

LAKE OF THE WOODS BASIN

05129115 VERMILION RIVER NEAR CRANE LAKE, MN

LOCATION.--Lat 48° 15'53", long 92° 33'57", in NE¼NE¼ sec. 30, T.67 N., R.17 W., St. Louis County, Hydrologic Unit 09030002, in Superior National Forest, on left bank 350 ft downstream from bridge on Forest Route 491, 3.5 mi upstream from mouth, and 3.5 mi west of city of Crane Lake.

DRAINAGE AREA.-- 906 mi².

PERIOD OF RECORD.--August 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,180 ft above sea level, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 1979 reached a stage of 15.15 ft, from high-water mark, discharge, about 4,600 ft³/s.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
1	402	1340	e860	e540	e410	e340	420	2080	1190
722	330	122							
2	393	1240	e850	e530	e410	e340	548	2020	1130
759	309	115							
3	390	1150	e830	e530	e410	e340	758	1960	1080
839	294	109							
4	369	1060	e820	e520	e410	e350	1050	1900	1030
887	289	104							
5	345	984	e800	e520	e410	e350	1400	1830	1010
870	274	105							
6	314	952	e780	e520	e400	e350	1750	1800	987
858	262	99							
7	283	998	e770	e510	e400	e350	2030	1780	946
826	250	95							
8	264	1020	e760	e510	e390	e350	2480	1780	915
791	240	91							
9	247	1000	e750	e500	e390	e350	2630	1780	878
756	234	88							
10	237	962	e730	e500	e390	e340	2490	1790	832
720	223	82							
11	234	891	e720	e490	e380	e340	2340	1770	786
687	208	79							

12	227	864	e710	e490	e380	e340	2200	1730	742
660	196	74							
13	215	816	e700	e480	e380	e340	2110	1700	692
639	182	71							
14	199	774	e690	e470	e370	e330	2120	1670	651
621	171	67							
15	205	756	e680	e460	e370	e330	e2170	1630	625
614	163	63							
16	197	749	e670	e450	e370	e330	2220	1590	590
599	169	72							
17	232	881	e660	e450	e370	e330	2280	1550	562
582	166	87							
18	389	1080	e640	e440	e360	e330	2300	1500	568
557	159	80							
19	480	1180	e630	e430	e360	e330	2330	1510	562
541	154	80							
20	515	1210	e620	e430	e360	e330	2400	1530	575
527	161	80							
21	520	1210	e610	e430	e350	e330	2420	1540	557
505	161	79							
22	499	1180	e600	e420	e350	e330	2430	1520	536
493	160	76							
23	468	e1110	e590	e420	e350	e330	2390	1520	524
477	158	75							
24	455	e1050	e570	e420	e340	330	2350	1540	587
458	157	74							
25	444	e1000	e560	e420	e340	330	2290	1540	698
439	157	67							
26	441	e950	e550	e420	e340	332	2240	1520	704
431	154	65							
27	544	e910	e550	e420	e340	347	2200	1490	681
415	146	62							
28	604	e880	e540	e420	e340	358	2220	1430	696
390	137	74							
29	614	e860	e540	e420	---	367	2190	1370	711
372	134	89							
30	1080	e860	e540	e420	---	381	2130	1300	707
355	132	91							
31	1380	---	e540	e420	---	389	---	1240	---
339	129	---							
TOTAL	13186	29917	20860	14400	10470	10614	60886	50910	22752
18729	6059	2515							
MEAN	425	997	673	465	374	342	2030	1642	758
604	195	83.8							
MAX	1380	1340	860	540	410	389	2630	2080	1190
887	330	122							
MIN	197	749	540	420	340	330	420	1240	524
339	129	62							
AC-FT	26150	59340	41380	28560	20770	21050	120800	101000	45130
37150	12020	4990							
CFSM	.47	1.10	.74	.51	.41	.38	2.24	1.81	.84

.67	.22	.09							
IN.	.54	1.23	.86	.59	.43	.44	2.50	2.09	.93
.77	.25	.10							

- e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1997, BY WATER YEAR (WY)

	JUN	JUL	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
MEAN	609	571	432	305	249	295	1166	1447	968	
800	491	482								
MAX	1436	1138	872	476	374	574	2030	2496	1840	
1609	1612	1880								
(WY)	1996	1983	1983	1996	1997	1995	1997	1996	1985	
1985	1988	1988								
MIN	181	152	116	97.8	94.1	89.5	627	507	205	
113	60.0	83.8								
(WY)	1980	1988	1988	1988	1988	1988	1987	1980	1980	
1980	1980	1997								

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1979 - 1997

ANNUAL TOTAL		302264			261298				
ANNUAL MEAN		826			716				654
HIGHEST ANNUAL MEAN									
922		1996							
LOWEST ANNUAL MEAN									
326		1980							
HIGHEST DAILY MEAN		3080	Apr 27		2630	Apr 9		4300	Apr
25 1985									
LOWEST DAILY MEAN		197	Oct 16		62	Sep 27		38	Aug
13 1980									
ANNUAL SEVEN-DAY MIN		202	Sep 19		70	Sep 22		40	Aug
10 1980									
INSTANTANEOUS PEAK FLOW					2640	Apr 9		4360	Apr
25 1985									
INSTANTANEOUS PEAK STAGE					12.50	Apr 9		15.20	Apr
25 1985									
INSTANTANEOUS LOW FLOW					59	Sep 16		38	Aug
13 1980									
ANNUAL RUNOFF (AC-FT)		599500			518300			473800	
ANNUAL RUNOFF (CFSM)		.91			.79			.72	
ANNUAL RUNOFF (INCHES)		12.41			10.73			9.81	
10 PERCENT EXCEEDS		2200			1740			1460	
50 PERCENT EXCEEDS		540			520			448	
90 PERCENT EXCEEDS		322			154			166	