

2022 Precipitation Data

Table 1. 2022 monthly precipitation (inches) at several locations in the Upper Mississippi River basin.

Month	St. Cloud ¹	Becker ²	Elk River ³	New Hope ⁴	U of M St. Paul ⁵	Smith Ave S, St. Paul ⁶	Lower St Anthony Falls Lock and Dam ⁷	Chanhassen ⁸	Minneapolis St. Paul International Airport ⁹	MSP 30 YR MO Normal ¹⁰
January	0.58	1.14	0.43	0.58	0.54	0.35	0.74	0.68	0.64	0.89
February	0.78	0.54	0.95	0.66	0.48	0.48	0.71	0.55	0.78	0.87
March	1.52	3.10	1.60	2.52	3.19	3.33	2.43	2.36	2.95	1.68
April	3.55	4.68	3.70	4.71	3.57	3.60	3.23	3.97	3.99	2.91
May	7.32	4.90	4.86	3.58	4.89	3.70	4.92	3.76	3.33	3.91
June	5.44	1.32	2.21	1.12	0.80	1.09	0.75	1.25	1.13	4.58
July	2.20	1.48	1.40	1.54	1.37	1.63	1.34	1.40	1.18	4.06
August	4.49	5.64	5.82	5.07	4.58	5.20	4.21	4.88	4.27	4.34
September	2.23	2.58	2.70	0.46	0.29	0.21	0.23	0.56	0.24	3.02
October	0.31	0.82	0.86	0.37	0.24	0.50	0.48	0.28	0.24	2.58
November	2.11	2.74	2.68	2.14	2.04	2.66	2.24	1.49	2.40	1.61
December	1.90	2.21	2.28	2.28	1.75	1.84	1.94	2.08	1.82	1.17
Total	32.43	31.15	29.49	25.03	23.74	24.59	23.22	23.26	22.97	31.62

¹ Location: Latitude 45.5433 Longitude -94.0513, Source: https://www.dnr.state.mn.us/climate/historical/acis_stn_data_monthly_table.html?sid=217294&sname=ST.%20CLOUD%20REGIONAL%20AIRPORT&sdate=por&edate=por&element=pcpn&span=annual&counts=no

- ² Location: Latitude 45.41906 Longitude -93.92632, Source: http://climateapps.dnr.state.mn.us/HIDradius/radius_new.asp
- ³ Location: Latitude 45.5272 Longitude -93.7110, Source:
https://www.dnr.state.mn.us/climate/historical/acis_stn_data_monthly_table.html?sid=212500&sname=ELK RIVER&sdate=por&edate=por&element=pcpn&span=annual&counts=no
- ⁴ Location: Latitude 45.0167 Longitude -93.3667, Source:
https://www.dnr.state.mn.us/climate/historical/acis_stn_data_monthly_table.html?sid=215838&sname=NEW HOPE&sdate=por&edate=por&element=pcpn&span=annual&counts=no
- ⁵ Location: Latitude 44.9902 Longitude -93.17995, Source:
https://www.dnr.state.mn.us/climate/historical/acis_stn_data_monthly_table.html?sid=218450&sname=UNIVERSITYOF MN ST.PAUL&sdate=por&edate=por&element=pcpn&span=annual&counts=no
- ⁶ Location: Latitude 44.919 Longitude -93.101, Source: MWMO data, St. Paul, MN-manual Stratus rain gauge
- ⁷ Location: Latitude 44.9149 Longitude -93.2549, Source: <https://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:USC00214884/detail>
- ⁸ Location: Latitude 44.8496 Longitude -93.5644, Source:
https://www.dnr.state.mn.us/climate/historical/acis_stn_data_monthly_table.html?sid=211448&sname=CHANHASSEN%20WSFO&sdate=por&edate=por&element=pcpn&span=annual&counts=no
- ⁹ Location: Latitude 44.8831 Longitude: -93.2289, Source:
https://www.dnr.state.mn.us/climate/historical/acis_stn_data_monthly_table.html?sid=mspthr&sname=Twin%20Cities%20Area&sdate=por&edate=por&element=pcpn&span=annual&counts=no
- ¹⁰ Location: Latitude 44.8831 Longitude: -93.2289, Source: <https://www.ncei.noaa.gov/access/search/data-search/normals-monthly-1991-2020?dataTypes=MLY-PRCP-NORMAL&bbox=44.919,-93.247,44.849,-93.177&startDate=2023-01-03T00:00:00&endDate=2023-01-03T23:59:59>

Table 2. 2022 monthly precipitation (inches) at several locations in the MWMO precipitation monitoring network.

Month	1NE ¹	10SA ²	SAV-PW ³	11CHF ⁴	Edison High School ⁵	Columbia Golf Course ⁶	Waite Park Elementary School ⁷	6 th ST NE ⁸	MWMO Weather Station ⁹	MWMO Manual Gauge ¹⁰	Towerside Weather Station ¹¹
January	0.04	0.19	0.13	0.05	0.11	0.17	0.06	0.64	0.12	0.29	0.13
February	0.02	0.13	0.22	0.03	0.17	0.16	0.17	0.69	0.09	0.24	0.12
March	2.09	2.14	2.51	1.53	2.00	2.06	1.92	2.19	1.85	1.68	2.65
April	3.85	4.31	4.15	3.32	3.36	4.50	4.18	2.75	3.57	3.02	4.69
May	3.34	3.72	2.53	3.52	3.26	4.15	4.18	4.07	3.65	4.71	4.28
June	1.01	0.71	0.90	1.00	0.70	1.17	0.77	0.98	0.91	0.26	1.00
July	1.12	1.56	1.26	1.29	1.37	1.04	1.54	1.36	1.28	1.67	1.40
August	5.14	5.51	6.27	5.84	4.60	3.79	6.28	5.47	5.01	5.23	4.12
September	0.31	0.30	0.42	0.35	0.22	0.41	0.39	0.40	0.24	0.31	0.29
October	0.31	0.38	0.42	0.30	0.29	0.42	0.40	0.30	0.22	0.26	0.38
November	0.79	1.00	1.48	0.96	0.74	1.17	1.66	1.94	1.15	1.63	1.09
December	0.52	0.73	1.09	0.48	0.39	1.26	0.96	1.76	0.78	1.41	0.99
Total	18.54	20.68	21.38	18.67	17.21	20.30	22.51	22.55	18.87	20.71	21.14

¹ Location: Latitude 45.023 Longitude -93.277, Source: MWMO data, 1NE-non-heated rain gauge

² Location: Latitude 45.012 Longitude -93.220, Source: MWMO data, 10SA-non-heated rain gauge

³ Location: Latitude 45.038 Longitude -93.213, Source: MWMO data, SAV-PW-heated rain gauge

⁴ Location: Latitude 45.050 Longitude -93.274, Source: MWMO data, 11CHF-non-heated rain gauge

⁵ Location: Latitude 45.012 Longitude -93.22, Source: MWMO data, Edison High School-heated rain gauge

⁶ Location: Latitude 45.027 Longitude -93.255, Source: MWMO data, Columbia Golf Course-heated rain gauge

⁷ Location: Latitude 45.030 Longitude -93.234, Source: MWMO data, Waite Park Elementary School-heated rain gauge

⁸ Location: Latitude 45.053 Longitude -93.259, Source: Citizen volunteer, Minneapolis, MN-manual, Stratus rain gauge

⁹ Location: Latitude 45.013 Longitude -93.272, Source: MWMO data, MWMO Weather Station-heated rain gauge

¹⁰ Location: Latitude 45.013 Longitude -93.272, Source: MWMO data, MWMO Weather Station-manual, Stratus rain gauge

¹¹ Location: Latitude 44.972 Longitude -93.214, Source: MWMO data, MWMO Towerside Weather Station-non-heated rain gauge

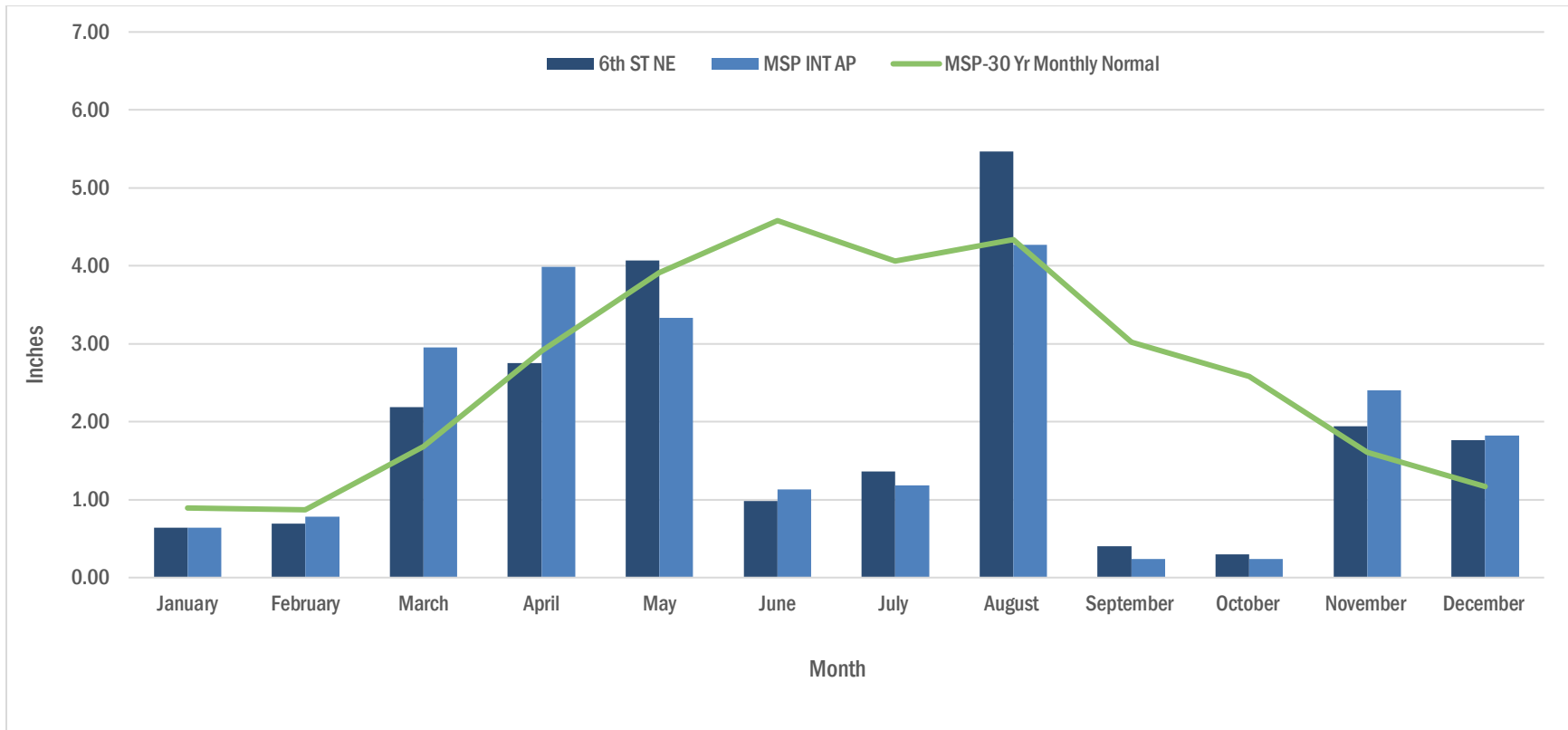


Figure 1. 2022 monthly precipitation totals at the 6th ST NE rain gauge compared to 2022 monthly totals and 30-year monthly precipitation normals at the Minneapolis St. Paul International Airport.