

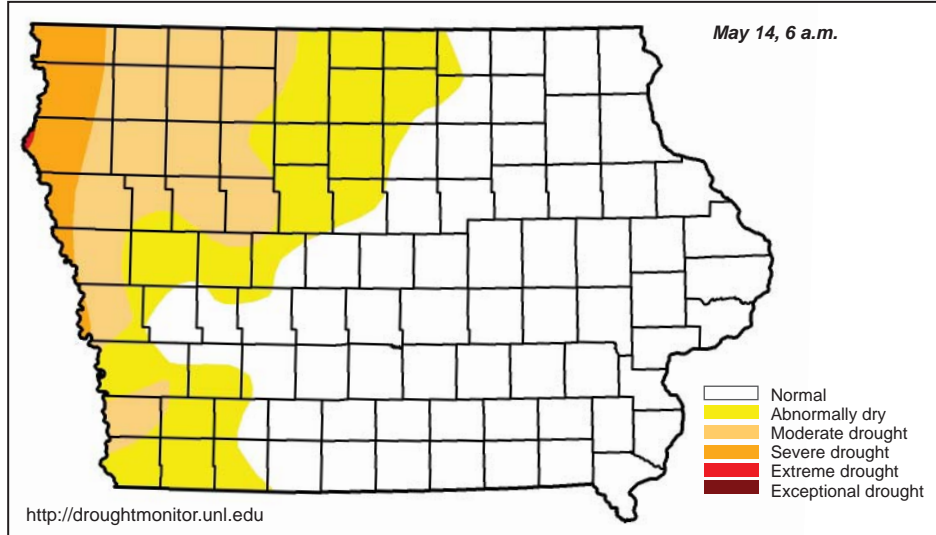
WATER SUMMARY UPDATE

No. 24

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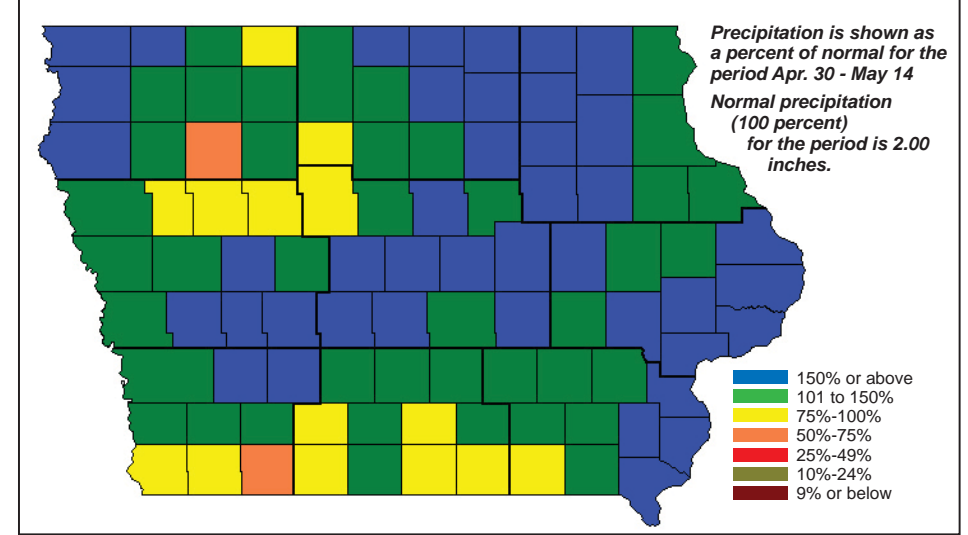
Drought Monitor

National Drought Mitigation Center and partners



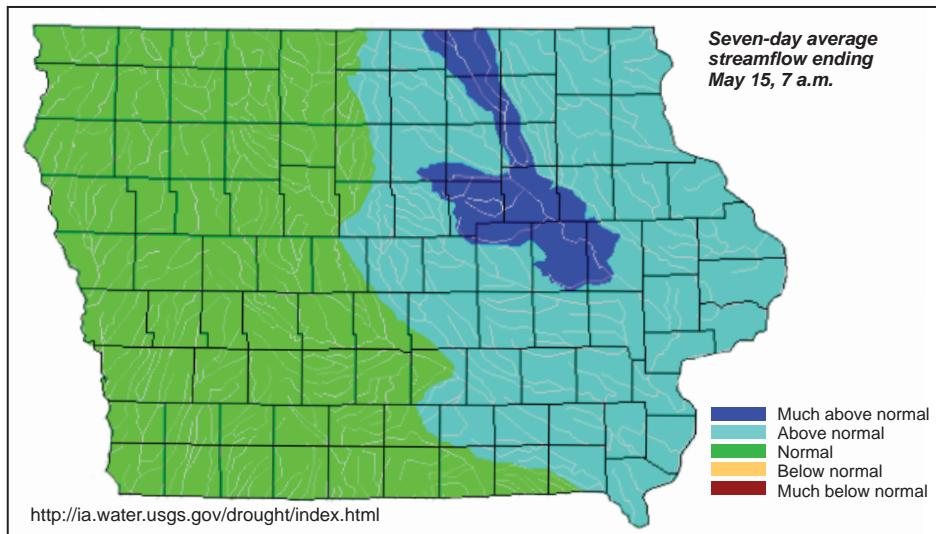
Precipitation

State Climatologist



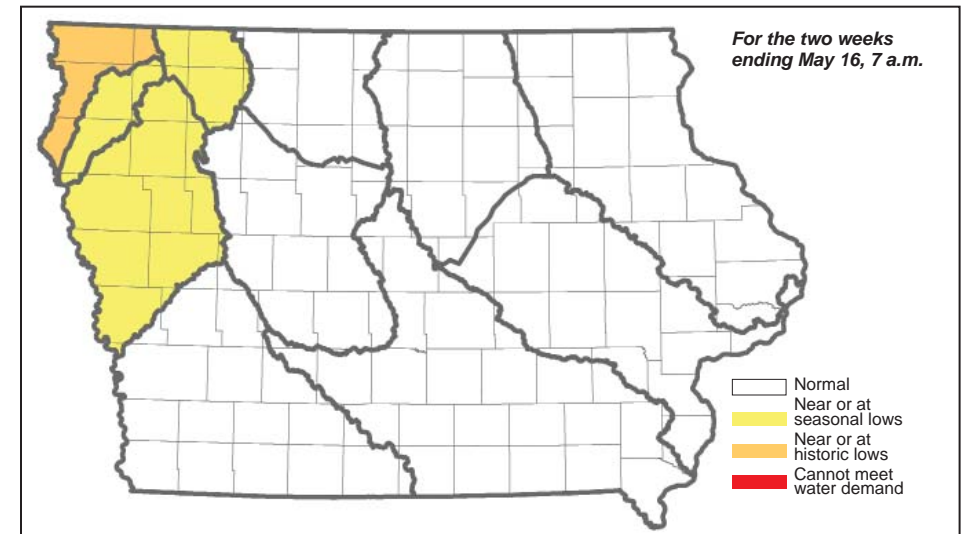
Streamflow

US Geological Survey



Shallow Groundwater

Iowa DNR



Recent Developments and Changes

Overall Conditions

Overall improvement has been seen over the past two weeks. The Drought Monitor shows more than 60 percent of the state as “drought free” – and the remainder of the state has seen a lessening of the severity of drought conditions. Stream flows remain at normal levels for most of the state, with some areas of the eastern part state having experienced minor flooding. There are some small areas of northwest Iowa where concerns persist about long-term drinking water supplies. Those areas are being carefully monitored as Iowa enters the irrigation season and as summer weather arrives with an increased demand for water. The past two weeks were cooler and wetter than normal, and included an incredible variety of weather – from record low and high temperatures, to record snowfall for the month of May. Overall the temperatures over the past two weeks were 3.8 degrees below normal, and the precipitation was 0.81 inches above the normal 2 inches.

Drought Monitor

The past two weeks have seen improvement in all categories of drought in the state – and marks the tenth week in a row of good news for Iowa. According to the current drought monitor, 61 percent of Iowa is “drought free” – with about 19 percent of the state rated as D0: Abnormally Dry and about 15 percent rated as D1: Drought – Moderate. Less than 4 percent of Iowa remains in D2: Drought – Severe. The area of the state still designated in some form of drought is identified as being in a “Long-Term” drought, lasting for more than six months and affecting hydrology and ecology. Long-term drought conditions will take longer to eliminate, so ongoing above normal rainfall is needed in northwestern Iowa in order to continue to make progress in reducing and eventually eliminating the drought in all of the state.

Shallow Groundwater

Shallow groundwater levels in southwest Iowa improved over the last two weeks. Water levels in Denison have risen approximately 4 feet since April 2013. Water levels in Osceola, O’Brien, Clay, Palo Alto, and Eastern Sioux counties continue to improve. Shallow groundwater levels are at historic lows in Western Sioux County along the Rock River.

Streamflow

Streamflow conditions are at similar levels, or have increased slightly over the past two weeks due to precipitation events early in May. Streamflow conditions across the majority of the state are at normal levels, with some areas in the eastern portion of the state with above normal flows. The highest streamflow conditions, rated as “Above Normal,” are in portions of the Iowa and Cedar Rivers. USGS field crews continue to collect streamflow measurements at sites across the state to verify reported streamflows.

Precipitation

The past two weeks ended with cooler than normal average statewide temperatures (3.8 degrees below normal) and above normal statewide average precipitation (2.81 inches compared to the normal 2.00 inches). During the two week period Iowa saw an incredible variety of weather, beginning with temperatures in the mid to upper 80s across central and eastern Iowa, then showers and thunderstorms giving way to snow in the far northwest on the morning of May 1. The snow was locally heavy in northwest, north central, central and south central Iowa from May 1 through May 3. Osage reported the largest official snow total with 13 inches while there was a

statewide average of 3.4 inches, smashing the old May record of 1.2 inches set in 1947. Daily record low temperatures were set in some areas on May 12 and 13 with Battle Creek, Sibley and Spencer recording lows of 23 degrees on the morning of the 12th. Finally, a strong surge of hot and very dry air spread across Iowa at the end of the period. Sioux City recorded the first 90-degree reading for the year in Iowa on May 13. On the afternoon of May 14 the northwest one-third of the state reached triple-digit temperatures. At Sioux City a high of 106 degrees was recorded, 15 days earlier than the previous record early date for such heat in Iowa. At Clinton the temperature rose from a daily record low of 33 degrees on the morning of May 13 to a daily record high of 93 degrees the afternoon of the 14th. The 60 degree warm-up was tied for the greatest next day temperature increase at that location among 121 years of data.

Notable Events for the Period

North Central Iowa: Water level is within 7 inches of crest on Clear Lake. Other natural lakes in the area are similar, within inches of crest. The wetlands are full in the area.

West Central Iowa: Water levels are 10-20 inches low at North Twin, South Twin, Storm Lake, Black Hawk Lake, Arrowhead Lake, and Black Hawk Pits. Wetlands look good, with most of them full and some flow over stop logs.

Northwest Iowa: The Okoboji Chain is at crest and has had some outflow during windy days. Big Spirit Lake is between 2 and 3 inches below crest. Wetlands in the area are full or nearly full.

The **Mississippi River** is slightly above flood stage from the Quad Cities to Keokuk, and the Wapsipipicon River near DeWitt is less than a foot above flood stage. The Iowa River is about a foot above flood stage between Marengo and Wapello.

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.

Next Water Summary
Update will be published
May 30, 2013

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