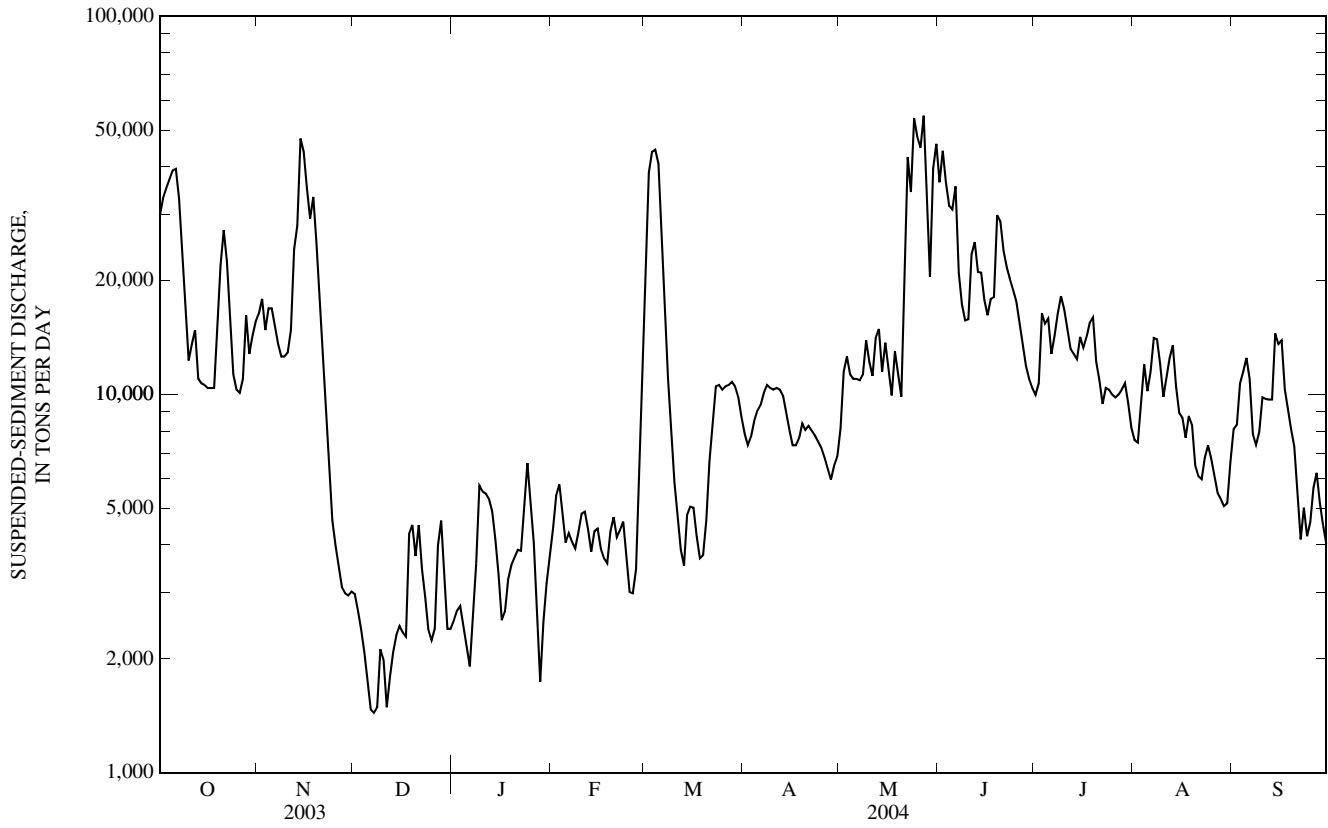


06486000 MISSOURI RIVER AT SIOUX CITY, IA—Continued

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)	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	396	29,700	213	16,400	80	2,970	59	2,520	101	4,410	564	24,500
2	438	33,000	225	17,900	73	2,680	62	2,680	114	5,400	857	38,600
3	464	35,100	184	14,800	65	2,390	65	2,760	122	5,780	906	43,800
4	489	37,000	210	16,900	57	2,080	62	2,460	111	4,770	881	44,400
5	515	39,100	213	16,900	49	1,770	55	2,180	99	4,060	790	40,800
6	522	39,500	193	15,200	41	1,470	55	1,910	97	4,300	614	28,400
7	436	32,900	175	13,600	41	1,440	67	2,570	98	4,080	430	18,900
8	339	25,600	162	12,600	42	1,490	87	3,580	99	3,920	263	11,000
9	241	18,700	160	12,600	57	2,120	131	5,740	104	4,330	202	7,870
10	157	12,300	165	12,900	56	1,990	129	5,540	112	4,840	164	5,860
11	173	13,600	188	14,800	44	1,490	128	5,470	115	4,900	140	4,850
12	188	14,800	305	24,200	47	1,790	121	5,290	108	4,400	117	3,880
13	144	11,000	357	28,000	51	2,080	112	4,910	102	3,840	109	3,530
14	139	10,700	608	47,500	54	2,310	101	4,130	106	4,350	136	4,800
15	139	10,600	556	43,800	56	2,440	84	3,330	110	4,420	140	5,050
16	138	10,400	446	35,100	54	2,350	68	2,530	105	3,910	139	5,020
17	138	10,400	370	29,200	55	2,290	71	2,670	99	3,690	122	4,220
18	139	10,400	425	33,300	96	4,280	82	3,250	97	3,580	107	3,690
19	191	14,600	358	25,000	105	4,520	92	3,540	116	4,350	110	3,760
20	285	21,900	274	16,400	95	3,740	94	3,710	129	4,740	122	4,640
21	353	27,200	196	10,700	117	4,520	93	3,880	120	4,190	144	6,670
22	293	22,500	163	7,800	95	3,460	93	3,860	123	4,380	167	8,470
23	217	16,600	143	5,980	81	2,920	112	5,110	128	4,610	192	10,500
24	148	11,300	123	4,640	67	2,390	135	6,590	112	3,770	193	10,600
25	134	10,300	108	3,980	62	2,240	114	5,080	93	3,000	182	10,300
26	133	10,100	95	3,510	65	2,400	89	4,050	96	2,980	171	10,500
27	143	11,000	83	3,090	96	3,990	65	2,600	109	3,450	167	10,600
28	208	16,200	81	2,980	108	4,640	54	1,740	201	7,000	164	10,800
29	167	12,800	81	2,940	80	3,420	65	2,500	372	14,100	160	10,500
30	187	14,300	81	3,010	57	2,400	76	3,170	---	---	153	9,850
31	203	15,600	---	---	57	2,400	88	3,730	---	---	145	8,710
TOTAL	---	599,200	---	495,730	---	82,470	---	113,080	---	135,550	---	415,070



06600000 PERRY CREEK AT 38th STREET, SIOUX CITY, IA

LOCATION.--(revised) Lat 42°32'06", long 96°24'38", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.8, T.89 N., R.47 W., Woodbury County, Hydrologic Unit 10230001, on left bank at downstream side of bridge on 38th Street in Sioux City, 1.9 mi downstream from West Branch, and 4.2 mi. upstream from mouth.

DRAINAGE AREA.--65.1 mi².

PERIOD OF RECORD.--October 1945 to September 1969, June 1981 to current year.

REVISED RECORDS.--WSP 1440: Drainage area. WDR IA-95-1: River mile.

GAGE.--Water-stage recorder. Datum of gage is 1,112.04 ft above NGVD of 1929 (City of Sioux City benchmark). Prior to May 20, 1954, nonrecording gage with supplementary water-stage recorder in operation above 5.0 ft gage height and May 20, 1954 to Sept. 30, 1969, water-stage recorder at present site at datum 5.0 ft higher.

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 of July 7, 1944 reached a stage of about 30.5 ft from floodmarks, present datum, discharge, 9,600 ft³/s, on basis of contracted-opening measurement of peak flow by U.S. Army Corps of Engineers.

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	5.3	15	6.3	e7.3	8.1	389	3.6	3.0	11	3.2	18	16
2	6.3	15	6.9	e6.4	e7.4	46	3.2	3.2	8.5	48	18	15
3	6.7	14	7.6	e5.2	e4.0	9.7	2.8	3.2	7.2	113	18	15
4	7.1	11	7.2	e4.2	e7.1	7.2	2.8	3.2	6.5	11	19	15
5	7.2	8.9	6.8	e3.1	8.5	387	2.9	2.6	8.0	20	18	25
6	7.1	7.6	7.1	e3.6	8.7	29	2.6	2.1	6.8	28	16	23
7	6.9	7.9	7.7	e4.7	e7.3	11	2.4	1.8	6.2	8.7	16	18
8	7.1	7.4	7.9	e7.3	e4.9	8.1	2.1	2.0	10	7.1	16	18
9	8.5	8.3	7.4	e6.9	e8.3	7.4	2.1	13	10	6.5	16	19
10	8.1	8.6	6.0	e5.9	e9.0	5.7	2.1	3.9	17	5.8	15	20
11	11	7.7	e5.1	e7.0	9.1	4.5	2.0	2.4	35	5.4	16	20
12	7.4	7.1	e4.2	e6.1	e7.2	4.4	1.9	2.2	7.7	4.9	17	21
13	6.0	6.4	e5.7	e5.6	e6.5	4.5	1.9	2.7	5.8	4.1	17	23
14	6.1	6.0	7.4	e5.3	e6.5	3.7	1.8	2.3	5.5	3.3	17	122
15	6.0	7.2	7.7	e5.2	e4.5	3.8	1.7	2.1	4.7	3.3	17	183
16	6.1	5.9	7.1	e6.1	e6.5	4.1	1.6	2.7	220	3.2	17	52
17	6.4	6.4	6.6	e5.5	e6.6	4.6	1.4	6.0	44	3.0	17	36
18	6.8	6.5	7.5	e3.8	8.7	5.0	4.4	3.4	12	2.9	27	31
19	7.0	6.2	7.3	e3.0	8.5	5.7	8.3	2.5	9.3	2.8	19	28
20	7.6	6.6	7.4	e5.4	8.9	7.1	3.7	9.6	8.7	2.7	17	25
21	8.6	6.5	7.9	e5.9	9.5	4.2	3.6	157	7.6	2.7	17	30
22	10	7.1	8.1	e5.2	12	3.5	2.8	441	5.9	2.5	17	38
23	9.9	e4.7	e7.0	e6.5	15	3.3	2.4	343	5.2	2.2	37	30
24	10	e3.3	e5.9	7.1	14	3.1	3.4	78	7.3	2.1	19	28
25	11	7.2	e6.9	6.3	12	3.0	11	54	5.5	2.1	16	25
26	11	7.4	8.4	e4.3	12	4.5	5.7	12	4.6	2.1	16	25
27	13	7.2	e9.2	e2.8	39	10	4.1	9.2	4.4	2.3	15	25
28	13	6.2	e9.3	e3.0	174	12	3.6	9.0	4.1	3.4	15	25
29	14	6.8	e8.3	e3.4	253	6.2	3.0	15	3.7	2.5	16	25
30	15	6.9	e7.0	e4.0	---	4.6	2.9	53	3.4	2.0	16	25
31	16	---	e5.6	e6.2	---	4.0	---	32	---	1.9	16	---
TOTAL	272.2	233.0	220.5	162.3	686.8	1,005.9	97.8	1,277.1	495.6	312.7	551	1,001
MEAN	8.78	7.77	7.11	5.24	23.7	32.4	3.26	41.2	16.5	10.1	17.8	33.4
MAX	16	15	9.3	7.3	253	389	11	441	220	113	37	183
MIN	5.3	3.3	4.2	2.8	4.0	3.0	1.4	1.8	3.4	1.9	15	15
AC-FT	540	462	437	322	1,360	2,000	194	2,530	983	620	1,090	1,990
CFSM	0.13	0.12	0.11	0.08	0.36	0.50	0.05	0.63	0.25	0.15	0.27	0.51
IN.	0.16	0.13	0.13	0.09	0.39	0.57	0.06	0.73	0.28	0.18	0.31	0.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2004, BY WATER YEAR (WY)

MEAN	8.62	8.74	7.16	7.41	20.1	43.5	25.2	25.2	31.2	22.0	13.9	13.2
MAX	29.5	31.9	22.6	47.5	78.4	188	123	140	125	99.6	85.5	147
(WY)	(1993)	(1997)	(1999)	(1952)	(1948)	(1962)	(1985)	(1990)	(1984)	(1952)	(1951)	(1949)
MIN	0.38	0.81	0.48	0.33	1.31	2.62	2.30	2.91	0.94	0.35	0.30	0.08
(WY)	(1959)	(1982)	(1959)	(1982)	(1959)	(1964)	(1959)	(1968)	(1956)	(1946)	(1965)	(1958)

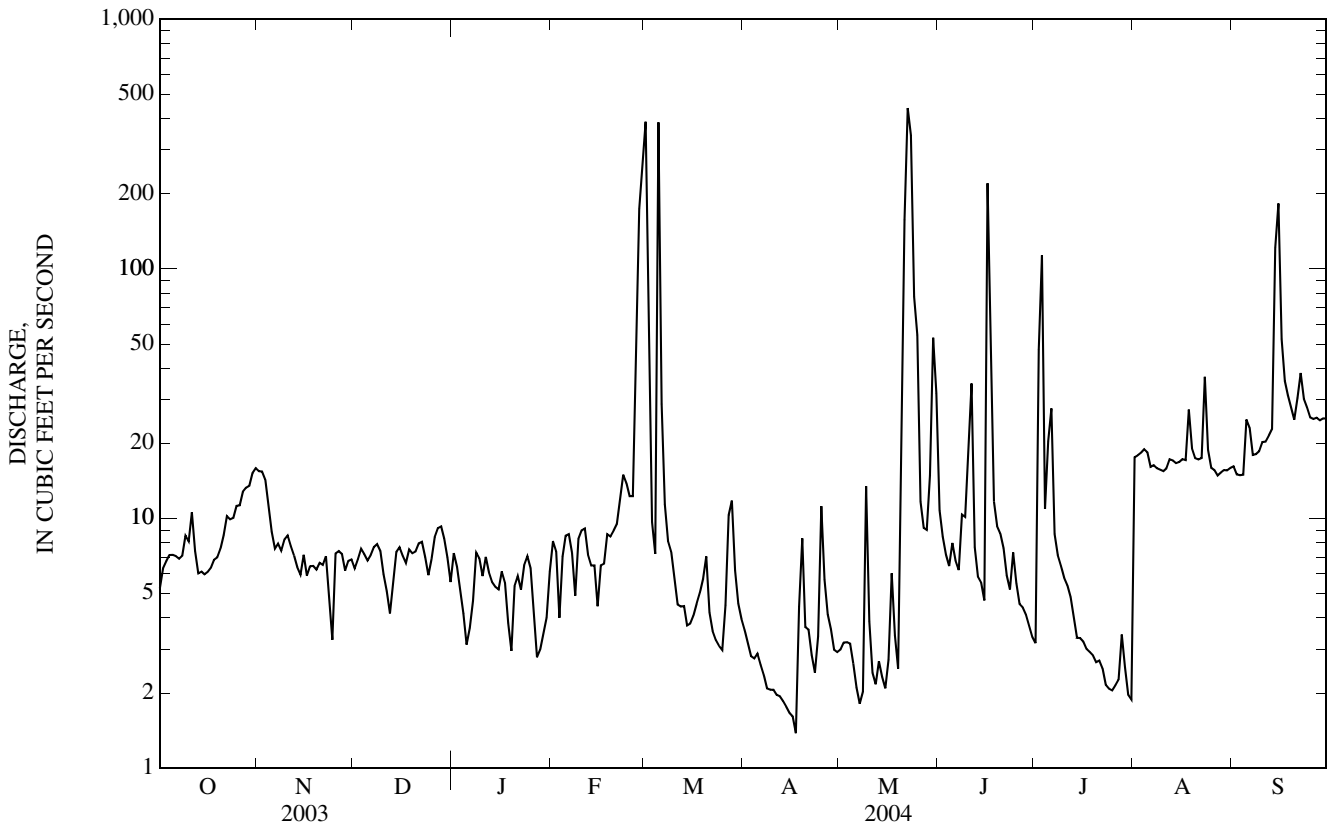
06600000 PERRY CREEK AT 38th STREET, SIOUX CITY, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1946 - 2004	
ANNUAL TOTAL	6,166.1		6,315.9		18.9	
ANNUAL MEAN	16.9		17.3		38.6	
HIGHEST ANNUAL MEAN					2.38	1984
LOWEST ANNUAL MEAN					1968	
HIGHEST DAILY MEAN	390	Feb 20	441	May 22	2,260	May 19, 1990
LOWEST DAILY MEAN	2.7	Jan 23	1.4	Apr 17	0.00	Jul 14, 1946a
ANNUAL SEVEN-DAY MINIMUM	4.2	Sep 20	1.8	Apr 11	0.00	Sep 24, 1958
MAXIMUM PEAK FLOW			1,890	May 22	8,670	May 19, 1990b
MAXIMUM PEAK STAGE			14.18	May 22	28.54	May 19, 1990
ANNUAL RUNOFF (AC-FT)	12,230		12,530		13,700	
ANNUAL RUNOFF (CFSM)	0.259		0.265		0.290	
ANNUAL RUNOFF (INCHES)	3.52		3.61		3.95	
10 PERCENT EXCEEDS	25		25		32	
50 PERCENT EXCEEDS	9.4		7.1		7.5	
90 PERCENT EXCEEDS	6.1		2.8		1.0	

a Many days 1946, 1958-1960.

b From rating curve extended above 1,700 ft³/s on basis of slope-area measurements of peak flow.

c Estimated.

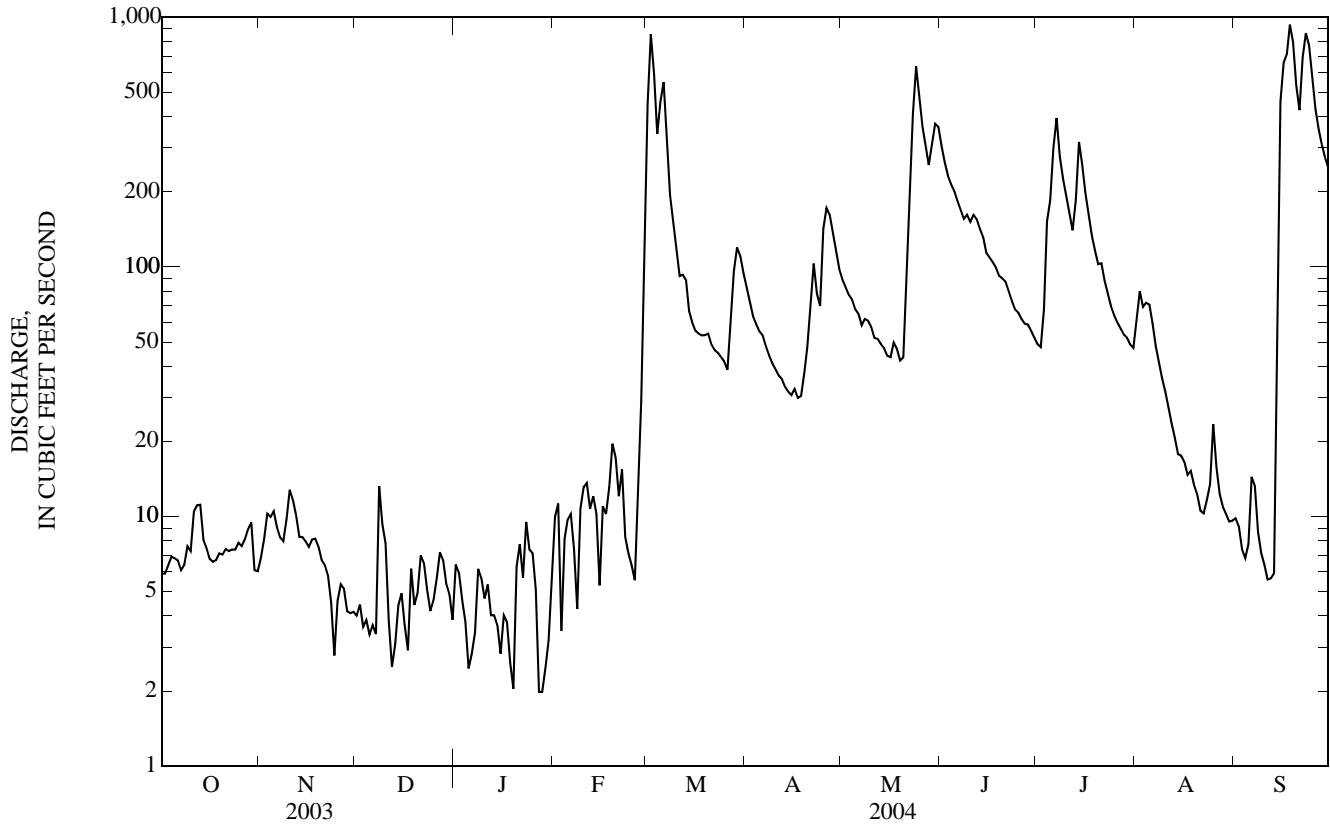


FLOYD RIVER BASIN

06600100 FLOYD RIVER AT ALTON, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1956 - 2004	
ANNUAL TOTAL	17,410.9		32,017.2		81.9	
ANNUAL MEAN	47.7		87.5		2.66	
HIGHEST ANNUAL MEAN					323	1993
LOWEST ANNUAL MEAN					2.66	1968
HIGHEST DAILY MEAN	1,290	Jul 10	935	Sep 18	7,160	Apr 4, 1969
LOWEST DAILY MEAN	1.7	Jan 26	2.0	Jan 19 ab	0.00	Oct 14, 1956 c
ANNUAL SEVEN-DAY MINIMUM	2.8	Jan 23	3.3	Jan 13	0.00	Oct 27, 1956
MAXIMUM PEAK FLOW			1,280	Sep 17	16,300	Jun 20, 1983 d
MAXIMUM PEAK STAGE			12.27	Mar 2 b	18.54	Jun 20, 1983 f
ANNUAL RUNOFF (AC-FT)	34,530		63,510		59,350	
ANNUAL RUNOFF (CFSM)	0.178		0.326		0.306	
ANNUAL RUNOFF (INCHES)	2.42		4.44		4.15	
10 PERCENT EXCEEDS	115		258		190	
50 PERCENT EXCEEDS	11		26		21	
90 PERCENT EXCEEDS	4.6		4.4		1.5	

- a Also Jan. 27, 28.
- b Ice affected.
- c No flow at times in 1956, 1958-59, 1965, 1968, 1977.
- d From rating curve extended above 8,500 ft³/s.
- f From floodmark.
- e Estimated.



06600500 FLOYD RIVER AT JAMES, IA

LOCATION.--Lat 42°34'36", long 96°18'40"(revised), in SE¼ SE¼ sec.30, T.90 N., R.46 W., Plymouth County, Hydrologic Unit 10230002, on left bank at upstream side of bridge on county highway C70, 0.2 mi east of James, 14.3 mi downstream from West Branch Floyd River, and at mile 7.5.

DRAINAGE AREA.--886 mi².

PERIOD OF RECORD.--December 1934 to current year.

REVISED RECORDS.--WSP 1240: 1935 (M), 1936, 1937-38 (M), 1942, 1945. WSP 1440: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,092.59 ft above NGVD of 1929. Prior to Sept. 11, 1938, June 9 to Nov. 5, 1953, and Oct. 1, 1955, to May 22, 1957, nonrecording gage and May 23, 1957, to Sept. 30, 1970, water-stage recorder at same site at datum 10.0 ft higher.

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.--Maximum stage and discharge since 1892, that of June 8, 1953, from information by U. S. Army Corps of Engineers.

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	59	58	e65	e82	e52	e1,990	310	372	1,320	343	242	119
2	59	58	e69	e79	e51	e1,800	285	354	1,090	348	236	113
3	61	69	e67	e72	e38	e1,270	263	336	964	1,290	239	110
4	59	75	e67	e60	e40	892	241	322	878	937	225	107
5	58	70	e62	e48	e42	1,620	232	310	825	676	211	110
6	58	65	e60	e47	e43	1,620	220	295	781	1,250	213	126
7	59	65	e67	e53	e38	1,030	211	278	724	1,230	205	120
8	58	63	e71	e61	e35	749	199	264	671	1,060	196	112
9	57	67	e64	e52	e44	580	190	335	694	876	188	108
10	57	74	e57	e51	e53	501	186	300	707	768	178	103
11	63	72	e48	e60	e54	423	179	277	712	713	171	99
12	69	69	e46	e55	e45	339	173	255	675	653	169	96
13	64	64	e54	e56	e49	329	169	247	605	618	165	94
14	62	65	e67	e52	e43	319	164	236	573	650	159	282
15	60	67	e71	e48	e38	286	160	225	556	734	155	2,890
16	60	65	e66	e58	e51	266	157	223	781	659	152	3,030
17	61	66	e60	e53	e51	246	155	248	684	577	148	1,590
18	60	67	e74	e43	e57	241	160	252	554	528	160	1,820
19	59	67	e69	e37	e64	239	196	235	519	492	155	1,750
20	59	65	e71	e46	e62	247	192	286	498	462	143	1,340
21	59	62	e88	e57	e56	229	243	964	485	440	136	1,110
22	58	62	e86	e43	e65	218	294	3,440	464	418	135	1,210
23	58	e63	e80	e64	e63	209	297	3,870	441	385	226	1,460
24	58	e49	e77	e55	e61	204	277	2,720	438	355	180	1,470
25	56	e64	e87	e56	e57	197	430	2,080	414	333	144	1,310
26	56	e61	e102	e50	e55	212	583	1,520	393	317	138	1,110
27	59	e63	e112	e47	e75	223	541	1,270	384	300	136	950
28	61	e60	e101	e42	e233	318	499	1,090	377	292	129	835
29	60	e61	e88	e43	e861	389	450	1,150	368	284	125	752
30	59	e67	e79	e44	---	365	404	2,100	359	267	126	695
31	59	---	e74	e49	---	336	---	1,780	---	254	123	---
TOTAL	1,845	1,943	2,249	1,663	2,476	17,887	8,060	27,634	18,934	18,509	5,308	25,021
MEAN	59.5	64.8	72.5	53.6	85.4	577	269	891	631	597	171	834
MAX	69	75	112	82	861	1,990	583	3,870	1,320	1,290	242	3,030
MIN	56	49	46	37	35	197	155	223	359	254	123	94
MED	59	65	69	52	52	329	226	322	589	528	160	724
AC-FT	3,660	3,850	4,460	3,300	4,910	35,480	15,990	54,810	37,560	36,710	10,530	49,630
CFSM	0.07	0.07	0.08	0.06	0.10	0.65	0.30	1.01	0.71	0.67	0.19	0.94
IN.	0.08	0.08	0.09	0.07	0.10	0.75	0.34	1.16	0.79	0.78	0.22	1.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2004, BY WATER YEAR (WY)

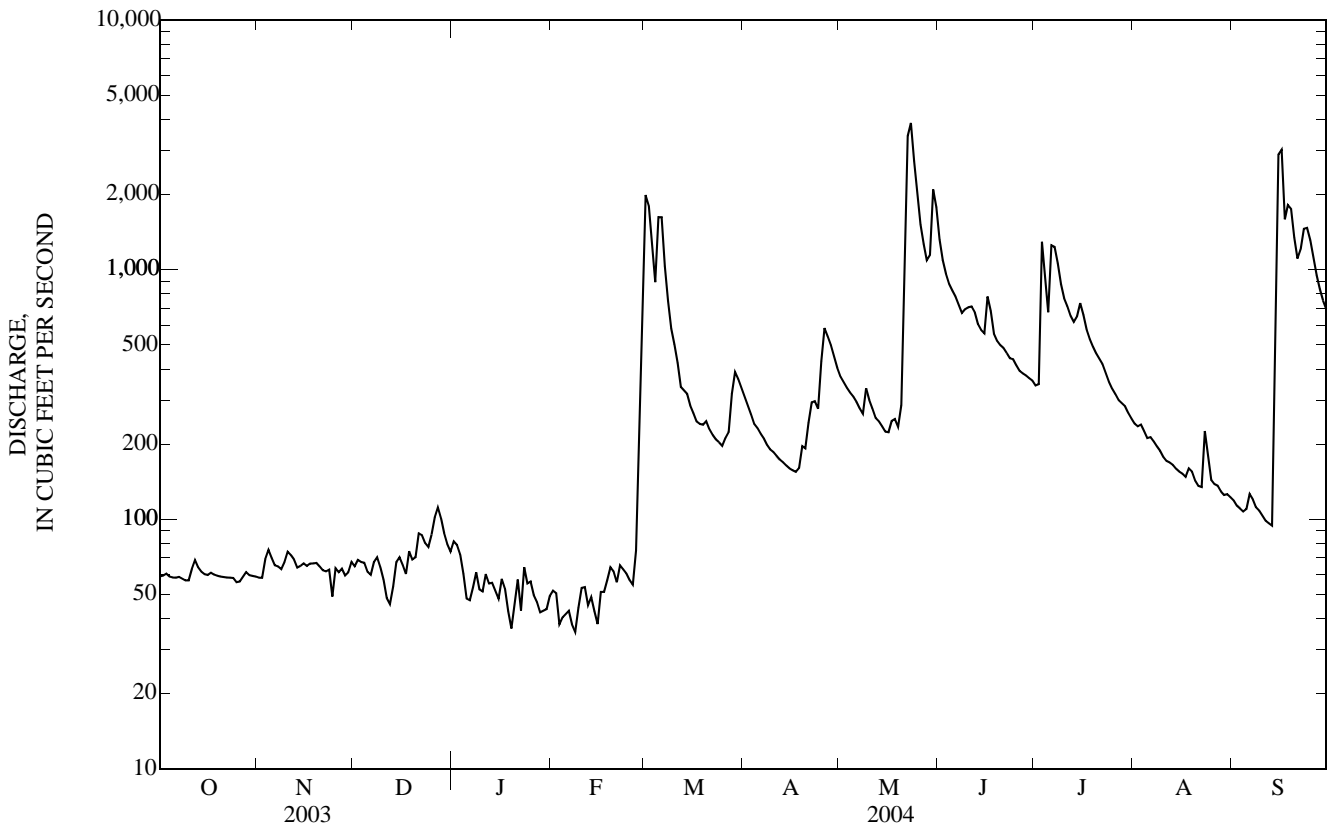
MEAN	111	109	82.6	59.9	166	528	442	345	526	314	164	145
MAX	617	804	366	359	970	2,080	2,715	1,393	2,897	2,196	1,151	1,353
(WY)	(1993)	(1980)	(1980)	(1973)	(1952)	(1979)	(1969)	(1984)	(1984)	(1993)	(1951)	(1951)
MIN	4.55	4.54	3.05	1.13	1.62	21.5	18.7	15.1	14.4	7.32	6.12	3.40
(WY)	(1959)	(1959)	(1959)	(1977)	(1959)	(1964)	(1959)	(1968)	(1968)	(1936)	(1958)	(1958)

FLOYD RIVER BASIN

06600500 FLOYD RIVER AT JAMES, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1936 - 2004	
ANNUAL TOTAL	74,691		131,529			
ANNUAL MEAN	205		359		249	
HIGHEST ANNUAL MEAN					958 1983	
LOWEST ANNUAL MEAN					19.9 1956	
HIGHEST DAILY MEAN	2,730	Jul 10	3,870	May 23	32,400	Jun 8, 1953
LOWEST DAILY MEAN	29	Mar 5	35	Feb 8 a	0.90	Jan 10, 1977 b
ANNUAL SEVEN-DAY MINIMUM	40	Mar 4	40	Feb 3	0.90	Jan 10, 1977
MAXIMUM PEAK FLOW			5,190	May 23	71,500	Jun 8, 1953 c
MAXIMUM PEAK STAGE			18.37	May 23	35.30	Jun 8, 1953 d
ANNUAL RUNOFF (AC-FT)	148,100		260,900		180,700	
ANNUAL RUNOFF (CFSM)	0.231		0.406		0.282	
ANNUAL RUNOFF (INCHES)	3.14		5.52		3.83	
10 PERCENT EXCEEDS	464		954		550	
50 PERCENT EXCEEDS	93		162		86	
90 PERCENT EXCEEDS	57		53		13	

- a Ice affected.
- b Also Jan. 11-22, 1977.
- c From rating curve extended above 16,000 ft³/s on basis of contracted opening and flow-over-embankment measurement of peak flow.
- d From floodmarks, current datum.
- e Estimated.



06601200 MISSOURI RIVER AT DECATUR, NE

LOCATION.--Lat 42°00'26", long 96°14'29", in NE¹/₄ SW¹/₄ sec.36, T.24 N., R.10 E., Burt County, Hydrologic Unit 10230001, on right bank 0.1 mi upstream from Iowa Highway 175 bridge at Decatur, and at mile 691.0.

DRAINAGE AREA.--316,200 mi², approximately. The 3,959 mi² in Great Divide basin are not included.

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,010.00 ft above NGVD of 1929, supplementary adjustment of 1954.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by upstream main-stem reservoirs. Fort Randall Dam was completed in July 1952, with storage beginning in December 1952. Gavins Point Dam was completed in July 1955, with storage beginning in December 1955. 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	28,300	29,200	14,800	16,000	16,500	17,600	22,900	25,100	34,800	30,100	27,200	27,100
2	28,600	29,900	14,700	16,100	17,400	20,200	22,300	27,000	35,700	30,400	27,200	27,200
3	28,700	30,600	14,700	16,200	18,100	20,200	22,000	29,300	39,000	32,200	27,400	27,800
4	28,800	30,800	14,700	15,800	17,700	20,900	22,100	29,300	36,500	33,800	27,500	28,000
5	28,700	30,500	14,600	15,100	16,400	21,200	22,500	29,000	37,200	33,100	27,700	28,400
6	28,800	30,100	14,400	14,300	16,400	20,900	22,400	29,000	39,800	32,900	27,500	28,900
7	28,800	29,800	14,200	14,300	17,100	18,300	22,800	28,700	38,700	33,600	28,000	28,400
8	28,700	29,500	14,300	14,900	16,200	17,300	23,900	28,500	37,600	34,300	28,600	28,300
9	29,200	29,600	14,400	16,200	15,700	16,000	24,000	29,500	37,000	34,900	28,400	28,400
10	29,800	29,700	14,700	16,300	16,700	e15,500	23,900	31,200	36,600	35,200	28,200	29,100
11	30,000	29,800	13,900	16,500	16,900	14,200	24,300	30,100	37,700	33,800	28,000	29,000
12	30,400	29,900	14,100	16,700	16,400	13,700	24,600	29,400	36,500	33,000	28,000	29,200
13	29,900	29,900	15,400	17,300	15,800	13,100	24,600	31,100	35,400	32,200	27,900	29,100
14	29,700	29,600	16,200	16,900	15,300	13,300	24,500	28,700	35,800	31,800	27,700	30,000
15	29,800	29,600	16,600	16,200	16,100	14,100	24,400	28,700	36,100	31,600	27,500	32,200
16	29,100	29,800	16,800	15,600	15,500	14,200	24,800	30,700	36,500	31,100	27,400	34,400
17	28,900	29,800	16,400	15,200	14,800	14,000	24,900	27,800	38,200	30,100	27,500	32,300
18	28,800	29,900	16,500	15,500	14,900	13,600	24,900	28,500	35,700	29,600	27,400	30,600
19	28,800	28,000	17,000	15,800	14,900	13,700	25,600	30,900	36,800	29,300	27,800	29,200
20	29,100	24,900	16,000	15,600	15,000	14,200	25,600	27,500	35,900	29,100	27,200	28,000
21	29,100	22,600	15,300	16,100	14,400	16,500	25,900	28,600	34,800	28,700	27,000	27,400
22	29,100	20,500	14,900	16,700	14,400	19,200	26,200	37,700	34,000	28,800	26,900	26,900
23	29,100	18,000	14,500	16,600	15,000	20,700	26,200	36,700	33,100	28,400	26,700	26,400
24	29,100	16,100	14,400	18,400	14,500	21,500	26,400	36,800	32,000	27,900	27,000	26,700
25	29,100	14,900	14,300	18,200	13,800	21,600	26,500	38,900	31,500	27,800	27,100	26,600
26	29,000	14,700	14,300	17,100	13,400	22,800	26,200	33,600	30,800	27,700	27,100	26,600
27	29,100	14,700	15,000	17,600	13,500	24,000	25,500	33,400	30,300	27,600	27,100	26,400
28	29,300	14,800	16,200	14,000	14,700	24,900	24,200	34,900	30,000	27,600	27,100	25,600
29	29,300	14,600	16,400	14,400	15,900	25,200	24,100	30,100	30,000	27,800	27,200	25,200
30	29,000	14,700	16,100	15,900	---	25,000	24,600	31,700	29,900	27,700	27,100	24,900
31	29,300	---	16,000	16,800	---	24,100	---	38,400	---	27,400	27,000	---
TOTAL	903,400	756,500	471,800	498,300	453,400	571,700	732,800	960,800	1,053,900	949,500	851,400	848,300
MEAN	29,140	25,220	15,220	16,070	15,630	18,440	24,430	30,990	35,130	30,630	27,460	28,280
MAX	30,400	30,800	17,000	18,400	18,100	25,200	26,500	38,900	39,800	35,200	28,600	34,400
MIN	28,300	14,600	13,900	14,000	13,400	13,100	22,000	25,100	29,900	27,400	26,700	24,900
AC-FT	1,792,000	1,501,000	935,800	988,400	899,300	1,134,000	1,454,000	1,906,000	2,090,000	1,883,000	1,689,000	1,683,000
CFSM	0.09	0.08	0.05	0.05	0.05	0.06	0.08	0.10	0.11	0.10	0.09	0.09
IN.	0.11	0.09	0.06	0.06	0.05	0.07	0.09	0.11	0.12	0.11	0.10	0.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2004, BY WATER YEAR (WY)

	37,060	32,370	21,170	18,650	19,690	24,620	35,270	36,850	37,700	37,510	35,530	37,160
MEAN	37,060	32,370	21,170	18,650	19,690	24,620	35,270	36,850	37,700	37,510	35,530	37,160
MAX	70,150	72,350	41,350	26,850	32,380	49,450	90,050	80,690	67,970	66,520	66,170	67,290
(WY)	(1998)	(1998)	(1998)	(1998)	(1997)	(1997)	(1997)	(1997)	(1997)	(1997)	(1997)	(1997)
MIN	24,250	10,470	12,070	12,360	12,210	11,580	24,410	26,080	27,010	26,620	25,680	26,750
(WY)	(1993)	(1991)	(1991)	(1990)	(1991)	(1991)	(1991)	(2002)	(2002)	(2002)	(2003)	(1993)

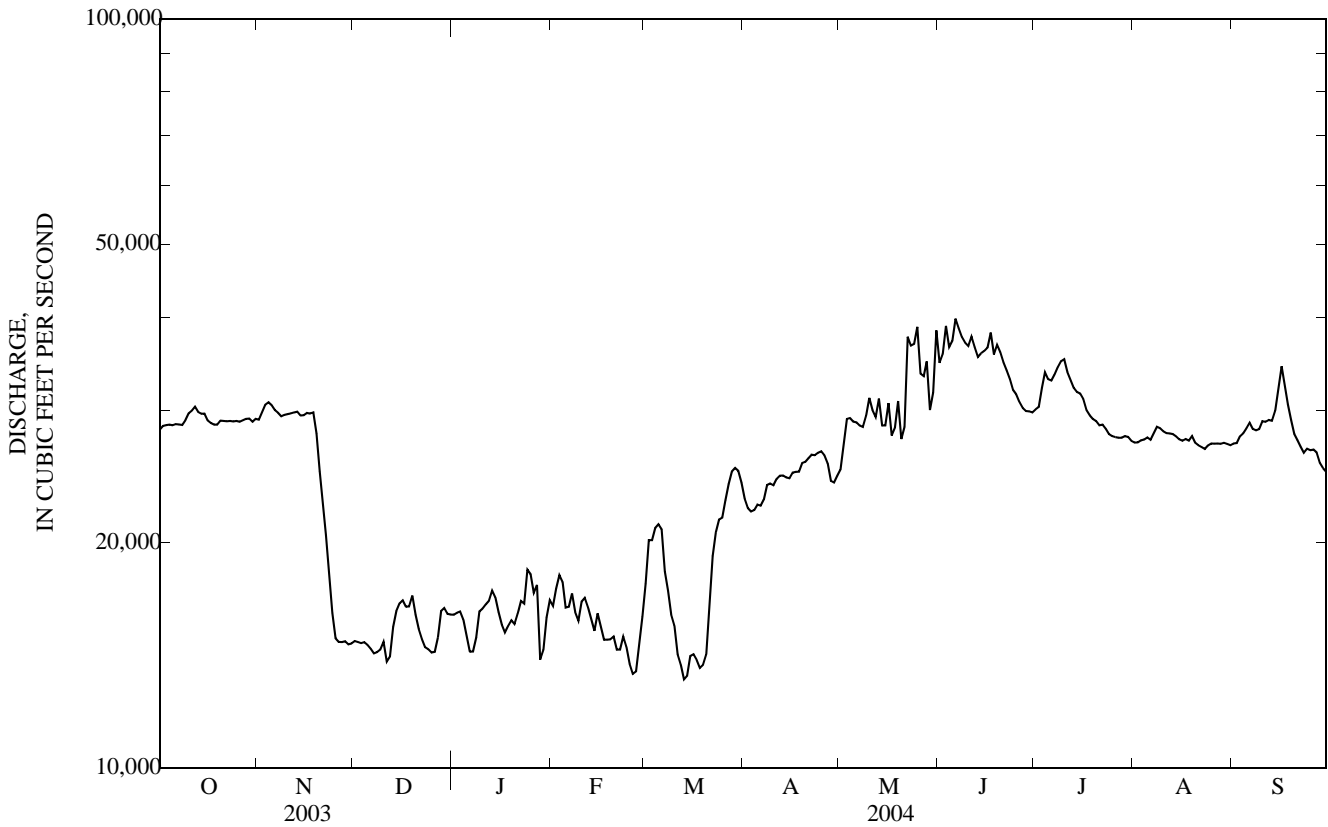
MISSOURI RIVER MAIN STEM

06601200 MISSOURI RIVER AT DECATUR, NE—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1988 - 2004	
ANNUAL TOTAL	8,865,300		9,051,800			
ANNUAL MEAN	24,290		24,730		31,170	
HIGHEST ANNUAL MEAN					57,440 1997	
LOWEST ANNUAL MEAN					21,450 1991	
HIGHEST DAILY MEAN	36,500	Sep 12	39,800	Jun 6	99,900	Apr 15, 1997
LOWEST DAILY MEAN	10,900	Feb 26	13,100	Mar 13	7,130	Dec 22, 1990
ANNUAL SEVEN-DAY MINIMUM	13,900	Mar 5	13,700	Mar 12	9,660	Dec 12, 1990
MAXIMUM PEAK FLOW			42,700	May 23	100,000	Apr 15, 1997
MAXIMUM PEAK STAGE			25.01	Jun 3	32.31	Jul 18, 1996
INSTANTANEOUS LOW FLOW			12,800	Jan 28 a		
ANNUAL RUNOFF (AC-FT)	17,580,000		17,950,000		22,580,000	
ANNUAL RUNOFF (CFSM)	0.077		0.078		0.099	
ANNUAL RUNOFF (INCHES)	1.04		1.06		1.34	
10 PERCENT EXCEEDS	30,500		33,500		50,000	
50 PERCENT EXCEEDS	27,000		27,100		29,500	
90 PERCENT EXCEEDS	14,700		14,700		14,800	

a Also March 14.

e Estimated.



06602020 WEST FORK DITCH AT HORNICK, IA

LOCATION.--Lat 42°13'37", long 96°04'40", in SW¹/₄ SW¹/₄ sec.27, T.86 N., R.45 W., Woodbury County, Hydrologic Unit 10230004, on left bank at upstream side of State Highway 141 bridge, 1.0 mi east of Hornick, 9.2 mi upstream from Wolf Creek, and 13.5 mi north of Onawa.

DRAINAGE AREA.--403 mi².

PERIOD OF RECORD.-- April 1939 to September 1969 (published as "Holly Springs"), July 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,045.82 ft above NGVD of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. West Fork ditch is a dredged channel which diverts flow of West Fork Little Sioux River at Hornick 5.5 mi south, then southeast 6.5 mi to a point 1.2 mi west of Kennebec, where Wolf Creek enters from left. From this point, ditch roughly parallels the Little Sioux River and is known as Monona-Harrison ditch. 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/dataming2.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	49	45	e49	58	e49	1,160	128	161	462	246	132	84
2	50	45	53	56	e47	896	120	156	409	313	137	82
3	49	51	52	47	e37	342	113	151	377	1,190	135	79
4	49	59	47	e39	e39	202	108	145	351	749	127	77
5	48	55	e43	e25	e39	849	106	144	336	446	121	77
6	48	50	e45	e26	e40	1,070	102	136	332	590	116	107
7	47	48	50	e30	e37	397	100	131	312	513	112	101
8	47	45	e48	e40	e34	246	96	128	288	408	110	85
9	45	46	e47	e34	e46	197	94	381	426	364	104	81
10	46	53	e42	e32	e52	173	93	229	925	331	100	80
11	47	50	e40	e42	e55	148	93	164	981	313	98	75
12	52	47	e37	e40	e47	128	92	146	745	312	98	74
13	50	51	e42	e41	e48	128	90	144	458	284	97	74
14	48	58	e54	e39	e45	121	90	159	398	268	94	75
15	48	58	e57	e36	e40	118	87	132	360	253	92	563
16	48	58	e53	e44	e46	116	84	124	877	245	89	754
17	49	58	e50	e41	e46	111	82	120	1,620	229	87	370
18	48	58	e60	e33	e53	109	88	121	620	218	93	249
19	48	55	e52	e30	e56	117	91	115	489	209	99	231
20	46	55	e55	e38	e50	122	105	114	438	202	89	201
21	45	52	e68	e46	e44	120	144	221	424	195	85	191
22	45	52	e67	e38	e64	111	177	904	385	188	82	287
23	44	e49	e61	e51	e62	105	140	2,340	349	177	87	403
24	45	e42	e56	e48	e56	102	128	1,740	333	168	348	371
25	45	e48	e58	e48	e49	100	210	1,400	335	160	133	315
26	44	e44	e64	e46	e43	97	282	818	303	156	109	273
27	46	e45	68	e41	e63	108	247	596	289	151	99	250
28	47	e41	62	e37	e149	156	213	503	277	148	92	231
29	46	e43	e55	e37	561	184	192	502	265	152	89	212
30	45	e52	52	e39	---	161	172	716	254	145	107	202
31	44	---	50	e44	---	140	---	594	---	138	89	---
TOTAL	1,458	1,513	1,637	1,246	1,997	8,134	3,867	13,435	14,418	9,461	3,450	6,254
MEAN	47.0	50.4	52.8	40.2	68.9	262	129	433	481	305	111	208
MAX	52	59	68	58	561	1,160	282	2,340	1,620	1,190	348	754
MIN	44	41	37	25	34	97	82	114	254	138	82	74
AC-FT	2,890	3,000	3,250	2,470	3,960	16,130	7,670	26,650	28,600	18,770	6,840	12,400
CFSM	0.12	0.13	0.13	0.10	0.17	0.65	0.32	1.08	1.19	0.76	0.28	0.52
IN.	0.13	0.14	0.15	0.12	0.18	0.75	0.36	1.24	1.33	0.87	0.32	0.58

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2004, BY WATER YEAR (WY)

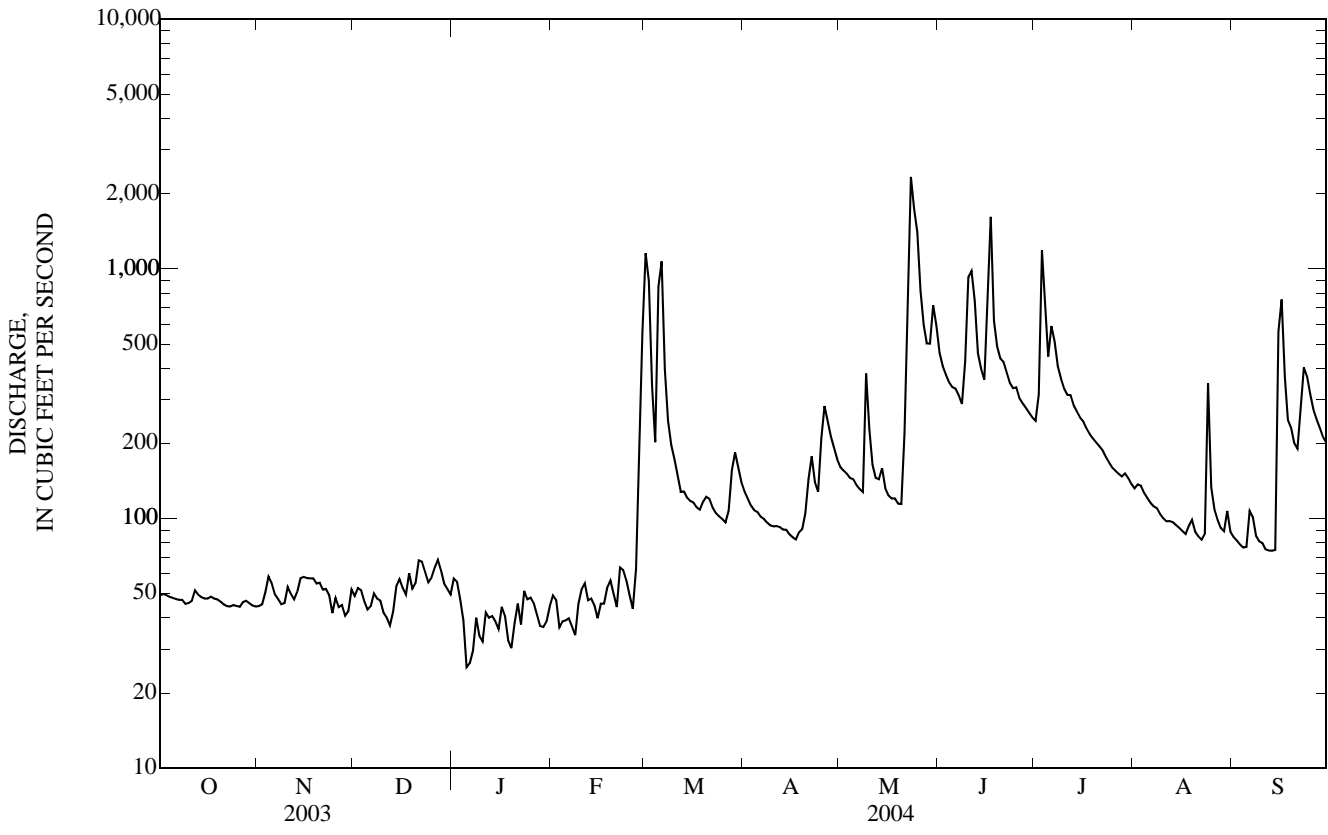
MEAN	61.7	56.0	46.2	37.4	106	222	177	163	283	154	104	72.6
MAX	369	281	199	127	522	813	837	585	2,131	561	605	422
(WY)	(1993)	(1980)	(1985)	(1952)	(1994)	(1962)	(1969)	(1983)	(1984)	(1993)	(1951)	(1951)
MIN	2.08	4.06	2.60	2.26	2.41	8.41	9.80	11.5	7.71	11.5	2.92	2.23
(WY)	(1957)	(1959)	(1959)	(1959)	(1940)	(1957)	(1957)	(1943)	(1956)	(1956)	(1956)	(1956)

MONONA-HARRISON DITCH BASIN

06602020 WEST FORK DITCH AT HORNICK, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1940 - 2004	
ANNUAL TOTAL	49,278		66,870			
ANNUAL MEAN	135		183		124	
HIGHEST ANNUAL MEAN					367	1984
LOWEST ANNUAL MEAN					9.28	1956
HIGHEST DAILY MEAN	1,500	Jun 24	2,340	May 23	9,000	Mar 28, 1962
LOWEST DAILY MEAN	23	Mar 9	25	Jan 5 a	0.20	Jul 30, 1956 b
ANNUAL SEVEN-DAY MINIMUM	38	Mar 5	32	Jan 4	0.53	Aug 23, 1956
MAXIMUM PEAK FLOW			3,210	May 23	12,400	Mar 28, 1962
MAXIMUM PEAK STAGE			18.97	May 23	25.87	Jun 22, 1996
ANNUAL RUNOFF (AC-FT)	97,740		132,600		89,570	
ANNUAL RUNOFF (CFSM)	0.335		0.453		0.307	
ANNUAL RUNOFF (INCHES)	4.55		6.17		4.17	
10 PERCENT EXCEEDS	294		404		250	
50 PERCENT EXCEEDS	74		94		50	
90 PERCENT EXCEEDS	45		43		11	

a Ice affected.
 b Also Aug. 17, 1956.
 e Estimated.



06602400 MONONA-HARRISON DITCH NEAR TURIN, IA

LOCATION.--Lat 41°57'52", long 95°59'30", in NW¼ NE¼ sec.32, T.83 N., R.44 W., Monona County, Hydrologic Unit 10230004, on left bank at upstream side of bridge on county highway E54, 1.0 mi west of gaging station on Little Sioux River near Turin, 4 mi southwest of Turin, 5.2 mi northeast of Blencoe, and 12.5 mi upstream from mouth.

DRAINAGE AREA.--900 mi².

PERIOD OF RECORD.--May 1942 to current year. Records for May 1942 to January 1958 not equivalent owing to diversion from Little Sioux River through equalizer ditch 1.5 mi upstream. Records prior to 1950 not equivalent owing to diversion to Little Sioux River through diversion ditch 10.2 mi upstream. REVISED RECORDS: WSP 1440: Drainage area. WSP 1560: Drainage area. WDR IA-95-1: Period of record.

GAGE.--Water-stage recorder. Datum of gage is 1,015.00 ft above NGVD of 1929 (U.S. Army Corps of Engineers bench mark). May 7, 1942 to Oct. 13, 1953, nonrecording gage and Oct. 14, 1953 to Sept. 30, 1975, recording gage at same site at datum 5.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Monona-Harrison ditch is a dug channel and is a continuation of West Fork ditch, paralleling the Little Sioux River, and discharging into the Missouri River 1.5 mi upstream from the mouth of the Little Sioux River. 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	87	93	e96	95	90	1,360	255	301	876	520	290	163
2	88	94	99	e94	90	1,570	243	289	725	525	274	160
3	92	102	96	87	e82	551	229	286	670	2,420	275	157
4	90	120	93	e81	e83	326	220	276	634	2,920	268	155
5	88	118	83	69	e85	706	217	270	609	1,970	256	157
6	89	105	91	e69	e87	1,910	211	257	610	1,620	246	170
7	89	100	92	e73	e85	666	206	247	592	1,170	238	181
8	88	92	100	80	e83	430	198	245	560	841	231	160
9	88	94	95	e77	e86	357	194	293	567	752	221	156
10	87	106	80	e77	91	316	189	483	833	683	211	156
11	90	104	e77	84	93	274	187	290	1,510	621	204	150
12	96	98	e74	e82	e88	242	186	272	1,710	593	200	147
13	96	94	e79	e81	e88	242	184	260	966	559	197	148
14	91	95	e88	e81	e86	237	183	286	720	525	192	146
15	90	96	e91	e78	e82	231	184	275	656	504	187	264
16	89	97	91	e87	88	225	180	268	734	488	183	674
17	89	98	86	e84	90	222	176	272	3,870	465	176	386
18	90	96	87	e75	92	223	184	273	2,010	445	173	277
19	90	95	e85	e66	94	239	193	265	1,370	427	187	254
20	91	94	e88	e71	94	269	212	258	1,080	413	176	241
21	92	91	93	74	96	256	235	277	986	398	167	232
22	90	90	e93	e67	100	229	285	840	870	387	165	286
23	91	89	e88	80	121	220	251	3,700	725	369	163	364
24	91	66	e82	e73	187	224	229	4,270	656	358	294	370
25	91	82	88	e71	175	214	591	3,600	651	353	212	349
26	90	e82	100	67	148	209	757	2,150	611	349	182	327
27	91	e83	112	e66	170	226	461	1,140	587	340	173	308
28	95	e77	118	e64	395	493	388	915	572	335	165	287
29	96	e83	e109	e66	820	402	348	806	552	333	164	278
30	93	e95	93	e74	---	317	318	923	536	322	182	266
31	92	---	e88	e81	---	276	---	1,020	---	304	177	---
TOTAL	2,810	2,829	2,835	2,374	3,969	13,662	7,894	25,307	28,048	22,309	6,429	7,369
MEAN	90.6	94.3	91.5	76.6	137	441	263	816	935	720	207	246
MAX	96	120	118	95	820	1,910	757	4,270	3,870	2,920	294	674
MIN	87	66	74	64	82	209	176	245	536	304	163	146
AC-FT	5,570	5,610	5,620	4,710	7,870	27,100	15,660	50,200	55,630	44,250	12,750	14,620
CFSM	0.10	0.10	0.10	0.09	0.15	0.49	0.29	0.91	1.04	0.80	0.23	0.27
IN.	0.12	0.12	0.12	0.10	0.16	0.56	0.33	1.05	1.16	0.92	0.27	0.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2004, BY WATER YEAR (WY)

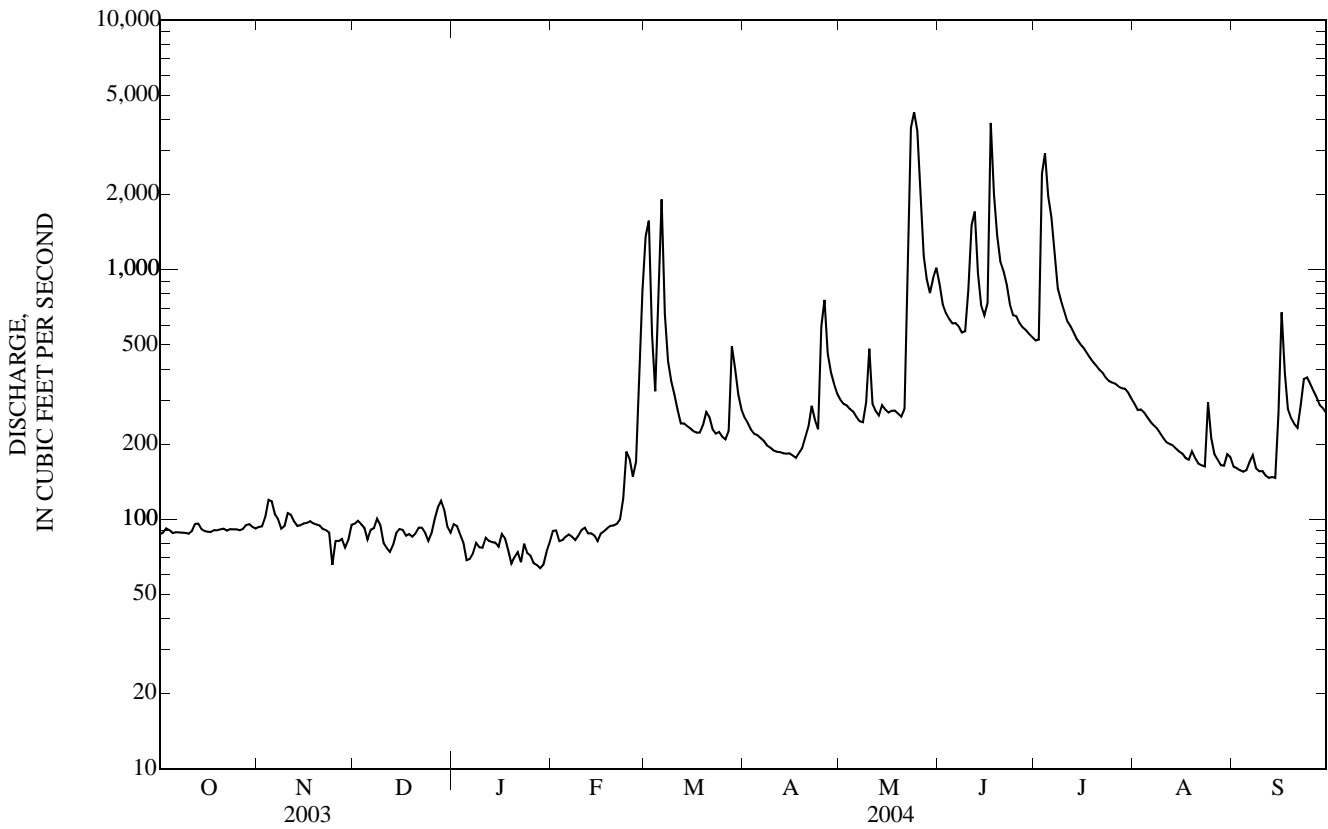
	150	136	115	94.9	220	474	432	403	597	362	193	146
MAX	831	415	421	398	1,963	1,707	1,588	1,157	3,833	2,107	883	576
(WY)	(1993)	(1980)	(1985)	(1973)	(1971)	(1962)	(1965)	(1995)	(1984)	(1993)	(1996)	(1993)
MIN	16.0	18.0	11.4	10.5	13.9	46.9	41.1	43.7	71.8	46.1	30.6	30.8
(WY)	(1959)	(1959)	(1959)	(1959)	(1959)	(1968)	(1968)	(1968)	(1989)	(1976)	(1976)	(1981)

MONONA-HARRISON DITCH BASIN

06602400 MONONA-HARRISON DITCH NEAR TURIN, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1959 - 2004 a	
ANNUAL TOTAL	92,143		125,835			
ANNUAL MEAN	252		344		277	
HIGHEST ANNUAL MEAN					798	1993
LOWEST ANNUAL MEAN					55.5	1968
HIGHEST DAILY MEAN	2,860	Jul 6	4,270	May 24	18,000	Feb 19, 1971
LOWEST DAILY MEAN	66	Nov 24	64	Jan 28 b	8.5	Jan 3, 1959 c
ANNUAL SEVEN-DAY MINIMUM	80	Nov 23	69	Jan 24	8.5	Jan 3, 1959
MAXIMUM PEAK FLOW			5,070	May 24	19,900	Feb 19, 1971
MAXIMUM PEAK STAGE			17.77	May 24	28.03	Feb 19, 1971
INSTANTANEOUS LOW FLOW			44	Nov 24		
ANNUAL RUNOFF (AC-FT)	182,800		249,600		200,400	
ANNUAL RUNOFF (CFSM)	0.280		0.382		0.307	
ANNUAL RUNOFF (INCHES)	3.81		5.20		4.18	
10 PERCENT EXCEEDS	462		722		512	
50 PERCENT EXCEEDS	150		186		133	
90 PERCENT EXCEEDS	90		83		40	

- a Post closure of diversion from Little Sioux River.
- b Ice affected.
- c Also Jan. 4-11, 1959.
- e Estimated.



06602400 MONONA-HARRISON DITCH NEAR TURIN, IA—Continued

