

05104500 ROSEAU RIVER BELOW SOUTH FORK NEAR MALUNG, MN

LOCATION.--Lat 48°47'30", long 95°44'40", in NW¹/₄SW¹/₄ 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 mi².

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 fair. 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 ft³/s. These records include any flow in the overflow channel.

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	121	51	30	e9.8	e7.8	e240	88	143	96	447	14	131
2	116	49	30	e9.6	e7.8	e150	84	149	91	347	13	99
3	111	48	30	e9.5	e7.9	e125	108	154	85	280	13	79
4	105	47	29	e9.4	e7.9	e105	199	148	79	228	10	66
5	100	46	26	e9.3	e7.9	e90	239	142	74	192	7.6	57
6	94	48	26	e9.2	e7.9	e82	250	137	68	163	8.7	51
7	91	47	26	e9.1	e7.9	e80	267	157	67	146	9.8	47
8	88	47	28	e9.0	e7.9	e70	292	207	59	136	12	42
9	84	45	26	e9.0	e7.9	e60	278	223	54	140	9.2	37
10	82	44	25	e8.9	e7.9	e56	246	222	55	139	8.0	31
11	83	42	24	e8.8	e7.9	e54	214	211	77	131	7.8	28
12	79	40	24	e8.7	e7.8	e51	185	198	73	122	8.8	25
13	75	39	22	e8.6	e7.8	e47	162	198	66	110	8.0	21
14	72	38	e21	e8.5	e7.7	e45	147	216	82	97	9.5	19
15	70	37	e20	e8.4	e7.7	e44	136	224	225	86	11	18
16	68	37	e18	e8.2	e7.6	e43	130	213	529	77	7.8	16
17	67	38	e15	e8.1	e7.5	e41	125	193	627	67	6.7	14
18	66	36	e14	e8.0	e7.4	e39	124	172	640	59	6.0	12
19	66	35	e14	e7.9	e7.3	e37	132	155	565	52	5.8	12
20	66	33	e13	e7.8	e7.2	35	149	143	512	46	10	13
21	67	38	e11	e7.6	e7.3	34	163	139	600	41	51	10
22	74	36	e10	e7.6	e7.5	33	160	148	807	36	62	14
23	68	32	e9.4	e7.5	e7.8	33	156	168	1030	33	54	23
24	65	31	e9.5	e7.5	e8.2	40	155	173	1210	30	55	26
25	63	33	e10	e7.5	e9.2	e56	149	170	1250	27	44	26
26	60	35	e10	e7.5	e100	e82	145	162	1240	26	32	27
27	58	36	e11	e7.5	e660	117	146	150	1130	22	25	34
28	57	30	e10	e7.6	e600	133	147	135	901	20	55	33
29	54	30	e10	e7.6	e400	124	143	122	686	18	208	35
30	58	29	e10	e7.7	---	110	140	113	539	17	152	37
31	56	---	e9.9	e7.7	---	98	---	103	---	16	169	---
TOTAL	2384	1177	571.8	259.1	1954.7	2354	5059	5188	13517	3351	1093.7	1083
MEAN	76.9	39.2	18.4	8.36	67.4	75.9	169	167	451	108	35.3	36.1
MAX	121	51	30	9.8	660	240	292	224	1250	447	208	131
MIN	54	29	9.4	7.5	7.2	33	84	103	54	16	5.8	10
AC-FT	4730	2330	1130	514	3880	4670	10030	10290	26810	6650	2170	2150
CFSM	.18	.09	.04	.02	.16	.18	.39	.39	1.05	.25	.08	.08
IN.	.21	.10	.05	.02	.17	.20	.44	.45	1.17	.29	.09	.09

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	67.1	50.2	16.7	7.70	8.70	68.5	608	327	229	160	60.3	82.0
MAX	351	362	65.6	22.2	102	524	2035	1589	1140	1152	585	710
(WY)	1983	1995	1995	1997	1998	1995	1966	1950	1968	1968	1968	1957
MIN	.029	.16	.013	.000	.000	.83	5.60	8.77	4.16	.092	.000	.025
(WY)	1991	1991	1977	1977	1977	1977	1991	1990	1980	1980	1961	1988

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1947 - 2000

ANNUAL TOTAL		108873.3		37992.3								
ANNUAL MEAN		298		104						140 ^a		
HIGHEST ANNUAL MEAN										305		1999
LOWEST ANNUAL MEAN										7.28		1990
HIGHEST DAILY MEAN				3190	Apr 8		1250	Jun 25	6970		May 19	1996
LOWEST DAILY MEAN				7.7	Feb 18		5.8	Aug 19	.00 ^b		Jul 23	1961
ANNUAL SEVEN-DAY MINIMUM				8.0	Feb 14		7.4	Feb 16			Jul 23	1961
INSTANTANEOUS PEAK FLOW							1260 ^c	Jun 26	7310 ^d		May 19	1996
INSTANTANEOUS PEAK STAGE							10.64 ^e	Feb 27	23.45 ^g		Apr 20	1996
INSTANTANEOUS LOW FLOW							4.8	Aug 19				
ANNUAL RUNOFF (AC-FT)			216000				75360		101600			
ANNUAL RUNOFF (CFSM)			.69				.24		.33			
ANNUAL RUNOFF (INCHES)			9.42				3.29		4.43			
10 PERCENT EXCEEDS			964				212		324			
50 PERCENT EXCEEDS			48				47		20			
90 PERCENT EXCEEDS			8.4				7.9		1.8			

^a Median of annual mean discharges is 120 ft³/s.

^b Many days, several years.

^c Gage-height, 10.57 ft.

^d Gage-height, 23.16 ft.

^e Estimated.

^f Backwater from ice.

^g From highwater mark, backwater from ice.

