

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

DATE:
February 2nd, 2018

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

SIGNATURE:
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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).

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

Summary

Flood impacts were minimal this month. Ice that existed in the rivers during the first half of the month created some high water values...but significant flooding was not observed. A heavier rainstorm that occurred toward the end of the month did generate considerable rises but any flooding was mostly of the nuisance variety.

Flood Conditions

Monday, January 22nd

At 11:50 AM EST a river flood warning was issued for the Looking Glass River near Eagle affecting Clinton County. Minor flooding was forecasted

Monday, January 22nd

At 9:00 PM EST the river flood warning was continued for the Looking Glass River near Eagle affecting Clinton County. Minor flooding was forecasted

Tuesday, January 23rd

At 11:43 AM EST the river flood warning was cancelled for the Looking Glass River near Eagle affecting Clinton County. The river crested below flood stage.

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

- Looking Glass River near Eagle, Michigan (9 days above bankfull)
- Maple River at Maple Rapids, Michigan (9 days above bankfull)
- Chippewa River at Mt Pleasant, Michigan (2 days above bankfull)
- Thornapple River at Hastings, Michigan (3 days above bankfull)
- Muskegon River near Evart, Michigan (6 days above bankfull)-
- Pere Marquette River near Scottville, Michigan (5 days above bankfull)
- White River near Whitehall, Michigan (2 days above bankfull)
- Sycamore Creek near Holt, Michigan (4 days above bankfull)
- Grand River at Ionia, Michigan (7 days above bankfull)
- Kalamazoo River near New Richmond, Michigan (3 days above bankfull)

Flood Stage Report

No forecast points exceeded flood stage in our HSA during the month of January 2018. As a result, no NWS Form E-3 “Flood Stage Report” was issued.

River Conditions

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

<u>Location</u>	<u>River</u>	<u>% of Normal</u>
Scottville	Pere Marquette	*
Whitehall	White	*
Evert	Muskegon	*
Mt. Pleasant	Chippewa	*
Lansing	Grand	177
Grand Rapids	Grand	*
East Lansing	Red Cedar	137
Hastings	Thornapple	176
Battle Creek	Battle Creek	195
Battle Creek	Kalamazoo	128

* Ice impacted

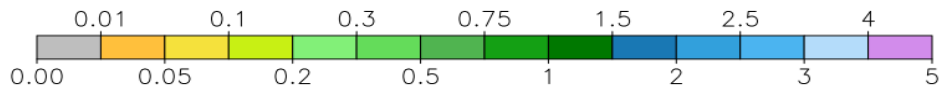
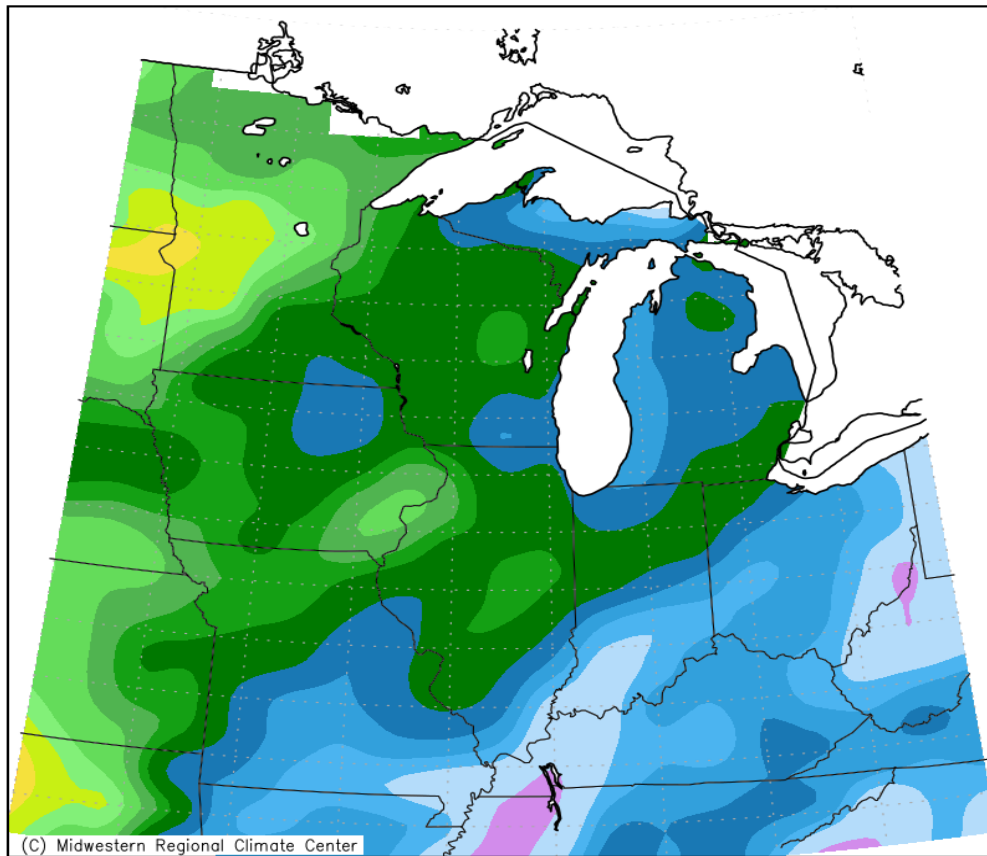
General Hydrologic Information

The month of January featured mostly near normal amounts of precipitation for much of the hydrologic service area, but above normal values fell in the Muskegon basin. Temperatures ended up above normal. Ice existed on many rivers to start the month as a cold snap persisted. The snowpack deepened during the first week with roughly 1.5 to 2.5 inches of water equivalent estimated to have existed. A warmup developed and melted nearly all of the snow for the middle part of the month. Water levels rose but significant impacts did not occur. The generally unseasonably mild pattern then persisted into the end of the month.

January precipitation for Grand Rapids, Lansing, and Muskegon, Michigan, was 2.12, 1.98, and 2.92 inches, respectively (Figure 1). Monthly departures were 0.03, 0.33 and 0.89 inches respectively. Yearly departures were 0.03, 0.33, and 0.89 inches for Grand Rapids, Lansing and Muskegon respectively. Percent of mean precipitation for January 2018 is shown in Figure 2.

Temperatures for the month of January were above normal at Grand Rapids, Lansing and Muskegon. The average monthly temperature departures for these sites were 0.5, 0.8 and 1.9 degrees Fahrenheit respectively.

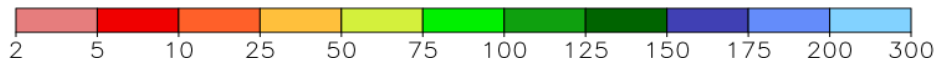
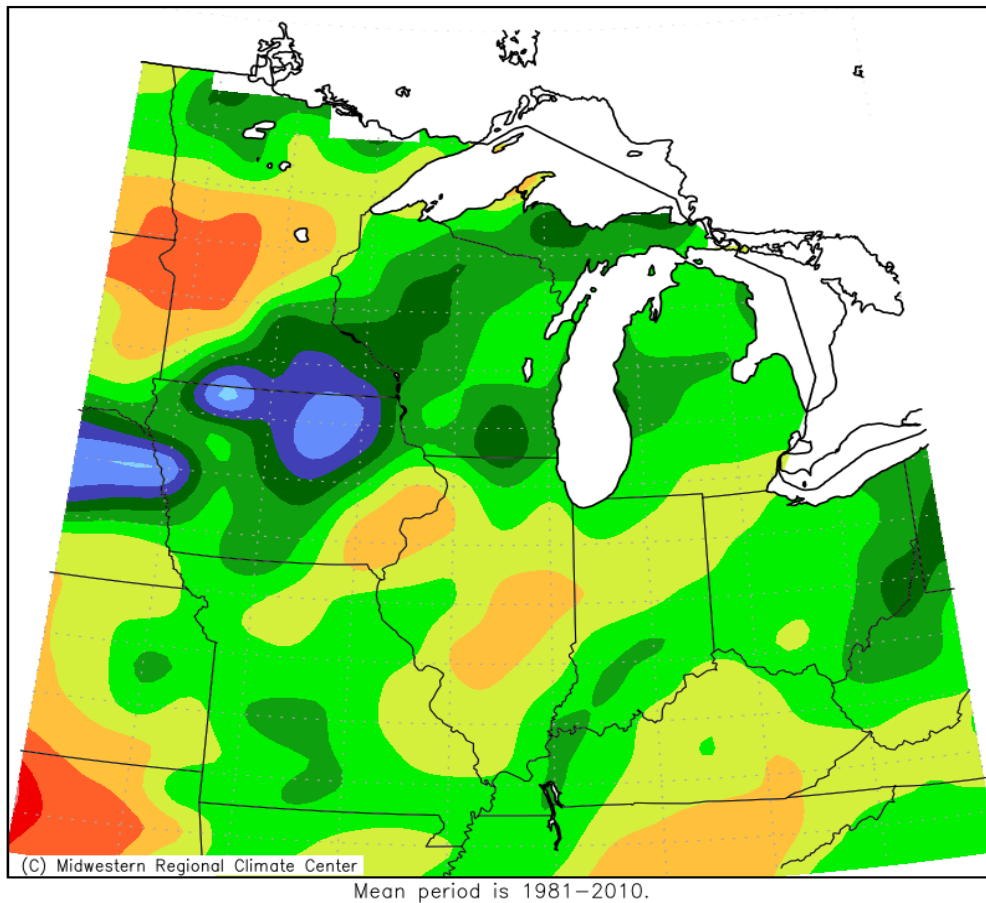
Accumulated Precipitation (in)
January 1, 2018 to January 31, 2018



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

Figure 1. January 2018 Monthly Precipitation Totals

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



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

Figure 2. January 2018 Percent of Mean of Accumulated Precipitation

Hydrologic Products issued this month:

- 31 Hydrologic Summaries (ARBRVAGRR)
- 1 Probabilistic Hydrologic Outlook (ARBESFGRR)
- 47 River Flood Advisory Statements (ARBFLSGRR)
 - 1 River Flood Warning (ARBFLWGRR)
 - 2 River Flood Warning Statements (ARBFLSGRR)
 - 3 Areal Flood Advisory Statements (ARBFLSGRR)
 - 6 River Flood Watch Statements (ARBFFAGRR)