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): **February 2021** DATE: **March 14th, 2021** SIGNATURE: **Joe Phillips, 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

Below normal winter precipitation continued for much of the region. Exceptions to this took place across parts of western and eastern Upper Michigan (Figure 4). Due to the below normal temperatures, there was little melting as additional snowfall added to the snowpack (Figure 2). USGS streamflows remained above-normal in these locations and near normal elsewhere (Figure 1). Despite ending the month with above normal snowpack (Figure 2), total snowfall for the year is still below normal. Minor impacts from the upcoming spring melt season are expected to be largely limited to the interior western portions of Upper Michigan.

Location	Precipitation	% of normal	Snowfall
WFO Marquette	1.67”	78%	21.7”
Marquette City	0.92”	70%	13.4”
Quincy Hill	4.08”	M	61.7”
Ironwood	0.67”	53%	14.7”
Iron Mountain	1.04”	104%	15.5”
Manistique	2.89”	253%	41.0”
Munising	2.47”	122%	34.8”
Stambaugh	1.40”	165%	14.3”

NOTE: Precipitation after 8am EST January 31st was counted in February 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 February.

River Conditions

Much of the basin's streamflow across Upper Michigan remained near-normal, with the Escanaba and Menominee basins averaging much above-normal (Figure 1).

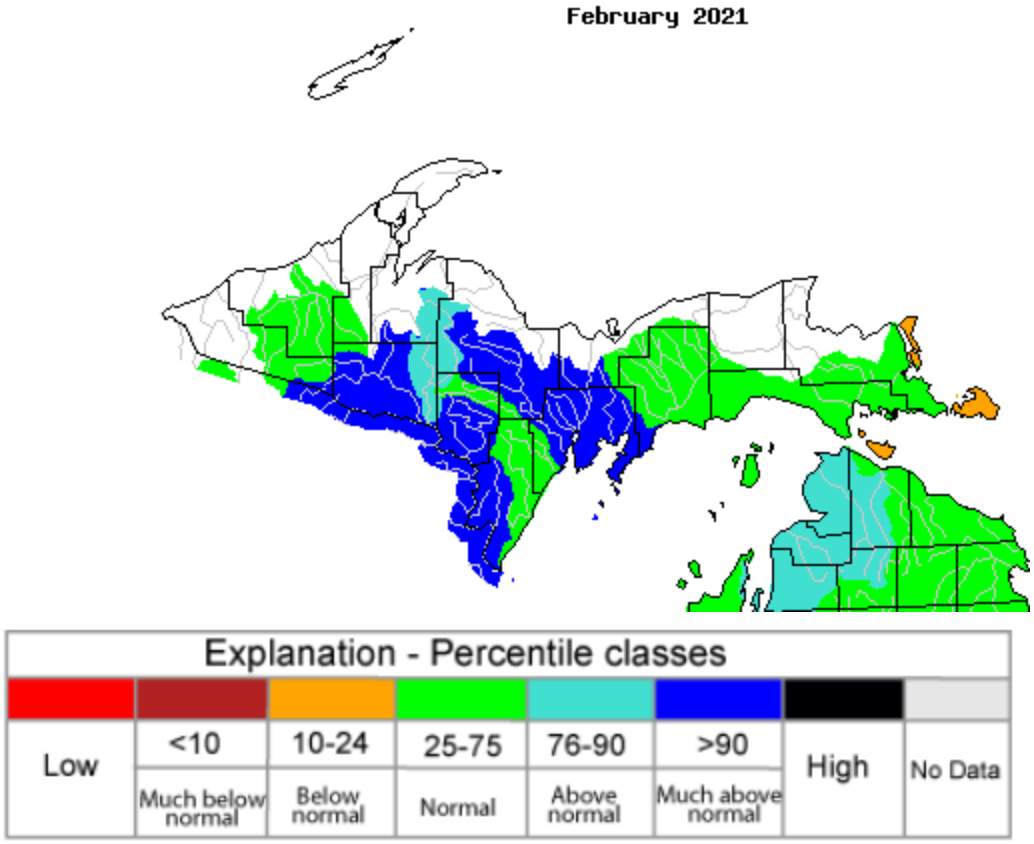

Figure 1: USGS monthly average streamflow in February 2021 across Upper Michigan

Snowpack Conditions

Parts of the interior western UP were experiencing above normal snow depths, while much of the eastern UP and areas in the Keweenaw Peninsula were experiencing a below-normal snow depth as of March 1st (Figure 2).

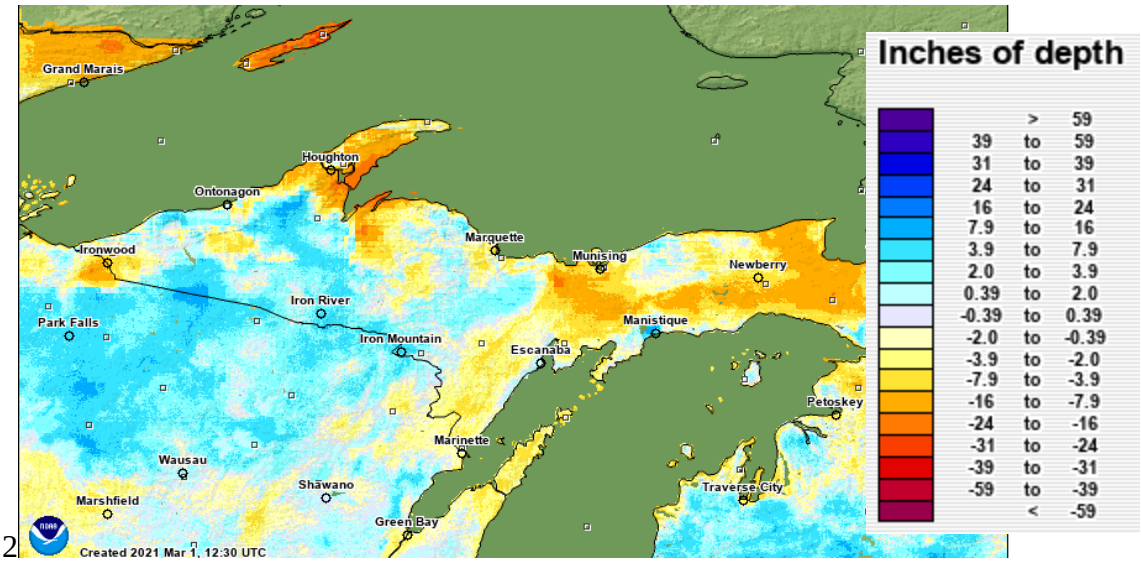

Figure 2: Departure from normal snow depth on March 1st.

Drought Discussion

D0 drought conditions were added across Upper Michigan, except in the Keweenaw Peninsula. This is mainly because of continued below-normal precipitation. For the latest drought status, please go to http://www.drought.gov.

Media Links

None.

Hydro Products Issued

2 – 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)
28 – Hydrologic Summary (RVA)
0 – Daily River Forecasts (RVD)

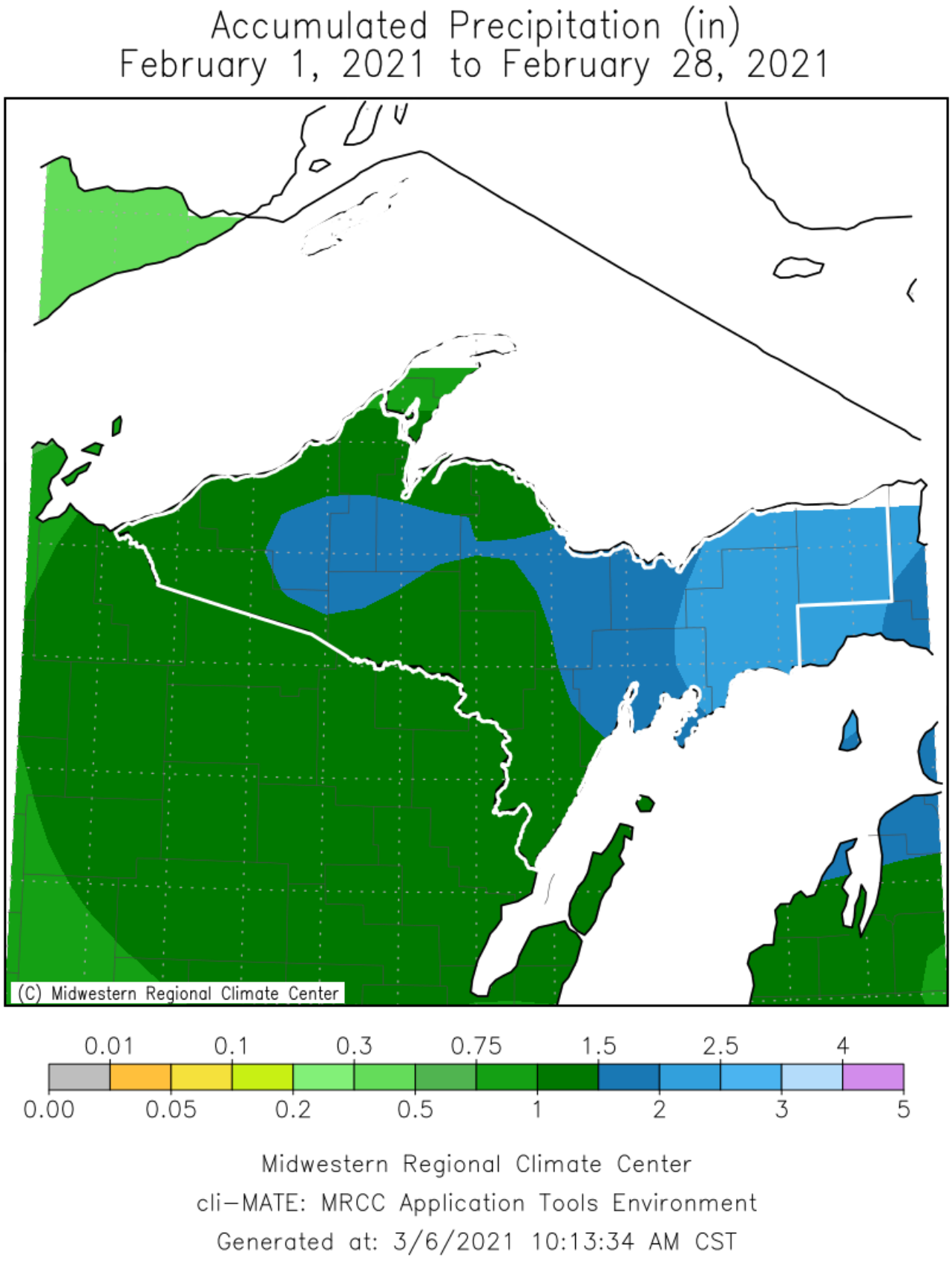

Figure 3: February 2021 Monthly Precipitation Totals.

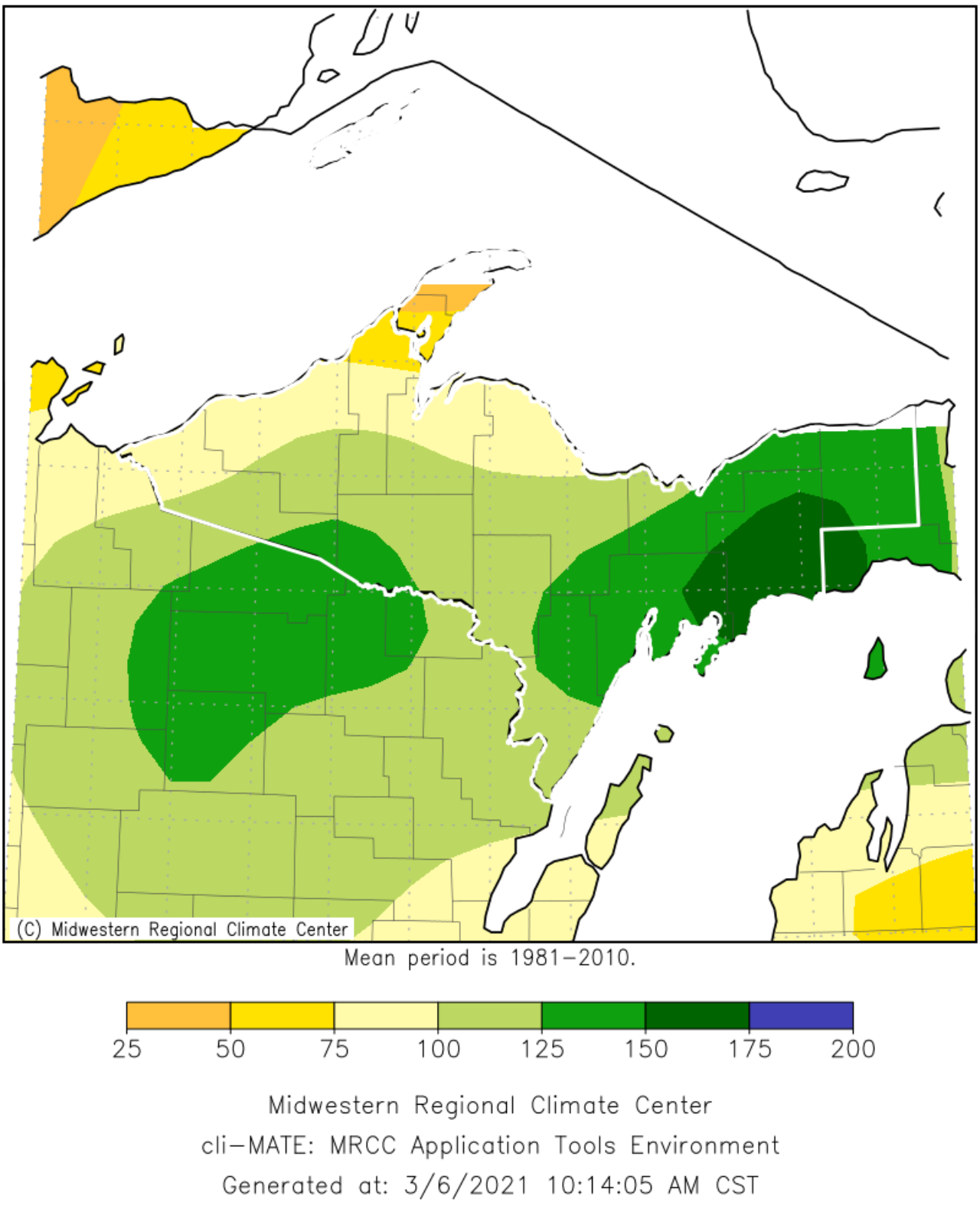

Figure 4. February 2021 Percent of Normal of Accumulated Precipitation

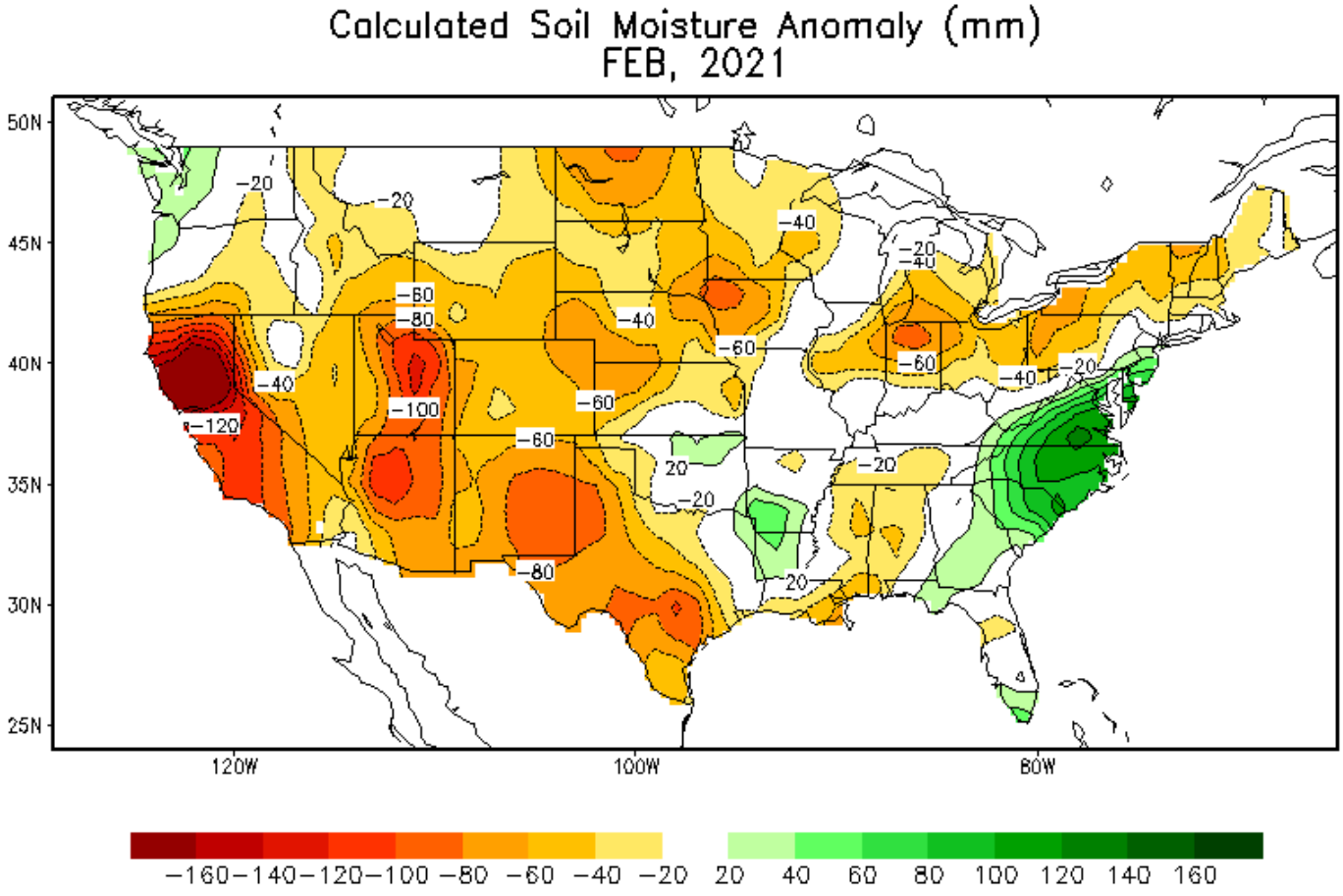

Figure 5: Climate Prediction Center's monthly average soil moisture anomaly for February 2021.