# Monthly Climate Report

NWS Reno NV

Issued: 3/06/2025

## Weather Synopsis & Highlights:

Temperatures in February ended around 1-3 degrees above average for most of western NV and the eastern Sierra. Otherwise, temperatures were around 2 degrees below average in Lassen and northern Washoe counties (Figure 1). Outside a small portion of the inner-basins, February precipitation ended between 110-300% above average for a majority of the region (Figure 2). A majority of the precipitation fell through the 13th, with little to no precipitation from the 14th to the end of the month. Lastly, strong winds that have been common this winter in western NV continued in February.

The atmospheric river storm event which began at the end of January continued through the first week of February, bringing a variety of weather impacts. The first two days of the month featured high winds over parts of western NV and the eastern Sierra, with peak gusts of 70-85 mph in wind prone areas around Reno and Washoe Valley. A wind sensor at Walker Lake even reported a peak gust of 110 mph! Windy conditions continued through the 3rd with many cancelled flights at Reno-Tahoe International Airport. Farther north across northeast CA, heavy rainfall of 2-6 inches, locally up to 8 inches fell across areas from eastern Modoc and Lassen County southward to the western Tahoe basin on the first 3 days of the month. This led to river flooding (see Hydrology section for more details) for parts of Lassen County. Snowfall was limited to higher elevations mainly above 7000 feet, with 2-8 inches falling on the first day of the month, followed by a heavier snow event from the 3rd through the 5th which brought 1-2 feet of snow to the Sierra around Tahoe and lesser amounts of 5-10 inches southward to Mono County. The final storm of the series on the 6th and 7th brought another 6-12 inches of snowfall, with locally up to 20 inches to the Sierra, again mainly above 7000 feet.

The strongest storm of the month in terms of snowfall amounts occurred on the 13th and 14th, with very heavy snow in the Sierra and a mix of rain and wet snow for lower elevations of far western NV. Snowfall totals ranged from 1 to 2 feet in the Tahoe basin and along US-395 in Mono County, with 3 to 5 feet in the Sierra. Northeast CA near and west of US-395 and foothill locations in far western NV received between 6 inches to over 1 foot of snow, while in the urban valleys from Reno southward to the Carson valley, snowfall amounts were generally between 1 and 4 inches, followed by a changeover to rain during the day on the 13th. Liquid precipitation amounts were generally between 1 and 2 inches across northeast CA and far western NV, including a daily record of 1.14” at the Reno Airport on the 13th.

A quieter weather pattern then returned from mid-late February. A few weak weather systems brought light valley rain showers and spotty mountain snow (3 inches or less) on the 16th and 19th, with gusty winds also reported in western NV and the eastern Sierra (gusts 45-55 mph with 60-65 mph in wind prone areas on the 19th. Another weak system brought similar wind speeds on the 24th. During the second half of February, temperatures initially near average then warmed up to about 10 degrees above average as high pressure built over the region for the final few days of the month.

## Hydrology:

Prolonged rainfall early in the month combined with melting of shallow low elevation snow in Modoc and Lassen counties lead to impactful flooding on both the Pit and Susan rivers. On the Pit River prolonged flooding from rain and snowmelt above Canby was joined by smaller creek leading to prolonged moderate to major flooding in NW Lassen county impacting many rural roads and several homes and structures (Figure 3 and photo 3). The Susan River peaked above flood stage twice in the first week of February. The first crest was late on February 2nd and barely exceeded flood stage. This event impacted parks and covered (but did not close) Hwy 395 near Litchfield. Additional periods of moderate to heavy rain and snowmelt during the afternoon and evening of February 4th brought the already high Susan River to a higher crest above moderate flood stage late on the 4th(Figure 3 and photo 4). Impacts on the 4th included closure of several rural roads, brief flooding along Carol Street, and renewed flooding (but not closure) of Hwy 395 near Litchfield.

The stormy first half of February helped boost regional snowpack conditions after a very dry January, but the dry second half of the month flatlined the snowpack resulting in below normal snowpack for the east side of the Sierra, and above normal in northern Nevada (Figures 4 and 5). Unseasonably warm conditions the last few days of the month induced some snowmelt from lower elevation locations and sunny aspects. Mountain soil moisture conditions improved significantly with the warm wet early February storm, especially on the east side of the Sierra (Figure 6). February streamflows were near to above normal through at most USGS locations (Figure 7). Water year to date streamflow volumes are above normal on the Truckee, but tend to be near to below normal elsewhere, while April-July forecast runoff volumes are above median on the Humboldt and Truckee, and near normal elsewhere (Figure 8). Reservoir storage is well above normal in Lake Tahoe and Rye Patch and near to above normal elsewhere (Figure 9).

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## Drought Update:

Early February storms improved both snowpack conditions along the east side of the Sierra, but also brought some much needed precipitation to western Nevada. These storms led to drought improvements in the US drought monitor since the end of January. D1 (moderate drought) was improved to D0 (abnormally dry) in portions of western Nevada and Southern Mono County, while D0 was eliminated in much of the east side of the Sierra due to near normal snowpack and streamflows (Figure 10). Water year precipitation has been near to above along in northeastern CA and northwestern Nevada, but still lags below normal west central Nevada, while temperatures have been mostly 1 to 3 degrees F above normal (Figures 11 and 12).

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## Additional Information on Drought and Climate:

Report Drought conditions here
Nevada statewide Drought update
NV Living with Drought
Drought Monitor
New Drought.gov
California Nevada Drought Early Warning System
NOAA CPC Drought page

[CNAP Drought tracker]
[California Nevada River Forecast Center]
[WRCC Drought Tracker]
[WRCC Enso page]
[WRCC Monthly Climate Summaries]
[Evaporative Demand Drought Index]
[US Seasonal Drought Outlook]

Contact NWS Reno Climate Team
rev.climate@noaa.gov 775-673-8100
https://www.weather.gov/rev/

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## Photos:

Photo 1: Blowing dust reduced visibility along US-95A on the 3rd, leading to several accidents and the highway closing during the afternoon. Photo courtesy of Nevada State Police, Yernington.

Photo 2: Numerous trees and powerpoles were toppled across western NV due to very strong winds on the 2nd-3rd. Photo courtesy of Kim Burrows mynews4.


Photo 3:Pit River Flooding in Bieber, CA February 5th, 2025. Photo courtesy of Kent Insley, Insley Drone Service.

Photo 4: Susan River flowing over Hwy 395 near Litchfield CA February 5, 2025

Photo 5: Over an inch of liquid equivalent and around 2 inches of snowfall fell in the greater Reno metro area on the 13th caused localized flooding, this photo is on South Meadows at Double R Blvd. Photo courtesy of an off-duty NWS employee.

The official NWS certified picnic table measuring equipment.

Photo 6: Upwards of a foot of snow fell in portions of western Nevada on the 13th. This is from Joe Curtis in Virginia City.

## Figures:

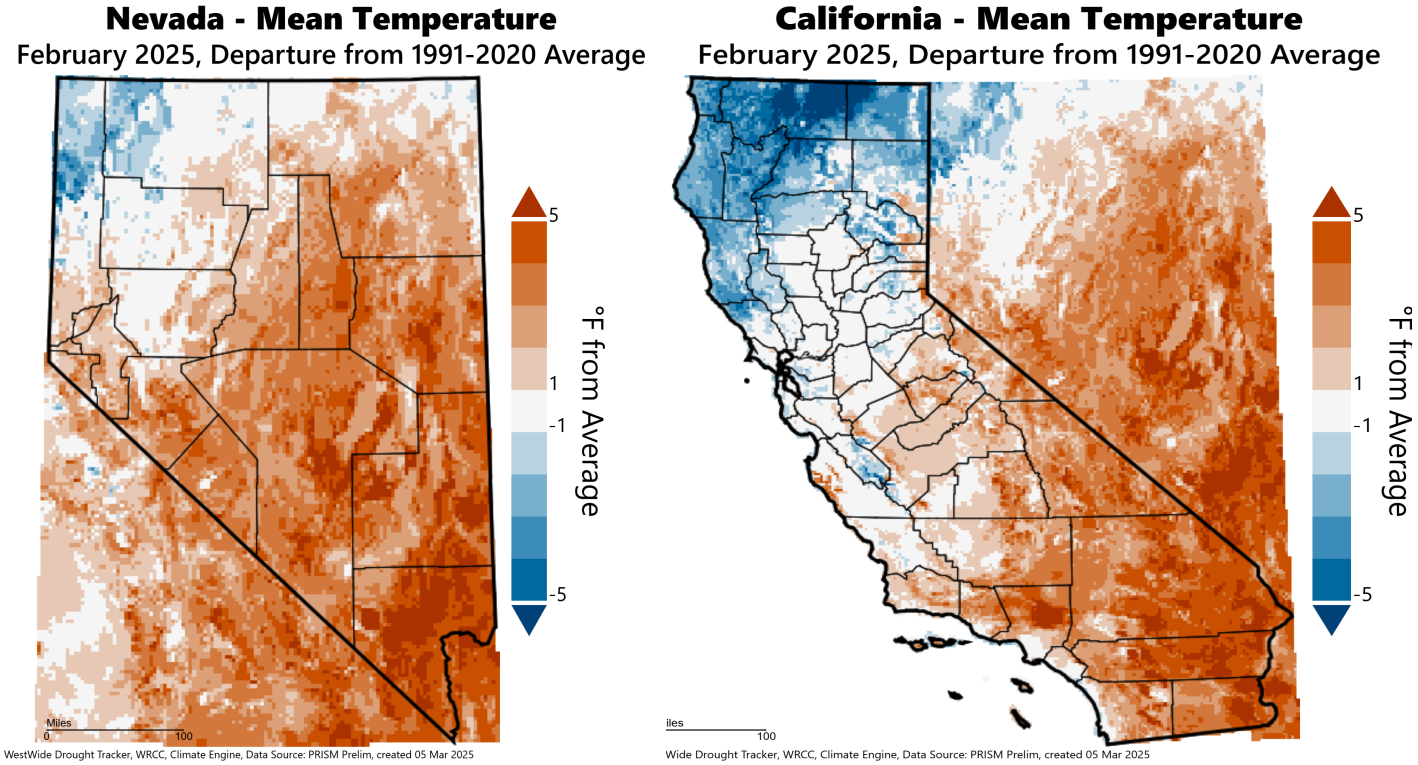



Figure 1: Nevada (left) and California (right) departure from normal temperatures for February 2025.(WWDT)

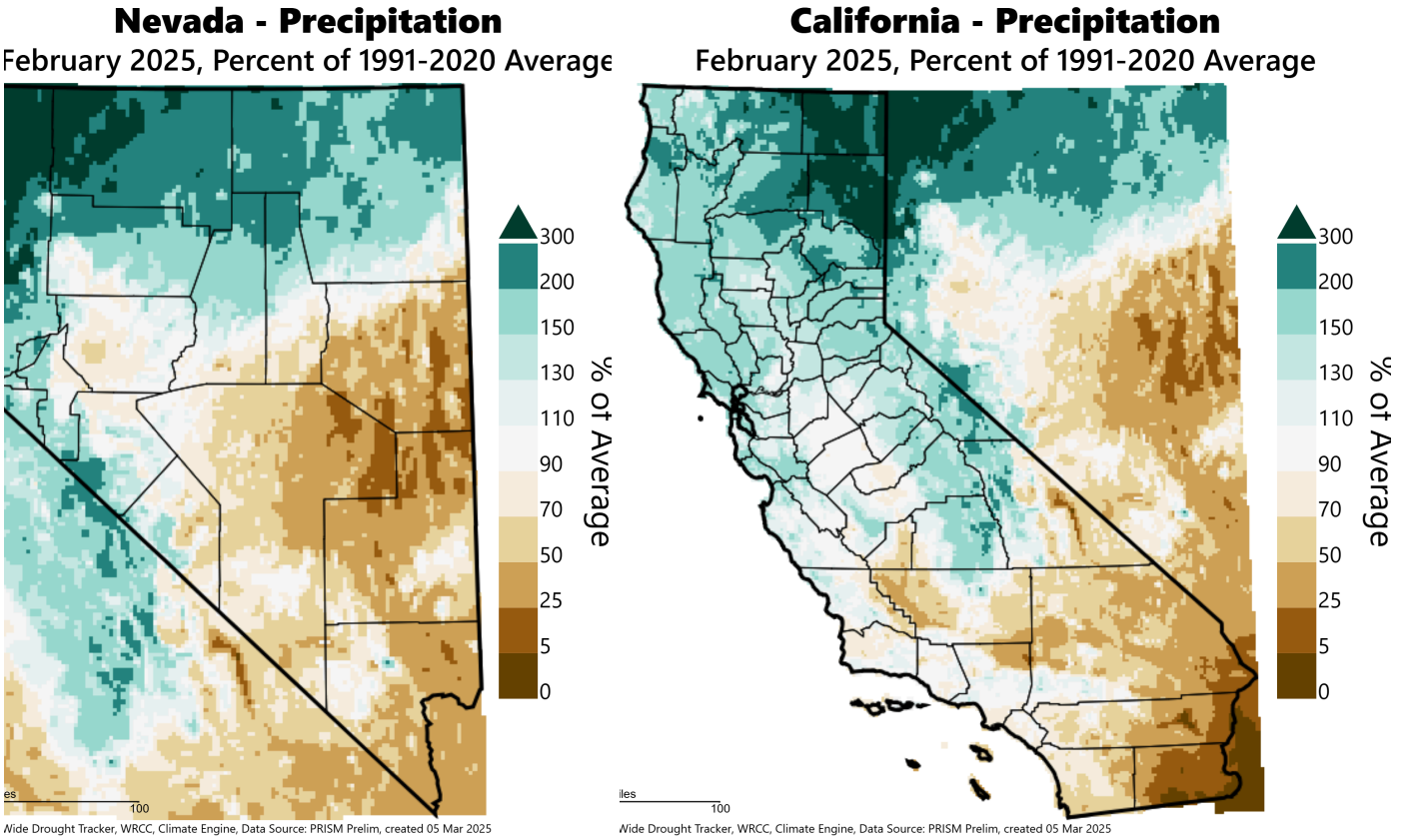



Figure 2: Nevada (left) and California (right) percent of normal precipitation for February 2025. (WWDT)

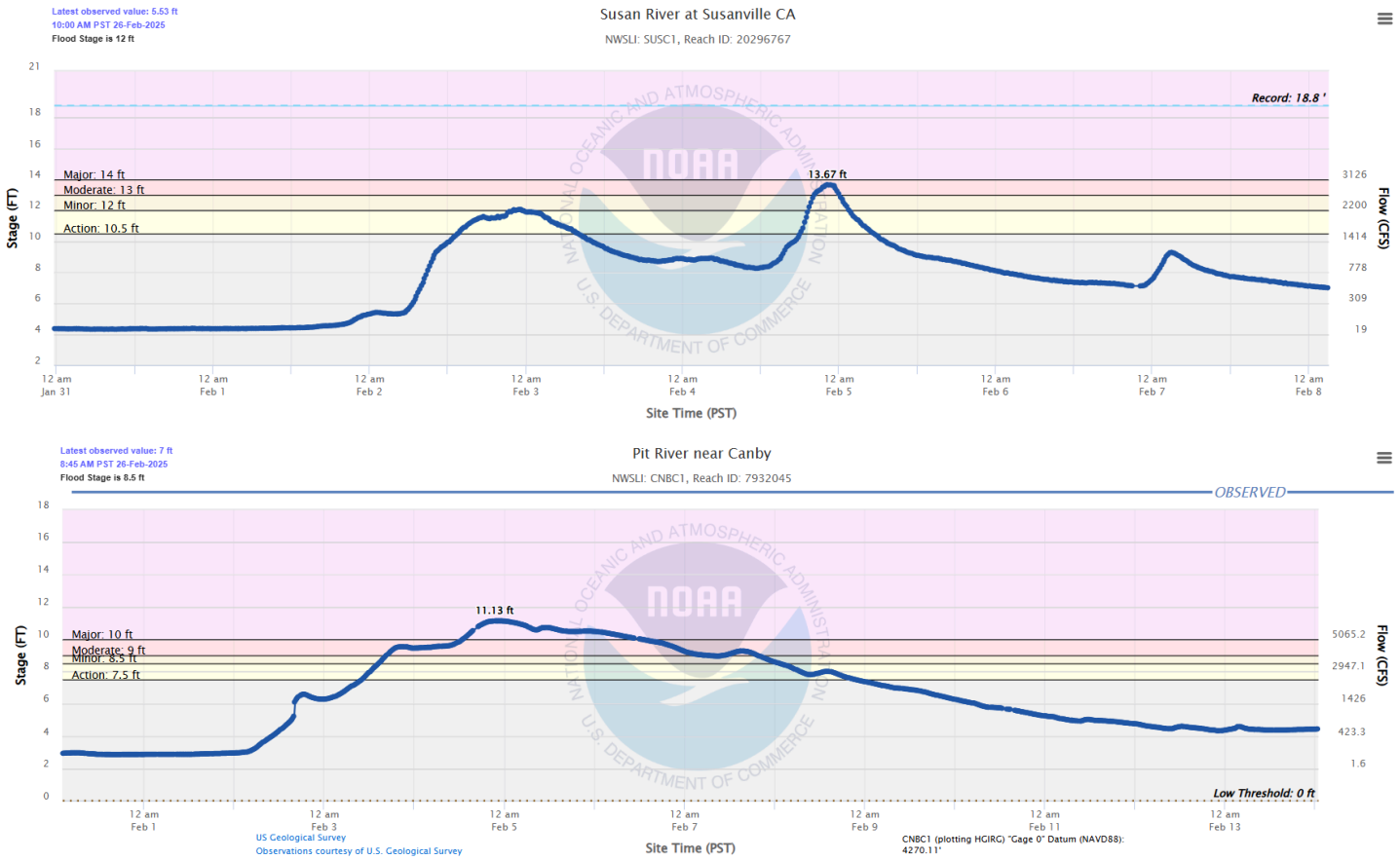



Figure 3. Top: Susan River at Susanville hydrograph showing minor flooding late on February 3rd, and Moderate flooding late on February 4th.

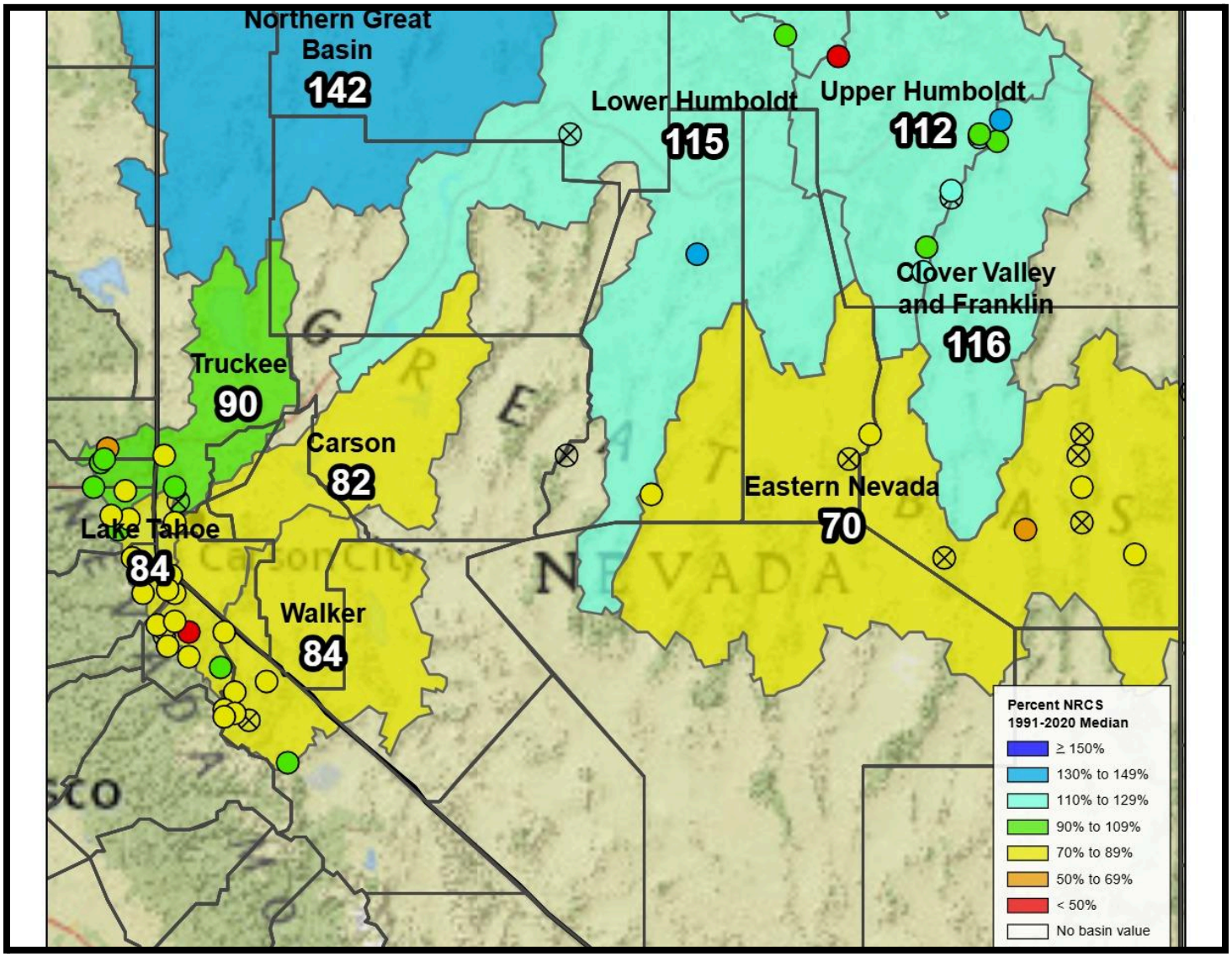



Figure 4. NRCS % of median snow water equivalent for March 1st.

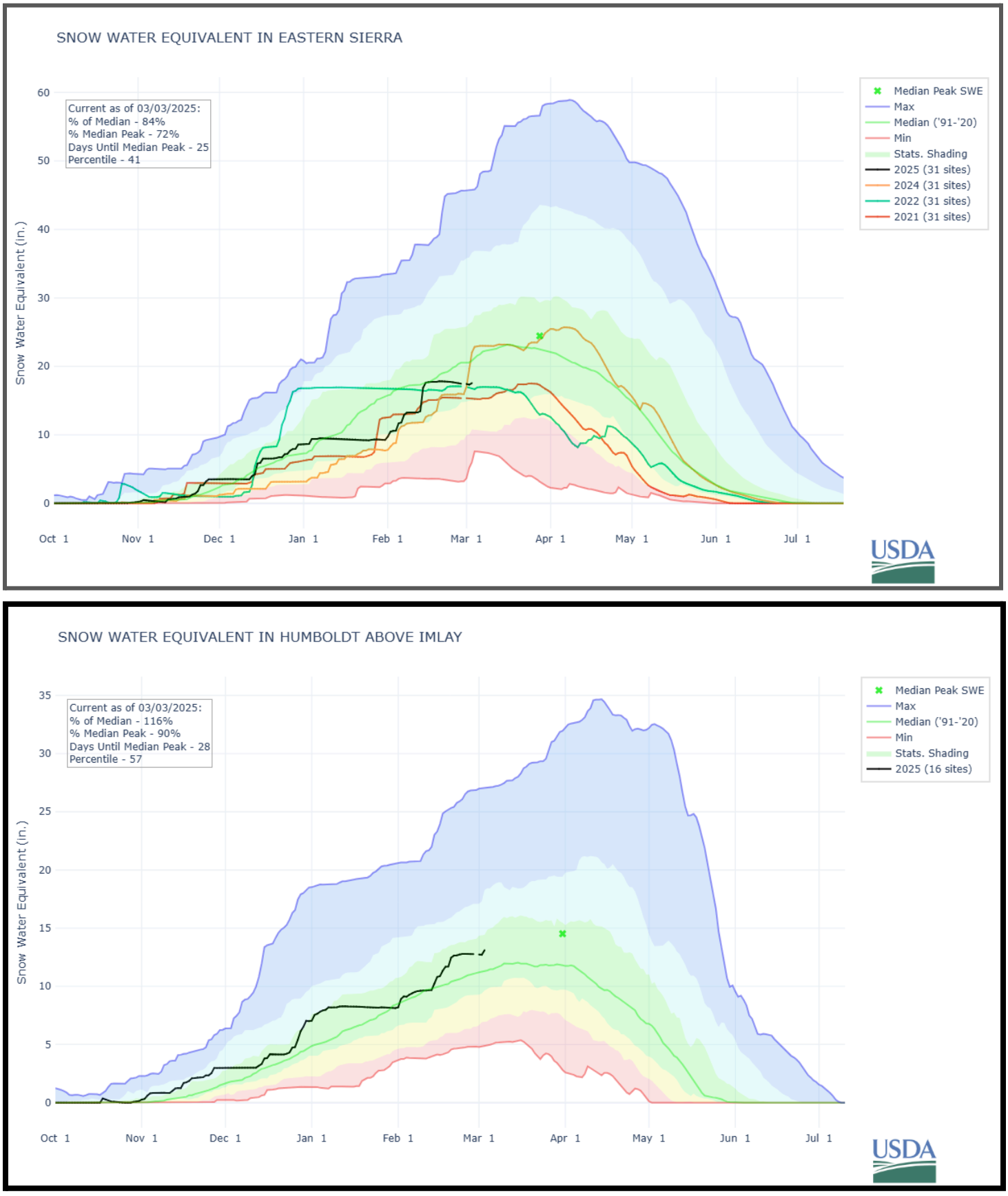
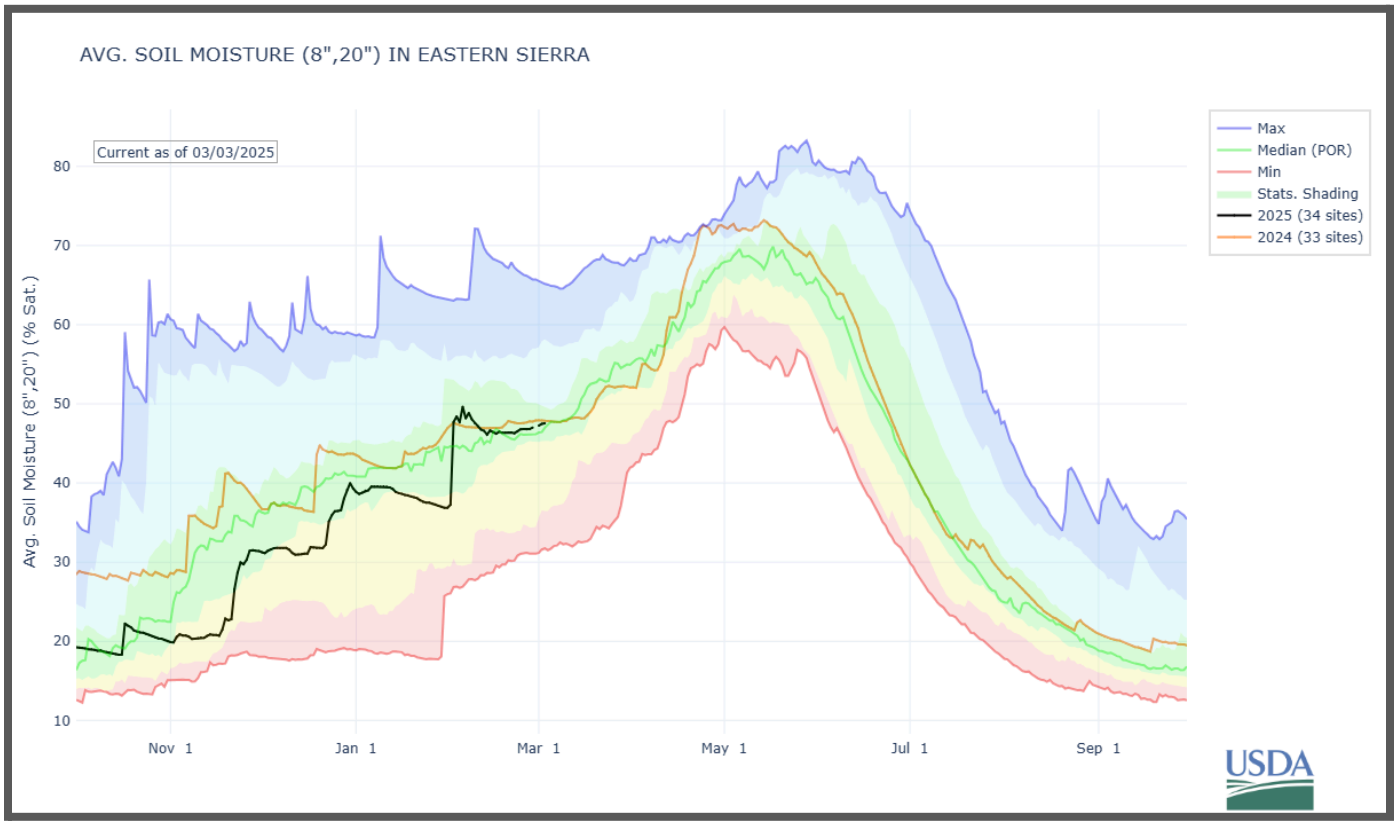



Figure 5. [NRCS Snow Water Equivalent] for the combined Tahoe, Truckee, Carson and Walker basins with WY 2025 in black and other recent years with similar SWE to date for reference (Top, and Humboldt bottom).



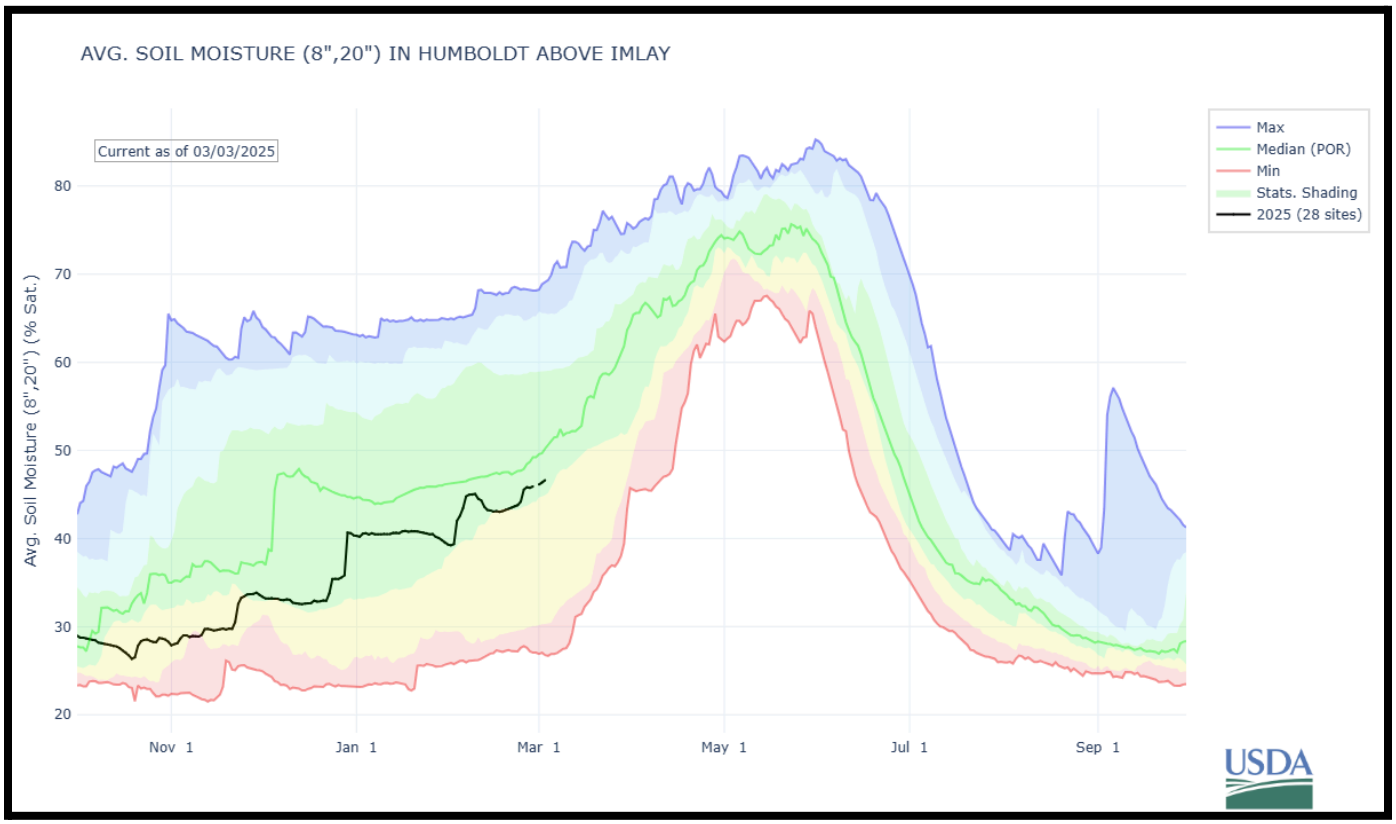




Figure 6: NRCS SNOTEL soil moisture for the combined Tahoe, Truckee, Carson and Walker basins (top), and Humboldt basin (bottom) indicated in black for the first four months of water year 2025. Water year 2024 is plotted in orange for additional perspective.

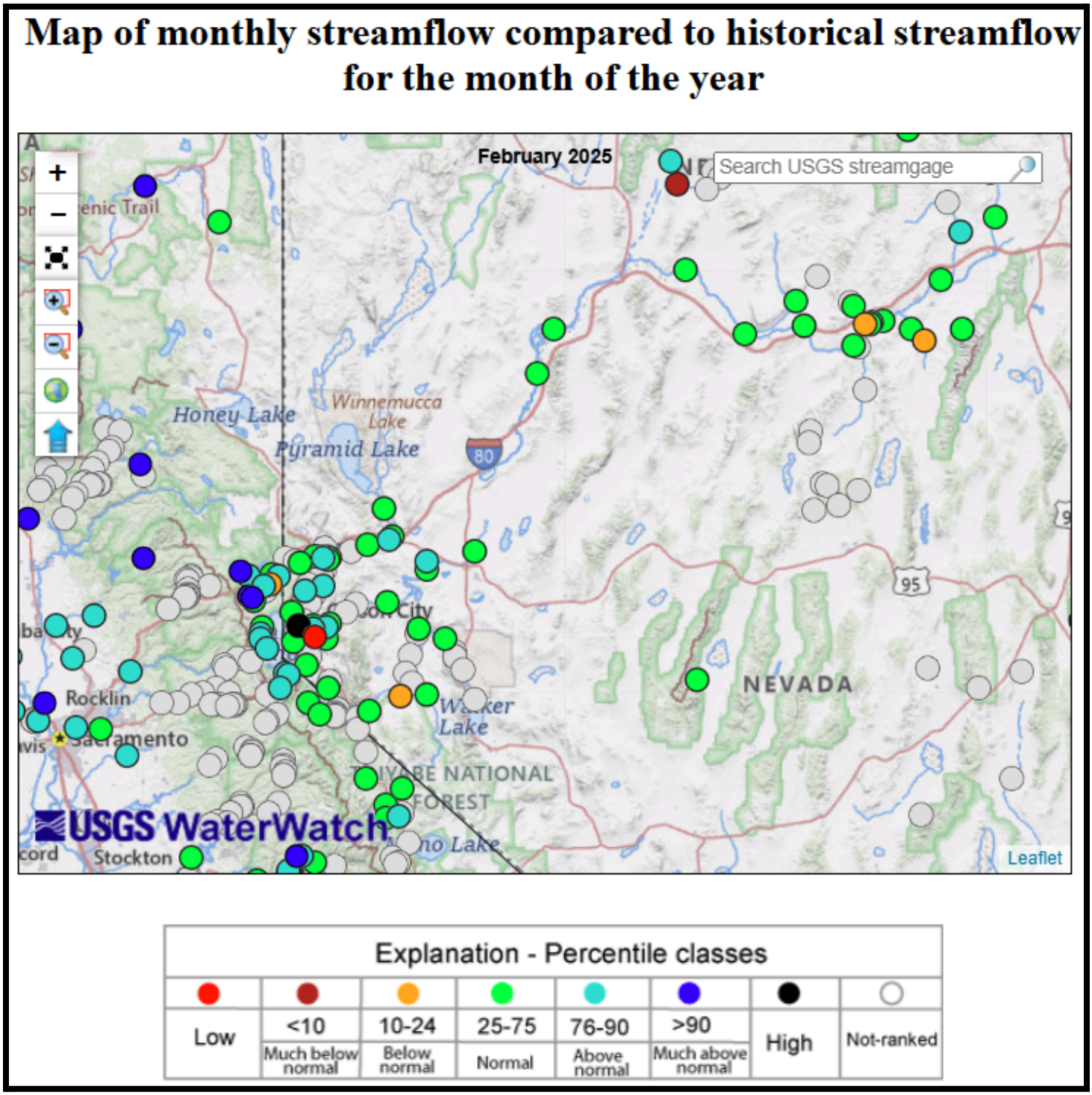



Figure 7: [USGS Monthly average streamflow] for February.

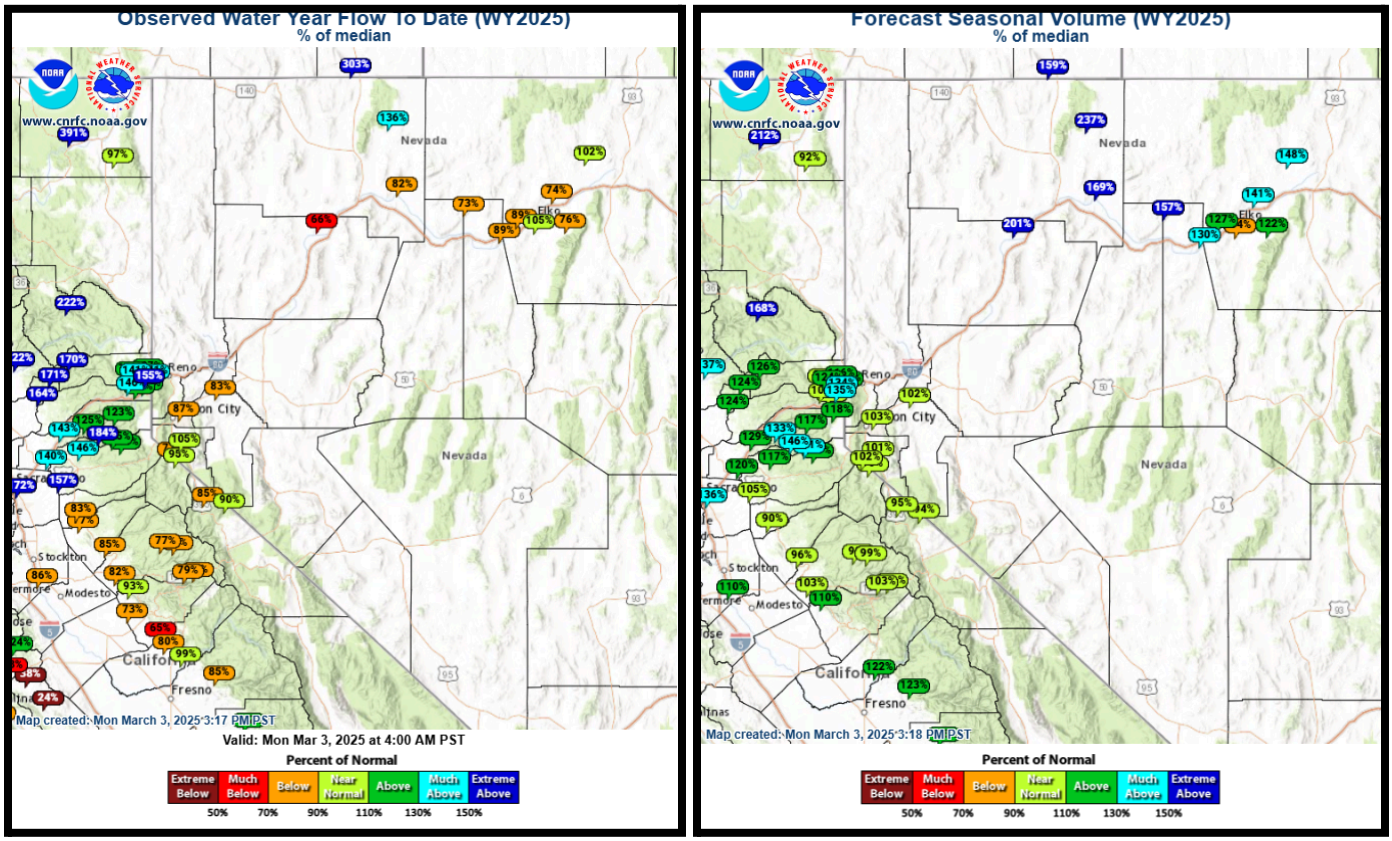



Figure 8. Left figure CNRFC Water year 2025 observed flow to date and right figure CNRFC April-July forecast volume both as % of median, both as of March 3rd.

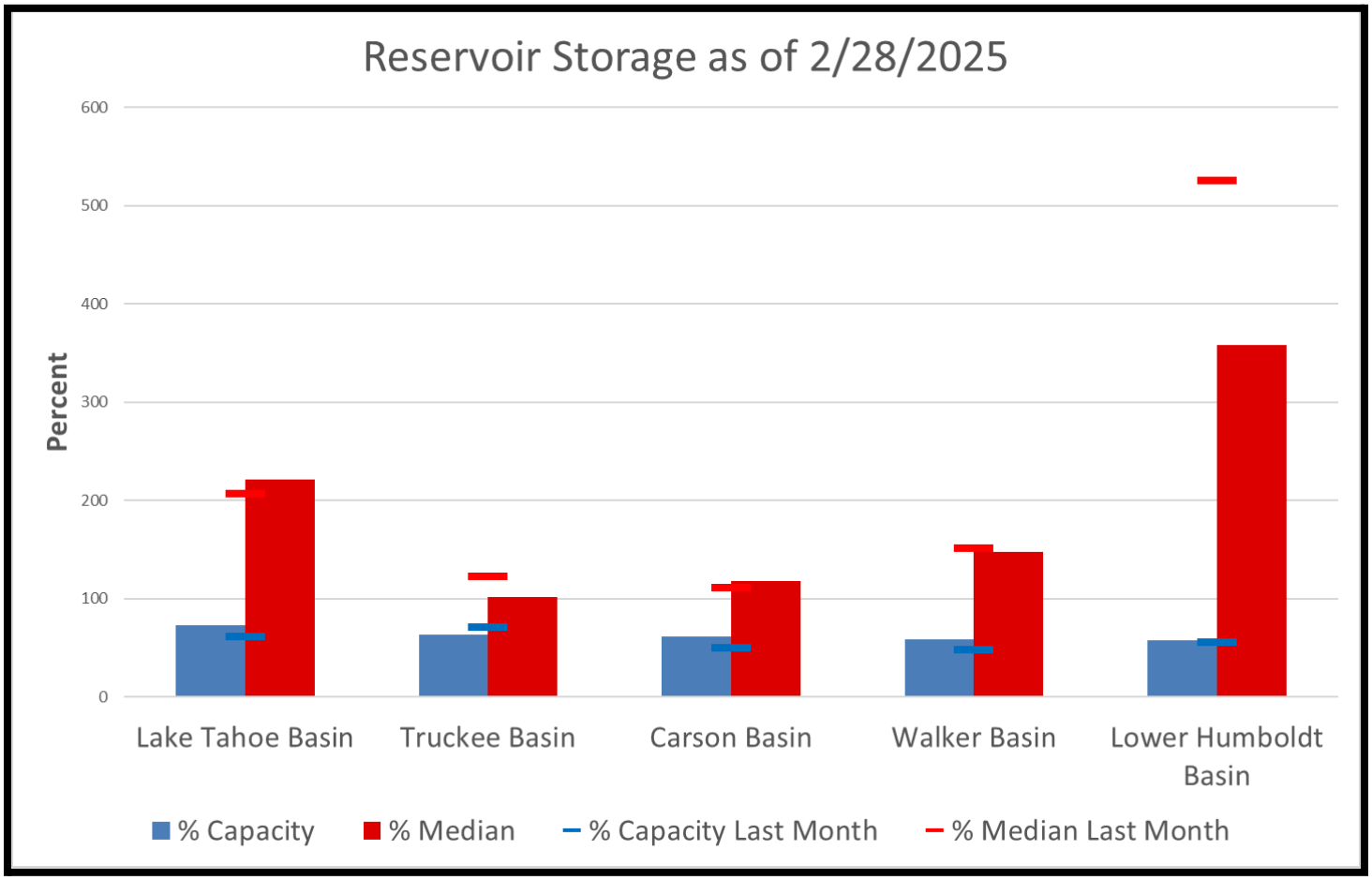
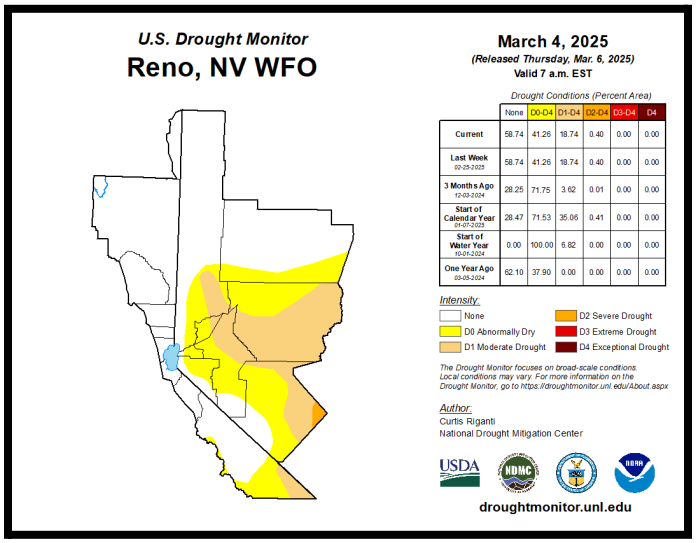



Figure 9. End of February reservoir storage relative to capacity and **median*** for this month and last month. (*note reference was recently updated to NRCS 1991-2020 median values)



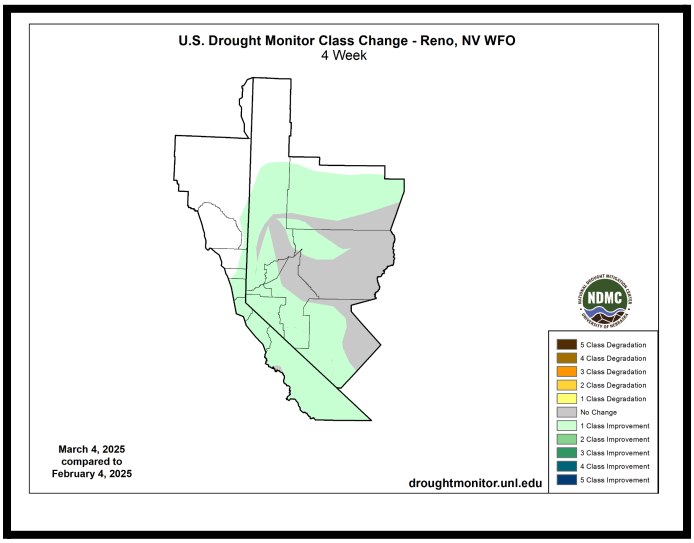




Figure 10: Early March Drought Monitor Status and 4 week change map. Check for updates at: [Drought Monitor]().

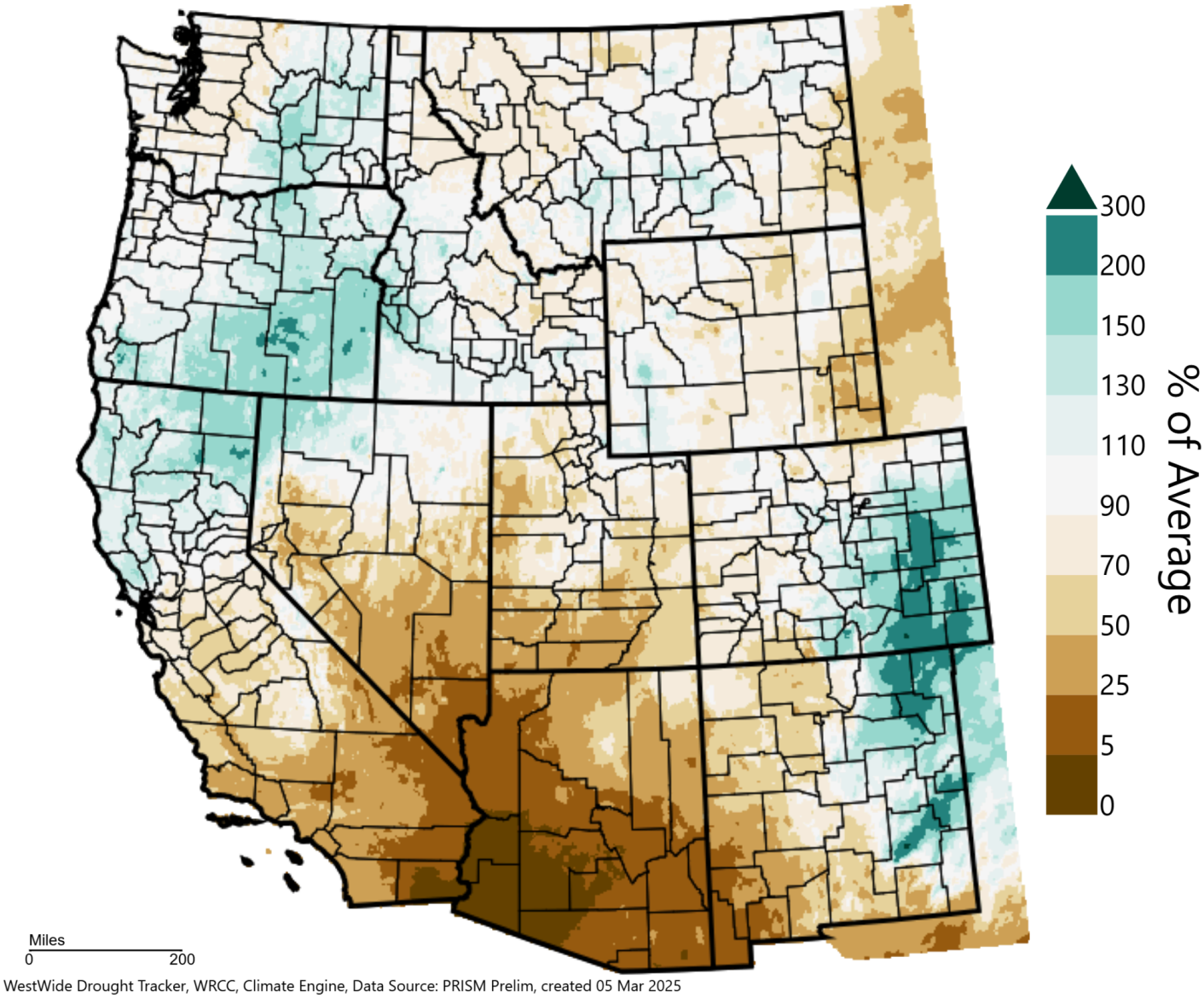



Figure 11: Water year to date precipitation. Courtesy of West Wide Drought Tracker. (WWDT)

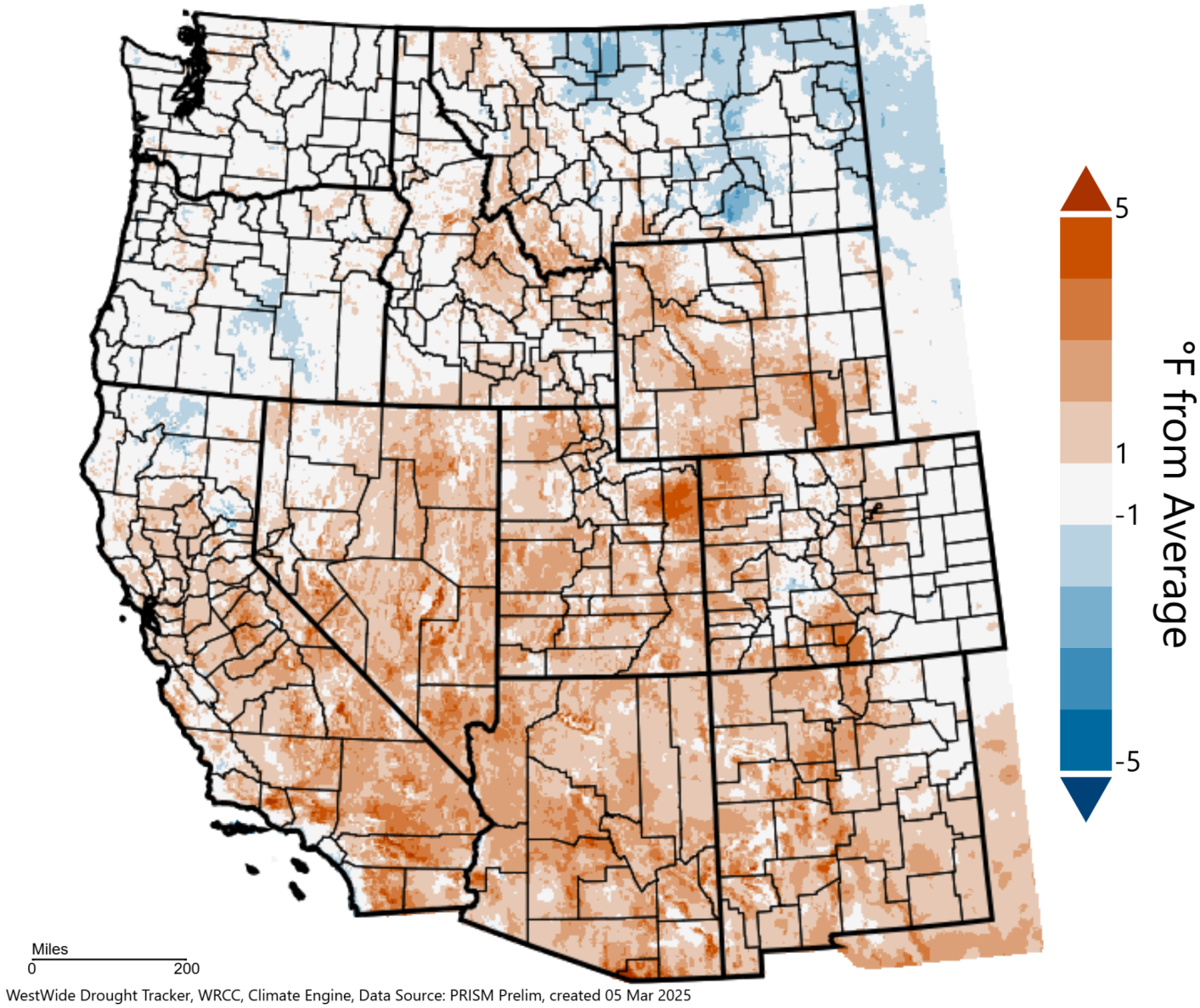



Figure 12: Water year to date temperatures. Courtesy of West Wide Drought Tracker. (WWDT)