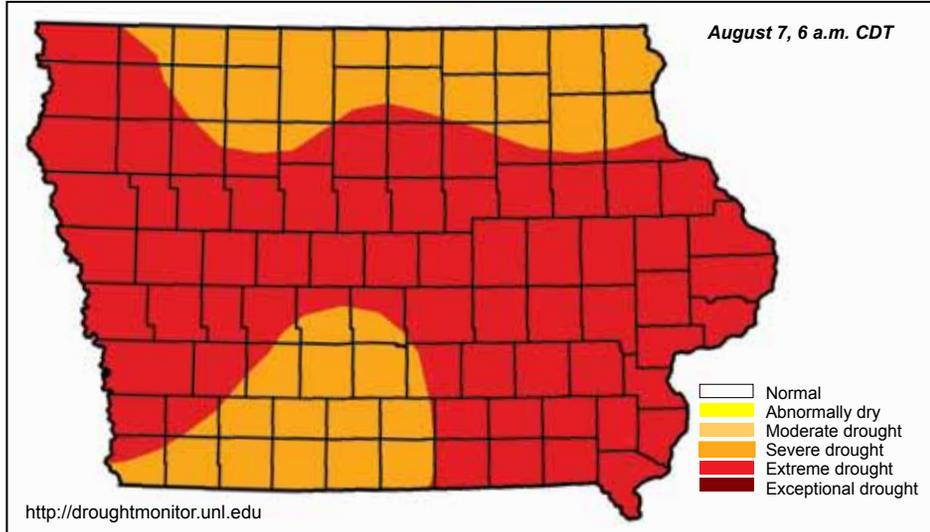


# WATER SUMMARY UPDATE

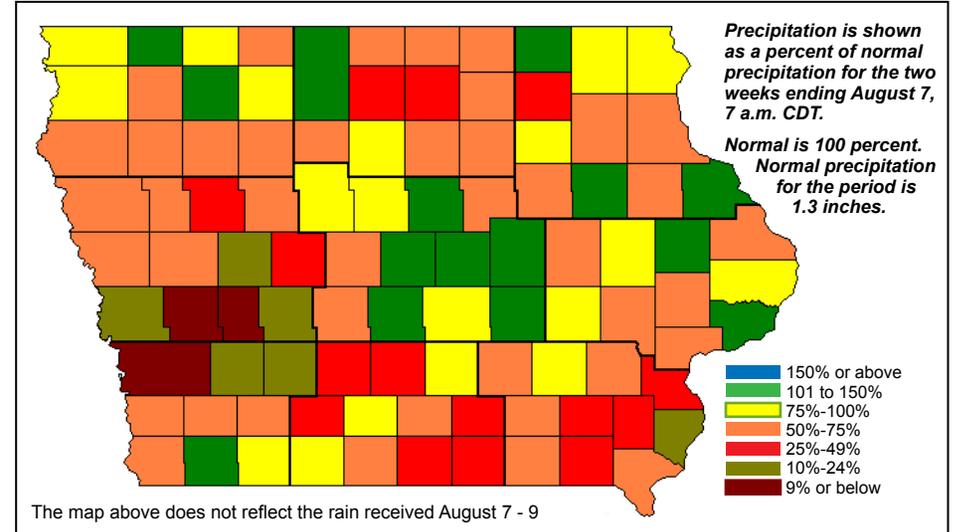
## Drought Monitor

National Drought Mitigation Center and partners



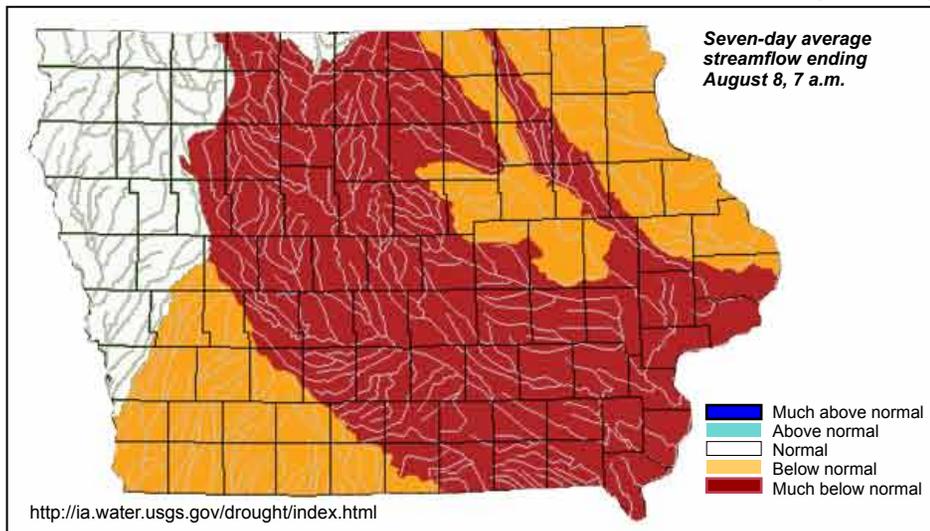
## Precipitation

State Climatologist



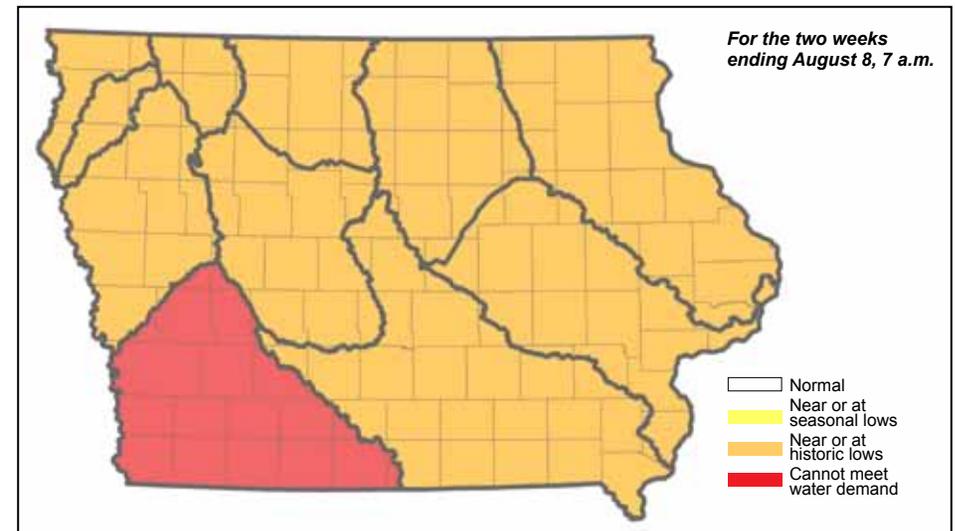
## Streamflow

US Geological Survey



## Shallow Groundwater

Iowa DNR



## Recent Developments and Changes

### Overall Conditions

The previous two weeks have continued the dry and hot trend — although some relief came in the form of cooler temperatures and statewide rainfall over the past several days. Prior to the rains of August 8, precipitation averaged 50 percent less than normal for the period. The dry and hot conditions continue to decrease flows in some streams, which leads to concerns for water supplies in some communities. These conditions are reflected in the Drought Monitor, which indicates that almost 70 percent of Iowa is in extreme drought.

“The cooler temperatures and rain over the weekend brought some relief but crops remain stressed,” commented State Agriculture Secretary Northey on the Iowa Crops and Weather report released by the USDA. “Crop conditions continue to worsen and much more precipitation is needed.”

### Precipitation

The past two weeks continued to be mostly hotter and drier than normal weather across Iowa. Temperatures averaged 4 degrees above normal while precipitation averaged 0.60 inches less than normal for the period. Des Moines, Iowa City and Keosauqua reached 106 degrees on July 25, but a brief change in the weather pattern resulted in a low of 43 degrees in Belle Plaine on August 6. Rain totals varied from no rain at Underwood in western Iowa to nearly four inches at Nevada through August 6. Storms on August 8 (after the cut-off time for the drought monitor and for the precipitation map) resulted in a statewide average of 0.34 inches of rain, with almost everyone in the state seeing some rain. Areas with the most rain included Audubon, Bremer, Chickasaw, Floyd, Harrison, Page, Polk, Shelby, and Worth counties.

### Drought Monitor

The Drought Monitor for August 7 continues to reflect low rainfall and high temperatures. Nearly 70 percent of the state is rated as extreme drought (D3), with the remaining portions of the state rated as severe drought (D2). The deadline for the drought monitor is 7 a.m. on Tuesday mornings, so the rains that fell on Wednesday across the state are not reflected in this week’s map.

### Streamflow

Streamflow measurements are a bit better this week, but still show effects of the dry weather pattern. Flows are below normal for two thirds of the state with a third of the state’s streamflow conditions being much below normal. The lowest flows are in the Skunk, Des Moines, Iowa, Wapsipinicon and lower Cedar rivers which were less than 10 percent of normal streamflow. Streamflow conditions in the north western part of Iowa have normal flows. Several streams monitored by the USGS are near zero flow.

### Shallow Groundwater

Shallow groundwater levels in parts of Iowa are at or near historic lows. Rainfall over parts of northern, central and eastern Iowa helped to lower water demand and usage, but have not yet impacted shallow groundwater levels. Shallow groundwater along the Floyd, Ocheyedon, Upper Des Moines, and Lower Little Sioux rivers were downgraded from slight to moderate drought conditions. Shallow groundwater in southwest Iowa was downgraded to severe conditions based on reports that water systems are having difficulty meeting water demands.

## Notable Events for the Period

**The following observations were made by Iowa DNR and other agency technical and field staff:**

Audubon’s streak of 41 consecutive days without measurable precipitation, and Underwood’s streak of 39 days came to an end over the past week.

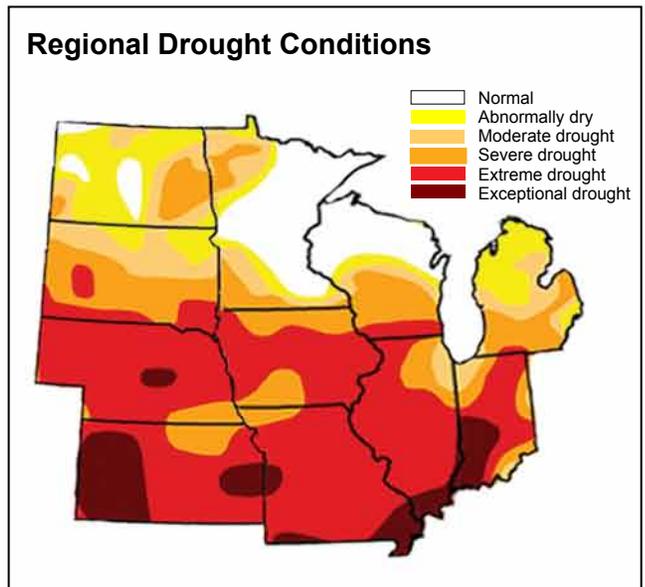
July 2012 preliminarily has gone into the record books as Iowa’s third hottest and fifth driest July among 140 years of records.

Recent rains have helped to stabilize the stream flow situation, and there has been a reduction of streams with “protected flow” from 22 to 19.

The cities of Hull and LeMars have initiated mandatory conservation measures. Many other communities have initiated voluntary conservation measures.

There have been reports of private wells being drilled deeper or having pumps lowered to meet water demand in Johnson and Linn counties.

The DNR has received several requests for information on using wastewater. These have ranged from wanting to use treated municipal wastewater to irrigate city-owned flower gardens to use on privately owned seed corn fields.



## Contacts

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*Prepared by the Iowa DNR in collaboration with the Iowa Department of Agriculture and Land Stewardship, the U.S. Geological Survey, and The Iowa Homeland Security and Emergency Management Division.*