NO. 73

WATER SUMMARY UPDATE

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Stream Flow

US Geological Survey





Shallow Groundwater

Iowa DNR and IIHR-Hydroscience and Engineering



SUMMARY

After several months of below normal rainfall across Southern Iowa, the moisture of the last half of March brought some relief from the abnormally dry and moderate drought conditions that had been creeping slowly north into Iowa. At the same time, the recent rains have come slowly enough so as to not cause widespread flash flooding. Now that soils are saturated across much of the state, the potential exists for normal spring flooding over the next few months as normal rainfall amounts increase. The stream flow index dipped below normal for the first time since last summer, but has risen to above just normal and continues to rise as the recent rains make their way through the State's streams.

DROUGHT MONITOR

The significant rainfall during the last half of March resulted in improvement in conditions in Iowa. All of the D1 Moderate Drought area has been removed from southeastern Iowa, and now only about 11 percent of Iowa is rated D0 Abnormally Dry. This returns the state to the conditions that existed at the beginning of 2017. In addition, the states of Kansas, Missouri, and Illinois also saw notable improvements in drought conditions over the past week.

CURRENT STREAM FLOW

Streamflow conditions are above normal for the majority of the state. Since the last water summary update, streamflow conditions across the majority of the northern half of the state have decreased to the normal condition, with the southern portion of the state moving to the above normal and much above normal condition. The Streamflow Index, which indicates the 7-day average streamflow compared to historical streamflow for the day of the year, dipped below normal in mid-March for the first time since July of last year. The index has since climbed above normal, and is continuing to rise.



MARCH PRECIPITATION

Overall March 2017 averaged a little warmer and wetter than usual. Well below normal precipitation amounts occurred in northwest Iowa while the wettest area was in west central Iowa. The most significant aspect of March weather was an extended period of cloudy and wet weather that began on the 23rd and extended into the first few days of April. Heaviest rains during this period occurred across southeastern Iowa, at least temporarily reversing the pattern of 'wet north' and 'dry south' that had persisted over the state for nearly a year. The lack of sunshine, frequent rain fall, along with minimal winds (quite unusual for what is typically the windiest time of the year) over the past two weeks has left topsoils saturated statewide and prevented fieldwork. March precipitation totals varied from 1.17 inches at Rock Rapids to 5.02 inches at De Witt. The statewide average precipitation in March was 2.58 inches or 0.43 inches more than usual, making this the wettest March since 2009 and wettest year-to-date since 2007.

SHALLOW GROUNDWATER

Shallow groundwater conditions improved dramatically across southeast and south central Iowa during the last 2 weeks of March. Most of the state has normal to above normal shallow groundwater levels. The one exception is extreme southeast Iowa in Davis County and parts of Appanoose, Wapello, and Van Buren counties. Those areas should show improvement with continued normal rainfall in the spring months.

FLOODING OUTLOOK

The National Weather Service (NWS) indicates that the risk of minor, moderate and major river flooding is generally near normal at all locations from April through June. The NWS reminds lowans that it is important to monitor weather and river conditions-- as well as future outlooks--for any changes to the flood threat. Any future precipitation--as well as changes to river or other weather conditions--may increase or decrease the risk of flooding.

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