

## MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

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

DATE:

May 11th, 2017

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

Moderate flooding occurred in the Hydrologic Service Area during the Month of April 2017. Comstock Park on the Grand River upstream of Grand Rapids reached 15.0 feet, 1 foot above the moderate level of 14.0 feet. This resulted in many flooded basements and closure of roads along the river in that region. The wet weather continued for the region during the month of April. Water levels were high to start the month and the soil saturated from recent rain. Several storm systems tracked through the state during the month. Given the antecedent conditions, the 2 to 3 inches of rain that fell over the first week of April, resulted in widespread flooding.

### Flood Conditions

#### Thursday, March 30th

At 4:27 PM EDT, A flood warning issued for the Portage River near Vicksburg. Flood stage is 5.0 feet. Minor flooding was forecasted. The river was at 5.06 feet and forecasted to rise to 5.1 feet on Friday and then fall slowly.

#### Saturday, April 1st

At 11:26 AM EDT, The flood warning continued for the Portage River near Vicksburg. Flood stage is 5.0 feet. The river was at 5.3 feet and near crest. The river was forecasted to fall slowly over the next couple of days.

#### Saturday, April 1st

At 10:03 PM EDT, The flood warning continued for the Portage River near Vicksburg. Flood stage is 5.0 feet. The river was at 5.3 feet as of 5:00 AM Sat. The river was forecasted to fall slowly over the next couple of days.

#### Sunday, April 2nd

At 4:11 AM EDT, The Hazardous Weather Outlook mentioned heavy rain expected, which may lead to flooding in the long term period.

#### Sunday, April 2nd

At 11:03 AM EDT, The flood warning continued for the Portage River near Vicksburg.

Flood stage is 5.0 feet. The river was at 5.3 feet as of 5:00 AM Sat. The river was forecasted to fall slowly over the next couple of days.

Sunday, April 2nd

At 1:07 PM EDT, a weather message was sent to the media and emergency managers mentioning minor river flooding possible as a result of heavy rain for Monday into Tuesday.

Sunday, April 2nd

At 9:41 PM EDT, The flood warning continued for the Portage River near Vicksburg. Flood stage is 5.0 feet. The river was at 5.1 feet as of 5:00 AM Sun. The river was forecasted to fall slowly over the next couple of days.

Monday, April 3rd

At 11:45 AM EDT, The flood warning continued for the Portage River near Vicksburg. Flood stage is 5.0 feet. The river was at 5.1 feet as of 5:00 AM Sun. Additional rain is forecasted to cause the river to rise to 5.3 feet on Tuesday.

Monday, April 3rd

At 10:44 PM EDT, The flood warning continued for the Portage River near Vicksburg. Flood stage is 5.0 feet. The river was at 5.1 feet as of 5:00 AM Sun. The river was forecasted to remain nearly steady.

Tuesday, April 4th

At 11:31 AM EDT, The flood warning continued for the Portage River near Vicksburg. Flood stage is 5.0 feet. The river was at 5.3 feet as of 8:25 AM Tue. Minor flooding was forecasted. The river was forecasted to rise to near 5.5 feet later Tuesday.

Tuesday, April 4th

At 10:16 PM EDT, The flood warning continued for the Portage River near Vicksburg. Flood stage is 5.0 feet. The river was at 5.3 feet as of 8:25 AM Tue. Minor flooding was forecasted. The river was forecasted to remain nearly steady.

Wednesday, April 5th

At 4:07 AM EDT, The Hazardous Weather Outlook mentioned heavy rain at times with possible flooding for small streams and rivers.

Wednesday, April 5th

At 11:33 AM EDT, The flood warning continued for the Portage River near Vicksburg. Flood stage is 5.0 feet. The river was at 5.3 feet as of 8:25 AM Tue. Minor flooding was forecasted. The river was forecasted to rise to near 5.9 feet by Thursday Evening.

Wednesday, April 5th

At 11:30 AM EDT river flood warnings based on observed and forecasted 48 hr precipitation were issued for the following rivers:

- Grand River near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Sycamore Creek At Holt , Michigan

- Looking Glass River Near Eagle, Michigan
- Maple River At Maple Rapids, Michigan
- Thornapple River Above Hastings, Michigan

At 10:27 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Sycamore Creek At Holt , Michigan
- Looking Glass River Near Eagle, Michigan
- Maple River At Maple Rapids, Michigan
- Thornapple River Above Hastings, Michigan
- Portage River near Vicksburg, Michigan

Wednesday, April 5th

At 10:11 PM EDT a river flood warning based on observed and forecasted 48 hr precipitation was issued for the following river:

- Red Cedar River at East Lansing, Michigan

Thursday, April 6th

At 10:21 AM EDT, a weather message was sent to the media and emergency managers mentioning river flooding expected into next week.

At 11:53 AM EDT a river flood warning based on observed and forecasted 48 hr precipitation was issued for the following river:

- Grand River at Lansing, Michigan

At 12:09 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Sycamore Creek At Holt , Michigan
- Red Cedar River At East Lansing, Michigan
- Looking Glass River Near Eagle, Michigan
- Maple River At Maple Rapids, Michigan
- Thornapple River Above Hastings, Michigan
- Portage River near Vicksburg, Michigan

At 4:21 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Grand River At Lansing, Michigan
- Sycamore Creek At Holt , Michigan
- Red Cedar River At East Lansing, Michigan
- Looking Glass River Near Eagle, Michigan
- Maple River At Maple Rapids, Michigan
- Thornapple River Above Hastings, Michigan
- Portage River near Vicksburg, Michigan

At 10:21 PM EDT a river flood warning based on observed and forecasted 48 hr precipitation was issued for the following river:

- Grand River at Ionia, Michigan
- Grand River at Lowell, Michigan

At 10:21 PM EDT the river flood warning was upgraded from minor to moderate category. The forecast was based on observed and forecasted 48 hr precipitation was issued for the following river:

- Grand River at Comstock Park, Michigan

At 10:41 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Grand River At Lansing, Michigan
- Grand River At Ionia, Michigan
- Grand River At Lowell, Michigan
- Sycamore Creek At Holt , Michigan
- Red Cedar River At East Lansing, Michigan
- Looking Glass River Near Eagle, Michigan
- Maple River At Maple Rapids, Michigan
- Thornapple River Above Hastings, Michigan
- Portage River near Vicksburg, Michigan

#### Friday, April 7th

At 11:30 AM EDT a river flood warning based on observed and forecasted 48 hr precipitation was issued for the following river:

- Grand River at Ada, Michigan
- Grand River at Grand Rapids, Michigan
- Pine River at Alma, Michigan

At 11:55 AM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Grand River At Lansing, Michigan
- Grand River At Ionia, Michigan
- Grand River At Lowell, Michigan
- Grand River At Grand Rapids, Michigan
- Grand River At Ada, Michigan
- Sycamore Creek At Holt , Michigan
- Red Cedar River At East Lansing, Michigan
- Looking Glass River Near Eagle, Michigan
- Maple River At Maple Rapids, Michigan
- Thornapple River Above Hastings, Michigan
- Portage River near Vicksburg, Michigan
- Pine River At Alma, Michigan

At 4:21 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Grand River At Lansing, Michigan
- Grand River At Ionia, Michigan
- Grand River At Lowell, Michigan
- Grand River At Grand Rapids, Michigan
- Grand River At Ada, Michigan
- Sycamore Creek At Holt , Michigan
- Red Cedar River At East Lansing, Michigan
- Looking Glass River Near Eagle, Michigan
- Maple River At Maple Rapids, Michigan
- Thornapple River Above Hastings, Michigan
- Portage River near Vicksburg, Michigan
- Pine River At Alma, Michigan

At 10:08 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Grand River At Lansing, Michigan
- Grand River At Ionia, Michigan
- Grand River At Lowell, Michigan
- Grand River At Grand Rapids, Michigan
- Grand River At Ada, Michigan
- Sycamore Creek At Holt , Michigan
- Red Cedar River At East Lansing, Michigan
- Looking Glass River Near Eagle, Michigan
- Maple River At Maple Rapids, Michigan
- Thornapple River Above Hastings, Michigan
- Portage River near Vicksburg, Michigan

#### Saturday, April 8th

At 11:43 AM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Grand River At Lansing, Michigan
- Grand River At Ionia, Michigan
- Grand River At Lowell, Michigan
- Grand River At Grand Rapids, Michigan
- Grand River At Ada, Michigan
- Sycamore Creek At Holt , Michigan
- Red Cedar River At East Lansing, Michigan
- Looking Glass River Near Eagle, Michigan
- Maple River At Maple Rapids, Michigan
- Thornapple River Above Hastings, Michigan

- Portage River near Vicksburg, Michigan

At 3:10 PM EDT a river flood warning based on observed and forecasted 48 hr precipitation was issued for the following river:

- Kalamazoo River at Comstock, Michigan

At 9:58 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Grand River At Lansing, Michigan
- Grand River At Ionia, Michigan
- Grand River At Lowell, Michigan
- Grand River At Grand Rapids, Michigan
- Grand River At Ada, Michigan
- Sycamore Creek At Holt , Michigan
- Red Cedar River At East Lansing, Michigan
- Looking Glass River Near Eagle, Michigan
- Maple River At Maple Rapids, Michigan
- Thornapple River Above Hastings, Michigan
- Portage River near Vicksburg, Michigan
- Kalamazoo River At Comstock, Michigan

#### Sunday, April 9<sup>th</sup>

At 12:10 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Grand River At Lansing, Michigan
- Grand River At Ionia, Michigan
- Grand River At Lowell, Michigan
- Grand River At Grand Rapids, Michigan, which was downgraded to an advisory
- Grand River At Ada, Michigan
- Sycamore Creek At Holt , Michigan
- Red Cedar River At East Lansing, Michigan
- Looking Glass River Near Eagle, Michigan
- Maple River At Maple Rapids, Michigan
- Thornapple River Above Hastings, Michigan
- Portage River near Vicksburg, Michigan
- Kalamazoo River At Comstock, Michigan

At 10:26 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Grand River At Lansing, Michigan
- Grand River At Ionia, Michigan
- Grand River At Lowell, Michigan

- Grand River At Ada, Michigan which was downgraded to an advisory
- Sycamore Creek At Holt, Michigan
- Red Cedar River At East Lansing, Michigan
- Looking Glass River Near Eagle, Michigan
- Maple River At Maple Rapids, Michigan
- Thornapple River Above Hastings, Michigan
- Portage River near Vicksburg, Michigan
- Kalamazoo River At Comstock, Michigan

Monday, April 10th

At 12:12 AM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Looking Glass River Near Eagle, Michigan, which was downgraded to an advisory

At 12:56 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Grand River At Lansing, Michigan, which was downgraded to an advisory
- Grand River At Ionia, Michigan
- Grand River At Lowell, Michigan
- Sycamore Creek At Holt , Michigan
- Red Cedar River At East Lansing, Michigan
- Maple River At Maple Rapids, Michigan
- Thornapple River Above Hastings, Michigan
- Portage River near Vicksburg, Michigan
- Kalamazoo River At Comstock, Michigan

At 11:46 PM EDT river flood warnings based on observed and forecasted 48 hr precipitation were issued for the following rivers:

- Grand River at Ada, Michigan
- Grand River at Grand Rapids, Michigan

Monday, April 10th

At 11:59 PM EDT a river flood warning based on observed and forecasted 48 hr precipitation was issued for the following river:

- Looking Glass River near Eagle, Michigan

Tuesday April 11th

At 1:22 AM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Grand River At Ionia, Michigan
- Grand River At Lowell, Michigan
- Grand River At Ada, Michigan
- Grand River At Grand Rapids, Michigan
- Red Cedar River At East Lansing, Michigan, which was downgraded to an advisory

- Maple River At Maple Rapids, Michigan
- Looking Glass River Near Eagle, Michigan
- Thornapple River Above Hastings, Michigan
- Portage River near Vicksburg, Michigan
- Kalamazoo River At Comstock, Michigan, which was downgraded to an advisory

At 11:34 AM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Maple River At Maple Rapids, Michigan
- Looking Glass River Near Eagle, Michigan
- Thornapple River Above Hastings, Michigan

At 11:45 AM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Grand River At Ionia, Michigan, which was downgraded to an advisory
- Grand River At Lowell, Michigan
- Grand River At Grand Rapids, Michigan

At 11:26 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River At Lowell, Michigan, which was downgraded to an advisory
- Grand River At Grand Rapids, Michigan, which was downgraded to an advisory
- Thornapple River Above Hastings, Michigan, which was downgraded to an advisory
- Portage River near Vicksburg, Michigan, which was downgraded to an advisory

At 11:31 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Maple River At Maple Rapids, Michigan
- Looking Glass River Near Eagle, Michigan

### Wednesday, April 12th

At 10:43 AM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Maple River At Maple Rapids, Michigan
- Looking Glass River Near Eagle, Michigan

At 9:33 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Maple River At Maple Rapids, Michigan
- Looking Glass River Near Eagle, Michigan



#### Thursday, April 13th

At 11:18 AM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Maple River At Maple Rapids, Michigan
- Looking Glass River Near Eagle, Michigan

At 10:14 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Maple River At Maple Rapids, Michigan
- Looking Glass River Near Eagle, Michigan

#### Friday, April 14th

At 10:18 AM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Maple River At Maple Rapids, Michigan
- Looking Glass River Near Eagle, Michigan

At 10:06 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Maple River At Maple Rapids, Michigan
- Looking Glass River Near Eagle, Michigan

#### Saturday, April 15th

At 9:44 AM EDT a river flood warning based on observed and forecasted 48 hr precipitation was issued for the following river:

- Portage River near Vicksburg, Michigan

At 9:50 AM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Grand River At Robinson Township, Michigan
- Maple River At Maple Rapids, Michigan, which was downgraded to an advisory
- Looking Glass River Near Eagle, Michigan
- Portage River near Vicksburg, Michigan

#### Sunday, April 16th

At 5:53 AM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Looking Glass River Near Eagle, Michigan, which was downgraded to an advisory

At 9:46 AM EDT a flood statement was issued updating the river forecast for river flood

warnings for the following rivers:

- Grand River Near Comstock Park, Michigan
- Portage River near Vicksburg, Michigan

At 10:30 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Grand River Near Comstock Park, Michigan, which was downgraded to an advisory
- Portage River near Vicksburg, Michigan, which was downgraded to an advisory

#### Thursday, April 20th

At 9:34 AM EDT a river flood warning based on observed and forecasted 48 hr precipitation was issued for the following river:

- Portage River near Vicksburg, Michigan

#### Friday, April 21st

At 10:48 AM EDT a flood statement was issued updating the river forecast for river flood warning for the following river:

- Portage River Near Vicksburg, Michigan

At 9:45 PM EDT a flood statement was issued updating the river forecast for river flood warning for the following river:

- Portage River Near Vicksburg, Michigan

#### Saturday, April 22nd

At 10:00 AM EDT a flood statement was issued updating the river forecast for river flood warning for the following river:

- Portage River Near Vicksburg, Michigan

At 9:27 PM EDT a flood statement was issued updating the river forecast for river flood warning for the following river:

- Portage River Near Vicksburg, Michigan

#### Sunday, April 23rd

At 10:27 AM EDT a flood statement was issued updating the river forecast for river flood warning for the following river:

- Portage River Near Vicksburg, Michigan

At 9:36 PM EDT a flood statement was issued updating the river forecast for river flood warning for the following river:

- Portage River Near Vicksburg, Michigan

#### Monday, April 24th

At 10:15 AM EDT a flood statement was issued updating the river forecast for river flood warning for the following river:

- Portage River Near Vicksburg, Michigan

At 10:27 PM EDT a flood statement was issued updating the river forecast for river flood warning for the following river:

- Portage River Near Vicksburg, Michigan which was cancelled

### Wednesday, April 26th

At 6:38 AM EDT, The Hazardous Weather Outlook mentioned heavy rain expected, with an increased risk for flooding in the long term period.

### Friday, April 28th

At 11:51 AM EDT, a flood watch was issued for the Portage River near Vicksburg, Grand River near Comstock Park, Sycamore Creek at Holt, and Looking Glass River near Eagle. Forecasted rainfall amounts of 2 to 3 inches were expected to lead to flooding at these forecast points.

At 4:03 PM EDT, an areal flood watch was issued for much of Southwest Lower Michigan. Rainfall amounts of 2 to 4 inches were predicted for Saturday afternoon through Monday morning. The ground was already saturated with the streams and creeks elevated from recent rainfall.

At 9:34 PM EDT, the areal flood watch was continued for much of Southwest Lower Michigan. Rainfall amounts of 2 to 4 inches were predicted for Saturday afternoon through Monday morning. The ground was already saturated with the streams and creeks elevated from recent rainfall.

At 10:43 PM EDT, the flood watch was continued for the Portage River near Vicksburg, Grand River near Comstock Park, Sycamore Creek at Holt, and Looking Glass River near Eagle. Forecasted rainfall amounts of 2 to 4 inches were expected to lead to flooding at these forecast points.

### Saturday, April 29th

At 2:40 AM EDT, the areal flood watch was continued for much of Southwest Lower Michigan. Rainfall amounts of 2 to 4 inches were predicted for Saturday afternoon through Monday morning. The ground was already saturated with the streams and creeks elevated from recent rainfall.

At 12:06 PM EDT, the flood watch was continued for the Portage River near Vicksburg, Grand River near Comstock Park, Sycamore Creek at Holt, and Looking Glass River near Eagle. Forecasted rainfall amounts of 2 to 3 inches were expected to lead to flooding at these forecast points.

At 3:52 PM EDT, the areal flood watch was continued for much of Southwest Lower Michigan. Rainfall amounts of 2 to 4 inches were predicted for Saturday afternoon through Monday morning. The ground was already saturated with the streams and creeks elevated from recent rainfall.

At 9:11 PM EDT, the areal flood watch was continued for much of Southwest Lower Michigan. Rainfall amounts of 2 to 4 inches were predicted for Saturday afternoon through Monday morning. The ground was already saturated with the streams and creeks elevated from recent rainfall.

At 10:36 PM EDT river flood warnings based on observed and forecasted 48 hr precipitation were issued for the following rivers:

- Portage River near Vicksburg, Michigan
- Looking Glass River near Eagle, Michigan

At 11:24 PM EDT, the flood watch was upgraded to flood warnings for the Looking Glass River near Eagle and Portage River near Vicksburg. The flood watch was replaced by a flood advisory for Sycamore Creek at Holt. The Flood watch was continued for the Grand River near Comstock Park. Forecasted rainfall amounts of 2 to 3 inches were expected to lead to flooding at this forecast point.

#### Sunday, April 30th

At 3:39 AM EDT, the areal flood watch was continued for much of Southwest Lower Michigan. Rainfall amounts of 2 to 4 inches were predicted for through Monday morning. The ground was already saturated with the streams and creeks elevated from recent rainfall.

At 10:45 AM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Portage River Near Vicksburg, Michigan
- Looking Glass River Near Eagle, Michigan

At 10:57 AM EDT, the flood watch continued for the Grand River near Comstock Park. Another 1 to 2 inches of rain was expected to lead to flooding at this forecast point.

At 11:53 AM EDT, the areal flood watch was continued for much of Southwest Lower Michigan. Rainfall amounts of 2 to 4 inches were predicted for through Monday morning. The ground was already saturated with the streams and creeks elevated from recent rainfall.

At 3:52 PM EDT, the areal flood watch was continued for much of Southwest Lower Michigan. Rainfall amounts of 2 to 4 inches were predicted for through Monday morning. The ground was already saturated with the streams and creeks elevated from recent rainfall.

At 9:41 PM EDT, the areal flood watch was continued for much of Southwest Lower Michigan. Additional rainfall amounts of 1 to 2 inches were predicted for through Monday morning. The ground was already saturated with the streams and creeks elevated from recent rainfall.

At 10:59 PM EDT a flood statement was issued updating the river forecast for river flood warnings for the following rivers:

- Portage River Near Vicksburg, Michigan
- Looking Glass River Near Eagle, Michigan, which was downgraded to an advisory

At 11:00 PM EDT, the flood watch for the Grand River near Comstock Park was

cancelled and replaced with a flood advisory.

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The following rivers exceeded bankfull during the month of April 2017:

- Muskegon River near Evart, Michigan (11 days above bankfull)
- Muskegon River at Croton, Michigan (3 days above bankfull)
- Chippewa River near Mount Pleasant, Michigan (6 days above bankfull)
- Looking Glass River near Eagle, Michigan (28 days above bankfull)
- Sycamore Creek at Holt, Michigan ( 13days above bankfull)
- Maple River at Maple Rapids, Michigan (30 days above bankfull)
- Red Cedar River near Williamston, Michigan (7 days above bankfull)
- Red Cedar River near East Lansing, Michigan (7 days above bankfull)
- Grand River at Jackson, Michigan (8 days above bankfull)
- Grand River at Ionia, Michigan (28 days above bankfull)
- Grand River at Portland, Michigan (3 days above bankfull)
- Grand River at Lansing, Michigan (5 days above bankfull)
- Grand River at Eaton Rapids, Michigan (2 days above bankfull)
- Grand River at Ada, Michigan (8 days above bankfull)
- Grand River at Lowell, Michigan (19 days above bankfull)
- Grand River at Lowell, Michigan (15 days above bankfull)
- Grand River at Grand Rapids, Michigan (12 days above bankfull)
- Grand River at Robinson Township, Michigan (8 days above bankfull)
- Flat River at Smyrna, Michigan (7 days above bankfull)
- Roque River at Rockford, Michigan (1 day above bankfull)
- Kalamazoo River at New Richmond, Michigan (11 days above bankfull)
- Kalamazoo River at Marshall, Michigan (6 days above bankfull)
- Kalamazoo River at Comstock, Michigan (11 days above bankfull)
- St. Joseph River at Burlington, Michigan (4 days above bankfull)
- Battle Creek at Battle Creek, Michigan (2 days above bankfull)
- Pine River at Alma, Michigan (3 days above bankfull)
- Thornapple River near Hastings, Michigan (14 days above bankfull)
- Thornapple River near Caledonia, Michigan (7 days above bankfull)
- Portage River at Vicksburg, Michigan (18 days above bankfull)

### **Flood Stage Report**

Thirteen forecast points exceeded flood stage in our HSA during the month of April 2017. See NWS Form E-3 “Flood Stage Report” for more details

## **River Conditions**

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

<u>Location</u>	<u>River</u>	<u>% of Normal</u>
Scottville	Pere Marquette	105
Whitehall	White	115
Evart	Muskegon	135
Mt. Pleasant	Chippewa	172
Lansing	Grand	176
Grand Rapids	Grand	186
East Lansing	Red Cedar	208
Hastings	Thornapple	140
Battle Creek	Battle Creek	125
Battle Creek	Kalamazoo	148

## **General Hydrologic Information**

Well above normal precipitation fell during the month of April across the hydrologic service area. The greatest departures occurred over the Chippewa, Grand River and Muskegon basins.

April precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 6.27, 4.66, and 4.67 inches, respectively (Figure 1). Monthly departures were 2.92 inches, 1.63 inches, and 1.76 inches respectively. Yearly departures were 5.50, 8.21, and 3.96 inches for Grand Rapids, Lansing and Muskegon respectively. Percent of mean precipitation for April 2017 is shown in Figure 2.

Temperatures for the month of April were above normal at Grand Rapids, Lansing and Muskegon. The average monthly temperature departures were, 3.9, 5.2 and 4.2 degrees Fahrenheit respectively.

Accumulated Precipitation (in)  
April 1, 2017 to April 30, 2017

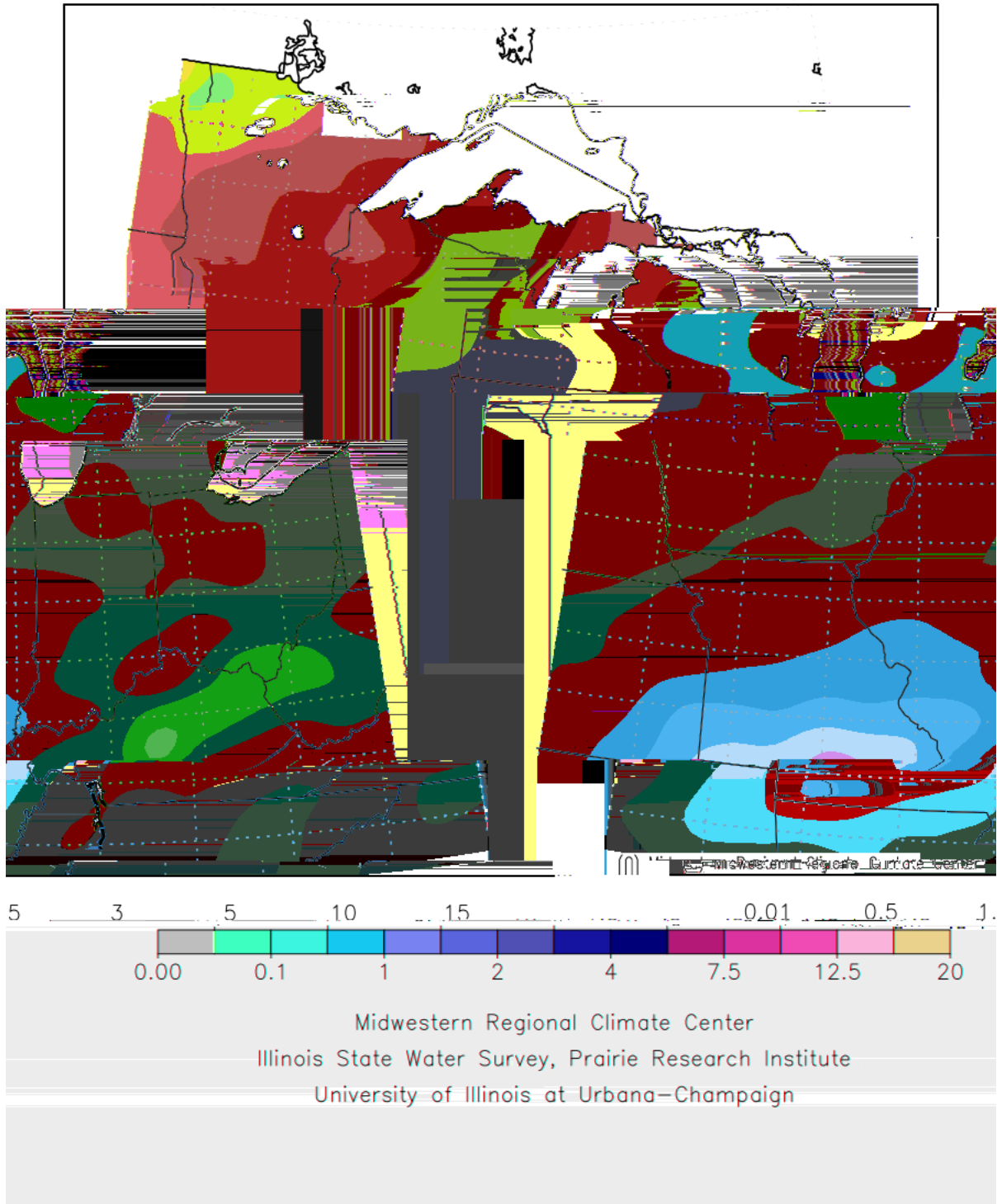


Figure 1. April Monthly Precipitation Totals

# Accumulated Precipitation: Percent of Mean

April 1, 2017, to April 30, 2017

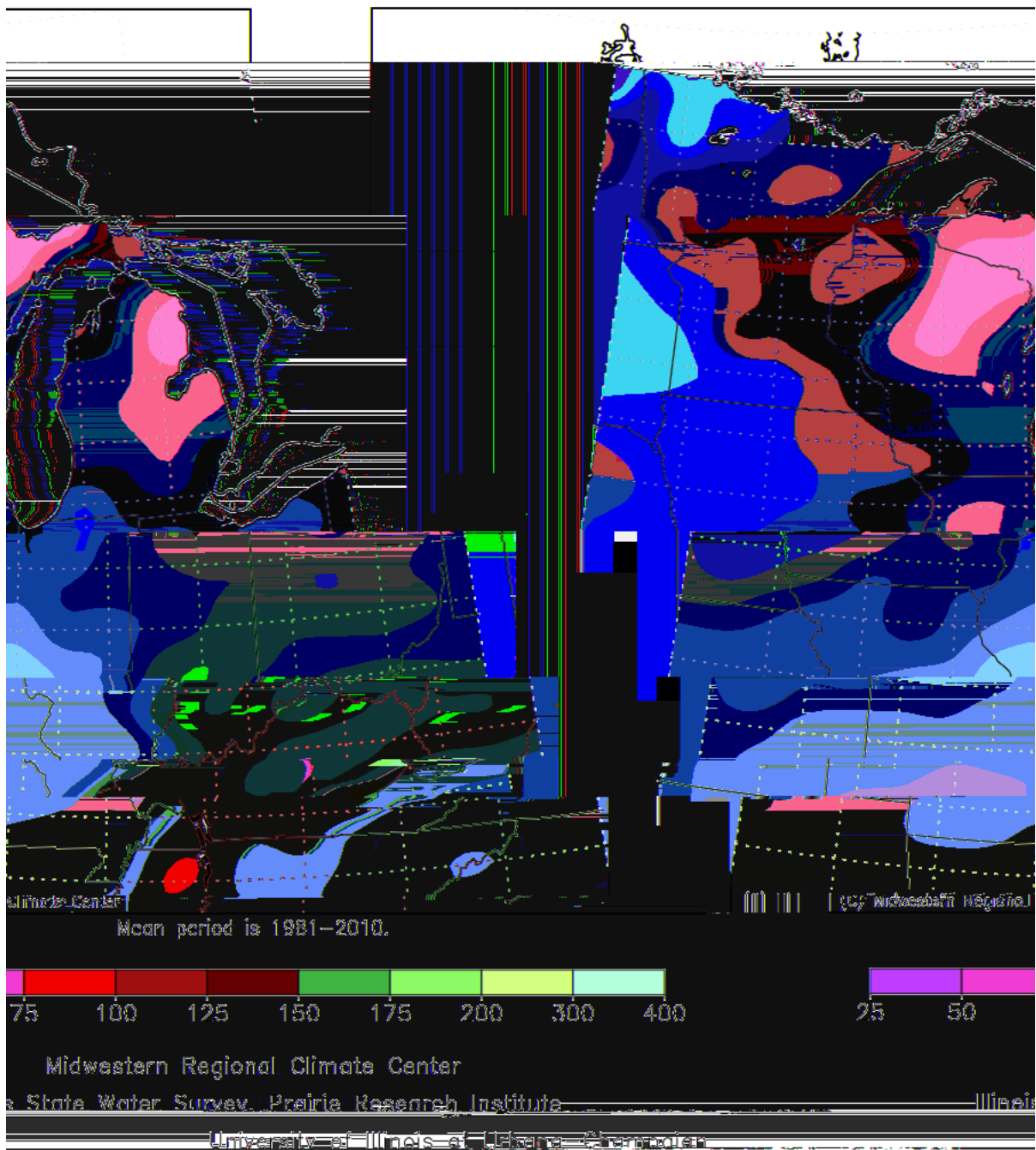


Figure 2. April Percent of Mean of Accumulated Precipitation



**Hydrologic Products issued this month:**

- 30 Hydrologic Summaries (ARBRVAGRR)
- 1 Probabilistic Hydrologic Outlook (ARBESFGRR)
- 3 Areal Flood Advisory Statements (ARBFLSGRR)
- 51 River Flood Statements (ARBFLSGRR)
- 85 River Flood Advisory Statements (ARBFLSGRR)
- 11 Flood Warnings (ARBFLWGRR)
- 36 Hydrologic Statements (ARBRVSGRR)
- 30 Daily River and Lake Summary (ARBRVDGRR)
- 6 River Flood Watch (ARBFFAGRR)
- 8 Areal Flood Watch (ARBFFAGRR)