

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

DATE:

June 30, 2014

SIGNATURE:

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TO: NATIONAL WEATHER SERVICE (W/OS31)
HYDROMETEOROLOGICAL INFO CENTER
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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

Minor river flooding occurred in the Grand Rapids Hydrologic Service Area (HSA) during the month of May 2014. There were several rounds of heavy rain throughout the month. This resulted in the minor flooding on area rivers. Additionally, thunderstorms resulted in minor urban and poor drainage flooding around Grand Rapids on the 7th, resulting in temporarily flooded streets.

Flood Conditions

Wednesday, May 7th

At 5:57 AM EDT a flood advisory was issued for several counties in west central Lower Michigan. 1 to 3 inches of rain from thunderstorms caused minor urban and poor drainage flooding around the city of Grand Rapids.

Sunday, May 11th

At 7:08 PM hazardous weather outlook mentions rainfall totals of 1 to 2 inches through Wednesday will lead to main stem river rises and potential for some urban and small stream flooding

Monday, May 12th

At 10:07 PM EDT a river flood watch was issued for the Looking Glass river near Eagle and the Muskegon river near Croton for possible minor flooding

Tuesday, May 13th

At 10:54 AM EDT a river flood warning was for the White River above Whitehall. Minor flooding was forecast.

At 9:19 PM EDT a river flood statement was issued for the White River above Whitehall continuing the flood warning for minor flooding.

Wednesday, May 14th

At 6:04 AM EDT hazardous weather outlook was issued mentioning additional rainfall could lead to minor flooding

At 10:49 AM EDT the flood warning was downgraded to a flood advisory for the White River above Whitehall.

Thursday, May 15th

At 11:42 AM EDT a river flood warning was issued for Sycamore Creek at Holt. Minor flooding was forecasted.

At 9:24 PM EDT the river flood warning for Holt was continued.

Friday, May 16th

At 11:12 AM EDT a river flood warning was issued for the Red Cedar River affecting East Lansing. Minor flooding was forecast.

At 11:18 AM EDT a river flood statement was issued continuing the warnings for the Red Cedar River at East Lansing, and Sycamore Creek at Holt

At 7:19 PM EDT a river flood statement was issued downgrading the flood warning for Sycamore Creek at Holt to an advisory

At 8:40 PM EDT a river flood statement was issued continuing the flood warning for the Red Cedar River at East Lansing

Saturday, May 17th

At 12:12 PM EDT a river flood statement was issued continuing the flood warning for the Red Cedar River at East Lansing

At 1:57 PM EDT the hydrology section of the area forecast discussion mentions the potential for significant precipitation Tuesday and that thunderstorms could lead to heavy rain for the middle part of the week

At 9:03 PM EDT a river flood statement was issued continuing the flood warning for the Red Cedar River at East Lansing

Saturday, May 17th

At 10:35 AM EDT a river flood statement was issued downgrading the flood warning for the Red Cedar River at East Lansing to a flood advisory

Wednesday, May 21st

At 6:52 AM EDT a river flood warning was issued for the Maple River at Maple Rapids. Minor flooding was forecast.

At 10:19 AM EDT a flood statement was issued continuing the flood warning for the Maple River at Maple Rapids

At 9:53 PM EDT a flood statement was issued continuing the flood warning for the Maple River at Maple Rapids

Thursday, May 22nd

At 11:01 AM EDT a flood statement was issued continuing the flood warning for the Maple River at Maple Rapids

At 9:53 PM EDT a flood statement was issued continuing the flood warning for the Maple River at Maple Rapids

Friday, May 23rd

At 10:20AM EDT a flood statement was issued continuing the flood warning for the Maple River at Maple Rapids

At 8:43 PM EDT a flood statement was issued continuing the flood warning for the Maple River at Maple Rapids

Saturday, May 24th

At 10:22AM EDT a flood statement was issued downgrading the flood warning for the Maple River at Maple Rapids to a flood advisory

The following rivers exceeded bankfull during the month of May 2014:

- Muskegon River near Croton, Michigan (2 days above bankfull)
- Pere Marquette River near Scottville, Michigan (11 days above bankfull)
- White River near Whitehall, Michigan (9 days above bankfull)
- Chippewa River near Mt. Pleasant, Michigan (2 days above bankfull)
- Looking Glass River near Eagle, Michigan (14 days above bankfull)
- Maple River near Mt. Pleasant, Michigan (17 days above bankfull)
- Sycamore Creek near Holt, Michigan (8 days above bankfull)
- Grand River near Ionia, Michigan (14 days above bankfull)
- Grand River near Lowell, Michigan (5 days above bankfull)
- Grand River near Comstock Park, Michigan (3 days above bankfull)
- Red Cedar River near Williamston, Michigan (4 day above bankfull)
- Red Cedar River near East Lansing, Michigan (5 day above bankfull)

Flood Stage Report

Four forecast points exceeded flood stage in our HSA during the month of May 2014. See NWS Form E-3 “Flood Stage Report” for more details.

River Conditions

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

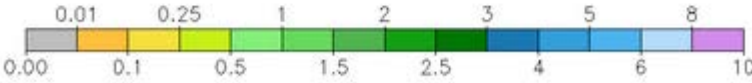
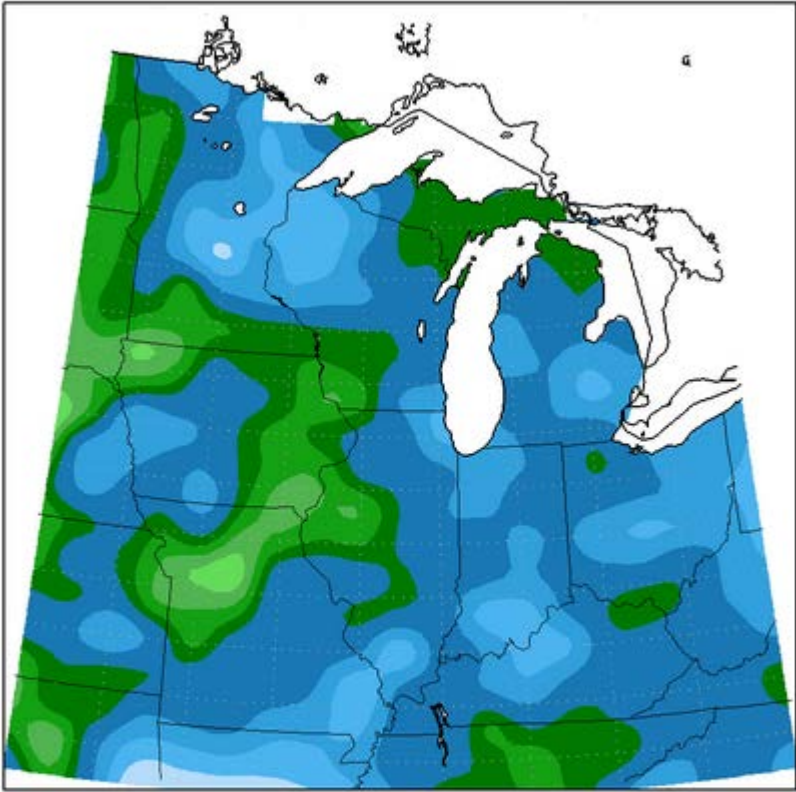
<u>Location</u>	<u>River</u>	<u>% of Normal</u>
Scottville	Pere Marquette	158
Whitehall	White	152
Ewart	Muskegon	153
Mt. Pleasant	Chippewa	200
Lansing	Grand	100
Grand Rapids	Grand	98
East Lansing	Red Cedar	85
Hastings	Thornapple	94
Battle Creek	Battle Creek	89
Battle Creek	Kalamazoo	97

General Hydrologic Information

Across Southwest Lower Michigan, May 2014 had near to slightly above normal temperatures. May 2014 precipitation was near normal for the Kalamazoo River basin in Southern Lower Michigan to generally above normal for the Grand, Muskegon Pere Marquette, White, Pine and Chippewa River basins. May precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 3.31, 4.24, and 3.72 inches, respectively (Figure 1). Precipitation totals for the month at these three sites were 0.67 of an inch below normal at Grand Rapids, 0.88 inches above normal at Lansing, and 0.47 of an inch above normal at Muskegon, Michigan. Percent of mean precipitation for April 2014 is shown in Figure 2. Yearly precipitation totals were 0.31 of an inch below normal for Grand Rapids, 0.36 inches below normal for Lansing, and 1.03 of an inch above normal for Muskegon, Michigan.

Temperatures for the month of May were near normal at Grand Rapids, Lansing, and Muskegon, Michigan, with average monthly departures of 0.6, 0.7 and 0.1 degrees Fahrenheit, respectively.

Accumulated Precipitation (in)
May 1, 2014 to May 31, 2014



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

Figure 1. May Monthly Precipitation Totals

Accumulated Precipitation: Percent of Mean
May 1, 2014 to May 31, 2014

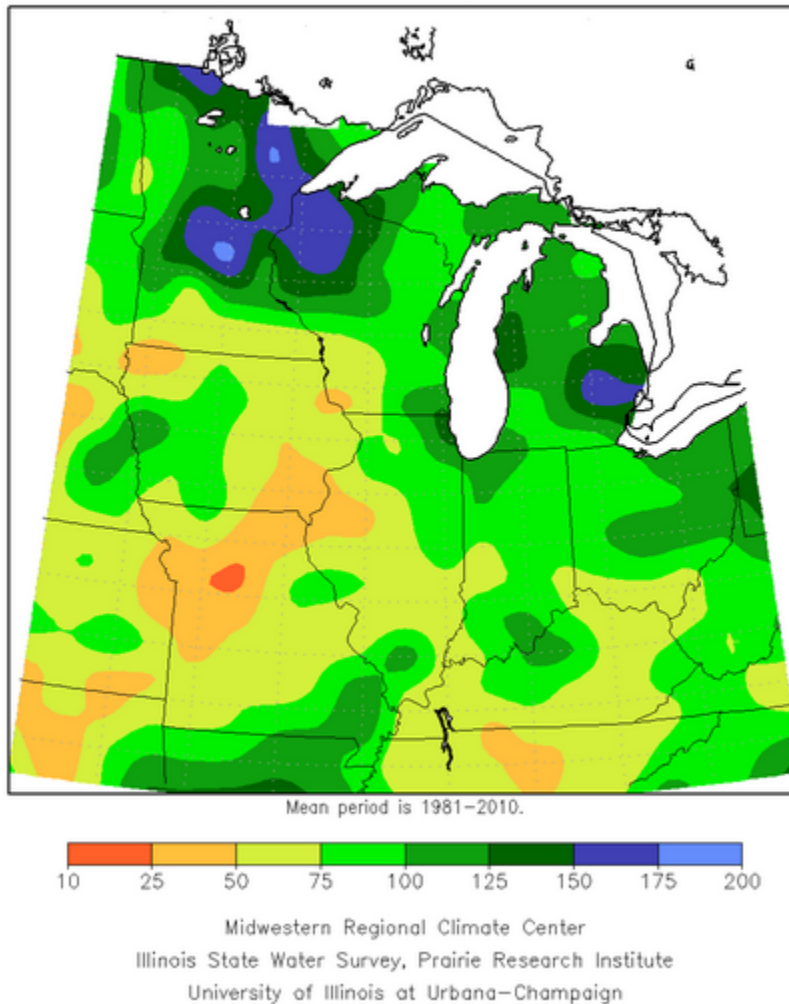


Figure 2. May Percent of Mean of Accumulated Precipitation

Hydrologic Products issued this month:

- 3 River Flood Watches (ARBFFAGRR)
- 13 Areal Flood Statements (ARBFLSGRR)
- 5 River Flood Warnings (ARBFLWGRR)
- 14 River Flood Statements (ARBFLSGRR)
- 49 River Flood Advisories (ARBFLSGRR)
- 24 Hydrologic Statements (ARBRVSGRR)
- 1 Hydrologic Outlook (ARBESFGRR)
- 31 Hydrologic Summaries (ARBRVAGRR)