



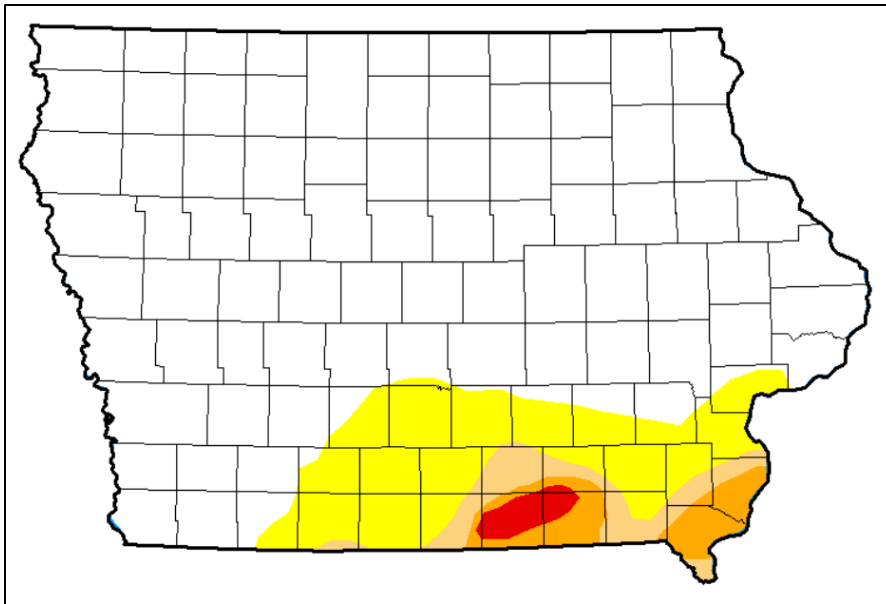
WATER SUMMARY UPDATE

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A snapshot of water resource trends for August 2018

Drought Monitor - Conditions as of Sept. 5, 2018.

National Drought Mitigation Center and partners



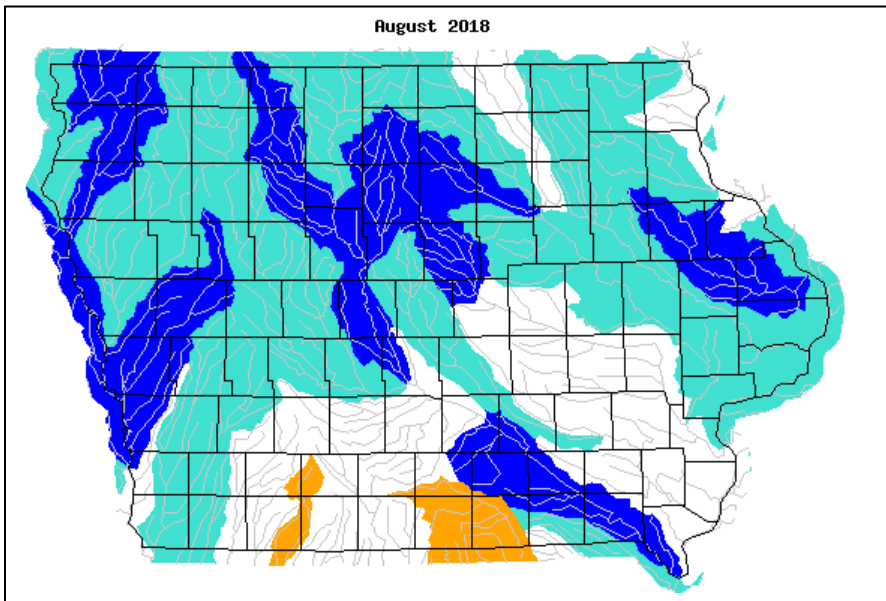
Intensity

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Stream Flow - Seven-day average stream flow for August 2018.

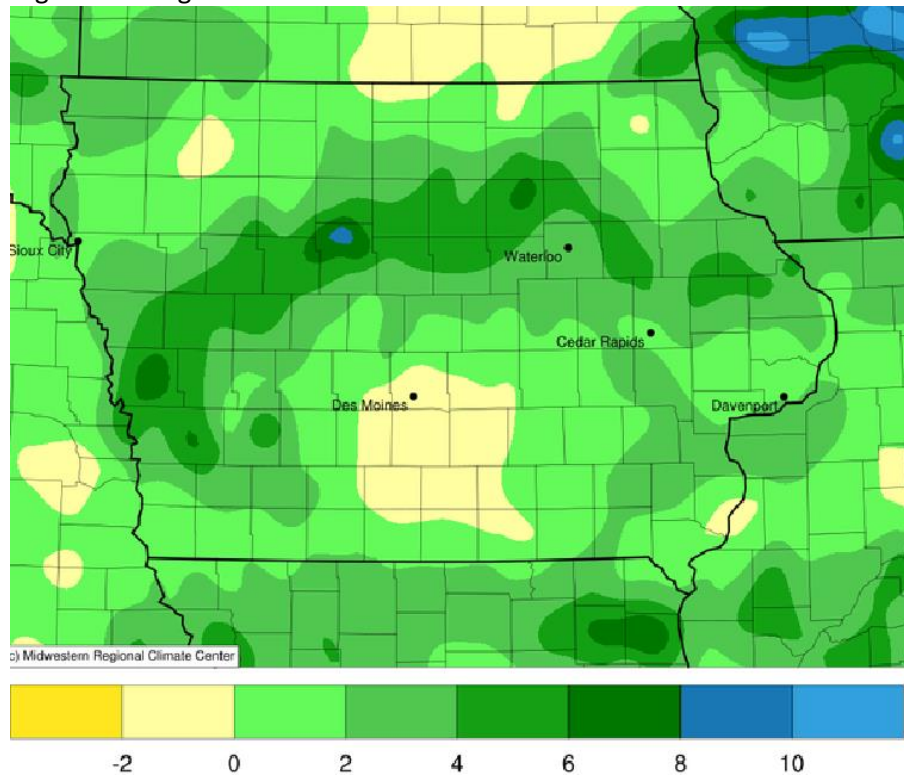
US Geological Survey



- High
- Much above normal
- Above normal
- Normal
- Below normal
- Much below normal

Precipitation - Percent of normal precipitation for August 2018.

High Plains Regional Climate Center

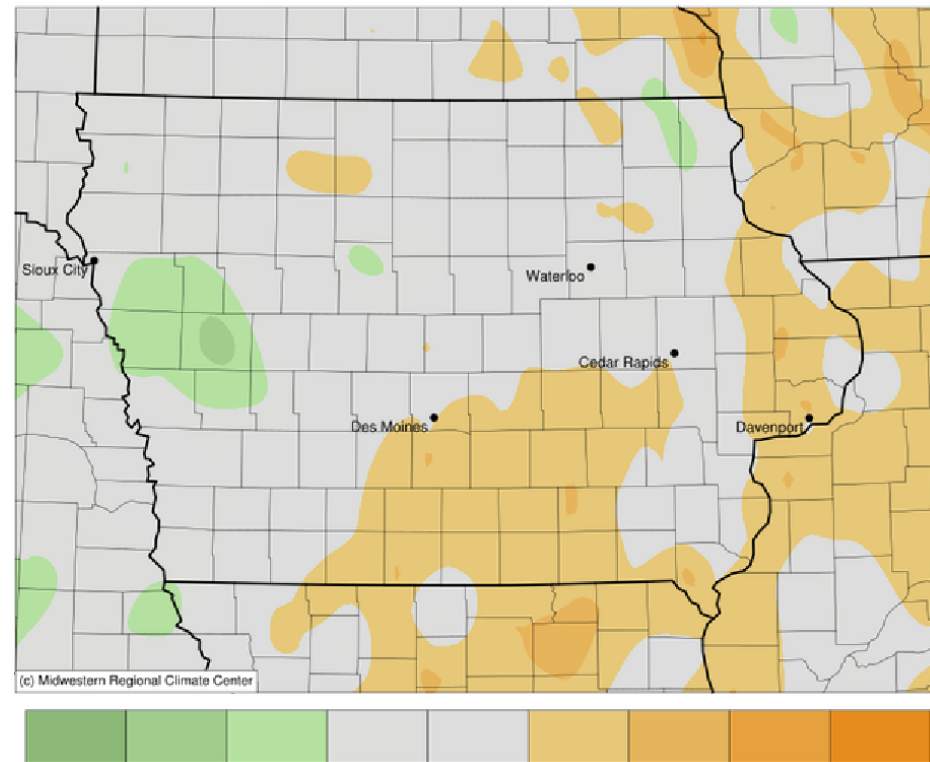


Temperature – Departure from normal temperature (°F) for July 2018.

High Plains Regional Climate Center

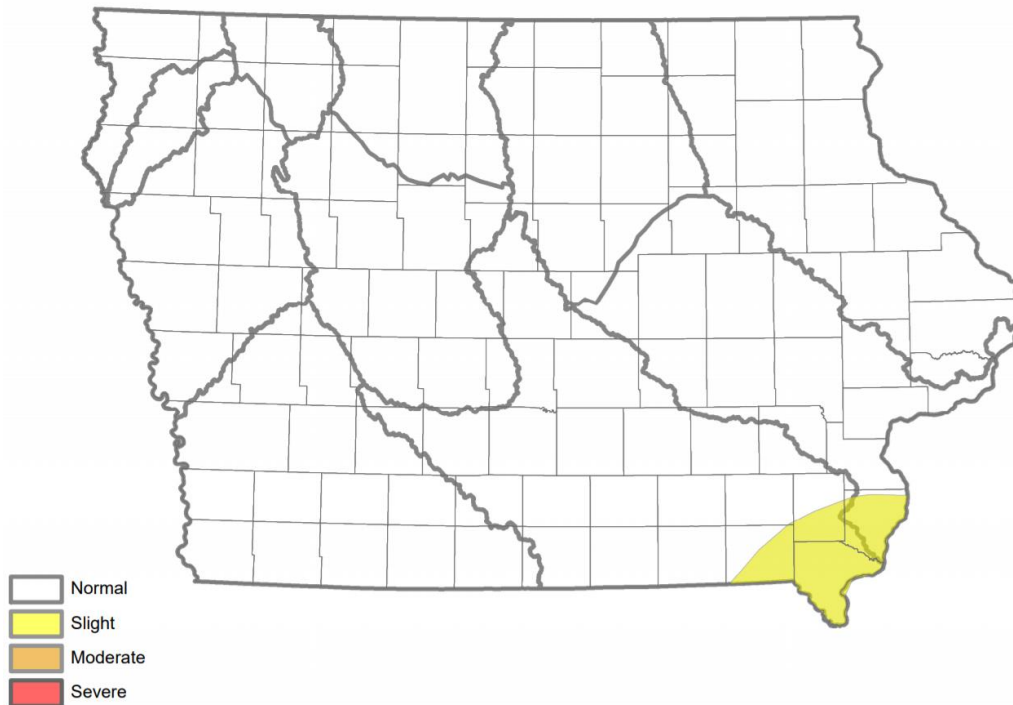
Average Temperature (°F): Departure from 1981-2010 Normals

August 01, 2018 to August 31, 2018



Shallow Groundwater - Conditions for August 2018.

Iowa DNR and IIHR-Hydroscience and Engineering



Recent Developments and Changes

SUMMARY

The pattern that has prevailed across the state in 2018 has begun changing. Conditions from north to south in Iowa change from generally wet to relatively dry, but improving. In August, northern portions of the state received above normal rainfall, while southern portions received below normal rainfall in the first part of the month, then above average rainfall after that. This range of rainfall is evident in the streamflow patterns across the state, as well as the shallow groundwater conditions. The Drought Monitor also reflects this trend

DROUGHT MONITOR

Drought conditions continued to worsen in southeast Iowa, where extreme drought (D3) increased by 1.4% to 2.24%. As of early September, the D3 category covered all of Davis County, most of Appanoose County and portions of adjoining counties. Abnormally dry (D0) conditions covered around 12% of Iowa; combined D0 – D3 conditions covered around 31% of Iowa. At this time last year, D0 – D3 drought covered 48% of the state. From this time last month, the area of severe to extreme drought has increased by 5.45%, with abnormally dry conditions increasing in central Iowa by around 1%.

CURRENT STREAM FLOW

Streamflow conditions in much of the state remained in the above and much above normal condition. There has been very little change in streamflow conditions from July to August across the state, portions of the Wapsipinicon, Des Moines, and Cedar River basins are now much above normal, while basins in the northwest dropped from much above normal to the above normal condition. Streamflow conditions in the Chariton Rivers are in the below normal condition.

AUGUST PRECIPITATION AND TEMPERATURE

August 2018 was the wettest August since 2007, with Iowa receiving 6.19 inches of rainfall, 1.99 inches above the 30-year climatological average. Most of the state experienced above average rainfall, with some locations

across northern Iowa reporting an additional four to six inches. South central Iowa observed deficits of up to two inches, though drought-stricken areas in the southeast quadrant received much needed rainfall. While this rain may delay field work, it will help replenish soil moisture and produce runoff into low livestock ponds.

Temperatures were slightly warmer than average, with the southeast quadrant of Iowa warmer than the rest of the state. Unseasonable warmth was observed across a majority of the state over three periods: August 4th – 7th, August 9th – 20th, and August 25th-28th; a total of 21 days. The average statewide temperature was 72.0 degrees, about a half of a degree warmer than normal. This ranks August 2018 as the 42th warmest month, tied with 1956, 2011, and 2016. The highest temperature recorded during the month was 100 degrees in Lamoni (Decatur County) on the 6th. The coolest overnight low was 41 degrees and was observed in Cherokee (Cherokee County) on the 29th.

SHALLOW GROUNDWATER

Shallow groundwater conditions improved dramatically in the last 2 weeks over south central and southeast Iowa. Many areas have received over 10 inches of rainfall. Slight drought conditions still exist over Keokuk County, and portions of Van Buren, Henry, and Des Moines counties. Flooding has become a problem in parts of central, east central, and northeast Iowa.

ADDITIONAL INFORMATION

For additional information on the information in this Water Summary Update please contact any of the following:

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