NWS FORM E-5

U.S. DEPARTMENT OF COMMERCE

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

NATIONAL WEATHER SERVICE (W/OS31) HYDROMETEOROLOGICAL INFO CENTER

1325 EAST-WEST HIGHWAY, RM 13468

SILVER SPRING, MD 20910

NOAA, NATIONAL WEATHER SERVICE

HSA OFFICE: Grand Rapids, MI

REPORT FOR (MONTH &YEAR):

December 2015

DATE:

February 5th, 2015

SIGNATURE:

Daniel K. Cobb, MIC

Mark Sekelsky, Lead Forecaster

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

December was a warm and wet month for much of the region. No major rain events occurred, thus, no significant hydrologic impacts were observed. A rainfall event at the end of the month caused rivers levels to rise to above normal values. One forecast point topped bankfull level as a result of this rain event.

Flood Conditions

Saturday, December 26th

At 12:10 PM EST, a flood advisory was issued for Sycamore Creek near Holt. Forecasted rainfall was expected to cause the river to rise above bankfull which is 6.0 ft. The river was forecasted to crest on Sunday at 6.5 ft.

Sunday, December 27th

At 11:22 AM EST, the flood advisory was cancelled for Sycamore Creek near Holt.

Wednesday, December 30th

At 2:11 PM EST, A flood advisory was issued for Sycamore Creek near Holt. The river was forecasted to crest on Thursday at 6.4 ft.

Wednesday, December 30th

At 9:36 PM EST, the flood advisory was cancelled for Sycamore Creek near Holt. The river was no longer forecasted to crest above bankfull stage.

TO:

No river exceeded bankfull during the month of December 2015:

Flood Stage Report

No gage exceeded flood stage in December thus no NWS Form E-3 "Flood Stage Report" was sent.

River Conditions

The end of the December's percentage of normal flow for selected rivers is listed below:

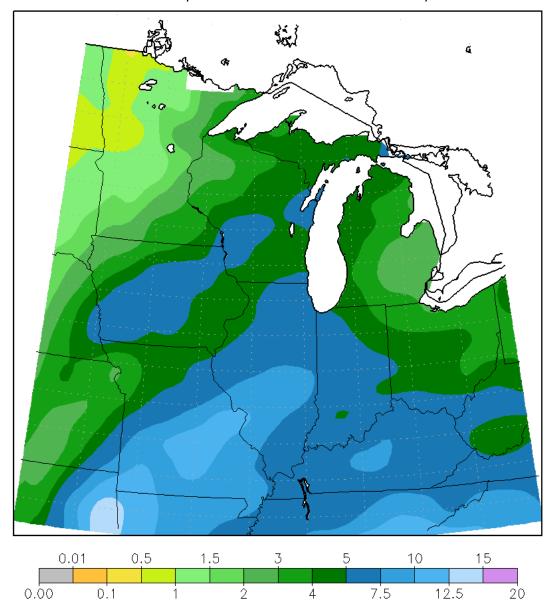
River	% of Normal
Pere Marquette	147
White	151
Muskegon	207
Chippewa	179
Grand	236
Grand	147
Red Cedar	255
Thornapple	177
Battle Creek	229
Kalamazoo	146
	Pere Marquette White Muskegon Chippewa Grand Grand Red Cedar Thornapple Battle Creek

General Hydrologic Information

December precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 3.33, 2.72, and 4.90 inches, respectively (Figure 1). Precipitation departures for the month at these three sites were 0.83 inches above normal at Grand Rapids, 0.85 inches above normal at Lansing, and 2.35 inches above normal at Muskegon. Percent of mean precipitation for December 2015 is shown in Figure 2. Yearly precipitation departures were 5.16 inches below normal for Grand Rapids, 2.75 inches above normal for Lansing, and 2.90 inches above normal for Muskegon.

Temperatures for the month of December were well above normal at Grand Rapids, Lansing, and Muskegon. The average monthly temperature departures were, 9.9, 10.7, and 9.6 degrees Fahrenheit respectively.

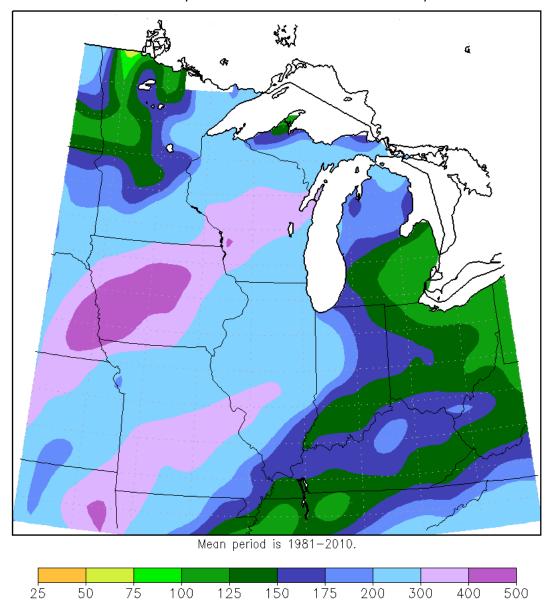
Accumulated Precipitation (in) December 1, 2015 to December 31, 2015



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

Figure 1. December Monthly Precipitation Totals

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



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

Figure 2. December Percent of Mean of Accumulated Precipitation

Hydrologic Products issued this month:

- 1 Hydrologic Outlook (ARBESFGRR)
- 31 Hydrologic Summaries (ARBRVAGRR)
 - 4 River Flood Statements(ARBFLSGRR)
- 10 River Statements(ARBRVSGRR)

News Articles and Related Documentation

None