

05112000 ROSEAU RIVER BELOW STATE DITCH 51, NEAR CARIBOU, MN

LOCATION.--Lat 48°58'54", long 96°27'46", in SE¹/₄SW¹/₄ sec. 34, T.164 N., R.45 W., Kittson County, Hydrologic Unit 09020314, on left bank 400 ft downstream from State ditch 51 (known locally as Caribou cutoff ditch) and 0.6 mi west of Caribou.

DRAINAGE AREA.--1,420 mi².

PERIOD OF RECORD.--April to October 1917, April 1920 to current year (no winter records in water years 1931, 1932, 1934-36, 1938-40, 1944-72). Published as "at Caribou," prior to April 1929; as "below Cutoff ditch, near Caribou" April 1929 to September 1936. Records published for both sites April 1929 to September 1930. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1308: 1938(M). WSP 1508: 1917(M), 1920, 1932(M), 1934-35(M). WSP 1913: 1954(M).

GAGE.--Water-stage recorder. Datum of gage is 1,002.31 ft above sea level (NGVD of 1929, levels by Geodetic Survey of Canada). Prior to Apr. 1, 1929, nonrecording gage at site at Caribou 0.6 mi upstream at datum 0.95 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation from wildlife management impoundments several miles upstream of gage. Occasionally, at high stages, there is some natural diversion of flow above station to headwaters of Two Rivers.

COOPERATION.--Red Lake Watershed Management Board.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1916 is reported to have reached a stage of about 15.5 ft at former site.

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	176	91	e68	e29	e23	e600	219	225	252	1390	66	835
2	178	94	e70	e29	e23	e680	199	226	211	1410	56	846
3	172	94	e68	e28	e23	e710	167	228	181	1430	48	847
4	165	86	e60	e28	e23	e700	158	237	173	1450	42	822
5	159	81	e38	e28	e23	e650	186	241	162	1480	41	786
6	151	108	e43	e27	e23	e750	253	236	150	1480	55	732
7	151	119	e51	e27	e23	e860	320	242	140	1500	54	660
8	149	115	e54	e27	e23	e900	365	246	130	1520	56	580
9	145	114	e54	e27	e23	e700	391	253	123	1510	68	511
10	140	113	e53	e26	e23	e550	402	288	116	1490	81	446
11	134	145	e52	e26	e23	e450	384	311	104	1470	89	395
12	132	165	e50	e26	e23	e350	355	324	105	1470	99	341
13	131	162	e48	e26	e23	e250	322	325	126	1420	89	244
14	129	141	e46	e26	e23	e210	289	356	181	1370	77	171
15	137	123	e45	e25	e23	e165	264	392	455	1310	72	143
16	153	129	e43	e25	e23	e130	246	408	779	1260	70	127
17	128	148	e41	e25	e23	e110	233	406	919	1180	67	113
18	120	148	e40	e25	e23	e95	210	386	971	1080	62	108
19	118	143	e38	e25	e22	e90	181	354	1000	973	59	110
20	116	e140	e37	e24	e22	88	169	327	1070	831	67	141
21	116	e94	e36	e24	e22	89	172	299	1200	651	110	171
22	114	e82	e35	e24	e22	93	188	283	1240	498	218	198
23	114	e82	e34	e24	e22	96	202	278	1270	377	376	252
24	114	e63	e33	e23	e23	118	216	288	1290	274	424	276
25	114	e66	e32	e23	e26	150	228	323	1290	200	398	313
26	109	e72	e32	e23	e80	198	231	360	1290	150	348	325
27	107	e60	e31	e23	e200	239	229	359	1300	124	293	313
28	103	e57	e31	e23	e400	250	227	339	1320	108	264	299
29	99	e54	e31	e23	e460	248	227	313	1350	96	346	285
30	96	e62	e30	e23	---	241	225	290	1370	85	595	265
31	93	---	e29	e23	---	226	---	269	---	73	792	---
TOTAL	4063	3151	1353	785	1713	10986	7458	9412	20268	29660	5482	11655
MEAN	131	105	43.6	25.3	59.1	354	249	304	676	957	177	388
MAX	178	165	70	29	460	900	402	408	1370	1520	792	847
MIN	93	54	29	23	22	88	158	225	104	73	41	108
AC-FT	8060	6250	2680	1560	3400	21790	14790	18670	40200	58830	10870	23120
CFSM	.09	.07	.03	.02	.04	.25	.18	.21	.48	.67	.12	.27
IN.	.11	.08	.04	.02	.04	.29	.20	.25	.53	.78	.14	.31

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	172	138	54.0	27.0	23.3	135	825	962	615	427	158	181
MAX	1302	712	303	134	75.4	793	2168	3029	2588	1653	1582	1451
(WY)	1942	1995	1995	1927	1997	1995	1966	1950	1970	1968	1993	1968
MIN	.12	.26	.53	.090	.060	1.57	38.2	26.9	6.70	.65	2.09	.30
(WY)	1991	1991	1991	1991	1991	1989	1981	1988	1980	1980	1936	1990

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1917 - 2000	
ANNUAL TOTAL	267666		105986			
ANNUAL MEAN	733		290		320	
HIGHEST ANNUAL MEAN					751	
LOWEST ANNUAL MEAN					35.9	
HIGHEST DAILY MEAN	2580		Apr 21		4020	
LOWEST DAILY MEAN	27		Feb 20		.00 ^a	
ANNUAL SEVEN-DAY MINIMUM	27		Feb 20		.04	
INSTANTANEOUS PEAK FLOW					4080	
INSTANTANEOUS PEAK STAGE					8.11 ^c	
INSTANTANEOUS LOW FLOW					11.81	
ANNUAL RUNOFF (AC-FT)	530900		210200		231900	
ANNUAL RUNOFF (CFMS)	.52		.20		.23	
ANNUAL RUNOFF (INCHES)	7.01		2.78		3.06	
10 PERCENT EXCEEDS	2150		846		1230	
50 PERCENT EXCEEDS	123		145		82	
90 PERCENT EXCEEDS	28		25		9.4	

^a Many days, several years.
^b Gage-height, 7.50 ft.
^c Backwater from ice.
^e Estimated.

