



DATE: November 9, 2021

CATEGORY: Public Hearing

DEPT.: Public Works

TITLE: **Declaration of a Stage 1 Water Shortage Emergency Condition**

RECOMMENDATION

Adopt a Resolution of the City Council of the City of Mountain View Declaring the Existence of a Stage 1 Water Shortage Emergency Condition and Directing Implementation of Stage 1 Water Demand Reduction Measures, to be read in title only, further reading waived (Attachment 1 to the Council report).

BACKGROUND

The City of Mountain View provides potable and recycled water to the majority of residents and businesses in Mountain View through its municipal water distribution systems. Mountain View's primary water supply (approximately 84%) comes from the San Francisco Regional Water System (Regional Water System), which is operated by the San Francisco Public Utilities Commission (SFPUC). The City receives approximately 10% of its water from the Santa Clara Valley Water District (Valley Water) and 2% from local groundwater wells. The remaining 4% of Mountain View's water supply is recycled water from the Regional Water Quality Control Plant in Palo Alto. Recycled water is available in Mountain View's North Bayshore Area for irrigation and other nonpotable uses. A small number of properties in Mountain View (approximately 4%) receive water from the California Water Service Company (Cal Water), not from the City.

ANALYSIS

Existing Water Supply Situation

Over the past two years, California has experienced widespread severe drought, with precipitation reaching historically low levels during 2020 and 2021. Earlier this year, on June 9, Valley Water declared a water shortage emergency and asked customers to reduce water use by 15% (compared to 2019). On July 8, Governor Gavin Newsom added the County of Santa Clara to the State's list of counties experiencing drought emergencies

and simultaneously called on all Californians to voluntarily conserve 15% (compared to 2020). Mountain View's primary water supplier, SFPUC, supported the Governor's call for conservation but did not declare a water shortage emergency during the summer.

Presently, SFPUC's water storage system is 66% full and Valley Water's system is 12% full. Groundwater levels in Santa Clara County are declining, primarily due to reduced availability of water for aquifer recharge by Valley Water, the local groundwater management agency.

Recent State Water Board Actions

On August 20, 2021, the State Water Resources Control Board (State Water Board) ordered curtailment of water diversions from the Sacramento-San Joaquin Delta Watershed, including for senior water rights holders such as SFPUC. This unprecedented action has stranded SFPUC's primary backup water supply, referred to as the "Water Bank." Although SFPUC's largest water storage facility is the Hetch Hetchy Reservoir in Yosemite National Park, agreements with the Modesto and Turlock irrigation districts allow SFPUC to exchange water and "bank" it for use during extended droughts. SFPUC's Water Bank holds 1.5 times the volume of the Hetch Hetchy Reservoir. SFPUC is currently working with the State Water Board to regain access to its Water Bank and is also pursuing litigation. In the meantime, SFPUC's existing water supply has been reduced significantly because of the State Water Board's order—effectively removing 1.5 years of drought supply from the Regional Water System. In response to the current situation, SFPUC is scheduled to consider declaration of a water shortage emergency on November 23. At the time this report was prepared, staff understands that SFPUC staff is recommending a voluntary request for 10% conservation systemwide, compared to Fiscal Year 2019-20.

Mountain View Water Use

Approximately 58% of Mountain View's water is used for residential purposes (31% for multi-family residences and 27% for single-family homes). Other major users include large landscape customers (24%); commercial, industrial, and institutional customers (14%); and recycled water customers (4%). Large landscape customers reflect a combination of public properties (parks and schools), residential properties (common area landscaping), and commercial properties (business landscaping). Mountain View's historical annual water demand is shown in Figure 1.

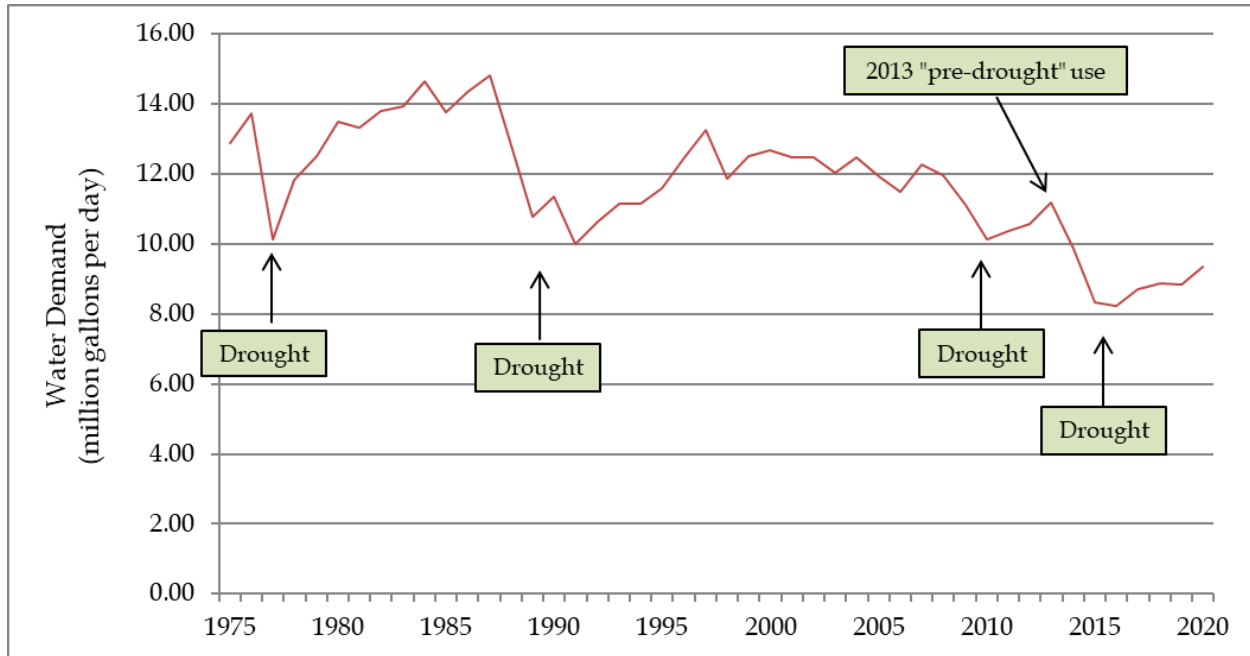


Figure 1: Mountain View's Historical Water Demand

Since the mid-1980s, Mountain View has experienced a general downward trend in water use punctuated by rapid declines in usage coinciding with periods of drought as customers responded to requested or mandated conservation. During the recent drought from 2012 to 2017, Mountain View achieved a maximum of 29% potable water conservation savings during the peak drought year of 2015. At this time, conservation was measured against 2013 water use, which was considered representative of “normal” water demand and used as a benchmark for measuring drought response. Since conclusion of the previous drought, Mountain View’s water use has rebounded upward, but still remains below the 2013 baseline. Potable water use during 2020 was 18% less than in 2013. Usage during the first nine months of 2021 was 23% below the 2013 baseline.

Recent Conservation Savings and Outreach

Measuring conservation savings during the current drought is more complicated than during the previous drought because of different baselines used by different entities. Valley Water’s conservation request is measured against calendar year 2019, Governor Newsom’s request is measured against calendar year 2020, and SFPUC’s request (if approved on November 9) will be measured against Fiscal Year 2019-20. The list below describes Mountain View’s conservation savings in relation to each of these baselines:

- Upon declaration of Valley Water’s shortage emergency in June 2021, Mountain View staff modified system operations to increase conservation of local water

supplies managed by Valley Water. Cumulative conservation savings of these local supplies through September 2021 is 21% (recommendation is 15%) compared to 2019 use.

- Since Governor Newsom's conservation request in July, Mountain View has reduced its total potable water use from all supplies by 7% (recommendation is 15%) compared to 2020 use.
- Mountain View's use of SFPUC water during the first three months of Fiscal Year 2021-22 is 4% lower than during the same period in Fiscal Year 2019-20.

To promote water conservation in the community, staff has distributed information through utility bill inserts, website updates, the water conservation hotline, and media requests. Regional water conservation campaigns are being implemented by Valley Water, SFPUC, and the Bay Area Water Supply and Conservation Agency (BAWSCA), which represents the 26 agencies that purchase water wholesale from SFPUC, including Mountain View.

Allocation of SFPUC Water Supply During Droughts

If SFPUC declares a water shortage emergency on November 23, water will be allocated pursuant to the *Amended and Restated Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County and Santa Clara County* (Agreement), dated November 2018. The Agreement allocates drought supplies between San Francisco and the wholesale customers collectively, who then distribute the water amongst themselves pursuant to the *Tier 2 Drought Implementation Plan among the Wholesale Customers*. Administration of the allocation process is performed by SFPUC and BAWSCA. Preliminary calculations indicate that a 10% systemwide conservation request equates to 5% conservation for SFPUC and 14% conservation for the wholesale customers, collectively. Individual agency targets range from 7% to 26%. Mountain View's conservation target is 10%.

Mountain View Water Shortage Plan

Mountain View's response to water shortage emergencies is outlined in the City's *Water Shortage Contingency Plan* (Water Shortage Plan) adopted by the City Council on June 8, 2021, which is included as a chapter in the *2020 Urban Water Management Plan*. The Water Shortage Plan includes the following four "Stages of Action" to be implemented based on the demand reduction necessary:

- Stage 1—demand reduction of up to 10%;

- Stage 2—demand reduction of up to 25%;
- Stage 3—demand reduction of up to 40%; and
- Stage 4—demand reduction greater than 40%.

During a water shortage emergency, the City achieves water use reductions through public outreach and by restricting nonessential potable water uses, such as landscape irrigation. The severity of these restrictions increases with the need for conservation. **Based on the existing conservation savings achieved this summer and the current water supply situation, staff recommends declaration of a Stage 1 water shortage at this time.**

Table 1 lists the City’s permanent potable nonessential water use prohibitions, which are also in effect during a Stage 1 water shortage.

Table 1: Nonessential Potable Water Use Prohibitions

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|---|
| <ul style="list-style-type: none">• Wasting water from broken or defective water systems. Repair time allowed is 10 days.• Using water in a manner that results in flooding or runoff into the gutter.• Cleaning hard-surfaced areas with a hose, unless equipped with a shutoff valve.• Washing vehicles with a hose, unless equipped with a shutoff valve.• Serving water in restaurants, except on request.• Operating single-pass cooling systems. |
|---|

Response actions during a Stage 1 water shortage focus on expanding public outreach to notify customers of the need to conserve water. No additional water use restrictions are imposed during Stage 1.

During a Stage 2 water shortage, several additional nonessential water uses are restricted or prohibited. For example, irrigation is restricted to specific times and days (as determined by the Public Works Director); washing of paved surfaces and vehicles is prohibited; and the use of potable water to fill decorative fountains is also prohibited.

The City's nonessential water use restrictions become even more severe during Stages 3 and 4 of the Water Shortage Plan.

Staff is also aware that Cal Water's Los Altos District (which serves a small number of properties in Mountain View) has scheduled a public meeting for November 17, 2021 to discuss moving into Stage 2 of their water shortage contingency plan. Affected residents and businesses will be notified about the meeting and any relevant water use restrictions directly by Cal Water. Cal Water's declaration does not affect the City of Mountain View's water supply.

Next Steps

Upon declaration of a water shortage emergency, staff will implement an outreach plan to increase customer communication through letters, postcards, utility bill inserts, emails, social media, signage, and other methods. Conservation results will continue to be posted online at MountainView.gov/Drought and staff will work with Valley Water, BAWSCA, and SFPUC to leverage their regional conservation outreach campaigns.

In addition, several new and upcoming capital projects will increase the City's operational flexibility, allow for easier distribution of supplies throughout the City, and improve recycled water quality. Related projects include pump station improvements, construction of a new groundwater well, and completion of the salt removal facility at the Palo Alto Regional Water Quality Control Plant for recycled water.

Staff understands that SFPUC and Valley Water will continue to evaluate their water supplies through the winter and will notify the City if additional conservation becomes necessary. If the City's Stage 1 water shortage response does not achieve the needed conservation, or if higher levels of conservation are required, staff will return to Council in 2022 to recommend declaration of a Stage 2 water shortage emergency.

FISCAL IMPACT

Declaration of a Stage 1 water shortage emergency and implementation of Stage 1 water demand reduction measures will require new expenditures related to public outreach. These costs can be absorbed by the Water Conservation budget and Drought Response, Capital Improvement Program Project 15-54, which has sufficient funds to cover increased public outreach.

Increased water conservation will reduce revenues to the Water Fund, which will be considered in the rate recommendations for Fiscal Year 2022-23. Mountain View's water

supply contract with SFPUC includes a minimum purchase requirement, which has been waived for Fiscal Year 2021-22 due to the current drought.

CONCLUSION

In response to recent State actions and regional requests for water conservation related to current drought conditions, staff recommends declaration of a Stage 1 water shortage, which would result in increased public outreach and promotion of existing water conservation programs.

ALTERNATIVES

1. Do not declare a Stage 1 water shortage declaration.
2. Provide other direction.

PUBLIC NOTICING

Agenda posting. The public hearing notice was published in the *Daily Post Journal*, and a courtesy notice was published in the *Mountain View Voice*.

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Attachment: 1. Resolution