

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

TO: NATIONAL WEATHER SERVICE (W/OS31)  
HYDROMETEOROLOGICAL INFO CENTER  
1325 EAST-WEST HIGHWAY, RM 13468  
SILVER SPRING, MD 20910

DATE:

August 11th, 2016

SIGNATURE:

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Mark Sekelsky, Lead Forecaster

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (WSOM E-41).



An X inside this box indicates that no significant flooding occurred within this Hydrologic Service Area.

**Summary**

The pattern turned wet for the month of July 2016. Above normal rainfall was recorded for most locations. River levels were well below normal at the beginning of the month. As a result, despite the greater than normal rainfall, any impacts were very localized

**Flood Conditions**

Friday, July 8th

At 2:36 AM EDT, a flood warning was issued Jackson County in South Central Lower Michigan. Rainfall amounts of 2 to 4 inches fell in about 3 hours. This resulted in flooding of urban and poor drainage areas.

Friday, July 8th

At 1:26 PM EDT, the flood warning for Jackson Michigan was cancelled.

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The following rivers exceeded bankfull during the month of July 2016:

- Grand River Jackson, Michigan (1 day above bankfull)

**Flood Stage Report**

No forecast points exceeded flood stage in our HSA during the month of July 2016. As a result, no Flood Stage Report was submitted.

## **River Conditions**

The end of the July percentage of normal flow for selected rivers is listed below:

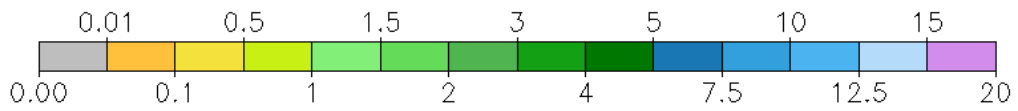
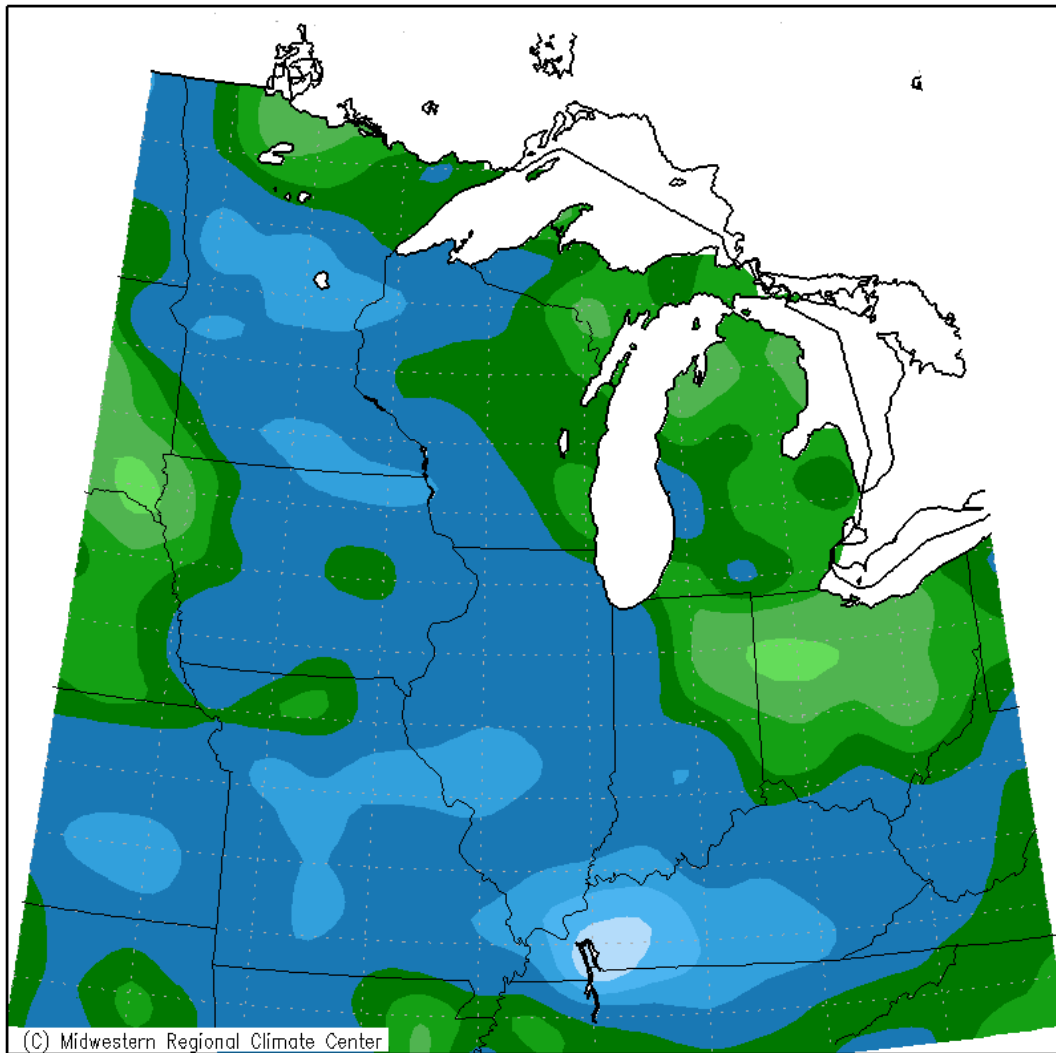
<u>Location</u>	<u>River</u>	<u>% of Normal</u>
Scottville	Pere Marquette	118
Whitehall	White	140
Ewart	Muskegon	105
Mt. Pleasant	Chippewa	115
Lansing	Grand	93
Grand Rapids	Grand	109
East Lansing	Red Cedar	114
Hastings	Thornapple	115
Battle Creek	Battle Creek	97
Battle Creek	Kalamazoo	102

## **General Hydrologic Information**

July precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 5.62, 3.35, and 6.02 inches, respectively (Figure 1). The three stations featured above normal precipitation for the July. Monthly departures for Grand Rapids, Lansing and Muskegon were 1.84 inches, 0.51 inches, and 3.65 inches. Percent of mean precipitation for July 2016 is shown in Figure 2. Yearly precipitation departures through the end of July were 2.44 inches above normal for Grand Rapids, -1.01 inches below normal for Lansing, and 5.10 inches above normal for Muskegon.

Temperatures for the month of July were above normal at Grand Rapids, Lansing, and Muskegon. The average monthly temperature departures were, 1.8, 2.0, and 1.1 degrees Fahrenheit respectively.

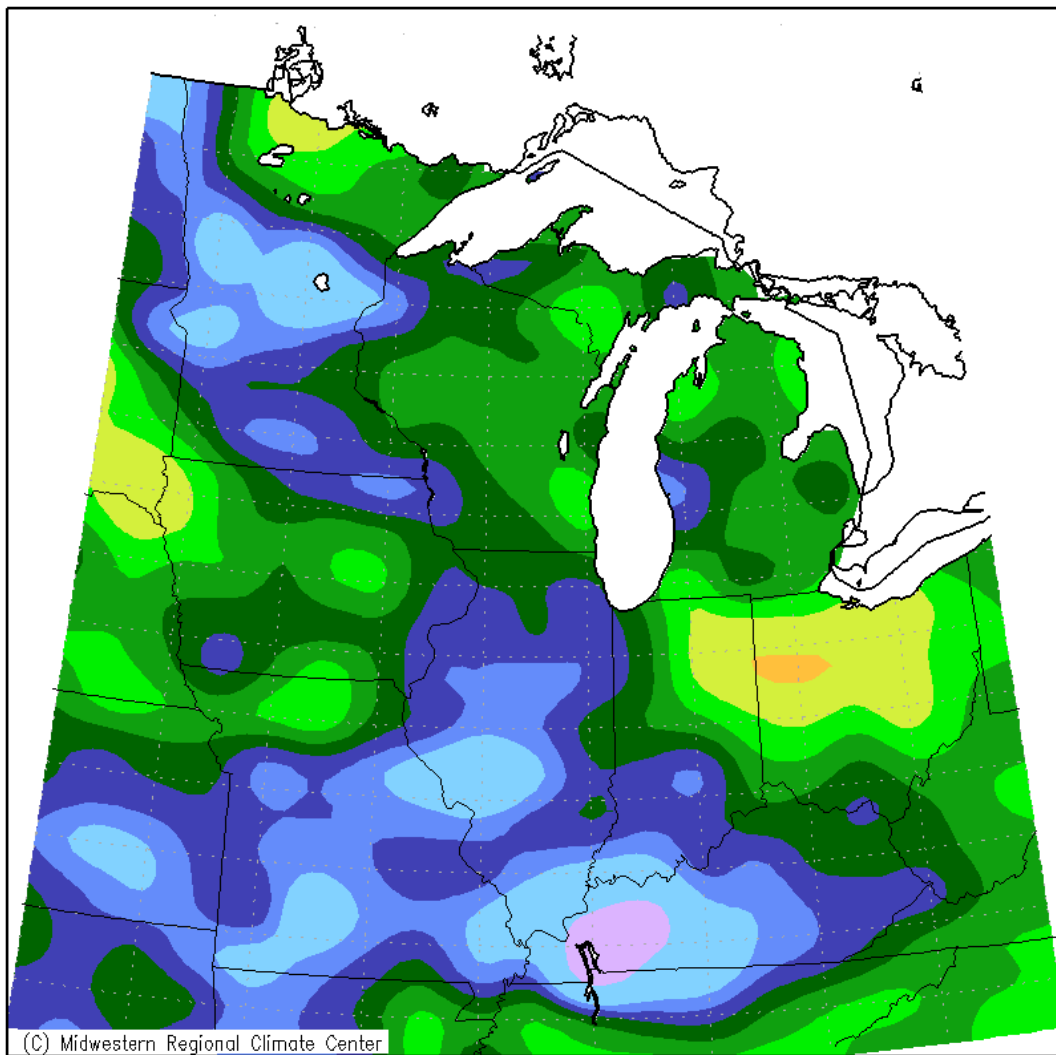
Accumulated Precipitation (in)  
July 1, 2016 to July 31, 2016



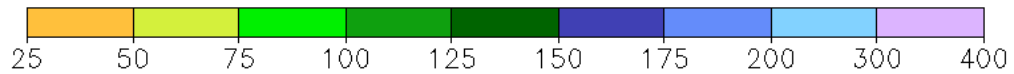
Midwestern Regional Climate Center  
Illinois State Water Survey, Prairie Research Institute  
University of Illinois at Urbana-Champaign

Figure 1. July Monthly Precipitation Totals

Accumulated Precipitation: Percent of Mean  
July 1, 2016 to July 31, 2016



Mean period is 1981–2010.



Midwestern Regional Climate Center  
Illinois State Water Survey, Prairie Research Institute  
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Figure 2. July Percent of Mean of Accumulated Precipitation

**Hydrologic Products issued this month:**

- 31 Hydrologic Summaries (ARBRVAGRR)
- 31 Daily River Forecasts (ARBRVDGRR)
  - 1 Probabilistic Hydrologic Outlook (ARBESFGRR)
  - 1 Areal Flood Warning (ARBFLWGRR)
- 17 Areal Flood Advisory Statements (ARBFLSGRR)
  - 1 Areal Flood Warning Statements (ARBFLSGRR)
  - 2 River Flood Statements (ARBFLSGRR)

**News Articles and Related Documentation**

None