

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

DATE:

February 10, 2015

SIGNATURE:

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

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**

Temperatures ended up lower than normal and precipitation less than normal for the hydrologic service area. River levels generally fell through the month with ice formation occurring.

**Flood Conditions**

No significant flooding occurred. Several advisories were issued and were associated with ice jams. The nuisance flooding subsided by the end of the month

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The following rivers exceeded bankfull during the month of January 2015:

- Pere Marquette River at Scottville, Michigan (3 days above bankfull)
- Flat River at Smyrna, Michigan ( 10 days above bankfull)

**Flood Stage Report**

No forecast points exceeded flood stage in our HSA during the month of January 2015. As a result, no NWS Form E-3 "Flood Stage Report" was sent.

## **River Conditions**

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	*
Whitehall	White	*
Ewart	Muskegon	*
Mt. Pleasant	Chippewa	*
Lansing	Grand	65
Grand Rapids	Grand	*
East Lansing	Red Cedar	72
Hastings	Thornapple	84
Battle Creek	Battle Creek	91
Battle Creek	Kalamazoo	82

\* - Ice Affected

## **General Hydrologic Information**

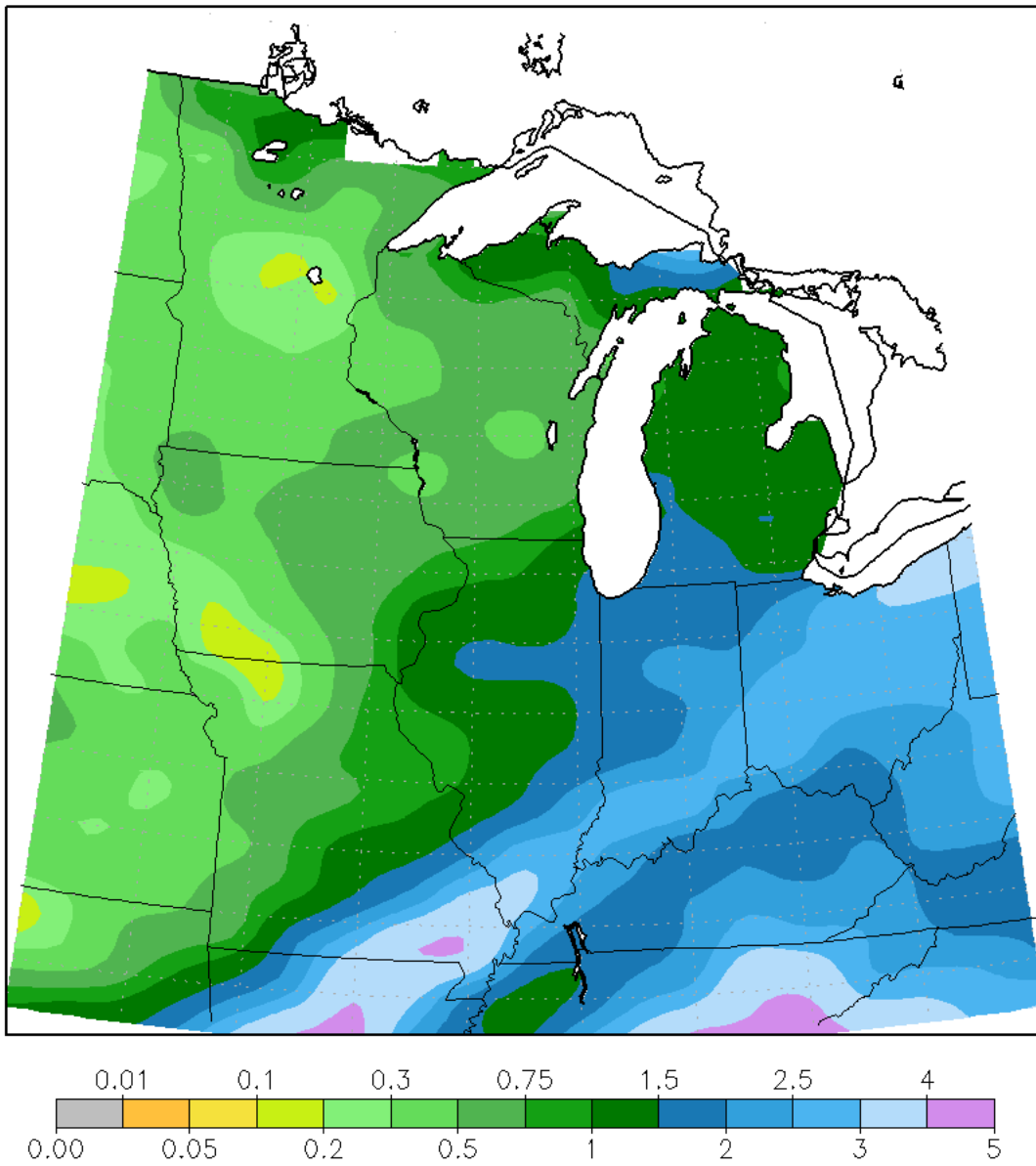
January 2015 featured well below normal temperatures and generally below normal precipitation. January precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 1.87, 1.35, and 1.72 inches, respectively (Figure 1). Precipitation departures for the month at these three sites were 0.22 of an inch below normal at Grand Rapids, 0.30 inches below normal at Lansing, and 0.31 of an inch below normal at Muskegon. Percent of mean precipitation for January 2015 is shown in Figure 2. Yearly precipitation departures were 0.22 inches below normal for Grand Rapids, 0.30 inches below normal for Lansing, and 0.31 inches below normal for Muskegon, Michigan.

Temperatures for the month of January were below normal at Grand Rapids, Lansing, and Muskegon. The average monthly departures were, 3.2, 3.1, and 2.0 degrees Fahrenheit respectively.

The month started off very cold. This supported widespread ice formation on area rivers. The weather remained cold into the end of the month resulting in many ice affected gages. Despite the presence of ice in the rivers, very little impact was noted.

By the end of the month, snow water equivalent values ranged from around an inch for the Kalamazoo and Grand basins, to around 2 inches for the Muskegon, White and Pere Marquette basins.

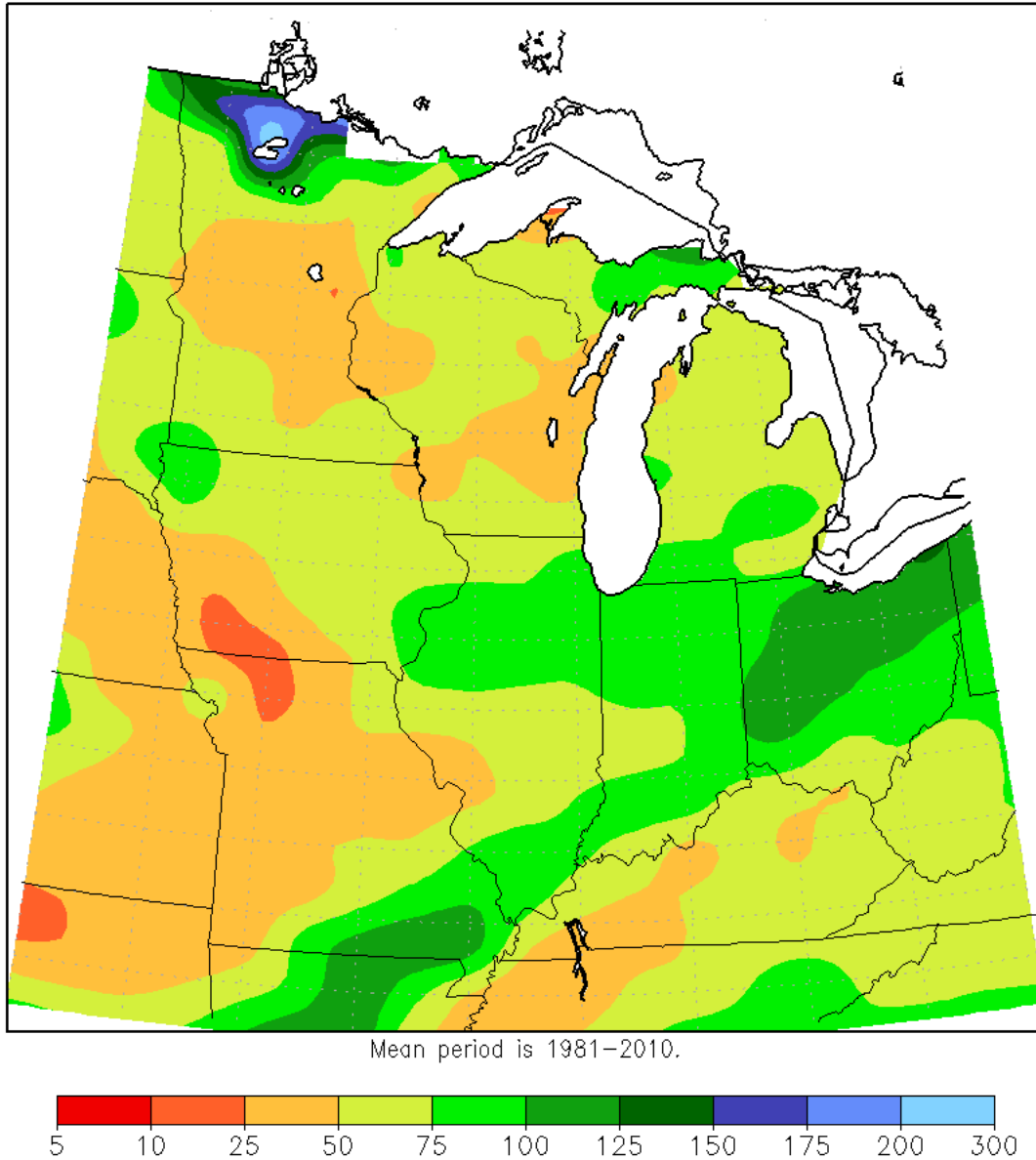
Accumulated Precipitation (in)  
January 1, 2015 to January 31, 2015



Midwestern Regional Climate Center  
Illinois State Water Survey, Prairie Research Institute  
University of Illinois at Urbana-Champaign

Figure 1. January Monthly Precipitation Totals

Accumulated Precipitation: Percent of Mean  
January 1, 2015 to January 31, 2015



Midwestern Regional Climate Center  
Illinois State Water Survey, Prairie Research Institute  
University of Illinois at Urbana–Champaign

Figure 2. January Percent of Mean of Accumulated Precipitation

**Hydrologic Products issued this month:**

18 River Flood Advisories (ARBFLSGRR)

1 Hydrologic Outlook (ARBESFGRR)

5 River Statements (ARBRVSGRR)

31 Hydrologic Summaries (ARBRVAGRR)

**News Articles and Related Documentation**

None