05325000 MINNESOTA RIVER AT MANKATO, MN—Continued

PERIOD OF RECORD.-- Water years 1963-66, 1968 to current year.

PERIOD OF DAILY RECORD:

WATER TEMPERATURES.-- October 1967 to September 30, 1981, October 1982 to current year (fragmentary records).

SPECIFIC CONDUCTANCE.-- October 1971 to June 1976, October, 2002 to current year.

SUSPENDED-SEDIMENT DISCHARGE.-- October 1967 to current year.

REMARKS.--Specific conductances and water temperatures were obtained by the observer at the time of sediment sampling, and monthly by U.S. Geological Survey personnel. Sediment samples were collected generally from two to five three times per week by an observer from Oct. 1 Dec. 8 and from to Apr. 1 to Sep. 30. In general, daily concentrations and loads for the open-water period are considered fair to poor. During the winter period, when fewer samples are collected, daily sediment concentrations and loads are based primarily on concentrations of sediment in samples that were collected monthly, and on trends of daily water-discharge records. Sediment records for the winter period are considered poor.

EXTREMES FOR PERIOD OF DAILY RECORD:

SPECIFIC CONDUCTANCE.-- Maximum observed, 1,040 µS/cm, Jan. 7, 2004; minimum observed, 369 µS/cm, Sep. 18, 2004.

WATER TEMPERATURES.-- Maximum observed, 31.5 C, Aug. 6, 2001; minimum observed, 0.0 C on many days most winters.

SEDIMENT CONCENTRATIONS.-- Maximum daily mean, 2,850 mg/L, Aug. 7, 1968; minimum daily mean, 9 mg/L, Jan. 15-19, 1991.

SEDIMENT LOADS.-- Maximum daily, 414,000 tons, June 21, 1993; minimum daily, 5.2 tons, Nov. 6, 1976.

EXTREMES FOR CURRENT YEAR:

SPECIFIC CONDUCTANCE.-- Maximum observed, 926 µS/cm, June 18; minimum observed, 462 µS/cm, Mar. 29.

WATER TEMPERATURES.-- Maximum observed, 28.0 C, July 11; minimum observed, 0.0 C, Jan. 5 and Feb. 8 (assumed to be 0.0 C, many days during winter).

SEDIMENT CONCENTRATIONS.-- Maximum daily mean, 1,550 mg/L, Sep. 26; minimum daily mean, 55 mg/L, Dec. 15.

SEDIMENT LOADS.-- Maximum daily, 48,500 tons, Sep. 26; minimum daily, 218 tons, Dec. 15.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	683	719	722	---	---	---	563	---	---	---	819	---
2	685	---	673	---	---	---	---	683	714	---	---	---
3	---	---	678	---	---	---	618	---	---	---	821	---
4	701	---	---	---	---	---	---	---	---	---	---	---
5	---	741	---	---	---	---	626	736	---	844	796	---
6	688	776	---	---	---	---	633	715	---	809	---	---
7	---	---	---	---	---	---	639	---	---	---	---	---
8	---	---	670	---	---	---	---	---	---	---	800	---
9	---	---	---	---	---	---	626	712	---	---	---	702
10	701	724	---	---	---	---	---	755	---	---	---	---
11	---	832	---	---	---	---	646	---	---	817	---	---
12	671	---	---	---	---	---	630	---	---	---	747	713
13	752	740	---	---	---	---	676	---	---	---	---	---
14	---	---	---	---	---	---	680	---	---	842	---	---
15	---	742	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	711	713	874	---	757	717
17	736	---	---	---	---	---	---	724	---	---	---	---
18	737	658	---	---	---	---	---	---	926	854	---	---
19	---	757	---	---	---	---	---	---	---	---	---	774
20	741	---	---	---	---	---	737	---	---	---	544	---
21	---	737	---	---	---	---	---	---	865	---	---	---
22	699	---	---	---	---	---	---	---	---	---	577	---
23	---	705	---	---	---	---	---	683	835	---	---	844
24	592	---	---	---	---	---	686	---	802	---	---	---
25	620	---	---	---	---	---	677	689	---	---	---	---
26	---	677	---	---	---	---	---	687	---	---	---	397
27	711	---	---	---	---	---	662	---	813	796	---	---
28	---	671	---	---	---	520	---	---	789	---	---	438
29	---	---	---	---	---	462	---	---	---	---	805	---
30	666	---	---	---	---	---	---	713	---	---	---	---
31	---	---	---	---	---	585	---	---	---	---	---	---

05325000 MINNESOTA RIVER AT MANKATO, MN—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	9.0	1.0	---	---	---	10.0	---	---	---	27.0	---
2	16.0	---	1.0	---	---	---	---	10.0	18.0	---	---	---
3	---	---	1.0	---	---	---	9.0	---	---	---	27.0	---
4	15.0	---	---	---	---	---	---	---	---	---	---	---
5	---	10.0	---	0.0	---	---	10.0	13.0	---	25.0	27.0	---
6	14.0	11.0	---	---	---	---	10.0	14.0	20.5	25.0	---	---
7	---	---	---	---	---	---	13.0	---	---	---	---	---
8	---	---	2.0	---	0.0	---	---	---	---	---	26.0	---
9	---	---	---	---	---	---	15.0	18.0	---	---	---	23.0
10	15.0	11.0	---	---	---	---	---	15.0	---	---	---	---
11	---	8.0	---	---	---	---	14.0	---	---	28.0	---	---
12	11.0	---	---	---	---	---	12.0	---	---	---	26.0	24.0
13	10.0	8.0	---	---	---	---	14.0	---	---	---	---	---
14	---	---	---	---	---	---	15.0	---	---	27.0	---	---
15	---	5.0	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	2.0	14.0	10.0	20.0	---	26.0	20.0
17	7.0	---	---	---	---	---	---	13.0	---	---	---	---
18	10.0	7.0	---	---	---	---	---	---	22.0	24.0	---	---
19	---	6.0	---	---	---	---	13.5	---	---	---	---	20.0
20	11.0	---	---	---	---	---	14.0	---	---	---	24.0	---
21	---	5.0	---	---	---	---	---	---	25.0	---	---	---
22	11.0	5.0	---	---	---	---	---	---	---	---	22.0	---
23	---	3.0	---	---	---	---	---	17.0	23.0	---	---	20.0
24	10.0	---	---	---	---	---	11.0	---	25.0	---	17.5	---
25	11.0	---	---	---	---	---	12.0	15.0	---	---	---	---
26	---	3.0	---	---	---	---	---	16.0	---	---	---	18.0
27	11.0	---	---	---	---	---	10.0	---	25.0	23.0	---	18.5
28	---	2.0	---	---	---	10.0	---	---	25.0	---	---	19.0
29	---	---	---	---	---	9.0	---	---	---	---	23.0	---
30	10.0	---	---	---	---	---	---	16.0	---	---	---	---
31	---	---	---	---	---	9.0	---	---	---	---	---	---

05325000 MINNESOTA RIVER AT MANKATO, MN—Continued

SUSPENDED-SEDIMENT
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Day	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	234	5,100	479	7,580	146	1,210	297	1,130	155	345	239	1,100
2	226	4,530	506	8,650	148	1,230	281	1,060	151	355	224	998
3	238	4,400	429	7,250	162	1,300	253	915	145	361	212	922
4	273	5,000	320	5,090	173	1,490	236	796	141	377	206	890
5	291	5,140	244	3,500	147	1,230	223	704	138	410	205	886
6	295	4,860	224	3,000	126	956	217	662	137	436	212	996
7	285	4,430	209	2,660	109	836	207	632	141	464	220	1,270
8	283	4,260	193	2,330	94	700	203	636	145	478	219	1,430
9	267	4,250	182	2,100	95	695	200	648	148	460	208	1,360
10	225	3,630	180	1,990	94	698	198	658	165	490	179	1,190
11	227	3,410	170	1,820	85	654	197	665	178	529	159	1,060
12	214	3,030	168	1,760	69	564	193	651	179	541	144	956
13	198	2,680	164	1,690	59	452	189	617	204	644	130	856
14	160	2,060	156	1,560	58	323	185	529	298	1,060	122	758
15	136	1,700	147	1,420	55	218	181	448	375	1,650	106	624
16	130	1,570	144	1,310	118	513	172	381	426	2,450	92	509
17	117	1,360	136	1,240	271	1,320	170	332	485	3,540	97	550
18	120	1,340	127	1,120	360	1,840	166	286	499	3,840	98	474
19	123	1,330	118	1,060	401	1,960	163	275	487	3,680	95	439
20	97	1,010	100	910	429	1,970	162	262	453	3,300	98	490
21	110	1,100	89	807	438	1,810	161	270	406	2,850	105	547
22	152	1,490	98	921	429	1,640	169	278	354	2,340	116	648
23	184	1,780	149	1,480	405	1,470	178	282	322	1,940	129	721
24	191	1,830	172	1,700	390	1,330	181	282	297	1,670	139	818
25	192	1,800	168	1,650	369	1,220	180	288	283	1,510	192	1,290
26	191	1,720	167	1,640	352	1,160	175	300	270	1,350	315	2,400
27	216	1,870	168	1,640	329	1,080	174	319	256	1,250	574	5,380
28	233	1,960	167	1,570	319	1,070	170	328	249	1,180	914	13,100
29	251	2,120	166	1,560	313	1,060	165	338	---	---	1,330	25,700
30	311	2,740	152	1,340	307	1,070	164	341	---	---	1,200	28,500
31	394	4,630	---	---	302	1,130	159	341	---	---	830	20,200
TOTAL	---	88,130	---	72,348	---	34,199	---	15,654	---	39,500	---	117,062

05325000 MINNESOTA RIVER AT MANKATO, MN—Continued

SUSPENDED-SEDIMENT—CONTINUED
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Day	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	835	20,600	251	4,450	349	9,290	227	5,550	197	1,670	232	1,670
2	844	21,100	235	3,970	338	8,470	217	5,140	178	1,380	219	1,570
3	688	17,100	224	3,570	324	7,620	208	4,750	165	1,170	192	1,290
4	551	12,400	190	2,870	307	6,860	205	4,610	159	1,060	162	954
5	494	10,100	190	2,780	299	6,630	206	4,480	153	859	149	809
6	452	8,520	204	3,020	324	8,230	207	4,530	138	648	175	917
7	420	7,370	233	3,580	335	8,850	219	4,680	118	503	180	953
8	408	6,580	260	4,090	340	9,270	251	5,040	107	451	188	1,070
9	413	6,120	280	5,440	354	10,400	269	5,200	113	461	170	936
10	557	7,730	316	7,410	372	12,100	273	5,030	126	514	158	896
11	1,020	14,500	471	12,600	439	15,300	271	4,730	138	570	138	838
12	1,040	21,800	721	21,600	572	20,700	270	4,510	131	580	111	659
13	991	33,700	899	40,800	660	25,100	257	4,080	124	529	144	898
14	1,030	42,800	1,030	62,300	657	25,700	249	3,780	110	448	235	1,540
15	1,080	47,800	1,050	67,500	584	22,700	244	3,600	87	331	271	2,300
16	1,050	47,300	890	56,200	430	16,500	236	3,450	86	313	260	2,440
17	812	37,100	767	46,400	365	13,400	228	3,190	100	346	238	2,210
18	513	23,000	707	39,100	355	12,700	227	3,010	230	1,120	188	1,590
19	409	18,000	671	35,100	313	10,600	223	2,810	313	2,150	166	1,320
20	393	16,800	632	32,100	288	9,490	226	2,790	300	2,600	162	1,270
21	441	17,700	607	30,000	278	9,380	227	2,730	250	2,130	157	1,230
22	482	18,500	574	27,400	293	10,100	233	2,760	155	1,240	157	1,210
23	477	16,900	551	25,100	340	11,400	231	2,760	116	817	169	1,200
24	434	13,800	529	22,700	366	11,600	227	2,560	78	470	179	1,190
25	396	11,700	499	20,200	344	10,100	219	2,260	88	492	654	10,200
26	358	9,670	474	17,700	297	8,260	211	1,890	189	1,110	1,550	48,500
27	336	8,420	451	15,000	266	7,100	207	1,680	204	1,090	1,060	46,700
28	317	7,230	438	13,600	257	6,640	204	1,720	180	855	684	36,200
29	289	6,000	415	12,400	245	6,170	226	2,300	185	899	699	38,100
30	276	5,260	396	11,700	231	5,660	230	2,300	207	1,060	628	32,200
31	---	---	370	10,400	---	---	214	2,020	232	1,500	---	---
TOTAL	---	535,600	---	661,080	---	346,320	---	109,940	---	29,366	---	242,860
YEAR	2,292,059											