

**MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS**

REPORT FOR (MONTH & YEAR):  
**January 2011**

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

DATE:  
February 28, 2011

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 rivers exceeded flood stage during the month of January in our Hydrologic Service Area (HSA).

**Flood Conditions**

None to report.

**Flood Stage Report**

No rivers in Southwest Lower Michigan exceeded flood stage during the month of January.

**River Conditions**

River levels by the end of January were near to below normal across our HSA. Ice coverage on rivers was above normal at the end of January. 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	124
Whitehall	White	102
Evert	Muskegon	98
Alma	Pine	103
Lansing	Grand	55
Grand Rapids	Grand	110
East Lansing	Red Cedar	52
Hastings	Thornapple	66
Battle Creek	Battle Creek	65
New Richmond	Kalamazoo	100

## **General Hydrologic Information**

January 2011 was slightly colder than normal with precipitation, especially in the form of snow, above normal along the lakeshore but near normal across the rest of our HSA.

January precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan were 1.31, 0.88, and 3.26 inches, respectively. Precipitation totals for the month at these three sites were 0.72 of an inch below normal at Grand Rapids, 0.73 of an inch below normal at Lansing, and 1.04 inches above normal at Muskegon, Michigan.

Snowfall totals for January at Grand Rapids, Lansing, and Muskegon, Michigan were 21.2, 13.8, and 52.9 inches, respectively. Snowfall totals for the month at these three sites were 0.1 of an inch above normal at Grand Rapids, 0.2 of an inch below normal at Lansing, and 18.5 inches above normal at Muskegon, Michigan. Snow depths at Grand Rapids, Lansing, and Muskegon, Michigan at the end of the month were 7.0, 7.0 and 14.0 inches, respectively (Figure 1). Snow water equivalent of the snowpack ranged from one to three inches, with the higher amounts closest to the lake.

Temperatures for the month of January were below normal at Grand Rapids, Lansing, and Muskegon, Michigan, with average monthly departures of -1.0, -2.4 and -1.4 degrees Fahrenheit, respectively.

Frost depths across the HSA were five inches or less.

## Snow Depth

2011-01-31 06

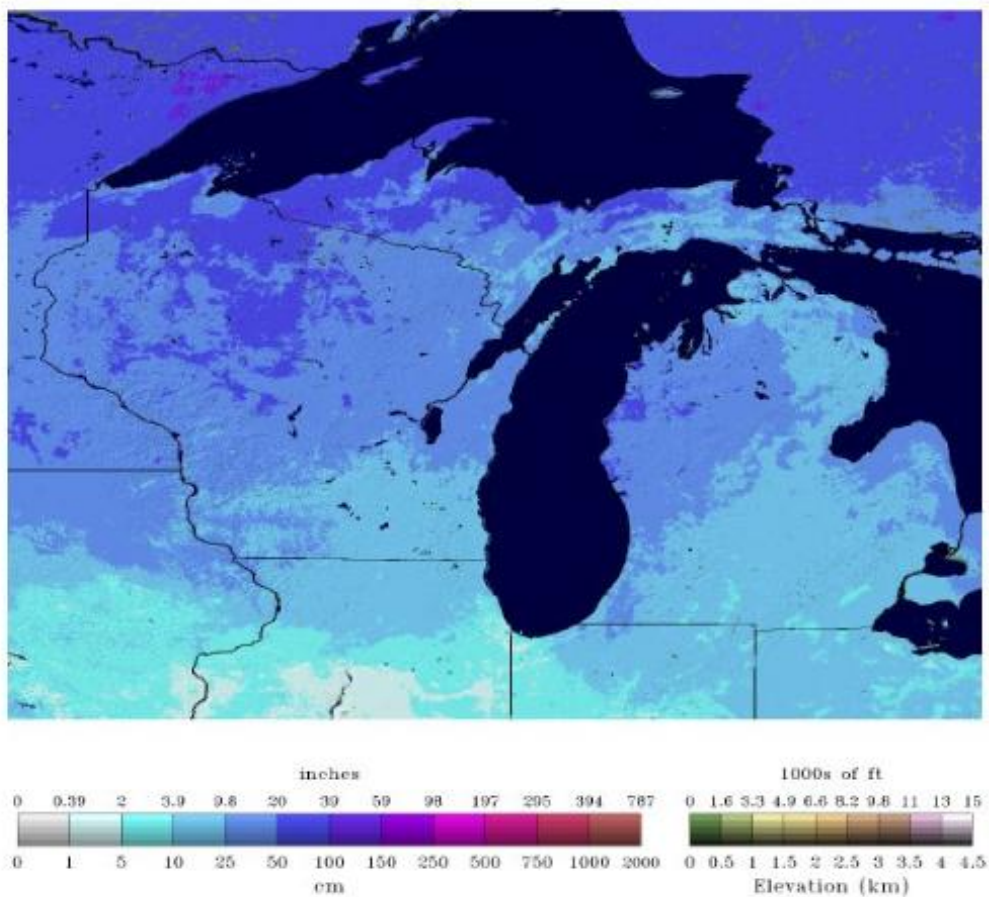


Figure 1. Snow depth at the end of January 2011.

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

- 31 Hydrologic Statements (ARBRVSGRR)
- 2 Probabilistic Hydrologic Outlooks (ARBESFGRR)
- 31 Hydrologic Summaries (ARBRVAGRR)

### **Monthly News Articles**

None