

05325000 MINNESOTA RIVER AT MANKATO, MN

LOCATION(REVISED).--Lat 44°10'08", long 94°00'11", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 108 N., R. 26 W., Blue Earth County, Hydrologic Unit 07020007, on right bank 300 ft downstream from Memorial bridge in Mankato, 2.0 mi downstream from Blue Earth River and at mile 106.2 upstream from Mississippi River.

DRAINAGE AREA.--14,900 mi² (approximately).

PERIOD OF RECORD.--May 1903 to current year (no winter records 1904, 1906-10, 1918-29). Monthly discharge only for some periods, published in WSP 1308. Published as "near Mankato": 1903-21.

REVISED RECORDS.--WSP 875: 1917. WSP 955: Drainage area. WSP 1085: 1929. WSP 1238: 1903, 1908, 1919. WSP 1508: 1916(M), 1918(M), 1926(M), 1928, 1930, 1932(M), 1938(M). WDR-MN-76-1: 1881(M).

GAGE.--Water-stage recorder. Datum of gage is 747.92 ft above sea level (NGVD of 1929). Prior to Oct. 19, 1921, nonrecording gage, at site 1.8 mi upstream at datum 6.4 ft higher. Mar. 15, 1922 to Nov. 30, 1924, nonrecording gage, and Dec. 1, 1924 to May 24, 1971, recorder at site 0.2 mi upstream at present datum. May 25, 1971 to Aug. 14, 1977, recorder at site 0.5 mi upstream at present datum. Aug. 14, 1977 to July 27, 1978, nonrecording gage; and from July 28, 1978 to Sept. 30, 1993, recording gage at site 0.7 mi upstream of present site.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 29.9 ft, Apr. 26, 1881, near present site and datum, from floodmark (estimated discharge, 110,000 ft³/s).

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	8,070	5,860	3,070	e1,410	e825	e1,700	9,130	6,560	9,860	9,050	3,140	2,670
2	7,420	6,330	3,090	e1,400	e870	e1,650	9,250	6,260	9,280	8,770	2,870	2,650
3	6,850	6,260	2,970	e1,340	e921	e1,610	9,210	5,910	8,710	8,460	2,630	2,480
4	6,790	5,890	3,190	e1,250	e990	e1,600	8,350	5,590	8,270	8,330	2,460	2,180
5	6,540	5,310	3,100	e1,170	e1,100	e1,600	7,560	5,420	8,210	8,050	2,080	2,010
6	6,100	4,960	2,810	e1,130	e1,180	e1,740	6,980	5,490	9,410	8,100	1,740	1,940
7	5,760	4,710	2,840	e1,130	e1,220	e2,130	6,500	5,690	9,780	7,910	1,580	1,960
8	5,580	4,480	2,760	e1,160	e1,220	e2,410	5,970	5,820	10,100	7,430	1,560	2,100
9	5,890	4,280	2,710	e1,200	e1,150	e2,420	5,490	7,200	10,900	7,160	1,510	2,040
10	5,970	4,100	2,750	e1,230	e1,100	e2,470	5,140	8,680	12,000	6,830	1,510	2,100
11	5,570	3,960	2,850	e1,250	e1,100	e2,480	5,280	9,900	12,900	6,460	1,530	2,250
12	5,240	3,890	3,030	e1,250	e1,120	e2,460	7,770	11,100	13,400	6,180	1,640	2,200
13	5,010	3,820	2,840	e1,210	e1,170	e2,440	12,600	16,800	14,100	5,880	1,580	2,310
14	4,760	3,700	2,060	e1,060	e1,320	e2,300	15,400	22,400	14,500	5,620	1,510	2,430
15	4,620	3,570	e1,470	e917	e1,630	e2,180	16,400	23,800	14,400	5,460	1,410	3,150
16	4,460	3,370	e1,610	e821	e2,130	e2,050	16,700	23,400	14,200	5,410	1,350	3,480
17	4,310	3,380	e1,810	e723	e2,700	e2,100	16,900	22,400	13,600	5,190	1,280	3,440
18	4,130	3,260	e1,890	e638	e2,850	e1,790	16,600	20,500	13,200	4,910	1,810	3,140
19	3,990	3,330	e1,810	e624	e2,800	e1,710	16,300	19,400	12,600	4,670	2,540	2,950
20	3,870	3,370	e1,700	e600	e2,700	e1,850	15,800	18,800	12,200	4,570	3,210	2,910
21	3,720	3,360	e1,530	e620	e2,600	e1,930	14,900	18,300	12,500	4,460	3,150	2,910
22	3,630	3,480	e1,420	e610	e2,450	e2,070	14,200	17,700	12,800	4,380	2,970	2,850
23	3,580	3,670	e1,340	e587	e2,230	e2,070	13,100	16,900	12,400	4,420	2,610	2,640
24	3,540	3,660	e1,260	e578	e2,080	e2,180	11,800	15,900	11,700	4,170	2,230	2,470
25	3,470	3,630	e1,220	e593	e1,970	e2,490	10,900	15,000	10,900	3,820	2,070	4,750
26	3,330	3,630	e1,220	e635	e1,850	e2,820	10,000	13,800	10,300	3,320	2,170	11,600
27	3,210	3,620	e1,220	e678	e1,810	e3,470	9,280	12,300	9,880	3,000	1,970	16,900
28	3,110	3,490	e1,240	e715	e1,750	5,300	8,450	11,500	9,570	3,120	1,760	19,600
29	3,130	3,470	e1,260	e758	---	7,160	7,690	11,100	9,330	3,770	1,800	20,200
30	3,260	3,270	e1,290	e771	---	8,790	7,060	10,900	9,080	3,700	1,890	19,000
31	4,350	---	e1,380	e795	---	9,010	---	10,400	---	3,490	2,400	---
TOTAL	149,260	123,110	64,740	28,853	46,836	87,980	320,710	404,920	340,080	176,090	63,960	153,310
MEAN	4,815	4,104	2,088	931	1,673	2,838	10,690	13,060	11,340	5,680	2,063	5,110
MAX	8,070	6,330	3,190	1,410	2,850	9,010	16,900	23,800	14,500	9,050	3,210	20,200
MIN	3,110	3,260	1,220	578	825	1,600	5,140	5,420	8,210	3,000	1,280	1,940
AC-FT	296,100	244,200	128,400	57,230	92,900	174,500	636,100	803,200	674,500	349,300	126,900	304,100
CFSM	0.32	0.28	0.14	0.06	0.11	0.19	0.72	0.88	0.76	0.38	0.14	0.34
IN.	0.37	0.31	0.16	0.07	0.12	0.22	0.80	1.01	0.85	0.44	0.16	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2005, BY WATER YEAR (WY)

MEAN	1,654	1,590	1,054	654	804	4,422	9,691	6,117	6,466	4,633	2,365	1,716
MAX	14,600	8,569	4,770	3,009	4,505	18,230	52,910	25,740	34,230	33,130	23,520	11,070
(WY)	(1969)	(1996)	(1983)	(1992)	(1983)	(1983)	(2001)	(2001)	(1993)	(1993)	(1993)	(1993)
MIN	66.1	83.5	80.9	61.5	58.4	132	609	101	194	58.3	37.4	56.6
(WY)	(1934)	(1934)	(1934)	(1940)	(1940)	(1934)	(1931)	(1934)	(1934)	(1934)	(1934)	(1934)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1903 - 2005	
ANNUAL TOTAL	1,571,589		1,959,849		a3,592	
ANNUAL MEAN	4,294		5,369		14,890	
HIGHEST ANNUAL MEAN					136	
LOWEST ANNUAL MEAN					92,700	
HIGHEST DAILY MEAN	23,400	Jun 15	23,800	May 15	31	Apr 10, 1965
LOWEST DAILY MEAN	190	Jan 31	b578	Jan 24	33	Aug 3, 1934
ANNUAL SEVEN-DAY MINIMUM	194	Jan 29	602	Jan 19	94,100	Jul 29, 1934
MAXIMUM PEAK FLOW			23,900	May 15	30.11	Apr 10, 1965
MAXIMUM PEAK STAGE			15.48	May 15	c26	Jun 21, 1993
INSTANTANEOUS LOW FLOW			b578	Jan 24		Aug 4, 1934
ANNUAL RUNOFF (AC-FT)	3,117,000		3,887,000		2,602,000	
ANNUAL RUNOFF (CFSM)	0.288		0.360		0.241	
ANNUAL RUNOFF (INCHES)	3.92		4.89		3.28	
10 PERCENT EXCEEDS	11,200		12,800		9,670	
50 PERCENT EXCEEDS	2,730		3,370		1,310	
90 PERCENT EXCEEDS	240		1,220		185	

- a Median of annual mean discharges is 2,900 ft³/s.
- b Estimated, minimum daily, result of freezeup.
- c Minimum observed.
- e Estimated.

