



Drought Conditions Update

June 27, 2022

Summary

On April 27, 2021, the Board of Supervisors proclaimed a local emergency due to drought conditions in the Sonoma County Operational Area. Critically low rainfall over the last two years has resulted in historically low water storage levels in the region’s two water supply reservoirs and storage levels continue to decline.

The adverse environmental, economic, health, welfare and social impacts of the drought continue to pose an imminent threat of disaster, and threaten to cause widespread potential harm to people, businesses, agriculture, property, communities, the environment, wildlife, and recreation in Sonoma County. Therefore, this item requests the Board of Supervisors approve a 60-day continuation of the April 27, 2021, proclamation of local emergency.

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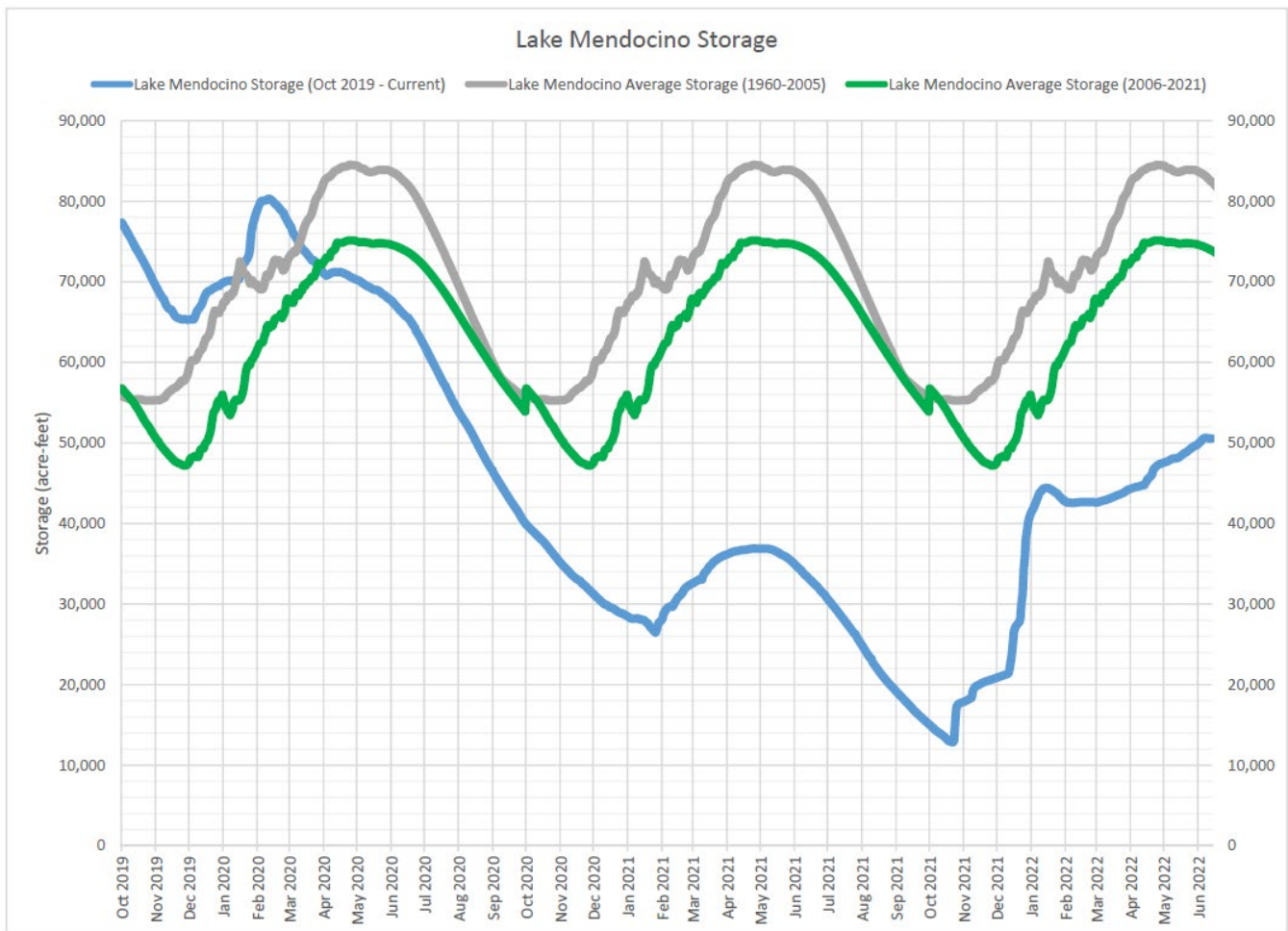
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Current Situation: Water Supply Update

As of June 19, 2022

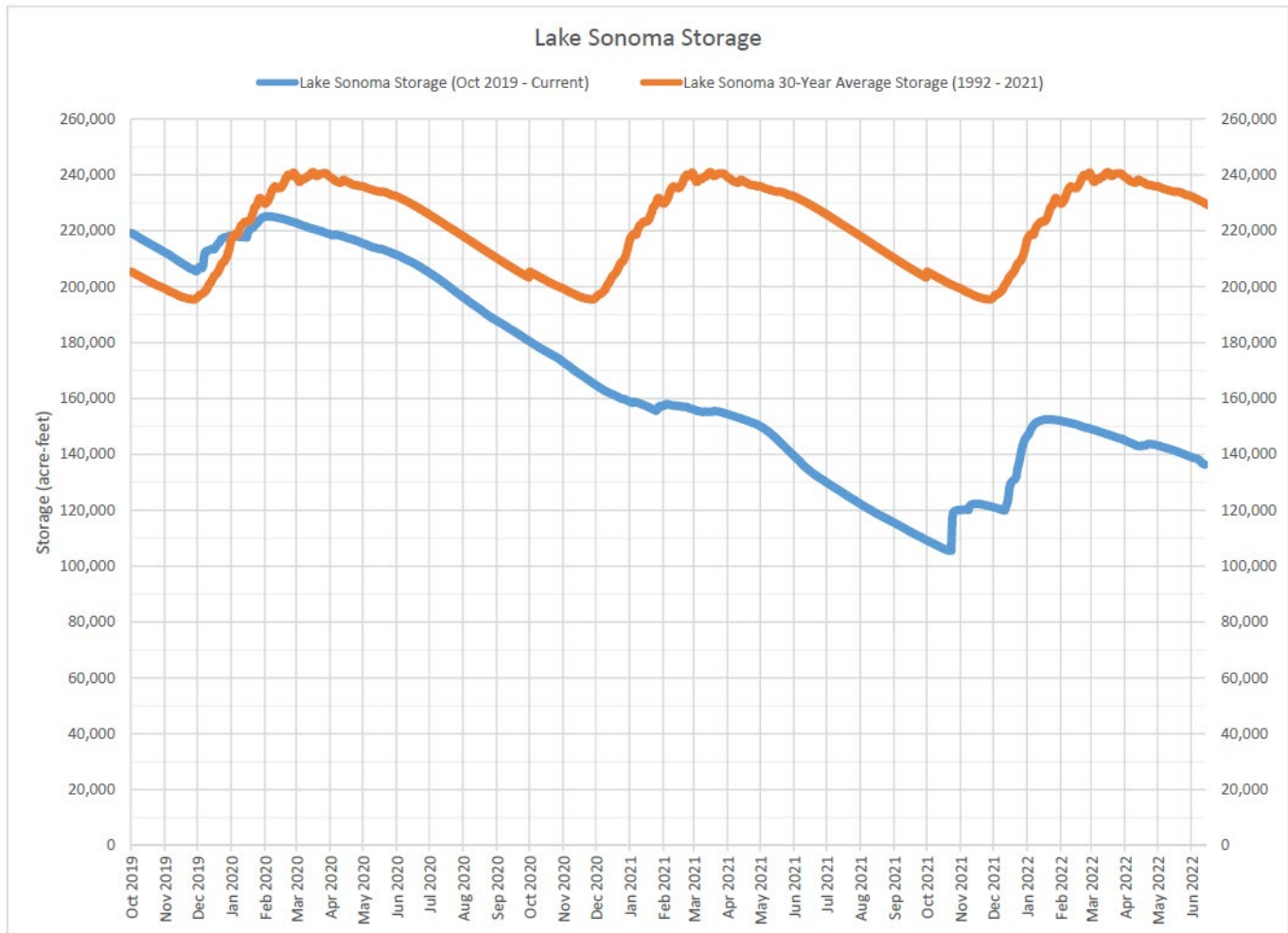
- Lake Mendocino

The water supply storage level at Lake Mendocino was 50,145 acre-feet, approximately 45 percent of the available water supply pool for this date. At this time last year, the water supply storage level at Lake Mendocino was 32,452 acre-feet, approximately 29 percent of the water supply pool for this date.



- Lake Sonoma






The water supply storage level at Lake Sonoma was 133,812 acre-feet, approximately 55 percent of the available water supply pool. At this time last year, the water supply storage level at Lake Sonoma was 132,935, approximately 54 percent of the available water supply pool.



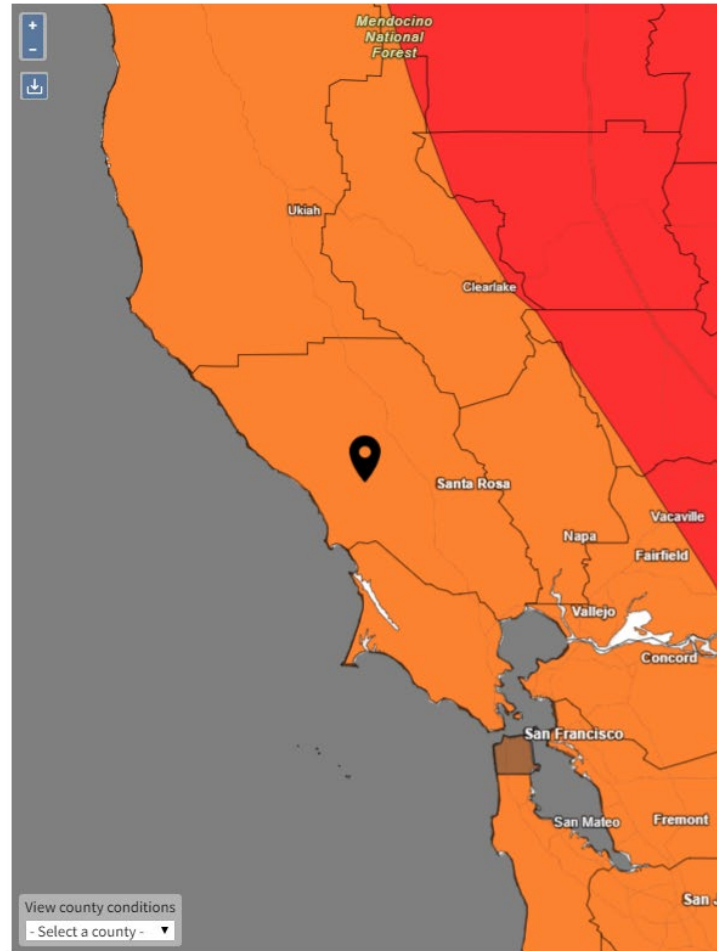
The U.S. Drought Monitor provides the location and intensity of drought conditions across the country. Currently, almost the entirety of Sonoma County and the surrounding North Coast Region is classified into the D2 category (Severe Drought). This is an improvement since the last Board update on drought conditions when the region was classified into the D3 category (Extreme Drought).

[U.S. Drought Monitor](#) [Temperature \(30-Day Departure from Normal\)](#) [Precipitation \(30-Day % of Normal\)](#)

The U.S. Drought Monitor (USDM) is updated each Thursday to show the location and intensity of drought across the country using a five-category system, from Abnormally Dry (D0) conditions to Exceptional Drought (D4). The USDM is a joint effort of the National Drought Mitigation Center, USDA, and NOAA. [Learn more.](#)

	<p>D0 - Abnormally Dry</p> <ul style="list-style-type: none"> • Soil is dry; irrigation delivery begins early • Dryland crop germination is stunted • Active fire season begins 	<p>100.00% of Sonoma County (D0-D4)</p>
	<p>D1 - Moderate Drought</p> <ul style="list-style-type: none"> • Dryland pasture growth is stunted; producers give supplemental feed to cattle • Landscaping and gardens need irrigation earlier; wildlife patterns begin to change • Stock ponds and creeks are lower than usual 	<p>100.00% of Sonoma County (D1-D4)</p>
	<p>D2 - Severe Drought</p> <ul style="list-style-type: none"> • Grazing land is inadequate • Fire season is longer, with high burn intensity, dry fuels, and large fire spatial extent • Trees are stressed; plants increase reproductive mechanisms; wildlife diseases increase 	<p>100.00% of Sonoma County (D2-D4)</p>
	<p>D3 - Extreme Drought</p> <ul style="list-style-type: none"> • Livestock need expensive supplemental feed; cattle and horses are sold; little pasture remains; fruit trees bud early; producers begin irrigating in the winter • Fire season lasts year-round; fires occur in typically wet parts of state; burn bans are implemented • Water is inadequate for agriculture, wildlife, and urban needs; reservoirs are extremely low; hydropower is restricted 	<p>0.00% of Sonoma County (D3-D4)</p>
	<p>D4 - Exceptional Drought</p> <ul style="list-style-type: none"> • Fields are left fallow; orchards are removed; vegetable yields are low; honey harvest is small • Fire season is very costly; number of fires and area burned are extensive • Fish rescue and relocation begins; pine beetle infestation occurs; forest mortality is high; wetlands dry up; survival of native plants and animals is low; fewer wildflowers bloom; wildlife death is widespread; algae blooms appear 	<p>0.00% of Sonoma County (D4)</p>

Source(s): [NDMC](#), [NOAA](#), [USDA](#)



Updates Weekly - 06/21/22

Russian River Watershed Emergency Regulations

On May 31, 2022, the Office of Administrative Law at the State Water Resources Control Board (State Board) approved revised emergency regulations for the Russian River Watershed due to severe drought conditions and very low storage at Lake Mendocino. The emergency regulations expire on June 1, 2023. Through the emergency regulations, the State Board has the authority to curtail pre and post 1914 appropriative water right holders and riparian claims based on water availability analyses being prepared by State Board staff. The orders allow recipients to file for an exemption to divert for human health and safety needs. More information on the State Water Board's actions related to the Russian River is available at https://www.waterboards.ca.gov/drought/russian_river/.

Based on water demand and water availability forecasts, the State Board issued orders regarding curtailment status to all right holders in the Russian River watershed on June 14, 2022. It orders appropriative right holders and those with riparian claims to monitor an online curtailment status list that will be the mechanism for notifying individuals that their right or claim has been curtailed. The first status list will be posted concurrent with the mailing of the orders and then be updated in July.

Current Water Supply Conditions & Temporary Urgency Change Petition (TUCP)

On May 25, 2022, Sonoma Water filed temporary urgency change petitions (Petitions) with the State Board requesting the water supply condition for the Russian River be changed from *Normal Dry Spring* to *Critical*. This will reduce the minimum instream flow requirement on the Upper Russian River from 75 cubic feet per second (cfs) to 25 cfs and on the Lower Russian River from 125 cfs to 35 cfs. The request is based on very low storage levels in both Lake Sonoma and Lake Mendocino. In addition, Sonoma Water anticipates the Federal Energy Regulatory Commission (FERC) will soon be issuing an order approving a flow variance request filed by Pacific Gas & Electric Company (PG&E) for the Potter Valley Project, which will severely reduce imports of Eel River water into the East Fork Russian River. On June 17, 2022, the State Water Board issued an order approving Sonoma Water's request to change the water supply condition to *Critical*. The new order expires on December 13, 2022. In response, Sonoma Water began reducing releases from both Lake Mendocino and Lake Sonoma to meet the new minimum instream flow requirements. Similar to last year, Sonoma Water is required to reduce its Russian River diversions by 20 percent from July 1 to October 31 compared to the same period in 2020, or until flows at Hacienda Bridge are at or above 125 cfs.

Ongoing Drought Resiliency Projects

1. *Countywide Drought Resiliency Planning Project*

Sonoma Water is facilitating a multi-agency, countywide drought resiliency planning project to improve resiliency and minimize economic impacts from future droughts. This project's first phase will create potential mitigation projects and actions which could be used to seek and advocate for local, State, and Federal funding opportunities. The second phase of the project will be to implement these actions to improve drought resiliency across the County.

2. *Santa Rosa Plain Wells Drought Resiliency Project*

On May 11, 2021, Sonoma Water and County staff presented an overview of the status of the drought in Sonoma County, and specific actions currently underway or planned by Sonoma Water and other County departments/agencies in response to the drought emergency. The Board directed Sonoma Water and County staff to return to the Board to seek authorization and funding to expedite design and environmental review for activating one of Sonoma Water's Santa Rosa Plain wells to assist in addressing drought impacts. On May 18, 2021, the Board approved a concurrent budget resolution providing \$400,000 of County contingency funds to support this effort.

The project is intended to bolster water supply reliability for Sonoma Water's water contractors, and address water shortages impacting the agriculture sector. In general, the Santa Rosa Plain Drought Resiliency Project (Project) consists of two phases:

- Phase 1 utilizes the county contingency funds and completes the necessary engineering, environmental review, and other activities needed to activate one of Sonoma Water's Santa Rosa Plain wells.
- Phase 2 involves developing the planning and pre-design activities necessary to seek state drought emergency funding to activate the remaining two Santa Rosa Plain wells, in addition to adding recharge capabilities via groundwater banking.

These collective activities are intended to result in increased drought resiliency by helping drought impacted communities and assist in longer-term groundwater management activities under the Sustainable Groundwater Management Act. Sonoma Water staff have formed an internal team to coordinate its activities and facilitate collaboration with partners in implementing the proposed Project.

Sonoma Water activated the Phase 1 well (Todd Road Well) in October 2021. Activation of the well makes available an additional 200,000 to 500,000 gallons a day (approximately) for residents and ranchers who have lost domestic water supply and need water for health and safety in areas experiencing severe water shortages. The Phase 1 well could also produce an additional 1 million gallons daily (approximately) for Sonoma Water's water contractors to help alleviate drought impacts to their customers.

Phase 2 efforts were initiated September 2021. The planning and preliminary design for the Phase 2 wells (Sebastopol Road Well and Occidental Road Well) was completed and an application was submitted to the California Department of Water Resources on November 18, 2021, for implementation funding. On December 23, 2021, DWR released the program's Phase 1 awards. Sonoma Water was awarded \$6,900,000 for the Santa Rosa Plain Water Supply Resiliency Project. Sonoma Water has contracted with an engineering consultant to provide the project's Phase 2 construction design, which was commenced in December. Testing and investigation of the existing wells has commenced and is currently informing the design of the Sebastopol Road Well. A construction contract has been executed to commence installation of piping needed at the Sebastopol Road Well in order to meet current regulatory requirements for disinfection as part of reactivating the well. The implementation schedule for completing the improvements needed for Phase 2 remains subject to the continuation of emergency drought conditions, and the potential impact of supply chain delays for equipment and material deliveries is still being assessed. Notwithstanding those uncertainties, Sonoma Water is currently targeting re-activation of at least one of the additional Phase 2 wells (Sebastopol Road Well) in the fall of 2022.

3. *Alexander Valley Flood-Managed Aquifer Recharge Feasibility Study*

The Alexander Valley Flood-Managed Aquifer Recharge (FloodMAR) Feasibility Study will assess the viability of Flood-MAR projects in the Alexander Valley to improve water supply reliability (drought mitigation), reduce flood risk, and enhance aquatic ecosystems. The feasibility study will include both desktop assessments and field investigations such as soil borings, geophysics, infiltration testing, and possibly monitoring well installation. The study will be supported by Sonoma Water's recently completed hydrologic and hydraulic model that simulates surface water flow and flood impacts in the Alexander Valley, in addition to any applicable hydrogeologic information made available to Sonoma Water through the USGS' ongoing study of the Russian River watershed. Potential locations for assessment will focus on agricultural lands and working landscapes such as refuges,

floodplains, and flood bypasses. The Dry Creek Rancheria of Pomo Indians were recently awarded funding through DWR's Urban and Multi-benefit Drought Relief grant program to implement a FloodMAR project within Alexander Valley. Sonoma Water staff are coordinating with the tribe and its partners to leverage resources and incorporate study and monitoring activities into the scope that support and inform their project where common goals and objectives can be achieved. Activities, including initial analysis, some of the field work and procurement of a consultant for some of the work will begin this summer (July/Aug).

Environmental Resources Drought Activities

Sonoma Water staff continue to meet weekly with staff from the National Marine Fisheries Service (NMFS), California Department of Fish and Wildlife (CDFW), and the North Coast Regional Water Quality Control Board (Regional Board) to discuss Russian River fish distribution, fish habitat and water quality conditions.

In late March and early April, biologists from Sonoma Water and the University of California Sea Grant Program installed downstream migrant fish traps in the mainstem river at Mirabel Dam and in several tributary streams including Dry Creek, Mill Creek, Porter Creek, Mark West Creek, Dutchbill Creek, Green Valley Creek, Willow Creek, and Austin Creek. With declining flow in the tributaries, the downstream migrant trapping season will end in June for all streams except Dry Creek. Compared to historical averages, the catch of coho smolts has been low. Chinook salmon smolt counts are also below the historical average in Dry Creek but smolt numbers at the mainstem trap below the Mirabel Dam fish ladder have been closer to the historical average.

Sonoma Water biologists are monitoring water quality conditions in Lake Mendocino, the mainstem Russian River and the estuary utilizing permanent and seasonal data sondes that record water temperature, dissolved oxygen, pH, and salinity (at some sites). Grab samples are also being collected to monitor nutrients and pathogens in the mainstem and estuary. Staff are monitoring algae and cyanobacteria conditions in the mainstem Russian River and sharing observations of conditions with Regional Board staff. Water quality conditions will continue to be discussed during the meetings with the State Water Board, NMFS, CDFW, and the Regional Board.

Current Public Outreach for Water Conservation and Drought Resources

The Sonoma-Marín Saving Water Partnership's (Partnership) *Drought is Still Here* campaign continues to emphasize the critical importance of saving water this summer. The spring social media and digital campaign will transition to new ads (summer into fall) beginning in July. The July ads focus on irrigation related water saving strategies, August features information on tree care and use of landscape mulch, while September ads provide information about rainwater harvesting and selection and planting of low water use plants. All of the ad materials are bi-lingual English and Spanish. A complimentary series of "How To" video shorts is also being developed to reinforce the ad messages. The videos will be deployed using paid online placements and boosted social media posts. The videos will also be added to the archive of video resources housed on the Partnership's website.

Following is a more complete list of additional drought outreach activities underway:

- New 15 and 30-second video commercials in English and Spanish are being created for regional online television placements.
- Broadcast radio and video ads have been created featuring information about the Partnership's Water Smart Plant labeling program and partnership with local nurseries in Sonoma and Marin counties.
- Saving Water Summer Pop-Ups – tabling and outreach booths at regularly scheduled summer events, with a focused multi-location event planned for Saturday, August 20 to distribute information and tools for saving water to our communities.
- Drought outreach speaker's bureau targeting community service organizations, with a call to action to spread awareness of the critically low water supply and the need for continued savings.
- Participation in 2022 North Bay Zero Waste Week, featuring a live Zero Waste Water webinar on July 26 discussing common irrigation leaks and DIY repairs with Q&A.
- KBBF Nuestra Tierra radio show – Water Smart Summer series featuring topical live radio interviews.

The Partnership's website (www.savingwaterpartnership.org) continues to provide up to date drought resources, including links to each of the Partner's specific irrigation or other restrictions in effect and overall water use reduction goals. Information is also provided on the statewide water waste prohibitions in effect, with newly added information about the more recent statewide prohibition on the use of potable water for irrigation of non-functional turf in commercial, industrial, and institutional landscapes. This irrigation ban applies to ornamental turf plantings and not to sites used for recreation or other civic or community purposes, while also preserving the ability to water trees. More complete information about this prohibition is available on the State Water Resources Control Board website (https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/regs/emergency_regulation.html). Lastly, the water supply infographic continues to be updated weekly on Sonoma Water and the Partnership's websites, as well as in print and online versions of The Santa Rosa Press Democrat newspaper.

Interagency Drought Task Force

Sonoma Water staff, in collaboration with DEM staff, continue to support and facilitate the Sonoma Interagency Drought Task Force to provide a forum for multi-agency, multi-discipline information sharing through the duration of the drought. The task force meets, as needed, and has over forty participating agencies representing local, state, regional, and tribal partners. The Task Force is currently being updated to reflect the updated requirements from SB 552 and will expand to include representation from small community water systems (<3000 customers). Additionally, the leadership, structure, and scope of the task force is being evaluated to ensure the task force can adequately support the increasing complexities of the drought and added response planning requirements of SB 552.

Agreement for Emergency Water Service with CalAM

On November 2, 2021, the Board approved an agreement between the County of Sonoma and California American Water (CalAm) for a drought relief program for potable water. This program intends to supply immediate potable water for health and safety purposes in the upper Russian River region.

Since approval of agreement, there has been no request for the drought relief program from rural residents. Department of Emergency Management (DEM) continues to work with Sonoma Water and coordinate support efforts, while Transportation and Public Works (TPW) has the drought potable water program active in contingent mode and will continue to monitor.