

NWS FORM E-5

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

HSA OFFICE:
Grand Rapids, MI

REPORT FOR (MONTH & YEAR):
November 2010

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

DATE:
December 9, 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).

X

An X inside this box indicates that no significant flooding occurred within this Hydrologic Service Area.

Summary

No rivers exceeded flood stage during the month of November in our Hydrologic Service Area (HSA).

The Grand Rapids Weather Forecast Office on-site weather support at the incident command post located in Marshall, Michigan, ended November 8th for the oil spill that occurred along the Kalamazoo River back in July. The North Central River Forecast Center continued its daily river forecasts for specific points along the Kalamazoo River for the month.

Flood Conditions

None to report.

Flood Stage Report

No rivers in Southwest Lower Michigan exceeded flood stage during the month of November.

River Conditions

River levels by the end of November were near to below normal across 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	94
Whitehall	White	97
Evart	Muskegon	92
Mt. Pleasant	Chippewa	105
Lansing	Grand	106
Grand Rapids	Grand	122
East Lansing	Red Cedar	90
Hastings	Thornapple	96
Battle Creek	Battle Creek	116
New Richmond	Kalamazoo	114

General Hydrologic Information

November 2010 was warmer than normal, with precipitation below normal across the HSA (Figures 1&2).

November precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan were 2.81, 2.08, and 1.46 inches, respectively. Precipitation totals for the month at these three sites were 0.54 of an inch below normal at Grand Rapids, 0.58 of an inch below normal at Lansing, and 1.77 inches below normal at Muskegon, Michigan. Yearly precipitation totals were 0.34 of an inch below normal for Grand Rapids, 3.26 inches below normal for Lansing, and 1.42 inches below normal for Muskegon, Michigan.

Snowfall totals at Grand Rapids, Lansing, and Muskegon, Michigan were 0.1 of an inch, Trace, and Trace, respectively. Snowfall totals for the month at these three sites were 7.6 inches below normal at Grand Rapids, 5.1 inches below normal at Lansing, and 8.7 inches below normal at Muskegon, Michigan.

Temperatures for the month of November were slightly above normal at Grand Rapids, Lansing, and Muskegon, Michigan, with average monthly departures of +3.4, +2.6 and +3.9 degrees Fahrenheit, respectively.

Frost depths across the HSA were zero.

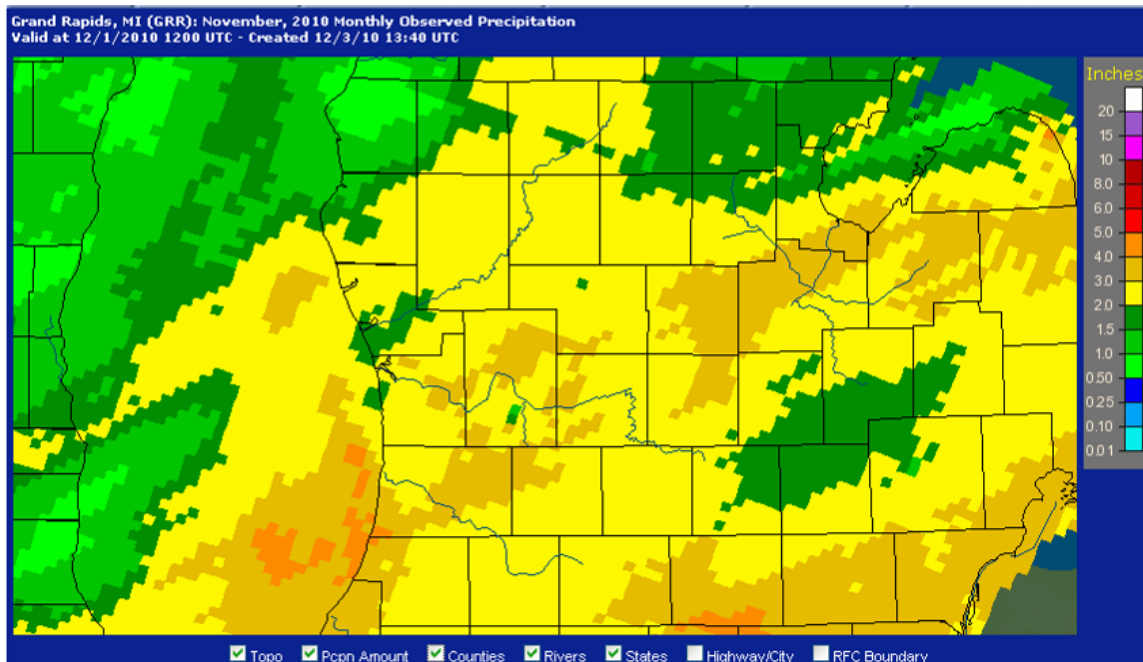


Figure 1. Observed Precipitation for November 2010

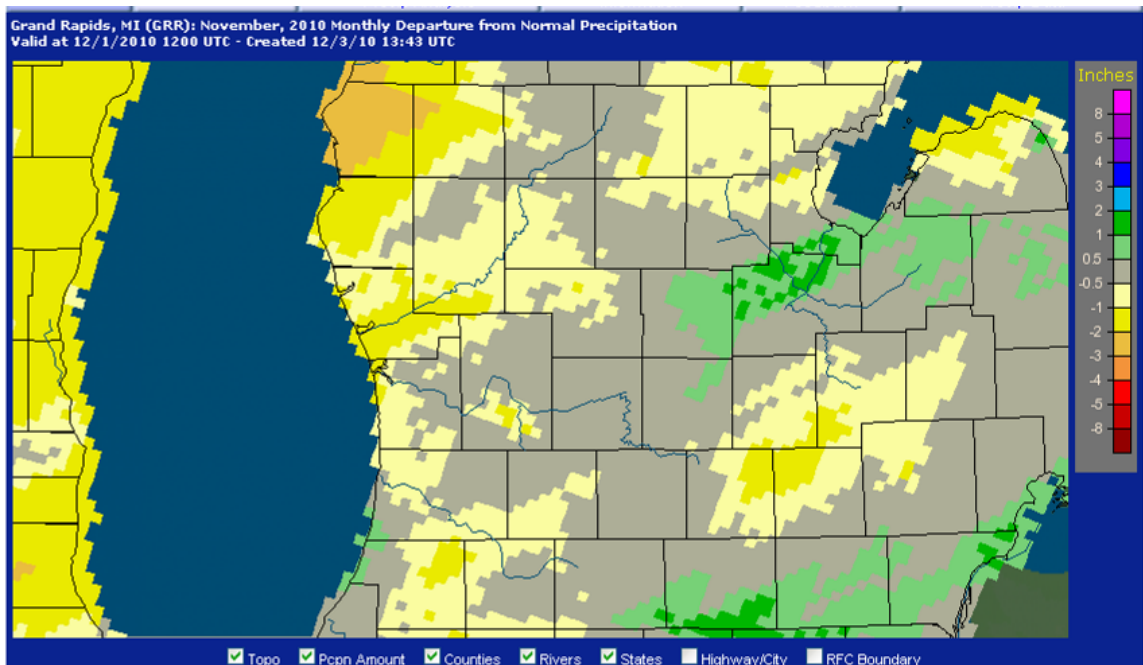


Figure 2. Monthly Departure from Normal for November 2010

Hydrologic Products issued this month:

- 30 Hydrologic Statements (ARBRVSGRR)
- 1 Probabilistic Hydrologic Outlook (ARBESFGRR)
- 30 Hydrologic Summaries (ARBRVAGRR)
- 30 Daily River and Lake Summaries (ARBRVDGRR)

Monthly News Articles

None