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): **January 2025**
TO:	NATIONAL WEATHER SERVICE (W/OS31) HYDROMETEOROLOGICAL INFO CENTER 1325 EAST-WEST HIGHWAY, RM 13468 SILVER SPRING, MD 20910	DATE: February 8th, 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

A cold January caused many rivers to ice over in places, especially watersheds north of the Grand River. Snowfall was above normal near the lakeshore but lower than normal elsewhere. There was a significant rainfall event through Southern Michigan to end the month but no flooding occurred. Southern Michigan had normal flows overall with Maple River watershed being the exception.

Flood Conditions

The rivers began the year, overall with flows above normal. This was followed by a steady decline as the month went on. The cold snap through the second half of the month allowed for many rivers through central Michigan and their corresponding river gauges to ice over. This was the case for the Pere Marquette, the White, The Muskegon and the Chippewa rivers. Portions of the Grand also had ice on it as the month progressed. The Grand River iced over at Portland, Ionia among others. Any of these jams were not out of normal or caused flow restrictions that would cause flooding.

Several points along the Kalamazoo River began 2025 with flows in the 75-90% range and steadily dropped through most of the month. Most points ended the month in the 25-75% quartile range. The one watershed that ended the month at below normal flows was the Maple River watershed (Figure 3). The Maple River at Maple Rapids, MI gauge began the month at 164 cfs. This is in the middle of the 25-75% range. By the end of the month it was at 64 cfs which is at the top end of the 10-25% range.

There was one heavy rain event on the last day of the month and while a flood advisory was issued for Southwest Michigan, no flooding was reported.

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 January percentage of normal flow for selected rivers is listed below:

Location	River	% of Normal
Scottville	Pere Marquette	ICED
Whitehall	White	ICED
Evart	Muskegon	ICED
Mt. Pleasant	Chippewa	ICED
Lansing	Grand	100
Grand Rapids	Grand	67
East Lansing	Red Cedar	93
Hastings	Thornapple	80
Battle Creek	Battle Creek	103
Battle Creek	Kalamazoo	132

General Hydrologic Information

So there were some issues with Lansing climate data. There was one day of missing data for precipitation and the Temperature sensor was down for almost 3 weeks, from the 6th to the 24th. Given that loss of data, much of the Lansing climate data has been set to missing.

That said, January precipitation amounts for Grand Rapids, Lansing, and Muskegon, Michigan, were 1.22, 1.20(for Lansing this is for the days we had, with one missing day), and 1.69 inches, respectively (Figure 1). Monthly departures were -1.30,missing for LAN, and -0.73 inches, respectively. Percent of mean precipitation for January 2025 is shown in Figure 2. Temperatures for the month of January at Grand Rapids, Lansing and Muskegon were colder than average. The monthly average temperature departures for these sites were -2.6, Missing, and -0.8 degrees Fahrenheit, respectively.

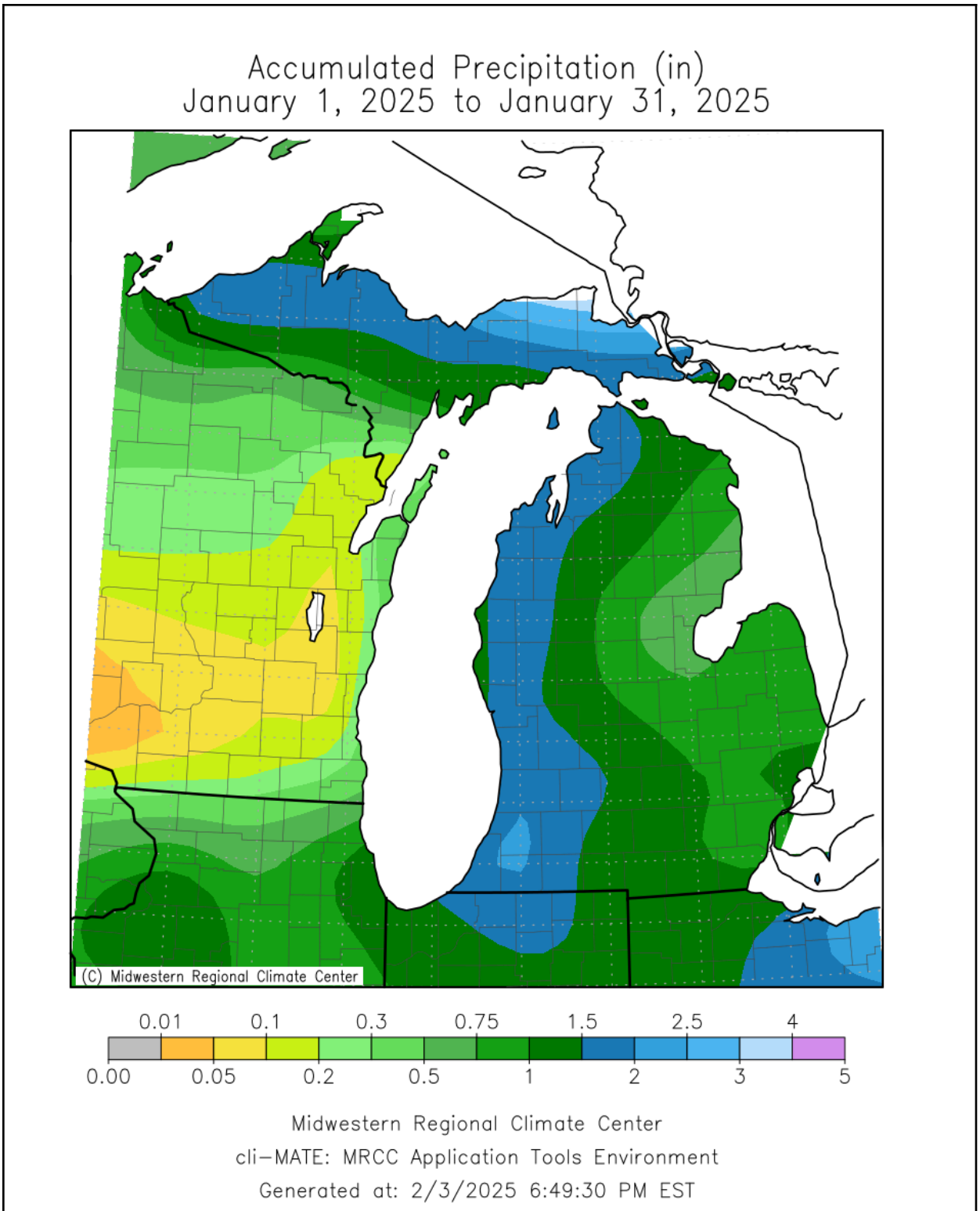

Figure 1. January 2025 Monthly Precipitation Totals. Widespread precipitation across Lower Michigan along the Lakeshore.

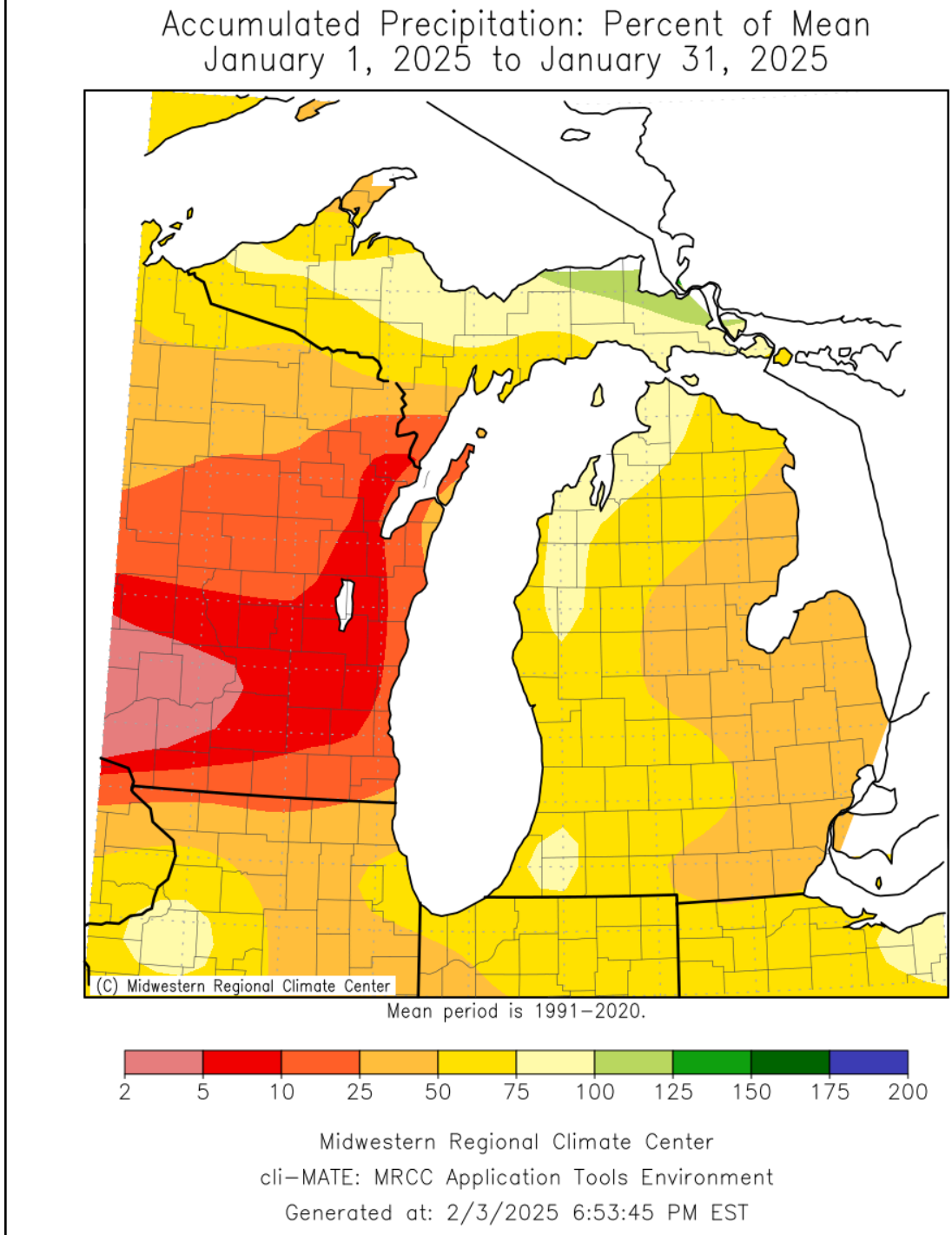

Figure 2.January 2025 Percent of Mean of Accumulated Precipitation.

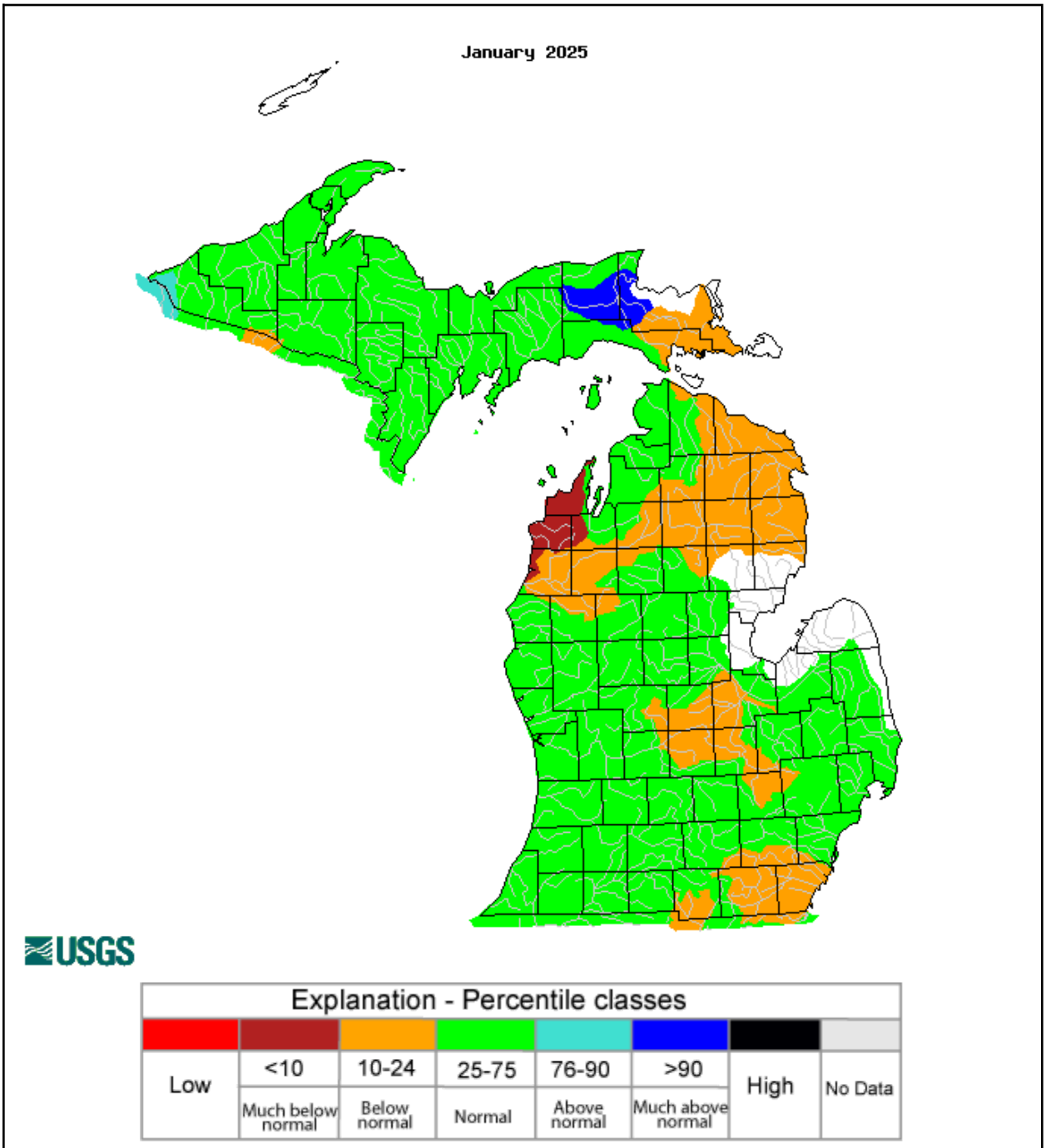

Figure 3. USGS monthly streamflow for January grouped by significant hydrologic units. Most river basins in southern Lower Michigan are normal except the Maple River watershed.

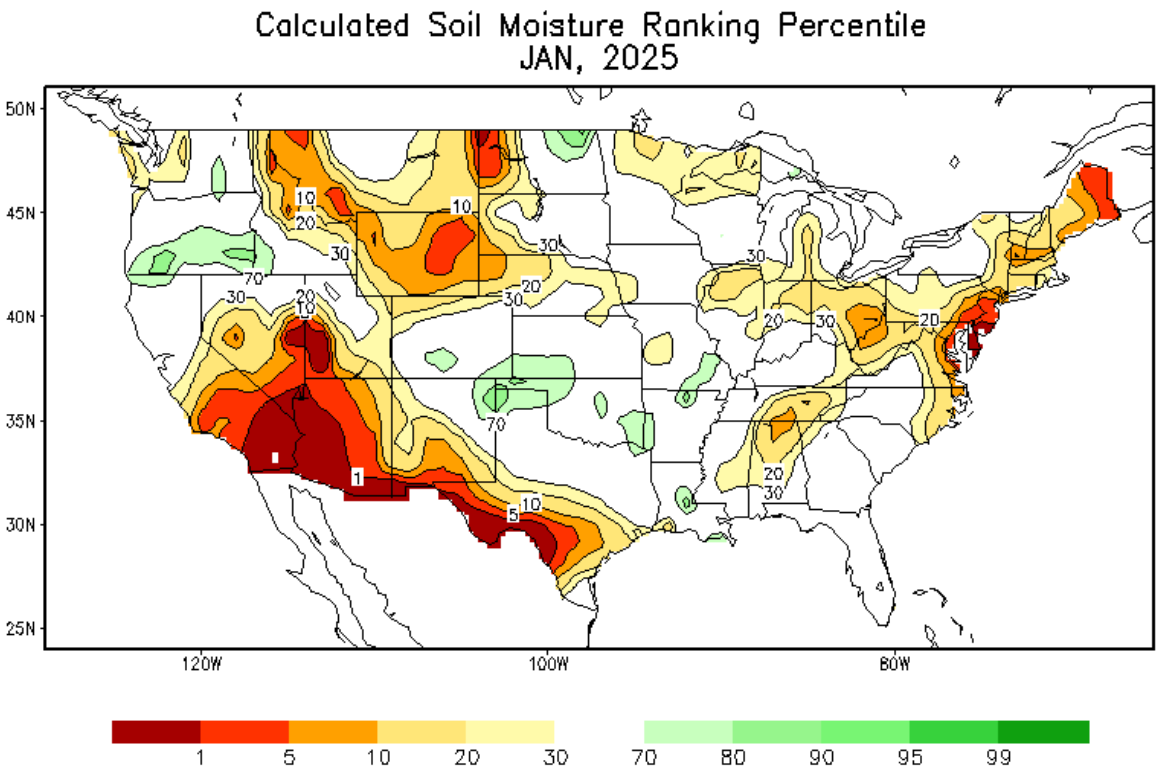

Figure 4.Calculated Soil Moisture Percentile for January, 2025. Soil moisture is below normal across southern lower Michigan.

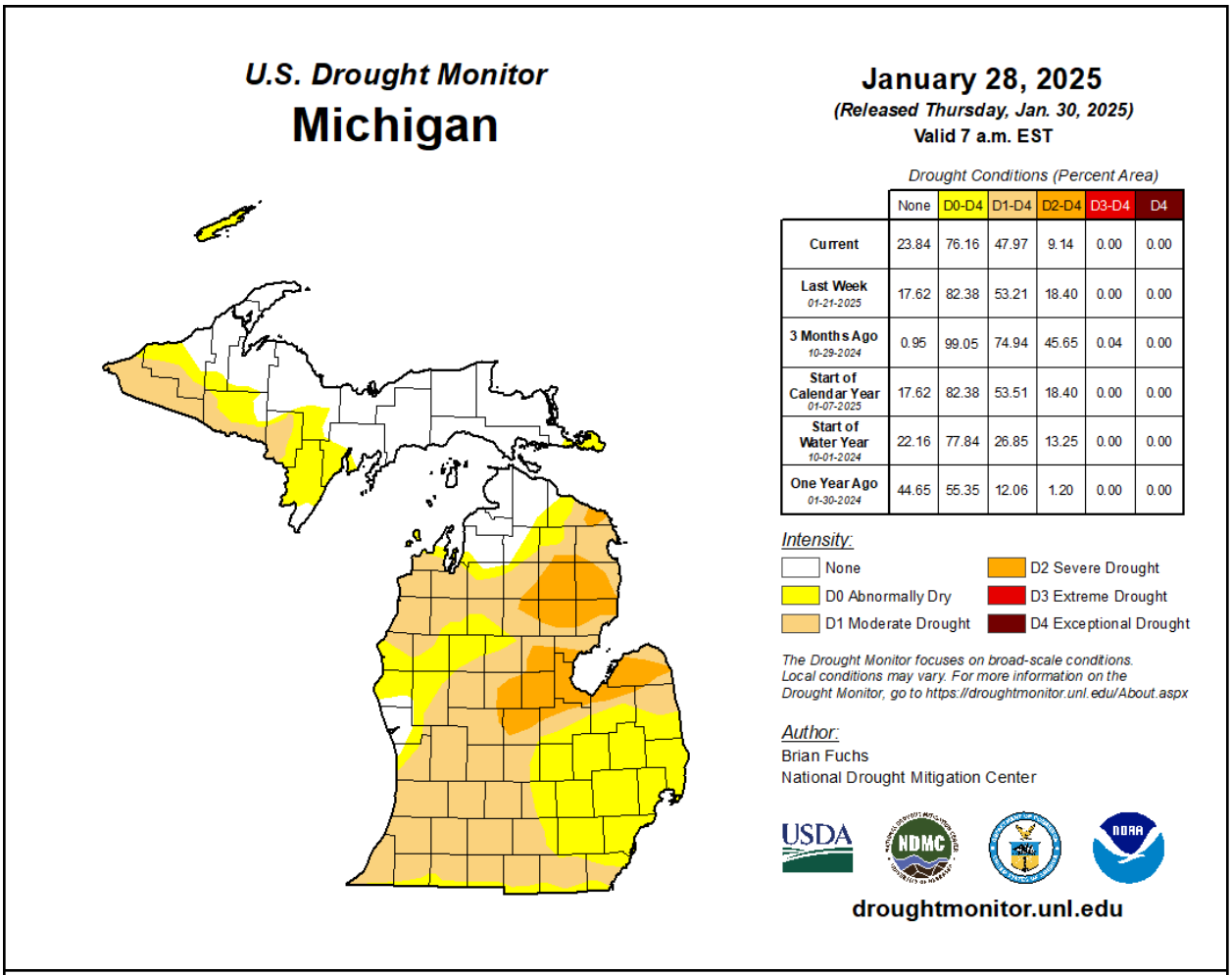

Figure 5.U.S. Drought Monitor effectively shows the moderate drought across Michigan.

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

Risk of Ice Jams Late January

Potential for Ice Jams in Michiana