

## MINNESOTA RIVER BASIN--Continued

05292000 MINNESOTA RIVER AT ORTONVILLE, MN

LOCATION.--Lat 45°17'44", long 96°26'38", in NE $\frac{1}{4}$ NW $\frac{1}{4}$  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 sea level (NGVD of 1929). 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. Affected by regulation of Big Stone Lake.

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	5.9	49	2.3	24	19	18	721	108	46	46	5.8	7.6
2	6.6	30	2.5	24	19	18	718	107	44	19	5.3	6.6
3	6.8	30	2.5	24	19	19	566	103	43	18	8.3	5.6
4	6.4	29	2.5	24	19	20	264	108	44	17	5.6	5.3
5	6.6	27	2.3	23	19	20	263	108	43	16	8.1	5.2
6	6.0	28	2.3	23	19	19	258	111	44	16	8.4	5.0
7	6.7	28	2.3	23	19	19	261	111	43	16	7.3	4.9
8	7.4	21	2.3	23	19	19	261	159	43	15	13	4.8
9	8.0	20	2.3	23	21	22	259	276	41	14	7.5	5.7
10	8.3	20	6.1	23	35	24	261	263	38	14	7.1	6.0
11	5.5	20	134	23	19	23	261	262	39	27	5.7	5.4
12	5.8	20	136	23	19	22	259	271	39	16	6.0	5.3
13	5.7	20	116	21	19	21	256	507	39	16	4.2	5.0
14	6.2	20	68	22	19	21	261	703	39	15	8.5	5.2
15	5.4	20	31	22	20	22	260	705	40	14	10	4.7
16	11	19	30	22	18	22	258	711	39	11	30	4.5
17	20	19	28	22	18	22	259	683	38	10	9.0	4.1
18	21	14	27	22	18	22	179	670	38	8.3	6.5	4.2
19	21	8.7	27	22	18	22	109	646	38	7.2	5.9	4.5
20	20	8.6	27	22	18	22	106	568	38	7.0	5.9	4.2
21	20	8.6	26	22	18	23	105	396	112	7.4	8.8	4.1
22	20	8.6	26	22	17	24	106	208	348	6.5	9.7	3.5
23	20	9.0	25	22	17	24	80	81	609	6.2	9.3	2.6
24	18	8.6	25	21	18	23	60	80	495	7.3	9.1	2.0
25	15	5.1	25	21	29	20	55	81	278	7.6	8.9	1.9
26	14	4.5	25	20	18	19	52	81	155	13	7.7	1.3
27	14	3.2	25	19	18	18	54	82	94	8.7	7.0	3.9
28	14	3.0	25	19	17	106	55	64	44	7.4	8.5	4.3
29	13	2.8	24	19	---	884	79	49	44	6.2	7.8	3.5
30	13	2.3	24	19	---	1590	103	50	45	5.8	7.7	2.8
31	37	---	24	19	---	1150	---	48	---	5.6	7.6	---
TOTAL	388.3	507.0	980.3	678	546	4298	6789	8400	3040	404.2	260.2	133.7
MEAN	12.5	16.9	31.6	21.9	19.5	139	226	271	101	13.0	8.39	4.46
MAX	37	49	136	24	35	1590	721	711	609	46	30	7.6
MIN	5.4	2.3	2.3	19	17	18	52	48	38	5.6	4.2	1.3
AC-FT	770	1010	1940	1340	1080	8530	13470	16660	6030	802	516	265
CFSM	0.01	0.01	0.03	0.02	0.02	0.12	0.20	0.23	0.09	0.01	0.01	0.00
IN.	0.01	0.02	0.03	0.02	0.02	0.14	0.22	0.27	0.10	0.01	0.01	0.00

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	31.6	24.2	22.6	22.3	34.2	201	528	280	188	152	74.6	34.5
MAX	441	269	194	164	273	1519	4109	904	1034	1781	1299	250
(WY)	1996	1996	1943	1943	1998	1994	1997	2001	1962	1993	1993	1942
MIN	0.20	0.20	0.20	0.17	0.16	1.14	1.27	0.91	1.30	1.11	0.25	0.18
(WY)	1939	1939	1939	1940	1940	1941	1941	1941	1977	1977	1959	1988

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1938 - 2002

ANNUAL TOTAL	146755.1	26424.7	
ANNUAL MEAN	402	72.4	134a
HIGHEST ANNUAL MEAN			514 1997
LOWEST ANNUAL MEAN			2.39 1977
HIGHEST DAILY MEAN	4790	Apr 14	1590 Mar 30 5010 Apr 10 1997
LOWEST DAILY MEAN	2.3	Nov 30	1.3 Sep 26 0.00 Dec 13 1940
ANNUAL SEVEN-DAY MINIMUM	2.4	Dec 3	2.4 Dec 3 0.08 Sep 12 1988
MAXIMUM PEAK FLOW			1820 Mar 30 5070 Apr 10 1997
MAXIMUM PEAK STAGE			7.52 Mar 30 12.92 Apr 13 1952
INSTANTANEOUS LOW FLOW			1.1b Sep 26 0.00 Dec 13 1940
ANNUAL RUNOFF (AC-FT)	291100	52410	97190
ANNUAL RUNOFF (CFSM)	0.35	0.062	0.12
ANNUAL RUNOFF (INCHES)	4.71	0.85	1.57
10 PERCENT EXCEEDS	1330	257	351
50 PERCENT EXCEEDS	22	20	21
90 PERCENT EXCEEDS	7.4	5.2	1.2

a Median of annual mean discharges is 91 ft<sup>3</sup>/s.  
 b Due in part to regulation.



