



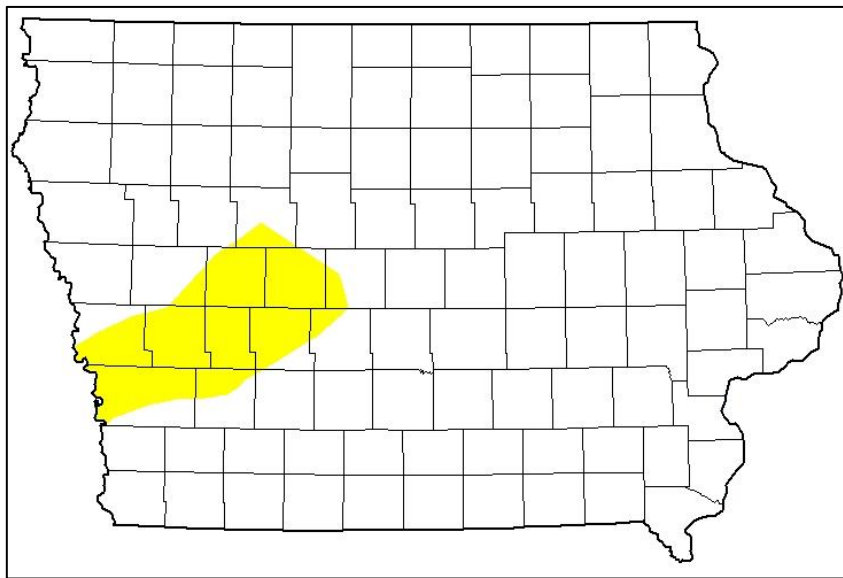
# WATER SUMMARY UPDATE

Published Date June 4, 2020 | Issue 108

## A snapshot of water resource trends for the month of May 2020

### Drought Monitor - Conditions as of June 2, 2020

National Drought Mitigation Center and partners

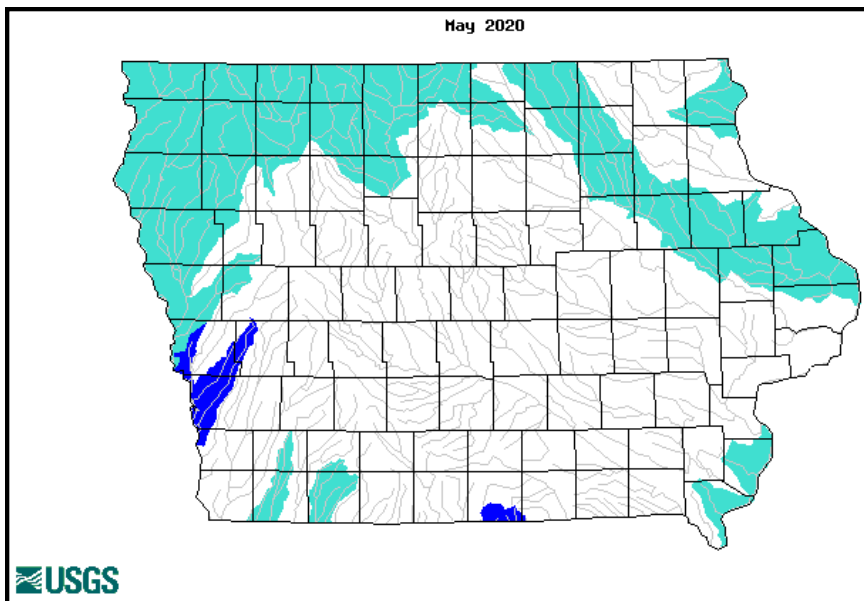


*Intensity:*

<span style="color: yellow;">■</span> D0 Abnormally Dry	<span style="color: red;">■</span> D3 Extreme Drought
<span style="color: orange;">■</span> D1 Moderate Drought	<span style="color: darkred;">■</span> D4 Exceptional Drought
<span style="color: gold;">■</span> D2 Severe Drought	

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

### Stream Flow – May 2020

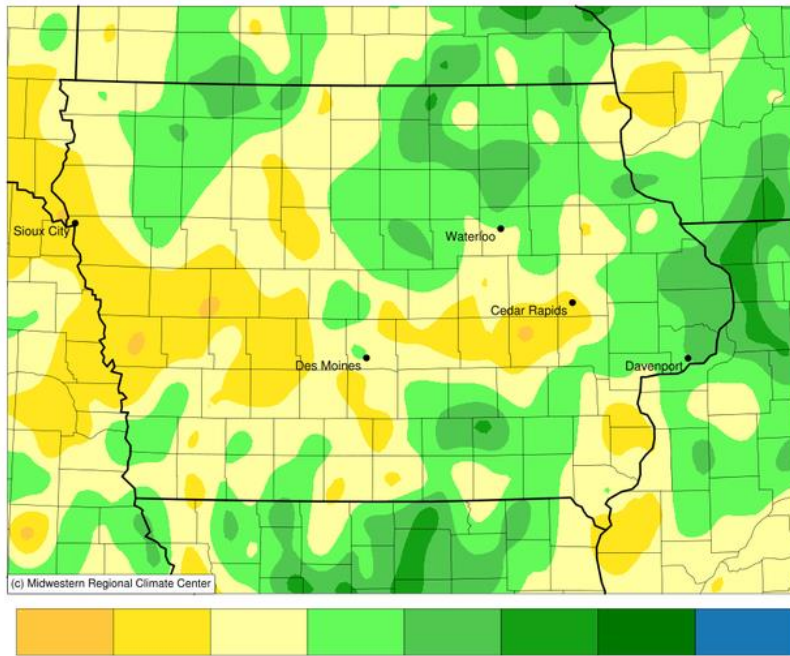


<span style="color: black;">■</span>	High
<span style="color: blue;">■</span>	Much above normal
<span style="color: cyan;">■</span>	Above normal
<span style="color: white;">■</span>	Normal
<span style="color: orange;">■</span>	Below normal
<span style="color: red;">■</span>	Much below normal



### Accumulated Precipitation (in): Departure from 1981-2010 Normals

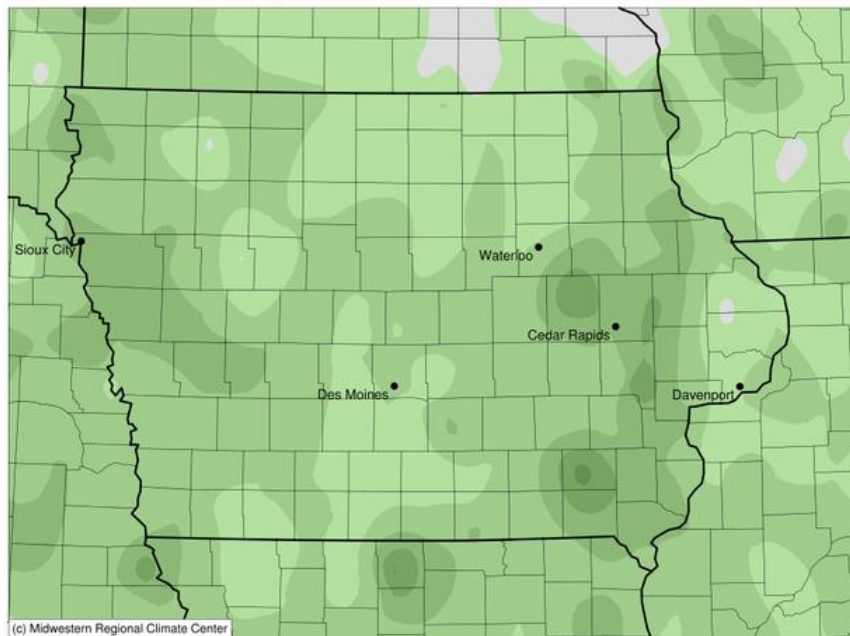
May 01, 2020 to May 31, 2020



-2 -1 0 1 2 3 4  
Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI, Midwestern Regional Climate Center  
cli-MATE: MRCC Application Tools Environment  
Generated at: 6/4/2020 7:43:38 AM CDT

### Average Temperature (°F): Departure from 1981-2010 Normals

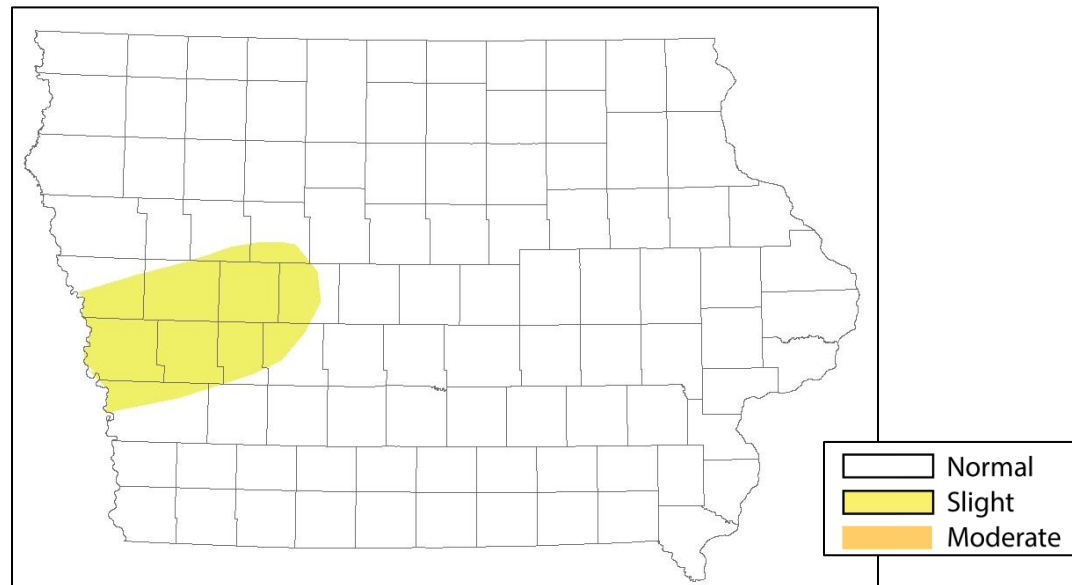
May 01, 2020 to May 31, 2020



-5 -4 -3 -2 -1 0 1 2  
Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI, Midwestern Regional Climate Center  
cli-MATE: MRCC Application Tools Environment  
Generated at: 6/4/2020 8:03:36 AM CDT

## Shallow Groundwater - Conditions for May 2020

Iowa DNR and IIHR-Hydroscience and Engineering



## RECENT DEVELOPMENTS AND CHANGES

### SUMMARY

The month of May in Iowa was about normal for rainfall, but the rain did not fall evenly across the state. A wide band across the central part of the state was drier than normal, while the north, south, and eastern edges were wetter. On average rainfall was just below normal for the month. As a result of the dryness in west central Iowa, the US Drought monitor still shows areas of abnormal dryness, and groundwater levels are stressed in that part of the state. Average streamflow levels are normal across much of the state.

### DROUGHT MONITOR

Over the last week the area designated as “D0 – Abnormally Dry” been reduced by 2/3, now covering just over seven percent of the state. The D0 designation in northeast Iowa has been removed. D0 is the least severe designation used by the National Drought Mitigation Center (NDMC) in Lincoln, Nebraska. According to the NDMC a D0 designation means that “corn shows drought stress” and “soil is dry.” In the Missouri River basin there are drought conditions developing in North Dakota, Wyoming, and Montana.

### MAY PRECIPITATION AND TEMPERATURE

Pockets of above and below average precipitation were reported across Iowa during May. Western Iowa received between one and two inches less than normal rainfall, while other sections of the state reported above normal rainfall of one to two inches. When taken together, the preliminary statewide average precipitation was 4.50 inches, only 0.06 inches below normal. Monthly precipitation totals ranged from 1.83” at Sioux Center 2.6 N (Sioux County) to 7.55” in St. Ansgar (Mitchell County).

Iowa experienced cooler than normal conditions statewide during May with a preliminary average temperature of 57.7 degrees, 2.4 degrees below normal. This ranks May 2020 as the 38th coldest in 148 years of statewide

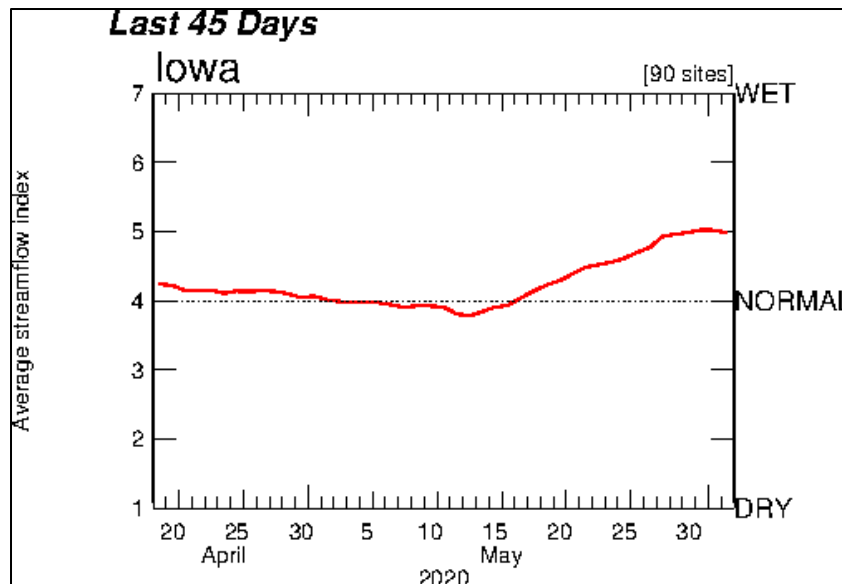
records; a colder May occurred just last year. Negative temperature departures were reported statewide with locations in eastern Iowa observing up to four degrees below normal.

May's statewide average maximum temperature was 67.4 degrees, 4.0 degrees below normal while the average minimum temperature was 48.0 degrees, 0.8 degrees below normal. Battle Creek (Iowa County) and Sioux Center (Sioux County) reported the month's high temperature of 90 degrees on the 1st, on average 22 degrees above normal. Elkader (Clayton County) and Stanley (Buchanan County) reported the month's low temperature of 21 degrees on the 9th, on average 23 degrees below normal.

\*Initial monthly temperature and precipitation averages are preliminary and are likely to change as quality control of observations is completed.

### CURRENT STREAM FLOW

Streamflow conditions across the majority of the state have remained in normal conditions since the last month. Portions of a few basins, including the Boyer, Floyd, Wapsipinicon, Des Moines, and Soldier Rivers are in the above normal condition. The stream index shows a gradual increase in statewide average flow, with a leveling of flows toward the end of May.



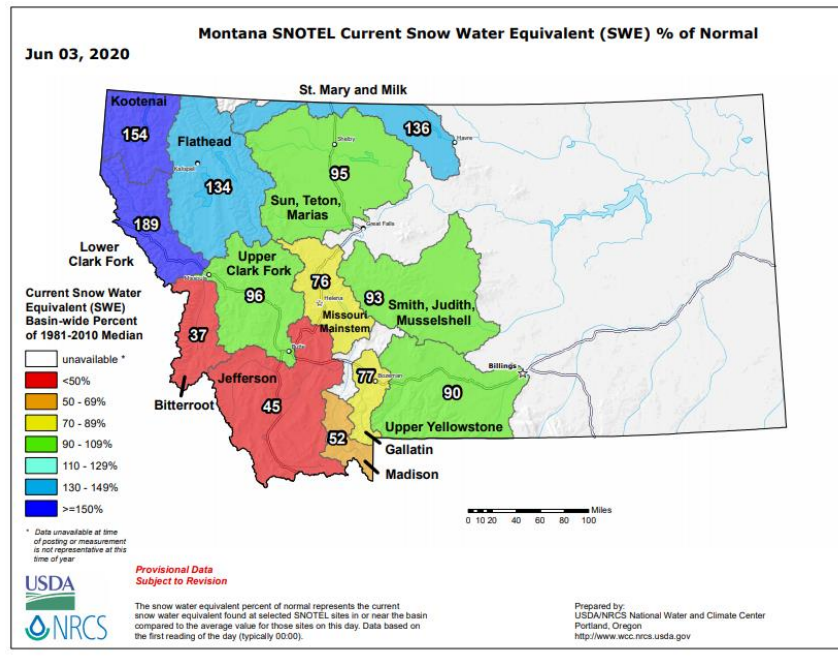
### SHALLOW GROUNDWATER

Shallow groundwater conditions improved in most of Iowa in May, but dry conditions still persist across parts of West Central and Northeast Iowa. Normal to above normal precipitation in June will adequately recharge Iowa's shallow alluvial and bedrock aquifers.

### MISSOURI RIVER BASIN

In its weekly updated released on June 2 the Corps of Engineers indicated that almost 80% of the designated flood control storage in the Missouri River reservoirs is available to store runoff from mountain snowmelt and spring/summer rainfall events. This is tracking fairly close to normal storage volumes for this time of the year. Mountain snowpack continues to melt and is following the normal graph for snowmelt. Below is a map showing the amount of water in the snow in Montana. Some areas are below normal (red and yellow) and some are

above normal (blues). Overall The National Weather Service is forecasting scattered showers throughout the basin this week, which is typical for this time of the year. The Corps now estimates annual runoff for the upper Missouri River basin will be 32.3 million acre feet (MAF).



**ADDITIONAL INFORMATION**

For additional information on the information in this Water Summary Update please contact any of the following:

- General Information . . . . . [Tim.Hall@dnr.iowa.gov](mailto:Tim.Hall@dnr.iowa.gov) 515-725-8298
- Drought Monitor and Precipitation. . . . . [Justin.Glisan@iowaagriculture.gov](mailto:Justin.Glisan@iowaagriculture.gov) 515-281-8981
- Stream Flow. . . . . Daniel Christiansen, [dechrist@usgs.gov](mailto:dechrist@usgs.gov) 319-358-3639
- Stream Flow. . . . . [Michael.Anderson@dnr.iowa.gov](mailto:Michael.Anderson@dnr.iowa.gov) 515-725-0336
- Shallow Groundwater. . . . . [mike-gannon@uiowa.edu](mailto:mike-gannon@uiowa.edu) 515-725-0336