

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 mi² (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 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	32	42	45	42	43	29	28	224	561	36	33
2	2.2	32	42	45	43	44	29	28	157	518	36	33
3	1.7	32	42	45	43	43	29	27	111	530	36	32
4	3.7	30	42	45	42	43	29	27	111	445	36	31
5	0.88	31	42	44	43	43	29	29	62	351	36	31
6	1.2	30	43	44	43	43	29	29	22	316	37	30
7	1.0	70	42	44	43	43	29	29	22	299	37	30
8	1.3	60	42	41	43	43	29	28	22	296	37	29
9	16	59	44	38	43	43	29	30	23	300	37	29
10	28	62	44	65	43	44	28	30	25	301	35	26
11	28	56	44	38	44	44	28	32	24	297	35	27
12	30	55	44	38	44	44	28	28	24	292	35	27
13	29	53	44	39	44	44	27	28	24	247	36	26
14	30	52	44	40	44	45	28	38	24	142	36	25
15	38	52	44	40	44	47	28	28	24	78	37	24
16	40	52	44	40	44	43	28	27	24	26	38	23
17	40	52	44	40	43	118	28	27	24	28	38	23
18	41	52	44	40	44	251	28	26	25	29	39	23
19	39	54	43	40	44	219	29	30	24	30	39	21
20	39	55	43	40	44	184	29	25	24	34	40	20
21	37	54	43	40	44	129	28	24	24	34	40	20
22	37	47	43	41	43	97	27	28	21	151	39	21
23	36	49	43	42	43	98	27	24	21	124	38	21
24	37	45	43	43	43	98	27	25	128	31	38	21
25	36	44	43	43	43	64	27	25	806	33	38	19
26	36	44	43	43	43	33	27	25	921	35	37	19
27	36	44	43	43	43	31	29	26	852	35	35	18
28	35	44	43	43	43	29	28	65	874	36	35	18
29	35	45	43	42	---	29	27	151	819	37	34	18
30	33	46	43	42	---	29	27	228	641	37	33	17
31	41	---	43	42	---	29	---	228	---	37	33	---
TOTAL	811.48	1,433	1,336	1,315	1,212	2,137	844	1,423	6,127	5,710	1,136	735
MEAN	26.2	47.8	43.1	42.4	43.3	68.9	28.1	45.9	204	184	36.6	24.5
MAX	41	70	44	65	44	251	29	228	921	561	40	33
MIN	0.88	30	42	38	42	29	27	24	21	26	33	17
AC-FT	1,610	2,840	2,650	2,610	2,400	4,240	1,670	2,820	12,150	11,330	2,250	1,460
CFSM	0.02	0.04	0.04	0.04	0.04	0.06	0.02	0.04	0.18	0.16	0.03	0.02
IN.	0.03	0.05	0.04	0.04	0.04	0.07	0.03	0.05	0.20	0.18	0.04	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2003, BY WATER YEAR (WY)

MEAN	31.5	24.6	22.9	22.7	34.3	199	521	276	188	153	74.0	34.4
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 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1938 - 2003	
ANNUAL TOTAL	28,129.58		24,219.48			
ANNUAL MEAN	77.1		66.4		a133	
HIGHEST ANNUAL MEAN					514	1997
LOWEST ANNUAL MEAN					2.39	1977
HIGHEST DAILY MEAN	1,590	Mar 30	921	Jun 26	5,010	Apr 10, 1997
LOWEST DAILY MEAN	0.88	Oct 5	0.88	Oct 5	0.00	Dec 13, 1940
ANNUAL SEVEN-DAY MINIMUM	1.7	Oct 2	1.7	Oct 2	0.08	Sep 12, 1988
MAXIMUM PEAK FLOW			1,020	Jun 26	5,070	Apr 10, 1997
MAXIMUM PEAK STAGE			5.37	Jun 26	12.92	Apr 13, 1952
INSTANTANEOUS LOW FLOW			b0.59	Oct 5	0.00	Dec 13, 1940
ANNUAL RUNOFF (AC-FT)	55,800		48,040		96,430	
ANNUAL RUNOFF (CFSM)	0.066		0.057		0.11	
ANNUAL RUNOFF (INCHES)	0.90		0.78		1.56	
10 PERCENT EXCEEDS	257		98		348	
50 PERCENT EXCEEDS	27		38		22	
90 PERCENT EXCEEDS	5.6		24		1.2	

a Median of annual mean discharges is 88 ft³/s.
 b Due in part to regulation.

