

## 05270500 SAUK RIVER NEAR ST. CLOUD, MN

LOCATION.--Lat 45°33'35", long 94°14'00", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> 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 mi<sup>2</sup>.

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 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144	256	179	e111	e60	e123	575	190	649	325	178	140
2	136	258	170	e109	e58	e126	556	180	627	310	185	126
3	144	259	175	e97	e56	e126	536	175	614	308	185	130
4	138	259	178	e88	e55	e127	508	177	590	295	171	121
5	133	285	178	e82	e58	e131	482	166	563	276	168	149
6	135	280	176	e81	e59	e134	462	164	530	271	168	215
7	142	256	174	e85	e59	e138	437	148	502	310	178	185
8	143	229	167	e86	e60	e141	427	142	505	297	186	161
9	144	210	157	e92	e62	e141	382	149	579	286	188	158
10	147	195	e141	e93	e62	e145	362	165	567	286	196	156
11	157	208	e127	e95	e63	e148	335	155	596	375	176	156
12	181	212	e116	e97	e65	e150	311	167	693	379	161	151
13	171	212	e127	e97	e68	e154	306	184	727	420	160	165
14	168	201	e139	e97	e68	e157	287	160	755	440	162	202
15	166	196	e147	e97	e64	e162	267	151	739	427	164	182
16	165	196	e146	e93	e72	e172	273	161	752	415	169	218
17	159	198	e149	e85	e78	e179	252	268	698	392	176	201
18	159	205	e148	e76	e83	e191	232	282	644	367	183	222
19	158	208	e145	e71	e88	e202	251	280	588	351	187	233
20	157	198	e143	e67	e91	e214	236	279	545	336	182	248
21	165	192	e139	e65	e95	e230	261	266	501	312	172	287
22	150	175	e139	e64	e102	e246	266	276	452	292	182	310
23	154	e121	e130	e63	e108	e261	259	369	418	263	178	314
24	152	e102	e130	e63	e111	e284	247	434	396	244	158	352
25	169	e150	e129	e62	e118	e311	252	433	369	230	172	341
26	174	203	e136	e64	e119	e356	258	438	345	212	179	344
27	181	197	e137	e60	e120	523	232	493	339	199	176	339
28	221	187	e127	e56	e120	600	218	495	334	189	159	328
29	224	185	e113	e54	e121	608	217	553	331	194	151	320
30	227	188	e105	e53	---	599	200	615	331	189	144	311
31	250	---	e107	e57	---	592	---	654	---	184	149	---
TOTAL	5,114	6,221	4,474	2,460	2,343	7,671	9,887	8,769	16,279	9,374	5,343	6,765
MEAN	165	207	144	79.4	80.8	247	330	283	543	302	172	226
MAX	250	285	179	111	121	608	575	654	755	440	196	352
MIN	133	102	105	53	55	123	200	142	331	184	144	121
AC-FT	10,140	12,340	8,870	4,880	4,650	15,220	19,610	17,390	32,290	18,590	10,600	13,420
CFSM	0.16	0.20	0.14	0.08	0.08	0.24	0.32	0.27	0.53	0.29	0.17	0.22
IN.	0.18	0.22	0.16	0.09	0.08	0.28	0.36	0.32	0.59	0.34	0.19	0.24

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2004, BY WATER YEAR (WY)

MEAN	176	186	138	102	110	310	836	529	421	338	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 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1909 - 2004	
ANNUAL TOTAL	136,877		84,700		a311	
ANNUAL MEAN	375		231		732	
HIGHEST ANNUAL MEAN					1972	
LOWEST ANNUAL MEAN					51.0	
HIGHEST DAILY MEAN	1,480	Jul 7	755	Jun 14	7,940	Apr 14, 1965
LOWEST DAILY MEAN	102	Nov 24	53	Jan 30	1.3	Jan 6, 1935
ANNUAL SEVEN-DAY MINIMUM	113	Feb 7	56	Jan 29	1.5	Jan 2, 1935
MAXIMUM PEAK FLOW			b787	Jun 16	9,100	Apr 13, 1965
MAXIMUM PEAK STAGE			c4.43	Mar 12	10.68	Apr 13, 1965
INSTANTANEOUS LOW FLOW			d53	Jan 30	0.30	Nov 25, 1936
ANNUAL RUNOFF (AC-FT)	271,500		168,000		225,300	
ANNUAL RUNOFF (CFSM)	0.364		0.225		0.302	
ANNUAL RUNOFF (INCHES)	4.94		3.06		4.10	
10 PERCENT EXCEEDS	915		468		776	
50 PERCENT EXCEEDS	203		180		155	
90 PERCENT EXCEEDS	131		86		41	

- a Median of annual mean discharges is 300 ft<sup>3</sup>/s.
- b Gage height, 3.29 ft.
- c Backwater from ice.
- d Daily-mean discharge, backwater from ice.
- e Estimated.

