

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): March 2021
	DATE: April 7th, 2021
	SIGNATURE: Ryan Connelly, Asst. Hydro Program Manager Robin J. Turner, MIC
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.

Summary

March continued the recent trend of warm and dry weather. Snowfall was less than half of normal virtually everywhere across Upper Michigan, and approximately 25% of normal at WFO Marquette. There was one area-wide rainfall in the middle of the month, but overall, precipitation remained generally at or below normal, except at Ironwood where the precipitation was more than an inch above normal. With it being warm and dry, the snowpack – which was already well below normal in most areas – melted slowly. Therefore, no flooding occurred during March.

Location	Precipitation	% of normal	Snowfall
WFO Marquette	2.46"	81%	7.1"
Marquette City	2.06"	103%	4.9"
Quincy Hill	2.64"	M	8.5"
Ironwood	3.24"	164%	11.8"
Iron Mountain	1.66"	101%	1.5"
Manistique	1.81"	101%	1.0"
Munising	1.38"	66%	5.6"
Stambaugh	1.45"	95%	4.3"

NOTE: Precipitation after 8am EST February 28th was counted in March stats for all but the WFO Marquette site due to the reporting structure of our cooperative observers.

Flooding Conditions

There were no flooding concerns during the month of March.

River Conditions

Basin streamflow was much above normal across the western half of Upper Michigan, but remained near normal over the east half near Lake Michigan (Figure 1).

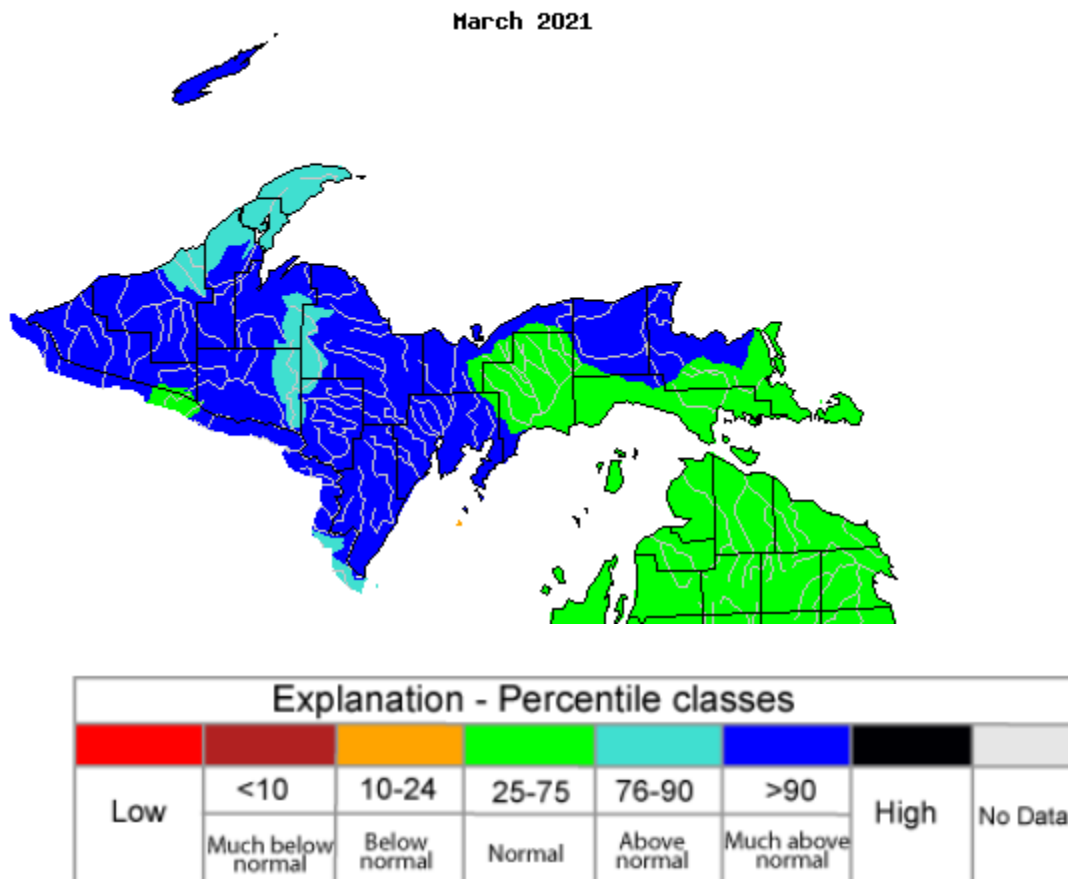


Figure 1: USGS monthly average streamflow in March 2021 across Upper Michigan

Snowpack Conditions

Snow is virtually gone across Upper Michigan as of April 1st, except for a few inches over the highest terrain of the Hurons, Michigamme Highlands, spine of the Keweenaw, and the lake-effect belt near Grand Marais. Therefore, snow depth is below normal everywhere (Figure 2).

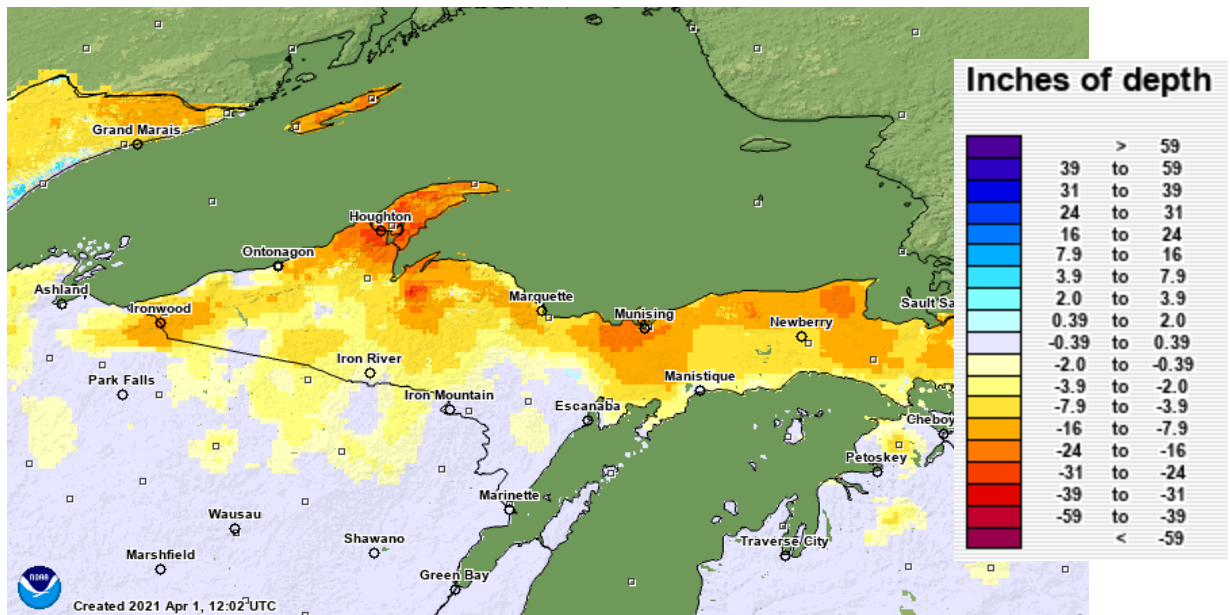


Figure 2: Departure from normal snow depth on April 1st.

Drought Discussion

Due to continued below-normal precipitation and much lower snowmelt than normal, D0 drought conditions persist across virtually all of Upper Michigan. For the latest drought status, please go to <http://www.drought.gov>.

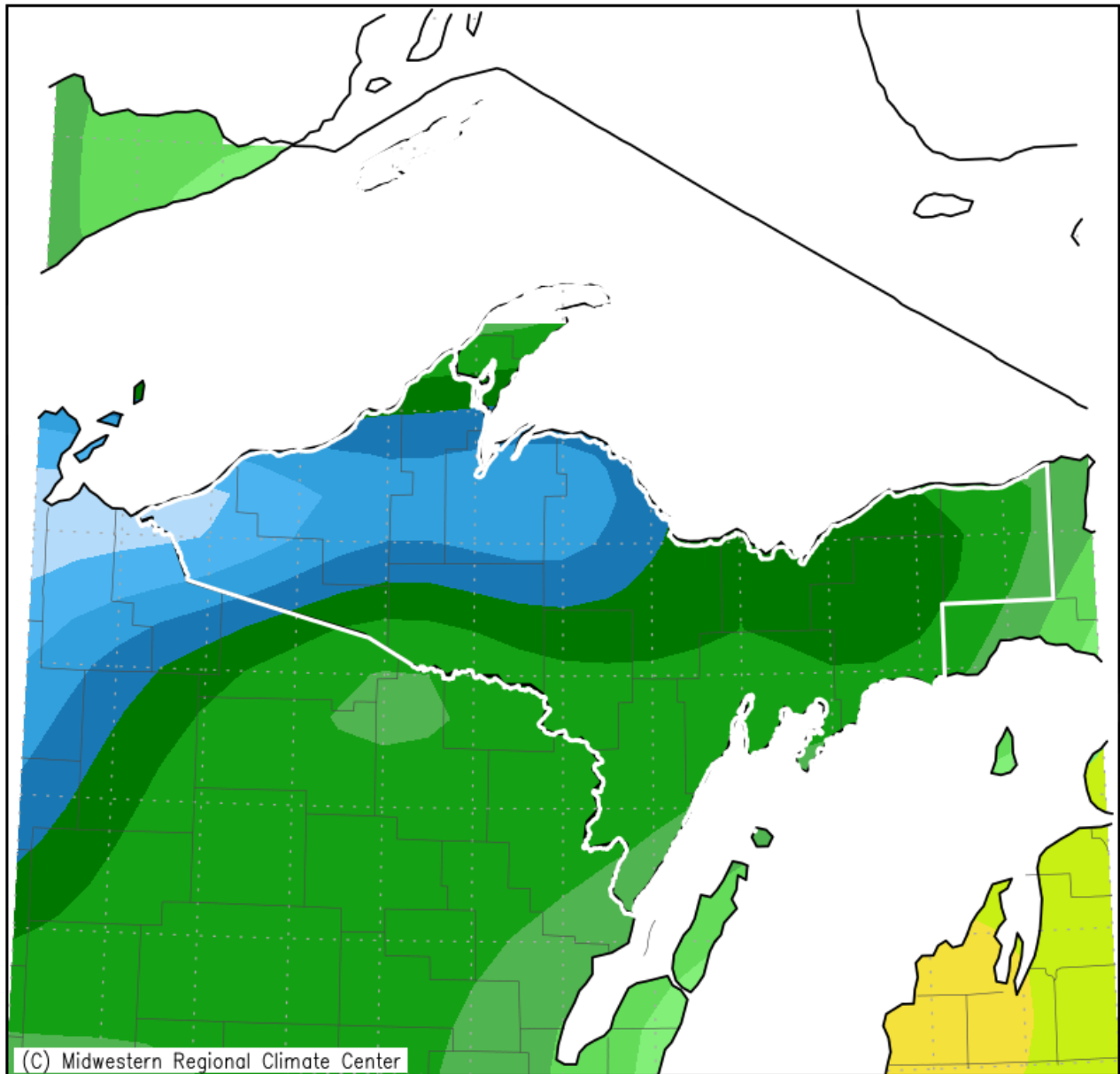
Media Links

None.

Hydro Products Issued

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

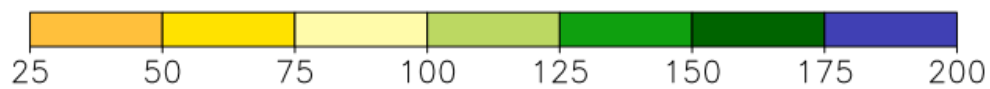
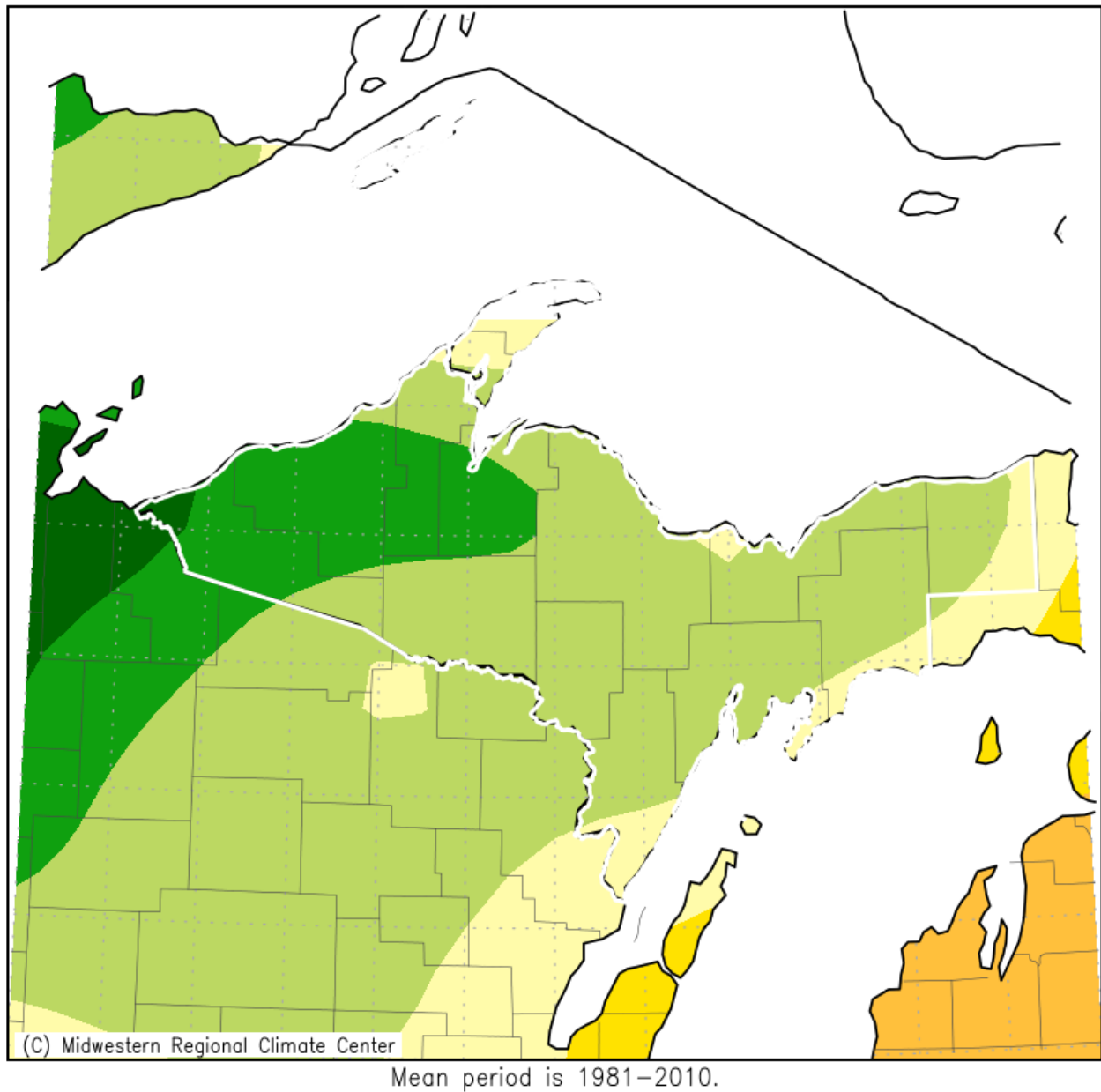
Accumulated Precipitation (in)
March 1, 2021 to March 31, 2021



Midwestern Regional Climate Center
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Figure 3: March 2021 Monthly Precipitation Totals.

Accumulated Precipitation: Percent of Mean March 1, 2021 to March 31, 2021



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Figure 4. March 2021 Percent of Normal of Accumulated Precipitation

Calculated Soil Moisture Anomaly (mm) MAR, 2021

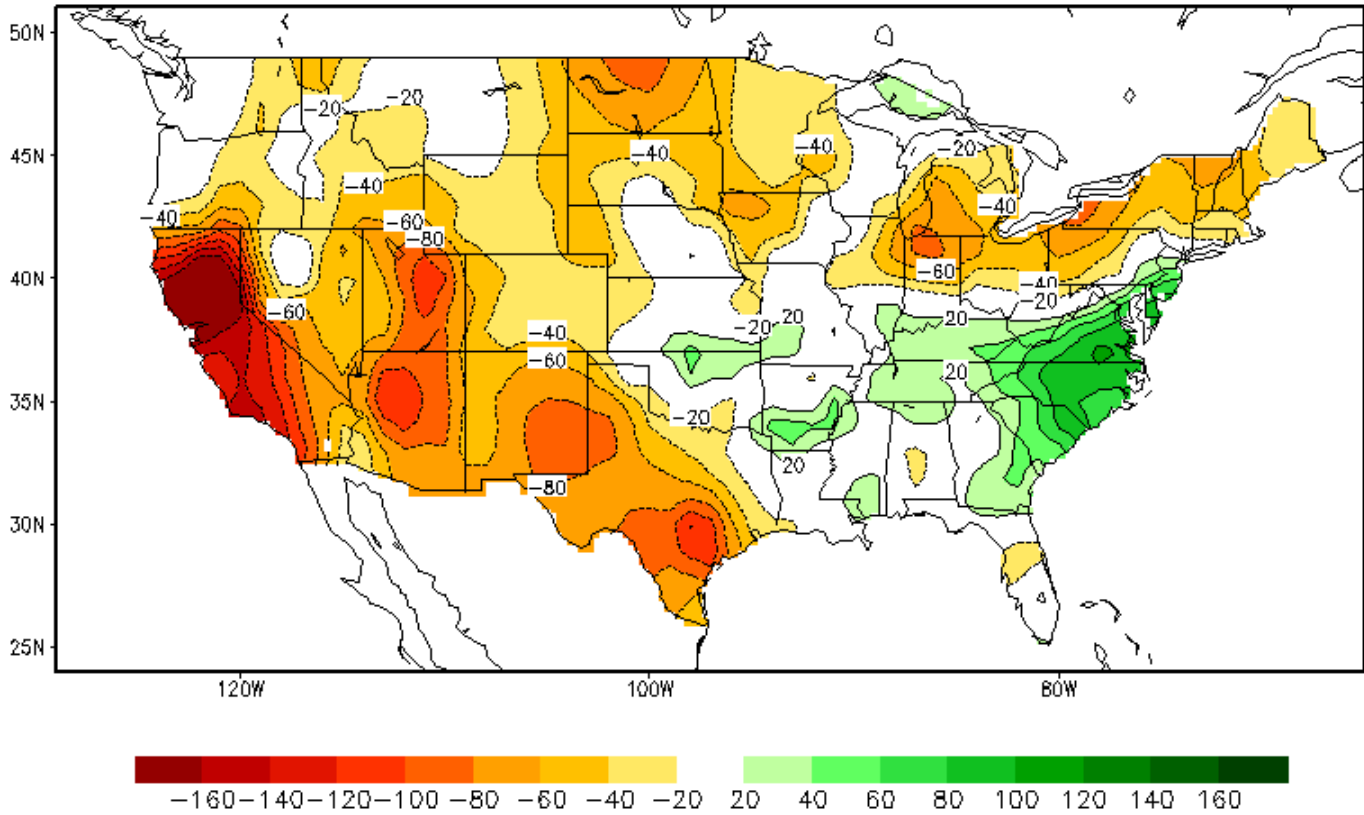


Figure 5: Climate Prediction Center’s monthly average soil moisture anomaly for March 2021.