

05304500 CHIPPEWA RIVER NEAR MILAN, MN

LOCATION.--Lat 45°06'30", long 95°47'55", in NE¼NE¼ sec. 21, T.119 N., R.41 W., Chippewa County, Hydrologic Unit 07020005, on right bank 20 ft downstream from bridge on State Highway 40, 2.0 mi upstream from small tributary, and 5.5 mi east of Milan.

DRAINAGE AREA.--1,880 mi².

PERIOD OF RECORD.--March 1937 to current year.

REVISED RECORDS.--WSP 1145: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 959.69 ft above sea level (NGVD of 1929). Prior to June 15, 1942, nonrecording gage on bridge 800 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow may be influenced by regulation from several small lakes upstream from gage.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 31	2100	1,140	3.60	Jun 10	1700	*2,220	*5.16

Minimum discharge, 40 ft³/s, Jan. 31, (estimated daily-mean discharge).

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	96	98	e63	e41	e60	444	251	1,020	489	281	155
2	89	94	98	e62	e41	e61	412	243	979	460	277	153
3	89	96	99	e59	e41	e62	383	235	981	440	269	148
4	89	92	99	e59	e42	e63	359	225	907	419	252	138
5	88	92	104	e55	e42	e65	347	218	847	402	238	133
6	87	83	105	e53	e42	e69	342	213	797	406	222	133
7	86	e65	106	e55	e42	e70	324	209	752	482	225	139
8	83	e68	106	e57	e42	e73	308	204	755	577	217	151
9	80	77	e100	e58	e42	e74	295	203	1,180	579	212	159
10	79	87	e90	e59	e42	e72	290	209	2,100	550	205	155
11	82	93	e76	e60	e42	e73	286	258	1,930	521	197	150
12	92	101	e66	e61	e42	e75	279	232	1,810	527	194	148
13	95	143	e70	e60	e42	e80	276	217	1,790	569	189	143
14	98	115	e72	e60	e41	e84	274	208	1,810	567	180	141
15	97	114	e73	e59	e41	e87	271	209	1,630	554	172	152
16	95	120	e74	e59	e42	e90	272	208	1,400	552	179	180
17	92	110	e77	e58	e44	e91	259	230	1,300	524	225	257
18	98	107	e79	e59	e44	e92	261	280	1,170	479	227	303
19	96	108	e80	e56	e45	e92	273	305	1,020	439	206	314
20	89	109	e80	e55	e45	e93	273	280	897	414	189	296
21	85	107	e81	e54	e45	e100	297	264	837	390	169	322
22	81	94	e80	e51	e46	e113	328	244	780	367	167	405
23	80	e77	e77	e49	e47	e128	341	249	693	341	164	486
24	82	76	e74	e48	e48	e140	330	301	678	320	162	517
25	80	77	e72	e49	e48	e158	315	441	628	300	168	502
26	79	109	e76	e49	e52	e191	301	429	593	284	169	478
27	78	106	e77	e48	e54	e243	282	461	569	271	177	446
28	80	103	e75	e46	e57	e308	273	530	559	261	174	404
29	85	95	e73	e43	e58	e409	258	497	541	257	170	376
30	88	97	e68	e41	---	e475	247	707	514	258	164	356
31	91	---	e64	e40	---	469	---	1,060	---	272	162	---
TOTAL	2,705	2,911	2,569	1,685	1,300	4,260	9,200	9,820	31,467	13,271	6,202	7,840
MEAN	87.3	97.0	82.9	54.4	44.8	137	307	317	1,049	428	200	261
MAX	98	143	106	63	58	475	444	1,060	2,100	579	281	517
MIN	78	65	64	40	41	60	247	203	514	257	162	133
AC-FT	5,370	5,770	5,100	3,340	2,580	8,450	18,250	19,480	62,410	26,320	12,300	15,550
CFSM	0.05	0.05	0.04	0.03	0.02	0.07	0.16	0.17	0.56	0.23	0.11	0.14
IN.	0.05	0.06	0.05	0.03	0.03	0.08	0.18	0.19	0.62	0.26	0.12	0.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2004, BY WATER YEAR (WY)

MEAN	234	201	128	75.3	78.7	397	1,111	703	605	487	281	222
MAX	1,996	1,318	655	425	432	2,141	6,606	2,462	2,248	2,507	2,183	2,273
(WY)	(1985)	(1985)	(1985)	(1987)	(1998)	(1985)	(1997)	(1986)	(1984)	(1995)	(1993)	(1986)
MIN	5.51	8.67	4.77	0.09	0.00	2.92	90.9	81.6	36.8	15.1	6.19	3.50
(WY)	(1977)	(1977)	(1977)	(1940)	(1940)	(1965)	(1959)	(1939)	(1940)	(1940)	(1976)	(1976)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1938 - 2004	
ANNUAL TOTAL	118,858		93,230		a377	
ANNUAL MEAN	326		255		1,307	
HIGHEST ANNUAL MEAN					45.4 1940	
LOWEST ANNUAL MEAN					13,400 Apr 6, 1997	
HIGHEST DAILY MEAN	1,360	Jul 11	2,100	Jun 10	b0.00 Jan 4, 1940	
LOWEST DAILY MEAN	64	Dec 31	40	Jan 31	c0.00 Jan 4, 1940	
ANNUAL SEVEN-DAY MINIMUM	72	Dec 25	41	Jan 30	d18.03 Apr 6, 1997	
MAXIMUM PEAK FLOW			2,220	Jun 10	e18.03 Apr 6, 1997	
MAXIMUM PEAK STAGE			5.16	Jun 10	b0.00 Jan 4, 1940	
INSTANTANEOUS LOW FLOW			d40	Jan 31		
ANNUAL RUNOFF (AC-FT)	235,800		184,900		273,400	
ANNUAL RUNOFF (CFSM)	0.173		0.135		0.201	
ANNUAL RUNOFF (INCHES)	2.35		1.84		2.73	
10 PERCENT EXCEEDS	897		551		988	
50 PERCENT EXCEEDS	150		148		150	
90 PERCENT EXCEEDS	80		53		17	

- a Median of annual mean discharges is 320 ft³/s.
- b Many days in 1940.
- c From highwater mark.
- d Estimated minimum daily, backwater from ice. May have been lower on Nov. 23 during freezeup event.
- e Estimated.

