Action on 8/3/2021	Council Action Pending	X			Council Action Pending	X	X
Irrigation time of day	10AM-8PM		8AM-6PM			9AM-5PM	5AM-9PM	9AM-6PM	9AM-7PM			10AM-8PM		9AM-6PM
Irrigation days per week	2 Even = Tu/Fr Odd = M/Th				2 Even = Tu /Fr Odd = M/Th Other = M/Th			4 Even = Tu/Th/Fr/Su Odd = M/Tu/Th/Sa Other = M/Tu/Th/Su	2 Even = Tu/Fr Odd = M/Th Other = Tu/Fr				3 Even = Tu/Fr/Su Odd = M/Th/Sa Other = M/Th/Sa	
Irrigating for more than 15 minutes per day per station						X			X			X		X
Leaks must be fixed within ___ business days	3	5	5						2	10		5		
Use of water in a manner that causes excessive runoff	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Irrigating within/during 48 hours of rainfall	X	X	X		X	X	X	X	X				X	X

Active Water Use Prohibitions (7/27/2021) (R=Retailer, CR=City Retailer)	<u>SJWC (R)</u>	<u>Great Oaks (R)</u>	<u>Cal Water (R)</u>	<u>Campbell</u>	<u>Cupertino</u>	<u>Gilroy (CR)</u>	<u>Los Gatos</u>	<u>Milpitas (CR)</u>	<u>Morgan Hill (CR)</u>	<u>Mountain View (CR)</u>	<u>Palo Alto (CR)</u>	<u>San Jose - Muni (CR)</u>	<u>Santa Clara (CR)</u>	<u>Sunnyvale (CR)</u>
Use of water for washing sidewalks/driveways	X	X	X		X	X	X	X	X	X			X	X
Use of water for washing buildings, structures, patios, parking lots, tennis courts, or other hard surfaces	X	X				X		X	X	X			X	X
Operation of commercial car washes that do not recycle the potable water	X	X 50% of water				X		X	X		X	X	X	
Restaurants serving water unless requested	X	X	X		X	X	X	X	X	X		X	X	X
Restaurants not using water conserving dish wash spray valves						X						X		
Hotel/motel not providing option to not launder linens daily	X	X	X		X	X			X			X	X	X
Water features that are not recirculating	X		X			X			X				X	X
Use of water for filling/re-filling decorative fountains, ornamental lakes, or ponds	X	X			X	X	X	X	X		X		X	
Washing of vehicles, except at a commercial car wash that utilizes recycled water or re-circulating water system to capture or reuse water	X								X					
Washing vehicles with a hose unless connected to a shut off nozzle		X	X	X	X	X	X	X	X	X	X	X	X	X

Active Water Use Prohibitions (7/27/2021) (R=Retailer, CR=City Retailer)	<u>SJWC</u> (R)	<u>Great Oaks</u> (R)	<u>Cal Water</u> (R)	<u>Campbell</u>	<u>Cupertino</u>	<u>Gilroy</u> (CR)	<u>Los Gatos</u>	<u>Milpitas</u> (CR)	<u>Morgan Hill</u> (CR)	<u>Mountain View</u> (CR)	<u>Palo Alto</u> (CR)	<u>San Jose - Muni</u> (CR)	<u>Santa Clara</u> (CR)	<u>Sunnyvale</u> (CR)
Washing commercial aircraft, cars, buses, boats, trailers, or other commercial vehicles at any time, except at specialized facilities designed to avoid wasteful water use		X												
Irrigating outside of new construction		X Minimal use for landscaping allowed	X Newly constructed homes		X Newly constructed homes	X Newly constructed homes	X Newly constructed homes	X Newly constructed homes	X				X Newly constructed homes	X Newly constructed homes
Use of water to irrigate turf, lawns, gardens, or ornamental landscapes in violation of local ordinances or government imposed outdoor watering restrictions		X				X	X	X	X		X Ornamental landscapes only (between 10AM-6PM)		X	X
Use of water for construction purposes, if other actions to accomplish the same purposes without water are feasible and/or permitted or if recycled water is reasonably available as determined by a government agency	X	X				X		X	X		X	X	X	
Use of water for single pass cooling process					X	X		X	X	X			X	X
Use of potable water for street cleaning with trucks, except for initial wash down for construction (if street sweeping is not feasible)		X									X			
Use of potable water for street cleaning		X									X			

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Use of potable water to flush hydrants		X										X	X	X
Use of potable water for the filling or refilling of swimming pools in violation of applicable state and local ordinances		X												
New and existing pools that do not use a pool cover or solar blanket to reduce water loss						X		X	X					
Other restrictions on the use of potable water as prescribed from time to time by the Commission or other authorized government agencies	X		X		X									
Typical exclusions: use of recycled water, use of drip/micro-spray irrigation, irrigating with hand-held bucket or hose with shut-off nozzle, cleaning for health & safety.														

San Jose Water Company serves: Campbell, Cupertino, Los Gatos, Monte Sereno, San Jose, Saratoga

Cal Water Company serves: Cupertino, Los Altos, Los Altos Hills, Mountain View, Sunnyvale

Great Oaks Water Company serves: San Jose

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