

RED RIVER OF THE NORTH BASIN--Continued

05107500 ROSEAU RIVER AT ROSS, MN

LOCATION.--Lat 48°54'37", long 95°55'18", in NE¹/₄SE¹/₄ 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 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 fair. 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	166	87	55	e22	e17	e440	158	203	175	1540	45	577
2	161	85	55	e21	e17	e460	144	210	164	1500	41	547
3	155	81	55	e21	e17	e475	138	217	160	1430	37	514
4	149	80	e47	e21	e17	e440	175	221	151	1370	34	480
5	144	81	e37	e21	e17	e400	237	217	136	1300	33	427
6	141	77	e45	e20	e17	e360	276	219	124	1230	39	368
7	139	75	e51	e20	e17	e325	304	222	113	1170	50	320
8	134	75	e52	e20	e17	e285	319	243	106	1120	64	285
9	131	73	e51	e20	e17	e265	327	281	97	1070	76	250
10	128	72	e50	e19	e17	e220	309	298	91	1010	82	218
11	125	72	e47	e19	e17	e190	280	298	95	957	75	186
12	127	70	e45	e19	e17	e165	253	301	114	905	68	161
13	124	69	e41	e19	e17	e140	227	338	119	842	66	137
14	119	70	e37	e18	e17	e115	206	373	182	769	66	119
15	115	68	e34	e18	e17	e96	185	383	603	695	63	103
16	112	70	e31	e18	e17	e77	176	376	859	618	59	90
17	110	72	e28	e18	e16	e68	167	357	914	542	56	82
18	108	71	e26	e18	e16	61	160	326	915	476	54	74
19	108	66	e26	e18	e16	69	159	296	896	411	48	76
20	109	64	e25	e18	e16	78	166	272	906	360	49	93
21	106	e65	e25	e18	e16	80	182	257	1010	311	155	106
22	108	e68	e25	e18	e17	82	196	255	1120	257	338	110
23	112	e64	e24	e17	e17	83	198	268	1240	187	366	145
24	107	e62	e24	e17	e20	103	204	301	1390	127	332	190
25	102	e60	e24	e17	e27	158	205	310	1510	93	291	195
26	102	e60	e23	e17	e110	201	203	295	1580	80	250	186
27	97	e53	e23	e17	e480	218	201	274	1610	72	209	177
28	94	e55	e23	e17	e470	218	203	253	1610	67	203	167
29	92	e56	e22	e17	e455	216	203	233	1590	61	449	153
30	89	e55	e22	e17	---	199	200	214	1580	56	561	142
31	89	---	e22	e17	---	177	---	193	---	51	569	---
TOTAL	3703	2076	1095	577	1948	6464	6361	8504	21160	20677	4828	6678
MEAN	119	69.2	35.3	18.6	67.2	209	212	274	705	667	156	223
MAX	166	87	55	22	480	475	327	383	1610	1540	569	577
MIN	89	53	22	17	16	61	138	193	91	51	33	74
AC-FT	7340	4120	2170	1140	3860	12820	12620	16870	41970	41010	9580	13250
CFSM	.11	.06	.03	.02	.06	.19	.19	.25	.65	.61	.14	.20
IN.	.13	.07	.04	.02	.07	.22	.22	.29	.72	.71	.16	.23

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	134	93.2	31.8	16.1	14.4	86.7	875	918	507	308	121	132
MAX	974	512	107	66.5	99.2	551	3234	4583	2258	1494	1352	1041
(WY)	1942	1957	1978	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 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1928 - 2000
ANNUAL TOTAL	227365	84071	
ANNUAL MEAN	623	230	271 ^a
HIGHEST ANNUAL MEAN			725
LOWEST ANNUAL MEAN			28.9
HIGHEST DAILY MEAN	2720	Apr 17	6510
LOWEST DAILY MEAN	21	Feb 25	.00 ^b
ANNUAL SEVEN-DAY MINIMUM	21	Feb 25	.00
INSTANTANEOUS PEAK FLOW			6560
INSTANTANEOUS PEAK STAGE			12.06
INSTANTANEOUS LOW FLOW			18.25
ANNUAL RUNOFF (AC-FT)	451000	166800	196000
ANNUAL RUNOFF (CFSM)	.57	.21	.25
ANNUAL RUNOFF (INCHES)	7.76	2.87	3.37
10 PERCENT EXCEEDS	1960	544	867
50 PERCENT EXCEEDS	94	112	40
90 PERCENT EXCEEDS	22	18	6.0

^a Median of annual mean discharges is 240 ft³/s.
^b Many days, several years.
^e Estimated.

