

STREAMS TRIBUTARY TO LAKE SUPERIOR--Continued

04024000 ST. LOUIS RIVER AT SCANLON, MN

LOCATION.--Lat 46°42'12", long 92°25'07", in NW¼ sec. 30, T.49 N., R.16 W., Carlton County, Hydrologic Unit 04010201, on right bank 80 ft downstream from lower bridge on U.S. Highway 61 at Scanlon, 0.6 mi downstream from Minnesota Power Co. power plant, 3 mi upstream from Thomson Reservoir, and 3.2 mi upstream from Midway River.

DRAINAGE AREA.--3,430 mi² (approximately).

PERIOD OF RECORD.--January 1908 to current year. Monthly discharge only for some periods published in WSP 1307. Published as "near Thomson" 1908-50.

REVISED RECORDS.--WSP 1337: 1911-12.

GAGE.--Water-stage recorder. Datum of gage is 1,101.23 ft above sea level (NGVD of 1929). Oct. 5, 1909 to Sept. 5, 1914, nonrecording gage 3 mi downstream and 50 ft below power plant at datum about 420 ft lower. Sept. 6, 1914 to Aug. 4, 1953, power plant record at Thomson hydroelectric plant.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diurnal fluctuation caused by power plant upstream. Flow regulated by Whiteface Reservoir and Boulder, Island, Rice and Fish Lakes, combined capacity, 332,160 acre-ft; the water-discharge table shows the monthly change in contents (+).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	584	1330	2390	e1100	1060	e900	1230	3510	1340	6690	2510	1600		
2	548	1230	2180	e1360	1050	624	1190	3360	1260	5400	3430	1820		
3	555	1290	2210	e1340	1020	e1000	1110	2960	1170	4370	3520	1930		
4	583	1300	2260	e1270	e1010	809	1010	3000	1110	3550	3020	1800		
5	570	1200	2200	e1320	e1020	532	933	2810	1020	2840	2690	1640		
6	509	1150	2460	e1300	1020	e1200	919	3020	991	2460	2340	1650		
7	503	1150	2680	1260	1050	e1100	972	3040	877	2430	2160	1680		
8	534	1230	2730	1290	1070	874	1320	3080	870	8880	1980	1560		
9	603	1220	2090	1380	1060	908	1640	3600	836	12000	1910	1550		
10	760	1270	2210	1380	1040	e1040	2460	3890	737	8970	1880	1670		
11	870	1310	2030	1330	1030	1120	4470	3880	764	7300	1690	2050		
12	946	1230	2210	1350	1010	e1140	4920	3930	778	6010	1850	2060		
13	1100	1190	2130	1330	1070	e1100	5350	4470	767	5040	1830	1810		
14	1110	1210	1760	1240	1030	e1070	6560	4600	818	4410	1800	1660		
15	1140	1190	1730	1210	985	e1060	7520	4650	830	3810	1670	1490		
16	1130	1190	1880	1190	1030	e1040	7220	4110	788	3260	1700	1420		
17	1110	1190	1960	1100	953	e1250	6920	3900	775	2850	3140	1310		
18	1200	1180	1880	e1120	1020	e1300	6660	3400	798	2380	3620	1190		
19	1190	1090	1590	e1130	1060	e1230	6990	3100	980	2250	3640	1180		
20	1120	1050	1550	1150	1060	e1120	7100	2820	1010	1840	3020	1480		
21	1090	1090	1400	1100	994	1030	6630	2500	987	1740	2780	1750		
22	1060	1080	1410	1110	1020	928	6220	2380	1080	1680	2780	1640		
23	1090	1050	1490	1150	1040	1120	5760	2300	9550	1670	2850	1530		
24	1150	1150	e1250	1090	1030	1110	5450	2000	21800	1490	2710	1530		
25	1220	1370	e1230	1040	1060	1020	4870	1920	25400	1490	2370	1540		
26	1280	1750	e1300	1090	895	1030	4490	1780	24300	1460	2190	1520		
27	1240	2050	1380	1100	e600	956	4060	1760	20700	1500	2040	1430		
28	1300	1500	e1270	1100	707	934	3900	1590	15600	1900	1860	1310		
29	1320	1610	e1200	e1070	---	1020	3630	1590	11200	3030	1680	1230		
30	1260	2050	e1260	990	---	1080	3620	1420	8500	2650	1580	1220		
31	1330	---	e1180	1050	---	1170	---	1340	---	2300	1470	---		
TOTAL	30005	38900	56500	37040	27994	31815	125124	91710	157636	117650	73710	47250		
MEAN	968	1297	1823	1195	1000	1026	4171	2958	5255	3795	2378	1575		
MAX	1330	2050	2730	1380	1070	1300	7520	4650	25400	12000	3640	2060		
MIN	503	1050	1180	990	600	532	919	1340	737	1460	1470	1180		
AC-FT	59510	77160	112100	73470	55530	63110	248200	181900	312700	233400	146200	93720		
CFSM	0.28	0.38	0.53	0.35	0.29	0.30	1.22	0.86	1.53	1.11	0.69	0.46		
IN.	0.33	0.42	0.61	0.40	0.30	0.35	1.36	0.99	1.71	1.28	0.80	0.51		
+	61.6	186	-309	-611	-539	-469	892	272	780	301	1.04	-111		
‡MEAN	1030	1483	1514	584	461	557	5063	3230	6034	4096	2379	1464		
‡CFSM	.30	.43	.44	.17	.13	.16	1.48	.94	1.76	1.19	.69	.43		
‡IN	.35	.48	.51	.20	.14	.18	1.65	1.08	1.96	1.37	.80	.48		
CAL YR 01	TOTAL	1220088	MEAN	3343	MAX	27100	MIN	503	‡MEAN	3126	‡CFSM	0.91	‡IN	12.38
WTR YR 02	TOTAL	835334	MEAN	2289	MAX	25400	MIN	503	‡MEAN	2327	‡CFSM	0.68	‡IN	9.21

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2034	1756	1295	1078	1063	1461	5733	5112	3568	2503	1673	1765
MAX	7508	8518	2993	2272	2200	6026	15860	22210	16480	12630	9197	7594
(WY)	1974	1972	1972	1966	1966	1945	2001	1950	1908	1999	1953	1928
MIN	407	473	282	265	249	301	667	593	458	199	377	402
(WY)	1935	1935	1911	1911	1924	1924	1977	1977	1988	1988	1977	1934

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1908 - 2002

ANNUAL TOTAL	1220088	835334	
ANNUAL MEAN	3343	2289	2408
HIGHEST ANNUAL MEAN			4276
LOWEST ANNUAL MEAN			945
HIGHEST DAILY MEAN	27100	Apr 25	25400
LOWEST DAILY MEAN	503	Oct 7	503
ANNUAL SEVEN-DAY MINIMUM	543	Oct 2	543
MAXIMUM PEAK FLOW			25900
MAXIMUM PEAK STAGE			11.87
ANNUAL RUNOFF (AC-FT)	2420000	1657000	1745000
ANNUAL RUNOFF (CFSM)	0.97	0.67	0.70
ANNUAL RUNOFF (INCHES)	13.23	9.06	9.54
10 PERCENT EXCEEDS	11300	4390	5300
50 PERCENT EXCEEDS	1180	1340	1400
90 PERCENT EXCEEDS	652	941	656

- + Change in contents, equivalent in cubic feet per second, in Whiteface Reservoir, and Boulder, Island, Rice and Fish Lakes; records furnished by Minnesota Power Co.
- † Adjusted for change in reservoir contents.
- e Estimated.

