

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 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	912	2,550	e1,350	e1,000	e540	e540	4,150	5,550	5,990	8,100	2,080	572
2	998	2,510	e1,300	e980	e540	e550	3,880	5,240	5,610	7,350	1,930	526
3	1,100	2,490	e1,260	e950	e560	e550	3,700	5,030	5,370	6,680	1,810	488
4	1,460	2,480	e1,200	e920	e600	e540	3,380	4,790	5,170	6,320	1,710	447
5	1,860	2,490	e1,200	e890	e610	e540	2,970	4,880	4,920	5,900	1,690	409
6	3,160	2,500	e1,200	e860	e610	e530	2,710	4,850	4,880	5,710	1,690	417
7	5,360	2,460	e1,200	e800	e600	e530	2,620	5,490	4,680	5,350	1,650	424
8	6,230	2,450	e1,250	e760	e590	e520	2,540	6,470	4,900	5,120	1,570	414
9	6,160	2,420	e1,250	e720	e600	e500	2,450	6,840	5,770	5,160	1,430	390
10	5,790	2,420	e1,250	e690	e630	e500	2,470	7,020	6,890	6,300	1,280	367
11	5,140	2,410	e1,300	e680	e660	e500	2,550	8,900	7,220	6,740	1,120	461
12	4,880	2,360	e1,300	e680	e670	e520	2,710	11,100	7,280	7,270	1,040	592
13	4,550	2,330	e1,270	e680	e680	e520	3,000	12,500	7,290	6,930	992	587
14	4,250	2,300	e1,250	e690	e680	e840	3,170	13,400	6,930	6,410	964	573
15	3,990	2,230	e1,210	e710	e670	1,490	3,190	14,800	6,440	6,070	970	606
16	3,740	2,200	e1,200	e690	e660	1,830	3,560	14,000	5,950	5,540	984	587
17	3,570	2,180	e1,200	e680	e630	2,170	3,820	13,100	5,580	5,180	963	528
18	3,570	2,170	e1,200	e670	e605	3,030	4,660	12,200	5,470	4,930	898	499
19	3,410	2,160	e1,210	e660	e600	3,970	5,970	11,700	4,890	4,670	912	502
20	3,240	2,120	e1,200	e640	e605	4,190	7,000	11,700	4,540	4,430	876	467
21	2,980	2,120	e1,130	e630	e615	4,110	7,750	11,600	4,310	4,160	859	443
22	2,810	2,110	e1,060	e620	e610	3,930	8,500	11,300	3,870	3,790	884	434
23	2,790	2,080	e1,020	e600	e580	3,900	8,870	10,900	3,920	3,590	833	411
24	2,760	2,020	e1,000	e590	e550	4,040	8,730	10,400	3,860	3,350	809	394
25	2,720	1,880	e980	e570	e530	3,770	8,460	9,750	4,500	3,200	797	373
26	2,700	e1,600	e980	e560	e530	3,660	8,070	8,920	5,090	3,020	729	361
27	2,680	e1,350	e1,020	e550	e530	3,900	7,470	8,280	5,800	2,680	694	361
28	2,670	e1,440	e1,040	e540	e530	4,220	6,790	7,800	7,600	2,620	667	355
29	2,630	e1,430	e1,040	e540	---	4,120	6,300	7,320	8,510	2,440	649	331
30	2,600	e1,420	e1,030	e540	---	4,510	5,900	6,990	8,580	2,310	600	318
31	2,570	---	e1,030	e540	---	4,550	---	6,510	---	2,170	585	---
TOTAL	103,280	64,680	36,130	21,630	16,815	69,070	147,340	279,330	171,810	153,490	34,665	13,637
MEAN	3,332	2,156	1,165	698	601	2,228	4,911	9,011	5,727	4,951	1,118	455
MAX	6,230	2,550	1,350	1,000	680	4,550	8,870	14,800	8,580	8,100	2,080	606
MIN	912	1,350	980	540	530	500	2,450	4,790	3,860	2,170	585	318
AC-FT	204,900	128,300	71,660	42,900	33,350	137,000	292,200	554,100	340,800	304,400	68,760	27,050
CFSM	0.22	0.14	0.08	0.05	0.04	0.15	0.33	0.60	0.38	0.33	0.08	0.03
IN.	0.26	0.16	0.09	0.05	0.04	0.17	0.37	0.70	0.43	0.38	0.09	0.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2003, BY WATER YEAR (WY)

MEAN	1,635	1,576	1,050	655	801	4,469	9,764	6,075	6,324	4,608	2,361	1,619
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 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1903 - 2003	
ANNUAL TOTAL	1,285,778		1,111,877		a3,572	
ANNUAL MEAN	3,523		3,046		14,890	
HIGHEST ANNUAL MEAN					136	
LOWEST ANNUAL MEAN					1934	
HIGHEST DAILY MEAN	12,800	Jun 24	14,800	May 15	92,700	Apr 10, 1965
LOWEST DAILY MEAN	690	Sep 24	318	Sep 30	31	Aug 3, 1934
ANNUAL SEVEN-DAY MINIMUM	779	Sep 19	356	Sep 24	33	Jul 29, 1934
MAXIMUM PEAK FLOW			15,000	May 15	94,100	Apr 10, 1965
MAXIMUM PEAK STAGE			11.83	May 15	30.11	Jun 21, 1993
INSTANTANEOUS LOW FLOW			b310	Sep 30	c26	Aug 4, 1934
ANNUAL RUNOFF (AC-FT)	2,550,000		2,205,000		2,588,000	
ANNUAL RUNOFF (CFSM)	0.24		0.20		0.24	
ANNUAL RUNOFF (INCHES)	3.21		2.78		3.26	
10 PERCENT EXCEEDS	7,480		7,010		9,610	
50 PERCENT EXCEEDS	2,420		2,120		1,290	
90 PERCENT EXCEEDS	1,040		536		182	

- a Median of annual mean discharges is 2900 ft³/s.
- b Falling stage.
- c Minimum observed.
- e Estimated.

