

UPPER MISSISSIPPI RIVER MAIN STEM--Continued

05270500 SAUK RIVER NEAR ST. CLOUD, MN

LOCATION.--Lat 45°33'35", long 94°14'00", in SW¹/₄SW¹/₄ 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.--1030 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. 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 poor. Flow regulated in part by power plants and reservoirs above station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	294	325	e170	e144	243	639	466	982	385	179	178
2	149	286	318	e180	e150	257	649	441	947	383	174	171
3	136	284	306	e180	e155	273	637	410	891	427	175	162
4	131	290	295	e170	e145	278	680	396	824	418	174	171
5	144	285	314	e170	e138	290	688	417	903	392	168	171
6	184	271	326	e170	e150	296	791	436	890	363	164	152
7	190	254	312	e160	e150	296	867	478	851	330	160	150
8	178	243	308	e160	e160	292	858	470	850	331	154	164
9	172	249	298	e160	e160	311	840	464	895	338	165	153
10	173	305	289	e150	e150	298	845	502	888	313	175	139
11	168	427	278	e160	e160	277	885	738	923	302	167	132
12	183	363	268	e160	e150	265	873	938	982	291	166	139
13	172	355	265	e160	e140	259	832	1100	967	277	179	151
14	152	358	269	e165	e150	259	806	1220	892	263	182	146
15	145	351	269	e160	e150	262	799	1360	816	250	189	135
16	173	329	262	e160	e148	270	786	1480	750	243	199	127
17	245	345	257	e150	e148	312	776	1530	687	224	208	133
18	265	345	253	e150	e147	335	763	1560	633	211	210	134
19	269	427	241	e150	e140	365	748	1570	594	195	220	142
20	272	386	e180	e140	e140	432	724	1580	572	187	231	139
21	267	365	e160	e150	e138	511	693	1590	534	182	245	132
22	267	351	e140	e150	e140	578	652	1570	506	174	259	137
23	268	364	e150	e140	e145	642	638	1560	504	168	261	137
24	266	369	e155	e140	e145	654	646	1520	475	158	250	136
25	260	380	e160	e140	e150	630	622	1450	448	154	240	139
26	260	368	e165	e140	e150	600	585	1390	442	164	233	158
27	258	354	e170	e137	e180	592	556	1330	471	148	220	165
28	252	344	e175	e140	e210	628	524	1260	448	147	204	150
29	240	342	e180	e140	---	628	502	1190	430	146	180	151
30	281	347	e180	e139	---	626	485	1120	407	161	168	154
31	294	---	e175	e138	---	646	---	1050	---	197	188	---
TOTAL	6573	10031	7443	4779	4233	12605	21389	32586	21402	7922	6087	4448
MEAN	212	334	240	154	151	407	713	1051	713	256	196	148
MAX	294	427	326	180	210	654	885	1590	982	427	261	178
MIN	131	243	140	137	138	243	485	396	407	146	154	127
AC-FT	13040	19900	14760	9480	8400	25000	42430	64630	42450	15710	12070	8820
CFSM	.21	.32	.23	.15	.15	.39	.69	1.02	.69	.25	.19	.14
IN.	.24	.36	.27	.17	.15	.46	.77	1.18	.77	.29	.22	.16

e Estimated

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	172	181	138	101	110	317	825	513	416	323	208	182
MAX	1154	1091	528	336	568	1380	2997	1572	1333	1262	1250	1136
(WY)	1996	1972	1972	1980	1966	1966	1997	1975	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

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1909 - 1999
ANNUAL TOTAL	138629	139498	
ANNUAL MEAN	380	382	307 ^a
HIGHEST ANNUAL MEAN			732 1931
LOWEST ANNUAL MEAN			51.0 1931
HIGHEST DAILY MEAN	982	Jul 3	1590 May 21
LOWEST DAILY MEAN	120	Jan 13	127 Sep 16
ANNUAL SEVEN-DAY MINIMUM	126	Jan 12	135 Sep 15
INSTANTANEOUS PEAK FLOW			1600 May 20
INSTANTANEOUS PEAK STAGE			4.69 May 20
INSTANTANEOUS LOW FLOW			116 Sep 11
ANNUAL RUNOFF (AC-FT)	275000	276700	222100
ANNUAL RUNOFF (CFSM)	.37	.37	.30
ANNUAL RUNOFF (INCHES)	5.01	5.04	4.04
10 PERCENT EXCEEDS	747	850	734
50 PERCENT EXCEEDS	318	262	143
90 PERCENT EXCEEDS	160	145	36

a Median of annual mean discharges is 300 ft³/s.

