

## MIDWEST & MISSOURI RIVER BASIN

OCTOBER 11, 2018



### Rainfall Brings Much-Needed Drought Relief to Missouri, Kansas, and Iowa

- Recent rainfall has brought much-needed relief to the hardest-hit drought areas in MO, KS, and IA, however, at the same time, drought conditions worsened in ND (Figure 1).
- Although rainfall has improved conditions, drought recovery may be slow in areas that experienced extreme or exceptional drought this summer - particularly where surface water and groundwater was limited.
- Winter is typically the driest season, making autumn a key season for recovery from hydrologic drought. The region depends on continued precipitation during the autumn months in order to replenish depleted subsurface hydrologic conditions.

### CURRENT CONDITIONS

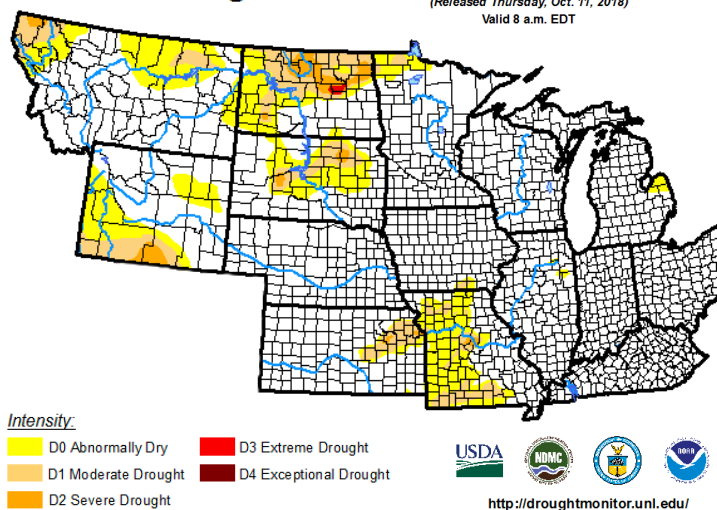
- Recent rainfall has significantly improved drought conditions in northwest MO, eastern KS, and southern IA. Over the last 14 days, at least 5 inches of rain fell in most areas, with localized totals of 10-15 inches near the MO/KS border (Figure 2).
- River levels are [at or above flood stage](#) for many stations in these areas due to the significant rainfall. Streamflow across the rest of the region is normal to above normal.
- Below-normal precipitation has contributed to the expansion of severe to extreme drought across ND over the last two months (Figure 3).
- [Groundwater](#) is slowly starting to recover in northwest MO, while remaining significantly below normal in other areas of the state. Pockets of below-normal [soil moisture](#) persist in MO, northern MN, and ND.

### IMPACTS

- A [few cities in Missouri](#) are still enforcing water conservation measures until reservoirs are able to show some recovery. The reservoir in Hamilton, MO is 71.5" below full, while the one in Elmwood is 91" below full. For Elmwood, conservation will continue until the reservoir is within 4 feet (48") of normal.
- According to the [USDA](#), MO has the highest percentage of corn reported in very poor or poor condition (40%) compared to the other 17 corn-producing states in the US.
- Signs started appearing in [early September](#) that corn in northwest Missouri suffered from the significant drought conditions this summer. There are initial reports of reduced yield and drought-damaged harvested corn.
- Pasture conditions have improved over the last several weeks in MO, with only 33% in poor to very poor condition, compared to 72% in mid-August (Figure 4).

### U.S. Drought Monitor

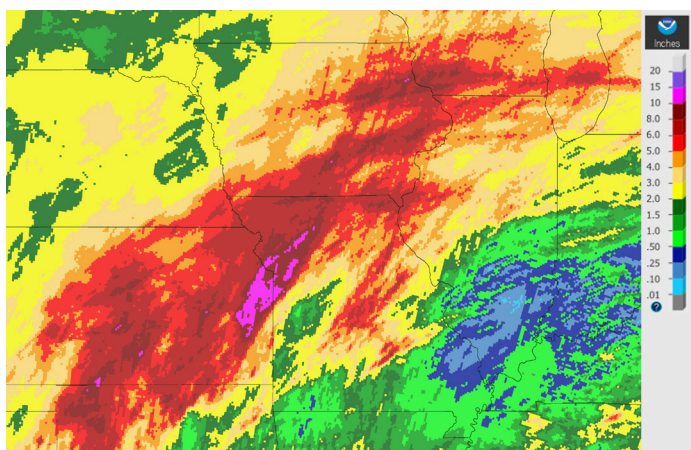
October 9, 2018  
(Released Thursday, Oct. 11, 2018)  
Valid 8 a.m. EDT



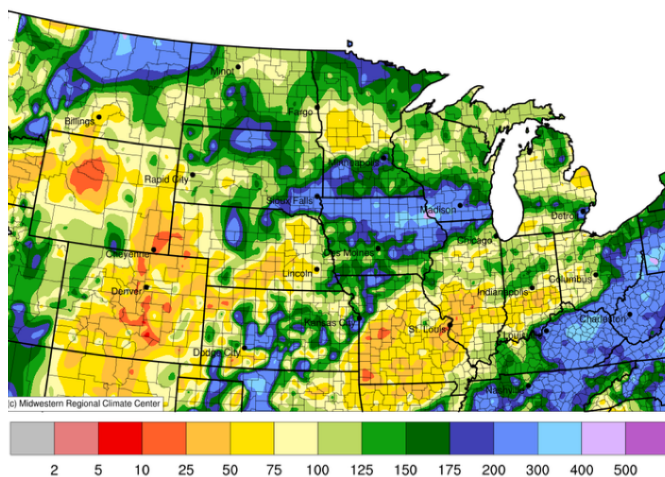
**Fig 1.** Moderate to extreme drought exist in the Midwest and Missouri River Basin, with extreme drought (D3) in North Dakota. Moderate to severe drought (D1-D2) is affecting Iowa, Kansas, Minnesota, Missouri, Montana, North Dakota, South Dakota, and Wyoming. Source: U.S. Drought Monitor

### Do you have local drought impacts?

Report them to the [Drought Impact Reporter](#).



▲ **Fig 2.** The 14-day observed precipitation ending October 10, 2018 across southern portions of the Central U.S. Source: NOAA National Weather Service



▲ **Fig 3.** The percent of normal precipitation over the last 30 days (September 11–October 10, 2018) across the north central U.S. Source: Midwestern Regional Climate Center

## OUTLOOK

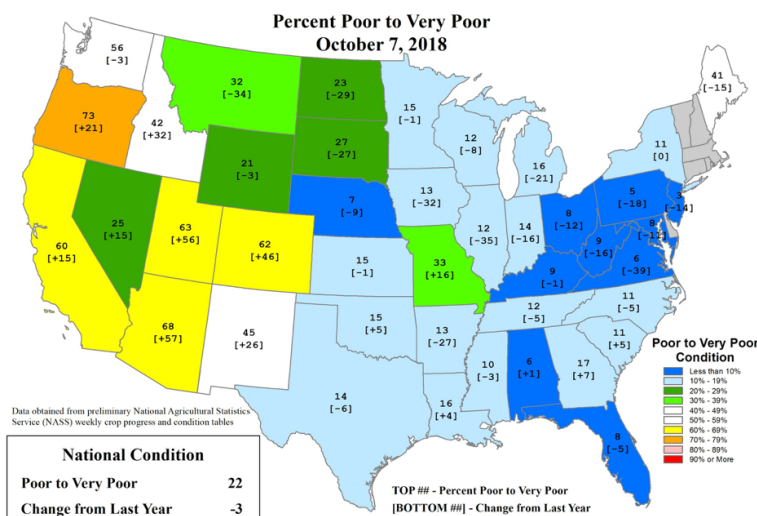
- Winter is typically the driest season, making autumn a key season for recovery from hydrologic drought. The region depends on continued precipitation during the autumn months in order to replenish depleted subsurface hydrologic conditions.
- The precipitation outlook for October 18–24, 2018 shows a greater chance for below-normal precipitation across the central U.S. (Figure 5)
- The dryness is welcomed and necessary to allow harvest to continue. However, additional precipitation will be needed to continue improvement in the driest areas of the Midwest and Missouri River Basin.

### Drought Resources:

- [NDMC interactive map](#) showing drought impacts
- [Find your state climatologist](#)
- [Register now](#) for the October 18, 2018 North Central Climate and Drought Outlook Webinar

### Next Update

Drought Status Updates will be issued on an as-needed basis outside of the growing season. However, the [North Central Climate and Drought Outlook Webinar](#) occurs monthly throughout the year.



▲ **Fig 4.** The percent of pasture and range land in poor to very poor condition. The top number is this year's percentage, while the number in brackets is the change from last year. Source: USDA World Agricultural Outlook Board.

▼ **Fig 5.** Precipitation probabilities for October 18–24, 2018. Source: Climate Prediction Center.

