

NWS FORM E-5

U.S. DEPARTMENT OF COMMERCE
NOAA, NATIONAL WEATHER SERVICE

HSA OFFICE:

Grand Rapids, MI

REPORT FOR (MONTH & YEAR):

February 2014

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

DATE:

April 8, 2014

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

SIGNATURE:

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Mark L. Walton/Mark Sekelsky

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 in our Hydrologic Service Area (HSA) during the month of February 2014.

Flood Conditions

No rivers exceeded bankfull in our HSA during the month of February 2014.

Flood Stage Report

No rivers exceeded flood stage in our HSA during the month of February 2014.

River Conditions

Significant ice had developed on most rivers. 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	85*
Whitehall	White	68*
Evert	Muskegon	111*
Mt. Pleasant	Chippewa	200*
Lansing	Grand	80
Grand Rapids	Grand	117
East Lansing	Red Cedar	72*
Hastings	Thornapple	100*
Battle Creek	Battle Creek	118*
Battle Creek	Kalamazoo	93*

* Ice Impacted

General Hydrologic Information

February 2014 was much colder and snowier than normal across Southwest Lower Michigan. February precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 2.35, 1.76, and 1.81 inches, respectively (Figure 1). Precipitation totals for the month at these three sites were 0.56 of an inch above normal at Grand Rapids, 0.29 of an inch above normal at Lansing, and 0.02 of an inch below normal at Muskegon, Michigan (Figure 2).

Snowfall totals for the month of February at Grand Rapids, Lansing, and Muskegon, Michigan were 29 (14.2 above), 18 (6.4 above), and 27.1 (7.8 above) inches respectively.

Temperatures for the month of February were significantly below normal at Grand Rapids, Lansing, and Muskegon, Michigan, with average monthly departures of -9.1, -9.2 and -8.8 degrees Fahrenheit, respectively.

The cold temperatures allowed for continued ice development on area rivers.

At the end of February, the frost depth ranged from 2 to 4 inches.

Snow depth ranged from 8 inches over south central Lower Michigan to near 24 inches near the lakeshore of northwest Lower Michigan (Figure 3). Water in the snowpack ranged from 2 to 6 inches (Figure 4) over Southwest Lower Michigan.

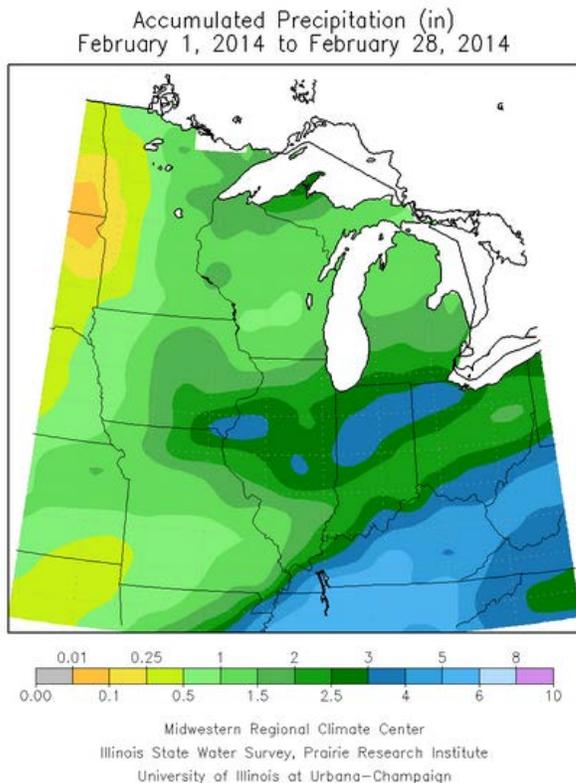


Figure 1. February Monthly Precipitation Totals

Accumulated Precipitation: Percent of Mean
February 1, 2014 to February 28, 2014

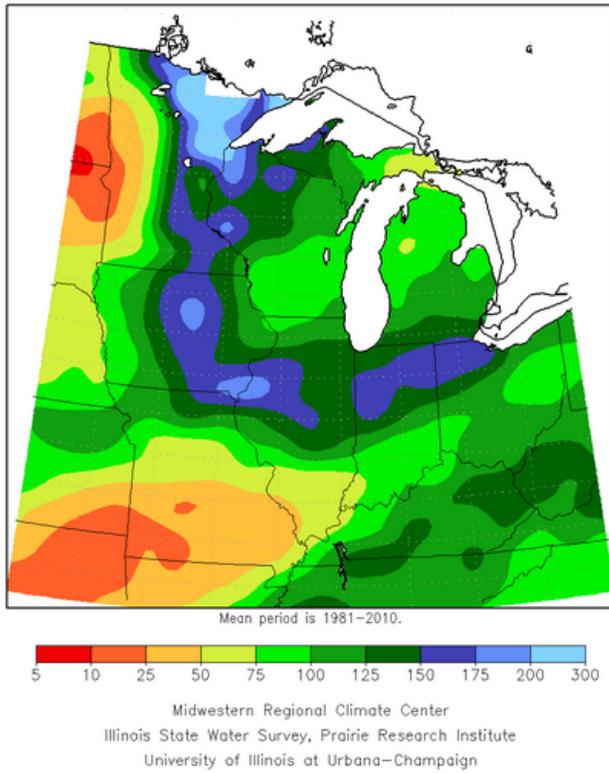


Figure 2. February Percent of Mean of Accumulated Precipitation

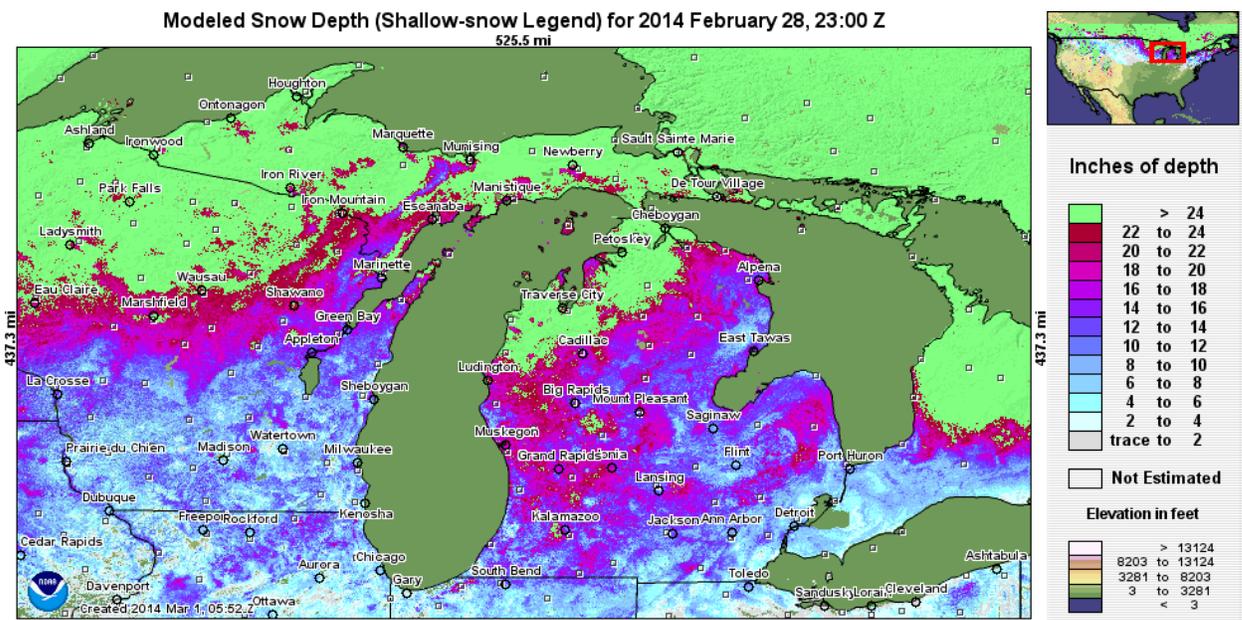


Figure 3. End of the Month Snow Depth for February

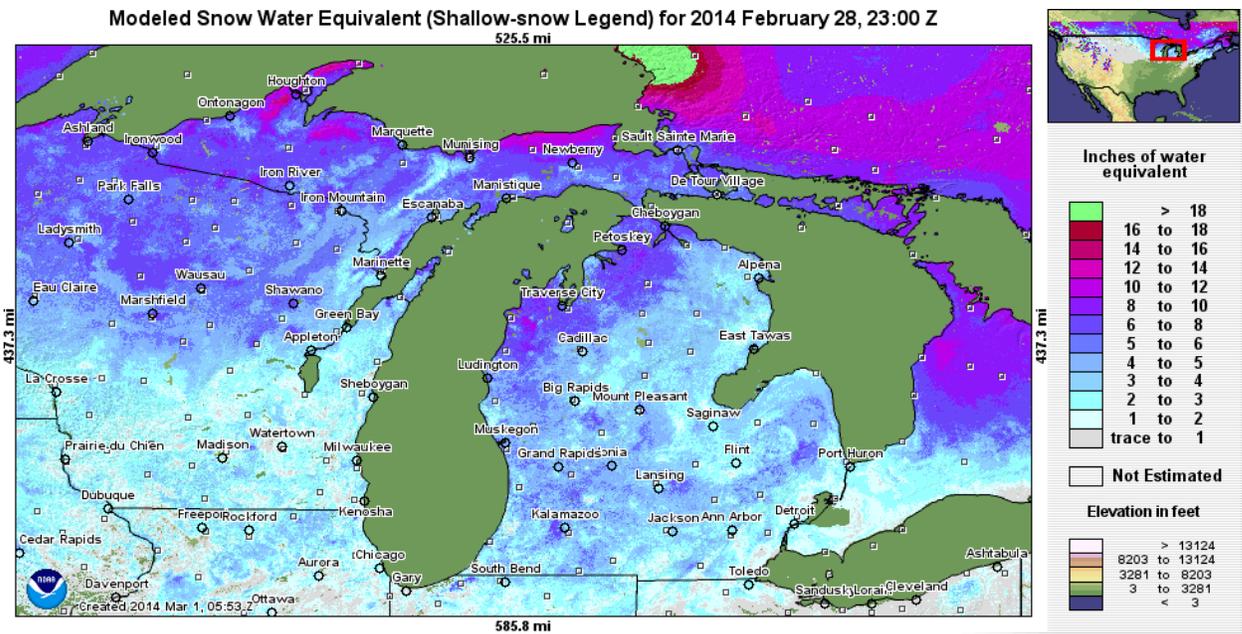


Figure 4. End of the Month Snow Water Equivalent for February

Hydrologic Products issued this month:

- 5 Hydrologic Statements (ARBRVSGRR)
- 4 Hydrologic Outlooks (ARBESFGRR)
- 28 Hydrologic Summaries (ARBRVAGRR)