BEAR CREEK BASIN

01555539 BEAR CREEK (BC2) AT LYKENS, PA
(Bear Creek Watershed Project)

LOCATION.--Lat 40°34'45", long 76°41'58", Dauphin County, Hydrologic Unit 02050301, on left side of channel, 0.7 mi upstream of confluence with Wiconisco Creek.

DRAINAGE AREA.--4.44 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 3, 1999 to current year (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 820 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records poor. Other data for this project can be found on pages 336-349.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.8	2.3	2.5	1.5	5.7	1.7	e11	9.0	12	4.6	4.2	4.2
2	e2.7	2.1	1.9	2.0	3.8	2.6	e9.2	15	10	4.8	4.1	4.5
3	e2.8	1.8	1.9	2.4	4.6	8.6	e8.6	13	5.9	4.7	3.8	5.4
4	e2.6	2.0	1.6	1.8	4.1	4.9	e8.2	11	6.0	4.5	4.0	5.9
5	e2.6	1.7	1.7	1.6	2.7	3.6	e7.8	10	7.6	3.9	5.2	4.4
6	e2.7	1.6	2.3	2.8	2.7	4.3	e7.5	11	7.4	4.1	4.5	4.0
7	e2.5	1.6	2.1	2.2	3.7	3.5	e7.3	11	5.9	4.1	4.0	3.6
8	e2.5	1.9	2.1	1.4	2.8	2.9	e7.1	9.7	6.1	4.5	3.9	3.7
9	e2.6	1.5	2.0	2.2	2.4	3.8	e7.1	11	6.8	5.0	3.9	4.1
10	e2.5	2.1	2.1	1.6	4.4	4.2	e8.3	11	6.2	4.1	4.2	10
11	e2.5	1.5	1.7	1.8	6.2	3.3	e7.1	10	6.5	3.8	4.7	17
12	e2.5	1.6	1.3	2.1	5.1	4.1	e6.8	13	6.1	4.2	4.8	4.5
13	e2.4	1.8	2.0	2.0	3.2	4.3	e6.9	21	5.2	4.2	4.6	4.0
14	e2.6	2.1	2.8	1.6	2.9	3.4	e6.2	16	5.8	4.1	5.0	4.0
15	e4.5	2.3	1.4	2.8	4.1	4.2	16	11	5.9	4.4	4.5	4.4
16	e3.1	2.0	1.4	3.2	4.5	3.2	14	11	5.7	4.2	4.8	4.8
17	e3.1	1.5	5.6	4.3	3.0	2.1	9.0	11	5.2	4.4	5.8	4.4
18	e2.8	1.8	7.2	2.8	1.8	3.2	7.2	27	4.8	4.6	7.0	4.2
19	e1.6	2.6	2.2	3.2	2.2	4.3	8.3	22	4.7	4.5	5.8	4.2
20	1.5	1.7	1.9	2.4	3.1	8.9	e8.9	15	4.7	3.8	4.4	4.4
21	1.5	1.2	1.5	3.2	2.9	9.8	e8.6	13	4.9	3.8	3.9	4.7
22	1.7	1.2	1.6	2.1	2.0	e6.1	e8.6	12	5.0	4.2	4.4	4.8
23	2.5	1.3	2.7	3.0	1.8	e4.7	e8.2	12	5.0	4.2	5.0	4.1
24	3.3	1.7	2.9	4.2	1.9	e4.0	e7.7	13	4.7	3.7	7.2	3.7
25	4.6	2.2	1.7	6.0	2.7	e8.2	e7.7	9.1	4.9	3.8	4.7	3.6
26	1.7	1.7	2.6	7.0	3.4	e13	e7.4	9.3	5.3	4.2	4.1	3.9
27	1.4	2.4	1.8	6.0	2.9	e21	e7.1	9.4	5.1	4.7	3.9	6.0
28	1.5	2.0	1.5	5.7	1.7	e13	e12	10	4.3	4.8	3.8	5.8
29	1.7	2.6	1.3	5.0	---	e12	e12	10	4.0	4.8	4.0	6.8
30	1.7	3.4	1.3	4.2	---	e11	9.7	10	4.4	4.4	3.8	5.9
31	1.9	---	1.4	4.8	---	e10	---	14	---	4.1	3.8	---
TOTAL	76.4	57.2	68.0	96.9	92.3	193.9	261.5	390.5	176.1	133.2	141.8	155.0
MEAN	2.46	1.91	2.19	3.13	3.30	6.25	8.72	12.6	5.87	4.30	4.57	5.17
MAX	4.6	3.4	7.2	7.0	6.2	21	16	27	12	5.0	7.2	17
MIN	1.4	1.2	1.3	1.4	1.7	1.7	6.2	9.0	4.0	3.7	3.8	3.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2002, BY WATER YEAR (WY)

MEAN	4.99	4.86	7.74	5.58	9.81	14.1	13.5	10.9	10.4	5.51	4.71	5.81
MAX	6.46	6.78	11.0	7.43	13.3	20.8	18.6	14.0	21.5	7.99	5.34	8.49
(WY)	2001	2000	2001	2000	2000	2000	2000	2000	2000	2000	2000	1999
MIN	2.46	1.91	2.19	3.13	3.30	6.25	8.72	5.90	5.87	4.30	3.85	3.37
(WY)	2002	2002	2002	2002	2002	2002	2002	1999	2002	2002	2001	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 1999 - 2003	
ANNUAL TOTAL	2695.7		1842.8			
ANNUAL MEAN	7.39		5.05		8.44	
HIGHEST ANNUAL MEAN					11.5	2000
LOWEST ANNUAL MEAN					5.05	2002
HIGHEST DAILY MEAN	24	Apr 24	27	May 18	108	Dec 17 2000
LOWEST DAILY MEAN	1.2	Nov 21	1.2	Nov 21,22	1.2	Nov 21,22 2001
ANNUAL SEVEN-DAY MINIMUM	1.6	Nov 20	1.5	Dec 27	1.5	Dec 27 2001
MAXIMUM PEAK FLOW			40	May 13	179	Dec 17 2000
MAXIMUM PEAK STAGE			19.26	May 13	20.06	Dec 17 2000
INSTANTANEOUS LOW FLOW			1.1	Nov 20-22	1.1	Nov 20 2001**a**
10 PERCENT EXCEEDS	16		10		17	
50 PERCENT EXCEEDS	5.6		4.2		5.9	
90 PERCENT EXCEEDS	1.8		1.7		2.7	

a Also Nov. 21, 22, 2001.
e Estimated.

BEAR CREEK BASIN

01555539 BEAR CREEK (BC2) AT LYKENS, PA--Continued

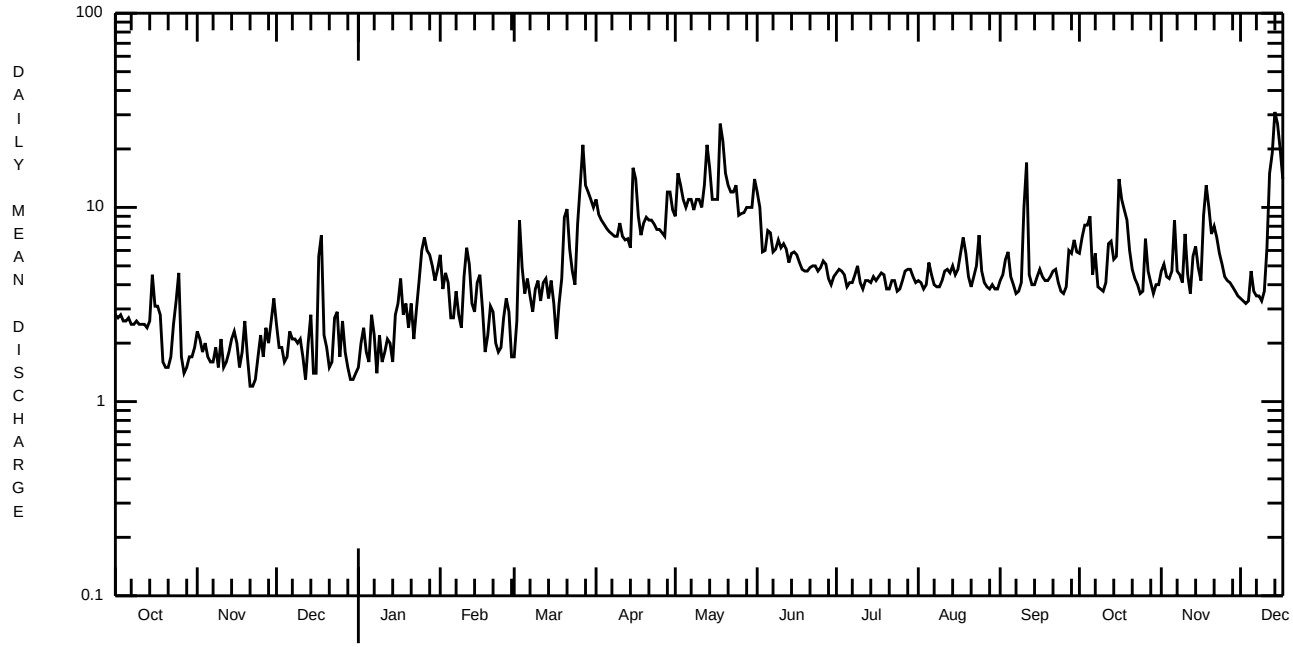
DISCHARGE, CUBIC FEET PER SECOND, **WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003**
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	4.7	e3.4	---	---	---	---	---	---	---	---	---
2	7.0	5.1	e3.3	---	---	---	---	---	---	---	---	---
3	8.1	4.4	3.2	---	---	---	---	---	---	---	---	---
4	8.1	4.3	3.3	---	---	---	---	---	---	---	---	---
5	9.0	4.7	4.7	---	---	---	---	---	---	---	---	---
6	4.5	8.6	3.7	---	---	---	---	---	---	---	---	---
7	5.8	4.7	3.5	---	---	---	---	---	---	---	---	---
8	3.9	4.5	3.5	---	---	---	---	---	---	---	---	---
9	3.8	4.1	3.3	---	---	---	---	---	---	---	---	---
10	3.7	7.3	3.7	---	---	---	---	---	---	---	---	---
11	4.1	4.5	6.2	---	---	---	---	---	---	---	---	---
12	6.5	3.6	15	---	---	---	---	---	---	---	---	---
13	6.7	5.6	19	---	---	---	---	---	---	---	---	---
14	5.4	6.3	31	---	---	---	---	---	---	---	---	---
15	5.6	4.9	27	---	---	---	---	---	---	---	---	---
16	14	4.2	20	---	---	---	---	---	---	---	---	---
17	11	9.1	14	---	---	---	---	---	---	---	---	---
18	9.7	13	---	---	---	---	---	---	---	---	---	---
19	8.6	10	---	---	---	---	---	---	---	---	---	---
20	6.0	7.3	---	---	---	---	---	---	---	---	---	---
21	4.8	e8.0	---	---	---	---	---	---	---	---	---	---
22	4.3	e7.0	---	---	---	---	---	---	---	---	---	---
23	4.0	5.8	---	---	---	---	---	---	---	---	---	---
24	3.6	5.1	---	---	---	---	---	---	---	---	---	---
25	3.7	4.4	---	---	---	---	---	---	---	---	---	---
26	6.9	4.2	---	---	---	---	---	---	---	---	---	---
27	4.7	4.1	---	---	---	---	---	---	---	---	---	---
28	4.1	3.9	---	---	---	---	---	---	---	---	---	---
29	3.6	e3.7	---	---	---	---	---	---	---	---	---	---
30	4.0	e3.5	---	---	---	---	---	---	---	---	---	---
31	4.0	---	---	---	---	---	---	---	---	---	---	---
TOTAL	185.0	170.6	---	---	---	---	---	---	---	---	---	---
MEAN	5.97	5.69	---	---	---	---	---	---	---	---	---	---
MAX	14	13	---	---	---	---	---	---	---	---	---	---
MIN	3.6	3.5	---	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2003, BY WATER YEAR (WY)

MEAN	5.23	5.07	7.74	5.58	9.81	14.1	13.5	10.9	10.4	5.51	4.71	5.81
MAX	6.46	6.78	11.0	7.43	13.3	20.8	18.6	14.0	21.5	7.99	5.34	8.49
(WY)	2001	2000	2001	2000	2000	2000	2000	2000	2000	2000	2000	1999
MIN	2.46	1.91	2.19	3.13	3.30	6.25	8.72	5.90	5.87	4.30	3.85	3.37
(WY)	2002	2002	2002	2002	2002	2002	2002	1999	2002	2002	2001	2001

e Estimated.



OCTOBER 1, 2001 TO DECEMBER 17, 2002

BEAR CREEK BASIN

01555539 BEAR CREEK (BC2) AT LYKENS, PA--Continued
(Bear Creek Watershed Project)

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- March 3, 1999 to current year (discontinued).

REMARKS.--Hydrologic event codes used: 9 - routine sample, J - storm.

WATER-QUALITY DATA, OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	Hydro-logic event	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA) (00929)	ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508)	ANC WATER UNFLTRD FET LAB (MG/L AS CACO3) (00417)
OCT 2001													
23...	1130	9	1028	9813	2.8	9.0	87	7.0	323	13.2	5.3	.0	90
NOV													
30...	1200	9	1028	9813	3.2	9.1	88	7.0	291	13.1	4.2	.0	78
DEC													
18...	1100	9	1028	9813	3.6	8.7	78	7.0	243	10.8	3.6	.0	68
JAN 2002													
24...	1230	9	1028	9813	3.8	7.3	65	6.9	234	9.5	3.2	.0	60
25...	1315	J	1028	9813	5.7	8.7	71	6.9	162	6.6	2.5	.0	38
FEB													
15...	1105	9	1028	9813	3.6	8.5	74	6.6	250	9.3	--	--	--
21...	1015	9	1028	9813	3.0	8.3	76	6.9	218	11.2	4.8	.0	80
MAR													
21...	1130	J	1028	9813	9.6	8.6	72	6.9	103	7.7	1.9	.0	30
APR													
29...	1130	9	1028	9813	13	8.2	75	6.9	164	11.6	2.4	.0	42
MAY													
02...	1330	J	1028	9813	18	8.0	74	6.8	160	11.6	2.4	16	40
09...	1230	J	1028	9813	11	8.0	75	7.0	228	12.0	3.2	.0	62
30...	1215	9	1028	9813	10	7.6	73	6.9	244	13.3	3.9	.0	68
JUN													
19...	1130	9	1028	9813	4.9	8.2	78	6.8	285	13.3	4.2	.0	80
JUL													
18...	1130	9	1028	9813	4.3	8.9	85	6.8	294	13.4	4.6	.0	90
18...	1131	9	1028	80020	4.3	8.9	85	6.8	294	13.4	--	--	--
AUG													
21...	1100	9	1028	9813	3.8	8.5	81	7.0	298	13.5	5.1	.0	90
SEP													
16...	1045	9	1028	9813	4.6	8.6	83	6.8	324	13.7	5.1	.0	92
23...	1200	9	1028	9813	3.8	8.2	79	7.0	322	13.5	5.2	.0	88

Date	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µG/L AS AL) (01105)	IRON, DIS-SOLVED (µG/L AS FE) (01046)	IRON FERROUS WATER FLTRD (µG/L) (01047)	IRON, TOTAL RECOV-ERABLE (µG/L AS FE) (01045)	MANGA-NESE, DIS-SOLVED (µG/L AS MN) (01056)	MANGA-NESE, TOTAL RECOV-ERABLE (µG/L AS MN) (01055)
OCT 2001								
23...	78.1	78	<200	16000	6800	16900	2490	2420
NOV								
30...	62.9	<2	<200	12000	7000	15100	1840	1840
DEC								
18...	55.1	54	<200	8740	7600	20100	1490	1560
JAN 2002								
24...	54.8	18	<200	9050	4000	16400	1510	1480
25...	33.3	26	300	5850	900	20100	1030	1100
FEB								
15...	--	--	--	--	--	--	--	--
21...	60.1	22	<200	11600	3500	12500	1830	1860
MAR								
21...	26.5	20	200	4060	1200	8640	760	800
APR								
29...	34.2	20	200	5510	1000	8370	880	900
MAY								
02...	32.1	16	300	5390	<500	9210	890	910
09...	48.3	36	<200	16500	1200	10200	2120	1280
30...	48.7	18	<200	9160	3000	10800	1460	1450
JUN								
19...	57.7	24	<200	12400	2200	12600	1650	1690
JUL								
18...	59.6	26	<200	12600	2100	14500	1830	1880
18...	62.1	--	40	11800	2100	13100	1750	1790
AUG								
21...	62.4	12	<200	13400	3500	14500	1970	2030
SEP								
16...	90.9	26	<200	14100	3800	15200	1970	1990
23...	64.6	22	<200	13900	3300	16800	1970	2050

BEAR CREEK BASIN

01555539 BEAR CREEK (BC2) AT LYKENS, PA--Continued
(Bear Creek Watershed Project)

WATER-QUALITY DATA, **OCTOBER 2002 TO DECEMBER 2002**

Date	Time	Hydro-logic event	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA) (00929)	ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508)	ANC WATER UNFLTRD FET LAB MG/L AS CACO3 (00417)
OCT													
22...	1100	9	1028	9813	4.3	8.5	79	6.8	287	11.8	4.2	.0	78
NOV													
21...	1130	9	1028	9813	8.2	9.4	82	7.0	202	9.4	3.2	.0	50
DEC													
18...	1200	9	1028	9813	11	10.2	85	6.9	206	7.5	2.9	.0	48

Date	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µG/L AS AL) (01105)	IRON, DIS-SOLVED (µG/L AS FE) (01046)	IRON FERROUS WATER FLTRD (µG/L) (01047)	IRON, TOTAL RECOV-ERABLE (µG/L AS FE) (01045)	MANGA-NESE, DIS-SOLVED (µG/L AS MN) (01056)	MANGA-NESE, TOTAL RECOV-ERABLE (µG/L AS MN) (01055)
OCT								
22...	62.7	26	<200	12100	4100	12500	1750	1680
NOV								
21...	44.4	8	<200	7780	3800	8750	1210	1240
DEC								
18...	44.9	22	<200	8150	4800	9780	1130	1170