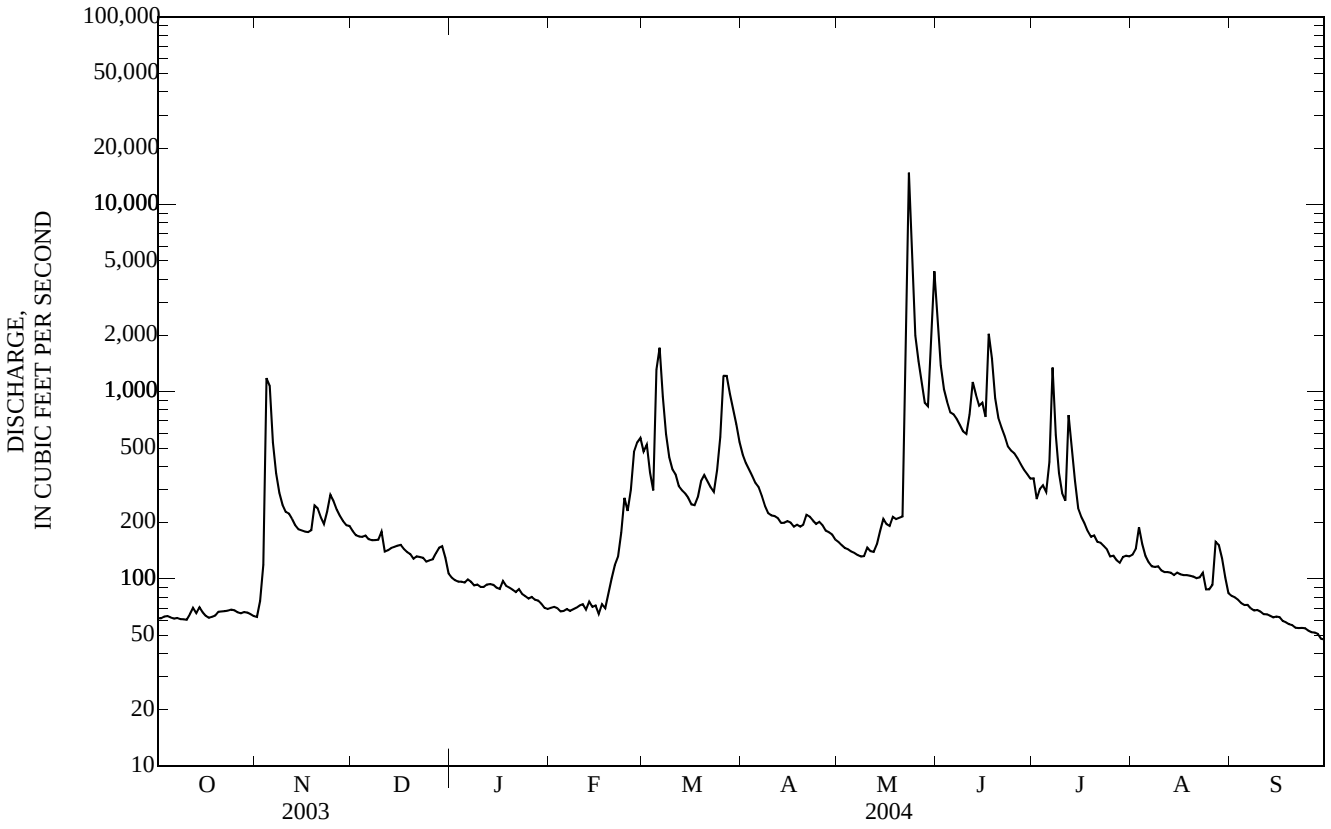
05416900 MAQUOKETA RIVER AT MANCHESTER, IA—Continued

SUMMARY STATISTICS	FOR 2004 WATER YEAR		WATER YEARS 2000 - 2004	
ANNUAL TOTAL	125,102			
ANNUAL MEAN	342		277	
HIGHEST ANNUAL MEAN			342	2004
LOWEST ANNUAL MEAN			228	2002
HIGHEST DAILY MEAN	14,800	May 23	14,800	May 23, 2004
LOWEST DAILY MEAN	48	Sep 29 a	23	Dec 4, 2002 b
ANNUAL SEVEN-DAY MINIMUM	51	Sep 24	33	Dec 3, 2002
MAXIMUM PEAK FLOW	26,000	May 23	26,000	May 23, 2004
MAXIMUM PEAK STAGE	21.66	May 23	21.66	May 23, 2004
ANNUAL RUNOFF (AC-FT)	248,100		200,600	
ANNUAL RUNOFF (CFSM)	1.24		1.01	
ANNUAL RUNOFF (INCHES)	16.92		13.68	
10 PERCENT EXCEEDS	729		533	
50 PERCENT EXCEEDS	152		157	
90 PERCENT EXCEEDS	65		67	

a also September 30.
b Ice affected.
e Estimated



05418400 NORTH FORK MAQUOKETA RIVER NEAR FULTON, IA

LOCATION.--(revised) Lat 42°09'52", long 90°43'45", in SW¼ SE¼ SE¼ sec.16, T.85 N., R.2 E., Jackson County, Hydrologic Unit 07060006, on right downstream bank at County Highway E17, 0.25 mile upstream from Prairie Creek, and 7.0 mi northeast of Maquoketa.

DRAINAGE AREA.--505 mi^2.

PERIOD OF RECORD.--April 29, 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 679.00 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. U.S. Geological Survey data collection platform with satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood, Aug. 18, 1981, reached a stage of 17.26 ft, discharge, 10,700 ft^3/s, at site and datum 3.5 miles downstream, in use prior to Oct. 1, 1991.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	147	296	e233	e180	708	705	319	1,900	421	263	255
2	137	180	281	e221	e188	718	644	315	1,270	406	256	243
3	140	293	274	e225	e172	606	593	310	1,040	401	279	237
4	143	1,690	273	e195	e177	471	553	308	892	418	758	233
5	144	1,540	281	e188	e181	2,260	518	307	805	414	398	231
6	143	683	276	e178	e193	1,610	493	307	757	440	324	230
7	142	459	268	e184	e199	922	476	310	706	498	297	225
8	139	383	270	e225	e172	701	454	307	644	425	287	219
9	141	350	275	e258	e184	580	429	305	609	393	282	220
10	135	334	e323	e225	e192	506	404	317	591	385	274	221
11	134	327	e297	e214	e212	464	390	368	648	376	269	218
12	138	318	e287	e193	e197	424	383	370	595	432	265	215
13	142	300	e257	e183	e197	390	375	355	693	582	263	215
14	170	287	e252	e202	e192	389	372	349	910	428	259	215
15	170	284	e252	e218	e178	367	367	342	983	386	256	248
16	156	281	e259	e238	e192	351	364	328	715	377	254	258
17	145	278	e259	e226	e200	344	364	323	1,640	793	255	229
18	143	282	e245	e195	e209	348	367	343	1,490	585	256	217
19	144	280	e237	e220	e217	360	358	380	921	429	253	212
20	146	278	e247	e273	e249	362	356	361	766	387	246	205
21	145	273	e233	e232	e282	351	379	349	723	370	242	202
22	143	e304	e240	e202	e384	339	374	1,010	690	358	239	199
23	142	e457	e233	e224	e488	334	360	5,970	620	344	239	199
24	151	e741	e242	e206	e456	455	348	2,450	572	326	238	201
25	171	429	e230	e206	e537	700	350	1,470	559	312	248	199
26	163	367	e200	e196	e691	1,310	350	1,210	527	300	265	197
27	155	344	e260	e202	786	1,580	340	1,010	497	287	300	197
28	157	325	e351	e192	721	1,110	332	871	484	276	340	197
29	157	309	e476	e184	706	1,050	330	766	465	264	324	196
30	156	304	e359	e183	---	909	324	899	437	285	280	194
31	153	---	e266	e172	---	792	---	2,620	---	286	262	---
TOTAL	4,583	12,827	8,499	6,493	8,932	21,811	12,452	25,249	24,149	12,384	8,971	6,527
MEAN	148	428	274	209	308	704	415	814	805	399	289	218
MAX	171	1,690	476	273	786	2,260	705	5,970	1,900	793	758	258
MIN	134	147	200	172	172	334	324	305	437	264	238	194
AC-FT	9,090	25,440	16,860	12,880	17,720	43,260	24,700	50,080	47,900	24,560	17,790	12,950
CFSM	0.29	0.85	0.54	0.41	0.61	1.39	0.82	1.61	1.59	0.79	0.57	0.43
IN.	0.34	0.94	0.63	0.48	0.66	1.61	0.92	1.86	1.78	0.91	0.66	0.48

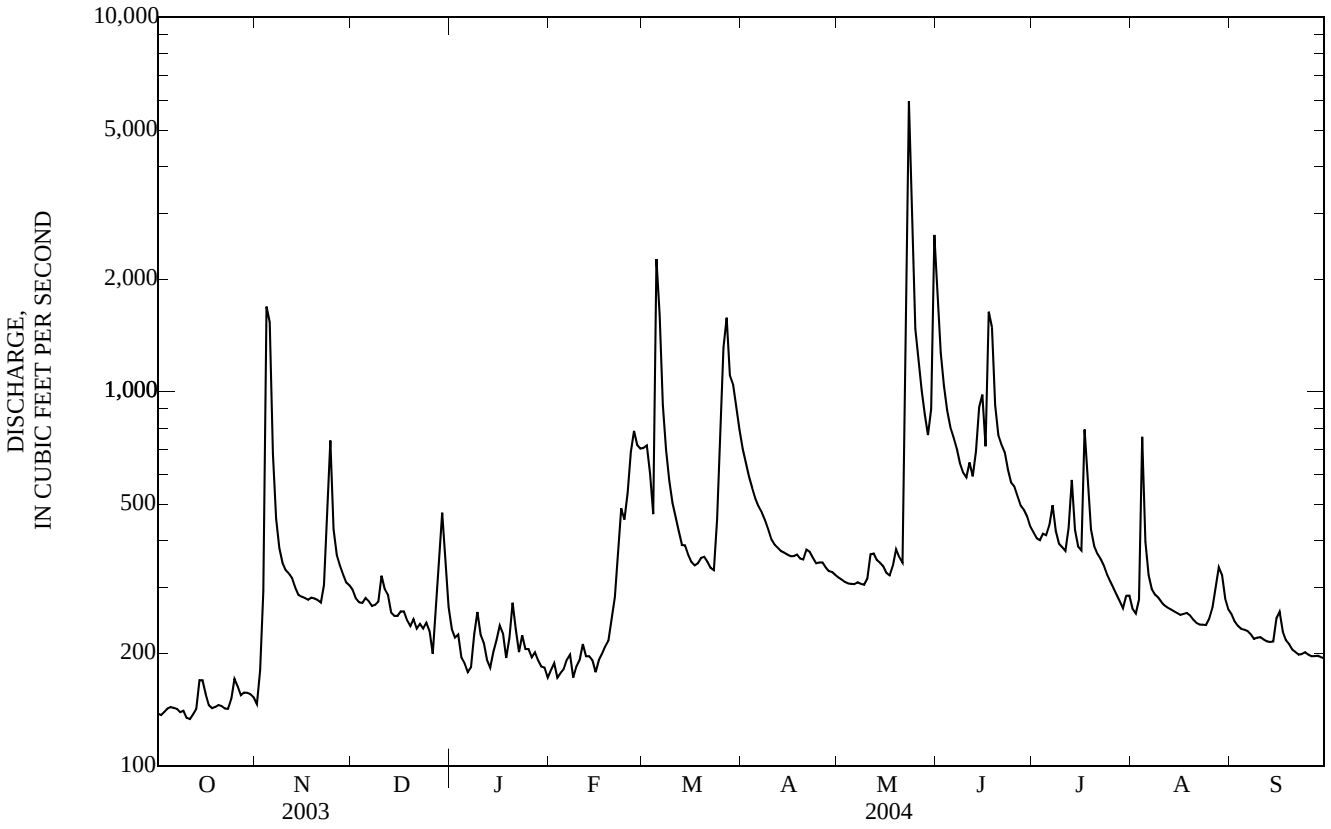
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

MEAN	304	290	198	162	346	423	438	575	1,018	454	416	278
MAX	490	428	274	214	549	800	857	1,179	2,667	595	1,217	432
(WY)	(1999)	(2004)	(2004)	(2002)	(2001)	(2001)	(1999)	(1999)	(2002)	(2002)	(2002)	(2002)
MIN	148	182	64.5	85.3	195	223	185	312	254	268	199	172
(WY)	(2004)	(2001)	(2001)	(2000)	(2002)	(2000)	(2003)	(2002)	(2003)	(2001)	(2003)	(2003)

05418400 NORTH FORK MAQUOKETA RIVER NEAR FULTON, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL TOTAL	97,676		152,877			
ANNUAL MEAN	268		418		412	
HIGHEST ANNUAL MEAN					585	2002
LOWEST ANNUAL MEAN					268	2003
HIGHEST DAILY MEAN	2,080	Jul 9	5,970	May 23	20,200	Jun 5, 2002
LOWEST DAILY MEAN	134	Oct 11	134	Oct 11	44	Dec 5, 2000 a
ANNUAL SEVEN-DAY MINIMUM	139	Oct 7	139	Oct 7	56	Dec 21, 2000
MAXIMUM PEAK FLOW			9,680	May 23	22,600	Jun 5, 2002
MAXIMUM PEAK STAGE			15.34	May 23	19.87	Jun 5, 2002
INSTANTANEOUS LOW FLOW			129	Oct 11	129	Oct 11, 2003
ANNUAL RUNOFF (AC-FT)	193,700		303,200		298,200	
ANNUAL RUNOFF (CFSM)	0.530		0.827		0.815	
ANNUAL RUNOFF (INCHES)	7.20		11.26		11.07	
10 PERCENT EXCEEDS	375		746		689	
50 PERCENT EXCEEDS	224		300		274	
90 PERCENT EXCEEDS	154		178		160	

a Ice affected
e Estimated



05418500 MAQUOKETA RIVER NEAR MAQUOKETA, IA

LOCATION.--Lat 42°05'00", long 90°37'58", in SW¼ NE¼ sec.17, T.84 N., R.3 E., Jackson County, Hydrologic Unit 07060006, on right downstream bank at State Highway 62 bridge, 900 ft. upstream from Prairie Creek, 2.0 mi northeast of Maquoketa, 2.2 mi downstream from North Fork, and 26.7 mi upstream from mouth.

DRAINAGE AREA.--1,553 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1913 to current year. Prior to October 1939, published as "below North Fork near Maquoketa". Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 405: 1914. WSP 1438: Drainage area. WSP 1508: 1914-17, 1919-25, 1926 (M), 1929, 1933-34 (M), 1943.

GAGE.--Water-stage recorder. Datum of gage is 625.96 ft. above NGVD of 1929. Prior to July 14, 1924, nonrecording gage, and July 15, 1924 to Sept. 30, 1972, recording gage at site 300 ft. upstream from State Highway 62 bridge at datum 10.00 ft. higher. On Aug. 3, 1995 the gage was moved to the current location.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diurnal fluctuation caused by power plant 4 mi upstream of station. U.S. Army Corps of Engineers rain gage and data collection platform with satellite telemetry at station. Precipitation records are available online at the U.S. Army Corps of Engineers website: www2.mvr.usace.army.mil/WaterControl/datamining2.cfm.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood, probably in 1903, reached a stage of 23.5 ft., discharge, 43,000 ft.3/s, at datum in use prior to Oct. 1, 1972.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	436	430	881	992	e571	2,050	2,440	993	8,300	1,360	835	760
2	423	471	847	919	e591	2,030	2,160	922	6,730	1,340	837	724
3	429	631	831	939	e567	2,010	1,970	902	4,360	1,310	808	691
4	431	1,990	775	865	e565	1,700	1,840	896	3,570	1,340	1,660	690
5	432	4,700	808	752	e581	5,040	1,670	881	3,110	1,330	1,400	639
6	409	3,150	771	596	e599	5,500	1,600	873	2,810	1,420	1,080	691
7	408	2,120	801	e642	e612	3,990	1,480	863	2,420	1,420	988	640
8	417	1,600	777	e688	e584	2,890	1,490	871	2,100	1,770	919	641
9	432	1,380	823	e657	e599	2,310	1,420	866	2,390	1,680	921	615
10	431	1,150	e970	e634	e615	2,000	1,320	870	1,420	1,400	888	603
11	425	1,090	e928	e596	e668	1,750	1,230	1,070	1,990	1,270	831	559
12	420	1,090	e872	e594	e637	1,650	1,220	1,310	2,130	1,210	860	581
13	409	1,010	e838	e622	e599	1,490	1,190	1,180	2,430	1,380	818	580
14	491	895	e770	e647	e584	1,430	1,150	1,130	2,660	1,290	775	600
15	483	894	e752	e641	e580	1,420	1,130	1,120	3,160	1,210	784	595
16	458	846	e765	e603	e565	1,330	1,090	1,020	2,790	1,190	781	716
17	433	811	e779	e649	e599	1,320	1,070	1,020	5,920	1,690	803	603
18	427	861	e744	e751	e698	1,310	1,140	1,270	5,110	1,450	781	571
19	430	820	e702	e680	e906	1,370	1,090	1,250	3,690	1,200	782	551
20	428	799	e655	e646	e1,200	1,430	1,080	1,170	2,800	1,110	765	566
21	413	801	e664	e625	e1,390	1,490	1,200	1,180	2,690	1,030	748	506
22	414	828	e689	e637	e1,640	1,430	1,150	2,700	2,570	1,010	738	523
23	414	1,100	e686	e613	e1,770	1,310	1,180	9,770	2,180	1,000	732	500
24	432	1,620	e677	e599	e1,740	1,770	1,130	11,500	1,970	929	731	517
25	487	1,490	e669	e607	e1,830	2,580	1,130	14,100	1,910	884	739	508
26	446	1,280	e621	e601	e1,910	3,190	1,120	8,190	1,790	861	777	512
27	426	1,120	e714	e592	1,980	4,850	1,060	4,440	1,640	848	874	492
28	432	1,080	e799	e579	2,050	4,120	1,020	3,600	1,590	833	963	469
29	439	986	1,300	e575	1,950	3,580	995	3,020	1,530	827	1,050	481
30	439	962	1,160	e575	---	3,130	970	3,070	1,470	888	885	478
31	433	---	1,070	e561	---	2,730	---	6,090	---	875	802	---
TOTAL	13,427	38,005	25,138	20,677	29,180	74,200	39,735	88,137	89,230	37,355	27,355	17,602
MEAN	433	1,267	811	667	1,006	2,394	1,324	2,843	2,974	1,205	882	587
MAX	491	4,700	1,300	992	2,050	5,500	2,440	14,100	8,300	1,770	1,660	760
MIN	408	430	621	561	565	1,310	970	863	1,420	827	731	469
AC-FT	26,630	75,380	49,860	41,010	57,880	147,200	78,810	174,800	177,000	74,090	54,260	34,910
CFSM	0.28	0.82	0.52	0.43	0.65	1.54	0.85	1.83	1.92	0.78	0.57	0.38
IN.	0.32	0.91	0.60	0.50	0.70	1.78	0.95	2.11	2.14	0.89	0.66	0.42

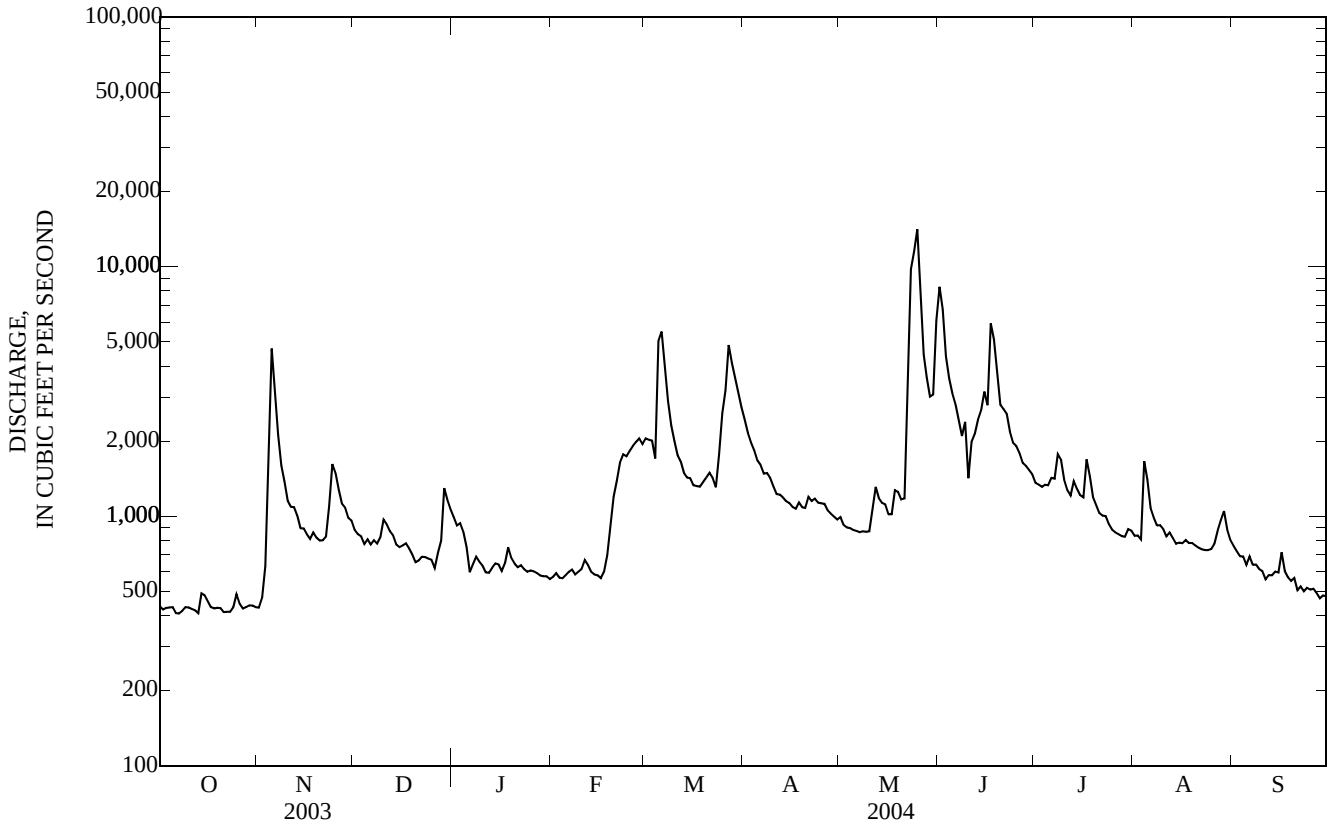
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2004, BY WATER YEAR (WY)

MEAN	740	793	655	678	1,097	1,839	1,380	1,288	1,556	1,087	844	875
MAX	2,486	4,983	2,397	2,851	4,161	4,798	4,843	4,267	6,670	8,835	3,340	3,074
(WY)	(1987)	(1962)	(1983)	(1960)	(1971)	(1993)	(1973)	(1974)	(1947)	(1993)	(1924)	(1981)
MIN	210	198	168	150	196	241	305	198	170	177	227	182
(WY)	(1957)	(1959)	(2001)	(1940)	(1936)	(1934)	(1934)	(1934)	(1934)	(1936)	(1958)	(1958)

05418500 MAQUOKETA RIVER NEAR MAQUOKETA, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1914 - 2004	
ANNUAL TOTAL	316,458		500,041			
ANNUAL MEAN	867		1,366		1,068	
HIGHEST ANNUAL MEAN					2,874	1993
LOWEST ANNUAL MEAN					306	1958
HIGHEST DAILY MEAN	6,050	Jul 10	14,100	May 25	45,900	Jun 5, 2002
LOWEST DAILY MEAN	394	Sep 10	408	Oct 7	105	Feb 11, 1936
ANNUAL SEVEN-DAY MINIMUM	411	Sep 6	420	Oct 6	105	Feb 11, 1936
MAXIMUM PEAK FLOW			15,900	May 25	48,000	Jun 27, 1944
MAXIMUM PEAK STAGE			25.61	May 25	24.70	Jun 27, 1944 a
ANNUAL RUNOFF (AC-FT)	627,700		991,800		773,900	
ANNUAL RUNOFF (CFSM)	0.558		0.880		0.688	
ANNUAL RUNOFF (INCHES)	7.58		11.98		9.35	
10 PERCENT EXCEEDS	1,460		2,600		2,010	
50 PERCENT EXCEEDS	631		904		664	
90 PERCENT EXCEEDS	437		492		300	

a Datum in use prior to Oct. 1, 1972.
e Estimated



05418500 MAQUOKETA RIVER NEAR MAQUOKETA, IA—Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--April 1978 to December 1981; October 1994 to September 30, 1997; April 13, 2000 to Sepember 30, 2004 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1978 to December 1981; October 1994 to September 30, 1997; April 13, 2000 to Sepember 30, 2004 (discontinued).
WATER TEMPERATURES: April 1978 to December 1981; October 1994 to September 30, 1997; April 13, 2000 to Sepember 30, 2004 (discontinued).
SUSPENDED-SEDIMENT DISCHARGE: April 1978 to December 1981; October 1994 to September 30, 1997; April 13, 2000 to Sepember 30, 2004 (discontinued).

REMARKS.--During periods of ice effect, sediment samples are collected in open water channel. Records of specific conductance are obtained from suspended-sediment samples at time of analysis.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1194 microsiemens Jan. 6, 2004; minimum daily, 160 microsiemens June 16, 1981.
WATER TEMPERATURES: Maximum daily, 30.5×C July 12, 1995; minimum daily, 0.0×C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 14,700 mg/L June 13, 1981; minimum daily mean, 12 mg/L Feb. 7, 8, 1981.
SEDIMENT LOADS: Maximum daily, 361,000 tons Aug. 31, 1981; minimum daily, 9.4 tons Feb. 8, 1981.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1194 microsiemens Jan. 6; minimum daily, 313 microsiemens May 23.
WATER TEMPERATURES: Maximum daily, 25×C July 22; minimum daily, 4.4×C Mar. 17.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 3580 mg/L May 25; minimum daily mean, 14 mg/L Jan. 14.
SEDIMENT LOADS: Maximum daily, 138,100 tons May 25; minimum daily, 24 tons Jan. 14.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, LABORATORY, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	557	---	---	---	---	---
2	---	---	---	---	---	---	570	---	---	---	---	---
3	---	---	---	---	---	---	---	556	---	---	---	---
4	---	---	---	---	---	---	---	542	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	1,194	---	---	566	---	---	---	---	---
7	---	---	---	601	---	---	558	---	---	---	---	---
8	---	---	---	405	---	---	547	---	---	---	---	---
9	---	---	---	449	---	---	516	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	542	---	---	---	---
12	---	---	---	---	---	---	548	---	---	---	---	---
13	---	---	---	420	---	---	597	---	---	---	---	---
14	---	---	---	1,184	---	---	---	---	---	---	---	---
15	423	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	553	---	---	---	---	---	---
18	---	---	---	---	---	594	---	---	---	---	---	---
19	---	---	---	---	---	---	517	---	---	---	---	---
20	421	---	---	---	---	---	---	---	---	---	---	---
21	---	508	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	319	---	601	---	---
23	---	---	---	---	---	577	---	313	554	---	---	---
24	---	---	---	---	---	475	---	329	---	---	---	---
25	---	---	---	---	---	567	---	---	---	---	---	---
26	---	---	---	---	447	499	---	---	---	---	---	---
27	---	---	---	---	448	---	---	---	---	---	---	---
28	---	---	---	---	---	---	570	---	---	---	---	---
29	---	---	---	---	---	514	---	---	---	---	---	---
30	---	---	---	---	---	509	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	557	---

05418500 MAQUOKETA RIVER NEAR MAQUOKETA, IA—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	15.0	---	---	---	---
4	---	---	---	---	---	---	---	15.0	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	12.0	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	9.0	---	---	---	---	---
13	---	---	---	---	---	---	9.0	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	12.0	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	4.4	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	15.0	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	6.7	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	25.0	---	---
23	---	---	---	---	---	11.0	---	---	21.0	---	---	---
24	---	---	---	---	---	10.0	---	17.0	---	---	---	---
25	---	---	---	---	---	11.0	---	---	---	---	---	---
26	---	---	---	---	6.0	13.0	---	---	---	---	---	---
27	---	---	---	---	6.0	---	---	---	---	---	---	---
28	---	---	---	---	---	---	12.0	---	---	---	---	---
29	---	---	---	---	---	13.0	---	---	---	---	---	---
30	---	---	---	---	---	12.0	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	20.0	---

05418500 MAQUOKETA RIVER NEAR MAQUOKETA, IA—Continued

SUSPENDED-SEDIMENT
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

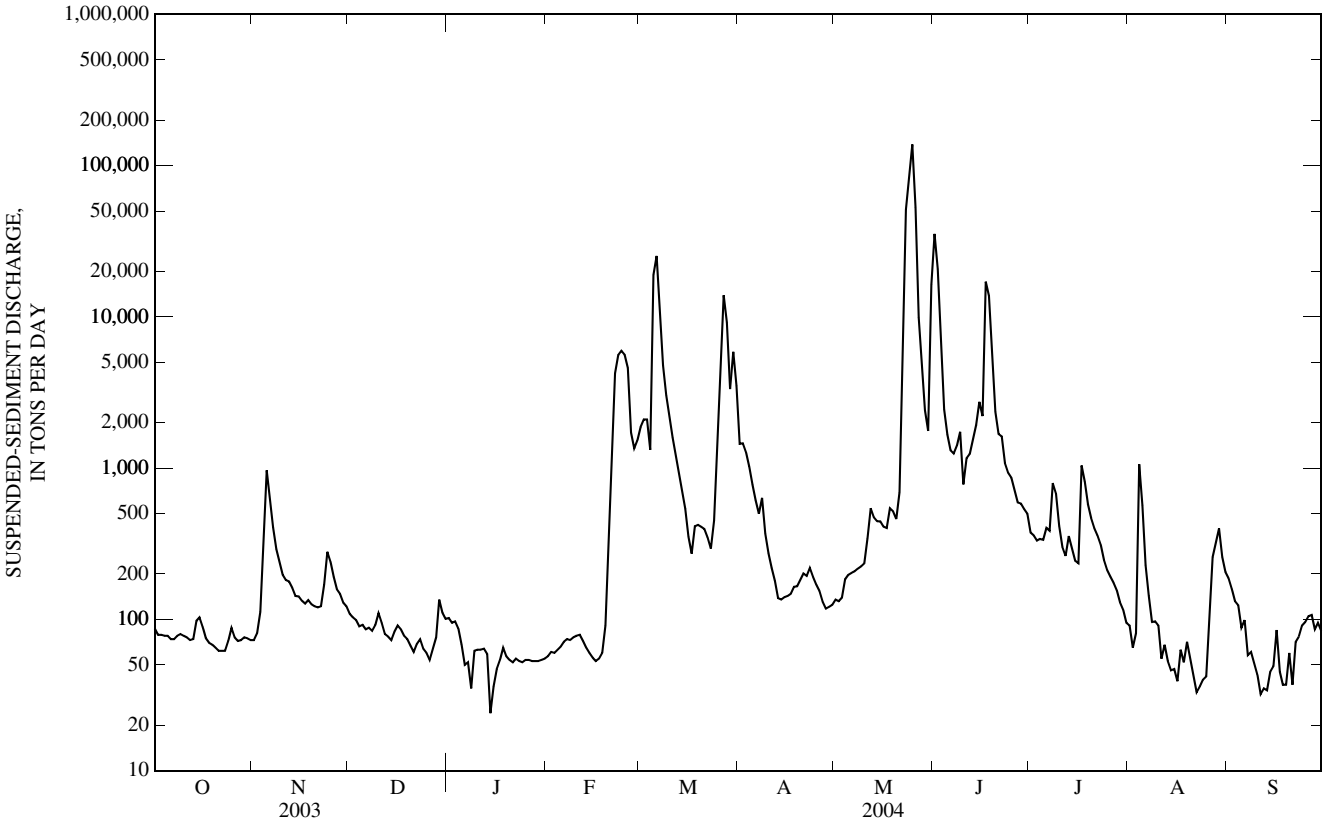
Day	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)	Mean concentration (mg/l)	Load (tons/day)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	74	87	63	73	46	109	38	102	37	57	338	1,870
2	70	79	64	81	45	103	38	95	38	61	384	2,100
3	68	79	66	112	44	99	38	97	39	60	387	2,100
4	67	78	69	379	43	90	37	87	41	63	283	1,320
5	67	78	76	967	42	92	33	68	42	66	1,280	18,900
6	67	74	74	629	41	86	31	50	44	71	1,690	25,300
7	68	74	70	404	41	88	30	52	45	74	1,100	12,000
8	69	78	68	292	40	84	19	35	46	73	603	4,780
9	69	80	65	241	41	92	35	62	47	76	484	3,030
10	67	78	63	197	42	110	37	63	47	78	409	2,210
11	66	76	62	182	38	95	39	63	44	79	335	1,590
12	65	73	61	178	34	80	40	64	42	72	270	1,210
13	67	74	60	162	34	77	35	59	40	65	226	911
14	74	98	59	143	35	73	14	24	38	60	183	707
15	79	103	59	142	41	83	21	36	36	56	140	538
16	72	89	58	133	44	91	29	47	35	53	97	351
17	64	75	58	127	41	86	31	54	34	55	76	272
18	61	70	57	134	39	78	32	65	32	60	116	412
19	58	68	57	126	39	74	31	57	37	91	114	421
20	56	65	56	122	38	67	31	54	85	275	106	409
21	56	62	55	120	34	61	31	52	239	897	98	396
22	55	62	54	122	37	69	32	55	956	4,230	90	348
23	55	62	57	170	40	74	32	53	1,170	5,590	83	294
24	61	72	64	280	35	64	32	52	1,270	5,970	92	450
25	67	88	60	240	33	60	33	54	1,140	5,630	162	1,140
26	63	76	56	191	32	54	33	54	892	4,600	402	3,600
27	62	72	52	158	33	64	33	53	315	1,720	1,060	13,900
28	62	73	50	147	35	76	34	53	245	1,350	818	9,180
29	64	76	48	129	39	135	34	53	291	1,530	345	3,330
30	63	75	47	122	35	111	35	54	---	---	696	5,880
31	63	73	---	---	35	101	36	55	---	---	473	3,510
TOTAL	---	2,367	---	6,503	---	2,626	---	1,822	---	33,062	---	122,459

05418500 MAQUOKETA RIVER NEAR MAQUOKETA, IA—Continued

SUSPENDED-SEDIMENT—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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	219	1,450	50	135	1,580	35,400	102	375	41	91	91	187
2	250	1,460	53	132	1,110	20,700	99	359	28	65	82	159
3	238	1,270	57	139	554	6,650	94	332	30	81	71	132
4	205	1,020	76	184	249	2,440	94	340	218	1,060	66	124
5	172	778	83	197	199	1,670	93	336	148	569	51	88
6	141	611	86	203	173	1,310	104	402	77	228	53	99
7	125	500	89	208	192	1,250	100	385	54	143	32	58
8	158	636	92	217	242	1,410	160	796	39	96	35	61
9	96	369	96	224	268	1,740	147	679	39	97	30	51
10	77	274	100	235	198	780	109	414	38	91	26	43
11	66	219	118	344	214	1,160	87	301	24	55	18	32
12	55	180	153	543	214	1,240	80	263	30	68	22	35
13	43	138	148	472	236	1,560	95	355	24	53	22	34
14	44	135	146	446	266	1,930	85	296	22	46	25	45
15	46	140	148	445	320	2,740	74	244	23	47	22	49
16	49	143	149	410	277	2,210	73	235	19	39	42	85
17	51	148	146	401	1,060	17,100	217	1,040	29	63	27	45
18	54	164	157	543	972	13,800	207	814	24	52	22	37
19	56	166	153	518	598	6,040	178	575	33	71	21	37
20	62	182	146	461	304	2,360	156	467	26	54	39	60
21	62	201	207	692	230	1,680	144	400	21	42	27	37
22	62	194	982	7,800	232	1,620	132	358	17	33	50	71
23	69	219	1,780	51,300	183	1,080	115	311	19	36	57	77
24	62	191	2,730	86,300	175	933	98	247	20	40	65	91
25	55	170	3,580	138,000	167	864	89	212	21	42	69	96
26	51	154	2,140	53,100	147	711	83	192	44	92	76	105
27	46	131	815	9,900	134	593	76	175	109	258	78	107
28	43	118	475	4,650	136	582	69	156	122	321	67	86
29	45	121	294	2,410	130	536	59	130	140	399	73	95
30	48	125	211	1,760	125	500	49	116	108	259	65	84
31	---	---	860	16,300	---	---	40	95	95	206	---	---
TOTAL	---	11,607	---	378,669	---	132,589	---	11,400	---	4,797	---	2,310
YEAR	710,211											

05418500 MAQUOKETA RIVER NEAR MAQUOKETA, IA—Continued



05418600 MAQUOKETA RIVER NEAR SPRAGUEVILLE, IA
(Large River Mass Contaminents Station)

LOCATION.--Lat 42°06'04", long 90°31'04", in NE¼ NW¼ NE¼ sec.8, T.84 N., R.4 E., Jackson County, Hydrologic Unit 07060006, at bridge on County Road E23Y, 2.0 mi downstream of Dark Hollow Creek, 1.5 mi upstream of Brush Creek, 6 miles northwest of Spragueville, and 20 mi upstream from mouth.

DRAINAGE AREA.--1,632 mi^2 (approximate).

WATER QUALITY RECORDS

PERIOD OF RECORD.--October 2003 to September 30, 2004.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Stream width, feet (00004)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)
MAR													
15...	1700	E1,420	265	20	--	12.6	--	8.1	577	3.9	212	259	--
29...	1500	E3,540	375	170	--	10.9	--	7.8	504	11.7	145	169	4
APR													
20...	1510	E1,080	280	12	740	16.2	165	8.7	545	14.7	274	334	--
MAY													
19...	0800	E1,260	260	42	745	9.0	96	8.2	539	17.2	214	261	--
25...	1000	E14,500	270	1,100	--	8.3	--	7.5	236	17.2	67	82	--
JUN													
10...	1300	E1,050	255	83	--	7.9	--	8.0	600	22.7	--	269	--
JUL													
21...	0720	E1,050	260	50	--	7.8	--	8.2	575	24.1	--	--	--
AUG													
17...	1025	E825	250	23	--	11.0	--	8.4	591	19.6	251	306	--
SEP													
14...	1000	E577	280	24	--	8.7	--	8.3	606	20.5	266	325	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat flt by analysis, mg/L (62854)	Total nitrogen, wat unf by analysis, mg/L (62855)	Total carbon, suspnd sedimnt total, mg/L (00694)
MAR													
15...	19.6	11.8	26.2	E.03	9.34	.016	.16	.127	.141	.21	9.33	9.86	1.3
29...	22.8	10.4	23.4	.05	11.2	.029	.70	.173	.192	.61	11.0	12.5	6.2
APR													
20...	19.1	4.1	25.3	<.04	7.15	.018	.57	.033	.043	.148	7.35	7.75	3.2
MAY													
19...	19.3	8.1	19.6	E.04	7.91	.040	.37	.093	.109	.25	7.87	8.26	2.8
25...	7.04	6.1	7.6	.34	5.66	.067	4.50	.072	.093	2.72	6.36	9.63	53.8
JUN													
10...	18.9	12.0	23.1	<.04	10.5	.020	.69	.118	.134	.41	11.1	11.3	6.0
JUL													
21...	17.0	11.0	24.8	<.04	6.96	.014	.30	.104	.122	.29	7.65	8.57	2.4
AUG													
17...	16.3	7.6	26.2	<.04	5.68	.018	.18	.043	.056	.162	5.51	6.13	1.2
SEP													
14...	17.0	9.6	25.5	<.04	5.15	.022	.27	.089	.097	.171	5.45	5.65	1.8

05418600 MAQUOKETA RIVER NEAR SPRAGUEVILLE, IA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Pheophytin a, phytoplankton, ug/L (62360)	Chlorophyll a phytoplankton, fluoro, ug/L (70953)	2,6-Diethylaniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Acetochlor, water, fltrd, ug/L (49260)	Alachlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atrazine, water, fltrd, ug/L (39632)	Azinphosmethyl, water, fltrd 0.7u GF ug/L (82686)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)
MAR													
15...	<.1	1.2	3.0	.7	.9	<.006	E.065	.009	.006	<.005	.074	<.050	<.010
29...	<.1	6.1	3.2	4.9	4.6	<.006	E.088	.015	.008	<.005	.090	<.050	<.010
APR													
20...	<.1	3.2	1.9	26.2	65.5	<.006	E.074	.052	<.005	<.005	.154	<.050	<.010
MAY													
19...	<.1	2.7	2.3	10.9	16.2	<.006	E.128	.526	.007	<.005	1.47	<.050	<.010
25...	.5	53.4	4.9	26.9	11.9	<.006	E.440	5.53	.080	<.005	10.2	<.050	<.010
JUN													
10...	<.1	6.0	2.3	6.2	12.3	<.006	E.114	.075	E.005	<.005	.571	<.050	<.010
JUL													
21...	<.1	2.4	1.9	11.8	21.3	<.006	E.100	.017	<.005	<.005	.238	<.050	<.010
AUG													
17...	<.1	1.1	1.6	13.9	35.6	<.006	E.078	.009	<.005	<.005	.135	<.050	<.010
SEP													
14...	<.1	1.8	1.4	6.5	12.6	<.006	E.079	<.010	<.005	<.005	.095	<.050	<.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Butylate, water, fltrd, ug/L (04028)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Carbofuran, water, fltrd 0.7u GF ug/L (82674)	Chlorpyrifos water, fltrd, ug/L (38933)	cis-Permethrin water fltrd 0.7u GF ug/L (82687)	Cyanazine, water, fltrd, ug/L (04041)	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, fltrd, ug/L (39381)	Disulfoton, water, fltrd 0.7u GF ug/L (82677)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Ethalfluralin, water, fltrd 0.7u GF ug/L (82663)
MAR													
15...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009
29...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009
APR													
20...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009
MAY													
19...	<.004	<.041	<.020	.006	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009
25...	<.004	<.041	E.092	.013	<.006	.023	<.003	<.012	<.005	<.009	<.02	.006	<.009
JUN													
10...	<.004	<.041	E.006	E.004	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009
JUL													
21...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009
AUG													
17...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009
SEP													
14...	<.004	<.041	<.020	<.005	<.006	<.018	<.003	<.012	<.005	<.009	<.02	<.004	<.009

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ethoprop, water, fltrd 0.7u GF ug/L (82672)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Fonofos water, fltrd, ug/L (04095)	Lindane water, fltrd, ug/L (39341)	Linuron water fltrd 0.7u GF ug/L (82666)	Malathion, water, fltrd, ug/L (39532)	Methyl parathion, water, fltrd 0.7u GF ug/L (82667)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Molinate, water, fltrd 0.7u GF ug/L (82671)
MAR													
15...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.024	<.006	<.003
29...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.053	<.006	<.003
APR													
20...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.041	<.006	<.003
MAY													
19...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.238	.006	<.003
25...	<.005	<.029	<.013	<.024	E.019	<.003	<.004	<.035	<.027	<.015	2.84	.019	<.003
JUN													
10...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.128	<.006	<.003
JUL													
21...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.039	<.006	<.003
AUG													
17...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.022	<.006	<.003
SEP													
14...	<.005	<.029	<.013	<.024	<.016	<.003	<.004	<.035	<.027	<.015	.015	<.006	<.003

05418600 MAQUOKETA RIVER NEAR SPRAGUEVILLE, IA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Napropamide, water, fltrd 0.7u GF ug/L (82684)	p,p-' DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendimethalin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propyzamide, water, fltrd 0.7u GF ug/L (82676)	Propachlor, water, fltrd, ug/L (04024)	Propanil, water, fltrd 0.7u GF ug/L (82679)	Propargite, water, fltrd 0.7u GF ug/L (82685)	Simazine, water, fltrd, ug/L (04035)	Tebuthiuron water fltrd 0.7u GF ug/L (82670)
MAR													
15...	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02
29...	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.006	<.02
APR													
20...	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	<.005	<.02
MAY													
19...	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.050	<.02
25...	<.007	<.010	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.046	.02
JUN													
10...	<.007	E.002	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.007	<.02
JUL													
21...	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	<.010	<.02
AUG													
17...	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.008	<.02
SEP													
14...	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Terbacil, water, fltrd 0.7u GF ug/L (82665)	Terbufos, water, fltrd 0.7u GF ug/L (82675)	Thiobencarb water fltrd 0.7u GF ug/L (82681)	Triallate, water, fltrd 0.7u GF ug/L (82678)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)	Suspended sediment concentration mg/L (80154)	Number of sampling points, count (00063)
MAR							
15...	<.034	<.02	<.010	<.002	<.009	59	13
29...	<.034	<.02	<.010	<.002	<.009	470	13
APR							
20...	<.034	<.02	<.010	<.002	<.009	38	15
MAY							
19...	<.034	<.02	<.010	<.002	<.009	126	12
25...	<.034	<.02	<.010	<.002	<.009	2,350	11
JUN							
10...	<.034	<.02	<.010	<.002	E.004	281	13
JUL							
21...	<.034	<.02	<.010	<.002	<.009	129	10
AUG							
17...	<.034	<.02	<.010	<.002	<.009	71	10
SEP							
14...	<.034	<.02	<.010	<.002	<.009	86	11

05418600 MAQUOKETA RIVER NEAR SPRAGUEVILLE, IA—Continued