



Monthly Climate Report

NWS Reno NV

Issued: 10/07/2024



Weather Synopsis & Highlights:

The month of September finished with monthly average temperatures that were 1-3 degrees above normal. Although a few areas in western NV and northeast CA finished with monthly average temperatures that were between 3-5 degrees above normal (Figure 1). Precipitation during September was mixed, with some areas such as northern Mono, Mineral, Lyon, Churchill, Pershing, and portions of Washoe counties experiencing well above average precipitation. Other areas such as southern Mono, Lassen, eastern Plumas, and portions of the Tahoe Basin experienced below average precipitation (Figure 2). Light snowfall was also recorded in the higher elevations above 8-9 kft in the Lake Tahoe area southward through Alpine and Mono counties.

Above average temperatures prevailed for the first 10 days of September, with highs generally in the low to mid 90s for western NV valleys. Red Flag Warnings were in effect on the 2nd for gusty winds and low humidity. The period was generally free of rain or thunder except for isolated dry thunderstorms on the 6th. As winds began to increase on the afternoon of the 7th, a fire started in the wind-prone northern Washoe Valley grew rapidly with gusts near 35 mph, burning 14 structures and nearly 6000 acres as the Davis Fire (Photos 1-3), and prompting the issuance of a Red Flag Warning. Additional Red Flag Warnings were in effect for the 8th and 10th, with the strongest winds on the 11th as a cold front passage produced several hours of gusts between 40-50 mph. The Red Flag Warning for the 11th was issued as a Particularly Dangerous Situation (PDS) due to these more intense winds and the threat to many residential areas (with evacuations in effect) in far south Reno. This was the first PDS Red Flag Warning since 2019 and only the 6th issued in NWS Reno's history going back to 2017. Fortunately with extensive preparations by the fire crews the fire did not spread into these neighborhoods.

Dry but cooler conditions followed on the 12th-13th. After a brief warmup on the 14th, a colder upper low approached the region on the 15th and moved across eastern CA-western NV on the 16th, with temperatures only in the 60s for western NV valleys and 50s for Sierra communities. Areas of rain with embedded thunderstorms spread across much of western NV, with the heaviest rainfall totals of 0.50-1.0 inch occurring in west central NV east of US-95, and also from the Black Rock Desert southward across far western Pershing and northwest Churchill counties. Lighter precipitation occurred over the remainder of the region, although a light dusting of snow fell on higher Sierra peaks (Photos 4 and 5). Another cold upper low quickly followed on the 17th-18th, bringing another round of showers and thunderstorms to parts of eastern CA-western NV, mainly from I-80 southward. The heaviest rainfall amounts with this storm on the 17th were between 0.50-1.10 inch across much of the Tahoe basin, central and southern Lyon County, and southeast Douglas to far northern Mono county. Additional thunderstorms on the 18th were limited to Mineral and Mono counties with rainfall amounts generally less than 0.30 inch, although an outflow produced wind gusts up to 53 mph later in the evening of the 18th in Hawthorne, damaging several tents at an outdoor convention site near the Hawthorne airport.

After this second low departed, a dry weather pattern returned from the 20th through the remainder of the month with temperatures warming to near seasonal averages of lower-mid 80s for western NV valleys and 70s for Sierra communities through the 23rd. Above average temperatures returned from the 24th through 30th, including some highs in the low 90 degrees for western NV valleys and near 80 degrees for Sierra communities.

Hydrology:

Other than the precipitation that occurred between the 15th and 18th, the month of September was dry. Despite some locally heavy rainfall in the inner Basins and Range, there were no flash flood products issued in September. Streamflow for the month was near to slightly below normal in most rivers and streams (Figure 3). September mountain precipitation, as measured by SNOTEL, was slightly above normal (not pictured), and while nothing remarkable, it did help to maintain mountain soil moisture levels near for the Eastern Sierra and the Humboldt basin (Figure 4). Preliminary 2024 water year volumes from the CNRFC are near to slightly below normal along the east side of the Sierra, and near to above normal in the Humboldt basin (Figure 5). Despite summer demands and evaporative losses, area reservoirs remain above normal storage for the end of September, and start the new water year in favorable conditions (Figure 6). In an area where averages are rarely observed, but rather a combination of extremes, water year 2024 was close to average in precipitation throughout much of the region (Figure 7). Water year temperatures tended to be above average in most of the region (Figure 8).

Drought Update:

Drought conditions (Figure 9) for northern Washoe and Lassen counties improved from moderate drought (D1) to abnormally dry (D0) due to above average precipitation in that particular area. There is a small area of moderate (D1) drought remaining in portions of Lassen and northern Washoe counties, which were mostly missed by any precipitation during the month. Meanwhile, abnormally dry (D0) conditions expanded to the remainder of Mono County. This puts the entire Hydrologic Service Area in abnormally dry conditions as of the end of September. At the moment, reservoir levels, soil moistures, and stream flows are keeping the area from more significant long term drought. However, if dry conditions continue into October, an expansion of moderate drought (D1) may be warranted across more of the HSA.

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/>

Photos:



Photo 1: Davis Fire from south Reno on September 8th. Courtesy of an NWS off-duty employee.



Photo 2: Davis Fire from south Reno on September 8th. Courtesy of an NWS off-duty employee.



Photo 3: Davis Fire from the Reno Office on September 9th. Courtesy of an NWS Reno.

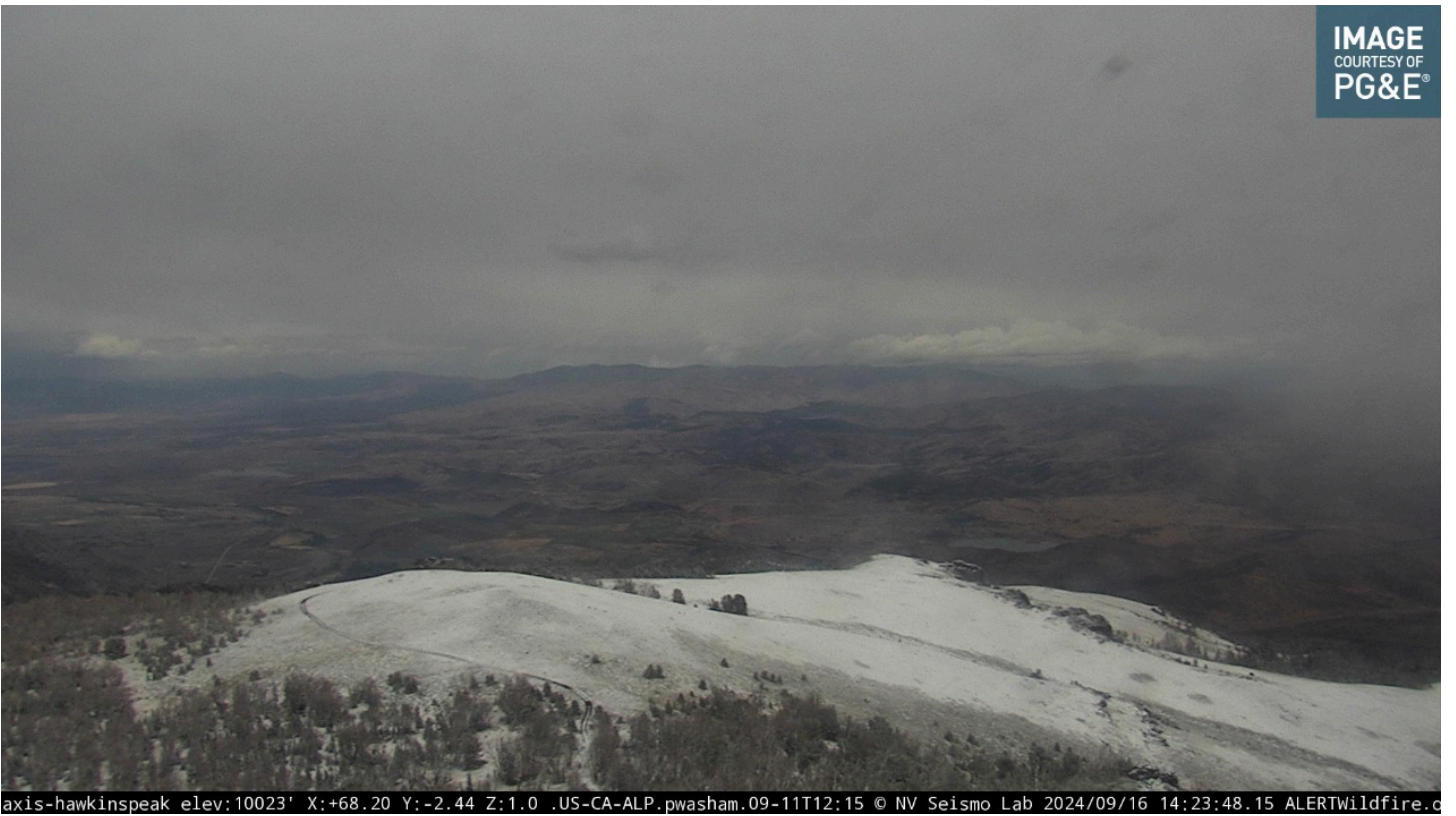


Photo 4: Snowfall across the higher elevations on the 16th. Photo courtesy of PG&E AlertWildfire.org.



Photo 5: Early morning photo from NWS Reno office. Snow along the crests on the 17th. Photo courtesy of NWS Reno.

Figures:

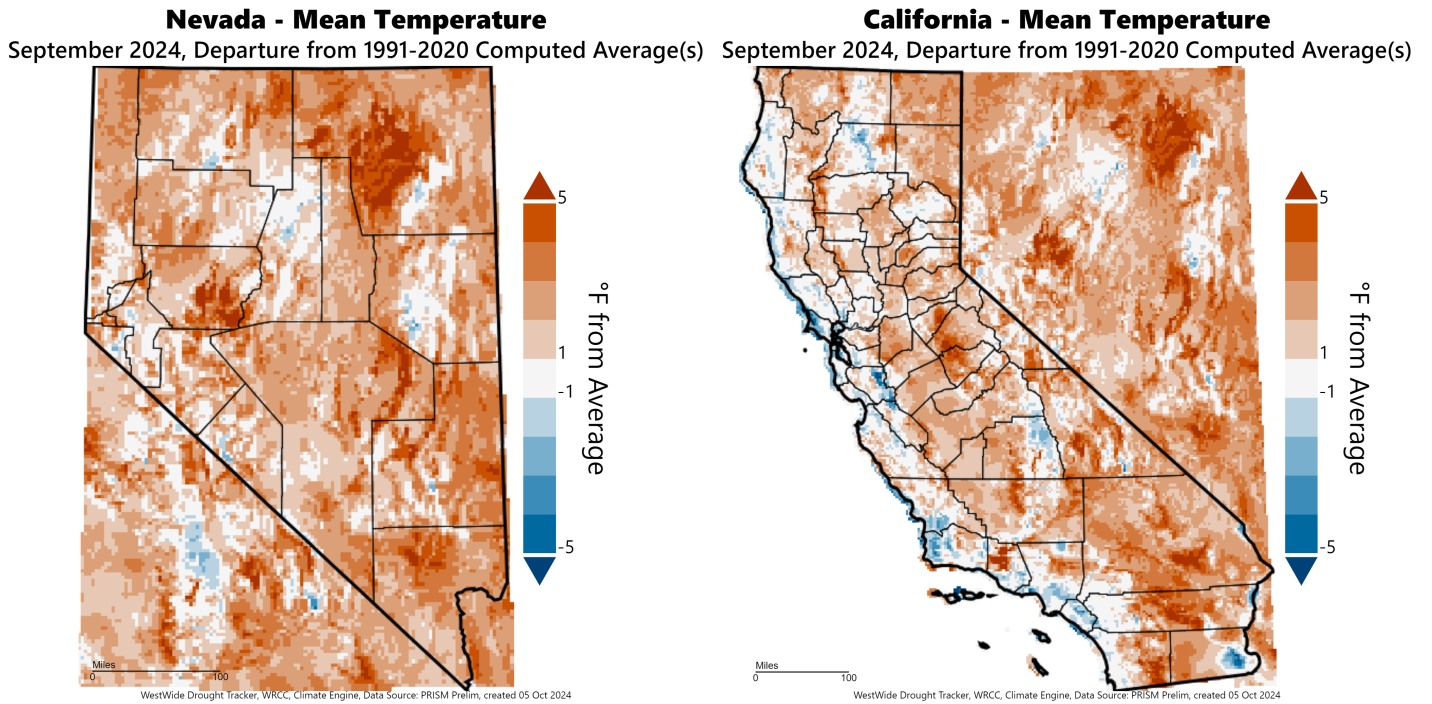


Figure 1: Nevada (left) and California (right) departure from normal temperatures for September 2024. ([WWDT](#))

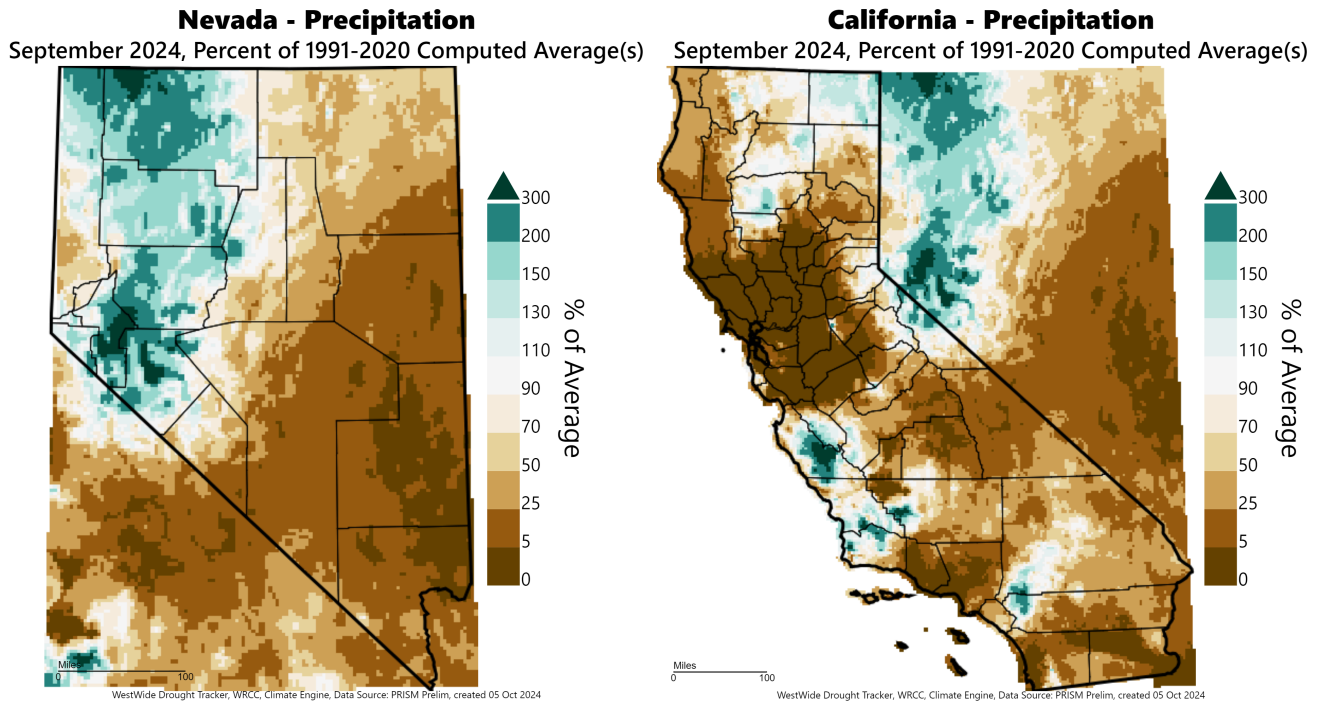
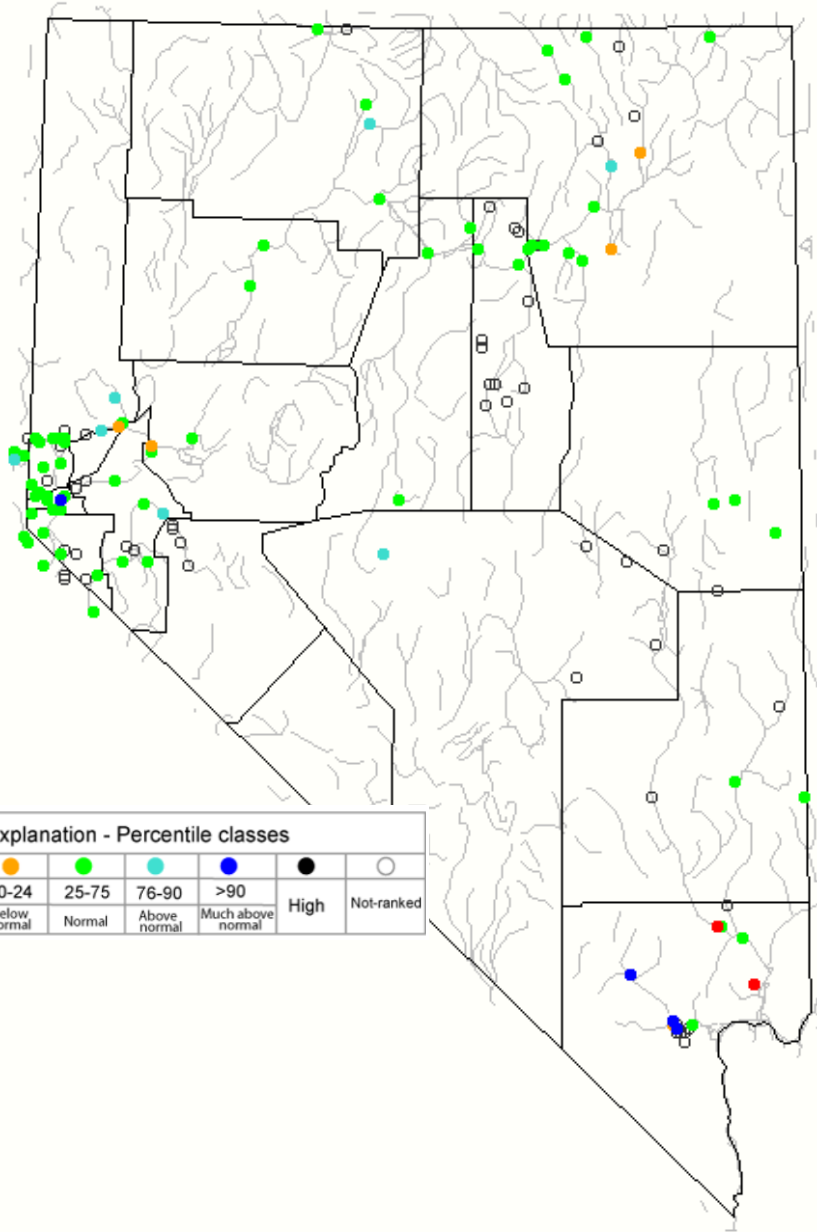


Figure 2: Nevada (left) and California (right) percent of normal precipitation for September 2024. ([WWDT](#))

September 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: September 2024 [Monthly USGS streamflow](#)

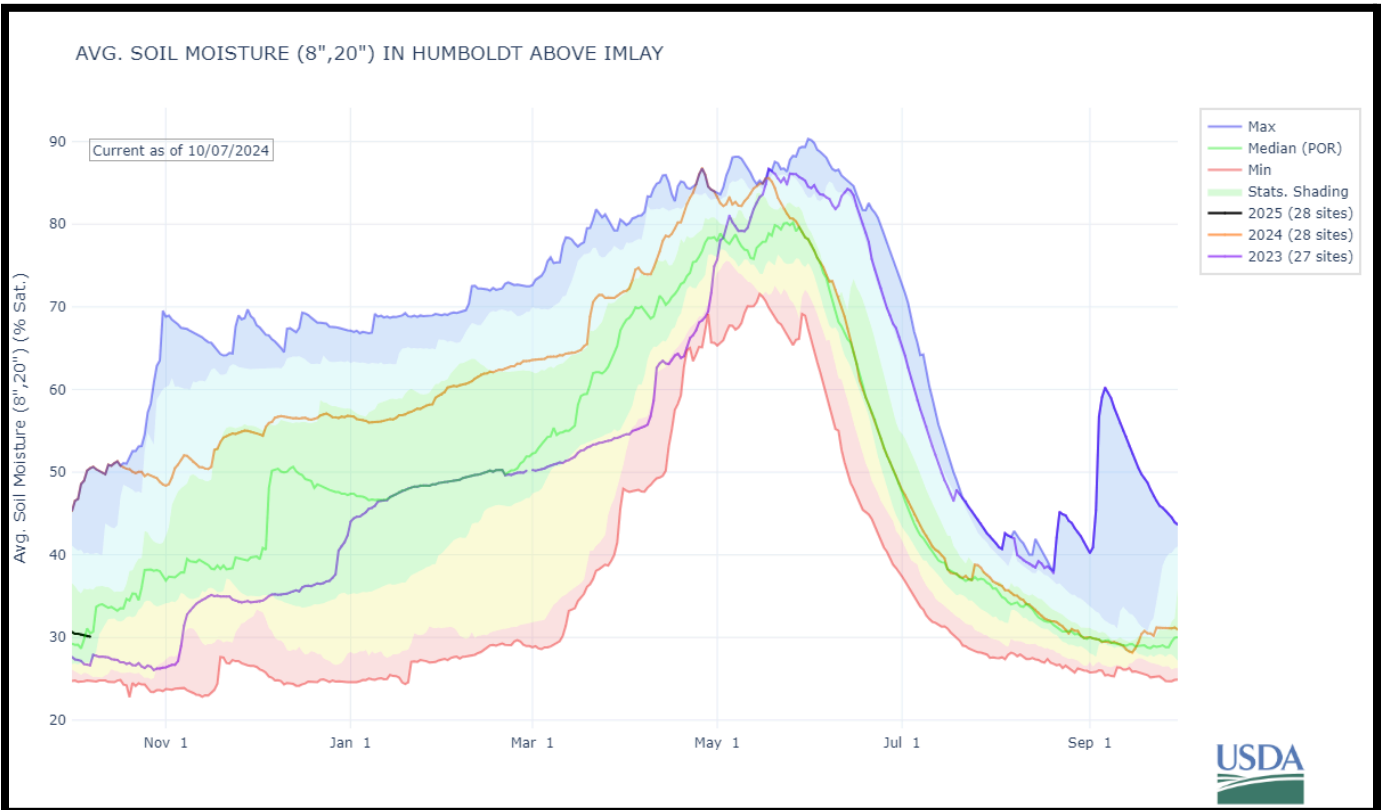
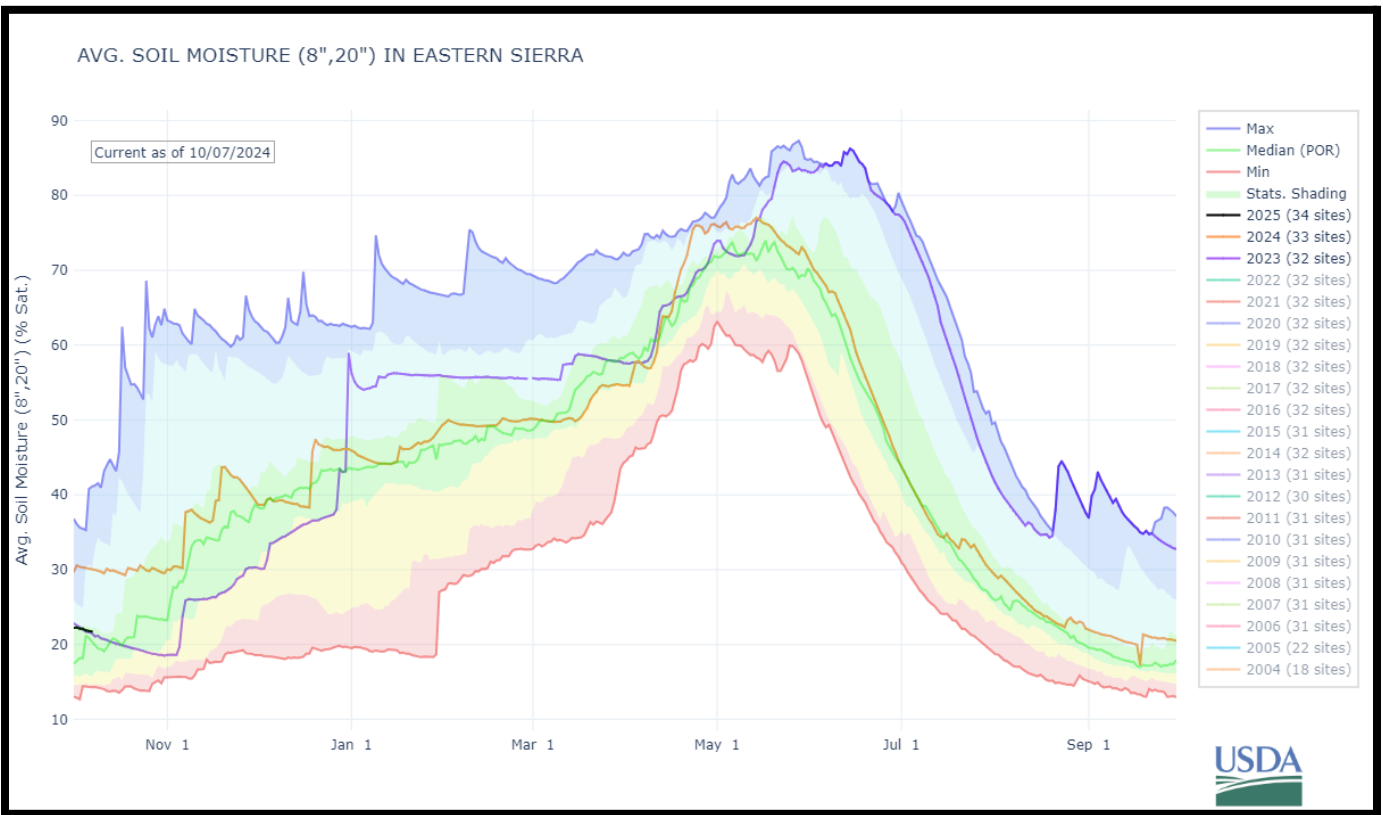


Figure 4: [NRCS SNOTEL soil moisture](#) for the combined Tahoe, Truckee, Carson and Walker basins (upper), and Humboldt basin (lower) indicated in black for the first few days of water year 2025. Water year 2024 is plotted in purple and WY 2023 in orange for additional perspective.

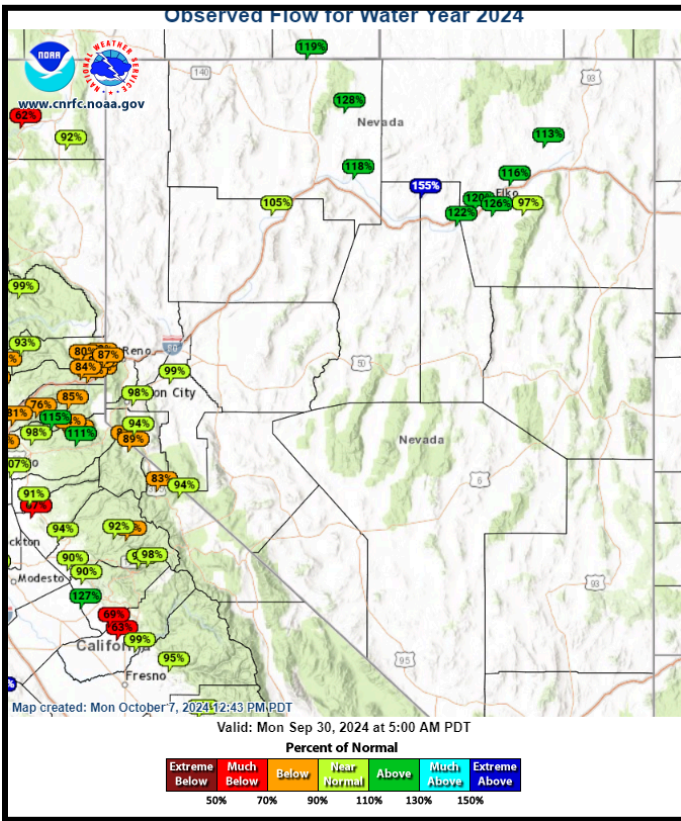


Figure 5. [CNRFC](#) Water year 2024 preliminary volume

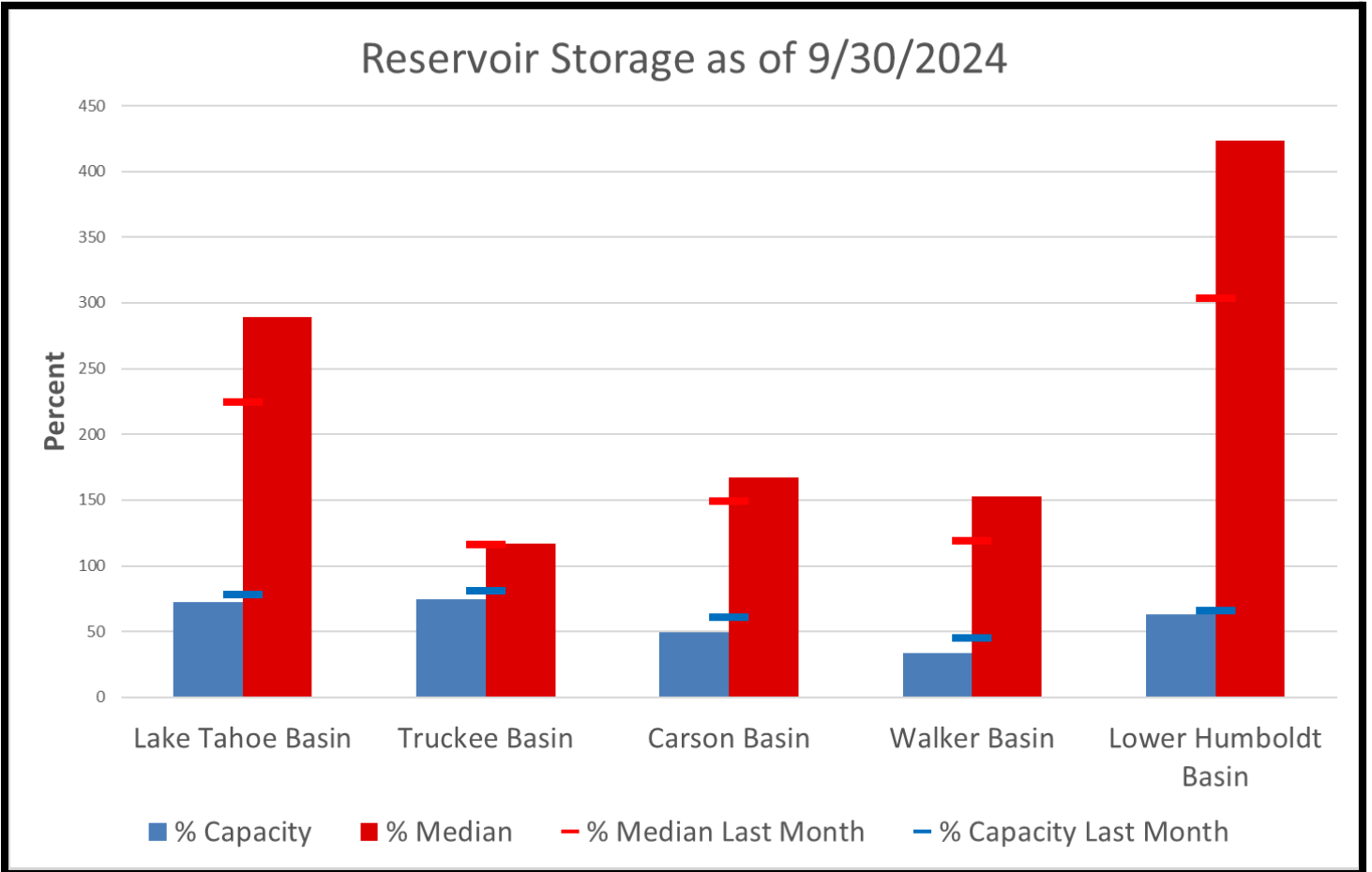


Figure 6. End of September reservoir storage relative to capacity and **median*** for this month and last month. (*note reference was recently update to NRCS 1991-2020 median values)

Southwest - Precipitation

October 2023 - September 2024, Percent of 1991-2020 Computed Average(s)

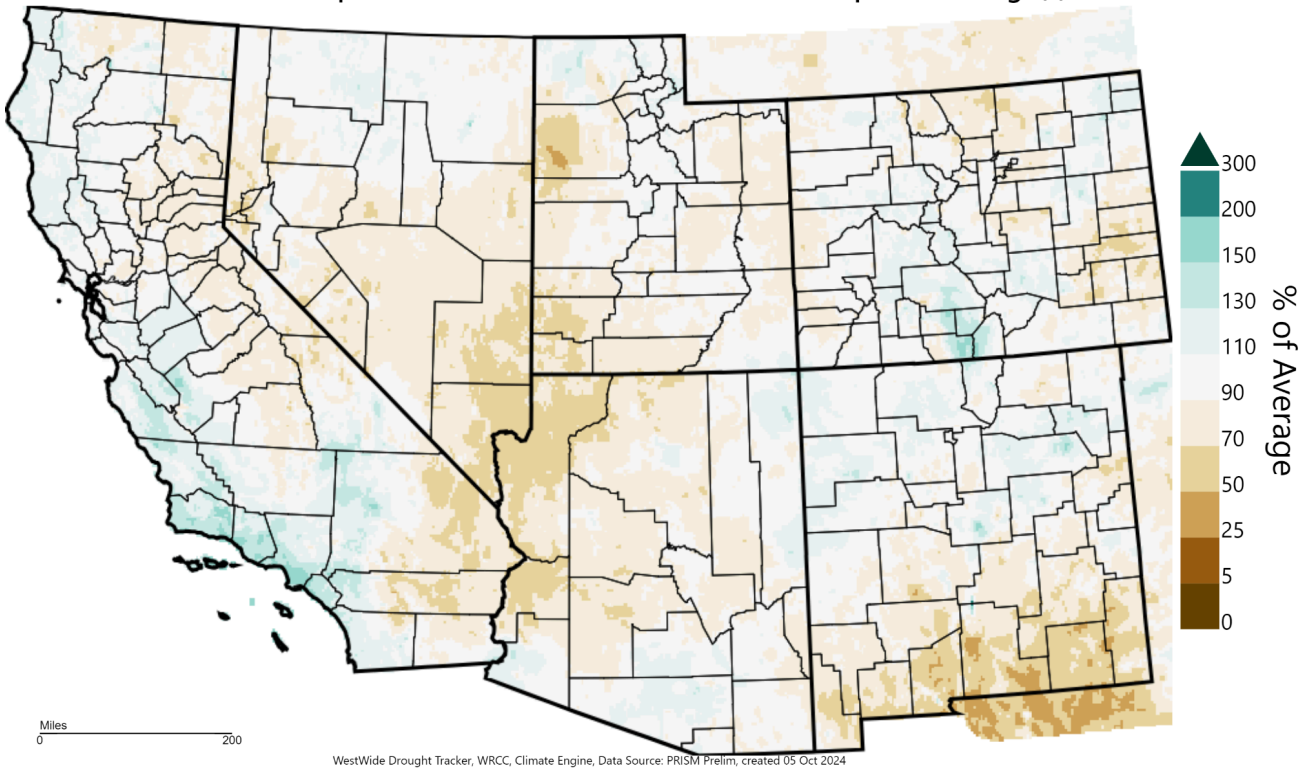


Figure7: Southwest departure from normal precipitation for Water Year 2024 (Oct.-Sept.) [WWDI](#)

Southwest - Mean Temperature

October 2023 - September 2024, Departure from 1991-2020 Computed Average(s)

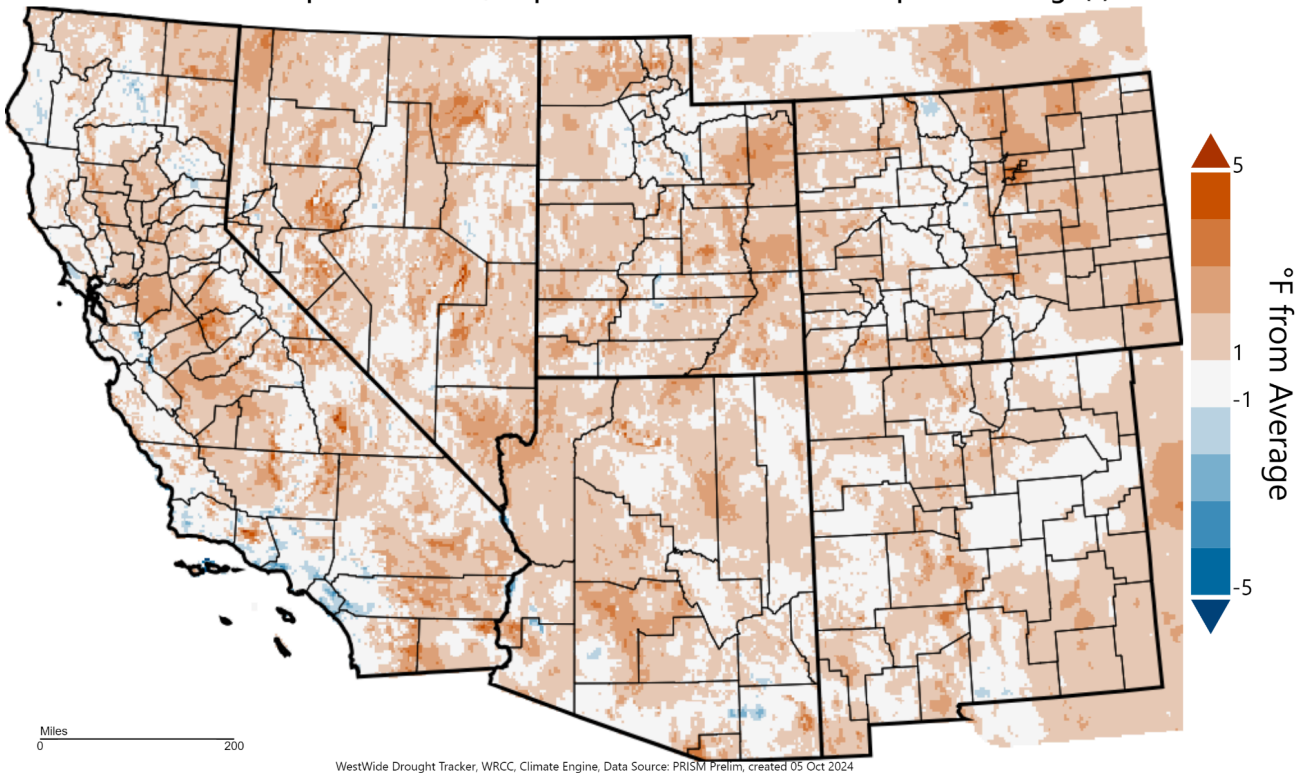
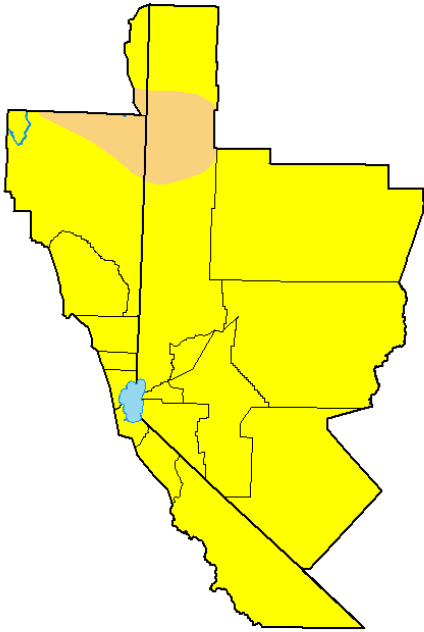


Figure 8: Southwest departure from normal temperatures for Water Year 2024 (Oct.-Sept.) [WWDI](#)

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

October 1, 2024
(Released Thursday, Oct. 3, 2024)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	6.82	0.00	0.00	0.00
Last Week 09-24-2024	0.00	100.00	6.82	0.00	0.00	0.00
3 Months Ago 07-02-2024	68.90	31.10	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 10-03-2023	100.00	0.00	0.00	0.00	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>

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droughtmonitor.unl.edu

Figure 9: Early October Drought Monitor Status. A small area of Moderate drought (D1) in Northern Washoe and NE Lassen counties. Expanding Abnormally Dry (D0) for the remainder of the Hydrologic Service Area. Check for updates at: [Drought Monitor](https://droughtmonitor.unl.edu).