



Water-Data Report 2011

01473168 Valley Creek near Valley Forge, PA

Lower Delaware Basin
Schuylkill Subbasin

LOCATION.--Lat 40°04'11", long 75°28'25" referenced to North American Datum of 1927, Chester County, PA, Hydrologic Unit 02040203, 10 feet upstream from Mill Road, 4.3 miles southeast of Phoenixville, PA.

DRAINAGE AREA.--12.70 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1971 to 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	1200	16	13.0	8.2	8.2	665	655	10.6	48.7	30.9

**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, 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	1200	3.22	37.6	211	210	71.9	.05	4.9	21.9	.019

01473168 Valley Creek near 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	1200	1.58	.007	.007	9	155	73

01473168 Valley Creek near Valley Forge, PA—Continued**ECOLOGICAL RECORDS**

PERIOD OF RECORD.—November 1971 to 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	151
Nematoda (NEMATODES)	13
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
<i>Prostoma</i>	7
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	4
Tubificida	
Naididae	21
Arthropoda	
Acariformes	
Hydrachnidae (WATER MITES)	76
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	

01473168 Valley Creek near Valley Forge, PA—Continued

Date	Count
	11/15/10
Benthic Macroinvertebrate	Count
<i>Gammarus</i>	119
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
<i>Lirceus</i>	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Baetis</i>	145
Ephemerellidae	
<i>Serratella</i>	1
Plecoptera (STONEFLIES)	
Capniidae	3
Hemiptera	
Veliidae	
<i>Rhagovelia</i>	1
Trichoptera (CADDISFLIES)	
Glossosomatidae	
<i>Glossosoma</i>	1
Hydropsychidae	
<i>Cheumatopsyche</i>	32
<i>Hydropsyche</i>	41.2
Hydroptilidae	
<i>Hydroptila</i>	2
Philopotamidae	
<i>Chimarra</i>	18

01473168 Valley Creek near Valley Forge, PA—Continued

Date	11/15/10
Benthic Macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Optioservus</i>	835
<i>Oulimnius</i>	77
<i>Stenelmis</i>	15
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	
367	
Simuliidae (BLACK FLIES)	
<i>Simulium</i>	71
Tipulidae (CRANE FLIES)	
<i>Antocha</i>	35
<i>Tipula</i>	2
Total Organisms	2409