

**MINNESOTA RIVER BASIN**

**05292000 MINNESOTA RIVER AT ORTONVILLE, MN**

LOCATION.--Lat 45° 17'44", long 96°26'38", in NE¼NW¼ sec. 16, T.121 N., R.46 W., Big Stone County, Hydrologic Unit 07020001, on left bank 400 ft downstream from bridge on U.S. Highway 12 and 1,300 ft downstream from dam at outlet of Big Stone Lake, at Ortonville.

DRAINAGE AREA.--1,160 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--February 1938 to current year.

REVISED RECORDS.--WSP 895: 1939. WSP 1508: 1942 (yearly mean).

GAGE.--Water-stage recorder. Datum of gage is 956.38 ft above mean sea level. Prior to Mar. 31, 1939, nonrecording gage on downstream side of dam 1,300 ft upstream at datum 1.31 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are fair to poor. Affected by regulation of Big Stone Lake.

**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	23	23	31	e34	43	615	3330	2550	381
85	82	32							
2	23	23	31	e34	43	557	3900	2380	320
85	79	46							
3	23	23	31	e34	43	483	4200	2210	179
79	71	53							
4	22	144	31	e36	43	488	4410	1970	104
75	71	52							
5	22	225	31	e45	44	415	4650	2030	104
74	224	50							
6	22	163	31	e43	46	373	4750	1490	97
72	186	50							
7	21	26	31	e42	46	334	4690	1410	88
69	79	50							
8	20	26	31	e40	46	303	4710	1670	85
65	59	50							
9	20	26	31	e40	46	283	4840	1250	85
65	57	45							
10	20	24	31	e39	46	263	5010	1050	85
65	149	54							

11	20	23	31	e37	46	249	4970	1420	85
65	268	60							
12	20	24	31	e36	46	236	4820	669	85
65	265	40							
13	20	26	31	e36	46	233	4710	311	84
65	222	45							
14	20	26	31	e36	46	237	4600	102	84
64	216	50							
15	19	26	32	e38	46	209	4480	206	84
62	265	e71							
16	19	26	33	e38	46	192	4400	295	84
60	172	e98							
17	26	26	35	e38	46	199	4340	298	83
58	131	84							
18	18	26	e33	e39	218	187	4260	302	82
56	193	e75							
19	16	26	e32	e40	497	173	4230	301	79
55	191	e160							
20	15	26	e32	e42	407	171	4130	295	92
54	234	70							
21	16	26	e32	e42	365	174	4010	350	107
48	194	38							
22	15	26	e33	e42	346	173	3880	411	105
48	157	39							
23	15	26	e34	e42	338	169	3710	414	100
48	151	42							
24	19	26	e35	e42	332	170	3520	412	96
47	124	50							
25	22	27	e34	e42	515	182	3430	402	96
47	96	43							
26	22	29	e34	e42	676	181	3320	397	96
39	112	27							
27	27	29	e34	e42	654	215	3140	394	91
37	83	e75							
28	27	29	e34	e42	629	931	2990	394	89
65	35	e122							
29	35	29	e34	e43	---	2450	2990	395	88
84	36	e229							
30	32	31	e34	e43	---	2500	2860	396	87
83	41	22							
31	23	---	e34	e43	---	2970	---	396	---
82	34	---							
TOTAL	662	1236	1003	1232	5745	16315	123280	26570	3325
1966	4277	1922							
MEAN	21.4	41.2	32.4	39.7	205	526	4109	857	111
63.4	138	64.1							
MAX	35	225	35	45	676	2970	5010	2550	381
85	268	229							
MIN	15	23	31	34	43	169	2860	102	79
37	34	22							
AC-FT	1310	2450	1990	2440	11400	32360	244500	52700	6600

3900	8480	3810							
CFSM	.02	.04	.03	.03	.18	.45	3.54	.74	.10
	.05	.06							

o e Estimated

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1997, BY WATER YEAR (WY)**

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
MEAN	30.5	20.7	19.4	20.3	29.4	201	501	267	185
160	78.5	35.4							
MAX	441	269	194	164	213	1519	4109	887	1034
1781	1299	250							
(WY)	1996	1996	1943	1943	1996	1994	1997	1986	1962
1993	1993	1942							
MIN	.20	.20	.20	.17	.16	1.14	1.27	.91	1.30
1.11	.25	.18							
(WY)	1939	1939	1939	1940	1940	1941	1941	1941	1977
1977	1959	1988							

*SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1938 - 1997*

ANNUAL TOTAL	93451	187533		
ANNUAL MEAN	255	514	131a	
HIGHEST ANNUAL MEAN	514	1997		
LOWEST ANNUAL MEAN	2.39	1977		
HIGHEST DAILY MEAN	2150	May 19	5010	Apr 10
10 1997				
LOWEST DAILY MEAN	15	Oct 20	15	Oct 20
13 1940				
ANNUAL SEVEN-DAY MINIMUM	16	Oct 18	16	Oct 18
12 1988				
INSTANTANEOUS PEAK FLOW			5070	Apr 10
10 1997				
INSTANTANEOUS PEAK STAGE			12.85	Apr 10
13 1952				
INSTANTANEOUS LOW FLOW				.00
13 1940				
ANNUAL RUNOFF (AC-FT)	185400	372000	94650	
ANNUAL RUNOFF (CFSM)	.22	.44	.11	
10 PERCENT EXCEEDS	789	2100	348	
50 PERCENT EXCEEDS	105	65	18	
90 PERCENT EXCEEDS	24	26	1.1	

o a Median of annual mean discharges is 88 ft<sup>3</sup>/s.

