



Water-Data Report 2013

01475300 Darby Creek at Waterloo Mills near Devon, PA

Lower Delaware Basin
Lower Delaware Subbasin

LOCATION.--Lat 40°01'21", long 75°25'20" referenced to North American Datum of 1927, Chester County, PA, Hydrologic Unit 02040202, at bridge on South Waterloo Road, 1.9 mi south of Devon, PA.

DRAINAGE AREA.--5.15 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 2009; November 2012..

REMARKS.--Water-quality samples were collected as part of the Chester County Biological Monitoring Project.

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

**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)
11-14-2012	1500	3.1	12.3	7.8	7.9	486	485	7.9	41.8	17.7

**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, (pH 4.5) 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)
11-14-2012	1500	2.76	26.9	90.7	88	77.2	0.06	20.7	23.9	< .010

01475300 Darby Creek at Waterloo Mills near Devon, 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)
11-14-2012	1500	1.63	0.005	0.013	49.8	14

01475300 Darby Creek at Waterloo Mills near Devon, PA—Continued

ECOLOGICAL RECORDS

PERIOD OF RECORD.--November 2009; November 2012.

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	11/14/12
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	21
Nematoda (NEMATODES)	3
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoploneurata	
Tetrastemmatidae	
<i>Prostoma</i>	2
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Pisidiidae	8
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	13
Tubificida	
Naididae	39
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	9
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
<i>Gammarus</i>	1
Insecta	
Ephemeroptera (MAYFLIES)	
Ephemerellidae	
<i>Eurylophella</i>	1
Heptageniidae	
<i>Maccaffertium</i>	36
Plecoptera (STONEFLIES)	
Capniidae	
<i>Allocapnia</i>	24

01475300 Darby Creek at Waterloo Mills near Devon, PA—Continued

Date	11/14/12
Benthic Macroinvertebrate	Count
Leuctridae	2
Perlidae	2
Taeniopterygidae	
<i>Strophopteryx</i>	4
<i>Taeniopteryx</i>	13
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<i>Cheumatopsyche</i>	10
<i>Hydropsyche</i>	21
Philopotamidae	
<i>Chimarra</i>	59
Elmidae (RIFFLE BEETLES)	
<i>Macronychus</i>	1
<i>Optioservus</i>	7
<i>Oulimnius</i>	10
<i>Stenelmis</i>	8
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	10
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	73
Empididae (DANCE FLIES)	
<i>Chelifera</i>	1
Simuliidae (BLACK FLIES)	
<i>Simulium</i>	43
Tipulidae (CRANE FLIES)	
<i>Antocha</i>	3
<i>Tipula</i>	2
Total Organisms	426