

MINNESOTA RIVER BASIN

05292000 MINNESOTA RIVER AT ORTONVILLE, MN

LOCATION.--Lat 4517'44", long 9626'38", in NE 1 / 4 NW 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 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. Affected by regulation of Big Stone Lake.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	98	8.6	64	64	781	1060	671	402	142	43	22
2	16	543	7.3	64	64	684	925	668	293	91	43	23
3	44	174	5.5	64	64	581	911	635	246	75	39	24
4	16	10	4.8	64	64	415	1050	563	212	73	39	23
5	28	11	4.8	64	64	234	1310	333	145	92	43	23
6	18	26	5.1	64	64	230	1500	192	112	126	44	23
7	17	29	5.1	64	64	230	1570	191	112	169	43	23
8	21	35	5.1	64	64	228	1810	131	86	201	42	23
9	82	74	5.1	65	65	224	1880	81	65	201	42	23
10	18	31	5.5	65	65	224	1440	81	63	202	40	22
11	19	14	5.4	65	65	224	1120	85	62	201	37	22
12	116	15	30	65	65	224	839	115	71	195	35	22

13	224	12	65	65	65	223	1120	340	90	193	35	22
14	93	9.7	63	65	65	221	987	832	90	147	33	22
15	65	9.1	63	65	65	220	530	988	139	177	30	21
16	55	9.2	63	65	66	220	217	1070	181	153	29	21
17	44	9.5	63	65	66	220	215	1280	181	117	28	28
18	61	9.5	63	65	66	218	216	1400	185	116	27	33
19	99	8.9	63	65	66	218	216	1300	187	114	26	33
20	78	9.0	63	65	66	218	218	801	187	85	56	32
21	63	9.1	63	65	66	218	218	496	187	58	66	28
22	27	8.1	63	65	105	218	231	1030	187	49	53	27
23	14	7.7	63	65	419	218	246	945	187	89	53	26
24	11	7.3	63	64	840	218	214	907	186	152	54	26
25	12	7.2	63	64	1310	218	209	865	185	99	41	26
26	11	7.3	64	64	1200	217	208	776	149	99	28	26
27	21	6.7	64	64	1350	432	339	528	139	69	28	26
28	26	6.2	64	64	1050	1000	576	451	157	43	27	32
29	12	6.2	64	64	---	1080	687	704	207	42	24	26
30	10	6.2	64	64	---	1030	678	571	193	42	23	26
31	9.1	---	64	64	---	1130	---	612	---	42	22	---
TOTAL	1346.1	1208.9	1297.3	1999	7637	12016	22740	19642	4886	3654	1173	754
MEAN	43.4	40.3	41.8	64.5	273	388	758	634	163	118	37.8	25.1
MAX	224	543	65	65	1350	1130	1880	1400	402	202	66	33
MIN	9.1	6.2	4.8	64	64	217	208	81	62	42	22	21
AC-FT	2670	2400	2570	3970	15150	23830	45100	38960	9690	7250	2330	1500
CFSM	.04	.03	.04	.06	.24	.33	.65	.55	.14	.10	.03	.02

**STATISTICS OF MONTHLY MEAN DATA FOR
WATER YEARS 1938 - 1998, BY WATER YEAR
(WY)**

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
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MEAN	30.7	21.1	19.8	21.0	33.4	204	505	273	184	160	77.8	35.2
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 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1938 - 1998		
ANNUAL TOTAL	188484.3		78353.3				
ANNUAL MEAN	516		215		132a		
HIGHEST ANNUAL MEAN					514		1997
LOWEST ANNUAL MEAN					2.39		1977
HIGHEST DAILY MEAN	5010	Apr 10	1880	Apr 9	5010	Apr 10	1997
LOWEST DAILY MEAN	4.8	Dec 4	4.8	Dec 4, 5	.00	Dec 13	1940
ANNUAL SEVEN-DAY MINIMUM	5.1	Dec 3	5.1	Dec 3	.08	Sep 12	1988
INSTANTANEOUS PEAK FLOW			1980	Apr 8	5070	Apr 10	1997
INSTANTANEOUS PEAK STAGE			8.03	Apr 8	12.92	Apr 13	1952
INSTANTANEOUS LOW FLOW			3.4b	Dec 3	.00	Dec 13	1940
ANNUAL RUNOFF (AC-FT)	373900		155400		95670		
ANNUAL RUNOFF (CFSM)	.45		.19		.11		
10 PERCENT EXCEEDS	2100		733		350		
50 PERCENT EXCEEDS	71		65		19		
90 PERCENT EXCEEDS	12		12		1.1		

a Median of annual mean discharges is 91 ft³/s.

b Due in part to regulation.

