

05061500 SOUTH BRANCH BUFFALO RIVER AT SABIN, MN

LOCATION--Lat 46°46'20", long 96°37'40", in SW¹/₄ SW¹/₄ 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 mi².

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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	16	e12	e9.0	e6.7	e9.5	212	40	906	15	13	27
2	3.5	14	e13	e8.8	e6.7	e10	178	38	1,110	15	41	24
3	3.8	13	e13	e8.5	e6.8	e11	151	36	1,050	15	69	18
4	4.5	13	e13	e8.3	e6.8	e13	128	34	854	15	108	22
5	5.9	e13	e13	e8.1	e6.8	e21	110	32	667	16	113	208
6	6.6	e12	e13	e7.9	e6.8	e38	97	30	495	20	96	354
7	7.0	e12	e13	e7.9	e6.8	e47	88	30	342	33	75	485
8	4.4	e12	e13	e7.9	e6.7	e53	80	27	227	54	98	655
9	4.8	e12	e11	e8.0	e6.7	e60	75	27	152	67	132	845
10	6.1	e13	e10	e8.0	e6.7	e75	69	25	106	65	140	897
11	7.3	14	e8.8	e8.0	e6.7	e130	64	26	80	97	110	815
12	11	15	e8.8	e8.0	e6.7	e180	61	111	64	141	72	642
13	9.4	15	e9.2	e8.0	e6.7	e190	56	439	56	162	53	442
14	8.4	15	e9.7	e7.9	e6.7	e180	53	578	49	159	41	237
15	9.4	16	e9.8	e7.8	e6.7	e170	52	518	43	105	32	129
16	9.8	16	e9.9	e7.8	e6.7	e160	50	393	40	62	26	101
17	9.9	16	e10	e7.7	e6.7	e166	50	278	39	51	21	114
18	10	16	e10	e7.6	e6.7	e173	50	207	37	45	19	127
19	10	16	e10	e7.5	e6.7	e177	53	191	34	39	17	117
20	11	16	e10	e7.4	e6.9	e185	56	168	31	36	15	95
21	11	15	e10	e7.3	e7.2	e215	56	134	27	29	12	88
22	11	15	e10	e7.2	e7.6	e250	56	113	25	22	12	114
23	11	14	e10	e7.2	e8.1	e290	56	95	23	17	12	166
24	11	e13	e10	e7.1	e8.5	e400	55	79	20	15	13	202
25	11	e13	e10	e7.0	e8.7	e500	51	74	20	12	12	227
26	12	12	e10	e6.9	e8.9	462	47	81	19	11	13	237
27	12	12	e10	e6.8	e8.9	414	44	96	18	12	13	216
28	13	e12	e10	e6.8	e9.0	371	42	92	16	13	13	170
29	13	e12	e10	e6.7	e9.1	330	39	77	15	14	12	124
30	15	e12	e9.7	e6.7	---	293	40	141	15	13	14	97
31	16	---	e9.4	e6.7	---	257	---	455	---	13	16	---
TOTAL	282.5	415	329.3	236.5	210.7	5,830.5	2,219	4,665	6,580	1,383	1,433	7,995
MEAN	9.11	13.8	10.6	7.63	7.27	188	74.0	150	219	44.6	46.2	266
MAX	16	16	13	9.0	9.1	500	212	578	1,110	162	140	897
MIN	3.5	12	8.8	6.7	6.7	9.5	39	25	15	11	12	18
AC-FT	560	823	653	469	418	11,560	4,400	9,250	13,050	2,740	2,840	15,860
CFSM	0.02	0.03	0.02	0.02	0.02	0.41	0.16	0.33	0.48	0.10	0.10	0.59
IN.	0.02	0.03	0.03	0.02	0.02	0.48	0.18	0.38	0.54	0.11	0.12	0.66

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2004, BY WATER YEAR (WY)

MEAN	19.6	21.6	8.23	3.03	6.90	110	284	95.0	104	86.0	12.5	21.4
MAX	108	194	66.8	18.5	205	581	1,683	580	1,068	1,112	152	266
(WY)	(1999)	(2001)	(1999)	(2001)	(1998)	(1966)	(1997)	(1962)	(1962)	(1975)	(1993)	(2004)
MIN	0.02	2.05	0.01	0.00	0.00	0.00	27.9	8.28	1.30	0.00	0.00	0.00
(WY)	(1977)	(1977)	(1961)	(1946)	(1946)	(1951)	(1973)	(1980)	(1976)	(1988)	(1976)	(1976)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1945 - 2004	
ANNUAL TOTAL	20,349.76		31,579.5		a65.2	
ANNUAL MEAN	55.8		86.3		198 1962	
HIGHEST ANNUAL MEAN					12.2 1977	
LOWEST ANNUAL MEAN					8,200 Jul 1, 1975	
HIGHEST DAILY MEAN	1,030	Jun 29	1,110	Jun 2	b0.00	Dec 13, 1945
LOWEST DAILY MEAN	0.09	Sep 10	3.5	Oct 2	0.00	Dec 13, 1945
ANNUAL SEVEN-DAY MINIMUM	0.26	Sep 6	5.0	Oct 1	8,500	Jul 2, 1975
MAXIMUM PEAK FLOW			1,140	Jun 2	19.90	Jul 2, 1975
MAXIMUM PEAK STAGE			13.08	Jun 2	b0.00	Dec 13, 1945
INSTANTANEOUS LOW FLOW			3.3	Oct 2		
ANNUAL RUNOFF (AC-FT)	40,360		62,640		47,220	
ANNUAL RUNOFF (CFSM)	0.123		0.190		0.144	
ANNUAL RUNOFF (INCHES)	1.67		2.59		1.95	
10 PERCENT EXCEEDS	142		215		120	
50 PERCENT EXCEEDS	11		16		8.9	
90 PERCENT EXCEEDS	4.2		7.0		0.10	

a Median of annual mean discharges is 53 ft³/s.

b Many days, several years.

c Estimated.

