

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 fair except those for estimated daily discharges, which are poor.

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	39	59	e39	e12	e11	e300	165	83	47	218	43	32
2	37	59	e40	e12	e11	e370	155	79	50	173	31	56
3	38	56	e40	e12	e11	e330	146	75	48	143	23	98
4	41	52	e40	e12	e11	e295	146	71	49	120	18	86
5	38	51	e39	e12	e11	e270	150	66	54	108	14	64
6	38	52	e37	e12	e12	247	146	59	70	95	9.6	45
7	39	51	e36	e12	e12	235	149	53	82	140	6.2	39
8	42	50	e34	e12	e12	263	146	53	75	150	4.5	31
9	53	50	e33	e12	e12	294	147	60	61	179	3.6	28
10	62	51	e31	e11	e12	343	140	78	48	194	2.7	23
11	66	54	e30	e11	e12	466	129	88	38	163	2.2	19
12	62	55	e29	e11	e11	489	122	92	32	131	2.2	16
13	57	53	e28	e11	e11	464	124	92	29	121	1.8	13
14	55	53	e26	e11	e11	333	132	91	27	117	1.6	10
15	55	52	e25	e11	e11	262	135	86	32	113	2.2	8.5
16	57	50	e21	e11	e11	190	131	82	52	99	8.5	8.2
17	63	49	e16	e11	e11	150	120	76	102	81	13	9.0
18	68	49	e14	e11	e12	178	109	74	174	67	19	5.6
19	69	49	e12	e11	e12	191	102	72	212	54	20	6.0
20	73	48	e12	e11	e12	259	118	64	526	46	20	9.9
21	78	47	e11	e11	e12	334	165	55	599	40	18	18
22	81	46	e11	e11	e12	355	215	48	625	35	13	22
23	77	46	e11	e11	e13	365	227	45	634	31	10	30
24	72	45	e11	e11	e14	414	208	41	565	27	8.5	49
25	68	43	e12	e11	e19	464	174	39	494	25	5.3	65
26	65	e42	e12	e11	e38	452	145	37	433	22	3.2	75
27	64	e41	e12	e11	e70	390	122	35	389	28	2.9	74
28	63	e40	e12	e11	e100	325	111	34	380	65	2.8	61
29	60	e39	e12	e11	e150	254	100	37	341	82	2.5	45
30	59	e38	e12	e11	---	210	90	42	280	74	2.5	36
31	59	---	e12	e11	---	184	---	43	---	59	15	---
TOTAL	1798	1470	710	350	657	9676	4269	1950	6548	3000	329.8	1082.2
MEAN	58.0	49.0	22.9	11.3	22.7	312	142	62.9	218	96.8	10.6	36.1
MAX	81	59	40	12	150	489	227	92	634	218	43	98
MIN	37	38	11	11	11	150	90	34	27	22	1.6	5.6
AC-FT	3570	2920	1410	694	1300	19190	8470	3870	12990	5950	654	2150
CFSM	.13	.11	.05	.02	.05	.69	.31	.14	.48	.21	.02	.08
IN.	.15	.12	.06	.03	.05	.79	.35	.16	.54	.25	.03	.09

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	18.8	17.7	7.13	2.24	6.53	113	277	91.5	96.5	84.7	12.0	17.2
MAX	108	88.9	66.8	13.1	205	581	1683	580	1068	1112	152	186
(WY)	1999	1999	1999	1978	1998	1966	1997	1962	1962	1975	1993	1999
MIN	.023	2.05	.006	.000	.000	.000	27.9	8.28	1.30	.000	.000	.000
(WY)	1977	1977	1961	1946	1946	1951	1973	1980	1976	1988	1976	1976

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1945 - 2000
ANNUAL TOTAL	34766.2	31840.0	
ANNUAL MEAN	95.2	87.0	62.8 ^a
HIGHEST ANNUAL MEAN			198
LOWEST ANNUAL MEAN			12.2
HIGHEST DAILY MEAN	1030	Mar 30	8200
LOWEST DAILY MEAN	1.6	Aug 8	.00 ^b
ANNUAL SEVEN-DAY MINIMUM	2.2	Aug 4	.00
INSTANTANEOUS PEAK FLOW			645 ^c
INSTANTANEOUS PEAK STAGE			12.95 ^d
INSTANTANEOUS LOW FLOW			1.6
ANNUAL RUNOFF (AC-FT)	68960	63150	45470
ANNUAL RUNOFF (CFSM)	.21	.19	.14
ANNUAL RUNOFF (INCHES)	2.85	2.61	1.88
10 PERCENT EXCEEDS	200	229	117
50 PERCENT EXCEEDS	48	48	8.1
90 PERCENT EXCEEDS	9.5	11	.05

- ^a Median of annual mean discharges is 49 ft³/s.
- ^b Many days, several years.
- ^c Gage height, 12.30 ft.
- ^d Backwater from ice.
- ^e Estimated.

