

# San Francisco Public Utilities Commission Hydrological Conditions Report October 2024

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Hetch Hetchy Water and Power staff inspect newly installed instream release valves at O'Shaughnessy Dam. Several additional ongoing projects will improve the O'Shaughnessy Dam outlet works during the Winter 2025 Shutdown (December 3, 2024 – March 20, 2025).

## System Storage

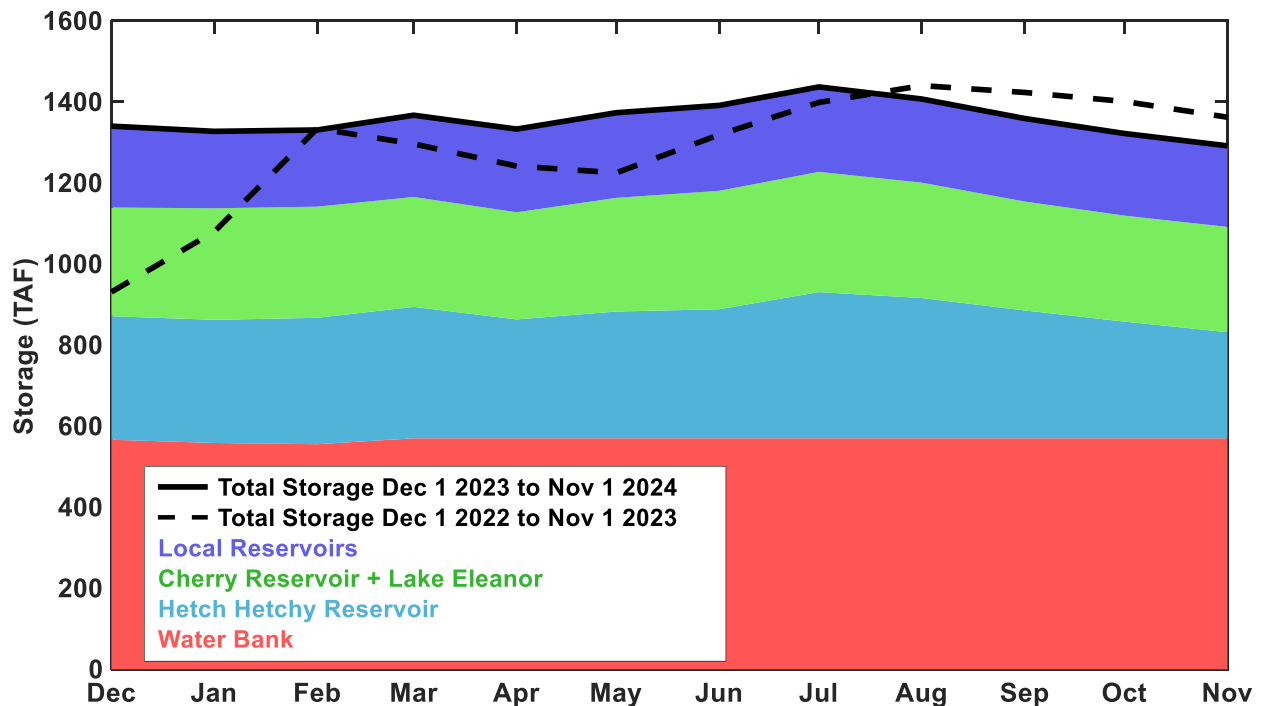
Current Tuolumne System and Local Bay Area storage conditions are summarized in Table 1.

Table 1. Current System Storage as of November 1, 2024							
	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	
<b>Tuolumne System</b>							
Hetch Hetchy Reservoir <sup>1</sup>	261,855		340,830		78,975		77%
Cherry Reservoir <sup>2</sup>	244,541		268,811		24,270		91%
Lake Eleanor <sup>3</sup>	15,263		21,495		6,232		71%
Water Bank	570,000		570,000		0		100%
Tuolumne Storage	1,091,659		1,201,136		109,477		91%
<b>Local Bay Area Storage</b>							
Calaveras Reservoir	84,247	27,452	96,670	31,500	12,423	4,048	87%
San Antonio Reservoir	48,535	15,815	52,506	17,109	3,971	1,294	92%
Crystal Springs Reservoir	51,205	16,685	68,743	22,400	17,539	5,715	75%
San Andreas Reservoir	13,724	4,472	18,898	6,158	5,174	1,686	73%
Pilarcitos Reservoir	2,250	733	3,118	1,016	868	283	72%
Total Local Storage	199,960	65,157	239,936	78,183	39,975	13,026	83%
<b>Total System</b>	<b>1,291,619</b>		<b>1,441,072</b>		<b>149,452</b>		<b>90%</b>

<sup>1</sup> Maximum Hetch Hetchy Reservoir storage with drum gates deactivated.

<sup>2</sup> Maximum Cherry Reservoir storage with flashboards removed. Boards were removed September 12.

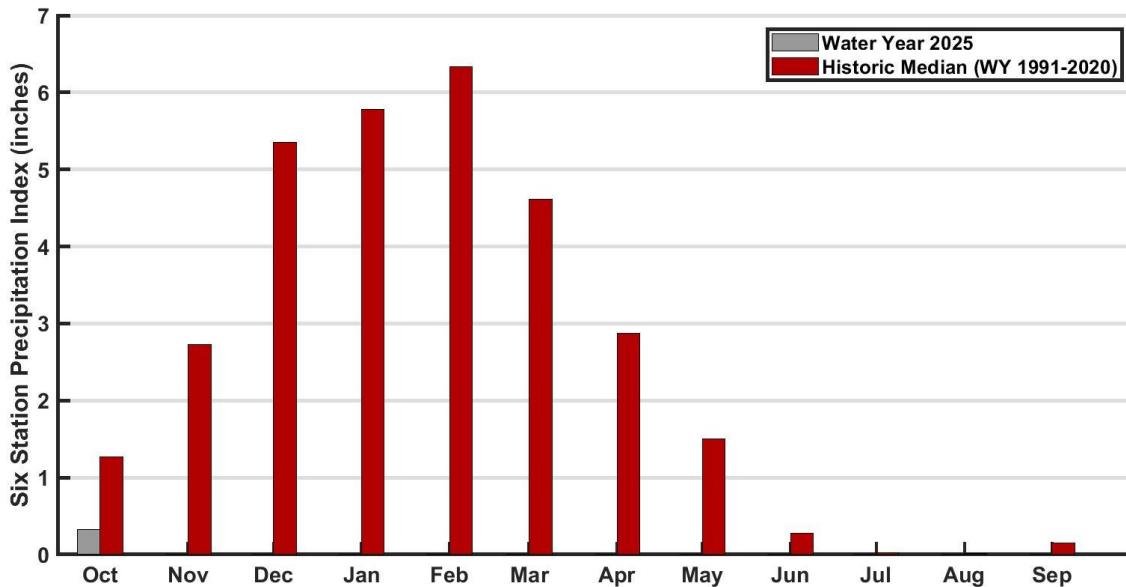
<sup>3</sup> Maximum Lake Eleanor storage with flashboards removed. Boards were removed October 4.



**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.

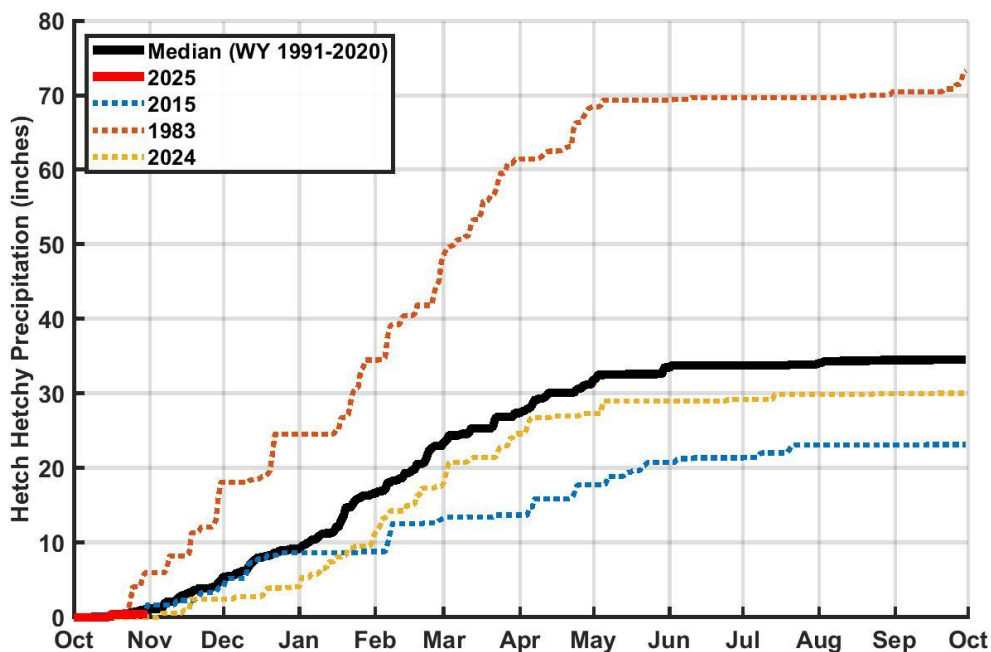
## Hetch Hetchy System Precipitation Index

*Current Month:* The October 2024 six-station precipitation index was 0.33 inches, which is 26% of the 1991-2020 October median.



**Figure 2:** Monthly distribution of the six-station precipitation index relative to the monthly precipitation medians as of November 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 0.33 inches, which is 26% of the median to-date. The Hetch Hetchy Weather Station received 0.44 inches of precipitation in October resulting in a total of 0.44 inches for WY 2025, or 37% of median for the Water Year to-date. 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 November 1. Median cumulative precipitation measured at Hetch Hetchy Weather Station and example wet and dry years are included with Water Year 2024 for comparison purposes.

## Tuolumne Basin Unimpaired Inflow

Unimpaired inflow to SFPUC reservoirs and the Tuolumne River at La Grange for October 2024 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	October 2024				October 1, 2024 through October 31, 2024			
	Observed Flow	Median <sup>1</sup>	Mean <sup>1</sup>	Percent of Mean	Observed Flow	Median <sup>1</sup>	Mean <sup>1</sup>	Percent of Mean
Inflow to Hetch Hetchy Reservoir	600 <sup>2</sup>	2,653	7,105	8%	600 <sup>2</sup>	2,653	7,105	8%
Inflow to Cherry Reservoir and Lake Eleanor	140 <sup>2</sup>	2,862	7,668	2%	140 <sup>2</sup>	2,862	7,668	2%
Tuolumne River at La Grange	10,159	10,873	20,887	49%	10,159	10,873	20,887	49%
Water Available to City	0	0	5,648	0%	0	0	5,648	0%

<sup>1</sup>Hydrologic Record: 1991-2020

<sup>2</sup>Observed flow this month is based on inflow monitoring data vs the usual mass balance calculations. The mass balance calculations resulted in negative calculated inflows due to evaporation and finite resolution in the reservoir rating tables.

## Hetch Hetchy System Operations

Water deliveries via the San Joaquin Pipeline (SJPL) decreased from 210 MGD to 185 MGD on October 30.

Hetch Hetchy Reservoir power draft and stream releases during the month totaled 23,550 acre-feet. Required minimum instream release during October and November is 50 cfs (Type B).

Cherry Reservoir power draft and stream releases totaled 579 acre-feet during the month of October. Required minimum instream release is 5 cfs October through June.

Lake Eleanor stream releases totaled 674 acre-feet during the month of October. Required minimum instream release was 10 cfs in October and will reduce to 5 cfs in November. The Cherry Pump Station transferred 4,679 acre-ft of water from Lake Eleanor into Cherry Reservoir.

## Regional System Treatment Plant Production

The Harry Tracy Water Treatment Plant was online for one day and produced 23 MG. The Sunol Valley Water Treatment Plant production rate for the month was 30 MGD.

## Regional System Water Delivery

The average October delivery rate was 212 MGD which is an 4.7% decrease compared to the September delivery rate of 222 MGD.

## Local Precipitation

The rainfall summary for October 2024 and Water Year 2025 is presented in Table 3.

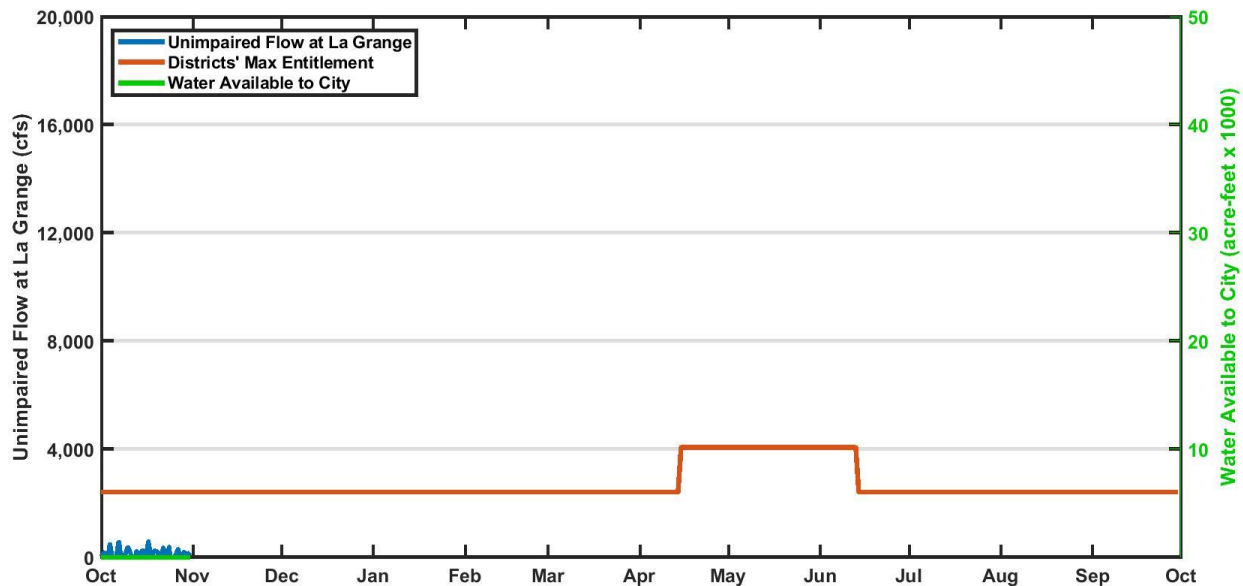
Weather Station Location	October 2024		October 1, 2024 through October 31, 2024	
	Total (inches)	Percent of Mean for the Month	Total (inches)	Percent of Mean for the Year-To-Date
Pilarcitos Reservoir	0.31	25%	0.31	25%
Lower Crystal Springs Reservoir	0.16	23%	0.16	23%
Calaveras Reservoir	0.00	0%	0.00	0%

\*Mean Period = WY 1991-2020

## Water Supply and Planned Water Supply Management

Water Year 2025 began with below average precipitation and well above average temperatures. Aside from one widespread precipitation event during the middle of the month, dry conditions prevailed (Figure 2 and 3). This has resulted in no Water Available to the City (WAC) for WY2025 to date (Figure 4).

This Fall, Hetch Hetchy Reservoir is drafting via SJPL deliveries, Moccasin Fish Hatchery flows and minimum instream releases. Cherry Reservoir is drafting via minimum instream releases; generation at Holm Powerhouse ceased on October 1 and Holm Powerhouse will remain out of service until significant precipitation occurs. Lake Eleanor is drafting via minimum instream releases. Water Bank is anticipated to remain nearly full or debit slightly as upcountry reservoir releases balance inflows through November. This trend is expected to continue in November until significant runoff occurs.



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