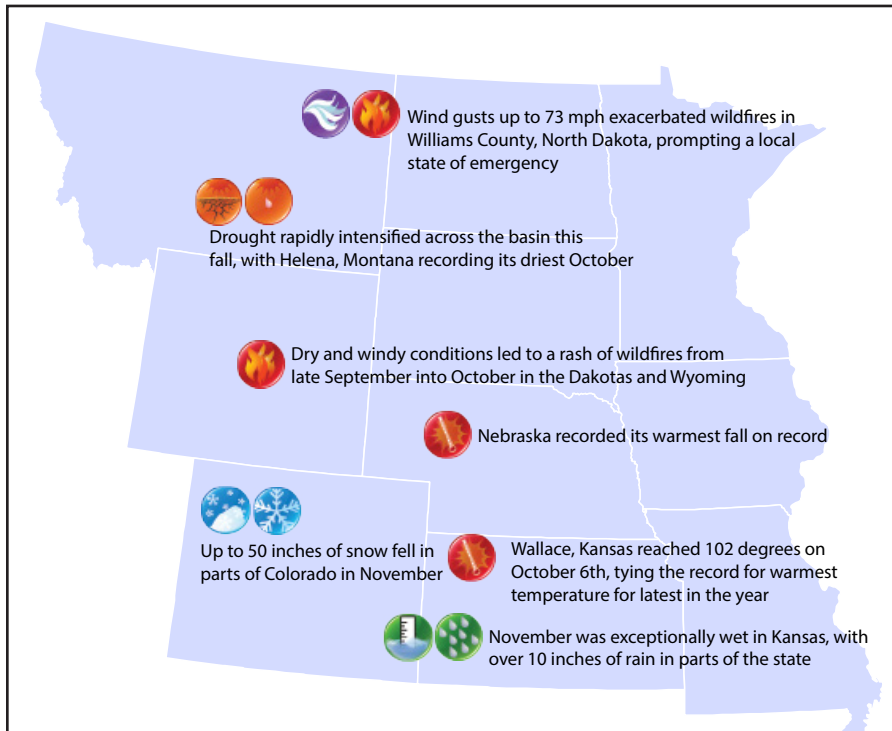




Regional – Significant Events for September - November 2024



Highlights for the Basin

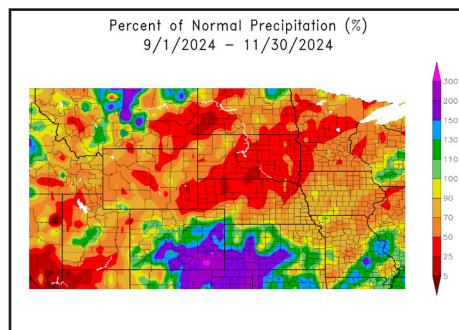
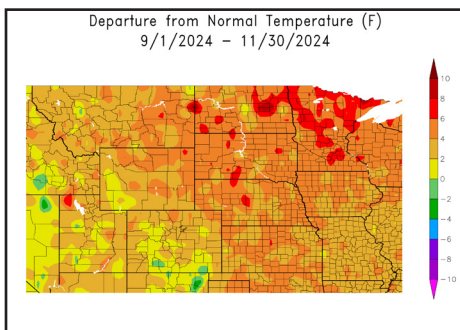
Record heat and dryness plagued the region through September and October. This two-month period was the record warmest in Colorado, Montana, South Dakota, and Wyoming, and 2nd warmest for Nebraska and North Dakota. Despite some precipitation at the very end of October, Nebraska and South Dakota also experienced the top 5 driest September and October on record.

Hundreds of wild and field fires burned nearly 300,000 acres in the Basin. A lightning strike in Bighorn National Forest near Sheridan, Wyoming on September 27th led to nearly 100,000 acres burned. The fire expanded over 10,000 acres on 3 separate days due to windy conditions. North Dakota reported a total of 190 fires and 126,000 acres burned in October.

Regional – Climate Overview for September - November 2024

Temperature and Precipitation Anomalies

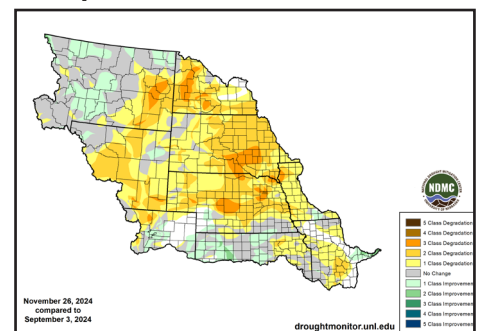
Departure from Normal Temperature (°F) (left) and Percent of Normal Precipitation (right) for Fall 2024



Changes in

Drought Conditions

Sep. 3 to November 26, 2024



This fall was exceptionally hot across the basin, ranking the 2nd warmest on record. September and October were historically warm, with 151 counties recording their warmest two-month period. The west was slightly cooler in November, however, but the eastern parts of the basin remained fairly warm. A total of 69 counties recorded their warmest fall, 33 of which were in Nebraska.

Overall, precipitation was well below normal for the Basin except for parts of Kansas. Outside of isolated pockets in September and October, the region did not experience widespread precipitation until November. Over 30 counties in Nebraska and the Dakotas recorded their driest September-October, while 16 counties in Kansas recorded their wettest November on record.

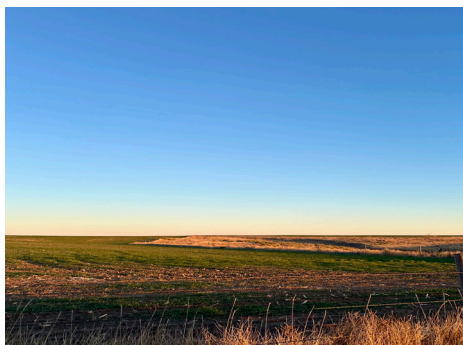
The map above shows the areas of increasing (yellow shading) and decreasing (green shading) categories of drought. Conditions this fall deteriorated rapidly due to the dryness and warmer temperatures, with up to four classes of degradation in Nebraska. Extreme drought (D3) expanded by over 11 percent this fall.



Regional – Impacts for September - November 2024

Agriculture

Harvest was completed early, up to weeks in advance, with shortages of train cars around Halloween to haul grain due to its speed. Harvest and combine fires occurred across the region, with farmers in parts of Nebraska and South Dakota asked to stop harvesting for several days due to the elevated fire risk. Corn yields in Nebraska and South Dakota could [tie record highs](#) this year.



Economy

Conditions this fall were optimal for agrotourism, with great turnouts reported at pumpkin patches and corn mazes. The warmth and dryness were less than optimal for hunting conditions, most notably delaying waterfowl migration. Elk habitats in Wyoming were destroyed by wildfires, leading to a [subpar hunting season](#). The drought and fires led to one of the [largest cattle sales](#) in a decade in Torrington, Wyoming.



Wildfires

Hundreds of thousands of acres were burned by wildfires this fall, predominantly in the northern part of the basin. The [Elk Fire](#) in Wyoming closed numerous roads and led to multiple evacuations, with [smoke visible](#) across Sheridan County for nearly a month. Numerous fires in North Dakota [during October](#) led to two deaths and over seven million dollars in damage.



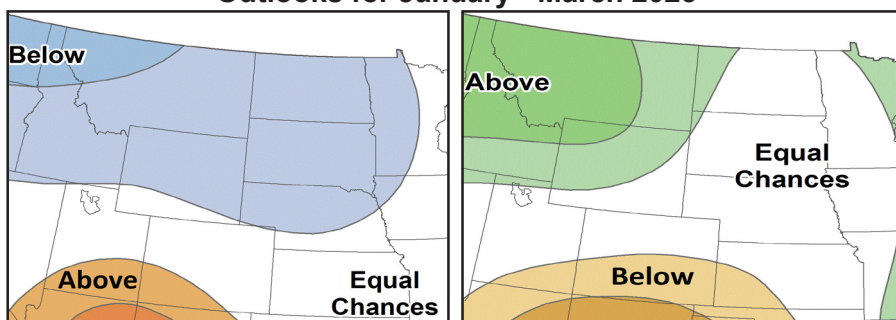
Above: Winter wheat in western Kansas, credit Gannon Rush (left); Combine fire in North Dakota, credit Kindred, North Dakota Fire Department (center); The Elk Fire in Wyoming, credit US Forest Service (right)

Regional – Outlook for January - March 2025

Temperature

Precipitation

Outlooks for January - March 2025



EC: Equal chances of above, near, or below normal

A: Above normal, B: Below normal

According to NOAA's Climate Prediction Center, the outlook for the upcoming season follows a typical La Niña pattern with increased chances of below-normal temperatures across the Dakotas, Montana, Nebraska, and Wyoming. Increased chances of above-normal precipitation are possible in Montana and Wyoming, while below-normal precipitation is slightly favored in southern Colorado and southwestern Kansas. The rest of the basin has equal chances of above, below, and near-normal precipitation.

As of December 16th, there is a 59 percent chance of La Niña developing this winter. Conditions will not last for long, with a quick shift to ENSO-neutral possible in the spring.

MO River Basin Partners

- [High Plains Regional Climate Center](#)
- [National Drought Mitigation Center](#)
- [National Integrated Drought Information System](#)
- [National Centers for Environmental Information](#)
- [National Weather Service- Central Region](#)
- [NOAA Climate Prediction Center](#)
- [NWS Missouri Basin River Forecast Center](#)
- [American Association of State Climatologists](#)
- [U.S. Army Corps of Engineers](#)
- [U.S. Bureau of Reclamation](#)
- [USDA Northern Plains Climate Hub](#)
- [Bureau of Indian Affairs – Great Plains Region](#)