

## 2019 Precipitation Data

Table 1. 2019 monthly precipitation (inches) at several locations in the Upper Mississippi River basin.

Month	St. Cloud <sup>1</sup>	Becker <sup>2</sup>	Elk River <sup>3</sup>	New Hope <sup>4</sup>	Lower St Anthony Falls Lock and Dam <sup>6</sup>	Chanhassen <sup>7</sup>	Minneapolis St. Paul International Airport <sup>8</sup>	MSP 30 YR MO Normal <sup>9</sup>
January	0.41	0.25	0.48	0.46	0.04	0.52	0.45	0.90
February	1.95	1.76	2.29	2.39	2.03	2.26	2.57	0.77
March	1.70	1.70	1.62	2.42	2.66	2.08	2.00	1.89
April	3.29	3.73	3.30	3.23	4.08	3.69	3.91	2.66
May	6.40	7.49	6.25	7.59	6.97	6.32	6.68	3.36
June	4.62	4.00	2.50	2.71	3.18	4.32	2.72	4.25
July	5.32	4.17	4.66	6.18	6.53	4.94	6.48	4.04
August	3.65	2.80	3.56	6.48	6.44	6.48	6.28	4.30
September	7.55	4.22	5.81	4.39	5.12	5.46	3.92	3.08
October	3.84	3.98	4.45	5.61	4.90	3.83	4.05	2.43
November	1.51	1.06	1.39	2.31	1.57	2.23	2.28	1.77
December	1.68	1.99	2.92	2.01	2.10	1.69	1.83	1.16
<b>Total</b>	41.92	37.17	39.23	45.78	45.62	43.82	43.17	30.61

<sup>1</sup> 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](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)

<sup>2</sup> Location: Latitude 45.41906 Longitude -93.92632, Source: [http://climateapps.dnr.state.mn.us/HIDradius/radius\\_new.asp](http://climateapps.dnr.state.mn.us/HIDradius/radius_new.asp)

<sup>3</sup> 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](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)

<sup>4</sup> 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](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)

<sup>5</sup> 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=UNIVERSITY OF MN ST. PAUL&sdate=por&edate=por&element=pcpn&span=annual&counts=no](https://www.dnr.state.mn.us/climate/historical/acis_stn_data_monthly_table.html?sid=218450&sname=UNIVERSITY OF MN ST. PAUL&sdate=por&edate=por&element=pcpn&span=annual&counts=no)

<sup>6</sup> Location: Latitude 44.9149 Longitude -93.2549, Source: <https://mrcc.illinois.edu/CLIMATE/>

<sup>7</sup> 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%20WISCONSIN&sdate=por&edate=por&element=pcpn&span=annual&counts=no](https://www.dnr.state.mn.us/climate/historical/acis_stn_data_monthly_table.html?sid=211448&sname=CHANHASSEN%20WISCONSIN&sdate=por&edate=por&element=pcpn&span=annual&counts=no)

<sup>8</sup> 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](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)

<sup>9</sup> Location: Latitude 44.8831 Longitude: -93.2289, Source: <https://www.ncdc.noaa.gov/cdo-web/datatools/normals>

Table 2. 2019 monthly precipitation (inches) at several locations in the MWMO precipitation monitoring network.

<b>Month</b>	<b>1NE<sup>1</sup></b>	<b>10SA<sup>2</sup></b>	<b>11CHF<sup>3</sup></b>	<b>Edison High School<sup>4</sup></b>	<b>Columbia Golf Course<sup>5</sup></b>	<b>Waite Park Elementary School<sup>6</sup></b>	<b>6<sup>th</sup> ST NE<sup>7</sup></b>	<b>MWMO Weather Station<sup>8</sup></b>
<b>January</b>	0.13	0.00	0.00	0.01	0.04	0.03	0.36	0.45
<b>February</b>	1.09	0.00	0.14	0.15	1.29	1.41	2.34	0.10
<b>March</b>	1.75	1.50	1.25	1.33	1.90	1.72	2.06	1.49
<b>April</b>	3.54	2.83	2.57	2.93	3.44	3.43	3.67	2.71
<b>May</b>	6.00	3.83	5.18	5.75	6.43	6.18	6.19	5.63
<b>June</b>	3.00	2.78	2.71	2.84	3.05	2.53	2.23	2.41
<b>July</b>	3.67	3.73	3.59	4.17	3.53	4.72	4.19	4.00
<b>August</b>	4.09	6.47	6.13	5.87	6.85	6.93	5.72	5.29
<b>September</b>	4.03	3.96	3.81	3.68	4.49	4.66	3.37	3.62
<b>October</b>	4.43	4.94	4.25	3.73	5.16	5.19	3.69	4.28
<b>November</b>	1.47	1.11	0.75	0.72	1.57	1.61	1.68	1.16
<b>December</b>	0.98	1.04	0.70	1.06	1.25	1.24	2.07	0.82
<b>Total</b>	34.18	32.19	31.08	32.24	39.00	28.10	37.57	31.94

<sup>1</sup> Location: Latitude 45.023 Longitude -93.277, Source: MWMO data, 1NE

<sup>2</sup> Location: Latitude 45.012 Longitude -93.220, Source: MWMO data, 10SA

<sup>3</sup> Location: Latitude 45.050 Longitude -93.274, Source: MWMO data, 11CHF

<sup>4</sup> Location: Latitude 45.012 Longitude -93.22, Source: MWMO data, Edison High School

<sup>5</sup> Location: Latitude 45.027 Longitude -93.255, Source: MWMO data, Columbia Golf Course

<sup>6</sup> Location: Latitude 45.030 Longitude -93.234, Source: MWMO data, Waite Park Elementary School

<sup>7</sup> Location: Latitude 45.053 Longitude -93.259, Source: Citizen volunteer, Minneapolis MN

<sup>8</sup> Location: Latitude 45.013 Longitude -93.272, Source: MWMO data, MWMO Weather Station

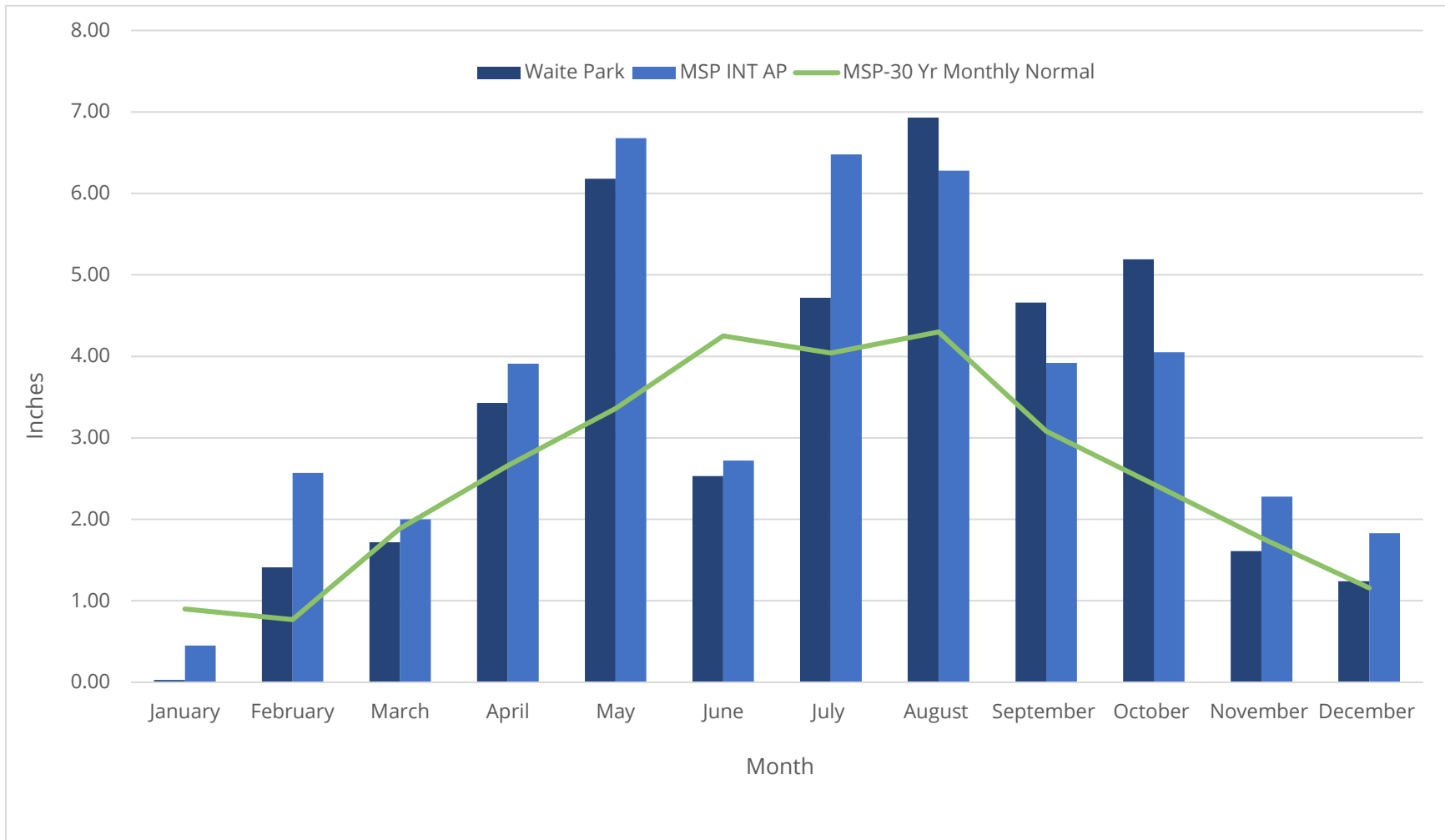


Figure 1. 2019 monthly precipitation totals at the Wait Park Elementary School rain gauge compared to 2019 monthly totals and 30-year monthly precipitation normals at the Minneapolis St. Paul International Airport.