

05316580 MINNESOTA RIVER AT MORTON, MN

LOCATION.--Lat 44°32'46", long 94°59'46", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 36, T.113 N., R.35 W., Redwood County, Hydrologic Unit 07020007, on right bank 10 ft downstream from highway bridge, $\frac{1}{2}$ mi southwest of town of Morton, and 203 mi upstream from mouth.

DRAINAGE AREA.--8,970 mi².

PERIOD OF RECORD.--October 2000 to current year.

GAGE.--Water-stage recorder.

REMARKS.--Records good except those for estimated daily discharges, which are fair to poor. Some regulation from Big Stone Lake, Marsh Lake, and Lac qui Parle.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e1,170	4,490	e1,280	e787	e436	e739	e5,310	2,520	3,240	5,280	1,690	1,930
2	e1,210	3,880	e1,160	e770	e425	e802	e5,290	2,440	3,000	5,190	e1,300	1,650
3	e1,260	e3,420	e1,100	e746	e404	e973	e4,900	2,380	2,870	5,150	e1,100	1,490
4	e1,290	e3,030	e1,080	e772	e431	e1,060	e4,640	2,410	2,840	5,070	e891	1,400
5	e1,300	e2,750	e1,060	e855	e468	e1,080	e4,340	2,420	2,910	4,940	e776	1,370
6	e1,260	2,560	e1,010	e945	e490	e1,070	e3,950	2,330	3,130	4,840	e823	1,380
7	e1,310	2,420	e1,030	e942	e516	e1,110	e3,590	2,110	3,550	4,710	e823	1,380
8	e1,340	2,300	1,100	e918	e522	e1,200	e3,310	2,060	5,100	4,570	e812	1,480
9	e1,340	2,240	1,230	e901	e522	e1,230	e3,050	2,180	6,500	4,410	e846	1,490
10	e1,310	2,190	1,390	e860	e533	e1,210	e3,210	2,250	7,340	4,220	834	1,360
11	e1,190	e2,130	1,460	e754	e560	e1,190	e3,690	2,490	7,680	4,070	926	1,220
12	e1,270	e2,090	1,390	e656	e560	e1,160	e4,340	2,780	7,630	3,910	904	1,160
13	e1,330	e1,920	e1,300	e492	e614	e1,130	e5,000	3,410	7,450	3,950	795	1,590
14	e1,320	e1,820	e1,300	e425	e721	e1,110	e5,670	3,820	7,460	4,050	721	1,820
15	e1,340	e1,750	e1,270	e420	e883	e1,050	e5,980	3,890	7,470	3,950	721	2,080
16	e1,220	1,680	e1,260	e431	e1,060	e1,130	5,910	3,810	7,460	3,820	714	1,970
17	e1,150	1,610	e1,200	e436	e1,210	e1,150	5,760	3,810	7,290	3,720	702	1,770
18	e1,050	1,560	e1,160	e442	e1,200	e1,150	5,630	4,430	6,880	3,640	719	1,590
19	e1,010	1,630	e1,170	e463	e1,100	e1,150	5,380	4,730	6,480	3,530	689	1,490
20	e995	1,700	e1,190	e458	e1,010	e1,210	4,940	4,800	6,230	3,480	614	1,510
21	e934	1,740	e1,260	e468	e919	e1,260	4,570	4,620	6,130	3,480	590	1,510
22	e912	1,770	e1,250	e474	e838	e1,310	4,340	4,430	6,080	3,360	559	1,420
23	e897	1,750	e1,180	e480	e811	e1,330	4,130	4,100	6,060	3,030	571	e1,390
24	e858	e1,720	e1,100	e479	e775	e1,280	3,960	3,580	6,000	2,350	591	e1,390
25	e852	e1,690	e1,050	e549	e784	e1,380	3,770	3,230	5,880	1,910	556	e1,460
26	e839	1,670	e990	e574	e766	e2,000	3,540	3,190	5,750	1,840	573	e1,480
27	886	1,640	e907	e597	e748	e2,920	3,190	3,410	5,660	1,820	653	e1,480
28	1,020	1,620	e917	e554	e721	e4,050	2,860	3,810	5,570	1,990	916	1,510
29	1,580	e1,600	e778	e522	---	e5,130	2,700	3,910	5,460	2,080	1,660	1,440
30	3,790	e1,520	e738	e500	---	e5,230	2,620	3,810	5,380	2,000	1,920	1,400
31	5,020	---	e795	e463	---	e5,290	---	3,560	---	1,830	2,080	---
TOTAL	42,253	63,890	35,105	19,133	20,027	53,084	129,570	102,720	170,480	112,190	28,069	45,610
MEAN	1,363	2,130	1,132	617	715	1,712	4,319	3,314	5,683	3,619	905	1,520
MAX	5,020	4,490	1,460	945	1,210	5,290	5,980	4,800	7,680	5,280	2,080	2,080
MIN	839	1,520	738	420	404	739	2,620	2,060	2,840	1,820	556	1,160
AC-FT	83,810	126,700	69,630	37,950	39,720	105,300	257,000	203,700	338,100	222,500	55,670	90,470
CFSM	0.15	0.24	0.13	0.07	0.08	0.19	0.48	0.37	0.63	0.40	0.10	0.17
IN.	0.18	0.26	0.15	0.08	0.08	0.22	0.54	0.43	0.71	0.47	0.12	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

MEAN	588	821	606	411	465	1,272	7,766	4,702	4,367	2,458	926	727
MAX	1,363	2,130	1,132	661	806	1,712	26,720	11,780	6,049	3,619	1,385	1,520
(WY)	(2005)	(2005)	(2005)	(2002)	(2002)	(2005)	(2001)	(2001)	(2001)	(2005)	(2002)	(2005)
MIN	98.2	231	178	148	188	555	740	1,349	2,150	1,399	622	235
(WY)	(2001)	(2004)	(2004)	(2004)	(2004)	(2001)	(2004)	(2004)	(2003)	(2002)	(2004)	(2003)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2001 - 2005	
ANNUAL TOTAL	503,193		822,131		2,090	
ANNUAL MEAN	1,375		2,252		4,252	
HIGHEST ANNUAL MEAN					1,036	
LOWEST ANNUAL MEAN					2001	
HIGHEST DAILY MEAN	9,580	May 31	7,680	Jun 11	45,400	Apr 15, 2001
LOWEST DAILY MEAN	131	Jan 30	404	Feb 3	a81	Oct 6, 2000
ANNUAL SEVEN-DAY MINIMUM	135	Jan 29	439	Jan 14	86	Oct 5, 2000
MAXIMUM PEAK FLOW			7,730	Jun 11	45,400	Apr 15, 2001
MAXIMUM PEAK STAGE			19.73	Jun 11	b29.26	Apr 16, 2001
INSTANTANEOUS LOW FLOW			c404	Feb 3	a80	Oct 6, 2000
ANNUAL RUNOFF (AC-FT)	998,100		1,631,000		1,514,000	
ANNUAL RUNOFF (CFSM)	0.153		0.251		0.233	
ANNUAL RUNOFF (INCHES)	2.09		3.41		3.17	
10 PERCENT EXCEEDS	2,560		5,110		4,710	
50 PERCENT EXCEEDS	950		1,460		884	
90 PERCENT EXCEEDS	159		595		214	

- a Due in part to regulation.
- b Maximum recorded, peak stage was less than 30.0 feet.
- c Minimum recorded, peak stage was less than 30.0 feet.
- d Minimum daily. Occurred during falling stage. Due in part to regulation.
- e Estimated.

