

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

DATE:

May 19, 2015

SIGNATURE:

Daniel K. Cobb, MIC

Mark Sekelsky, Lead Forecaster

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

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**

A stronger storm tracked through parts of the Great Lakes Region from the 8<sup>th</sup> through the 10<sup>th</sup>. This system resulted in a swath of heavy rain that impacted mainly the Pere Marquette, White, Chippewa and Grand River basins. Roughly 1 to 3 inches of rain fell in this region, causing a period of high water on some rivers.

**Flood Conditions**

Thursday, April 9<sup>th</sup>

At 10:30 AM EDT, a flood advisory was issued for the Grand River at Ionia, Sycamore Creek at Holt, Looking Glass River near Eagle and the Maple River at Maple Rapids.

At 4:41 PM EDT, a flood advisory was issued for the Rogue River below Rockford.

At 10:24 PM EDT, the flood advisory was cancelled for Sycamore Creek at Holt. A flood advisory was issued for the Flat River near Smyrna, White River above Whitehall, Muskegon River near Croton and Little Muskegon River above Morely. The flood advisory was continued for the Grand River at Ionia, Looking Glass River near Eagle, Maple River at Maple Rapids and Rogue River below Rockford. Two to 3 inches of rain had fallen and additional heavy rain was forecasted for tonight.

Friday, April 10<sup>th</sup>

At 11:14 AM EDT the flood advisory was upgraded to a flood warning for the Rogue River in Rockford, White River in Whitehall and Muskegon River at Croton for minor flooding.

At 11:52 AM EDT, the flood advisory was cancelled for the Looking Glass River near Eagle. The flood advisory was cancelled for the Rogue River below Rockford, White River above Whitehall and Muskegon River near Croton as they were upgraded to warnings earlier. A flood advisory was issued for the Pere Marquette River near Scottville and Muskegon River at Evart.

At 3:21 PM EDT, a flood advisory was issued for the Chippewa River below Mt Pleasant.

At 4:00 PM EDT, the flood warning was continued for the White River above Whitehall and the Muskegon River near Croton.

At 4:03 PM EDT, the flood advisory was continued for the Grand River at Ionia, Maple River at Maple Rapids, and Muskegon River at Evart.

At 11:00 PM EDT, the flood warning was continued for the Rogue River below Rockford, White River above Whitehall and the Muskegon River near Croton.

At 11:05 PM EDT, the flood advisory was continued for the Little Muskegon River above Morely, Grand River at Ionia, Maple River at Maple Rapids, Flat River near Smyrna, Pere Marquette River near Scottville, Muskegon River at Evart and Chippewa River Below Mt Pleasant.

#### Saturday, April 11<sup>th</sup>

At 11:25 AM EDT, the flood advisory was cancelled for the Muskegon River at Evart. The flood advisory was continued for the Grand River at Ionia, Maple River at Maple Rapids, Flat River near Smyrna, Pere Marquette River near Scottville, Little Muskegon River above Morley and Chippewa River below Mt Pleasant. In addition a flood advisory was issued for the Muskegon River near Croton.

At 11:30 AM EDT, The flood warning was cancelled for the Muskegon River near Croton. The flood warning was continued for the Rogue River below Rockford and the White River above Whitehall.

At 9:48 PM EDT, the flood advisory was cancelled for the Little Muskegon River above Morley. The flood advisory was continued for the Grand River at Ionia, Muskegon River near Croton, the Chippewa River below Mt Pleasant, Maple River at Maple Rapids and the Flat River near Smyrna. A flood advisory was issued for the White River above Whitehall.

At 9:50 PM EDT, the flood warning was cancelled for the White River above Whitehall.

At 9:54 PM EDT, the flood warning was continued for the Rogue River below Rockford.

#### Sunday, April 12<sup>th</sup>

At 10:28 AM EDT, the flood advisory was continued for the Grand River at Ionia, Flat River near Smyrna, White River above Whitehall, Chippewa River below Mt Pleasant, Maple River at Maple Rapids, Pere Marquette River near Scottville and the Muskegon River near Croton. A flood advisory was issued for the Rogue River below Rockford.

At 10:33 AM EDT, the flood warning for the Rogue River below Rockford was cancelled.

At 9:46 PM EDT, the flood advisory was continued for the Rogue River below Rockford, the Muskegon River near Croton, Grand River at Ionia, Maple River at Maple Rapids, Flat River near Smyrna, Pere Marquette River near Scottville, White River above Whitehall and the Chippewa River below Mt Pleasant.

#### Monday, April 13<sup>th</sup>

At 12:31 AM EDT, the flood advisory is cancelled for the Rogue River below Rockford and the Muskegon River near Croton.

#### Monday, April 13<sup>th</sup>

At 10:24 AM EDT, the flood advisory was continued for the White River above Whitehall, Chippewa River below Mt Pleasant, the Grand River at Ionia, Maple River at Maple Rapids, Flat River near Smyrna, and the Pere Marquette River near Scottville.

#### Monday, April 13<sup>th</sup>

At 7:40 PM EDT, the flood advisory was cancelled for the Grand River at Ionia, White River above Whitehall and the Chippewa River below Mt Pleasant.

#### Monday, April 13<sup>th</sup>

At 10:19 PM EDT, the flood advisory was continued for the Pere Marquette River near Scottville, Maple River at Maple Rapids, and Flat River near Smyrna.

Tuesday, April 14<sup>th</sup>

At 10:21 AM EDT, the flood advisory was continued for the Pere Marquette River near Scottville, Maple River at Maple Rapids, and Flat River near Smyrna.

Tuesday, April 14<sup>th</sup>

At 11:13 PM EDT, the flood advisory was continued for the Maple River at Maple Rapids, Flat River near Smyrna and Pere Marquette River near Scottville.

Wednesday, April 15<sup>th</sup>

At 5:31 AM EDT, the flood advisory was cancelled for the Flat River near Smyrna.

At 10:00 AM EDT, the flood advisory was continued for the Maple River at Maple Rapids and the Pere Marquette River near Scottville.

At 4:45 AM EDT, the flood advisory was cancelled for the Pere Marquette River near Scottville. Flood advisory remains in effect for the Maple River at Maple Rapids

Wednesday, April 15<sup>th</sup>

At 9:49 PM EDT the flood advisory was continued for the Maple River at Maple Rapids. Water levels continued to fall.

Thursday, April 16<sup>th</sup>

At 10:13 AM EDT the flood advisory was continued for the Maple River at Maple Rapids. Water levels continued to fall.

Friday, April 17<sup>th</sup>

At 12:57 AM EDT the flood advisory was continued for the Maple River at Maple Rapids.

At 7:56 AM EDT the flood advisory was cancelled for the Maple River at Maple Rapids.

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The following rivers exceeded bankfull during the month of April 2015:

- Pere Marquette River near Scottville, Michigan (5 days above bankfull)
- White River above Whitehall, Michigan (4 days above bankfull)
- Muskegon River near Croton, Michigan (3 days above bankfull)
- Chippewa River below Mount Pleasant, Michigan (3 days above bankfull)
- Maple River at Mt. Pleasant, Michigan (7 days above bankfull)
- Grand River at Ionia, Michigan (2 days above bankfull)
- Rogue River in Rockford, Michigan (3 days above bankfull)

**Flood Stage Report**

The Rogue River at Rockford and White River above Whitehall exceeded flood stage in our HSA during the month of April 2015. As a result, a 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	95
Whitehall	White	111
Ewart	Muskegon	70
Mt. Pleasant	Chippewa	115
Lansing	Grand	61
Grand Rapids	Grand	79
East Lansing	Red Cedar	53
Hastings	Thornapple	53
Battle Creek	Battle Creek	61
Battle Creek	Kalamazoo	59

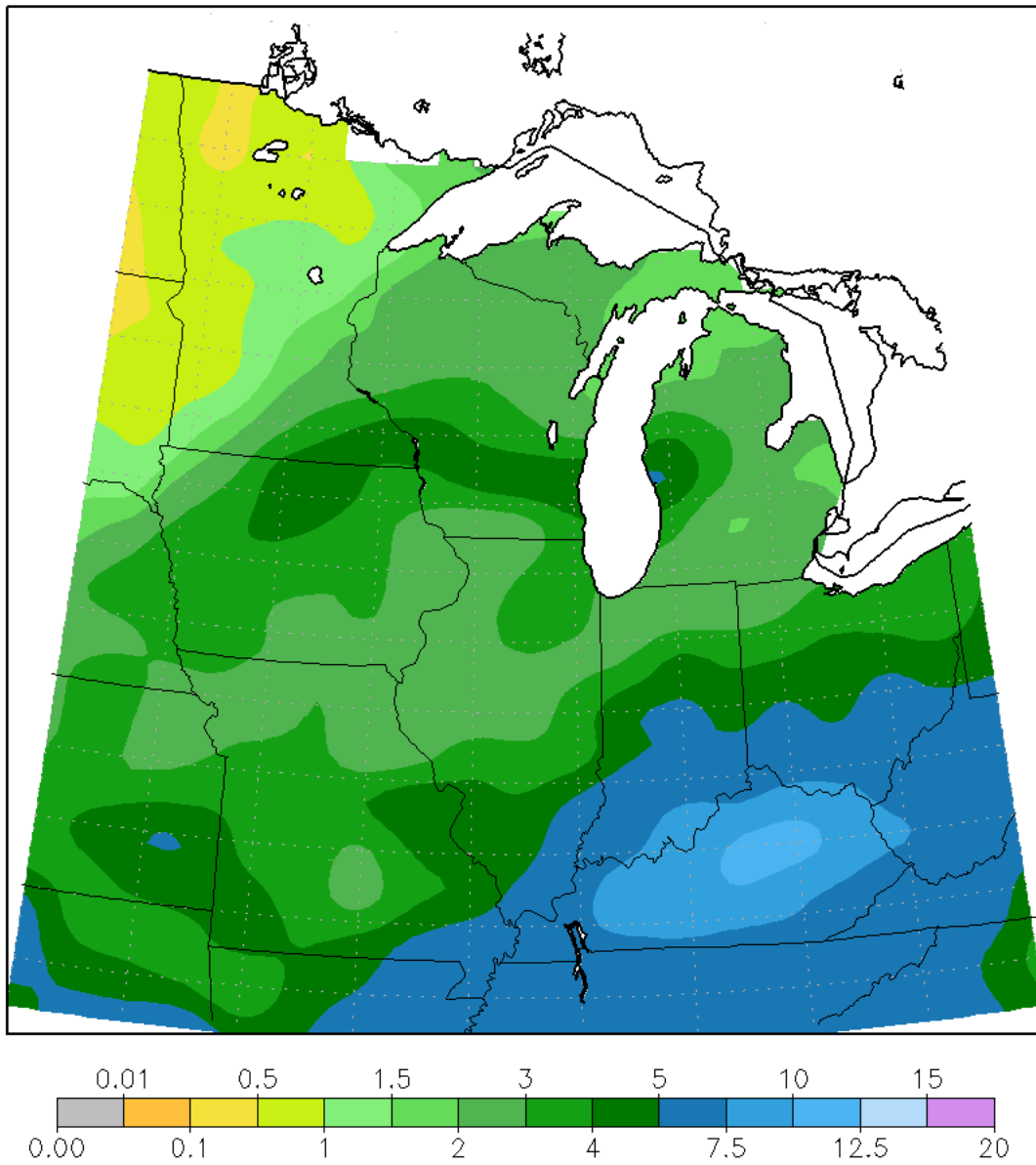
## **General Hydrologic Information**

April 2015 featured near normal temperatures. Heavier than normal rainfall fell across northern parts of the hydrologic service area. This includes the Muskegon and White river basins. The main storm of the month occurred on the 8<sup>th</sup> through the 10<sup>th</sup> resulting in some basins seeing over 2 inches of rain.

April precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 4.07, 1.29, and 4.72 inches, respectively (Figure 1). Precipitation departures for the month at these three sites were 0.72 of an inch above normal at Grand Rapids, 1.74 inches below normal at Lansing, and 1.81 of an inch above normal at Muskegon. Percent of mean precipitation for April 2015 is shown in Figure 2. Yearly precipitation departures were 1.44 inches below normal for Grand Rapids, 3.93 inches below normal for Lansing, and 0.12 inches above normal for Muskegon.

Temperatures for the month of April were near normal at Grand Rapids, Lansing, and Muskegon. The average monthly temperature departures were, - 0.3, 0.0, and +0.3 degrees Fahrenheit respectively.

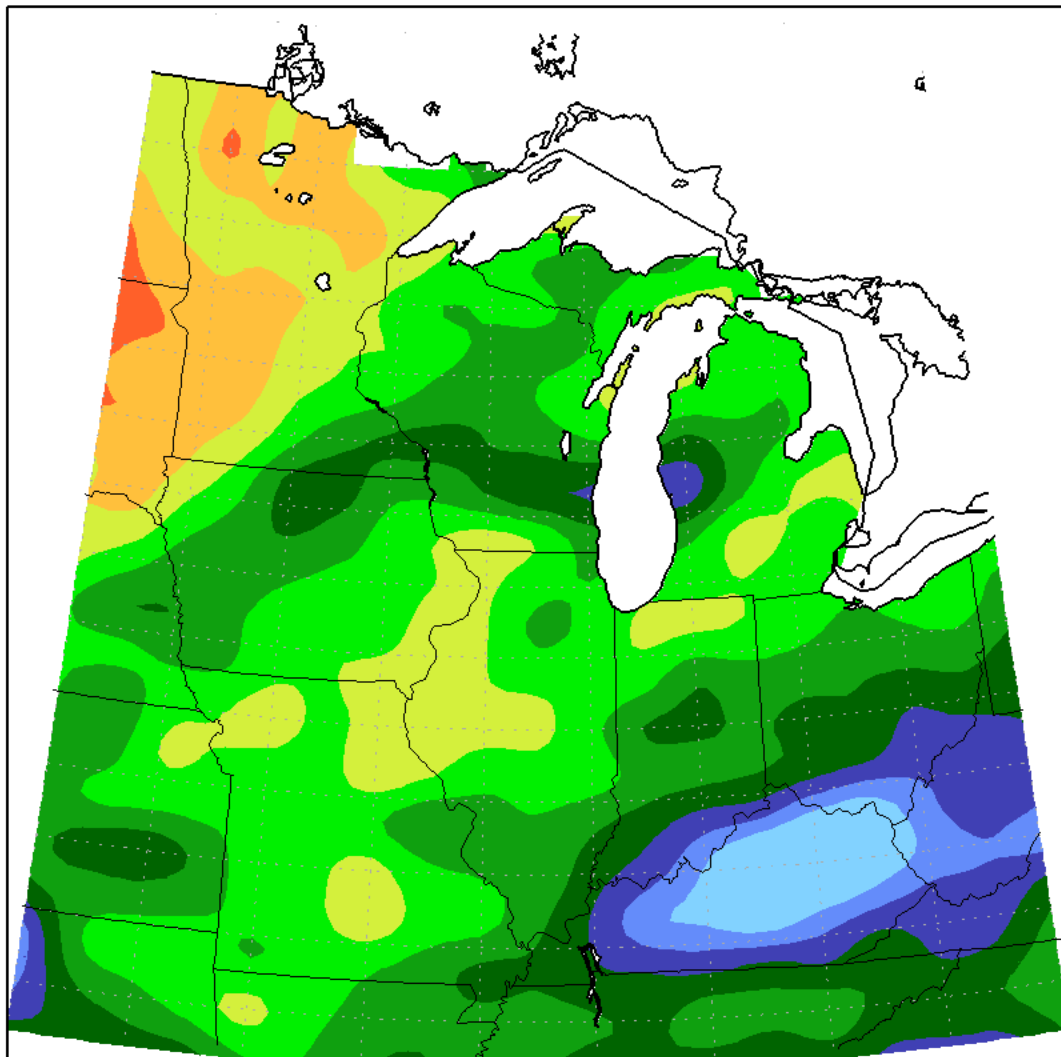
Accumulated Precipitation (in)  
April 1, 2015 to April 30, 2015



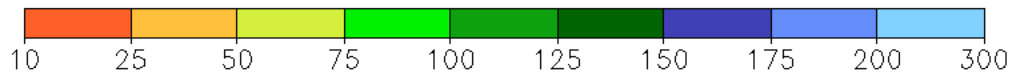
Midwestern Regional Climate Center  
Illinois State Water Survey, Prairie Research Institute  
University of Illinois at Urbana-Champaign

Figure 1. April Monthly Precipitation Totals

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



Mean period is 1981–2010.



Midwestern Regional Climate Center  
Illinois State Water Survey, Prairie Research Institute  
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Figure 2. April Percent of Mean of Accumulated Precipitation

**Hydrologic Products issued this month:**

- 1 Hydrologic Outlook (ARBESFGRR)
- 30 Hydrologic Summaries (ARBRVAGRR)
- 29 River Flood Advisories(ARBFLSGRR)
- 7 County Areal Flood Advisories(ARBFLSGRR)
- 1 River Flood Warning(ARBFLWGRR)

**News Articles and Related Documentation**

None