

UPPER MISSISSIPPI RIVER MAIN STEM--Continued

05275000 ELK RIVER NEAR BIG LAKE, MN

LOCATION.--Lat 45°20'02", long 93°40'00", in NE¹/₄SW¹/₄ sec. 23, T.33 N., R.27 W., Sherburne County, Hydrologic Unit 07010203, on right bank at upstream side of County Highway 15 bridge, 4 mi east of Big Lake and 4 mi downstream from confluence with St. Francis River.

DRAINAGE AREA.--559 mi².

PERIOD OF RECORD.--April 1911 to September 1917, April to September 1931, April to November 1932, March to November 1933, March 1934 to September 1987, October 1990 to current year.

REVISED RECORDS.--WSP 895: 1939. WSP 1308: 1912(M), 1915-17(M).

GAGE.--Water-stage recorder. Datum of gage is 899.60 ft above sea level. April 1911 to Sept. 30, 1917, April 1, 1931 to July 26, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good except those for periods of estimated daily discharge, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	105	136	e92	e88	e130	212	185	275	169	181	202
2	77	103	133	e90	e88	e130	219	173	265	181	162	186
3	74	100	131	e90	e86	e128	217	162	245	198	154	176
4	72	97	130	e88	e80	e124	227	156	225	205	151	187
5	76	96	e130	e86	e80	e128	236	167	233	189	148	197
6	84	96	e130	e86	e90	e130	282	184	237	181	139	187
7	86	96	e133	e84	e94	e124	312	205	265	174	133	177
8	86	98	e133	e82	e96	e120	314	226	287	178	125	169
9	84	99	e140	e77	e100	e120	313	220	284	189	128	163
10	82	130	e140	e79	e100	e130	318	229	302	183	136	151
11	79	171	e139	e79	e97	e130	334	331	297	171	129	139
12	79	168	e135	e80	e96	e130	330	445	276	157	126	145
13	86	150	134	e80	e92	e140	307	565	253	148	137	140
14	86	145	129	e80	e90	e145	286	621	228	143	133	132
15	88	145	126	e82	e100	148	277	648	212	136	124	131
16	102	146	126	e82	e94	149	284	688	198	130	121	134
17	126	143	e120	e82	e90	165	292	854	184	126	114	134
18	134	144	e95	e80	e90	163	291	900	172	122	114	134
19	131	157	e85	e80	e92	150	287	876	168	117	119	148
20	120	156	e80	e83	e92	164	286	850	169	111	123	157
21	117	145	e77	e86	e96	189	283	878	164	110	129	156
22	113	155	e75	e88	e100	203	283	913	159	106	178	151
23	111	152	e80	e84	e98	209	280	857	173	103	214	139
24	108	147	e82	e82	e100	210	276	763	172	97	219	127
25	108	143	e86	e78	e105	205	269	679	162	95	244	118
26	107	138	e90	e82	e110	195	264	597	157	227	275	118
27	107	137	e96	e84	e120	187	253	522	161	229	286	127
28	106	136	e98	e84	e120	223	238	464	179	180	274	122
29	109	136	e96	e84	---	233	217	417	187	163	250	115
30	109	137	e94	e82	---	218	199	365	178	154	230	111
31	105	---	e92	e86	---	210	---	312	---	179	223	---
TOTAL	3028	3971	3471	2582	2684	5030	8186	15452	6467	4851	5219	4473
MEAN	97.7	132	112	83.3	95.9	162	273	498	216	156	168	149
MAX	134	171	140	92	120	233	334	913	302	229	286	202
MIN	72	96	75	77	80	120	199	156	157	95	114	111
AC-FT	6010	7880	6880	5120	5320	9980	16240	30650	12830	9620	10350	8870
CFSM	.17	.24	.20	.15	.17	.29	.49	.89	.39	.28	.30	.27
IN.	.20	.26	.23	.17	.18	.33	.54	1.03	.43	.32	.35	.30

e Estimated

05275000 ELK RIVER NEAR BIG LAKE, MN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	209	213	151	112	118	306	656	441	337	265	181	200
MAX	778	794	410	290	392	1125	1823	1620	1647	1026	926	1050
(WY)	1985	1972	1966	1979	1984	1966	1969	1986	1984	1978	1972	1986
MIN	32.7	56.3	44.1	38.4	29.8	58.8	75.5	37.5	20.5	8.94	8.74	23.4
(WY)	1934	1935	1935	1935	1936	1934	1934	1934	1934	1934	1934	1932

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	FOR 1911 - 1999
ANNUAL TOTAL	73096	65414	
ANNUAL MEAN	200	179	276 ^a
HIGHEST ANNUAL MEAN			669 1986
LOWEST ANNUAL MEAN			88.0 1935
HIGHEST DAILY MEAN	1250	Apr 8 913	May 22 7170 Apr 16 1965
LOWEST DAILY MEAN	54	Sep 12 72	Oct 4 4.0 Aug 1 1934
ANNUAL SEVEN-DAY MINIMUM	57	Sep 10 78	Oct 1 4.5 Jul 27 1934
INSTANTANEOUS PEAK FLOW		921	May 22 7360 Apr 16 1965
INSTANTANEOUS PEAK STAGE		3.49	May 22 10.86 Apr 16 1965
INSTANTANEOUS LOW FLOW		70	Oct 4 3.6 Jul 31 1934
ANNUAL RUNOFF (AC-FT)	145000	129700	200000
ANNUAL RUNOFF (CFSM)	.36	.32	.49
ANNUAL RUNOFF (INCHES)	4.86	4.35	6.71
10 PERCENT EXCEEDS	364	286	556
50 PERCENT EXCEEDS	151	138	166
90 PERCENT EXCEEDS	78	84	69

^a Median of annual mean discharges is 250 ft³/s.

