



Water-Data Report 2013

01494953 BIG ELK CREEK AT MAPLE GROVE, PA

Upper Chesapeake Basin
Chester-Sassafras Subbasin

LOCATION.--Lat 39°45'44", long 75°55'16" referenced to North American Datum of 1927, Chester County, PA, Hydrologic Unit 02060002, at Saginaw Road, 3.1 mi east of Oxford.

DRAINAGE AREA.--26.6 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1998 to current year.

COOPERATION.--Station established and maintained by the U.S. Geological Survey in cooperation with the Chester County Water Resources Authority.

REMARKS.--Samples were collected as part of the Chester County Biological Monitoring project.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Part 1 of 3

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Discharge, instantaneous, ft ³ /s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	pH, water, unfiltered, field, standard units (00400)	pH, water, unfiltered, laboratory, standard units (00403)	Specific conductance, water, unfiltered, laboratory, µS/cm at 25°C (90095)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, water, °C (00010)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)
11-08-2012	1300	21	12.9	7.7	7.6	252	252	6.4	18.1	8.79

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Part 2 of 3

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than]

Date	Sample start time	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	ANC, water, unfiltered, fixed endpoint titration, laboratory, mg/L as CaCO ₃ (90410)	ANC, water, unfiltered, inflection-point, incremental titration method, field, mg/L as CaCO ₃ (00419)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L as SiO ₂ (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia, water, filtered, mg/L as N (00608)
11-08-2012	1300	4.54	12.7	31.3	36	30.1	< .04	13.4	16.6	< .010

01494953 BIG ELK CREEK AT MAPLE GROVE, PA—Continued**WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Part 3 of 3

[ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; P, phosphorus; SiO₂, silicon dioxide; ft³/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; μS/cm, microsiemens per centimeter; μg/L, micrograms per liter; <, less than]

Date	Sample start time	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)	Orthophos- phate, water, filtered, mg/L as P (00671)	Iron, water, filtered, μg/L (01046)	Boron, water, filtered, μg/L (01020)
11-08-2012	1300	5.85	0.005	0.032	37.8	10

01494953 BIG ELK CREEK AT MAPLE GROVE, PA—Continued**ECOLOGICAL RECORDS**

PERIOD OF RECORD.--November 1998 to current year.

REMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 microns. Three samples were collected and composited. Each sample covered a total area of 2.4 m².

Date	11/08/12
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	2
Nematoda (NEMATODES)	2
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	1
Arthropoda	
Acariformes	
Hydrachnidae (WATER MITES)	14
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Acentrella</i>	2
Caenidae	
<i>Caenis</i>	4
Ephemerellidae	
<i>Eurylophella</i>	4
Heptageniidae	
<i>Maccaffertium</i>	7

01494953 BIG ELK CREEK AT MAPLE GROVE, PA—Continued

Date	11/08/12
Benthic Macroinvertebrate	Count
Isonychiidae	
<i>Isonychia</i>	5
Plecoptera (STONEFLIES)	
Capniidae	
<i>Allocapnia</i>	4
Taeniopterygidae	
<i>Taeniopteryx</i>	16
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
<i>Corydalus</i>	1
Trichoptera (CADDISFLIES)	
Glossosomatidae	
<i>Glossosoma</i>	1
Hydropsychidae	
<i>Cheumatopsyche</i>	12
<i>Hydropsyche</i>	35
Hydroptilidae	
<i>Hydroptila</i>	1
Philopotamidae	
<i>Chimarra</i>	33
Polycentropodidae	
<i>Polycentropus</i>	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	1
<i>Oulimnius</i>	11
<i>Stenelmis</i>	8

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Date	11/08/12
Benthic Macroinvertebrate	Count
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	4
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	23
Empididae (DANCE FLIES)	
<i>Hemerodromia</i>	3
Simuliidae (BLACK FLIES)	
<i>Simulium</i>	6
Tipulidae (CRANE FLIES)	
<i>Antocha</i>	7
Total Organisms	208