

NWS FORM E-5

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

HSA OFFICE:

Grand Rapids, MI

REPORT FOR (MONTH & YEAR):

November 2016

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

DATE:

December 5th, 2016

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

Much of the region saw less than normal rainfall for the month of November. This resulted in minimal hydrologic. The rain that did fall was over several events, no of which resulted in impactful flooding.

Flood Conditions

No significant flooding occurred in the month of November.

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

- Sycamore Creek near Holt, Michigan (1 day above bankfull)
- Maple River at Maple Rapids, Michigan(7 days above bankfull)
- Looking Glass River near Eagle, Michigan(1 day above bankfull)
- Grand River at Ionia, Michigan(2 days above bankfull)

Flood Stage Report

No forecast points exceeded flood stage in our HSA during the month of November 2016. As a result no Flood Stage Report (E3) was issued.

River Conditions

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

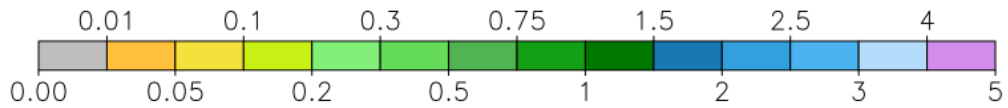
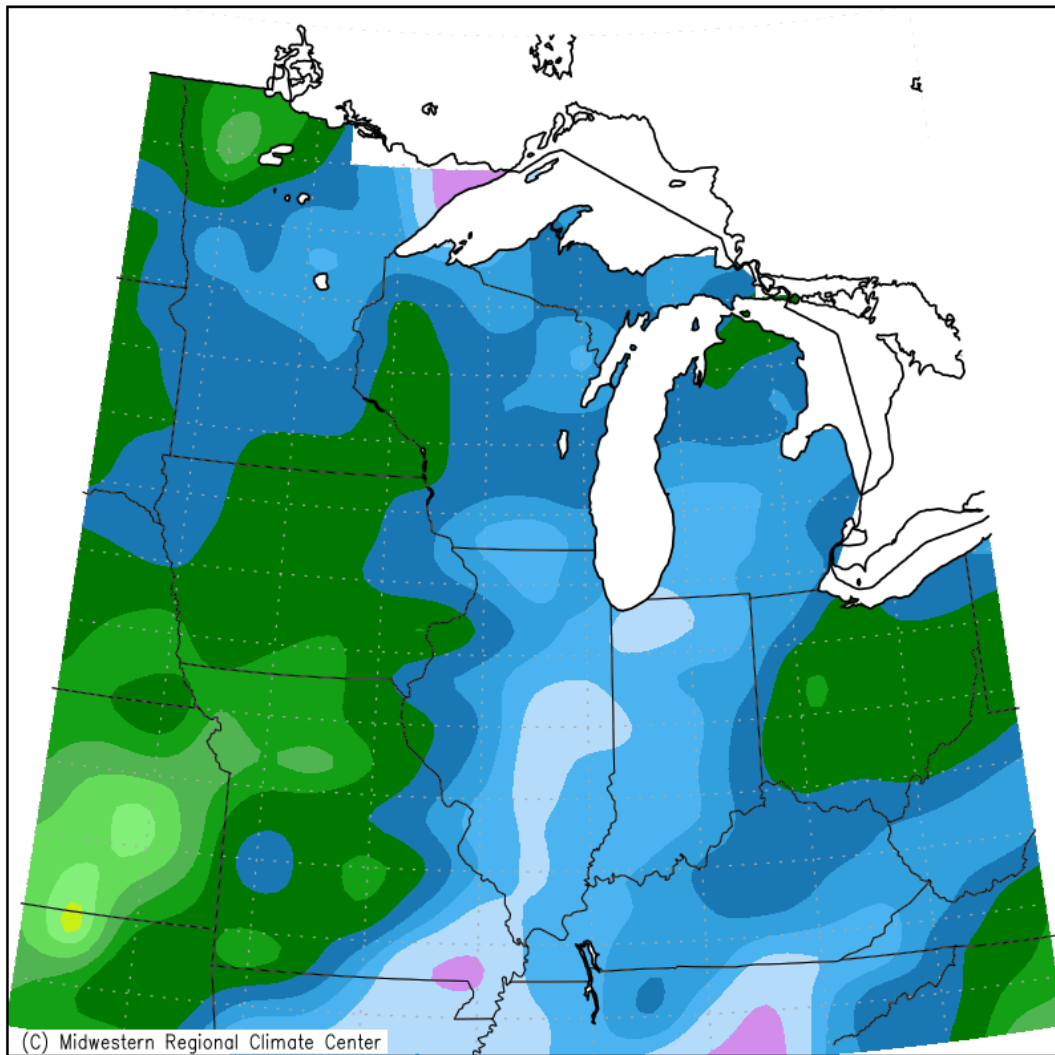
| <u>Location</u> | <u>River</u> | <u>% of Normal</u> |
|-----------------|----------------|--------------------|
| Scottville | Pere Marquette | 117 |
| Whitehall | White | 158 |
| Ewart | Muskegon | 114 |
| Mt. Pleasant | Chippewa | 131 |
| Lansing | Grand | 246 |
| Grand Rapids | Grand | 207 |
| East Lansing | Red Cedar | 409 |
| Hastings | Thornapple | 178 |
| Battle Creek | Battle Creek | 133 |
| Battle Creek | Kalamazoo | 131 |

General Hydrologic Information

November precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 3.24, 3.16, and 2.48 inches, respectively (Figure 1). Monthly departures were -0.27 inches, 0.38 inches, and -0.88 inches respectively. Percent of mean precipitation for November 2016 is shown in Figure 2. All three sites feature yearly precipitation departures through the end of November that were above normal. Those departures were 7.56 inches, 3.29 inches, and 6.39 inches respectively.

Temperatures for the month of November were well above normal at Grand Rapids, Lansing, and Muskegon. The average monthly temperature departures were, 5.3, 5.8, and 6.2 degrees Fahrenheit respectively.

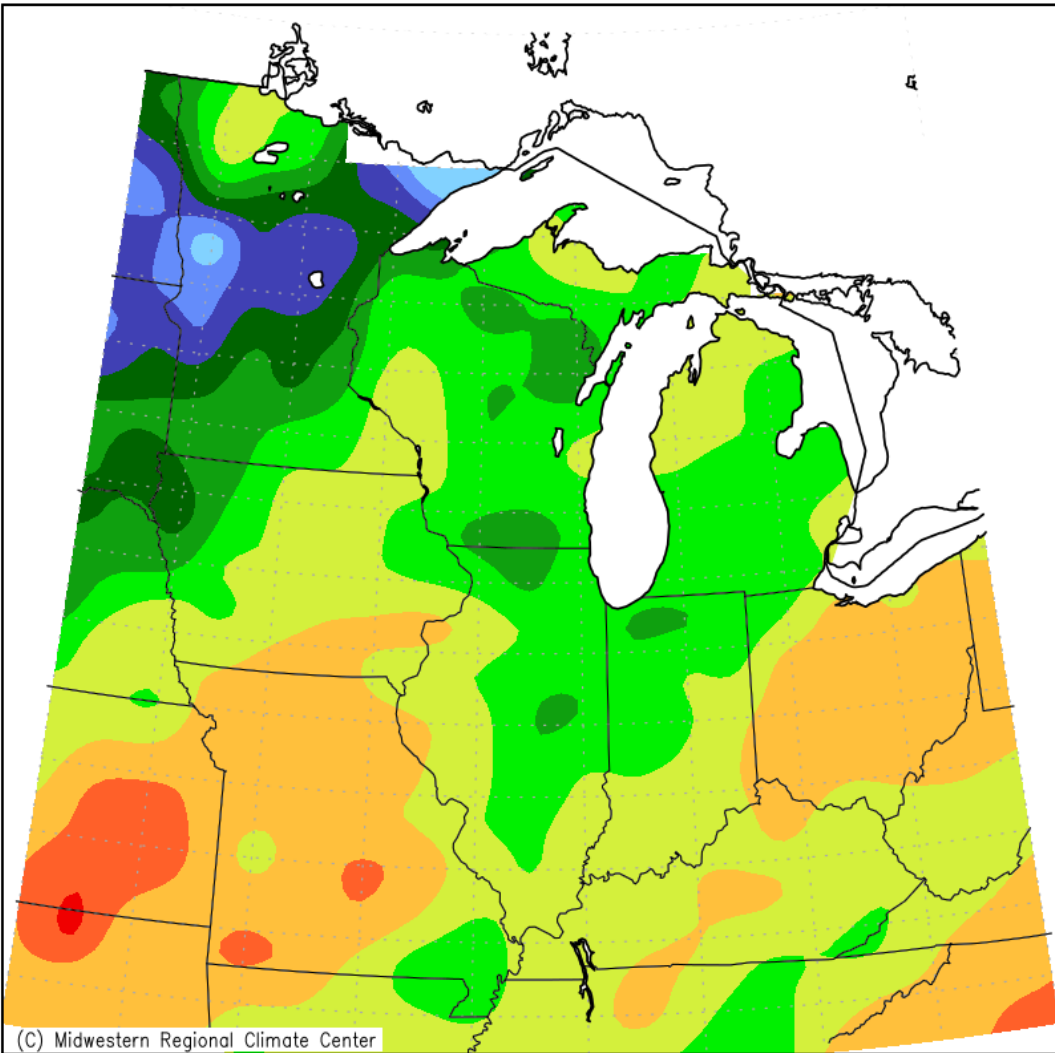
Accumulated Precipitation (in)
November 1, 2016 to November 30, 2016



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, 2016 to November 30, 2016



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

Figure 2. November Percent of Mean of Accumulated Precipitation

Hydrologic Products issued this month:

- 30 Hydrologic Summaries (ARBRVAGRR)
- 30 Daily River Forecasts (ARBRVDGRR)
 - 1 Probabilistic Hydrologic Outlook (ARBESFGRR)
- 21 River Flood Statements (ARBFLSGRR)
- 9 Hydrologic Statements (ARBRVSGRR)

News Articles and Related Documentation

None