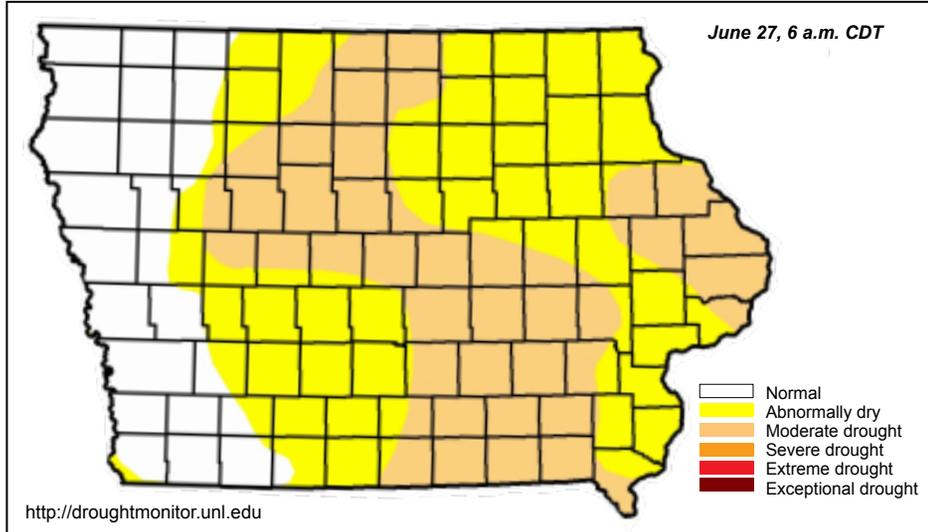


WATER SUMMARY UPDATE

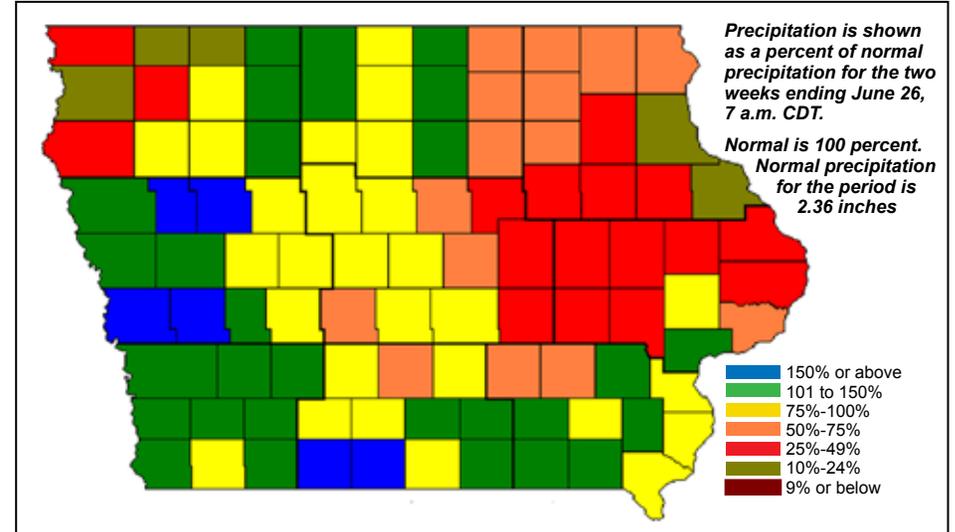
Drought Monitor

National Drought Mitigation Center and partners



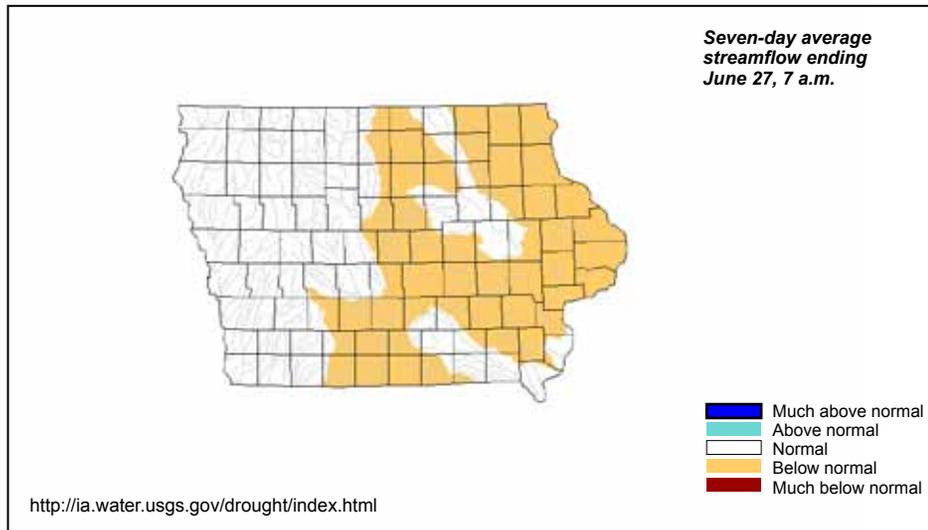
Precipitation

State Climatologist



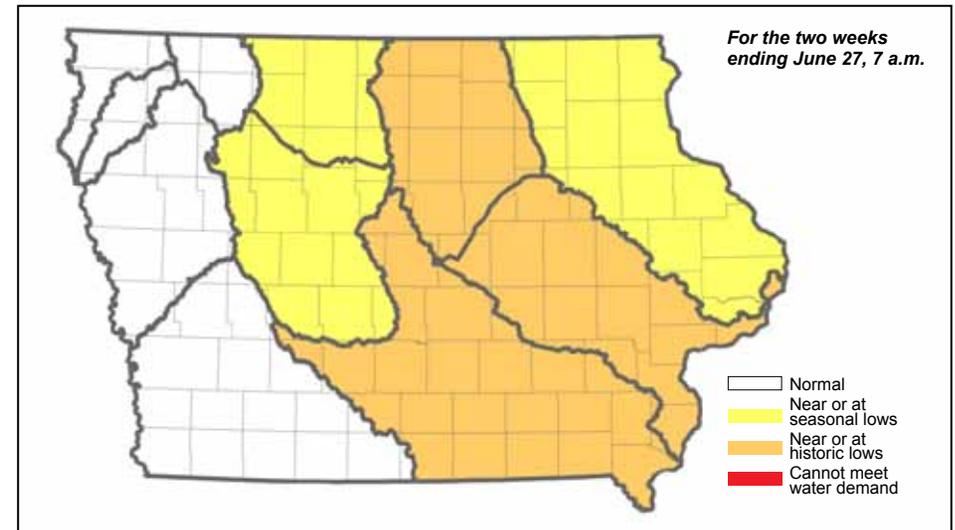
Streamflow

US Geological Survey



Shallow Groundwater

Iowa DNR



Recent Developments and Changes

Overall Conditions

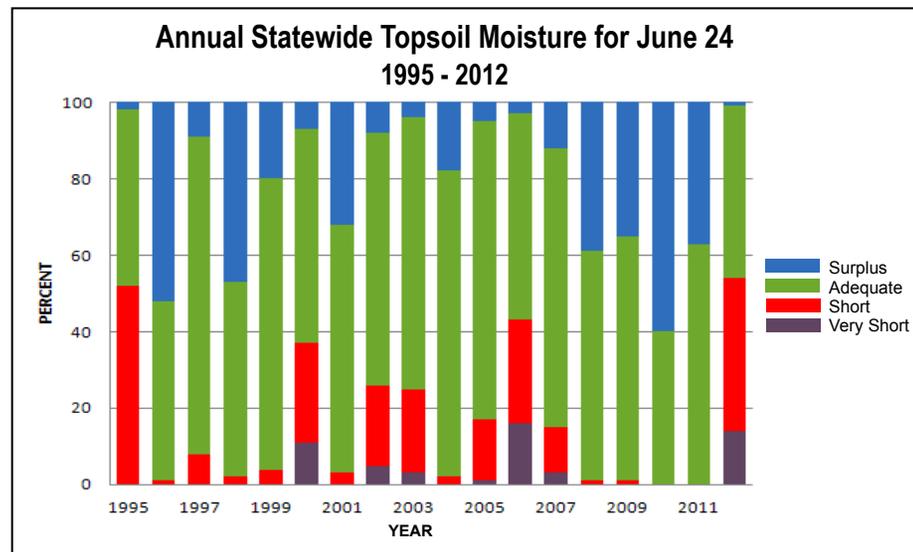
Precipitation, streamflow and shallow groundwater levels are normal in the western quarter of Iowa, which is reflected in the portion of the state that the Drought Monitor shows with normal conditions.

Unfortunately, dry areas that needed rain the most did not receive it. Statewide soil moisture also appears less than normal, which may mean increased water demand for irrigation as temperatures continue to rise.

Iowa Secretary of Agriculture Bill Northey addressed soil moisture in his comments about the weekly Iowa Crops and Weather report released by the USDA National Agricultural Statistical Service June 25: "The rains much of the state received last week were very welcome, but with so little moisture in reserve and hot dry weather persisting, more moisture is needed. With over half the state short on moisture in the topsoil and subsoil we are going to need regular rainfall throughout the growing season."

Precipitation

Rainfall for the past two weeks averaged 2.02 inches, or just slightly less than normal for the period. While this is an improvement from the last update, precipitation varied widely across the state. Rainfall was above normal over much of west central and southwest Iowa and well below normal over northeast and extreme northwest Iowa. Rain totals varied from 0.27 inches at Guttenburg to 5.17 inches at Sac City. Temperatures over the period averaged almost 2 degrees above normal, raising evaporation demand again.



This graph, prepared by the State Climatologist and DNR with data from the USDA National Agricultural Statistical Service, shows a snapshot of statewide soil moisture conditions on June 24 for the years 1995 to 2012. On June 24, 2012, 54 percent of the state's soil had inadequate soil moisture. The next worst was June 24, 1995, with 52 percent. The percent of soil moisture categorized as very short was 14 percent, which is only bested by 2006 when 16 percent was considered very short. While this is only a snapshot of conditions for one day year-to-year, it does illustrate a trend of shortage in soil moisture.

Notable Events for the Period

The following observations were made by Iowa DNR and other agency technical and field staff:

Rural water users saw an increase in water usage due to heat advisories for livestock that needed to be sprayed to keep them cool.

Four official stations recorded triple digit temperatures on June 27. Des Moines and Little Sioux were the highest at 101 degrees F.

Minor fish kills have been reported for West Okoboji Lake, Spirit Lake, Lost Island Lake and some smaller water bodies. Rapidly rising water temperatures, a drop in oxygen level and stress from spawning likely contributed to these fish kills.

Drought Monitor

This week's drought monitor shows further deterioration in affected areas. While 78 percent of Iowa remains in some form of dry conditions, there has been a significant increase in areas rated as Moderate Drought, from 13 percent to 37 percent. Most of this increase occurred up and down central Iowa.

Streamflow

The streamflow map shows the average flow over the past seven days compared to historical streamflow levels. Observed streamflows were below normal for much of the eastern two thirds of the state. Flows in the Upper Chariton River in south central Iowa have improved from much below normal to below normal. Streamflow conditions in the western part of Iowa and in other watersheds in rest of the state are normal.

Shallow Groundwater

Shallow groundwater levels in the eastern half of Iowa continue to deteriorate. East central Iowa was downgraded from slight to moderate drought conditions, and far northeast Iowa was downgraded from normal to slight drought conditions. Many locations are reporting downward trends in water levels, and are approaching historic lows. Spotty rainfall improved shallow groundwater levels in some locations of eastern Iowa, but most of the region is abnormally dry. A few reports of lower static water levels are being reported in northwest Iowa along the Floyd and Rock rivers.

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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, and The Iowa Homeland Security and Emergency Management Division.