

Water Supply Update and Tuolumne River Diversion Curtailment Orders

Steven R. Ritchie

Assistant General Manager, Water

September 16, 2021

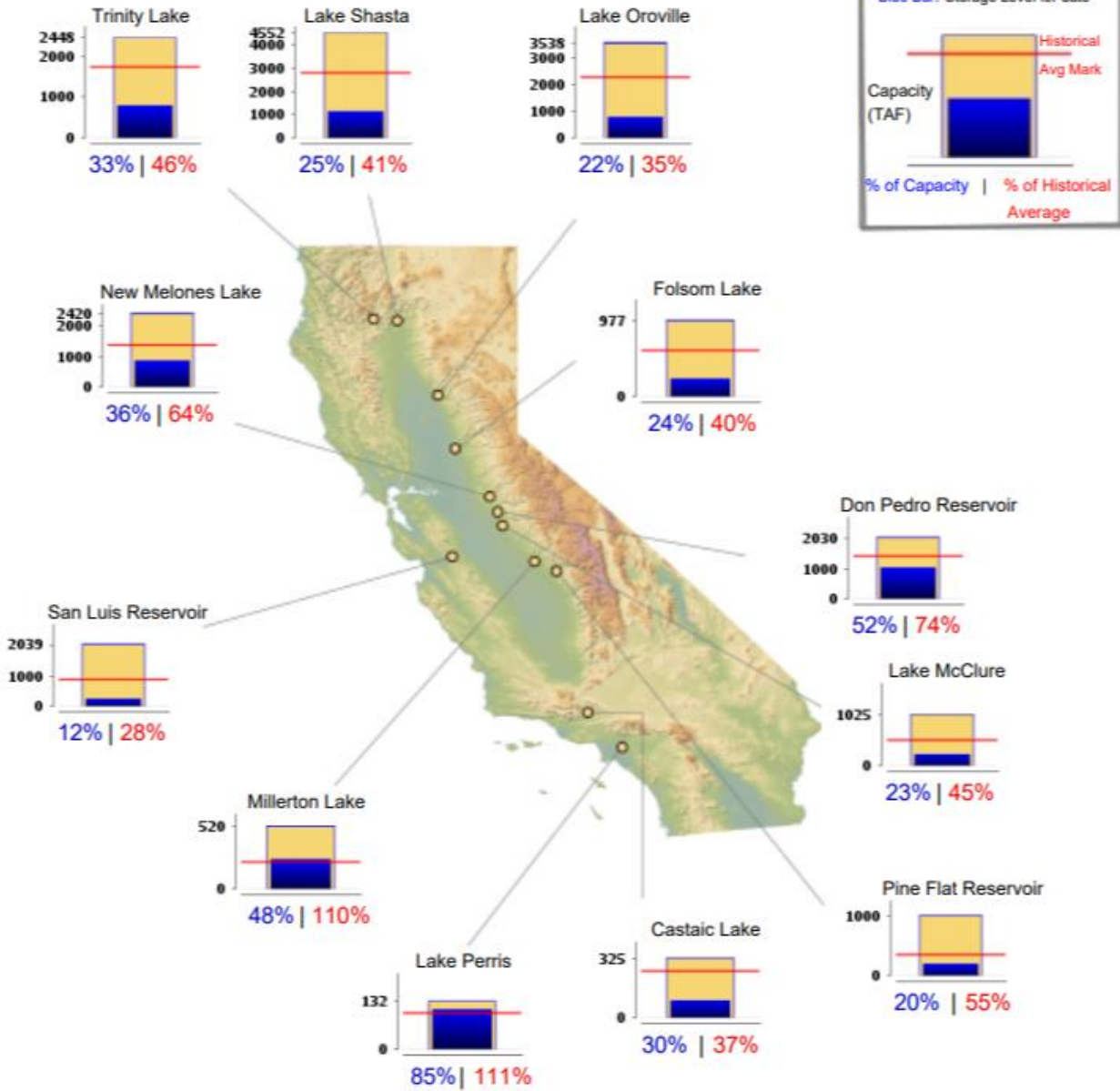


September 13, 2021 Reservoir Storage

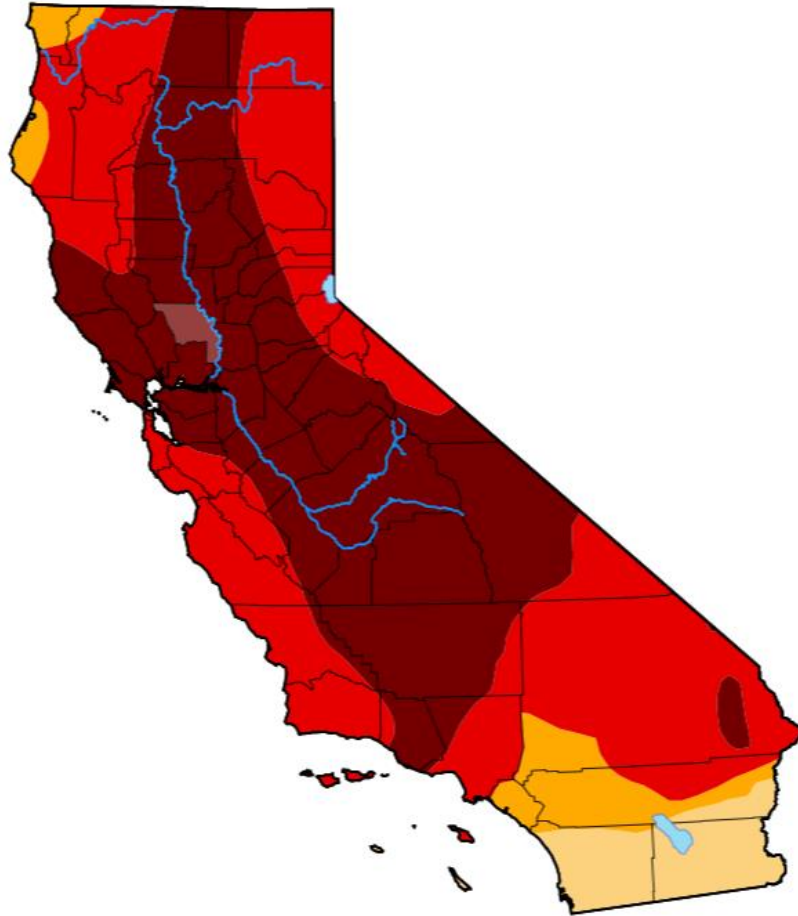
Reservoir	Current Storage ^{1,2,3} (AF)	Maximum Storage ⁴ (AF)	Available Capacity (AF)	Percent of Maximum Storage	Normal Percent of Maximum Storage ⁵
<u>Tuolumne System</u>					
Hetch Hetchy	255,500	360,360	104,860	70.9%	81.3%
Cherry	200,900	273,345	72,445	73.5%	-
Eleanor	20,490	27,100	6,610	75.6%	-
Water Bank	358,916	570,000	211,084	63.0%	97.5%
Total Tuolumne Storage	835,806	1,230,805	394,999	67.9%	-
<u>Local System</u>					
Calaveras	54,362	96,670	42,308	56.2%	-
San Antonio	43,584	53,266	9,682	81.8%	-
Crystal Springs	49,587	58,309	8,722	85.0%	-
San Andreas	16,297	19,027	2,730	85.7%	-
Pilarcitos	1,661	3,030	1,369	54.8%	-
Total Local Storage	165,491	230,302	64,811	71.9%	-
Total System Storage	1,001,297	1,461,107	459,810	68.5%	83.3%
Total without water bank	642,381	891,107	248,726	72.1%	-



Other California Reservoirs



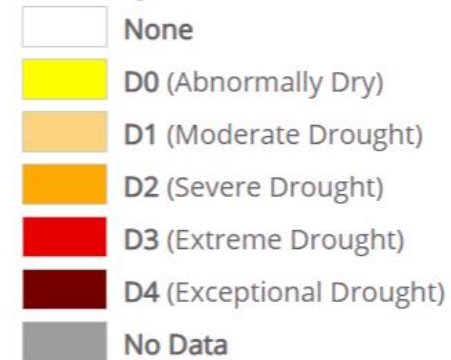
California Drought Monitor



**Map released: Thurs. September 9,
2021**

Data valid: September 7, 2021 at 8 a.m. EDT

Intensity



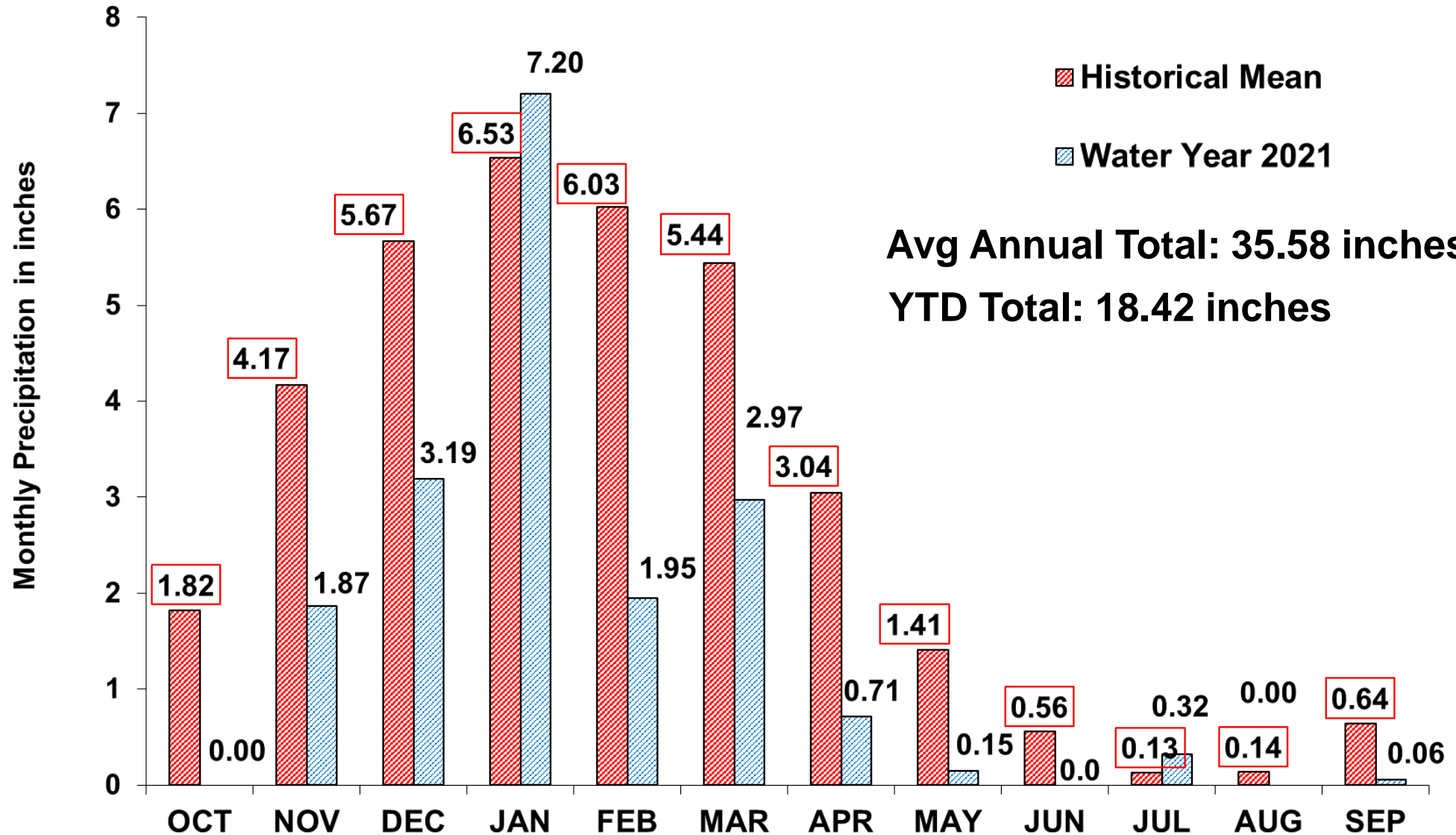
Authors

United States and Puerto Rico Author(s):
David Simeral, Western Regional Climate Center

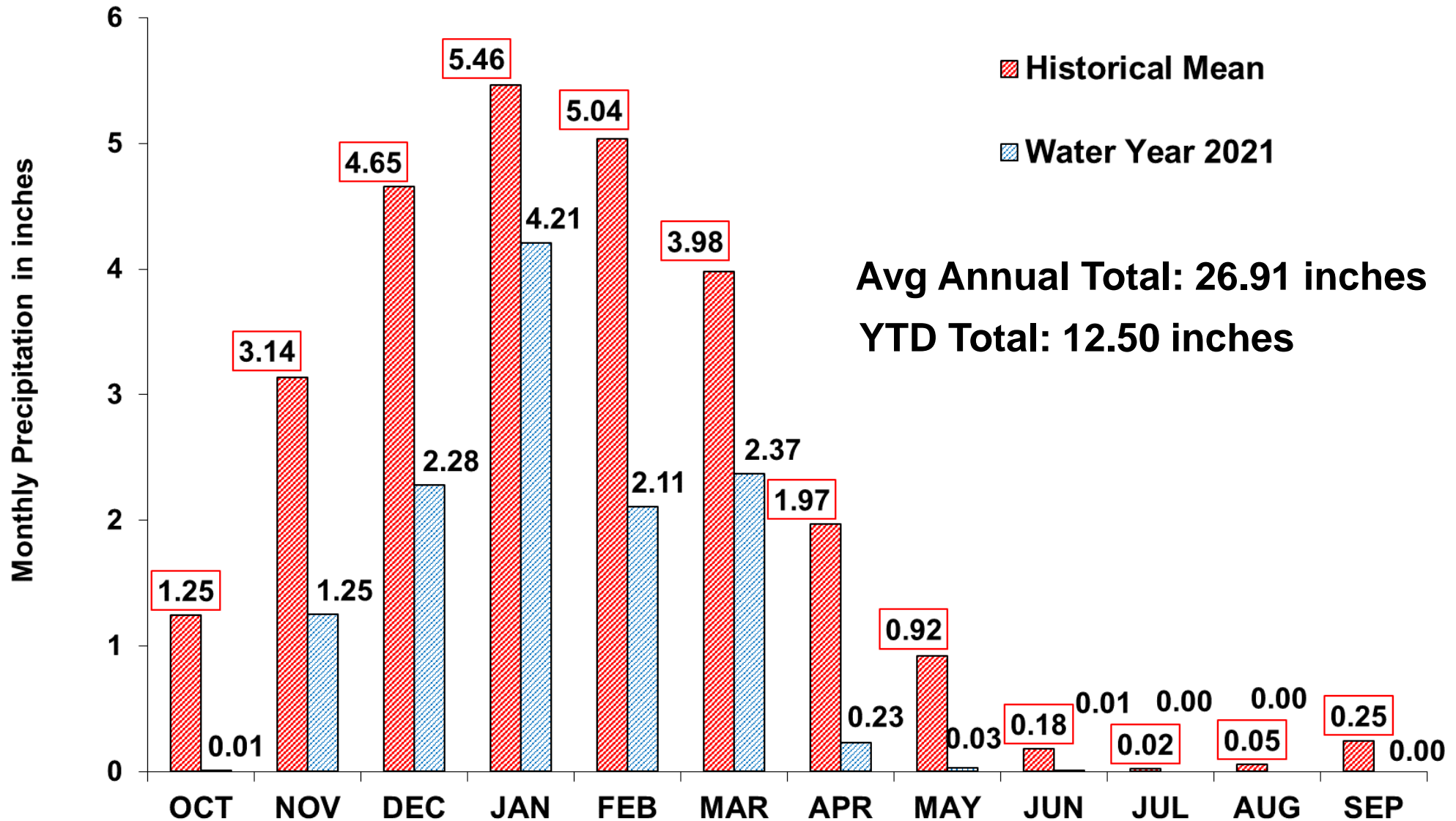
Pacific Islands and Virgin Islands Author(s):
Richard Tinker, NOAA/NWS/NCEP/CPC

*The Drought Monitor focuses on broad-scale conditions.
Local conditions may vary. See accompanying **text
summary** for forecast statements.*

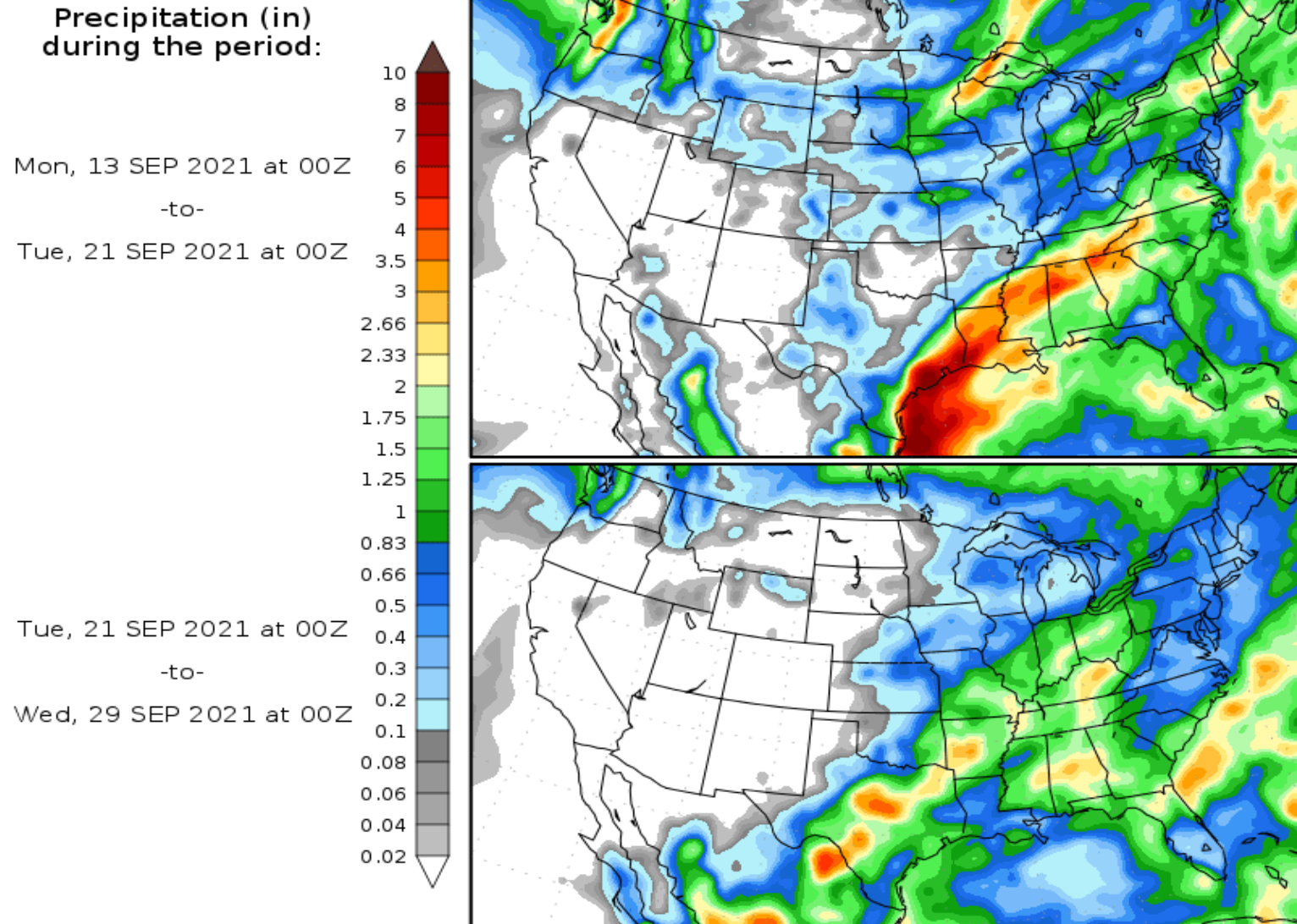
Upcountry 6-station Precipitation Index as of September 12, 2021



Bay Area 7-station Precipitation Index as of September 12, 2021

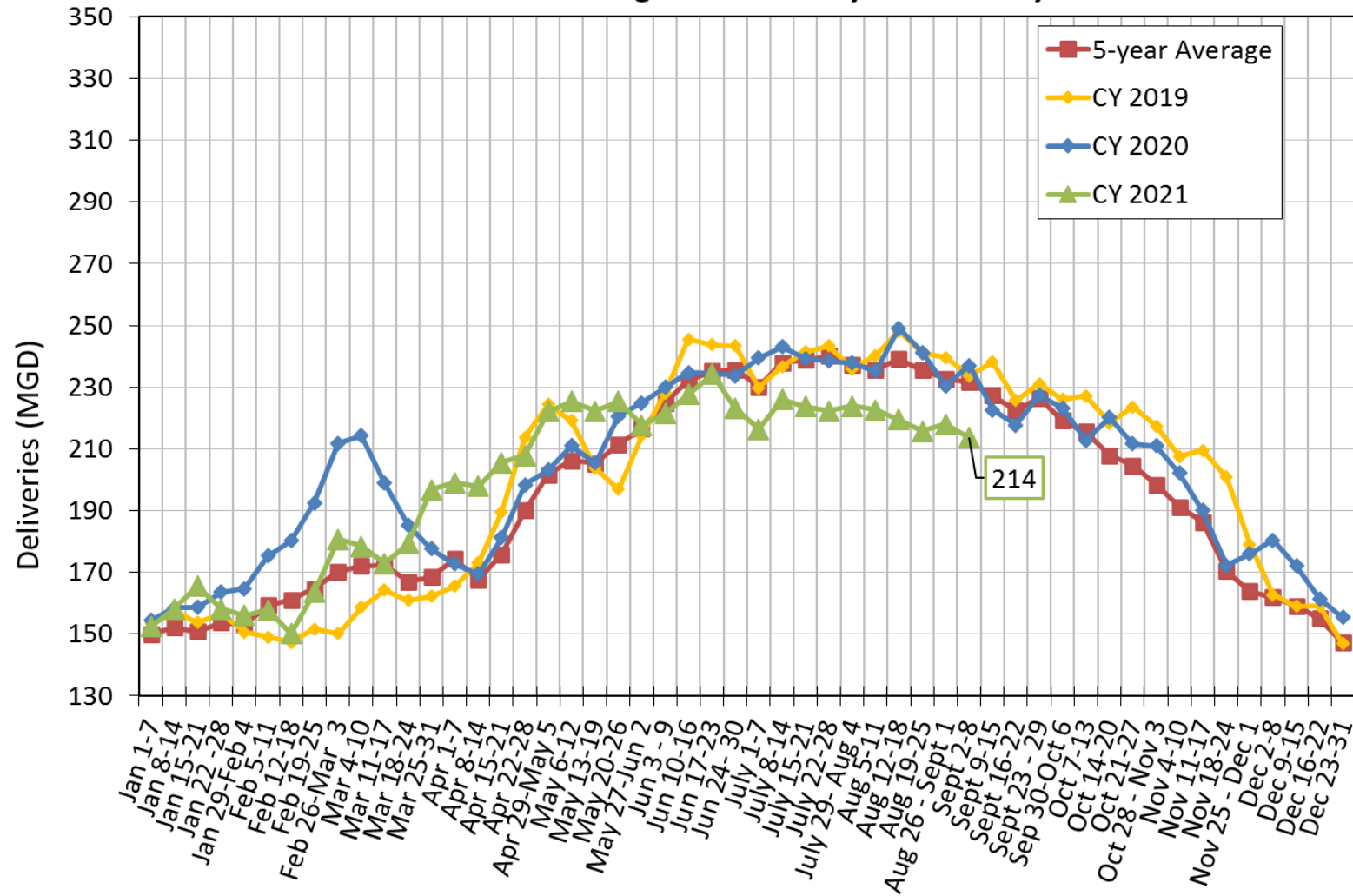


National Precipitation Forecast



Total Deliveries

Regional Water System Total Deliveries
Source: SFPUC Regional Water System County Meters



Curtailment Regulations and Orders

- On June 15th, the State Water Board issued notices of water unavailability to all post-1914 appropriative water right holders in the Delta watershed
- On July 23rd, the State Water Board released draft emergency water right curtailment and reporting regulations
- Also on July 23rd, the State Water Board issued notices of water unavailability to:
 - All pre-1914 appropriative water right claims in the San Joaquin River watershed; and
 - All pre-1914 appropriative water right claims in the Sacramento River watershed with a priority date of 1883 or later and some with a priority date earlier than 1883

Curtailment Regulations and Orders

- San Francisco received the July 23rd notices of water unavailability for its points of diversion in the Tuolumne River watershed
- The Board adopted the emergency regulations on August 3rd, and the State Office of Administrative Law approved the regulations and filed them with the Secretary of State on August 19th
- On August 20th San Francisco was issued curtailment orders for these points of diversion

WATER RIGHT ID	AFFECTED DIVERSIONS
S002636	Eleanor
S002638	Cherry
S014379	Lower Cherry Aqueduct
S002635	Hetch Hetchy
S002637	Early Intake
S018734	Scoggins Dam (Camp Mather)
S018735	Canyon Ranch Creek (Camp Mather)

Curtailment Regulations and Orders

- We were releasing water above full natural flow to meet instream flow requirements and provide for rafting while generating hydropower
- Water released above full natural flow has been credited to Water Bank, and we do not expect this to change under a curtailment order because the order does not affect previously stored water
- With the closure of Stanislaus National Forest on September 1, rafting season ended
- During the first part of September, we did make available generation at Holm Powerhouse on 5 minutes notice which resulted in our needing to keep flow going through the generators at a rate of about 60 AF/day.
- Beginning September 12, we reduced releases to instream flow requirements or full natural flow, whichever is greater, to preserve water in storage

Curtailment Orders and Responses

- Curtailment Order Certificates of Compliance needed to be filed by September 3rd
- We plan to offset Tuolumne curtailment requirements with releases of stored water from Cherry/Eleanor, while diverting into Hetch Hetchy
- Exceptions can be requested for:
 - Non-Consumptive Uses
 - Human Health and Safety
 - Alternative Water Sharing Agreements
- Exceptions needed to be requested by September 3rd with supporting information submitted by September 17th
- We expect to make requests under specific categories for different situations:
 - Non-Consumptive Use: Moccasin Fish Hatchery
 - Human Health and Safety: RWS and small systems in early 2022 if still dry and the Camp Mather diversions

Curtailment Orders and Responses

- We filed our Certificates of Compliance on September 2nd
- We will begin filing monthly reports accounting for Tuolumne releases from Cherry/Eleanor and diversions to Hetch Hetchy demonstrating our compliance
- If dry conditions persist, we will likely take additional actions regarding reduction in available water supply in January, potentially including declaring a water supply emergency



Regional Water System Water Use Reductions From 2020 (From Weekly Delivery Reports)

For the Period July 1 - September 12			
CUSTOMER GROUPS	2020 AVG. MGD	2021 AVG. MGD	% REDUCTION
San Francisco Customers	62.1	57.1	8.1%
Wholesale Customers*	176.5	162.6	7.9%
TOTAL	238.5	219.7	7.9%

*Data are for Regional Water System Deliveries only and do not include reductions in other sources of supply.



What If WY 2022 Is Like 1977, Demand Is 200 MGD, and Curtailments Last?

Hydrology	Water Year 1977 (99% exceedance)		
Scenario	Base Case	B	C
Curtailments	No	Yes	Yes
Curtailment Obligation Source	NA	Cherry / Eleanor	Hetch Hetchy
September 1, 2022 Storage (Acre-Feet)			
Hetch Hetchy	166,100	166,100	32,600
Cherry/Eleanor	169,000	58,700	211,200
Water Bank	252,600	363,000	353,900
HHWP Total	587,700	587,700	597,700
Don Pedro	820,700	652,100	655,400
Tuolumne Total	1,155,800	876,900	899,200



What If WY 2022 Is Like 1977, Demand Is 180 MGD, and Curtailments Last?

Hydrology	Water Year 1977 (99% exceedance)		
Scenario	Base Case	B	C
Curtailments	No	Yes	Yes
Curtailment Obligation Source	NA	Cherry / Eleanor	Hetch Hetchy
September 1, 2022 Storage (Acre-Feet)			
Hetch Hetchy	191,800	191,800	50,700
Cherry/Eleanor	169,000	58,700	211,200
Water Bank	252,600	363,000	353,900
HHWP Total	613,500	613,500	615,800
Don Pedro	820,700	652,100	655,400
Tuolumne Total	1,181,500	902,600	917,300