

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

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 in our Hydrologic Service Area (HSA).

Flood Conditions

No flooding occurred during the month of November.

Flood Stage Report

No rivers exceeded flood stage during the month of November.

River Conditions

River levels by the end of November were near to below normal for 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	78
Whitehall	White	62
Evart	Muskegon	54
Mt. Pleasant	Chippewa	65
Lansing	Grand	133
Grand Rapids	Grand	104
East Lansing	Red Cedar	114
Hastings	Thornapple	78
Battle Creek	Battle Creek	106
Comstock	Kalamazoo	114

General Hydrologic Information

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

November precipitation totals at Grand Rapids, and Lansing, Michigan, were 1.06, and 1.36, inches, respectively. The November precipitation total at Muskegon, Michigan, set an all time low at 0.50 of an inch. Precipitation totals for the month at these three sites were 2.29 inches below normal at Grand Rapids, 1.30 inches below normal at Lansing, and 2.73 inches below normal at Muskegon, Michigan. Snowfall totals for the month at Grand Rapids, Lansing, and Muskegon were below normal with readings of 2.9, 3.0, and 0.1 of an inch, respectively. For the year, precipitation totals were near to below normal at Grand Rapids, Lansing, and Muskegon, Michigan. Yearly precipitation totals were 4.70 inches below normal for Grand Rapids, 0.44 of an inch below normal for Lansing, and 4.36 inches below normal for Muskegon, Michigan. At the end of the month, the snow depth was 2 inches at Grand Rapids, and only a trace at Lansing and Muskegon, Michigan.

Temperatures for the month of November were near normal at Grand Rapids, Lansing, and Muskegon, with average monthly departures of +0.6, -0.4 and -0.2 degrees Fahrenheit, respectively.

Hydrologic Products issued this month:

- 1 Hydrologic Outlook (ARBESFGRR) was issued
- 30 Hydrologic Summary's (ARBRVAGRR) were issued