

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**

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

REPORT FOR (MONTH & YEAR):  
September 2005

DATE:  
October 24, 2005

SIGNATURE:  
Daniel G. Houser, MIC  
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.

No significant river flooding occurred in the Grand Rapids Hydrologic Service Area (HSA) during the month of September. A Flood Statement for an Urban and Small Stream Flood Advisory was issued for Mason, Lake, Osceola, and Clare Counties and upgraded to a flood warning for Lake and Osceola Counties.

September Flooding

On September 25, 2005, a flood statement for an urban and small stream flood advisory was issued for Mason, Lake, Osceola, and Clare Counties. Thunderstorms producing heavy rain caused nuisance ponding of water on roadways across these counties over the evening hours. As radar estimated rainfall totals continued to increase in Lake and Osceola Counties, the flood statement for an urban and small stream flood advisory was upgraded to a flood warning for Lake and Osceola Counties. No significant flooding was reported in Lake or Osceola Counties even though radar rainfall estimates of 3 to 7 inches were observed over an 18 hour period.

September Precipitation

September precipitation totals were below normal at Grand Rapids, and Lansing, and above normal at Muskegon, Michigan. Monthly precipitation totals at Grand Rapids, Lansing, and Muskegon, were 3.82, 2.78, and 3.82 inches, respectively. Precipitation for the month at these three sites were 0.46 of an inch below normal at Grand Rapids, 0.70 of an inch below normal at Lansing, and 0.30 of an inch above normal at Muskegon, Michigan. For the year, precipitation totals at Grand Rapids were 0.18 of an inch below normal, 0.89 of an inch above normal at Lansing, and 4.66 inches below normal for Muskegon.

September Temperatures

September was warm across southwest Lower Michigan, with temperatures 5° to 6° above normal. Temperatures for the month of September were above normal at Grand Rapids, Lansing, and Muskegon, averaging 5.3, 6.3, and 5.3 degrees above normal, respectively.

## September River Levels

All rivers stayed below flood stage during the month of September. River levels were near to below normal for most of the month of September, but showed significant rises near the end of the month as the result of runoff generated by heavy rainfall out of thunderstorms. 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	158
Whitehall	White	114
Evart	Muskegon	218
Mt. Pleasant	Chippewa	197
Lansing	Grand	106
Grand Rapids	Grand	111
East Lansing	Red Cedar	100
Hastings	Thornapple	70
Battle Creek	Battle Creek	78
Comstock	Kalamazoo	130

## Hydrologic Products issued this month:

1 Flood Warning (ARBFLWGRR) was issued  
7 Flood Statements (ARBFLSGRR) were issued  
1 Hydrologic Outlook (ARBESFGRR) was issued  
30 Hydrologic Summary's (ARBRVAGRR) were issued  
30 Daily River and Lake Summary's (ARBRVDGRR) were issued

cc: