NWS FORM E-5	U.S. DEPARTMENT OF COMMERCE	HSA OFFICE:
	NOAA, NATIONAL WEATHER SERVICE	Grand Rapids, MI
		REPORT FOR (MONTH &YEAR):
		July 2005
MONTHLY REPOR	RT OF RIVER AND FLOOD CONDITIONS	•
		DATE:
		August 3, 2005
TO: NATIONAL	WEATHER SERVICE (W/OS31)	
HYDROMETEOROLOGICAL INFO CENTER		SIGNATURE:
1325 EAST-	WEST HIGHWAY, RM 13468	MIC
SILVER SPRING, MD 20910		Service Hydrologist
	,	•
When no flooding	occurs, include miscellaneous river conditions, su	ch as significant rises, record low
	ons, snow cover, droughts, and hydrologic products	
		,
An X ii	iside this box indicates that no flooding occurred v	within this Hydrologic Service Area.

No significant river flooding occurred in the Grand Rapids Hydrologic Service Area (HSA) during the month of July. However, numerous Urban and Small Stream Flood Advisories were issued in our HSA during the month of July. Urban and Small Stream Flood Advisories were issued for Mason, Lake, Osceola, Clare, Newaygo, Mecosta, Isabella, Montcalm, Gratiot, Clinton, Allegan, Eaton, Ingham, and Van Buren Counties. Nuisance flooding was reported, but no significant property damage or lives were lost, during the minor urban and small stream flooding events that occurred in July.

July Flooding

Urban and small stream flood advisories were issued for nuisance flooding during the month of July for the following counties: Mason, Lake, Osceola, Clare, Newaygo, Mecosta, Isabella, Montcalm, Gratiot, Clinton, Allegan, Eaton, Ingham, and Van Buren.

July Precipitation

July precipitation totals were above normal at Grand Rapids and Lansing and below normal at Muskegon, Michigan. Monthly precipitation totals at Grand Rapids, Lansing, and Muskegon, were 4.08, 5.76, and 2.05 inches, respectively. Precipitation for the month at these three sites were 0.52 of an inch above normal at Grand Rapids, 3.08 inches above normal at Lansing, and 0.27 of an inch below normal at Muskegon, Michigan. For the year, precipitation totals at Grand Rapids were 2.63 inches above normal, Lansing 4.31 inches above normal, and Muskegon 3.34 inches below normal for the year.

July Temperatures

Temperatures for the month of July were above normal at Grand Rapids, Lansing, and Muskegon, averaging 1.4, 2.5, and 2.2 degrees above normal, respectively.

July River Levels

River levels were near to above normal during the month of July. All rivers stayed below flood stage during the month of July. The end of the month percentage of normal flow for

selected rivers is listed below:

River	% of Normal
Pere Marquette	98
White	78
Muskegon	88
Chippewa	156
Grand	170
Grand	123
Red Cedar	106
Thornapple	100
Battle Creek	104
Kalamazoo	138
	Pere Marquette White Muskegon Chippewa Grand Grand Red Cedar Thornapple Battle Creek

Hydrologic Products issued this month:

- 1 Hydrologic Outlook (ARBESFGRR) was issued
- 3 Flood Watches (ARBFFAGRR) were issued
- 4 Flash Flood Warnings (ARBFFWGRR) were issued
- 6 Flash Flood Statements (ARBFFSGRR) were issued
- 15 Urban and Small Stream Flood Advisories (ARBFLSGRR) were issued
- 31 Hydrologic Summary's (ARBRVAGRR) were issued
- 31 Daily River and Lake Summary's (ARBRVDGRR) were issued