

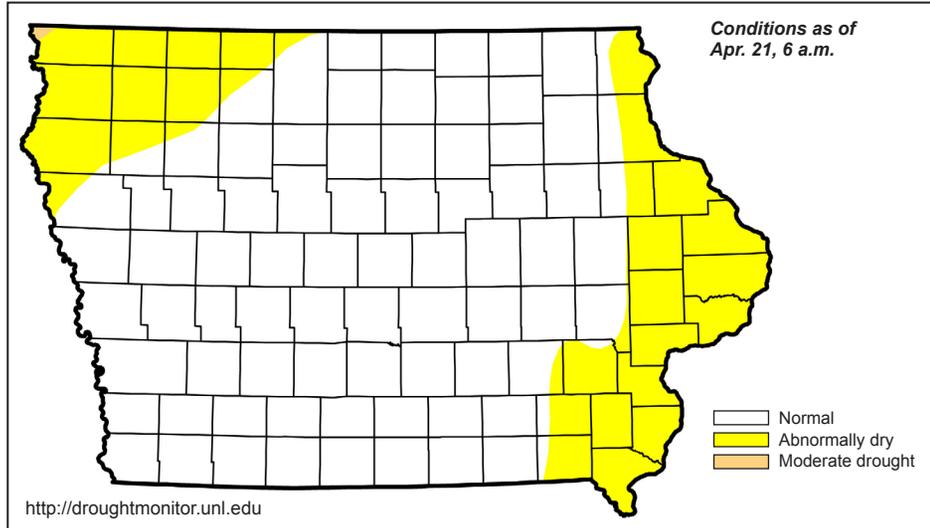
# WATER SUMMARY UPDATE

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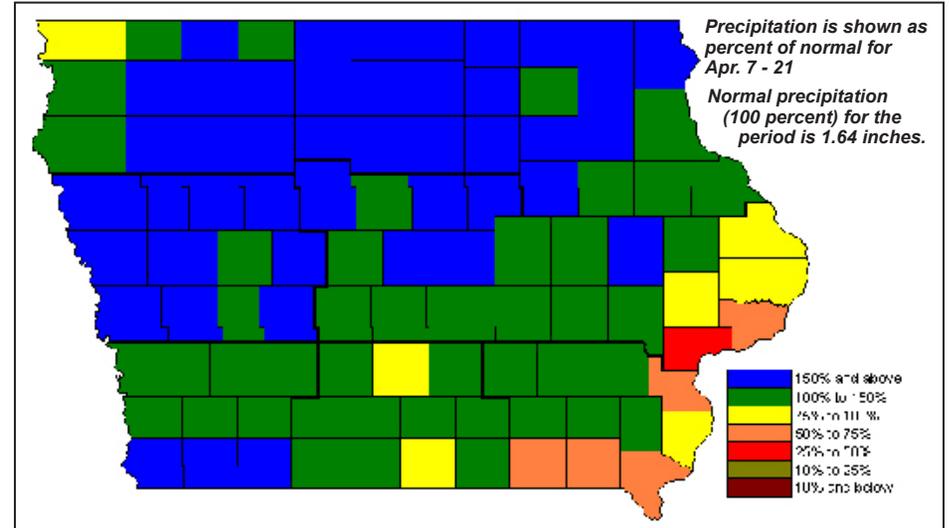
## Drought Monitor

National Drought Mitigation Center and partners



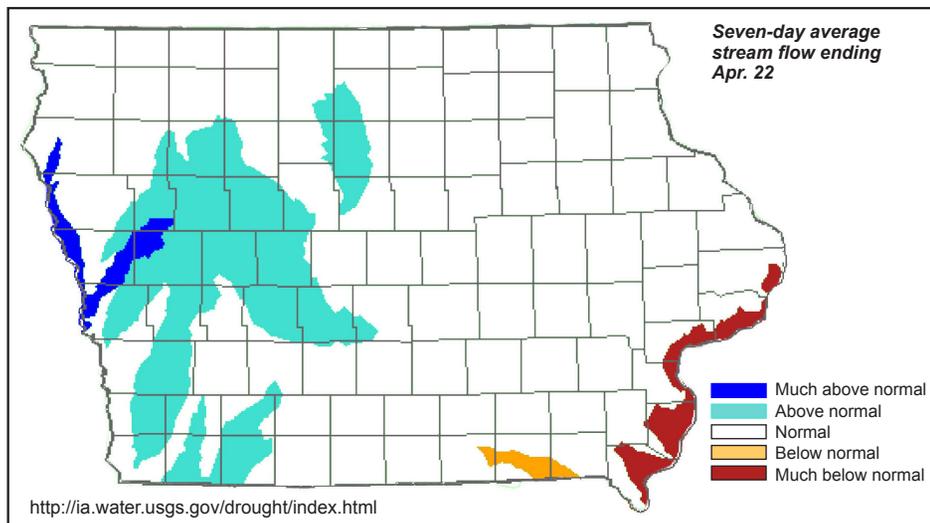
## Precipitation

State Climatologist



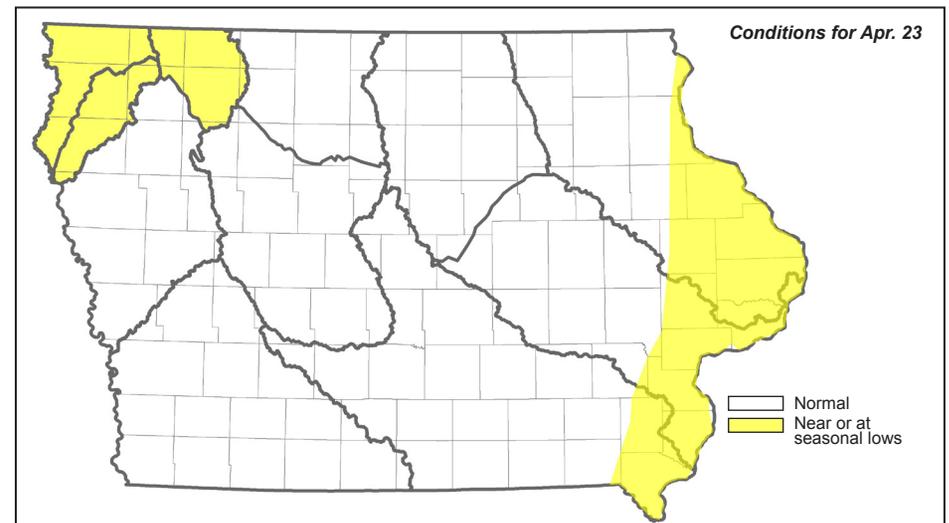
## Stream Flow

US Geological Survey



## Shallow Groundwater

Iowa DNR and IHR-Hydroscience and Engineering



# Recent Developments and Changes

## Overall Conditions

The last two weeks have seen some much needed rainfall over much of the state, ending a very dry stretch of weather. These rains are reflected in improvements to the Drought Monitor, streamflow, and shallow groundwater conditions. The development of this wet weather comes at a time when Iowa is entering its traditionally wet months, and is a positive sign for conditions moving through spring. The precipitation, unfortunately, has not been uniform, leaving the southeastern and northwestern corners of the state with less than normal moisture over the past two weeks.

## Drought Monitor

The recent rains have improved the conditions in Iowa as shown in the National Drought Monitor. Since the last WSU was issued, the area of the state shown as abnormally dry (D0) has dropped from almost 50 percent of the state to about 25 percent. This is a significant improvement from one year ago, when over 75 percent of the state was abnormally dry. The surrounding states of North and South Dakota and Minnesota have shown little improvement, and remain largely in dry or drought conditions. Nebraska, however, has seen improvement in their conditions over the past two weeks.

## Stream Flow

Streamflow conditions were primarily normal conditions across the state. Since the last water summary update, streamflow conditions across the eastern half and northwest portions of the state have moved into the normal condition. Small areas in western portion of the state have moved into the above normal and much below normal condition.

## Precipitation

A trio of storm systems brought widespread precipitation to Iowa over the past two weeks, interrupting a relatively dry weather pattern that had dominated the state since mid-October 2014. The first event brought a statewide average of 0.86 inches of moisture, with a few inches of snow accumulating from west central to north central Iowa at the end of the event. The next event on the 12th-13th mainly impacted the southwest one-half of Iowa and brought a statewide average of 0.34 inches of rain. The final, and largest event, this past weekend, brought a statewide average of 1.18 inches of rain with largest rain amounts from southwest, through central, to north central Iowa. Rain totals over these two weeks varied from 0.72 inches at Muscatine to 6.22 inches at Lake Mills. The statewide average precipitation total was 2.39 inches while normal for the period is 1.64 inches. Meanwhile temperatures were mostly above seasonal norms, averaging 4.5° above normal.

## Shallow Groundwater

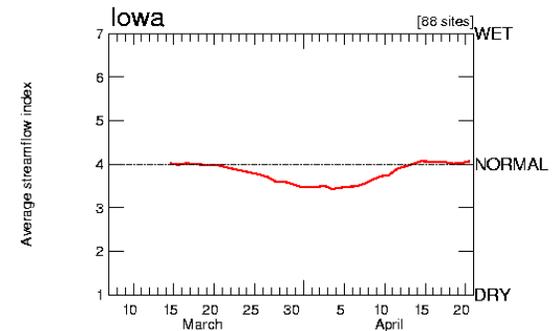
Substantial precipitation fell across most of Iowa in this two week period, and this is reflected in some of the shallow groundwater systems. Based on river baseflow data, shallow groundwater conditions have improved in north-central, southeast, northeast, and southwest Iowa. Slight drought conditions are still present in far northwest and eastern Iowa.

## Field Observations

The rainfall enjoyed by much of Iowa did not make it to parts of Lyon County this weekend, leading to dryer than expected field conditions. This time of year, rainfall can be very localized, leaving some areas much drier than other nearby areas.

## Streamflow Index

The USGS Streamflow index is an indication of average streamflow across the state compared to normal streamflow for this time of year. The graph shows this index for the past 45 days, and shows the effect of the dry conditions in late March and early April, and the improvement in streamflow as a result of recent rainfall. Right now statewide average streamflow is normal for this time of the year, although higher than normal flows could be occurring in some areas and lower than normal flows in other areas.



*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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