

NWS FORM E-5

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

HSA OFFICE:
Grand Rapids, MI

REPORT FOR (MONTH & YEAR):
December 2009

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

DATE:
January 19, 2010

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, Service Hydrologist

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 December.

Flood Conditions

None

Flood Stage Report

No rivers exceeded flood stage this month.

River Conditions

River levels by the end of December were near to slightly above 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	128
Whitehall	White	122
Evert	Muskegon	145
Mt. Pleasant	Chippewa	138
Lansing	Grand	142
Grand Rapids	Grand	142
East Lansing	Red Cedar	168
Hastings	Thornapple	176
Battle Creek	Battle Creek	183
Comstock	Kalamazoo	128

General Hydrologic Information

December 2009 had near normal precipitation and temperatures. December precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan were 2.99, 1.52, and 3.32 inches, respectively. Precipitation totals for the month at these three sites were 0.29 of an inch above normal at Grand Rapids, 0.65 of an inch below normal at Lansing, and 0.68 of an inch above normal at Muskegon, Michigan. Precipitation totals for the year ended up 5.72 inches above normal for Grand Rapids, 6.58 inches above normal for Lansing, and 5.29 inches above normal for Muskegon, Michigan. Snowfall totals for the month at Grand Rapids, Lansing, and Muskegon were 35.4 (+16.6), 11.4 (-1.8), and 33.6 (+4.3) inches, respectively. At the end of the month the snow depth was 4 inches at Grand Rapids, 3 inches at Lansing, and 8 inches at Muskegon, Michigan.

Temperatures for the month of December were near normal at Grand Rapids, Lansing, and Muskegon, with average monthly departures of +0.3, +0.4 and 0.0 degrees Fahrenheit, respectively. Frost Depths across the HSA were zero to two inches at the end of the month.

Hydrologic Products issued this month:

31 Hydrologic Summaries (ARBRVAGRR)