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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):

November 2014

DATE: **January 14, 2015**

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.

November Flooding

No flooding was reported to the National Weather Service.

November Precipitation

November was defined by above to well above normal liquid equivalent precipitation amounts and well above normal to record snowfall. Increased storm system frequency and intensity and lake effect snow lead to the increased precipitation/snowfall amounts. One particular storm that impacted the area from the 10th to the 11th dropped around half the monthly precipitation/snowfall amounts across much of the area. The area was also hit by abnormally low temperatures for the month, which kept flooding from occurring as most of the precipitation stayed locked up in the snowpack.

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	5.22	2.04	6 th	53.0	28.6	1^{st}
Marquette City	3.27	0.65		32.0	21.1	7 th
Houghton Airport	No Data			No Data		
Ironwood	5.87	3.17	4 th	77.2	52.7	2^{nd}
Iron Mountain	3.25	1.31		13.9	8.0	
Manistique	3.33	0.86		18.2	No Data	2^{nd}
Munising	6.50	2.76	4 th	57.9	44.9	1^{st}
Newberry	4.01	No Data		40.0	No Data	$1^{\rm st}$

Other monthly precipitation totals from coop observers:

Location	Precipitation	Snow
	(inches)	(Inches)
Alberta (Baraga County)	4.19	65.8
Amasa (Iron County)	3.58	32.1
Atlantic Mine (Houghton County)	3.78	58.0
Baraga 7NW (Baraga County)	4.34	43.3
Big Bay (Marquette County)	5.33	42.3
Chatham (Alger County)	5.41	63.5
Clarksburg (Marquette County)	3.06	38.1
Cooks (Schoolcraft County)	4.54	24.2
Copper Harbor (Keweenaw County)	3.51	26.9
Garden Corners (Delta County)	3.72	18.0
Gladstone (Delta County)	3.72	18.8
Greenland 6N (Ontonagon County)	4.76	51.8
Gwinn (Marquette County)	Missing	Missing
Harvey (Marquette County)	3.46	36.6
Herman (Baraga County)	5.09	76.3
Jacobsville (Houghton County)	3.57	35.3
Mohawk (Keweenaw County)	5.12	57.2
Menominee (Menominee County)	2.47	8.1
Norway (Dickinson County)	2.59	13.6
Paulding (Ontonagon County)	3.22	55.9
Stambaugh (Iron County)	3.03	33.2
Watton (Baraga County)	3.18	33.9

Drought Discussion

The November 25, 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.

November 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	Above/Below	Rank
	(degrees)		
WFO Marquette	21.5	-8.8	$2^{\rm nd}$
Marquette City	28.0	-6.8	6 th
Houghton Airport	25.7	-5.7	7^{th}
Ironwood	21.2	-8.6	2^{nd}
Iron Mountain	24.7	-7.3	3 rd
Manistique	26.4	-8.0	2^{nd}
Munising	26.1	-7.9	1 st
Newberry	26.9	-5.6	5 th

November River Levels

According to the United States Geological Survey, November average streamflow across Upper Michigan was generally above normal (76-90 percentile).

November Products Issued

30 - Hydrologic Summary 1 - Hydrologic Outlook