

RED RIVER OF THE NORTH BASIN--Continued

05078000 CLEARWATER RIVER AT PLUMMER, MN

LOCATION.--Lat 47°55'24", long 96°02'46", in SE¹/₄SW¹/₄ sec. 4, T.151 N., R.42 W., Red Lake County, Hydrologic Unit 09020305, on right bank 200 ft downstream from Soo Line Railroad bridge, 300 ft downstream from bridge on U.S. Highway 59, 0.9 mi northwest of railroad depot in Plummer, and 8 mi upstream from Hill River.

DRAINAGE AREA.--555 mi².

PERIOD OF RECORD.--April 1939 to September 1979, March 1982 to current year. Annual maximums only, October 1979 to February 1982.

GAGE.--Water-stage recorder. Datum of gage is 1,098.57 ft above sea level (NGVD of 1929, levels by U.S. Army Corps of Engineers). Prior to Nov. 10, 1939, nonrecording gage at site 100 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Since 1968, undetermined amounts of water diverted for the flooding of wild rice paddies upstream.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 630 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jun 23	1600	*1,330	*8.27	Jul 9	1130	967	7.08

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	252	93	e38	e67	e60	e140	50	175	112	426	154	154
2	224	100	e50	e67	e60	e127	62	158	117	385	148	221
3	205	88	e68	e66	e59	e115	52	128	147	349	149	263
4	199	76	e62	e66	e59	e110	70	125	154	323	143	280
5	181	80	e57	e65	e59	e110	88	123	147	329	142	270
6	171	96	e53	e65	e59	e112	82	106	154	337	149	259
7	145	95	e50	e65	e58	e115	130	105	132	484	163	283
8	138	92	e51	e65	e58	e115	136	118	106	864	163	284
9	148	103	e51	e64	e58	e110	145	139	92	951	168	240
10	143	104	e52	e64	e58	e105	140	134	94	805	142	209
11	142	109	e53	e64	e58	e99	132	130	101	530	126	190
12	137	112	e54	e64	e58	e90	133	130	82	447	115	186
13	131	116	e55	e64	e57	e86	128	150	66	411	141	161
14	120	110	e56	e63	e57	e80	126	172	85	365	145	144
15	117	111	e55	e63	e57	e73	146	173	111	309	172	130
16	112	109	e54	e63	e57	e67	175	151	142	289	267	128
17	137	100	e48	e63	e57	e66	177	139	148	264	247	125
18	131	94	e42	e62	e58	e65	152	132	157	244	222	119
19	122	71	e56	e62	e58	e64	132	122	150	229	196	115
20	120	e68	e65	e62	e58	e63	131	121	459	206	182	108
21	121	e76	e70	e62	e59	e62	130	119	802	195	180	99
22	125	e94	e72	e62	e61	e61	132	120	1040	176	190	94
23	121	e80	e71	e62	e63	e60	147	127	1310	163	176	119
24	110	e49	e70	e61	e67	e70	145	147	1270	152	157	192
25	104	e54	e70	e61	e80	e80	142	147	1130	166	143	204
26	105	e58	e69	e61	e140	76	134	141	973	168	160	185
27	86	e61	e69	e61	e180	79	148	133	822	189	157	155
28	93	e54	e69	e60	e155	64	136	134	679	179	152	130
29	91	e48	e68	e60	e147	62	150	132	545	169	149	124
30	87	e42	e68	e60	---	50	168	131	471	168	146	125
31	89	---	e68	e60	---	46	---	123	---	156	139	---
TOTAL	4207	2543	1834	1954	2115	2622	3819	4185	11798	10428	5083	5296
MEAN	136	84.8	59.2	63.0	72.9	84.6	127	135	393	336	164	177
MAX	252	116	72	67	180	140	177	175	1310	951	267	284
MIN	86	42	38	60	57	46	50	105	66	152	115	94
AC-FT	8340	5040	3640	3880	4200	5200	7570	8300	23400	20680	10080	10500
CFSM	.24	.15	.11	.11	.13	.15	.23	.24	.71	.61	.30	.32
IN.	.28	.17	.12	.13	.14	.18	.26	.28	.79	.70	.34	.35

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	116	91.4	65.1	53.0	51.4	120	535	361	255	228	125	115
MAX	483	503	140	90.1	184	445	1472	1974	1140	1072	507	666
(WY)	1972	1972	1978	1952	1998	1995	1997	1950	1962	1997	1985	1973
MIN	21.5	23.8	24.4	18.4	19.0	22.8	26.8	7.52	30.1	16.0	13.3	14.1
(WY)	1941	1991	1990	1940	1940	1940	1977	1977	1991	1940	1940	1940

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1939 - 2000	
ANNUAL TOTAL	118946		55884			
ANNUAL MEAN	326		153		177 ^a	
HIGHEST ANNUAL MEAN					354	
LOWEST ANNUAL MEAN					57.0	
HIGHEST DAILY MEAN	2300		Apr 1		3840	
LOWEST DAILY MEAN	38		Dec 1		2.6	
ANNUAL SEVEN-DAY MINIMUM	50		Nov 26		2.9	
INSTANTANEOUS PEAK FLOW					3940 ^c	
INSTANTANEOUS PEAK STAGE					12.74 ^d	
INSTANTANEOUS LOW FLOW					2.5	
ANNUAL RUNOFF (AC-FT)	235900		110800		128400	
ANNUAL RUNOFF (CFMS)	.59		.28		.32	
ANNUAL RUNOFF (INCHES)	7.97		3.75		4.34	
10 PERCENT EXCEEDS	770		248		412	
50 PERCENT EXCEEDS	161		120		78	
90 PERCENT EXCEEDS	68		58		34	

a Median of annual mean discharges is 170 ft³/s.
 b Result of freezeup.
 c Gage-height, 12.31 ft.
 d Backwater from ice.
 e Estimated.

