

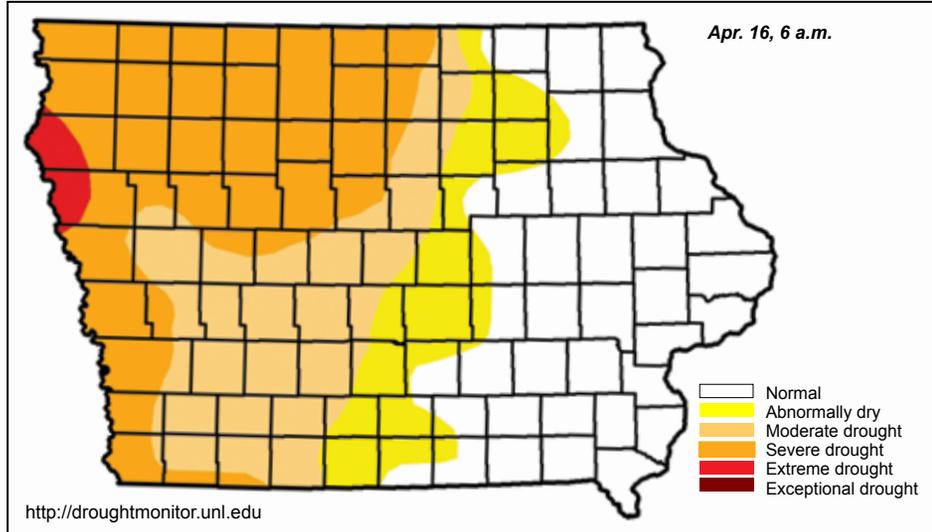
WATER SUMMARY UPDATE

No. 22

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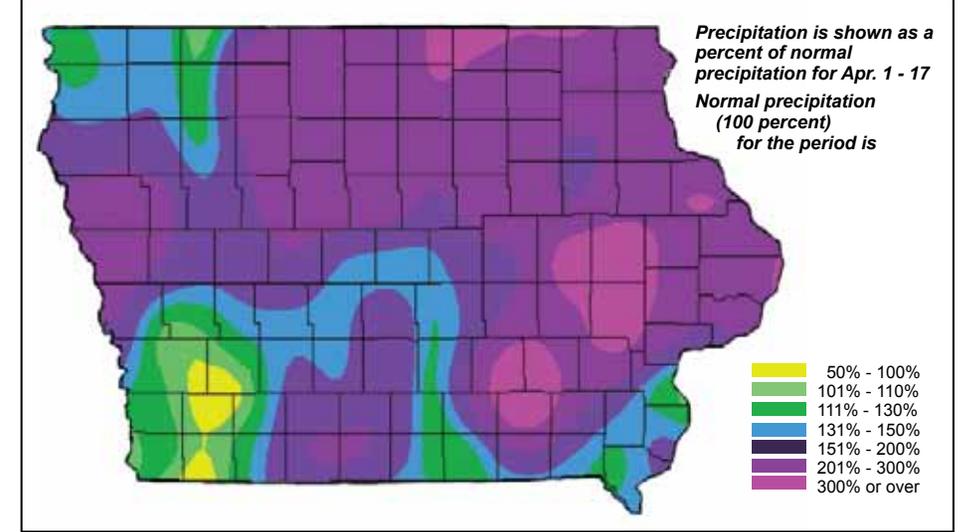
Drought Monitor

National Drought Mitigation Center and partners



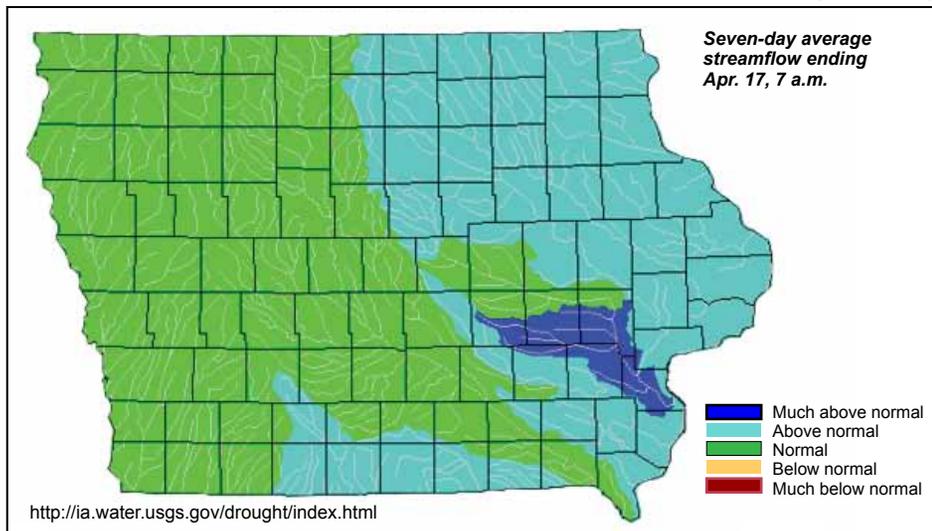
Precipitation

State Climatologist



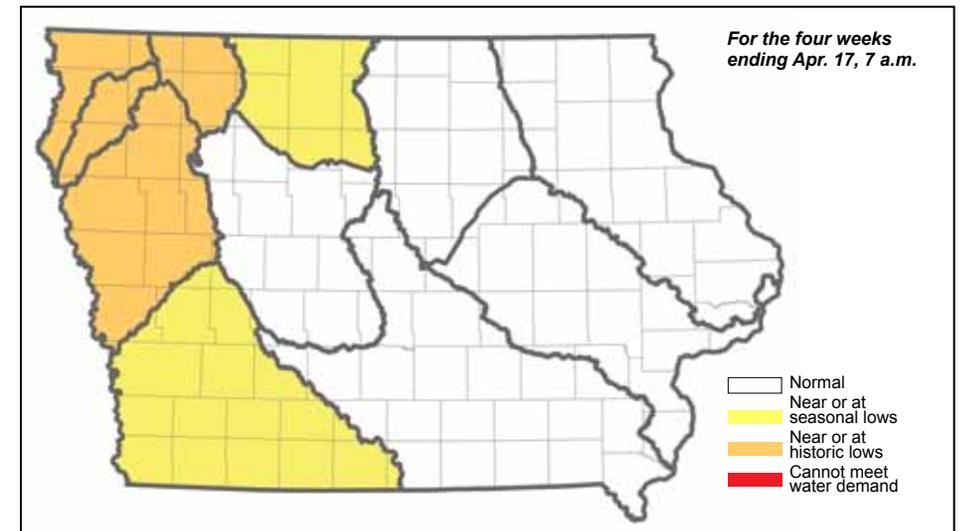
Streamflow

US Geological Survey



Shallow Groundwater

Iowa DNR



Recent Developments and Changes

Overall Conditions

As this Water Summary Update is finalized, Iowa is seeing one of the most significant rainfall events of the year. The drought monitor shows great improvement in conditions — even though the cutoff for this week’s map was before this storm. Eastern Iowa (over one third of the state) is no longer experiencing drought, while much of western Iowa continues to have drought conditions. Streamflows are above normal over a large part of eastern Iowa, and groundwater conditions are improving as well. Rainfall for the past two weeks (through Monday – before the current storm) was 3.25 inches, more than double the average for those two weeks. Streamflows across the state are normal to above normal – the first time flows have been above normal for a large area of the state since fall 2011.

Drought Monitor

This week’s drought monitor continues the timprovement trend that began in early March. The area of the state no longer in drought is 35 percent – more than double the area from just one week ago. The worst rated area, D3 – Extreme Drought, has dropped to 1.5 percent of the state, down from 20 percent just a week ago. It’s worth noting the cutoff for information for the drought monitor was early April 16, so these improvements do not include the impact of the April 16-18 storm system. The effects of that storm will be reflected in the May 2 Update.

Precipitation

Precipitation thus far for April has been much above normal across most of Iowa. Only the southwest corner has seen near or below normal precipitation. The highest totals thus far have occurred in east central and northeast Iowa, where totals have approached five inches for the month, or 300 percent of normal. Some locations have received even more precipitation, with monthly totals in the 7 to 8 inch range. The lowest totals for the month were found in southwest Iowa in the 1 to 1.75 inch range, about normal. Much of this month’s rainfall in southeast Iowa occurred in the April 16-18 storm system. Extremely heavy rainfall occurred from south central into east central Iowa. Widespread amounts of at least 3 inches were reported across the southeast third of Iowa, with many locations reporting 5 or more inches.

Streamflow

Streamflow conditions have increased for the majority of the state since April 4 due to precipitation over the past two weeks. Streamflows across the state that were below normal, mostly in the western part of the state, have increased to normal. The majority of the eastern part of the state has above normal flow, and a few areas in the Iowa River basin are much above normal. USGS field crews have been out the past five weeks collecting high water measurement at sites across the state.

Shallow Groundwater

Shallow groundwater levels across central, south central, southeast, north central and northeast Iowa have improved substantially in April. Widespread rainfall over the last two weeks has resulted in rising shallow groundwater levels in Fayette County, 6 feet; Johnson County, 10 feet; Marshall County, 4 feet; Lucas County, 2 feet; Boone County, 3 feet; and Hancock County, 3.5 feet. Some improvement has occurred in northwest and parts of southwest Iowa, but water levels are still 1 to 5 feet below April 2012. Shallow groundwater at Denison, in west central Iowa, is at a 12-month low and is 2.8 feet lower than April 2012.

Notable Events for the Period

U.S. Geological Survey is currently reporting that the eastern half of Iowa is experiencing moderate flooding in a line from Dubuque to Chariton. Currently 17 gages are above flood stage with a number of other gages very close to flood stage. Rainfall totals, for 24 hours, in this area range from almost 3 inches at the Mississippi River at Dubuque, almost 6 inches at Coralville (Clear Creek) to 7 inches at the Chariton River near Moulton.

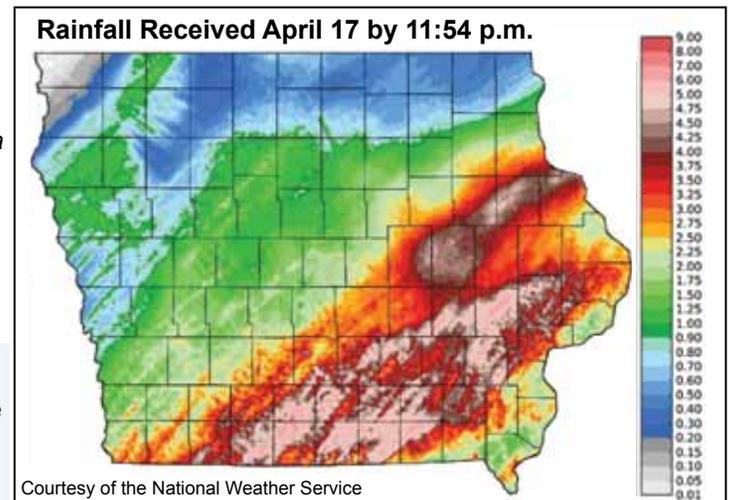
Streams and creeks in northwest Iowa are running again and some tile lines have flow. Lake levels are increasing, but are not near normal levels yet.

Recent precipitation has improved groundwater conditions, but in northwest Iowa shallow groundwater levels remain a substantial problem. One water system in that part of the state received three inches of rain last week, but did not see a significant rise in groundwater levels.

In parts of northwest Iowa the subsoil remains very dry.

Clean up work remains from last week’s ice storm in the northwest corner of the state.

Note in the illustration at right, the large band of heavy rain across southeastern Iowa in contrast to the small area in the northeast that received almost no rain.



Courtesy of the National Weather Service

The next Water Summary Update will be published May 2, 2013.

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.

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