

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:
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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

For the entire month of August, the Grand Rapids Weather Forecast Office provided on-site weather support at the incident command post located in Marshall, Michigan, for the oil spill that occurred along the Kalamazoo River in July. The North Central River Forecast Center also provided daily travel time forecasts for specific points along the Kalamazoo River as well as daily river forecasts for the entire month.

A flash flood occurred on August 11th in Mt. Pleasant, Michigan, when three to four inches of rain fell over a three hour period over the city. Local law enforcement officials reported flash flooding of roads in Mt. Pleasant, Michigan, and water flowing into the ground floor entrance of the emergency room at the Central Michigan Community Hospital. Before the event was over, the flash flooding damaged 24 buildings at Central Michigan University (estimated \$ 3 million damage), temporarily closed Central Michigan Community Hospital's emergency room, and took a local radio station off the air.

No rivers exceeded flood stage during the month of August in our Hydrologic Service Area.

Flood Conditions

Sunday, August 1st

At 4:48 AM EDT, the river flood advisory continued for the St. Joseph River at Burlington, Michigan.

At 9:37 AM EDT, the river flood advisory continued for the St. Joseph River at Burlington, Michigan.

Monday, August 2nd

At 9:54 AM EDT, the river flood advisory continued for the St. Joseph River at Burlington, Michigan.

Tuesday, August 3rd

At 4:16 AM EDT, the river flood advisory was cancelled for the St. Joseph River at Burlington, Michigan

Wednesday, August 11th

At 9:38 PM EDT, a flash flood warning was issued for Isabella County until 3:30 AM EDT. In the city of Mt. Pleasant, Michigan, three to four inches of rain fell over a three hour period and caused localized flash flooding. Local law enforcement officials reported flash flooding of roads in Mt. Pleasant, Michigan, and water flowing into the ground floor entrance of the emergency room at the Central Michigan Community Hospital. Before the event was over, the flash flooding damaged 24 buildings on the Central Michigan University campus, temporarily closed Central Michigan Community Hospital's emergency room, and took a local radio station off the air.

Thursday, August 12th

At 12:30 AM EDT, the flash flood warning for Isabella County was cancelled.

Flood Stage Report

No rivers in Southwest Lower Michigan exceeded flood stage during the month of August. High river levels carried over from July for the St. Joseph River at Burlington, Michigan, which was above bankfull for the first few days of August before falling back within its banks on August 3rd.

River Conditions

River levels by the end of August 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	97
Whitehall	White	86
Evert	Muskegon	101
Mt. Pleasant	Chippewa	84
Lansing	Grand	89
Grand Rapids	Grand	91
East Lansing	Red Cedar	86
Hastings	Thornapple	108
Battle Creek	Battle Creek	107
New Richmond	Kalamazoo	117

General Hydrologic Information

August 2010 was much warmer and drier than normal.

August precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan were 1.74, 0.44, and 1.80 inches, respectively. Precipitation totals for the month at these three sites were 2.04 inches below normal at Grand Rapids, 3.02 inches below normal at Lansing, and 1.97 inches below normal at Muskegon, Michigan. Yearly precipitation

totals were 1.87 inches above normal for Grand Rapids, 4.59 inches below normal for Lansing, and 1.71 inches below normal for Muskegon, Michigan.

Temperatures for the month of August were significantly above normal at Grand Rapids, Lansing, and Muskegon, Michigan, with average monthly departures of +5.5, +5.6 and +6.5 degrees Fahrenheit, respectively. It was the second warmest August on record for Lansing and Muskegon, Michigan.

Hydrologic Products issued this month:

- 1 Flash Flood Warning (ABRFFWGRR)
- 1 Flash Flood Statement (ARBFFSGRR)
- 4 River Flood Advisories (ARBFLSGRR)
- 35 Hydrologic Statements (ARBRVSGRR)
 - 1 Probabilistic Hydrologic Outlook (ARBESFGRR)
- 31 Hydrologic Summaries (ARBRVAGRR)
- 31 Daily River and Lake Summaries (ARBRVDGRR)