

## 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:  
September 4, 2012

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

No significant flooding occurred in our Hydrologic Service Area (HSA) during the month of August. Several areal flood advisories were issued for counties in our HSA, but no significant flooding was reported. August will be most noted for its lack of severe weather. August had sufficient rainfall to reduce drought conditions across the area. At the end of the month, drought conditions across Southwest Lower Michigan had been downgraded from severe (D2) to moderate (D1)/abnormally dry (D0) categories.

### Flood Conditions

#### Friday, August 10<sup>th</sup>

At 10:05 AM EDT, an areal flood advisory was issued for Gratiot and Montcalm Counties until 4:00 PM EDT. Heavy rain was falling across the advisory area.

At 3:45 PM EDT, the areal flood advisory for Gratiot and Montcalm Counties was extended until 4:00 PM EDT Saturday. Local law enforcement officials reported minor flooding in the advisory area.

At 3:49 PM EDT, an areal flood advisory was issued for Isabella County until 4:00 PM EDT Saturday. Heavy rain was falling across the advisory area.

At 10:42 PM EDT, the areal flood advisory for Isabella County remained in effect until 4:00 PM EDT Saturday. Rain was winding down but the runoff continued.

At 10:46 PM EDT, the areal flood advisory for Montcalm and Gratiot Counties remained in effect until 4:00 PM EDT Saturday. Rain was winding down but the runoff continued.

#### Saturday, August 11<sup>th</sup>

At 9:23 AM EDT, the areal flood advisory for Isabella County was cancelled.

At 9:23 AM EDT, the areal flood advisory for Gratiot and Montcalm Counties was cancelled.

#### Sunday, August 26<sup>th</sup>

At 11:16 PM EDT, an areal flood advisory was issued for Kalamazoo and Van Buren Counties until 11:00 AM EDT Monday. Heavy rain was falling across the advisory area.

Monday, August 27<sup>th</sup>

At 4:28 AM EDT the areal flood advisory for Kalamazoo and Van Buren Counties was cancelled. No flooding was reported.

No rivers exceeded their banks during the month of August.

**Flood Stage Report**

No rivers exceeded flood stage during the month of August.

**River Conditions**

River levels across the HSA were near to below 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	79
Whitehall	White	78
Evart	Muskegon	87
Mt. Pleasant	Chippewa	84
Lansing	Grand	45
Grand Rapids	Grand	78
East Lansing	Red Cedar	55
Hastings	Thornapple	96
Battle Creek	Battle Creek	57
Battle Creek	Kalamazoo	74

**General Hydrologic Information**

For our HSA, precipitation was near to below normal and temperatures were near normal for August 2012. Rainfall during the month of August provided much needed relief to many areas of our HSA being impacted by drought, reducing the drought severity in Southwest Lower Michigan in some areas from severe drought (D2) to moderate drought (D1) and in other areas from moderate drought (D1) to abnormally dry (D0).

August precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 3.34, 3.85, and 1.58 inches, respectively (Figure 1). Precipitation totals for the month at these three sites were 0.25 of an inch below normal at Grand Rapids, 0.62 of an inch above normal at Lansing, and 1.81 inches below normal at Muskegon, Michigan (Figure 2). Yearly precipitation totals were 2.50 inches below normal for Grand Rapids, 2.38 inches below normal for Lansing, and 0.34 of an inch below normal for Muskegon, Michigan.

Temperatures for the month of August were near normal at Grand Rapids, Lansing, and Muskegon, Michigan, with average monthly departures of +0.0, +0.3 and +0.1 degrees Fahrenheit, respectively.

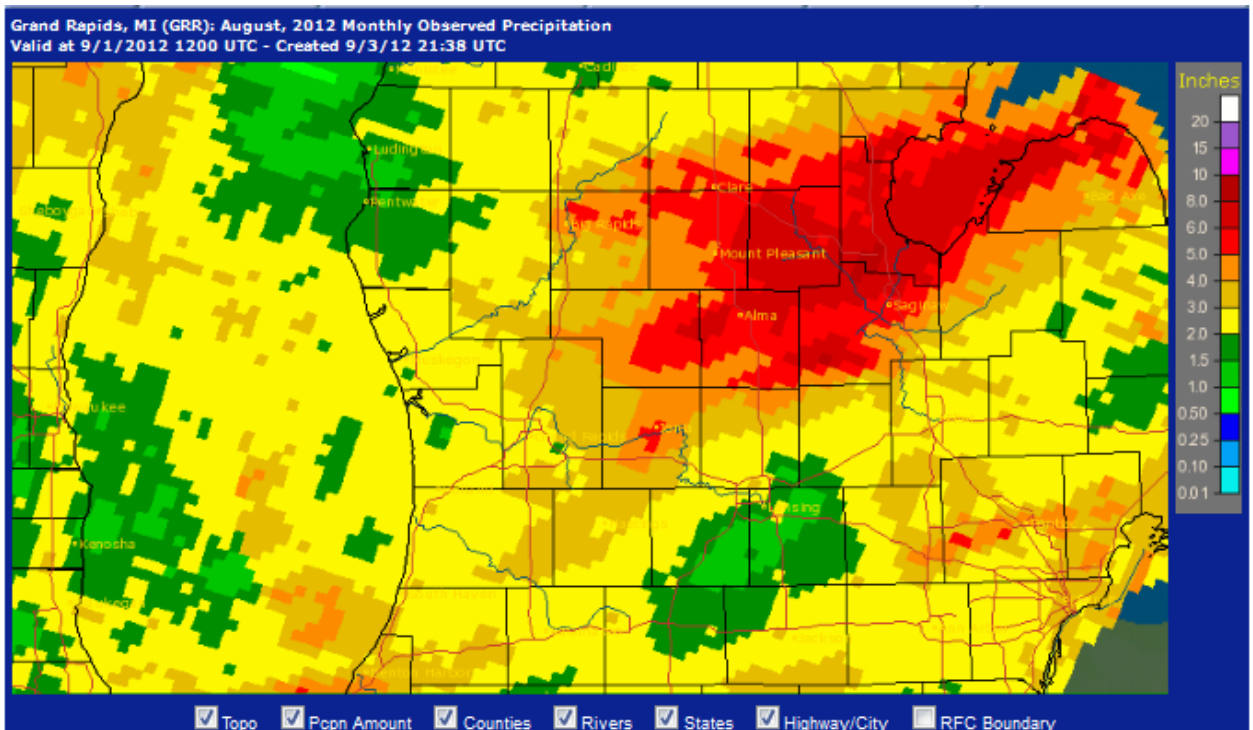


Figure 1. August 2012 Monthly Precipitation Totals

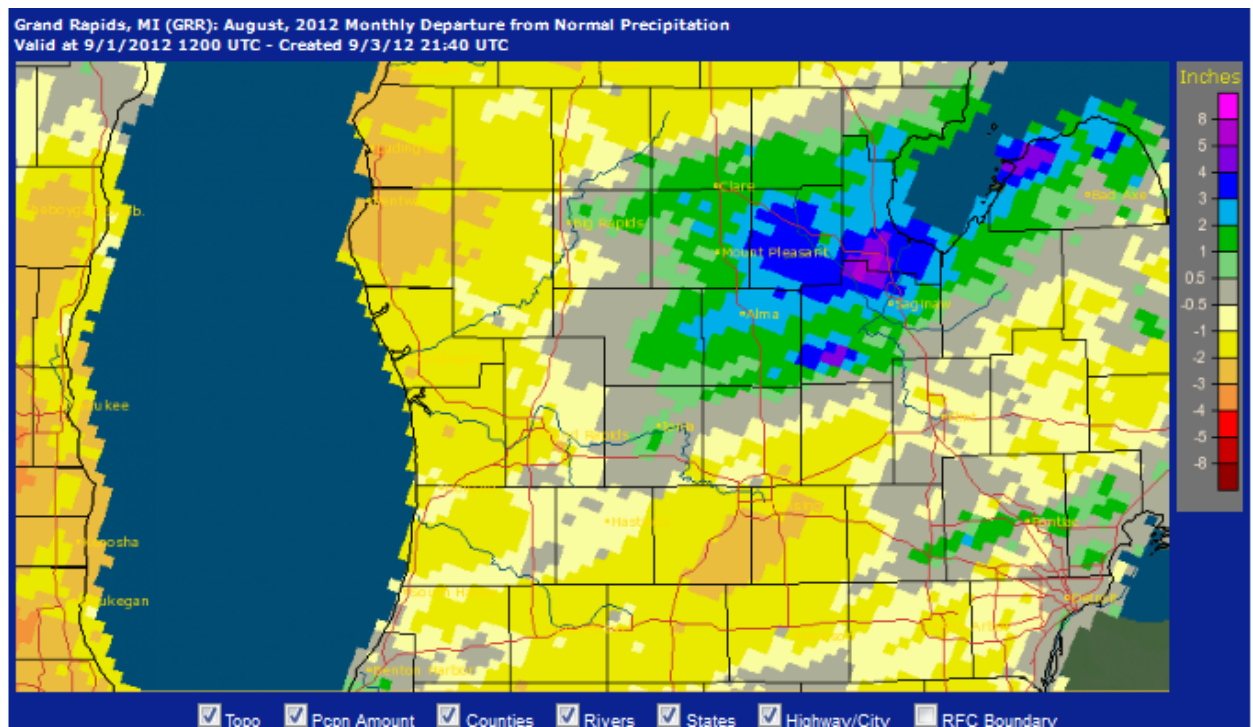


Figure 2. August 2012 Monthly Departure from Normal Precipitation Totals

**Hydrologic Products issued this month:**

- 9 Areal Flood Advisories (ARBFLSGRR)
- 2 Drought Information Statements (ARBDGTGRR)
- 1 Probabilistic Hydrologic Outlook (ARBESFGRR)
- 31 Daily River and Lake Summaries (ARBRVDGRR)
- 31 Hydrologic Summaries (ARBRVAGRR)

**News Articles and Related Documentation**

None