

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 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	835	1,010	e139	e28	e21	e23	e430	1,230	913	1,880	819	237
2	800	1,040	e125	e29	e22	e23	e940	1,170	877	2,020	747	252
3	761	1,060	e114	e29	e22	e23	e1,450	1,120	841	2,170	691	233
4	721	1,080	e103	e28	e22	e24	e1,630	1,060	814	2,280	664	205
5	679	1,090	e93	e27	e23	e24	1,830	1,000	822	2,370	604	195
6	638	1,080	e86	e26	e23	e24	1,940	941	974	2,420	520	199
7	595	1,060	e80	e25	e22	e24	2,020	881	1,130	2,440	438	197
8	558	1,030	e75	e24	e22	e24	2,080	832	1,230	2,470	350	175
9	533	993	e70	e23	e21	e23	2,110	813	1,320	2,460	234	152
10	502	949	e66	e23	e21	e23	2,130	837	1,390	2,410	148	139
11	467	897	e62	e22	e22	e22	2,140	856	1,440	2,370	105	131
12	429	835	e58	e22	e22	e22	2,150	868	1,540	2,320	94	123
13	378	783	e55	e21	e23	e22	2,170	873	1,640	2,250	85	112
14	327	739	e52	e21	e23	e23	2,160	875	1,700	2,180	76	104
15	299	700	e50	e21	e22	e23	2,140	875	1,730	2,100	68	97
16	286	668	e48	e20	e22	e24	2,120	869	1,840	2,020	61	93
17	274	630	e46	e20	e21	e24	2,090	855	1,930	1,930	59	91
18	268	593	e44	e20	e21	e25	2,060	832	1,980	1,840	129	102
19	265	549	e42	e20	e21	e25	2,020	804	1,990	1,770	430	100
20	283	523	e39	e19	e21	e26	1,960	776	2,010	1,750	644	98
21	304	462	e37	e19	e21	e27	1,900	763	2,000	1,690	683	93
22	327	404	e35	e19	e21	e27	1,850	796	1,950	1,620	613	87
23	377	e360	e33	e19	e22	e28	1,780	855	1,890	1,530	569	81
24	494	e320	e31	e19	e22	e28	1,700	888	1,800	1,440	511	78
25	571	e295	e29	e20	e22	e29	1,640	919	1,730	1,360	447	80
26	620	e260	e27	e20	e22	e29	1,560	938	1,650	1,270	410	79
27	643	e225	e26	e20	e22	e30	1,490	955	1,640	1,190	371	69
28	719	e200	e25	e20	e23	e31	1,420	966	1,660	1,110	317	63
29	873	e175	e25	e20	---	e36	1,360	966	1,680	1,020	270	59
30	925	e155	e26	e21	---	e76	1,300	960	1,750	943	233	55
31	974	---	e28	e21	---	e180	---	943	---	891	213	---
TOTAL	16,725	20,165	1,769	686	612	992	53,570	28,316	45,861	57,514	11,603	3,779
MEAN	540	672	57.1	22.1	21.9	32.0	1,786	913	1,529	1,855	374	126
MAX	974	1,090	139	29	23	180	2,170	1,230	2,010	2,470	819	252
MIN	265	155	25	19	21	22	430	763	814	891	59	55
AC-FT	33,170	40,000	3,510	1,360	1,210	1,970	106,300	56,160	90,970	114,100	23,010	7,500
CFSM	0.49	0.62	0.05	0.02	0.02	0.03	1.64	0.84	1.40	1.70	0.34	0.12
IN.	0.57	0.69	0.06	0.02	0.02	0.03	1.83	0.97	1.57	1.96	0.40	0.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2005, BY WATER YEAR (WY)

MEAN	139	126	37.7	16.6	14.7	85.5	904	937	612	355	145	139
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	0.00	0.00	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1928 - 2005	
ANNUAL TOTAL	306,520		241,592		a293	
ANNUAL MEAN	837		662		759	
HIGHEST ANNUAL MEAN					28.9	2004
LOWEST ANNUAL MEAN					10,100	1934
HIGHEST DAILY MEAN	4,280	May 21	2,470	Jul 8	10,100	Jun 16, 2002
LOWEST DAILY MEAN	18	Feb 18	19	Jan 20-24	0.00	Aug 29, 1961
ANNUAL SEVEN-DAY MINIMUM	19	Feb 13	19	Jan 18	0.00	Jan 3, 1977
MAXIMUM PEAK FLOW			2,480	Jul 8	10,500	Jun 16, 2002
MAXIMUM PEAK STAGE			14.62	Jul 8	18.89	Jun 16, 2002
INSTANTANEOUS LOW FLOW			c19	Jan 20	0.00	Aug 29, 1961
ANNUAL RUNOFF (AC-FT)	608,000		479,200		212,600	
ANNUAL RUNOFF (CFSM)	0.768		0.607		0.269	
ANNUAL RUNOFF (INCHES)	10.46		8.25		3.66	
10 PERCENT EXCEEDS	2,470		1,930		940	
50 PERCENT EXCEEDS	394		360		43	
90 PERCENT EXCEEDS	20		22		6.2	

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

