

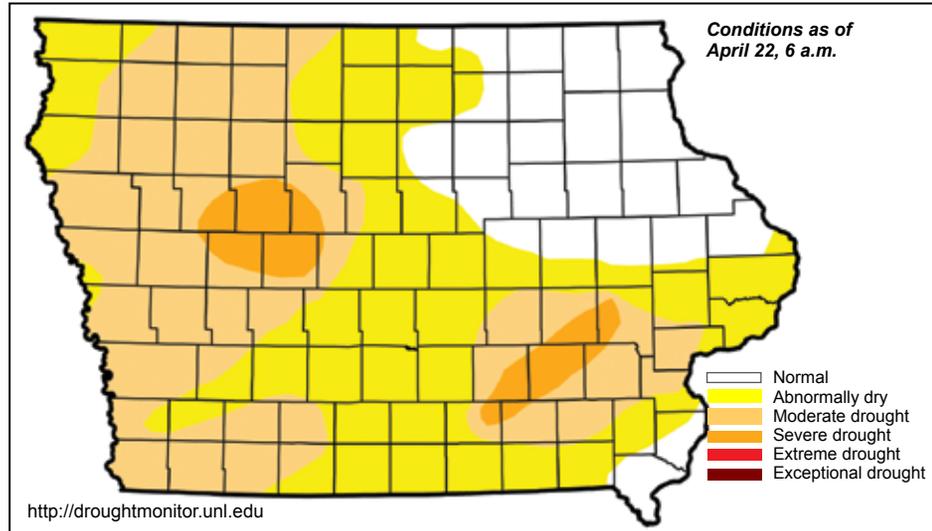
WATER SUMMARY UPDATE

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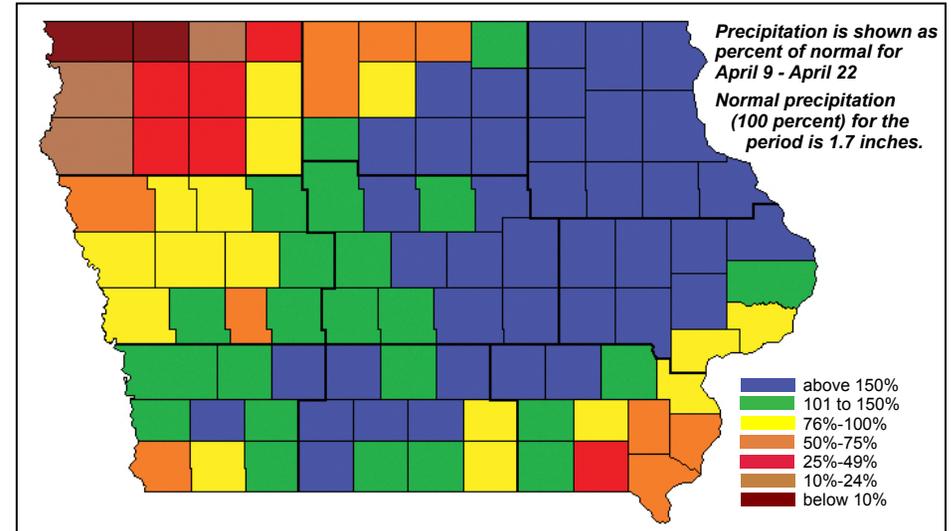
Drought Monitor

National Drought Mitigation Center and partners



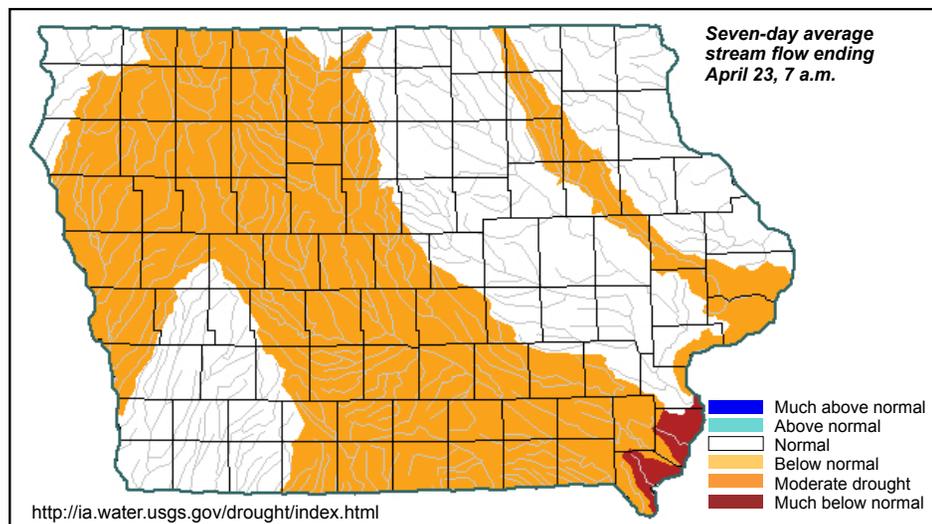
Precipitation

State Climatologist



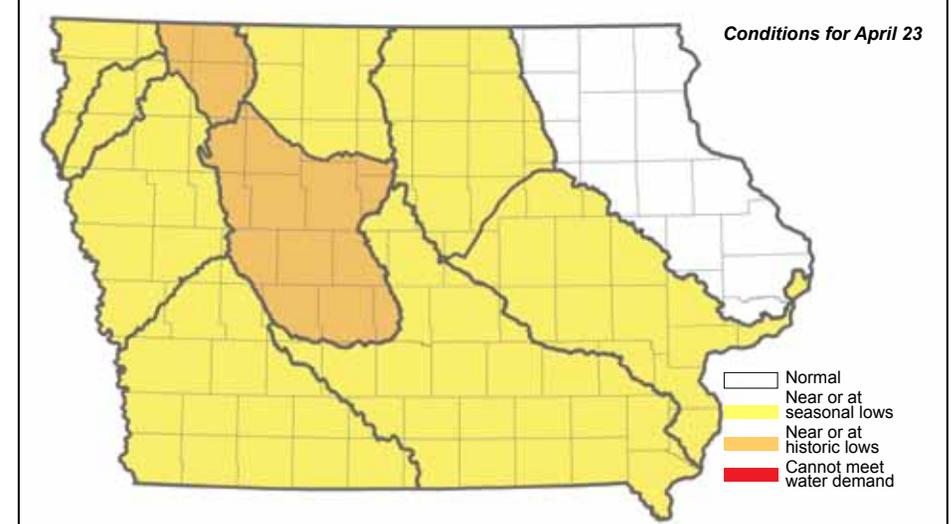
Stream Flow

US Geological Survey



Shallow Groundwater

Iowa DNR



Recent Developments and Changes

Overall Conditions

Conditions this week serve as a reminder that as long as it takes to move into a drought, it can take as long to get out of a drought. While the state received significant rainfall over the past two weeks, improvement in conditions has not been dramatic. Stream flow has improved statewide, but remains below average. Northeast Iowa remains the wettest, while northwest Iowa is the driest. Groundwater conditions are still low across much of the state, but normal spring rains should continue to bring improvement.

Drought Monitor

The National Drought Monitor indicates improvement in all categories of drought conditions across the state over the past two weeks. Over 35 percent of the state continues to be rated in moderate drought, and just over 5 percent is rated in severe drought. Nearly 60 percent of the state, however, is now shown without drought or just abnormally dry. Those driest areas continue to be two small locations in west-central and southeast Iowa. Rain that fell April 23 should result in continued improvement in drought conditions. The slow steady rains that Iowa has received (and continues to receive) are exactly what is needed.

Precipitation

The past two weeks brought the most precipitation to the state seen since early June 2013. The statewide average rainfall was 2.3 inches of precipitation over the two weeks ending April 22 while normal for the period is 1.7 inches. A large precipitation event April 12-14 accounted for most of the recent moisture with storm totals exceeding four inches in some areas from south central to northeast Iowa. Rain totals over the period ranged from less than 0.1 inches at Rock Rapids in far northwest Iowa to 5.7 inches at Pella. Winter-like weather also made several appearances with snow accumulating over the northwest half of the state April 13-14, while temperatures fell to 12 degrees at Sheldon and Sibley in the morning of April 15. Only a few northern Iowa locations reported frozen soil at the end of the period.

Shallow Groundwater

Shallow groundwater levels in southern, central, eastern and northeastern Iowa have benefited from the heavy rainfall over the last 2 weeks. Unfortunately, very little rain fell in parts of southwest and northwest Iowa. Compared to a year ago, shallow groundwater levels are one to four feet lower in Johnson, Jefferson, Lucas and Montgomery counties, and the same or slightly higher in Marshall, Fayette, Crawford and O'Brien counties. Compared to two years ago, shallow groundwater levels are 2 to 12 feet lower in Crawford, O'Brien, Jefferson, Johnson, Lucas and Montgomery counties.

Stream Flow

Stream flow conditions remain below normal for about half of the state. The lowest stream flow conditions are in the southeast corner of the state in the Des Moines and Skunk river basins, which have less than 10 percent of their normal stream flow. Stream flow conditions across the northeastern portion of the state are normal with the exception of the Wapsipinicon River which is at below normal condition. Stream flow conditions across the state have improved since the last water summary update.

Notable Events This Period

Stream Flow Index. The USGS stream flow index provides a good indication of how effective the rainfall of April 12-14 was for the state. Stream flow picked up rapidly for a short period of time, and then decreased within a few days, but ended higher than before the storms. No significant flooding was experienced, as much of the rain fell slowly enough to soak into the shallow soils.

Tile Lines. A report was received from Iowa County — where over four inches of rain fell — of tile lines running initially, but then the flow stopped within a few days. This is an indication that much of the rain helped to replenish soil moisture.

Reports from far northwest Iowa, including the Iowa Great Lakes area, show that this area missed out on recent rains. The lakes are very low, as are streams and other waters.

Shallow marshes have recovered slightly. Stream flow looks like late summer or August, and tile lines are not flowing in many locations.

Reports from water supply operators in northwest Iowa are that water supplies using shallow wells are seeing reduced production, dropping water levels, and historically low levels. The region has missed most of the rain.

North of Milford it is reported that the last rain that caused significant runoff was during the Memorial Day Weekend of 2013.

Prepared by the Iowa DNR in collaboration with the Iowa Department of Agriculture and Land Stewardship, the U.S. Geological Survey, IHR—Hydroscience and Engineering and The Iowa Homeland Security and Emergency Management Department.

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