

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK**

Water-quality and benthic macroinvertebrate samples were collected from selected streams in Chester County in October and November 2002 as part of the Stream Conditions of Chester County Biological Monitoring Network. The biological monitoring program was initiated in 1969 with the goals of evaluating stream quality and long-term changes in stream quality of selected streams in Chester County. Benthic macroinvertebrates are macroscopic animals that inhabit the bottoms of aquatic habitats. Freshwater forms include aquatic insects, clams, crustaceans, snails, and worms. Samples are collected annually from similar habitats of the selected streams. By sampling in similar habitats with similar physical conditions it can be assumed that water quality is the determining factor controlling community structure. Benthic macroinvertebrate sampling was conducted following a single habitat approach. A cobble-riffle habitat was used because macroinvertebrate diversity and abundance is usually highest there. Samples were collected using a Hess sampler with a mesh size of 500 mm. Three samples were collected from areas of various velocities from within the riffle. Samples were composited and the entire sample was sorted and identified. Identifications were made to the lowest practical level (family or genus) by a U.S. Geological Survey biologist.

TABLE 5.--Stream conditions of Chester County biological monitoring network station list.

STATION NUMBER	STATION NAME	LATITUDE	LONGITUDE	DRAINAGE AREA (mi ²)
01472080	PIGEON CREEK NEAR SLONAKER, PA	40°12'03"	75°37'10"	12.0
01472138	FRENCH CREEK NEAR COVENTRYVILLE, PA	40°10'14"	75°41'50"	19.9
01472140	SOUTH BRANCH FRENCH CREEK AT COVENTRYVILLE, PA	40°09'18"	75°42'52"	12.4
^a 01472157	FRENCH CREEK NEAR PHOENIXVILLE, PA	40°09'05"	75°36'06"	59.1
01472170	PICKERING CREEK NEAR EAGLE, PA	40°04'43"	75°39'14"	3.06
014721854	PICKERING CREEK AT MERLIN, PA	40°06'25"	75°35'34"	21.2
01472190	PICKERING CREEK NEAR PHOENIXVILLE, PA	40°06'33"	75°31'42"	31.4
^a 01473169	VALLEY CREEK AT PA TURNPIKE BRIDGE NEAR VALLEY FORGE, PA	40°04'45"	75°27'40"	20.8
^a 01475850	CRUM CREEK NEAR NEWTOWN SQUARE, PA	39°58'35"	75°26'13"	15.8
01476450	RIDLEY CREEK AT PA ROUTE 3 NEAR WILLISTOWN, PA	39°58'01"	75°28'58"	13.9
01476835	EAST BRANCH CHESTER CREEK AT WESTTOWN, PA	39°56'26"	75°32'30"	10.4
01478120	EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA	39°49'42"	75°46'52"	11.3
01478137	TROUT RUN AT AVONDALE, PA	39°49'18"	75°46'46"	1.34
01478170	EAST BRANCH WHITE CLAY CREEK NEAR STRICKERSVILLE, PA	39°44'58"	75°46'08"	33.5
01478230	MIDDLE BRANCH WHITE CLAY CREEK NEAR AVONDALE, PA	39°45'02"	75°46'19"	25.5
01479700	WEST BRANCH RED CLAY CR NR KENNETT SQUARE, PA	39°48'39"	75°42'18"	16.9
01479800	EAST BRANCH RED CLAY CREEK NEAR FIVE POINTS, PA	39°49'10"	75°41'29"	10.2
^a 01480300	WEST BRANCH BRANDYWINE CR NR HONEY BROOK, PA	40°04'22"	75°55'40"	18.7
^a 01480617	WEST BRANCH BRANDYWINE CREEK AT MODENA, PA	39°57'42"	75°48'06"	55.0
01480629	BUCK RUN AT DOE RUN, PA	39°55'46"	75°49'24"	22.6
01480636	BROAD RUN AT ROMANSVILLE, PA	39°57'06"	75°43'33"	2.86
0148063750	BROAD RUN NEAR MARSHALLTON, PA	39°56'48"	75°42'11"	5.45
^a 01480638	BROAD RUN AT NORTHBROOK, PA	39°55'49"	75°41'06"	6.39
01480653	EAST BRANCH BRANDYWINE CR AT GLENMOORE, PA	40°05'48"	75°46'44"	16.5
^a 01480870	EAST BRANCH BRANDYWINE CR BL DOWNINGTOWN, PA	39°58'07"	75°40'25"	89.9
01494953	BIG ELK CREEK AT MAPLE GROVE, PA	39°45'44"	75°55'16"	26.6

^a Other data for this station can be found in the continuous station records section of this report.

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
 STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

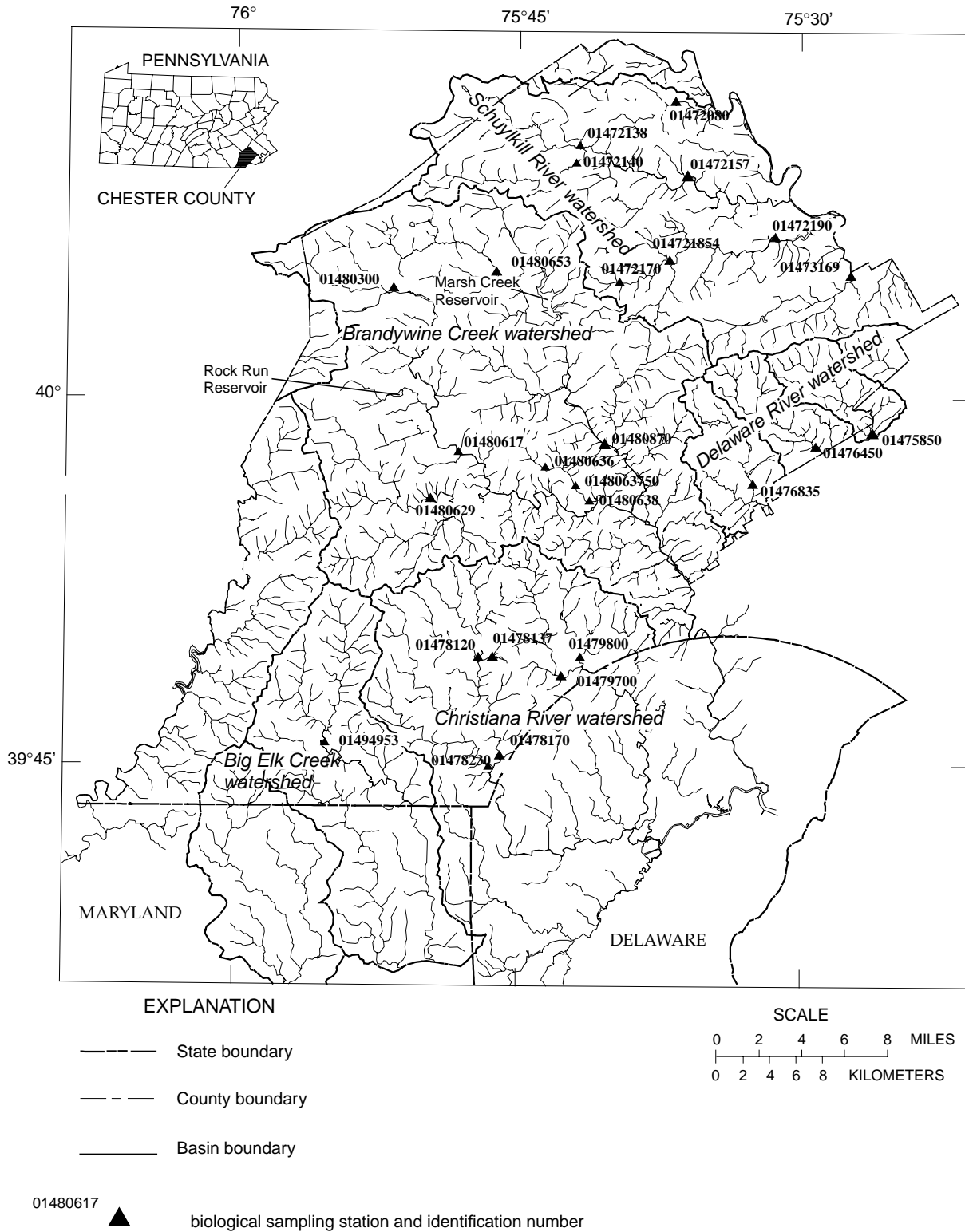


Figure 10.--Biological sampling locations and major drainage basin divides in Chester County.

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 MISCELLANEOUS STATION ANALYSES

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd std units (00400)	Specif. conduc- tance, wat un- f µS/cm 25 degC (00095)	Temper- ature, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat un- f incrm. titr., field, mg/L as CaCO3 (00419)
		01472080 Pigeon Creek near Slonaker, PA (LAT 40 12 03N LONG 075 37 10W)											
NOV 2002 07...	1400	1028	80020	6.8	11.2	7.5	171	8.7	15.0	5.07	2.08	8.23	32
		01472138 French Creek near Coventryville, PA (LAT 40 10 14N LONG 075 41 50W)											
OCT 2002 23...	1100	1028	80020	7.4	11.7	7.4	135	8.4	14.8	5.10	1.50	7.02	32
		01472140 South Branch French Creek at Coventryville, PA (LAT 40 09 18N LONG 075 42 52W)											
OCT 2002 23...	1300	1028	80020	4.8	13.1	7.8	205	9.3	20.2	6.27	2.31	9.02	48
		01472170 Pickering Creek near Eagle, PA (LAT 40 04 43N LONG 075 39 14W)											
OCT 2002 29...	1130	1028	80020	1.3	11.7	7.5	270	8.0	26.3	8.32	2.00	10.4	54
		014721854 Pickering Creek at Merlin, PA (LAT 40 06 25N LONG 075 35 34W)											
OCT 2002 29...	0900	1028	80020	9.3	11.2	7.3	254	7.6	25.3	7.48	2.01	10.4	55
		01472190 Pickering Creek near Phoenixville, PA (LAT 40 06 33N LONG 075 31 42W)											
NOV 2002 07...	1200	1028	80020	23	11.4	7.4	235	7.9	21.3	6.75	2.41	10.1	48
		01476450 Ridley Creek at Rt 3 near Willistown, PA (LAT 39 58 01N LONG 075 28 58W)											
OCT 2002 07...	1200	1028	80020	4.1	9.3	7.6	331	18.4	22.9	12.2	3.91	22.5	57
		01476835 East Branch Chester Creek at Westtown, PA (LAT 39 56 26N LONG 075 32 30W)											
OCT 2002 15...	1430	1028	80020	5.2	10.6	7.4	346	12.9	27.5	12.2	3.92	19.2	54
		01478120 East Branch White Clay Creek at Avondale, PA (LAT 39 49 42N LONG 075 46 52W)											
OCT 2002 21...	1115	1028	80020	5.3	11.3	7.8	399	10.8	42.9	17.8	3.31	9.36	103
		01478137 Trout Run at Avondale, PA (LAT 39 49 18N LONG 075 46 46W)											
DEC 2002 02...	0930	1028	80020	1.1	11.4	7.3	858	4.1	97.7	38.7	15.0	20.9	206
		01478170 East Branch White Clay Creek nr Strickersville, PA (LAT 39 44 58N LONG 075 46 08W)											
DEC 2002 02...	1230	1028	80020	21	14.5	7.6	444	1.9	47.4	18.0	4.45	13.2	100
		01478230 Middle Branch White Clay Creek near Avondale, PA (LAT 39 45 02N LONG 075 46 19W)											
OCT 2002 21...	0930	1028	80020	11	11.8	7.5	234	10.0	19.6	7.98	4.57	10.4	35
		01479700 West Branch Red Clay Creek near Kennett Square, PA (LAT 39 48 39N LONG 075 42 18W)											
OCT 2002 15...	1230	1028	80020	9.1	11.5	7.8	455	11.2	45.3	17.3	8.82	16.4	89

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 MISCELLANEOUS STATION ANALYSES

Date	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Arsenic water, fltrd, µg/L (01000)	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Copper, water, fltrd, µg/L (01040)
	01472080 Pigeon Creek near Slonaker, PA (LAT 40 12 03N LONG 075 37 10W)												
NOV 2002 07...	11.0	16.4	19.2	<.04	2.18	E.005	.03	--	--	20	--	--	--
	01472138 French Creek near Coventryville, PA (LAT 40 10 14N LONG 075 41 50W)												
OCT 2002 23...	10.2	16.7	15.0	<.04	.66	<.008	E.01	--	--	30	--	--	--
	01472140 South Branch French Creek at Coventryville, PA (LAT 40 09 18N LONG 075 42 52W)												
OCT 2002 23...	17.1	20.2	18.8	<.04	2.20	E.005	E.01	--	--	20	--	--	--
	01472170 Pickering Creek near Eagle, PA (LAT 40 04 43N LONG 075 39 14W)												
OCT 2002 29...	31.0	21.4	20.1	<.04	1.92	<.008	E.01	--	--	20	--	--	--
	014721854 Pickering Creek at Merlin, PA (LAT 40 06 25N LONG 075 35 34W)												
OCT 2002 29...	25.6	18.2	21.4	<.04	1.29	<.008	E.01	--	--	20	--	--	--
	01472190 Pickering Creek near Phoenixville, PA (LAT 40 06 33N LONG 075 31 42W)												
NOV 2002 07...	21.6	15.6	23.9	<.04	1.07	E.004	<.02	--	--	20	--	--	--
	01476450 Ridley Creek at Rt 3 near Willistown, PA (LAT 39 58 01N LONG 075 28 58W)												
OCT 2002 07...	39.5	14.4	23.9	E.04	2.88	.011	.21	--	--	70	--	--	--
	01476835 East Branch Chester Creek at Westtown, PA (LAT 39 56 26N LONG 075 32 30W)												
OCT 2002 15...	45.5	13.9	25.7	E.02	3.37	E.006	.35	--	--	60	--	--	--
	01478120 East Branch White Clay Creek at Avondale, PA (LAT 39 49 42N LONG 075 46 52W)												
OCT 2002 21...	24.9	16.7	30.7	<.04	4.78	.008	.04	--	--	20	--	--	--
	01478137 Trout Run at Avondale, PA (LAT 39 49 18N LONG 075 46 46W)												
DEC 2002 02...	56.8	16.1	119	.25	7.76	.079	.17	--	--	40	--	--	--
	01478170 East Branch White Clay Creek nr Strickersville, PA (LAT 39 44 58N LONG 075 46 08W)												
DEC 2002 02...	31.0	14.3	43.2	<.04	4.92	.027	.05	--	--	30	--	--	--
	01478230 Middle Branch White Clay Creek near Avondale, PA (LAT 39 45 02N LONG 075 46 19W)												
OCT 2002 21...	19.6	15.3	22.5	<.04	3.85	<.008	.07	--	--	30	--	--	--
	01479700 West Branch Red Clay Creek near Kennett Square, PA (LAT 39 48 39N LONG 075 42 18W)												
OCT 2002 15...	34.3	17.5	51.7	E.02	5.36	.012	.44	E10	<2	50	<.2	<.8	2.2

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 MISCELLANEOUS STATION ANALYSES

Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Mangan- ese, water, fltrd, µg/L (01056)	Mercury water, fltrd, µg/L (71890)	Molyb- denum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Zinc, water, fltrd, µg/L (01090)
01472080	Pigeon Creek near Slonaker, PA (LAT 40 12 03N LONG 075 37 10W)						
NOV 2002 07...	63	--	--	--	--	--	--
01472138	French Creek near Coventryville, PA (LAT 40 10 14N LONG 075 41 50W)						
OCT 2002 23...	175	--	--	--	--	--	--
01472140	South Branch French Creek at Coventryville, PA (LAT 40 09 18N LONG 075 42 52W)						
OCT 2002 23...	86	--	--	--	--	--	--
01472170	Pickering Creek near Eagle, PA (LAT 40 04 43N LONG 075 39 14W)						
OCT 2002 29...	187	--	--	--	--	--	--
014721854	Pickering Creek at Merlin, PA (LAT 40 06 25N LONG 075 35 34W)						
OCT 2002 29...	100	--	--	--	--	--	--
01472190	Pickering Creek near Phoenixville, PA (LAT 40 06 33N LONG 075 31 42W)						
NOV 2002 07...	79	--	--	--	--	--	--
01476450	Ridley Creek at Rt 3 near Willistown, PA (LAT 39 58 01N LONG 075 28 58W)						
OCT 2002 07...	80	--	--	--	--	--	--
01476835	East Branch Chester Creek at Westtown, PA (LAT 39 56 26N LONG 075 32 30W)						
OCT 2002 15...	234	--	--	--	--	--	--
01478120	East Branch White Clay Creek at Avondale, PA (LAT 39 49 42N LONG 075 46 52W)						
OCT 2002 21...	22	--	--	--	--	--	--
01478137	Trout Run at Avondale, PA (LAT 39 49 18N LONG 075 46 46W)						
DEC 2002 02...	47	--	--	--	--	--	--
01478170	East Branch White Clay Creek nr Strickersville, PA (LAT 39 44 58N LONG 075 46 08W)						
DEC 2002 02...	44	--	--	--	--	--	--
01478230	Middle Branch White Clay Creek near Avondale, PA (LAT 39 45 02N LONG 075 46 19W)						
OCT 2002 21...	26	--	--	--	--	--	--
01479700	West Branch Red Clay Creek near Kennett Square, PA (LAT 39 48 39N LONG 075 42 18W)						
OCT 2002 15...	20	<1	15.1	<.02	E1.5	<2.0	E12

**ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued**

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
MISCELLANEOUS STATION ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd, 25 degC (00095)	Temperature, water, deg C (00010)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, field, mg/L as CaCO3 (00419)
01479800 East Branch Red Clay Creek near Five Points, PA (LAT 39 49 10N LONG 075 41 29W)													
OCT 2002	1030	1028	80020	4.1	11.6	7.6	381	10.5	38.3	13.7	6.70	14.1	72
01480629 Buck Run at Doe Run, PA (LAT 39 55 46N LONG 075 49 24W)													
OCT 2002	1200	1028	80020	3.9	11.2	7.8	264	14.2	27.5	8.98	3.17	9.80	94
01480636 Broad Run at Romansville, PA (LAT 39 57 06N LONG 075 43 33W)													
DEC 2002	1200	1028	80020	5.5	11.8	6.8	188	5.4	12.5	7.11	1.31	9.95	25
0148063750 Broad Run near Marshallton, PA (LAT 39 56 48N LONG 075 42 11W)													
NOV 2002	1300	1028	80020	4.4	12.1	7.2	231	8.7	18.1	8.41	1.46	11.1	47
01480653 East Branch Brandywine Creek at Glenmoore, PA (LAT 40 05 48N LONG 075 46 44W)													
OCT 2002	0900	1028	80020	2.1	10.1	7.7	219	11.2	22.5	6.71	2.28	9.42	52
01494953 Big Elk Creek at Maple Grove, PA (LAT 39 45 44N LONG 075 55 16W)													
OCT 2002	0915	1028	80020	10	11.8	7.5	209	9.0	14.8	7.26	3.45	10.6	22

Date	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Arsenic, water, fltrd, µg/L (01000)	Boron, water, fltrd, µg/L (01020)	Cadmium, water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Copper, water, fltrd, µg/L (01040)
01479800 East Branch Red Clay Creek near Five Points, PA (LAT 39 49 10N LONG 075 41 29W)													
OCT 2002	35.5	17.3	42.1	<.04	2.59	E.006	.03	20	<2	30	<.2	<.8	2.4
01480629 Buck Run at Doe Run, PA (LAT 39 55 46N LONG 075 49 24W)													
OCT 2002	21.4	9.3	17.9	E.04	2.76	.010	<.02	--	--	30	--	--	--
01480636 Broad Run at Romansville, PA (LAT 39 57 06N LONG 075 43 33W)													
DEC 2002	19.7	7.4	15.5	<.04	2.75	<.008	<.02	--	--	30	--	--	--
0148063750 Broad Run near Marshallton, PA (LAT 39 56 48N LONG 075 42 11W)													
NOV 2002	22.5	9.5	18.1	<.04	2.80	E.005	<.02	--	--	40	--	--	--
01480653 East Branch Brandywine Creek at Glenmoore, PA (LAT 40 05 48N LONG 075 46 44W)													
OCT 2002	14.1	23.4	14.3	<.04	2.44	E.006	E.01	--	--	20	--	--	--
01494953 Big Elk Creek at Maple Grove, PA (LAT 39 45 44N LONG 075 55 16W)													
OCT 2002	22.5	12.7	13.1	<.04	5.04	E.005	.06	--	--	30	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 MISCELLANEOUS STATION ANALYSES

Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Mangan- ese, water, fltrd, µg/L (01056)	Mercury water, fltrd, µg/L (71890)	Molyb- denum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Zinc, water, fltrd, µg/L (01090)
01479800 East Branch Red Clay Creek near Five Points, PA (LAT 39 49 10N LONG 075 41 29W)							
OCT 2002 15...	58	<1	16.5	<.02	<1.8	E1.5	<24
01480629 Buck Run at Doe Run, PA (LAT 39 55 46N LONG 075 49 24W)							
OCT 2002 09...	55	--	--	--	--	--	--
01480636 Broad Run at Romansville, PA (LAT 39 57 06N LONG 075 43 33W)							
DEC 2002 17...	15	--	--	--	--	--	--
0148063750 Broad Run near Marshallton, PA (LAT 39 56 48N LONG 075 42 11W)							
NOV 2002 26...	43	--	--	--	--	--	--
01480653 East Branch Brandywine Creek at Glenmoore, PA (LAT 40 05 48N LONG 075 46 44W)							
OCT 2002 09...	55	--	--	--	--	--	--
01494953 Big Elk Creek at Maple Grove, PA (LAT 39 45 44N LONG 075 55 16W)							
OCT 2002 22...	40	--	--	--	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES

REMARKS:--Samples were collected using a Hess sampler with a mesh size of 500 µm. Each sample covered a total area of 2.4 m². A dash (--) indicates there were no observations of the organism in the sample.

Station Number	01472080	01472138	01472140	01472170	014721854
Date	11/07/02	10/23/02	10/23/02	10/29/02	10/29/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count
Platyhelminthes					
Turbellaria (FLATWORMS)					
Tricladida					
Planariidae	11	28	48	2	14
Nematoda (NEMATODES)	7	3	--	4	7
Nemertea (PROBOSAS WORMS)					
Enopla					
Hoploneurata					
Tetrastemmatidae					
<u>Prostoma</u> sp	13	50	39	29	142
Mollusca					
Gastropoda (SNAILS)					
Basommatophora					
Ancylidae					
<u>Ferrissia</u> sp	1	19	27	1	43
Lymnaeidae					
<u>Fossaria</u> sp	--	--	1	--	1
Physidae					
<u>Physa</u> sp	--	--	--	--	--
Planorbidae					
<u>Gyraulus</u> sp	--	7	4	--	--
Mesogastropoda					
Valvataidae					
<u>Valvata</u> sp	--	--	--	--	--
Bivalvia (CLAMS)					
Veneroida					
Sphaeriidae					
<u>Pisidium</u> sp	--	11	8	--	--
<u>Sphaerium</u> sp	--	33	--	--	1
Annelida					
Oligochaeta (AQUATIC EARTHWORMS)					
Lumbriculida					
Lumbriculidae	--	9	--	10	5
Tubificida					
Naididae	5	3	--	6	26
Tubificidae	--	--	--	--	--
Hirudinea (LEECHES)					
Arhynchobdellida					
Erpobdellidae	--	--	--	--	--
Arthropoda					
Acariformes					
Hydrachnidia (WATER MITES)	38	71	99	82	115
Crustacea					
Cyclopoida					
Cyclopidae	--	--	--	2	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

01472190	01476450	01476835	01478120	01478137	Station Number
11/07/02	10/07/02	10/15/02	10/21/02	12/02/02	Date
Count	Count	Count	Count	Count	Benthic Macroinvertebrate
					Platyhelminthes
					Turbellaria (FLATWORMS)
					Tricladida
27	115	51	207	33	Planariidae
--	78	33	37	--	Nematoda (NEMATODES)
					Nemertea (PROBOSAS WORMS)
					Enopla
					Hoplonemertea
					Tetrastemmatidae
5	26	23	35	15	<u>Prostoma</u> sp
					Mollusca
					Gastropoda (SNAILS)
					Basommatophora
					Ancyliidae
8	6	10	7	--	<u>Ferrissia</u> sp
					Lymnaeidae
--	--	1	--	--	<u>Fossaria</u> sp
					Physidae
--	--	--	--	37	<u>Physa</u> sp
					Planorbidae
--	--	--	1	19	<u>Gyraulus</u> sp
					Mesogastropoda
					Valvataidae
--	1	--	--	--	<u>Valvata</u> sp
					Bivalvia (CLAMS)
					Veneroida
--	--	--	--	--	Sphaeriidae
--	--	13	--	9	<u>Pisidium</u> sp
--	4	--	5	--	<u>Sphaerium</u> sp
					Annelida
					Oligochaeta (AQUATIC EARTHWORMS)
					Lumbriculida
11	12	27	--	8	Lumbriculidae
					Tubificida
--	2	--	--	269	Naididae
--	--	2	7	--	Tubificidae
					Hirudinea (LEECHES)
					Arhynchobdellida
--	--	2	--	1	Erpobdellidae
					Arthropoda
					Acariformes
28	11	20	120	--	Hydrachnidia (WATER MITES)
					Crustacea
					Cyclopoida
--	--	--	--	--	Cyclopidae

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

Station Number	01472080	01472138	01472140	01472170	014721854
Date	11/07/02	10/23/02	10/23/02	10/29/02	10/29/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count
Arthropoda					
Crustacea					
Amphipoda (SCUDS)					
Crangonyctidae					
<u>Crangonyx</u> sp	1	1	--	--	1
<u>Stygonectes</u> sp	--	--	--	1	--
Gammaridae					
<u>Gammarus</u> sp	--	--	--	--	--
Talitridae					
<u>Hyallolella</u> sp	--	2	--	--	--
Isopoda (AQUATIC SOWBUGS)					
Asellidae					
<u>Caecidotea</u> sp	--	--	--	--	3
Decapoda					
Cambaridae (CRAYFISH)	--	--	1	--	--
Podocopa (SEED SHRIMP)	--	--	--	--	2
Insecta					
Ephemeroptera (MAYFLIES)					
Baetidae					
<u>Acentrella</u> sp	--	2	1	5	1
<u>Baetis</u> sp	--	--	--	--	--
Caenidae					
<u>Caenis</u> sp	--	66	1	1	3
Ephemerellidae					
<u>Eurylophella</u> sp	6	9	2	10	--
<u>Serratella</u> sp	82	7	27	41	6
Ephemeridae					
<u>Ephemera</u> sp	--	--	--	--	--
Heptageniidae					
<u>Epeorus</u> sp	1	1	3	1	--
<u>Stenonema</u> sp	66	248	17	145	202
Isonychiidae					
<u>Isonychia</u> sp	38	277	74	8	73
Leptophlebiidae					
<u>Leptophlebia</u> sp	--	1	--	--	--
Tricorythidae					
<u>Tricorythodes</u> sp	--	--	--	--	--
Odonata (DRAGONFLIES AND DAMSELFLIES)					
Aeshnidae					
<u>Boyeria</u> sp	--	--	--	--	--
Coenagrionidae					
<u>Argia</u> sp	--	1	1	--	1
Gomphidae					
<u>Lanthus</u> sp	3	--	--	2	--
<u>Stylogomphus</u> sp	--	2	--	--	--
Plecoptera (STONEFLIES)					
Capniidae					
<u>Capnia</u> sp	--	--	--	--	10
Leuctridae					
<u>Paraleuctra</u> sp	13	--	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

01472190	01476450	01476835	01478120	01478137	Station Number
11/07/02	10/07/02	10/15/02	10/21/02	12/02/02	Date
Count	Count	Count	Count	Count	Benthic Macroinvertebrate
					Arthropoda
					Crustacea
					Amphipoda (SCUDS)
					Crangonyctidae
--	--	68	10	--	<u>Crangonyx</u> sp
--	4	--	--	--	<u>Stygonectes</u> sp
					Gammaridae
2	--	--	--	--	<u>Gammarus</u> sp
					Talitridae
--	3	--	--	--	<u>Hyallega</u> sp
					Isopoda (AQUATIC SOWBUGS)
					Asellidae
--	--	--	2	--	<u>Caecidotea</u> sp
					Decapoda
--	--	--	--	--	Cambaridae (CRAYFISH)
--	--	--	--	6	Podocopa (SEED SHRIMP)
					Insecta
					Ephemeroptera (MAYFLIES)
					Baetidae
1	4	--	1	--	<u>Acentrella</u> sp
--	63	8	1	--	<u>Baetis</u> sp
					Caenidae
3	4	--	--	--	<u>Caenis</u> sp
					Ephemerellidae
--	--	--	7	--	<u>Eurylophella</u> sp
88	178	2	209	1	<u>Serratella</u> sp
					Ephemeridae
--	--	--	2	--	<u>Ephemer</u> sp
					Heptageniidae
--	--	--	--	--	<u>Epeorus</u> sp
38	102	20	402	--	<u>Stenonema</u> sp
					Isonychiidae
31	38	--	4	--	<u>Isonychia</u> sp
--	--	--	--	--	Leptophlebiidae
					Tricorythidae
--	10	3	--	--	<u>Tricorythodes</u> sp
					Odonata (DRAGONFLIES AND DAMSELFLIES)
					Aeshnidae
--	1	--	--	--	<u>Boyeria</u> sp
					Coenagrionidae
--	34	--	--	--	<u>Argia</u> sp
--	--	1	--	--	Gomphidae
--	--	--	--	--	<u>Lanthus</u> sp
--	--	--	1	--	<u>Stylogomphus</u> sp
					Plecoptera (STONEFLIES)
--	--	--	--	--	Capniidae
48	--	--	--	--	Leuctridae
--	--	--	--	--	<u>Paraleuctra</u> sp

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

Station Number	01472080	01472138	01472140	01472170	014721854
Date	11/07/02	10/23/02	10/23/02	10/29/02	10/29/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count
Plecoptera (STONEFLIES)					
Nemouridae	--	4	--	--	--
<u>Paranemoura</u> sp	17	--	--	--	--
Perlidae					
<u>Acroneuria</u> sp	19	29	6	--	1
<u>Agnetina</u> sp	--	4	--	--	--
<u>Beloneuria</u> sp	--	3	2	--	--
<u>Paragnetina</u> sp	2	6	--	--	--
Taeniopterygidae					
<u>Strophopteryx</u> sp	1	7	--	--	6
<u>Taeniopteryx</u> sp	3	110	31	23	122
Megaloptera					
Corydalidae (FISHFLIES AND DOBSONFLIES)					
<u>Corydalus</u> sp	--	16	15	--	2
<u>Nigronia</u> sp	--	--	1	8	1
Sialidae (ALDERFLIES)					
<u>Sialis</u> sp	--	--	--	--	--
Trichoptera (CADDISFLIES)					
Apataniidae					
<u>Apatania</u> sp	5	5	--	--	21
Brachycentridae					
<u>Micrasema</u> sp	--	6	7	3	13
Glossosomatidae					
<u>Glossosoma</u> sp	1	3	1	2	1
<u>Protoptila</u> sp	--	--	--	--	--
Goeridae					
<u>Goera</u> sp	1	--	--	3	1
Helicopsychidae					
<u>Helicopsyche</u> sp	--	1	--	--	--
Hydropsychidae					
<u>Cheumatopsyche</u> sp	221	889	441	527	211
<u>Hydropsyche</u> sp	64	240	321	132	106
<u>Macrostemum</u> sp	--	--	4	--	1
Hydroptilidae					
<u>Hydroptila</u> sp	1	35	--	3	7
<u>Leucotrichia</u> sp	--	26	34	14	7
Lepidostomatidae					
<u>Lepidostoma</u> sp	--	3	--	--	2
Leptoceridae					
<u>Mystacides</u> sp	--	--	--	--	--
<u>Oecetis</u> sp	--	--	--	--	--
Philopotamidae					
<u>Chimarra</u> sp	240	450	63	125	40
Polycentropodidae					
<u>Neureclipsis</u> sp	--	--	--	--	--
<u>Nyctiophylax</u> sp	--	--	--	--	17
<u>Polycentropus</u> sp	3	1	--	7	3

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

01472190	01476450	01476835	01478120	01478137	Station Number
11/07/02	10/07/02	10/15/02	10/21/02	12/02/02	Date
Count	Count	Count	Count	Count	Benthic Macroinvertebrate
					Plecoptera (STONEFLIES)
					Nemouridae
--	--	1	--	--	<u>Paranemoura</u> sp
--	--	--	--	--	Perlidae
7	1	--	--	--	<u>Acroneuria</u> sp
--	1	--	--	--	<u>Agnetina</u> sp
1	2	--	--	--	<u>Beloneuria</u> sp
4	--	--	--	--	<u>Paragnetina</u> sp
					Taeniopterygidae
--	--	--	--	--	<u>Strophopteryx</u> sp
114	--	--	2	--	<u>Taeniopteryx</u> sp
					Megaloptera
					Corydalidae (FISHFLIES AND DOBSONFLIES)
--	--	--	--	--	<u>Corydalis</u> sp
--	--	--	--	--	<u>Nigronia</u> sp
					Sialidae (ALDERFLIES)
--	--	--	1	--	<u>Sialis</u> sp
					Trichoptera (CADDISFLIES)
					Apataniidae
1	--	--	--	--	<u>Apatania</u> sp
					Brachycentridae
11	1	--	--	--	<u>Micrasema</u> sp
					Glossosomatidae
--	--	--	--	--	<u>Glossosoma</u> sp
1	--	--	--	--	<u>Protoptila</u> sp
					Goeridae
--	--	--	--	--	<u>Goera</u> sp
					Helicopsychidae
2	--	--	--	--	<u>Helicopsyche</u> sp
					Hydropsychidae
115	490	196	131	--	<u>Cheumatopsyche</u> sp
80	382	116	210	--	<u>Hydropsyche</u> sp
--	--	--	--	--	<u>Macrostemum</u> sp
					Hydroptilidae
2	15	2	--	--	<u>Hydroptila</u> sp
2	10	--	15	--	<u>Leucotrichia</u> sp
					Lepidostomatidae
1	1	--	--	--	<u>Lepidostoma</u> sp
					Leptoceridae
--	--	--	2	--	<u>Mystacides</u> sp
--	5	--	--	--	<u>Oecetis</u> sp
					Philopotamidae
45	9	242	375	1	<u>Chimarra</u> sp
					Polycentropodidae
1	--	--	--	--	<u>Neureclipsis</u> sp
--	--	--	--	--	<u>Nyctiophylax</u> sp
--	2	--	1	--	<u>Polycentropus</u> sp

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

Station Number	01472080	01472138	01472140	01472170	014721854
Date	11/07/02	10/23/02	10/23/02	10/29/02	10/29/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count
Trichoptera (CADDISFLIES)					
Psychomyiidae					
<u>Psychomyia</u> sp	--	--	1	35	--
Rhyacophilidae					
<u>Rhyacophila</u> sp	4	--	--	1	--
Uenoidae					
<u>Neophylax</u> sp	--	--	--	7	--
Lepidoptera (MOTHS AND BUTTERFLIES)					
Pyralididae					
<u>Petrophila</u> sp	--	1	4	--	--
Coleoptera (BEETLES)					
Dryopidae					
<u>Helichus</u> sp	--	2	--	--	--
Elmidae (RIFFLE BEETLES)					
<u>Ancyronyx</u> sp	2	--	2	--	--
<u>Dubiraphia</u> sp	2	2	--	3	3
<u>Macronychus</u> sp	--	--	6	--	--
<u>Optioservus</u> sp	264	379	337	276	314
<u>Oulimnius</u> sp	144	22	35	127	105
<u>Promoresia</u> sp	8	14	6	24	--
<u>Stenelmis</u> sp	104	93	53	2	10
Gyrinidae					
<u>Dineutus</u> sp	--	--	--	--	1
Hydrophilidae					
<u>Berosus</u> sp	--	--	--	--	--
Psephenidae (WATER PENNIES)					
<u>Psephenus</u> sp	21	61	3	20	44
Diptera (TRUE FLIES)					
Athericidae					
<u>Atherix</u> sp	2	5	1	--	--
Ceratopogonidae (BITING MIDGES)					
	7	--	--	--	1
Chironomidae (MIDGES)					
	633	281	57	221	91
Empididae (DANCE FLIES)					
<u>Hemerodromia</u> sp	7	59	15	4	22
Ephydriidae					
	--	--	--	--	--
Psychodidae					
<u>Telmatoscopus</u> sp	--	--	--	--	--
Simuliidae (BLACK FLIES)					
<u>Simulium</u> sp	10	3	28	--	2
Tabanidae					
	--	--	--	--	--
Tipulidae (CRANE FLIES)					
<u>Antocha</u> sp	19	1	40	76	56
<u>Hexatoma</u> sp	--	--	--	--	--
<u>Tipula</u> sp	2	5	--	1	--
Total organisms	2093	3617	1871	1996	1879
Total number of taxa	43	55	43	42	49

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

01472190	01476450	01476835	01478120	01478137	Station Number
11/07/02	10/07/02	10/15/02	10/21/02	12/02/02	Date
Count	Count	Count	Count	Count	Benthic Macroinvertebrate
					Trichoptera (CADDISFLIES)
					Psychomyiidae
3	--	--	--	--	<u>Psychomyia</u> sp
					Rhyacophilidae
--	--	--	--	--	<u>Rhyacophila</u> sp
					Uenoidae
--	--	--	--	--	<u>Neophylax</u> sp
					Lepidoptera (MOTHS AND BUTTERFLIES)
					Pyralididae
--	--	--	--	--	<u>Petrophila</u> sp
					Coleoptera (BEETLES)
					Drypoidae
--	--	--	--	--	<u>Helichus</u> sp
					Elmidae (RIFFLE BEETLES)
1	--	1	--	--	<u>Ancyronyx</u> sp
--	3	19	5	--	<u>Dubiraphia</u> sp
--	--	--	--	--	<u>Macronychus</u> sp
81	197	494	264	--	<u>Optioservus</u> sp
12	37	54	23	--	<u>Oulimnius</u> sp
--	--	--	--	--	<u>Promoresia</u> sp
5	344	1123	445	--	<u>Stenelmis</u> sp
					Gyrinidae
--	--	--	--	--	<u>Dineutus</u> sp
					Hydrophilidae
--	1	4	--	--	<u>Berosus</u> sp
					Psephenidae (WATER PENNIES)
5	92	184	170	--	<u>Psephenus</u> sp
					Diptera (TRUE FLIES)
					Athericidae
--	--	--	--	--	<u>Atherix</u> sp
					Ceratopogonidae (BITING MIDGES)
70	272	175	238	187	Chironomidae (MIDGES)
					Empididae (DANCE FLIES)
4	6	--	18	--	<u>Hemerodromia</u> sp
--	6	--	--	--	Ephydriidae
					Psychodidae
--	--	--	--	1	<u>Telmatoscopus</u> sp
					Simuliidae (BLACK FLIES)
1	25	120	9	1	<u>Simulium</u> sp
--	--	1	--	--	Tabanidae
					Tipulidae (CRANE FLIES)
14	9	3	29	--	<u>Antocha</u> sp
--	--	1	--	--	<u>Hexatoma</u> sp
1	4	4	--	2	<u>Tipula</u> sp
874	2611	3025	2996	590	Total organisms
38	44	35	35	15	Total number of taxa

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

Station Number	01478170	01478230	01479700	01479800	01480629
Date	12/02/02	10/21/02	10/15/02	10/15/02	10/09/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count
Platyhelminthes					
Turbellaria (FLATWORMS)					
Tricladida					
Planariidae	--	55	22	31	103
Nematoda (NEMATODES)	4	12	7	11	15
Nemertea (PROBOSAS WORMS)					
Enopla					
Hoploneurata					
Tetrastemmatidae					
<u>Prostoma</u> sp	--	--	31	8	2
Mollusca					
Gastropoda (SNAILS)					
Basommatophora					
Ancyliidae					
<u>Ferrissia</u> sp	9	5	1	11	--
Physidae					
<u>Physa</u> sp	--	2	--	--	--
Planorbidae					
<u>Gyraulus</u> sp	--	--	--	--	1
<u>Helisoma</u> sp	--	--	--	--	--
Bivalvia (CLAMS)					
Veneroida					
Sphaeriidae					
<u>Pisidium</u> sp	--	2	--	1	--
<u>Pisidium</u> sp	--	--	--	--	--
<u>Sphaerium</u> sp	2	--	--	--	36
Annelida					
Oligochaeta (AQUATIC EARTHWORMS)					
Lumbriculida					
Lumbriculidae	--	6	--	8	2
Tubificida					
Naididae	3	--	115	4	--
Arthropoda					
Acariformes					
Hydrachnidia (WATER MITES)	10	160	57	47	21
Amphipoda (SCUDS)					
Crangonyctidae					
<u>Crangonyx</u> sp	2	--	--	--	--
<u>Stygonectes</u> sp	--	--	--	--	--
Gammaridae					
<u>Gammarus</u> sp	--	4	2	66	--
Isopoda (AQUATIC SOWBUGS)					
Asellidae					
<u>Caecidotea</u> sp	3	--	4	--	--
Podocopa (SEED SHRIMP)					
Podocopa	--	--	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

01480636	0148063750	01480653	01494953	Station Number
12/17/02	11/26/02	10/09/02	10/22/02	Date
Count	Count	Count	Count	Benthic Macroinvertebrate
				Platyhelminthes
				Turbellaria (FLATWORMS)
				Tricladida
31	194	6	1	Planariidae
2	2	12	4	Nematoda (NEMATODES)
				Nemertea (PROBOSAS WORMS)
				Enopla
				Hoplonemertea
				Tetrastemmatidae
14	13	--	129	<u>Prostoma</u> sp
				Mollusca
				Gastropoda (SNAILS)
				Basommatophora
				Ancyliidae
--	--	23	11	<u>Ferrissia</u> sp
				Physidae
--	--	--	--	<u>Physa</u> sp
				Planorbidae
--	--	5	--	<u>Gyraulus</u> sp
--	--	--	2	<u>Helisoma</u> sp
				Bivalvia (CLAMS)
				Veneroida
--	1	--	--	Sphaeriidae
--	--	--	7	<u>Pisidium</u> sp
1	--	--	--	<u>Sphaerium</u> sp
				Annelida
				Oligochaeta (AQUATIC EARTHWORMS)
				Lumbriculida
30	--	20	2	Lumbriculidae
				Tubificida
--	10	--	--	Naididae
				Arthropoda
				Acariformes
22	62	69	122	Hydrachnidia (WATER MITES)
				Amphipoda (SCUDS)
				Crangonyctidae
--	--	1	--	<u>Crangonyx</u> sp
1	--	--	--	<u>Stygonectes</u> sp
				Gammaridae
--	--	--	--	<u>Gammarus</u> sp
				Isopoda (AQUATIC SOWBUGS)
				Asellidae
--	1	--	--	<u>Caecidotea</u> sp
--	1	--	--	Podocopa (SEED SHRIMP)

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

Station Number	01478170	01478230	01479700	01479800	01480629
Date	12/02/02	10/21/02	10/15/02	10/15/02	10/09/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count
Insecta					
Ephemeroptera (MAYFLIES)					
Baetidae					
<u>Acentrella</u> sp	--	10	--	--	--
<u>Baetis</u> sp	--	--	--	1	20
Caenidae					
<u>Caenis</u> sp	2	4	--	4	--
Ephemerellidae					
<u>Eurylophella</u> sp	1	12	6	--	--
<u>Serratella</u> sp	--	75	--	19	393
Heptageniidae					
<u>Epeorus</u> sp	--	--	--	--	--
<u>Stenonema</u> sp	9	42	--	135	117
Isonychiidae					
<u>Isonychia</u> sp	--	21	--	--	64
Leptohyphidae					
<u>Tricorythodes</u> sp	2	2	--	--	2
Odonata (DRAGONFLIES AND DAMSELFLIES)					
Coenagrionidae					
<u>Argia</u> sp	--	--	--	--	4
Gomphidae					
	--	--	1	--	--
Plecoptera (STONEFLIES)					
Capniidae					
<u>Allocapnia</u> sp	--	--	--	--	--
Chloroperlidae					
	--	3	--	--	--
Leuctridae					
<u>Paraleuctra</u> sp	--	--	--	--	--
Nemouridae					
<u>Paranemoura</u> sp	--	--	--	--	--
Perlidae					
<u>Acroneuria</u> sp	--	--	--	--	--
<u>Agnetina</u> sp	--	--	--	--	--
<u>Perlesta</u> sp	--	--	--	--	1
Taeniopterygidae					
<u>Strophopteryx</u> sp	--	--	--	--	--
<u>Taeniopteryx</u> sp	1	66	--	--	--
Megaloptera					
Corydalidae (FISHFLIES AND DOBSONFLIES)					
<u>Corydalus</u> sp	--	6	--	--	5
<u>Nigronia</u> sp	4	1	--	--	--
Sialidae (ALDERFLIES)					
<u>Sialis</u> sp	--	--	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

01480636	0148063750	01480653	01494953	Station Number
12/17/02	11/26/02	10/09/02	10/22/02	Date
Count	Count	Count	Count	Benthic Macroinvertebrate
Insecta				
Ephemeroptera (MAYFLIES)				
Baetidae				
--	--	1	2	<u>Acentrella</u> sp
8	14	--	--	<u>Baetis</u> sp
Caenidae				
--	--	5	3	<u>Caenis</u> sp
Ephemerellidae				
9	49	1	--	<u>Eurylophella</u> sp
88	640	10	22	<u>Serratella</u> sp
Heptageniidae				
--	2	2	--	<u>Epeorus</u> sp
23	126	321	112	<u>Stenonema</u> sp
Isonychiidae				
--	24	157	111	<u>Isonychia</u> sp
Leptohiphidae				
--	3	--	--	<u>Tricorythodes</u> sp
Odonata (DRAGONFLIES AND DAMSELFLIES)				
Coenagrionidae				
--	1	1	3	<u>Argia</u> sp
9	--	1	--	Gomphidae
Plecoptera (STONEFLIES)				
Capniidae				
60	--	--	--	<u>Allocapnia</u> sp
Chloroperlidae				
2	--	2	--	Leuctridae
--	6	--	--	<u>Paraleuctra</u> sp
Nemouridae				
4	--	--	--	<u>Paranemoura</u> sp
Perlidae				
--	1	7	--	<u>Acroneuria</u> sp
17	15	--	--	<u>Agnetina</u> sp
--	--	--	--	<u>Perlesta</u> sp
Taeniopterygidae				
105	24	--	--	<u>Strophopteryx</u> sp
1	3	16	--	<u>Taeniopteryx</u> sp
Megaloptera				
Corydalidae (FISHFLIES AND DOBSONFLIES)				
--	--	1	10	<u>Corydalus</u> sp
7	2	2	10	<u>Nigronia</u> sp
Sialidae (ALDERFLIES)				
--	--	1	--	<u>Sialis</u> sp

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

Station Number	01478170	01478230	01479700	01479800	01480629
Date	12/02/02	10/21/02	10/15/02	10/15/02	10/09/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count
Trichoptera (CADDISFLIES)					
Apataniidae					
<u>Apatania</u> sp	--	--	--	--	--
Brachycentridae					
<u>Micrasema</u> sp	--	5	--	--	3
Glossosomatidae					
<u>Glossosoma</u> sp	--	--	--	--	--
Goeridae					
<u>Goera</u> sp	--	--	--	--	--
Hydropsychidae					
<u>Cheumatopsyche</u> sp	66	310	192	213	20
<u>Hydropsyche</u> sp	75	501	239	347	259
Hydroptilidae					
<u>Hydroptila</u> sp	--	4	--	--	4
<u>Leucotrichia</u> sp	8	3	--	7	20
Leptoceridae					
<u>Oecetis</u> sp	--	--	--	--	3
Philopotamidae					
<u>Chimarra</u> sp	2	152	7	304	425
<u>Dolophilodes</u> sp	--	--	--	--	--
Polycentropodidae					
<u>Neureclipsis</u> sp	--	--	--	--	9
<u>Polycentropus</u> sp	--	--	--	2	--
Psychomyiidae					
<u>Lype</u> sp	--	--	--	--	--
<u>Psychomyia</u> sp	--	--	--	--	--
Rhyacophilidae					
<u>Rhyacophila</u> sp	--	--	--	--	--
Uenoidae					
<u>Neophylax</u> sp	--	--	--	--	--
Coleoptera (BEETLES)					
Dryopidae					
<u>Helichus</u> sp	--	--	--	--	1
Elmidae (RIFFLE BEETLES)					
<u>Ancyronyx</u> sp	--	--	1	--	--
<u>Dubiraphia</u> sp	--	1	--	--	2
<u>Macronychus</u> sp	4	--	--	--	3
<u>Optioservus</u> sp	37	163	128	140	104
<u>Oulimnius</u> sp	21	91	20	48	16
<u>Promoresia</u> sp	--	--	--	--	--
<u>Stenelmis</u> sp	7	--	55	139	60
Hydrophilidae					
<u>Berosus</u> sp	--	--	--	--	1
Psephenidae (WATER PENNIES)					
<u>Ectopria</u> sp	--	--	--	--	--
<u>Psephenus</u> sp	--	2	7	84	18
Ptilodactylidae					
<u>Anchytarsus</u> sp	--	--	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

01480636	0148063750	01480653	01494953	Station Number
12/17/02	11/26/02	10/09/02	10/22/02	Date
Count	Count	Count	Count	Benthic Macroinvertebrate
Trichoptera (CADDISFLIES)				
Apataniidae				
--	--	3	--	<u>Apatania</u> sp
Brachycentridae				
1	21	25	--	<u>Micrasema</u> sp
Glossosomatidae				
17	11	2	--	<u>Glossosoma</u> sp
Goeridae				
2	--	--	--	<u>Goera</u> sp
Hydropsychidae				
95	414	116	31	<u>Cheumatopsyche</u> sp
38	807	81	20	<u>Hydropsyche</u> sp
Hydroptilidae				
--	25	--	9	<u>Hydroptila</u> sp
2	4	1	65	<u>Leucotrichia</u> sp
Leptoceridae				
--	1	--	3	<u>Oecetis</u> sp
Philopotamidae				
136	714	22	1	<u>Chimarra</u> sp
2	--	--	--	<u>Dolophilodes</u> sp
Polycentropodidae				
--	--	--	--	<u>Neureclipsis</u> sp
36	5	7	--	<u>Polycentropus</u> sp
Psychomyiidae				
1	--	--	--	<u>Lype</u> sp
2	--	3	--	<u>Psychomyia</u> sp
Rhyacophilidae				
6	--	1	--	<u>Rhyacophila</u> sp
Uenoidae				
10	1	--	--	<u>Neophylax</u> sp
Coleoptera (BEETLES)				
Drypoidae				
--	--	--	--	<u>Helichus</u> sp
Elmidae (RIFFLE BEETLES)				
--	--	--	--	<u>Ancyronyx</u> sp
10	1	--	--	<u>Dubiraphia</u> sp
2	--	--	--	<u>Macronychus</u> sp
320	211	413	31	<u>Optioservus</u> sp
89	40	56	19	<u>Oulimnius</u> sp
--	29	9	--	<u>Promoresia</u> sp
16	34	76	19	<u>Stenelmis</u> sp
Hydrophilidae				
--	--	--	--	<u>Berosus</u> sp
Psephenidae (WATER PENNIES)				
--	1	--	--	<u>Ectopria</u> sp
10	76	46	--	<u>Psephenus</u> sp
Ptilodactylidae				
7	--	--	--	<u>Anchytarsus</u> sp

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

Station Number	01478170	01478230	01479700	01479800	01480629
Date	12/02/02	10/21/02	10/15/02	10/15/02	10/09/02
Benthic Macroinvertebrate	Count	Count	Count	Count	Count
Diptera (TRUE FLIES)					
Athericidae					
<u>Atherix</u> sp	--	--	--	1	--
Ceratopogonidae (BITING MIDGES)	--	--	1	--	--
Chironomidae (MIDGES)	328	172	174	152	37
Empididae (DANCE FLIES)					
<u>Hemerodromia</u> sp	3	20	7	13	3
Simuliidae (BLACK FLIES)					
<u>Simulium</u> sp	5	5	--	1	16
Tipulidae (CRANE FLIES)					
<u>Antocha</u> sp	10	38	14	18	13
<u>Dicranota</u> sp	--	--	--	--	--
<u>Tipula</u> sp	1	1	1	--	--
Total organisms	619	1956	1092	1815	1804
Total number of taxa	26	34	23	27	36

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
 BENTHIC MACROINVERTEBRATES--Continued

01480636	0148063750	01480653	01494953	Station Number
12/17/02	11/26/02	10/09/02	10/22/02	Date
Count	Count	Count	Count	Benthic Macroinvertebrate
				Diptera (TRUE FLIES)
				Athericidae
--	--	6		<u>Atherix</u> sp
1	1			Ceratopogonidae (BITING MIDGES)
521	440	58	87	Chironomidae (MIDGES)
				Empididae (DANCE FLIES)
2	2	1	1	<u>Hemerodromia</u> sp
				Simuliidae (BLACK FLIES)
194	9	--	--	<u>Prosimulium</u> sp
--	131	3	1	<u>Simulium</u> sp
--	--	--	--	Tipulidae (CRANE FLIES)
4	65	16	56	<u>Antocha</u> sp
--	1	1	--	<u>Dicranota</u> sp
8	--	1	1	<u>Tipula</u> sp
1966	4238	1611	895	Total organisms
45	46	44	30	Total number of taxa