February 2023 Northern Michigan Climate Summary

Alpena

Avg Temp	Avg Temp Departure	Precip	Precip Departure	Snowfall	Snowfall Departure
24.7°F	+4.0°F	2.35”	+0.83”	22.0”	+5.0”

Houghton Lake

Avg Temp	Avg Temp Departure	Precip	Precip Departure	Snowfall	Snowfall Departure
25.4°F	+5.1°F	2.36”	+0.95”	18.6”	+5.0”

Sault Ste. Marie

Avg Temp	Avg Temp Departure	Precip	Precip Departure	Snowfall	Snowfall Departure
21.1°F	+3.3°F	2.67”	+1.16”	29.4”	+8.7”

Gaylord

Avg Temp	Avg Temp Departure	Precip	Precip Departure	Snowfall	Snowfall Departure
24.3°F	+7.9°F	3.05”	+1.04”	31.1”	+4.7”

Traverse City

Avg Temp	Avg Temp Departure	Precip	Precip Departure	Snowfall	Snowfall Departure
28.8°F	+5.0°F	2.69”	+0.66”	27.6”	+6.2”

February 2023 was slightly more typical for a winter month across northern lower and eastern upper Michigan when put next to January 2023. Climatologically, February is slightly warmer than January, but this year would not be the case. February 2023 was still well above normal from a temperature standpoint, but not to the effect of January. As a matter of fact, in several places, February wound up being colder than January owing to a slightly more persistent colder airmass (though there were still plenty of warmer spells in the month). This also contributed to an increase in snowfall across the region, with that slightly colder airmass allowing for any larger systems to produce snowfall farther south into the lower peninsula. The resulting increase in snowfall allowed for liquid equivalent precipitation to swell above normal as well.

Temperatures across the region ran above normal for the month of February, despite a chillier start to the month that featured several nights in the single digits to below zero. For most spots, the coldest night was February 2nd into the 3rd, where much of northern Michigan fell below zero, with some spots across eastern upper Michigan seeing temperatures in the teens below zero. A quick recovery into a milder period followed from the 5th through about the 15th of the month, featuring several days with highs reaching into the 40s and 50s across the area, melting away some of an already thin snowpack. A brief colder spell brought back lows near zero just after President's Day weekend, but then another milder period followed before a colder airmass returned to close out the last 4 days of the month.

As far as snowfall goes, all locations saw above average snowfall for the month of February, and that was attributed to a slightly colder airmass in place than what was in place in January. The snowbelts did observe some periods of lake effect snow, (particularly at the start of the month as a very cold airmass complete with steady northwest winds interacted with abnormally ice-free lakes from prolonged warmth) but overall, the majority of the snowfall that occurred over the course of the month was from larger systems that happened to take a much more favorable track across the region. The snow from these systems was usually shorter in duration, but quite heavy while it fell. As a matter of fact, a system on February 27th was intense enough to produce a narrow swath of 3-6" along the M-55 corridor over the span of 2-3 hours. The intense rate of snowfall led to several instances of thundersnow near Cadillac and Lake City, along with other spots stretching into mid Michigan that happened to get into this area of very intense snowfall.

The run of snow at the end of the month led to a dramatic increase in liquid equivalent precipitation across the region. Owing to the fact that there were several larger systems that brought in deeper moisture from the Gulf of Mexico, liquid equivalents went above average for the month, with both Gaylord and Sault Ste. Marie observing over an inch above normal liquid equivalent precipitation.