California Drought & Water Supply Update 3/14/2023

WINTER REPORT

MOUNTAIN CONDITIONS | LIFT/TRAIL STATUS | LIVE CAMS | MAPS

Mammoth Mountian - Main Lodge - Snow in Inches

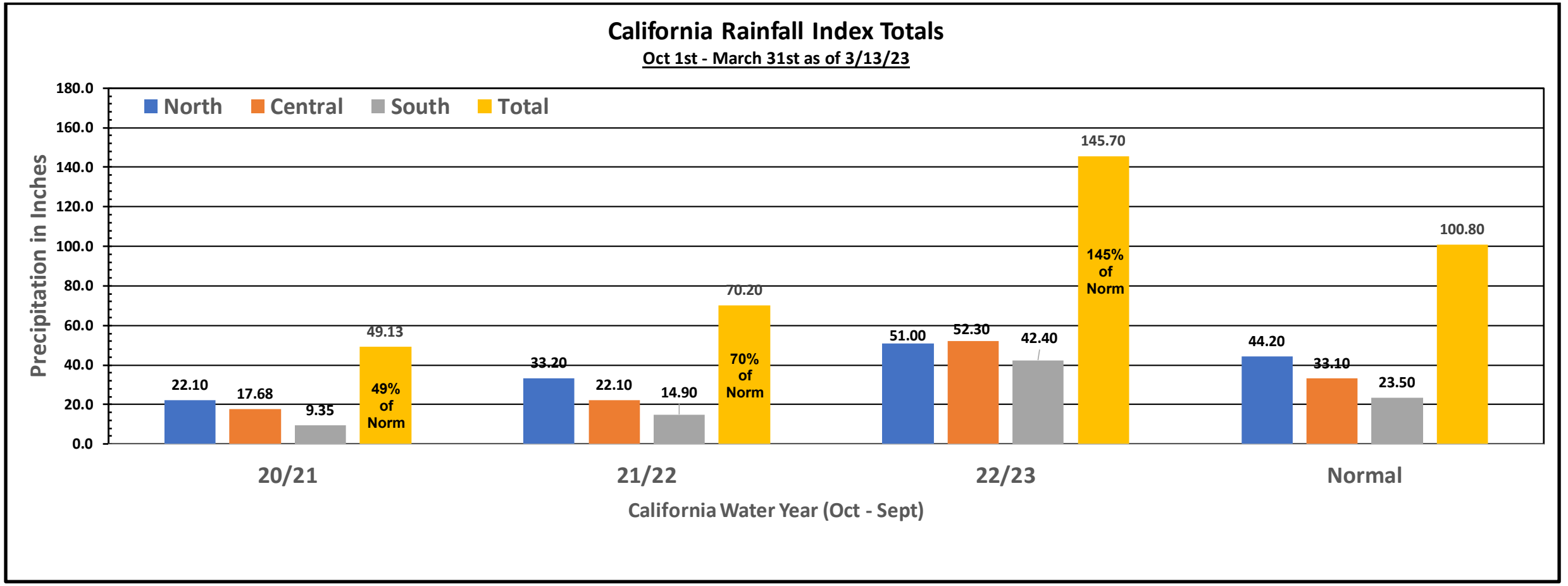
New Snow in March 2023	March New Snow	Historical Records			
		Through March		Season Total	
as of 3/13/23	Record - 2011	WY '22/'23	WY '10/'11	Normal	'10/'11
102	178	600	593	400	669

As of 3/13/23, the year-to-date precipitation index totals average 162% of normal statewide. This is up from 141% on February 13th due to the wetter weather pattern we have been experiencing over the past 23 days.

YTD California Precipitation Index Totals
As of 3/13/23

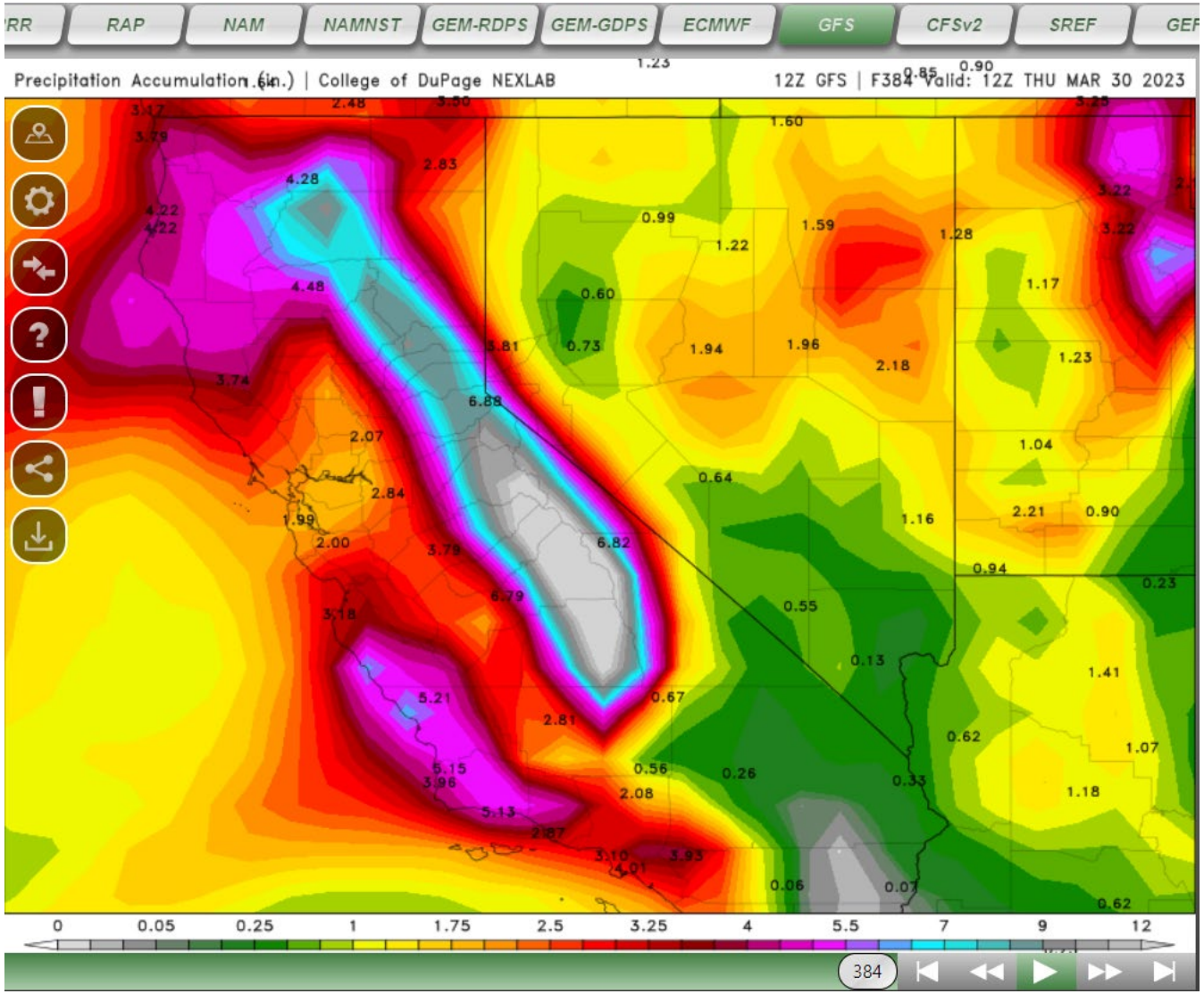
Region	inches of Precip	% of YTD Normal
8 Station Northern	51.0	129%
5 Station Central	52.3	178%
6 Station Southern	42.4	203%
Combined Stations:	145.7	162%

If you compare the current precipitation totals today (3/13/23) to the full year-to-date totals the past two years (Oct 1st –Mar 13th), you can see we will remain well ahead of those years by the end of March even if California receives no further precipitation for the remainder of the month!

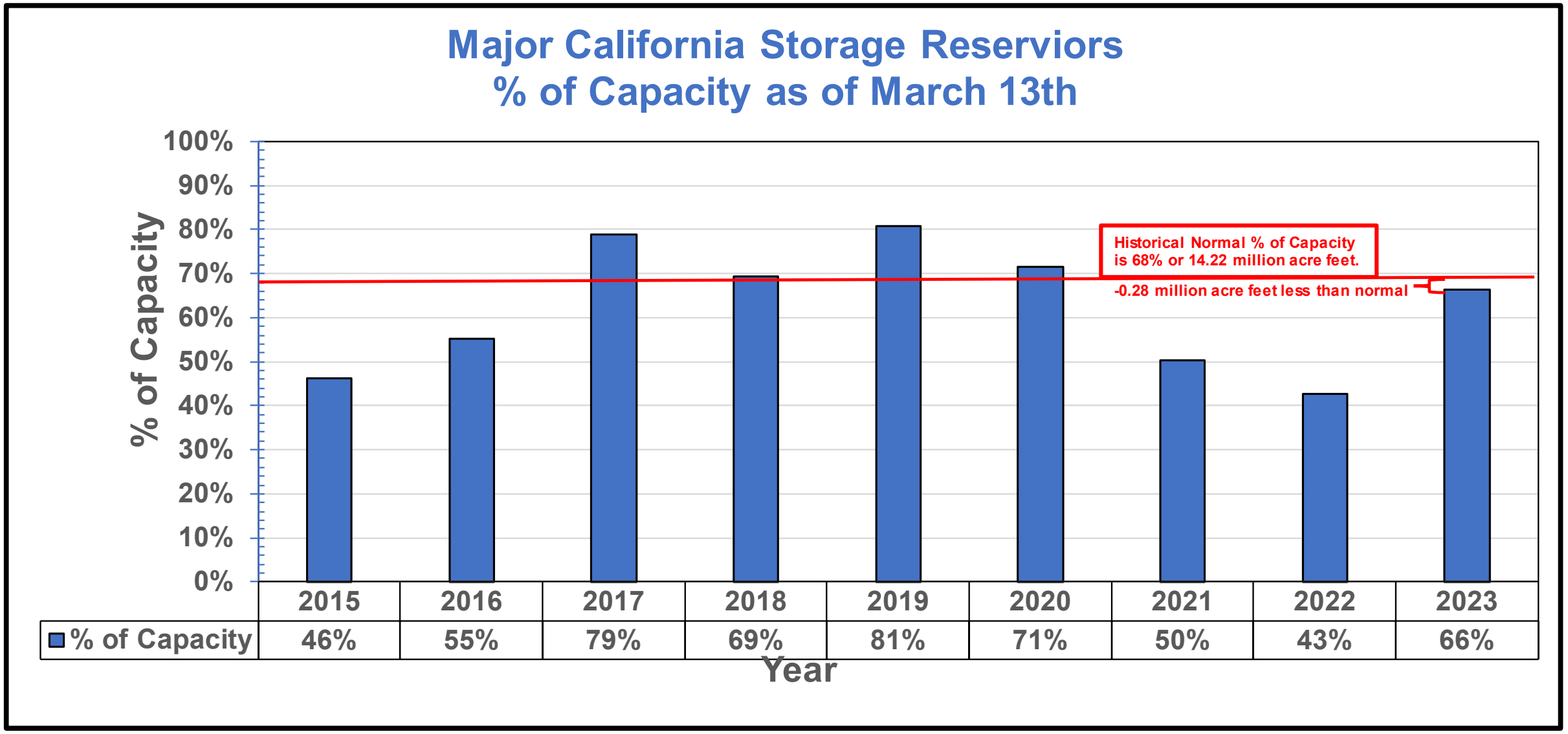


Current 16-day Precipitation Forecast – as of 3/13/23

The current 16-Day GFS Precipitation 12z Model run as of 3/13/23 shows a continued wet pattern but not as wet as we have experienced over the past 23 days, with most of the precipitation coming from 3/14 – 3/26/2023.



The Combined Reservoir level have increased by 7.6-million-acre feet since December 11th, 2022. However, the total volume storage as of 3/13/23 is still remains slightly below normal for this time of year (-280,000-acre-feet).



Major California Water Storage Reservoir's Levels as of March 13th, 2023

Reservoir	Total Capacity	% of Capacity as of March 13th									Storage level in Millions of acre feet as of March 13th								
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2015	2016	2017	2018	2019	2020	2021	2022	2023
Shasta (F)	4.552	58%	79%	76%	77%	86%	78%	51%	38%	65%	2.640	3.596	3.460	3.505	3.915	3.551	2.322	1.730	2.959
Trinity (F)	2.448	48%	45%	80%	74%	74%	83%	52%	32%	33%	1.175	1.102	1.958	1.812	1.812	2.032	1.273	0.783	0.808
Oroville (S)	3.538	50%	70%	84%	43%	74%	64%	39%	46%	77%	1.769	2.477	2.972	1.521	2.618	2.264	1.380	1.627	2.724
New Melones (F)	2.420	25%	22%	70%	80%	85%	79%	64%	40%	51%	0.605	0.532	1.694	1.936	2.057	1.912	1.549	0.968	1.234
Folsom (F)	0.977	59%	69%	42%	56%	65%	43%	35%	53%	57%	0.576	0.674	0.410	0.547	0.635	0.420	0.342	0.518	0.557
San Luis (F,S)	2.039	67%	48%	99%	79%	99%	69%	56%	44%	87%	1.366	0.979	2.019	1.611	2.019	1.407	1.142	0.897	1.774
Don Pedro (L)	2.030	43%	53%	93%	82%	85%	80%	68%	59%	84%	0.873	1.076	1.888	1.665	1.726	1.624	1.380	1.198	1.705
Millerton (F)	0.520	39%	63%	55%	65%	82%	53%	33%	55%	69%	0.203	0.328	0.286	0.338	0.426	0.276	0.172	0.286	0.359
Exchequer (L)	1.025	9%	25%	77%	68%	69%	61%	38%	29%	76%	0.092	0.256	0.789	0.697	0.707	0.625	0.390	0.297	0.779
Pyramid (S)	0.171	85%	85%	88%	87%	87%	85%	86%	91%	86%	0.145	0.145	0.150	0.149	0.149	0.145	0.147	0.156	0.147
Castaic (S)	0.325	30%	31%	92%	81%	82%	83%	78%	57%	67%	0.098	0.101	0.299	0.263	0.267	0.270	0.254	0.185	0.218
Pine Flat (F)	1.000	17%	33%	70%	54%	65%	52%	25%	33%	68%	0.170	0.330	0.700	0.540	0.650	0.520	0.250	0.330	0.680
Total:	21.045	46%	55%	79%	69%	81%	71%	50%	43%	66%	9.713	11.595	16.625	14.583	16.979	15.045	10.599	8.975	13.944
Change vs. February 27th 2023:		1.0%	11.2%	-1.8%	1.5%	4.7%	-0.6%	0.2%	0.1%	6.6%	0.217	2.357	(0.389)	0.321	0.981	(0.127)	0.034	0.019	1.386
											Change vs. February 27th 2023								
Statewide Snowpack as a % of Normal as of Mar 13th, 2023:		17%	89%	174%	36%	160%	38%	60%	58%	215%								Change Since December 11th 2022	7.606
Snowpack: Avg. Statewide snow water equivalent inches:		4.6	24.1	46.9	9.8	42.7	10.3	16.2	15.8	53.6									

= Lowest over the past 9 years

= CVP Reservoirs (San Luis is both CVP & DWR)

Current vs. Same Time Last Year:	4.968	24%
Current vs. Prior 8yr Avg:	0.929	4%

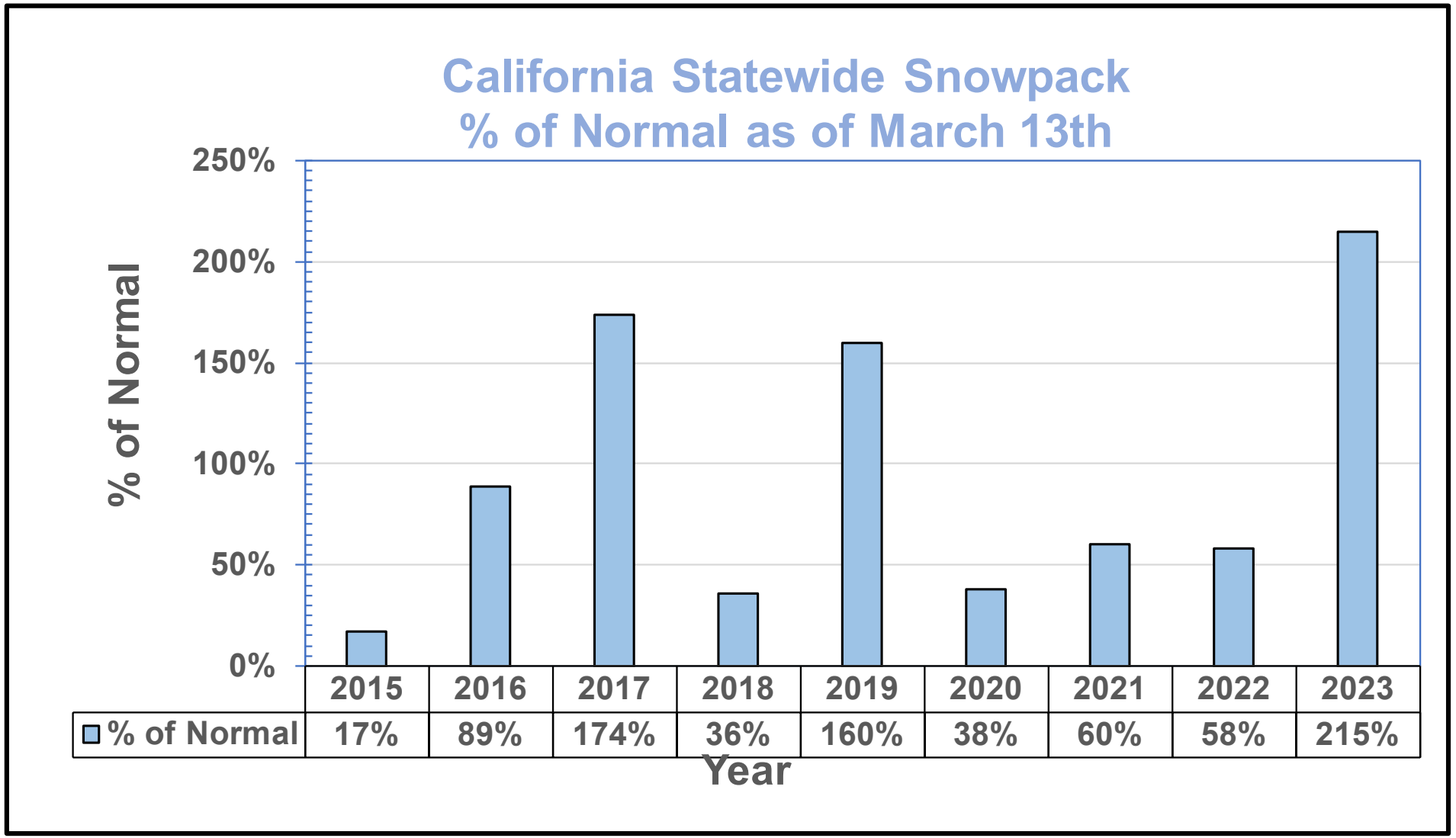
= 3.51 M acre ft Increase vs. Last year in these key Agricultural Supply Reservoirs.

	2015	2016	2017	2018	2019	2020	2021	2022	Initial 2023	
Federal Water Supply (CVP)										
North of Delta Ag	0%	100%	100%	100%	100%	50%	0%	0%	35%	Initial Allocation released on February 22, 2023
North of Delta Exchange/Settlement Contractors	75%	100%	100%	100%	100%	100%	75%	18%	100%	Initial Allocation released on February 22, 2023
South of the Delta Ag	0%	5%	100%	50%	75%	20%	0%	0%	35%	Initial Allocation released on February 22, 2023
South of the Delta Exchange/Settlement Contractors	75%	100%	100%	100%	100%	100%	75%	75% or less	100%	Initial Allocation released on February 22, 2023
Friant Class 1	0%	75%	100%	88%	100%	65%	20%	30%	100%	Initial Allocation released on February 22, 2023
Friant Class 2	0%	0%	0%	130K AF	0%	0%	0%	0%	20%	Initial Allocation released on February 22, 2023
State Water Allocation	20%	60%	85%	35%	75%	20%	5%	5%	35%	Initial Allocation was 5% in Dec '22. Moved to 30% on 1/26 and to 35% on 2/22/23.

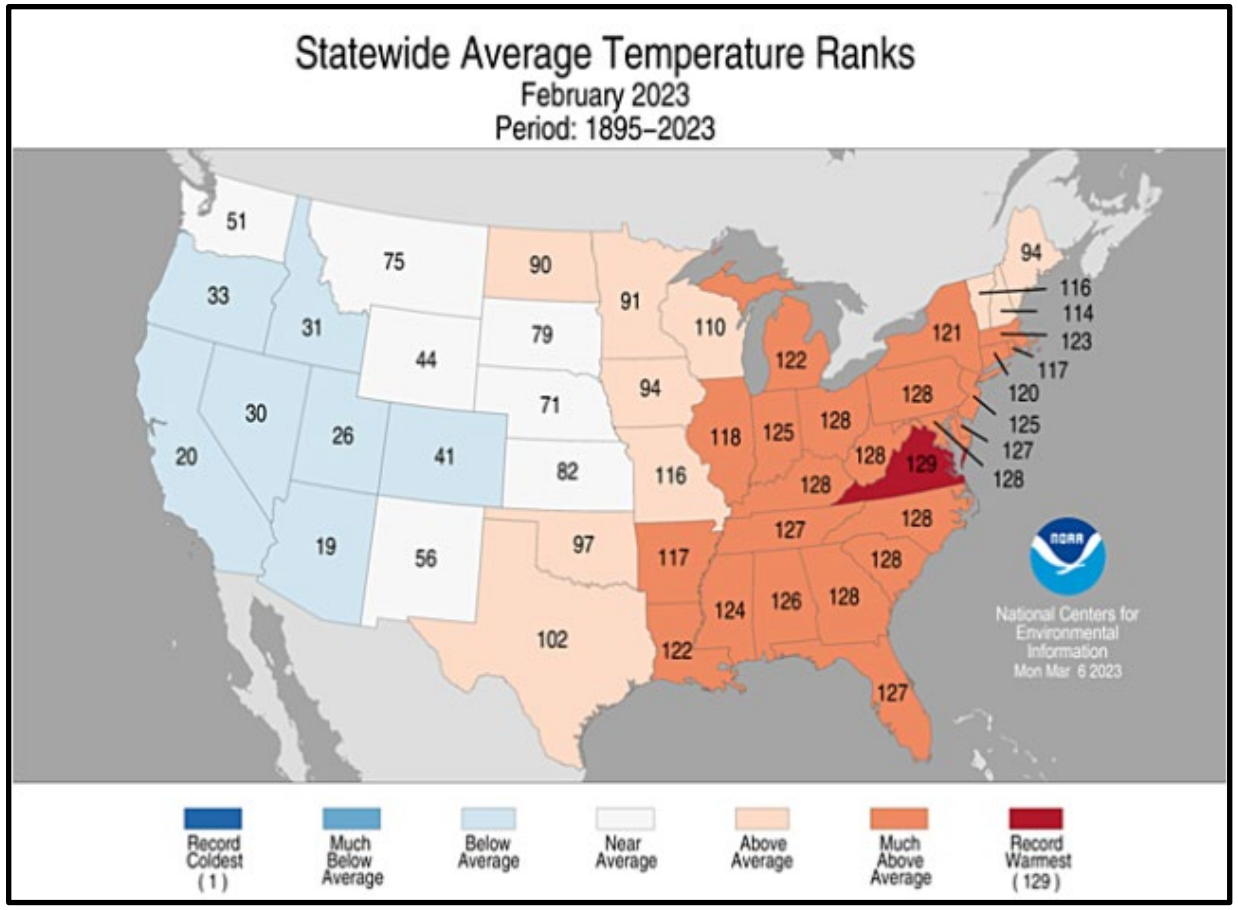
Current vs. YTD Normal:	98%
LY vs. YTD Normal:	62%

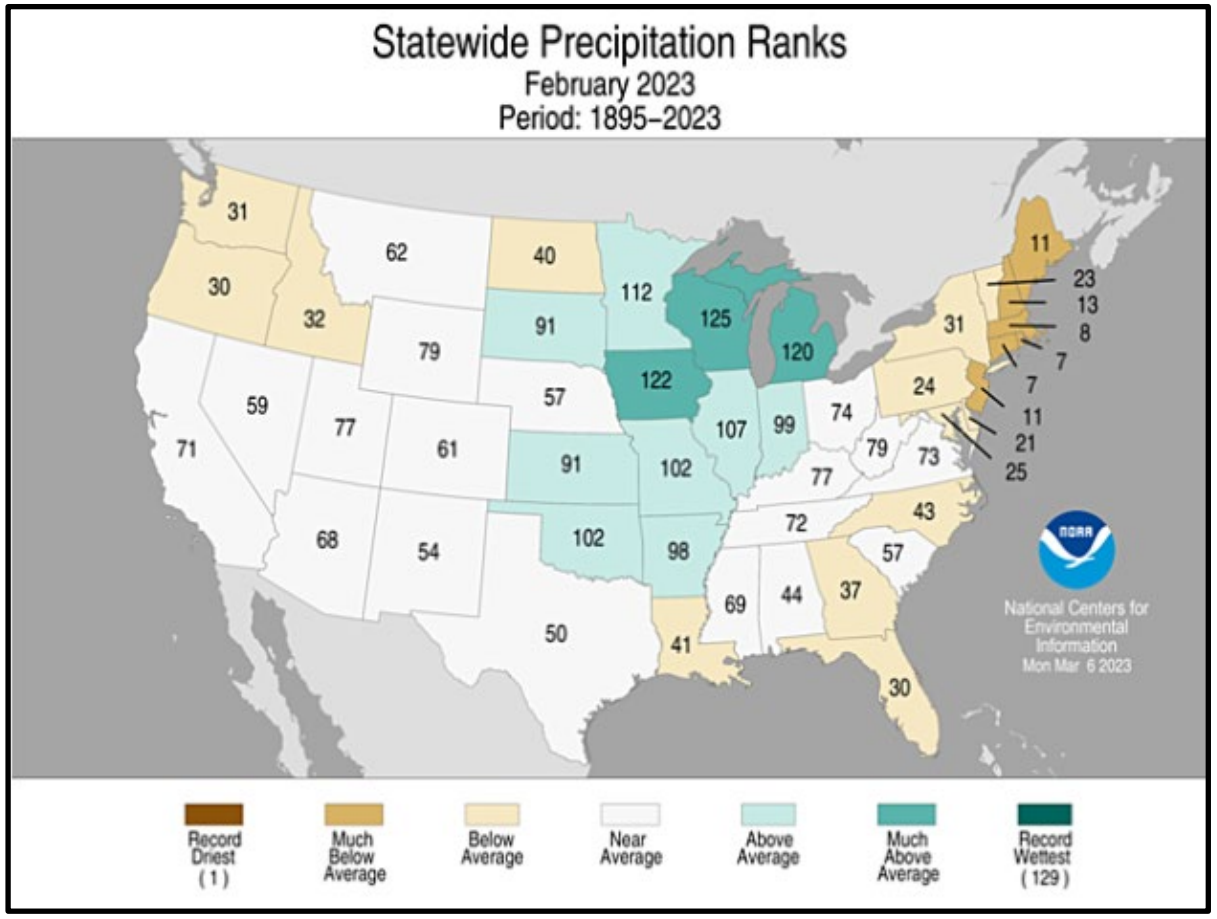
(S) = State Water Project (F) = Federal Water Project (L) = Local Water Project

As of March 13th, 2023, the State-wide average snowpack is 215% of normal (up from 181% of normal on February 27th) and already totals 206% of the April 1st average! Wow! The previous highest % of normal was seen on March 13th, 2017 (174% of normal & 167% of the April 1st average). This is a new record for this point in the water year with more storms coming from the 14th-26th of March!

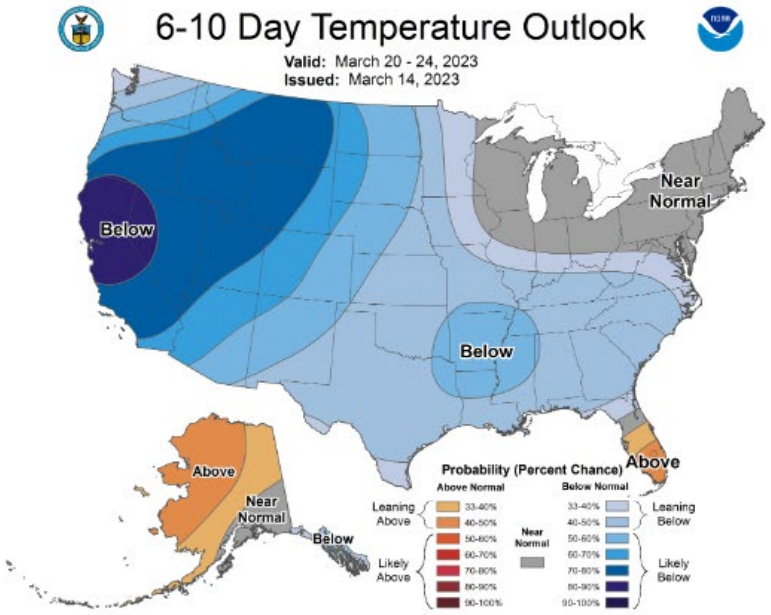


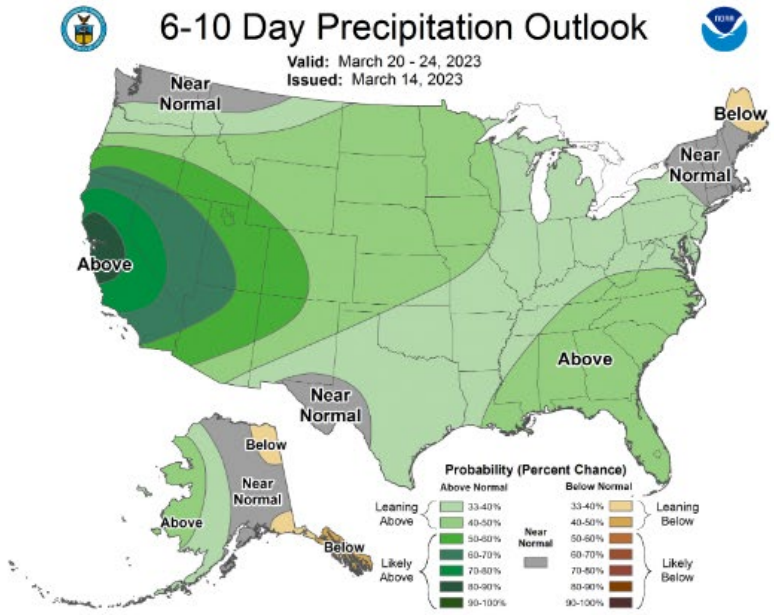
February 2023 was the 20th Coldest and 71st Wettest February on record (based on 128 years of record keeping)

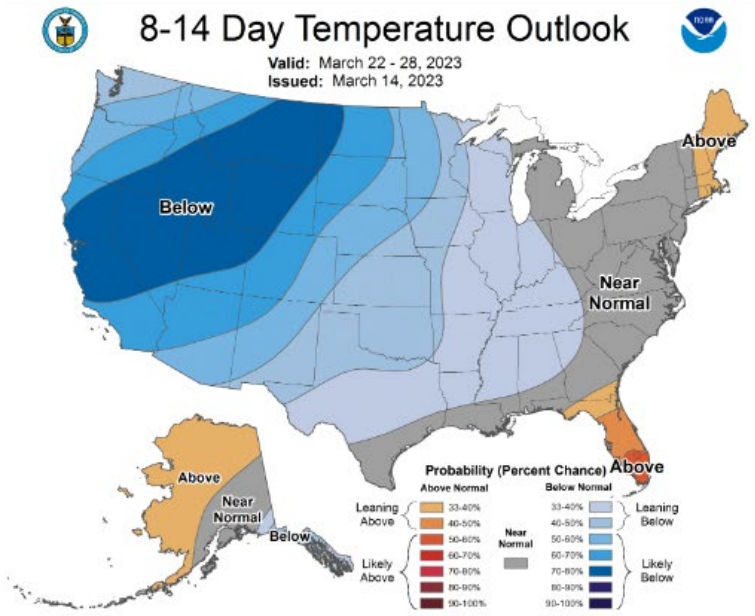


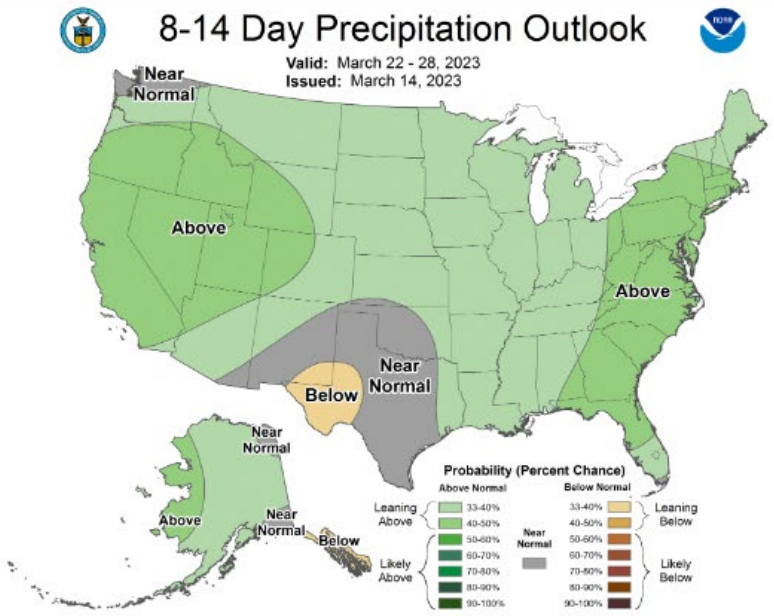


The Current NOAA 6-10 Day & 8-14 Day Temperature and Precipitation Outlooks are showing that a continuation of colder than normal temperatures and higher normal precipitation is likely to occur in California through the 28th of March.

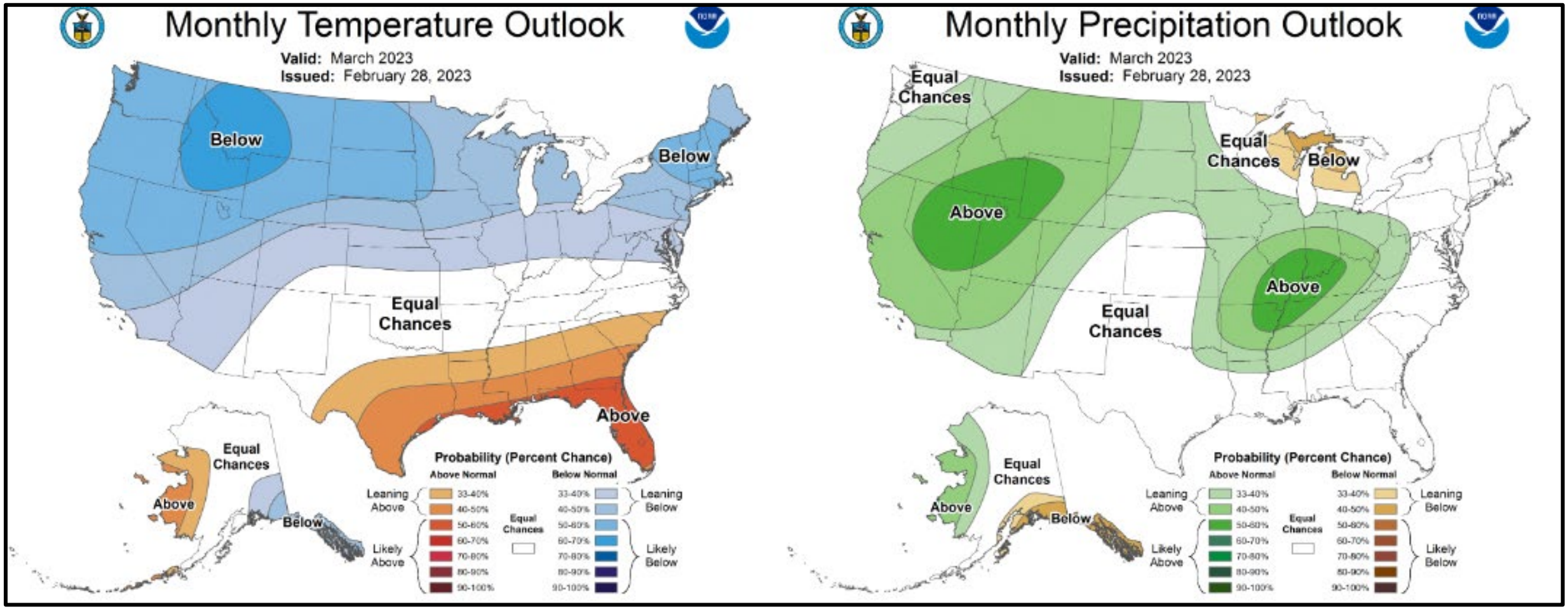








The Current NOAA Temperature and Precipitation Outlook for March that was made on February 28th showed below normal temperatures and above average precipitation should be expected for California. That forecast seems to be holding true at this point.



U.S. Drought Monitor

Current | Maps | Data | Summary | About | Conditions & Outlooks | Ag in Drought | En Español | NADM

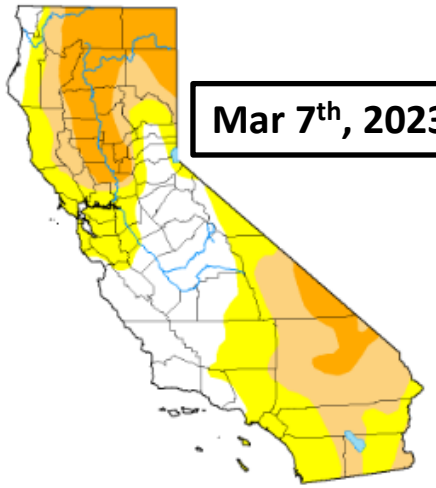
Home > Maps > Compare Two Weeks

Compare Two Weeks

Area type: State Area: California Statistics type: Cumulative Percent Area

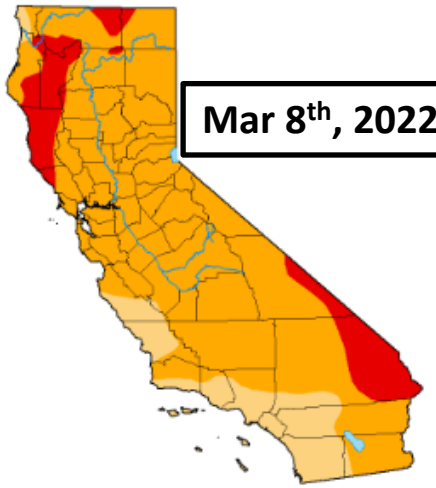
Drought Classification

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data



Mar 7th, 2023

March 7, 2023



Mar 8th, 2022

March 8, 2022

Statistics Comparison

Week	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	DSCI
2023-03-07	26.84	73.16	43.06	19.00	0.00	0.00	135
2022-03-08	0.00	100.00	100.00	86.98	12.82	0.00	300
Change	-26.84	26.84	56.94	67.98	12.82	0.00	165

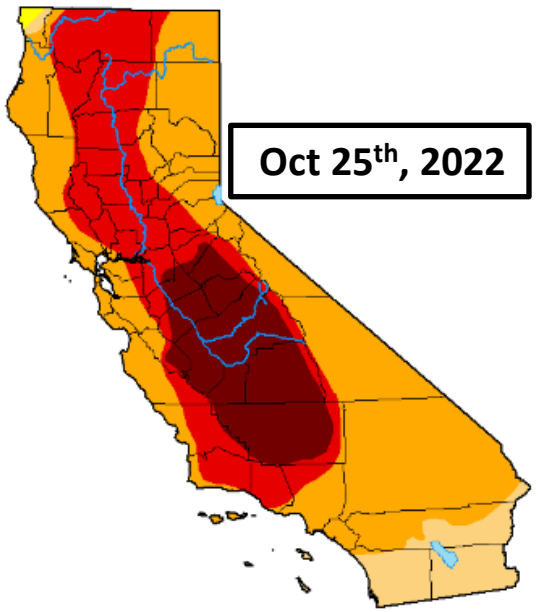
The California Drought Monitor shown to the right compares current conditions on 3/7/23 to the same period one year ago (3/8/22).

As you can see, conditions significantly better than the levels seen last year with a large area in the central state region completely out of drought!

This current map is a significant improvement vs. the map below at the end of October 2022 due to the wet winter.

U.S. Drought Monitor

California



Oct 25th, 2022

October 25, 2022

(Released Thursday, Oct. 27, 2022)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	99.77	91.83	43.06	16.57
Last Week 10-18-2022	0.00	100.00	99.77	91.83	40.91	16.57
3 Months Ago 07-26-2022	0.00	100.00	99.78	97.47	59.81	12.74
Start of Calendar Year 01-04-2022	0.00	100.00	99.30	67.62	16.60	0.64
Start of Water Year 09-27-2022	0.00	100.00	99.76	94.01	40.91	16.57
One Year Ago 10-26-2021	0.00	100.00	100.00	93.61	83.33	38.74

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme 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

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NOAA/NWS/NCEP/CPC

droughtmonitor.unl.edu