

STREAMS TRIBUTARY TO LAKE SUPERIOR--Continued

04024000 ST. LOUIS RIVER AT SCANLON, MN

LOCATION.--Lat 46°42'12", long 92°25'07", in NW¹/₄ 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	11200	2710	1500	1290	e1130	2430	2190	2190	1710	2140	779	808		
2	10400	2590	1640	1330	e1100	2120	2160	2210	1730	2040	746	1180		
3	9250	2630	1620	1330	e1130	2030	2290	2340	1700	2060	715	1610		
4	7970	2760	1720	1300	e1140	1790	2540	2150	1630	1980	639	1540		
5	6890	2800	1590	1230	e1070	1800	3180	2130	1540	1740	648	1700		
6	5870	2670	1390	1220	e1170	1830	4170	2070	1350	1540	735	1710		
7	5360	2650	1290	1100	e1130	1890	5160	2020	1260	1520	618	1660		
8	5550	2660	1430	1180	e1070	2590	4890	4140	1230	1570	659	1670		
9	6350	2600	1600	1180	e1200	4010	4350	9090	1030	2090	794	1980		
10	6280	2460	1720	1260	e1150	4110	3890	9980	1080	2160	809	1690		
11	5710	2330	1660	1230	e1070	4040	3440	9510	1090	2050	808	1580		
12	5300	2240	1610	1350	e1140	3680	3080	9050	1140	2040	880	1640		
13	5060	2050	1600	1180	e1060	3410	2840	8300	1170	1870	867	1530		
14	4770	2080	1670	1120	1170	3000	2800	7540	1200	1940	1240	1440		
15	4290	1950	1620	1250	e1120	2810	2700	6760	1180	1990	1570	1340		
16	3860	1970	1370	1210	e1160	2480	2690	5900	1570	1770	1580	1240		
17	3480	2020	1300	1080	e990	2530	2610	5140	1880	1580	1430	1230		
18	3390	1910	1270	1270	e1020	2440	2500	4470	2380	1480	1180	958		
19	3310	2000	1310	1190	e1000	2330	2450	3980	2430	1240	1160	1040		
20	3200	2030	e1330	1260	e1060	2360	2380	3510	2940	1160	962	972		
21	3160	2000	e1250	e1150	e1100	2310	2410	3150	3490	1030	1030	826		
22	3030	2040	e1080	e1100	1270	2000	2360	2960	4650	923	866	885		
23	2960	2030	e1400	e1170	1200	1980	2320	3000	5250	882	860	870		
24	2760	1750	1340	e1100	1230	1840	2300	2720	5030	753	908	813		
25	2660	1840	1350	e1120	e1300	2360	2290	2580	4500	787	771	798		
26	2570	1780	1510	e1140	2410	3020	2200	2260	4050	727	846	776		
27	2410	1870	1320	e1160	e2850	3390	2260	2120	3670	807	667	771		
28	2410	1800	1360	e1080	3120	3200	2250	2080	3330	873	668	666		
29	2190	1550	1420	e1200	2710	2890	2180	1950	2890	813	714	632		
30	2800	1470	1450	e1100	---	2610	2200	1830	2500	776	709	643		
31	2880	---	1330	e1120	---	2350	---	1860	---	742	686	---		
TOTAL	147320	65240	45050	37000	39270	81630	85080	128990	70600	45073	27544	36198		
MEAN	4752	2175	1453	1194	1354	2633	2836	4161	2353	1454	889	1207		
MAX	11200	2800	1720	1350	3120	4110	5160	9980	5250	2160	1580	1980		
MIN	2190	1470	1080	1080	990	1790	2160	1830	1030	727	618	632		
AC-FT	292200	129400	89360	73390	77890	161900	168800	255900	140000	89400	54630	71800		
CFSM	1.39	.63	.42	.35	.39	.77	.83	1.21	.69	.42	.26	.35		
IN.	1.60	.71	.49	.40	.43	.89	.92	1.40	.77	.49	.30	.39		
+	-181	-182	-510	-574	-451	-322	501	893	394	-49.8	-15.9	-72.9		
MEAN	4571	1993	943	620	903	2311	3337	5054	2747	1404	873	1134		
CFSM	1.33	.58	.27	.18	.26	.67	.97	1.47	.80	.41	.25	.33		
IN	1.53	.65	.31	.21	.28	.77	1.08	1.69	.89	.47	.29	.37		
CAL YR 99	TOTAL	1476064	MEAN	4044	MAX	28200	MIN	964	MEAN	4042	CFSM	1.18	IN	16.00
WTR YR 00	TOTAL	808995	MEAN	2210	MAX	11200	MIN	618	MEAN	2163	CFSM	0.63	IN	8.56

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2056	1745	1290	1077	1063	1469	5641	5077	3547	2507	1673	1779
MAX	7508	8518	2993	2272	2200	6026	15230	22210	16480	12630	9197	7594
(WY)	1974	1972	1972	1966	1966	1945	1948	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 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1908 - 2000	
ANNUAL TOTAL	1476064		808995			
ANNUAL MEAN	4044		2210		2398	
HIGHEST ANNUAL MEAN					4276	
LOWEST ANNUAL MEAN					945	
HIGHEST DAILY MEAN	28200		Jul 10		37900	
LOWEST DAILY MEAN	964		Jun 20		88	
ANNUAL SEVEN-DAY MINIMUM	1130		Mar 1		134	
INSTANTANEOUS PEAK FLOW					37900	
INSTANTANEOUS PEAK STAGE					15.80	
ANNUAL RUNOFF (AC-FT)	2928000		1605000		1737000	
ANNUAL RUNOFF (CFSM)	1.18		.64		.70	
ANNUAL RUNOFF (INCHES)	16.01		8.77		9.50	
10 PERCENT EXCEEDS	9080		4040		5330	
50 PERCENT EXCEEDS	2420		1740		1400	
90 PERCENT EXCEEDS	1180		867		649	

+ 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.
 ‡ Occurred on recession following peak of Sept. 28, 1999; maximum independent peak discharge, 10,500 ft³/s, May 10, gage height, 7.75 ft.
 e Estimated.

