

UPPER MISSISSIPPI RIVER MAIN STEM--Continued

05287890 ELM CREEK NEAR CHAMPLIN, MN

LOCATION.--Lat 45°09'48", long 93°26'11", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T.120 N., R.22 W., Hennepin County, Hydrologic Unit 07010206, on left bank, 33 ft downstream from bridge on Elm Creek Road, 2.5 mi southwest of Champlin.

DRAINAGE AREA.--86.0 mi².

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 850.70 ft above sea level (NGVD of 1929). Prior to March 16, 1979, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

REVISIONS.--The maximum discharge has been revised for water years; 1982, 471 ft³/s; 1985, 579 ft³/s; 1986, 812 ft³/s; 1994, 669 ft³/s; 1996, 404 ft³/s; 1997, 511 ft³/s; and 1999, 538 ft³/s.

DISCHARGE, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	2.5	22	e4.3	e1.2	e6.4	95	91	26	361	125	99
2	8.4	2.6	22	e4.1	e1.2	e6.1	e97	89	23	328	115	129
3	8.1	2.5	22	e4.1	e1.1	e5.8	e100	86	40	304	117	137
4	5.2	2.3	23	e4.5	e1.0	e5.4	e97	81	51	276	203	130
5	3.0	2.3	30	e4.0	e0.98	e5.2	e95	79	51	240	231	122
6	2.2	2.4	e35	e3.5	e0.95	e5.2	e92	123	48	201	228	164
7	2.7	3.0	e38	e3.4	0.92	e5.2	e91	168	47	175	237	227
8	2.8	2.8	e42	e3.8	0.89	e5.4	e91	268	48	152	235	275
9	2.5	2.7	e44	3.8	e0.86	e5.8	90	471	46	133	221	315
10	2.8	2.5	e44	3.5	e0.85	e6.3	94	522	42	129	199	329
11	2.7	2.5	e43	3.2	e0.84	6.4	137	531	47	142	167	315
12	2.6	2.5	e40	3.0	e0.85	5.1	174	501	52	153	137	292
13	3.0	3.0	e35	2.9	e0.86	e5.6	193	446	54	155	113	266
14	3.8	2.9	31	e2.9	e0.90	e6.2	207	395	54	152	94	237
15	4.3	2.9	30	e2.9	e0.96	e6.5	213	361	53	143	83	207
16	3.6	2.7	27	e2.9	e1.0	e7.0	205	327	49	129	74	173
17	2.5	2.4	24	e2.8	1.1	7.6	188	289	44	113	69	146
18	2.6	2.6	21	e2.8	1.5	7.5	180	253	39	96	62	127
19	2.2	2.5	e13	e2.8	2.6	7.5	167	214	40	86	53	110
20	2.2	2.1	e11	e2.7	4.0	8.2	150	176	40	77	45	99
21	2.7	1.9	e9.4	e3.0	4.9	e8.2	135	145	93	71	85	88
22	2.7	1.5	e8.5	3.4	e5.4	e8.0	124	119	230	69	141	81
23	2.7	1.5	e7.5	3.0	6.9	e7.7	114	99	300	63	185	77
24	2.7	3.9	e7.0	3.1	7.7	e7.3	102	87	360	56	236	71
25	2.8	10	e6.5	2.5	11	6.9	94	76	460	62	258	68
26	2.9	10	e6.0	2.6	e9.5	7.2	87	67	511	71	233	69
27	3.4	14	e5.6	2.4	e7.5	8.7	82	58	512	77	208	65
28	3.8	17	e5.4	e1.9	e6.8	36	84	49	486	86	167	60
29	3.0	20	e5.2	e1.7	---	61	89	44	435	108	141	57
30	3.3	22	e5.0	e1.4	---	78	91	38	391	123	123	55
31	3.2	---	e4.5	e1.3	---	93	---	32	---	127	108	---
TOTAL	107.1	153.5	667.6	94.2	84.26	446.4	3758	6285	4672	4458	4693	4590
MEAN	3.455	5.117	21.54	3.039	3.009	14.40	125.3	202.7	155.7	143.8	151.4	153.0
MAX	8.4	22	44	4.5	11	93	213	531	512	361	258	329
MIN	2.2	1.5	4.5	1.3	0.84	5.1	82	32	23	56	45	55
AC-FT	212	304	1320	187	167	885	7450	12470	9270	8840	9310	9100
CFSM	0.04	0.06	0.25	0.04	0.03	0.17	1.46	2.36	1.81	1.67	1.76	1.78
IN.	0.05	0.07	0.29	0.04	0.04	0.19	1.63	2.72	2.02	1.93	2.03	1.99

05287890 ELM CREEK NEAR CHAMPLIN, MN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	27.20	20.72	11.59	5.445	10.04	64.73	108.6	70.34	45.77	37.90	34.15	30.50
MAX	240	67.4	41.3	22.0	99.1	185	414	203	156	157	151	170
(WY)	1986	1994	1992	1992	1984	1985	2001	2002	2002	1993	2002	1991
MIN	1.13	1.03	0.92	0.74	0.91	3.86	5.31	3.54	1.34	0.76	1.44	1.08
(WY)	1990	1990	1990	1991	1990	2001	1987	2000	1988	1988	1989	1988

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1979 - 2002

ANNUAL TOTAL	21724.5	30009.06	
ANNUAL MEAN	59.52	82.22	39.00
HIGHEST ANNUAL MEAN			82.2 2002
LOWEST ANNUAL MEAN			4.54 1988
HIGHEST DAILY MEAN	815	Apr 25	531 May 11 815 Apr 25 2001
LOWEST DAILY MEAN	1.4	Mar 9	0.84a Feb 11 0.31 Jun 30 1988
ANNUAL SEVEN-DAY MINIMUM	1.5	Mar 7	0.86 Feb 8 0.35 Jun 26 1988
MAXIMUM PEAK FLOW			554 May 10 875 Apr 25 2001
MAXIMUM PEAK STAGE			9.44 May 10 10.02 Apr 25 2001
INSTANTANEOUS LOW FLOW			0.29 Jul 9 1989
ANNUAL RUNOFF (AC-FT)	43090	59520	28250
ANNUAL RUNOFF (CFSM)	0.69	0.96	0.45
ANNUAL RUNOFF (INCHES)	9.40	12.98	6.16
10 PERCENT EXCEEDS	167	232	109
50 PERCENT EXCEEDS	6.5	40	12
90 PERCENT EXCEEDS	2.4	2.5	2.0

a Estimated, backwater from ice.
e Estimated.



