

MINNESOTA RIVER BASIN

05291000 WHETSTONE RIVER NEAR BIG STONE CITY, SD

LOCATION.--Lat 45° 17'32", long 96° 29'14", in SE¼NW¼ sec. 18, T.121 N., R.46 W., Grant County, Hydrologic Unit 07020001, on right bank 20 ft downstream from former highway bridge site, 1.5 mi west of Big Stone City, and 4.5 mi upstream from Big Stone Lake.

DRAINAGE AREA.--389 mi².

PERIOD OF RECORD.--March 1910 to November 1912 (no winter records), and March 1931 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 895: Drainage area. WSP 1308: 1932(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 996.96 ft in mean sea level, adjustment of 1912. Mar. 8, 1910 to Nov. 30, 1912, nonrecording gage 2 mi downstream at different datum. Mar. 18, 1931 to May 3, 1939, nonrecording gage, at site 20 ft upstream at present datum. May 4, 1939 to Nov. 8, 1952, water-stage recorder at site 80 ft down-stream at present datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 26 ft in June 1919, present site and datum, from information by local resident, discharge 29,000 ft³/s, from dam break.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
1	26	84	e36	e25	e27	e28	5320	314	95
41	32	43							
2	23	78	e35	e25	e27	e28	5420	300	93
43	30	49							
3	21	73	e34	e25	e26	e28	3650	355	95
46	28	38							
4	20	65	e33	e26	e26	e31	2850	445	94
42	26	34							
5	21	61	e32	e28	e26	e30	3900	352	91
41	23	30							
6	21	59	e32	e27	e26	e30	6600	290	87
39	28	28							

7	22	56	e31	e27	e26	e30	3120	264	83
40	28	25							
8	20	53	e30	e26	e25	e30	1920	253	76
47	26	24							
9	20	51	e29	e26	e25	e30	1430	243	71
43	22	24							
10	19	43	e28	e25	e25	e30	1280	226	68
40	23	24							
11	21	e44	e28	e25	e25	e31	1000	205	65
40	22	22							
12	21	e43	e28	e25	e25	e31	913	186	62
39	21	20							
13	22	e40	e28	e25	e26	e32	999	175	60
37	20	19							
14	20	e39	e28	e25	e28	e35	1170	167	58
36	31	18							
15	18	e38	e29	e25	e28	e33	1130	158	55
35	47	22							
16	21	e38	e29	e26	e28	e32	1040	152	53
33	37	24							
17	53	e37	e28	e26	e28	e32	841	143	50
47	34	23							
18	67	e36	e27	e26	e27	e32	745	139	50
44	33	22							
19	63	e36	e27	e26	e26	e33	879	131	49
41	33	22							
20	58	e35	e27	e26	e27	e34	940	126	49
47	36	20							
21	49	e34	e26	e26	e28	e36	784	122	48
45	36	20							
22	43	e33	e26	e28	e28	e39	689	117	45
43	35	19							
23	39	e33	e26	e27	e27	e43	636	117	45
44	32	18							
24	38	e32	e25	e26	e26	e47	576	117	45
43	29	17							
25	36	e32	e25	e26	e26	e52	503	117	41
51	25	18							
26	40	e32	e25	e26	e28	e65	449	117	40
59	23	19							
27	59	e32	e25	e26	e28	e100	404	112	38
54	22	18							
28	56	e33	e24	e26	e28	e3610	392	107	37
47	20	16							
29	58	e33	e24	e26	---	e4390	367	104	39
41	20	15							
30	102	e34	e24	e27	---	4690	354	101	39
36	61	16							
31	103	---	e24	e28	---	5180	---	99	---
33	54	---							

13	1931			
ANNUAL RUNOFF (AC-FT)		69350	168100	42810
ANNUAL RUNOFF (CFSM)		.25	.60	.15
10 PERCENT EXCEEDS		282	353	106
50 PERCENT EXCEEDS		39	34	8.0
90 PERCENT EXCEEDS		17	22	1.4

a Median of annual mean discharges is 41.5 ft³/s.

b Many days, several years.

c Backwater from ice.