01420500 BEAVER KILL AT COOKS FALLS, NY

Upper Delaware Basin
East Branch Delaware Subbasin

LOCATION.--Lat 41°56′47″, long 74°58′48″ referenced to North American Datum of 1927, Delaware County, NY, Hydrologic Unit 02040102, on left bank 125 ft downstream from bridge on Cooks Brook Road in Cooks Falls, and 5.5 mi downstream from Willowemoc Creek. Water-quality sampling site at discharge station.

DRAINAGE AREA.--241 mi^2.

SURFACE-WATER 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 and crest-stage gage. 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, 62,400 ft^3/s, June 28, 2006, gage height, 20.55 ft, from floodmark in gage house, 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 (or) maximum (*):

[e, estimated]

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct 28	1400	7,810	9.66
Mar 27	2130	5,510	7.80
Apr 16	0445	*13,900	a*11.46
Jun 19	--	e9,700	b10.16

a Recorded; outside gage height was 11.78 ft, from crest-stage gage.

b From crest-stage gage.

Minimum discharge, 75 ft^3/s, Sept. 27, gage height, 0.84 ft.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	877	966	523	738	e260	e140	1,410	634	182	145	166	109
2	884	1,110	898	824	e275	e340	1,370	639	179	134	143	104
3	712	943	662	674	e245	e955	1,300	569	270	126	132	104
4	625	803	596	617	e185	e575	1,330	505	348	136	134	98
5	580	721	544	676	e170	e420	1,320	466	399	331	115	93
6	509	661	498	2,120	e205	e315	1,030	427	276	284	109	89
7	459	610	485	1,630	e225	e330	878	396	225	197	108	86
8	422	898	444	2,650	e225	e335	773	376	202	157	314	90
9	388	1,500	418	2,020	e220	e335	686	351	189	144	230	114
10	360	1,020	398	1,380	e200	e315	613	346	176	132	392	104
11	338	866	381	1,070	e200	e380	558	671	197	133	427	172
12	389	779	368	918	e190	e370	640	547	171	156	278	253
13	380	743	398	911	e175	e430	724	447	158	128	232	148
14	329	722	463	959	e165	e840	619	398	150	113	192	116
15	303	660	399	1,350	e205	3,320	1,930	373	144	106	166	137
16	282	861	374	1,730	e250	2,290	9,480	391	138	104	158	134
17	313	2,900	346	1,180	e230	1,490	3,990	423	142	98	275	113
18	1,050	1,480	333	e960	e205	1,110	2,850	359	131	112	221	102
19	697	1,150	315	e870	e190	874	2,540	359	e1,290	139	181	96
20	1,810	963	299	e745	e195	780	2,380	409	2,130	154	162	92
21	1,770	824	288	e610	e195	654	2,040	362	651	130	185	89
22	1,190	732	283	e615	e190	726	1,730	319	428	107	228	86
23	970	754	567	e615	e180	1,500	1,470	297	323	120	190	84
24	819	721	581	e585	e180	1,450	1,250	279	261	233	174	81
25	729	627	473	e435	e170	2,480	1,080	261	225	165	166	77
26	652	578	684	e315	e160	2,280	1,160	246	208	131	155	76
27	581	539	728	e350	e155	3,620	1,010	233	192	120	140	84
28	3,920	503	620	e395	e150	4,520	919	259	224	310	132	156
29	2,730	473	573	e315	---	2,990	814	227	182	255	127	111
30	1,530	452	537	e270	---	2,080	720	200	157	373	120	95
31	1,160	---	507	e290	---	1,670	---	186	---	218	114	---
Total	27,758	26,559	14,983	28,817	5,595	39,914	48,614	11,955	9,948	5,191	5,866	3,293
Mean	895	885	483	930	200	1,288	1,620	386	332	167	189	110
Max	3,920	2,900	898	2,650	275	4,520	9,480	671	2,130	373	427	253
Min	282	452	283	270	150	140	558	186	131	98	108	76
Cfsm	3.72	3.67	2.01	3.86	0.83	5.34	6.72	1.60	1.38	0.69	0.79	0.46
In.	4.28	4.10	2.31	4.45	0.86	6.16	7.50	1.85	1.54	0.80	0.91	0.51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	409	612	643	546	489	965	1,272	684	408	280	222	268
Max	1,535	1,427	1,967	1,769	2,026	2,485	2,581	1,584	1,830	1,329	1,047	1,661
(WY)	(1978)	(1973)	(1997)	(1996)	(1981)	(1977)	(1940)	(1989)	(2006)	(1945)	(2004)	(2004)
Min	31.3	42.4	140	93.5	107	262	347	222	107	54.0	40.4	31.8
(WY)	(1965)	(1965)	(1923)	(1981)	(1920)	(2006)	(1946)	(2001)	(1991)	(1962)	(1962)	(1964)

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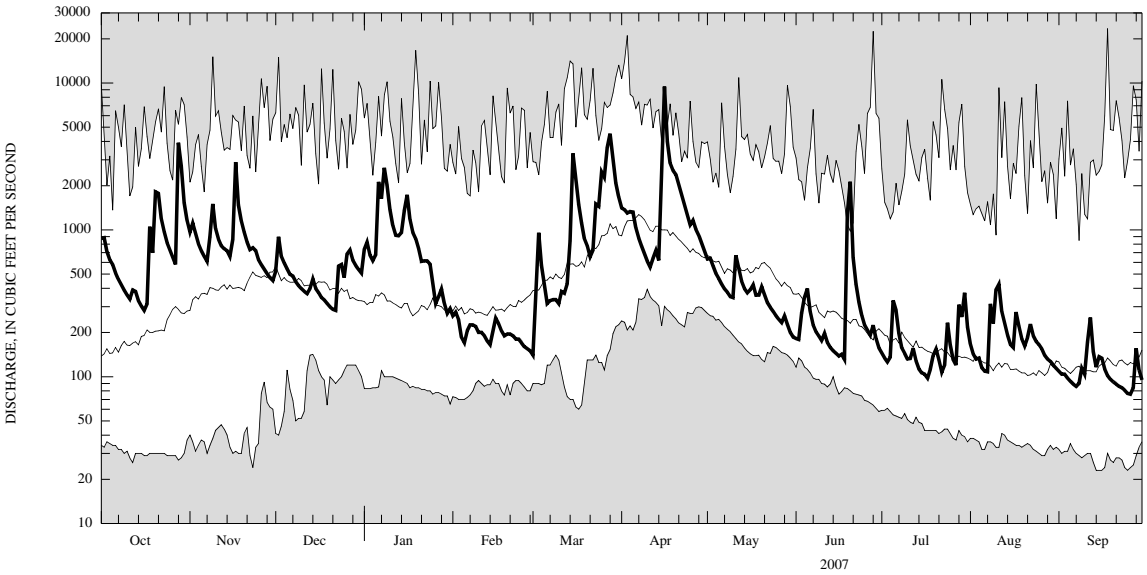
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1913 - 2007	
Annual total	268,936		228,493			
Annual mean	737		626		566	
Highest annual mean					937	1928
Lowest annual mean					277	1965
Highest daily mean	22,500	Jun 28	9,480	Apr 16	23,500	Sep 18, 2004
Lowest daily mean	69	Aug 18	76	Sep 26	23	Sep 14, 1913
Annual seven-day minimum	80	Aug 13	82	Sep 21	26	Sep 21, 1964
Annual runoff (cfsm)	3.06		2.60		2.35	
Annual runoff (inches)	41.51		35.27		31.90	
10 percent exceeds	1,190		1,390		1,240	
50 percent exceeds	459		370		323	
90 percent exceeds	196		120		86	



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.

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 TEMPERATURE: 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 TEMPERATURE: Maximum (water years 1991, 1993-97, 1999-2007), 31.5°C, Aug. 12, 2005; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 26.5°C, July 9, 10, Aug. 2; minimum, 0.0°C on many days during winter period.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	12.5	11.0	11.5	9.5	8.0	9.0	11.0	9.5	10.0	4.0	3.0	3.5
2	12.5	11.0	12.0	8.5	6.5	7.5	9.5	5.5	7.5	4.0	2.5	3.5
3	13.0	10.5	12.0	6.5	5.0	5.5	5.5	4.0	4.5	2.5	1.5	2.0
4	14.0	12.5	13.5	5.0	3.5	4.5	4.0	2.5	3.5	3.0	1.5	2.0
5	14.0	12.0	13.0	5.0	3.5	4.5	2.5	1.5	2.0	5.5	3.0	4.0
6	12.0	10.0	11.0	6.0	4.0	5.0	2.0	0.5	1.5	8.0	5.5	7.0
7	11.5	9.0	10.5	6.5	4.5	5.5	3.0	2.0	2.5	7.0	5.0	5.5
8	12.5	9.5	11.0	8.0	6.5	7.5	2.0	0.0	0.5	5.5	4.0	5.0
9	13.5	10.5	12.0	9.5	8.0	8.5	0.5	0.0	0.5	4.0	3.0	3.5
10	13.5	11.0	12.0	8.5	7.5	8.0	1.5	0.0	1.0	3.0	1.0	2.0
11	12.5	12.0	12.0	8.5	6.0	7.5	3.0	1.0	2.0	1.5	0.5	1.0
12	13.0	11.0	12.0	8.5	8.0	8.5	4.0	3.0	3.5	3.5	1.5	2.5
13	11.0	8.5	9.5	10.0	8.0	9.0	5.0	4.0	4.5	4.5	3.5	4.0
14	9.0	7.0	8.0	10.5	10.0	10.0	5.5	4.5	5.0	4.5	4.0	4.5
15	8.0	6.0	7.0	10.0	9.5	10.0	4.5	4.0	4.5	4.5	4.0	4.0
16	8.5	5.5	7.5	12.0	10.0	11.0	4.5	3.5	4.5	4.5	1.0	3.5
17	8.5	7.5	8.0	12.0	9.0	11.0	4.5	3.0	3.5	1.0	0.0	0.0
18	11.0	8.5	10.0	9.0	7.5	8.0	5.5	4.5	5.0	1.0	0.0	0.0
19	12.0	10.5	11.5	7.5	6.5	7.0	4.5	2.5	3.5	1.5	1.0	1.0
20	12.0	9.0	11.0	6.5	5.0	5.5	2.5	1.5	2.5	1.0	0.0	0.0
21	9.0	8.0	8.5	5.5	4.5	5.0	2.5	1.5	2.0	0.0	0.0	0.0
22	9.0	8.0	9.0	4.5	3.5	4.0	2.5	1.0	1.5	0.0	0.0	0.0
23	9.0	7.5	8.5	5.5	4.0	4.5	4.5	2.5	4.0	1.0	0.0	0.5
24	7.5	6.5	7.0	5.5	4.5	5.0	4.5	3.5	4.5	1.0	0.5	0.5
25	7.5	6.5	7.0	4.5	3.5	4.0	3.5	2.0	2.5	1.0	0.0	0.0
26	7.0	6.0	6.5	5.0	3.5	4.5	4.0	2.5	3.0	0.0	0.0	0.0
27	7.0	5.0	6.0	5.5	4.5	5.0	3.5	3.0	3.0	0.0	0.0	0.0
28	8.5	6.5	7.5	6.5	5.0	6.0	3.0	2.0	3.0	0.0	0.0	0.0
29	7.5	6.0	6.5	8.0	6.5	7.5	4.0	3.0	3.0	0.0	0.0	0.0
30	7.0	5.5	6.5	9.5	8.0	8.5	3.0	2.5	3.0	0.0	0.0	0.0
31	8.5	5.5	7.0	---	---	---	3.0	2.0	2.5	0.0	0.0	0.0
Month	14.0	5.0	9.5	12.0	3.5	6.9	11.0	0.0	3.4	8.0	0.0	1.9

01420500 BEAVER KILL AT COOKS FALLS, NY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

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	5.0	3.5	4.0	10.5	8.5	10.0
2	0.0	0.0	0.0	0.0	0.0	0.0	8.0	4.0	5.5	13.0	9.5	11.0
3	0.0	0.0	0.0	0.0	0.0	0.0	9.0	5.5	7.5	13.0	8.5	11.0
4	0.0	0.0	0.0	0.0	0.0	0.0	8.0	4.0	5.5	13.0	8.5	11.0
5	0.0	0.0	0.0	0.0	0.0	0.0	4.5	2.5	3.5	13.0	9.0	11.0
6	0.0	0.0	0.0	0.0	0.0	0.0	2.5	1.0	2.0	13.5	8.5	11.0
7	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.0	2.0	14.0	8.5	11.5
8	0.0	0.0	0.0	0.0	0.0	0.0	2.5	1.0	2.0	15.5	10.0	13.0
9	0.0	0.0	0.0	0.0	0.0	0.0	3.0	1.5	2.0	17.0	11.5	14.5
10	0.0	0.0	0.0	0.0	0.0	0.0	5.0	1.5	3.0	18.0	14.0	16.0
11	0.0	0.0	0.0	0.0	0.0	0.0	6.0	2.0	4.0	16.5	15.0	15.5
12	0.0	0.0	0.0	0.0	0.0	0.0	5.5	3.5	4.0	17.0	14.0	15.5
13	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.0	3.5	15.5	12.0	13.5
14	0.0	0.0	0.0	0.0	0.0	0.0	5.5	2.5	4.0	15.0	10.0	13.0
15	0.0	0.0	0.0	0.5	0.0	0.5	5.0	2.0	3.5	17.0	11.5	14.5
16	0.0	0.0	0.0	0.5	0.0	0.5	2.5	0.5	1.5	16.0	13.5	15.0
17	0.0	0.0	0.0	1.0	0.0	0.5	4.0	2.5	3.5	15.0	12.5	13.5
18	0.0	0.0	0.0	2.0	0.0	1.0	5.5	3.5	4.5	13.0	11.0	12.0
19	0.0	0.0	0.0	1.0	0.0	0.5	7.0	4.0	5.5	11.5	10.0	11.0
20	0.0	0.0	0.0	3.5	0.0	1.5	8.5	4.0	6.5	14.0	10.5	12.5
21	0.0	0.0	0.0	3.5	0.0	1.5	9.5	5.0	7.5	15.5	11.0	13.0
22	0.0	0.0	0.0	5.5	2.0	4.0	10.5	6.0	8.5	16.0	11.0	13.5
23	0.0	0.0	0.0	4.5	2.5	3.0	11.5	7.0	9.5	17.0	12.5	15.0
24	0.0	0.0	0.0	3.5	1.5	3.0	12.5	9.5	11.0	19.5	14.0	17.0
25	0.0	0.0	0.0	4.0	2.0	3.0	10.5	7.0	8.0	20.0	15.5	18.0
26	0.0	0.0	0.0	5.0	2.0	3.5	10.0	6.5	8.5	20.0	16.5	18.5
27	0.0	0.0	0.0	5.5	3.0	4.0	9.5	8.0	8.5	19.5	15.5	17.5
28	0.0	0.0	0.0	5.5	3.0	4.0	10.0	8.5	9.0	21.0	17.0	19.0
29	---	---	---	5.0	1.5	3.5	10.0	8.5	9.0	20.5	16.0	18.0
30	---	---	---	6.0	2.0	4.0	12.5	8.0	10.0	21.0	15.5	18.5
31	---	---	---	6.5	3.0	4.5	---	---	---	22.0	17.0	19.5
Month	0.0	0.0	0.0	6.5	0.0	1.4	12.5	0.5	5.6	22.0	8.5	14.3

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	23.0	19.0	21.0	20.0	16.5	18.5	25.5	20.0	23.0	21.5	17.5	19.5
2	23.5	19.0	21.5	19.0	15.0	17.0	26.5	21.0	24.0	21.5	16.5	18.5
3	21.0	18.0	19.5	21.0	15.5	18.0	26.0	22.0	24.0	22.0	16.5	19.0
4	18.0	16.5	17.0	18.0	16.0	16.5	26.0	21.5	23.5	22.5	18.5	20.5
5	18.5	15.5	17.0	20.0	15.5	18.0	25.5	20.5	23.0	21.0	18.0	19.5
6	18.0	14.5	16.5	21.5	18.0	20.0	23.0	21.5	22.0	22.5	17.5	20.0
7	18.5	13.5	16.0	23.0	18.0	20.5	24.5	20.5	22.5	24.5	19.5	21.5
8	22.0	16.0	19.0	24.0	19.0	21.5	24.0	21.0	22.5	24.0	21.0	22.5
9	24.0	19.5	21.5	26.5	21.0	23.5	23.5	20.5	22.0	23.0	20.5	21.5
10	22.0	18.5	20.0	26.5	22.5	24.5	22.5	17.5	19.5	21.5	20.5	21.0
11	23.0	18.5	21.0	24.5	21.0	23.0	21.5	16.5	19.0	20.5	18.5	19.5
12	23.5	19.5	21.5	23.5	19.0	21.0	22.5	18.5	20.5	18.5	16.0	17.5
13	23.5	19.5	21.5	23.5	19.0	21.0	22.5	19.5	21.0	19.0	15.5	17.0
14	21.5	17.5	19.5	23.5	19.0	21.0	21.5	18.0	20.0	17.0	15.5	16.5
15	21.5	17.0	19.5	23.0	19.5	21.0	21.0	17.0	19.0	17.0	14.5	16.0
16	22.5	18.0	19.5	25.0	19.5	22.0	23.0	18.5	20.5	16.0	13.0	14.5
17	23.0	18.0	20.5	26.0	20.0	22.5	21.5	18.5	20.0	16.5	12.0	14.5
18	24.5	19.5	22.0	22.5	21.0	21.5	19.0	16.5	18.0	17.5	13.0	15.0
19	25.5	16.0	22.0	21.0	19.5	20.5	19.0	16.0	17.5	18.5	13.5	16.0
20	19.0	16.5	17.5	21.5	19.0	20.0	17.5	16.5	17.0	20.0	15.0	17.5
21	19.0	14.5	17.0	22.5	17.0	19.5	16.5	15.0	16.0	21.5	17.5	19.0
22	17.0	15.0	16.0	23.5	18.0	20.5	16.0	14.5	15.5	21.0	17.5	19.0
23	18.5	13.5	16.0	20.0	17.0	18.0	17.5	15.5	16.5	20.5	16.5	18.0
24	18.5	13.5	16.0	20.5	16.5	18.5	21.0	17.0	19.0	20.0	15.0	17.0
25	20.5	16.0	18.5	23.0	18.0	20.5	24.5	20.0	22.0	20.5	15.5	17.5
26	24.0	18.5	21.0	25.0	20.0	22.5	23.0	20.5	22.0	21.5	17.5	19.0
27	24.5	20.5	22.0	25.0	21.5	23.0	23.0	19.0	21.0	22.5	19.0	20.5
28	23.0	20.5	21.5	23.5	20.5	22.0	23.0	19.0	21.0	20.0	16.5	18.5
29	22.5	18.5	20.5	24.5	20.0	22.0	23.5	19.5	21.5	18.5	15.5	16.5
30	22.0	17.0	19.5	23.0	19.0	21.0	24.0	20.5	22.0	18.0	14.5	16.0
31	---	---	---	24.0	19.0	21.5	23.0	19.5	21.5	---	---	---
Month	25.5	13.5	19.4	26.5	15.0	20.7	26.5	14.5	20.5	24.5	12.0	18.3

	Max	Min	Mean
Year	26.5	0.0	10.2