

NWS FORM E-5 U.S. DEPARTMENT OF COMMERCE NOAA, NATIONAL WEATHER SERVICE MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS TO: NATIONAL WEATHER SERVICE (W/OH12x1) HYDROMETEOROLOGICAL INFO CENTER 1325 EAST-WEST HIGHWAY, RM 7116 SILVER SPRING, MD 20910	HSA OFFICE: Marquette, MI
	REPORT FOR (MONTH / YEAR): July 2013
	DATE: August 27, 2013
	SIGNATURE: Robin J. Turner, MIC Justin Titus, Meteorologist
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 no flooding occurred within this Hydrologic Service Area.

July Flooding

Cunard Road in Foster City (Dickinson County) washed out 7/25.

Trap Rock River near Lake Linden crested at 10.04 feet, or 0.54 feet above flood stage, late in the afternoon on 7/19. At this stage, the river has been out of its banks for about 4 feet (bankfull stage is 7 feet) and is around 6 inches above the bottom of the bridge on Cemetery Road at the gauge site. However, no actual reports of impacts were received by the National Weather Service. The increased river flow was in response to over 3 inches of rain received the previous day and night.

Minor flooding is suspected to have occurred over parts of western Upper Michigan due to periods of heavy rain, but no reports of such were received.

July Precipitation

July precipitation was generally above normal to well above normal across much of Upper Michigan (125-300 percent of normal), with the Keweenaw Peninsula and eastern Upper Michigan seeing the most rain. The one exception to above normal precipitation is near Iron Mountain, which was below normal (around 70 percent of normal). Most of the precipitation came from periods of heavy rainfall, with some area wide system rainfall also observed. Some lake effect rain was even observed near Lake Superior.

Below is a chart of some of the larger cities in the Upper Peninsula, with monthly precipitation in inches, the amount of inches above or below normal for the month and any applicable record high or low rank.

Location	Precipitation	Above/Below	Rank
WFO Marquette	4.78	1.94	8 th
Marquette City	4.65	1.80	
Houghton Airport	6.06	3.57	4 th
Ironwood	6.90	2.80	
Iron Mountain	2.43	-1.02	
Manistique	7.15	4.11	3 rd
Munising	5.11	1.84	
Newberry	7.50	No Data	
Ontonagon 6SE	6.02	2.74	3 rd

Other monthly precipitation totals from coop observers:

Location	Precipitation (inches)
Alberta (Baraga County)	Missing
Amasa (Iron County)	4.04
Atlantic Mine (Houghton County)	5.21
Baraga 7NW (Baraga County)	6.00
Big Bay (Marquette County)	6.33
Chatham (Alger County)	4.78
Clarksburg (Marquette County)	6.00
Cooks (Schoolcraft County)	7.49
Copper Harbor (Keweenaw County)	6.76
Garden Corners (Delta County)	6.30
Gladstone (Delta County)	5.34
Greenland 6N (Ontonagon County)	5.69
Gwinn (Marquette County)	2.70
Harvey (Marquette County)	2.71
Herman (Baraga County)	6.36
Jacobsville (Houghton County)	5.72
Mohawk (Keweenaw County)	8.00
Menominee (Menominee County)	4.79
Norway (Dickinson County)	4.06
Stambaugh (Iron County)	3.95
Twin Lakes (Houghton County)	6.30
Watersmeet (Gogebic County)	Missing
Watton (Baraga County)	4.46

Drought Discussion

The July 30th, 2013 release of the U.S. Drought Monitor continued to indicate no drought conditions across Upper Michigan. For the latest drought status, please go to <http://www.crh.noaa.gov/mqt/?n=drought>.

July Temperatures

Below is a table of some of the larger cities in the Upper Peninsula, with average monthly temperature and number of degrees above or below normal for the month, and the rank of an all-time warmest or coldest month, where applicable.

Location	Temperature (degrees)	Above/Below	Rank
WFO Marquette	65.2	-0.3	
Marquette City	65.9	-0.7	
Houghton Airport	64.1	-0.7	
Ironwood	65.1	-0.7	
Iron Mountain	68.5	0.5	
Manistique	64.1	-0.6	
Munising	64.2	-0.6	
Newberry	65.9	No Data	
Ontonagon 6SE	68.0	0.9	

July River Levels

According to the United States Geological Survey, July average streamflow was near normal (25-75 percentile) throughout much of Upper Michigan.

July Products Issued

0 Areal Flash Flood Watch (ARBFFAMQT)
0 Areal Flood Watches (ARBFFAMQT)
0 Areal Flood Warnings (ARBFLWMQT)
3 Areal Flood Advisories (ARBFLSMQT)
0 Areal Flood Statements (ARBFLSMQT)
0 River Flood Watches (ARBFFAMQT)
1 River Flood Warnings (ARBFLWMQT)
3 River Flood Advisories (ARBFLSMQT)
2 River Flood Statements (ARBFLSMQT)
0 Hydrologic Statements (ARBRVSMQT)
0 Hydrologic Outlook (ARBESFMQT)

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