

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 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 (NGVD of 1929). 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 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	97	e61	e62	e65	e60	e71	2150	544	361	147	81
2	26	113	e61	e62	e65	e60	e75	1790	500	340	156	79
3	32	105	e61	e61	e65	e60	e76	1530	445	319	147	75
4	34	99	e59	e62	e65	e60	e78	1300	390	296	133	70
5	34	100	e60	e62	e65	e61	e85	1110	354	280	121	68
6	35	113	e59	e64	e65	e61	e107	1010	333	262	110	62
7	35	153	e60	e64	e64	e61	e197	953	319	240	104	72
8	39	165	e60	e64	e64	e61	e412	930	325	213	99	89
9	44	158	e60	e64	e64	e61	678	880	334	194	94	101
10	41	150	e60	e66	e63	e62	952	841	385	178	87	101
11	40	146	e58	e67	e63	e62	1800	820	418	164	84	93
12	41	148	e57	e68	e63	e62	2230	763	445	153	80	87
13	44	163	e58	e68	e62	e63	2830	710	525	143	76	84
14	48	165	e58	e67	e62	e64	2950	696	690	136	73	80
15	53	155	e57	e68	e61	e66	2720	724	880	128	76	80
16	57	e141	e57	e68	e61	e66	2430	741	996	123	90	80
17	56	e90	e56	e68	e60	e66	2130	702	1050	119	86	79
18	54	e111	e55	e68	e60	e66	1850	643	1070	117	96	80
19	57	e98	e55	e67	e59	e66	1640	593	1100	115	98	81
20	56	e88	e56	e67	e59	e67	1520	555	1090	112	92	83
21	57	e83	e56	e67	e58	e69	1440	542	992	110	84	86
22	60	e79	e56	e67	e58	e69	1360	512	881	111	81	90
23	64	e71	e55	e67	e58	e70	1560	517	786	126	77	103
24	66	e66	e55	e67	e59	e70	1560	508	694	134	74	101
25	67	e65	e56	e67	e60	e70	1840	489	604	129	72	94
26	72	e63	e58	e67	e59	e70	3180	520	532	123	68	90
27	77	e63	e58	e67	e60	e70	4370	534	503	118	69	88
28	82	e63	e59	e67	e60	e70	4060	536	454	129	69	83
29	84	e62	e61	e67	---	e70	3230	547	409	131	72	81
30	77	e61	e62	e67	---	e70	2590	573	387	127	81	80
31	79	---	e62	e66	---	e70	---	575	---	126	84	---
TOTAL	1637	3234	1806	2043	1727	2023	50021	25294	18435	5357	2880	2521
MEAN	52.8	108	58.3	65.9	61.7	65.3	1667	816	614	173	92.9	84.0
MAX	84	165	62	68	65	70	4370	2150	1100	361	156	103
MIN	26	61	55	61	58	60	71	489	319	110	68	62
AC-FT	3250	6410	3580	4050	3430	4010	99220	50170	36570	10630	5710	5000
CFSM	.09	.19	.10	.12	.11	.12	2.98	1.46	1.10	.31	.17	.15
IN.	.11	.22	.12	.14	.11	.13	3.33	1.68	1.23	.36	.19	.17

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	206	210	149	111	117	301	664	442	338	262	178	196
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 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1911 - 2001

ANNUAL TOTAL		39756		116978								
ANNUAL MEAN		109		320						274a		
HIGHEST ANNUAL MEAN										669		1986
LOWEST ANNUAL MEAN										88.0		1935
HIGHEST DAILY MEAN				400	Mar 3		4370	Apr 27		7170		Apr 16 1965
LOWEST DAILY MEAN				24	Sep 18		26	Oct 1		4.0		Aug 1 1934
ANNUAL SEVEN-DAY MINIMUM				26	Sep 16		32	Oct 1		4.5		Jul 27 1934
MAXIMUM PEAK FLOW							4490	Apr 27		7360		Apr 16 1965
MAXIMUM PEAK STAGE							9.43	Apr 27		10.86		Apr 16 1965
INSTANTANEOUS LOW FLOW							26	Oct 1		3.6		Jul 31 1934
ANNUAL RUNOFF (AC-FT)			78860				232000			198800		
ANNUAL RUNOFF (CFSM)			.19				.57			.49		
ANNUAL RUNOFF (INCHES)			2.65				7.78			6.67		
10 PERCENT EXCEEDS			206				880			553		
50 PERCENT EXCEEDS			80				80			163		
90 PERCENT EXCEEDS			41				58			67		

a Median of annual mean discharges is 258 ft³/s.
e Estimated.

