

## RED RIVER OF THE NORTH BASIN--Continued

05061500 SOUTH BRANCH BUFFALO RIVER AT SABIN, MN

LOCATION--Lat 46°46'20", long 96°37'40", in SW<sup>1</sup>/<sub>4</sub> SW<sup>1</sup>/<sub>4</sub> sec. 9, T.138 N., R.47 W., Clay County, Hydrologic Unit 09020106, on left bank, on downstream side of County Road 67 bridge, 0.3 mi downstream from Stony Creek and 1 mi east of Sabin.

DRAINAGE AREA.--454 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1945 to current year. Water year 1981, annual maximum only; March 1982 to September 1985, no winter records.

REVISED RECORDS.--WSP 1308: 1949(M). WRIR 97-4249: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 902.39 ft above sea level (NGVD of 1929, levels by Soil Conservation Service). Prior to April 17, 1948, nonrecording gage at site 1 mi downstream at different datum. Aug. 17, 1948 to Oct. 4, 1989, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	92	e34	e18	e12	e22	e68	101	72	92	36	75
2	5.5	100	e43	e17	e12	e22	e64	97	46	65	32	61
3	6.6	92	e48	e17	e11	e22	e56	88	35	e50	28	53
4	7.7	78	e49	e17	e11	e21	e52	78	29	e38	23	51
5	10	72	e49	e17	e10	e21	e50	69	26	e32	21	48
6	9.0	63	e48	e17	e10	e21	e48	63	24	28	19	43
7	6.7	55	e47	e17	e11	e21	e53	60	24	25	17	36
8	7.1	49	e46	e17	e11	e21	e60	66	23	37	14	28
9	8.8	45	e44	e18	e12	e21	e76	96	149	139	14	21
10	19	43	e42	e19	e12	e22	e100	212	272	198	12	18
11	34	41	e40	e20	e13	e23	e123	304	259	412	14	14
12	52	40	e38	e21	e14	e24	e133	310	230	627	13	13
13	62	38	e37	e21	e14	e26	141	253	179	835	14	11
14	67	38	e37	e20	e15	e28	140	208	103	893	17	10
15	59	38	e36	e20	e15	e31	142	172	64	804	13	9.2
16	50	37	e38	e19	e16	e34	146	134	46	589	12	7.6
17	51	37	e42	e19	e17	e38	141	108	33	355	13	6.9
18	50	36	e46	e18	e18	e43	137	88	26	235	14	12
19	47	35	e46	e17	e20	e48	140	73	22	173	15	74
20	43	33	e38	e16	e21	e57	145	64	130	121	14	37
21	39	33	e35	e16	e22	e54	139	57	259	87	14	35
22	35	38	e32	e16	e24	e50	123	51	339	71	12	34
23	33	40	e29	e16	e25	e45	108	45	436	61	11	26
24	34	34	e26	e16	e26	e42	98	41	539	53	8.3	22
25	40	34	e24	e16	e27	e41	89	40	640	47	8.3	20
26	36	32	e23	e16	e26	e41	87	36	703	41	8.6	20
27	40	e30	e21	e16	e25	e42	84	33	643	37	7.5	19
28	57	e27	e20	e15	e23	e44	80	47	473	34	17	17
29	65	e27	e19	e14	---	e48	85	185	272	36	20	15
30	67	e29	e18	e13	---	e53	94	275	150	42	26	14
31	74	---	e18	e13	---	e59	---	158	---	41	66	---
TOTAL	1121.9	1386	1113	532	473	1085	3002	3612	6246	6298	553.7	850.7
MEAN	36.2	46.2	35.9	17.2	16.9	35.0	100	117	208	203	17.9	28.4
MAX	74	100	49	21	27	59	146	310	703	893	66	75
MIN	5.5	27	18	13	10	21	48	33	22	25	7.5	6.9
AC-FT	2230	2750	2210	1060	938	2150	5950	7160	12390	12490	1100	1690
CFSM	0.08	0.10	0.08	0.04	0.04	0.08	0.22	0.26	0.46	0.45	0.04	0.06
IN.	0.09	0.11	0.09	0.04	0.04	0.09	0.25	0.30	0.51	0.52	0.05	0.07

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	19.4	21.6	8.11	2.84	6.91	110	291	93.3	101	85.8	12.0	17.3
MAX	108	194	66.8	18.5	205	581	1683	580	1068	1112	152	186
(WY)	1999	2001	1999	2001	1998	1966	1997	1962	1962	1975	1993	1999
MIN	0.023	2.05	0.006	0.000	0.000	0.000	27.9	8.28	1.30	0.000	0.000	0.000
(WY)	1977	1977	1961	1946	1946	1951	1973	1980	1976	1988	1976	1976

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1945 - 2002

ANNUAL TOTAL	55544.1		26273.3		64.9a	
ANNUAL MEAN	152		72.0		12.2	
HIGHEST ANNUAL MEAN					198 1962	
LOWEST ANNUAL MEAN					12.2 1977	
HIGHEST DAILY MEAN	3870	Apr 9	893	Jul 14	8200	Jul 1 1975
LOWEST DAILY MEAN	3.7	Aug 19	5.5	Oct 2	0.00b	Dec 13 1945
ANNUAL SEVEN-DAY MINIMUM	4.1	Aug 19	7.4	Oct 1	0.00	Dec 13 1945
MAXIMUM PEAK FLOW			905		8500 Jul 2 1975	
MAXIMUM PEAK STAGE			12.25		19.90 Jul 2 1975	
INSTANTANEOUS LOW FLOW			5.2		Oct 2	
ANNUAL RUNOFF (AC-FT)	110200		52110		47000	
ANNUAL RUNOFF (CFM)	0.34		0.16		0.14	
ANNUAL RUNOFF (INCHES)	4.55		2.15		1.94	
10 PERCENT EXCEEDS	309		143		117	
50 PERCENT EXCEEDS	20		37		8.4	
90 PERCENT EXCEEDS	6.9		13		0.07	

a Median of annual mean discharges is 51 ft<sup>3</sup>/s.

b Many days, several years.

e Estimated.

