

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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	868	718	385	235	e185	252	450	712	593	645	469	295
2	850	666	379	232	e184	242	429	705	615	643	449	293
3	829	653	378	226	e184	238	488	702	624	635	421	309
4	818	648	376	224	e184	237	581	692	615	622	404	313
5	797	640	366	220	e182	238	657	686	603	605	405	310
6	777	609	354	e219	e178	246	794	683	583	586	436	324
7	783	604	354	e218	e176	258	877	697	561	594	426	376
8	870	600	352	e218	e173	274	872	833	542	642	414	396
9	940	590	343	e218	e170	299	844	1110	522	658	440	405
10	981	574	335	e219	e169	295	819	1170	518	644	431	423
11	991	e567	328	e222	e167	e285	782	1150	524	633	416	409
12	985	e557	324	e213	165	e273	742	1150	512	674	416	389
13	956	e550	316	e208	165	e266	724	1120	497	701	409	365
14	940	e540	310	e202	164	e241	728	1090	497	676	401	342
15	918	514	305	e200	170	e235	733	1050	487	645	403	323
16	896	498	294	e200	170	e228	743	1010	469	623	392	310
17	884	496	291	e199	165	e222	772	965	454	582	394	296
18	e887	488	285	e198	164	e221	784	917	447	544	386	285
19	902	481	282	e197	166	e227	785	883	440	521	372	358
20	e911	467	279	e195	166	235	785	844	453	507	363	412
21	921	462	266	e190	164	238	778	828	492	486	373	403
22	874	457	259	e190	162	244	760	835	561	473	361	388
23	847	443	253	e190	160	253	761	837	615	464	342	378
24	841	434	249	e190	165	287	764	814	653	450	326	363
25	832	425	249	e190	182	434	755	778	664	447	315	344
26	791	425	241	e190	237	536	740	744	682	463	303	326
27	774	419	239	e190	254	551	725	722	670	475	295	308
28	761	401	238	e188	251	532	718	700	655	481	290	292
29	744	392	240	e187	252	516	727	674	644	485	282	279
30	733	381	240	e186	---	494	723	648	640	482	268	265
31	714	---	237	e185	---	473	---	617	---	470	304	---
TOTAL	26615	15699	9347	6339	5274	9570	21840	26366	16832	17556	11706	10279
MEAN	859	523	302	204	182	309	728	851	561	566	378	343
MAX	991	718	385	235	254	551	877	1170	682	701	469	423
MIN	714	381	237	185	160	221	429	617	440	447	268	265
AC-FT	52790	31140	18540	12570	10460	18980	43320	52300	33390	34820	23220	20390
CFSM	.73	.44	.26	.17	.15	.26	.62	.72	.48	.48	.32	.29
IN.	.84	.49	.29	.20	.17	.30	.69	.83	.53	.55	.37	.32

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	581	538	413	289	238	298	1164	1375	916	796	492	477
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	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 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1979 - 2000

ANNUAL TOTAL		302395		177423								
ANNUAL MEAN		828		485					634			
HIGHEST ANNUAL MEAN									922			1996
LOWEST ANNUAL MEAN									280			1998
HIGHEST DAILY MEAN				2690	Apr 11		1170	May 10	4300		Apr 25	1985
LOWEST DAILY MEAN				170	Mar 15		160	Feb 23	38		Aug 13	1980
ANNUAL SEVEN-DAY MINIMUM				174	Mar 9		164	Feb 17	40		Aug 10	1980
INSTANTANEOUS PEAK FLOW							1190	May 10	4360		Apr 25	1985
INSTANTANEOUS PEAK STAGE							9.27	May 10	15.20		Apr 25	1985
INSTANTANEOUS LOW FLOW							158	Feb 22	38		Aug 13	1980
ANNUAL RUNOFF (AC-FT)			599800				351900		459300			
ANNUAL RUNOFF (CFSM)			.92				.54		.70			
ANNUAL RUNOFF (INCHES)			12.43				7.29		9.52			
10 PERCENT EXCEEDS			1640				834		1420			
50 PERCENT EXCEEDS			786				440		433			
90 PERCENT EXCEEDS			190				194		158			

e Estimated.

