

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 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	74	e35	e21	e9.6	e9.7	e520	233	318	212	45	51
2	65	68	e30	e20	e9.6	e9.9	e570	215	286	188	51	45
3	62	62	e26	e20	e9.6	e10	491	200	261	185	54	45
4	69	61	e23	e20	e9.6	e10	502	192	237	189	49	41
5	75	59	e22	e20	e9.6	e10	e480	192	215	174	44	36
6	75	56	e21	e20	e9.5	e11	e400	188	218	152	39	31
7	78	59	e20	e19	e9.5	e11	e350	189	228	134	35	26
8	68	59	e20	e19	e9.6	e11	e300	204	273	116	31	21
9	65	57	e21	e19	e9.6	e11	e270	213	297	100	29	18
10	67	57	e21	e18	e9.6	e11	232	212	371	90	29	20
11	68	e59	e22	e18	e9.5	e11	226	232	466	84	75	28
12	70	e58	e23	e18	e9.5	e11	223	252	505	82	70	35
13	75	e53	e24	e17	e9.4	e11	211	263	541	80	53	44
14	72	e49	e25	e17	e9.3	e11	202	256	549	83	42	72
15	68	e48	e26	e16	e9.2	e11	198	237	551	112	32	87
16	68	e47	e26	e16	e9.1	e12	187	217	551	113	25	83
17	72	e46	e27	e15	e9.1	e15	172	200	545	96	20	82
18	72	e47	e27	e14	e9.1	e40	171	205	515	79	16	295
19	74	e48	e26	e13	e9.1	e130	177	463	457	67	16	664
20	75	e48	e26	e12	e9.1	e400	245	641	371	64	14	706
21	73	e49	e25	e11	e9.1	e500	326	644	299	65	12	662
22	70	e48	e25	e11	e9.1	e490	354	643	248	68	11	634
23	62	e47	e24	e10	e9.2	e475	356	631	226	63	11	619
24	60	e46	e24	e10	e9.2	e455	336	617	205	55	9.2	593
25	62	e45	e23	e9.7	e9.2	e439	310	597	185	48	9.0	576
26	62	e43	e23	e9.5	e9.3	e420	288	560	193	44	11	544
27	59	e41	e22	e9.4	e9.3	e410	275	516	211	39	9.6	507
28	61	e40	e22	e9.4	e9.5	e400	280	475	220	37	12	466
29	65	e39	e22	e9.4	---	e385	269	428	234	36	27	424
30	67	e37	e21	e9.4	---	e380	248	366	233	34	42	377
31	67	---	e21	e9.5	---	e400	---	343	---	37	51	---
TOTAL	2,114	1,550	743	460.3	262.1	5,510.6	9,169	10,824	10,009	2,926	973.8	7,832
MEAN	68.2	51.7	24.0	14.8	9.36	178	306	349	334	94.4	31.4	261
MAX	78	74	35	21	9.6	500	570	644	551	212	75	706
MIN	59	37	20	9.4	9.1	9.7	171	188	185	34	9.0	18
AC-FT	4,190	3,070	1,470	913	520	10,930	18,190	21,470	19,850	5,800	1,930	15,530
CFSM	0.06	0.05	0.02	0.01	0.01	0.16	0.28	0.32	0.31	0.09	0.03	0.24
IN.	0.07	0.05	0.03	0.02	0.01	0.19	0.31	0.37	0.34	0.10	0.03	0.27

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2003, BY WATER YEAR (WY)

MEAN	133	119	37.4	16.4	14.5	86.4	875	914	571	333	137	134
MAX	974	1,926	395	66.5	99.2	551	3,234	4,583	4,553	2,300	1,352	1,041
(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)

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1928 - 2003	
ANNUAL TOTAL	254,465.7		52,373.8		a282	
ANNUAL MEAN	697		143		753	
HIGHEST ANNUAL MEAN					28.9	
LOWEST ANNUAL MEAN					10,100	
HIGHEST DAILY MEAN	10,100	Jun 16	706	Sep 20	10,100	Jun 16, 2002
LOWEST DAILY MEAN	8.0	Mar 8	9.0	Aug 25	b0.00	Aug 29, 1961
ANNUAL SEVEN-DAY MINIMUM	8.0	Mar 7	9.1	Feb 16	0.00	Jan 3, 1977
MAXIMUM PEAK FLOW			c714	Sep 20	10,500	Jun 16, 2002
MAXIMUM PEAK STAGE			d9.19	Mar 20	18.89	Jun 16, 2002
INSTANTANEOUS LOW FLOW			8.2	Aug 25	b0.00	Aug 29, 1961
ANNUAL RUNOFF (AC-FT)	504,700		103,900		204,100	
ANNUAL RUNOFF (CFSM)	0.64		0.13		0.26	
ANNUAL RUNOFF (INCHES)	8.68		1.79		3.51	
10 PERCENT EXCEEDS	2,040		459		900	
50 PERCENT EXCEEDS	74		59		42	
90 PERCENT EXCEEDS	14		9.6		6.0	

- a Median of annual mean discharges is 240 ft³/s.
- b Many days, several years.
- c Gage height, 7.95 ft.
- d Backwater from ice.
- e Estimated.

