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): **January 2019** DATE: **February 7, 2018** SIGNATURE: **Robin J. Turner, MIC** **Keith White, Hydrology Program Manager**

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).

X An X inside this box indicates no flooding occurred within this Hydrologic Service Area.

January Precipitation

There was a bit of a dichotomy in January precipitation/snowfall, with below normal snow across the west half and well above normal snowfall across the east, especially near Munising. The one outlier is with precipitation at Houghton. Much of the snow that fell during the month was of the wetter variety, and so snowfall was below normal while precipitation was well above normal for the month there. Snow depth values as of February 7th are pretty in line with February averages. We will begin keeping a closer eye on snow water equivalent values as snowmelt season approaches.

Below is a chart of some of the larger cities in the Upper Peninsula, with monthly precipitation in inches and the amount of inches above or below normal for the month. Any notable monthly ranks are also included. See figures 1 and 2 below for a smoothed out aerial view of these data. The Keweenaw Peninsula precipitation for the month was not well analyzed this time around. The radar-estimated precipitation maps will not be included during the winter due to beam overshooting causing drastic underestimation over the western Upper Peninsula.

Location	Precipitation	% of normal	Rank	Snowfall	Above/Below	Rank
WFO Marquette	1.57”	65		34.1”	-9.1”	
Marquette City	1.71”	93		19.2”	-10.3”	
Houghton Airport	4.02”	156		56.9”	-11.9”	
Ironwood	1.46”	76		36.5”	-7.7”	
Iron Mountain	1.41”	115		12.2”	-1.5”	
Manistique	2.38”	152		31.5”	10.2”	8/88
Munising	4.65”	142		66.6”	+23.3”	8/103
Newberry	2.44”	89		44.5”	+8.7”	
Stambaugh	0.96”	98		10.1”	-4.6”	

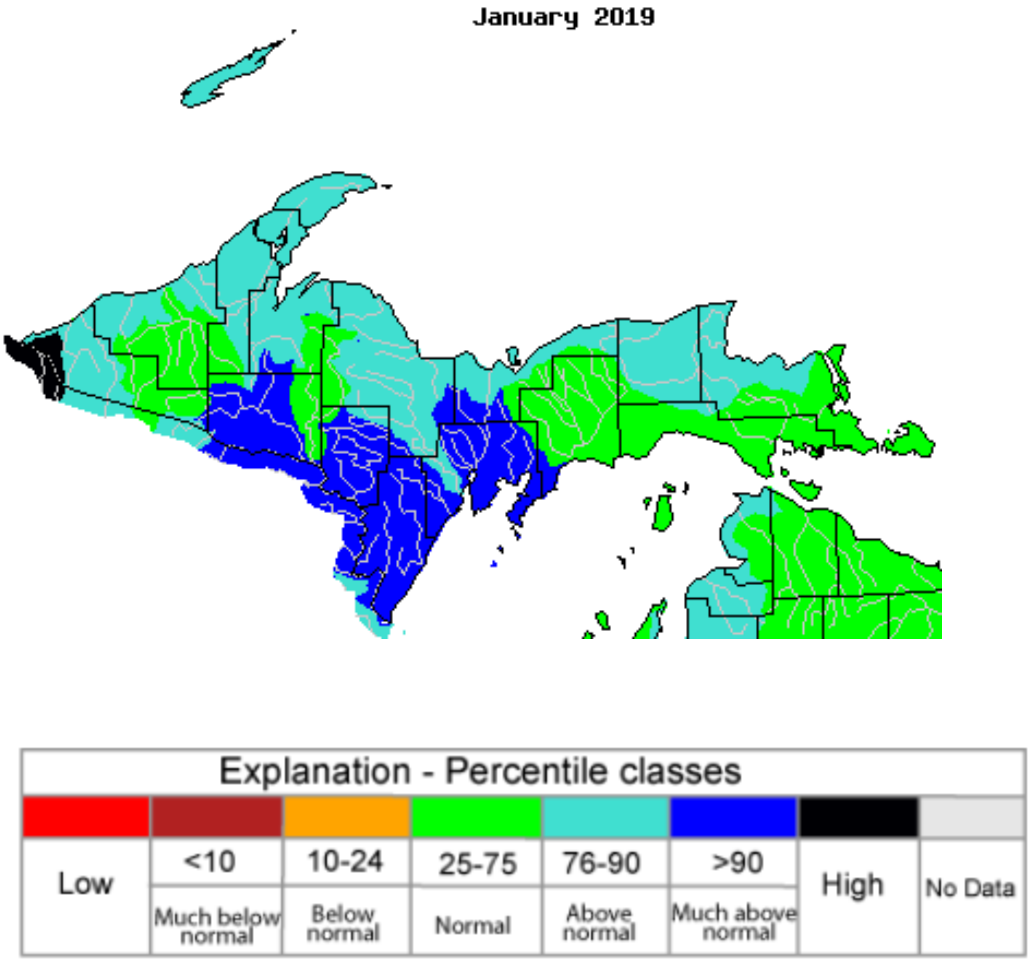
Drought Discussion

The February 7th update of the US Drought Monitor continues to indicate no drought conditions across the MWS MQT Hydrologic Service Area (HSA). For the latest drought status, please go to http://www.drought.gov.

January Flooding

No flooding was reported across Upper Michigan in January. Monthly average streamflows (below) remain near or above normal, with the highest streamflows near Ironwood and across the south-central Upper Peninsula.

January River Levels



January Products Issued

0 – Flood Watch (FFA)
0 – Flood Warning (FLW)
0 – Flash Flood Warning (FFW)
0 – Flash Flood Statement (FFS)
0 – Flood Advisories and Statements (FLS)
31 – Hydrologic Summary (RVA)
0 – Daily River Forecasts (RVD)
1 – Hydrologic Outlook (ESF)

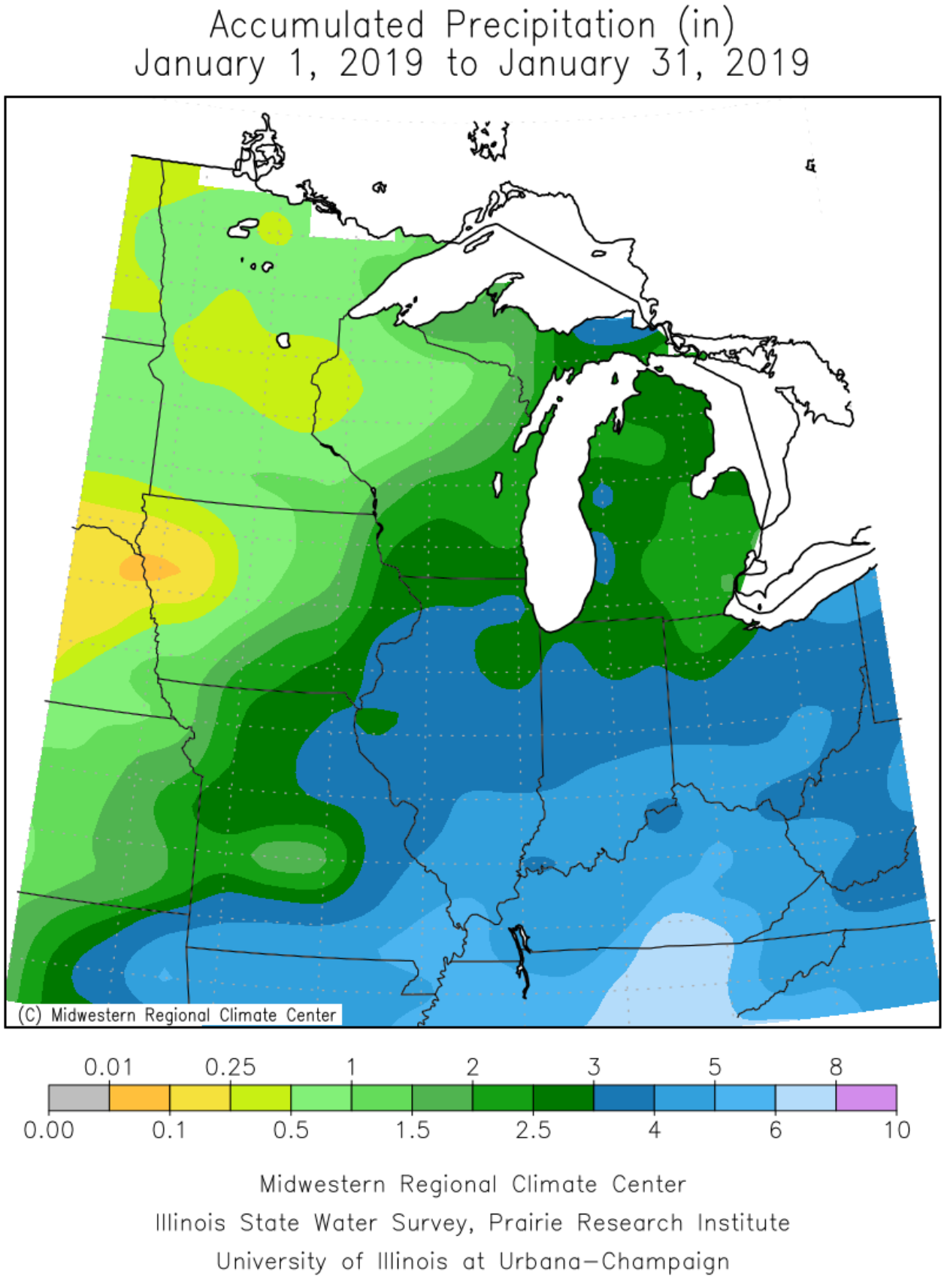


Figure 1. January 2018 Monthly Precipitation Totals. Precipitation over the Keweenaw Peninsula was under-analyzed for this month.

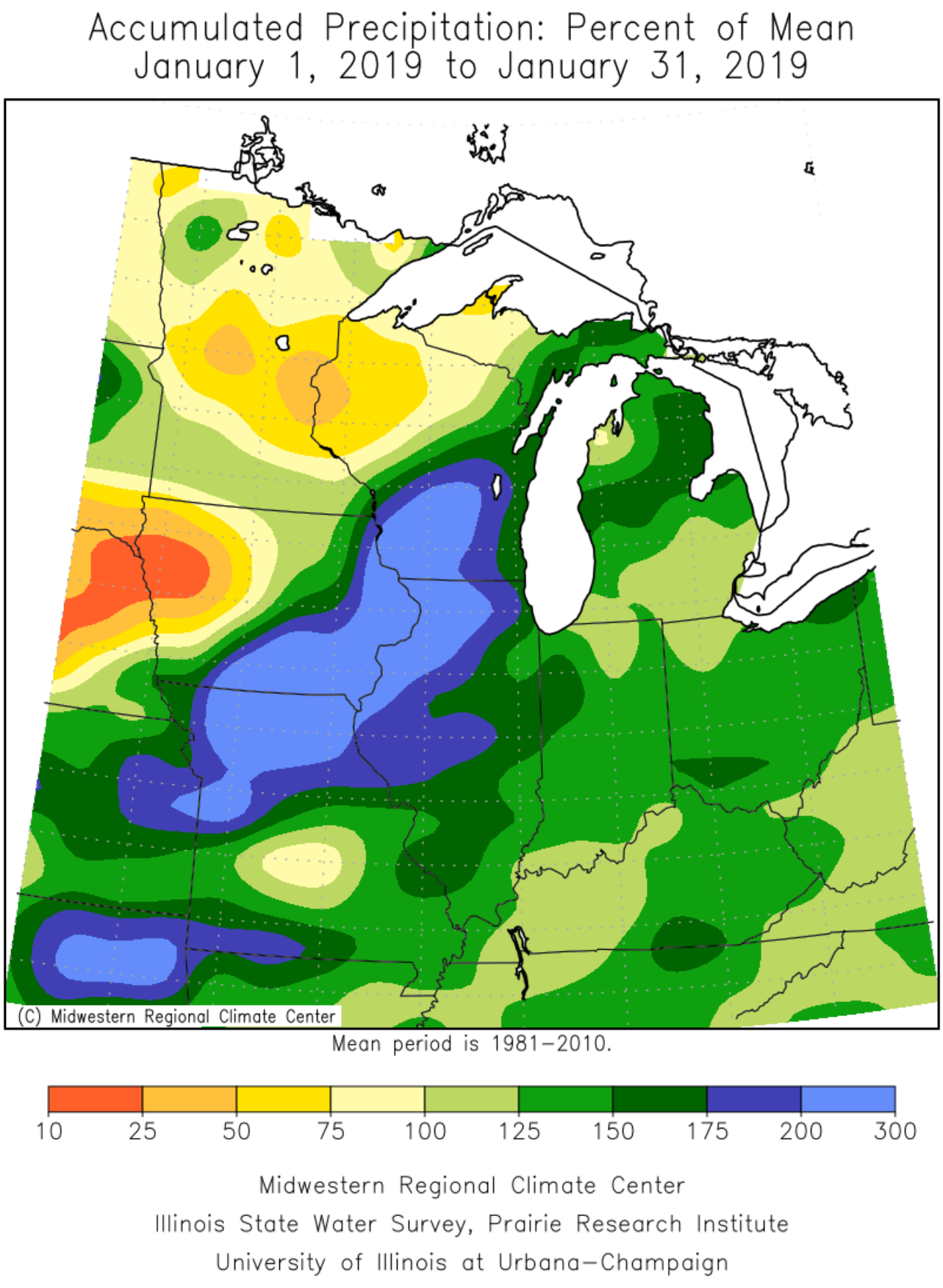


Figure 2. January 2018 Percent of Mean of Accumulated Precipitation