

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

DATE:

June 14th, 2018

SIGNATURE:

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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

Several rounds of heavy rain resulted in above normal rainfall for much of the region. The greatest departures were in the Kalamazoo and portions of the upper Grand Basin. Minor flooding occurred in these regions.

Flood Conditions

Sunday, May 13th

At 730 AM a flood warning was issued for the following rivers:

Sycamore Creek at Holt affecting Ingham County. Flood Stage is 8.0 ft. The river was forecasted to rise to 8.8 ft on the 14th. Heavy rainfall was forecasted to cause the river to exceed flood stage.

Sunday, May 13th

At 946 AM the flood warning was continued for the following rivers:

Sycamore Creek at Holt affecting Ingham County. Minor flooding was forecasted.

Sunday, May 13th

At 1011 PM the flood warning was continued for the following rivers:

Sycamore Creek at Holt affecting Ingham County. Minor flooding was forecasted.

Monday, May 14th

At 339 AM an areal flood watch was issued for southern parts of the CWA including the region south of Grand Rapids, until Tuesday Morning. Rainfall amounts of 1 to 3 inches was expected to lead to flooded roads.

Monday, May 14th

At 959 AM an areal flood warning was issued for Van Buren and Kalamazoo Counties until 400 PM. Rainfall amounts of 1 to 3 inches was expected to lead to flooded roads.

Monday, May 14th

At 1034 AM the areal flood watch was continued for southern parts of the CWA

Monday, May 14th

At 1138 AM a flood warning was issued for the following rivers:

Portage River near Vicksburg affecting Kalamazoo County. Flood Stage is 5.0 ft. The river was forecasted to rise to 5.2 ft on the 15th. Recent and forecasted heavy rainfall was forecasted to cause the river to exceed flood stage.

Monday, May 14th

At 1142 AM the flood warning was continued for the following rivers:

Sycamore Creek at Holt affecting Ingham County. Minor flooding was forecasted.

Monday, May 14th

At 211 PM the areal flood warning was cancelled for Van Buren and Kalamazoo.

Monday, May 14th

At 300 PM the areal flood watch was continued for southern parts of the CWA

Monday, May 14th

At 1002 PM the areal flood watch was continued for southern parts of the CWA

Monday, May 14th

At 1104 PM a flood warning was issued for the following rivers:

Grand River at Jackson affecting Jackson County. Flood Stage is 14.0 ft. The river was forecasted to rise to near 14.0 ft overnight. Recent and predicted heavy rainfall was forecasted to cause the river to exceed flood stage.

Monday, May 14th

At 1108 PM the flood warning was continued for the following rivers:

Sycamore Creek at Holt affecting Ingham County. Minor flooding was forecasted.

Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.

Tuesday, May 15th

At 410 AM the areal flood watch was continued for southern parts of the CWA

Tuesday, May 15th

At 744 AM the areal flood watch was allowed to expire.

Tuesday, May 15th

At 914 AM the flood warning was continued for the following rivers:

Sycamore Creek at Holt affecting Ingham County. Minor flooding was forecasted.

Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.

Grand River at Jackson affecting Jackson County. Minor flooding was forecasted.

Tuesday, May 15th

At 1208 PM the flood warning was continued for the following rivers:
Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.

Tuesday, May 15th

At 935 PM the flood warning was cancelled for
Sycamore Creek at Holt affecting Ingham County.
The flood warning was continued for the following rivers:
Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.
Grand River at Jackson affecting Jackson County. Minor flooding was forecasted.

Wednesday, May 16th

At 1019 AM the flood warning was cancelled for
Grand River at Jackson affecting Jackson County.
The flood warning was continued for the following rivers:
Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.

Wednesday, May 16th

At 932 PM the flood warning was continued for the following rivers:
Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.

Thursday, May 17th

At 1021 AM the flood warning was continued for the following rivers:
Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.

Thursday, May 17th

At 949 PM the flood warning was continued for the following rivers:
Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.

Friday, May 18th

At 1028 AM the flood warning was continued for the following rivers:
Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.

Saturday, May 19th

At 1033 AM a flood warning was issued for the following rivers:
Portage River near Vicksburg affecting Kalamazoo County. Flood Stage is 5.0 ft. The river was forecasted remain near 5.5 ft during the day and then fall below flood stage by Monday.

Sunday, May 20th

At 1110 AM the flood warning was continued for the following rivers:
Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.

Sunday, May 20th

At 856 PM the flood warning was continued for the following rivers:
Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.

Monday, May 21st

At 1019 AM the flood warning was continued for the following rivers:
Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.

Monday, May 21st

At 1017 PM the flood warning was continued for the following rivers:
Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.

Tuesday, May 22nd

At 1155 AM the flood warning was cancelled for the following rivers:
Portage River near Vicksburg affecting Kalamazoo County. Minor flooding was forecasted.

The following rivers exceeded bankfull during the month of May 2018:

- Looking Glass River near Eagle, Michigan (1 day above bankfull)
- Red Cedar River near Williamston, Michigan (2 days above bankfull)
- Red Cedar River near East Lansing, Michigan (5 days above bankfull)
- Grand River near Lansing, Michigan (3 days above bankfull)
- Thornapple River above Hastings, Michigan (11 days above bankfull)
- Kalamazoo River at Marshall (5 days above bankfull)
- Kalamazoo River at Comstock (7 days above bankfull)
- Kalamazoo River at New Richmond (12 days above bankfull)
- Grand River at Jackson, Michigan (7 days above bankfull)
- Sycamore Creek at Holt, Michigan (9 days above bankfull)
- Grand River at Ionia, Michigan (12 days above bankfull)
- Portage River near Vicksburg, Michigan (16 days above bankfull)
- St. Joseph River at Burlington, Michigan (9 days above bankfull)

Flood Stage Report

Three forecast points exceeded flood stage in our HSA during the month of May 2018. Thus, the NWS Form E-3 “Flood Stage Report” was issued.

River Conditions

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

<u>Location</u>	<u>River</u>	<u>% of Normal</u>
Scottville	Pere Marquette	106
Whitehall	White	112
Evert	Muskegon	172
Mt. Pleasant	Chippewa	295
Lansing	Grand	220
Grand Rapids	Grand	200
East Lansing	Red Cedar	138
Hastings	Thornapple	190
Battle Creek	Battle Creek	166
Battle Creek	Kalamazoo	153

General Hydrologic Information

The month of May featured above normal precipitation. The greatest departures were along the Kalamazoo River Basin with some locations over 200 percent above normal.

May precipitation for Grand Rapids, Lansing, and Muskegon, Michigan, was 5.64, 4.97, and 4.62 inches, respectively (Figure 1). Monthly departures were 1.66, 1.61 and 1.37 inches respectively. Yearly departures were 3.12, 4.37, and 3.70 inches for Grand Rapids, Lansing and Muskegon respectively. Percent of mean precipitation for May 2018 is shown in Figure 2.

Temperatures for the month of May were well above normal at Grand Rapids, Lansing and Muskegon. The average monthly temperature departures for these sites were 6.1, 7.0 and 5.9 degrees Fahrenheit respectively.

Accumulated Precipitation (in)
May 1, 2018 to May 31, 2018

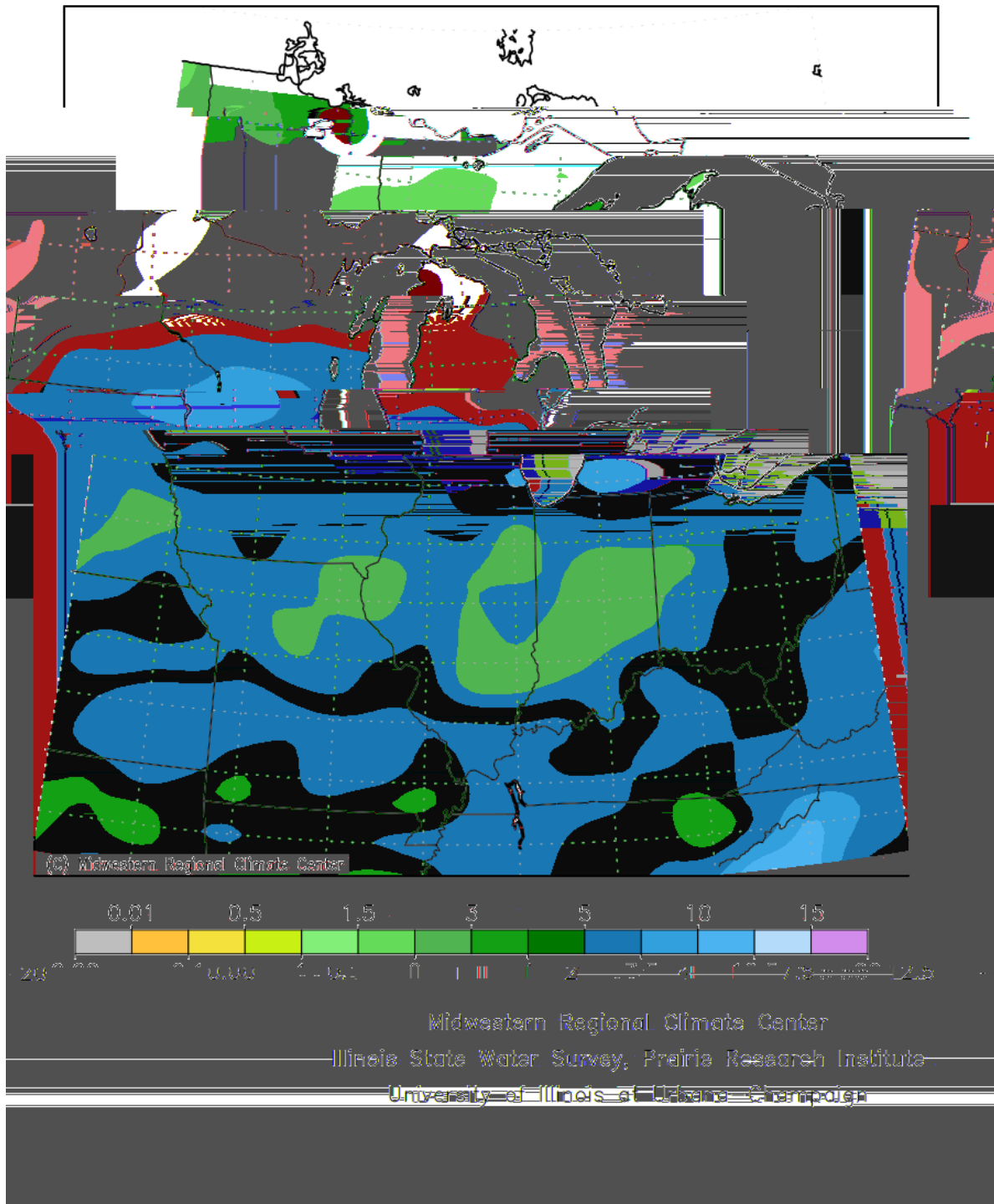


Figure 1. May 2018 Monthly Precipitation Totals

Accumulated Precipitation: Percent of Mean May 1, 2018 to May 31, 2018

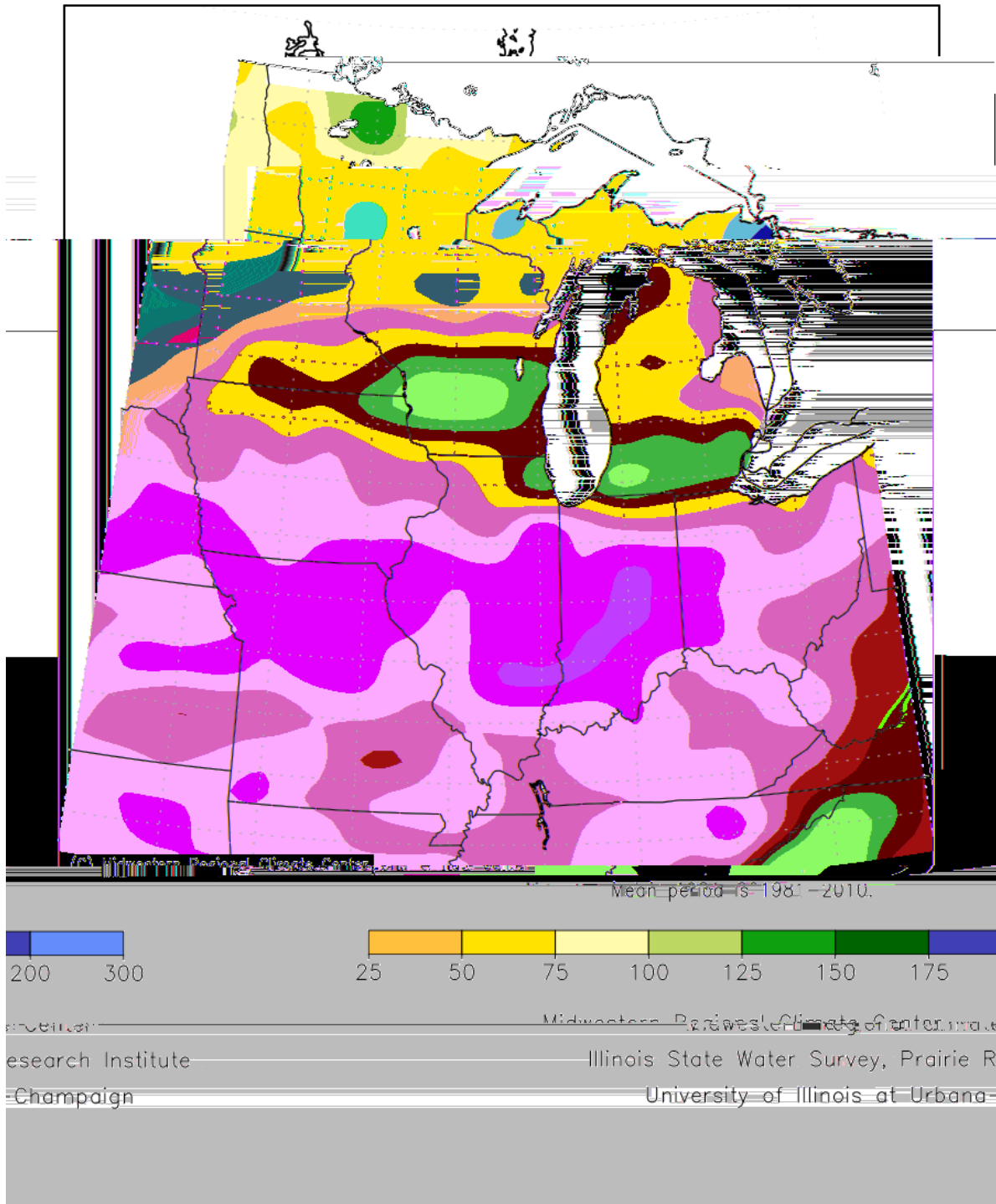


Figure 2. May 2018 Percent of Mean of Accumulated Precipitation

Hydrologic Products issued this month:

- 31 Hydrologic Summaries (ARBRVAGRR)
 - 1 Probabilistic Hydrologic Outlook (ARBESFGRR)
- 31 Daily River Forecasts (ARBRVDGRR)
- 31 Hydrologic Statements ARBRVSGRR)
- 31 River Flood Advisory Statements (ARBFLSGRR)
- 18 River Flood Warning Statements (ARBFLSGRR)
- 4 Areal Flood Advisory Statements (ARBFLSGRR)
- 1 Areal Flood Warning Statements (ARBFLSGRR)
- 4 River Flood Warnings (ARBFLWGRR)
- 1 Areal Flood Warning (ARBFLWGRR)

News Articles and Related Documentation

None