

RAINY RIVER BASIN--Continued

05129115 VERMILION RIVER NEAR CRANE LAKE, MN

LOCATION.--Lat 48°15'53", long 92°33'57", in NE¹/₄NE¹/₄ 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.-- 905 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 approximately 4,600 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	257	567	526	298	239	246	210	3010	3050	1190	e1860	1350
2	248	779	510	293	235	245	213	3140	2920	1130	e2440	1320
3	238	863	497	293	232	245	221	3220	2800	1090	e2730	1250
4	224	839	488	294	233	241	236	3230	2680	1020	e2750	1160
5	215	807	468	294	233	234	257	3170	2580	948	e2620	1090
6	215	788	452	292	232	225	295	3110	2480	900	e2380	1030
7	210	869	439	290	226	226	478	3080	2390	862	e1890	985
8	206	1050	427	287	221	226	800	3040	2320	819	e2740	965
9	202	1120	414	285	221	224	1590	2980	2290	778	e2880	926
10	199	e1110	406	281	219	223	1820	2910	2230	733	e2710	890
11	198	e1070	398	277	215	221	1980	2850	2150	694	e2600	850
12	195	e1030	385	275	218	219	2330	2780	2080	658	e2280	813
13	189	982	375	273	220	219	2690	2710	2020	633	e1950	775
14	251	941	372	270	219	220	3000	2640	2620	610	1870	741
15	449	897	367	269	215	226	3360	2580	2930	647	2350	711
16	500	849	367	269	213	229	3500	2570	2880	645	2750	679
17	502	800	368	265	206	228	3480	2530	2730	643	2940	651
18	485	751	362	264	200	225	3460	2470	2550	641	2970	629
19	458	718	356	258	207	222	3420	2410	2390	818	2850	609
20	453	677	352	253	206	220	3380	2360	2250	983	2660	589
21	426	654	356	251	196	221	3330	2430	2110	972	2450	571
22	404	637	351	252	196	222	3290	2840	1990	950	2240	554
23	378	618	344	254	208	219	3250	3280	1890	897	2030	554
24	356	604	338	252	216	211	3210	3490	1780	809	1860	544
25	355	594	331	244	223	204	3210	3560	1700	730	1720	534
26	376	582	331	243	223	197	3200	3660	1600	670	1600	517
27	456	569	321	241	237	196	3180	3690	1510	627	1490	497
28	520	558	316	239	247	196	3120	3610	1450	614	1390	482
29	536	547	317	239	---	195	3070	3480	1370	598	1310	472
30	534	536	313	236	---	194	3010	3340	1280	629	1330	461
31	532	---	308	237	---	200	---	3190	---	667	1350	---
TOTAL	10767	23406	11955	8268	6156	6819	68590	93360	67020	24605	68990	23199
MEAN	347	780	386	267	220	220	2286	3012	2234	794	2225	773
MAX	536	1120	526	298	247	246	3500	3690	3050	1190	2970	1350
MIN	189	536	308	236	196	194	210	2360	1280	598	1310	461
AC-FT	21360	46430	23710	16400	12210	13530	136000	185200	132900	48800	136800	46020
CFSM	.38	.86	.43	.29	.24	.24	2.53	3.33	2.47	.88	2.46	.85
IN.	.44	.96	.49	.34	.25	.28	2.82	3.84	2.75	1.01	2.84	.95

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	570	549	412	288	237	294	1215	1450	976	796	568	489
MAX	1436	1138	872	476	374	574	2286	3012	2234	1609	2225	1880
(WY)	1996	1983	1983	1996	1997	1995	2001	2001	2001	1985	2001	1988
MIN	110	152	116	97.8	94.1	89.5	627	507	205	113	60.0	69.1
(WY)	1998	1988	1988	1988	1988	1988	1987	1980	1980	1980	1980	1998

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1979 - 2001

ANNUAL TOTAL		171890		413135								
ANNUAL MEAN		470		1132					657			
HIGHEST ANNUAL MEAN									1132			2001
LOWEST ANNUAL MEAN									280			1998
HIGHEST DAILY MEAN			1170		May 10	3690		May 27	4300		Apr 25	1985
LOWEST DAILY MEAN			160		Feb 23	189		Oct 13	38		Aug 13	1980
ANNUAL SEVEN-DAY MINIMUM			164		Feb 17	197		Mar 25	40		Aug 10	1980
MAXIMUM PEAK FLOW						3700		May 26	4360		Apr 25	1985
MAXIMUM PEAK STAGE						14.19		May 26	15.20		Apr 25	1985
INSTANTANEOUS LOW FLOW						183		Oct 14	38		Aug 13	1980
ANNUAL RUNOFF (AC-FT)			340900			819500			475700			
ANNUAL RUNOFF (CFSM)			.52			1.25			.73			
ANNUAL RUNOFF (INCHES)			7.07			16.98			9.86			
10 PERCENT EXCEEDS			790			2970			1480			
50 PERCENT EXCEEDS			426			618			440			
90 PERCENT EXCEEDS			190			220			160			

e Estimated.

