

**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 July in our Hydrologic Service Area (HSA). Flood advisories were issued for 16 of our 23 Counties in our HSA. No significant property damages were reported and no lives were lost during the minor nuisance flooding events that occurred in July.

**Flood Conditions**

Only minor nuisance flooding occurred during the month of July. Late on July 3<sup>rd</sup> and into the 4<sup>th</sup>, flood advisories were issued for Mason, Lake, Osceola, Oceana, Newaygo, Mecosta, and Isabella Counties when heavy rainfall associated with a line of thunderstorms moved through the area and resulted in ponding of water on local area roads. On July 17<sup>th</sup> a flood advisory was issued for Clare County when radar estimated rainfall totals in excess of 3 inches over the Western portions of the county. On July 18<sup>th</sup>, a flood advisory was issued for Isabella County when thunderstorms producing heavy rain moved through the area, no nuisance flooding was reported with this event or for the event on the 17<sup>th</sup>. On July 25<sup>th</sup>, flood advisories were issued for Eaton, Barry, Kalamazoo, Calhoun, Ionia, Clinton, and Montcalm Counties when a line of thunderstorms with heavy rain moved through the area and resulted in ponding of water on local area roads. Finally, on July 26<sup>th</sup>, a flood advisory was issued for Jackson County when radar estimated rainfall in excess of two inches an hour occurred in the Southwest portion of the County, no flooding reports were received from the county. For the month of July, no significant property damage was reported and no lives were lost during the minor nuisance flooding events that occurred during the month.

**Flood Stage Report**

No rivers exceeded flood stage during the month of July.

**River Conditions**

River levels by the end of July were near to below normal for the majority of the rivers in our HSA.

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	108
Whitehall	White	90
Evart	Muskegon	80
Mt. Pleasant	Chippewa	97
Lansing	Grand	100
Grand Rapids	Grand	72
East Lansing	Red Cedar	88
Hastings	Thornapple	68
Battle Creek	Battle Creek	77
Comstock	Kalamazoo	91

### **General Hydrologic Information**

For the month of July, precipitation totals were below normal, and temperatures were near normal for Grand Rapids, Lansing and Muskegon, Michigan.

July precipitation totals at Grand Rapids, Lansing, and Muskegon, were 1.24, 0.71, and 1.65 inches, respectively. Precipitation for the month at these three sites was 2.32 inches below normal at Grand Rapids, 1.97 inches below normal at Lansing, and 0.67 on an inch below normal at Muskegon, Michigan. For the year, precipitation totals were below normal at Grand Rapids, Lansing, and Muskegon, Michigan. Yearly precipitation totals were 1.97 inches below normal for Grand Rapids, 1.55 inches below normal for Lansing, and 1.15 inches below normal for Muskegon, Michigan. The lack of precipitation came at a critical time during the growing season and as a result, we issued our first drought statement at the end of the month for Southwest Lower Michigan. Portions of our HSA were categorized to be in a moderate drought by the end of July.

Temperatures for the month of July were near normal at Grand Rapids, Lansing, and Muskegon, with average monthly departures of +0.8, 0.0 and -0.4 degrees Fahrenheit, respectively.

### **Hydrologic Products issued this month:**

- 18 Flood Statements (ARBFLSGRR) were issued
- 2 Hydrologic Outlooks (ARBESFGRR) were issued
- 31 Hydrologic Summary's (ARBRVAGRR) were issued
- 31 Daily River and Lake Summary's (ABRRVDGRR) were issued