NWS FORM E-5	**U.S. Department of Commerce** NOAA, NATIONAL WEATHER SERVICE	**HSA OFFICE:** **Grand Rapids, MI**
MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS		REPORT FOR (MONTH & YEAR): **February 2025**
TO:	NATIONAL WEATHER SERVICE (W/OS31) HYDROMETEOROLOGICAL INFO CENTER 1325 EAST-WEST HIGHWAY, RM 13468 SILVER SPRING, MD 20910	DATE: March 10th, 2025
		SIGNATURE: Bruce Smith MIC Andrew Dixon, Service Hydrologist Joe Ceru, Meteorologist

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 that no flooding occurred within this hydrologic service area.

Summary

February was colder and drier than normal with snowfall events interspersed throughout the first half of the month. The second half of the month was mostly dry with a warming trend the last week of the month. This caused many of the rivers that were iced over to thaw and also brought some minor rises to the rivers.

Flood Conditions

Fairly quiet on the rivers. The month was colder than normal and many rivers and forecast points were iced over for most of the month. Flows were thus fairly low and fluctuating little. The end of the month saw temperatures rise above freezing during the daytime and freeze at night. This brought an organized river ice break up.

With temperatures ending the month in the 50s the melting snow brought some rises to the rivers with flows ending the month at above normal, even though the monthly flow overall saw most river basins have flow that was below normal (Figure 3).

There is still 1 to 2 inches of SWE in the furthest headwaters of the Muskegon River watershed, but the warm up towards the end of February melted the rest. There was some snow along the lakeshore snow belts at the end of February and into the beginning of March.

This was a fairly classic winter in the fact that the rivers froze and then stayed frozen for a sustained period of time. So far through the end of February and continuing into March the melt of the river ice has been steady and peaceful.

Flood Stage Report

No forecast points exceeded flood stage during the month. Thus, the NWS Form E-3 "Flood Stage Report" was not issued.

River Conditions

The end of February percentage of normal flow for selected rivers is listed below:

Location	River	% of Normal
Scottville	Pere Marquette	107
Whitehall	White	95
Evart	Muskegon	99
Mt. Pleasant	Chippewa	ICED
Lansing	Grand	133
Grand Rapids	Grand	98
East Lansing	Red Cedar	196
Hastings	Thornapple	134
Battle Creek	Battle Creek	144
Battle Creek	Kalamazoo	104

General Hydrologic Information

February precipitation amounts for Grand Rapids, Lansing, and Muskegon, Michigan were, 0.89, 0.89, and 0.82 inches, respectively (Figure 1). Monthly departures were -1.23, -0.82, and -1.29 inches, respectively. Percent of mean precipitation for February 2025 is shown in Figure 2. Temperatures for the month of February at Grand Rapids, Lansing and Muskegon were colder than normal. The monthly average temperature departures for these sites were -2.1, -1.5, and -1.6 degrees Fahrenheit, respectively.

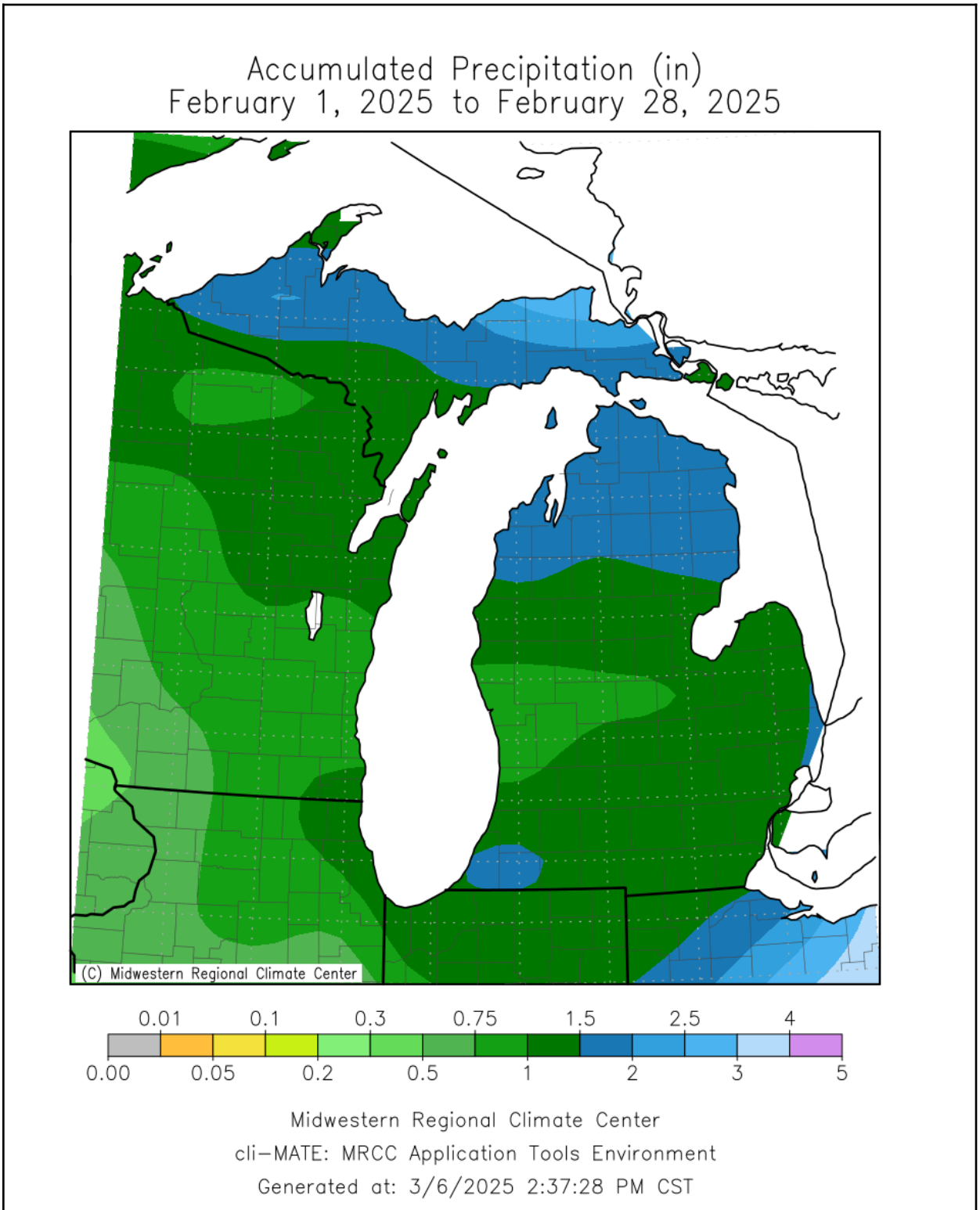

Figure 1. February 2025 Monthly Precipitation Totals. Widespread precipitation across Lower Michigan along the Lakeshore.

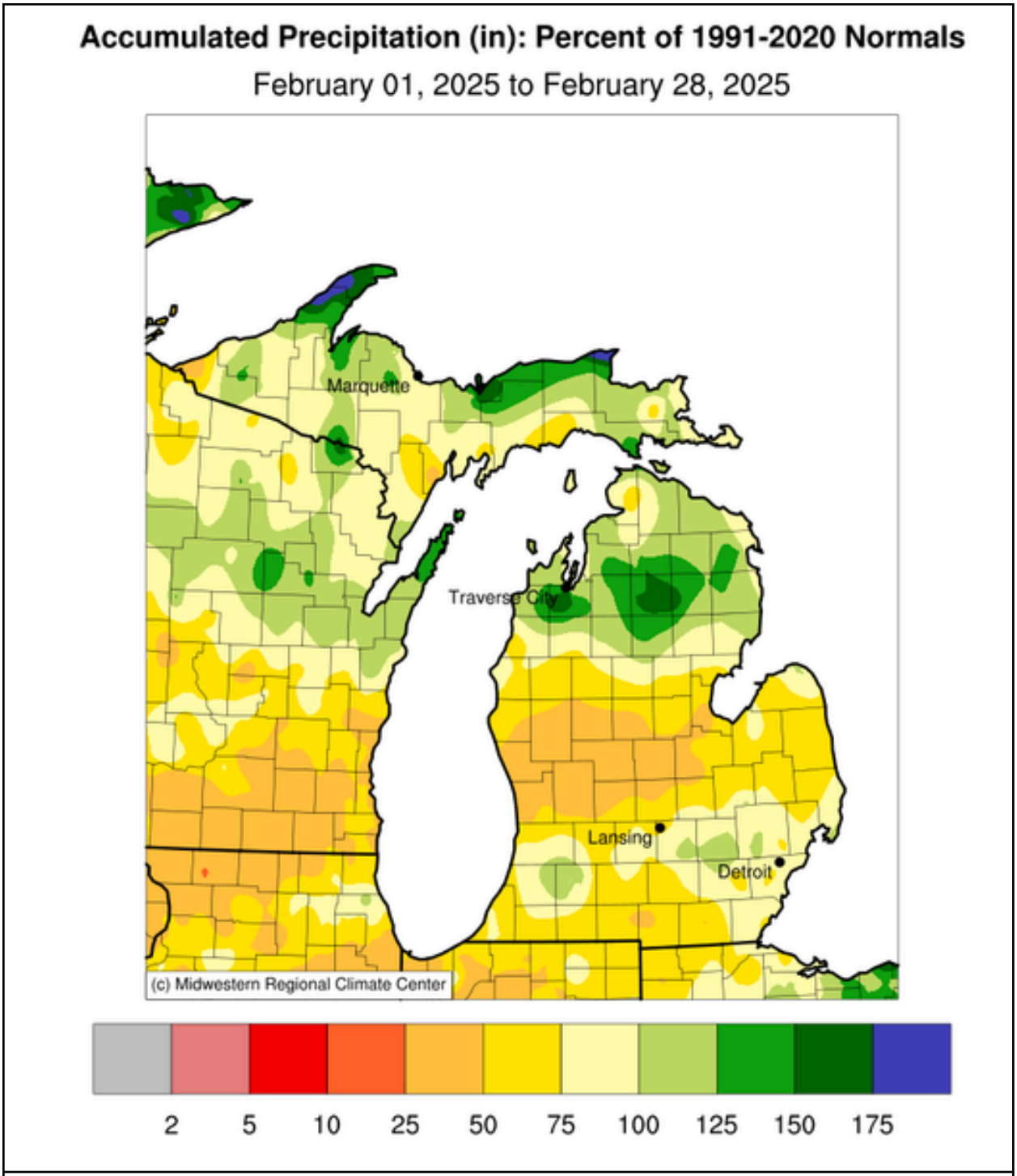

Figure 2.February 2025 Percent of Mean of Accumulated Precipitation.

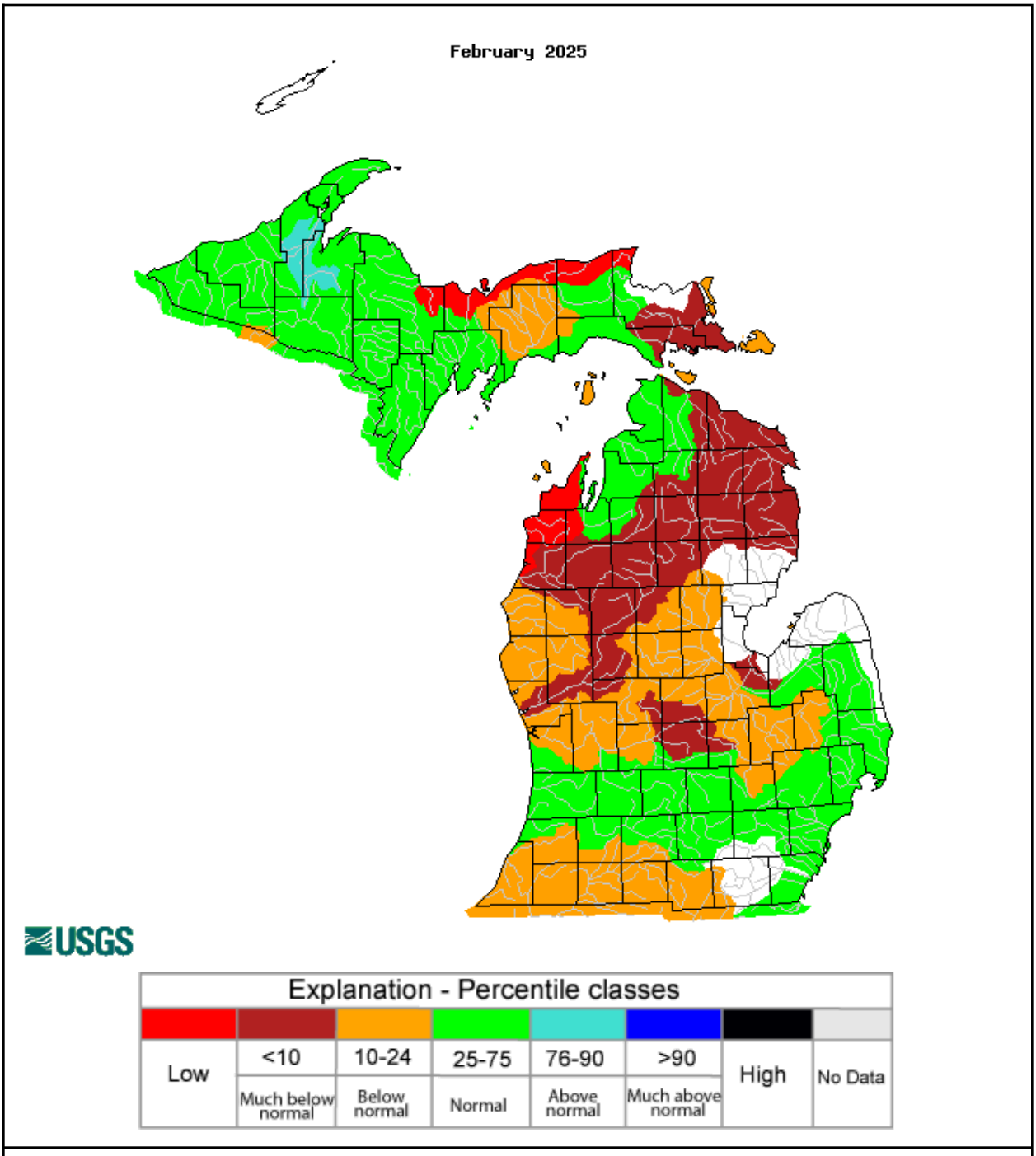

Figure 3. USGS monthly streamflow for February grouped by significant hydrologic units. Most river basins in southern Lower Michigan are below normal except in and around the Kalamazoo River watershed.

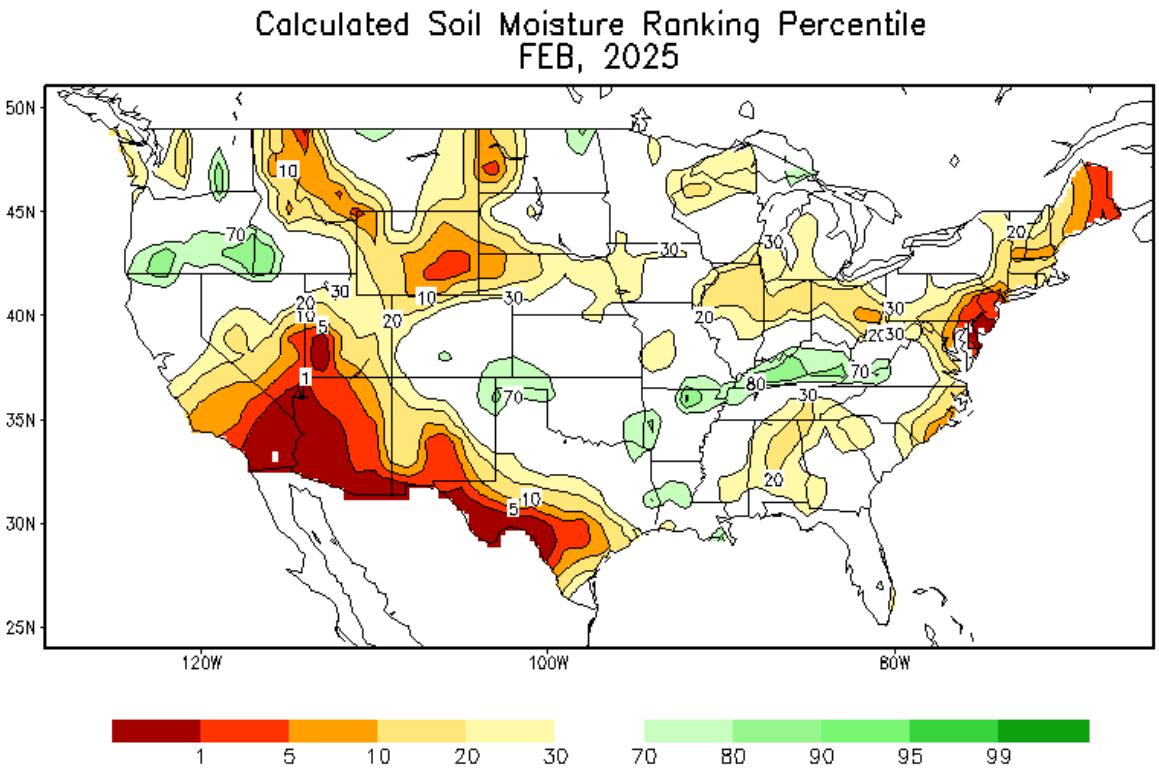

Figure 4.Calculated Soil Moisture Percentile for February 2025. Soil moisture is below normal across southern lower Michigan.

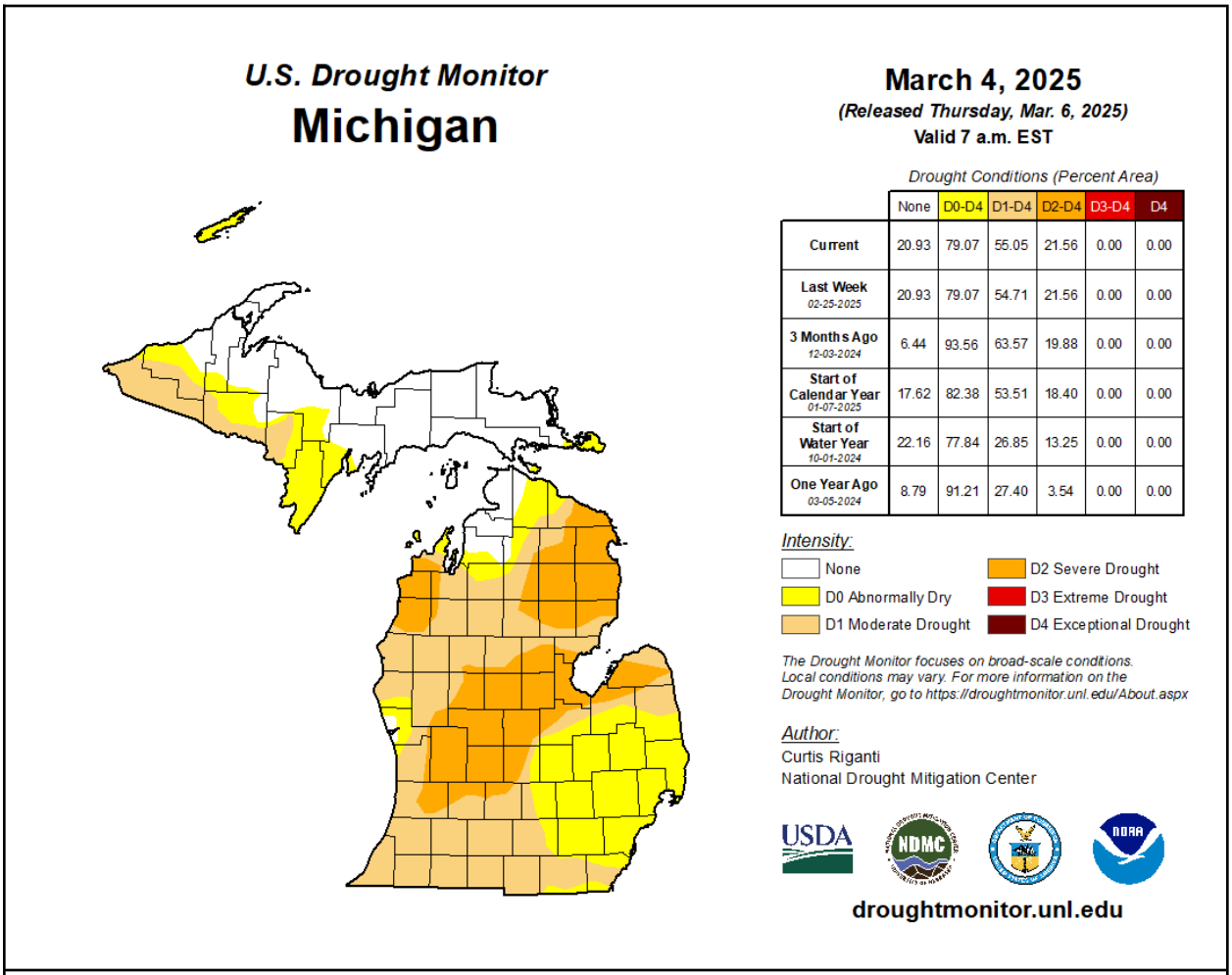

Figure 5.U.S. Drought Monitor effectively shows the spread of D2 Severe Drought across Central Michigan and extending into Southwestern Michigan.

Hydrologic Products issued this month

31 Hydrologic Summaries (ARBRVAGRR)
1 Probabilistic Hydrologic Outlook (ARBESFGRR)
0 Event-driven Hydrologic Outlook (ARBESFGRR1)
1 Areal Flood Advisory Statements (ARBFLSGRR)
0 Flood Warning Statements (ARBFLWGRR)
0 Flood Watch Statements (ARBFFAGRR)
0 River Statements (ARBRVSGRR)

News Articles and Related Documentation