

NWS FORM E-5

U.S. DEPARTMENT OF COMMERCE  
NOAA, NATIONAL WEATHER SERVICE

HSA OFFICE:

Grand Rapids, MI

REPORT FOR (MONTH & YEAR):

July 2018

**MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS**

DATE:

August 3rd, 2018

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

SIGNATURE:

Daniel K. Cobb, MIC  
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**

Any hydrologic impacts were local and minimal for the month of July. The biggest event of month was July 20<sup>th</sup> to 21<sup>st</sup>. This was largely a beneficial rainfall, but enough fell in a short period of time to trigger several flood advisories. Rainfall amounts of 1 to 2 inches fell over the Pere Marquette and upper Muskegon basins along with the lower Grand and Kalamazoo basins. Isolated amounts topped 3 inches mainly around the Kalamazoo area. No significant impacts were noted from this event.

**Flood Conditions**

No significant hydrologic events occurred during the Month of July.

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No rivers exceeded bankfull during the month of July 2018:

**Flood Stage Report**

No forecast points exceeded flood stage in our HSA during the month of July 2018. Thus, the NWS Form E-3 "Flood Stage Report" was not issued.

## **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	97
Whitehall	White	90
Evert	Muskegon	94
Mt. Pleasant	Chippewa	101
Lansing	Grand	83
Grand Rapids	Grand	83
East Lansing	Red Cedar	100
Hastings	Thornapple	88
Battle Creek	Battle Creek	101
Battle Creek	Kalamazoo	107

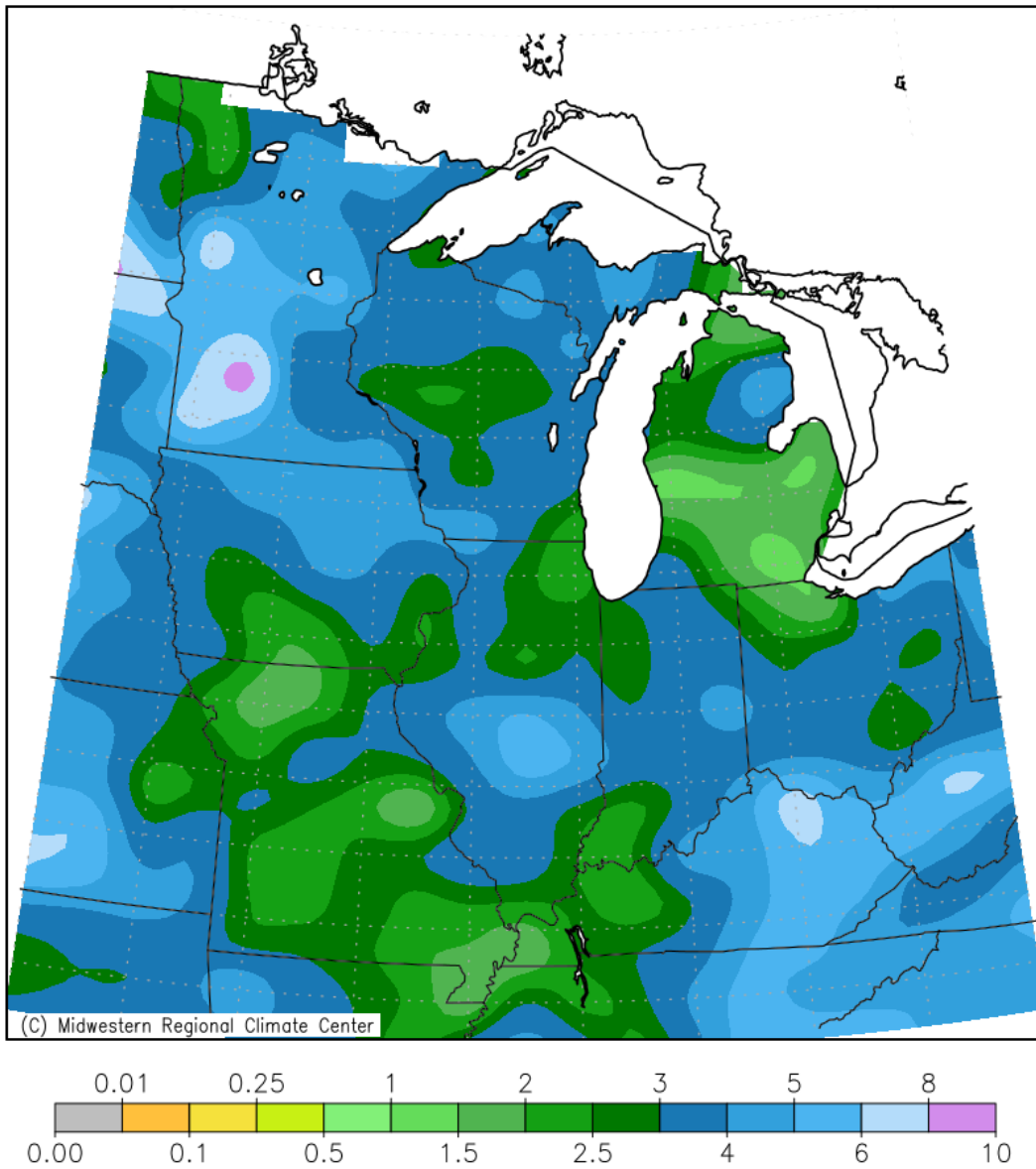
## **General Hydrologic Information**

The month of July featured below normal precipitation throughout the hydrologic service area. The greatest departures were along the Muskegon River. A small area of the Lower Kalamazoo basin saw above normal precipitation.

July precipitation amounts for Grand Rapids, Lansing, and Muskegon, Michigan, were 2.30, 1.03, and 1.34 inches, respectively (Figure 1). Monthly departures were -1.48, -1.81 and -1.03 inches respectively. Yearly departures were 0.37, 0.97, and 2.33 inches for Grand Rapids, Lansing and Muskegon respectively. Percent of mean precipitation for July 2018 is shown in Figure 2.

Temperatures for the month of July were above normal at Grand Rapids, Lansing and Muskegon. The average monthly temperature departures for these sites were 1.9, 1.7 and 2.4 degrees Fahrenheit respectively.

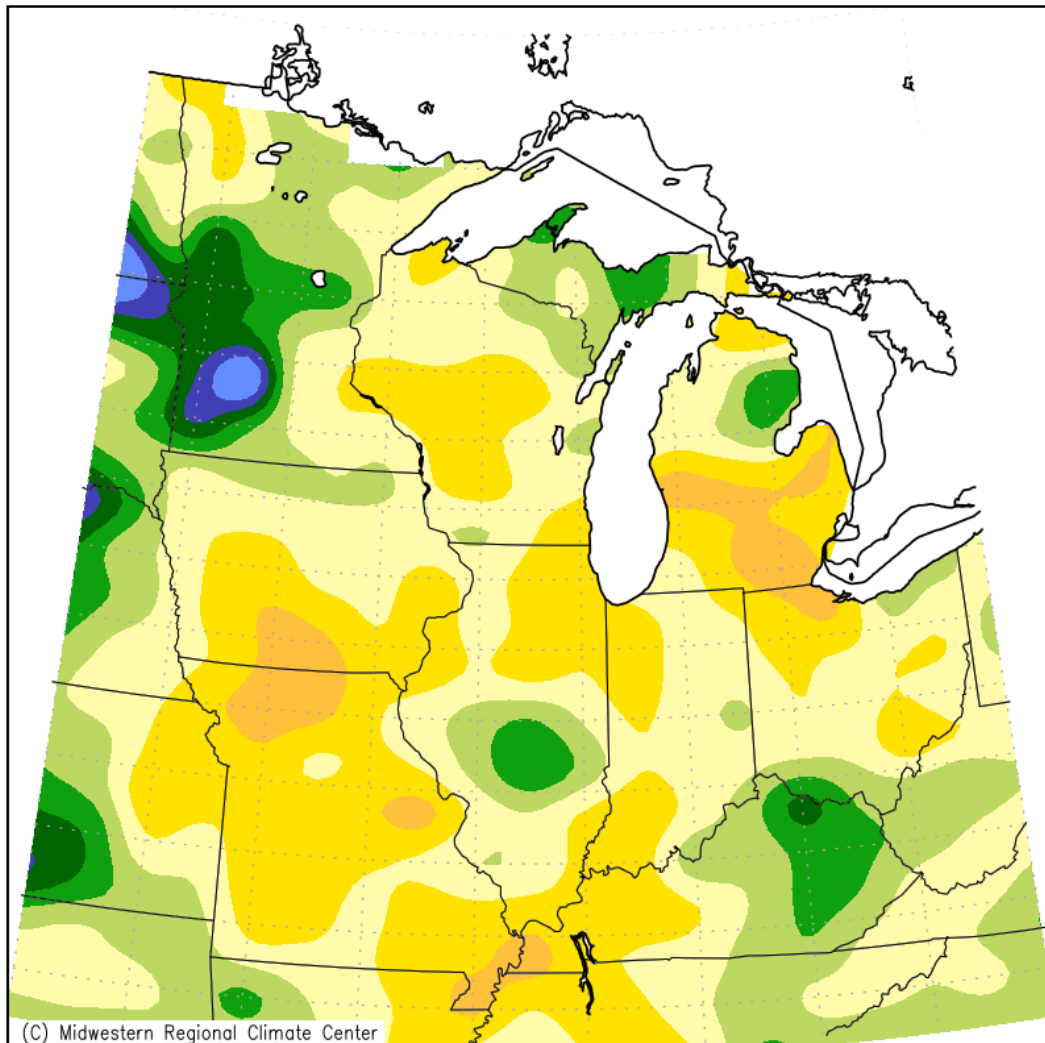
Accumulated Precipitation (in)  
July 1, 2018 to July 31, 2018



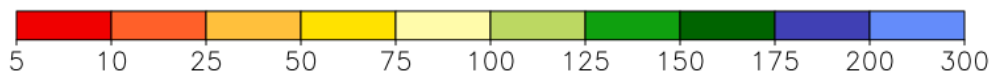
Midwestern Regional Climate Center  
Illinois State Water Survey, Prairie Research Institute  
University of Illinois at Urbana–Champaign

Figure 1. July 2018 Monthly Precipitation Totals

Accumulated Precipitation: Percent of Mean  
July 1, 2018 to July 31, 2018



Mean period is 1981–2010.



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

Figure 2. July 2018 Percent of Mean of Accumulated Precipitation

# Rain Totals July 20 – 8 AM July 22 2018

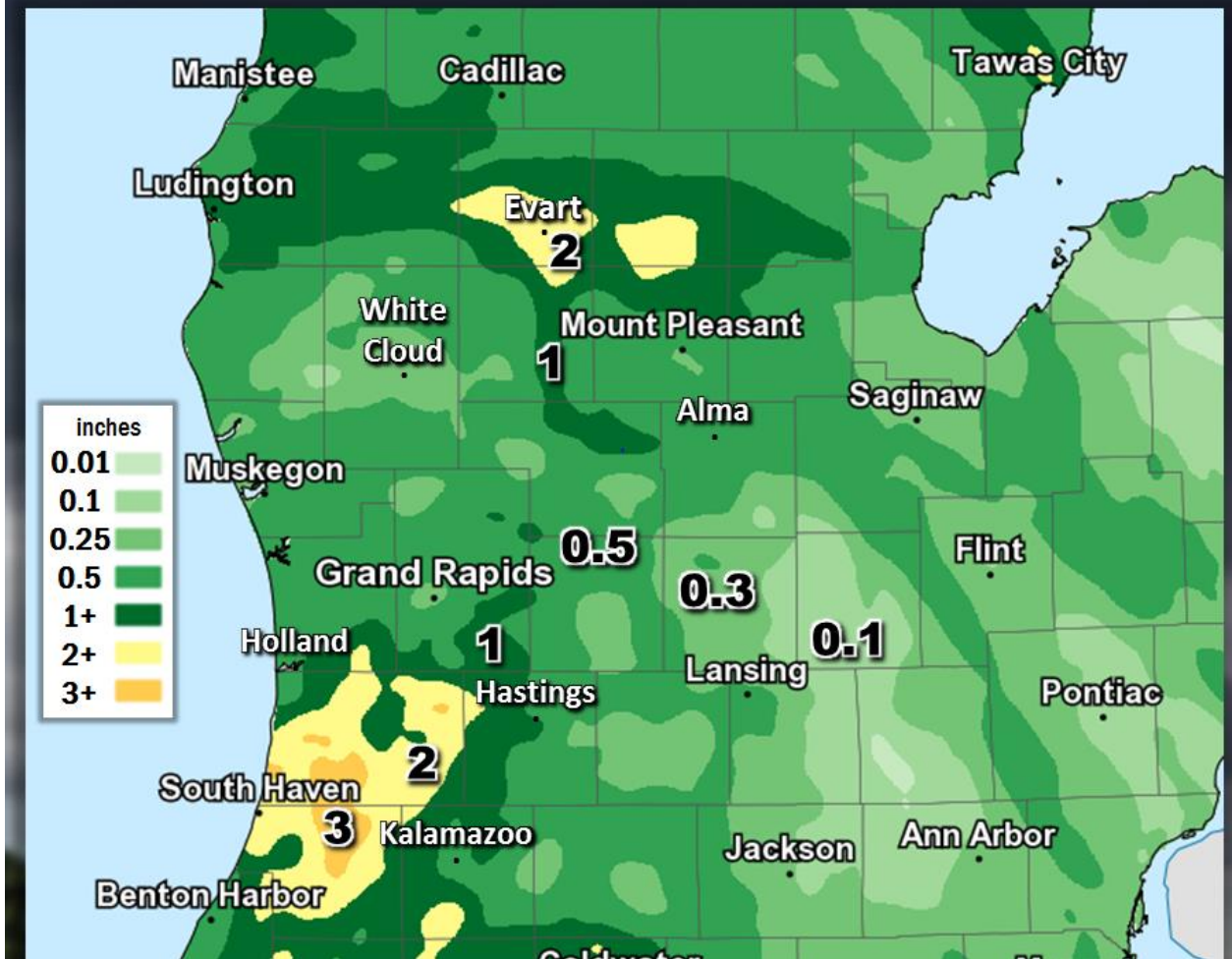


Figure 3. Biggest Storm for the Month

**Hydrologic Products issued this month:**

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

**News Articles and Related Documentation**

None