

MINNESOTA RIVER BASIN

05325000 MINNESOTA RIVER AT MANKATO, MN

LOCATION(REVISED).--Lat 4410 "08", long 9400'11", in SE 1 / 4 SW 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. 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 fair.

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

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	1250	1730	1830	1360	e1030	8520	25200	11200	7020	12000	2170	1820
2	1180	1720	1850	1310	e1020	8330	27400	10600	6900	11100	2050	1620
3	1140	1740	1910	1460	e1010	8080	28200	10400	6630	10200	2030	1630
4	1110	1720	1880	1450	e1010	7820	28100	9450	6370	9320	1850	1560
5	1080	1760	1730	1330	e1000	7560	26900	9150	6120	8240	1790	1480
6	1060	1830	1700	1310	e1000	7470	25300	8800	5680	7420	1860	1450

7	1030	1850	1610	1290	e990	7400	23900	8120	5380	6830	1900	1290
8	1030	1810	1570	1260	e985	7390	22600	7860	5010	6570	1830	1140
9	1030	1820	1610	e1290	e980	7270	21400	7590	4480	6250	1790	1090
10	1040	1860	1680	e1250	e970	6310	20600	7210	4200	5620	1730	1030
11	1010	1850	1680	e1230	e955	5530	20100	6840	4060	5180	1660	961
12	1090	1770	1640	e1220	e940	4880	19200	6690	4090	4840	1580	936
13	1260	1710	1650	e1210	e940	4940	19000	6480	4290	4480	1510	843
14	1370	1750	1590	e1200	e960	5730	18100	6380	4340	4110	1450	819
15	1600	1750	1590	e1180	996	5380	17900	6530	4500	4290	1370	809
16	1700	1670	1650	e1170	1120	5250	17600	7850	4400	4400	1290	702
17	1770	1440	1620	e1160	1190	4900	17300	8920	4200	4400	1280	651
18	1890	1450	1620	e1150	1540	4750	17500	9580	4280	4370	1240	635
19	1930	1570	1640	e1140	1980	4710	17400	9500	4620	4310	1120	661
20	2030	1740	1570	e1130	3720	4400	16600	8640	5190	3970	1220	604
21	2140	1760	1500	e1120	3890	4300	16000	7770	7800	4200	1070	564
22	2180	1800	1480	e1120	4760	4350	15400	7250	9750	4130	998	523
23	2190	1720	1530	e1110	6070	4520	14700	6840	9980	3880	1010	546
24	2100	1530	1530	e1110	7780	4620	14200	6840	9980	3670	1060	529
25	2000	1670	1570	e1100	8560	4560	13600	6870	10500	3400	1110	505
26	1930	1730	1510	e1090	9400	4660	13300	8100	10100	3130	1040	585
27	1860	1770	e1480	e1080	8860	5740	13100	9160	9740	3000	1210	548
28	1840	1790	1390	e1070	8960	10600	12700	8930	10600	2830	1500	510
29	1730	1830	1460	e1050	---	15500	12100	8200	11900	2700	1630	541
30	1660	1790	1370	e1040	---	19000	11600	7750	12200	2580	2190	554
31	1660	---	1300	e1030	---	22200	---	7390	---	2380	2170	---
TOTAL	47890	51930	49740	37020	82616	226670	567000	252890	204310	163800	47708	27136
MEAN	1545	1731	1605	1194	2951	7312	18900	8158	6810	5284	1539	905
MAX	2190	1860	1910	1460	9400	22200	28200	11200	12200	12000	2190	1820
MIN	1010	1440	1300	1030	940	4300	11600	6380	4060	2380	998	505
AC-FT	94990	103000	98660	73430	163900	449600	1125000	501600	405200	324900	94630	53820

CFSM	.10	.12	.11	.08	.20	.49	1.27	.55	.46	.35	.10	.06
IN.	.12	.13	.12	.09	.21	.57	1.42	.63	.51	.41	.12	.07

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 1998, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1638	1561	1025	639	778	4593	9418	5775	6093	4537	2365	1657
MAX	14600	8569	4770	3009	4505	18230	46150	22540	34230	33130	23520	11070
(WY)	1969	1996	1983	1992	1983	1983	1997	1993	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

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR	FOR 1998 WATER YEAR	FOR 1998 WATER YEAR	FOR 1998 WATER YEAR	WATER YEARS 1903 - 1998	WATER YEARS 1903 - 1998	WATER YEARS 1903 - 1998
ANNUAL TOTAL	3322290		1758710				
ANNUAL MEAN	9102		4818		3493a		
HIGHEST ANNUAL MEAN					14890		1993
LOWEST ANNUAL MEAN					136		1934
HIGHEST DAILY MEAN	78500	Apr 9	28200	Apr 3	92700	Apr 10	1965
LOWEST DAILY MEAN	1010	Oct 11	505	Sep 25	31	Aug 3	1934
ANNUAL SEVEN-DAY MINIMUM	1040	Oct 5	535	Sep 22	33	Jul 29	1934
INSTANTANEOUS PEAK FLOW			28400	Apr 4	94100	Apr 10	1965
INSTANTANEOUS PEAK STAGE			17.37	Apr 4	30.11	Jun 21	1993
INSTANTANEOUS LOW FLOW			499	Sep 25	26b	Aug 4	1934
ANNUAL RUNOFF (AC-FT)	6590000		3488000		2531000		

ANNUAL RUNOFF (CFSM)	.61		.32		.23		
ANNUAL RUNOFF (INCHES)	8.29		4.39		3.19		
10 PERCENT EXCEEDS	23300		11400		9110		
50 PERCENT EXCEEDS	3150		1860		1260		
90 PERCENT EXCEEDS	1530		1020		188		

a Median of annual mean discharges is 2860 ft³/s.

b Minimum observed.

