01420500 BEAVER KILL AT COOKS FALLS, NY

LOCATION.--Lat 41°56'47", long 74°58'48", Delaware County, Hydrologic Unit 02040102, on left bank 125 ft downstream from highway bridge in Cooks Falls, and 5.5 mi downstream from Willowemoc Creek. Water-quality sampling site at discharge station.

DRAINAGE AREA.--241 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1913 to current year.

REVISED RECORDS.--WSP 521: Drainage area. WSP 781: 1933(M). WSP 891: 1936-39(M). WSP 1202: 1950. WSP 1232: 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 1,151.70 ft above NGVD of 1929. Prior to Oct. 1, 1933, nonrecording gage at site 125 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite and telephone gage-height and temperature telemeter and National Weather Service telephone gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,900 ft^3/s, Jan. 19, 1996, gage height, 17.79 ft, from floodmark in gage well, outside gage height, 18.5 ft, from floodmark, from rating curve extended above 14,000 ft^3/s on basis of slope-area measurement at gage height 15.52 ft; minimum discharge, 16 ft^3/s, Nov. 22, 23, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 27	1930	15,600	12.06	Dec 24	1830	12,300	11.03
Nov 20	0500	9,800	10.11	Aug 13	0100	9,550	10.01
Dec 11	1830	9,550	10.01	Sep 18	1100	a*42,100	*17.67

a From rating curve extended as explained above.

Minimum discharge, 116 ft^3/s, Feb. 16, 25, result of freezeup, gage height, 1.33 ft.

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	1,120	1,580	1,350	761	e215	182	1,200	634	779	152	804	535
2	919	1,240	1,100	696	e200	243	1,430	591	886	176	745	398
3	786	1,040	917	855	e200	e340	1,110	891	760	157	563	342
4	1,060	889	802	1,260	e200	e520	979	739	614	140	471	307
5	1,290	878	729	1,610	e180	854	839	659	548	156	516	282
6	919	992	705	1,220	e180	2,750	705	687	546	198	426	274
7	781	810	638	e860	e180	2,570	640	607	492	200	369	250
8	688	711	570	e720	e180	1,560	590	544	429	239	341	278
9	620	633	530	e580	e170	1,110	539	519	381	188	307	1,250
10	561	588	501	e480	e170	877	489	534	380	161	279	1,280
11	507	588	4,210	e420	e160	771	449	940	344	148	278	682
12	466	665	3,610	e390	e150	e660	420	748	305	145	1,790	527
13	428	637	1,790	e370	e150	631	688	794	281	175	7,470	451
14	392	585	1,290	e350	e150	546	1,060	667	266	205	2,700	393
15	1,540	528	1,150	e330	e140	529	800	603	253	420	1,630	366
16	1,060	493	929	e320	e120	495	659	580	231	400	2,840	338
17	809	491	1,050	e300	e120	474	603	501	251	364	1,600	647
18	698	479	1,160	e290	e120	434	563	465	397	346	1,110	23,500
19	735	1,140	904	e280	e120	399	526	510	270	387	883	4,820
20	703	6,970	784	e270	e120	377	486	422	220	341	736	2,160
21	640	2,740	687	e255	e120	e370	457	441	198	284	1,030	1,380
22	602	1,700	633	e250	e120	e370	431	391	189	251	894	1,010
23	552	1,270	612	e240	e120	370	571	382	189	802	665	803
24	502	1,060	5,750	e230	e120	398	632	437	169	1,170	564	671
25	462	1,100	4,690	e220	e120	465	517	545	162	526	495	582
26	443	891	2,250	e220	e120	617	1,260	512	311	390	461	516
27	6,510	781	1,520	e220	e130	1,650	1,350	1,240	240	562	427	452
28	5,240	1,140	1,190	e220	e140	1,850	977	1,090	187	1,250	418	1,710
29	7,970	3,150	1,000	e220	162	1,480	805	819	178	1,690	410	2,250
30	4,050	1,760	962	e220	---	1,160	704	664	163	906	356	1,370
31	2,240	---	874	e220	---	1,060	---	587	---	703	881	---
TOTAL	45,293	37,529	44,887	14,877	4,377	26,112	22,479	19,743	10,619	13,232	32,459	49,824
MEAN	1,461	1,251	1,448	480	151	842	749	637	354	427	1,047	1,661
MAX	7,970	6,970	5,750	1,610	215	2,750	1,430	1,240	886	1,690	7,470	23,500
MIN	392	479	501	220	120	182	420	382	162	140	278	250
CFSM	6.06	5.19	6.01	1.99	0.63	3.50	3.11	2.64	1.47	1.77	4.34	6.89
IN.	6.99	5.79	6.93	2.30	0.68	4.03	3.47	3.05	1.64	2.04	5.01	7.69

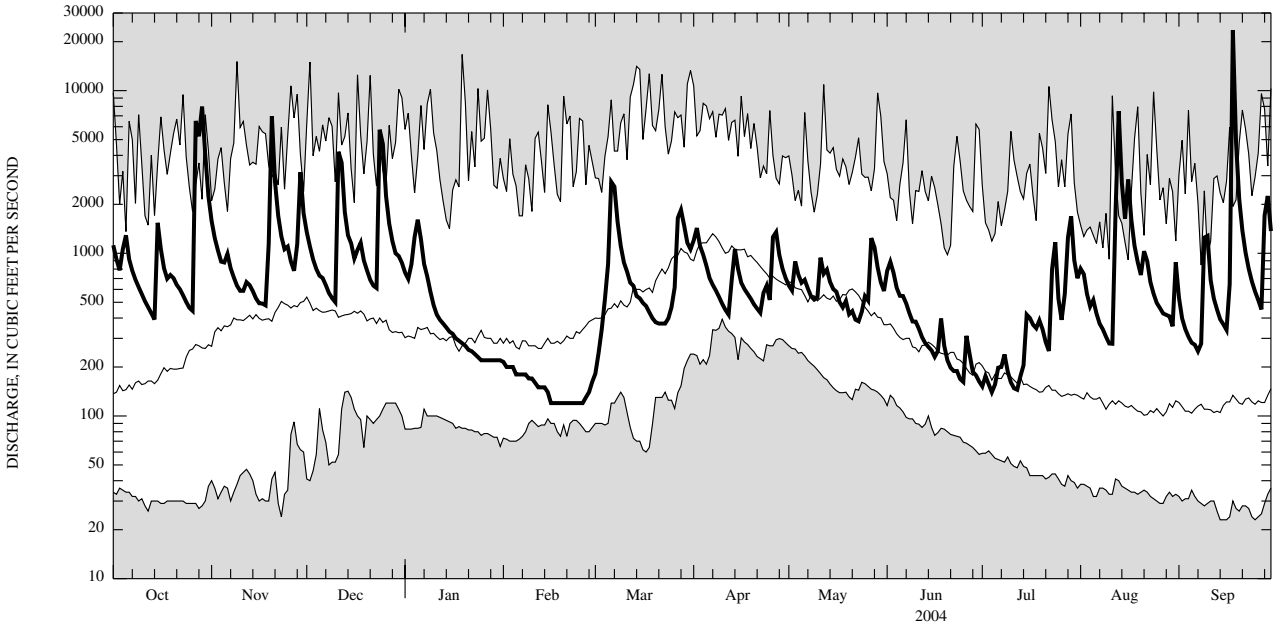
01420500 BEAVER KILL AT COOKS FALLS, NY—Continued

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2004, BY WATER YEAR (WY)												
MEAN	392	606	638	526	490	971	1,263	692	396	281	224	269
MAX	1,535	1,427	1,967	1,769	2,026	2,485	2,581	1,584	1,271	1,329	1,047	1,661
(WY)	(1978)	(1973)	(1997)	(1996)	(1981)	(1977)	(1940)	(1989)	(1928)	(1945)	(2004)	(2004)
MIN	31.3	42.4	140	93.5	107	289	347	222	107	54.0	40.4	31.8
(WY)	(1965)	(1965)	(1923)	(1981)	(1920)	(1932)	(1946)	(2001)	(1991)	(1962)	(1962)	(1964)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1913 - 2004	
ANNUAL TOTAL	342,846		321,431			
ANNUAL MEAN	939		878		562	
HIGHEST ANNUAL MEAN					937	1928
LOWEST ANNUAL MEAN					277	1965
HIGHEST DAILY MEAN	7,970	Oct 29	23,500	Sep 18	23,500	Sep 18, 2004
LOWEST DAILY MEAN	151	Jul 21	120	Feb 16	23	Sep 14, 1913
ANNUAL SEVEN-DAY MINIMUM	186	Jul 15	120	Feb 16	26	Sep 21, 1964
ANNUAL RUNOFF (CFSM)	3.90		3.64		2.33	
ANNUAL RUNOFF (INCHES)	52.92		49.62		31.66	
10 PERCENT EXCEEDS	1,800		1,530		1,230	
50 PERCENT EXCEEDS	595		562		321	
90 PERCENT EXCEEDS	239		180		85	

e Estimated



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

01420500 BEAVER KILL AT COOKS FALLS, NY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-75, 1988 to current year.
CHEMICAL DATA: 1966 (c), 1967-74 (d), 1975 (c).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1987 to current year.

INSTRUMENTATION.--Water-temperature satellite and telephone telemeter since June 1986, provides 15-minute-interval readings.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1991, 1993-97, 1999-2004), 31.0°C, July 9, 1993; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 24.0°C, July 2, 3, 5; minimum, 0.0°C on many days during winter period.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	11.5	10.0	11.0	10.5	8.5	9.5	4.5	3.5	4.0	2.5	2.0	2.5
2	10.5	9.0	10.0	10.5	10.0	10.0	3.5	1.0	2.5	3.0	1.5	2.5
3	10.0	8.0	9.0	11.5	9.5	10.5	1.0	0.0	0.5	4.0	3.0	3.5
4	9.0	8.5	9.0	11.0	10.0	10.5	1.0	0.0	0.5	4.5	3.5	4.0
5	9.5	8.0	8.5	10.0	9.5	10.0	2.5	0.5	1.5	3.5	3.0	3.0
6	9.0	7.5	8.0	10.0	9.5	10.0	1.5	0.0	0.5	3.0	0.5	2.0
7	9.5	7.0	8.5	9.5	8.0	9.0	0.5	0.0	0.5	0.5	0.0	0.5
8	10.5	8.0	9.5	8.0	4.5	6.5	1.0	0.0	0.5	0.5	0.0	0.5
9	12.0	9.5	11.0	4.5	3.0	4.0	2.5	0.5	1.5	0.5	0.0	0.5
10	13.0	11.0	12.0	4.5	2.5	3.5	4.0	2.0	3.0	0.5	0.5	0.5
11	13.0	11.0	12.0	4.5	3.0	3.5	4.5	3.5	4.0	0.5	0.0	0.5
12	12.5	10.5	11.5	7.5	4.0	5.5	3.5	2.0	2.5	0.5	0.0	0.5
13	13.0	10.5	11.5	7.5	4.5	6.5	2.0	1.0	1.5	0.5	0.0	0.5
14	11.5	9.5	10.5	4.5	3.0	3.5	1.5	0.0	0.5	0.5	0.0	0.5
15	11.5	9.0	10.5	3.5	2.5	3.0	1.0	0.0	0.5	0.5	0.0	0.5
16	9.0	8.0	8.5	4.5	3.0	3.5	2.5	0.5	1.5	1.0	0.0	0.5
17	8.5	7.5	8.0	6.0	4.5	5.0	3.0	2.0	2.5	0.5	0.5	0.5
18	9.0	7.5	8.0	6.5	6.0	6.0	2.0	1.5	1.5	0.5	0.0	0.5
19	8.0	7.0	7.5	9.5	6.5	8.0	1.5	0.0	1.0	0.5	0.0	0.5
20	8.5	6.5	7.5	9.0	6.0	7.0	2.0	0.5	1.0	0.5	0.0	0.5
21	9.5	7.5	8.5	7.0	5.0	6.0	1.0	0.0	0.5	0.5	0.0	0.0
22	9.0	7.0	8.5	7.0	6.0	6.5	2.0	0.0	1.0	0.5	0.0	0.0
23	7.0	5.0	6.0	7.0	5.5	6.0	4.0	1.5	3.0	0.5	0.0	0.0
24	6.5	5.0	5.5	7.0	6.0	6.5	3.0	2.5	3.0	0.0	0.0	0.0
25	7.0	4.5	6.0	6.5	4.5	5.5	3.5	2.5	3.0	0.0	0.0	0.0
26	9.5	7.0	8.0	4.5	3.5	4.0	2.5	2.0	2.5	0.5	0.0	0.0
27	10.5	9.5	10.0	5.5	4.0	4.5	3.0	2.0	2.5	0.0	0.0	0.0
28	9.5	8.0	9.0	7.5	5.5	6.0	2.5	1.5	2.0	0.5	0.0	0.0
29	9.0	8.5	8.5	7.5	4.0	5.5	3.0	1.5	2.0	0.5	0.0	0.0
30	8.5	7.5	8.0	5.0	3.5	4.0	3.5	2.5	3.0	0.0	0.0	0.0
31	9.5	7.0	8.0	---	---	---	3.0	2.0	2.5	0.0	0.0	0.0
MONTH	13.0	4.5	9.0	11.5	2.5	6.3	4.5	0.0	1.8	4.5	0.0	0.8

01420500 BEAVER KILL AT COOKS FALLS, NY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	0.0	0.0	0.0	0.0	0.0	0.0	6.0	5.5	5.5	15.0	11.0	13.0
2	0.0	0.0	0.0	0.5	0.0	0.0	5.5	5.0	5.0	14.5	13.0	13.5
3	0.0	0.0	0.0	0.5	0.0	0.5	6.5	4.5	5.5	14.0	9.5	11.5
4	0.0	0.0	0.0	2.0	0.0	0.0	6.0	3.5	5.5	11.5	8.0	10.0
5	0.0	0.0	0.0	1.5	0.5	1.0	4.0	2.0	3.0	10.0	7.5	8.5
6	0.0	0.0	0.0	1.5	1.0	1.5	5.5	1.0	3.0	13.0	7.5	10.5
7	0.0	0.0	0.0	3.0	1.0	2.0	6.0	3.5	5.0	15.0	11.0	13.0
8	0.0	0.0	0.0	2.5	1.5	2.0	6.0	4.0	5.0	12.5	10.5	11.5
9	0.0	0.0	0.0	3.5	1.5	2.5	7.5	4.5	6.0	12.0	9.5	11.0
10	0.0	0.0	0.0	4.0	2.0	3.0	7.5	4.0	6.0	15.0	10.5	12.5
11	0.0	0.0	0.0	4.5	1.0	3.0	7.0	4.5	6.0	16.5	12.5	14.5
12	0.0	0.0	0.0	4.0	2.0	3.0	8.0	5.5	6.5	16.0	13.5	14.5
13	0.0	0.0	0.0	3.0	0.5	1.5	7.0	6.0	6.5	17.0	13.5	15.5
14	0.0	0.0	0.0	2.0	0.5	1.5	7.0	6.0	7.0	17.5	14.0	16.0
15	0.0	0.0	0.0	4.5	1.5	3.0	9.5	5.0	7.0	18.5	15.0	16.5
16	0.0	0.0	0.0	3.0	0.5	1.5	9.5	5.0	7.5	17.0	14.0	15.5
17	0.0	0.0	0.0	2.0	0.0	1.0	10.5	6.5	8.5	17.5	13.0	15.0
18	0.0	0.0	0.0	2.5	0.5	1.5	12.0	9.0	10.5	18.0	15.0	16.5
19	0.0	0.0	0.0	3.0	1.0	2.0	14.0	9.5	12.0	17.5	15.0	16.0
20	0.0	0.0	0.0	3.5	0.5	2.0	14.0	10.5	12.0	17.0	13.0	15.0
21	0.0	0.0	0.0	3.0	1.5	2.5	12.5	9.5	11.0	17.5	14.5	16.0
22	0.0	0.0	0.0	3.0	0.5	1.5	14.0	10.0	12.0	18.5	15.0	16.5
23	0.0	0.0	0.0	3.0	0.0	1.5	12.5	9.5	11.0	19.5	16.0	17.5
24	0.0	0.0	0.0	5.5	1.0	3.5	13.0	8.5	10.5	20.0	16.5	18.0
25	0.0	0.0	0.0	5.0	4.0	4.5	10.5	7.5	8.5	17.5	15.5	16.5
26	0.0	0.0	0.0	6.5	3.5	5.0	8.0	7.0	7.5	17.0	14.5	15.5
27	0.0	0.0	0.0	6.0	4.5	5.0	10.5	7.5	9.0	18.0	14.5	16.5
28	0.0	0.0	0.0	7.5	4.0	5.5	10.0	7.0	8.5	17.0	14.5	16.0
29	0.0	0.0	0.0	7.0	3.5	5.5	12.5	7.0	10.0	15.5	12.5	14.0
30	---	---	---	7.0	4.0	5.5	14.0	10.0	12.0	15.5	11.0	13.5
31	---	---	---	6.0	5.0	5.5	---	---	---	13.5	12.0	12.5
MONTH	0.0	0.0	0.0	7.5	0.0	2.5	14.0	1.0	7.8	20.0	7.5	14.3
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.5	11.5	13.0	22.5	17.5	20.0	20.5	17.5	19.0	19.5	16.5	18.0
2	14.5	12.5	13.5	24.0	19.0	21.5	21.5	17.5	19.5	19.5	16.0	17.5
3	16.0	12.5	14.0	24.0	18.0	21.0	22.0	18.0	20.0	19.5	16.0	18.0
4	16.5	12.0	14.5	22.5	18.5	20.5	21.0	18.5	20.0	20.0	17.0	18.5
5	14.5	12.5	13.0	24.0	19.5	21.5	19.0	16.5	18.0	18.5	16.5	17.5
6	12.5	11.5	12.0	22.0	19.0	20.5	16.5	14.5	16.0	19.5	15.5	17.5
7	17.5	12.0	14.5	22.0	18.5	20.0	16.5	14.0	15.5	20.0	17.0	18.5
8	20.0	15.0	17.5	23.0	19.0	21.0	18.0	14.0	16.0	19.0	17.5	18.5
9	20.5	16.0	18.5	20.5	18.5	19.5	20.0	15.0	17.5	18.5	17.0	17.5
10	19.0	16.0	17.5	22.0	17.5	20.0	20.5	16.5	18.5	18.0	16.0	17.0
11	18.0	14.5	16.0	23.5	18.5	21.0	21.5	18.0	19.5	17.5	15.5	16.5
12	19.5	13.5	16.5	21.5	18.5	20.0	19.5	17.0	18.0	17.5	15.0	16.0
13	17.0	14.5	16.0	20.5	17.5	19.0	17.0	16.0	16.5	18.5	15.5	17.0
14	17.0	15.0	16.0	19.0	17.0	18.5	17.0	15.5	16.0	17.0	15.5	16.0
15	22.0	15.5	19.0	18.5	16.5	17.0	17.0	15.5	16.0	18.0	15.0	16.5
16	23.0	18.5	21.0	19.0	16.0	17.5	16.0	15.0	15.5	18.5	16.0	17.0
17	21.0	18.5	20.0	20.0	17.0	18.5	17.0	14.0	15.5	17.0	16.5	16.5
18	21.0	17.0	19.0	18.5	16.0	17.0	17.5	14.5	16.0	16.5	14.0	15.0
19	21.5	17.5	19.5	18.5	15.5	17.0	17.0	15.0	16.0	14.0	12.5	13.0
20	19.5	15.0	17.5	20.5	16.5	18.5	18.5	15.5	17.0	14.0	11.5	13.0
21	20.5	14.5	17.5	22.5	17.5	20.0	17.5	15.5	16.5	14.5	12.0	13.5
22	18.5	16.5	17.5	23.0	18.5	21.0	17.5	14.0	15.5	15.0	12.5	14.0
23	22.0	16.0	19.0	21.0	18.0	20.0	18.5	14.5	16.5	16.5	13.0	15.0
24	22.5	17.0	20.0	20.0	17.0	18.5	19.5	16.0	17.5	17.0	14.5	15.5
25	20.5	18.5	19.5	19.0	16.0	17.5	17.5	16.0	16.5	17.0	15.0	16.0
26	19.5	17.0	18.0	18.0	16.5	17.5	17.0	15.0	16.0	17.0	15.0	16.0
27	19.0	15.5	17.5	17.5	15.0	16.0	18.0	16.0	17.0	16.5	13.5	15.0
28	17.5	15.0	16.5	18.0	15.0	16.0	20.5	17.0	18.5	15.5	14.5	15.0
29	21.0	15.5	18.0	18.5	16.0	17.0	21.5	18.5	20.0	15.0	14.0	14.5
30	22.0	17.0	19.5	19.0	16.0	17.5	20.5	19.0	20.0	14.5	13.5	14.0
31	---	---	---	19.5	17.5	18.5	20.5	18.0	19.0	---	---	---
MONTH	23.0	11.5	17.1	24.0	15.0	19.0	22.0	14.0	17.4	20.0	11.5	16.1
YEAR	24.0	0.0	9.4									