

05292000 MINNESOTA RIVER AT ORTONVILLE, MN

LOCATION.--Lat 45°17'44", long 96°26'38", in NE¹/₄NW¹/₄ 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 except those for estimated daily discharge, which are fair. Affected by regulation of Big Stone Lake.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	78	26	30	34	44	35	80	56	34	34	37
2	60	75	35	30	33	43	35	131	54	35	33	37
3	59	73	40	31	36	44	37	178	54	35	33	37
4	58	53	44	29	37	44	33	174	55	34	33	36
5	57	21	42	25	35	44	38	162	54	35	33	35
6	55	21	32	29	34	46	33	158	53	34	33	35
7	55	21	31	26	36	45	32	158	53	41	33	35
8	55	21	33	27	33	41	32	266	46	32	32	32
9	55	58	30	27	36	36	32	277	36	32	32	32
10	55	95	24	29	39	37	32	232	38	32	32	32
11	55	40	25	32	37	37	33	234	37	32	32	32
12	57	37	24	33	36	37	28	190	36	34	32	32
13	33	4.4	24	35	e37	37	26	118	37	35	32	37
14	15	3.0	27	34	37	38	26	115	38	37	32	33
15	15	41	e27	e35	e37	39	25	112	36	34	36	31
16	14	51	e27	e34	e37	38	25	112	36	32	33	29
17	15	35	e26	33	e37	37	26	112	34	32	33	29
18	15	50	25	34	e37	37	25	113	34	31	33	29
19	15	86	26	e34	e38	36	25	111	35	35	32	27
20	14	36	e25	e34	39	36	26	111	37	30	32	26
21	13	42	e24	e33	40	37	26	111	36	30	33	25
22	12	48	23	e33	41	37	26	82	33	30	33	24
23	12	49	23	e33	42	36	26	60	33	30	33	25
24	10	47	25	e33	44	37	39	62	33	30	32	24
25	7.7	37	27	e33	43	38	40	59	34	35	32	28
26	7.7	43	29	e33	42	38	40	58	34	31	33	26
27	47	47	29	33	42	38	41	59	33	38	32	25
28	76	41	27	33	43	38	39	59	33	34	33	33
29	74	35	28	34	43	37	37	58	33	34	35	37
30	76	20	30	34	---	37	38	59	38	34	37	35
31	73	---	29	35	---	36	---	58	---	34	38	---
TOTAL	1227.4	1308.4	887	988	1105	1205	956	3869	1199	1036	1026	935
MEAN	39.6	43.6	28.6	31.9	38.1	38.9	31.9	125	40.0	33.4	33.1	31.2
MAX	76	95	44	35	44	46	41	277	56	41	38	37
MIN	7.7	3.0	23	25	33	36	25	58	33	30	32	24
AC-FT	2430	2600	1760	1960	2190	2390	1900	7670	2380	2050	2040	1850
CFSM	.03	.04	.02	.03	.03	.03	.03	.11	.03	.03	.03	.03
IN.	.04	.04	.03	.03	.04	.04	.03	.12	.04	.03	.03	.03

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	31.9	24.4	22.5	22.4	34.7	202	495	270	182	156	76.5	35.4
MAX	441	269	194	164	273	1519	4109	887	1034	1781	1299	250
(WY)	1996	1996	1943	1943	1998	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 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1938 - 2000
ANNUAL TOTAL	41534.8	15741.8	
ANNUAL MEAN	114	43.0	131 ^a
HIGHEST ANNUAL MEAN			514
LOWEST ANNUAL MEAN			2.39
HIGHEST DAILY MEAN	636	May 18	5010
LOWEST DAILY MEAN	3.0	Nov 14	.00
ANNUAL SEVEN-DAY MINIMUM	11	Oct 20	.08
INSTANTANEOUS PEAK FLOW			579
INSTANTANEOUS PEAK STAGE			4.24
INSTANTANEOUS LOW FLOW			2.7 ^b
ANNUAL RUNOFF (AC-FT)	82380	31220	94770
ANNUAL RUNOFF (CFSM)	.098		.11
ANNUAL RUNOFF (INCHES)	1.33	.50	1.53
10 PERCENT EXCEEDS	253	59	341
50 PERCENT EXCEEDS	61	35	22
90 PERCENT EXCEEDS	27	25	1.2

^a Median of annual mean discharges is 91 ft³/s.
^b Due to regulation.
^e Estimated.

