



Water-Data Report 2012

0148064643 East Branch Brandywine Creek downstream from Struble Lake near Churchill, PA

Lower Delaware Basin
Brandywine-Christina Subbasin

LOCATION.--Lat 40°06'16", long 75°51'48.5" referenced to North American Datum of 1983, Chester County, PA, Hydrologic Unit 02040205, 1000 feet downstream of outfall from Struble Lake, 9.1 miles north of Coatesville, Pa.

DRAINAGE AREA.--3.02 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 2011 to current year.

REMARKS.--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 2011 TO SEPTEMBER 2012**

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]

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)
11-14-2011	0900	3.5	11.8	7.7	7.6	156	157	8.7	13.9	5.44

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

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]

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)
11-14-2011	0900	3.72	6.11	41.9	45	12.6	0.08	11.4	12.8	0.196

0148064643 East Branch Brandywine Creek downstream from Struble Lake near Churchill, PA—Continued**WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

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]

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)
11-14-2011	0900	0.494	0.003	0.007	245	13

0148064643 East Branch Brandywine Creek downstream from Struble Lake near Churchill, PA—Continued

ECOLOGICAL RECORDS

PERIOD OF RECORD.—November 2011 to current year.

REMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 microns. Three samples were collected and composited.

BIOLOGICAL DATA-BENTHIC MACROINVERTEBRATES

Date	11/14/11
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	28
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
<i>Prostoma</i>	9
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Physidae	
<i>Physa</i>	1
Bivalvia (CLAMS)	
Veneroida	
Pisidiidae	
<i>Sphaerium</i>	5
Annelida	
Hirudinea (LEECHES)	
Arhynchobdellida	
Erpobdellidae	1
Oligochaeta (AQUATIC EARTHWORMS)	

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Date	11/14/11
Benthic Macroinvertebrate	Count
Lumbriculida	
Lumbriculidae	13
Tubificida	
Naididae	85
Arthropoda	
Acariformes	
Hydrachnidae (WATER MITES)	3
Crustacea	
Amphipoda (SCUDS)	
Crangonyctidae	
<i>Stygonectes</i>	1
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
<i>Caecidotea</i>	1
Insecta	
Ephemeroptera (MAYFLIES)	
Caenidae	
<i>Caenis</i>	2
Heptageniidae	
<i>Maccaffertium</i>	4
Plecoptera (STONEFLIES)	
Taeniopterygidae	
<i>Taeniopteryx</i>	3
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<i>Cheumatopsyche</i>	2868

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Date	11/14/11
Benthic Macroinvertebrate	Count
<i>Hydropsyche</i>	658
Leptoceridae	
<i>Mystacides</i>	3
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Macronychus</i>	1
<i>Optioservus</i>	2
<i>Oulimnius</i>	3
<i>Stenelmis</i>	572
Psephenidae (WATER PENNIES)	
<i>Ectopria</i>	1
Diptera (TRUE FLIES)	
Ceratopogonidae (BITING MIDGES)	
<i>Probezzia</i>	10
Chironomidae (MIDGES)	831
Empididae (DANCE FLIES)	
<i>Hemerodromia</i>	23
Simuliidae (BLACK FLIES)	
<i>Simulium</i>	302
Tipulidae (CRANE FLIES)	
<i>Antocha</i>	3
<i>Hexatoma</i>	9
Total Organisms	5442