

05270500 SAUK RIVER NEAR ST. CLOUD, MN

LOCATION.--Lat 45°33'35", long 94°14'00", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 124 N., R. 28 W., Stearns County, Hydrologic Unit 07010203, on right bank 0.5 mi northwest of Waite Park, 3 mi west of St. Cloud, and 5 mi upstream from mouth.

DRAINAGE AREA.--1,030 mi².

PERIOD OF RECORD.--July 1909 to December 1912, April to December 1913, May to November 1929, March 1930 to September 1931, April to November 1932, March to November 1933, March 1934 to September 1981, October 1990 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORD--WSP 895: Drainage area. WSP 1308: 1912(M), 1932 (M). WSP 1508: 1937(m).

GAGE.--Water-stage recorder. Datum of gage is 1,034.63 ft above sea level (NGVD of 1929). Prior to Nov. 22, 1934, nonrecording gage on highway bridge 1 mi downstream at datum 6.77 ft lower.

REMARKS.--Records good except those for estimated daily discharge, which are fair to poor. Flow may be influenced by regulation from power plant and small lakes upstream from gage.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	357	604	314	e145	e131	e141	322	772	561	913	595	142
2	344	599	e244	e144	e132	e141	296	727	526	940	557	140
3	336	583	e209	e143	e133	e139	273	701	502	1,120	526	141
4	443	586	e201	e143	e129	e138	280	654	475	1,250	498	132
5	513	578	e196	e141	e126	e134	283	633	444	1,380	484	124
6	540	583	e187	e142	e120	e131	271	648	440	1,450	473	122
7	589	570	e183	e143	e114	e128	250	630	440	1,480	455	121
8	594	556	e177	e144	e113	e131	246	606	445	1,480	436	119
9	613	534	e174	e144	e111	e136	248	644	444	1,450	422	112
10	622	526	e175	e146	e110	e141	244	683	495	1,410	407	120
11	626	514	e176	e147	e112	e149	235	753	497	1,370	392	198
12	652	505	e174	e152	e115	e155	224	786	505	1,340	371	250
13	644	490	e174	e159	e119	e161	220	801	510	1,290	362	220
14	620	478	e175	e166	e123	e168	230	850	488	1,270	349	212
15	613	461	e177	e173	e125	e182	218	885	467	1,250	331	203
16	593	447	e177	e170	e127	e202	377	906	446	1,190	304	193
17	590	437	e174	e164	e130	e231	507	899	428	1,140	278	184
18	605	426	e171	e158	e135	e245	582	885	403	1,080	263	199
19	605	425	e169	e155	e137	e253	754	953	369	1,050	256	213
20	573	413	e167	e153	e139	e262	881	995	348	1,100	244	190
21	564	408	e164	e150	e139	e274	965	953	323	1,080	236	183
22	554	402	e161	e147	e139	e291	1,050	940	326	1,010	214	190
23	558	401	e159	e144	e140	312	1,110	930	333	958	197	186
24	566	388	e158	e140	e140	321	1,110	917	416	912	186	182
25	558	362	e156	e137	e141	332	1,070	888	685	860	180	182
26	567	354	e153	e134	e141	349	1,030	842	768	813	174	164
27	562	326	e152	e133	e141	370	1,000	795	812	778	166	168
28	567	306	e149	e133	e139	387	933	756	856	726	156	159
29	576	306	e148	e133	---	375	862	699	902	677	159	153
30	586	305	e146	e132	---	354	809	664	909	625	148	149
31	599	---	e146	e131	---	336	---	592	---	615	145	---
TOTAL	17,329	13,873	5,486	4,546	3,601	7,069	16,880	24,387	15,563	34,007	9,964	5,051
MEAN	559	462	177	147	129	228	563	787	519	1,097	321	168
MAX	652	604	314	173	141	387	1,110	995	909	1,480	595	250
MIN	336	305	146	131	110	128	218	592	323	615	145	112
AC-FT	34,370	27,520	10,880	9,020	7,140	14,020	33,480	48,370	30,870	67,450	19,760	10,020
CFSM	0.54	0.45	0.17	0.14	0.12	0.22	0.55	0.76	0.50	1.07	0.31	0.16
IN.	0.63	0.50	0.20	0.16	0.13	0.26	0.61	0.88	0.56	1.23	0.36	0.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2003, BY WATER YEAR (WY)

MEAN	176	186	137	102	110	311	844	533	419	339	218	186
MAX	1,154	1,091	528	336	568	1,380	2,997	1,862	1,333	1,262	1,250	1,136
(WY)	(1996)	(1972)	(1972)	(1980)	(1966)	(1966)	(1997)	(2001)	(1957)	(1993)	(1972)	(1957)
MIN	6.22	6.18	5.15	3.25	7.61	28.7	16.5	7.84	15.9	10.6	10.5	10.7
(WY)	(1934)	(1934)	(1935)	(1935)	(1935)	(1940)	(1934)	(1934)	(1934)	(1934)	(1933)	(1933)

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1909 - 2003	
ANNUAL TOTAL	179,312		157,756		a312	
ANNUAL MEAN	491		432		732	
HIGHEST ANNUAL MEAN					1972	
LOWEST ANNUAL MEAN					51.0	
HIGHEST DAILY MEAN	1,620	Aug 7	1,480	Jul 7	7,940	Apr 14, 1965
LOWEST DAILY MEAN	103	Jan 1	110	Feb 10	1.3	Jan 6, 1935
ANNUAL SEVEN-DAY MINIMUM	103	Feb 26	113	Feb 7	1.5	Jan 2, 1935
MAXIMUM PEAK FLOW			b1,490	Jul 7	9,100	Apr 13, 1965
MAXIMUM PEAK STAGE			4.73	Jul 8	10.68	Apr 13, 1965
INSTANTANEOUS LOW FLOW			c110	Feb 10	0.30	Nov 25, 1936
ANNUAL RUNOFF (AC-FT)	355,700		312,900		226,200	
ANNUAL RUNOFF (CFSM)	0.48		0.42		0.30	
ANNUAL RUNOFF (INCHES)	6.48		5.70		4.12	
10 PERCENT EXCEEDS	1,060		915		783	
50 PERCENT EXCEEDS	425		332		153	
90 PERCENT EXCEEDS	135		137		41	

- a Median of annual mean discharges is 310 ft³/s.
- b Gage height, 4.72 ft.
- c Daily-mean discharge.
- e Estimated.

