

NWS FORM E-5

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

HSA OFFICE:
Grand Rapids, MI

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

REPORT FOR (MONTH & YEAR):
March 2005

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

DATE:
April 13, 2005

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 flooding occurred within this Hydrologic Service Area.

Hydrologic Outlooks and Advisories

The Hydrologic outlook in March indicated a potential for minor flooding due to snowmelt in our HSA, however, no flooding occurred during the month of March.

On March 30th, thunderstorms producing heavy rain resulted in an Urban and Small Stream Flood Advisory being issued for Osceola and Clare counties, however no flooding was reported.

March Precipitation

March precipitation totals at first order and contract stations across our HSA were below normal. Monthly precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 1.41, 1.35, and 2.13 inches, respectively. Precipitation for the month at these three sites were 1.18 inches below normal at Grand Rapids, 0.98 of an inch below normal at Lansing, and 0.23 of an inch below normal at Muskegon, Michigan.

Snowfall for the month of March was above normal with 14.4 inches at Grand Rapids (+ 5.4), 12.1 inches at Lansing (+3.4), and at Muskegon, 23.5 inches (+12.4). However, by the end of the month the snowpack across our HSA was gone.

March Temperatures

Temperatures for the month of March were well below normal at Grand Rapids, Lansing, and Muskegon, averaging 4.7, 3.1, and 4.6 degrees below normal, respectively. The combination of sunny skies and significantly warmer temperatures at the end of the month (15 to 20 degrees above normal) resulted in significant snow melt, frost depths going to zero, and soil temperatures across the HSA above freezing. At Grand Rapids the soil temperatures at the end of the month were 45 degrees near the surface and 36 degrees Fahrenheit at a depth of 60 inches.

March River Levels

All rivers remained below flood stage during the month of March. The warm up at the end of the month caused significant snow melt which resulted in the rivers across our HSA running above normal flows at the end of the month.

Hydrologic Products issued this month:

- 1 Hydrologic Outlook (ARBESFGRR) was issued.
- 3 Flood Statements (ARBFLSGRR) were issued
- 33 Hydrologic Statements (ARBRVSGRR) were issued.
- 31 Hydrologic Summary's (ARBRVAGRR) were issued.