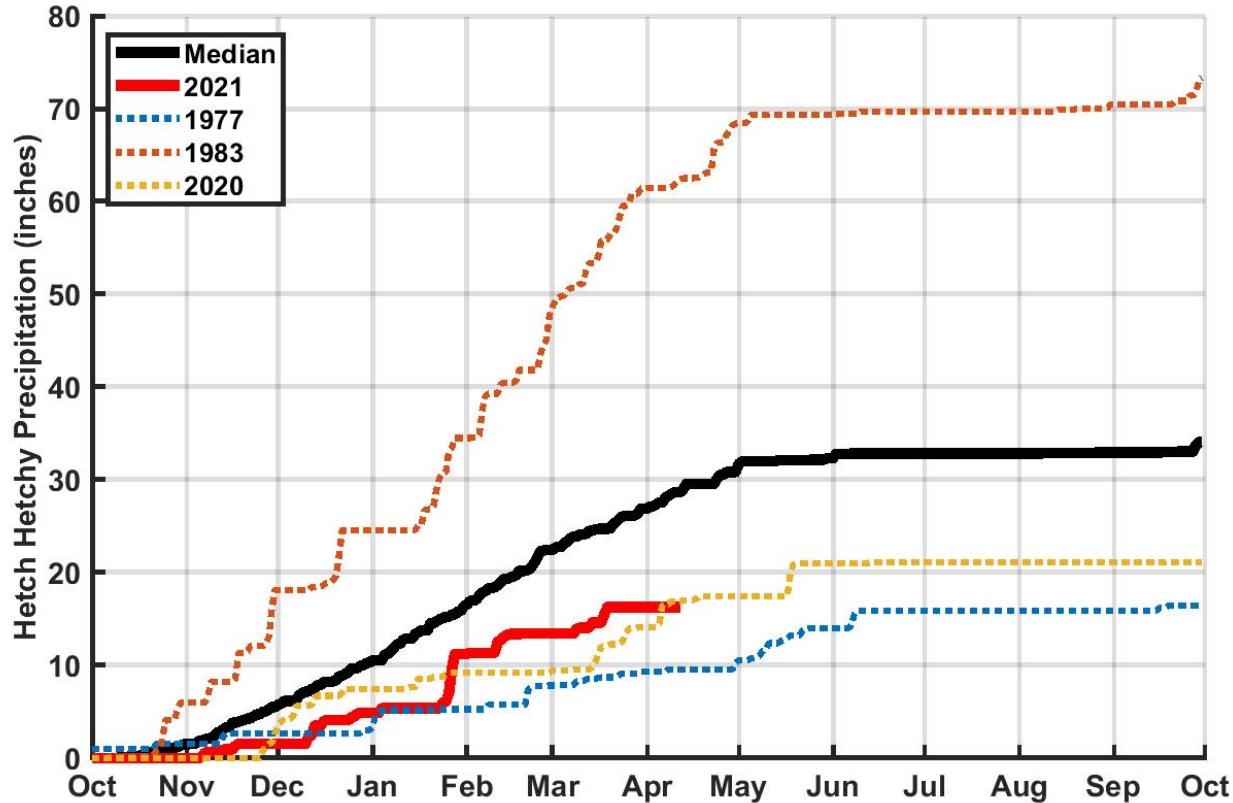


Tuolumne River Hydrologic Conditions





Hetch Hetchy Precipitation



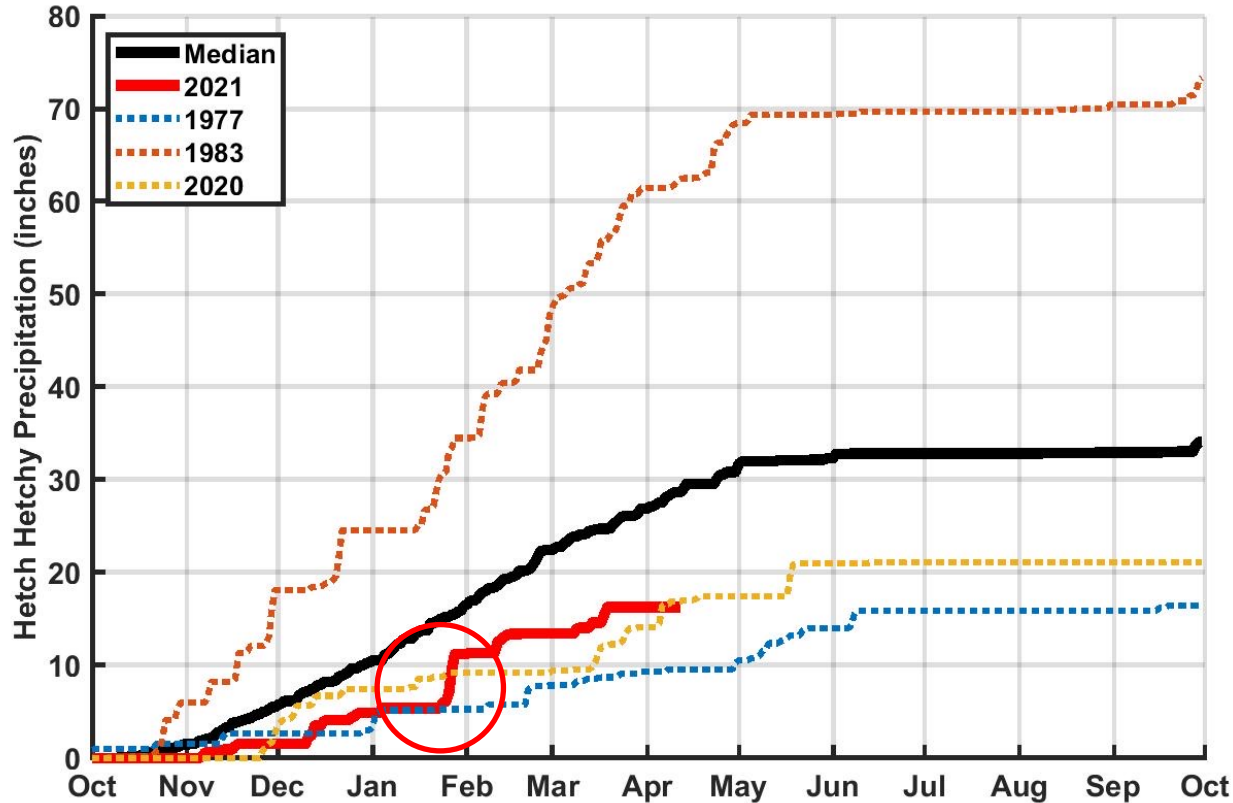
June – November, 2020

- 2nd driest on record

WY 2021

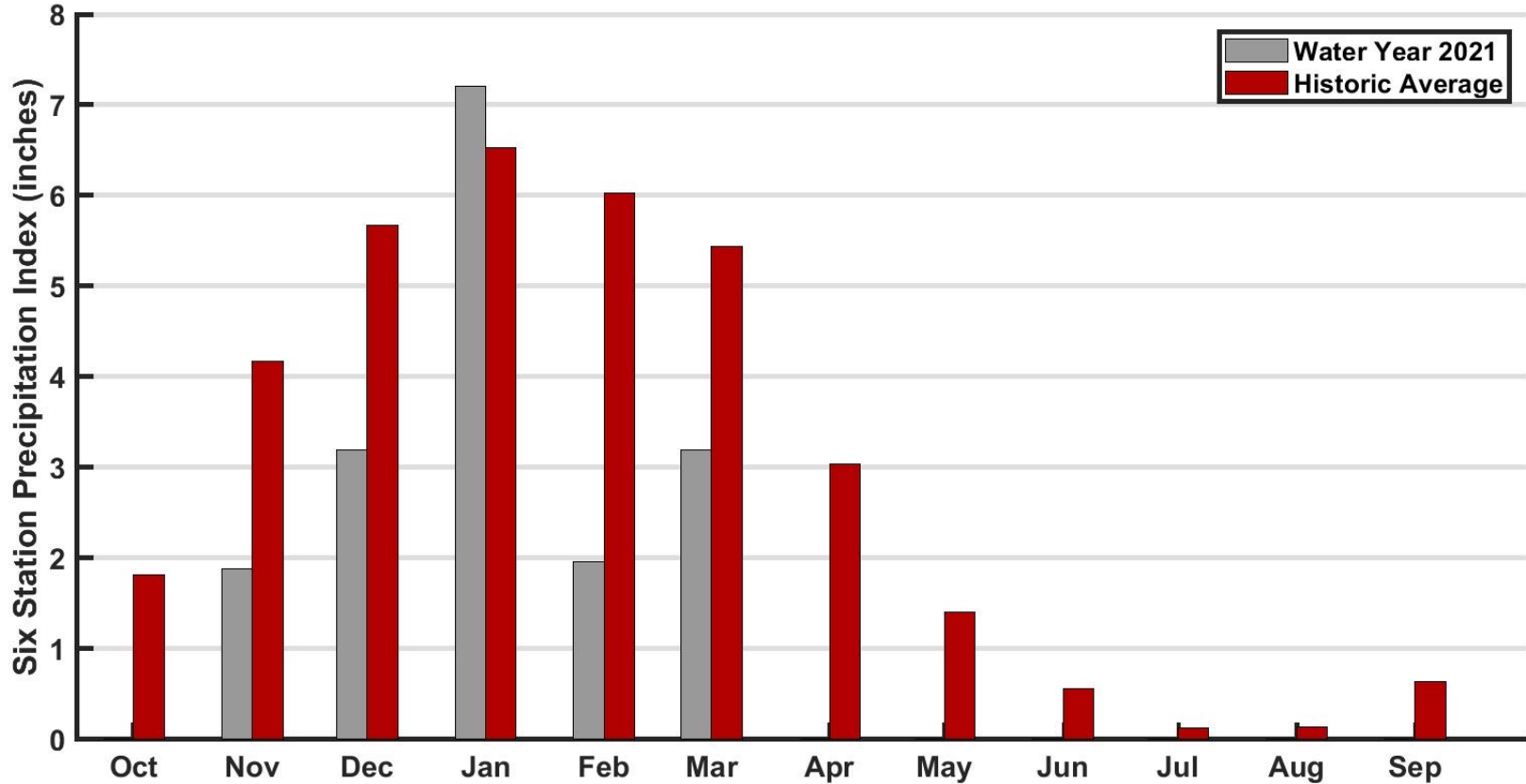
- 16.3" total
- 46% of annual mean
- 53% to-date average

Hetch Hetchy Precipitation



Near driest on record before major storm

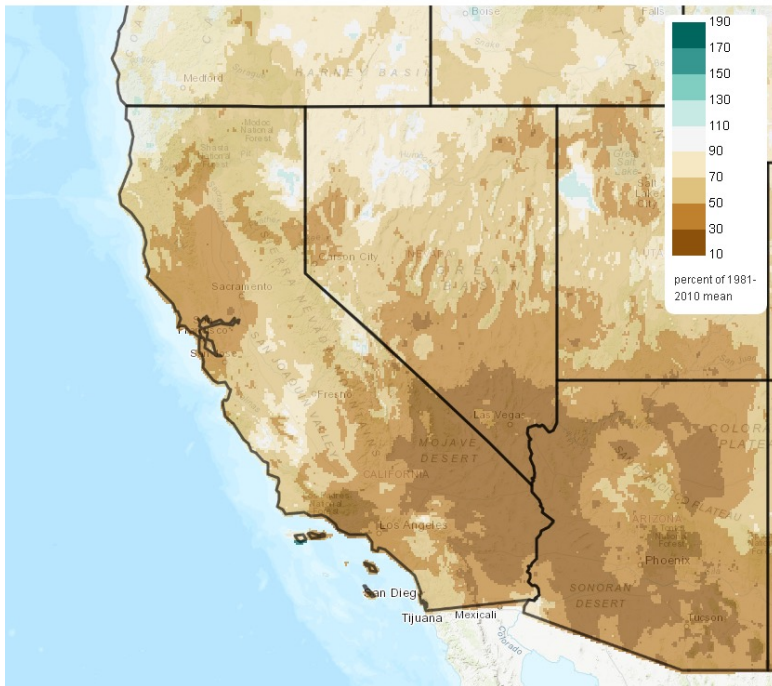
Six Station Precipitation Index



Dry & Warm Water Year 2021

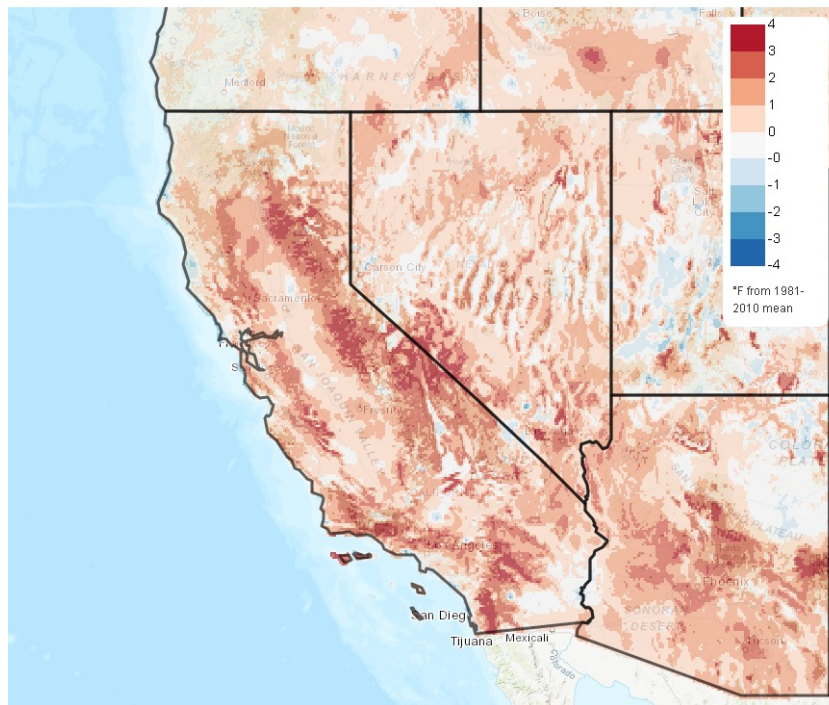
Total Precipitation Anomaly, Since Oct 1st

2020/10/01 - 2021/03/21

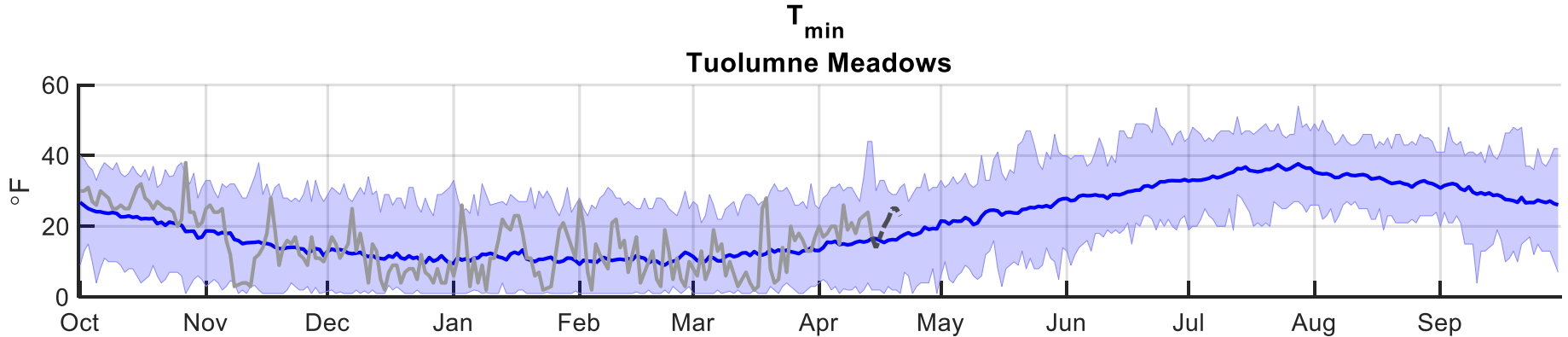
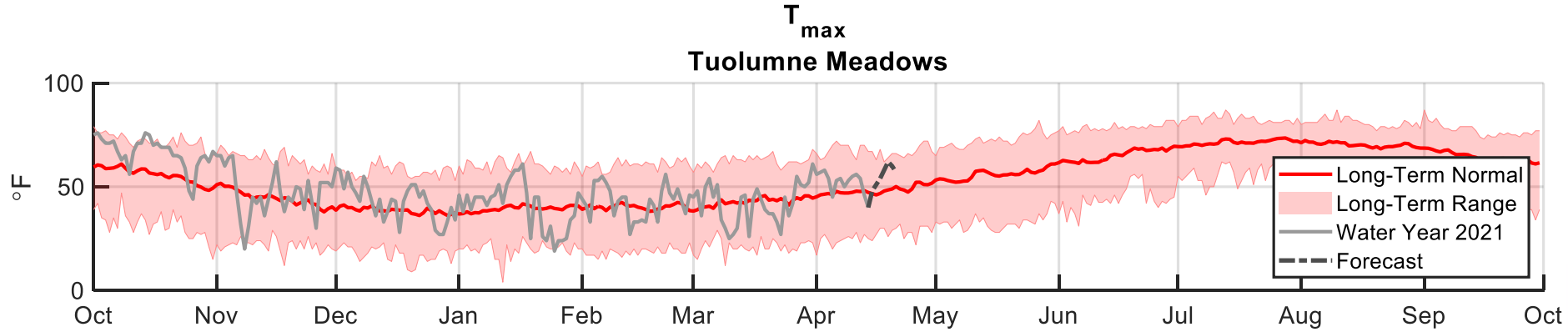


Mean Daily Temperature Anomaly, Since Oct 1st

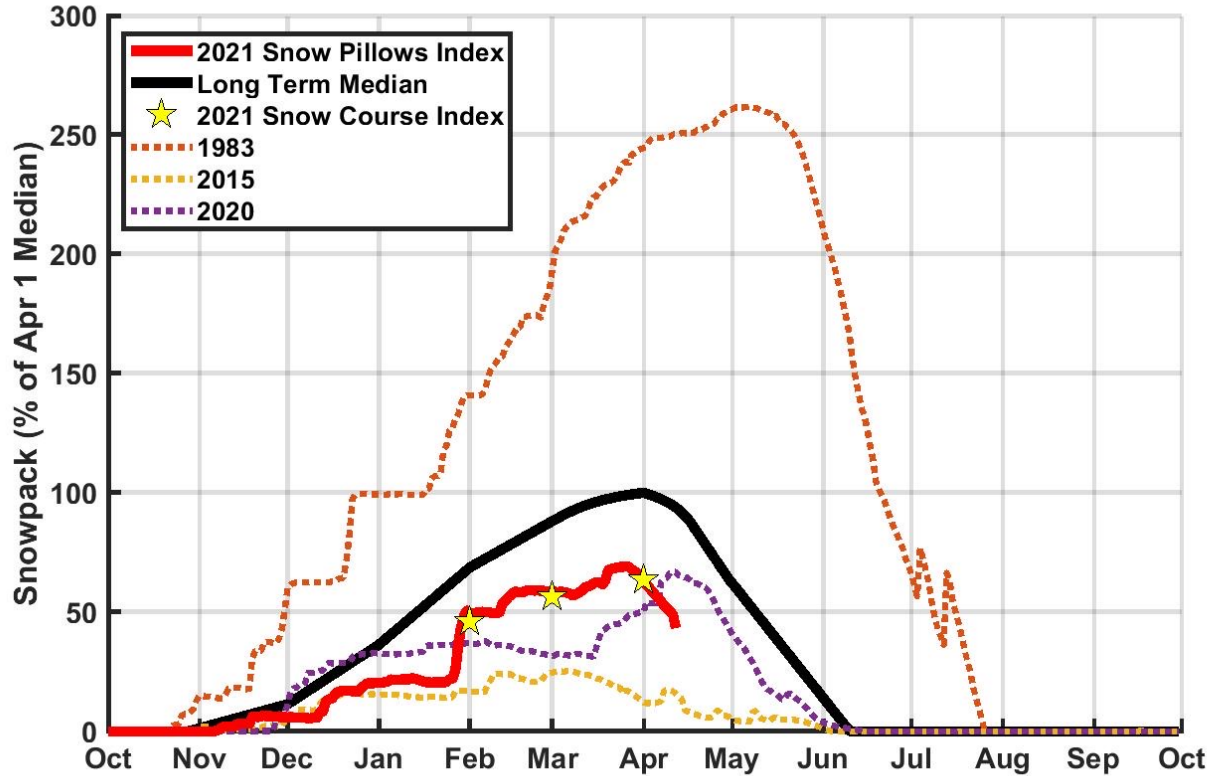
2020/10/01 - 2021/03/21



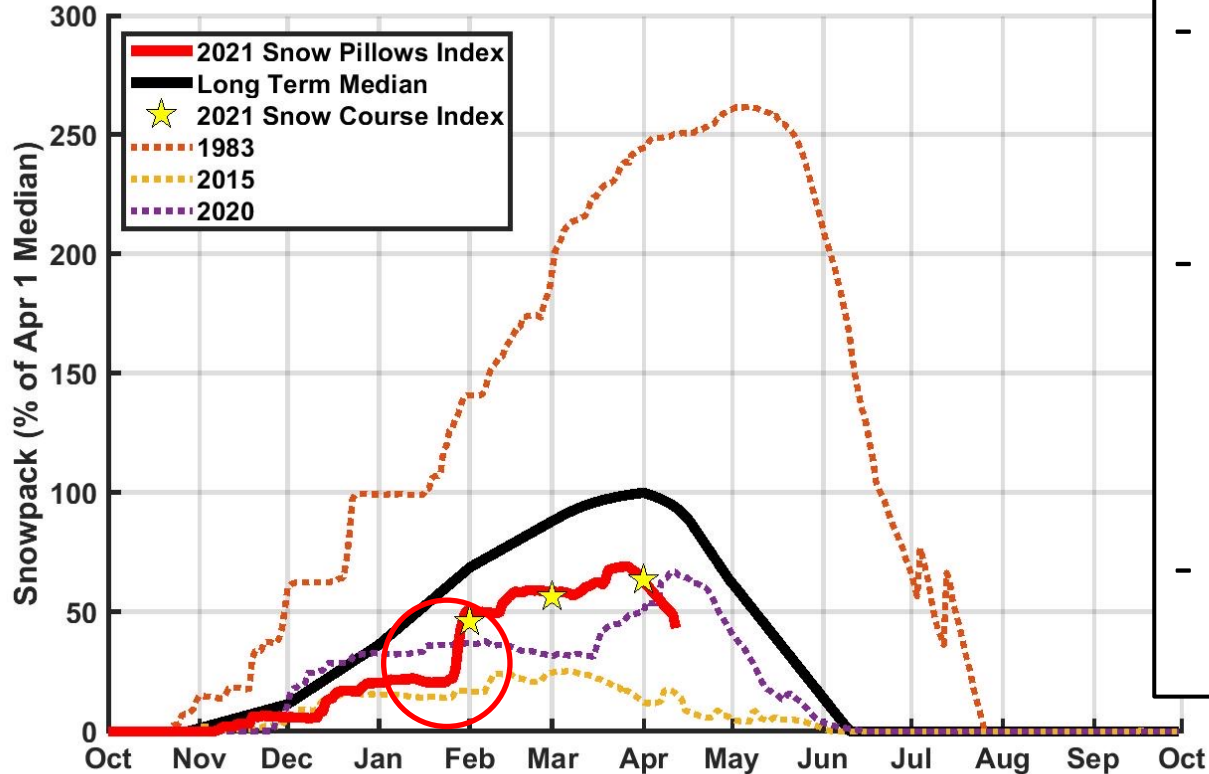
Tuolumne Meadows Temperatures



Snowpack



Snowpack



- Peak in late March, ~65%
- Currently ~47% of April 1st long-term median
- *Near min on record before major storm*

Airborne Snow Observatory

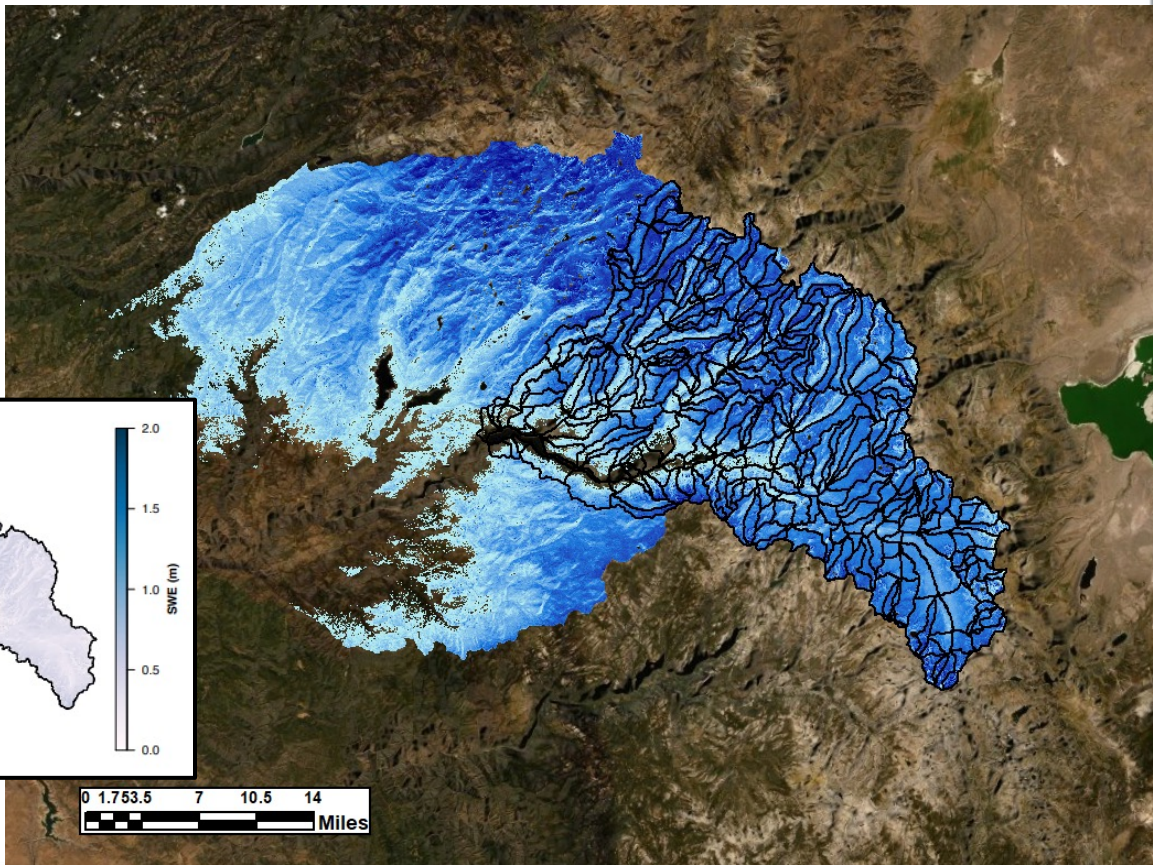
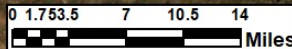
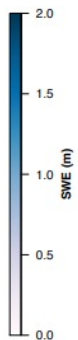
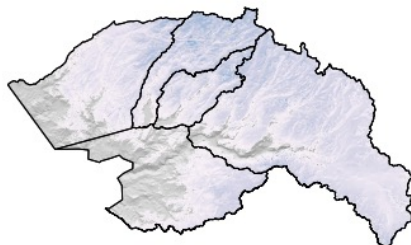
- February 24-25, 2021
- Domain expanded to include N. & S. Fk

Survey Date(s): February 24-25, 2021
Survey #1 of Water Year 2021

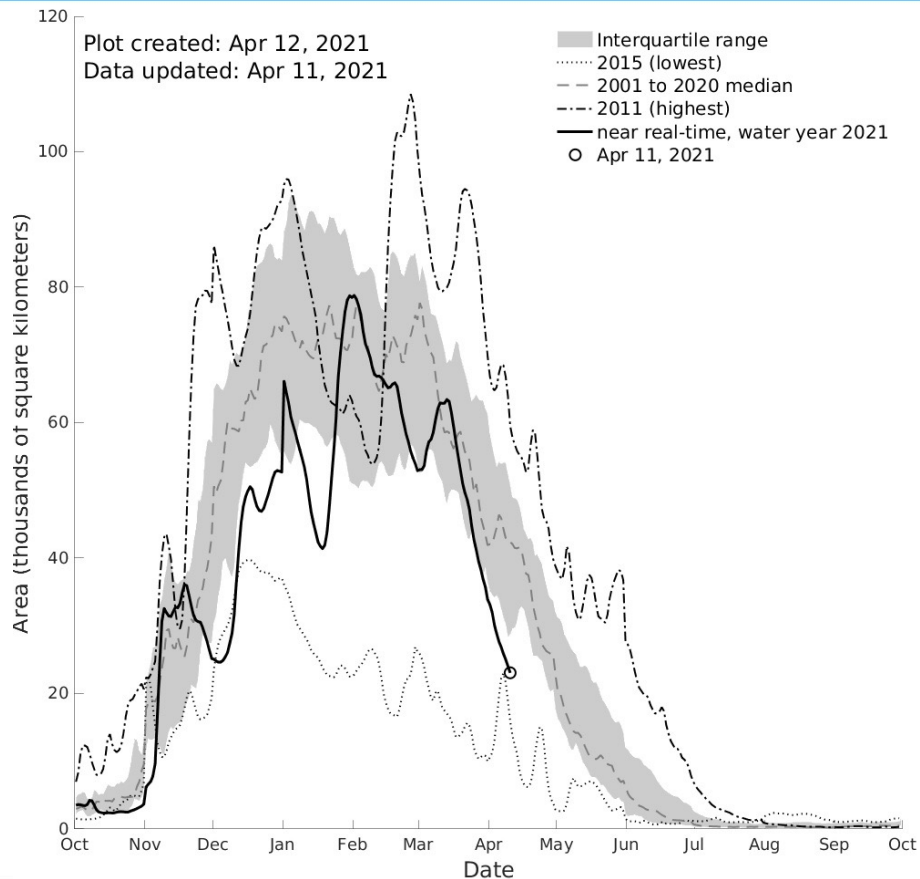
Delivery Date: March 1, 2021
Version: 0

Estimated Total Basin SWE: 606 TAF
SWE uncertainty range: 591 – 621 TAF

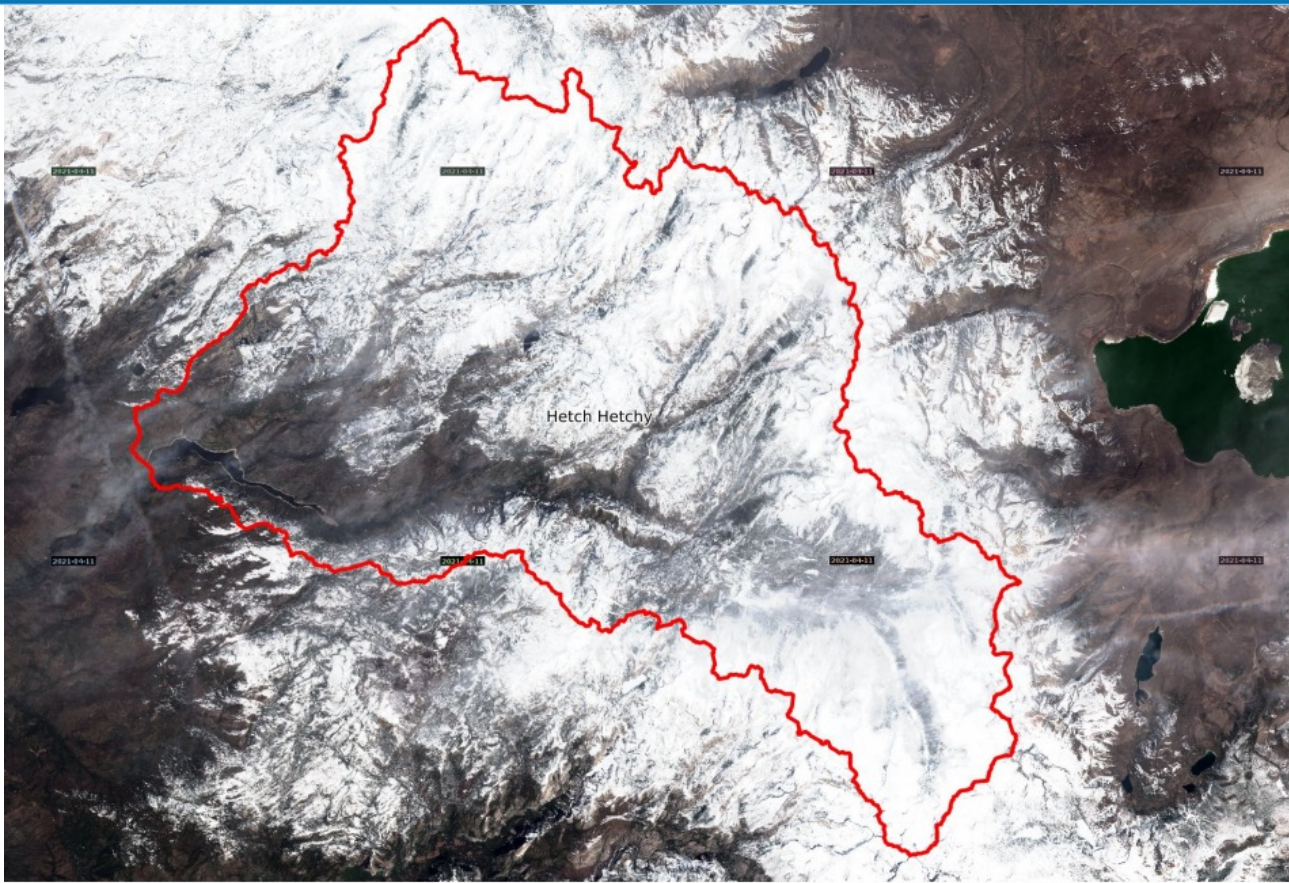
Estimated Cherry Basin SWE: 102 TAF
Estimated Eleanor Basin SWE: 52 TAF
Estimated HH Basin SWE: 297 TAF
Estimated North Fork Basin SWE: 97 TAF
Estimated South Fork Basin SWE: 58 TAF



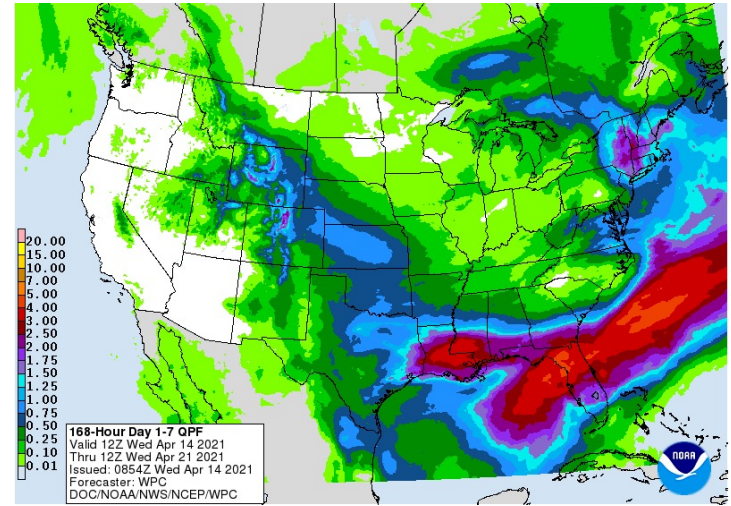
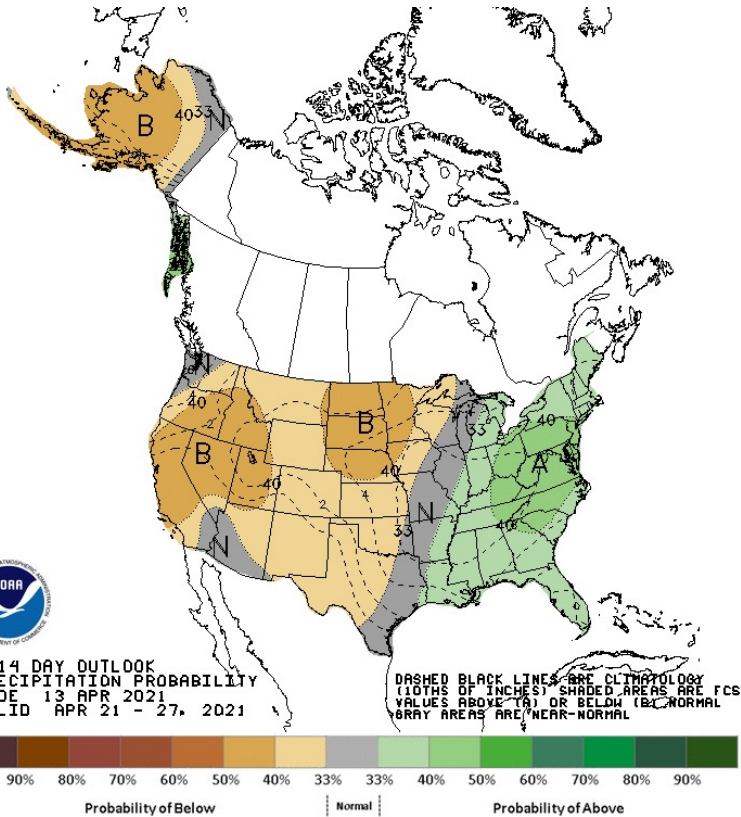
Snow-Covered Area (CA-wide)



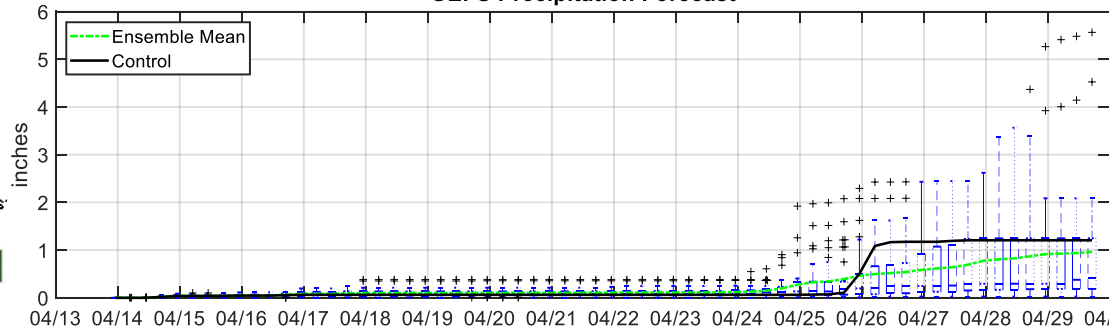
April 11 Snow Cover, Sentinel-2



2-Week Outlook—*Mostly Dry*



GEFS Precipitation Forecast



Low Inflows to Date

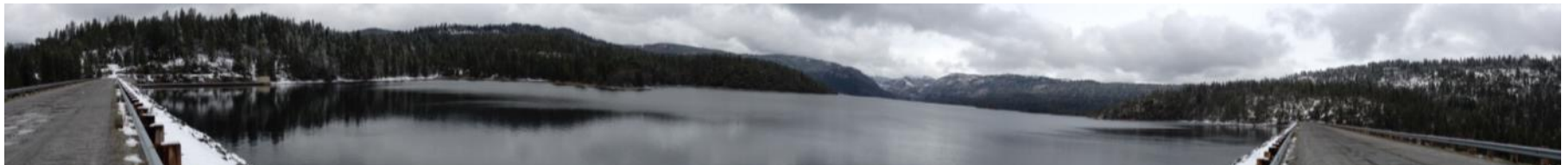
* All flows are in acre-feet	March 2021				October 1, 2020 through March 31, 2021			
	Observed Flow	Median	Mean	Percent of Mean	Observed Flow	Median	Mean	Percent of Mean
Inflow to Hetch Hetchy Reservoir	20,227	39,015	41,473	49%	39,724	114,363	130,265	30%
Inflow to Cherry Lake and Lake Eleanor	24,811	37,980	42,053	59%	51,755	113,246	138,673	37%
Tuolumne River at La Grange	68,340	159,640	190,040	36%	145,654	481,436	600,504	24%





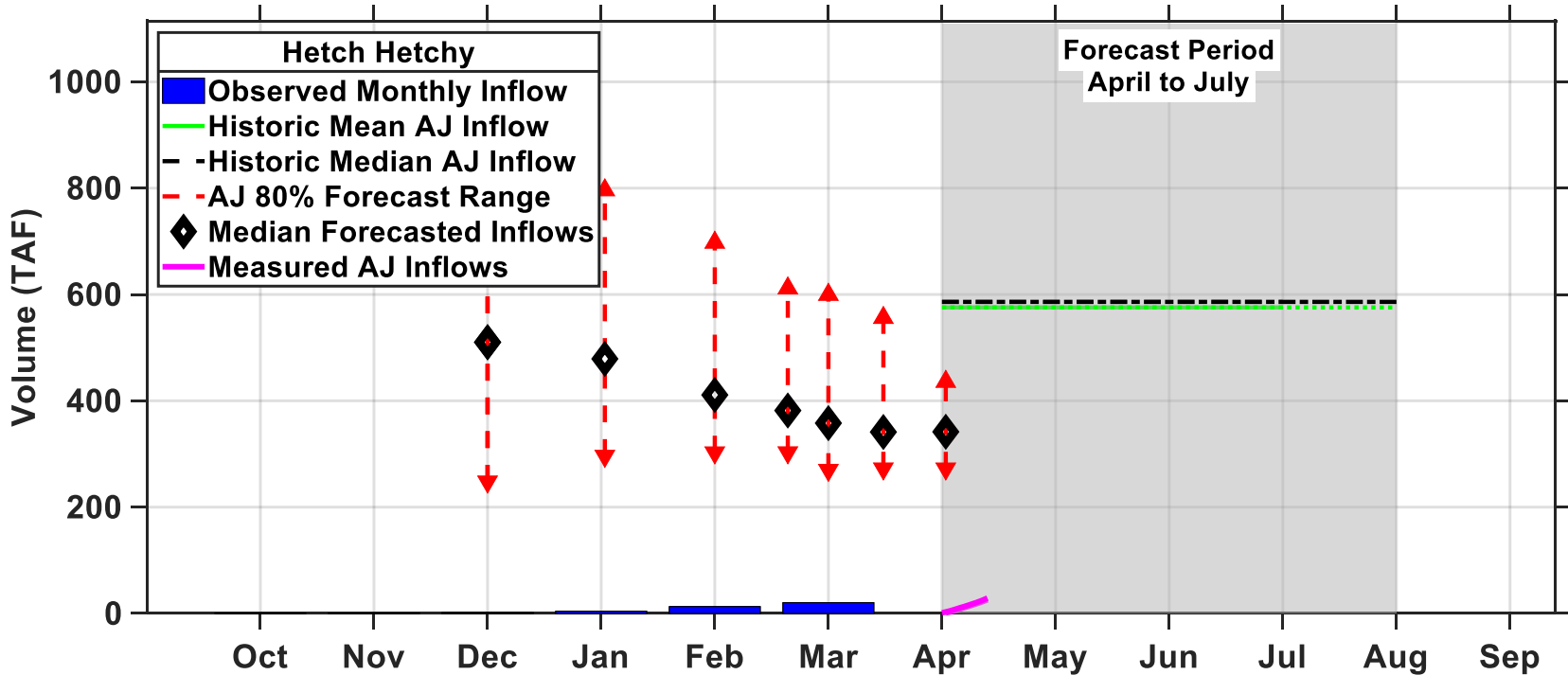
Reservoir Storage and Forecast

<i>As of 04-14-2021</i>	Reservoir Storage (ac-ft)	Max Storage (ac-ft)	% of Max	Median April-July Forecast (ac-ft)	% of Median
Hetch Hetchy	189,000	360,360	53%	341,000	59%
Cherry	212,500	273,500	78%	189,000	63%
Lake Eleanor	25,700	27,100	95%		
LaGrange				649,000	58%



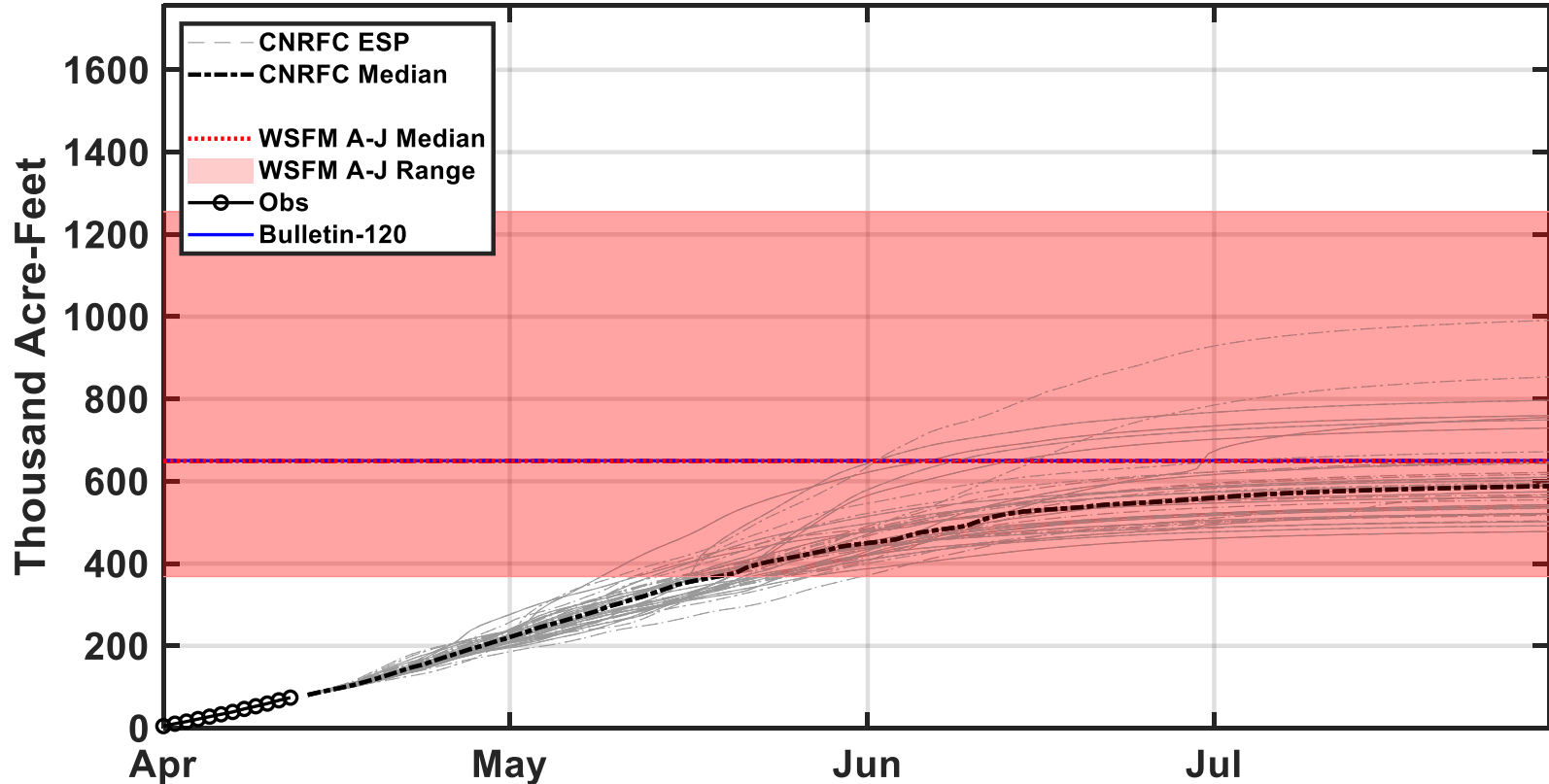


Runoff Forecasts Declining through Dry Winter



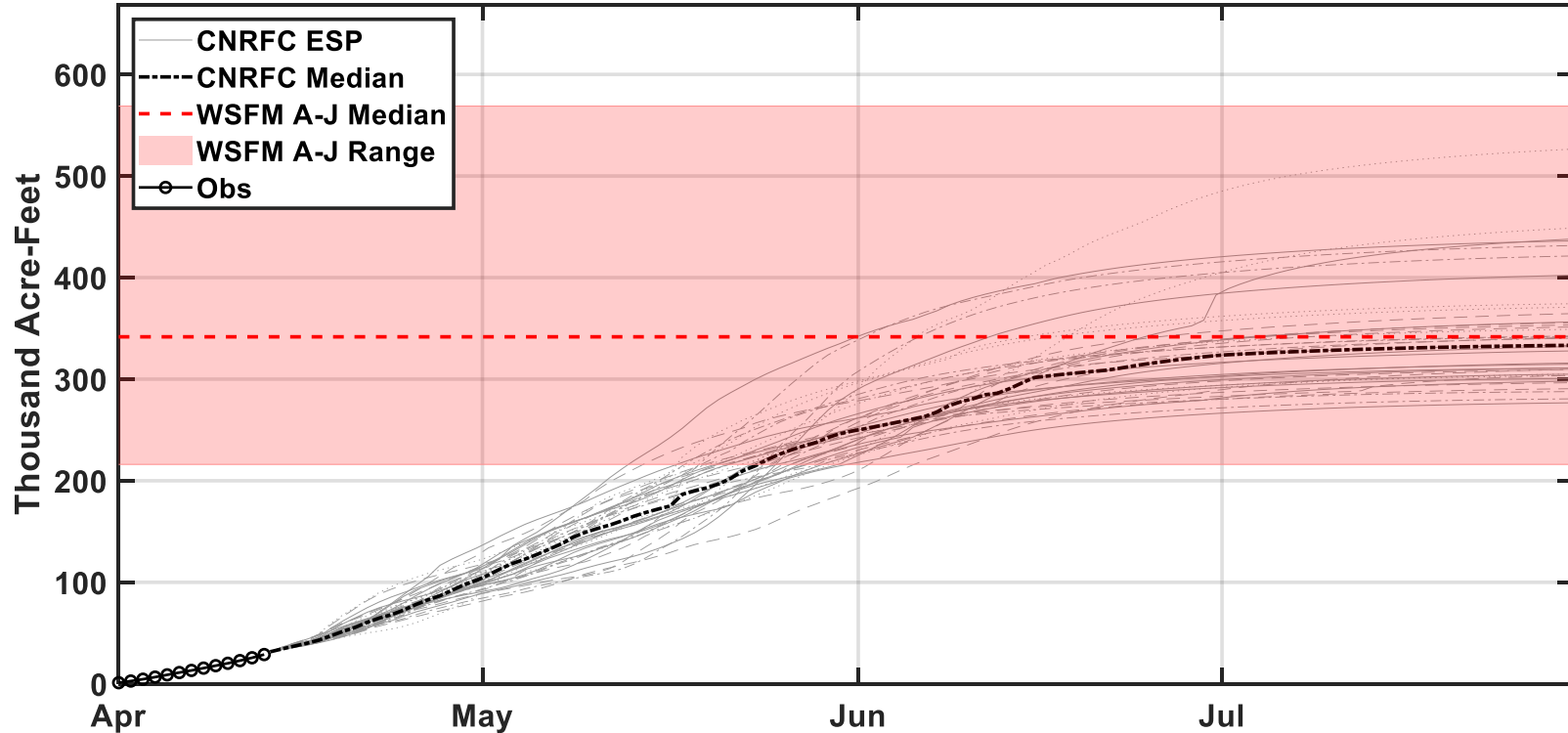
Seasonal Forecast Comparison

Tuolumne River at La Grange, Apr-Jul Forecasts

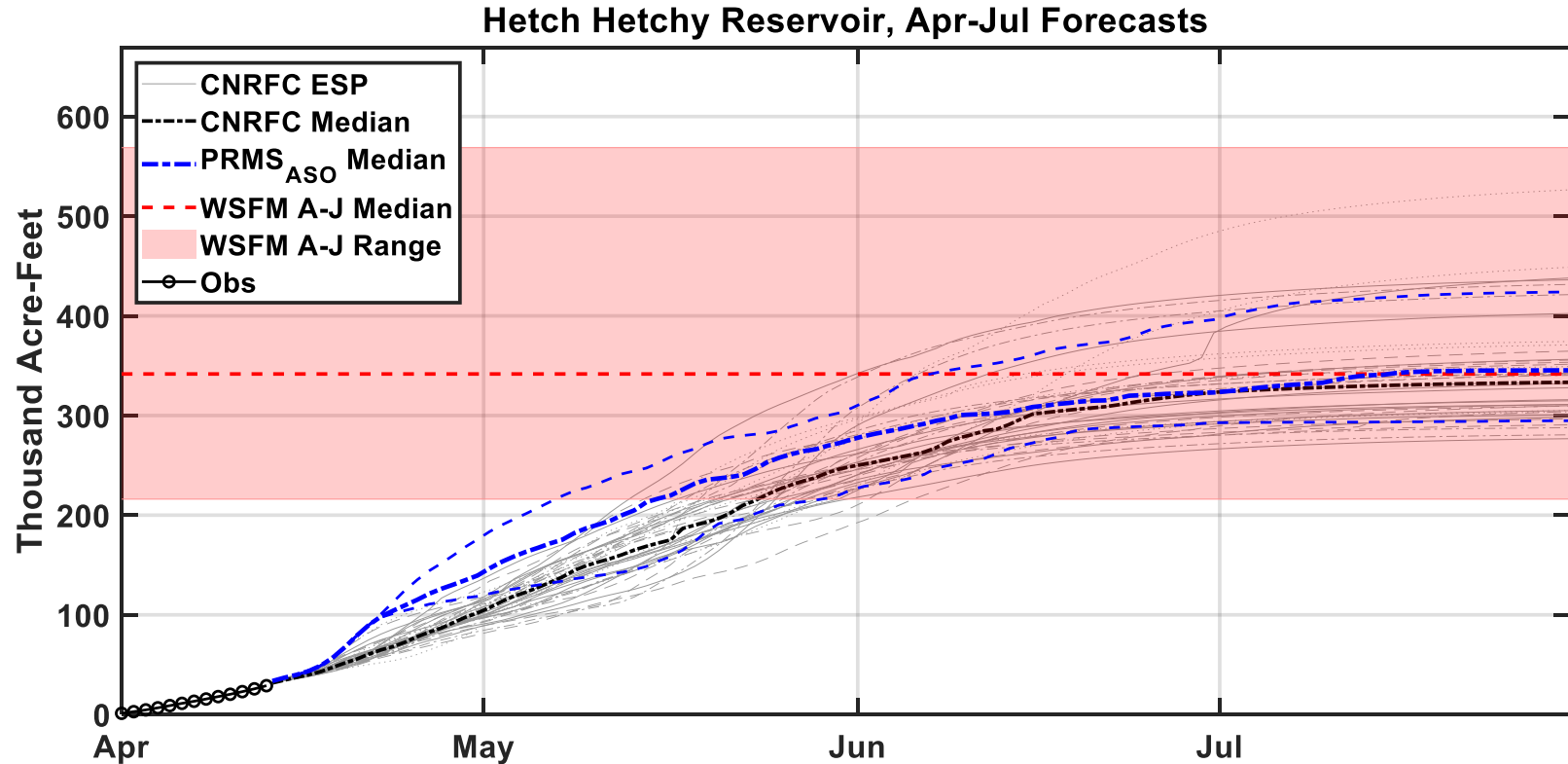


Seasonal Forecast Comparison

Hetch Hetchy Reservoir, Apr-Jul Forecasts

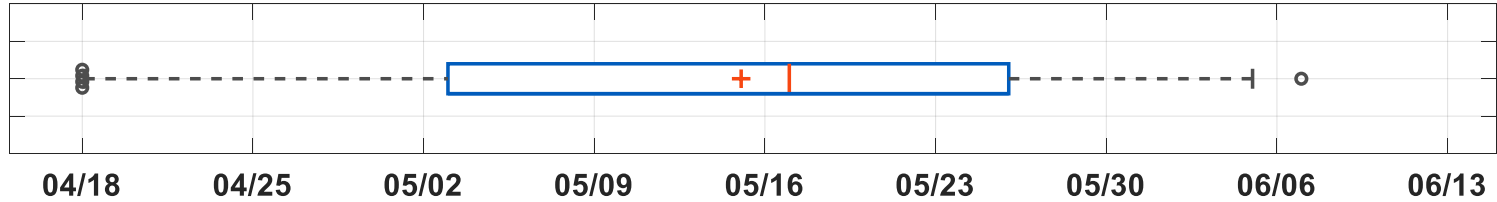


Seasonal Forecast Comparison

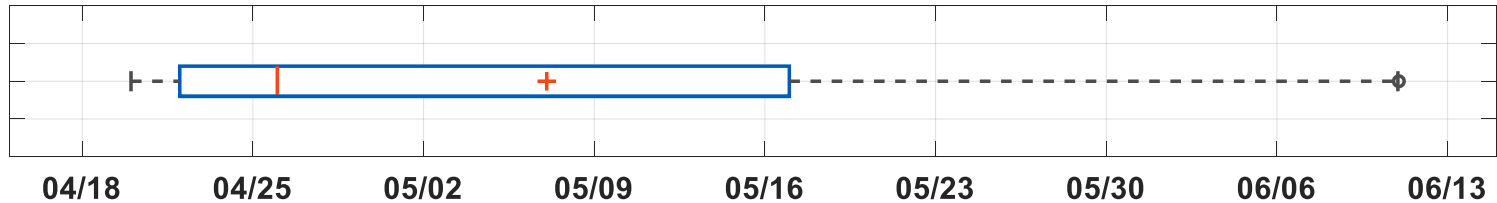


Peak Inflow Projections

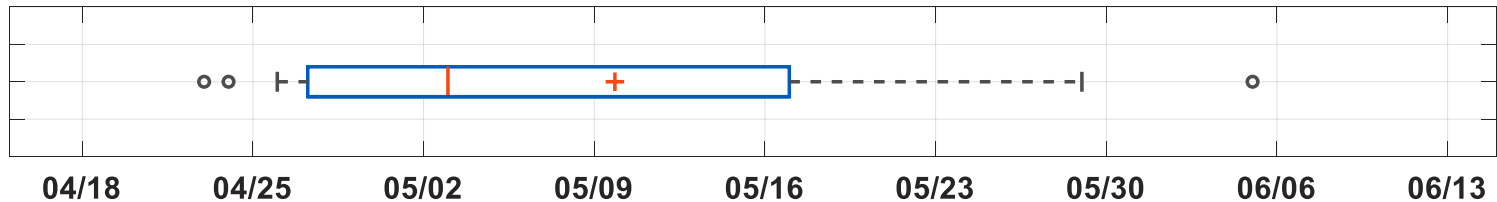
Hetch Hetchy



Cherry

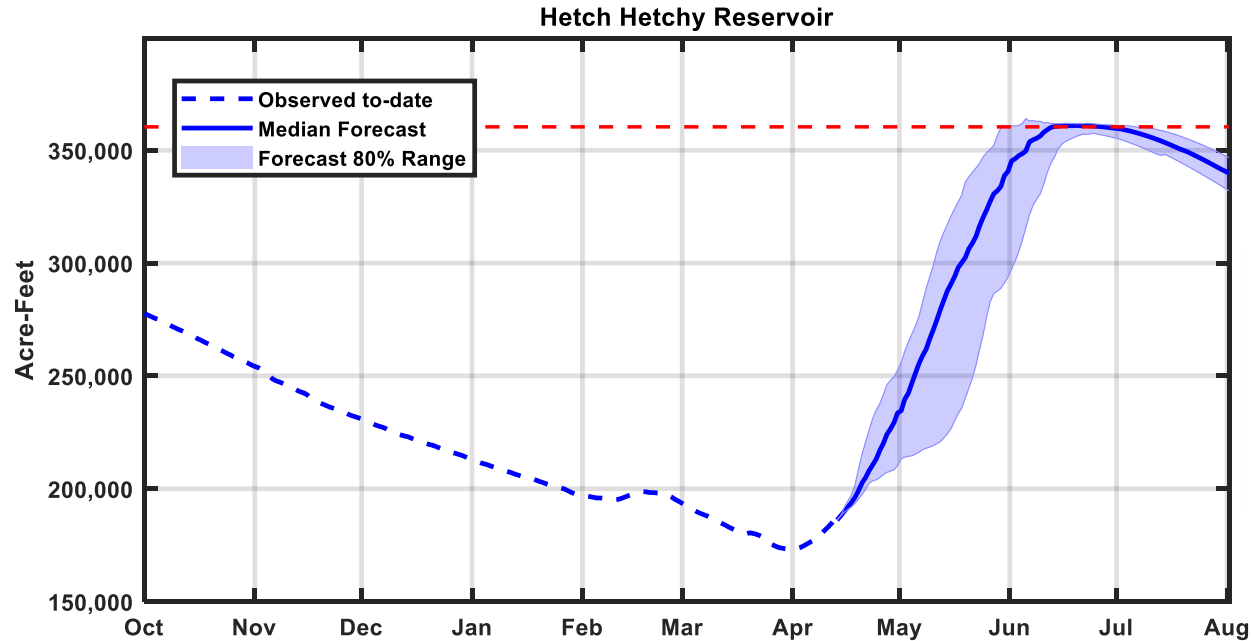


Eleanor



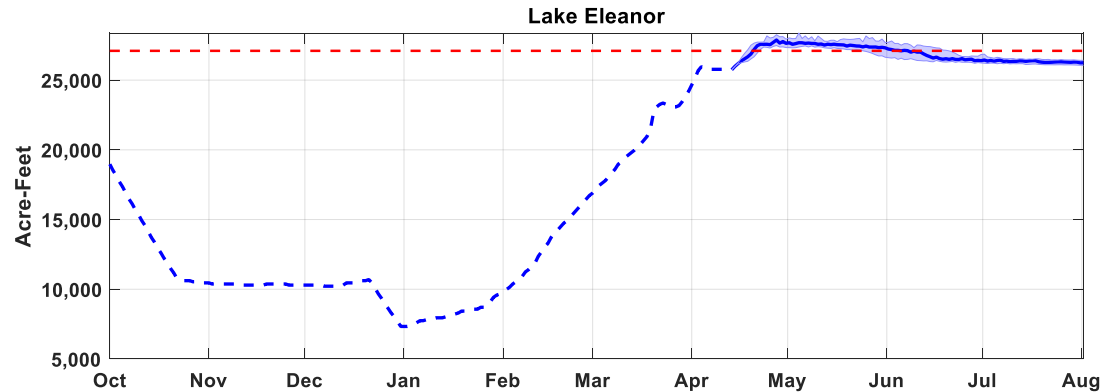
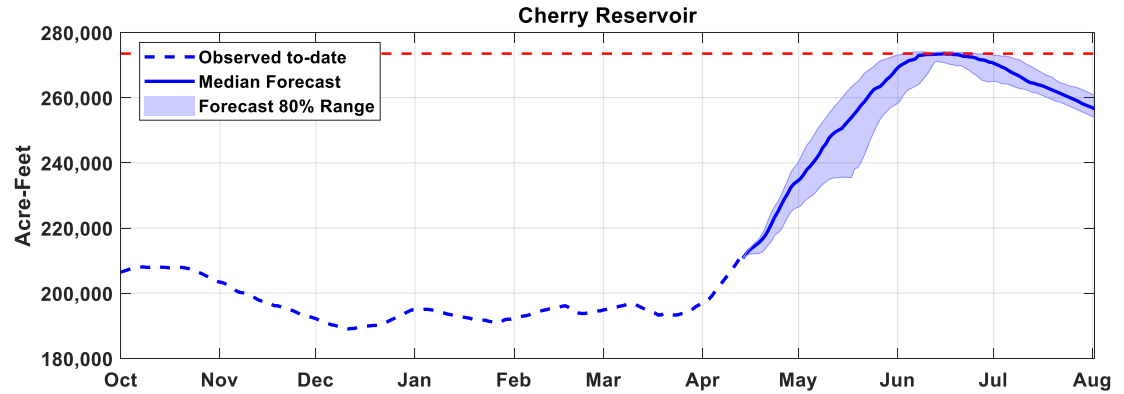
Hetch Hetchy Outlook

- Refill anticipated early June, little to no excess generation at Kirkwood
- Minimum in-stream valve releases (Type C schedule)
- Zero to minimal forecast spill from O'Shaughnessy
 - Similar to last year



Cherry/Eleanor Outlook

- Cherry: refill anticipated late May to early June
- Eleanor: full and spilling through mid- to late May
- Pumping transfers began Apr 4th
- Holm 'rafting flows' begin Memorial Day weekend
- Minimum in-stream valve releases



Summary

- Below-average Water Year to-date
- Hetch Hetchy refill anticipated early June, little to no excess generation at Kirkwood
- Minimum in-stream valve releases at all reservoirs
- Zero to minimal forecast spill from O'Shaughnessy
 - Similar to last year