



Colorado Climate Update and Outlook

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March 12, 2025



Hello! Ready to talk weather and climate??

- Let's go over what's been happening for this water year so far (since October 1, 2024).
- Where are we now with conditions and drought?
- Where are we going from here? What's in store for the rest of spring?

- Key takeaways
- Resources to keep in your back pocket

Current Conditions

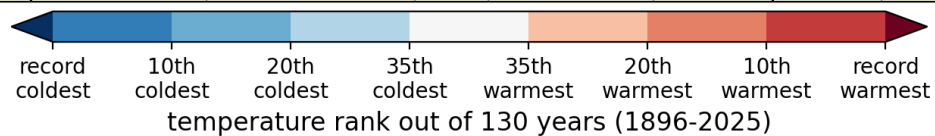
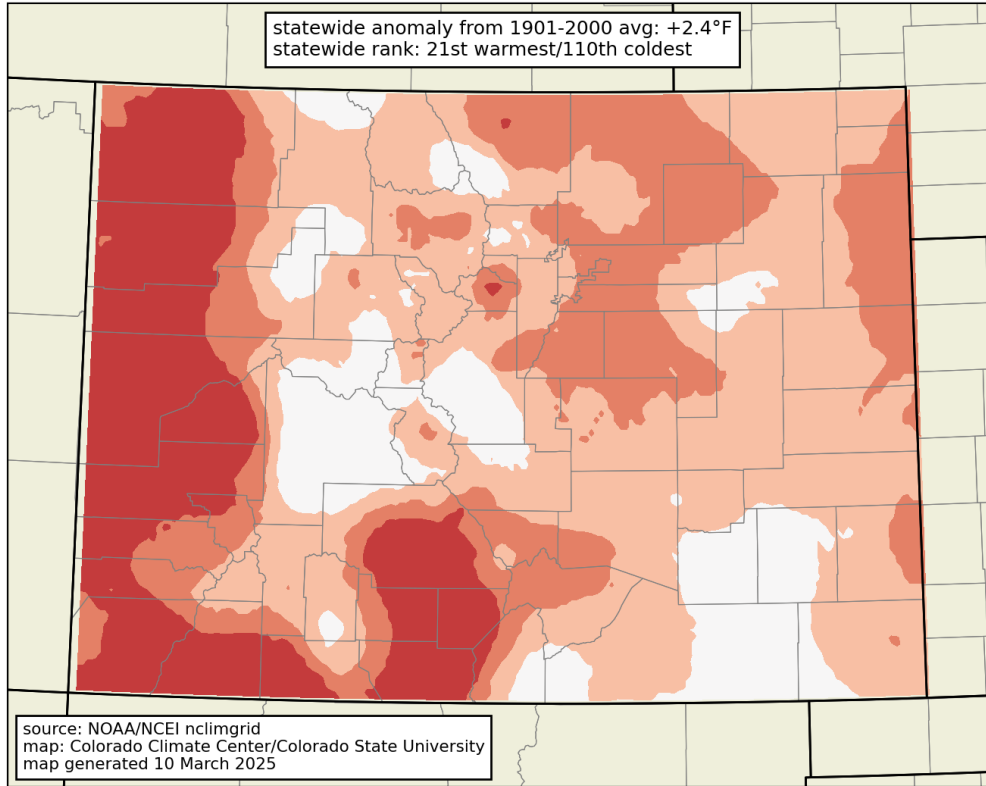
Temperature and precipitation

Snowpack

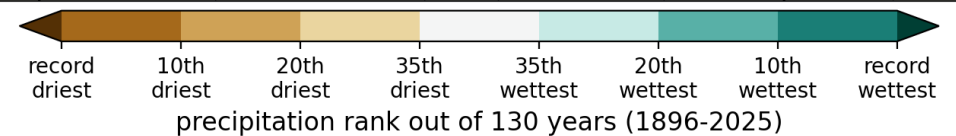
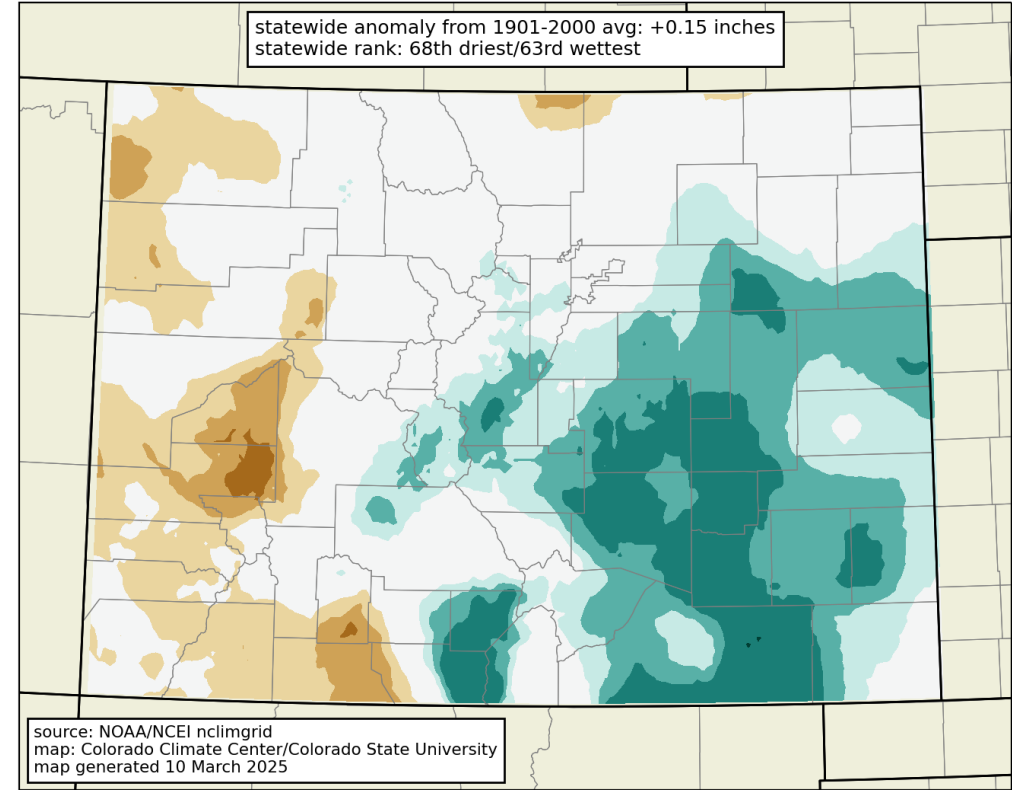
Drought

October - February

average temperature rank: 5 months ending February 2025 (Oct-Feb)



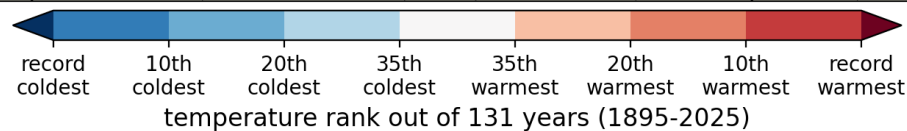
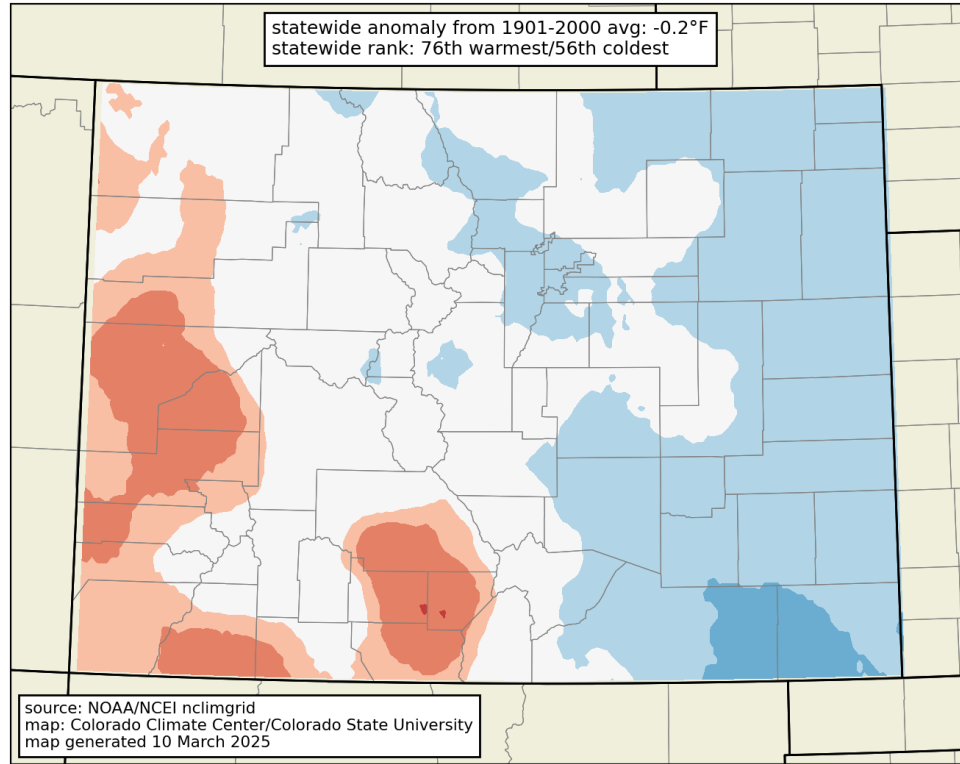
precipitation rank: 5 months ending February 2025 (Oct-Feb)



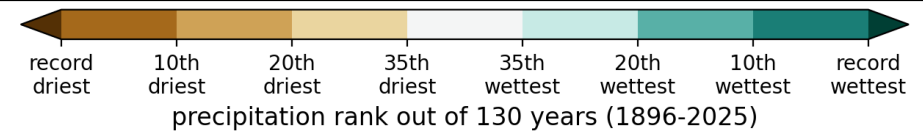
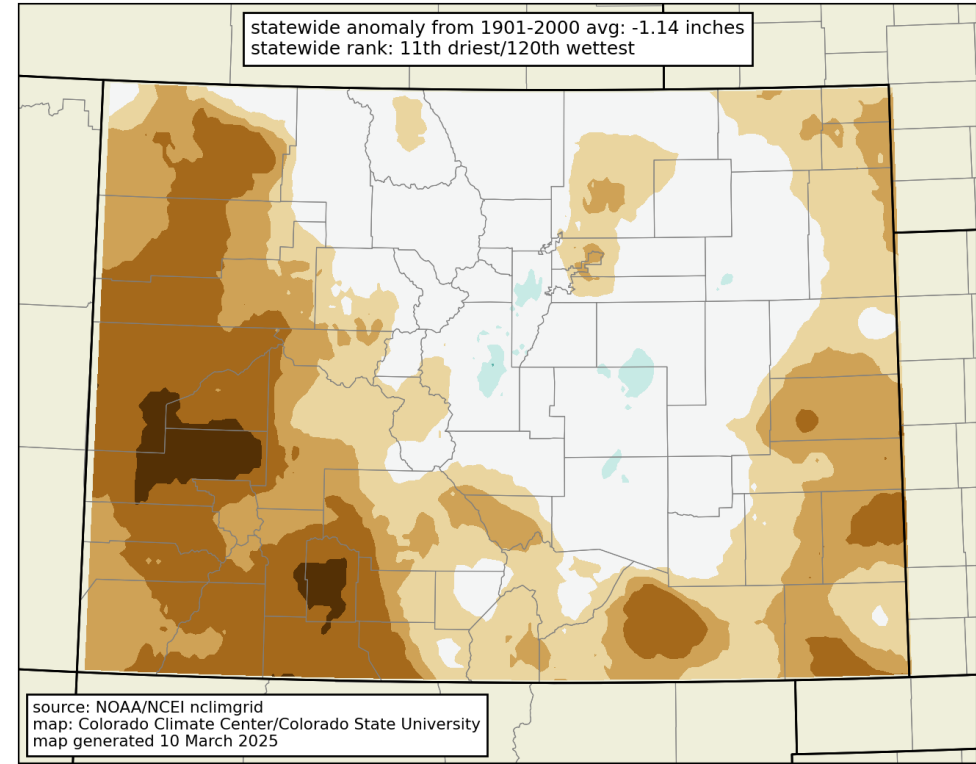
Temperatures mostly above average, especially on the west slope. Slightly drier in western CO with wet conditions in southeast CO.

Different story based on time period

average temperature rank: 2 months ending February 2025 (Jan-Feb)



precipitation rank: 3 months ending February 2025 (Dec-Feb)

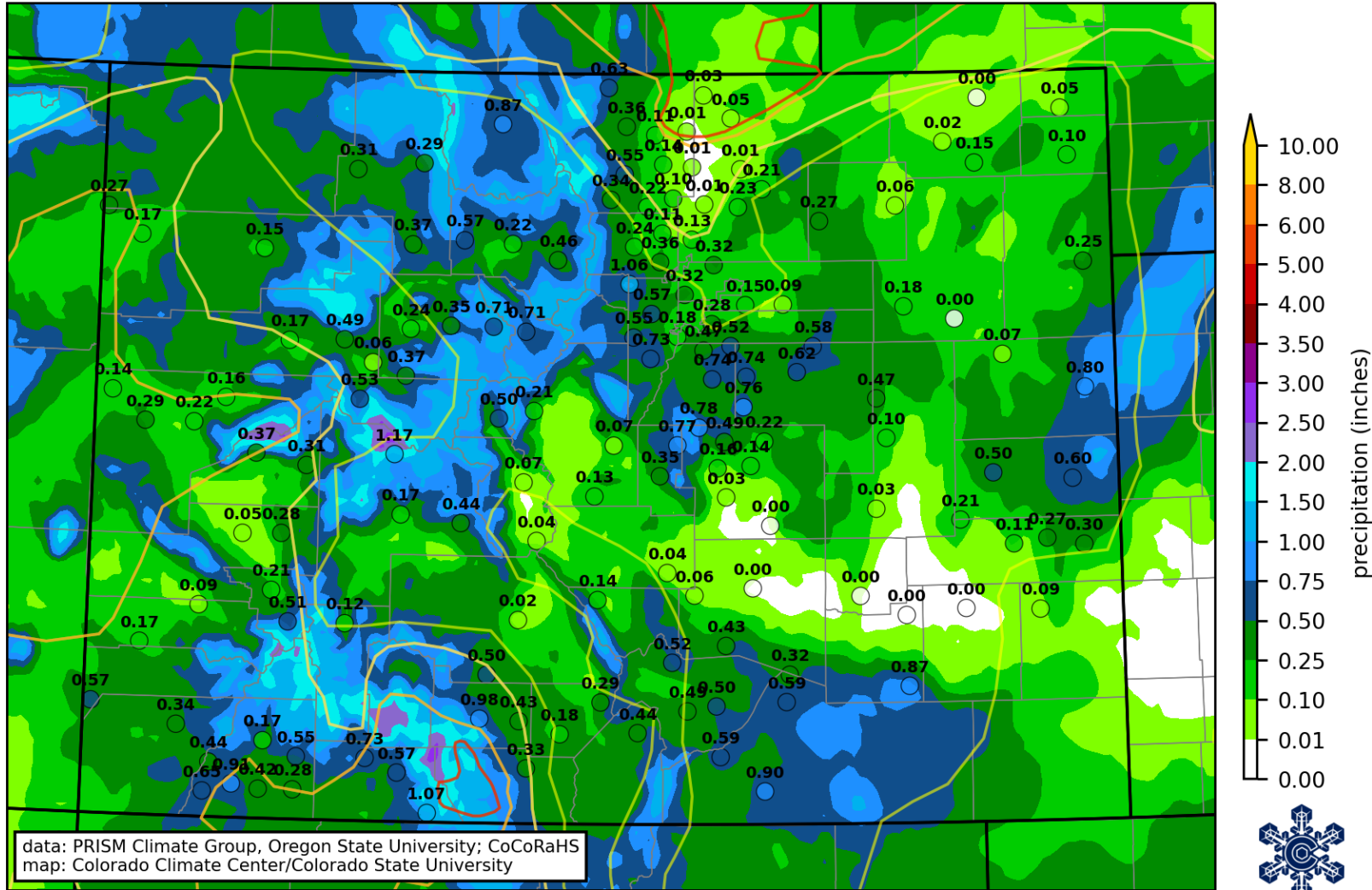


Much cooler after start of the new year. Much drier when not considering fall moisture, especially for southeast CO.

March so far

PRISM and CoCoRaHS month-to-date precipitation, US Drought Monitor

through 5:00am MST Mon 10 March 2025



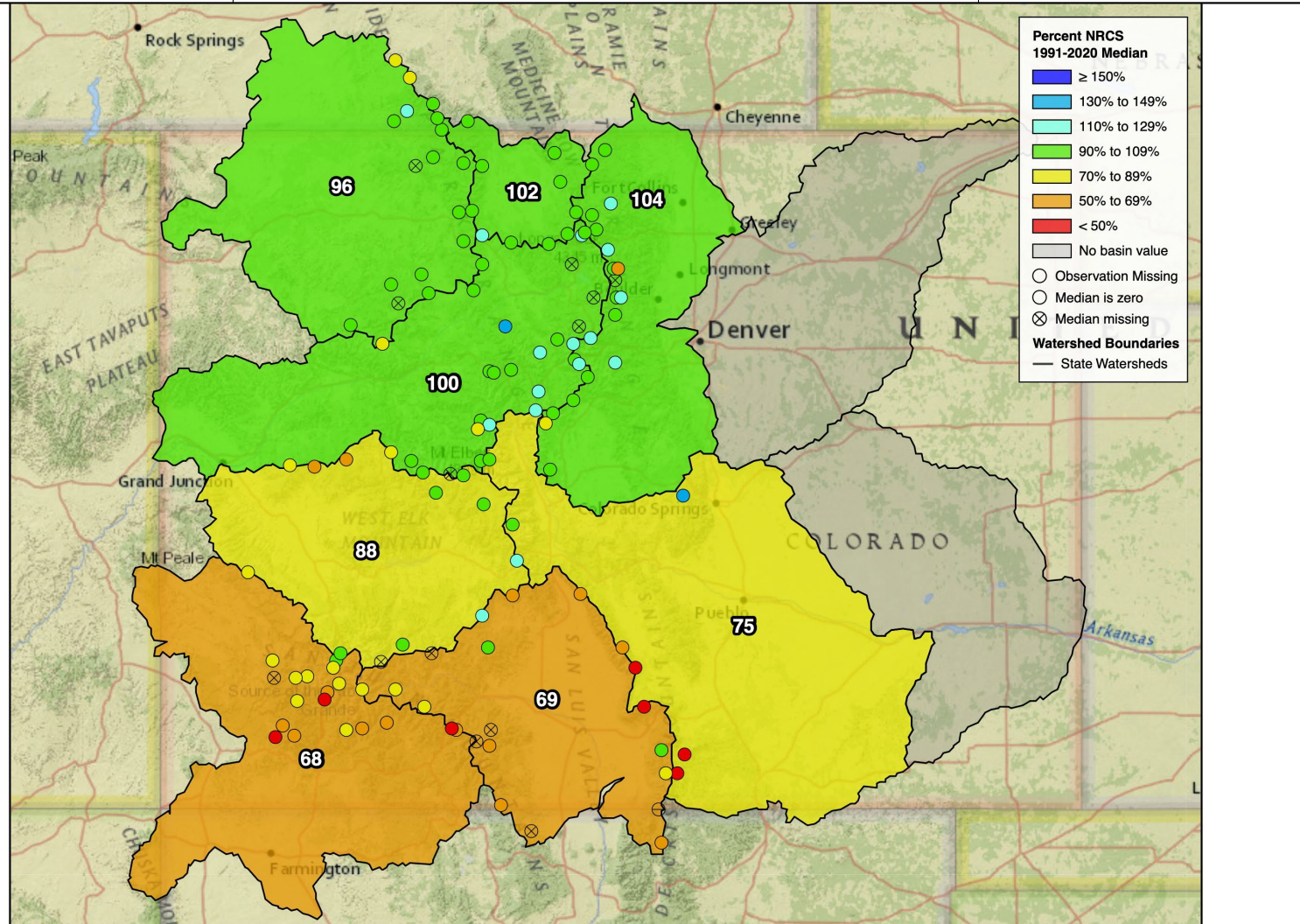
Mountain precipitation for the first 10 days of the month between 0.5 and 1.5 inches. Lighter accumulations east of the Divide with no precipitation in a few spots.

Current snowpack

Snow Water Equivalent

Percent NRCS 1991-2020 Median

March 10, 2025, end of day



Northern basins show near normal snowpack. As you go south, snowpack percent of normal decreases. San Juan Mtns and Sangre de Cristos are well below average.



U.S. Drought Monitor Colorado

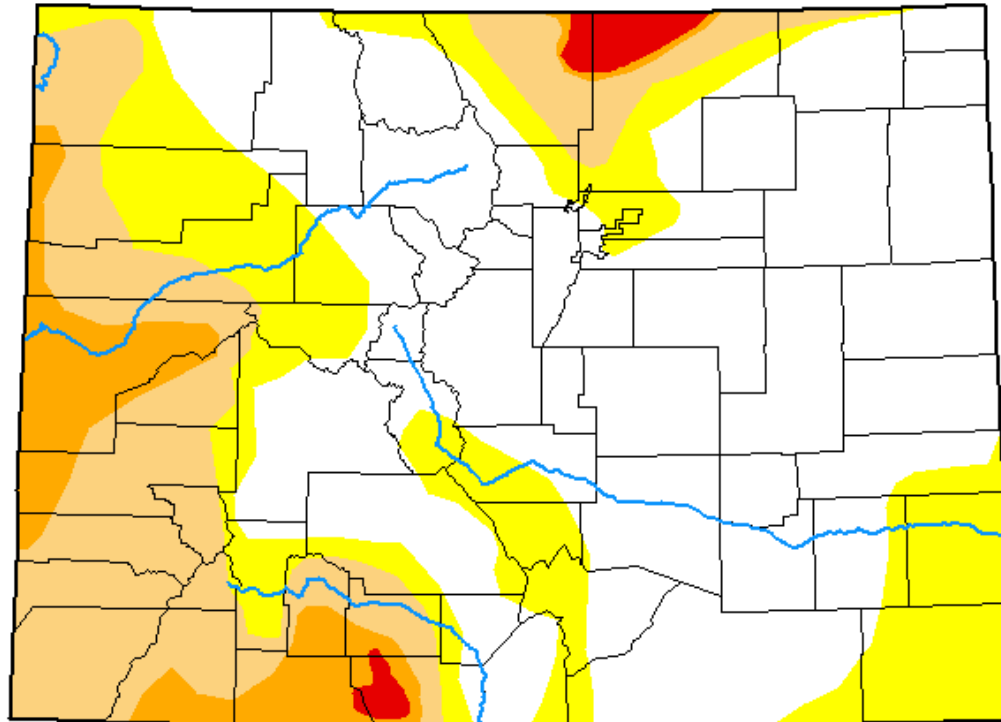
March 4, 2025

(Released Thursday, Mar. 6, 2025)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	54.98	45.02	24.85	7.56	1.18	0.00
Last Week <i>02-25-2025</i>	54.98	45.02	20.81	3.83	1.18	0.00
3 Months Ago <i>12-03-2024</i>	76.74	23.26	10.41	3.91	0.33	0.00
Start of Calendar Year <i>01-07-2025</i>	71.40	28.60	10.78	4.08	0.98	0.00
Start of Water Year <i>10-01-2024</i>	48.27	51.73	24.40	4.62	0.00	0.00
One Year Ago <i>03-05-2024</i>	67.05	32.95	10.03	3.39	0.00	0.00



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>

Author:

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National Drought Mitigation Center

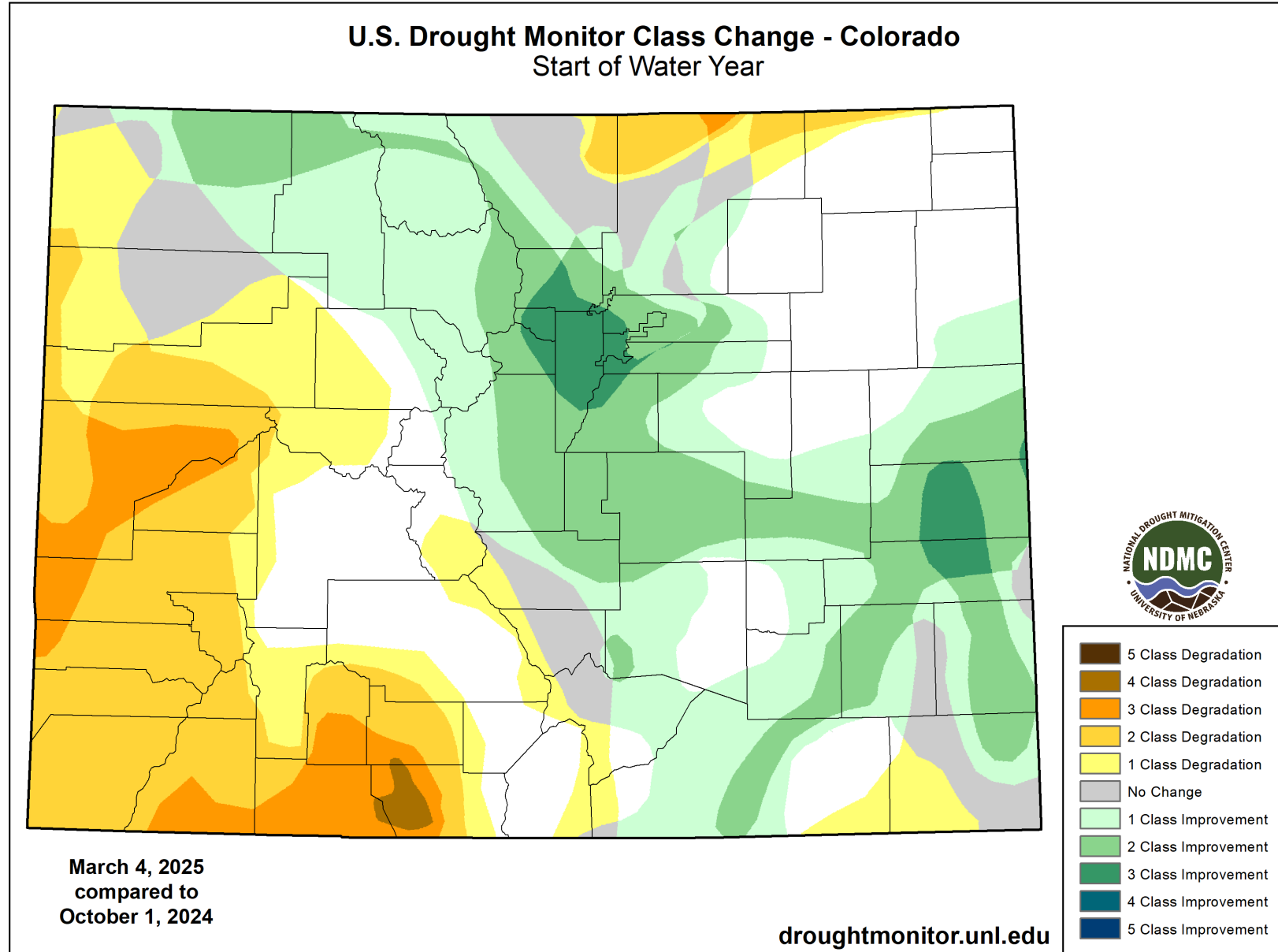


droughtmonitor.unl.edu



Changes in Drought this Water Year

Improvements from D2 to no drought along the Front Range Urban Corridor.
Introduction of D1 and D2 prominent across western Colorado.



Outlook

What to expect this spring

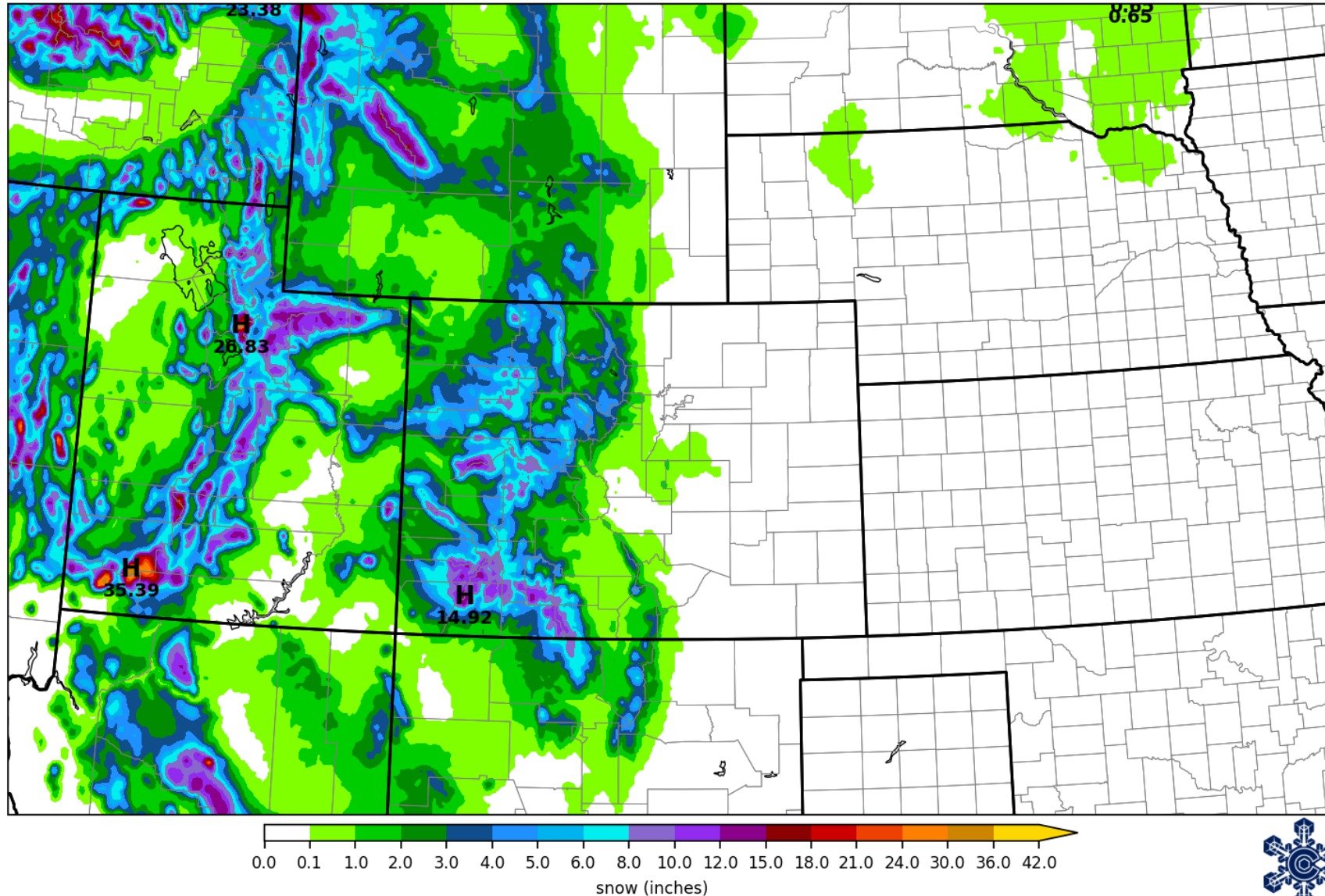
Summer speculation

Will we leave La Niña behind?

72-hour snowfall forecast

NOAA Weather Prediction Center 72-hour 50th-percentile (median) accumulated snow forecast

forecast issued 1200 UTC Wed 12 Mar 2025
snow in 72 hrs ending 1200 UTC Sat 15 Mar 2025



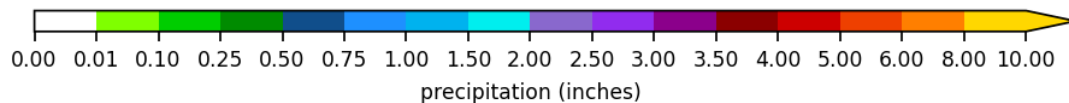
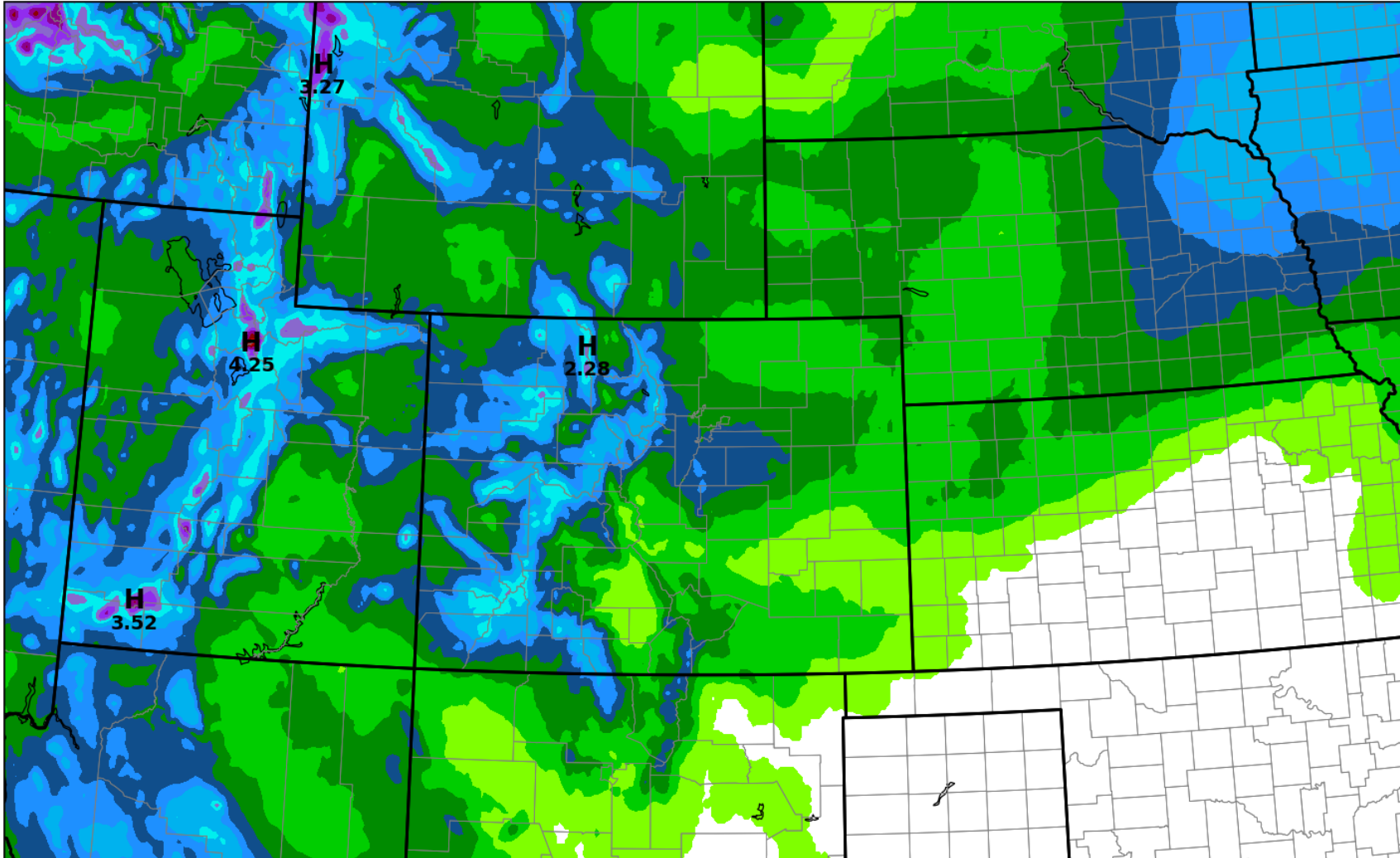
5-8 inches of snow expected in the northern and central mountains, with around a foot of snow forecast for the San Juan Mountains. Little to no accumulations east of the Continental Divide.



Precipitation this week

NOAA Weather Prediction Center
7-day precipitation forecast

forecast issued 1200 UTC Wed 12 Mar 2025
precipitation in 168 hrs ending 1200 UTC Wed 19 Mar 2025

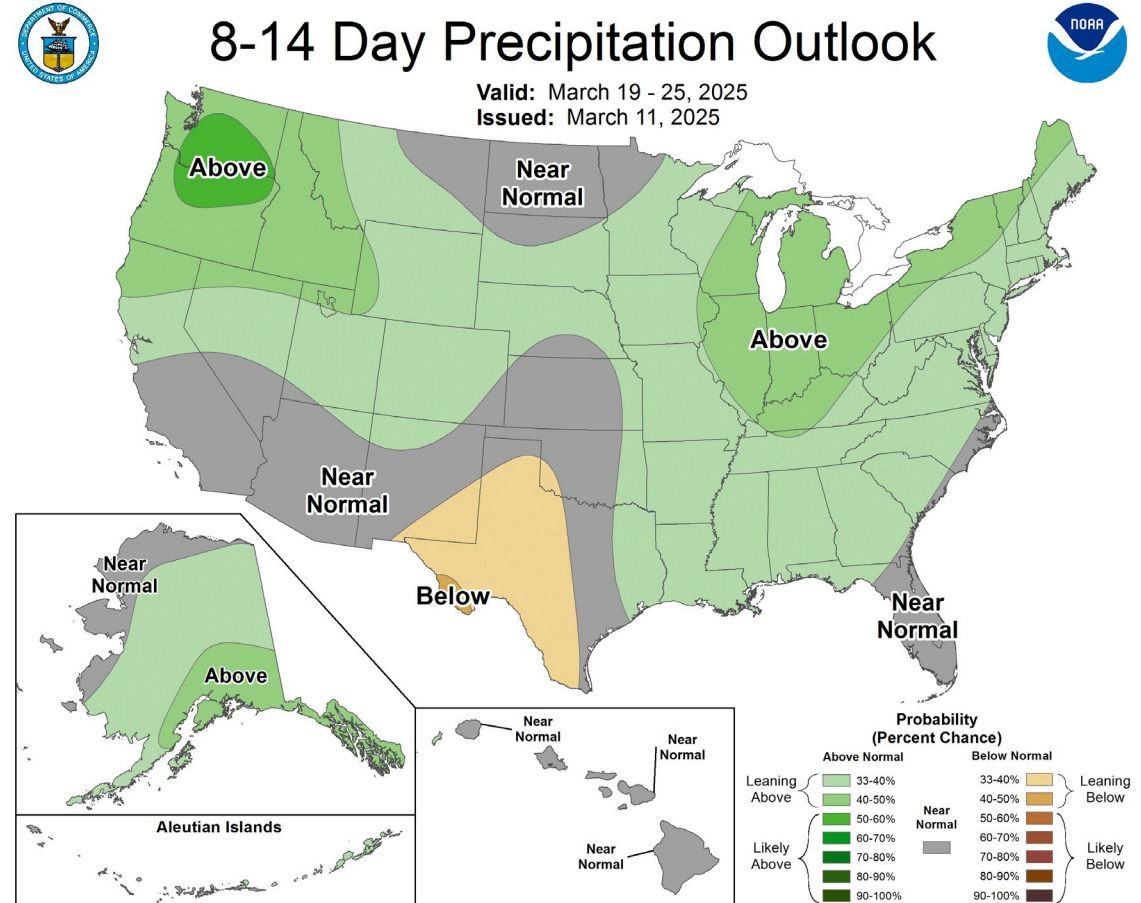
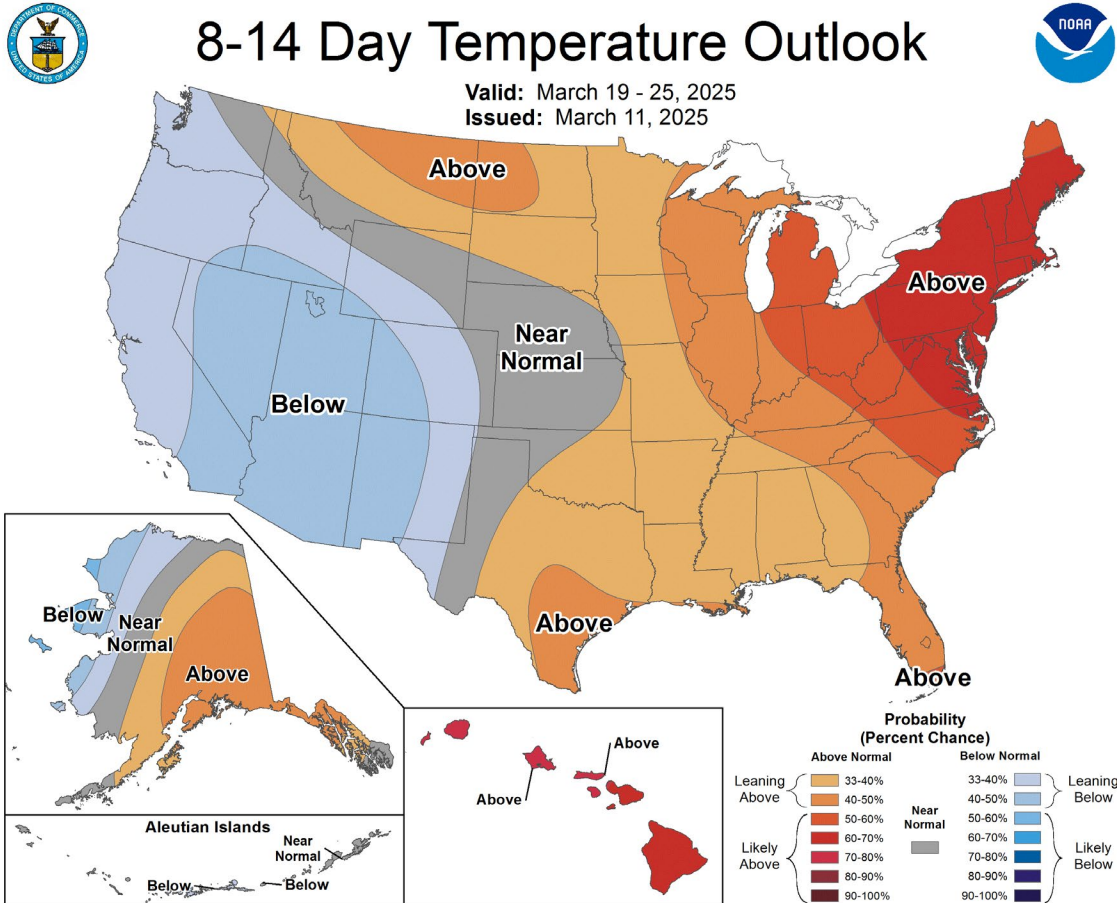


Most of this 7-day precipitation forecast falls on Friday. Higher elevations receive between .75 and 2 inches. Less than half an inch over Eastern Plains and parts of San Luis Valley.



CPC 8-14 day outlook

Below average temperatures more likely in mid-March with a slight leaning toward above average precipitation.

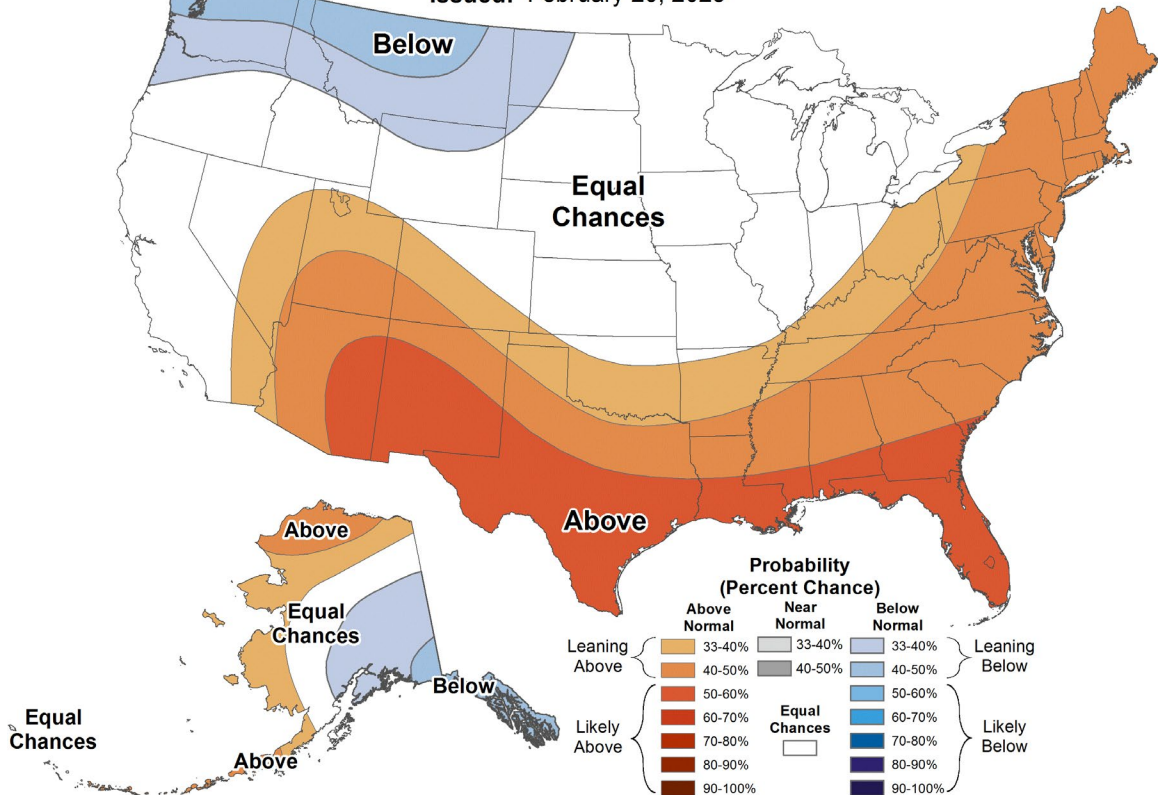


CPC seasonal outlook

Uncertainty with spring temperatures, maybe slightly warmer. Southwest CO more likely to be drier than average. Bad news for peak snowpack.

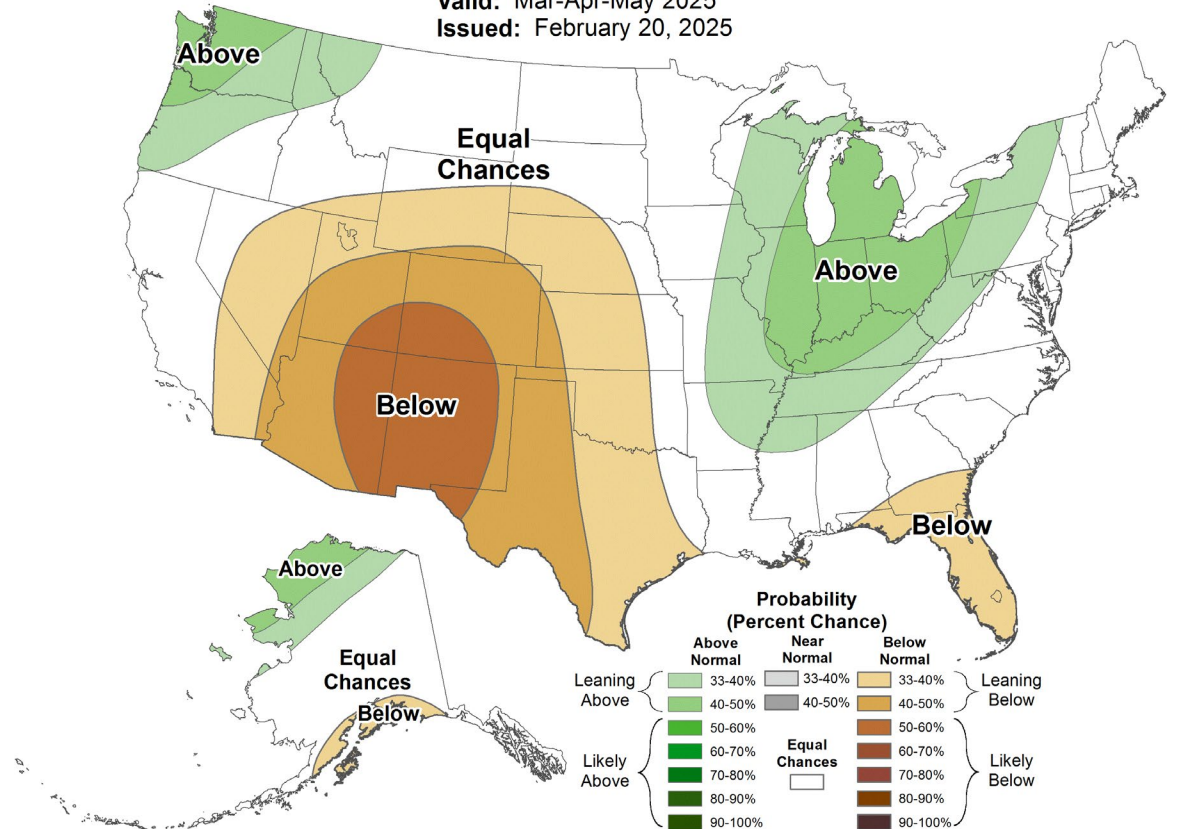
 **Seasonal Temperature Outlook** 

Valid: Mar-Apr-May 2025
Issued: February 20, 2025



 **Seasonal Precipitation Outlook** 

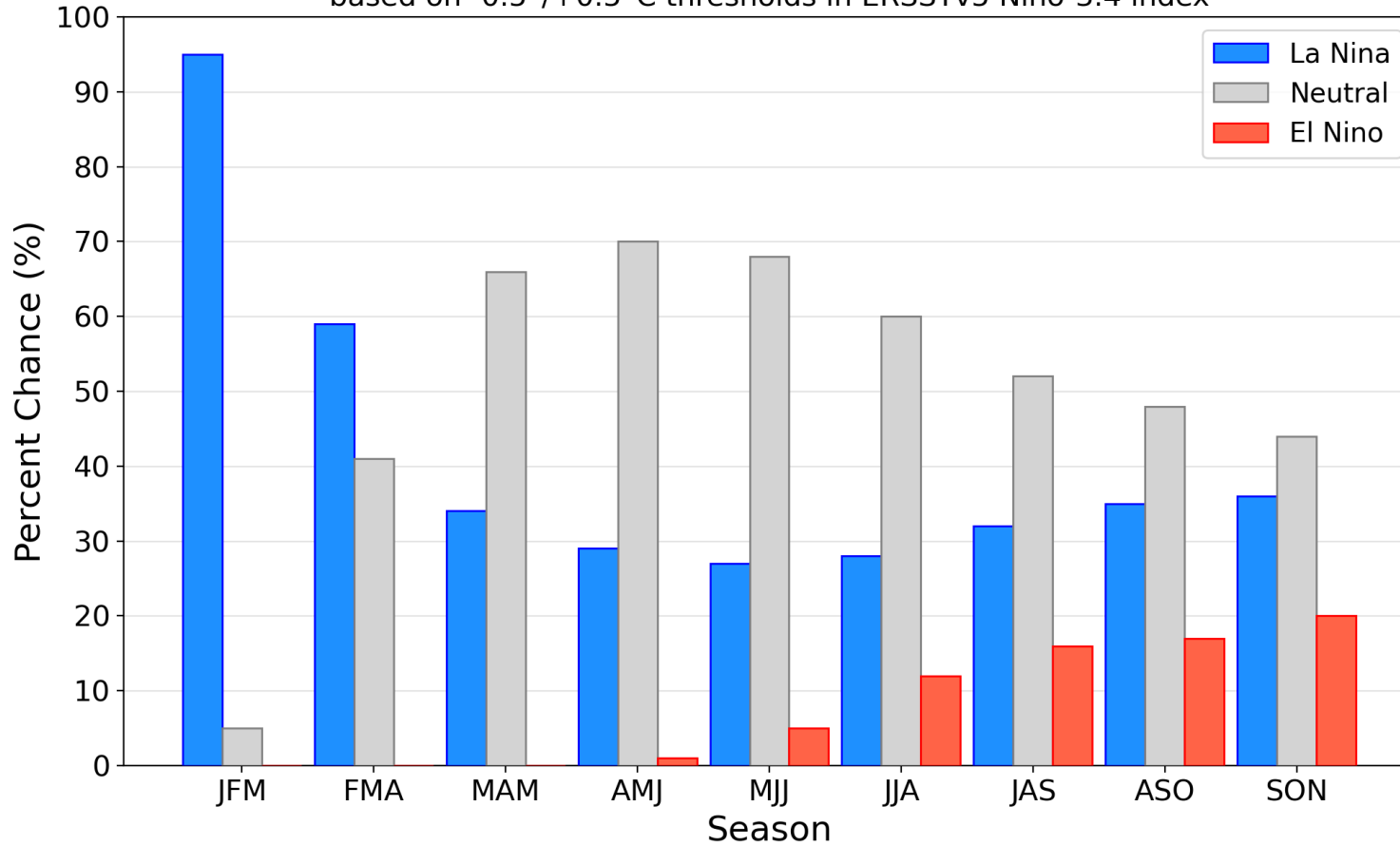
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Weakening La Niña

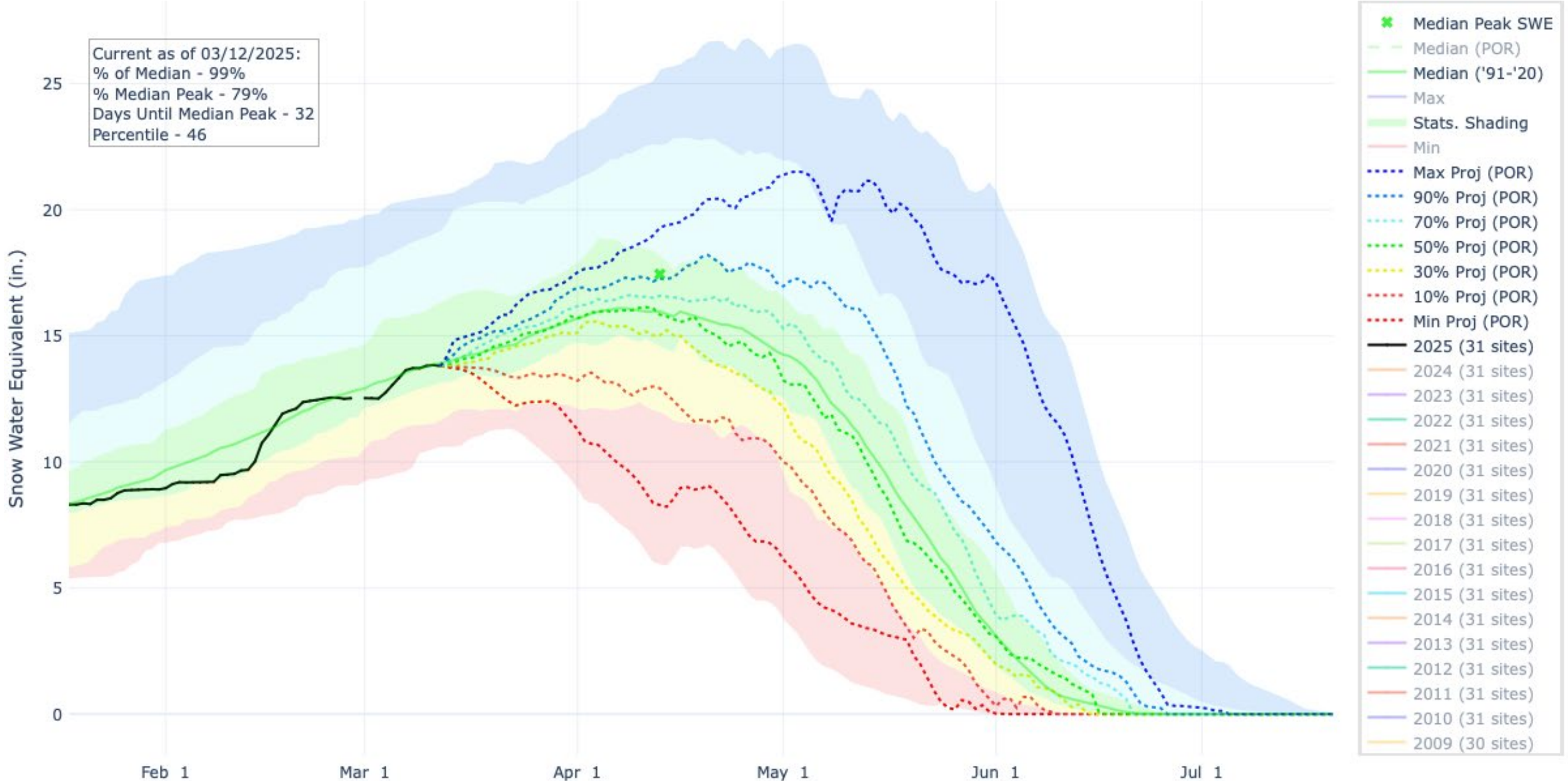
Official NOAA CPC ENSO Probabilities (issued February 2025)

based on $-0.5^{\circ}/+0.5^{\circ}\text{C}$ thresholds in ERSSTv5 Niño-3.4 index

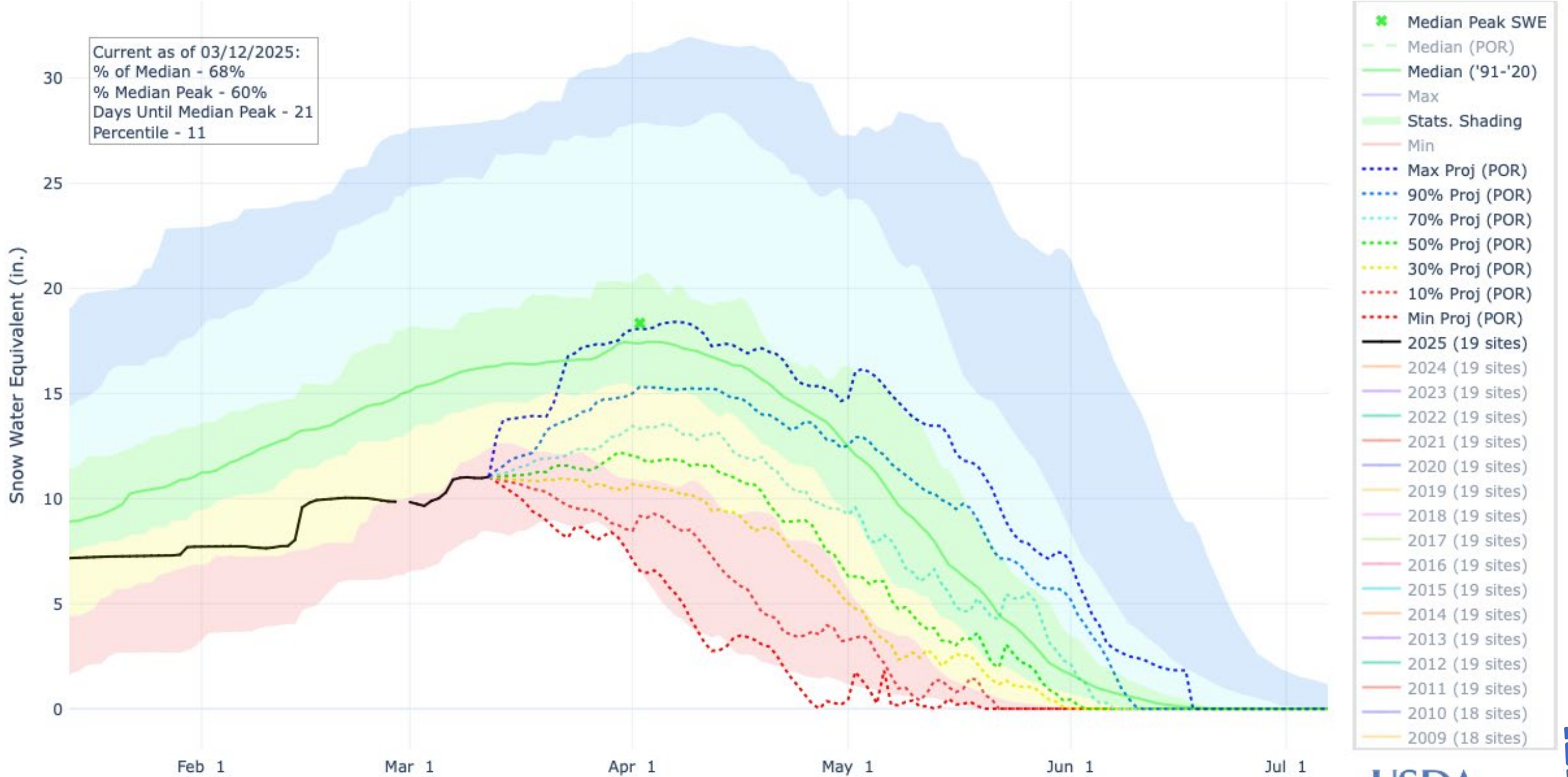


We are currently in a weak La Niña that is expected to further weaken through the spring. Neutral conditions are favored over the summer.

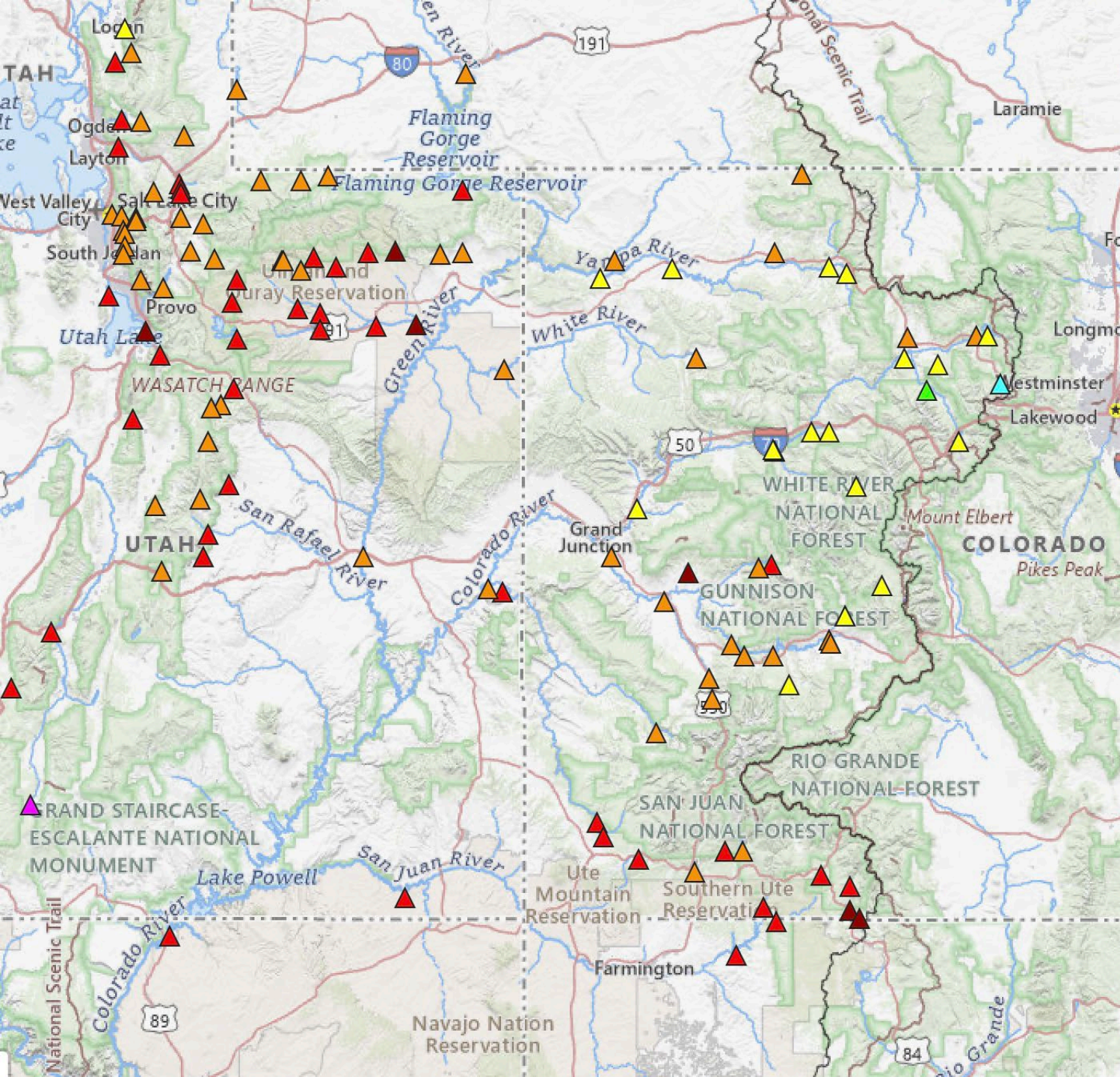
CO Headwaters peak snowpack projections



San Juans peak snowpack projections



Water supply forecast from CBRFC



Official Forecast: 2025-03-01

Percent Average

- ▲ < 30%
- ▲ 30-50%
- ▲ 50-70%
- ▲ 70-90%
- ▲ 90-100%
- ▲ 100-110%
- ▲ 110-130%
- ▲ 130-150%
- ▲ 150-200%
- ▲ 200-300%
- ▲ 300-500%
- ▲ >500%
- ▲ Regulated
- △ No Forecast

Summary and Resources

Key takeaways

- ❑ For the water year, drought has improved over Front Range and worsening drought conditions have spread over western CO.
- ❑ With weak La Niña, classic setup with more snow over northern mountains and less over southern mountains.
- ❑ Active pattern this week could help southern mountains, but longer term outlook doesn't show much promise.
- ❑ Expect better water supply conditions to the north, but drought is more likely to worsen south of I-70.
- ❑ Summer is hard to predict! What you can expect are days with spotty thunderstorms and hot temperatures. Unknown what the monsoon will bring.

Climate and weather resources

- ❑ climate.colostate.edu
- ❑ coagmet.colostate.edu
- ❑ climate.colostate.edu/drought with regularly updated conditions

- ❑ cpc.ncep.noaa.gov for 2 weeks and beyond outlooks and hazards
- ❑ weather.gov/gjt/winter for snowfall probabilities and forecasts
- ❑ nwcc-apps.sc.egov.usda.gov/basin-plots/#CO for basin snowpack
- ❑ www.cbrfc.noaa.gov for streamflow forecasts and **webinar on March 19!**



Thank you!

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