

Southeast Michigan Climate Summary

Monthly Temperature, Precipitation, Snowfall, and Severe Weather Summaries

Weather Forecast Office
Detroit, MI



December 2023



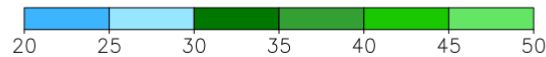
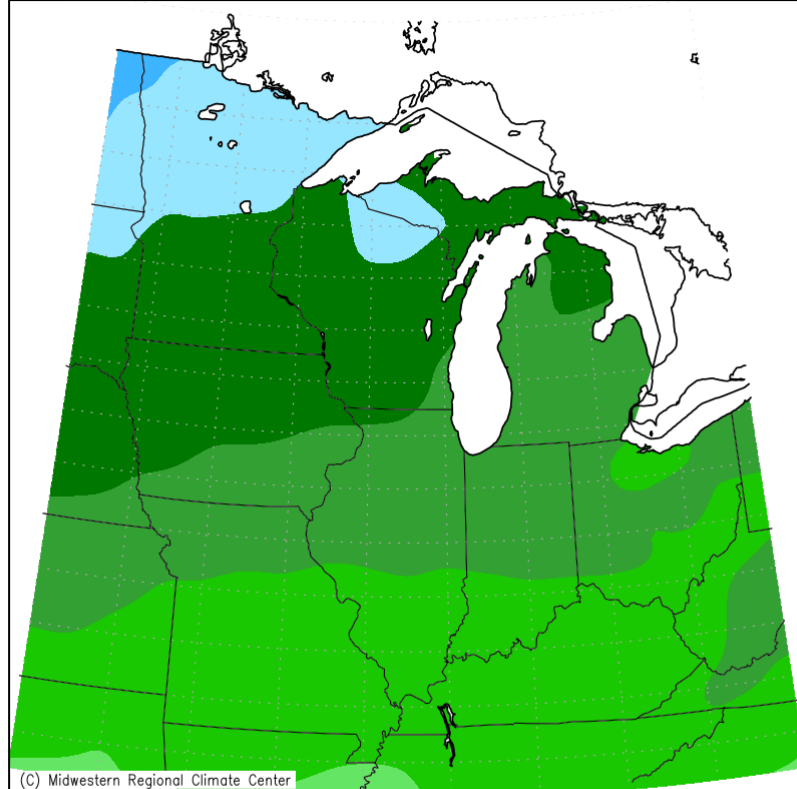
December 2023 – Regional Temperature Summary

Weather Forecast Office
Detroit, MI



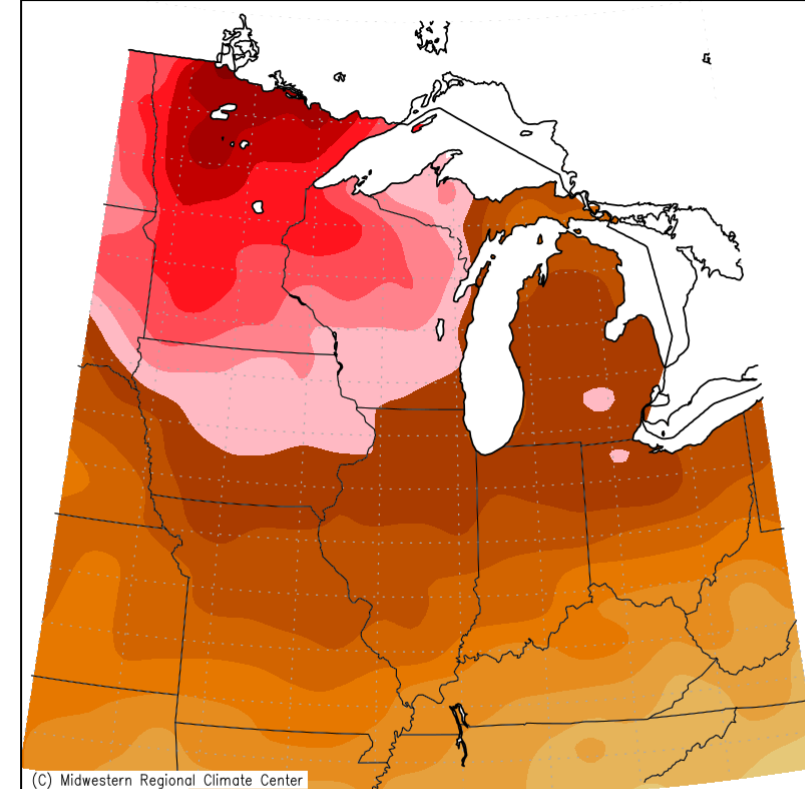
Average Temperature (left) & Departure from Average (right)

Average Temperature (°F)
December 1, 2023 to December 31, 2023



Midwestern Regional Climate Center
Purdue University


Average Temperature (°F): Departure from Mean
December 1, 2023 to December 31, 2023



Mean period is 1991–2020.



Midwestern Regional Climate Center
Purdue University

December 2023 – SE Michigan Temperature Summary											Weather Forecast Office Detroit, MI		
Warmest, Coldest, and Averages (°F)													
Location	Highest Temp	Lowest Temp	Avg High	Avg Low	Monthly Avg	Location	Highest Temp	Lowest Temp	Avg High	Avg Low	Monthly Avg		
ADRIAN 2 NNE	63	20	45.5	33.2	39.4	GOODRICH	61	23	43.5	33.0	38.3		
ADRIAN LENAWEE CO AP	63	23	45.4	34.6	40.0	GROSSE POINTE FARMS	60	24	43.2	33.9	38.6		
ALGONAC WWTP	60	23	45.2	32.7	39.0	HARBOR BEACH 1 SSE	60	22	41.7	33.2	37.5		
ANN ARBOR MNCPL AP	63	13	44.5	32.1	38.3	LAPEER 2W	61	24	42.7	32.8	37.8		
ANN ARBOR SE	63	21	44.9	32.5	38.7	LAPEER WWTP	63	25	44.0	33.0	38.5		
ANN ARBOR U OF MICH	63	20	45.0	33.1	39.0	LEXINGTON WATER PLANT	60	23	42.4	32.8	37.6		
BAD AXE	58	23	41.2	32.1	36.6	MANCHESTER	63	20	45.1	31.7	38.4		
BURTON 4N	62	22	43.9	32.2	38.0	MIDLAND	58	22	40.3	30.9	35.6		
CARO WWTP	60	22	41.7	30.5	36.1	MORENCI	60	19	44.5	31.4	37.9		
CASS CITY 1 SSW	60	20	42.2	31.6	36.9	OIL CITY 2S	57	20	42.2	29.8	36.0		
CHELSEA	61	21	44.0	33.7	38.9	OWOSSO WWTP	60	23	43.8	32.5	38.2		
DEARBORN	64	22	44.8	34.1	39.4	PONTIAC INTL AP	61	21	43.3	33.5	38.4		
DEARBORN NO. 2	63	22	46.0	34.6	40.3	PONTIAC WWTP	61	24	43.6	32.9	38.2		
DETROIT CITY AP	63	28	47.1	37.6	42.3	PORT AUSTIN WWTP	58	22	41.0	32.1	36.5		
DETROIT METRO AIRPORT	64	22	45.1	35.1	40.1	PORT HOPE	60	25	42.7	35.0	39.0		
DETROIT WILLOW RUN AP	63	21	44.9	34.2	39.5	PORT HURON	59	27	44.1	35.6	39.9		
DUNDEE	64	23	45.7	33.8	39.7	RICHMOND 4 NNW	57	22	43.3	32.8	38.1		
DURAND WWTP	60	20	44.6	32.5	38.6	SAGINAW #3	60	23	43.2	32.4	37.8		
FARMINGTON	62	19	44.0	31.3	37.7	SAGINAW MBS INTL AP	60	22	43.0	33.1	38.0		
FILION 5NNW	61	27	43.5	35.3	39.4	SALINE 4SW	63	21	45.7	31.6	38.7		
FLINT 7W	61	21	44.1	32.2	38.1	TECUMSEH	62	21	44.7	32.4	38.5		
FLINT FCWOS	63	22	44.4	33.9	39.2	WHITE LAKE 4E	62	21	42.9	32.1	37.5		
FRANKENMUTH 1SE	60	22	42.9	31.9	37.5	WHITMORE LAKE 1NW	60	22	42.0	31.6	36.8		

December – Top 20 Coldest/Warmest on Record

Weather Forecast Office
Detroit, MI



Top 20 Coldest/Warmest Decembers in Southeast Lower Michigan (°F)

Rank	Detroit Area*				Flint Bishop**				Saginaw Area***			
	Coldest		Warmest		Coldest		Warmest		Coldest		Warmest	
	Temp	Year	Temp	Year	Temp	Year	Temp	Year	Temp	Year	Temp	Year
1	17.8	1876	41.1	2015	16.1	1989	41.0	2015	16.2	1989	39.1	2015
2	18.0	1989	40.6	1881	16.6	2000	39.2	2023	17.2	2000	38.0	2023
3	19.2	2000	40.1	2023	17.4	1976	37.2	1982	18.8	1983	35.3	1923
4	20.8	1983	39.3	1889	17.8	1958	36.8	1923	18.9	1976	34.5	1982
5	21.5	1976	38.1	1877	20.1	1983	35.4	2006	19.0	1958	34.4	2006
6	21.8	1917	37.7	1923	20.5	1944	35.4	1965	19.1	1917	34.2	1931
7	21.9	1880	37.4	2006	20.8	1963	34.7	1931	19.5	1919	34.1	2012
8	22.2	1985	37.3	1982	21.3	1985	34.4	2021	20.1	1963	33.5	2001
9	22.4	1958	37.2	2021	21.7	1960	34.2	2019	21.0	1924	33.4	2021
10	22.5	1903	37.2	1931	22.2	1945	34.1	2001	21.3	1944	33.4	1941
11	22.8	1878	36.3	1918	22.4	1950	33.6	1941	21.5	1960	33.0	2011
12	23.0	1909	35.9	2012	22.6	2017	33.5	2012	21.6	1985	33.0	1965
13	23.1	1919	35.9	1965	22.9	1962	33.4	1984	22.0	1980	32.8	1936
14	23.2	1924	35.8	2001	23.0	1995	33.3	2011	22.0	1914	32.5	2019
15	23.3	1910	35.8	1891	23.1	1942	33.1	2020	22.2	1962	32.3	1994
16	23.8	1963	35.5	2011	23.2	1924	32.8	2014	22.4	1926	32.2	1913
17	23.8	1914	35.5	1941	23.9	1937	32.8	1939	22.5	1950	32.1	2014
18	23.9	1886	35.4	1994	24.0	1926	32.4	1971	22.5	1945	32.0	1998
19	24.7	1945	35.3	1998	24.3	2010	32.3	1998	22.5	1942	32.0	1918
20	24.8	1944	35.1	2019	24.3	2005	32.2	1987	22.8	2013	31.7	2020

* Detroit Area temperature records date back to January 1874.

** Flint Bishop temperature records date back to January 1921.

*** Saginaw Area temperature records date back to January 1912.

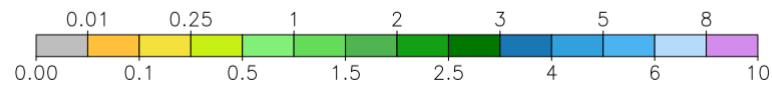
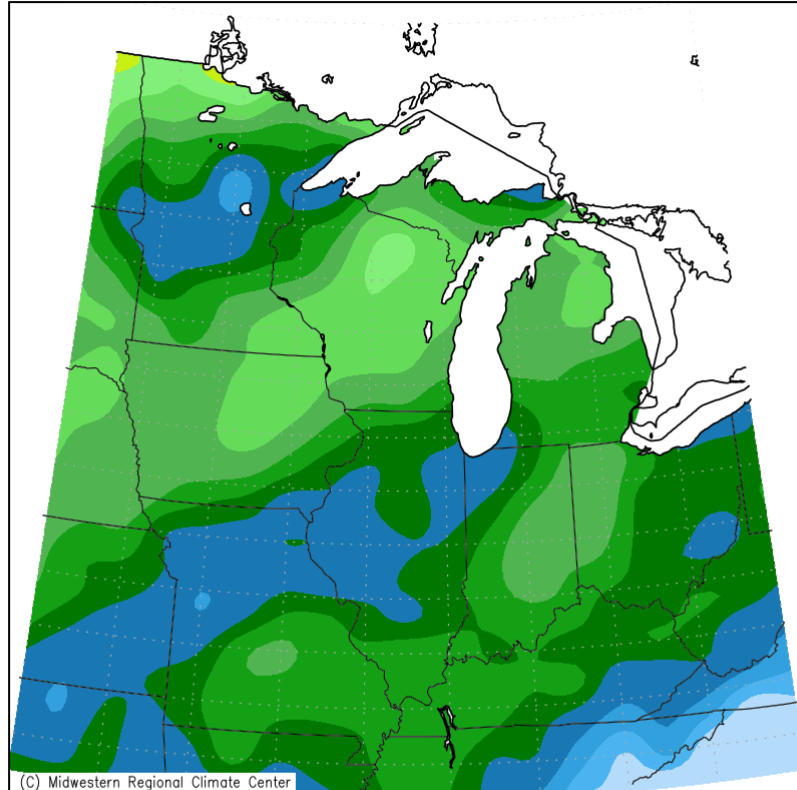
December 2023 – Regional Precipitation Summary

Weather Forecast Office
Detroit, MI



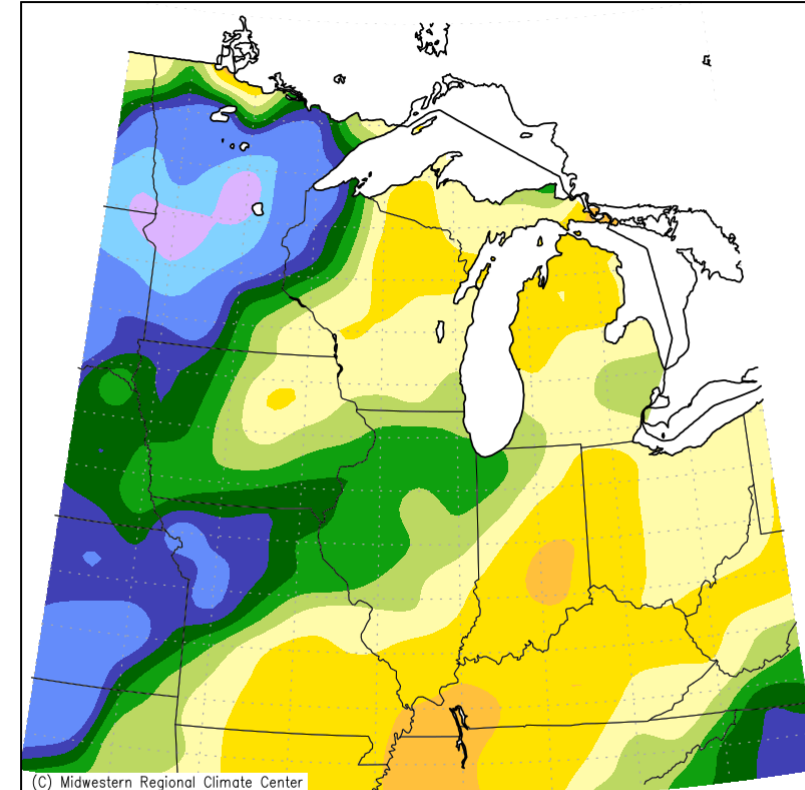
Total Monthly Precipitation (*left*) & Percent of Mean (*right*)

Accumulated Precipitation (in)
December 1, 2023 to December 31, 2023

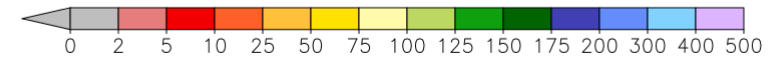


Midwestern Regional Climate Center
Purdue University


Accumulated Precipitation: Percent of Mean
December 1, 2023 to December 31, 2023



Mean period is 1991–2020.



Midwestern Regional Climate Center
Purdue University

December 2023 – SE Michigan Precipitation Summary				Weather Forecast Office Detroit, MI			
Highest daily total, monthly total, and total number of days of measureable precip (in.)							
Location	Highest Daily Total	Monthly Total	# of Days with Precip	Location	Highest Daily Total	Monthly Total	# of Days with Precip
ADRIAN LENAWEE CO AP	0.43	1.48	14	LAPEER 2W	0.46	2.60	18
ALGONAC WWTP	0.58	2.80	13	LAPEER WWTP	0.56	2.59	16
ANN ARBOR MUNICIPAL AP	0.53	2.13	17	LEXINGTON WATER PLANT	0.56	2.57	10
ANN ARBOR SE	0.53	2.54	20	MANCHESTER	0.62	2.14	16
ANN ARBOR U OF MICH	0.55	2.76	20	MIDLAND	0.34	1.58	11
BAD AXE	0.44	1.79	15	OIL CITY 2S	0.40	1.89	18
BURTON 4N	0.58	2.13	17	OWOSSO WWTP	0.68	2.43	14
CARO WWTP	0.53	2.16	14	PONTIAC INTL AP	0.55	2.24	14
CASS CITY 1 SSW	0.43	1.86	12	PONTIAC WWTP	0.56	3.00	19
CHELSEA	0.61	2.73	19	PORT AUSTIN WWTP	0.59	1.70	12
DEARBORN	0.47	2.01	16	PORT HOPE	0.82	2.40	15
DETROIT CITY AP	0.53	2.32	15	PORT HURON	0.46	2.61	12
DETROIT METRO AIRPORT	0.56	2.27	16	RICHMOND 4 NNW	0.44	2.46	15
DETROIT WILLOW RUN AP	0.54	2.39	19	SAGINAW 8NW	0.46	1.83	17
DURAND WWTP	0.63	2.27	18	SAGINAW #3	0.59	2.11	17
FARMINGTON	0.57	2.58	13	SAGINAW MBS INTL AP	0.29	1.73	15
FILION 5NNW	0.36	1.61	13	SALINE 4SW	0.54	2.48	19
FLINT 7W	0.53	2.13	15	TECUMSEH	0.51	2.00	17
FLINT FCWOS	0.50	2.01	13	WHITE LAKE 4E	0.61	2.80	16
FRANKENMUTH 1SE	0.56	1.54	10	WHITMORE LAKE 1NW	0.67	2.69	16
GOODRICH	0.61	2.05	16	WYANDOTTE	0.51	2.30	15
HARBOR BEACH 1 SSE	0.41	1.78	7				

December – Top 20 Wettest/Driest on Record

Weather Forecast Office
Detroit, MI



Top 20 Wettest/Driest Decembers in Southeast Lower Michigan (in.)

Rank	Detroit Area*				Flint Bishop**				Saginaw Area***			
	Wettest		Driest		Wettest		Driest		Wettest		Driest	
	Total	Year	Total	Year	Total	Year	Total	Year	Total	Year	Total	Year
1	5.19	1967	0.42	1900	4.66	1971	0.44	1969	5.33	1972	0.33	1939
2	4.83	1878	0.43	1943	4.03	1975	0.44	1943	4.83	1971	0.35	1958
3	4.79	1929	0.44	1960	4.01	1972	0.49	1960	4.67	1965	0.40	1960
4	4.73	1895	0.59	1958	3.76	1984	0.51	1993	4.19	1949	0.42	1943
5	4.62	1907	0.60	1874	3.75	1949	0.58	1958	3.85	1982	0.49	1919
6	4.62	1879	0.78	1993	3.57	1931	0.61	1962	3.77	2008	0.55	1993
7	4.60	1987	0.79	1976	3.41	2000	0.77	1997	3.77	1959	0.62	1969
8	4.60	1957	0.85	1995	3.33	1940	0.77	1939	3.71	1920	0.62	1930
9	4.53	1966	0.88	1917	3.24	1951	0.79	1963	3.43	1980	0.67	1976
10	4.37	1990	0.93	1896	3.03	1929	0.80	1955	3.36	1967	0.69	1981
11	4.17	1881	0.97	1919	2.95	1980	0.83	2022	3.34	1984	0.69	1913
12	4.07	2008	0.99	1913	2.90	1927	0.92	1976	3.31	1927	0.78	1997
13	4.00	1974	1.02	1962	2.81	2006	1.00	1989	3.24	1968	0.80	1922
14	3.93	1965	1.02	1939	2.79	2008	1.02	1941	3.22	1996	0.80	1912
15	3.79	1971	1.10	1930	2.79	1967	1.03	1926	3.10	2015	0.83	1934
16	3.78	1983	1.16	2002	2.78	1973	1.08	2002	2.99	1962	0.86	1989
17	3.77	1906	1.16	1998	2.75	1982	1.09	1921	2.97	2006	0.90	1917
18	3.66	1901	1.16	1888	2.70	1946	1.10	1930	2.96	2019	0.92	1941
19	3.65	2006	1.23	1890	2.68	1942	1.10	1922	2.93	1929	0.94	1915
20	3.59	1968	1.23	1880	2.64	1978	1.11	1961	2.90	1990	0.97	1935

* Detroit Area precipitation records date back to November 1874.

** Flint Bishop precipitation records date back to January 1921.

*** Saginaw Area precipitation records date back to January 1912.

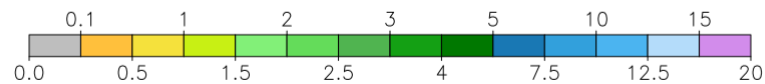
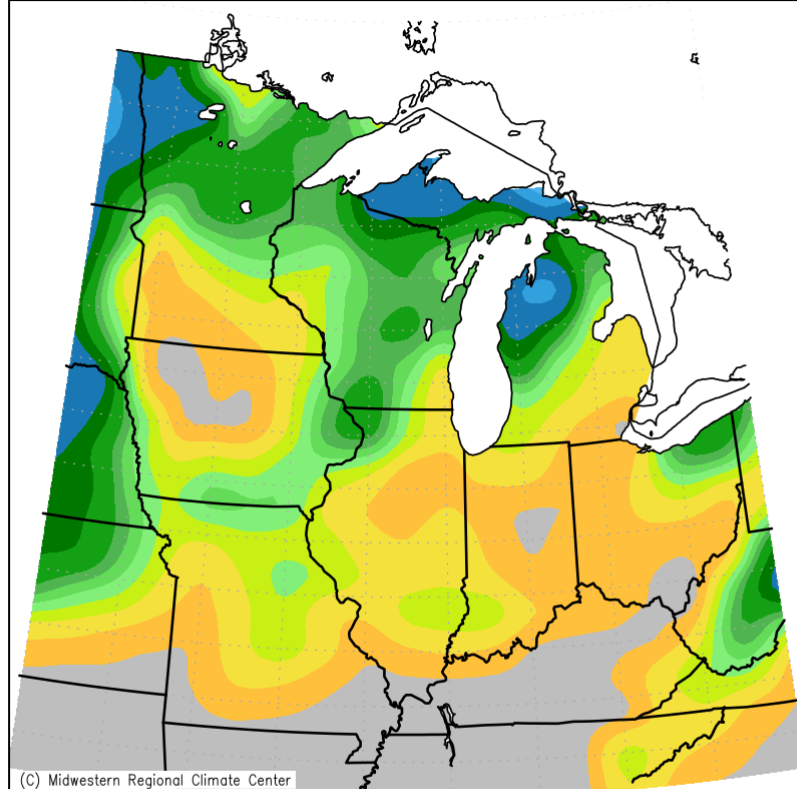
December 2023 – Regional Snowfall Summary

Weather Forecast Office
Detroit, MI



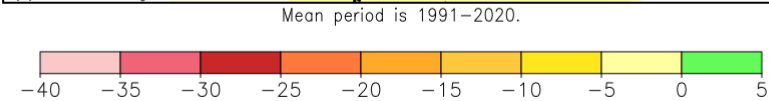
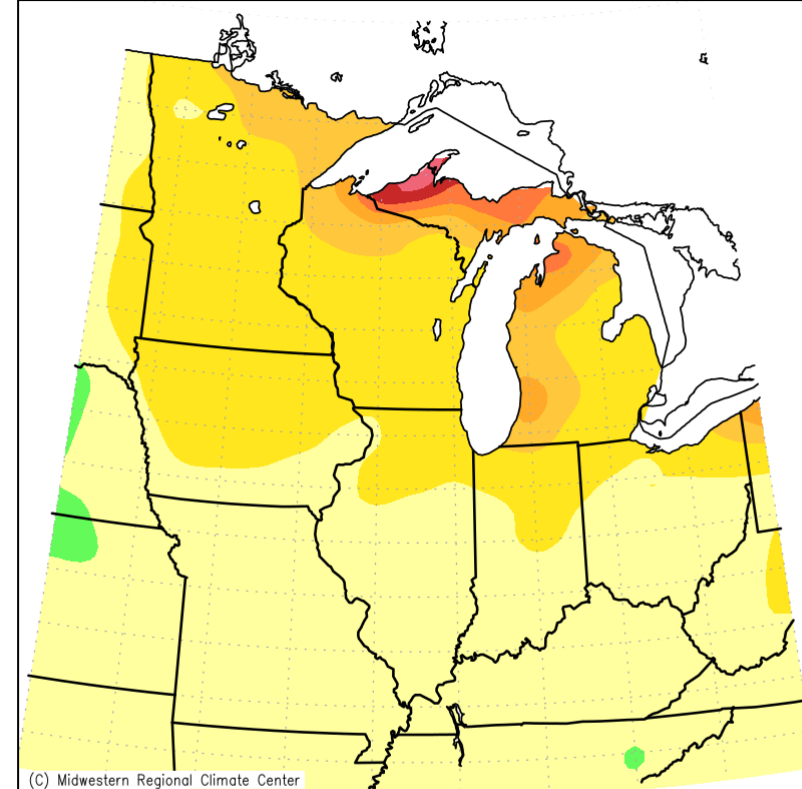
Total Monthly Snowfall (*left*) & Departure from Normal (*right*)

Accumulated Snowfall (in)
December 1, 2023 to December 31, 2023



Midwestern Regional Climate Center
cli-MATE: MRCC Application Tools Environment
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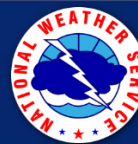
Accumulated Snowfall (in): Departure from Mean
December 1, 2023 to December 31, 2023



Midwestern Regional Climate Center
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December 2023 – SE Michigan Snowfall Summary

Weather Forecast Office
Detroit, MI



Highest daily total, monthly total, and total number of days of measureable snow (in.)

Location	Highest Daily Total	Monthly Total	# of Days with Snow	Location	Highest Daily Total	Monthly Total	# of Days with Snow
ADRIAN 2 NNE	0.2	0.2	1	LAPEER 2W	1.7	2.7	3
ALGONAC WWTP	T	T	0	LAPEER WWTP	1.0	1.0	1
ANN ARBOR SE	0.8	1.1	3	LEXINGTON WATER PLANT	T	T	0
ANN ARBOR U OF MICH	0.8	1.3	3	LINDEN WWTP	0.0	0.0	0
AUBURN 2NE	0.5	0.8	2	MANCHESTER	T	T	0
BAD AXE	1.0	1.0	1	MIDLAND	0.2	0.2	1
BURTON 4N	1.8	2.2	3	MILLINGTON 3 SE	1.3	1.9	3
CARO WWTP	0.5	0.9	2	MORENCI	0.2	0.2	1
CASS CITY 1 SSW	T	T	0	OIL CITY 2S	2.6	3.4	4
CHELSEA	T	T	0	OWOSSO WWTP	T	T	0
CHESANING	T	T	0	PONTIAC WWTP	0.0	0.0	0
DEARBORN	T	T	0	PORT AUSTIN WWTP	T	T	0
DETROIT METRO AIRPORT	0.1	0.1	1	PORT HURON	1.5	1.5	1
DUNDEE	T	T	0	RICHMOND 4 NNW	1.7	1.9	2
DURAND WWTP	0.5	1.2	3	SAGINAW 8NW	0.2	0.7	4
FARMINGTON	0.9	0.9	1	SAGINAW #3	0.3	0.4	2
FILION 5NNW	0.5	0.5	1	SAGINAW MBS INTL AP	0.9	2.1	5
FLINT 7W	1.6	1.6	1	SALINE 4SW	0.0	0.0	0
FLINT FCWOS	1.6	1.8	3	TECUMSEH	T	T	0
FRANKENMUTH 1SE	T	T	0	VASSAR	0.5	0.5	1
GOODRICH	1.1	1.1	1	WHITE LAKE 4E	2.6	2.8	2
GROSSE POINTE FARMS	T	T	0	WHITMORE LAKE 1NW	T	T	0
HARBOR BEACH 1 SSE	0.4	0.4	1	WYANDOTTE	T	T	0

December – Top 20 Snowiest/Least Snowy on Record

Weather Forecast Office
Detroit, MI



Top 20 Snowiest/Snowless Decembers in Southeast Lower Michigan (in.)

Rank	Detroit Area*				Flint Bishop**				Saginaw Area***			
	Snowiest		Snowless		Snowiest		Snowless		Snowiest		Snowless	
	Total	Year	Total	Year	Total	Year	Total	Year	Total	Year	Total	Year
1	34.9	1974	0.0	1889	35.3	2000	0.1	1943	40.2	2000	0.0	1943
2	27.4	1929	0.1	2023	29.1	2008	0.6	2014	39.1	2008	0.9	2014
3	25.1	2000	0.1	2014	27.7	1929	1.1	1939	26.7	1929	1.0	1993
4	24.0	1951	0.4	1894	24.9	1951	1.4	1921	24.0	1951	1.0	1939
5	22.5	2017	0.5	2018	23.3	2017	1.8	2023	22.6	2007	1.5	1941
6	22.5	1895	0.9	1943	22.2	2005	2.2	1955	21.9	1972	1.8	2018
7	21.4	2008	1.2	1998	21.3	1974	2.2	1936	20.1	1989	2.1	2023
8	20.8	1886	1.3	2015	21.1	1975	2.4	1967	19.9	1947	2.4	1912
9	20.1	1910	1.3	1931	20.2	2016	2.5	2015	19.7	1968	2.7	1923
10	19.9	1983	1.4	1982	20.0	1983	2.5	1979	19.5	1978	2.8	2006
11	19.8	2005	1.4	1888	19.9	1970	2.6	1928	19.3	1954	2.8	1948
12	19.8	1975	1.6	1965	18.3	1973	3.2	1931	18.9	2013	2.8	1928
13	17.3	1981	1.6	1936	18.3	1972	3.4	1998	18.5	2005	2.9	1958
14	16.8	2016	1.9	1993	17.6	1976	3.5	1993	18.1	1980	3.0	1960
15	16.6	1977	2.0	1939	17.1	2007	3.6	1982	18.0	1937	3.4	1979
16	16.6	1893	2.0	1918	16.9	2013	3.7	1948	17.7	1996	3.4	1961
17	16.4	1973	2.0	1900	16.7	1991	3.8	2018	16.7	2004	3.4	1922
18	16.1	1884	2.3	1979	13.8	1980	4.0	1941	16.6	2016	3.6	1969
19	16.0	1898	2.4	2006	13.7	2004	4.3	2006	16.3	1962	3.6	1950
20	15.5	2013	2.6	1971	13.2	1985	4.4	2011	14.2	1995	4.1	2020

* Detroit Area snowfall records date back to January 1880.

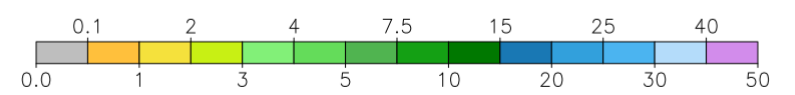
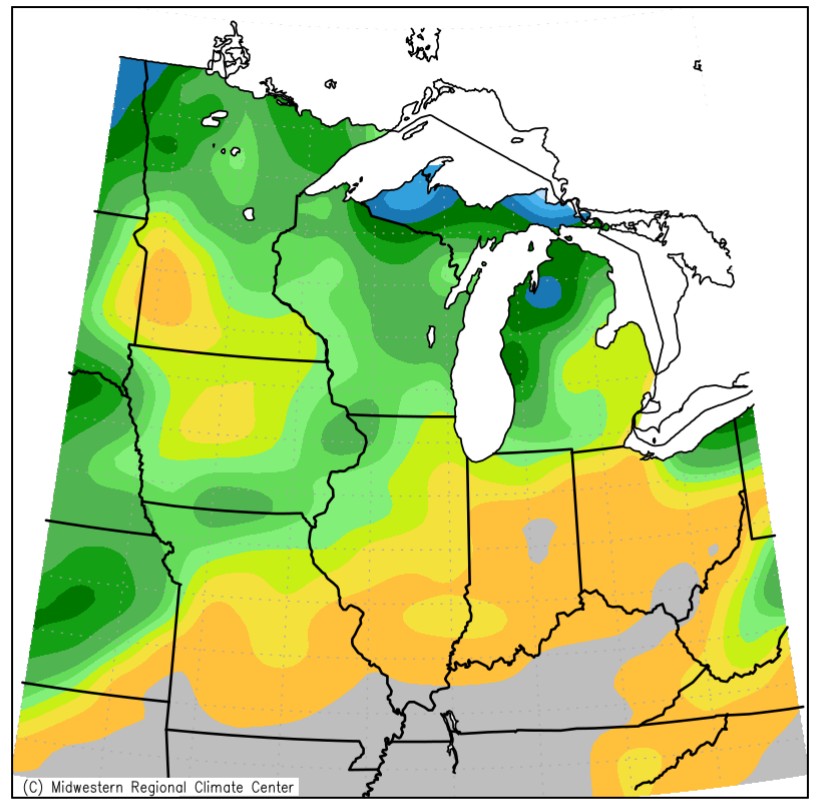
** Flint Bishop snowfall records date back to January 1921.

*** Saginaw Area snowfall records date back to January 1912.

Note: this table does not account for trace (T) events

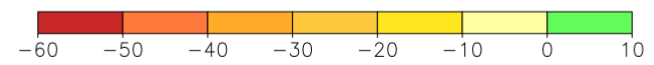
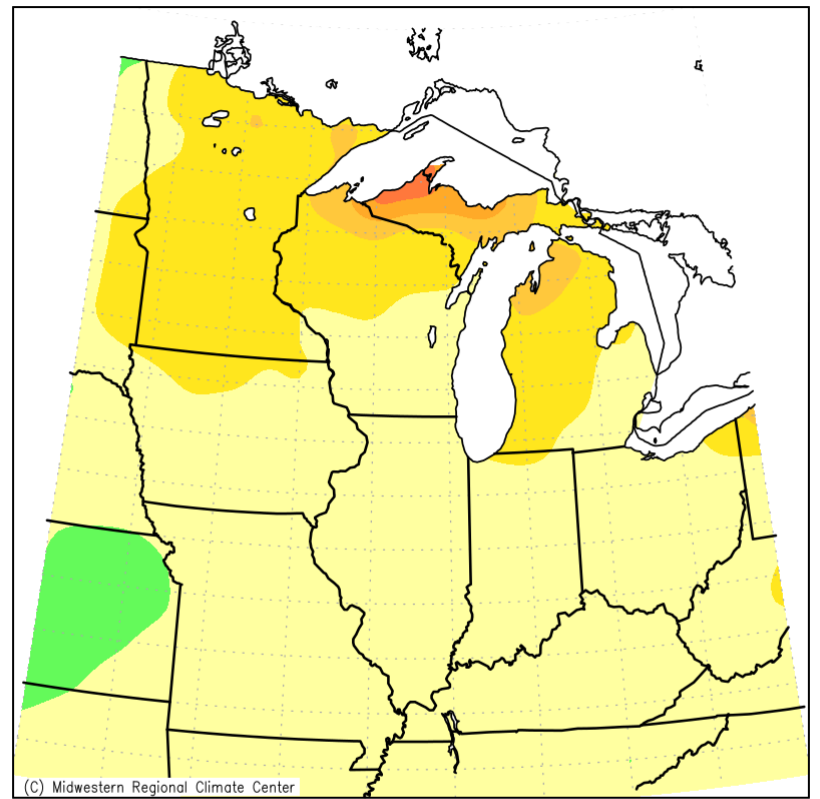
Total Snowfall (left) & Departure from Normal (right)

Accumulated Snowfall (in)
October 1, 2023 to December 31, 2023



Midwestern Regional Climate Center
cli-MATE: MRCC Application Tools Environment
Generated at: 1/5/2024 9:15:45 AM EST

Accumulated Snowfall (in): Departure from Mean
October 1, 2023 to December 31, 2023



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December 2023 – Significant Weather Events

Follow links for web summaries

Weather Forecast Office
Detroit, MI



No Significant Events in December



NOWData | Observed Weather | Climate Prediction and Variability | Local Data/Records | Climate Resources

NOWData - NOAA Online Weather Data

1. Location » 2. Product » 3. Options » 4. View »

View map

- ☑ Daily data for a month
- Daily almanac
- Monthly summarized data
- Calendar day summaries
- Daily/monthly normals
- Climatology for a day
- First/last dates
- Temperature graphs
- Accumulation graphs

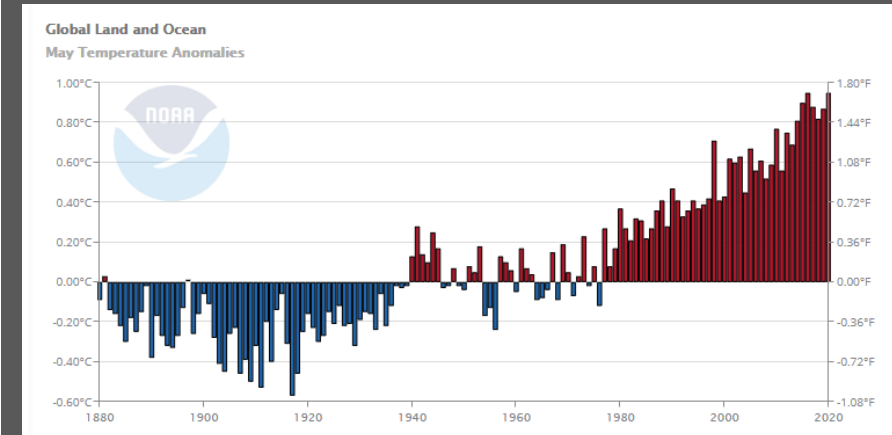
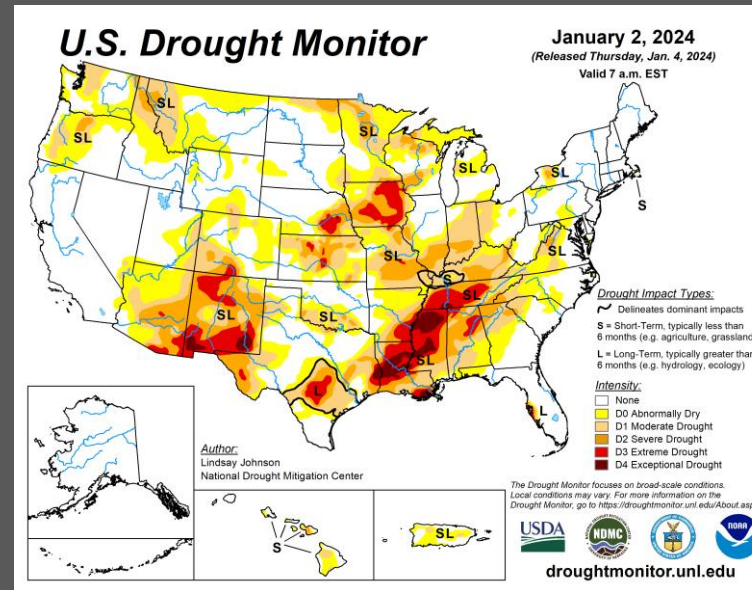
Date: 2021-08

Product Description:
DAILY DATA FOR A MONTH - daily maximum, minimum and average temperature (degrees F), average temperature departure from normal (degrees F), heating and cooling degree days (base 65), precipitation, snowfall and snow depth (inches) for all days of the selected month. Basic monthly summary statistics are also provided.

Common questions - Submit a question/comment -

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10 Regional Climate Centers

The Applied Climate Information System (ACIS) is a joint project of the Regional Climate Centers, the National Centers for Environmental Information (NCEI) and the National Weather Service. Official data and data for additional locations are available from the Regional Climate Centers and NCEI.



SE Michigan Climate Products

weather.gov/wrh/climate?wfo=dtx

U.S. Drought Monitor

drought.gov/drought/data-maps-tools/current-conditions

NOAA NCEI Climate at a Glance

ncei.noaa.gov/access/monitoring/climate-at-a-glance/

Thank you to our COOP and CoCoRaHS volunteer weather observers!