San Francisco Public Utilities Commission
Hydrological Conditions Report
January 2025

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View of the Upper Cherry Creek watershed during late January. February 1st manual snow surveys indicated SWE in the Tuolumne River watershed was 46% of normal to date or 29% of April 1 normal.

System Storage

Current Tuolumne System and Local Bay Area storage conditions are summarized in Table 1.

Table 1. Current System Storage as of February 1, 2025

	Current Storage		Maximum Storage		Available Capacity		Percentage of Maximum Storage
	acre-feet	millions of gallons	acre-feet	millions of gallons	acre-feet	millions of gallons	
Tuolumne System							
Hetch Hetchy Reservoir[1]	246,580		340,830		94,250		72%
Cherry Reservoir[2]	250,373		268,811		18,438		93%
Lake Eleanor[3]	19,600		21,495		1,895		91%
Water Bank	550,473		570,000		19,527		97%
Tuolumne Storage	1,067,026		1,201,136		134,110		89%
Local Bay Area Storage							
Calaveras Reservoir	71,742	23,377	96,670	31,500	24,928	8,123	74%
San Antonio Reservoir	45,911	14,960	52,506	17,109	6,595	2,149	87%
Crystal Springs Reservoir	45,840	14,937	68,743	22,400	22,903	7,463	67%
San Andreas Reservoir	15,799	5,148	18,898	6,158	3,100	1,010	84%
Pilarcitos Reservoir	2,289	746	3,118	1,016	829	270	73%
Total Local Storage	181,581	59,168	239,936	78,183	57,527	18,745	76%
Total System	1,248,607		1,441,072		191,637		87%

[1] Maximum Hetch Hetchy Reservoir storage with drum gates deactivated.
[2] Maximum Cherry Reservoir storage with flashboards removed. Boards were removed September 12.
[3] Maximum Lake Eleanor storage with flashboards removed. Boards were removed October 4.

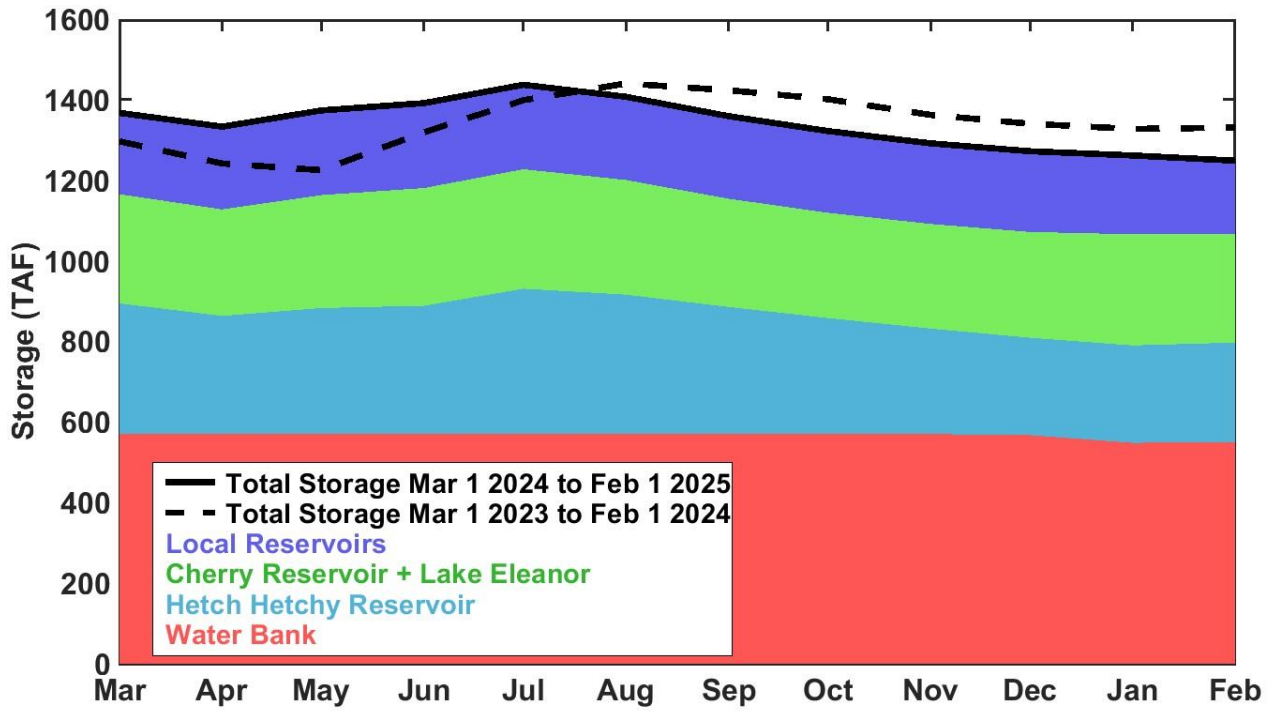

Figure 1: Local and Upcountry Reservoir storage. Color bands show contributions to total system storage. Solid black line shows total system storage for the past 12 months. Dashed black line shows total system storage the previous 12 months.

Hetch Hetchy System Precipitation Index

Current Month: The January 2025 six-station precipitation index was 1.34 inches, which is 23% of the 1991-2020 January median.

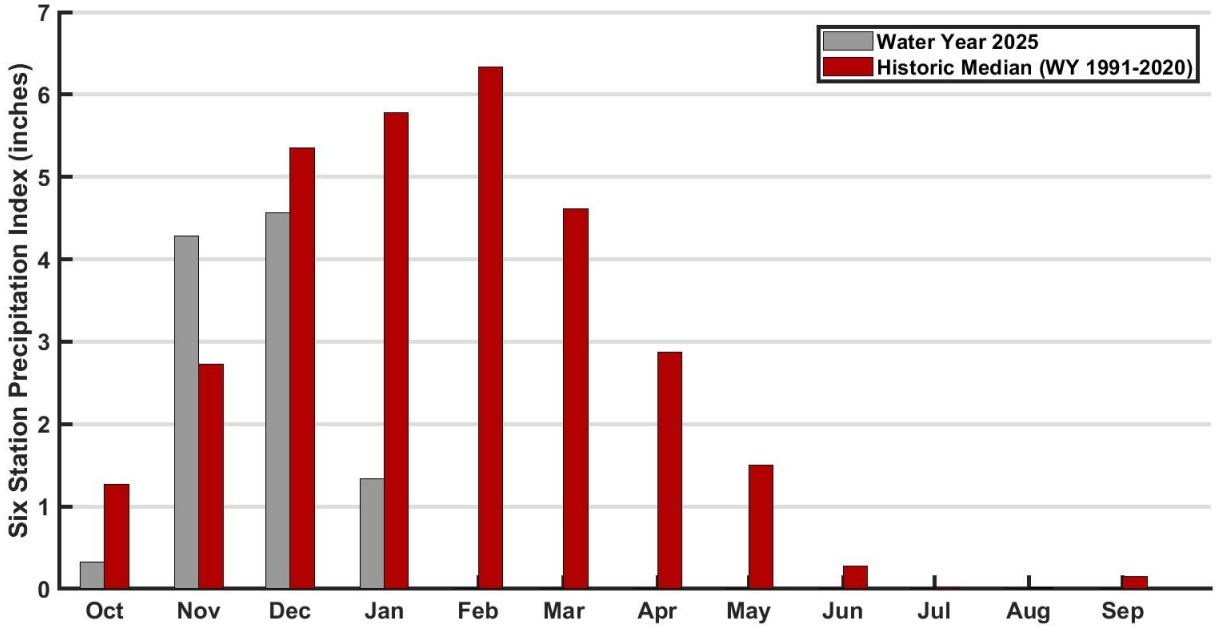

Figure 2: Monthly distribution of the six-station precipitation index relative to the monthly precipitation medians as of February 1. The precipitation index is computed as the average of six Sierra precipitation stations and is an indicator of the overall basin wetness.

Cumulative Precipitation to Date: The cumulative six-station precipitation index for Water Year (WY) 2025 is 10.48 inches, which is 69% of the median to-date. The Hetch Hetchy Weather Station received 1.32 inches of precipitation in January resulting in a total of 10.99 inches for WY 2025, or 62% of WY to-date median. The cumulative WY 2025 Hetch Hetchy Weather Station precipitation is shown in Figure 3 in red.

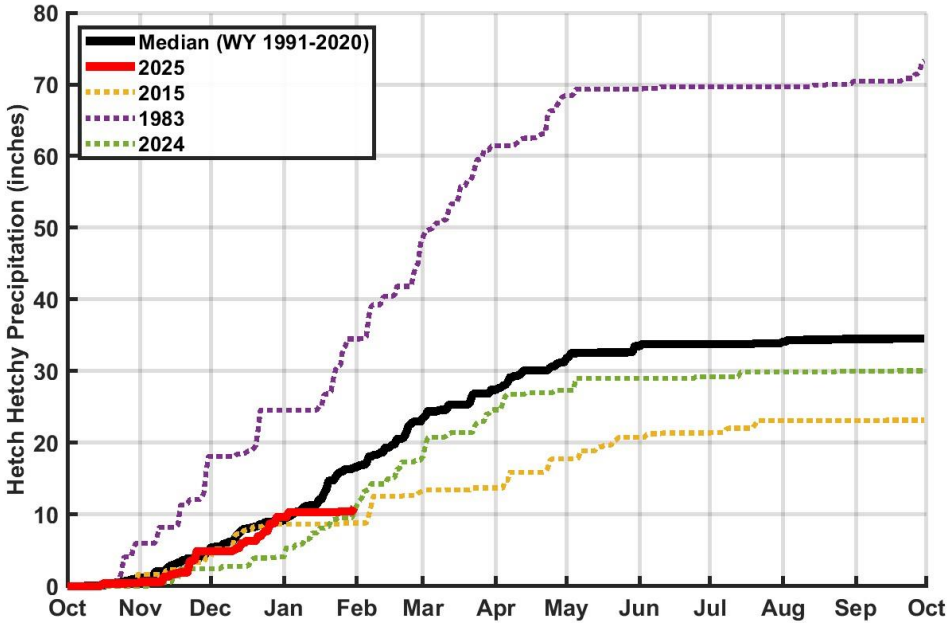

Figure 3: Water Year 2025 cumulative precipitation measured at Hetch Hetchy Weather Station as of February 1. Median cumulative precipitation measured at Hetch Hetchy Weather Station and example wet and dry years are included with Water Year 2025 for comparison purposes.

Tuolumne Basin Unimpaired Inflow

Unimpaired inflow to SFPUC reservoirs and the Tuolumne River at La Grange for January 2025 and Water Year 2025 is summarized below in Table 2.

Table 2. Calculated reservoir inflows and Water Available to City

* All flows are in acre-feet	January 2025				October 1, 2024 through January 31, 2025			
	Observed Flow	Median[1]	Mean[1]	Percent of Mean	Observed Flow	Median[1]	Mean[1]	Percent of Mean
Inflow to Hetch Hetchy Reservoir	8,146	21,575	29,978	27%	21,763[2]	50,739	66,135	33%
Inflow to Cherry Reservoir and Lake Eleanor	9,554	29,420	35,949	27%	27,786[2]	67,321	83,834	33%
Tuolumne River at La Grange	27,451	94,090	157,807	17%	98,993	200,027	295,425	34%
Water Available to City	0	13,089	79,875	0%	296	41,905	122,120	0%

[1]Hydrologic Record: 1991-2020

[2]Water Year inflow uses a combination of inflow monitoring data and mass-balance calculations. The mass balance calculations resulted in negative calculated inflows during dry months due to evaporation and finite resolution of the reservoir rating table.

Hetch Hetchy System Operations

Water deliveries via the San Joaquin Pipeline (SJPL) decreased to 0 MGD on December 17 for the December 2024 - March 2025 Mountain Tunnel and Hetch Hetchy Aqueduct maintenance planned outage. Deliveries remained at 0 MGD for the month of January.

Hetch Hetchy Reservoir stream releases totaled 3,358 acre-feet during the month of January. Required minimum instream release during January was 50 cfs (Type A). Required release remains at 50 cfs (Type B) in February.

Cherry Reservoir power draft and stream releases totaled 13,533 acre-feet during the month of January. Required minimum instream release is 5 cfs October through June.

Lake Eleanor stream releases totaled 1,980 acre-feet and Cherry-Eleanor pumping transfer totaled 5,197 acre-feet during the month of January. After Lake Eleanor spilled 50 cfs, the Cherry-Eleanor Pumps were activated on January 8. Required minimum instream release is 5 cfs November through February.

Regional System Treatment Plant Production

The Harry Tracy Water Treatment Plant production rate for the month was 70 MGD. The Sunol Valley Water Treatment Plant production rate for the month was 90 MGD.

Regional System Water Delivery

The average January delivery rate was 160 MGD which is a 6% increase compared to the December delivery rate of 151 MGD.

Local Precipitation

The rainfall summary for January 2025 and Water Year 2025 is presented in Table 3.

Table 3
Precipitation Totals at Three Local Area Reservoirs

Weather Station Location	January 2025		October 1, 2024 through January 31, 2025	
	Total (inches)	Percent of Mean for the Month	Total (inches)	Percent of Mean for the Year-To-Date
Pilarcitos Reservoir	0.46	7%	18.74	105%
Lower Crystal Springs Reservoir	0.15	3%	12.21	103%
Calaveras Reservoir	0.25	7%	8.05	87%

*Mean Period = WY 1991-2020

Snowpack, Water Supply and Planned Water Supply Management

Following a dry October and November, a series of relatively cold storms in December led to near normal snowpack at the beginning of January (Figure 5). Sustained dry conditions in January dropped cumulative WY precipitation and snowpack below normal (Figure 2, 3, and 5). These conditions led to well below normal runoff, resulting in 0 AF Water Available to the City (WAC) for January and 296 AF for WY2025 (Figure 4, Table 2).

Hetch Hetchy Reservoir is drafting via minimum instream releases. The 2024-2025 Mountain Tunnel and Hetch Hetchy Aqueduct maintenance planned outage began on December 16, precluding SJPL deliveries. SJPL deliveries are scheduled to resume on March 20. During the shutdown, Moccasin Fish Hatchery draft is reduced to 3 cfs and draft from Hetch Hetchy Reservoir is limited.

Following significant precipitation in December, Holm Powerhouse generation resumed January 2. Cherry Reservoir is expected to continue drafting via minimum instream releases and discretionary power generation through the end of Spring runoff. Lake Eleanor is full and spilling with Cherry-Eleanor Pumps running at full capacity. The Cherry-Eleanor Pumps are expected to remain on until the end of Spring runoff. Spill from Lake Eleanor is expected to occur intermittently over the next several months.

In all future weather scenarios, forecasted inflows are sufficient to fill Cherry Reservoir, Lake Eleanor and Hetch Hetchy Reservoir (Figure 6), with additional water available for power generation and supplemental environmental releases. In wet scenarios, forecasted inflows will maintain a full Water Bank through the end of Spring runoff. In the dry scenarios Water Bank does not refill at the end of runoff.

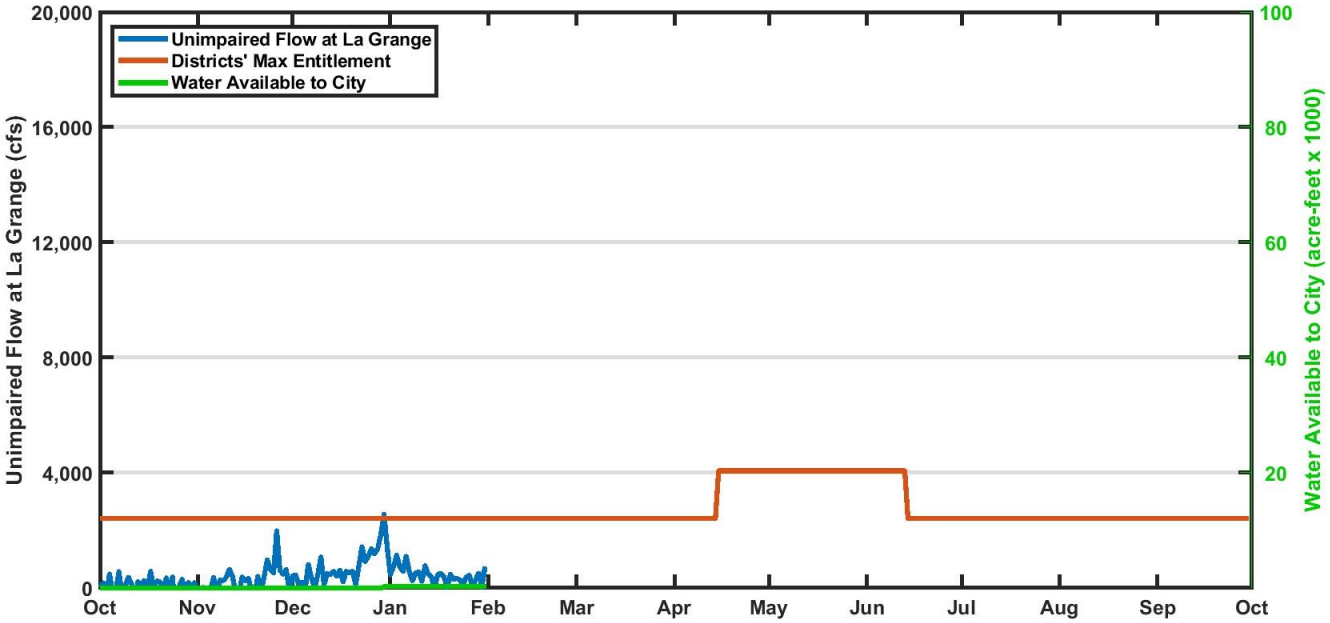

Figure 4: Calculated unimpaired flow at La Grange and the allocation of flows between the Districts and the City.

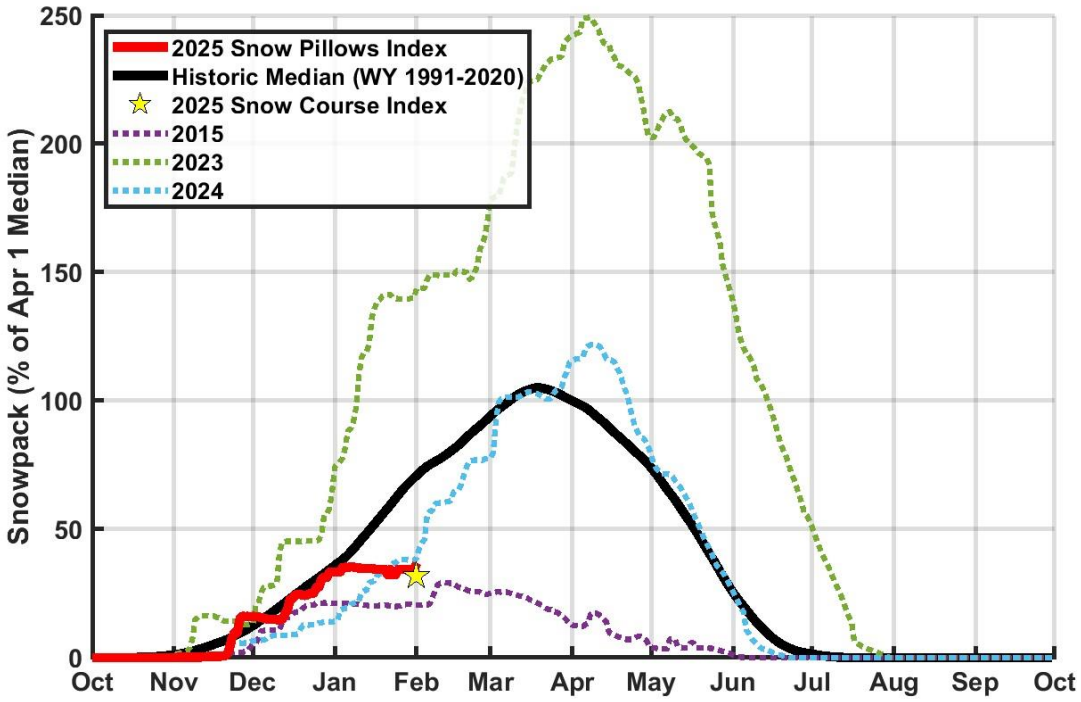

Figure 5: Current water year 10-Station Snow Pillows Index as of February 1 (red line), based on real-time snow water equivalent measurements in the Tuolumne Basin. Star indicates the average manual snow course measurements in the Tuolumne Watershed. Historic median, wet and dry years, and previous water year are included for comparison purposes.

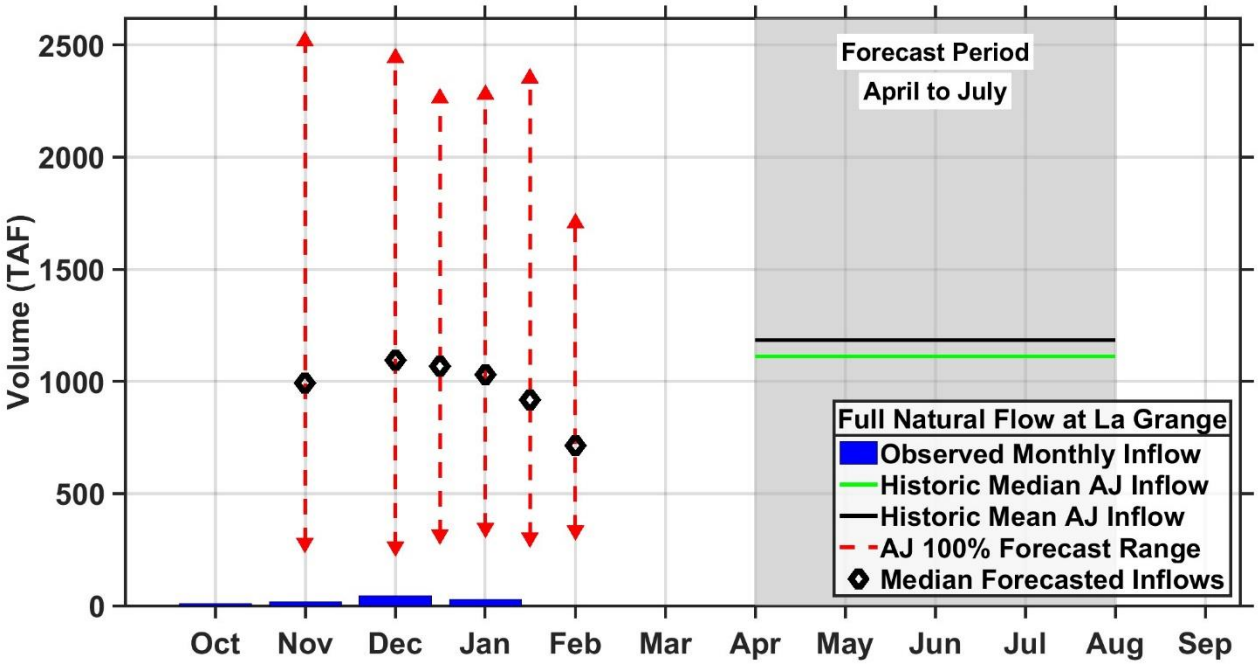

Figure 6: Water Supply Forecast Model of runoff (April to July) on the Tuolumne River at La Grange. This model is driven by precipitation from October to February, and by snow survey data from February through June. The forecast range decreases as time passes due to reduced potential future precipitation.