

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

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

SIGNATURE:
MIC
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.

Summary

Minor flooding occurred in February behind an ice jam on the Grand River in Robinson Township.

Flood Conditions

Minor flooding occurred on the Grand River in Robinson Township as the result of backwater from an ice jam. A flood warning was issued at 4:16 PM, February 20th, for the Grand River at Robinson Township. The Grand River at Robinson Township crested at flood stage, 13.3 feet, on February 21st, at 3:30 PM. The river hovered around flood stage overnight before falling back below flood stage early in the morning on February 22nd. No significant property damage was reported and no lives were lost during the minor flooding that occurred in February.

Flood Stage Report

<u>River and Station</u>	<u>Flood Stage</u>	<u>Above Flood Stage</u>		<u>Crest</u>		
		<u>From/To</u>		<u>Stage</u>	<u>Date</u>	<u>Time</u>
Grand River Robinson Twp	13.3	02/21	3:30PM	13.3	02/21	3:30PM
		02/22	5:00AM			

River Conditions

River levels across the Grand Rapids HSA by the end of February were near normal, and ice free. 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	93
Whitehall	White	102
Evert	Muskegon	112
Mt. Pleasant	Chippewa	96
Lansing	Grand	85

Grand Rapids	Grand	113
East Lansing	Red Cedar	82
Hastings	Thornapple	87
Battle Creek	Battle Creek	76
Comstock	Kalamazoo	82

General Hydrologic Information

February precipitation and temperatures were slightly above to near normal across Southwest Lower Michigan.

February precipitation totals at first order stations across our HSA were near to slightly above normal for Grand Rapids, Lansing, and Muskegon, Michigan. February precipitation totals at Grand Rapids, Lansing, and Muskegon, were 2.39, 1.72, and 2.09 inches, respectively. Precipitation for the month at these three sites were 0.85 of an inch above normal at Grand Rapids, 0.27 of an inch above normal at Lansing, and 0.51 of an inch above normal at Muskegon, Michigan. On February 16th, both Grand Rapids and Muskegon set new daily rainfall records with 1.84 inches and 1.20 inches, respectively.

Snowfall totals for the month of February were below normal for Grand Rapids (-2.1") Lansing (-0.5") and Muskegon (-6.9"). February snowfall totals at Grand Rapids, Lansing, and Muskegon were 10.1, 10.1, and 11.4 inches, respectively. By the end of the month the snowpack across our HSA ranged from a trace in our southern counties to 8 to 12 inches in our northern most counties.

Temperatures for the month of February were slightly above normal at Grand Rapids, Lansing, and Muskegon, with average monthly departures of +1.4, +1.5, and +1.4 degrees Fahrenheit, respectively. At Grand Rapids the soil temperatures at the end of the month were 29 degrees near the surface and 38 degrees Fahrenheit at a depth of 60 inches. Frost depth was 6 inches at WFO GRR at the end of the month.

Hydrologic Products issued this month:

- 1 Flood Warning (ARBFLWGRR) was issued
- 7 Flood Statements (ARBFLSGRR) were issued
- 4 Flood Watches (ARBFFAGRR) were issued
- 1 Hydrologic Outlook (ARBESFGRR) was issued
- 25 Hydrologic Statements (ARBRVSGRR) were issued
- 28 Hydrologic Summary's were issued (RVA)