

RED RIVER OF THE NORTH BASIN--Continued

05107500 ROSEAU RIVER AT ROSS, MN

LOCATION.--Lat 48°54'37", long 95°55'18", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 27, T. 163 N., R. 41 W., Roseau County, Hydrologic Unit 09020314, on left bank 300 ft downstream from State Highway 89 bridge, 0.2 mi. north of Ross, and 2.3 mi downstream from Pine Creek.

DRAINAGE AREA.--1,090 mi².

PERIOD OF RECORD.--July 1928 to September 1991, April 1995 to current year.

REVISED RECORDS.--WSP 1055: 1945. WSP 1175: Drainage area. WSP 1308: 1936(m). WSP 1508: 1848-49(P).

GAGE.--Water-stage recorder. Datum of gage is 1,018.61 ft above sea level (NGVD of 1929, levels by Geodetic Survey of Canada). Prior to Mar. 13, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. High flow affected by natural storage in Roseau Lake.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 19 ft in 1896. Other floods reached the following stages, from information by local residents: flood of July 1919, 17.5 ft; flood of 1927, about 16 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	163	e110	e33	e15	e10	e115	461	614	4490	765	286
2	46	195	e106	e33	e14	e9.8	e100	423	634	4150	672	340
3	49	213	e103	e33	e13	e9.7	e90	385	608	3830	588	327
4	50	220	e100	e32	e13	e9.3	e80	356	569	3610	506	295
5	50	214	e98	e32	e13	e8.8	e75	346	522	3550	440	258
6	52	202	e95	e31	e13	e8.3	e69	377	471	3270	366	224
7	47	189	e93	e30	e13	e8.1	e66	444	415	3110	305	193
8	43	181	e91	e30	e13	e8.0	e64	488	351	2910	261	165
9	45	180	e89	e30	e13	e8.0	e64	614	352	2800	317	143
10	48	174	e87	e31	e13	e8.0	e74	895	1100	2720	332	129
11	51	170	e86	e32	e14	e8.0	e92	946	1800	2600	325	121
12	57	171	e84	e30	e14	e8.0	e240	918	2750	2500	282	113
13	63	163	e82	e28	e14	e8.1	432	885	5320	2420	210	108
14	66	158	e81	e26	e14	e8.2	524	841	7360	2340	158	102
15	72	155	e80	e24	e15	e8.3	531	803	9010	2260	130	93
16	92	149	e78	e24	e15	e8.4	451	783	10100	2180	113	83
17	90	144	e77	e23	e16	e8.6	401	761	10100	2100	204	74
18	80	140	e74	e23	e16	e8.8	373	727	9470	2000	389	69
19	73	135	e70	e22	e15	e9.3	321	688	8670	1910	372	134
20	70	125	e65	e22	e15	e11	283	642	7790	1840	309	173
21	72	126	e60	e22	e15	e13	256	593	7160	1790	251	160
22	73	125	e56	e21	e15	e14	227	550	6520	1700	202	140
23	71	120	e52	e21	e14	e15	203	513	6260	1610	170	129
24	75	120	e47	e20	e14	e16	310	485	6080	1520	187	117
25	80	118	e44	e20	e13	e18	636	455	5940	1430	173	107
26	89	105	e41	e19	e12	e19	641	432	5780	1330	145	100
27	94	e89	e39	e19	e11	e20	597	412	5620	1240	120	92
28	101	e96	e38	e18	e11	e23	558	391	5390	1150	166	83
29	108	e113	e36	e18	---	e26	517	411	5100	1070	244	78
30	122	e117	e35	e17	---	e31	495	465	4720	983	236	72
31	136	---	e34	e16	---	e54	---	550	---	881	228	---
TOTAL	2212	4570	2231	780	386	423.7	8885	18040	136576	71294	9166	4508
MEAN	71.4	152	72.0	25.2	13.8	13.7	296	582	4553	2300	296	150
MAX	136	220	110	33	16	54	641	946	10100	4490	765	340
MIN	43	89	34	16	11	8.0	64	346	351	881	113	69
AC-FT	4390	9060	4430	1550	766	840	17620	35780	270900	141400	18180	8940
CFSM	0.07	0.14	0.07	0.02	0.01	0.01	0.27	0.53	4.18	2.11	0.27	0.14
IN.	0.08	0.16	0.08	0.03	0.01	0.01	0.30	0.62	4.66	2.43	0.31	0.15

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	134	120	37.6	16.5	14.6	85.1	883	922	574	336	139	132
MAX	974	1926	395	66.5	99.2	551	3234	4583	4553	2300	1352	1041
(WY)	1942	2001	2001	1997	1998	1946	1966	1950	2002	2002	1968	1968
MIN	1.91	1.63	0.27	0.001	0.000	2.76	32.1	29.5	6.83	1.39	0.84	0.38
(WY)	1991	1977	1977	1977	1977	1989	1991	1988	1980	1980	1961	1990

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1928 - 2002

ANNUAL TOTAL		207251		259071.7								
ANNUAL MEAN		568		710						284a		
HIGHEST ANNUAL MEAN										753		2001
LOWEST ANNUAL MEAN										28.9		1934
HIGHEST DAILY MEAN				2640	Apr 18		10100	Jun 16,17		10100	Jun 16	2002
LOWEST DAILY MEAN				20	Mar 1		8.0	Mar 8-12		0.00b	Aug 29	1961
ANNUAL SEVEN-DAY MINIMUM				20	Mar 1		8.0	Mar 7		0.00	Jan 3	1977
MAXIMUM PEAK FLOW							10500	Jun 16		10500	Jun 16	2002
MAXIMUM PEAK STAGE							18.89	Jun 16		18.89	Jun 16	2002
ANNUAL RUNOFF (AC-FT)		411100		513900						205500		
ANNUAL RUNOFF (CFSM)		0.52		0.65						0.26		
ANNUAL RUNOFF (INCHES)		7.07		8.84						3.54		
10 PERCENT EXCEEDS		1740		2040						907		
50 PERCENT EXCEEDS		132		120						41		
90 PERCENT EXCEEDS		26		14						6.0		

- a Median of annual mean discharges is 239 ft³/s.
- b Many days, several years.
- e Estimated.

