WATER SUMMARY UPDATE

No. 52

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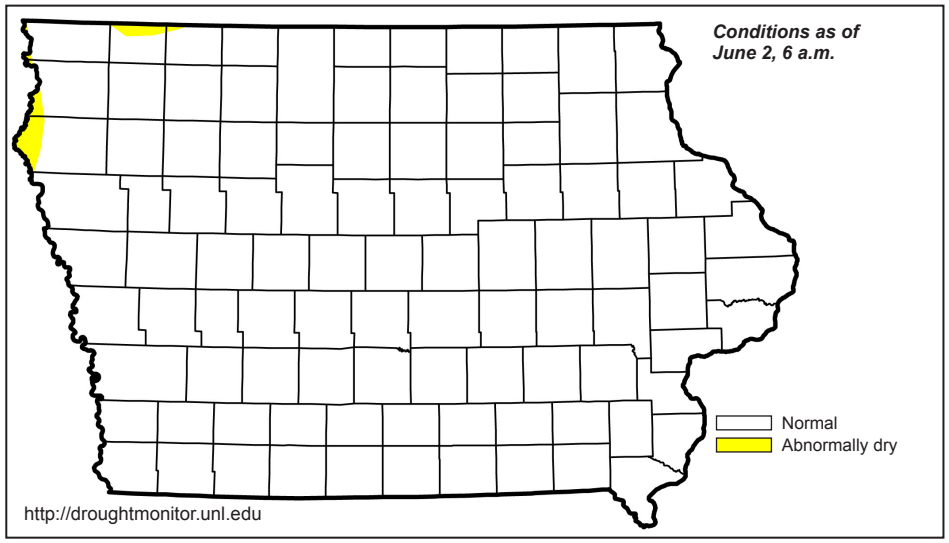
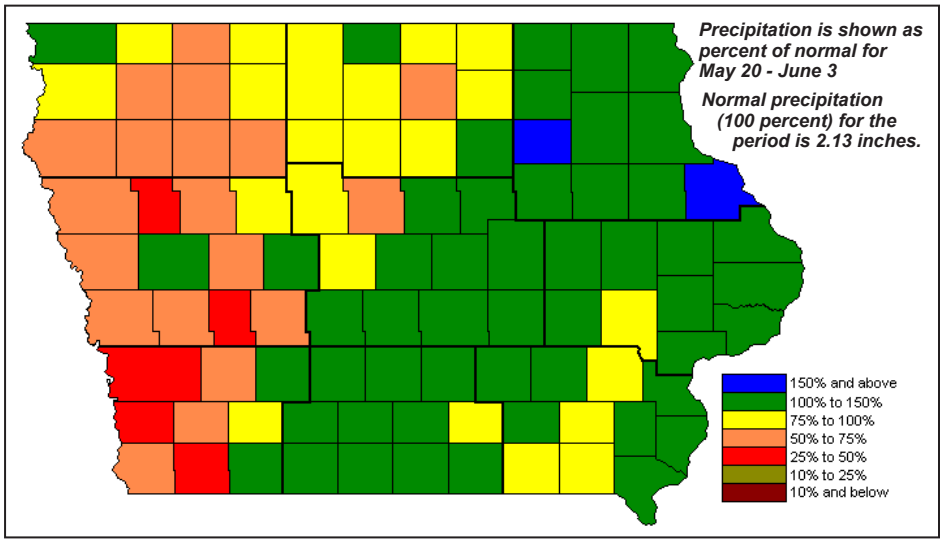
Drought Monitor

National Drought Mitigation Center and partners



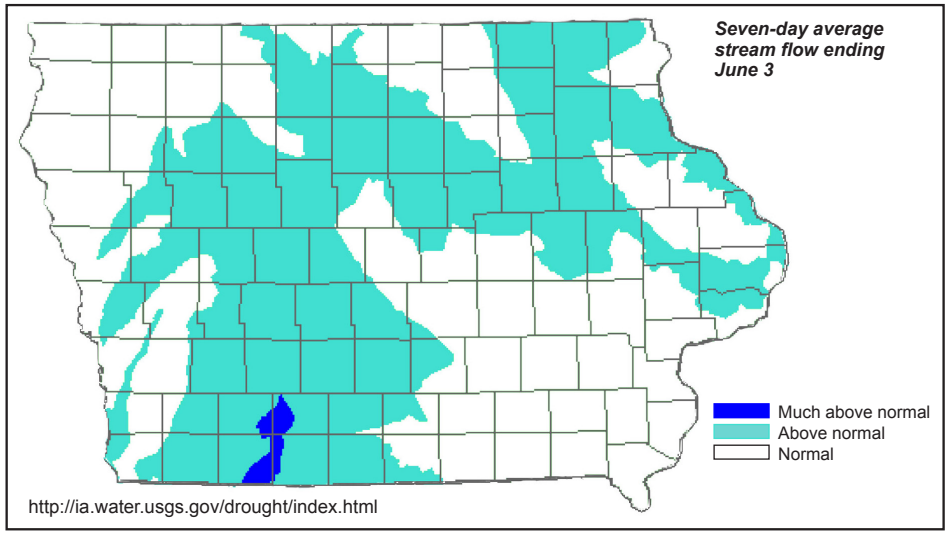
Precipitation

State Climatologist



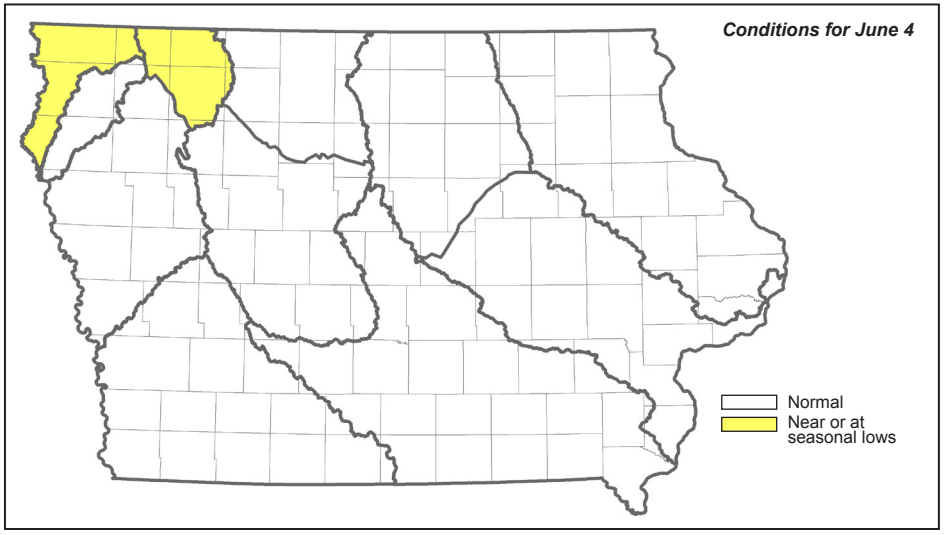
Stream Flow

US Geological Survey



Shallow Groundwater

Iowa DNR and IIHR-Hydroscience and Engineering



Recent Developments and Changes

Overall Conditions
Recent rains have nearly wiped out the rainfall deficit that began earlier this year, with statewide average rainfall for the year, through May, running about 1.4 inches below normal. The Drought Monitor, streamflow, and shallow groundwater conditions are near normal for most of the state. The far northwestern corner of the state continues to slightly dryer than average, with groundwater conditions continuing to be watched carefully by local water operators. To the west and north of Iowa, drought conditions are greatly improved, with adjacent states now 70 percent drought free. The Iowa Department of Agriculture and Land Stewardship is reporting that topsoil moisture levels are adequate or surplus nearly all of the state.

For some, the recent rains have been problematic. Iowa Secretary of Agriculture Bill Northey reports, “Unfortunately wet weather continues to limit the ability of farmers to get into the field. Soybean planting is now four days behind the five-year average. Southwest Iowa has been the most delayed by the weather with only 37 percent of soybeans planted, compared to 78 percent for the statewide average.”

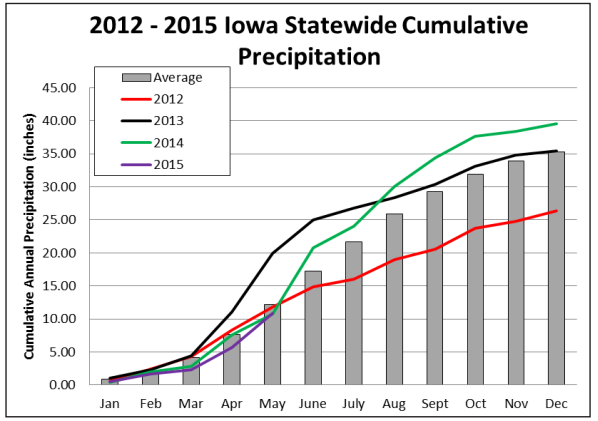
Drought Monitor
Rainfall over the past two weeks has resulted in the removal of any drought indications in eastern Iowa. All that remains in the state are two small areas of abnormal dryness in northwest Iowa, totaling less than one percent of the state.

Regional improvement in drought conditions is more dramatic. Recent heavy rains to our west and south have resulted in 70 percent of Minnesota, the Dakotas, Nebraska, and Kansas being drought free, compared to 43 percent of those states two weeks ago. There is no severe drought rating in those states, and only 6 percent is rated as being in moderate drought. This regional improvement in consistent with recent improvements in Iowa, and is good news for the Midwest.

Stream Flow
Streamflow conditions remain normal for about half the state, and slightly above normal for the balance of the state. Over the past two weeks, streamflow conditions across the western half of the state have decreased from levels that were much above normal to levels that are normal, or just above normal. Streamflow conditions in the northeast portion of the state have increased to above normal conditions.

The streamflow index, an indication of average streamflow across the state, remains on the wet side of normal, but has not risen significantly due to recent rains.

Precipitation
Precipitation over the last two weeks averaged 2.09 inches across Iowa, just slightly below the normal of 2.13 inches for the period. Totals were above normal over most of the southeast half of the state. Individual totals varied from 0.56 inches at Holstein to over 4.68 inches at a rain gauge five miles east of Denison. Meanwhile, temperatures over the period averaged 2.6 degrees below normal. Year-to-date precipitation totals are below normal over most of Iowa, with largest deficits of two to five inches over southeastern Iowa, roughly bounded by Interstate 35 on the west and Interstate 80 on the north.



This graph shows that the cumulative precipitation for 2015 has improved to near normal. The next three months are typically the wettest three consecutive months in Iowa and continued rainfall is critical.

Shallow Groundwater
Precipitation that fell across most of Iowa over the past 2 weeks has been able to keep pace with groundwater needs, and has slightly improved groundwater conditions – especially in eastern Iowa. The northwest corner of Iowa received some rainfall, but shallow groundwater conditions remain in the slight drought category for much of the area.

Field Observations
An operator at a water utility in northwest Iowa reported that during an excavation for a water main, soil was dry at a depth of seven feet. Local water utilities in northwest Iowa are reporting lower than normal groundwater levels in some areas. Utilities are carefully watching to see what impact hot and humid weather may have on water demand.

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.

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