

NWS FORM E-5

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

HSA OFFICE:

Grand Rapids, MI

REPORT FOR (MONTH & YEAR):

November 2017

**MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS**

DATE:

December 11th, 2017

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 flooding during the month of November 2017 was minimal with only nuisance type impacts. Several rain events occurred with parts of the Grand and Kalamazoo basins experiencing minimal impacts.

**Flood Conditions**

No significant flooding was noted in the month of November. A few rivers did briefly exceed bankfull levels at times through the month.

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The following rivers exceeded bankfull during the month of November 2017:

- Maple River near Maple Rapids, Michigan(6 days above bankfull)
- Thornapple River at Hastings, Michigan(4 days above bankfull)
- Grand River at Ionia, Michigan(6 days above bankfull)
- Looking Glass River near Eagle, Michigan(9 days above bankfull)

**Flood Stage Report**

No forecast points exceeded flood stage in our HSA during the month of November 2017. As a result, no NWS Form E-3 "Flood Stage Report" was issued.

## **River Conditions**

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

<u>Location</u>	<u>River</u>	<u>% of Normal</u>
Scottville	Pere Marquette	100
Whitehall	White	90
Ewart	Muskegon	151
Mt. Pleasant	Chippewa	127
Lansing	Grand	157
Grand Rapids	Grand	172
East Lansing	Red Cedar	183
Hastings	Thornapple	161
Battle Creek	Battle Creek	187
Battle Creek	Kalamazoo	129

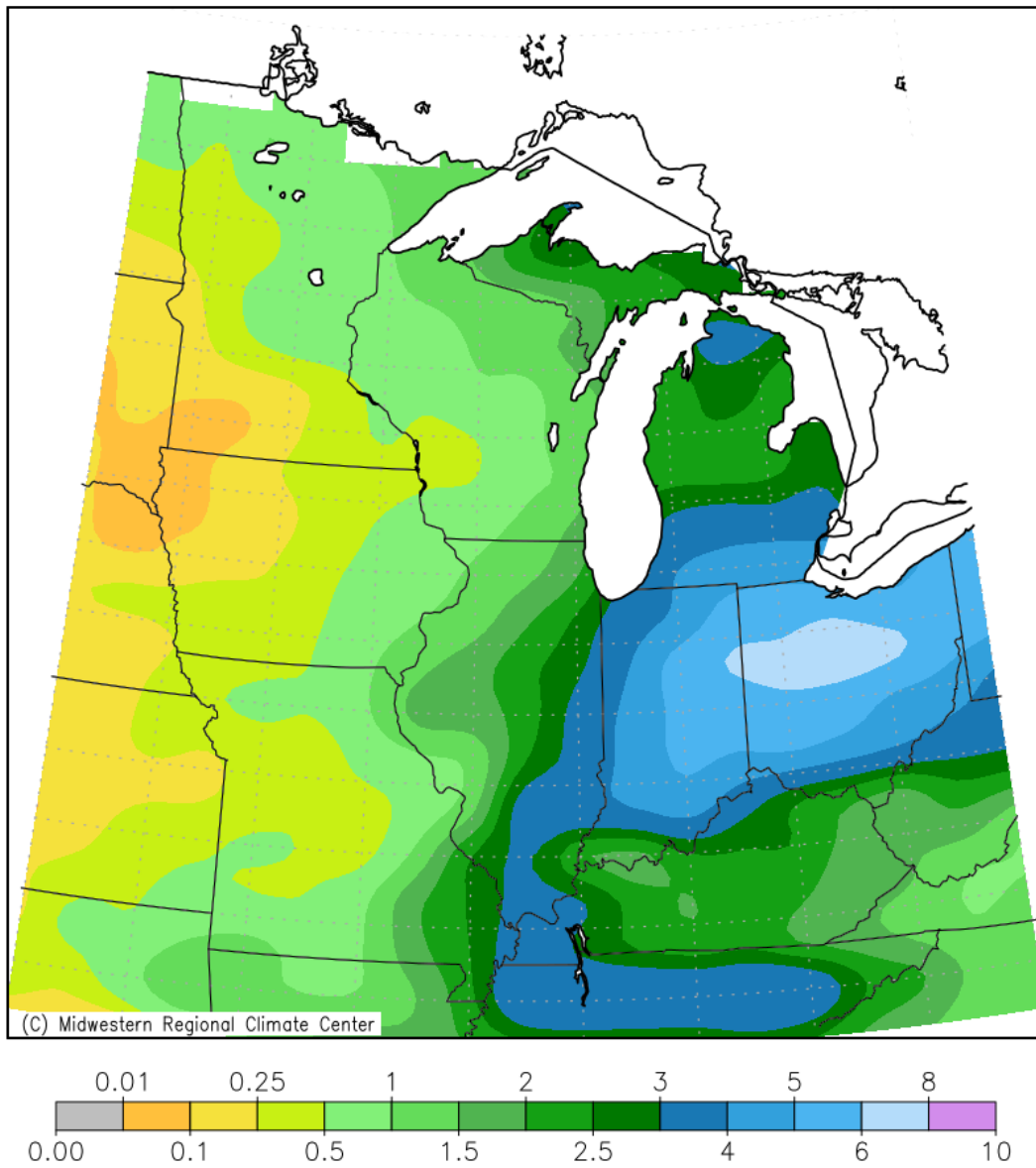
## **General Hydrologic Information**

The month of November featured closer to normal amounts of rainfall for the hydrologic service area. Monthly departures were slightly above normal generally south of the Grand River basin and below normal to the north. By the end of the month the Pere Marquette and White Rivers were running at or below normal, while to the south they were still above normal.

November precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 2.80, 3.33, and 2.54 inches, respectively (Figure 1). Monthly departures were -0.71, 0.55, and -0.82 inches respectively. Yearly departures were 1.70, 8.40, and 2.83 inches for Grand Rapids, Lansing and Muskegon respectively. Percent of mean precipitation for November 2017 is shown in Figure 2.

Temperatures for the month of November were below normal at Grand Rapids, Lansing and Muskegon. The average monthly temperature departures for these sites were, -1.5, -1.9 and -0.8 degrees Fahrenheit respectively.

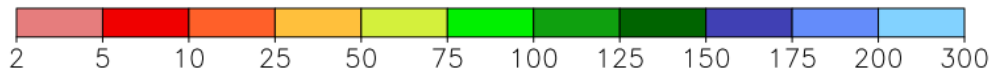
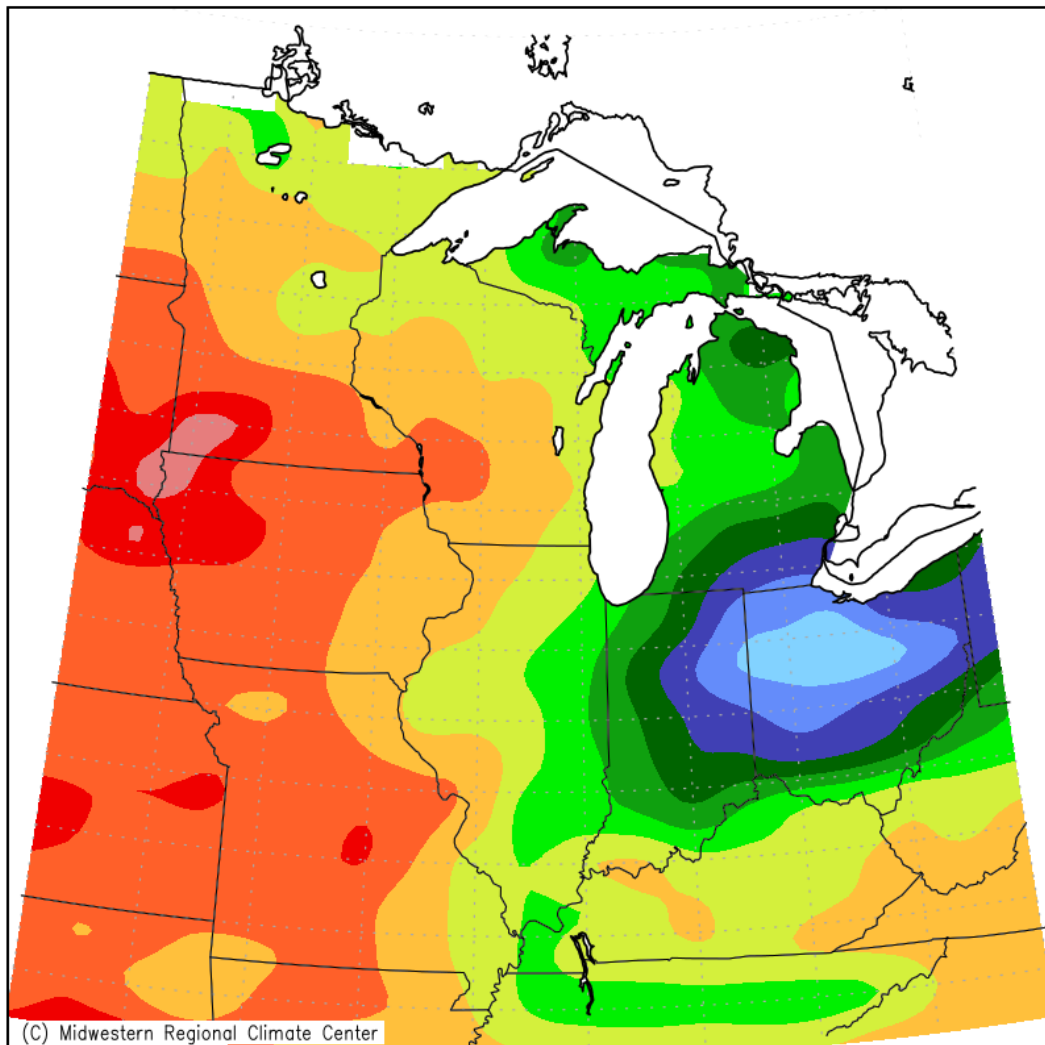
Accumulated Precipitation (in)  
November 1, 2017 to November 30, 2017



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

Figure 1. November Monthly Precipitation Totals

Accumulated Precipitation: Percent of Mean  
November 1, 2017 to November 30, 2017



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

Figure 2. November 2017 Percent of Mean of Accumulated Precipitation

**Hydrologic Products issued this month:**

30 Hydrologic Summaries (ARBRVAGRR)

1 Probabilistic Hydrologic Outlook (ARBESFGRR)

30 Daily River and Lake Summary (ARBRVDGRR)

26 Areal Flood Advisory Statements (ARBFLSGRR)