

Gaging Stations

05449500	Iowa River near Rowan, IA	128
05451210	South Fork Iowa River NE of New Providence, IA	133
05451500	Iowa River at Marshalltown, IA	140
05451700	Timber Creek near Marshalltown, IA	142
05451900	Richland Creek near Haven, IA	144
05452000	Salt Creek near Elberon, IA	146
05452200	Walnut Creek near Hartwick, IA	148
05453000	Big Bear Creek at Ladora, IA	150
05453100	Iowa River at Marengo, IA	152
05453510	Coralville Lake near Coralville, IA	154
05453520	Iowa River below Coralville Dam near Coralville, IA	156
05453600	Rapid Creek below Morse, IA (precipitation)	158
05454000	Rapid Creek near Iowa City, IA	160
05454220	Clear Creek near Oxford, IA	162
05454300	Clear Creek near Coralville, IA	164
05454500	Iowa River at Iowa City, IA	166
05455010	South Branch Ralston Creek at Iowa City, IA	168
05455100	Old Mans Creek near Iowa City, IA	170
05455500	English River at Kalona, IA	172
05455700	Iowa River near Lone Tree, IA	174
	(Cedar River Basin Stations (176-209)	
05465500	Iowa River at Wapello, IA	210

Crest Stage Gaging Stations

05448400	West Main Drainage Ditch 1 & 2 at Britt, IA	488
05448600	East Branch Iowa River above Hayfield, IA	488
0545129280	Honey Creek tributary near Radcliffe, IA	488
05451955	Stein Creek near Clutier, IA	488
05453200	Price Creek at Amana, IA	488
05453430	North Fork Tributary to Mill Creek near Solon, IA	488
05454180	Clear Creek Tributary near Williamsburg, IA	488
05455140	North English River near Montezuma, IA	488
05455210	North English River at Guernsey, IA	488
05455230	Deep River at Deep River, IA	489
05455550	Bulgers Run near Riverside, IA	489
05465150	North Fork Long Creek at Ainsworth, IA	489

05449500 IOWA RIVER NEAR ROWAN, IA

LOCATION.--Lat 42°45'36", long 93°37'18" (revised), in NW¹/₄ NE¹/₄ sec.25, T.92 N., R.24 W., Wright County, Hydrologic Unit 07080207, on left bank 10 ft downstream from bridge on county highway C38, 0.9 mi downstream from drainage ditch 123, 3.8 mi northwest of Rowan, 10.7 mi downstream from confluence of East and West Branches, and at mile 316.4.

DRAINAGE AREA.--429 mi².

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to September 1976, June 1977 to current year.

REVISED RECORDS.--WSP 1308: 1942-43 (M). WSP 1438: Drainage area. WDR IA-80-1: 1978.

GAGE.--Water-stage recorder. Datum of gage is 1,143.35 ft above NGVD of 1929. Prior to Oct. 14, 1948, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. 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.

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	28	26	22	e36	e28	e477	297	230	1,900	319	112	57
2	28	26	25	e38	e25	e490	233	209	1,640	293	160	55
3	27	28	30	e35	e29	365	195	193	1,420	277	200	51
4	27	42	e30	e32	e31	237	173	181	1,200	285	175	47
5	28	48	31	e21	e27	324	155	169	995	303	179	48
6	28	36	28	e23	e31	538	144	157	847	871	171	50
7	27	26	e25	e22	e28	540	137	148	739	1,200	142	51
8	26	23	27	e20	e25	382	127	139	643	1,350	124	48
9	27	25	26	e21	e28	259	117	151	583	1,350	113	42
10	23	30	e26	e23	e30	200	111	143	570	1,190	104	42
11	25	30	e23	e24	e28	153	107	140	556	1,070	96	40
12	35	30	e22	e24	e27	101	102	131	781	1,010	90	41
13	30	26	e24	e27	e25	122	99	173	1,120	879	85	39
14	29	24	e26	e26	e25	125	96	330	1,260	662	81	53
15	30	22	e28	e28	e26	103	93	377	1,190	486	76	70
16	29	28	e21	e36	e26	87	88	313	933	400	76	270
17	27	31	e19	e32	e29	80	84	265	1,040	342	80	364
18	27	38	e20	e27	e32	82	82	251	1,270	296	78	258
19	27	46	e19	e24	e35	80	84	225	1,380	265	71	184
20	26	37	e22	e27	e37	76	102	208	1,370	242	65	140
21	25	30	e28	e24	e34	81	135	241	1,210	247	62	113
22	25	27	e29	e29	e36	68	162	1,160	988	248	61	100
23	24	26	e24	e27	e34	71	150	3,300	786	224	73	88
24	23	25	e22	e25	e33	74	139	5,110	640	196	67	82
25	23	25	e26	e27	e58	88	207	4,440	555	178	61	78
26	25	22	e34	e30	e69	390	483	3,500	498	166	60	73
27	25	22	e37	e29	e102	530	505	2,900	451	155	87	68
28	25	21	e35	e25	e216	572	385	2,510	417	144	96	65
29	25	e24	e41	e24	e364	606	318	2,280	398	134	72	64
30	28	26	e38	e25	---	441	268	2,100	351	126	64	61
31	26	---	e33	e26	---	329	---	2,010	---	116	61	---
TOTAL	828	870	841	837	1,518	8,071	5,378	33,684	27,731	15,024	3,042	2,742
MEAN	26.7	29.0	27.1	27.0	52.3	260	179	1,087	924	485	98.1	91.4
MAX	35	48	41	38	364	606	505	5,110	1,900	1,350	200	364
MIN	23	21	19	20	25	68	82	131	351	116	60	39
AC-FT	1,640	1,730	1,670	1,660	3,010	16,010	10,670	66,810	55,000	29,800	6,030	5,440
CFSM	0.06	0.07	0.06	0.06	0.13	0.62	0.43	2.60	2.21	1.16	0.23	0.22
IN.	0.07	0.08	0.07	0.07	0.14	0.72	0.48	3.00	2.47	1.34	0.27	0.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2004, BY WATER YEAR (WY)

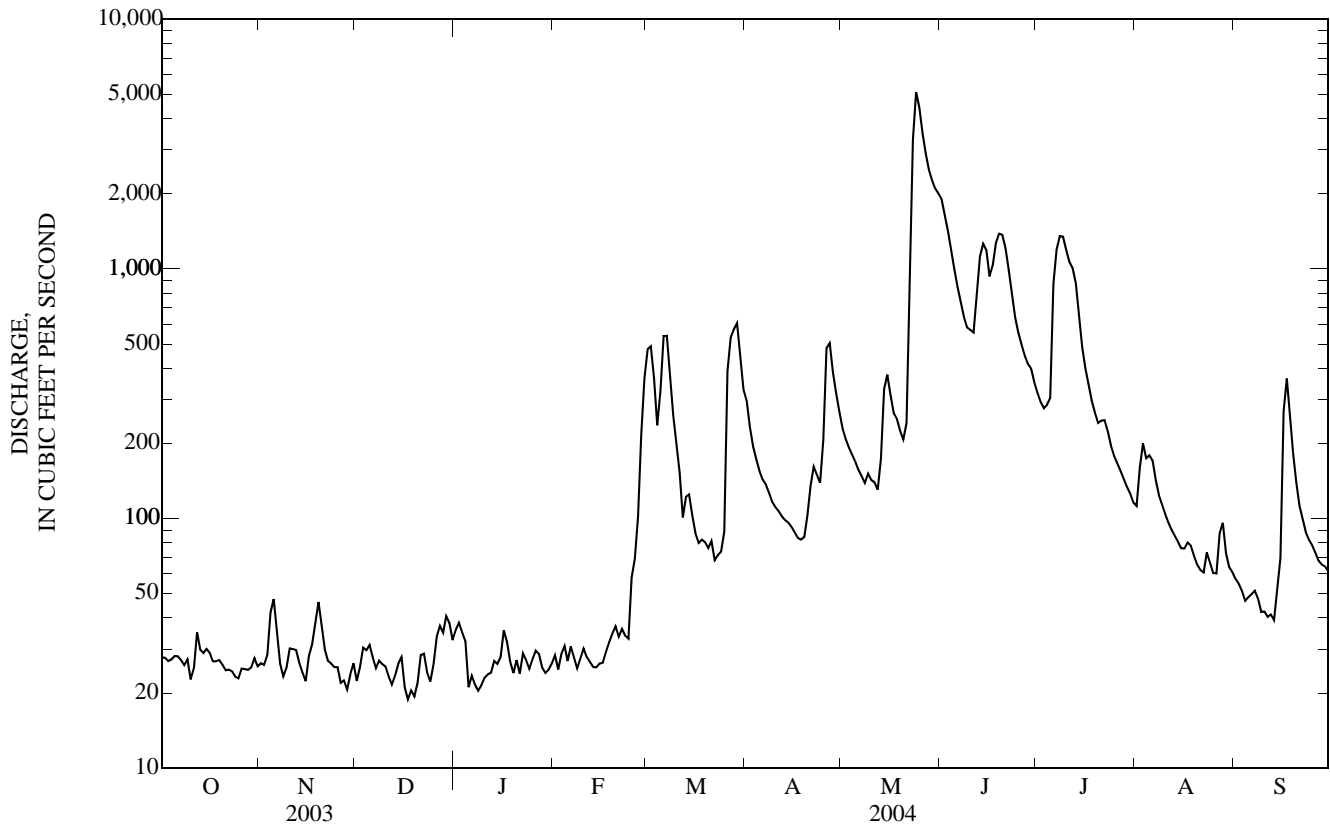
MEAN	137	131	86.1	55.3	112	385	490	397	499	310	164	137
MAX	720	695	588	298	931	1,415	2,439	1,793	2,452	1,922	1,684	1,213
(WY)	(1987)	(1993)	(1983)	(1983)	(1984)	(1973)	(1965)	(1991)	(1984)	(1993)	(1979)	(1965)
MIN	8.14	9.49	5.62	3.63	3.54	23.9	32.4	44.3	19.2	5.36	5.14	3.98
(WY)	(1990)	(1990)	(1990)	(1959)	(1959)	(1968)	(1957)	(1989)	(1989)	(1977)	(1977)	(1977)

05449500 IOWA RIVER NEAR ROWAN, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1941 - 2004	
ANNUAL TOTAL	71,789		100,566		243	
ANNUAL MEAN	197		275		869	
HIGHEST ANNUAL MEAN					1993	
LOWEST ANNUAL MEAN					1956	
HIGHEST DAILY MEAN	1,680	May 7	5,110	May 24	7,640	Jun 21, 1954
LOWEST DAILY MEAN	19	Dec 17	19	Dec 17 a	2.2	Sep 11, 1977
ANNUAL SEVEN-DAY MINIMUM	22	Dec 14	22	Jan 5	2.9	Sep 8, 1977
MAXIMUM PEAK FLOW			5,210	May 24	8,460	Jun 21, 1954
MAXIMUM PEAK STAGE			13.95	May 24	14.88	Jun 21, 1954
INSTANTANEOUS LOW FLOW					2.2	Sep 11, 1977
ANNUAL RUNOFF (AC-FT)	142,400		199,500		176,000	
ANNUAL RUNOFF (CFSM)	0.471		0.657		0.581	
ANNUAL RUNOFF (INCHES)	6.39		8.95		7.90	
10 PERCENT EXCEEDS	540		752		620	
50 PERCENT EXCEEDS	57		75		87	
90 PERCENT EXCEEDS	26		25		18	

a Also Dec. 19, Ice affected.

e Estimated.



05449500 IOWA RIVER NEAR ROWAN, IA—Continued

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

Date	p,p'-DDE, water, fltrd, ug/L (34653)	Parathion, water, fltrd, ug/L (39542)	Pebulate, water, fltrd 0.7u GF ug/L (82669)	Pendi-meth-alin, water, fltrd 0.7u GF ug/L (82683)	Phorate water fltrd 0.7u GF ug/L (82664)	Prometon, water, fltrd, ug/L (04037)	Propy-zamide, water, fltrd 0.7u GF ug/L (82676)	Propa-chlor, water, fltrd, ug/L (04024)	Pro-panil, water, fltrd 0.7u GF ug/L (82679)	Propar-gite, water, fltrd 0.7u GF ug/L (82685)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)	Terbu-fos, water, fltrd 0.7u GF ug/L (82675)
OCT 06...	<.003	<.010	<.004	<.022	<.011	.02	<.004	<.010	<.011	<.02	<.02	<.034	<.02
NOV 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 02...	<.003	<.010	<.004	<.022	<.011	.02	<.004	<.025	<.011	<.02	<.02	<.034	<.02
JAN 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 09...	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	<.02	<.034	<.02
APR 05...	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	<.02	<.034	<.02
MAY 03...	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	<.02	<.034	<.02
JUN 02...	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	<.02	<.034	<.02
JUL 06...	<.003	<.010	<.004	E.007	<.011	.01	<.004	<.025	<.011	<.02	<.02	<.034	<.02
AUG 02...	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	<.02	<.034	<.02
10...	--	--	--	--	--	--	--	--	--	--	--	--	--

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

Date	Thio-bencarb water fltrd 0.7u GF ug/L (82681)	Tri-allate, water, fltrd 0.7u GF ug/L (82678)	Tri-flur-alin, water, fltrd 0.7u GF ug/L (82661)	Sus-pended sedi-ment concen-tration mg/L (80154)
OCT 06...	<.005	<.002	<.009	22
NOV 04...	--	--	--	49
DEC 02...	<.010	<.002	<.009	59
JAN 06...	--	--	--	13
FEB 09...	<.010	<.002	<.009	35
APR 05...	<.010	<.002	<.009	96
MAY 03...	<.010	<.002	<.009	114
JUN 02...	<.010	<.002	<.009	46
JUL 06...	<.010	<.002	<.009	243
AUG 02...	<.010	<.002	<.009	96
10...	--	--	--	--

05451210 SOUTH FORK IOWA RIVER NORTHEAST OF NEW PROVIDENCE, IA

LOCATION.--Lat 42°18'55", long 93°09'07", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.26, T.87 N., R.20 W., Hardin County, Hydrologic Unit 07080207, located 15 ft from the left bank downstream side of the bridge on County Road, 4.0 miles upstream of the confluence with the Iowa River, and 2.0 miles NE of New Providence.

DRAINAGE AREA.--230 mi².

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--October 1995 to current year.

GAGE.--Water stage recorder. Datum of gage is 945 ft above NGVD of 1929, from map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. U.S. Geological Survey rain gage and data collection platform with satellite and telephone modem telemetry at station. Precipitation records are not published, but are available.

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	3.6	4.6	e4.3	e13	e2.6	e291	209	123	906	134	32	14
2	3.4	6.8	e3.8	e15	e4.1	e237	176	114	628	122	30	13
3	3.3	16	e2.6	e14	e3.3	e153	156	104	485	116	35	e15
4	3.2	38	e4.1	e9.2	e2.9	e108	142	99	403	118	152	e14
5	3.3	28	e4.8	e5.0	e4.5	e201	130	94	352	126	234	e14
6	3.4	20	4.2	e3.1	e7.1	e411	120	89	315	118	154	e14
7	2.4	15	e3.8	e3.5	e5.9	e328	112	83	277	113	107	e16
8	1.8	13	4.3	e4.6	e4.9	215	100	81	246	107	81	e15
9	2.0	9.9	4.6	e4.2	e6.2	132	91	89	221	106	66	13
10	2.4	e6.9	e3.8	e4.1	e5.4	101	83	88	347	97	53	12
11	3.6	e6.6	e3.2	e7.0	e6.5	81	77	83	708	95	43	11
12	5.1	e6.1	e3.0	e8.3	e5.2	50	74	82	680	122	38	9.9
13	5.3	e5.1	e3.5	e8.5	e4.3	64	73	99	804	133	33	9.0
14	7.2	e4.8	e4.1	e8.3	e4.0	51	68	195	651	110	29	8.9
15	6.5	e4.6	e5.8	e7.0	e5.1	41	65	213	470	90	25	8.8
16	6.0	e6.1	e5.0	e8.5	e5.1	37	63	181	363	77	26	9.0
17	6.0	e8.0	e3.9	e9.1	e6.3	35	66	167	406	68	42	8.7
18	6.0	9.9	e5.1	e7.6	e9.6	37	63	172	443	59	26	9.2
19	5.5	10	e4.2	e6.6	e13	41	62	185	339	53	24	8.6
20	4.9	9.2	e3.7	e6.2	e17	43	67	192	282	48	22	7.7
21	3.9	8.0	e5.7	e7.8	e14	37	85	174	277	48	20	7.1
22	4.3	7.9	e8.2	e5.3	e16	32	88	469	275	58	18	6.8
23	4.1	8.9	e7.0	e5.9	e13	30	85	1,280	231	125	17	6.4
24	4.1	e8.8	e6.0	e5.3	e41	43	85	1,610	215	88	16	6.4
25	4.1	e7.4	e7.5	e5.5	e35	62	129	1,790	247	69	15	5.9
26	4.2	7.6	e9.6	e5.8	e29	82	216	1,400	274	58	15	6.0
27	4.3	7.4	e12	e4.9	e64	86	213	1,060	234	52	23	5.7
28	4.2	e5.7	e15	e3.9	e140	328	184	750	200	46	20	5.3
29	4.0	e4.9	e13	e2.6	e229	496	159	731	170	45	18	5.0
30	4.3	6.9	e12	e2.0	---	338	137	1,100	150	39	19	4.7
31	4.3	---	e12	e2.2	---	257	---	1,220	---	32	16	---
TOTAL	130.7	302.1	189.8	204.0	704.0	4,448	3,378	14,117	11,599	2,672	1,449	290.1
MEAN	4.22	10.1	6.12	6.58	24.3	143	113	455	387	86.2	46.7	9.67
MAX	7.2	38	15	15	229	496	216	1,790	906	134	234	16
MIN	1.8	4.6	2.6	2.0	2.6	30	62	81	150	32	15	4.7
AC-FT	259	599	376	405	1,400	8,820	6,700	28,000	23,010	5,300	2,870	575
CFSM	0.02	0.04	0.03	0.03	0.11	0.64	0.50	2.03	1.73	0.38	0.21	0.04
IN.	0.02	0.05	0.03	0.03	0.12	0.74	0.56	2.34	1.93	0.44	0.24	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2004, BY WATER YEAR (WY)

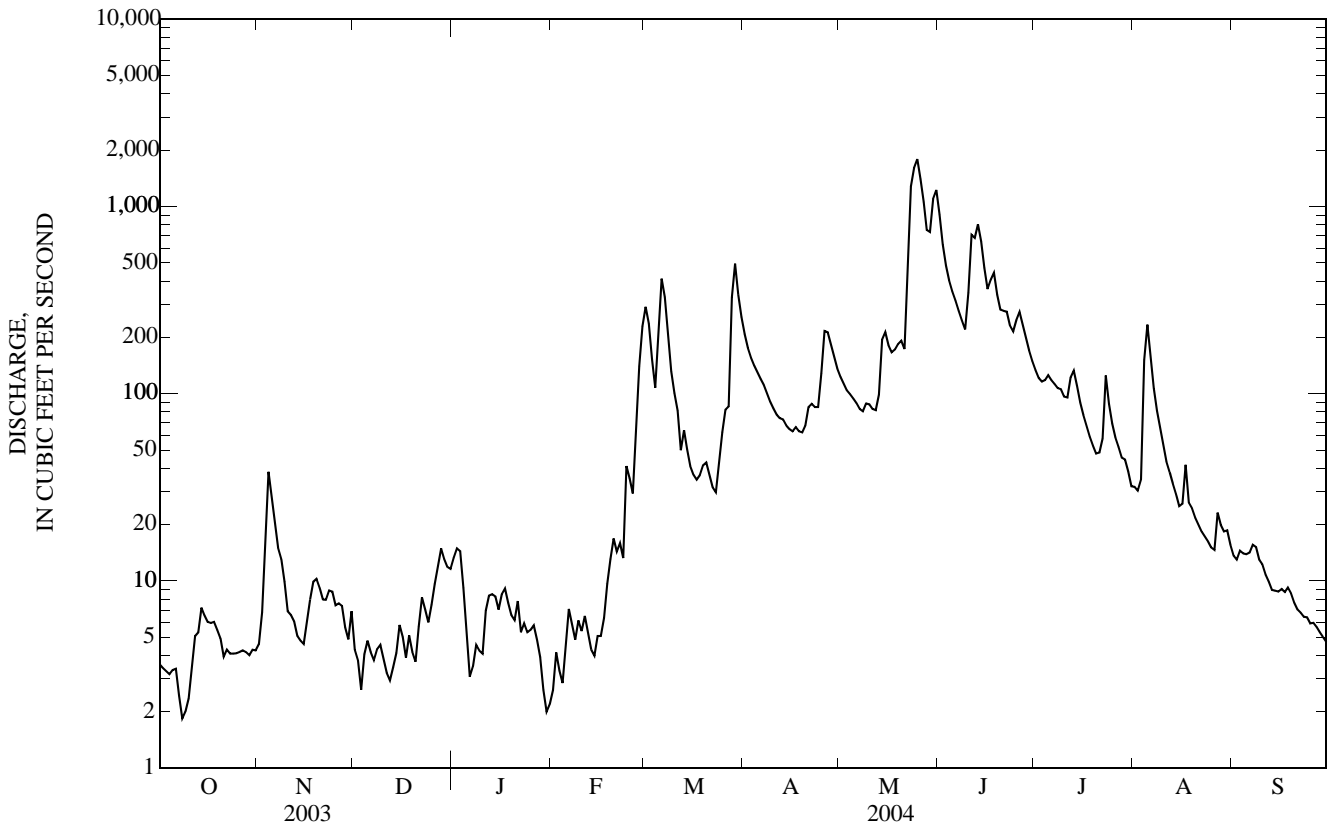
MEAN	40.2	53.3	36.5	24.3	88.9	153	200	343	427	171	44.1	20.6
MAX	157	199	119	65.7	250	386	513	643	1,173	414	161	79.4
(WY)	(2003)	(1997)	(1997)	(1997)	(1997)	(2001)	(1999)	(1999)	(1998)	(1998)	(2002)	(2002)
MIN	2.59	4.90	5.03	4.63	7.51	8.73	7.17	13.1	153	59.9	12.5	3.51
(WY)	(2000)	(2000)	(2000)	(2001)	(2001)	(2000)	(2000)	(2000)	(2003)	(1996)	(2000)	(2000)

05451210 SOUTH FORK IOWA RIVER NORTHEAST OF NEW PROVIDENCE, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1996 - 2004	
ANNUAL TOTAL	34,693.8		39,483.7			
ANNUAL MEAN	95.1		108		140	
HIGHEST ANNUAL MEAN					218	
LOWEST ANNUAL MEAN					36.6	
HIGHEST DAILY MEAN	1,330	Jul 10	1,790	May 25	2,920	Jun 30, 1998
LOWEST DAILY MEAN	1.8	Oct 8	1.8	Oct 8	1.7	Sep 13, 2000
ANNUAL SEVEN-DAY MINIMUM	2.6	Oct 4	2.6	Oct 4	1.9	Sep 11, 2000
MAXIMUM PEAK FLOW			1,960	May 25	3,550	Jun 21, 1998
MAXIMUM PEAK STAGE			8.64	May 25	11.59	Jun 21, 1998
INSTANTANEOUS LOW FLOW			1.7	Oct 8	1.7	Sep 26, 1999 a
ANNUAL RUNOFF (AC-FT)	68,820		78,320		101,800	
ANNUAL RUNOFF (CFSM)	0.424		0.482		0.627	
ANNUAL RUNOFF (INCHES)	5.76		6.56		8.52	
10 PERCENT EXCEEDS	235		274		365	
50 PERCENT EXCEEDS	24		20		49	
90 PERCENT EXCEEDS	3.8		4.1		4.7	

a Also Oct. 3, 2000 and Oct. 8, 2003.

e Estimated.



05451210 SOUTH FORK IOWA RIVER NORTHEAST OF NEW PROVIDENCE, IA—Continued

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

Date	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)	Tebu-thiuron water fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, 0.7u GF ug/L (82665)	Terbufos, water, fltrd, 0.7u GF ug/L (82675)
OCT 07...	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.02	<.034	<.02
NOV 05...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 03...	<.003	<.010	<.004	<.022	<.011	M	<.004	<.025	<.011	<.02	<.02	<.034	<.02
JAN 07...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 10...	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	<.02	<.034	<.02
APR 06...	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	<.02	<.034	<.02
MAY 04...	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	<.02	<.034	<.02
JUN 03...	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.02	<.034	<.02
JUL 07...	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	<.02	<.034	<.02
AUG 02...	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.02	<.034	<.02
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

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

Date	Thiobencarb water fltrd, 0.7u GF ug/L (82681)	Triallate, water, fltrd, 0.7u GF ug/L (82678)	Tri-fluralin, water, fltrd, 0.7u GF ug/L (82661)	Suspended sediment concentration mg/L (80154)
OCT 07...	<.005	<.002	<.009	8
NOV 05...	--	--	--	16
DEC 03...	<.010	<.002	<.009	29
JAN 07...	--	--	--	8
FEB 10...	<.010	<.002	<.009	59
APR 06...	<.010	<.002	<.009	85
MAY 04...	<.010	<.002	<.009	--
JUN 03...	<.010	<.002	<.009	192
JUL 07...	<.010	<.002	<.009	107
AUG 02...	<.010	<.002	<.009	41
11...	--	--	--	--

05451210 SOUTH FORK IOWA RIVER NORTHEAST OF NEW PROVIDENCE, IA—Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.-- October 1995 to current year.

INSTRUMENTATION.-- Tipping bucket rain gage.

REMARKS.-- Estimated totals Oct. 1, Feb. 8-10, and Aug. 21, 22. Records good except for estimated days and winter period, which is poor due to intermittent snow accumulation and subsequent melting.

EXTREME FOR PERIOD OF RECORD.-- Maximum daily accumulation, 5.37 in., June 21, 1997.

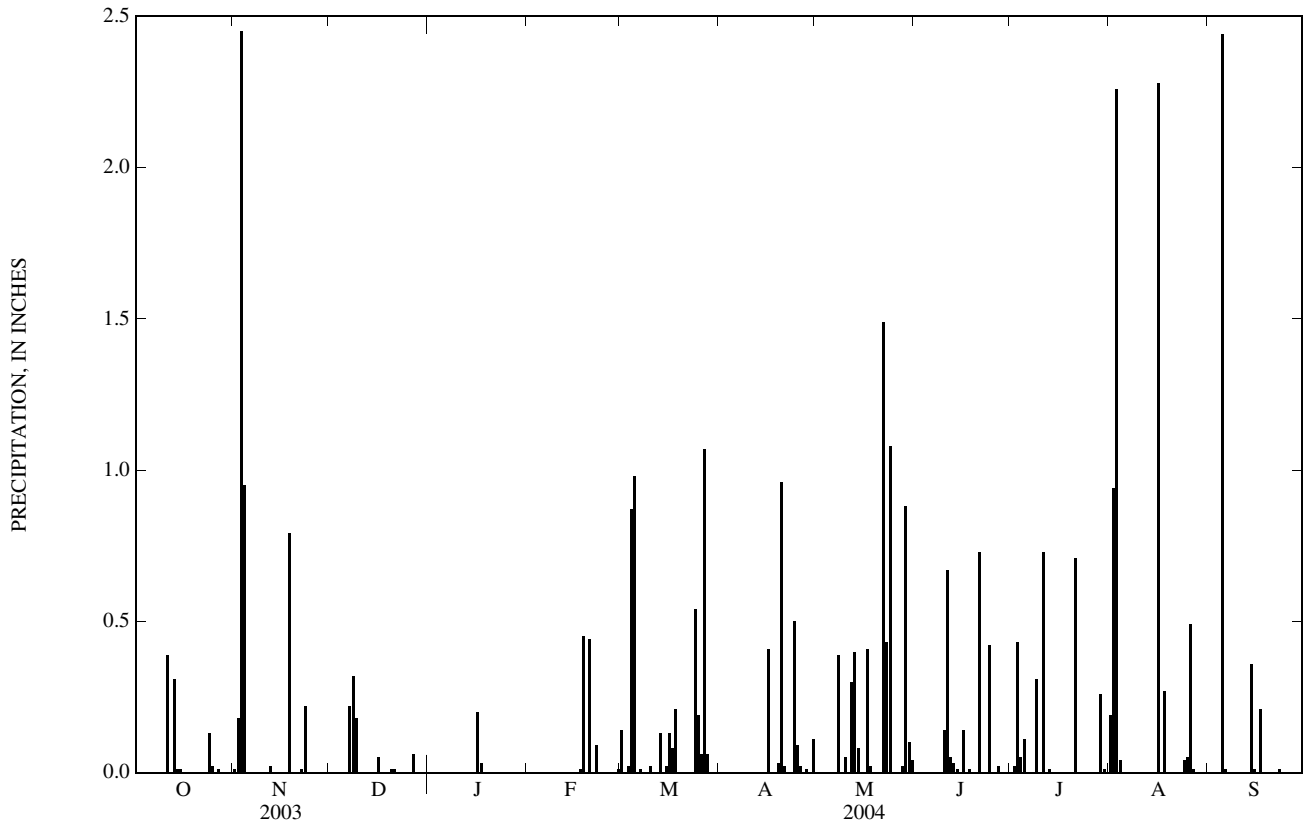
EXTREME FOR CURRENT YEAR.-- Maximum daily accumulation 2.45 in., November 3.

PRECIPITATION, TOTAL, INCHES
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.01	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.19	0.00
2	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.94	0.00
3	0.00	2.45	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.43	2.26	0.00
4	0.00	e0.95	0.00	0.00	0.00	0.87	e0.00	0.00	0.00	0.05	0.04	0.00
5	0.00	0.00	0.00	0.00	0.00	0.98	0.00	e0.00	0.00	0.11	0.00	2.44
6	0.00	0.00	0.00	0.00	0.00	e0.00	0.00	e0.00	0.00	0.00	0.00	0.01
7	0.00	0.00	0.22	0.00	e0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.32	0.00	e0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00
9	0.00	e0.00	0.18	e0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00
10	0.00	---	0.00	e0.00	0.00	0.02	0.00	0.05	0.14	0.00	0.00	0.00
11	0.39	---	0.00	e0.00	e0.00	0.00	0.00	0.00	0.67	0.73	0.00	e0.00
12	0.00	e0.02	0.00	e0.00	e0.00	0.00	0.00	0.30	0.05	0.00	0.00	0.00
13	0.31	e0.00	0.00	0.00	---	0.13	0.00	0.40	0.03	0.01	0.00	0.00
14	0.01	e0.00	0.00	0.00	---	0.00	0.00	0.08	0.01	0.00	0.00	0.36
15	0.01	---	e0.00	0.00	e0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.01
16	0.00	---	e0.05	0.20	0.00	0.13	0.41	0.00	0.14	0.00	2.28	0.00
17	0.00	---	e0.00	0.03	0.01	0.08	0.00	0.41	0.00	0.00	0.00	0.21
18	0.00	e0.79	e0.00	0.00	0.45	0.21	0.00	0.02	0.01	0.00	0.27	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.01	e0.00	0.44	e0.00	0.96	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.01	e0.00	0.00	0.00	0.02	0.00	0.73	0.71	0.00	0.00
22	0.00	0.01	0.00	0.00	0.09	0.00	0.00	1.49	0.00	0.00	0.00	0.00
23	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.01
24	0.13	0.00	0.00	0.00	0.00	0.54	0.50	1.08	0.42	0.00	0.04	0.00
25	0.02	0.00	0.00	e0.00	0.00	0.19	0.09	0.00	0.00	0.00	0.05	0.00
26	0.00	0.00	0.00	e0.00	0.00	0.06	0.02	0.00	0.00	0.00	0.49	0.00
27	0.01	0.00	0.06	0.00	0.00	1.07	0.00	0.00	0.02	0.00	0.01	0.00
28	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.02	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.88	0.00	0.26	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.11	0.10	0.00	0.01	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.04	---	0.00	0.00	---
TOTAL	0.88	---	0.85	0.23	---	4.53	2.15	5.69	2.22	2.64	6.57	3.04
MAX	0.39	---	0.32	0.20	---	1.07	0.96	1.49	0.73	0.73	2.28	2.44
MIN	0.00	---	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00

e Estimated

05451210 SOUTH FORK IOWA RIVER NORTHEAST OF NEW PROVIDENCE, IA—Continued



05451500 IOWA RIVER AT MARSHALLTOWN, IA

LOCATION.--Lat 42°03'57", long 92°54'27", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.23, T.84 N., R.18 W., Marshall County, Hydrologic Unit 07080208, on right bank 10 ft downstream from bridge on State Highway 14, 1,500 ft upstream from Burnett Creek, 2.2 mi upstream from Linn Creek, and at mile 222.8.

DRAINAGE AREA.--1,532 mi².

PERIOD OF RECORD.--October 1902 to September 1903, October 1914 to September 1927, October 1932 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1438: Drainage area. WSP 1558: 1915-18, 1919 (M), 1920, 1921-23 (M), 1924-27, 1933, 1934 (M), 1936, 1938, 1947 (M).

GAGE.--Water-stage recorder. Datum of gage is 853.10 ft above NGVD of 1929. See WSP 1728 for history of changes prior to Sept. 21, 1934.

REMARKS.--Records good except those for estimated daily discharges, which are poor. 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.

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	106	122	173	e90	e93	e1,960	1,800	1,010	6,060	1,320	473	295
2	120	151	160	e91	e94	2,120	1,520	923	5,300	1,230	456	271
3	143	274	163	e85	e95	1,940	1,360	857	4,770	1,170	480	259
4	167	1,100	e155	e74	e93	1,810	1,220	808	4,240	1,170	973	252
5	181	758	e150	e66	e94	3,300	1,110	767	3,790	1,210	1,310	247
6	198	526	e149	e69	e93	4,070	1,030	731	3,370	1,170	981	368
7	220	424	e143	e67	e92	3,240	958	696	2,930	1,140	760	493
8	185	362	e145	e66	e91	2,540	890	660	2,540	1,410	661	360
9	64	321	e135	e67	e91	2,030	825	671	2,230	1,660	591	307
10	67	303	e105	e71	e91	1,690	767	669	2,090	1,860	524	275
11	77	286	e78	e71	e89	1,420	719	653	2,460	2,090	475	251
12	90	266	e75	e78	e80	1,190	682	643	2,580	2,710	437	228
13	92	241	e80	e87	e80	1,120	648	694	2,730	e2,650	404	212
14	112	233	e88	e85	e82	1,030	621	777	2,830	e1,860	379	e213
15	104	230	e89	e83	e78	989	593	920	2,640	1,640	353	e207
16	108	221	e76	e111	e81	951	570	1,030	2,510	1,440	338	e210
17	108	217	e68	e100	e83	942	561	1,050	2,560	1,220	557	e224
18	107	234	e74	e95	e99	931	526	1,050	2,590	1,050	841	e240
19	106	225	e71	e93	e152	1,030	506	1,010	2,330	946	817	e280
20	106	230	e74	e101	e352	1,050	548	1,000	2,200	868	607	333
21	104	217	e87	e100	e620	984	760	952	2,330	816	489	350
22	104	210	e92	e99	e928	935	760	1,350	2,550	813	417	301
23	108	220	e87	e111	e1,690	902	755	6,270	2,490	826	370	264
24	110	e214	e77	e103	1,280	904	766	6,990	2,340	816	340	240
25	116	e222	e80	e109	1,050	1,020	827	7,610	2,220	739	318	225
26	115	202	e85	e112	e934	1,070	964	8,210	2,000	671	315	212
27	118	185	e93	e106	e1,310	1,240	1,110	8,020	1,800	619	388	202
28	123	188	e90	e98	e1,680	1,780	1,220	7,990	1,640	576	388	195
29	119	e195	e95	e94	e1,800	2,770	1,250	7,260	1,500	548	401	186
30	125	e198	e92	e92	---	2,450	1,130	7,110	1,400	527	372	181
31	125	---	e87	e93	---	2,100	---	6,740	---	495	334	---
TOTAL	3,728	8,775	3,216	2,767	13,395	51,508	26,996	85,121	83,020	37,260	16,549	7,881
MEAN	120	292	104	89.3	462	1,662	900	2,746	2,767	1,202	534	263
MAX	220	1,100	173	112	1,800	4,070	1,800	8,210	6,060	2,710	1,310	493
MIN	64	122	68	66	78	902	506	643	1,400	495	315	181
AC-FT	7,390	17,410	6,380	5,490	26,570	102,200	53,550	168,800	164,700	73,910	32,820	15,630
CFSM	0.08	0.19	0.07	0.06	0.30	1.08	0.59	1.79	1.81	0.78	0.35	0.17
IN.	0.09	0.21	0.08	0.07	0.33	1.25	0.66	2.07	2.02	0.90	0.40	0.19

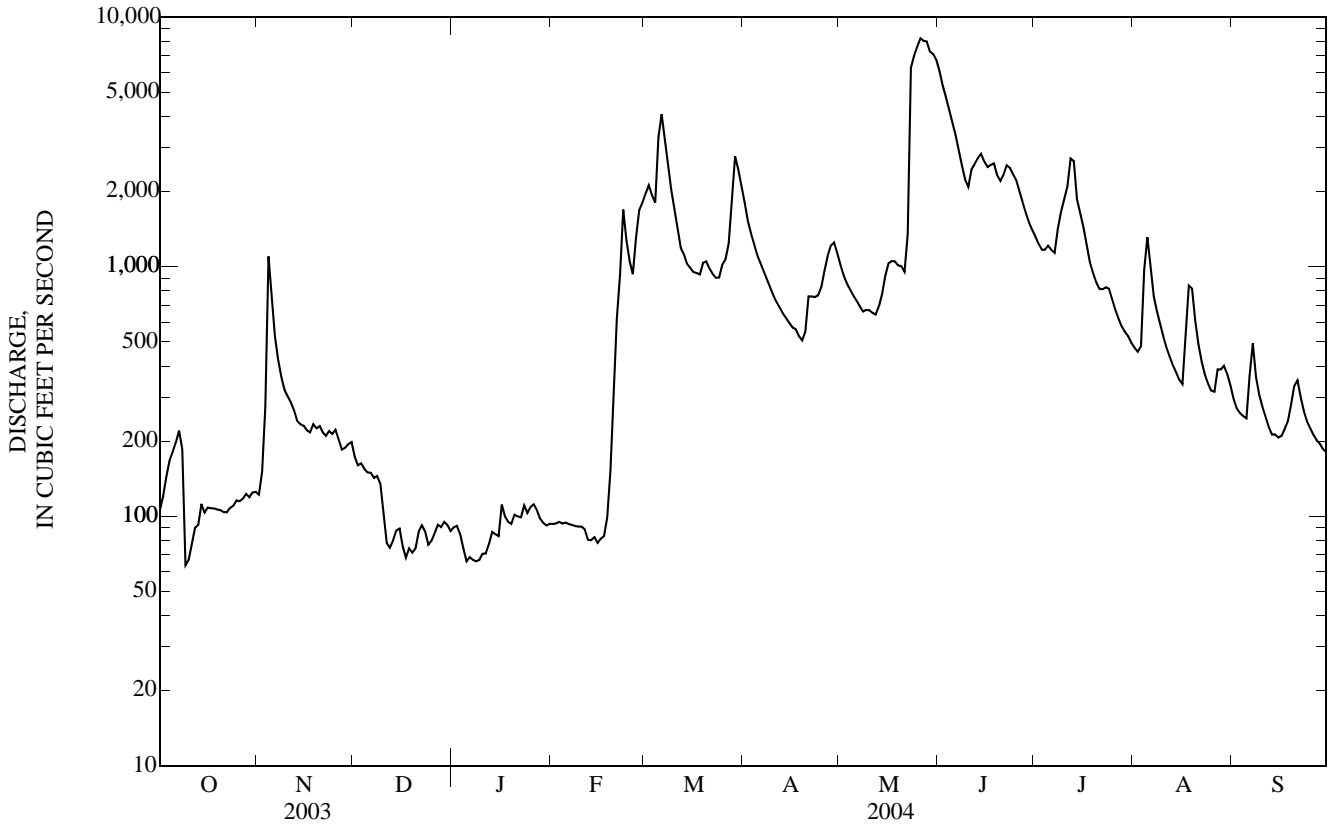
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903 - 2004, BY WATER YEAR (WY)

MEAN	490	489	355	297	617	1,550	1,494	1,386	1,811	1,048	563	484
MAX	2,721	2,593	2,139	2,231	3,424	4,206	6,796	5,559	7,619	8,389	7,062	3,362
(WY)	(1987)	(1973)	(1983)	(1973)	(1915)	(1973)	(1965)	(1991)	(1918)	(1993)	(1993)	(1993)
MIN	39.2	46.2	31.0	10.2	20.9	98.4	99.3	49.9	16.0	41.8	35.9	27.5
(WY)	(1940)	(1940)	(1990)	(1977)	(1940)	(1934)	(1934)	(1934)	(1934)	(1977)	(1934)	(1939)

05451500 IOWA RIVER AT MARSHALLTOWN, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1903 - 2004	
ANNUAL TOTAL	262,535		340,216			
ANNUAL MEAN	719		930		882	
HIGHEST ANNUAL MEAN					3,456	1993
LOWEST ANNUAL MEAN					77.3	1934
HIGHEST DAILY MEAN	5,290	May 10	8,210	May 26	39,400	Jun 4, 1918
LOWEST DAILY MEAN	44	Sep 11	64	Oct 9	4.7	Jan 25, 1977
ANNUAL SEVEN-DAY MINIMUM	55	Sep 5	68	Jan 5	5.2	Jan 20, 1977
MAXIMUM PEAK FLOW			8,330	May 26	42,000	Jun 4, 1918
MAXIMUM PEAK STAGE			18.18	May 26	20.77	Aug 17, 1993
INSTANTANEOUS LOW FLOW			60	Oct 8		
ANNUAL RUNOFF (AC-FT)	520,700		674,800		638,900	
ANNUAL RUNOFF (CFSM)	0.469		0.607		0.576	
ANNUAL RUNOFF (INCHES)	6.37		8.26		7.82	
10 PERCENT EXCEEDS	1,930		2,330		2,170	
50 PERCENT EXCEEDS	226		430		395	
90 PERCENT EXCEEDS	92		88		76	

e Estimated



05451700 TIMBER CREEK NEAR MARSHALLTOWN, IA

LOCATION.--Lat 42°00'32", long 92°51'08", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.8, T.83 N., R.17 W., Marshall County, Hydrologic Unit 07080208, on left bank 20 ft upstream from bridge on Shady Oaks Road, 3.0 mi upstream from mouth, and 3.0 mi southeast of Marshalltown.

DRAINAGE AREA.--118 mi².

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WSP 1708: 1950-55, 1957-59.

GAGE.--Water stage recorder. Datum of gage is 849.44 ft above NGVD of 1929. Prior to Oct. 1, 1991 at site 1/8 mile upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. 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.--Flood in June 1947 reached a stage of 16.8 ft, discharge, 5,700 ft³/s.

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	6.9	8.6	49	e16	e50	133	122	98	391	120	68	82
2	6.8	11	48	e17	e50	125	114	93	327	116	69	69
3	6.9	97	51	e16	e52	104	108	91	275	119	77	62
4	7.0	1,730	49	e12	e53	101	101	88	237	115	293	57
5	7.3	459	50	e9.2	e54	534	98	84	213	159	136	53
6	7.3	251	47	e15	e57	278	94	82	195	134	102	56
7	7.1	183	47	e18	e57	190	90	78	178	116	91	51
8	6.6	146	48	e19	e58	156	86	78	160	110	85	46
9	6.4	126	e35	e18	e60	139	82	76	147	132	80	44
10	6.6	116	e32	e21	e61	127	80	73	142	126	75	42
11	6.7	107	e36	e23	e59	116	78	72	142	126	72	40
12	8.6	95	e33	e25	e56	108	77	70	168	152	70	39
13	8.1	84	e34	e24	e54	102	75	77	134	129	68	37
14	12	82	e36	e20	e58	99	73	76	122	115	66	36
15	12	79	e37	e19	e51	93	71	71	112	106	63	36
16	9.9	74	e27	e30	e51	95	70	69	107	101	63	34
17	9.2	71	e23	e25	e52	93	70	69	134	97	142	33
18	8.7	74	e29	e20	e54	117	67	149	107	93	94	33
19	8.8	68	e27	e20	e64	192	65	123	99	91	79	32
20	8.5	65	e29	e24	e1,060	171	88	111	94	88	69	30
21	8.3	62	e33	e23	1,310	144	279	101	323	86	64	29
22	8.3	61	e32	e18	833	132	201	186	253	85	61	28
23	8.4	64	e26	e28	e616	125	162	3,010	193	82	59	27
24	8.6	61	e17	e34	352	121	143	1,300	174	79	60	27
25	8.5	63	e19	e35	223	113	143	2,090	163	77	60	26
26	8.8	61	e22	e37	150	110	125	910	151	75	63	25
27	8.6	63	e23	e33	144	108	116	686	143	73	619	25
28	8.4	61	e24	e47	134	134	113	559	140	71	291	24
29	8.7	63	e23	e50	131	139	104	490	131	72	182	23
30	8.9	55	e19	e49	---	139	100	547	125	74	129	23
31	8.8	---	e14	e48	---	130	---	483	---	70	99	---
TOTAL	255.7	4,540.6	1,019	793.2	6,004	4,468	3,195	12,090	5,280	3,189	3,549	1,169
MEAN	8.25	151	32.9	25.6	207	144	106	390	176	103	114	39.0
MAX	12	1,730	51	50	1,310	534	279	3,010	391	159	619	82
MIN	6.4	8.6	14	9.2	50	93	65	69	94	70	59	23
AC-FT	507	9,010	2,020	1,570	11,910	8,860	6,340	23,980	10,470	6,330	7,040	2,320
CFSM	0.07	1.28	0.28	0.22	1.75	1.22	0.90	3.31	1.49	0.87	0.97	0.33
IN.	0.08	1.43	0.32	0.25	1.89	1.41	1.01	3.81	1.66	1.01	1.12	0.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2004, BY WATER YEAR (WY)

MEAN	35.1	40.1	34.2	34.3	84.4	139	108	134	156	93.7	57.3	36.7
MAX	286	265	183	200	351	597	385	447	704	866	635	341
(WY)	(1987)	(1984)	(1984)	(1973)	(1971)	(1979)	(1993)	(1974)	(1998)	(1993)	(1993)	(1986)
MIN	0.76	1.11	0.60	0.05	3.07	5.11	2.84	3.08	1.09	1.03	1.16	1.21
(WY)	(1951)	(1951)	(1956)	(1977)	(1954)	(1956)	(1956)	(1977)	(1977)	(1956)	(1956)	(1950)