

<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>April 2021</b>
	DATE: <b>May 9th, 2021</b>
	SIGNATURE: <b>Jordan Wendt, Hydro Program Manager</b> <b>Robin J. Turner, MIC</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).	

X

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

**Summary**

An anomalous winter, with below-normal snowfall, in conjunction with above-normal temperatures in March led to a hydrologically-benign April for Upper Michigan. With most, if not all, of the winter’s snowpack melted before April began, the usual rise in rivers had already come and gone. Since the melting occurred almost a month early, area rivers were running below normal for the better part of April, this is especially true for rivers within the Lake Superior watershed (Figure 1). This combination has led to a short-term drought across eastern Upper Michigan.

Location	Precipitation	% of normal	Snowfall
WFO Marquette	3.47”	104%	7.2”
Marquette City	2.94”	107%	0.9”
Quincy Hill	3.81”	M	6.2”
Ironwood	3.43”	109%	2.3”
Iron Mountain	3.13”	112%	1.5”
Manistique	2.57”	90%	T”
Munising	3.77”	128%	5.8”
Stambaugh	3.16”	124%	3.9”

**NOTE:** Precipitation after 8am EST March 31<sup>st</sup> was counted in April stats for all but the WFO Marquette site due to the reporting structure of our cooperative observers.

**Flooding Conditions**

There were no river flooding concerns during the month of April.

## River Conditions

Monthly average streamflows across Upper Michigan were near- to well-below normal for the month of April. This is mostly due to earlier than normal springmelt and below-normal snowfall for the winter season.

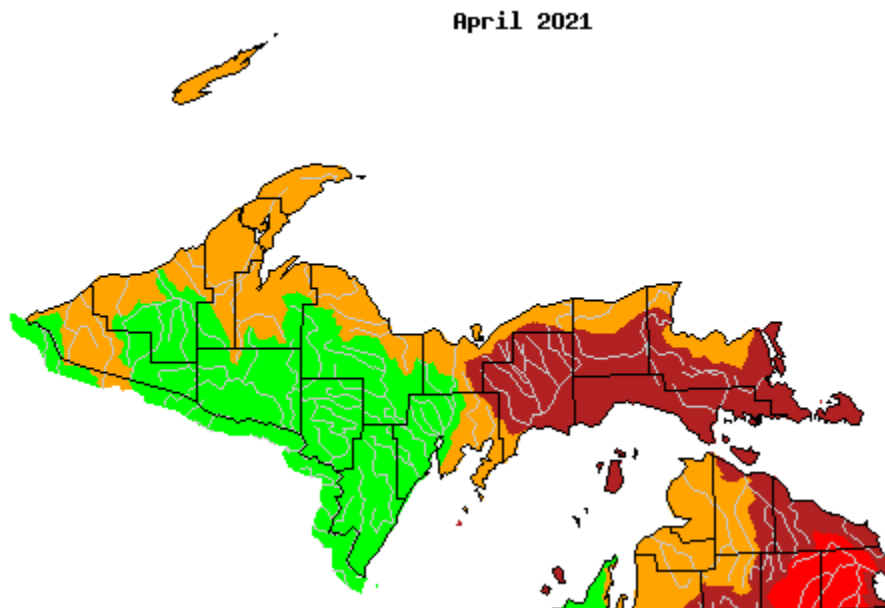


Figure 1: USGS monthly average streamflow in April 2021 across Upper Michigan.

Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

## Snowpack Conditions

Snowpack melted much earlier than normal, having already disappeared for most locations by the start of the month. This will be the last snowpack discussion until start of 2021-2022 winter season.

## Drought Discussion

Due to below-normal winter precipitation and well-below normal streamflow, eastern Upper Michigan was downgraded to D1 on the drought monitor. Normal precipitation amounts elsewhere allowed Dnada conditions to return. For the latest drought status, please go to <http://www.drought.gov>.

## Media Links

None.

## **Hydro Products Issued**

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

# Accumulated Precipitation (in) April 1, 2021 to April 30, 2021

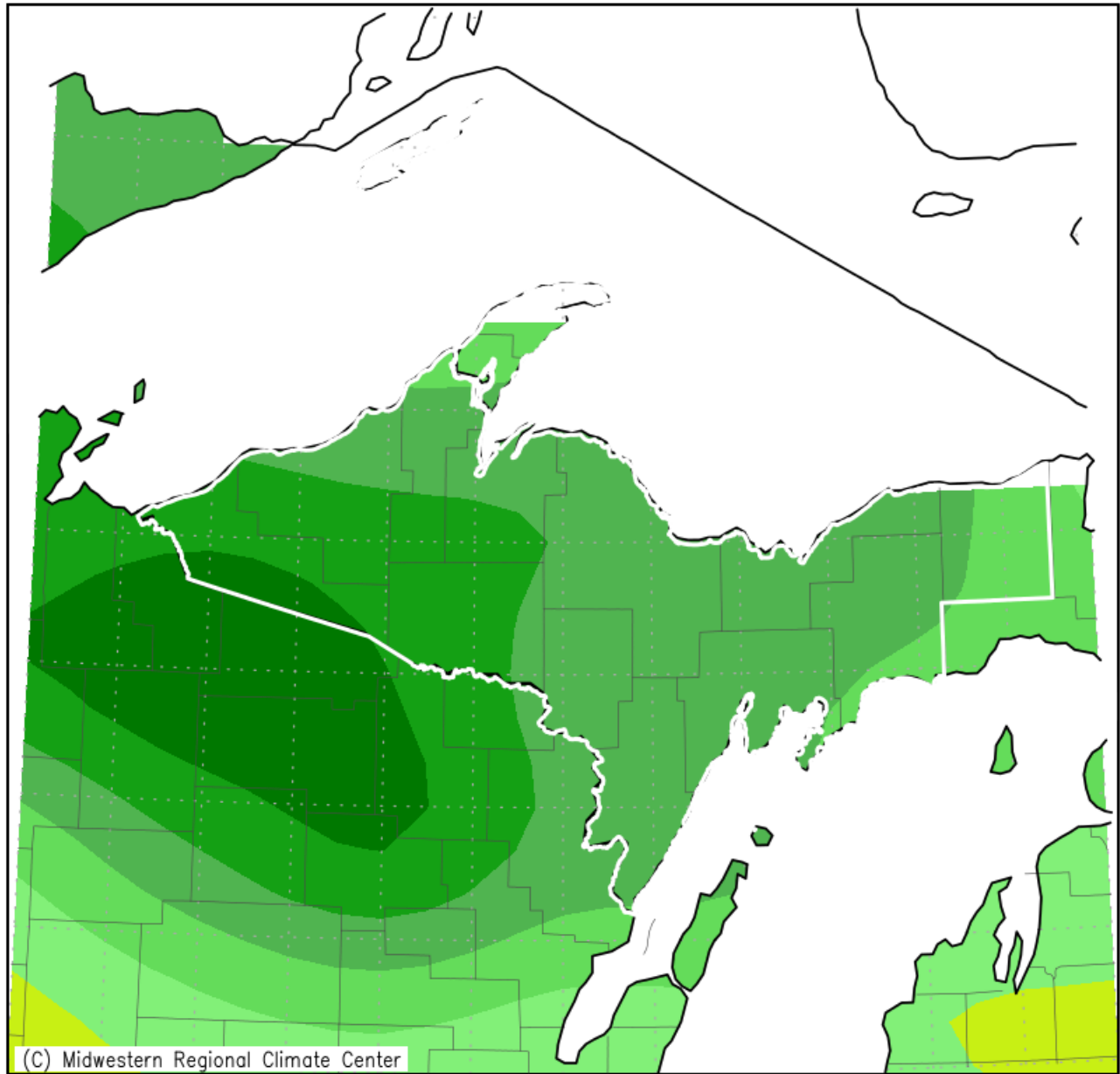
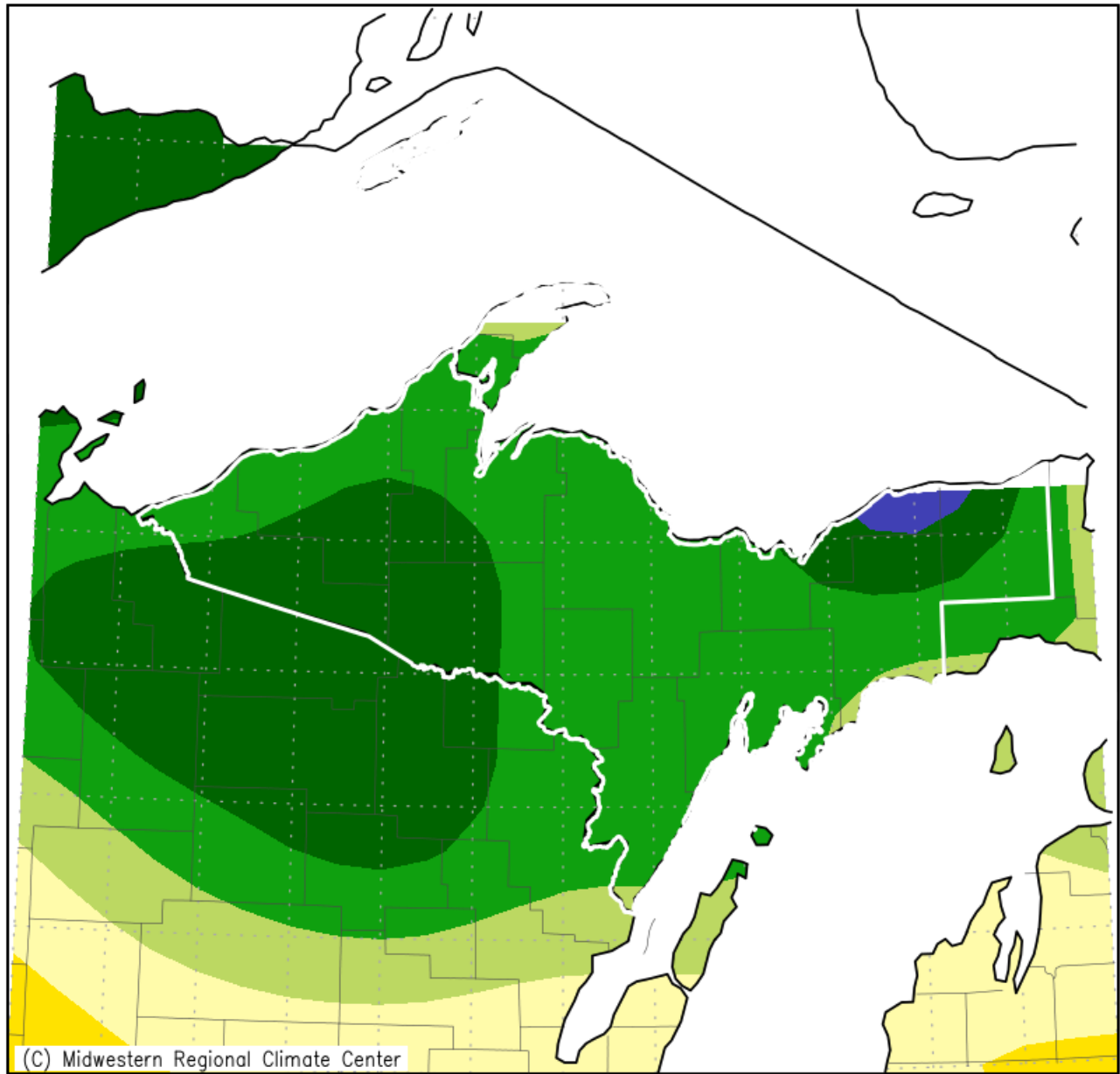


Figure 3: April 2021 Monthly Precipitation Totals.

# Accumulated Precipitation: Percent of Mean April 1, 2021 to April 30, 2021



Mean period is 1991–2020.

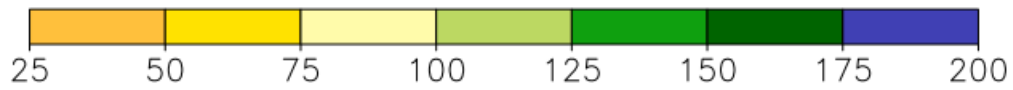


Figure 4. April 2021 Percent of Normal of Accumulated Precipitation

### Calculated Soil Moisture Anomaly (mm) APR, 2021

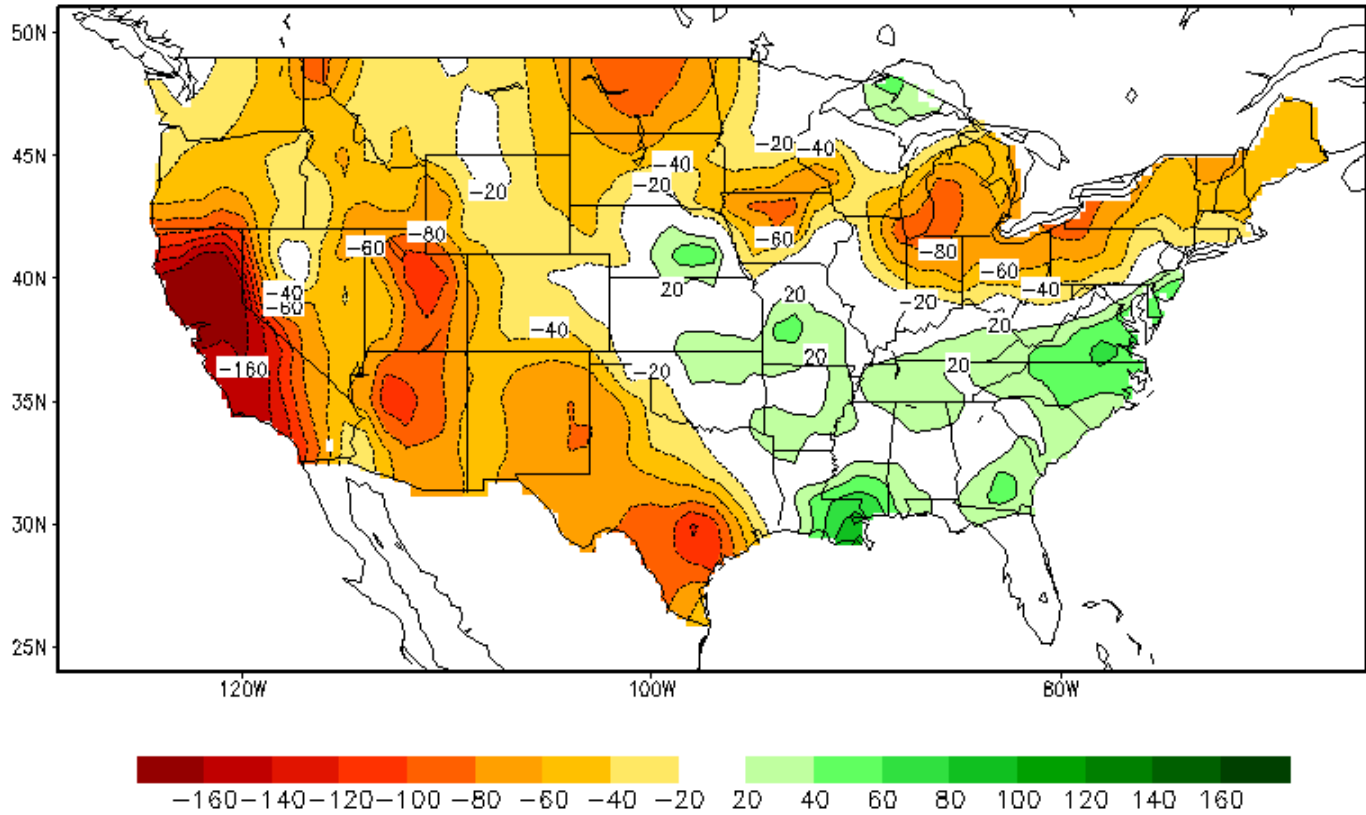


Figure 5: Climate Prediction Center’s monthly average soil moisture anomaly for April 2021.