

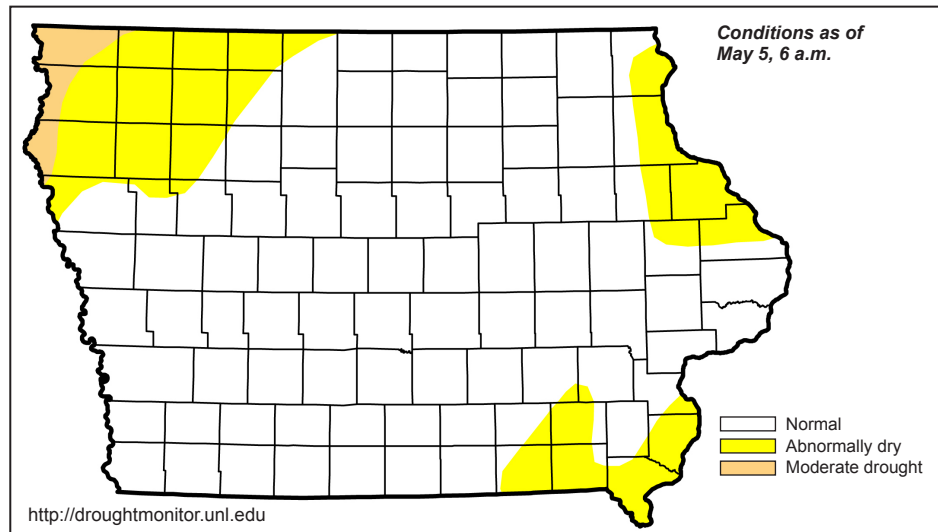
# WATER SUMMARY UPDATE

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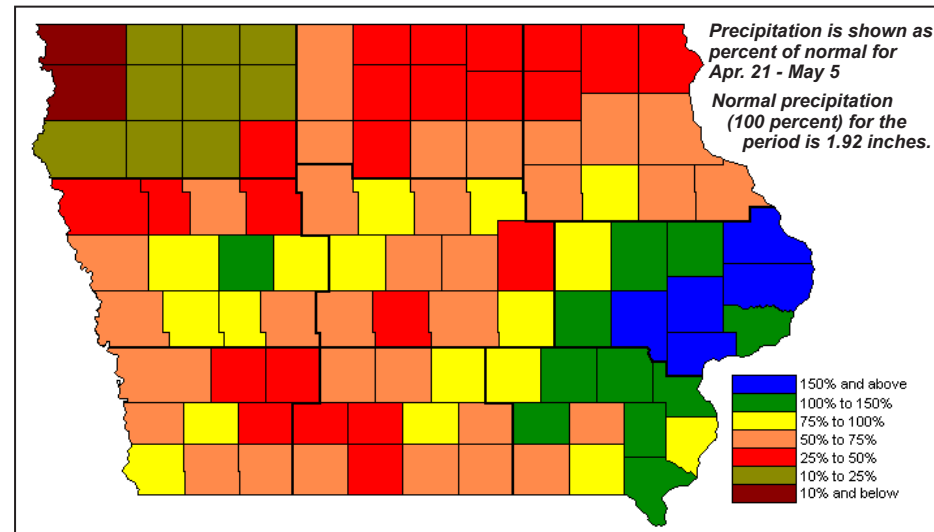
## Drought Monitor

National Drought Mitigation Center and partners



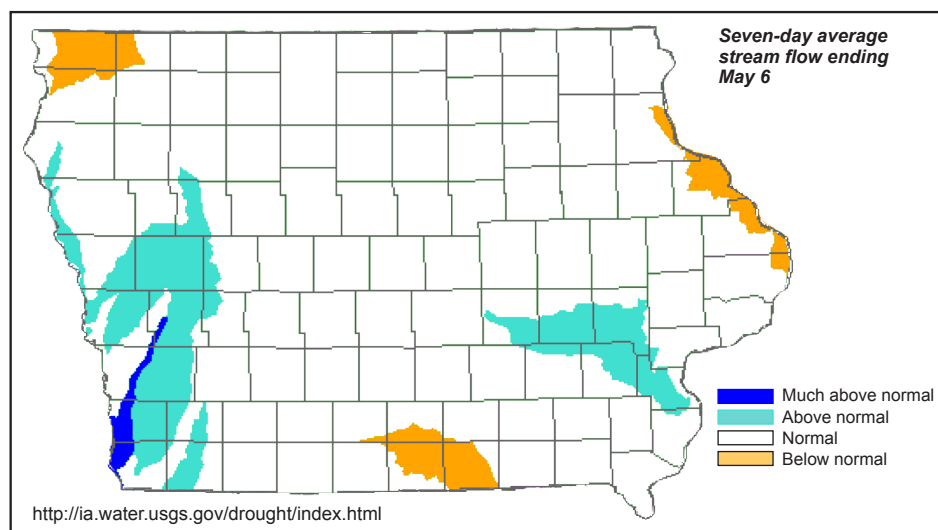
## Precipitation

State Climatologist



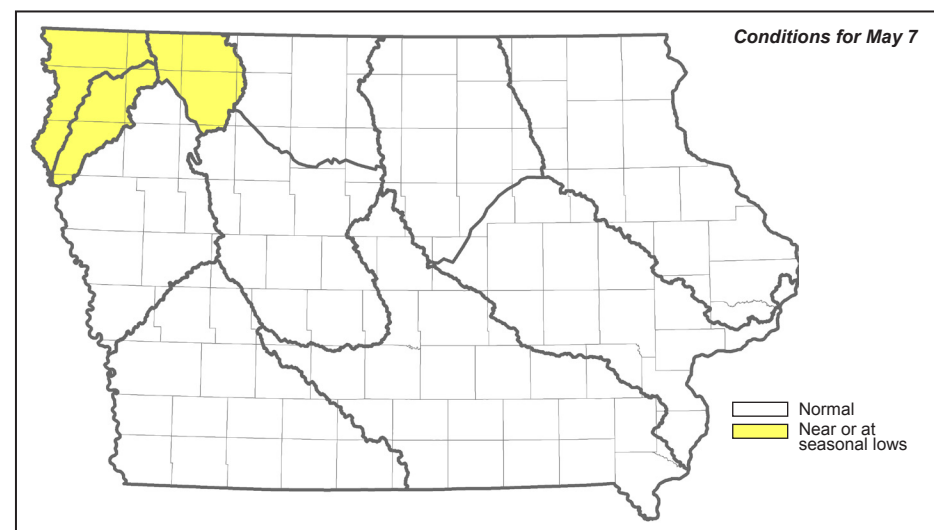
## Stream Flow

US Geological Survey



## Shallow Groundwater

Iowa DNR and IIHR-Hydrosience and Engineering



## Recent Developments and Changes

### Overall Conditions

Through the month of April, statewide precipitation for 2015 was running about two inches below normal, but rainfall in the first few days of May will help conditions to continue to improve. This improvement is seen in the Drought Monitor, streamflow, and shallow groundwater conditions. The far northwestern corner of the state continues to remain dryer than average, with streamflow and groundwater conditions causing concern. To the west of Iowa, drought conditions are prevalent, and as a result, Missouri River basin runoff is predicted to be significantly below normal for 2015.

### Drought Monitor

Rainfall over the past two weeks has improved overall conditions in Iowa, with the drought-free area improving from 75 percent two weeks ago to 80 percent this week. However, deteriorating conditions in the states to the west of Iowa have resulted in the first designation of Moderate Drought (D1) since June of last year. The two percent of Iowa designated as D1 is an extension of the significant drought conditions present in Minnesota, the Dakotas, Nebraska and Kansas, where 68 percent of the area of those states is rated as D1, and 20 percent as D2.

### Stream Flow

Over the last two weeks, streamflow levels across the state have remained mostly in the normal range, with limited areas that have either below normal or above normal flow.

### Precipitation

The past two weeks brought fairly typical spring weather to Iowa with widely fluctuating temperatures and a wide range of precipitation totals. In between the two rainy periods in the last two weeks, a period of dry weather allowed more than half of the Iowa corn crop to be planted. Overall rain totals for this two week period varied from only 0.02 inches near Rock Rapids to 5.62 inches at Lost Nation in Clinton County. The statewide average precipitation was 1.37 inches while normal for the two-week period is 1.92 inches. Meanwhile, temperatures were below normal in late April and above normal in early May. A hard freeze was recorded in many areas on April 22 and 23 while the last few days of the reporting period brought the first prolonged period of the year of warm and humid weather.

### Shallow Groundwater

Substantial precipitation fell across most of Iowa over the past 2 weeks. The northwest corner of Iowa received the least amount of rainfall, and this is reflected in continued minor drought conditions in far Northwest Iowa. Shallow groundwater conditions have improved in eastern Iowa.

### Field Observations

Field staff in Lyon County observed early this week that some small streams were not flowing and some field tiles had no flow. Water levels in wells continue to drop. Precipitation in that part of the state has been highly variable, with significantly different amounts of rainfall over distances of just a few miles.

### Missouri River Basin Runoff

As a result of the much dryer conditions to the west, the U.S. Army Corps of Engineers (the Corps) reports that April runoff in the Missouri River Basin above Sioux City was only about half of normal. The Corps is forecasting the total runoff for the year for that portion of the Missouri River to be only about 75 percent of normal. This is a result of a lack of plains snowpack and below normal precipitation in the Dakotas.

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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, IHR-Hydroscience and Engineering and The Iowa Homeland Security and Emergency Management Department.*

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