



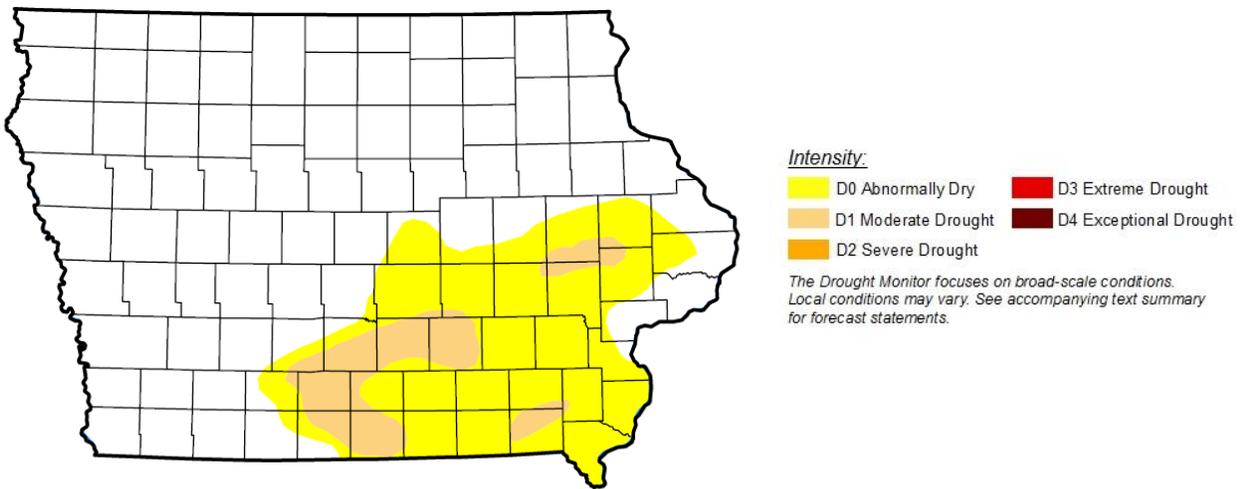
# WATER SUMMARY UPDATE

Published Date November 2, 2017 | Issue 80

## A snapshot of water resource trends from October 2017

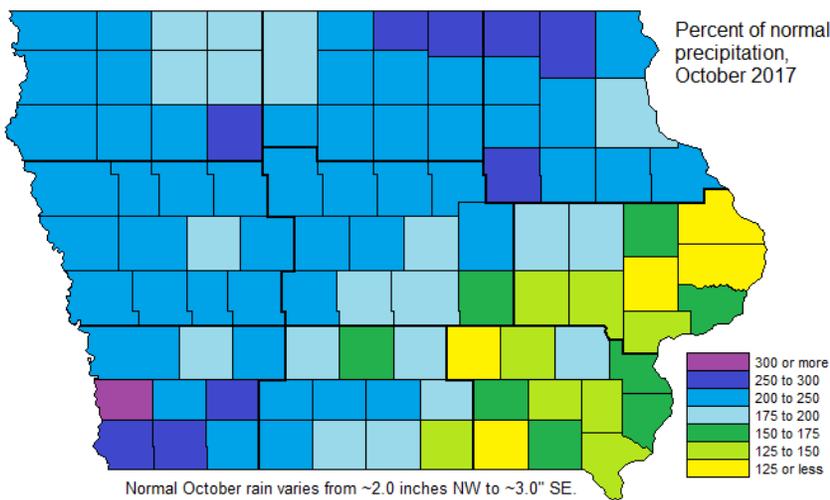
### Drought Monitor - Conditions as of October 31, 7 a.m.

National Drought Mitigation Center and partners



### Precipitation - Percent of normal precipitation for October 2017.

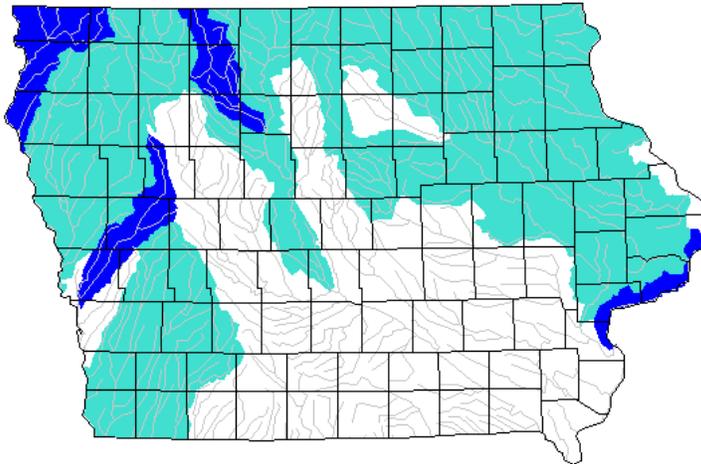
State Climatologist



## Stream Flow - Seven-day average stream flow ending October 31, 2017.

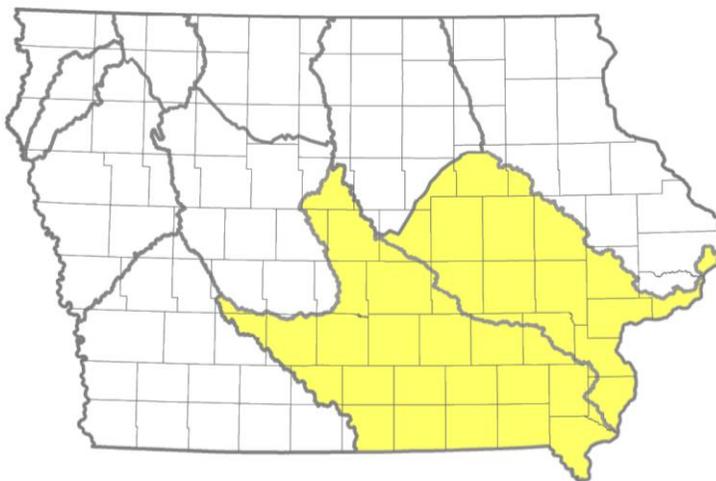
US Geological Survey

Hednesday, November 01, 2017



## Shallow Groundwater - Conditions for October 2017

Iowa DNR and IIHR-Hydroscience and Engineering



## Recent Developments and Changes

### SUMMARY

The Month of October was very wet, which has led to improvements in shallow groundwater and drought conditions. The dry conditions that were present going into October, as well as the spacing of the rain events, helped to prevent flooding which might otherwise have occurred with the rains that the state received. Monthly rain totals varied from 2.58 inches at Maquoketa to 9.39 inches near New Market in Taylor County. There were two locations reporting record high October totals for their location, Sioux City with 6.83 inches and Grundy Center with 7.37. While drought and dryness still exists in southeastern Iowa, the extent of those conditions has diminished significantly over the last month.

**DROUGHT MONITOR**

Over the last month conditions across the state have continued to improve. Areas of D2 (Severe Drought) and D3 (Extreme Drought) that existed in south central Iowa at the beginning of October have been removed over the course of the wetter than normal month. About 6 percent of Iowa is currently rated as D1 (Moderate Drought) about 21 percent of the state is rated as D0 (Abnormally Dry). This is down significantly from the beginning of the month. Montana and the Dakotas show improvement, but still show large areas of significant dryness and drought.

**CURRENT STREAM FLOW**

Since the last water summary update, streamflow conditions in much of the state have increased to the above normal flow. Portions of the Skunk and Chariton River basins moved to normal flow, improving from below normal flows that were present in early October. Streamflow conditions are above normal for several basins in the state, and flows are much above normal in parts of the Des Moines, and Boyer Rivers. The Rock River basin remains in the much above normal range.

**OCTOBER PRECIPITATION**

Iowa recorded the fourth wettest October among 145 years of records with a statewide average precipitation of 5.35 inches, a little more than double the monthly normal of 2.74 inches. There were four widespread significant rain events during the first two weeks of the month, the largest of which produced a statewide average of 2.26 inches between the 5th and 7th, including a 6.69 inch total near New Market in Taylor County. Dry conditions that existed before this rain, plus having a few days between rain events, kept flooding to a minimum but brought the fall harvest to a standstill. The rains, along with temperatures that were still high enough to promote growth, revived pastures which were in very poor condition over much of southeastern Iowa. Monthly rain totals varied from 2.58 inches at Maquoketa (the only reporting point to have less than normal rain during the month) to 9.39 inches near New Market in Taylor County. There were two locations reporting record high October totals for their location, Sioux City with 6.83 inches and Grundy Center with 7.37. Despite the October rains, 60% of south central and southeast Iowa subsoils are short or very short of moisture. These are easily the lowest late-season soil moisture levels since the droughts of 2012 and 2013.

**SHALLOW GROUNDWATER**

Substantial rainfall across most of Iowa during the month of October substantially improved shallow groundwater conditions, especially in south central, northeast and southeast Iowa. Shallow groundwater conditions in south central and southeast Iowa are still in a slight drought classification.

**ADDITIONAL INFORMATION**

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

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