



Water-Data Report 2011

01473180 Valley Creek at Valley Forge, PA

Lower Delaware Basin
Schuylkill Subbasin

LOCATION.--Lat 40°06'00", long 75°27'47" referenced to North American Datum of 1927, Chester County, PA, Hydrologic Unit 02040203, 100 feet upstream from Route 23 bridge in Valley Forge National Historic Park, 3.5 miles east of Phoenixville, PA

DRAINAGE AREA.—23.4 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	1430	22	16.2	8.7	8.6	694	685	10.9	52.9	29.1

**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	1430	2.98	42.8	199	198	89.5	.06	4.6	22.2	.015

01473180 Valley Creek at Valley Forge, 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)	Orthophos- phate, water, filtered, mg/L as P (00671)	Iron, water, filtered, µg/L (01046)	Lithium, water, filtered, µg/L (01130)	Boron, water, filtered, µg/L (01020)
11-15-2010	1430	1.46	.004	.005	6	104	55

01473180 Valley Creek at Valley Forge, PA—Continued**ECOLOGICAL RECORDS**

PERIOD OF RECORD.--October 2000 and 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	2
Nematoda (NEMATODES)	6
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	11
Tubificida	
Naididae	7
Arthropoda	
Acariformes	
Hydrachnidae (WATER MITES)	5
Crustacea	
Copepoda	5
Amphipoda (SCUDS)	
Gammaridae	
<i>Gammarus</i>	4
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	

01473180 Valley Creek at Valley Forge, PA—Continued

Date	11/15/10
Benthic Macroinvertebrate	Count
<i>Baetis</i>	34
Ephemeroellidae	
<i>Serratella</i>	2
Plecoptera (STONEFLIES)	
Capniidae	
<i>Allocapnia</i>	3
Taeniopterygidae	
<i>Taeniopteryx</i>	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
<i>Cheumatopsyche</i>	7
<i>Hydropsyche</i>	53
Philopotamidae	
<i>Chimarra</i>	3
Coleoptera (BEETLES)	
Elmidae (RIFLE BEETLES)	
<i>Optioservus</i>	19
<i>Oulimnius</i>	5
<i>Stenelmis</i>	1
Psephenidae (WATER PENNIES)	
<i>Psephenus</i>	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	82
Simuliidae (BLACK FLIES)	
<i>Simulium</i>	7

01473180 Valley Creek at Valley Forge, PA—Continued

Date	11/15/10
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Benthic Macroinvertebrate	Count
Tipulidae (CRANE FLIES)	
<i>Antocha</i>	1

Total Organisms	259
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