

## 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 090203014, 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 mi<sup>2</sup>.

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 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	e755	1380	e32	e29	e20	e175	2160	1680	668	845	244
2	130	e1120	1290	e30	e29	e20	e250	2100	1690	601	1310	228
3	140	e1310	1210	e31	e28	e20	e360	2070	1690	539	1400	214
4	143	e1410	1110	e32	e28	e20	e650	2010	1680	489	1520	200
5	134	e1500	e1000	e33	e28	e20	e900	1950	1670	435	1630	187
6	131	e1600	e900	e34	e27	e20	e1250	1900	1640	383	1700	177
7	130	e1720	e830	e34	e27	e20	e1500	1820	1600	337	1800	175
8	127	e1890	e730	e33	e27	e20	e1650	1780	1550	282	1860	216
9	119	2070	e630	e32	e27	e20	1890	1750	1500	227	1860	238
10	112	2240	e550	e31	e26	e21	2070	1690	1440	180	1840	223
11	111	2350	e470	e31	e26	e21	2240	1640	1380	144	1780	203
12	107	2430	e340	e32	e26	e21	2310	1590	1320	119	1730	179
13	108	2470	e270	e32	e25	e21	2380	1530	1260	99	1660	164
14	105	2480	e222	e33	e25	e21	2440	1470	1200	88	1590	141
15	101	e2450	e190	e33	e25	e21	2500	1410	1140	84	1520	124
16	101	e2420	e160	e32	e25	e21	2570	1350	1100	84	1440	112
17	99	e2370	e140	e32	e24	e22	2620	1300	1070	83	1370	102
18	97	e2330	e115	e31	e24	e22	2640	1250	1020	96	1300	96
19	97	e2280	e95	e31	e24	e23	2640	1200	1020	132	1220	87
20	95	e2200	e81	e31	e23	e24	2630	1150	1060	228	1150	76
21	91	e2150	e71	e31	e23	e29	2600	1100	1090	317	1060	68
22	87	e2090	e65	e31	e22	e39	2590	1050	1090	423	965	64
23	83	e2050	e59	e30	e22	e58	2560	1090	1080	473	854	66
24	82	e1960	e54	e30	e22	e84	2520	1160	1060	451	743	67
25	87	e1880	e50	e30	e21	e130	2460	1220	1020	374	646	65
26	259	e1810	e46	e30	e21	e147	2430	1290	971	290	554	63
27	595	e1740	e43	e30	e21	e140	2390	1410	911	234	468	61
28	710	e1650	e40	e30	e21	e128	2340	1530	838	212	402	59
29	718	e1570	e38	e30	---	e120	2260	1610	769	207	345	62
30	714	e1480	e36	e29	---	e117	2220	1640	720	209	297	55
31	704	---	e34	e29	---	e135	---	1660	---	224	266	---
TOTAL	6449	57775	12249	970	696	1545	60035	47880	37259	8712	37125	4016
MEAN	208	1926	395	31.3	24.9	49.8	2001	1545	1242	281	1198	134
MAX	718	2480	1380	34	29	147	2640	2160	1690	668	1860	244
MIN	82	755	34	29	21	20	175	1050	720	83	266	55
AC-FT	12790	114600	24300	1920	1380	3060	119100	94970	73900	17280	73640	7970
CFSM	.19	1.77	.36	.03	.02	.05	1.84	1.42	1.14	.26	1.10	.12
IN.	.22	1.97	.42	.03	.02	.05	2.05	1.63	1.27	.30	1.27	.14

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	135	119	37.1	16.3	14.6	86.1	892	927	518	308	136	132
MAX	974	1926	395	66.5	99.2	551	3234	4583	2258	1494	1352	1041
(WY)	1942	2001	2001	1997	1998	1946	1966	1950	1970	1968	1968	1968
MIN	1.91	1.63	.27	.001	.000	2.76	32.1	29.5	6.83	1.39	.84	.38
(WY)	1991	1977	1977	1977	1977	1989	1991	1988	1980	1980	1961	1990

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1928 - 2001

ANNUAL TOTAL		153670		274711								
ANNUAL MEAN		420		753						278a		
HIGHEST ANNUAL MEAN										753		2001
LOWEST ANNUAL MEAN										28.9		1934
HIGHEST DAILY MEAN				2480	Nov 14		2640	Apr 18,19		6510		May 12 1950
LOWEST DAILY MEAN				16	Feb 17		20	Mar 1-9		.00b		Aug 29 1961
ANNUAL SEVEN-DAY MINIMUM				16	Feb 15		20	Mar 1		.00		Jan 3 1977
MAXIMUM PEAK FLOW							2640	Apr 18		6560		May 12 1950
MAXIMUM PEAK STAGE							15.11	Apr 18		18.25		May 12 1950
INSTANTANEOUS LOW FLOW										.00b		Aug 29 1961
ANNUAL RUNOFF (AC-FT)			304800				544900			201000		
ANNUAL RUNOFF (CFM)			.39				.69			.25		
ANNUAL RUNOFF (INCHES)			5.24				9.38			3.46		
10 PERCENT EXCEEDS			1400				2070			900		
50 PERCENT EXCEEDS			186				259			42		
90 PERCENT EXCEEDS			18				26			6.0		

a Median of annual mean discharges is 240 ft<sup>3</sup>/s.  
 b Many days, several years.  
 e Estimated.

