

<b>NWS FORM E-5</b>  U.S. DEPARTMENT OF COMMERCE NOAA, NATIONAL WEATHER SERVICE  <b>MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS</b>  TO: NATIONAL WEATHER SERVICE (W/OH12x1) HYDROMETEOROLOGICAL INFO CENTER 1325 EAST-WEST HIGHWAY, RM 7116 SILVER SPRING, MD 20910	HSA OFFICE: <b>Marquette, MI</b>
	REPORT FOR (MONTH / YEAR): <b>December 2014</b>
	DATE: <b>January 27, 2015</b>
	SIGNATURE: <b>Robin J. Turner, MIC</b> <b>Justin Titus, Meteorologist</b>
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.

### December Flooding

Minor ice jam flooding was noted on the Ford River just upstream of the M-35 Bridge in Delta County. No structures were impacted by the flooding, but water did rise out of the river banks and into residential yards. Additional ice jams were noted on the Middle Branch of the Ontonagon River, but not impacts were noted with these jams.

### December Precipitation

December precipitation was below normal over most of northern Upper Michigan, while southern portions of the U.P. saw near to above normal precipitation.

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	Snow	Above/Below	Rank
WFO Marquette	2.28	-0.29		27.0	-15.8	
Marquette City	1.60	-0.37		8.1	-17.2	
Houghton Airport	No Data			No Data		
Ironwood	2.43	0.32		27.2	-19.1	
Iron Mountain	3.05	1.50	4 <sup>th</sup>	22.1	8.2	
Manistique	2.25	0.65		10.2	No Data	
Munising	2.82	-0.93		29.8	-11.4	
Newberry	2.48	No Data		20.6	No Data	

Other monthly precipitation totals from coop observers:

Location	Precipitation (inches)	Snow (Inches)
Alberta (Baraga County)	1.82	21.1
Amasa (Iron County)	2.17	26.6
Atlantic Mine (Houghton County)	3.51	45.0
Baraga 7NW (Baraga County)	3.04	25.4
Big Bay (Marquette County)	3.19	29.9
Chatham (Alger County)	1.81	18.5
Clarksburg (Marquette County)	1.84	22.9
Cooks (Schoolcraft County)	1.43	6.9
Copper Harbor (Keweenaw County)	1.14	7.0
Garden Corners (Delta County)	2.53	12.3
Gladstone (Delta County)	2.44	12.5
Greenland 6N (Ontonagon County)	2.98	30.1
Gwinn (Marquette County)	Missing	Missing
Harvey (Marquette County)	1.01	5.9
Herman (Baraga County)	2.92	43.3
Jacobsville (Houghton County)	3.07	25.3
Mohawk (Keweenaw County)	3.35	32.9
Menominee (Menominee County)	1.64	5.1
Norway (Dickinson County)	2.08	21.0
Paulding (Ontonagon County)	1.58	27.2
Stambaugh (Iron County)	1.93	20.0
Watton (Baraga County)	2.21	11.6

**Drought Discussion**

The December 30, 2014 release of the U.S. Drought Monitor indicated that drought conditions did not exist across Upper Michigan. For the latest drought status, please go to <http://www.crh.noaa.gov/mqt/?n=drought>.

**December 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	20.7	2.2	
Marquette City	26.2	2.7	
Houghton Airport	22.7	2.5	
Ironwood	20.1	3.5	
Iron Mountain	22.0	2.6	
Manistique	25.4	2.1	
Munising	25.0	2.1	
Newberry	24.6	3.6	

## **December River Levels**

According to the United States Geological Survey, December average streamflow across Upper Michigan was normal (25-75 percentile) to much above normal (>90 percentile).

## **December Products Issued**

- 31 - Hydrologic Summary
- 1 - Hydrologic Outlook
- 1 - Hydrologic Statement

CC:  
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