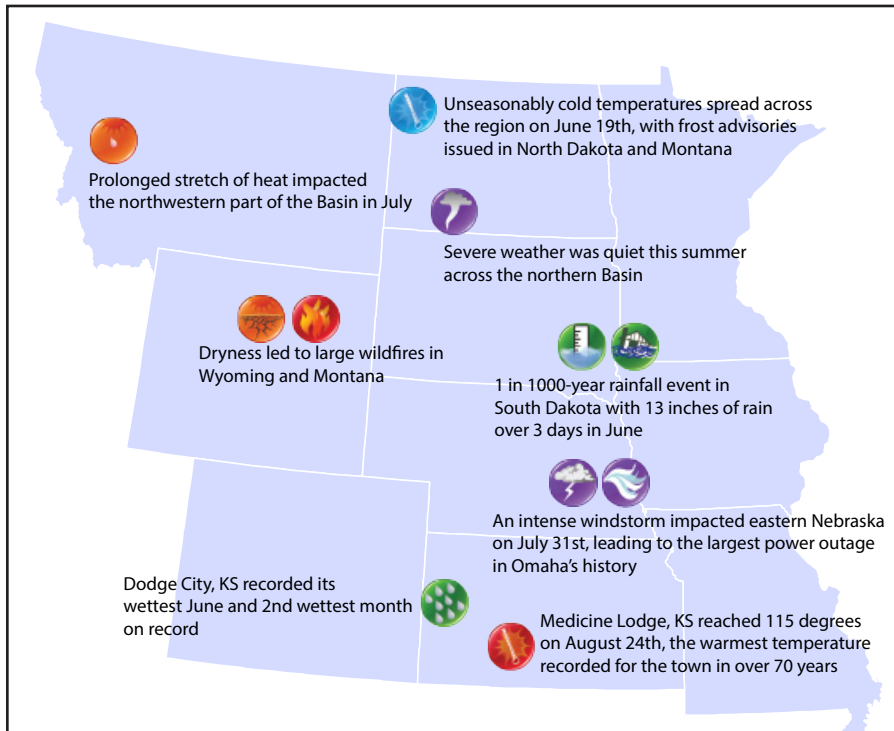




Regional – Significant Events for June - August 2024



Highlights for the Basin

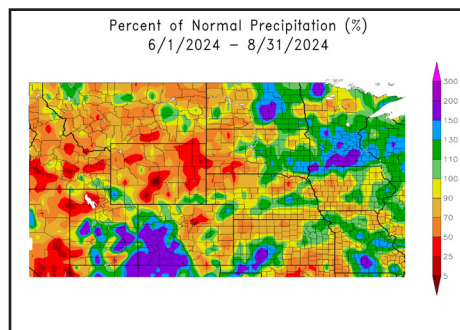
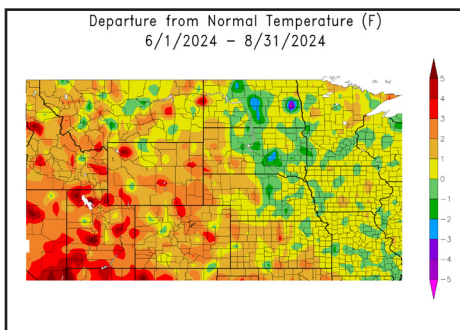
After starting off July with cooler temperatures, conditions rapidly flipped to scorching hot in the upper parts of the Basin. Kalispell, Montana recorded 17 consecutive days of highs above 90 degrees, beating the previous record by 4 days. The heat was not just limited to lower elevations, temperatures reached 86 degrees in parts of Yellowstone National Park above 9,000 feet.

Significant flooding occurred after thunderstorms hit in parts of South Dakota and Iowa on June 20-22. Multiple river gauges in the Big and Little Sioux Rivers observed record flows after the heavy rains. River stage records were shattered by over 7 feet near Sioux City and other locations surpassed flows set during the floods of March 2019.

Regional – Climate Overview for June - August 2024

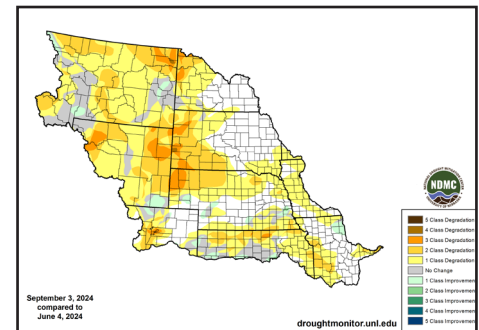
Temperature and Precipitation Anomalies

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



Changes in Drought Conditions

June 4 to September 3, 2024



Overall, temperatures were slightly above normal this summer for most of the Basin. June brought warmer temperatures across the southern Basin, while July was exceptionally hot in Montana and the western Dakotas. August brought near-normal temperatures for large parts of the region. 20 counties in southern and eastern Colorado ranked in the top 5 warmest this summer.

Precipitation this summer was mixed, with areas in the northern High Plains missing out on most of the rain. June and August were fairly wet, however, July featured minimal precipitation in portions of Montana and Wyoming. Weston County, Wyoming and Custer County, South Dakota ranked in the top 4 driest this summer.

The map above shows the areas of increasing (yellow shading) and decreasing (green shading) categories of drought. Drought conditions rapidly intensified, with up to 4 classes of degradation in parts of Montana and South Dakota. Exceptional drought (D4) was reintroduced in Montana for the first time in two years.



Regional – Impacts for June - August 2024

Agriculture

Several hailstorms across central Nebraska ruined thousands of acres of crops, putting a damper on what is expected to be well above-average yields this year. Despite drought in both states, reports of winter wheat yields were positive out of [Kansas](#) and South Dakota. Pasture conditions in Montana and Wyoming are abysmal, with over 50 percent [reported](#) to be in poor to very poor shape.



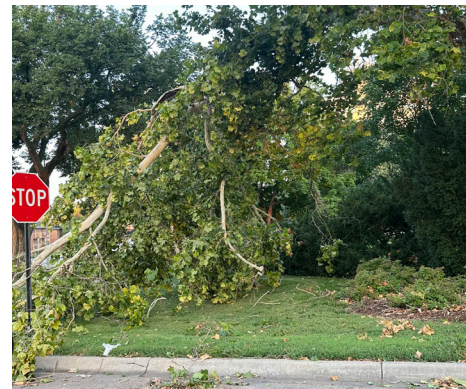
Flooding

The exceptional rainfall and subsequent flooding in southeast South Dakota and northwest Iowa led to significant impacts. Spencer, IA was [completely underwater](#) in the aftermath, while a railroad bridge connecting the two states was [swept away](#). Downstream, homes in McCook Lake, South Dakota [were damaged](#) and Interstate 29 [was closed](#).



Wildfires

Persistent dryness and warmer temperatures this summer led to several massive wildfires in the west. Over 500,000 acres have burned in [multiple fires](#) in northern Wyoming and southern Montana. Along the foothills in Colorado near Loveland, nearly 10,000 acres burned and numerous homes [were destroyed](#) by a fire in late July.



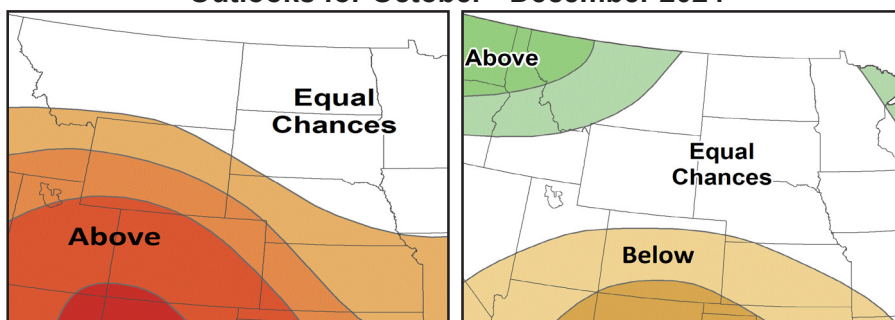
Above: Corn in central Nebraska, credit Gannon Rush (left); Flooded fields in South Dakota, credit Matt Kostal (center); Storm damage in Lincoln, Nebraska, credit Gannon Rush (right).

Regional – Outlook for October - December 2024

Temperature

Precipitation

Outlooks for October - December 2024



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 indicates increased chances of above-normal temperatures across the southern and western portions of the basin. Slightly elevated chances of below-normal precipitation are present in Colorado and Kansas, above-normal precipitation is slightly favored in western Montana.

As of September 12th, there is a 71 percent chance of La Nina developing during the September to November period and will continue into the winter months. The potential of warmer temperatures and below normal precipitation this fall across drought-stricken Kansas could lead to further issues for winter wheat.

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](#)