

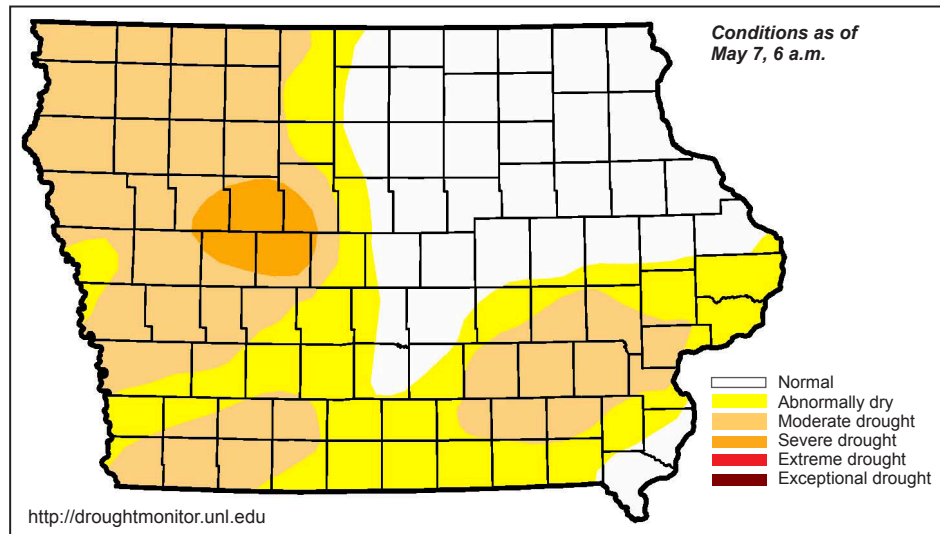
WATER SUMMARY UPDATE

No. 35

Published Date
May 9, 2014

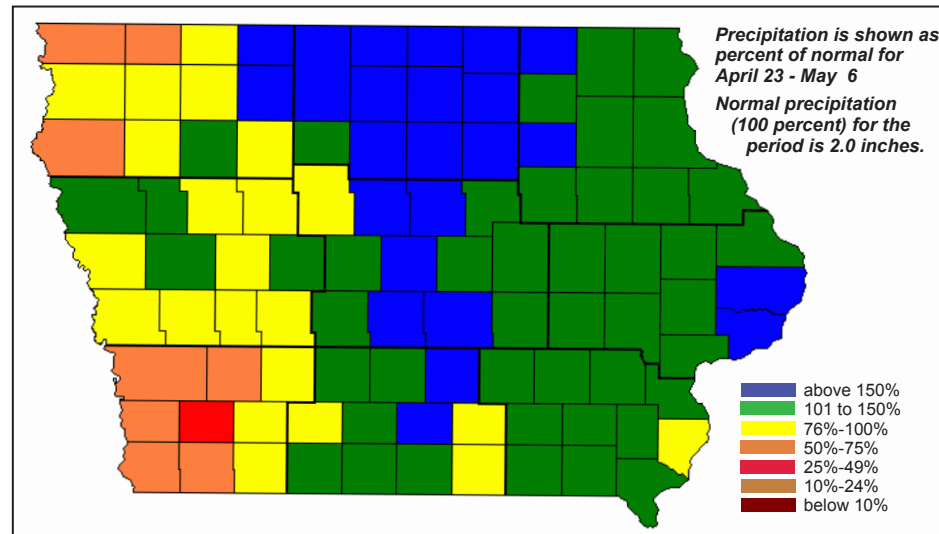
Drought Monitor

National Drought Mitigation Center and partners



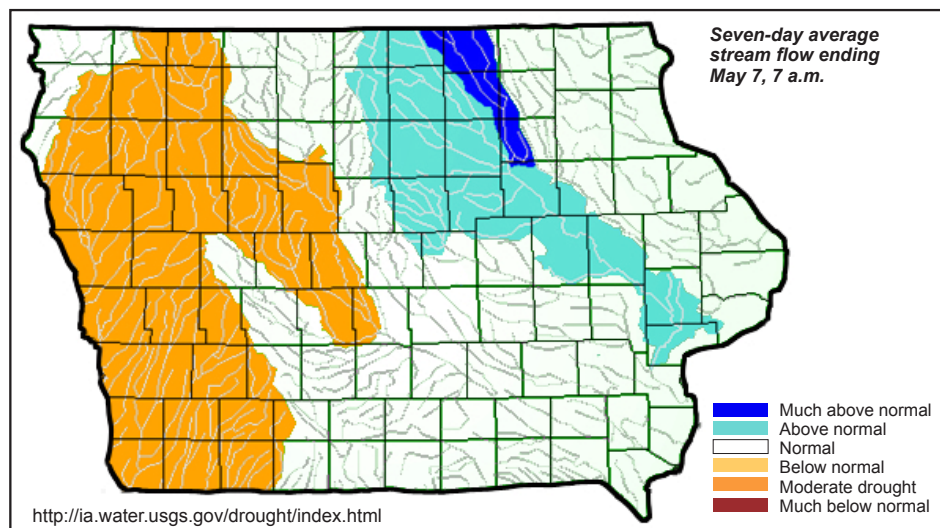
Precipitation

State Climatologist



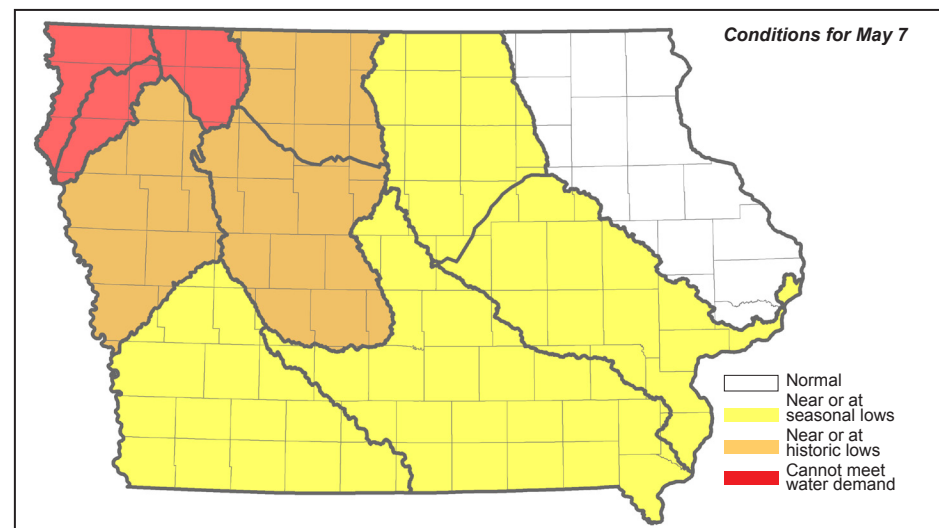
Stream Flow

US Geological Survey



Shallow Groundwater

Iowa DNR



Recent Developments and Changes

Overall Conditions

Are we out of the drought yet? After the good amount rainfall the state has received over the past month, conditions are improving, but coming out of a drought is a slow process. For the fourth week in a row drought conditions have improved across much of the state. However, the northwest corner of Iowa has missed out on much of the rainfall over the past month, and is an area for concern.

Streamflow has improved statewide, but remains below average.

Drought Monitor

Most of the state continues to improve, but for the first time in several months there is an area of worsening conditions. The extreme northwest 4 percent of the state was changed from D0 to D1 – Moderate Drought, in this week's Drought Monitor. In the eastern and central areas of the state, however, conditions continue to improve slowly. Nearly 60% of the state has no drought, or is only abnormally dry. The current pattern of regular rainfall continues to help the overall situation..

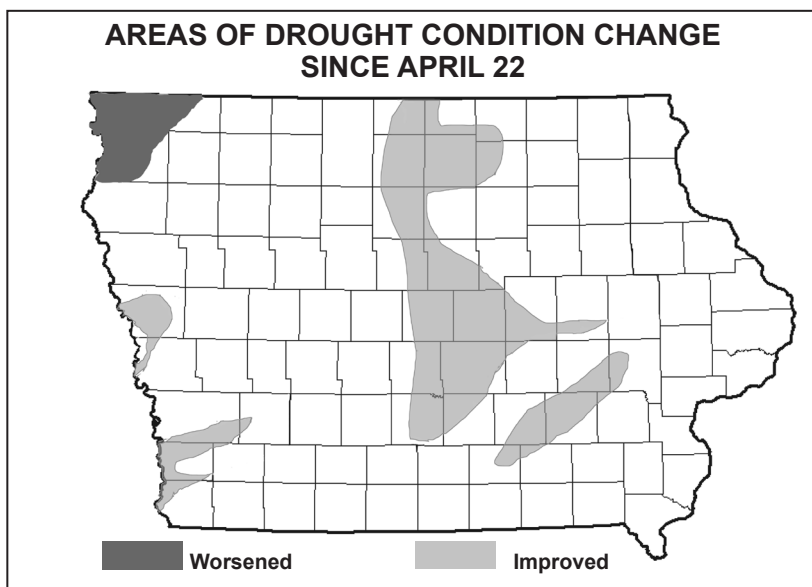
Precipitation

The past two weeks brought a statewide average of almost 2.5 inches of rain – more than one-half inch above normal. This was the wettest two-week period in over ten months. Precipitation was above normal over most of the eastern two-thirds of Iowa, but continued less than usual across the west. Rain totals varied from 0.84 inches at Rock Rapids to 5.29 inches at Bondurant. The statewide average year-to-date precipitation stood at about one-half inch below normal as of May 5. However, these totals varied from more than four inches below normal in the far northwest and southwest corners of Iowa to over three inches above normal over north central portions of the state. Longer-term precipitation deficits are greatest over west central (Carroll and Sac counties) and southwest Iowa (Fremont and Page) where 10-month totals are 13 to 14 inches below normal.

Shallow Groundwater

Shallow groundwater levels in parts of northwest Iowa continue to deteriorate, especially the alluvial aquifers along the Rock, Floyd, Ocheyedan and Upper Little Sioux rivers, where the watersheds have been downgraded. This deterioration is the result of both dry conditions and increased water usage. Several rural water systems are reporting the lowest groundwater levels in the last 10 years, and many

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



others are within a few feet of record low levels. Some water utilities are implementing voluntary water conservation.

West central Iowa has been downgraded as well. Recent substantial rainfall across much of Iowa has increased shallow groundwater approximately 1 to 3 feet in other parts of the state.

Stream Flow

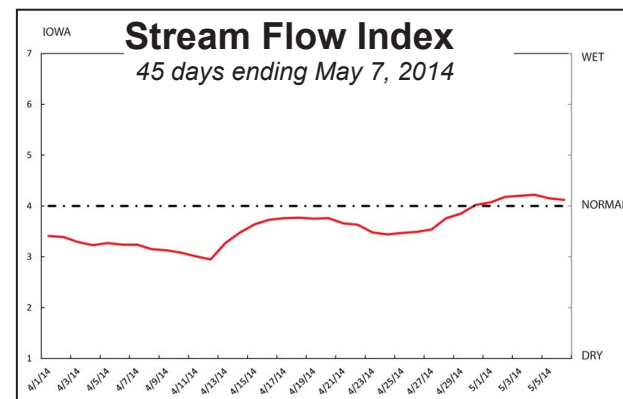
Stream flow conditions are normal or even above normal in about half of the state. The highest stream flow levels are in the Cedar River basin, where flows are above normal and a small portion is much above normal.

The lowest stream flow conditions are in the western third of the state, where some flows are much below normal.

Stream flow conditions across the state have improved since April 23

Notable Events This Period

Stream Flow Index. The seven-day average stream flow index shows a gradual increase in average stream flows over the past month, with flows averaging just over normal. It is good to see increasing flows without the “spikes” of flooding events. This is an indication that rainfall is soaking into the ground and not just running off into streams.



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