

# Nevada Drought Update - October 2024

Drafted 14-16 October 2024

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## Drought returns to southern Nevada; abnormally dry conditions expand to cover the rest of Nevada.

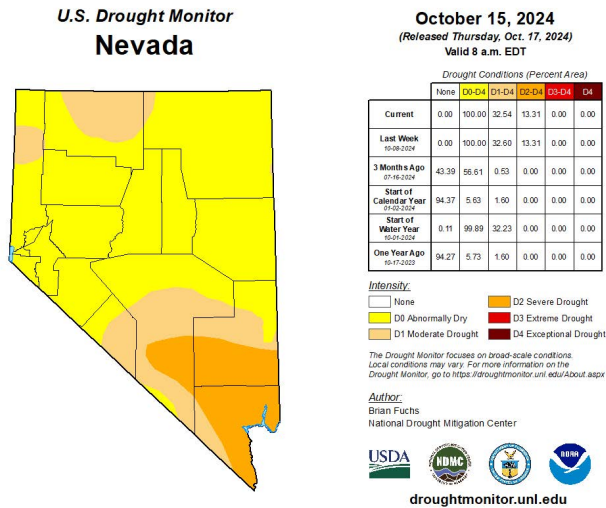


Figure 1. U.S. Drought Monitor for Nevada on 15 October 2024.

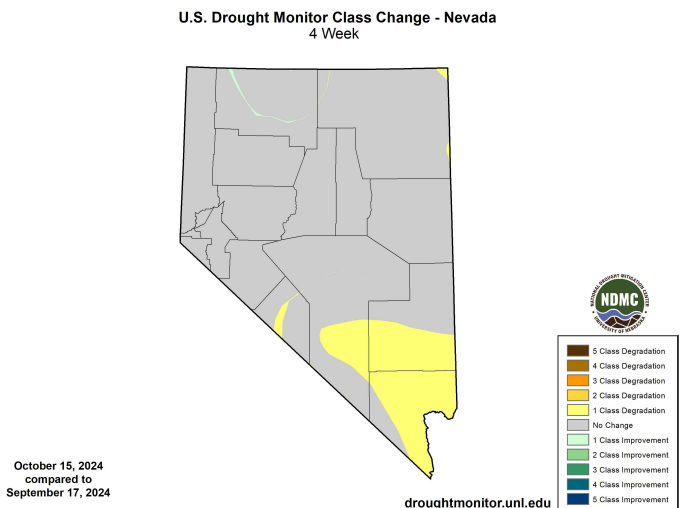


Figure 2. U.S. Drought Monitor Class Change for Nevada between 17 September and 15 October 2024.

Persistent heat combined with limited to no precipitation has resulted in the emergence of Moderate (D1) and Severe (D2) Drought in southern Nevada (Fig. 1). As of 15 October 2024, 33% of the state was classified in Drought (D1 or D2), with 13% classified as Severe Drought (D2) – including nearly all of Clark County and the southern portions of Nye and Lincoln counties. These areas experienced a degradation of one category from Moderate Drought (D1) to Severe Drought (D2) since the beginning of September (Fig. 2). Drought indicators have worsened substantially since January 2024 when less than 2% of the state was classified in Moderate Drought (D1) or higher. The percent of Nevada classified as Abnormally Dry (D0) has increased from only 4% in January to 68% in early October 2024 (Table 1).

Above to much-above normal temperatures occurred across Nevada in September 2024 (Fig. 3). Portions of Elko County in northeastern Nevada and Clark County in southern Nevada exhibited the record warmest conditions. Precipitation was slightly above normal across western Nevada and below normal across eastern Nevada, especially in the southeast corner of the state where the record driest September was observed (Fig. 4). Reservoir storage capacity remained above median percent capacity values for the beginning of October, especially at Lake Tahoe, Donner Lake, Stampede Reservoir, and Wild Horse Reservoir (Fig. 5).

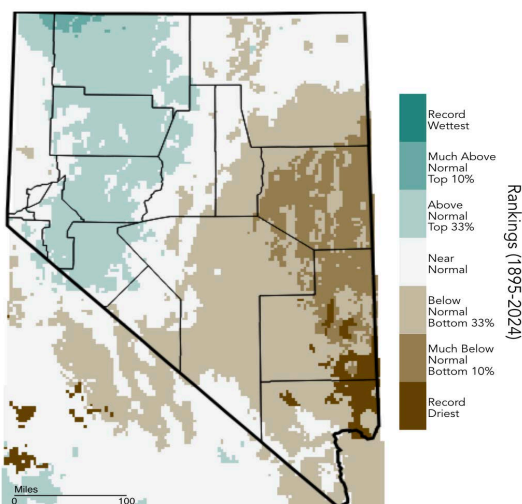


Figure 3. Average monthly temperature for September 2024 compared to all Septembers since 1895.

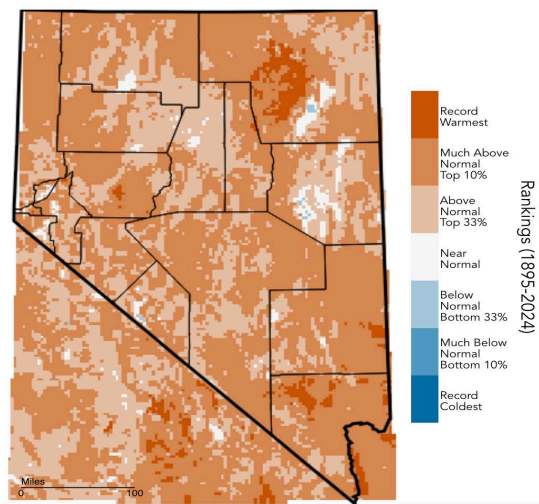


Figure 4. Total monthly precipitation for September 2024 compared to all Septembers since 1895.

Date	January 2 <sup>nd</sup> 2024	April 2 <sup>nd</sup> 2024	July 2 <sup>nd</sup> 2024	October 1 <sup>st</sup> 2024
None	94	85	84	0
Abnormally Dry- D0	4	13	16	68
Moderate Drought- D1	2	1	0	32
Severe Drought- D2	0	0	0	0
Extreme Drought- D3	0	0	0	0
Exceptional Drought- D4	0	0	0	0

Table 1. Percent of Nevada in each drought class from the [US Drought Monitor](#).

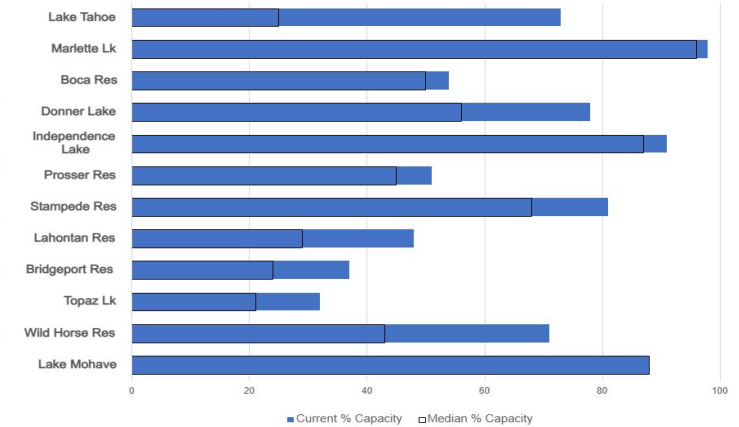


Figure 5. Reservoir storage capacity for 1 October 2024.

Streamflow on rivers monitored by the USGS is near normal (25-75th percentile) across western Nevada in the Truckee and Walker River basins, extending into much of the Humboldt River basin in north central Nevada (Fig. 6). A roughly equal number of gauging stations in these respective basins are below normal (10-24th percentile) and above normal (76-90th percentile) indicating considerable spread in streamflow. The Lower Humboldt River near Paradise Valley in northern Nevada was at a record low of  $5.2 \text{ ft}^3 \text{ s}^{-1}$  on 14 October, as was Rogers Spring near Overton Beach in Clark County with a discharge of only  $1.3 \text{ ft}^3 \text{ s}^{-1}$ . Discharge near the Spring Mountains of Clark County remains much above normal (>90th percentile).

The latest U.S. Monthly Drought Outlook for October 2024 projects drought conditions to persist across southern and extreme northern Nevada (Fig. 7). No additional drought development is expected across the state. The 17 October 2024 guidance from the European Centre for Medium Range Weather Forecasting (ECMWF) ensemble forecasting system suggests a more active storm track the rest of the month with measurable precipitation likely across nearly all the state along with more seasonable temperatures (Fig. 8).

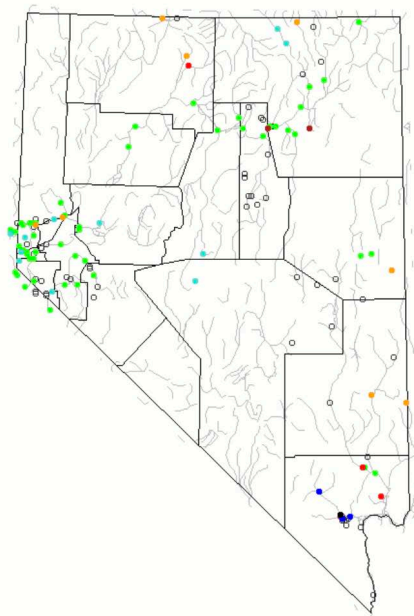


Figure 6. USGS streamflow observations on 14 October 2024.

### U.S. Monthly Drought Outlook Drought Tendency During the Valid Period

Valid for October 2024  
Released September 30, 2024

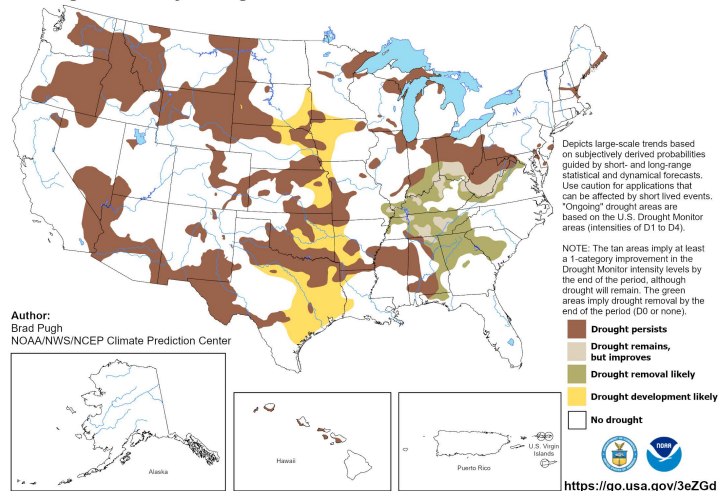


Figure 7. U.S. Monthly Drought Outlook for October 2024.

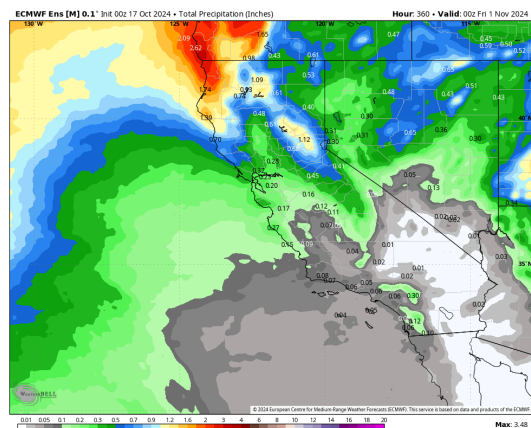


Figure 8. European Centre for Medium Range Weather Forecasting (ECMWF) Ensemble Mean precipitation from 17 October to 1 November 2024.