

NWS FORM E-5

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

HSA OFFICE:

Grand Rapids, MI

REPORT FOR (MONTH & YEAR):

February 2016

**MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS**

DATE:

March 12th, 2016

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

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**

February featured minimal hydrologic impacts. Above normal precipitation and warmer than normal temperatures occurred during the month. Some ice developed in the rivers, but given the warmer than normal temperatures, significant ice never settled in. Deep frost depths never developed, which was another factor in the limited hydrologic impacts. Flows toward the end of the month were high due to snow melt, but largely within banks.

**Flood Conditions**

Only advisories were issued due to the water levels staying below flood stage.

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

- Maple River in Maple Rapids, Michigan (8 days above bankfull)
- Sycamore Creek in Holt, Michigan (1 days above bankfull)
- Grand River in Ionia, Michigan (3 days above bankfull)
- Rogue River in Rockford, Michigan (1 day above bankfull)

**Flood Stage Report**

No forecast point exceeded flood stage in February, 2016. As a result, no E3 was issued.

## **River Conditions**

The end of the February's percentage of normal flow for selected rivers is listed below:

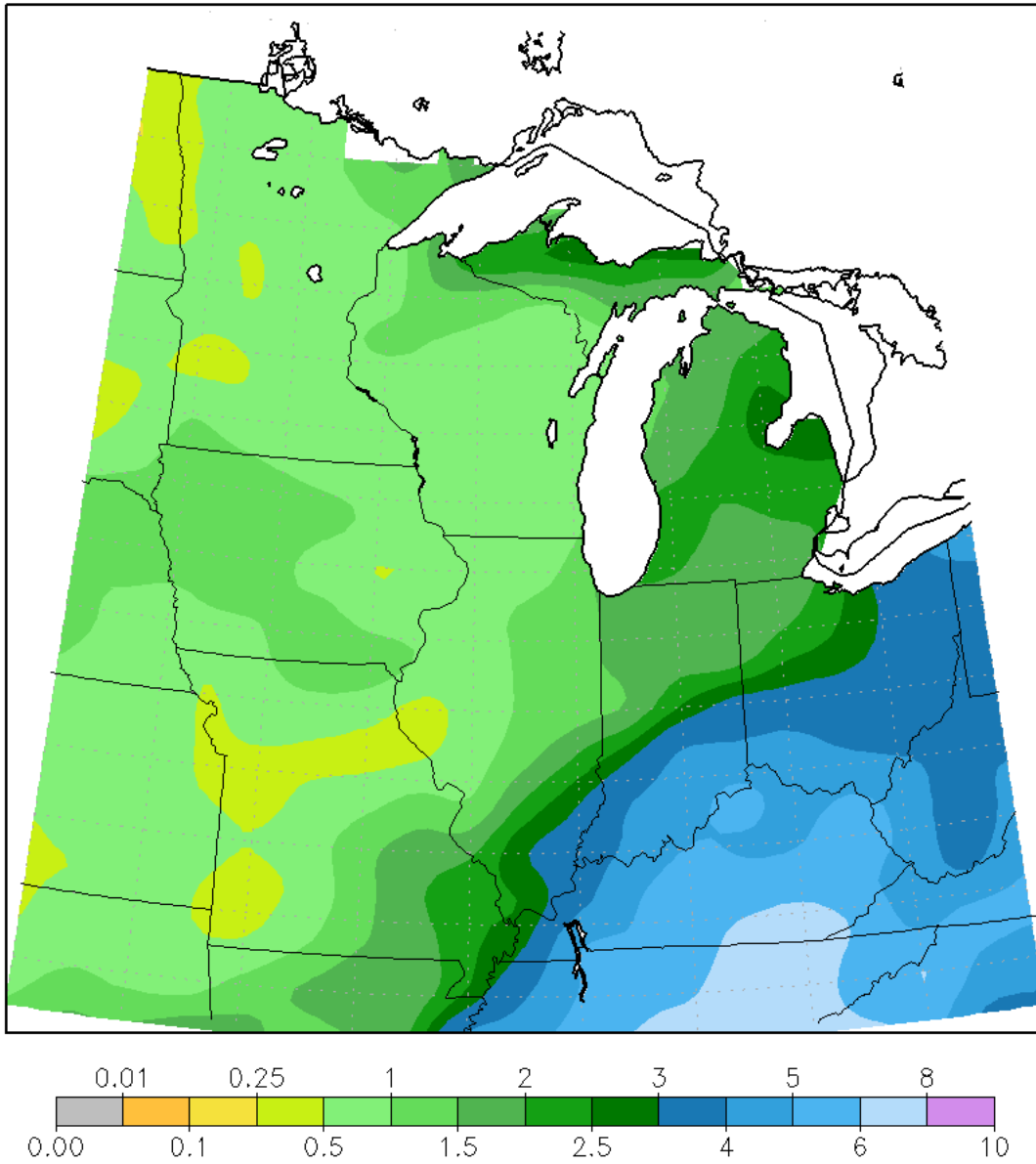
<u>Location</u>	<u>River</u>	<u>% of Normal</u>
Scottville	Pere Marquette	141
Whitehall	White	133
Evart	Muskegon	251
Mt. Pleasant	Chippewa	251
Lansing	Grand	219
Grand Rapids	Grand	127
East Lansing	Red Cedar	299
Hastings	Thornapple	152
Battle Creek	Battle Creek	114
Battle Creek	Kalamazoo	100

## **General Hydrologic Information**

February precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 2.78, 1.71, and 2.46 inches, respectively (Figure 1). Precipitation departures for the month at these three sites were 0.99 inches above normal at Grand Rapids, 0.24 inches above normal at Lansing, and 0.08 inches below normal at Muskegon. Percent of mean precipitation for February 2016 is shown in Figure 2. Yearly precipitation departures were 1.05 inches above normal for Grand Rapids, 0.04 inches above normal for Lansing, and 0.35 inches above normal for Muskegon.

Temperatures for the month of February were above normal at Grand Rapids, Lansing, and Muskegon. The average monthly temperature departures were, 2.7, 2.8, and 2.8 degrees Fahrenheit respectively.

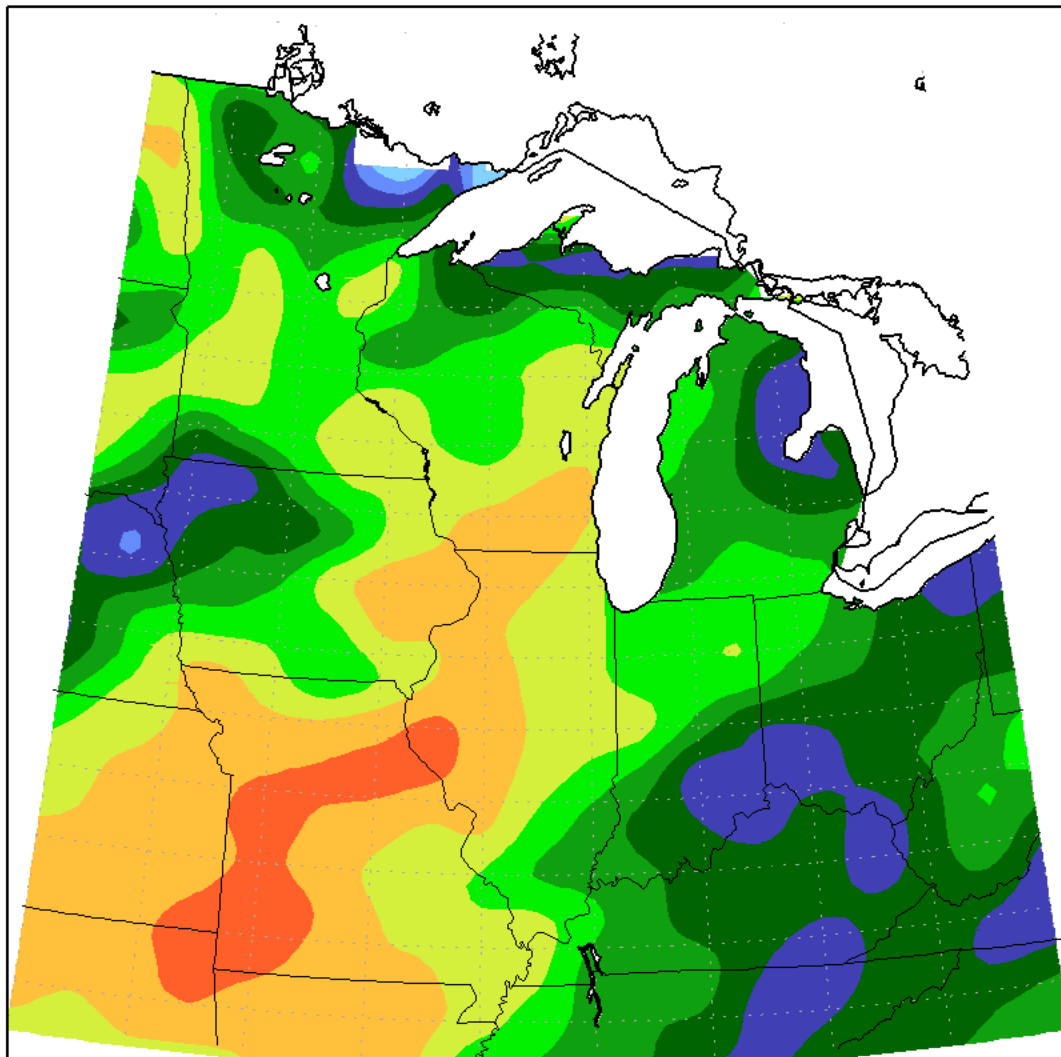
Accumulated Precipitation (in)  
February 1, 2016 to February 29, 2016



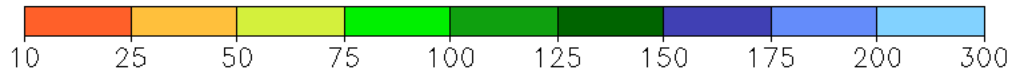
Midwestern Regional Climate Center  
Illinois State Water Survey, Prairie Research Institute  
University of Illinois at Urbana-Champaign

Figure 1. February Monthly Precipitation Totals

Accumulated Precipitation: Percent of Mean  
February 1, 2016 to February 29, 2016



Mean period is 1981–2010.



Midwestern Regional Climate Center  
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Figure 2. February Percent of Mean of Accumulated Precipitation

**Hydrologic Products issued this month:**

2 Hydrologic Outlook (ARBESFGRR)  
29 Hydrologic Summaries (ARBRVAGRR)  
22 River Flood Statements(ARBFLSGRR)  
13 River Statements(ARBRVSGRR)

**News Articles and Related Documentation**

None