

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

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

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

Summary

No significant flooding occurred during the month of November.

Flood Conditions

Monday, November 28th

At 3:59 PM EST a flood watch was issued for the lower half of our HSA through Wednesday in anticipation of one to three inches of additional rainfall, over the next 24 hours, over saturated ground. The watch talked about the possibility of flooding of small creeks and streams and water over roadways.

At 10:15 PM EST the flood watch was updated and continued through Wednesday morning.

Tuesday, November 29th

At 3:21 AM EST the flood watch was updated and continued through Wednesday morning. Rainfall amounts of around a half inch were reported overnight and one to two inches of rainfall was forecast for Tuesday.

At 10:09 AM EST a river flood warning was issued for the Grand River at Jackson, Michigan. The river stage at the time of issuance was 12.4 feet, and the river flood warning called for the river to crest near flood stage (14.0 feet) Wednesday morning.

At 3:38 PM EST the river flood warning for the Grand River at Jackson, Michigan was cancelled when the river crested below flood stage, at 13.06 feet at 3 PM EST, and was forecast to continue to fall.

At 4:22 PM EST the flood watch for the lower half of our HSA was cancelled.

The following rivers exceeded bankfull during the month of November:

- St. Joseph River near Burlington (2 days above bankfull)
- Sycamore Creek near Holt, Michigan (2 days above bankfull)
- Portage River near Vicksburg, Michigan (3 days above bankfull)
- Grand River at Jackson, Michigan (1 day above bankfull)

Flood Stage Report

No rivers exceeded flood stage during the month of November.

River Conditions

River levels across the HSA were above normal at the end of the month. 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	125
Whitehall	White	110
Evart	Muskegon	107
Mt. Pleasant	Chippewa	131
Lansing	Grand	380
Grand Rapids	Grand	180
East Lansing	Red Cedar	512
Hastings	Thornapple	225
Battle Creek	Battle Creek	259
Battle Creek	Kalamazoo	250

General Hydrologic Information

November 2011 had above normal temperatures with precipitation near normal for most of our HSA, except for the southeast portions of our HSA which had above normal precipitation. Snowfall for the month was below normal.

November precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 2.50, 3.24, and 3.28 inches, respectively (Figure 1). Precipitation totals for the month at these three sites were 1.01 inches below normal at Grand Rapids, 0.46 of an inch above normal at Lansing, and 0.08 of an inch below normal at Muskegon, Michigan (Figure 2). Yearly precipitation totals were 6.73 inches above normal for Grand Rapids, 6.77 inches above normal for Lansing, and 8.62 inches above normal for Muskegon, Michigan. Snowfall for the month of November at Grand Rapids, Lansing, and Muskegon, Michigan were 0.7 of an inch (-6.1 inches below normal), 8.2 inches (4.8 inches above normal), and 0.1 of an inch (-5.9 inches below normal), respectively.

Temperatures for the month of November were above normal at Grand Rapids, Lansing, and Muskegon, Michigan, with average monthly departures of +3.6, +3.5 and +4.0 degrees Fahrenheit, respectively.

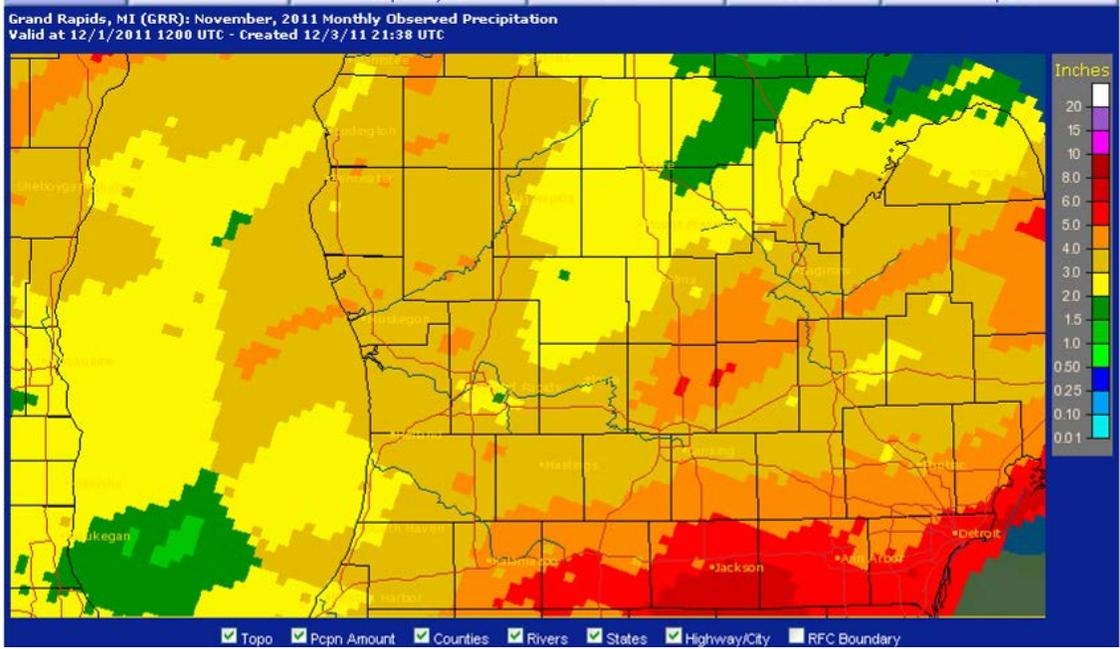


Figure 1. November 2011 Monthly Rainfall Totals

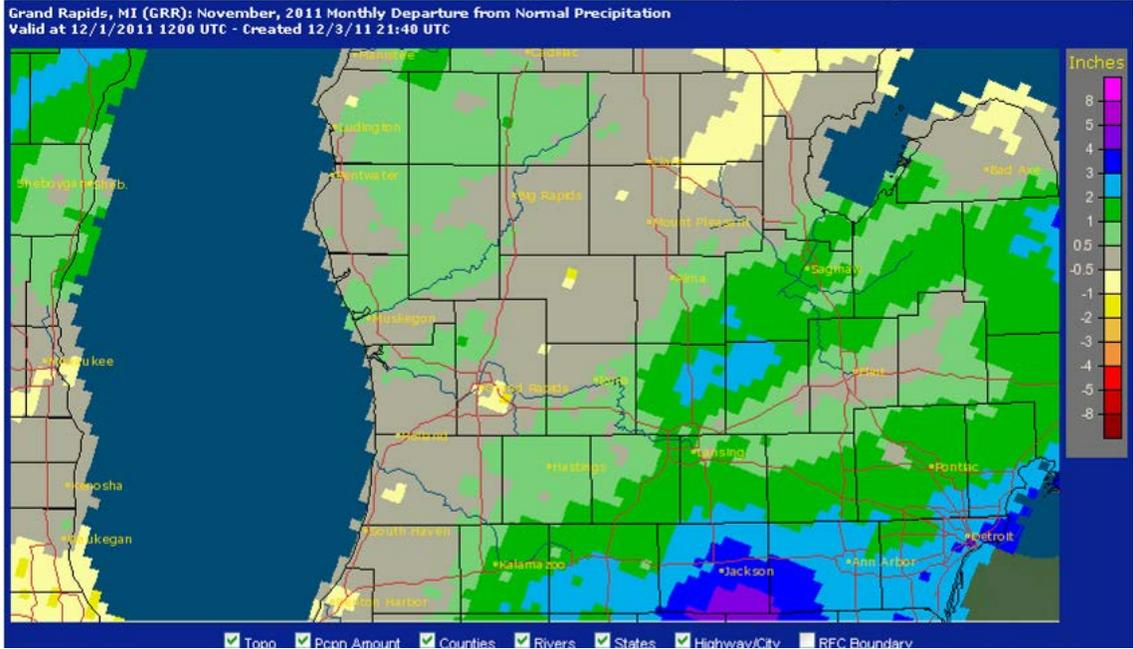


Figure 2. November 2011 Monthly Departure from Normal Rainfall Totals

Hydrologic Products issued this month:

4 Flood Watches (ARBFFAGRR)
1 River Flood Warning (ARBFLWGRR)
1 River Flood Statement (ARBFLSGRR)
6 River Flood Advisories (ARBFLSGRR)
16 Hydrologic Statements (ARBRVSGRR)
1 Probabilistic Hydrologic Outlook (ARBESFGRR)
30 Hydrologic Summaries (ARBRVAGRR)
30 Daily River and Lake Summaries (ARBRVDGRR)

News Articles and Related Documentation

None