NWS FORM E-5 U.S. DEPARTMENT OF COMMERCE NOAA, NATIONAL WEATHER SERVICE	HSA OFFICE: **Marquette, MI**
MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS	REPORT FOR (MONTH / YEAR): **May 2020**
TO: NATIONAL WEATHER SERVICE (W/OH12x1) HYDROMETEOROLOGICAL INFO CENTER 1325 EAST-WEST HIGHWAY, RM 7116 SILVER SPRING, MD 20910	DATE: **June 11th, 2020**
	SIGNATURE: **Jordan Wendt, Hydrology 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.

May Summary

May brought on a hydrologic change of a pace compared to April as a few rivers were near bankfull to start the month, before a stretch of dry conditions allowed many area rivers to fall closer to baseflow. Through the first half of the month, Upper Michigan was dry with only a few days here and there that received measurable rainfall. Here at WFO Marquette roughly 80% of May's precipitation fell in just 4 days. In a 3 day span, the office received 63% of the month's total rainfall and that was on May 26th through the 28th. This stretch of dry weather led to Upper Michigan's anomalously high soil moisture we had last fall through the winter and into the start of May, as seen in May's average soil moisture (Figures 4 & 6) to see a noticeable decrease by the last day of the month, particularly across the west (Figures 5 & 7).

Location	Precipitation	% of normal	Snowfall
WFO Marquette	3.00"	98%	3.1"
Marquette City	2.89"	81%	1.3"
Quincy Hill	2.14"	M	0.2"
Ironwood	3.50"	112%	T"
Iron Mountain	2.53"	83%	T"
Manistique	1.21"	44%	1.0"
Munising	2.14"	72%	1.5"
Stambaugh	1.07"	35%	0.6"

NOTE: Rainfall after 8am EST Apr. 30th was counted in May stats for all but the NWS Marquette site due to the reporting structure of our cooperative observers.

May Flooding Conditions

Minimum flooding concerns occurred during the month of May across Upper Michigan. A few rivers managed to reach bankfull with no known impacts.

May River Conditions

River levels in the NWS Marquette Hydrologic Service Area were near-normal in most basins and slightly above normal across the Menominee, Brule, Michigamme, and Escanaba basins.

May 2020
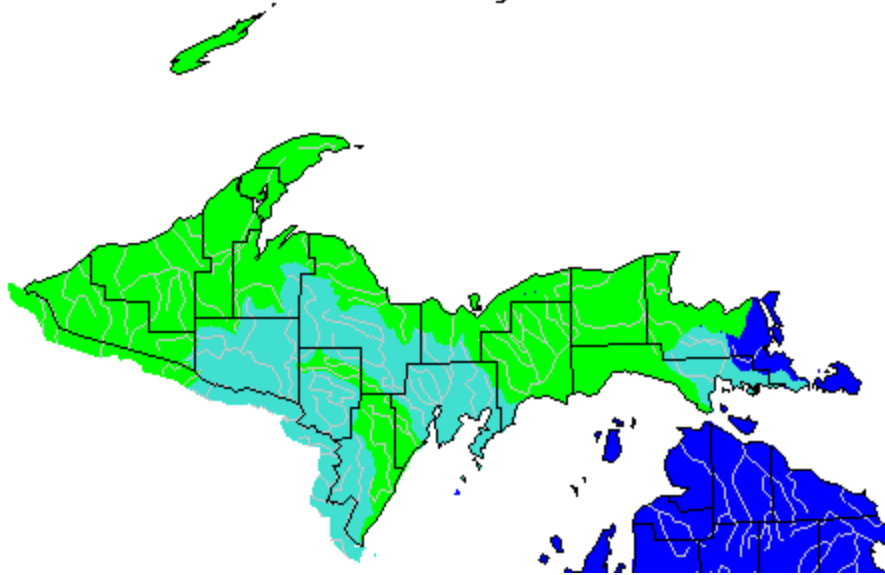
Explanation - Percentile classes							
Low	<10	10-24	25-75	76-90	>90	High	No Data
	Much below normal	Below normal	Normal	Above normal	Much above normal		

Figure 1: USGS monthly average streamflow in May 2020 across Upper Michigan

Snowpack Discussion

Snowpack across Upper Michigan has ended for the season.

Drought Discussion

No drought conditions are depicted in the Upper Peninsula. For the latest drought status, please go to http://www.drought.gov.

Media Links

None.

May Hydro Products Issued

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

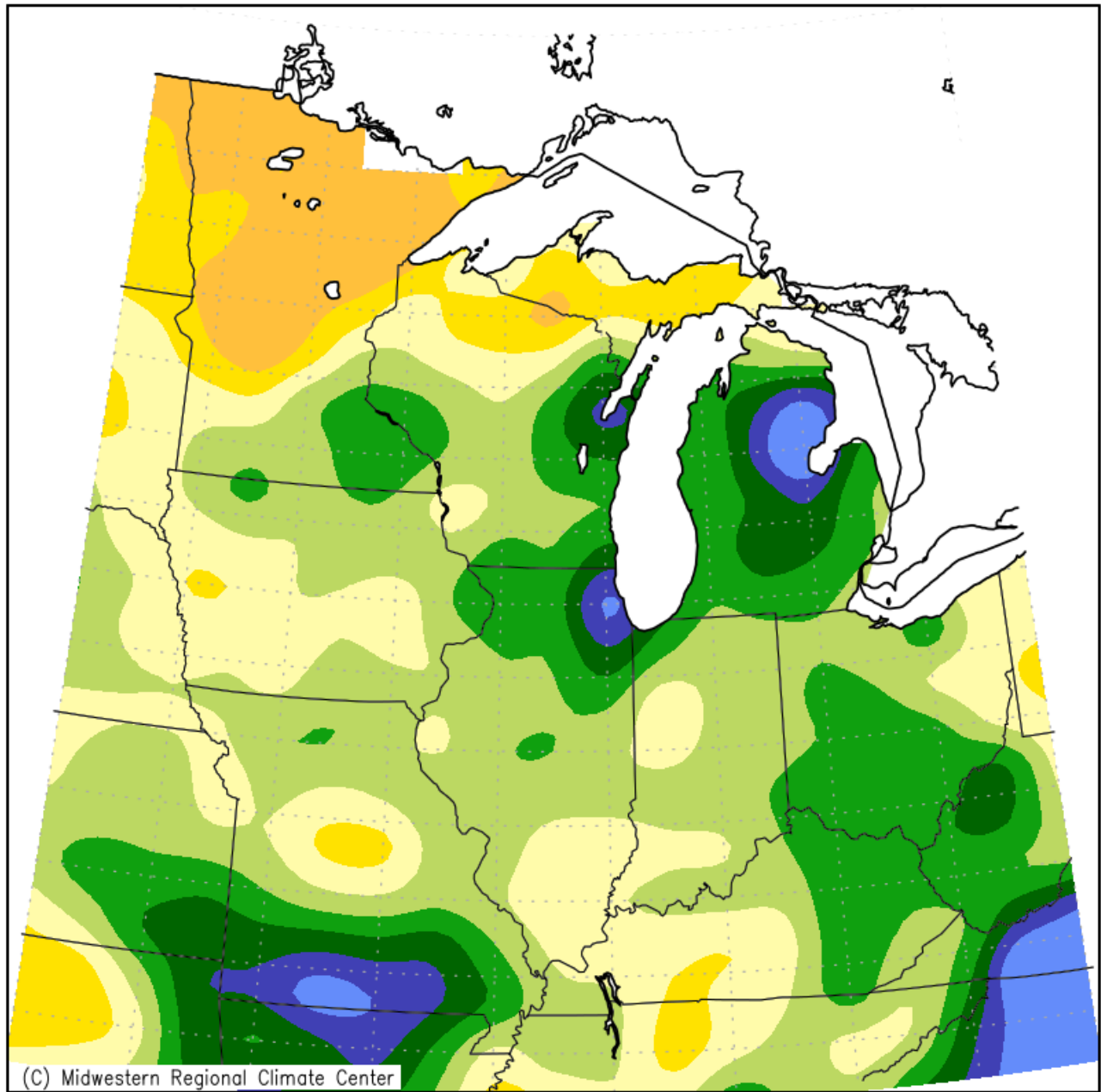# Accumulated Precipitation (in)
May 1, 2020 to May 31, 2020
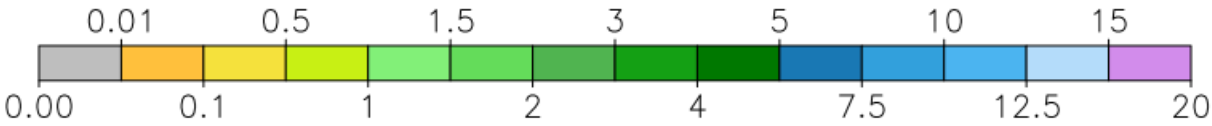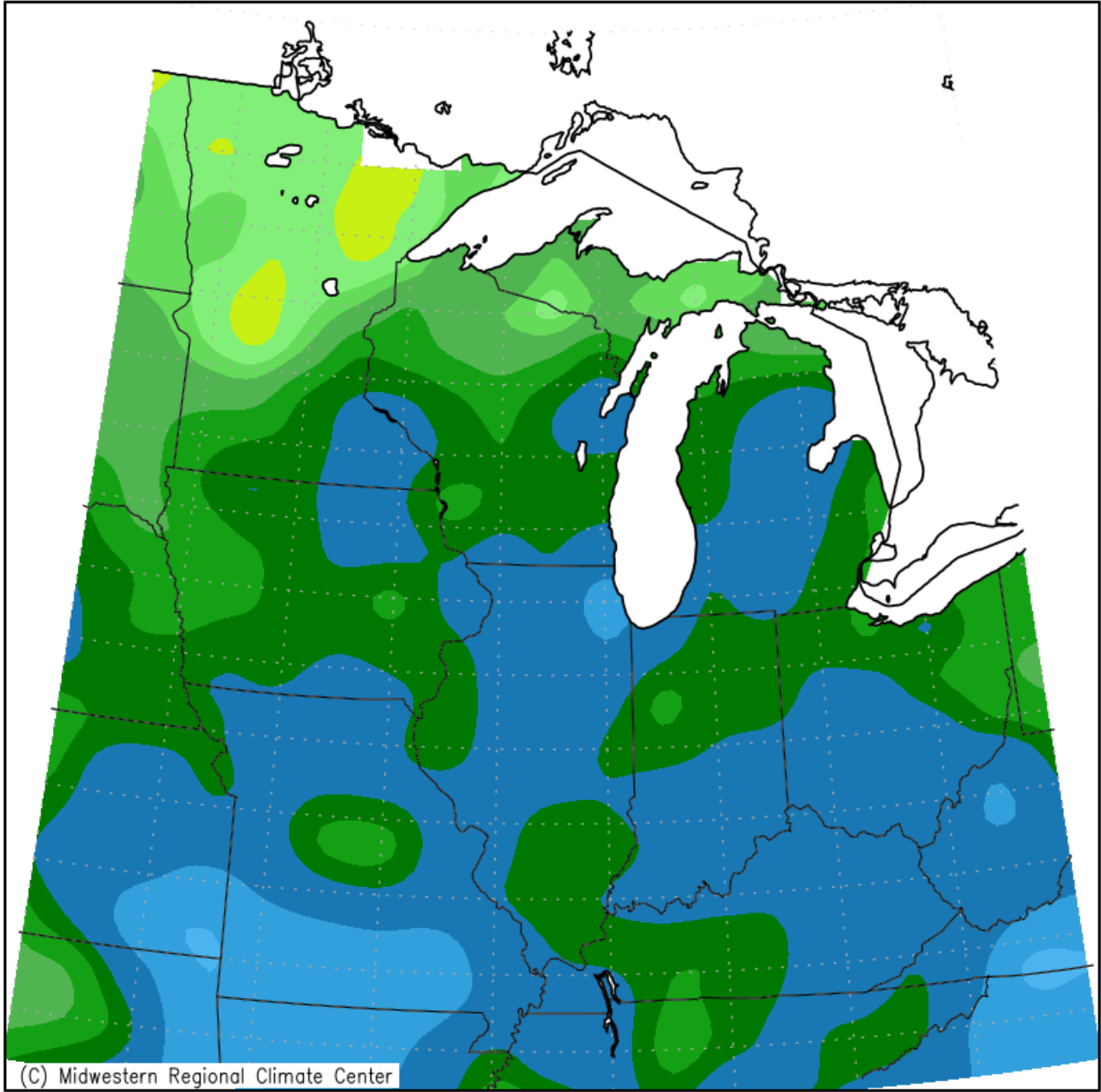
(C) Midwestern Regional Climate Center

| 0.01 | 0.5 | 1.5 | 3 | 5 | 10 | 15 |

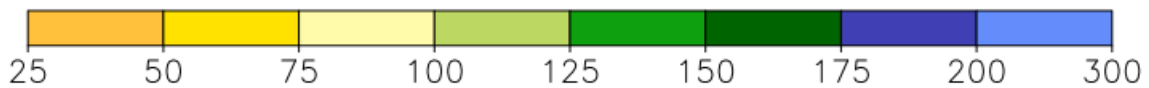| 0.00 | 0.1 | 1 | 2 | 4 | 7.5 | 12.5 | 20 |

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University of Illinois at Urbana–Champaign

Figure 2. May 2020 Monthly Precipitation Totals.

Accumulated Precipitation: Percent of Mean
May 1, 2020 to May 31, 2020

Mean period is 1981–2010.

(C) Midwestern Regional Climate Center

25 50 75 100 125 150 175 200 300

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University of Illinois at Urbana–Champaign

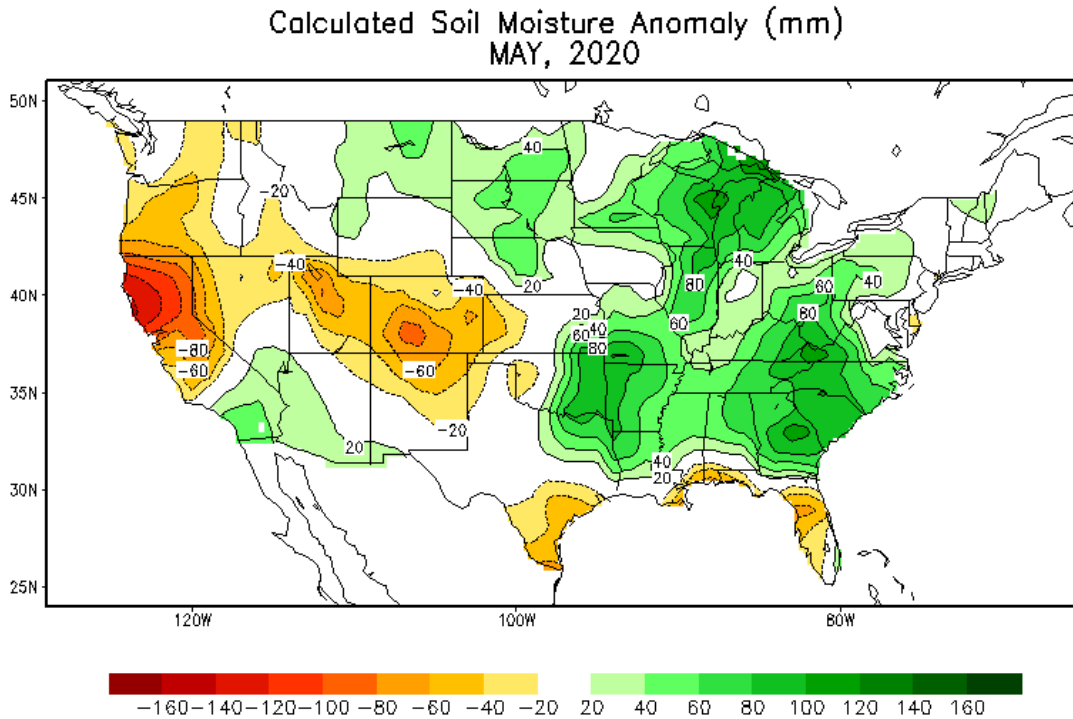Figure 3. May 2020 Percent of Normal of Accumulated Precipitation

Figure 4: Climate Prediction Center monthly average soil moisture anomaly for May 2020
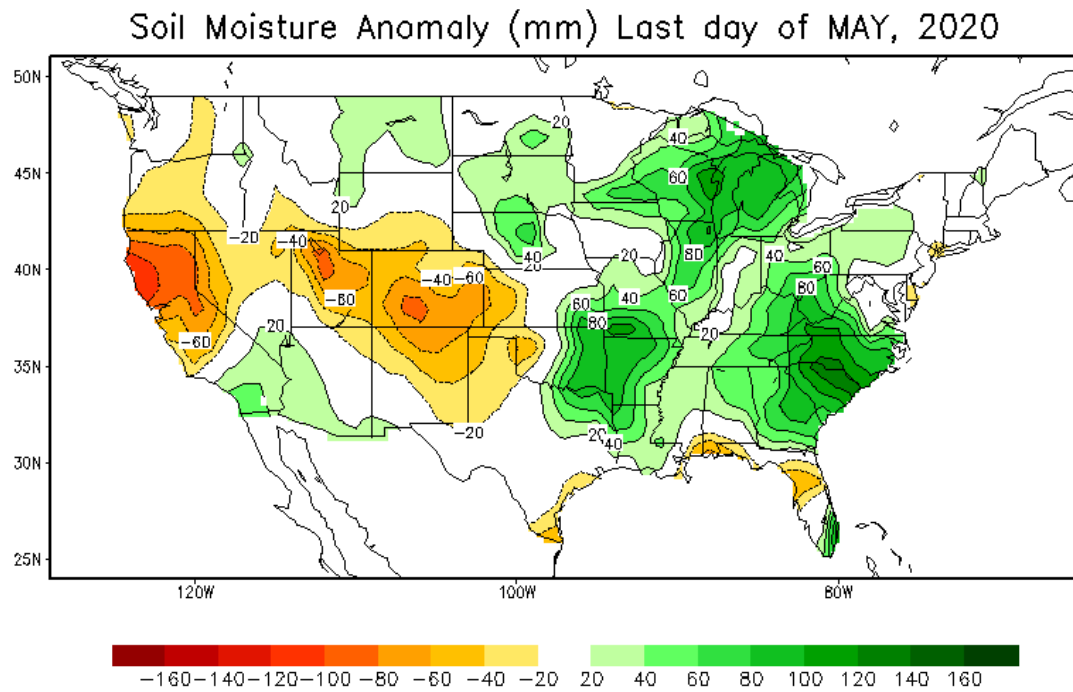

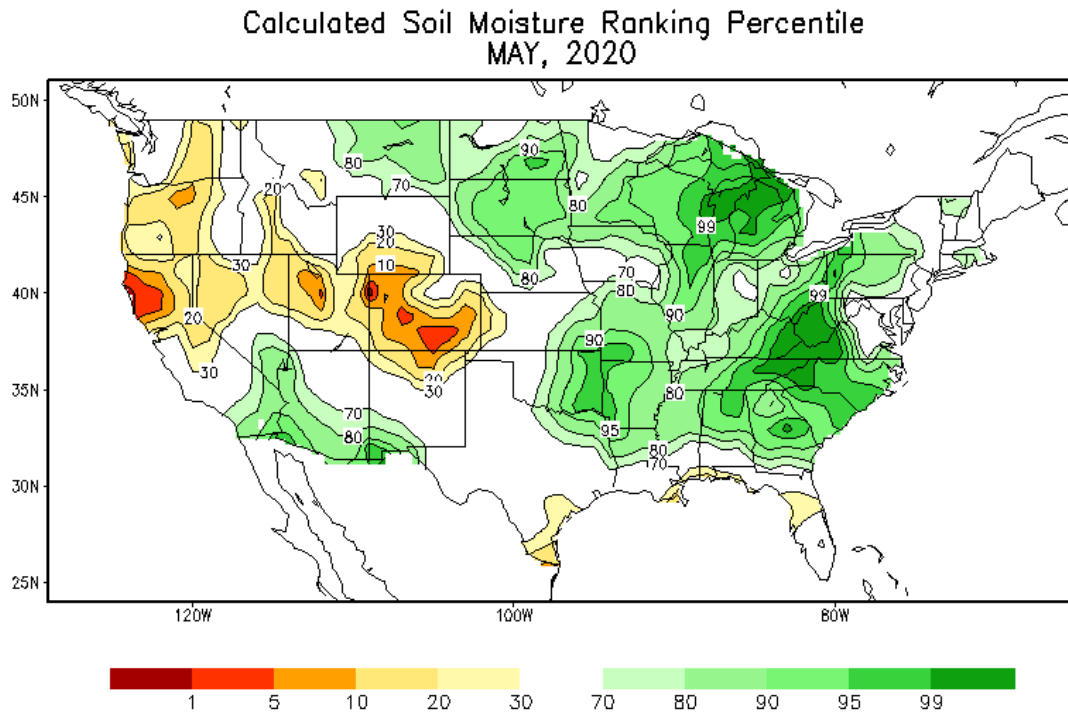Figure 5: Climate Prediction Center soil moisture anomaly on last day of May 2020

Figure 6: Climate Prediction Center monthly average soil moisture percentile for May 2020
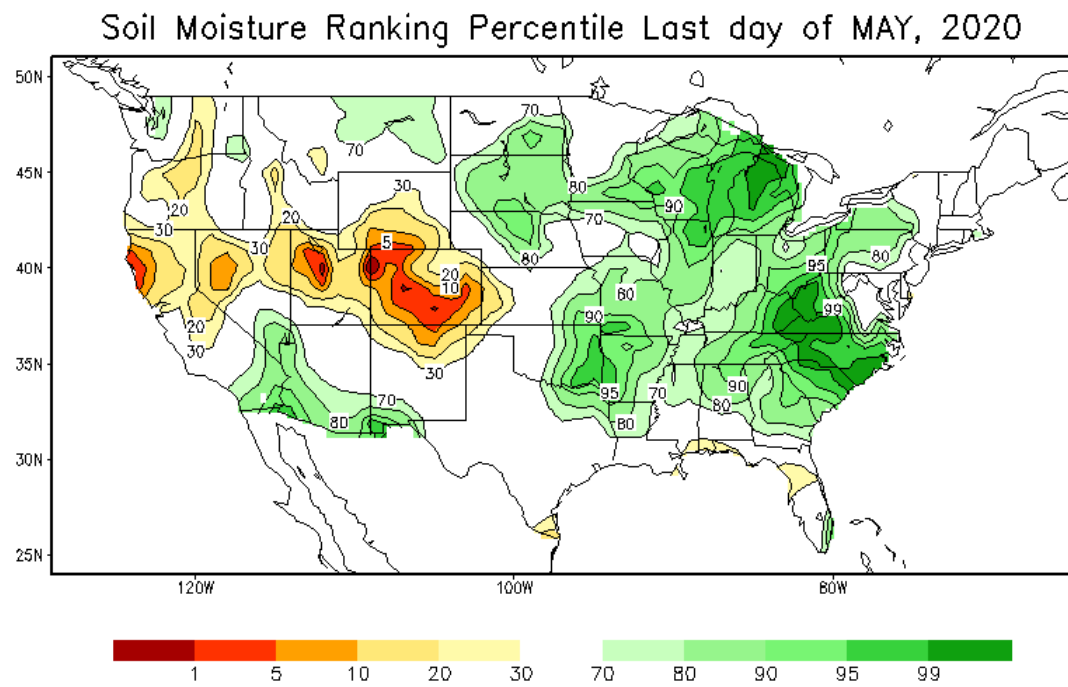

Figure 7: Climate Prediction Center soil moisture percentile on last day of May 2020