

## 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 2003 TO SEPTEMBER 2004  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	11	4.8	13	14	15	5.6	7.8	20	13	15	12
2	17	10	4.7	13	14	15	5.6	7.7	54	12	15	12
3	17	9.3	4.7	13	14	15	5.3	7.6	53	11	15	12
4	17	9.6	4.7	14	14	15	4.7	7.7	50	9.6	15	13
5	17	11	4.5	14	14	15	4.4	7.9	45	7.7	15	14
6	17	9.6	3.7	13	13	15	4.5	7.7	39	33	15	14
7	17	9.3	3.4	14	13	14	4.5	7.7	120	66	15	13
8	15	8.9	3.8	14	13	14	3.4	7.4	258	60	15	12
9	15	5.8	4.0	13	13	14	2.9	7.5	256	47	15	12
10	13	5.2	4.4	13	13	14	2.7	7.3	172	24	15	12
11	16	5.6	4.5	16	13	14	2.5	6.9	172	24	15	13
12	16	5.8	4.4	16	12	14	2.4	9.1	218	24	14	12
13	16	6.0	4.7	18	12	14	2.4	6.3	219	24	14	12
14	15	7.0	5.7	18	13	14	2.4	5.8	168	24	14	12
15	15	5.5	e7.5	18	13	14	2.3	5.6	121	24	14	15
16	14	4.8	7.6	18	12	14	2.3	5.9	123	24	15	13
17	13	5.2	7.1	17	12	13	2.1	6.2	127	24	15	14
18	13	5.3	7.0	17	13	11	2.2	5.6	124	24	14	13
19	13	5.1	7.3	18	14	10	2.0	5.4	86	19	14	12
20	13	5.6	7.2	17	15	10	2.0	5.2	51	14	13	14
21	13	5.1	7.3	17	16	10	3.3	5.0	52	14	13	13
22	12	5.2	7.8	17	16	10	2.0	4.7	52	13	14	16
23	13	e5.0	9.1	16	15	10	1.7	4.5	53	12	13	43
24	13	e5.2	8.7	16	15	10	1.7	5.0	53	12	12	53
25	14	5.6	e8.7	16	15	11	1.9	4.8	52	12	11	48
26	12	5.6	e9.0	16	16	10	9.4	4.3	51	12	11	47
27	10	5.4	9.1	16	15	9.4	38	4.3	53	12	11	48
28	14	5.3	11	15	15	8.9	8.1	4.4	36	13	11	47
29	11	5.3	13	15	15	7.9	7.9	4.5	16	13	11	45
30	10	5.2	14	15	---	6.6	7.7	6.8	13	14	11	45
31	12	---	14	15	---	5.8	---	4.8	---	14	12	---
TOTAL	440	198.5	217.4	481	402	373.6	147.9	191.4	2,907	649.3	422	661
MEAN	14.2	6.62	7.01	15.5	13.9	12.1	4.93	6.17	96.9	20.9	13.6	22.0
MAX	17	11	14	18	16	15	38	9.1	258	66	15	53
MIN	10	4.8	3.4	13	12	5.8	1.7	4.3	13	7.7	11	12
AC-FT	873	394	431	954	797	741	293	380	5,770	1,290	837	1,310
CFSM	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.08	0.02	0.01	0.02
IN.	0.01	0.01	0.01	0.02	0.01	0.01	0.00	0.01	0.09	0.02	0.01	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2004, BY WATER YEAR (WY)

MEAN	31.2	24.3	22.6	22.5	34.0	196	513	272	187	151	73.1	34.2
MAX	441	269	194	164	273	1,519	4,109	904	1,034	1,781	1,299	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)

05292000 MINNESOTA RIVER AT ORTONVILLE, MN—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1938 - 2004	
ANNUAL TOTAL	21,494.9		7,091.1			
ANNUAL MEAN	58.9		19.4		a131	
HIGHEST ANNUAL MEAN					514	1997
LOWEST ANNUAL MEAN					2.39	1977
HIGHEST DAILY MEAN	921	Jun 26	258	Jun 8	5,010	Apr 10, 1997
LOWEST DAILY MEAN	3.4	Dec 7	1.7	Apr 23,24	0.00	Dec 13, 1940
ANNUAL SEVEN-DAY MINIMUM	4.0	Dec 6	2.1	Apr 19	0.08	Sep 12, 1988
MAXIMUM PEAK FLOW			b394	Jun 17	5,070	Apr 10, 1997
MAXIMUM PEAK STAGE			3.47	Jun 17	12.92	Apr 13, 1952
INSTANTANEOUS LOW FLOW			c1.6	Apr 20	0.00	Dec 13, 1940
ANNUAL RUNOFF (AC-FT)	42,640		14,070		95,180	
ANNUAL RUNOFF (CFSM)	0.051		0.017		0.113	
ANNUAL RUNOFF (INCHES)	0.69		0.23		1.54	
10 PERCENT EXCEEDS	98		40		340	
50 PERCENT EXCEEDS	29		13		22	
90 PERCENT EXCEEDS	7.0		4.7		1.2	

- a Median of annual mean discharges is 86 ft<sup>3</sup>/s.
- b Due in part to regulation.
- c Due to regulation.
- e Estimated.

