

Nevada Drought Update - November 2024

5 November 2024

Prepared by B. Perry (Nevada State Climatologist) and G. Dmitruk (Graduate Assistant)

Drought persists in southern Nevada with abnormally dry conditions continuing across the rest of the state. Some drought improvement noted in northwestern Nevada.

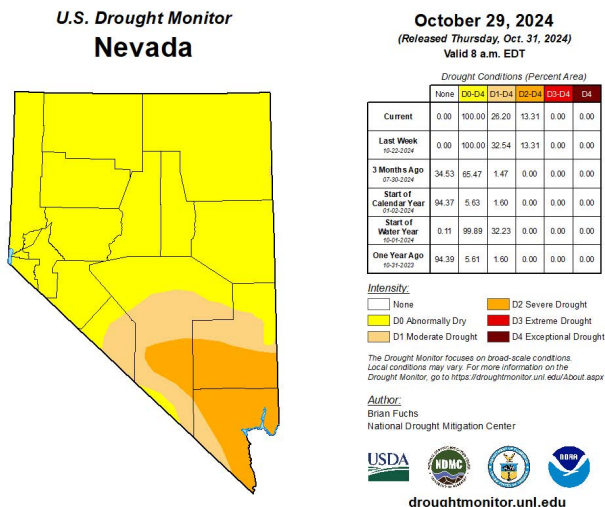


Figure 1. U.S. Drought Monitor for Nevada on 29 October 2024.

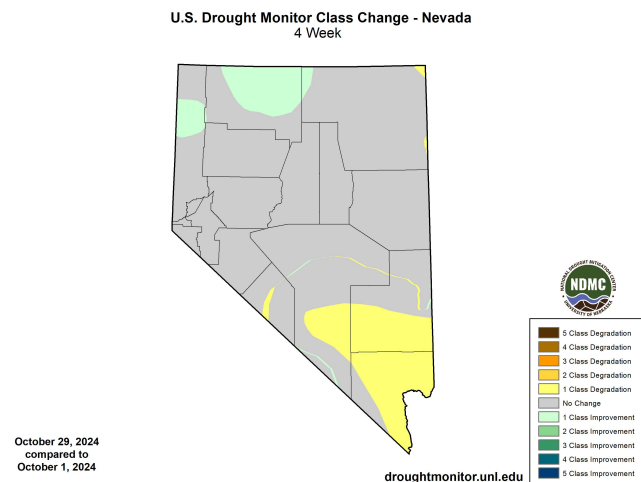


Figure 2. U.S. Drought Monitor Class Change for Nevada between 1 October and 29 October 2024.

Continued early-fall warmth and limited to no precipitation has allowed Moderate (D1) and Severe (D2) Drought to persist in southern Nevada (Fig. 1). As of 29 October 2024, 26% 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 October. Meanwhile, portions of northern Washoe and northern Humboldt counties exhibited improved conditions, going from Moderate Drought (D1) to Abnormally Dry (D0) (Fig. 2). Drought indicators have worsened substantially since February 2024 when they were confined to just 16% of the state in Abnormally Dry (D0) and 1% of the state in Moderate Drought (D1). In contrast, as of today, the entire state is rated as Abnormally Dry (D0) or worse (Table 1).

Much-above normal (top 10%) to record high average temperatures occurred across Nevada in October 2024 (Fig. 3). Portions of Elko County in northeastern Nevada and Lincoln and Clark counties in southern Nevada exhibited the record warmest conditions. Precipitation was near normal in western Nevada, slightly above normal across extreme northwestern Nevada, and below normal across southern and eastern Nevada, especially in the south where the record driest October was observed with no measurable precipitation in Las Vegas (Fig. 4). Despite this, reservoir storage capacity remained above median percent capacity values for nearly all the state for the beginning of November, especially at Lake Tahoe, Donner Lake, Stampede Reservoir, and Wild Horse Reservoir. Boca Reservoir and Lake Mead were the only two reservoirs below median capacity for the date (Fig. 5).

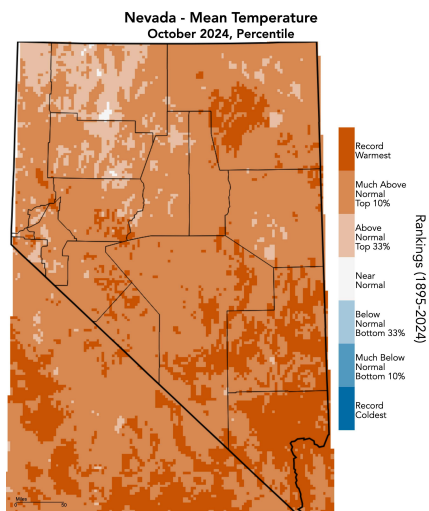


Figure 3. Average monthly temperature for October 2024 compared to all Octobers since 1895 (WestWide Drought Tracker, WRCC).

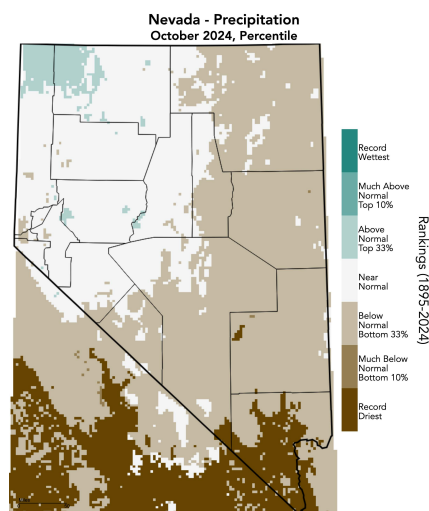


Figure 4. Total monthly precipitation for October 2024 compared to all Octobers since 1895 (WestWide Drought Tracker, WRCC).

Table 1. Percent of Nevada in each drought class from the U.S. Drought Monitor.

Date	30 January 2024	30 April 2024	30 July 2024	29 October 2024
None	81	95	35	0
Abnormally Dry: D0	17	3	64	74
Moderate Drought: D1	2	1	1	13
Severe Drought: D2	0	0	0	13
Extreme Drought: D3	0	0	0	0
Exceptional Drought: D4	0	0	0	0

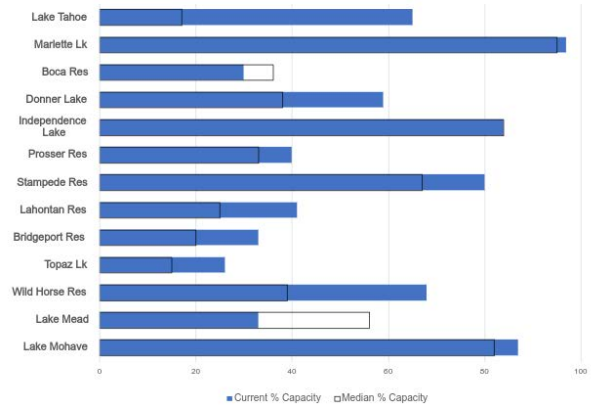


Figure 5. Reservoir storage capacity for 1 November 2024.

Streamflow on rivers monitored by the USGS is near normal (25-75th percentile) across much of 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 some variability in streamflow. The Lower Humboldt River near Paradise Valley in northern Nevada was at a record low of 5.1 ft³ per second on 4 November, as was Rogers Spring near Overton Beach in Clark County with a discharge of only 1.3 ft³ per second. Discharge near the Spring Mountains of Clark County remains above normal (>75th percentile).

The latest U.S. Monthly Drought Outlook for November 2024 projects drought to persist across southern Nevada (Fig. 7). No additional drought development is expected across the state during the next month. The latest U.S. Monthly Outlook for November 2024 indicates equal chances for above or below normal temperature (Fig. 8) and precipitation (Fig. 9).

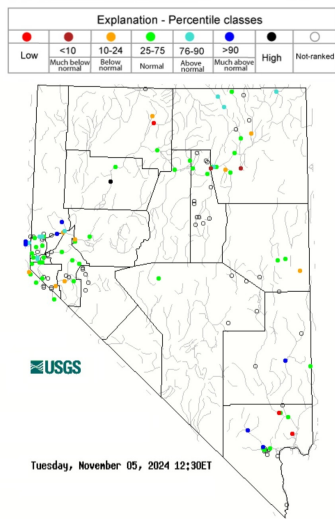


Figure 6. USGS streamflow observations on 4 November 2024.

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

Valid for November 2024
Released October 31, 2024

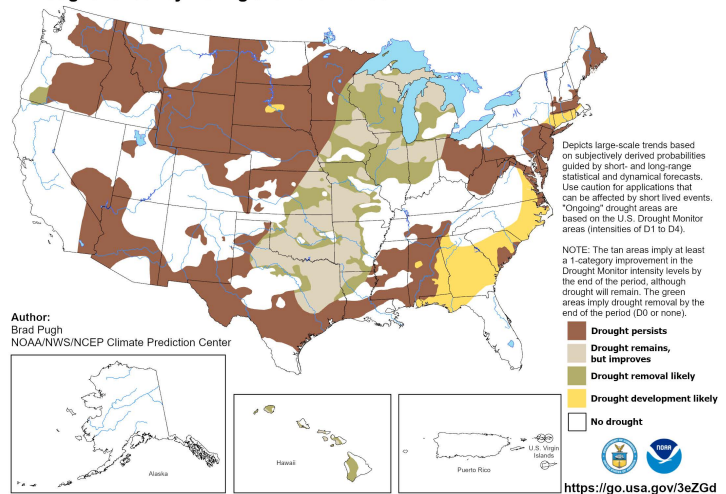


Figure 7. U.S. Monthly Drought Outlook for November 2024.

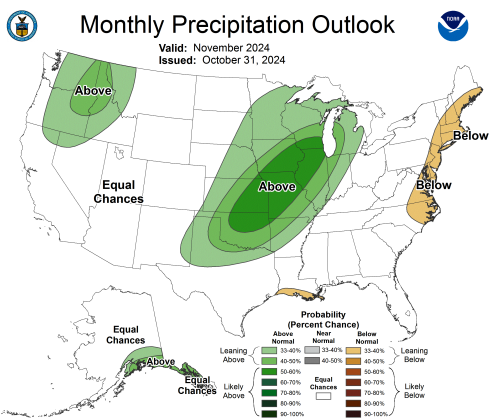


Figure 8. U.S. Monthly Temperature Outlook for November 2024.

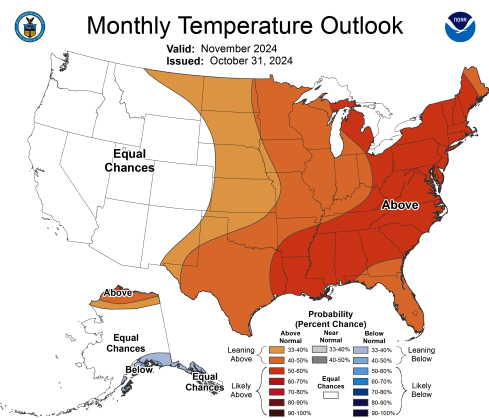


Figure 9. U.S. Monthly Precipitation Outlook for November 2024.