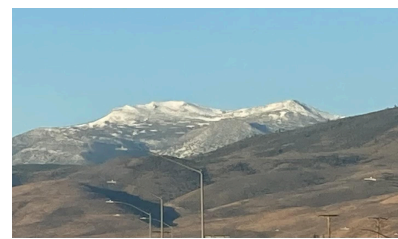




# Monthly Climate Report

NWS Reno NV

Issued: 09/06/2024



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## Weather Synopsis & Highlights:

August started with above average temperatures across the region, including highs around 100 degrees for some western NV valleys for most of the month's first 10 days. Showers and thunderstorms were also present for early August with mainly isolated coverage and strong outflow gusts of 45-65 mph on the afternoon of the 2nd, before storm activity peaked on the 3rd with periods of heavy rainfall. The heaviest rainfall of about 1.50" was reported at the site of the Mill (Gold Complex) fire in southern Plumas County producing some mud/debris flows but no property damage, while 0.50-1.0" fell in parts of the Tahoe basin northward to near Verdi and far northwest NV, while additional storms produced rainfall between 0.20-0.50" in parts of northwest and far western NV including Carson City and Minden. Also on the 3rd, a separate storm which originally formed near Schurz produced outflow wind gusts near 60 mph in parts of Pershing County including Lovelock. No notable flooding or wind damage impacts were reported with this storm activity.

A dry air mass with slightly cooler than average temperatures finally settled over the region for the middle 10 days of August. The most notable weather highlights during this time frame were periods of stronger winds on the 12th and 17th due to upper trough passages, with Red Flag Warnings in effect for much of the region on both days.

Temperatures returned to near average for the 21st-22nd, before a stronger storm reached the west coast. This system was similar to an early fall cold front, with stronger wind gusts of 35-45 mph along with sharply cooler temperatures. Red Flag Warnings were in effect for parts of the region on the 22nd and 23rd due to these stronger winds. The coldest day was the 24th, which set a new record in Reno for the lowest maximum temperature (57 degrees) for any day in August, due to a more persistent band of showers with embedded lightning and low clouds across the city during the afternoon. Elsewhere, highs were generally in the 60s (except 70s in Mineral County), with upper 40s-lower 50s for the Tahoe area communities. Rainfall on the 24th was generally light (between 0.05-0.20"), except a few locations near I-80 near the CA/NV border reported amounts around 0.50". A light dusting of snow was also observed on some of the higher Sierra/Tahoe area peaks and mountain passes (Photos 2 and 3).

Dry conditions returned while temperatures warmed up quickly for the final week of August, with highs returning to the lower-mid 90s for western NV valleys from the 27th-31st.

Across the region, temperatures were generally near to 2 degrees below average for August, except up to 2 degrees above average for southern Churchill, Mineral and eastern Mono counties (Figure 1). Precipitation in August was on the dry side (25-75% of average) for most of western NV and eastern CA south of the Tahoe basin, with less than 25% of average in northern Pershing County. August was a little wetter (between 100-150% of average, but in a typically dry month) from the Tahoe basin northward to northeast CA and far northwest NV. (Figure 2). Despite the unusually cool weekend in late August, Reno still set a new record for the

warmest average temperature over the three summer months (June-August) of 77.5 degrees, edging out the previous record of 77.4 degrees from Summer 2021.

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## **Hydrology:**

August was a fairly benign month on the hydrology front. August 3rd was the only day of the month that produced high intensity precipitation. Storms that afternoon generated heavy rainfall in several locations leading to four flood advisories and one flash flood warning. The flood warning was issued for Mill Fire in Plumas county which received 1.49" of rain, while fire crews were still working on mop up operations. Crews were pulled off the burn for safety, and later reported mud and debris mobilized onto forest roads within the burn, but no impacts were reported off the burn or in developed areas.

Streamflow for the month was near to slightly below normal in most rivers and streams (Figure 3). August precipitation was generally more favorable in the mountains than in lower elevations, and while nothing remarkable, it did help to maintain mountain soil moisture levels slightly above normal for the Eastern Sierra, and near normal in the Humboldt basin (Figure 4). With only one month and very little additional streamflow volume remaining in the water year, water year flows to date are near to slightly below normal along the east side of the Sierra, and above normal in the Humboldt basin (Figure 5). Despite summer demands and evaporative losses, area reservoirs remain above normal storage for the end of August (Figure 6).

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## **Drought Update:**

Drought conditions represented by the US Drought monitor degraded somewhat during the month of August. The area covered by moderate drought (D1) was expanded slightly in northern Washoe and northeastern Lasse/eastern Modoc counties, while the area of abnormally dry (D0) expanded across the remainder of western NV and eastern CA, except for far southern Mono County. These changes are a result of very dry and warm conditions along with elevated evaporative demand in May through July, While August was not as hot and dry as the previous months, the limited precipitation was inadequate to reverse the conditions. Regional summer precipitation was below average in most areas, and near or below 25% of average in parts of western NV north of US-50 (Figure 8).The area also experienced well above normal summer time temperatures (Figure 9) and elevated evaporative demand or atmospheric thrust (Figure 10).

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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  
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<https://www.weather.gov/rev/>

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## Photos:



Photo 1: Mud and Debris transported by heavy rain on the Mill Fire (Gold Complex) August 3rd.  
Photo Credit: Eric Kurth



Photo 2: Image from August 24 snow. Photo credit: Mt. Rose Ski Tahoe via Facebook



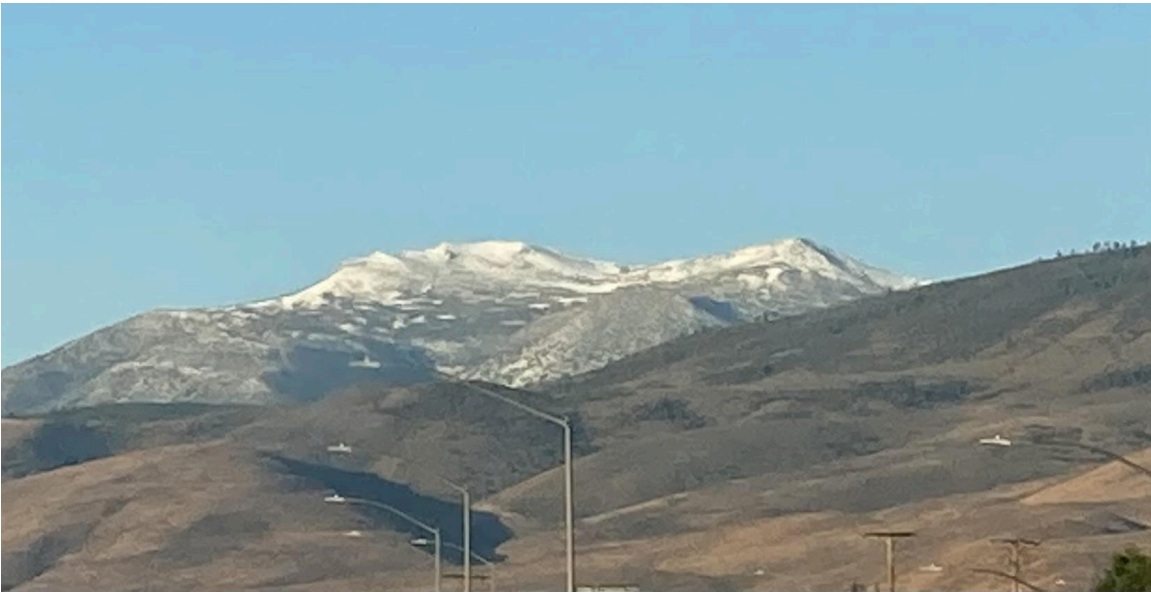


Photo 3: Snowfall on Mt. Rose, view from south Reno 7 AM August 25. Photo credit: NWS Reno NV.

## Figures:

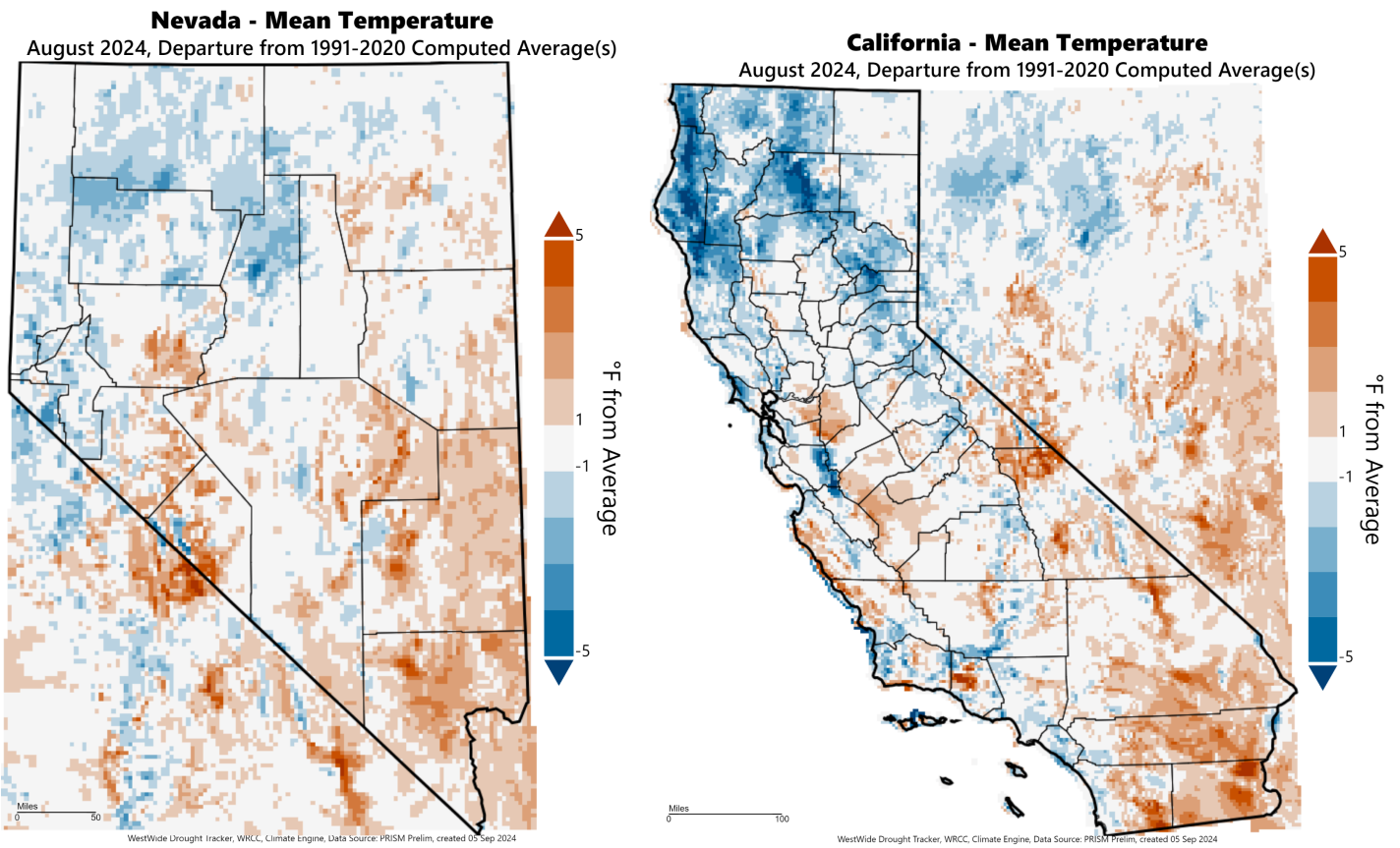


Figure 1: Nevada (left) and California (right) departure from normal temperatures for August 2024. ([WWDI](#))



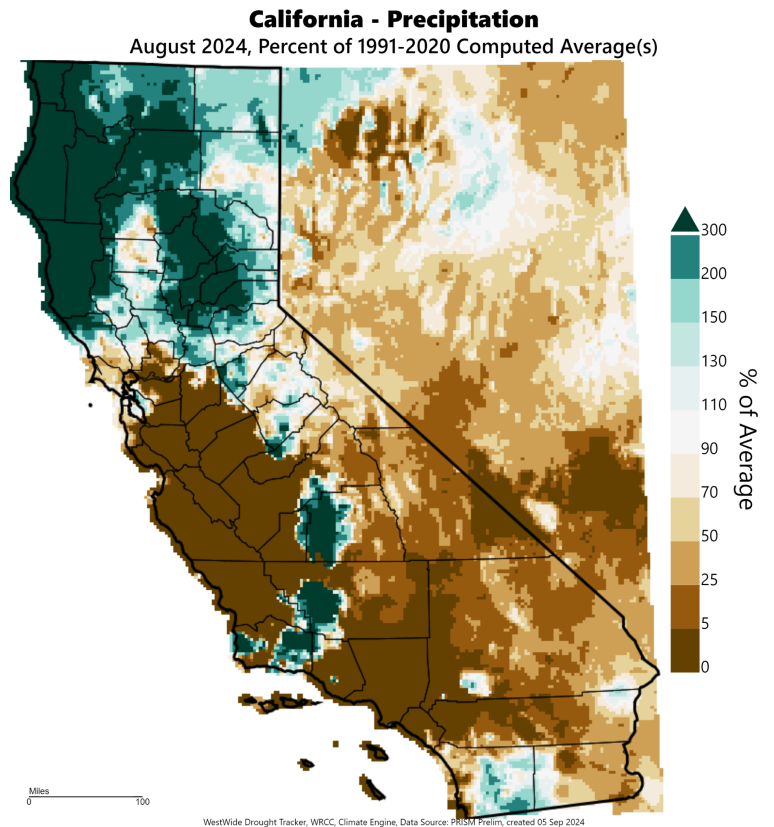
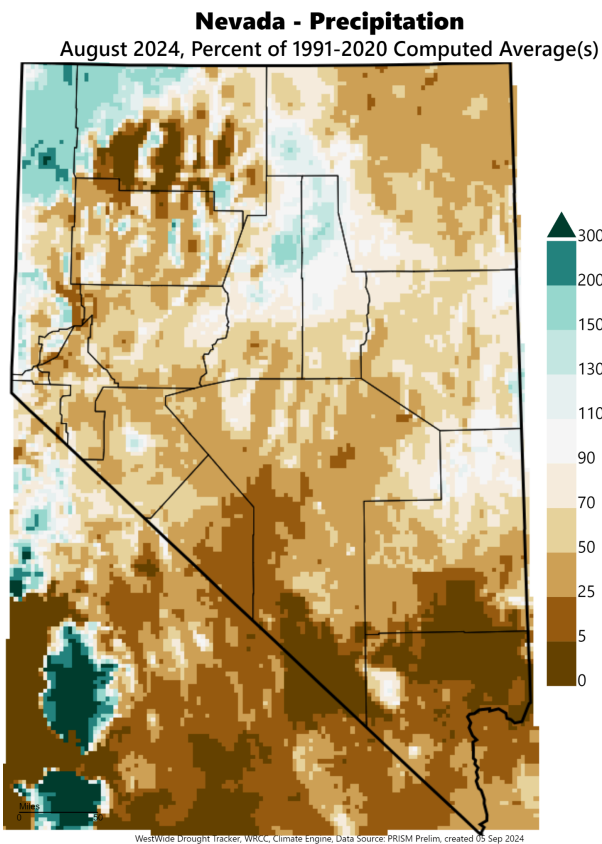
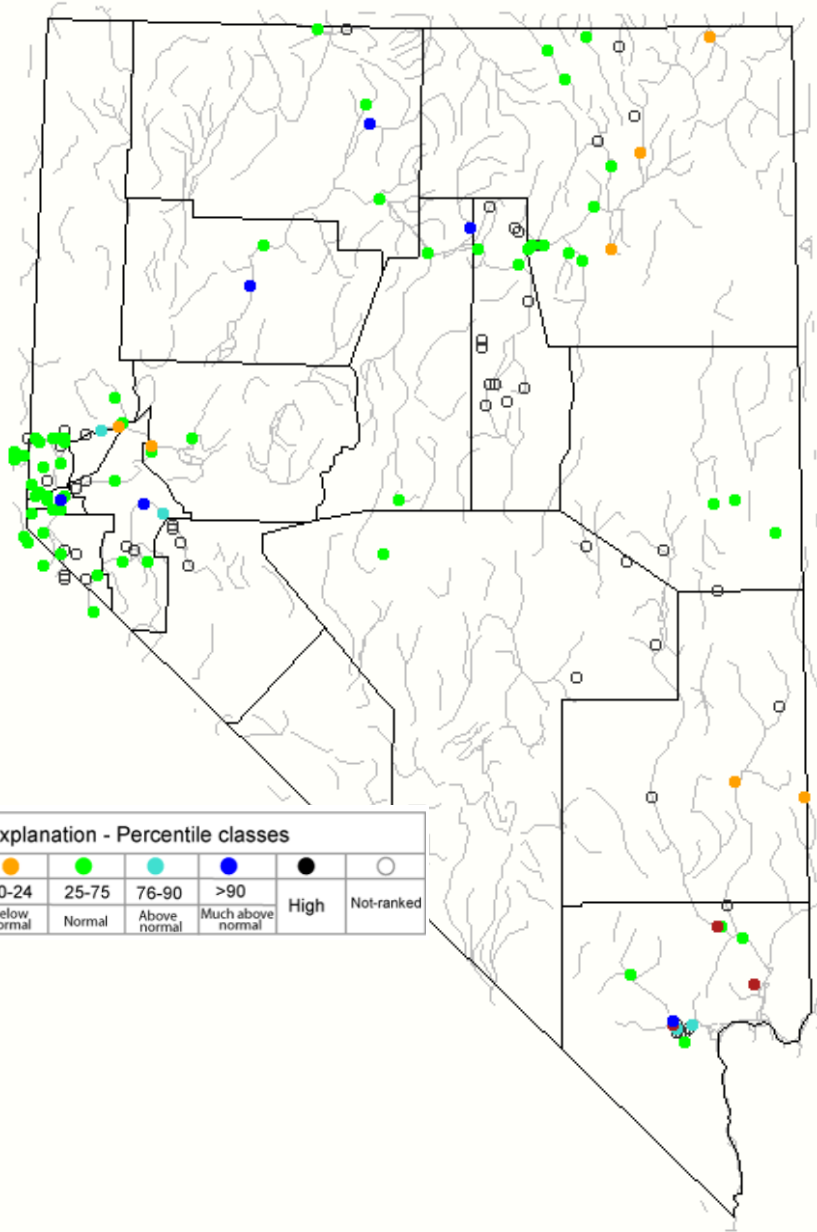


Figure 2: Nevada (left) and California (right) percent of normal precipitation for August 2024. ([WWDI](#))

August 2024



Explanation - Percentile classes							
●	●	●	●	●	●	●	○
Low	<10	10-24	25-75	76-90	>90	High	Not-ranked
	Much below normal	Below normal	Normal	Above normal	Much above normal		



Figure 3: August 2024 [Monthly USGS streamflow](#)

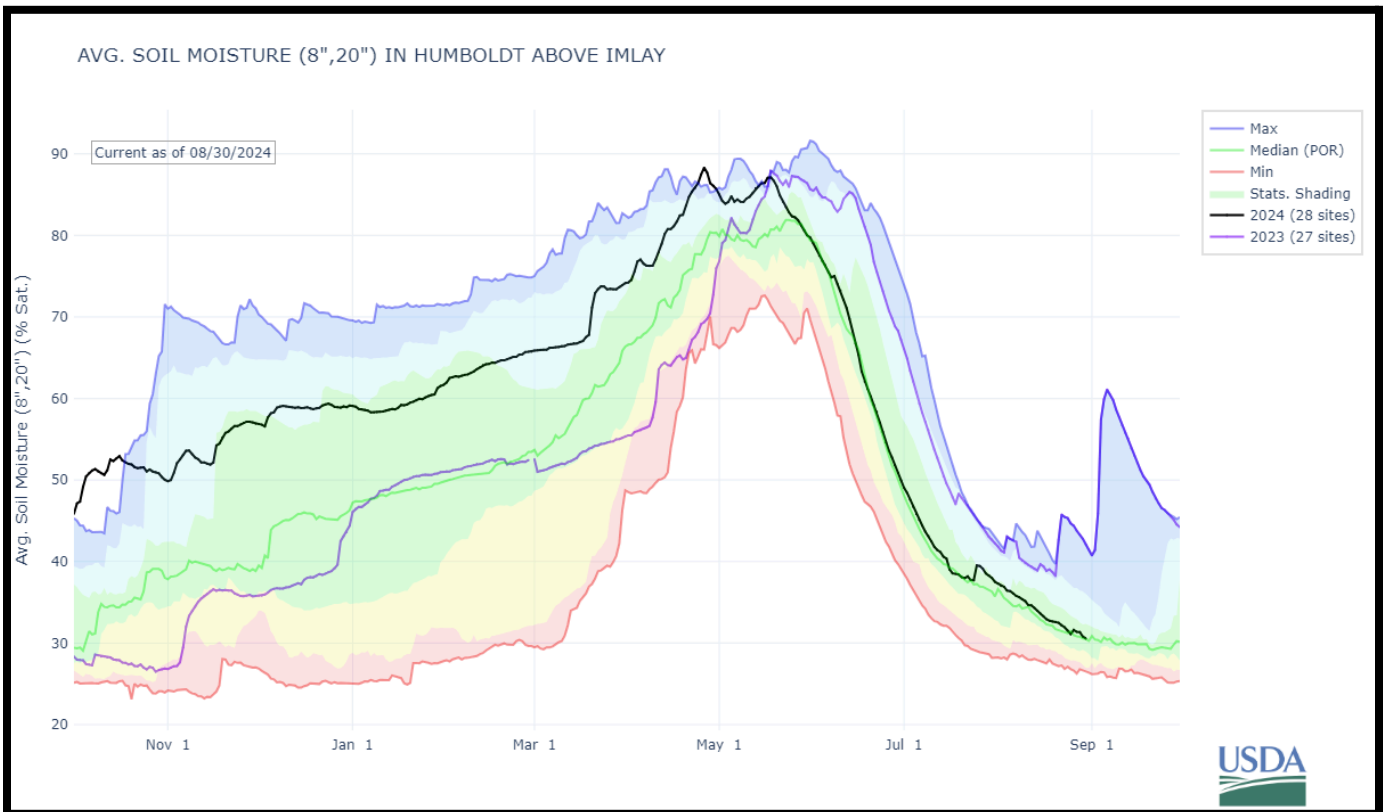
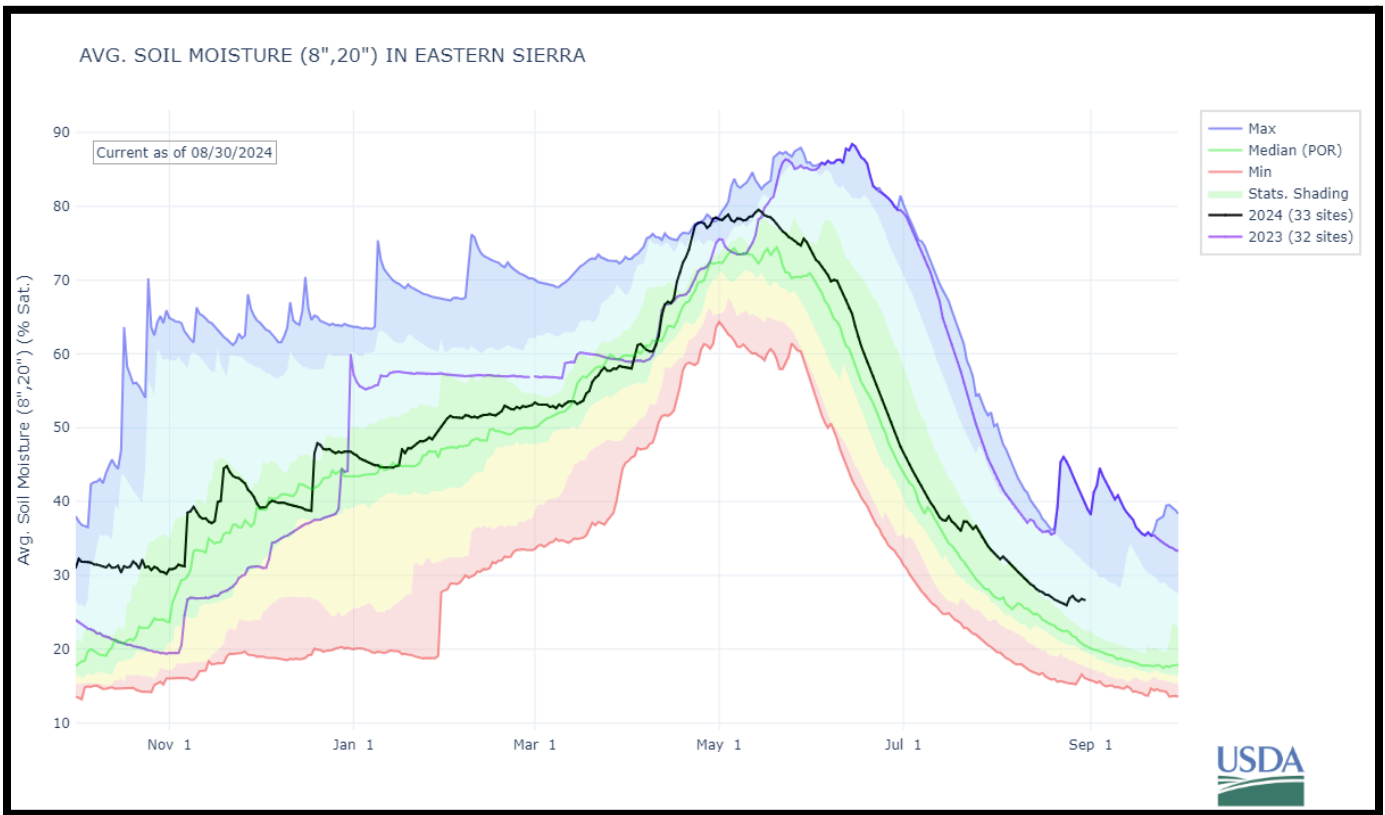


Figure 4: [NRCS SNOTEL soil moisture](#) for the combined Tahoe, Truckee, Carson and Walker basins (upper), and Humboldt basin (lower) indicated in black for water year 2024. Water year 2023 is plotted in purple for additional perspective.



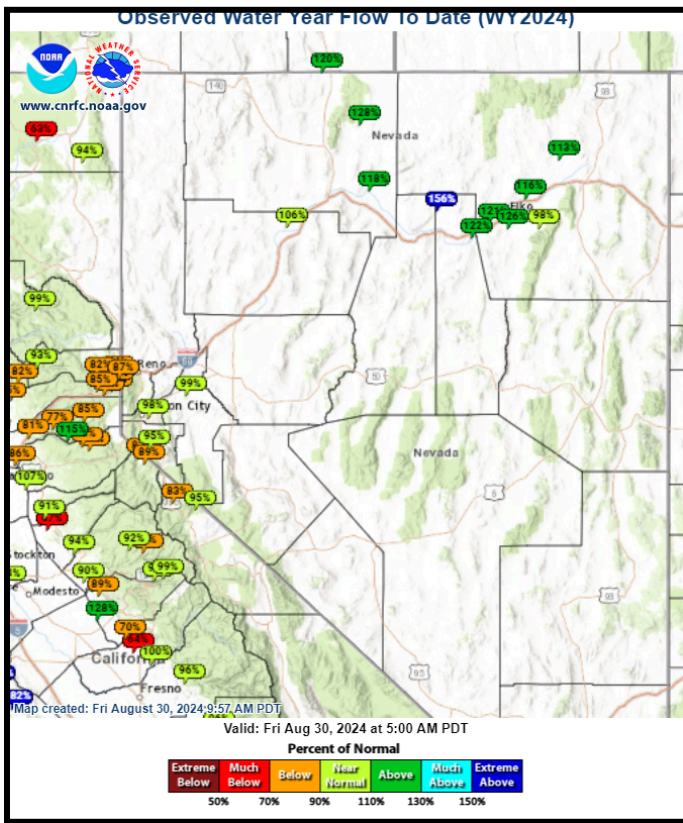


Figure 5. [CNRFC](#) Water year to date volume.

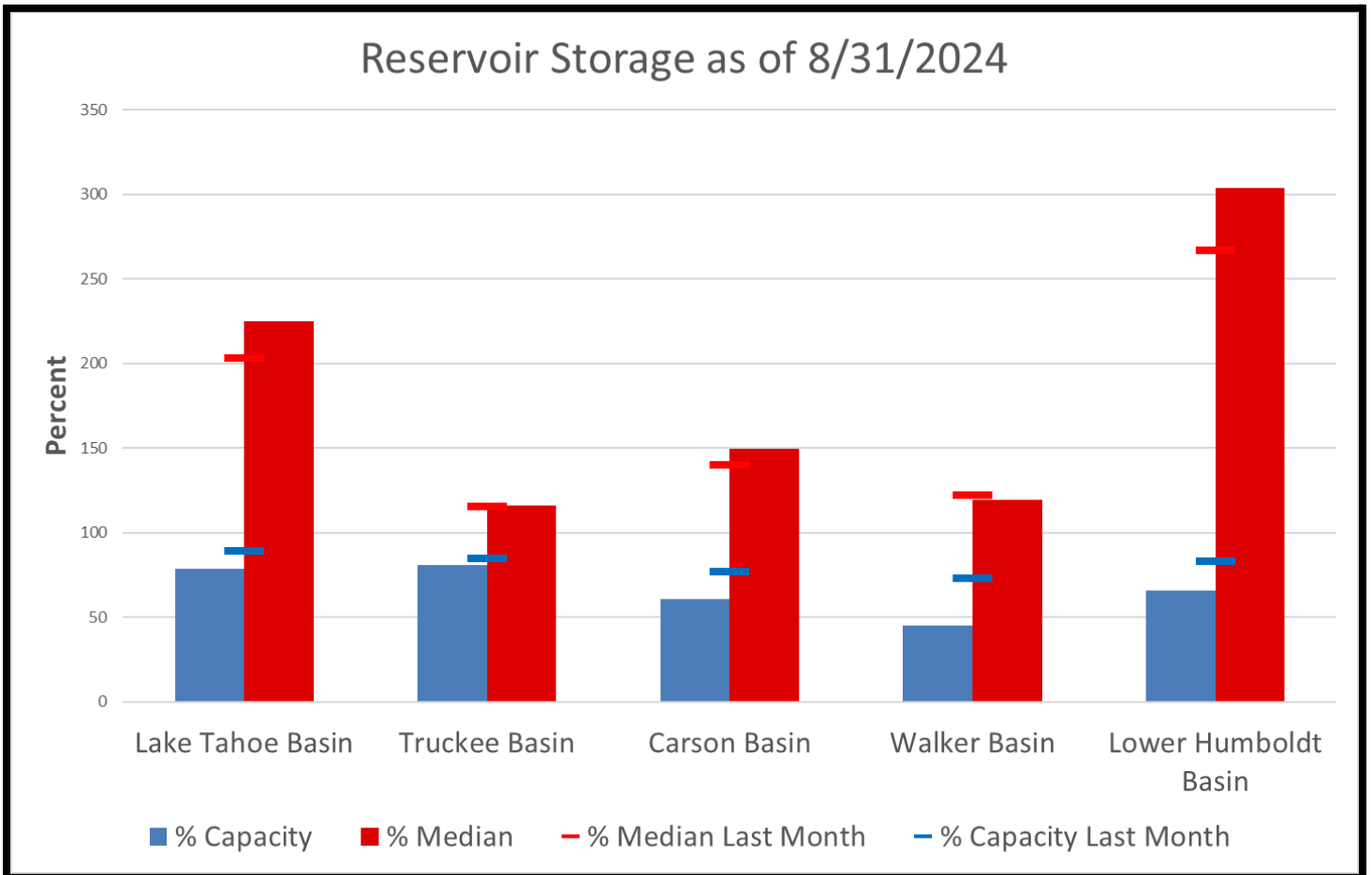
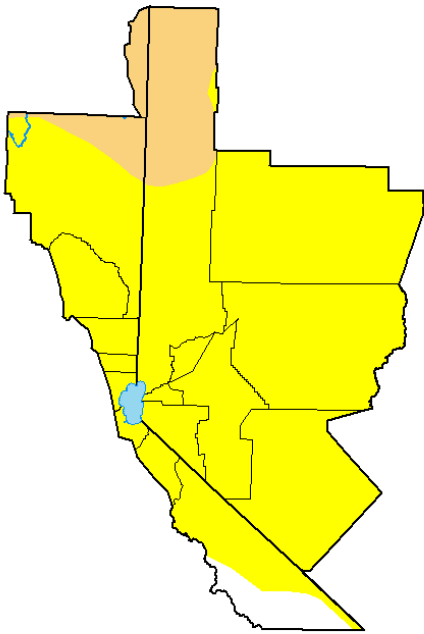


Figure 6 End of August reservoir storage relative to capacity and **median\*** for this month and last month. (\*note reference was recently update to NRCS 1991-2020 median values)

**U.S. Drought Monitor  
Reno, NV WFO**

**August 27, 2024**  
(Released Thursday, Aug. 29, 2024)  
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	3.18	96.82	12.27	0.00	0.00	0.00
Last Week 08-20-2024	18.46	81.54	12.27	0.00	0.00	0.00
3 Months Ago 05-28-2024	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year 01-02-2024	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 09-26-2023	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago 08-29-2023	100.00	0.00	0.00	0.00	0.00	0.00

**Intensity:**  
 None (white)      D2 Severe Drought (orange)  
 D0 Abnormally Dry (yellow)      D3 Extreme Drought (red)  
 D1 Moderate Drought (light orange)      D4 Exceptional Drought (dark red)

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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[droughtmonitor.unl.edu](https://droughtmonitor.unl.edu)

Figure 7: Late August Drought Monitor Status. Expanded D1 (Moderate Drought) slightly in Northern Washoe and NE Lassen Counties, while expanding D0 (Abnormally Dry) for the remainder of western NV and eastern CA, except for far southern Mono County. Check for updates at: [Drought Monitor](https://droughtmonitor.unl.edu).

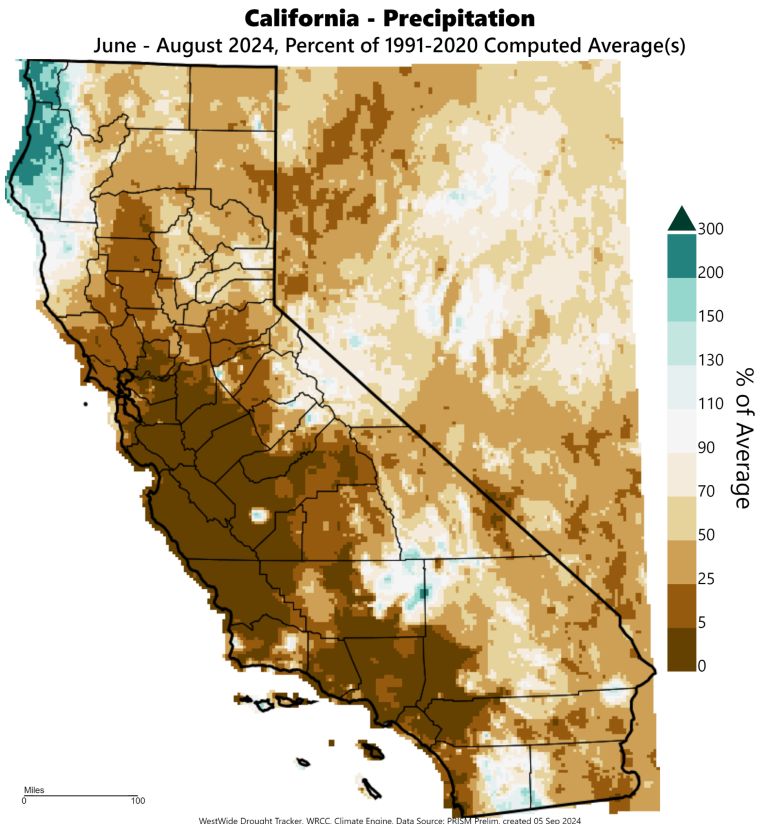
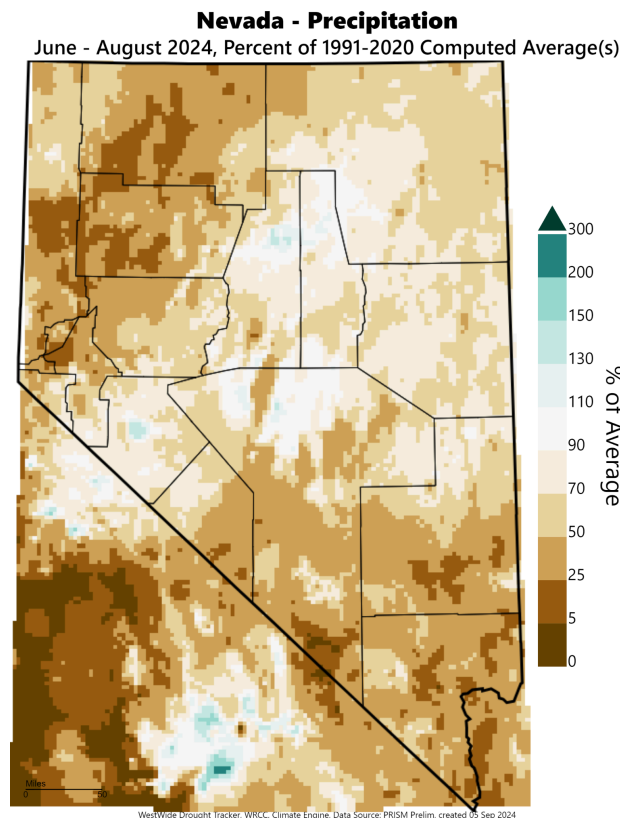


Figure 8: Nevada (left) and California (right) departure from normal precipitation for climatological summer (June-August 2024. [WWDT](https://www.wwdt.org))

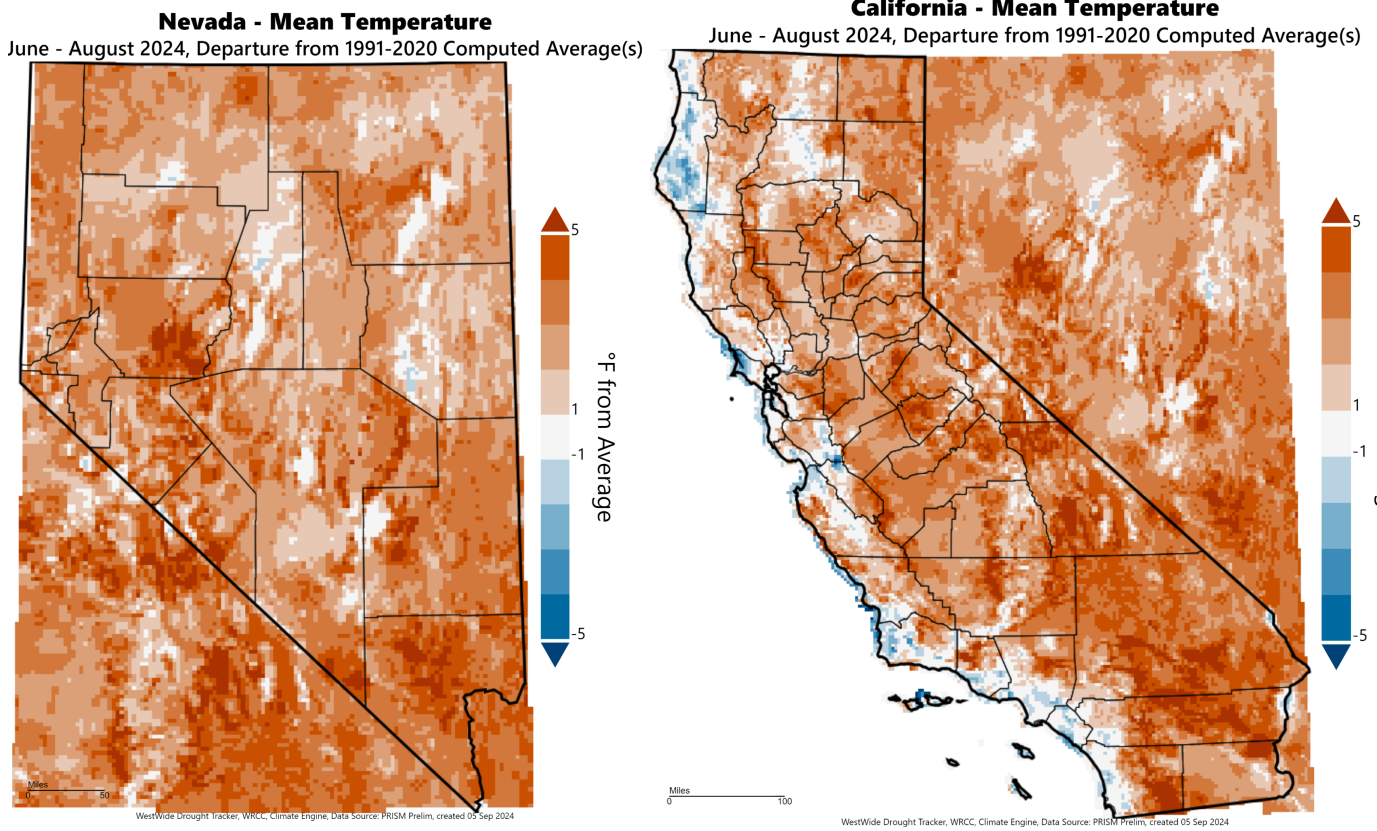


Figure 9: Nevada (left) and California (right) departure from normal temperature for climatological summer (June-August 2024. [WWDT](#))

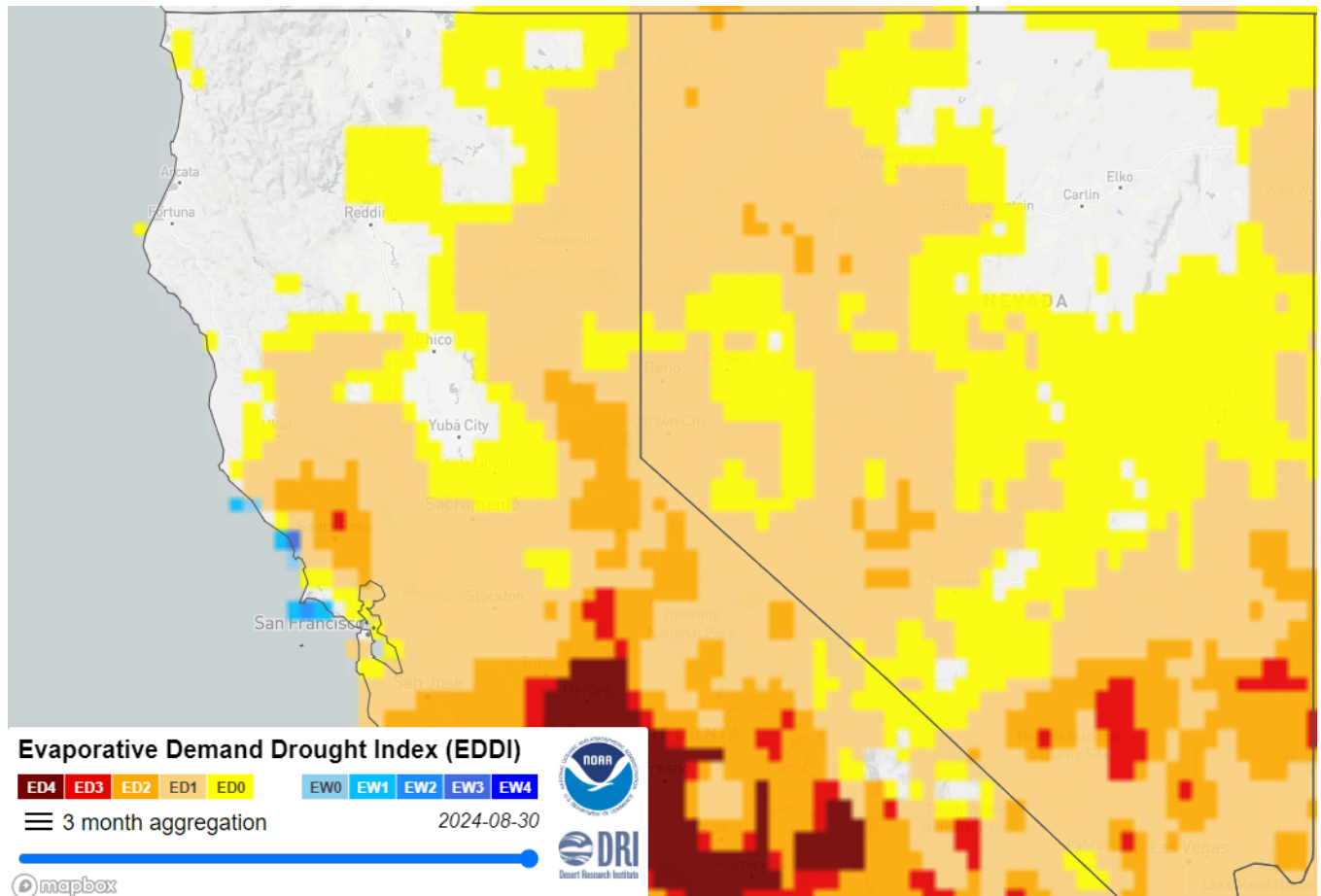


Figure 10: The Evaporative Demand Drought Index (EDDI) for the climatological summer (June-August [EDDI](#))