

MINNESOTA RIVER BASIN--Continued

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, in CFS, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	731	705	2110	1980	e1150	e1300	5650	6420	6090	8540	3040	2570
2	721	684	2050	1850	e1100	e1240	6130	6810	6160	7310	2840	2320
3	703	678	2000	1750	e1050	e1170	6510	6840	6760	6320	2610	2160
4	662	733	1900	1700	e1000	e1140	6460	6900	10500	5550	2640	2060
5	653	758	1870	1680	e980	e1140	6350	6640	12300	5100	2610	1910
6	573	792	1880	1660	e970	e1140	6220	6340	11800	4590	3840	1770
7	542	815	2040	1610	e960	e1150	6200	5890	10600	4140	4550	1640
8	574	840	2290	1590	e950	e1150	6290	5810	9140	3950	5040	1540
9	625	785	2280	1580	e960	e1160	6310	6050	7930	3610	5360	1400
10	665	801	2230	1540	e970	e1170	6500	6830	7110	3340	5340	1300
11	661	796	2240	1500	e990	e1120	6720	7230	7120	3330	4790	1190
12	647	786	2320	1520	e1010	e1240	7020	7620	8340	3230	4140	1100
13	702	814	2330	1520	e1030	e1270	7380	7830	9310	3100	3560	1070
14	711	827	2020	1490	1050	e1290	8070	7980	9380	3080	3190	1070
15	747	827	2000	1490	1070	e1330	8060	8090	8730	2910	3040	989
16	795	821	2090	e1470	1120	e1540	8280	8170	7740	2720	2930	939
17	789	804	2150	e1430	1160	e1770	8390	8080	6870	2610	2820	888
18	817	795	2120	e1380	1240	e2100	8290	7910	6400	2460	2550	856
19	821	810	2040	e1320	1330	e2400	8050	7590	6610	2280	2390	871
20	823	770	1900	e1280	1450	e2450	7710	7250	6110	2110	2310	837
21	879	777	1980	e1270	1520	e2330	7410	6790	6830	2000	2500	803
22	862	794	1910	e1270	1450	e2120	7150	6310	10700	2040	3880	760
23	884	844	2620	e1260	1620	e2070	6870	6050	12400	1930	5120	722
24	881	1110	1710	e1250	1670	e2020	6720	5680	12800	1800	6470	690
25	937	1310	1630	e1230	1650	e2000	6490	5260	12700	2150	6700	770
26	783	1330	e1570	e1220	e1600	e1970	6290	4940	12400	2430	6030	895
27	676	1800	e1630	e1210	e1530	e2020	5970	4720	12100	2380	5320	868
28	675	2070	e1610	e1200	e1400	e2250	5830	4680	11200	2340	4550	815
29	700	2200	e1590	e1200	---	2700	5830	5800	10400	2480	4000	839
30	699	2140	e1560	e1190	---	3430	5980	5340	9460	2840	3570	866
31	703	---	e1530	e1180	---	4790	---	5550	---	2840	3200	---
TOTAL	22641	30016	61200	44820	33980	55970	205130	203400	275990	105510	120930	36508
MEAN	730.4	1001	1974	1446	1214	1805	6838	6561	9200	3404	3901	1217
MAX	937	2200	2620	1980	1670	4790	8390	8170	12800	8540	6700	2570
MIN	542	678	1530	1180	950	1120	5650	4680	6090	1800	2310	690
AC-FT	44910	59540	121400	88900	67400	111000	406900	403400	547400	209300	239900	72410
CFSM	0.05	0.07	0.13	0.10	0.08	0.12	0.46	0.44	0.62	0.23	0.26	0.08
IN.	0.06	0.07	0.15	0.11	0.08	0.14	0.51	0.51	0.69	0.26	0.30	0.09

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1618	1570	1049	656.9	803.2	4493	9813	6045	6330	4604	2374	1630
MAX	14600	8569	4770	3009	4505	18230	52910	25740	34230	33130	23520	11070
(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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1903 - 2002
ANNUAL TOTAL	3356315	1196095	
ANNUAL MEAN	9195	3277	3579a
HIGHEST ANNUAL MEAN			14890
LOWEST ANNUAL MEAN			136
HIGHEST DAILY MEAN	73200	Apr 16	12800
LOWEST DAILY MEAN	410	Feb 25	542
ANNUAL SEVEN-DAY MINIMUM	419	Feb 24	612
MAXIMUM PEAK FLOW			13000
MAXIMUM PEAK STAGE			10.74
INSTANTANEOUS LOW FLOW			531
ANNUAL RUNOFF (AC-FT)	6657000	2372000	2593000
ANNUAL RUNOFF (CFSM)	0.62	0.22	0.24
ANNUAL RUNOFF (INCHES)	8.38	2.99	3.26
10 PERCENT EXCEEDS	32600	7480	9660
50 PERCENT EXCEEDS	1290	2020	1280
90 PERCENT EXCEEDS	481	793	180

a Median of annual mean discharges is 2,870 ft³/s.
 b Minimum observed.
 e Estimated.

