



Water-Data Report 2011

01473160 Valley Creek near Devalt, PA

Lower Delaware Basin
Schuylkill Subbasin

LOCATION.--Lat 40°03'37.900", long 75°31'44.840" referenced to North American Datum of 1983, Chester County, PA, Hydrologic Unit 02040203, 700 feet downstream from Route 29 bridge in East Whiteland Township Park, 2 miles north of Malvern, PA.

DRAINAGE AREA.--6.22 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 2000 and November 2010.

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 2010 TO SEPTEMBER 2011**

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)
11-15-2010	0900	6.6	7.8	7.5	7.8	898	884	10.8	64.6	34.8

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

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)
11-15-2010	0900	4.86	63.8	260	255	114	.06	6.9	26.3	.497

01473160 Valley Creek near Devalt, PA—Continued**WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

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)	Orthophosphate, water, filtered, mg/L as P (00671)	Chromium, water, filtered, µg/L (01030)	Iron, water, filtered, µg/L (01046)	Lithium, water, filtered, µg/L (01130)	Arsenic, water, filtered, µg/L (01000)	Boron, water, filtered, µg/L (01020)
11-15-2010	0900	2.51	.049	.033	3.1	7	525	.27	204

01473160 Valley Creek near Devalt, PA—Continued**ECOLOGICAL RECORDS**

PERIOD OF RECORD.--October 2000 November 2010.

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	11/15/10
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	64
Nematoda (NEMATODES)	11
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Hydrobiidae	
<i>Fontigens nickliniana</i>	6
Arthropoda	
Acariformes	
Hydrachnidae (WATER MITES)	89
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
<i>Gammarus</i>	3
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
<i>Caecidotea</i>	6
Insecta	
Ephemeroptera (MAYFLIES)	

01473160 Valley Creek near Devalt, PA—Continued

Date	11/15/10
Benthic Macroinvertebrate	Count
Baetidae	
<i>Baetis</i>	69
Ephemerellidae	
<i>Serratella</i>	52
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Gomphidae	1
Plecoptera (STONEFLIES)	
Capniidae	3
Trichoptera (CADDISFLIES)	
Glossosomatidae	
<i>Glossosoma</i>	14
Hydropsychidae	
<i>Cheumatopsyche</i>	33
<i>Hydropsyche</i>	210
Philopotamidae	
<i>Chimarra</i>	54
Polycentropodidae	
<i>Polycentropus</i>	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	374
<i>Oulimnius</i>	92
<i>Stenelmis</i>	16
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	14

01473160 Valley Creek near Devalt, PA—Continued

Date	11/15/10
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Benthic Macroinvertebrate	Count
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	474
Empididae	
<i>Chelifera</i>	4
Muscidae	1
Simuliidae (BLACK FLIES)	
<i>Simulium</i>	228
Tipulidae (CRANE FLIES)	
<i>Antocha</i>	7
<i>Tipula</i>	12
Total Organisms	1838
