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SKUNK RIVER BASIN

05470000 SOUTH SKUNK RIVER NEAR AMES, IA

LOCATION.--Lat 42°04'06", long 93°37'09", in NW¹/₄ SW¹/₄ sec.23, T.84 N., R.24 W., Story County, Hydrologic Unit 07080105, on left bank 2.5 mi north of Ames, 3.5 mi downstream from Keigley Branch, 5.2 mi upstream from Squaw Creek, and at mile 228.1 upstream from mouth of Skunk River.

DRAINAGE AREA.--315 mi².

PERIOD OF RECORD.--July 1920 to September 1927, October 1932 to September 1995, October 1, 1996 to current year. Monthly discharge only for some periods, published in WSP 1308. Prior to October 1966, published as "Skunk River near Ames".

REVISED RECORDS.--WSP 1438: Drainage area. WSP 1308: 1921, 1925-26, 1934-35 (M), 1937 (M), 1939 (M), 1947-50 (M). WDR IA-67-1: 1965. WDR IA-74-1: 1973 (P).

GAGE.--Water-stage recorder. Concrete control since July 21, 1934. Datum of gage is 893.61 ft above NGVD of 1929 (Iowa Highway Commission benchmark). Prior to Aug. 25, 1921, nonrecording gage at same site and datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 17, 1996 reached about 14,000 ft³/s, from rating curve extension, gage height 15.89 ft, from highwater mark.

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	1.2	2.9	7.1	e14	e20	426	211	190	817	258	78	45
2	0.75	3.2	7.7	e16	e19	388	195	178	619	247	76	42
3	0.90	11	7.9	e17	e18	265	189	171	509	342	87	37
4	1.0	67	9.3	e18	e21	205	181	173	440	401	290	34
5	1.3	45	9.7	e19	e24	598	177	166	395	326	358	30
6	1.2	24	9.2	e16	e24	918	170	164	377	429	202	48
7	1.9	16	8.0	e16	e23	465	160	152	350	377	148	37
8	1.1	12	9.1	e16	e23	301	153	152	320	303	119	29
9	e2.1	11	9.7	e16	e27	226	144	187	299	272	102	25
10	e1.4	10	8.3	e16	e29	186	136	233	303	252	88	27
11	e2.5	8.8	9.6	e16	e29	158	131	200	442	375	76	25
12	e1.5	8.5	6.7	e15	e29	123	129	187	1,030	817	69	22
13	e1.3	7.2	6.1	e16	e29	135	127	280	e1,830	524	62	20
14	e2.0	7.3	5.4	e15	e32	116	128	548	e1,090	352	62	19
15	2.3	6.6	6.5	e15	e31	108	127	392	e749	279	56	21
16	2.0	7.5	9.6	e14	e32	103	129	326	e517	239	49	20
17	2.1	8.5	9.6	e16	e31	104	136	280	e1,480	212	48	17
18	3.1	12	11	e14	e30	125	134	330	e1,400	187	48	20
19	2.6	13	9.5	e13	e32	155	132	296	e775	173	46	18
20	2.7	16	9.3	e12	37	151	136	313	e585	162	43	19
21	2.5	14	8.1	e11	53	126	177	271	580	150	39	16
22	2.4	13	9.2	e11	169	113	177	327	e1,060	152	37	14
23	2.6	11	9.4	e12	570	112	169	1,480	643	147	34	12
24	2.3	14	8.6	e12	548	113	161	1,980	482	128	32	12
25	2.3	12	7.7	e12	303	109	226	2,360	449	115	31	11
26	2.2	11	7.8	e12	216	113	313	2,000	412	107	38	11
27	2.4	9.1	e10	e13	318	114	281	1,190	361	101	95	11
28	2.6	8.2	e13	e14	541	380	258	859	326	94	93	9.7
29	2.9	6.7	e14	e14	432	435	227	1,090	298	86	68	9.2
30	2.8	8.5	e13	e20	---	300	200	1,380	276	83	56	9.2
31	2.9	---	e13	e20	---	247	---	1,180	---	78	49	---
TOTAL	62.85	405.0	283.1	461	3,690	7,418	5,214	19,035	19,214	7,768	2,679	670.1
MEAN	2.03	13.5	9.13	14.9	127	239	174	614	640	251	86.4	22.3
MAX	3.1	67	14	20	570	918	313	2,360	1,830	817	358	48
MIN	0.75	2.9	5.4	11	18	103	127	152	276	78	31	9.2
AC-FT	125	803	562	914	7,320	14,710	10,340	37,760	38,110	15,410	5,310	1,330
CFSM	0.01	0.04	0.03	0.05	0.40	0.76	0.55	1.95	2.03	0.80	0.27	0.07
IN.	0.01	0.05	0.03	0.05	0.44	0.88	0.62	2.25	2.27	0.92	0.32	0.08

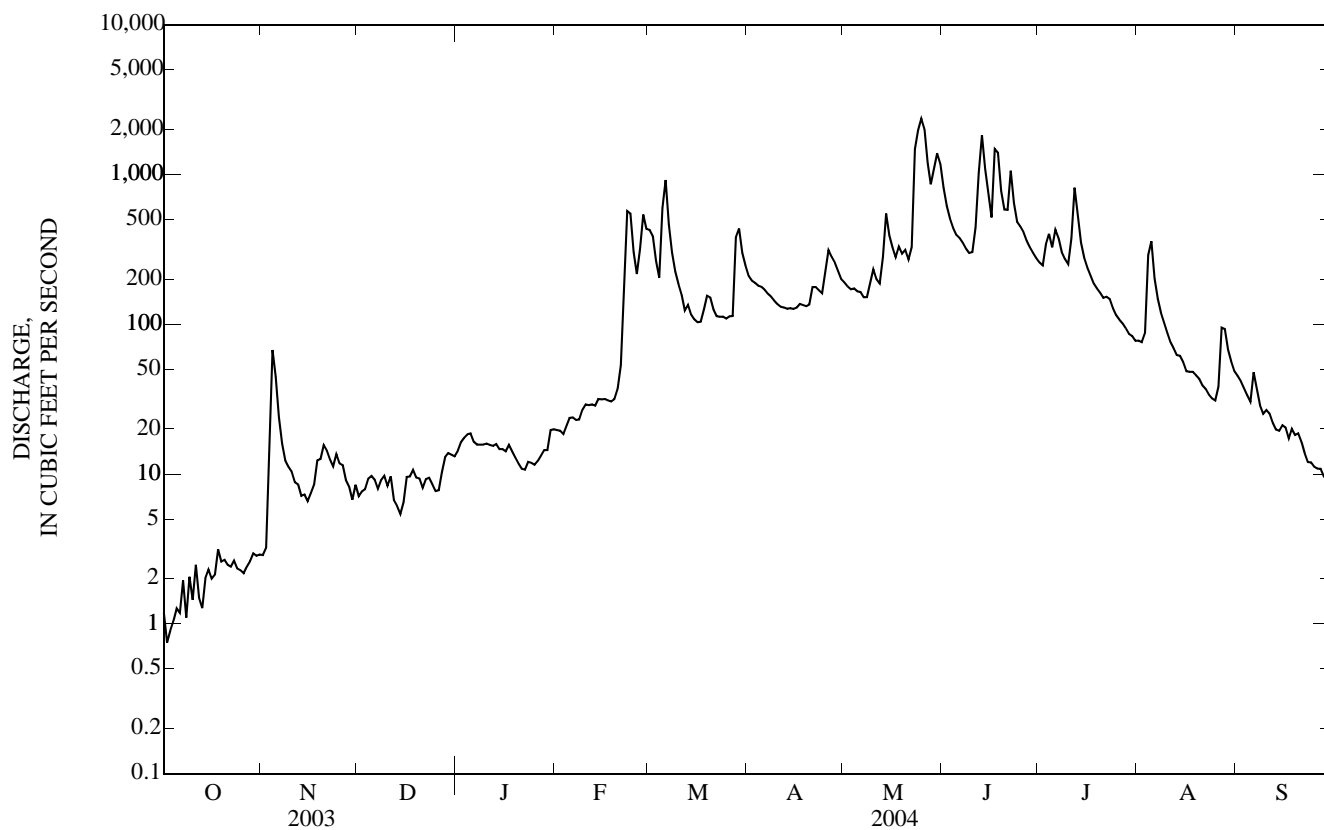
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2004, BY WATER YEAR (WY)

MEAN	92.0	95.5	68.4	48.2	117	307	278	289	388	223	110	91.5
MAX	723	726	537	315	623	1,034	1,208	1,193	1,900	2,628	1,782	577
(WY)	(1987)	(1973)	(1983)	(1973)	(1984)	(1979)	(1965)	(1944)	(1947)	(1993)	(1993)	(1926)
MIN	0.12	0.14	0.00	0.00	0.31	6.35	5.44	2.28	0.01	0.02	0.09	0.08
(WY)	(1954)	(1956)	(1977)	(1977)	(1956)	(1981)	(2000)	(1934)	(1977)	(1977)	(1934)	(1976)

05470000 SOUTH SKUNK RIVER NEAR AMES, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1921 - 2004	
ANNUAL TOTAL	44,707.55		66,900.05			
ANNUAL MEAN	122		183		176	
HIGHEST ANNUAL MEAN					752	1993
LOWEST ANNUAL MEAN					5.58	1956
HIGHEST DAILY MEAN	1,930	Jul 10	2,360	May 25	8,980	Jul 9, 1993
LOWEST DAILY MEAN	0.75	Oct 2	0.75	Oct 2	0.00	Jun 20, 1934 a
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 2	1.2	Oct 2	0.00	Jun 20, 1934 a
MAXIMUM PEAK FLOW			2,520	May 25	11,200	Aug 16, 1993
MAXIMUM PEAK STAGE			9.24	May 25	14.23	Aug 16, 1993 b
INSTANTANEOUS LOW FLOW			0.43	Oct 2	0.00	Jun 20, 1934
ANNUAL RUNOFF (AC-FT)	88,680		132,700		127,300	
ANNUAL RUNOFF (CFSM)	0.389		0.580		0.558	
ANNUAL RUNOFF (INCHES)	5.28		7.90		7.58	
10 PERCENT EXCEEDS	338		441		430	
50 PERCENT EXCEEDS	16		49		57	
90 PERCENT EXCEEDS	2.8		6.6		2.5	

a Many days in 1934, 1953-56, 1976-77.
 b From previous site and datum of gage.
 c Estimated.



05470500 SQUAW CREEK AT AMES, IA

LOCATION.--(revised)Lat 42°01'23", long 93°37'49", in NE¹/₄ NW¹/₄ sec.10, T.83 N., R.24 W., Story County, Hydrologic Unit 07080105, on left bank 65 ft downstream from Lincoln Way Bridge in Ames, 0.2 mi downstream from College Creek, and 2.4 mi upstream from mouth.

DRAINAGE AREA.--204 mi².

PERIOD OF RECORD.--May 1919 to September 1927, May 1965 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1308: Drainage area, 1920-22 (M), 1923, 1924-25 (M), 1926, 1927 (M), WDR IA-66-1: 1965, WDR IA-71-1: 1970 (M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 881.00 ft. above NGVD of 1929 (levels by Iowa State University). Prior to Mar. 11, 1925, nonrecording gage at site 0.6 mi upstream at different datum. Mar. 11, 1925 to Apr. 30, 1927, nonrecording gage at site 65 ft. upstream at datum about 4 ft. higher.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 4, 1918 reached a stage of 14.5 ft. from floodmarks, site and datum used 1919-25, discharge, 6,900 ft³/s. Flood of Mar. 1, 1965 reached a stage of 10.7 ft. from graph based on gage readings, at present site and datum, discharge, 4,200 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	0.00	2.1	6.0	e18	e14	616	234	146	e540	180	55	17
2	0.00	4.2	6.1	e18	e12	486	206	137	365	201	44	15
3	0.00	77	5.5	e17	9.7	313	185	128	303	226	62	13
4	0.00	106	9.0	e16	8.3	273	168	125	274	202	189	12
5	0.00	43	9.1	e18	8.0	820	156	118	252	183	145	30
6	0.00	24	8.0	e18	8.0	677	148	114	236	206	93	33
7	0.00	16	7.0	e14	7.9	411	137	104	215	157	69	16
8	0.00	11	9.7	e15	10	298	129	110	199	136	56	14
9	0.00	9.5	10	e15	8.8	249	119	134	191	137	48	12
10	0.00	9.8	6.1	e15	8.3	219	112	140	194	123	40	12
11	2.9	9.6	5.7	e15	8.3	189	107	120	216	288	35	10
12	0.74	8.2	4.7	e14	8.3	159	104	125	429	495	30	7.6
13	1.4	6.3	4.1	e15	e8.1	158	101	179	456	289	27	6.9
14	5.4	5.7	4.5	e14	8.9	143	98	232	408	207	24	11
15	1.7	6.2	6.0	e13	9.3	136	96	184	303	171	22	8.6
16	2.0	6.8	6.4	e13	e8.8	137	100	164	305	145	20	7.8
17	1.2	14	6.3	e15	8.1	135	115	162	1,310	124	22	8.5
18	1.3	12	7.4	e13	9.1	180	124	180	966	111	24	8.7
19	0.86	10	7.4	e13	12	283	115	177	629	100	21	7.5
20	1.2	13	6.8	e10	38	251	143	171	435	91	18	6.5
21	0.75	10	8.0	e7.9	35	199	166	156	450	85	16	6.0
22	0.10	9.5	9.0	e7.9	192	179	162	379	e890	75	14	5.9
23	0.00	11	9.2	e8.4	623	169	146	1,530	612	66	15	5.7
24	0.00	6.6	8.0	e8.6	523	159	155	1,050	451	59	15	14
25	0.00	7.6	7.9	e7.9	331	143	223	1,960	395	55	18	14
26	0.00	7.0	8.5	e7.9	264	136	282	1,130	332	50	34	8.7
27	1.1	7.7	e12	e8.4	499	185	231	814	289	46	95	4.0
28	2.9	5.7	e13	e9.6	767	757	206	525	257	40	55	8.6
29	2.3	5.1	e15	e10	646	525	177	628	224	37	33	11
30	1.7	7.1	e15	e14	---	351	158	896	200	34	25	6.6
31	2.0	---	e17	e15	---	275	---	842	---	33	20	---
TOTAL	29.55	471.7	258.4	404.6	4,093.9	9,211	4,603	12,860	12,326	4,352	1,384	341.6
MEAN	0.95	15.7	8.34	13.1	141	297	153	415	411	140	44.6	11.4
MAX	5.4	106	17	18	767	820	282	1,960	1,310	495	189	33
MIN	0.00	2.1	4.1	7.9	7.9	135	96	104	191	33	14	4.0
AC-FT	59	936	513	803	8,120	18,270	9,130	25,510	24,450	8,630	2,750	678
CFSM	0.00	0.08	0.04	0.06	0.69	1.46	0.75	2.03	2.01	0.69	0.22	0.06
IN.	0.01	0.09	0.05	0.07	0.75	1.68	0.84	2.35	2.25	0.79	0.25	0.06

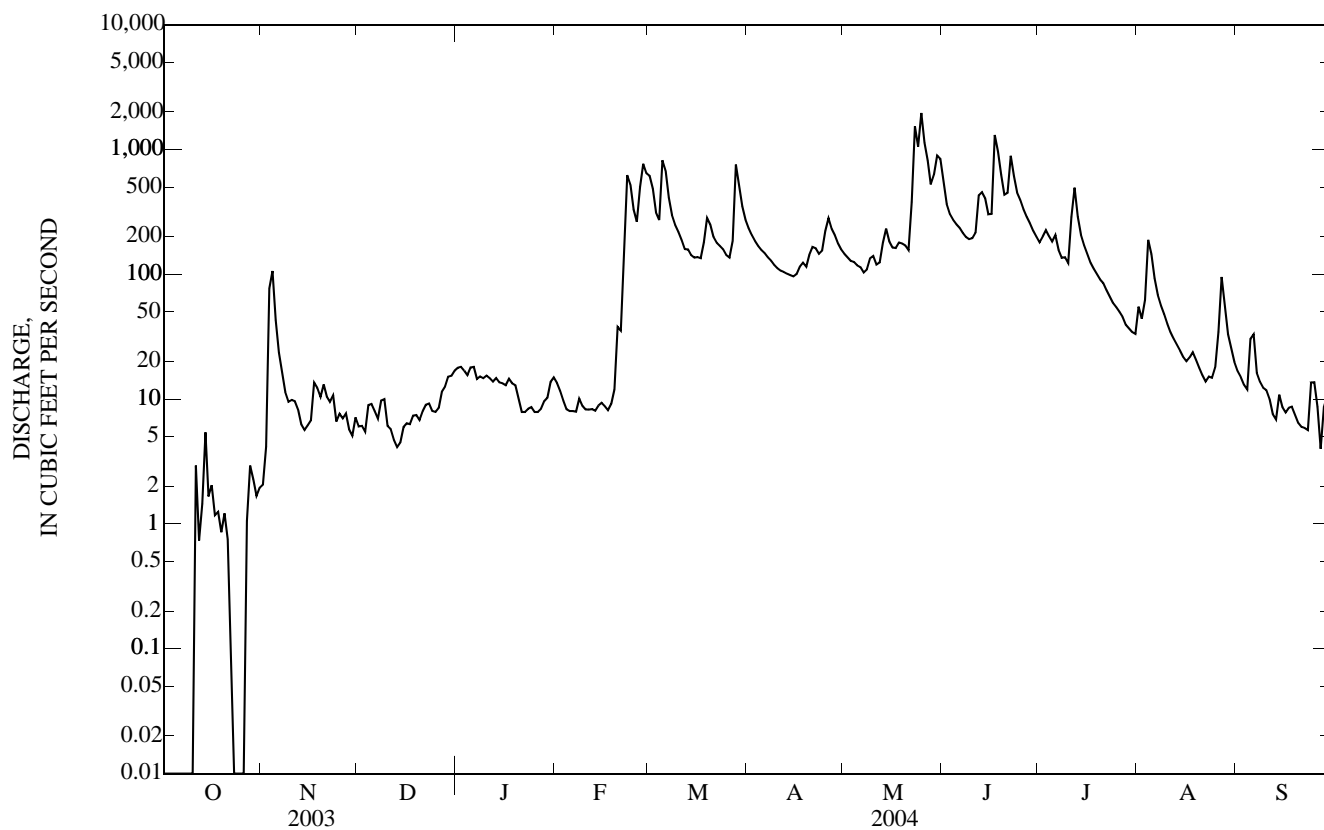
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2004, BY WATER YEAR (WY)

MEAN	75.0	79.8	57.2	37.8	95.1	204	215	241	316	175	80.8	75.3
MAX	505	491	372	275	465	777	796	817	1,107	2,128	1,177	568
(WY)	(1974)	(1973)	(1983)	(1973)	(1973)	(1979)	(1999)	(1990)	(1975)	(1993)	(1993)	(1926)
MIN	0.30	0.63	0.00	0.00	0.09	2.51	4.32	1.42	2.97	3.61	0.95	0.07
(WY)	(2001)	(1967)	(1977)	(1977)	(1977)	(1981)	(1977)	(1981)	(1977)	(1927)	(1989)	(1971)

05470500 SQUAW CREEK AT AMES, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1920 - 2004	
ANNUAL TOTAL	37,878.57		50,335.75			
ANNUAL MEAN	104		138		138	
HIGHEST ANNUAL MEAN					528	1993
LOWEST ANNUAL MEAN					13.6	1981
HIGHEST DAILY MEAN	2,160	Jul 9	1,960	May 25	12,200	Jul 9, 1993
LOWEST DAILY MEAN	0.00	Sep 9	0.00	Oct 1 a	0.00	Jul 31, 1925 b
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 26	0.00	Oct 1	0.00	Oct 7, 1971
MAXIMUM PEAK FLOW			2,380	May 25	24,300	Jul 9, 1993
MAXIMUM PEAK STAGE			6.58	May 25	18.54	Jul 9, 1993
INSTANTANEOUS LOW FLOW			0.00	Oct 1 a	0.00	Jul 31, 1925 b
ANNUAL RUNOFF (AC-FT)	75,130		99,840		99,970	
ANNUAL RUNOFF (CFSM)	0.509		0.674		0.676	
ANNUAL RUNOFF (INCHES)	6.91		9.18		9.19	
10 PERCENT EXCEEDS	347		369		340	
50 PERCENT EXCEEDS	11		30		44	
90 PERCENT EXCEEDS	1.2		5.0		1.7	

a Many days in October.
 b Many years.
 e Estimated.



05471000 SOUTH SKUNK RIVER BELOW SQUAW CREEK NEAR AMES, IA

LOCATION.--Lat 42°00'24", long 93°35'43", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.13, T.83 N., R.24 W., Story County, Hydrologic Unit 07080105, on right bank 500 ft downstream from bridge on county highway, 0.2 mi downstream from Squaw Creek, 200 ft upstream from bridge on U.S. Highway 30, 2 mi southeast of Ames, and at mile 222.6 upstream from mouth of Skunk River.

DRAINAGE AREA.--556 mi².

PERIOD OF RECORD.--October 1952 to December 1979, October 1991 to current year. Prior to October 1966, published as "Skunk River below Squaw Creek near Ames".

REVISED RECORDS.--WDR IA-95-1: Location.

GAGE.--Water-stage recorder. Datum of gage is 857.10 ft above NGVD of 1929. Prior to Oct. 1, 1973, at datum 10.00 ft higher. Prior to Oct. 1991, at site 500 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Low flows are affected by pumpage by City of Ames from surficial aquifer and do not represent the natural flow of the stream. U.S. Geological Survey data collection platform with satellite and telephone modem telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 19, 1944, reached a stage of 13 ft, from floodmarks, discharge, 10,000 ft³/s, datum then in use.

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	0.38	0.00	10	e32	e35	1,140	546	354	1,430	447	140	63
2	0.09	0.03	11	e32	e34	1,000	478	331	1,140	476	118	54
3	0.01	123	17	e30	e31	691	427	312	964	571	158	48
4	0.00	239	e14	e30	e38	562	390	301	855	618	468	43
5	0.00	102	e13	e32	e39	1,390	365	284	783	558	619	78
6	0.00	56	e13	e30	e42	1,760	348	271	734	644	376	111
7	0.00	37	e14	e28	e41	1,040	327	258	671	585	276	60
8	0.00	28	e18	e27	e42	728	306	255	611	489	223	48
9	0.58	26	e21	e27	e45	566	286	295	564	451	189	43
10	0.05	21	24	e26	e44	475	268	364	564	407	162	40
11	1.5	16	27	e28	e45	414	256	314	703	646	137	36
12	0.11	13	16	e27	e45	320	248	307	1,250	1,240	118	32
13	0.00	9.2	15	e28	e44	335	239	424	2,010	860	104	30
14	1.6	8.4	14	e25	e45	297	230	786	1,430	632	92	33
15	1.9	8.1	17	e26	e47	280	226	634	1,040	512	82	29
16	0.12	8.0	19	e27	e47	278	224	531	877	437	75	27
17	1.8	20	21	e31	e46	274	252	486	2,480	386	72	27
18	0.08	20	25	e30	e45	330	253	516	2,240	343	79	28
19	0.00	18	24	e28	e72	471	243	508	1,370	310	71	25
20	0.00	24	22	e28	e111	437	293	480	1,040	282	61	22
21	0.00	22	21	e26	e245	358	338	435	1,030	261	53	21
22	0.31	20	21	e22	585	323	339	743	1,670	250	47	17
23	0.00	21	18	e24	1,290	306	316	3,530	1,170	242	45	16
24	0.04	21	32	e23	1,070	294	325	3,120	914	212	45	21
25	1.5	25	22	e26	704	278	433	4,660	825	190	48	24
26	0.00	18	15	e25	575	273	604	3,310	748	171	75	19
27	0.00	16	e21	e31	811	327	547	2,060	664	157	223	13
28	0.00	16	e29	e30	1,260	1,150	490	1,500	605	142	207	13
29	0.38	24	e35	e31	1,170	1,050	430	1,690	538	125	128	16
30	2.6	13	e38	e36	---	798	383	2,220	488	118	98	13
31	1.4	---	e37	e35	---	614	---	1,960	---	111	75	---
TOTAL	14.45	972.73	644	881	8,648	18,559	10,410	33,239	31,408	12,873	4,664	1,050
MEAN	0.47	32.4	20.8	28.4	298	599	347	1,072	1,047	415	150	35.0
MAX	2.6	239	38	36	1,290	1,760	604	4,660	2,480	1,240	619	111
MIN	0.00	0.00	10	22	31	273	224	255	488	111	45	13
AC-FT	29	1,930	1,280	1,750	17,150	36,810	20,650	65,930	62,300	25,530	9,250	2,080
CFSM	0.00	0.06	0.04	0.05	0.54	1.08	0.62	1.93	1.88	0.75	0.27	0.06
IN.	0.00	0.07	0.04	0.06	0.58	1.24	0.70	2.22	2.10	0.86	0.31	0.07

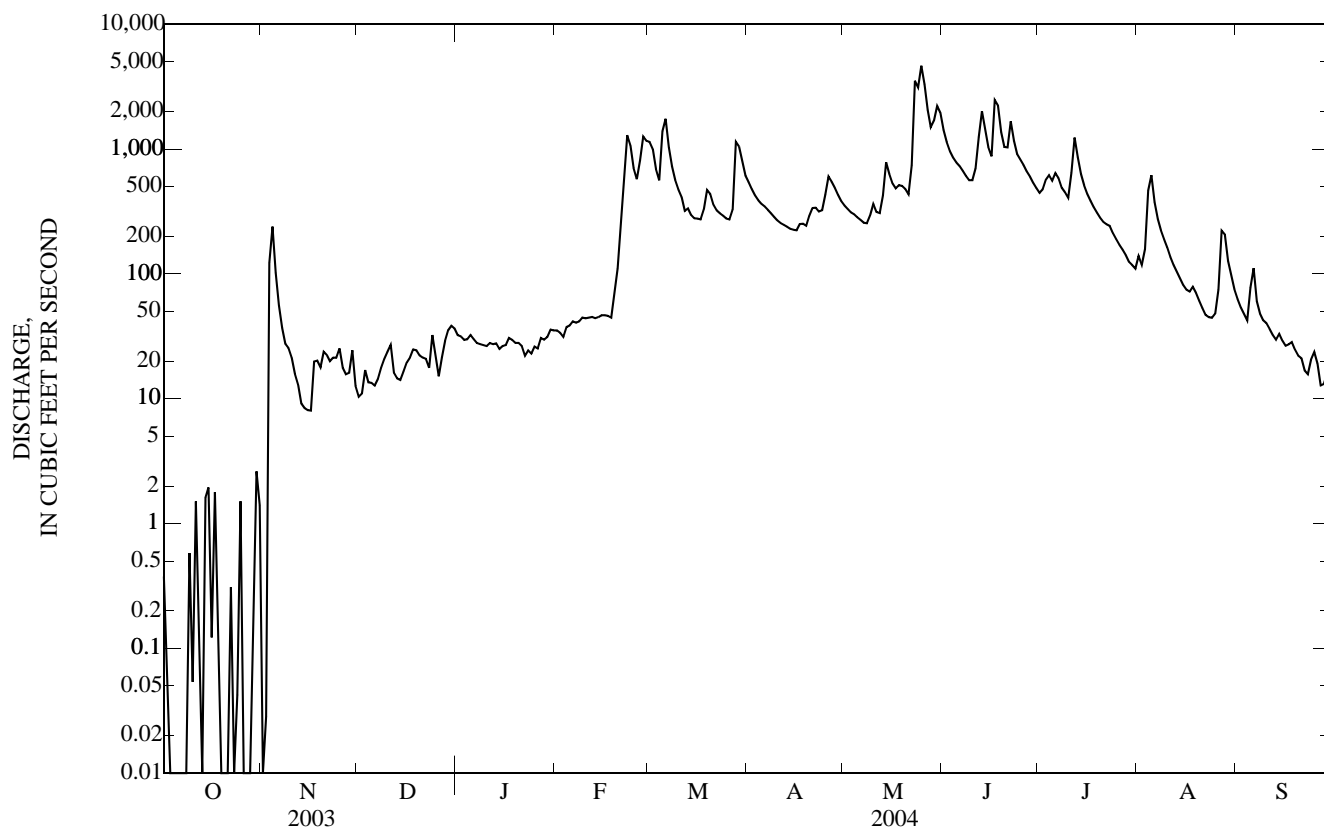
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2004, BY WATER YEAR (WY)

MEAN	156	169	115	77.7	179	523	530	560	801	490	268	151
MAX	1,079	1,270	438	599	919	2,026	2,037	1,421	2,818	5,220	3,921	1,157
(WY)	(1974)	(1973)	(1997)	(1973)	(1973)	(1979)	(1965)	(1974)	(1998)	(1993)	(1993)	(1993)
MIN	0.00	0.00	0.00	0.00	0.00	8.71	3.62	6.71	0.00	0.00	0.03	0.03
(WY)	(1957)	(1977)	(1977)	(1956)	(1956)	(1956)	(1956)	(1967)	(1977)	(1956)	(1956)	(2000)

05471000 SOUTH SKUNK RIVER BELOW SQUAW CREEK NEAR AMES, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1953 - 2004	
ANNUAL TOTAL	82,919.18		123,363.18			
ANNUAL MEAN	227		337		335	
HIGHEST ANNUAL MEAN					1,475	1993
LOWEST ANNUAL MEAN					5.95	1956
HIGHEST DAILY MEAN	4,480	Jul 10	4,660	May 25	20,500	Jul 9, 1993
LOWEST DAILY MEAN	0.00	Oct 4	0.00	Oct 4	0.00	Dec 17, 1953 a
ANNUAL SEVEN-DAY MINIMUM	0.01	Oct 2	0.01	Oct 2	0.00	Jan 11, 1954
MAXIMUM PEAK FLOW			5,110	May 25	26,500	Jul 9, 1993
MAXIMUM PEAK STAGE			19.90	May 25	25.57	Jun 27, 1975
INSTANTANEOUS LOW FLOW			0.00	Oct 4	0.00	Dec 17, 1953 a
ANNUAL RUNOFF (AC-FT)	164,500		244,700		242,500	
ANNUAL RUNOFF (CFSM)	0.409		0.606		0.602	
ANNUAL RUNOFF (INCHES)	5.55		8.25		8.18	
10 PERCENT EXCEEDS	596		888		815	
50 PERCENT EXCEEDS	26		100		104	
90 PERCENT EXCEEDS	1.5		9.0		1.2	

a Many days.
e Estimated.



05471040 SQUAW CREEK NEAR COLFAX, IA

LOCATION.--Lat 41°39'33", long 93°16'14", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.15, T.79 N., R.21 W., Jasper County, Hydrologic Unit 07080105, on right bank at downstream side of bridge on county road S44 Ave. W., 2 mi southwest of Colfax.

DRAINAGE AREA.--18.4 mi².

WATER DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 785.96 ft above NGVD of 1929.

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	0.56	0.60	7.0	7.2	9.8	17	21	16	42	10	16	8.0
2	0.53	1.1	7.1	7.4	5.4	15	19	15	38	10	17	6.9
3	0.53	39	7.5	6.9	4.5	14	19	15	34	17	37	6.7
4	0.57	195	7.5	e8.4	4.7	21	18	15	32	12	95	5.8
5	0.56	29	7.7	e6.0	4.7	79	18	14	32	10	26	5.6
6	0.57	18	7.5	e5.3	4.7	39	17	14	32	10	20	6.3
7	0.54	14	7.7	e6.4	4.6	29	17	14	30	9.5	e13	5.3
8	0.57	12	8.0	e7.1	4.6	24	16	14	26	8.8	e13	4.8
9	0.52	11	9.1	6.6	4.0	22	15	15	24	23	e12	4.6
10	0.47	10	e12	6.5	4.9	21	15	13	27	12	e12	4.3
11	0.46	9.7	e9.1	7.0	4.7	19	15	13	28	199	e11	4.1
12	0.71	8.7	9.0	6.9	4.4	19	15	13	25	80	e11	4.0
13	0.56	8.0	8.5	6.6	4.5	18	14	14	27	36	e11	3.9
14	1.3	8.0	8.6	6.7	4.6	17	14	13	29	24	e11	3.9
15	0.79	7.7	8.6	6.4	4.3	17	14	13	26	e21	e11	4.2
16	0.72	7.1	8.0	7.8	4.3	17	14	13	47	e19	e11	3.6
17	0.68	7.0	12	17	4.3	17	17	15	42	e17	12	3.7
18	0.67	7.0	7.3	9.9	4.5	27	15	46	25	16	11	3.7
19	0.67	6.9	6.9	11	8.5	42	15	28	22	15	8.2	3.5
20	0.69	8.1	7.9	6.6	262	35	31	24	20	14	4.2	3.2
21	0.62	7.8	7.2	6.6	87	28	38	21	19	16	3.6	3.1
22	0.64	7.8	7.7	6.7	82	25	27	39	16	87	3.6	3.0
23	0.66	8.6	8.2	6.7	31	24	24	157	15	36	4.3	3.0
24	0.67	8.2	8.1	5.7	18	22	22	183	14	24	5.0	3.0
25	0.65	8.0	8.5	5.7	16	20	22	254	14	e15	1.6	2.9
26	0.65	7.9	6.3	5.5	17	20	19	123	13	e14	1.5	2.9
27	0.68	7.7	5.4	e6.8	16	19	18	72	12	e13	1.3	3.0
28	0.78	7.5	5.6	e8.7	16	24	18	50	12	e12	26	2.8
29	0.63	7.9	5.0	e6.3	16	24	17	44	11	e12	12	2.9
30	0.61	7.5	6.1	e9.0	---	22	16	55	10	e11	10	3.1
31	0.67	---	7.1	e11	---	21	---	48	---	11	9.2	---
TOTAL	19.93	486.80	242.2	232.4	657.0	758	560	1,383	744	814.3	440.5	125.8
MEAN	0.64	16.2	7.81	7.50	22.7	24.5	18.7	44.6	24.8	26.3	14.2	4.19
MAX	1.3	195	12	17	262	79	38	254	47	199	95	8.0
MIN	0.46	0.60	5.0	5.3	4.0	14	14	13	10	8.8	1.3	2.8
AC-FT	40	966	480	461	1,300	1,500	1,110	2,740	1,480	1,620	874	250
CFSM	0.03	0.88	0.42	0.41	1.23	1.33	1.01	2.42	1.35	1.43	0.77	0.23
IN.	0.04	0.98	0.49	0.47	1.33	1.53	1.13	2.80	1.50	1.65	0.89	0.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2004, BY WATER YEAR (WY)

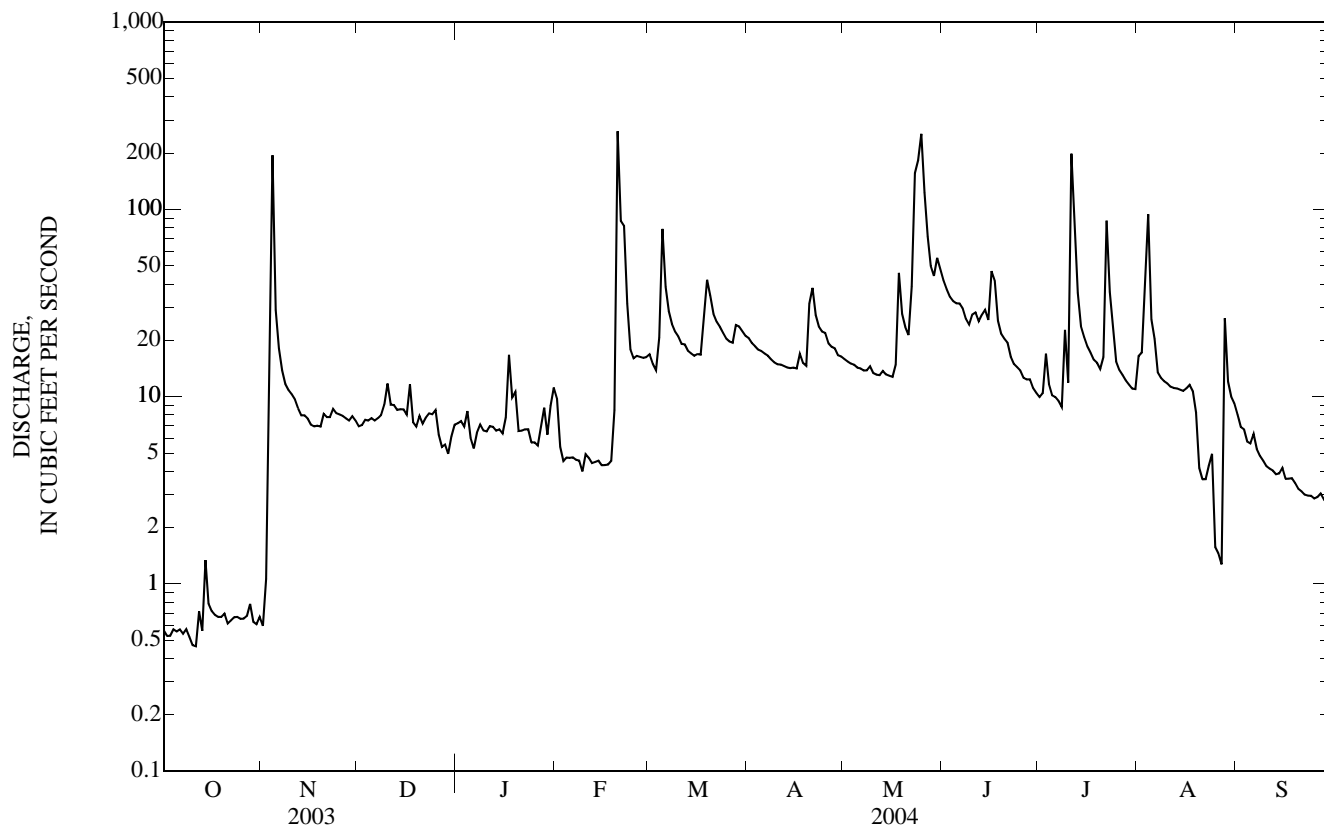
MEAN	3.50	5.54	3.86	3.64	15.9	15.3	13.6	34.7	30.8	15.1	6.38	2.00
MAX	8.91	16.2	9.33	9.52	65.0	48.4	45.4	65.7	83.0	34.3	15.8	4.19
(WY)	(1998)	(2004)	(1998)	(1998)	(1996)	(2001)	(1998)	(1996)	(1998)	(1998)	(1999)	(2004)
MIN	0.64	1.02	0.82	0.84	1.51	1.81	3.03	13.5	12.5	6.78	1.90	0.84
(WY)	(2004)	(2001)	(2001)	(2002)	(2002)	(2002)	(2000)	(2001)	(1997)	(2001)	(2001)	(2003)

05471040 SQUAW CREEK NEAR COLFAX, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1995 - 2004	
ANNUAL TOTAL	4,123.42		6,463.93			
ANNUAL MEAN	11.3		17.7		12.7	
HIGHEST ANNUAL MEAN					25.4	1998
LOWEST ANNUAL MEAN					5.05	2002
HIGHEST DAILY MEAN	239	May 9	262	Feb 20	847	Jun 18, 1998
LOWEST DAILY MEAN	0.35	Sep 11	0.46	Oct 11	0.27	Jan 1, 2002
ANNUAL SEVEN-DAY MINIMUM	0.47	Sep 3	0.53	Oct 5	0.37	Dec 29, 2001
MAXIMUM PEAK FLOW			785	Jul 11	7,020	Jun 18, 1998
MAXIMUM PEAK STAGE			10.77	Jul 11	13.94	Jun 18, 1998
INSTANTANEOUS LOW FLOW			0.33	Oct 2 a	0.00	Sep 11, 2003
ANNUAL RUNOFF (AC-FT)	8,180		12,820		9,190	
ANNUAL RUNOFF (CFSM)	0.614		0.960		0.689	
ANNUAL RUNOFF (INCHES)	8.34		13.07		9.37	
10 PERCENT EXCEEDS	25		31		29	
50 PERCENT EXCEEDS	4.2		11		4.8	
90 PERCENT EXCEEDS	0.67		2.4		1.0	

a Also Oct. 11.

e Estimated.



05471040 SQUAW CREEK NEAR COLFAX, IA—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1995 to current year.

WATER TEMPERATURES: May 1995 to current year.

SUSPENDED-SEDIMENT DISCHARGE: May 1995 to current year.

REMARKS.--Records of specific conductance are obtained from suspended-sediment samples at time of analysis.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 680 microsiemens Jan. 4, 2002; minimum daily, 170 microsiemens May 24, 1996.

WATER TEMPERATURES: Maximum daily, 32.0°C July 29, 1999; minimum daily, 0.0°C many days during winter.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,270 mg/L May 24, 1996; minimum daily mean, 6.0 mg/L Apr. 22, 1996.

SEDIMENT LOADS: Maximum daily, 11,400 tons June 18, 1998; minimum daily, 0.01 tons Jan. 6, 7, 1996, Oct. 4, 8, 2001, and Oct. 6, 9, 2003.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 652 microsiemens Oct. 16; minimum daily, 206 microsiemens Feb. 20.

WATER TEMPERATURES: Maximum daily, 23.0°C July 1, 4, 20, Aug. 2, Sept. 1; minimum daily, 0.0°C many days during winter.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,660 mg/L Feb. 22; minimum daily mean, 8.0 mg/L Dec. 5.

SEDIMENT LOADS: Maximum daily, 1,100 tons July 11; minimum daily, 0.01 tons Oct. 6, 9.

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	455	---	581	478	---	513	459	584	574	481	597	542
2	456	---	480	448	496	529	454	---	553	514	548	489
3	527	398	536	546	531	541	490	516	549	571	493	587
4	491	461	546	---	451	545	492	528	548	520	556	---
5	---	562	530	447	458	512	474	522	---	443	552	---
6	611	---	---	455	---	---	535	554	497	437	568	---
7	480	---	572	467	---	541	522	518	550	435	478	566
8	521	---	541	460	---	545	566	---	572	509	590	463
9	602	---	570	464	448	556	498	571	542	---	518	---
10	455	578	592	---	490	555	529	492	566	---	521	---
11	---	589	570	---	468	562	528	561	572	---	---	---
12	556	---	516	447	493	563	445	544	---	---	---	586
13	488	572	---	534	477	---	548	557	570	---	---	466
14	579	---	---	459	---	562	491	501	537	---	---	550
15	647	---	501	458	522	541	441	551	572	---	---	576
16	652	580	533	450	506	553	462	501	---	---	---	518
17	651	540	506	508	516	556	507	572	---	---	---	511
18	---	566	524	587	498	548	522	570	---	549	524	542
19	---	584	447	501	538	551	566	556	---	567	---	589
20	624	576	---	501	206	---	479	578	---	523	---	541
21	574	578	452	531	---	527	566	577	572	550	---	536
22	532	498	548	511	272	532	560	495	---	283	574	587
23	478	565	471	---	480	562	552	550	---	565	460	---
24	465	587	458	---	510	547	---	568	---	560	522	---
25	525	484	---	520	523	552	553	540	---	537	573	---
26	508	580	581	456	529	532	544	563	---	477	506	549
27	461	---	---	442	528	523	560	567	559	543	489	547
28	523	561	523	437	---	572	568	571	465	513	---	576
29	475	---	496	492	535	542	539	---	552	458	554	594
30	536	582	440	490	---	547	470	567	448	511	495	589
31	520	---	459	438	---	481	---	571	---	444	584	---

05471040 SQUAW CREEK NEAR COLFAX, IA—Continued

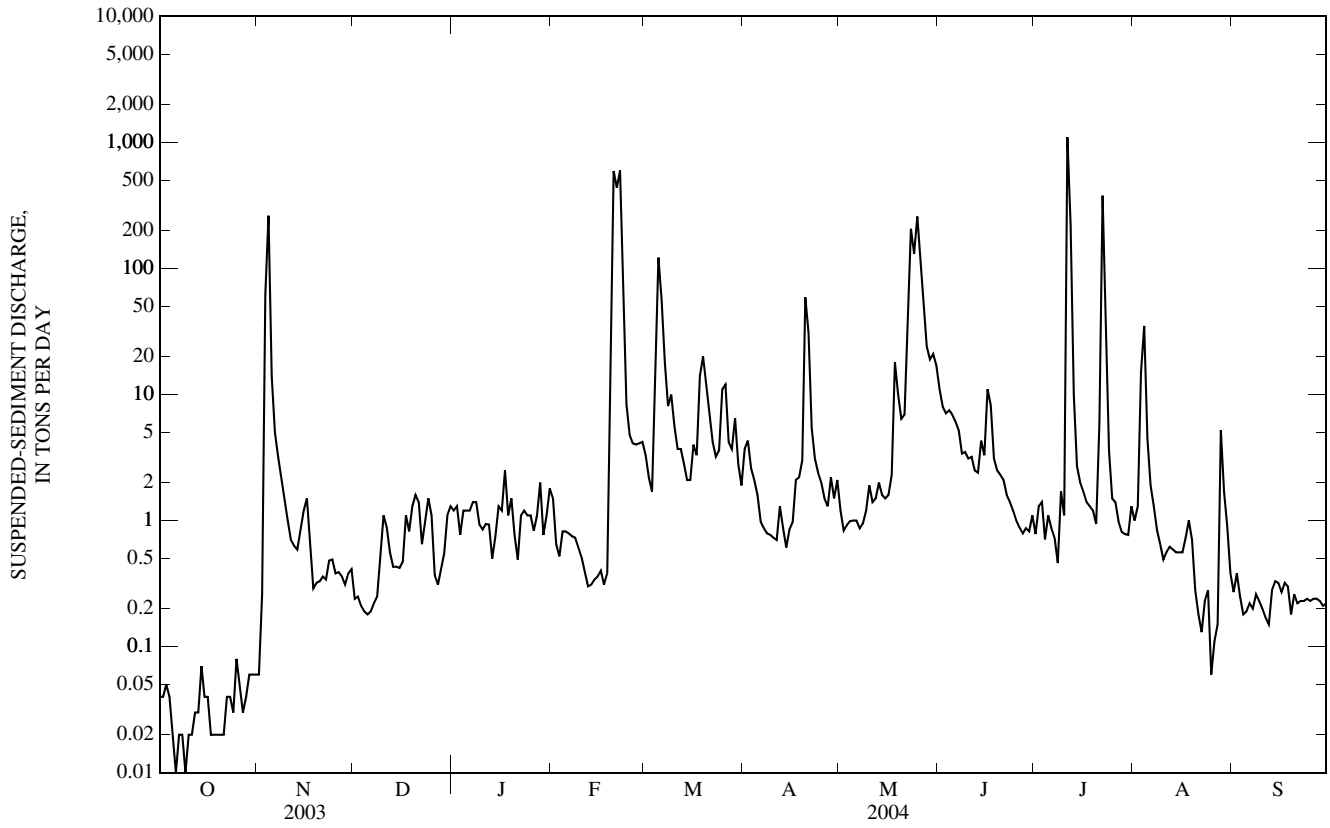
 TEMPERATURE, WATER, DEGREES CELSIUS
 WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
 DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	---	4.0	4.0	---	5.0	10.0	14.0	15.0	23.0	21.0	23.0
2	11.0	---	3.0	5.0	0.0	4.0	12.0	---	15.0	19.0	23.0	22.0
3	15.0	8.0	3.0	1.0	0.0	4.0	11.0	14.0	18.0	19.0	22.0	22.0
4	16.0	9.0	3.0	---	0.0	4.0	12.0	15.0	19.0	23.0	19.0	---
5	---	7.0	3.0	0.0	0.0	5.0	13.0	17.0	---	20.0	20.0	---
6	18.0	---	---	0.0	---	---	16.0	17.0	20.0	18.0	20.0	---
7	20.0	---	3.0	0.0	---	5.0	14.0	11.0	22.0	19.0	19.0	18.0
8	20.0	---	6.0	0.0	---	6.0	14.0	---	21.0	20.0	21.0	16.0
9	21.0	---	4.0	0.0	0.0	8.0	12.0	19.0	20.0	---	21.0	---
10	20.0	7.0	0.0	---	0.0	7.0	11.0	19.0	19.0	---	17.0	---
11	---	11.0	0.0	---	0.0	2.0	11.0	19.0	22.0	---	---	---
12	12.0	---	0.0	1.0	0.0	6.0	11.0	18.0	---	---	---	21.0
13	14.0	7.0	---	1.0	0.0	---	12.0	12.0	21.0	---	---	22.0
14	14.0	---	---	1.0	---	7.0	15.0	14.0	21.0	---	---	22.0
15	12.0	---	3.0	1.0	0.0	2.0	12.0	15.0	18.0	---	---	22.0
16	9.0	10.0	2.0	1.0	0.0	6.0	18.0	18.0	---	---	---	20.0
17	12.0	8.0	1.0	1.0	0.0	8.0	20.0	19.0	---	---	---	16.0
18	---	11.0	3.0	1.0	0.0	8.0	18.0	15.0	---	21.0	---	19.0
19	---	9.0	1.0	0.0	1.0	6.0	16.0	15.0	---	22.0	---	20.0
20	19.0	10.0	---	0.0	0.0	---	10.0	16.0	---	23.0	---	21.0
21	16.0	6.0	4.0	1.0	---	6.0	13.0	20.0	19.0	21.0	---	21.0
22	15.0	5.0	5.0	0.0	1.0	8.0	11.0	18.0	---	19.0	22.0	19.0
23	14.0	4.0	2.0	---	3.0	11.0	14.0	15.0	---	18.0	20.0	---
24	12.0	1.0	1.0	---	3.0	14.0	---	15.0	---	17.0	22.0	---
25	11.0	4.0	---	0.0	5.0	12.0	12.0	14.0	---	19.0	20.0	---
26	7.0	4.0	4.0	0.0	6.0	13.0	13.0	16.0	---	19.0	22.0	17.0
27	9.0	---	---	0.0	6.0	13.0	12.0	15.0	18.0	19.0	22.0	18.0
28	7.0	1.0	4.0	0.0	---	9.0	18.0	18.0	20.0	21.0	---	18.0
29	8.0	---	1.0	0.0	8.0	12.0	14.0	---	20.0	22.0	20.0	17.0
30	12.0	5.0	3.0	0.0	---	5.6	10.0	16.0	21.0	20.0	21.0	16.0
31	8.0	---	3.0	0.0	---	10.0	---	16.0	---	22.0	21.0	---

05471040 SQUAW CREEK NEAR COLFAX, IA—Continued

SUSPENDED-SEDIMENT
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Day	Mean concentration (mg/l)		Mean concentration (mg/l)		Mean concentration (mg/l)		Mean concentration (mg/l)		Mean concentration (mg/l)		Mean concentration (mg/l)	
	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	26	0.04	37	0.06	13	0.24	62	1.2	54	1.5	73	3.3
2	24	0.04	69	0.26	13	0.25	66	1.3	44	0.65	54	2.2
3	32	0.05	511	62	10	0.21	41	0.77	42	0.52	46	1.7
4	25	0.04	450	262	10	0.19	52	1.2	64	0.82	94	8.4
5	16	0.02	163	14	8	0.18	76	1.2	64	0.82	610	122
6	9	0.01	101	5.0	9	0.19	85	1.2	62	0.79	525	56
7	11	0.02	84	3.2	11	0.22	80	1.4	61	0.75	233	18
8	12	0.02	68	2.2	12	0.25	71	1.4	59	0.73	122	8.1
9	10	0.01	52	1.5	21	0.52	52	0.93	57	0.61	169	10
10	16	0.02	36	1.0	35	1.1	48	0.85	38	0.51	98	5.6
11	18	0.02	27	0.70	36	0.88	50	0.94	31	0.39	71	3.7
12	17	0.03	27	0.63	23	0.56	50	0.93	25	0.30	71	3.7
13	19	0.03	28	0.59	19	0.43	28	0.50	26	0.31	59	2.8
14	19	0.07	39	0.83	18	0.43	41	0.75	28	0.34	45	2.1
15	18	0.04	60	1.2	18	0.42	74	1.3	31	0.36	48	2.1
16	21	0.04	78	1.5	22	0.47	60	1.2	34	0.40	87	4.0
17	12	0.02	35	0.64	36	1.1	56	2.5	26	0.31	72	3.3
18	10	0.02	15	0.29	42	0.82	40	1.1	31	0.38	184	14
19	11	0.02	17	0.32	69	1.3	51	1.5	86	3.4	174	20
20	12	0.02	15	0.33	74	1.6	43	0.76	808	593	132	12
21	11	0.02	17	0.36	70	1.4	27	0.49	1,810	436	94	7.0
22	22	0.04	16	0.34	31	0.65	57	1.1	2,660	598	62	4.2
23	22	0.04	21	0.48	47	1.0	67	1.2	894	96	50	3.2
24	19	0.03	22	0.49	68	1.5	70	1.1	170	8.4	60	3.6
25	45	0.08	18	0.38	49	1.1	71	1.1	111	4.8	206	11
26	27	0.05	18	0.39	21	0.37	56	0.83	92	4.1	217	12
27	16	0.03	17	0.36	21	0.31	58	1.1	91	4.0	81	4.2
28	17	0.04	16	0.31	28	0.42	85	2.0	94	4.1	56	3.7
29	35	0.06	18	0.38	41	0.55	45	0.77	96	4.2	101	6.5
30	34	0.06	21	0.41	66	1.1	44	1.1	---	---	46	2.8
31	36	0.06	---	---	68	1.3	59	1.8	---	---	34	1.9
TOTAL	---	1.09	---	362.15	---	21.06	---	35.52	---	1,766.49	---	363.1



05471040 SQUAW CREEK NEAR COLFAX, IA—Continued

PRECIPITATION RECORDS

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

INSTRUMENTATION.--Tipping bucket rain gage.

REMARKS.--Records good except for winter period, which is poor due to intermittent snow accumulation and subsequent melting.

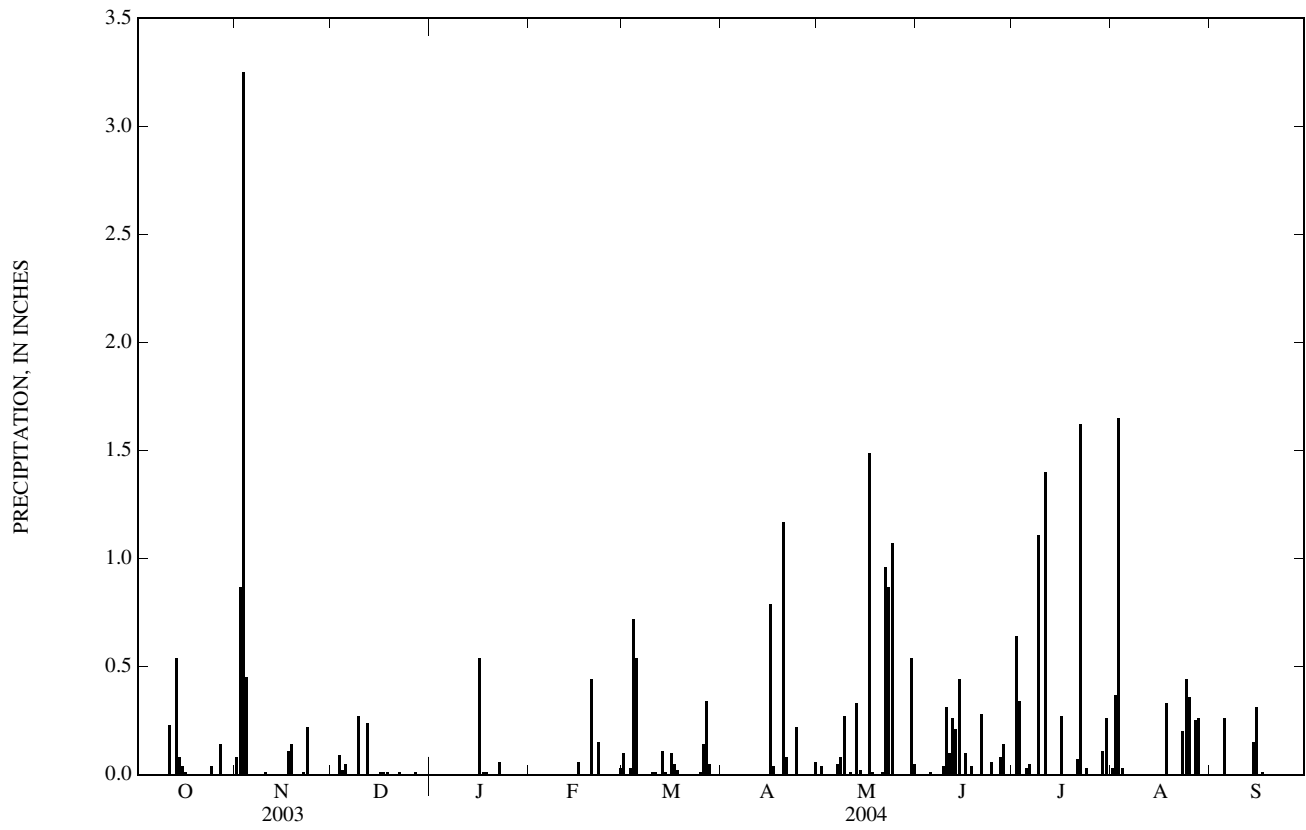
EXTREMES FOR PERIOD OF RECORD.--Maximum daily accumulation, 3.25 in., November 3, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum daily accumulation, 3.25 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	0.08	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.03	0.00
2	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.64	0.37	0.00
3	0.00	3.25	0.09	0.00	0.00	0.03	0.00	0.00	0.00	0.34	1.65	0.00
4	0.00	0.45	0.02	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.03	0.00
5	0.00	0.00	0.05	0.00	0.00	0.54	0.00	0.00	0.01	0.03	0.00	0.26
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00
9	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.27	0.04	1.11	0.00	0.00
10	0.00	0.01	e0.00	0.00	0.00	0.01	0.00	0.00	0.31	0.00	0.00	0.00
11	0.23	0.00	e0.00	0.00	0.00	0.01	0.00	0.01	0.10	1.40	0.00	0.00
12	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.00
13	0.54	0.00	0.00	0.00	0.00	0.11	0.00	0.33	0.21	0.00	0.00	0.00
14	0.08	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.44	0.00	0.00	0.15
15	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31
16	0.01	0.00	0.01	0.54	0.06	0.10	0.79	0.00	0.10	0.27	0.00	0.00
17	0.00	0.11	0.01	0.01	0.00	0.05	0.04	1.49	0.00	0.00	0.00	0.01
18	0.00	0.14	0.01	0.01	0.00	0.02	0.00	0.01	0.04	0.00	0.33	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.44	0.00	1.17	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.01	0.28	0.07	0.00	0.00
22	0.00	0.01	0.01	0.06	0.15	0.00	0.00	0.96	0.00	1.62	0.00	0.00
23	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.20	0.00
24	0.04	0.00	0.00	0.00	0.00	0.00	0.22	1.07	0.06	0.03	0.44	0.00
25	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.36	0.00
26	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
27	0.14	0.00	0.01	0.00	0.00	0.34	0.00	0.00	0.08	0.00	0.25	0.00
28	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.14	0.00	0.26	0.00
29	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.11	0.00	0.00
30	0.00	0.00	0.00	0.00	---	0.00	0.06	0.54	0.00	0.26	0.00	0.00
31	0.00	---	0.00	0.00	---	0.00	---	0.05	---	0.00	0.00	---
TOTAL	1.08	5.14	0.72	0.62	0.68	2.24	2.36	5.80	2.07	5.93	3.92	0.73
MEAN	0.03	0.17	0.02	0.02	0.02	0.07	0.08	0.19	0.07	0.19	0.13	0.02
MAX	0.54	3.25	0.27	0.54	0.44	0.72	1.17	1.49	0.44	1.62	1.65	0.31
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

e Estimated



05471050 SOUTH SKUNK RIVER AT COLFAX, IA

LOCATION.--Lat 41°40'53"(revised), long 93°14'47", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.1, T.79 N., R.21 W., Jasper County, Hydrologic Unit 07080105, on left bank 15 ft downstream of bridge on State Highway 117 at north edge of Colfax, 1 mi downstream from Sugar Creek, 2.8 mi upstream from Indian Creek, and at mile 191 upstream from mouth of Skunk River.

DRAINAGE AREA.--803 mi².

PERIOD OF RECORD.--June 1974 to June 1977, (operated as a partial-record low-flow measurement site), October 1985 to current year.

REVISED RECORDS.--Daily discharge for Aug. 26, 27, and Sept. 6-30, 2000.

GAGE.--Water-stage recorder. Datum of gage is 770.00 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 stallite telemetry at station.

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	32	38	89	e79	e63	1,430	905	543	2,740	683	275	189
2	32	50	86	e80	e69	1,440	806	504	2,130	685	305	157
3	32	174	92	e76	e76	1,150	732	474	1,760	1,050	387	135
4	31	825	91	e69	e72	912	670	450	1,510	1,030	614	121
5	31	514	95	e62	e76	1,360	624	431	1,350	941	868	108
6	31	356	90	e63	e80	2,490	590	411	1,250	1,190	780	402
7	31	286	91	e63	e80	1,870	561	390	1,160	1,130	574	424
8	30	245	90	e63	e76	1,320	531	366	1,050	907	468	274
9	31	222	e91	e65	e85	1,040	501	383	964	954	403	214
10	31	210	e79	e66	e86	882	472	413	929	893	356	171
11	32	198	e86	e64	e82	779	447	449	971	1,280	318	143
12	35	176	e76	e65	e78	676	429	410	1,100	2,650	288	124
13	35	158	e84	e67	e72	610	420	433	2,160	2,100	264	111
14	41	150	e83	e64	e83	607	408	632	2,360	1,350	243	102
15	38	144	e84	e60	e78	569	397	831	1,700	1,040	222	103
16	37	135	e75	e68	e82	556	390	677	1,350	881	204	95
17	37	132	e64	e58	e83	552	435	636	1,820	763	201	93
18	36	139	e66	e52	e105	591	421	879	3,250	675	215	93
19	36	137	e61	e42	e144	810	412	759	2,250	610	219	85
20	36	126	e64	e46	e840	902	470	709	1,620	564	190	75
21	35	120	e68	e41	e645	782	781	658	1,540	523	167	69
22	36	121	e70	e36	e838	686	728	735	2,090	569	146	68
23	36	128	e67	e48	1,220	642	649	5,520	2,070	515	131	65
24	37	111	e66	e42	1,390	611	590	8,290	1,480	468	139	63
25	37	117	e68	e46	1,130	582	650	8,280	1,240	426	128	64
26	36	112	e76	e53	817	567	759	7,820	1,140	394	134	70
27	36	105	e80	e48	918	553	835	5,900	1,030	367	259	72
28	39	98	e77	e45	1,320	905	746	4,060	917	340	483	e70
29	38	90	e79	e47	1,570	1,770	668	3,010	805	327	380	67
30	38	100	e78	e52	---	1,350	598	3,400	737	308	284	62
31	38	---	e78	e58	---	1,060	---	3,430	---	285	231	---
TOTAL	1,081	5,517	2,444	1,788	12,258	30,054	17,625	61,883	46,473	25,898	9,876	3,889
MEAN	34.9	184	78.8	57.7	423	969	588	1,996	1,549	835	319	130
MAX	41	825	95	80	1,570	2,490	905	8,290	3,250	2,650	868	424
MIN	30	38	61	36	63	552	390	366	737	285	128	62
AC-FT	2,140	10,940	4,850	3,550	24,310	59,610	34,960	122,700	92,180	51,370	19,590	7,710
CFSM	0.04	0.23	0.10	0.07	0.53	1.21	0.73	2.49	1.93	1.04	0.40	0.16
IN.	0.05	0.26	0.11	0.08	0.57	1.39	0.82	2.87	2.15	1.20	0.46	0.18

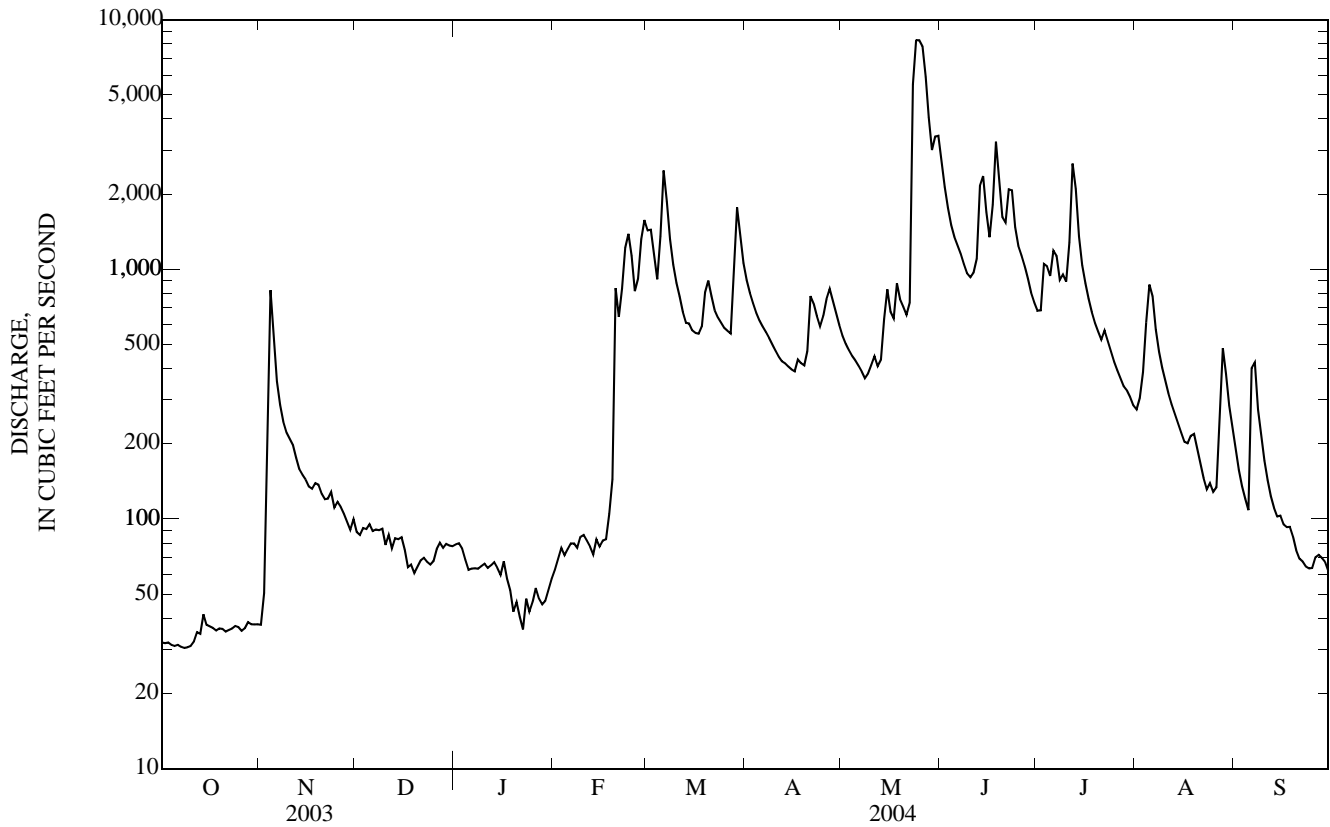
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2004, BY WATER YEAR (WY)

MEAN	274	261	230	148	307	737	814	1,141	1,325	936	462	262
MAX	1,807	981	626	451	849	2,094	2,435	2,481	3,844	5,640	3,549	1,911
(WY)	(1987)	(1997)	(1993)	(1992)	(1997)	(1993)	(1991)	(1991)	(1998)	(1993)	(1993)	(1993)
MIN	11.9	17.5	12.4	12.3	16.2	77.5	57.0	113	96.7	31.8	12.6	6.75
(WY)	(1989)	(1989)	(1989)	(1989)	(1990)	(2000)	(2000)	(2000)	(1988)	(1988)	(1988)	(1988)

05471050 SOUTH SKUNK RIVER AT COLFAX, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1986 - 2004	
ANNUAL TOTAL	129,555		218,786			
ANNUAL MEAN	355		598		576	
HIGHEST ANNUAL MEAN					1,831	1993
LOWEST ANNUAL MEAN					69.6	1989
HIGHEST DAILY MEAN	4,750	Jul 10	8,290	May 24	13,100	Jul 12, 1993
LOWEST DAILY MEAN	21	Feb 25	30	Oct 8	1.4	Aug 18, 1988
ANNUAL SEVEN-DAY MINIMUM	26	Jan 21	31	Oct 4	3.2	Sep 8, 1988
MAXIMUM PEAK FLOW			8,470	May 24	14,200	Jul 12, 1993
MAXIMUM PEAK STAGE			18.38	May 24	21.53	Jul 12, 1993
INSTANTANEOUS LOW FLOW			29	Oct 7a	1.2	Aug 18, 1988b
ANNUAL RUNOFF (AC-FT)	257,000		434,000		417,200	
ANNUAL RUNOFF (CFSM)	0.442		0.744		0.717	
ANNUAL RUNOFF (INCHES)	6.00		10.14		9.74	
10 PERCENT EXCEEDS	910		1,350		1,400	
50 PERCENT EXCEEDS	95		280		241	
90 PERCENT EXCEEDS	32		44		36	

a Also Oct. 8, 9.
 b Also Aug. 19, 1988.
 e Estimated.



05471200 INDIAN CREEK NEAR MINGO, IA

LOCATION.--(revised) Lat 41°48'19", long 93°18'33", in NW¼ NW¼ sec.28, T.81 N., R.21 W., Jasper County, Hydrologic Unit 07080105, on left bank 20 ft downstream from bridge on State Highway 117, 0.7 mi downstream from Wolf Creek, 2.2 mi upstream from Byers Branch, 2.9 mi northwest of Mingo, and 11.3 mi upstream from South Skunk River.

DRAINAGE AREA.--276 mi².

PERIOD OF RECORD.--May 1958 to September 1975; October 1985 to current year.

REVISED RECORDS.--WSP 1728: 1958 (M), 1959 (M).

GAGE.--Water-stage recorder. Datum of gage is 810.47 ft above NGVD of 1929.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 20, 1944, reached a stage of 21.4 ft, from information by local resident, discharge not determined.

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	4.4	e19	e36	e44	e35	404	258	181	827	135	39	28
2	5.0	e24	e35	e45	e42	403	251	172	721	135	42	25
3	5.1	e44	33	e38	e49	343	213	165	568	388	40	23
4	5.3	e544	38	e32	e44	306	194	162	489	279	115	22
5	5.4	e248	36	e28	e46	802	182	157	442	288	89	24
6	5.8	146	34	e29	e51	812	173	154	406	838	77	352
7	6.1	126	e30	e29	e52	547	164	147	371	438	58	289
8	6.1	107	e31	e29	e48	422	155	144	331	320	46	158
9	6.5	88	e30	e31	e57	330	144	151	300	327	39	110
10	6.9	83	e27	e34	e58	290	136	146	295	285	32	85
11	7.8	80	e28	e33	e54	260	130	143	289	893	28	67
12	8.6	79	e26	e34	e47	223	124	144	289	1,080	25	55
13	10	73	e27	e36	e41	220	117	192	323	664	23	46
14	13	71	e29	e33	e54	207	113	231	287	462	21	41
15	9.8	66	e30	e30	e46	199	109	214	308	352	19	40
16	12	59	e24	e42	e51	198	105	205	296	290	17	35
17	11	56	e20	e30	e56	193	108	213	321	237	20	32
18	11	59	e23	e22	e71	248	102	337	303	198	25	30
19	11	56	e20	e17	e83	408	97	279	254	172	24	28
20	13	e52	e25	e21	e306	374	118	259	228	148	20	25
21	14	e50	e31	e19	e646	304	333	241	413	130	17	23
22	14	e49	e33	e14	1,010	271	252	351	407	131	e15	20
23	14	e51	e29	e26	894	246	225	8,680	336	109	15	19
24	14	e48	e26	e20	561	234	205	7,040	284	93	15	19
25	15	e50	e28	e23	340	219	238	5,270	250	82	15	18
26	15	e48	e36	e28	267	209	238	2,920	221	73	24	17
27	16	e49	e44	e22	356	205	230	1,670	200	64	312	16
28	16	e47	e42	e19	402	347	221	1,290	188	54	112	15
29	16	e48	e45	e19	387	394	204	1,080	166	55	67	14
30	19	e40	e44	e26	---	356	191	1,200	148	47	44	14
31	18	---	e42	e31	---	290	---	991	---	40	33	---
TOTAL	334.8	2,560	982	884	6,154	10,264	5,330	34,529	10,261	8,807	1,468	1,690
MEAN	10.8	85.3	31.7	28.5	212	331	178	1,114	342	284	47.4	56.3
MAX	19	544	45	45	1,010	812	333	8,680	827	1,080	312	352
MIN	4.4	19	20	14	35	193	97	143	148	40	15	14
AC-FT	664	5,080	1,950	1,750	12,210	20,360	10,570	68,490	20,350	17,470	2,910	3,350
CFSM	0.04	0.31	0.11	0.10	0.77	1.20	0.64	4.04	1.24	1.03	0.17	0.20
IN.	0.05	0.35	0.13	0.12	0.83	1.38	0.72	4.65	1.38	1.19	0.20	0.23

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

MEAN	99.9	92.9	74.7	55.8	116	293	268	396	486	303	141	81.0
MAX	689	549	319	289	619	816	834	1,114	1,732	2,809	1,500	678
(WY)	(1987)	(1973)	(1973)	(1973)	(1971)	(1993)	(1965)	(2004)	(1998)	(1993)	(1993)	(1993)
MIN	1.11	4.12	2.05	1.87	2.25	10.9	8.07	5.58	10.9	3.49	1.44	0.91
(WY)	(1972)	(1968)	(1990)	(1968)	(1967)	(1968)	(1989)	(1967)	(1989)	(1988)	(1988)	(1988)

05471200 INDIAN CREEK NEAR MINGO, IA—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1959 - 2004	
ANNUAL TOTAL	37,103.6		83,263.8		201	
ANNUAL MEAN	102		227		751	
HIGHEST ANNUAL MEAN					1993	
LOWEST ANNUAL MEAN					1989	
HIGHEST DAILY MEAN	2,250	May 9	8,680	May 23	12,000	Jul 10, 1993
LOWEST DAILY MEAN	4.2	Jan 26	4.4	Oct 1	0.01	Aug 18, 1989
ANNUAL SEVEN-DAY MINIMUM	4.7	Sep 26	5.3	Oct 1	0.15	Aug 16, 1989
MAXIMUM PEAK FLOW			11,700	May 23	23,500	Jun 4, 1991
MAXIMUM PEAK STAGE			17.27	May 23	19.16	Jun 4, 1991
INSTANTANEOUS LOW FLOW			4.2	Oct 1		
ANNUAL RUNOFF (AC-FT)	73,590		165,200		145,600	
ANNUAL RUNOFF (CFSM)	0.368		0.824		0.728	
ANNUAL RUNOFF (INCHES)	5.00		11.22		9.89	
10 PERCENT EXCEEDS	248		396		470	
50 PERCENT EXCEEDS	29		66		68	
90 PERCENT EXCEEDS	6.9		16		5.0	

e Estimated

