

## MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

DATE:

December 29, 2015

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

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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).

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

November continued the warm and dry period for much of the region. As a result, no significant hydrologic impacts were observed. A rainfall event at the end of the month caused rivers levels to rise to above normal values. One forecast point topped bankfull levels as a result of this rain event.

**Flood Conditions****Thursday, November 26th**

At 1:28 PM EST, a flood advisory was issued for Sycamore Creek near Holt. The combination of snowmelt and rainfall was expected to cause the river to rise above bankfull which is 6.0 ft. The river was forecasted to crest on Saturday at 6.8 ft.

**Thursday, November 26th**

At 9:24 PM EST, the flood advisory was continued for Sycamore Creek near Holt. The river was forecasted to crest on Saturday at 6.8 ft.

**Friday, November 27th**

At 10:17 AM EST, the flood advisory was continued for Sycamore Creek near Holt. The river was forecasted to crest on Saturday at 6.5 ft.

**Friday, November 27th**

At 6:49 PM EST, the flood advisory was continued for Sycamore Creek near Holt. The river was forecasted to crest on Saturday at 6.5 ft.

**Friday, November 27th**

At 6:49 PM EST, a flood advisory was issued for the Muskegon River near Croton. The river was 7.9 ft and was forecasted to crest at 8.4 ft Saturday Morning. Bankfull stage is 8.0 ft.

Friday, November 27th

At 9:47 PM EST, the flood advisory was continued for Sycamore Creek near Holt and the Muskegon River near Croton.

Saturday, November 28th

At 11:11 AM EST, the flood advisory was continued for Sycamore Creek near Holt and cancelled for the Muskegon River near Croton. The river level at Sycamore Creek was just above bankfull at 6.1 ft.

Saturday, November 28th

At 8:27 PM EST, the flood advisory was continued for Sycamore Creek near Holt. The river level was steady at 6.1 ft.

Sunday, November 29th

At 3:44 AM EST, the flood advisory was cancelled for Sycamore Creek near Holt. The river level had fallen to 5.9 ft.

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The following river exceeded bankfull during the month of November 2015:

- Sycamore Creek at Holt, Michigan (1 day above bankfull)

**Flood Stage Report**

No gage exceeded flood stage in November thus no NWS Form E-3 "Flood Stage Report" was sent.

**River Conditions**

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

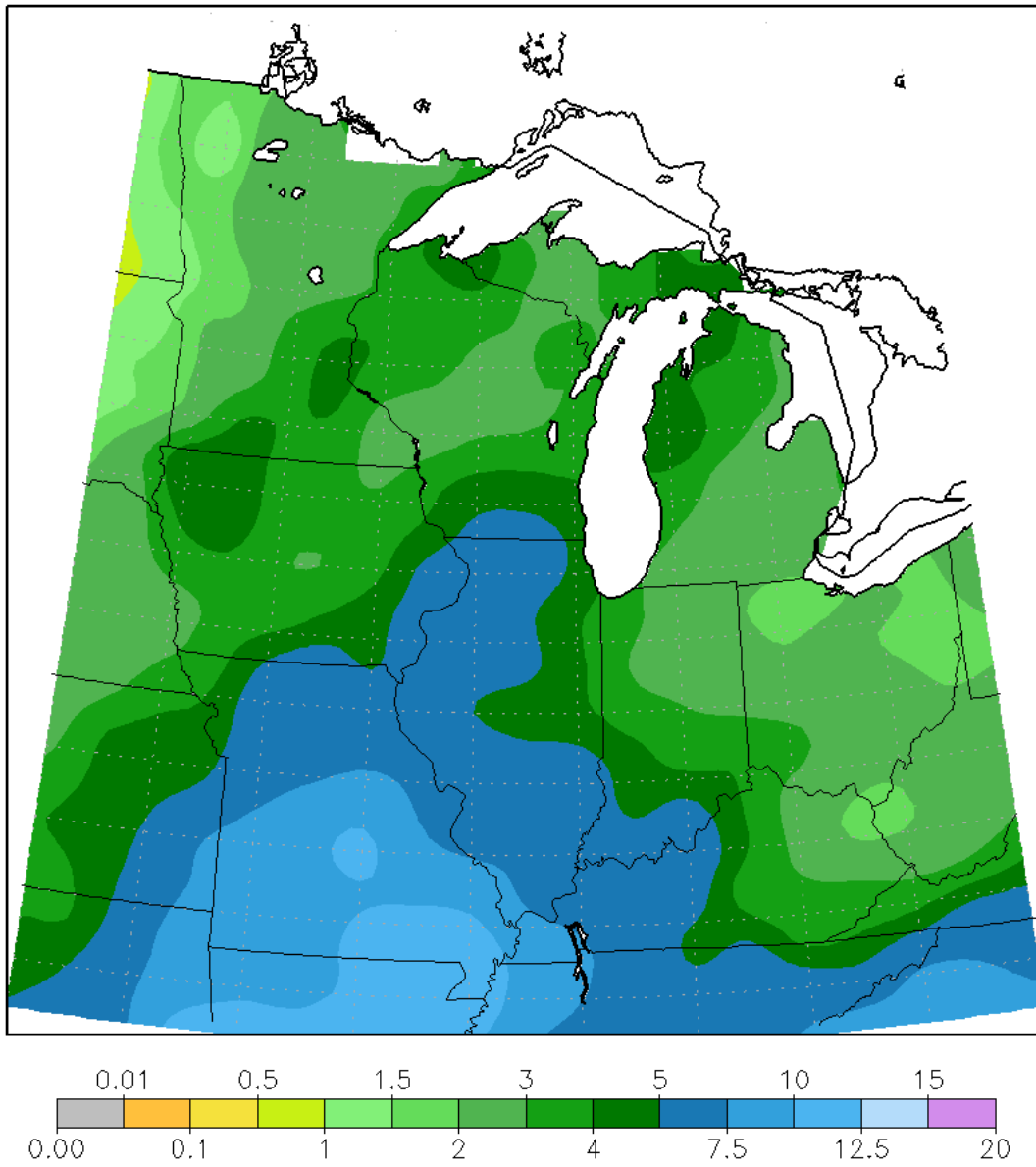
<u>Location</u>	<u>River</u>	<u>% of Normal</u>
Scottville	Pere Marquette	223
Whitehall	White	204
Ewart	Muskegon	180
Mt. Pleasant	Chippewa	134
Lansing	Grand	167
Grand Rapids	Grand	150
East Lansing	Red Cedar	208
Hastings	Thornapple	144
Battle Creek	Battle Creek	213
Battle Creek	Kalamazoo	130

## **General Hydrologic Information**

November precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 2.61, 1.93, and 3.22 inches, respectively (Figure 1). Precipitation departures for the month at these three sites were 0.90 inches below normal at Grand Rapids, 0.85 inches below normal at Lansing, and 0.14 inches below normal at Muskegon. Percent of mean precipitation for November 2015 is shown in Figure 2. Yearly precipitation departures were 5.99 inches below normal for Grand Rapids, 1.90 inches above normal for Lansing, and 0.55 inches above normal for Muskegon.

Temperatures for the month of November were well above normal at Grand Rapids, Lansing, and Muskegon. The average monthly temperature departures were, 5.4, 4.9, and 5.4 degrees Fahrenheit respectively.

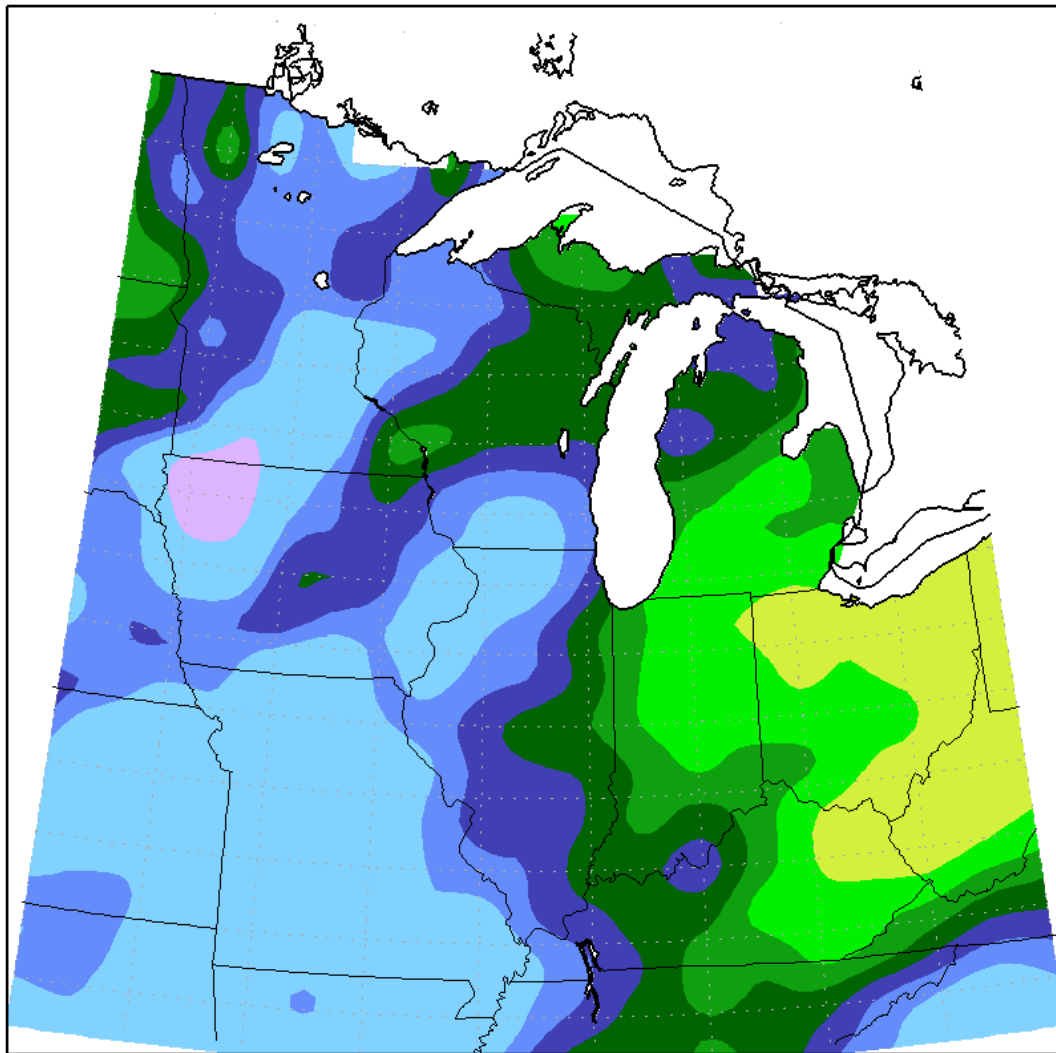
Accumulated Precipitation (in)  
November 1, 2015 to November 30, 2015



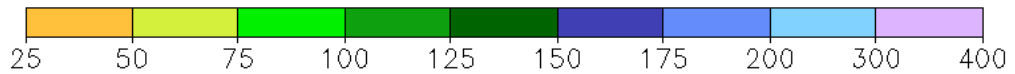
Midwestern Regional Climate Center  
Illinois State Water Survey, Prairie Research Institute  
University of Illinois at Urbana-Champaign

Figure 1. November Monthly Precipitation Totals

Accumulated Precipitation: Percent of Mean  
November 1, 2015 to November 30, 2015



Mean period is 1981–2010.



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Figure 2. November Percent of Mean of Accumulated Precipitation

**Hydrologic Products issued this month:**

- 1 Hydrologic Outlook (ARBESFGRR)
- 30 Hydrologic Summaries (ARBRVAGRR)
- 30 Daily River and Lake Summaries (ARBRVDGRR)
- 8 River Flood Statements(ARBFLSGRR)
- 9 River Statements(ARBRVSGRR)

**News Articles and Related Documentation**

None