

UPPER MISSISSIPPI RIVER MAIN STEM

05287890 ELM CREEK NEAR CHAMPLIN, MN

LOCATION.--Lat 4509'48", long 9326'11", in NE 1 / 4 NW 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 (revised).

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

GAGE.--Water-stage recorder. Datum of gage is 850.70 ft above mean sea level. 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, 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	12	21	8.8	e3.8	2.6	57	150	14	17	44	4.5	8.1
2	16	20	8.4	e3.7	2.4	58	207	13	17	47	3.9	6.8
3	18	19	8.4	e3.7	2.3	59	248	12	15	48	6.2	5.9
4	19	18	8.1	e3.6	e2.1	57	288	11	13	49	8.0	5.3
5	20	18	7.3	e3.5	2.2	57	302	10	11	46	7.8	4.4
6	22	17	7.4	e3.5	e2.1	56	296	9.3	e10	44	8.6	3.9
7	24	16	7.3	e3.5	e2.1	54	280	8.4	e9.0	41	12	3.6
8	22	16	7.2	e3.4	e2.0	54	264	18	e8.0	37	17	3.3
9	22	15	7.0	e3.3	2.0	49	238	26	e7.0	32	22	2.8
10	25	15	6.7	e3.3	2.0	e43	212	27	e6.5	27	22	2.5
11	38	14	6.7	e3.2	2.1	e40	191	26	5.9	24	20	2.3
12	55	13	5.8	e3.2	2.0	e35	171	25	6.3	20	18	2.4
13	75	12	5.8	e3.2	1.9	e30	155	23	6.4	16	16	2.4
14	79	13	5.4	e3.1	1.8	e27	138	21	6.8	14	13	2.6
15	81	12	5.5	e3.1	2.0	e25	120	20	6.7	20	12	2.3

16	79	e11	5.8	e3.1	2.5	e24	105	26	6.2	24	10	2.0
17	77	e10	5.0	e3.1	4.6	e24	90	25	5.6	24	8.9	1.8
18	74	9.8	5.5	e3.0	12	e24	79	22	5.5	23	7.6	1.8
19	71	e9.5	5.1	e3.0	26	25	70	20	5.4	23	6.6	2.0
20	68	9.5	4.7	e3.0	29	25	62	18	5.0	22	9.2	2.8
21	64	8.6	e4.6	e2.9	32	25	55	16	4.8	21	9.9	2.3
22	61	8.3	e4.5	e2.9	35	24	48	14	4.5	19	11	2.1
23	55	7.7	e4.5	e2.9	43	23	43	13	4.5	17	15	2.0
24	47	e7.6	e4.4	2.9	48	23	38	12	6.7	15	17	2.4
25	40	7.6	e4.2	2.9	50	23	35	12	11	13	17	2.6
26	34	8.0	e4.1	2.9	50	25	30	11	18	12	16	3.3
27	29	8.7	e4.0	2.8	51	33	25	9.9	29	10	15	3.5
28	26	9.4	e3.9	2.8	58	54	22	9.4	35	8.8	14	2.9
29	24	9.1	e3.9	2.7	---	65	19	8.5	36	7.2	13	2.6
30	22	9.2	e3.8	2.6	---	94	15	9.4	39	6.2	11	2.7
31	21	---	e3.8	2.6	---	100	---	15	---	5.6	9.4	---
TOTAL	1320	373.0	177.6	97.2	472.7	1312	3996	504.9	361.8	759.8	381.6	95.4
MEAN	42.6	12.4	5.73	3.14	16.9	42.3	133	16.3	12.1	24.5	12.3	3.18
MAX	81	21	8.8	3.8	58	100	302	27	39	49	22	8.1
MIN	12	7.6	3.8	2.6	1.8	23	15	8.4	4.5	5.6	3.9	1.8
AC-FT	2620	740	352	193	938	2600	7930	1000	718	1510	757	189
CFSM	.50	.14	.07	.04	.20	.49	1.55	.19	.14	.28	.14	.04
IN.	.57	.16	.08	.04	.20	.57	1.73	.22	.16	.33	.17	.04

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1998, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
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MEAN	31.4	23.0	12.1	5.88	10.9	71.7	97.3	56.8	39.0	33.1	31.0	27.8
MAX	229	67.4	41.3	22.0	99.1	182	221	146	140	157	143	170
(WY)	1986	1994	1992	1992	1984	1992	1986	1991	1991	1993	1993	1991
MIN	1.13	1.03	.92	.74	.91	5.51	5.31	4.95	1.34	.76	1.44	1.08
(WY)	1990	1990	1990	1991	1990	1981	1987	1987	1988	1988	1989	1988

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1979 - 1998		
ANNUAL TOTAL	13685.4		9852.0				
ANNUAL MEAN	37.5		27.0		36.7		
HIGHEST ANNUAL MEAN					75.1		1986
LOWEST ANNUAL MEAN					4.54		1988
HIGHEST DAILY MEAN	421	Apr 2	302	Apr 5	545	Mar 27	1986
LOWEST DAILY MEAN	3.8	Dec 30	1.8	Feb 14	.31	Jun 30	1988
ANNUAL SEVEN-DAY MINIMUM	4.0	Dec 25	2.0	Feb 8	.35	Jun 26	1988
INSTANTANEOUS PEAK FLOW			306	Apr 5	597	Mar 27	1986
INSTANTANEOUS PEAK STAGE			8.33	Apr 5	9.93	Mar 27	1986
INSTANTANEOUS LOW FLOW			1.6a	Feb 7	.29	Jul 9	1989
ANNUAL RUNOFF (AC-FT)	27140		19540		26620		
ANNUAL RUNOFF (CFSM)	.44		.31		.43		
ANNUAL RUNOFF (INCHES)	5.92		4.26		5.81		
10 PERCENT EXCEEDS	77		57		104		
50 PERCENT EXCEEDS	14		12		13		
90 PERCENT EXCEEDS	6.0		2.8		1.9		

a Estimated, daily-mean discharge.

