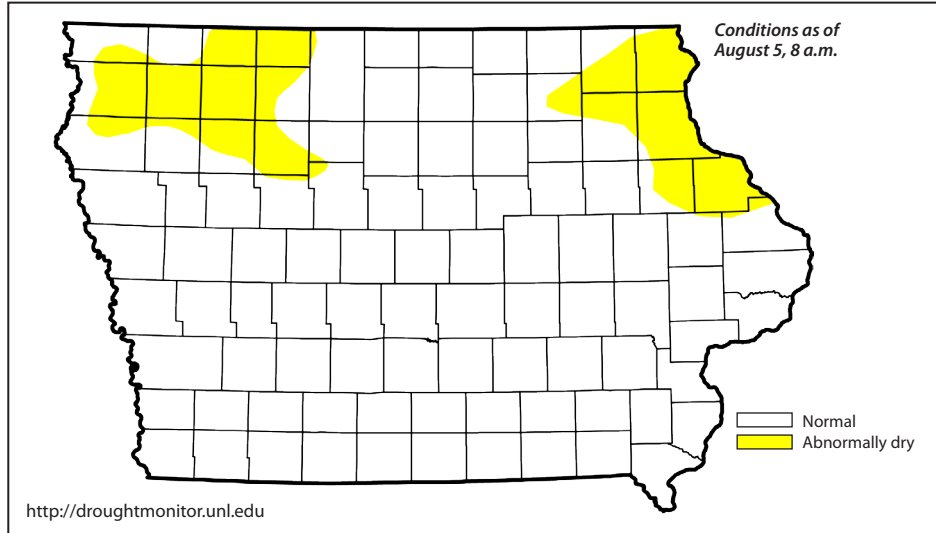


WATER SUMMARY UPDATE

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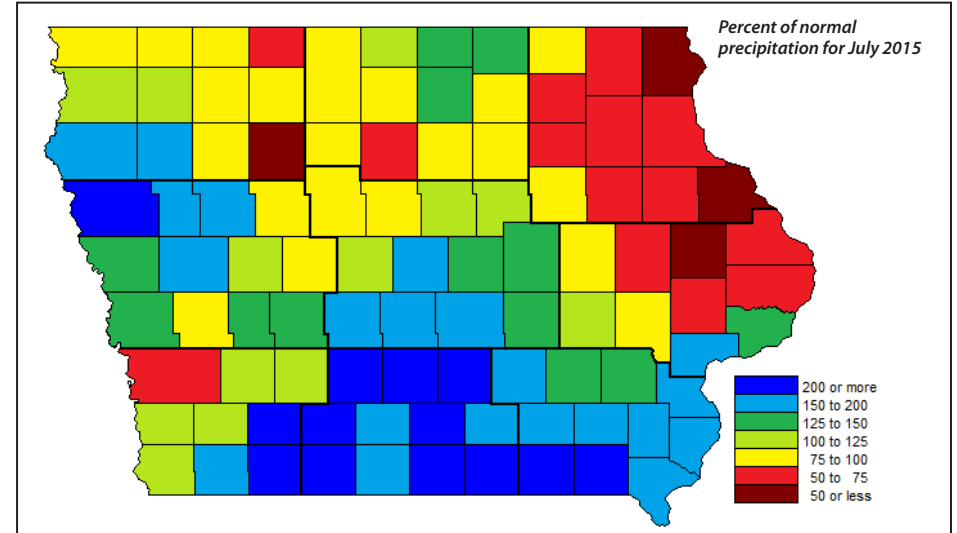
Drought Monitor

National Drought Mitigation Center and partners



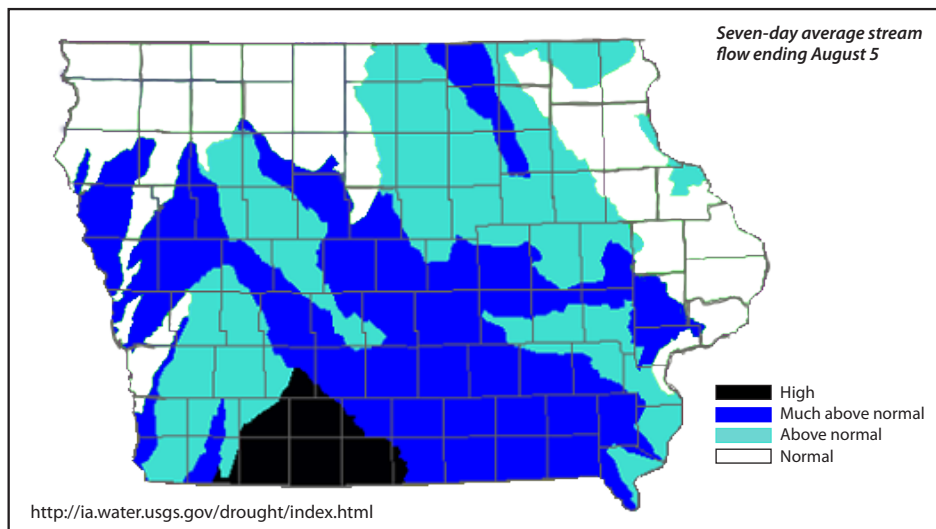
Precipitation

State Climatologist



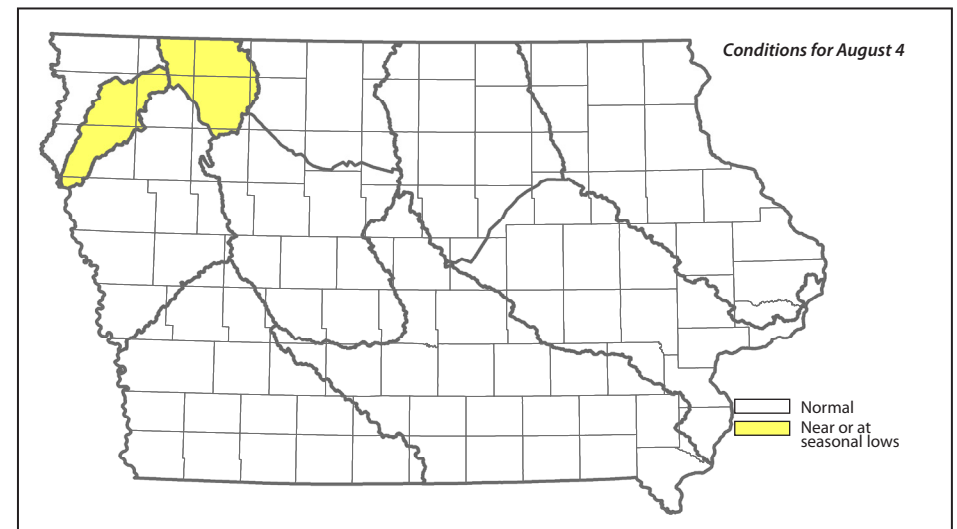
Stream Flow

US Geological Survey



Shallow Groundwater

Iowa DNR and IHR-Hydroscience and Engineering



Recent Developments and Changes

Overall Conditions

The month of July ended with an above normal amount of rain and the average rainfall across the state is slightly above average for the year. The distribution of rainfall has not been uniform, however, and the northwest and northeast corners of the state are showing dry conditions. According to the recent Iowa Crops and Weather report released by the USDA National Agricultural Statistical Service, topsoil and subsoil moisture levels are 94 percent adequate or surplus.

Drought Monitor

After seeing drought free conditions in early July, abnormally dry conditions have crept back into the state. Relatively dry conditions in northwest and northeast Iowa in June and July resulted in the introduction of an 'abnormally dry' status for about 13 percent of the state in the most recent U.S. Drought Monitor. The abnormally dry designation indicates that drought impacts are not yet apparent, but that these areas warrant extra attention if warmer and/or drier weather becomes established.

Regional conditions remain encouraging. A small area of D1 – Moderate Drought – exists in Kansas, but otherwise states surrounding Iowa have only minimal areas of abnormally dry conditions. Significant drought is present west of the Rocky Mountains, but the middle part of the US (including Iowa) remains in relatively good condition.

Stream Flow

Streamflow conditions are currently above normal for the majority of the state. Since the last water summary update, streamflow conditions across central Iowa and some places in western Iowa have increased, and are rated as "much above average." These areas include parts of the Des Moines, Skunk, Iowa, Cedar, Boyer, and Soldier Rivers. As a result of the recent heavy rains, USGS field crews have been making several additional streamflow measurements to verify stage-discharge relations at many streamgages.

Precipitation

The first half of July was relatively dry across Iowa with a statewide average rain total of 1.64 inches. The second half of the month was much wetter, bringing an average of over 4 inches of rain to the state. In total, July saw 5.71 inches of rain – well above the normal of 4.5 inches. Overall, the southern one-third of Iowa was very wet during July (with the exception of Pottawattamie County) while much of northern and east central Iowa was on the dry side of normal. Monthly rain totals varied from only 1.20 inches at the Dubuque Airport to 13.33 inches at Knoxville. Meanwhile, July 2015 can be divided into three temperature regimes. The first part of the month was unusually cool with temperatures climbing no higher than 90° anywhere in Iowa. The middle of the month turned mostly very warm and very humid with heat indices reaching 110° in some areas on the 12th, 13th and 17th. The end of July averaged near normal with alternating periods slightly of above and below normal temperatures. In the end, July averaged 1.4 degrees below normal, to rank as the 27th coolest July among 143 years of record.

Shallow Groundwater

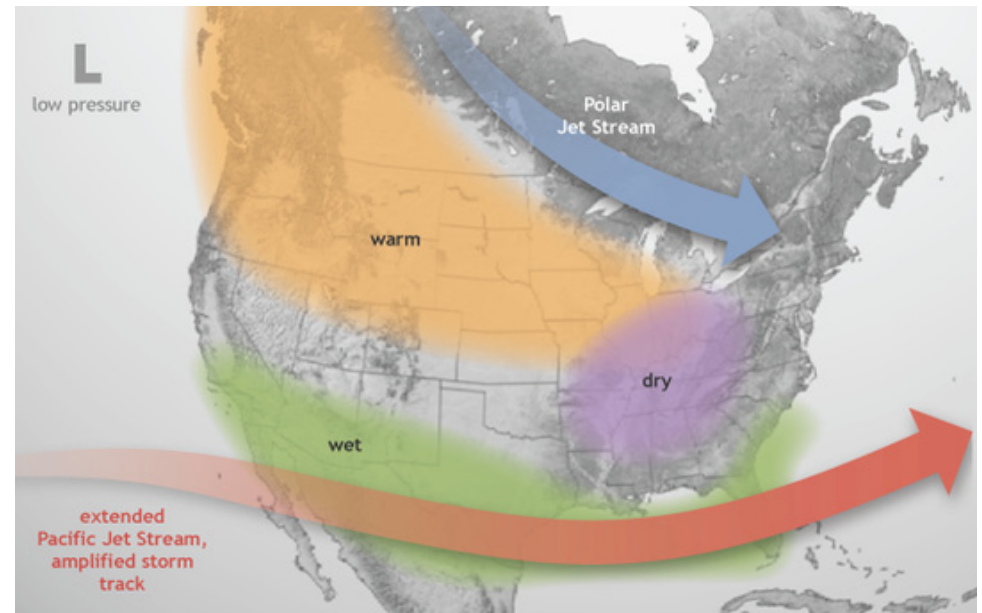
Parts of northwest Iowa continue to be dry, and the Floyd and Ocheyedan River watersheds are still classified in the slight drought category. Shallow aquifers along both the Floyd and

Ocheyedan rivers are experiencing near seasonal low levels. Parts of northeast Iowa are also drier than normal. Concerns for shallow groundwater levels could expand in northwest and into northeast Iowa unless above average rainfall occurs over the next month.

Outlook for Fall and Winter

The National Oceanic and Atmospheric Administration's (NOAA's) Climate Prediction Center issued its monthly update last week, and has indicated that El Niño is ongoing and strengthening. This could mean cooler and wetter conditions are more likely in the fall months, and a winter that is warmer and drier in northern plains states, including Iowa.

Winter Time El Niño Pattern



NOAA. Climate.gov

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