

## UPPER MISSISSIPPI RIVER MAIN STEM--Continued

05287890 ELM CREEK NEAR CHAMPLIN, MN

LOCATION.--Lat 45°09'48", long 93°26'11", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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 mi<sup>2</sup>.

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.

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	e4.0	e3.7	e3.5	e3.2	e3.1	85	14	6.6	3.2	8.3	10	12
2	e3.9	e3.7	e3.8	e3.3	e3.1	77	13	5.6	4.3	9.0	9.4	10
3	e3.8	e3.8	e3.9	e3.4	e3.1	68	13	5.1	4.4	9.3	8.8	10
4	e3.7	e3.7	e3.9	e3.4	e3.2	57	11	4.6	6.1	9.6	8.5	10
5	e3.7	e3.8	e3.8	e3.4	e3.2	47	10	3.9	8.6	10	8.1	10
6	e3.8	e3.8	e3.1	3.4	e3.3	39	9.0	3.6	9.9	10	8.3	9.4
7	e3.9	e3.8	e3.2	e3.5	3.3	33	7.8	3.4	10	11	8.3	8.5
8	e4.2	e3.9	e3.2	3.7	3.2	29	7.1	3.3	10	12	9.9	7.5
9	e4.3	e4.0	e3.3	3.7	2.7	29	6.6	3.0	9.6	20	9.7	6.8
10	e4.3	e4.1	e3.2	3.7	2.3	27	5.8	2.9	8.8	51	9.6	8.1
11	e4.3	e4.3	e3.2	e3.6	2.2	24	6.1	3.5	7.8	81	9.5	8.8
12	e4.1	e4.2	e3.3	e3.6	e2.2	22	5.5	3.8	7.5	101	9.4	8.5
13	e3.8	e4.2	e3.4	e3.8	e2.2	21	5.4	3.6	7.1	110	9.0	8.0
14	e3.6	e4.1	e3.6	4.2	e2.1	20	5.1	3.2	7.0	106	8.3	7.8
15	e3.5	e3.9	3.9	4.1	e2.2	18	5.0	2.9	7.1	93	7.3	7.1
16	e3.4	e3.7	e3.8	4.1	e2.2	16	7.1	3.3	7.3	78	6.7	6.2
17	e3.3	e3.8	e3.7	3.9	e2.2	14	9.9	3.4	7.0	65	7.6	4.5
18	e3.3	e3.6	e3.7	3.8	e2.2	13	11	4.5	6.9	54	7.3	4.5
19	e3.2	e3.6	e3.7	e3.4	2.2	12	13	4.4	7.3	46	7.3	3.7
20	e3.2	e3.7	e3.6	e3.0	2.1	10	15	4.1	9.1	39	7.2	3.7
21	e3.2	e3.7	e3.6	e2.8	2.1	9.7	17	3.8	10	33	7.0	3.3
22	e3.1	e3.7	e3.6	e2.7	2.0	9.3	18	3.4	11	28	7.0	3.3
23	e3.2	e3.9	e3.5	e2.7	2.5	9.1	18	3.0	12	23	6.8	3.2
24	e3.1	e4.0	e3.5	e2.7	3.4	12	18	2.6	11	20	6.0	3.0
25	e3.1	e4.0	e3.5	e2.7	23	13	17	2.3	11	18	5.6	2.8
26	e3.1	e3.9	e3.4	e2.7	68	16	16	2.2	11	16	10	2.6
27	e3.1	e3.9	e3.4	e2.8	56	17	14	2.2	11	15	13	2.4
28	e3.1	e3.7	e3.3	e2.8	83	18	12	2.9	10	14	15	2.5
29	e3.1	e3.4	3.3	e2.9	82	17	9.3	2.9	9.6	14	16	2.3
30	e3.3	e3.3	3.1	e3.0	---	16	7.6	2.9	8.9	12	15	2.3
31	e3.6	---	e3.1	e3.1	---	15	---	2.8	---	11	13	---
TOTAL	110.3	114.9	108.1	103.1	374.3	813.1	327.3	109.7	254.5	1127.2	284.6	182.8
MEAN	3.56	3.83	3.49	3.33	12.9	26.2	10.9	3.54	8.48	36.4	9.18	6.09
MAX	4.3	4.3	3.9	4.2	83	85	18	6.6	12	110	16	12
MIN	3.1	3.3	3.1	2.7	2.0	9.1	5.0	2.2	3.2	8.3	5.6	2.3
AC-FT	219	228	214	204	742	1610	649	218	505	2240	565	363
CFSM	.04	.04	.04	.04	.15	.30	.13	.04	.10	.42	.11	.07
IN.	.05	.05	.05	.04	.16	.35	.14	.05	.11	.49	.12	.08

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	28.9	21.8	11.5	5.56	10.7	67.9	92.8	60.5	39.1	34.0	30.0	26.1
MAX	229	67.4	41.3	22.0	99.1	182	221	193	140	157	143	170
(WY)	1986	1994	1992	1992	1984	1992	1986	1999	1991	1993	1993	1991
MIN	1.13	1.03	.92	.74	.91	5.51	5.31	3.54	1.34	.76	1.44	1.08
(WY)	1990	1990	1990	1991	1990	1981	1987	2000	1988	1988	1989	1988

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1979 - 2000
ANNUAL TOTAL	15058.5	3909.9	
ANNUAL MEAN	41.3	10.7	35.8
HIGHEST ANNUAL MEAN			75.1 1986
LOWEST ANNUAL MEAN			4.54 1988
HIGHEST DAILY MEAN	492 May 15	110 Jul 13	545 Mar 27 1986
LOWEST DAILY MEAN	1.1 Jan 25	2.0 Feb 22	.31 Jun 30 1988
ANNUAL SEVEN-DAY MINIMUM	1.1 Jan 25	2.1 Feb 16	.35 Jun 26 1988
INSTANTANEOUS PEAK FLOW		112 Jul 13	597 Mar 27 1986
INSTANTANEOUS PEAK STAGE		6.19 Jul 13	9.93 Mar 27 1986
INSTANTANEOUS LOW FLOW		1.9 Feb 11, May 27	.29 Jul 9 1989
ANNUAL RUNOFF (AC-FT)	29870	7760	25950
ANNUAL RUNOFF (CFSM)	.48	.12	.42
ANNUAL RUNOFF (INCHES)	6.51	1.69	5.66
10 PERCENT EXCEEDS	101	18	101
50 PERCENT EXCEEDS	11	4.3	12
90 PERCENT EXCEEDS	2.9	2.9	2.0

e Estimated.

