

STAFF REPORT

To: Board of Directors

From: Cathleen Brennan, Water Resource Analyst

Agenda: March 14, 2023

Report: March 9, 2023

Subject: Water Resources Informational Report

Attachment: SFPUC - February Water Supply Estimate Letter

Drought Status

The U.S. Drought Monitor continues to show weekly improvement to drought conditions across the state. Although drought conditions have improved, the District and SFPUC are still in a declared Water Shortage. San Mateo County is classified as abnormally dry, as shown on the graphic on page 3 of this report.

The month of February started dry but late month storms provided 4.28 inches of rain in Half Moon Bay. The total precipitation in Half Moon Bay from October 2022, through February 2023 is 25.42 inches.

SFPUC Water Supply Status

SFPUC is predicting with confidence that the Regional Water System (RWS) will fill by April 1, 2023. This includes the water bank. All curtailments of water rights and claims within the delta watershed due to drought remain temporarily suspended. Attached is a letter from SFPUC with the status of the RWS in more detail. Reservoir storage for the RWS is shown on page 2 of this report.



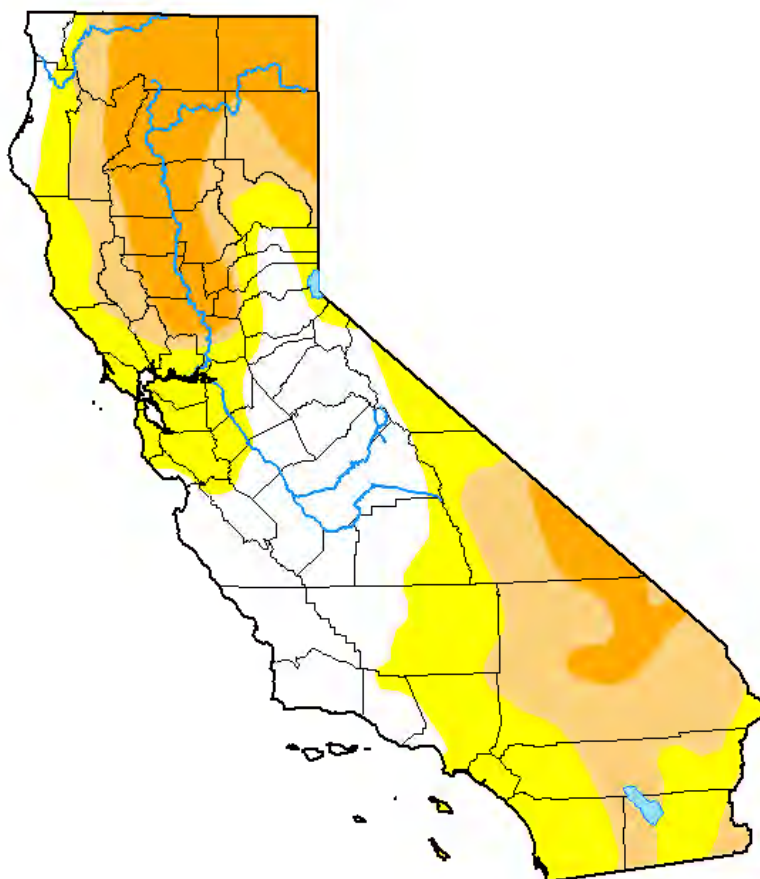
February 21, 2023 Reservoir Storage

Reservoir	Current Storage ^{1,2,3} (AF)	Maximum Storage ⁴ (AF)	Available Capacity (AF)	Percent of Maximum Storage	Normal Percent of Maximum Storage ⁵
<u>Tuolumne System</u>					
Hetch Hetchy	292,700	360,360	67,660	81.2%	66.6%
Cherry	210,600	273,345	62,745	77.0%	-
Eleanor	19,500	27,100	7,600	72.0%	-
Water Bank	570,000	570,000	0	100.0%	99.1%
Total Tuolumne Storage	1,092,800	1,230,805	138,005	88.8%	-
<u>Local System</u>					
Calaveras	90,609	96,670	6,061	93.7%	-
San Antonio	52,355	53,266	911	98.3%	-
Crystal Springs	54,349	68,953	14,604	78.8%	-
San Andreas	15,907	19,027	3,120	83.6%	-
Pilarcitos	2,586	3,125	539	82.7%	-
Total Local Storage	215,806	241,042	25,236	89.5%	-
Total System Storage	1,308,606	1,471,847	163,241	88.9%	80.5%
Total without water bank	738,606	901,847	163,241	81.9%	-

Current California Drought Conditions

Drought conditions have improved across the state, as shown in the graphic below.

U.S. Drought Monitor California



March 7, 2023

(Released Thursday, Mar. 9, 2023)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	26.84	73.16	43.06	19.00	0.00	0.00
Last Week 02-28-2023	16.71	83.29	49.13	24.96	0.00	0.00
3 Months Ago 12-06-2022	0.00	100.00	99.48	84.97	40.08	12.73
Start of Calendar Year 01-03-2023	0.00	100.00	97.93	71.14	27.10	0.00
Start of Water Year 09-27-2022	0.00	100.00	99.76	94.01	40.91	16.57
One Year Ago 03-08-2022	0.00	100.00	100.00	86.98	12.82	0.00

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Deborah Bathke
National Drought Mitigation Center



droughtmonitor.unl.edu



TO: SFPUC Wholesale Customers

FROM: Steven R. Ritchie, Assistant General Manager, Water *Steven R. Ritchie*

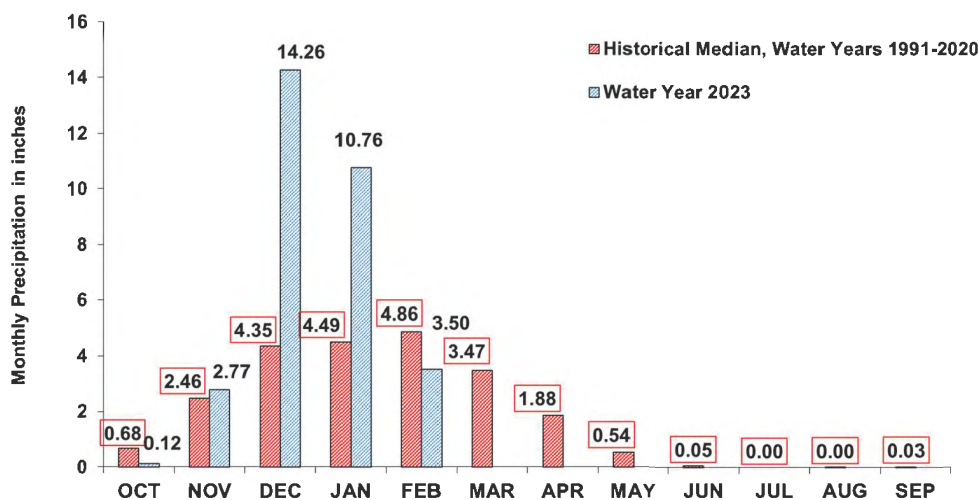
DATE: March 1, 2023

RE: Water Supply Availability Update

This memo provides the water supply availability update for Water Year 2023 and the current hydrologic conditions.

While the month of February was appearing somewhat dry, precipitation in the last week and the current storm are expected to bring February totals to at or above average. As the charts below show, both the Hetch Hetchy watershed and the local watersheds are well above normal precipitation to date. The Bay Area 7 Stations total precipitation so far this year is 31.41 inches or 137.75% of normal annual total. The Upcountry 6 Stations total precipitation is 40.98 inches which is 111.72% of normal annual total. Hetch Hetchy precipitation is 39.98 inches for this Water Year, or 174% of median-to-date. The first snow survey of the season performed in early February indicated a snowpack well above median to date. The results of our second snow survey have not been performed due to weather but low elevation snow sensors indicate above median conditions at about 160% of April 1st snowpack.

Bay Area 7-station Precipitation Index as of February 26, 2023



London N. Breed
Mayor

Newsha K. Ajami
President

Sophie Maxwell
Vice President

Tim Paulson
Commissioner

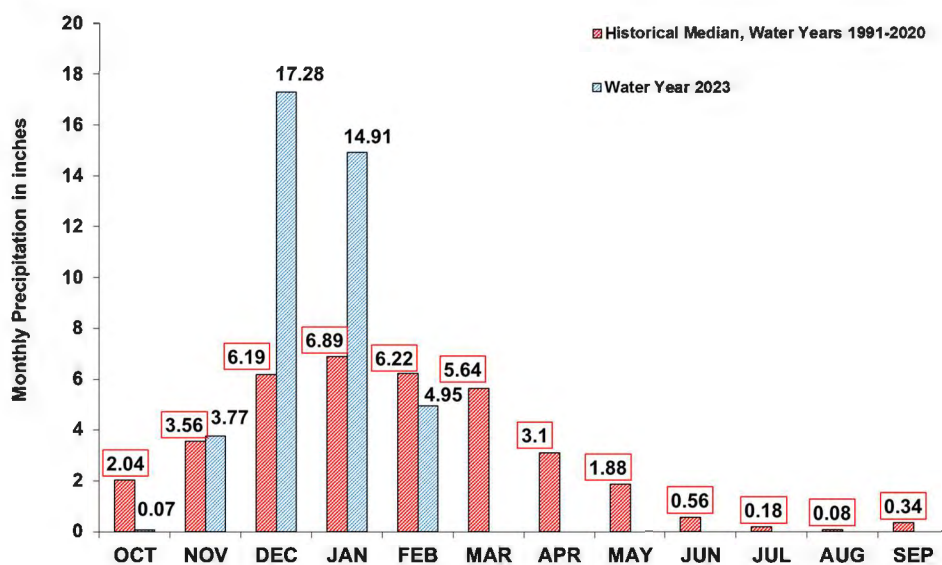
Anthony Rivera
Commissioner

Kate H. Stacy
Commissioner

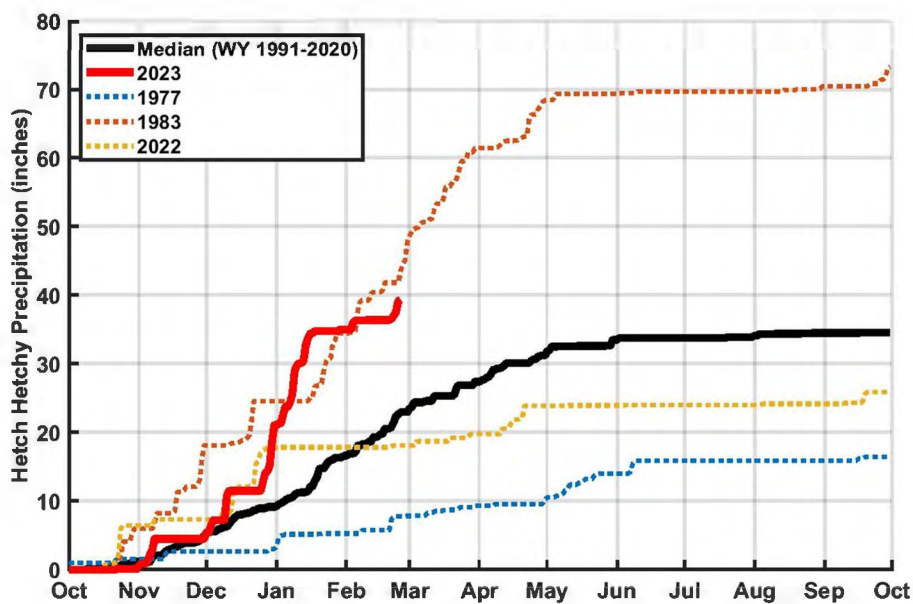
Dennis J. Herrera
General Manager



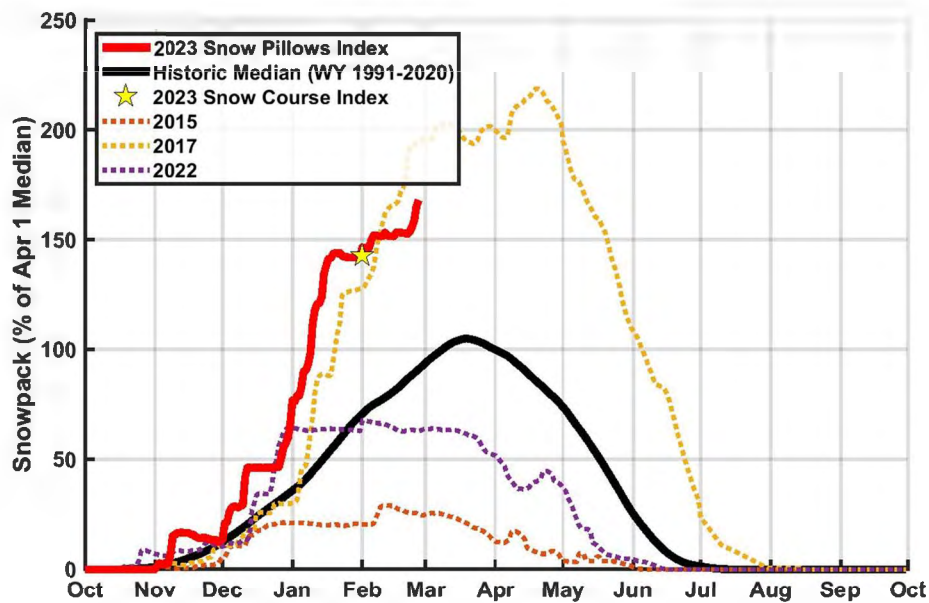
Upcountry 6-station Precipitation Index as of February 26, 2023



Hetch Hetchy Precipitation as of February 27, 2023



Upcountry Snowpack as of February 26, 2023



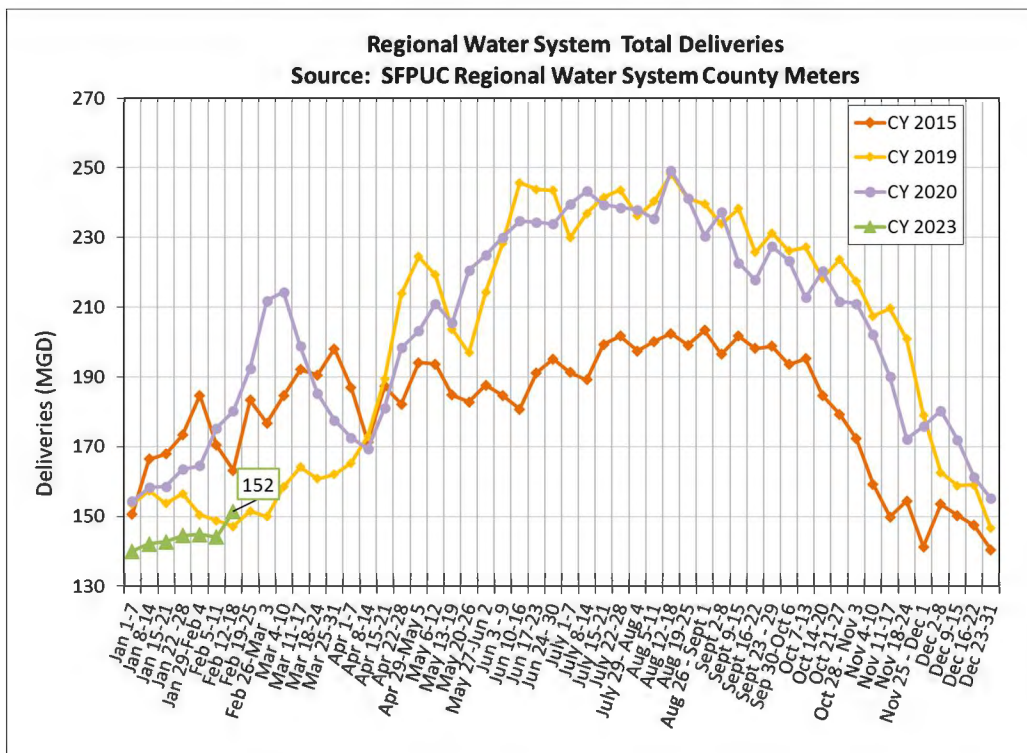
Total System Storage is at 1,295 TAF or 88% of capacity while the median for this day is 80.7% of capacity. Hetch Hetchy storage is at 287.1 TAF or 79.7% of capacity while the median for this day is 66.1% of capacity. Storages are generally above median conditions due to the Mountain Tunnel shutdown and high inflows earlier in the Water Year.

Storage as of: 27-Feb-2023

Reservoir	Current Storage ^{1,2,3} (AF)	Maximum Storage ⁴ (AF)	Available Capacity (AF)	Percent of Maximum Storage	Normal Percent of Maximum Storage ⁵
<u>Tuolumne System</u>					
Hetch Hetchy	287,100	360,360	73,260	79.7%	66.1%
Cherry	203,900	273,345	69,445	74.6%	-
Eleanor	19,890	27,100	7,210	73.4%	-
Water Bank	570,000	570,000	0	100.0%	99.8%
Total Tuolumne Storage	1,080,890	1,230,805	149,915	87.8%	-
<u>Local System</u>					
Calaveras	90,362	96,670	6,308	93.5%	-
San Antonio	52,319	53,266	947	98.2%	-
Crystal Springs	52,771	68,953	16,182	76.5%	-
San Andreas	16,062	18,572	2,510	86.5%	-
Pilarcitos	2,599	3,125	526	83.2%	-
Total Local Storage	214,113	240,586	26,473	89.0%	-
Total System Storage	1,295,003	1,471,391	176,388	88.0%	80.7%
Total without water bank	725,003	901,391	176,388	80.4%	-

The extremely wet conditions in December and January and the existing snowpack have given confidence that Regional Water System will fill this year. The second snow survey and final snow survey at the end of March will confirm snowpack conditions and boost the certainty of system refill. However, while curtailments continue to be suspended on the Tuolumne River, the possibility of curtailments being reinstated in this Water Year are real and could affect the ability to refill the entire water system. The SFPUC continues to analyze the effects of potential curtailment reinstatement in making operational decisions.

At this time, while the SFPUC is not making any requests for additional water demand reductions beyond the voluntary systemwide 11 percent reduction, until we have certainty of system refill and have a better understanding of the State's intentions regarding its emergency drought declarations, the SFPUC cannot ensure lifting these demand reduction requests at this time. Notably, as the chart shows below, the wet weather has kept demands throughout the service area low. Current systemwide reductions are provided in the table below. The SFPUC will issue a final water supply availability memo in early April following the last snow survey of the year.



For the Period July 1, 2022 - February 18, 2023			
CUSTOMER GROUPS	FY2019/2020 AVG. MGD	FY2022/2023 AVG. MGD	% REDUCTION
San Francisco Customers	64.0	55.3	13.6%
Wholesale Customers	135.5	121.5	10.3%
TOTAL	199.5	176.9	11.4%