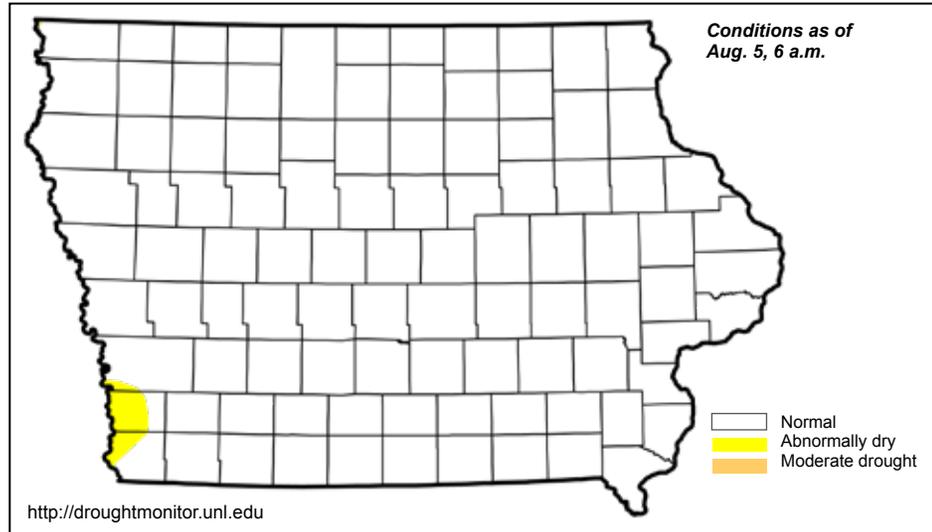


# WATER SUMMARY UPDATE

Published Date  
August 07, 2014

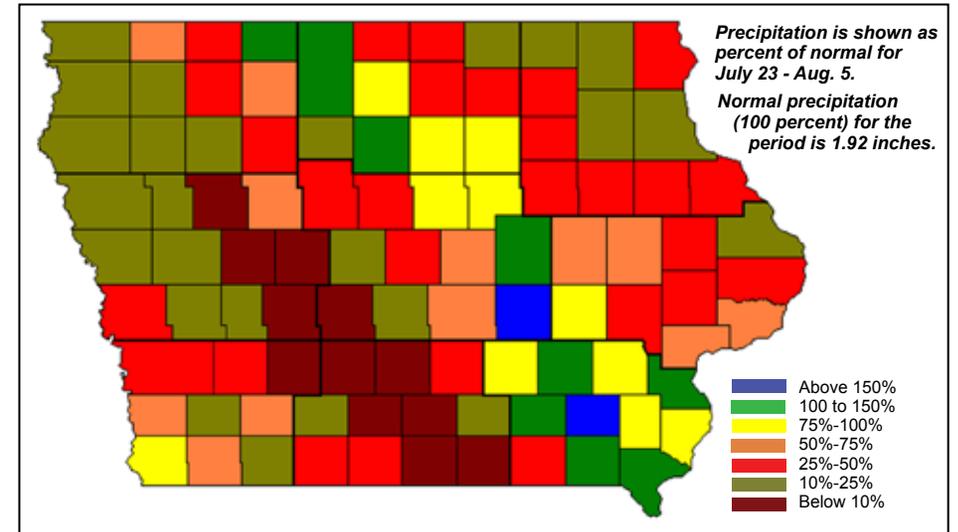
## Drought Monitor

National Drought Mitigation Center and partners



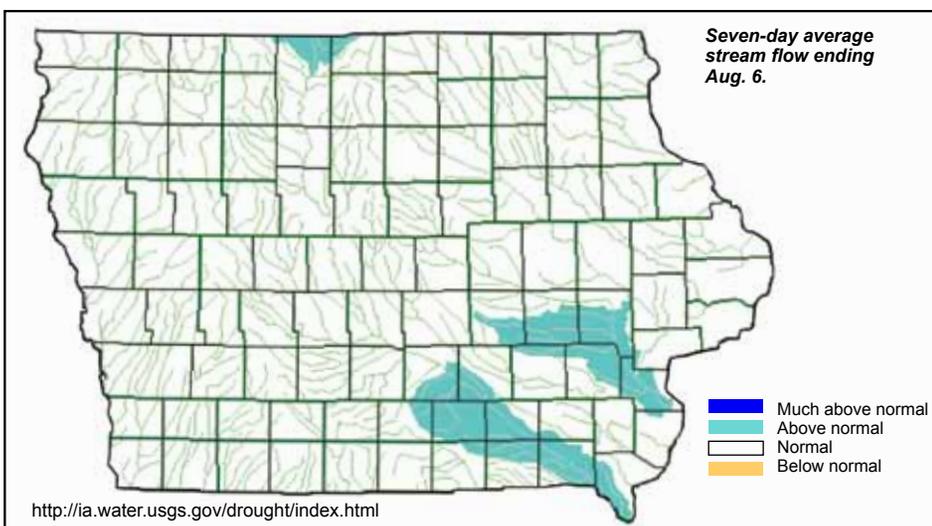
## Precipitation

State Climatologist



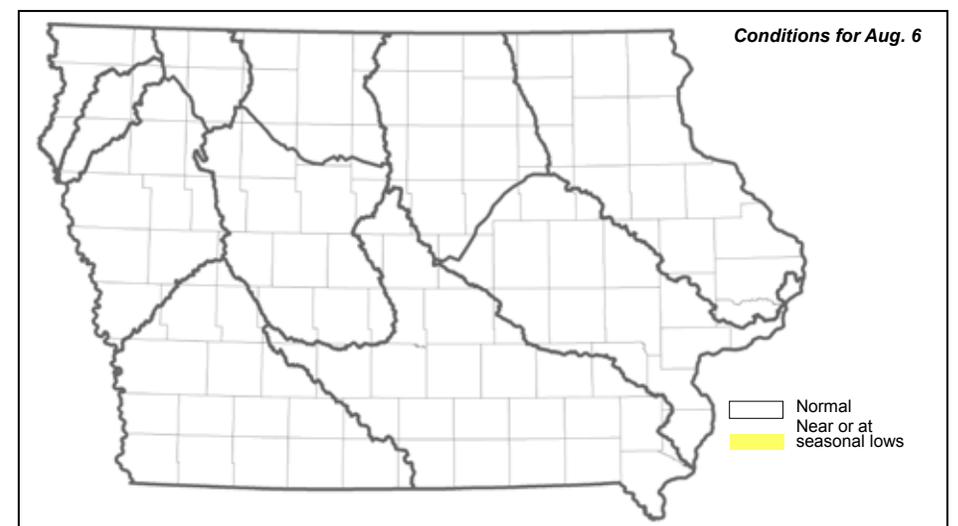
## Stream Flow

US Geological Survey



## Shallow Groundwater

Iowa DNR and IHR-Hydroscience and Engineering



## Recent Developments and Changes

### Overall Conditions

Statewide conditions continue to be close to normal for most measures and in most areas, despite the fact that rains received on or after Aug. 5 are not reflected in this Water Summary Update. The rain we received starting August 5 should continue to improve conditions in the weeks ahead. Streams continue to trend toward normal flows, and the drought monitor shows the state maintaining normal conditions, with only one small area of abnormal dryness. Some shallow aquifers in northwest Iowa would benefit from additional rainfall, but levels are generally higher than at this time last year. Because of the generally normal and stable conditions across the state, the next Water Summary Update will be issued during the first week in September.

### Drought Monitor

The National Drought Monitor for Iowa shows a very small area, about 1 percent of Iowa, in the southwest corner of the state in an abnormally dry condition, but 99 percent of Iowa is drought free. Current rains will likely push the state into 100 percent drought free conditions next week.

### Precipitation

The past two weeks brought mostly cooler and drier than normal weather to Iowa. Temperature extremes ranged from a high of 102 degrees in Sidney on July 25 to a low of 46 degrees at Sheldon on the mornings of July 29 and 30. Temperatures for the past two weeks averaged 3 degrees below normal.

The majority of rain in the last two weeks (through Tuesday morning) fell during the first 48 hours of the two-week period with locally heavy rain falling from north central into southeast Iowa. Fairfield and Montezuma received over 4 inches of rain; however, no measurable rain fell at Guthrie Center, Indianola, Osceola and Allerton in the past two weeks. The statewide average rainfall was 0.87 inches or a little less than one-half of the normal of 1.92 inches.

### Shallow Groundwater

Despite rainfall over the past two weeks, shallow groundwater levels across the state continue to decline from the relatively high water levels of late June and early July. Groundwater levels are anywhere from 0.5 to 3 feet lower than early July, but are still 1 to 7 feet higher than levels observed earlier this spring. Water demand has been lower due to cooler than normal temperatures in July. Shallow groundwater levels along the Ocheyedan, Floyd and Rock river systems have dropped to slightly below normal levels, and additional rainfall is needed to prevent drought conditions from reoccurring. Shallow groundwater levels in Fremont County are also slightly below normal.

### Stream Flow

Stream flow conditions were normal for the majority of the state. Stream flow conditions across the eastern portion of the state have decreased in the past two weeks. The lower Iowa and lower Des Moines rivers remain above normal in stream flows.

### July and Year-to-Date Totals

Preliminary statewide average precipitation for July 2014 was 3.31 inches, compared to a normal July total of 4.5 inches. For Jan. 1 through Jul. 31, 2014, Iowa received about 24 inches of rain — more than 2 inches above normal. By this time in 2012, the state had only received 16 inches of rain.

Temperatures for July averaged 4.6 degrees below normal to rank fifth lowest July temperatures in 142 years of records.

### Observations

National Weather Service has indicated that after this coming weekend, models suggest a relatively dry period with little, if any, rainfall until late this month — with potential for rainfall during early to middle portions of the week of August 25. Rainfall is then expected to be closer to normal thereafter through mid-September.

The relatively mild temperatures plus abundant subsoil moisture allowed the condition of the corn and soybean crops to hold steady, according to USDA National Agricultural Statistics Service information. Pasture conditions have been declining in recent weeks, but remain much better than what is typical for this time of year over much of Iowa.

Lack of precipitation has caused a drop in soil moisture. Topsoil moisture levels are about 25 percent very short or short, and 75 percent adequate or surplus. Subsoil moisture levels are 18 percent very short or short, and 82 percent are adequate or surplus.

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

### Contacts

General Information . . . . . Tim.Hall@dnr.iowa.gov 515-281-8169  
Drought Monitor . . . . . Harry.Hillaker@iowaagriculture.gov 515-281-8981  
Precipitation . . . . . Harry.Hillaker@iowaagriculture.gov 515-281-8981  
Stream Flow . . . . . Daniel.Christiansen, dechrist@usgs.gov 319-358-3639  
Stream Flow . . . . . Michael.Anderson@dnr.iowa.gov 515-725-0336  
Shallow Groundwater . . . . . mike-gannon@uiowa.edu 319-335-1581