

Monthly Climate Report

NWS Reno NV Issued: 2/14/2025



Weather Synopsis & Highlights:

Average temperatures in January across most of western Nevada were between 1 to 3 degrees below average, except for northern Washoe County which finished around 2 degrees above average. Temperatures were mixed for the Sierra, with most areas within a degree above or below average (Figure 1). Precipitation during January was well below average across the entire region, with the majority of the eastern Sierra receiving only between 5 to 25% of average precipitation during the month (Figure 2). Snowfall ended below average for January throughout the region, with only three days of the month with recordable snowfall in the Sierra.

January started out mild with highs near 60 degrees in lower elevations on the 2nd and 3rd. A fast moving storm brought strong winds on the 3rd to the region, with gusts 65-75 mph in parts of western NV, including the Reno airport and across the Reno North Valleys from Stead to Cold Springs, which produced tree and fence damage (Photo 1). Even stronger winds moved across Mineral County with a peak gust of 87 mph near Walker Lake. Sierra snowfall was generally in the 8-14 inch range for the Tahoe basin near and west of Highway 89 and above 7000 feet. Snow amounts decreased to 3-7 inches for the eastern Tahoe basin (Photo 2) and around Truckee, northeast CA above 5000 feet and southward into western Mono County. Most of western NV received mainly wind but only light rainfall amounts. The only other precipitation in the first half of the month was due to a slider-type system on the 6th which brought areas of rain mainly to lower elevations of eastern CA and western NV. Most rain totals were between 0.05 and 0.20 inch, except a portion of northwest and west central NV including Lovelock received heavier amounts around 0.50 inch.

During the dry stretch of January from the 7th through 24th (Photo 3), temperatures were generally near average through the 11th, then dipped to 5-10 degrees below average for the 12th-13th. A steady warmup then occurred with highs approaching 60 degrees in far western NV on the 17th, before a pair of dry cold fronts brought temperatures back down below average on the 18th and 20th. Milder temperatures then returned from the 21st through the 24th.

During the weekend of the 26th-27th, a cold low pressure dropped southward across western NV and into southern CA, bringing the coldest days of the month with highs remaining below freezing in parts of western NV and eastern CA, about 15-20 degrees below average. This system also brought an area of dry powdery snow to parts of western NV and the eastern Sierra. Snowfall amounts were generally 1-3 inches across the urban areas of far western NV (Photo 4 and 5), with parts of the eastern Sierra receiving 6-10 inches, and up to 15 inches around Mt. Rose and June Mountain.

A few days of quieter weather returned with valley inversions from the 27th through 30th, along with a gradual warming trend. A transition to a much more active weather pattern began on the final day of the month, with the first wave of Pacific moisture bringing rain and snow showers to the Sierra and northeast CA, with

increasing winds spreading into western NV. Between 3-8" of snowfall was recorded on the last day of the month with the beginning of an atmospheric river that extended into February.

Hydrology:

The prolonged dry spell in January did a number on the regional snowpack. While low elevations and sunny aspects lost some snow, the lack of new snow caused the Sierra SNOTEL sites to drop well below median, and Northern Nevada to drop to near median (Figures 3 and 4). For the eastern Sierra January is historically the biggest accumulation month, so each week without snow we fell further behind normal. Fortunately February has started off with more active weather, and as last year proved it is not too late to catch up if we get a wet February and March, but the odds of reaching a median spring time peak snowpack is about 30% in both the east side of the Sierra and the Humboldt Basin. Soil moisture at SNOTEL sites both on the east side of the Sierra and in the Humboldt basin were below normal at the end of January, the early February storm brought both areas close to normal (Figure 5). Streamflow for the month of January was near normal in most areas (Figure 6), but water year to date streamflow volume still lags below average in most areas south of I-80, and is a bit more favorable to the north (Figure 7). April-July water supply forecasts are mostly below average, and had significant decreases through much of January, but rebounded somewhat with early February storms (Figure 7).Reservoir storage is near to well above normal for the end of January, most notably in Lake Tahoe and Rye Patch Reservoir (Figure 8).

Drought Update:

Drought conditions based on the <u>U.S. Drought Monitor</u> remained mostly unchanged for the month of January in the NWS Reno service area with the exception of a small area of severe drought in SE Mono county (Figure 9). The January precipitation deficit was very significant throughout the service area, but parts of southern Washoe, northern Lyon, Churchill, eastern Mineral and Southern Mono have been particularly dry for the entire water year (Figure 10). Water year temperatures have also been above normal with a few exceptions (Figure 11). Unless February and March are particularly wet, further drought expansion and impacts are likely this spring. Please report any drought impacts <u>here</u>, or email rev.climate@noaa.gov

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/

Photos:



Photo 1: Wind damage in Sparks on the 3rd. Courtesy of 2 News Digital Team.



Photo 2: Heavy snowfall led to travel headaches across the Sierra on January 3rd. Photo courtesy of Caltrans.



Photo 3: Most of January was precipitation free, with warm days and cold nights. Photo courtesy of the Nevada Seismology Laboratory.



Photo 4: Areas of snowfall impacted western Nevada and eastern Sierra on the 25th to 26th. Photo courtesy of NWS Reno.



Photo 5: Snowfall fell along the eastern Sierra mostly east of the crests during the 25-26th. Photo courtesy of Gina Beninato Palma on Facebook.

Figures:



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



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



Figure 3. NRCS % of median snow water equivalent for late January.



Figure 4. <u>NRCS Snow Water Equivalent</u> for the combined Tahoe, Truckee, Carson and Walker basins with WY 2025 in black and other recent years for reference.



Figure 5: <u>NRCS SNOTEL soil moisture</u> for the combined Tahoe, Truckee, Carson and Walker basins (upper), and Humboldt basin (lower) indicated in black for the first four months of water year 2025. Water year 2024 is plotted in orange for additional perspective.







Figure 7. Left figure <u>CNRFC</u> Water year 2025 observed flow to date and right figure <u>CNRFC April-July</u> forecast volume both as % of average, both as of February 5th.



Figure 8. End of January 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 9: Late January Drought Monitor Status. Check for updates at: Drought Monitor.



Figure 10: Water year to date precipitation. Courtesy of West Wide Drought Tracker. (WWDT)



Western United States - Mean Temperature October 2024 - January 2025, Departure from 1991-2020 Average

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