

## 05104500 ROSEAU RIVER BELOW SOUTH FORK NEAR MALUNG, MN

LOCATION.--Lat 48°47'30", long 95°44'40", in NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 6, T.161 N., R.39 W., Roseau County, Hydrologic Unit 09020314, on left bank 0.3 mi downstream from South Fork and 1.5 mi northwest of Malung.

DRAINAGE AREA.--430 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 2113: 1948, 1950, 1951, 1956(M), 1957(M), 1962(M). WRIR 97-4249: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,029.67 ft above sea level (NGVD of 1912).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some flow bypasses the gaging station through a natural overflow channel 0.8 mi. upstream and returns to river 0.5 mi downstream. Overflow begins at stage of about 13.0 ft, discharge, 1,800 ft<sup>3</sup>/s. These records include any flow in the overflow channel.

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	342	577	67	e13	e15	e12	e900	234	371	1,930	42	82
2	309	607	56	e13	e15	e12	e1,900	224	329	1,600	37	78
3	270	601	50	e13	e16	e12	e1,780	214	289	1,520	33	74
4	235	563	52	e13	e16	e12	e1,600	205	285	1,600	29	72
5	211	499	42	e13	e17	e12	1,380	193	321	1,350	24	69
6	193	443	37	e13	e17	e13	1,230	182	553	1,090	21	e74
7	178	401	e35	e13	e17	e13	1,130	165	807	840	18	e62
8	165	368	e33	13	e16	e12	1,070	161	930	664	16	49
9	156	342	e31	13	e16	e12	987	169	953	509	15	46
10	149	320	e29	13	e15	e12	880	272	913	412	14	42
11	145	289	e28	13	e15	12	799	397	791	402	13	36
12	139	249	e27	e13	e15	e12	807	430	882	327	15	33
13	131	216	26	e13	e16	e12	850	413	1,080	253	15	30
14	125	207	e25	e13	e16	e12	840	383	1,320	206	14	27
15	121	197	e25	13	e16	e12	805	373	1,660	207	12	27
16	118	187	24	13	e15	e12	749	375	1,750	213	12	25
17	123	179	e23	e13	e14	e12	679	359	1,520	295	13	24
18	125	172	e21	e13	e13	e12	611	331	1,130	326	15	e30
19	117	166	e19	e13	e13	e12	551	289	847	316	25	e28
20	119	160	e18	e13	e12	e12	501	252	669	272	63	25
21	134	143	e16	e13	e12	e12	460	238	488	206	59	21
22	140	136	e15	e13	e12	e12	422	301	368	160	94	19
23	150	119	e13	e13	e12	e12	387	424	294	135	119	18
24	180	e94	e12	e13	e12	12	359	486	223	119	110	18
25	256	e88	e11	e13	e12	12	335	490	177	99	89	18
26	327	e81	e10	e13	e12	12	315	498	150	84	82	17
27	353	e76	e10	e13	e12	13	297	487	283	72	72	15
28	359	e70	e10	e14	e12	14	278	461	276	63	68	14
29	360	66	e11	e14	---	e20	261	447	307	54	71	13
30	396	70	e12	e14	---	e75	245	438	1,360	50	74	12
31	498	---	e13	e14	---	e240	---	413	---	49	80	---
TOTAL	6,624	7,686	801	407	401	676	23,408	10,304	21,326	15,423	1,364	1,098
MEAN	214	256	25.8	13.1	14.3	21.8	780	332	711	498	44.0	36.6
MAX	498	607	67	14	17	240	1,900	498	1,750	1,930	119	82
MIN	117	66	10	13	12	12	245	161	150	49	12	12
AC-FT	13,140	15,250	1,590	807	795	1,340	46,430	20,440	42,300	30,590	2,710	2,180
CFSM	0.50	0.60	0.06	0.03	0.03	0.05	1.81	0.77	1.65	1.16	0.10	0.09
IN.	0.57	0.66	0.07	0.04	0.03	0.06	2.03	0.89	1.84	1.33	0.12	0.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2005, BY WATER YEAR (WY)

MEAN	67.0	66.9	17.4	8.07	8.74	67.7	607	345	286	162	74.1	82.6
MAX	351	848	65.6	22.2	102	524	2,035	1,589	2,787	1,152	896	710
(WY)	(1983)	(2001)	(1995)	(1997)	(1998)	(1995)	(1966)	(1950)	(2002)	(1968)	(2001)	(1957)
MIN	0.03	0.16	0.01	0.00	0.00	0.83	5.60	8.77	4.17	0.09	0.00	0.02
(WY)	(1991)	(1991)	(1977)	(1977)	(1977)	(1977)	(1991)	(1990)	(1980)	(1980)	(1961)	(1988)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1947 - 2005	
ANNUAL TOTAL	115,917.0		89,518		a149	
ANNUAL MEAN	317		245		355	
HIGHEST ANNUAL MEAN					7.28	
LOWEST ANNUAL MEAN					1990	
HIGHEST DAILY MEAN	6,230	May 14	1,930	Jul 1	15,800	Jun 12, 2002
LOWEST DAILY MEAN	7.2	Feb 20	b10	Dec 26-28	c0.00	Jul 23, 1961
ANNUAL SEVEN-DAY MINIMUM	7.3	Feb 16	11	Dec 24	0.00	Jul 23, 1961
MAXIMUM PEAK FLOW			d1,970	Jul 1	16,000	Jun 12, 2002
MAXIMUM PEAK STAGE			f16.24	Apr 2	26.96	Jun 12, 2002
INSTANTANEOUS LOW FLOW			bg10	Dec 26	c0.00	Jul 23, 1961
ANNUAL RUNOFF (AC-FT)	229,900		177,600		108,100	
ANNUAL RUNOFF (CFSM)	0.737		0.570		0.347	
ANNUAL RUNOFF (INCHES)	10.03		7.74		4.71	
10 PERCENT EXCEEDS	738		766		348	
50 PERCENT EXCEEDS	118		78		21	
90 PERCENT EXCEEDS	8.2		12		2.0	

- a Median of annual mean discharges is 140 ft<sup>3</sup>/s.
- b Result of siphoning.
- c Many days, several years.
- d Gage-height, 13.28 ft.
- e Estimated.
- f Backwater from ice.
- g Estimated, minimum daily.

