



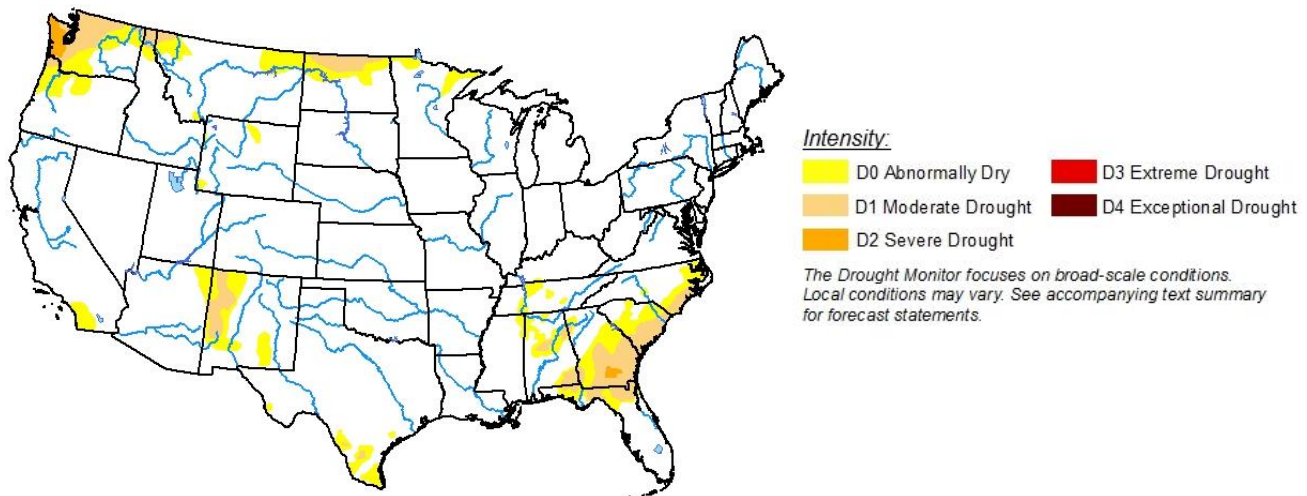
WATER SUMMARY UPDATE

Published Date June 13, 2019 | Issue 96

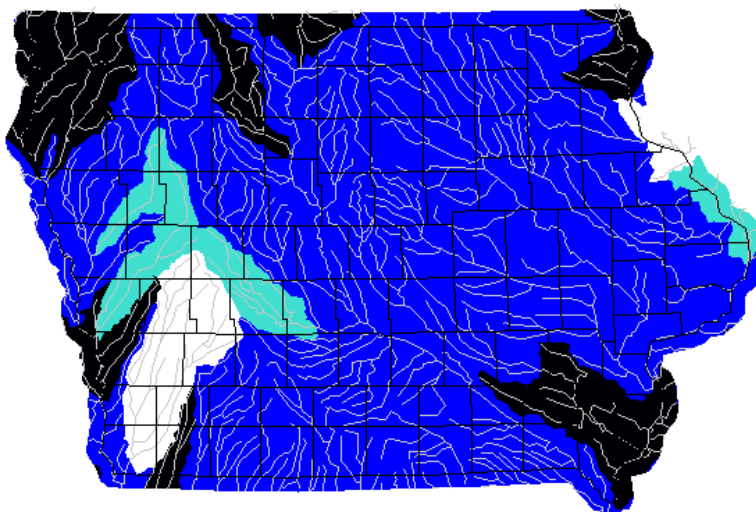
A snapshot of water resource trends for the month of May 2019

Drought Monitor - Conditions as of June 13, 2019 at 7:30 a.m.

National Drought Mitigation Center and partners



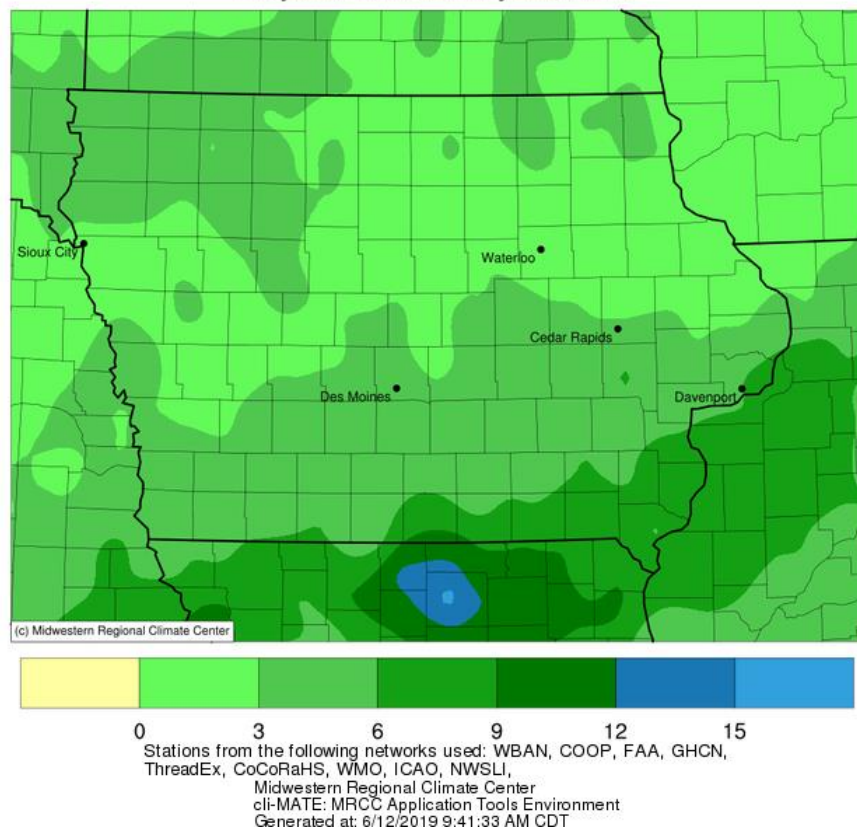
Stream Flow – May 2019



Explanation - Percentile classes						
Low	<10	10-24	25-75	76-90	>90	High
	Much below normal	Below normal	Normal	Above normal	Much above normal	

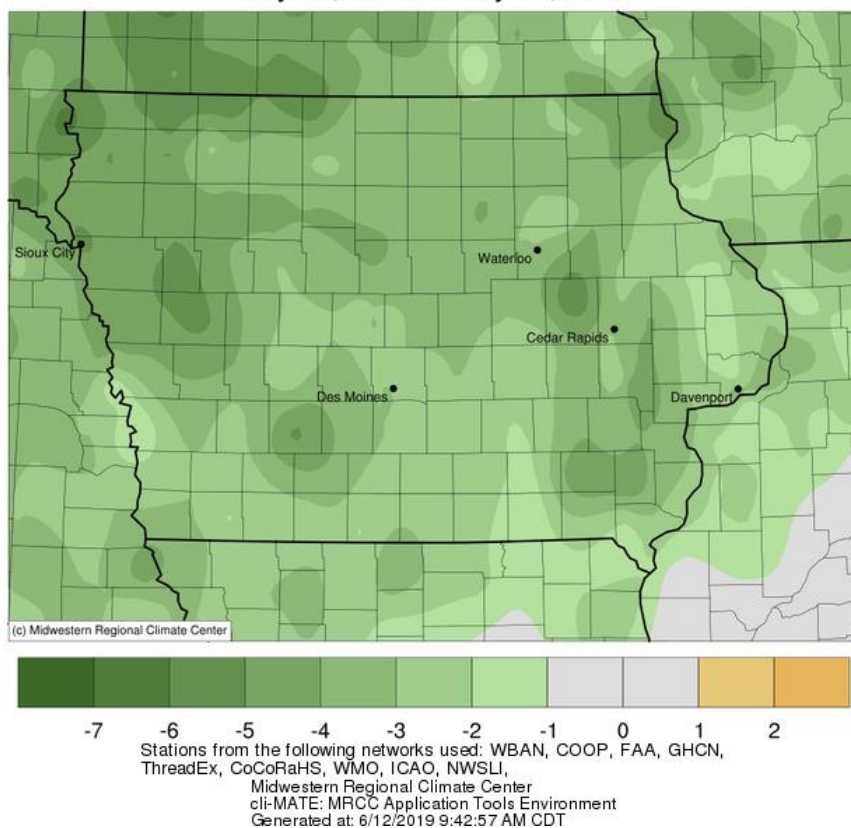
Accumulated Precipitation (in): Departure from 1981-2010 Normals

May 01, 2019 to May 31, 2019



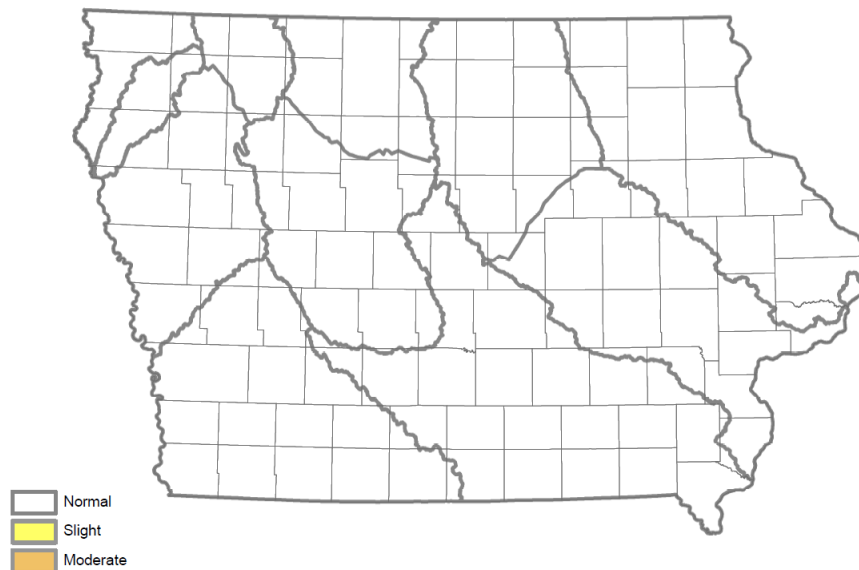
Average Temperature (°F): Departure from 1981-2010 Normals

May 01, 2019 to May 31, 2019



Shallow Groundwater - Conditions for May 2019

Iowa DNR and IIHR-Hydroscience and Engineering



RECENT DEVELOPMENTS AND CHANGES

SUMMARY

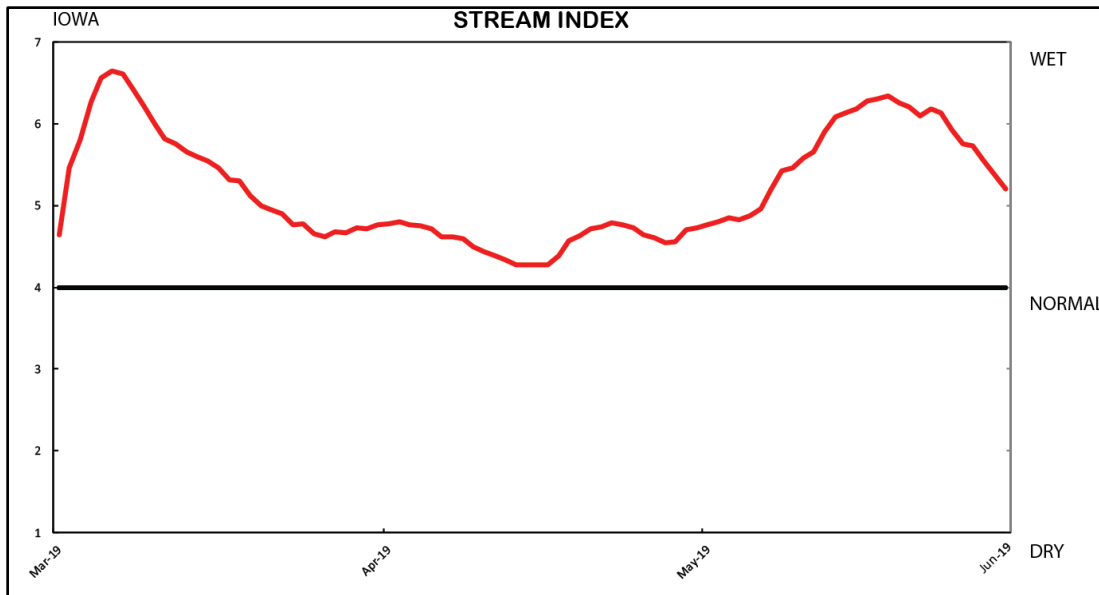
May continued the pattern of very wet conditions across the state. This past May was the 6th wettest on record, and the last 12 months (June 2018 thru May 2019) has been the wettest for Iowa on record. This has also been the wettest 12 month period on record for nearly all of the surrounding states. Temperatures have been cooler than normal over the same time period – although not as extreme as has been the precipitation. The last 12 months were the 34th coolest in 124 years of records. River flooding continues to be of concern on both the Missouri and the Mississippi Rivers.

DROUGHT MONITOR

Drought and abnormally dry conditions have been absent from the state since November 6th, 2018. Conditions continue unchanged from the winter and spring. Nearly all of the Midwest remains free from any dryness. There is a small area of dryness and drought in northern North Dakota, as well as areas of drought in the extreme northwestern and southeastern parts of the United States.

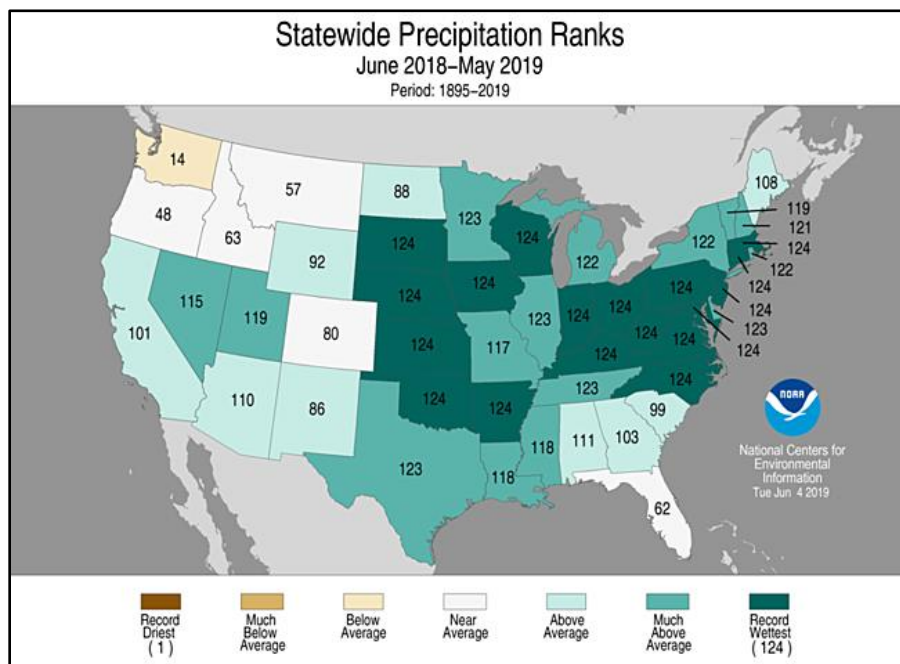
CURRENT STREAM FLOW

Streamflow conditions in much of the state increased from normal and above normal conditions in April to much above normal and high conditions in May. Streamflow conditions across the majority of the state remain much above normal. The stream index shows the total of all stream gages in the state compared to normal streamflow at those gages for that time. The resulting graph, shown below, provides a good single measure of average streamflow across the state. The index shows that average stream flows peaked in March at a very high level, then slowly declined toward normal flow levels in April and May. Continued rainfall pushed the index back up to higher levels in early June, and then the recent dryer weather has resulted in the flows again coming back down.



MAY PRECIPITATION AND TEMPERATURE

Iowa precipitation totaled 7.93 inches or 3.37 inches above average for the month of May. The unseasonable wetness across the state makes May 2019 the 6th wettest in 147 years of statewide records. All National Weather Service Coop stations reported above average rainfall during May with the largest totals and departures reported in southern Iowa; stations reported above 200% of expected rainfall across the southeastern quadrant. In Allerton, 13.33 inches of rain fell, which is nearly twice the expected rainfall for the month at that location. Over the last 12 months, Iowa and nearly all of the surrounding states seen their wettest conditions.



Iowa temperatures averaged 56.6 degrees or 3.5 degrees below normal making May 2019 the 22nd coldest on record with a cooler May last occurring in 1997. Temperatures across the state were below average for the month with northwest Iowa experiencing the coolest conditions, generally three to five degrees below average.

SHALLOW GROUNDWATER

Shallow groundwater conditions remain normal across the entire state. Continued wet conditions have resulted in recharge to shallow groundwater systems across the state.

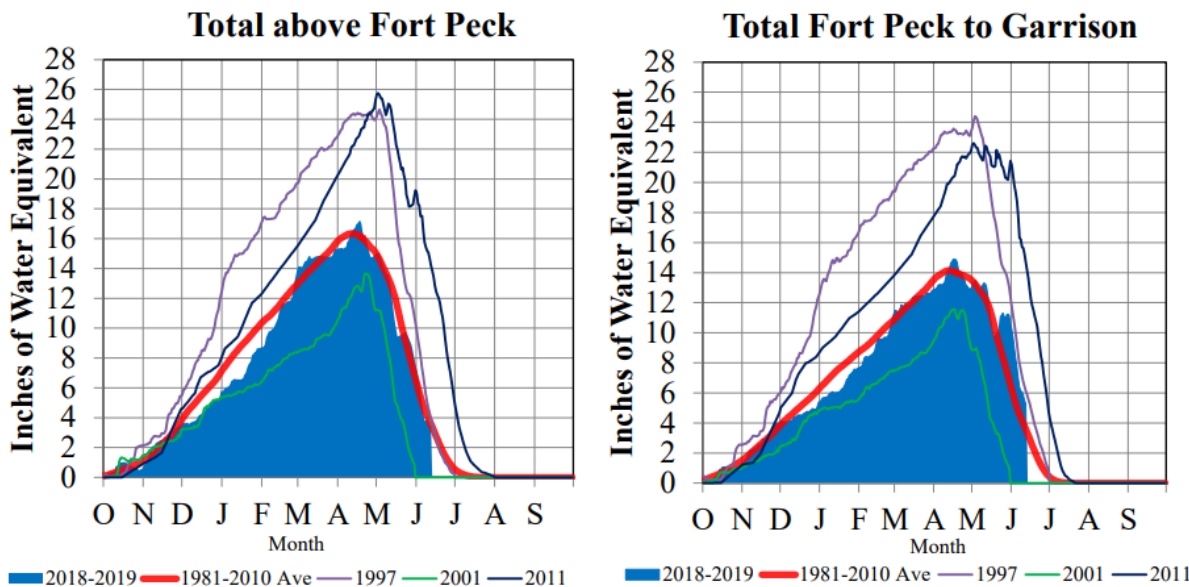
MISSOURI RIVER BASIN

The Missouri River basin continues to an area of concern. The US Army Corps of Engineers is reporting that since reaching its 2019 peak accumulation in mid-April, mountain snowpack continues to melt and enter the river system, primarily into Fort Peck and Garrison reservoirs. Runoff in the basin was more than 2.5 times normal runoff for the month of May.

As of June 12, about 28% of the total flood storage capacity in the system was available for flood storage. At the lower end of the reservoir system, the Gavins Point reservoir, 75,000 cubic feet per second of water is being released. This is more than twice the amount that would normally be released at this time of the year. This discharge rate is expected to remain constant throughout the summer months.

Missouri River Basin – Mountain Snowpack Water Content
2018-2019 with comparison plots from 1997*, 2001*, and 2011

June 12, 2019



ADDITIONAL INFORMATION

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

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