

Water-Data Report 2010

**01464504 CROSSWICKS CREEK AT GROVEVILLE ROAD, AT GROVEVILLE, NJ**

DELAWARE RIVER BASIN

LOCATION.--Lat 40°10'02", long 74°40'39" referenced to North American Datum of 1983, Hamilton Township, Mercer County, NJ, Hydrologic Unit 02040201, at bridge on Groveville Road (Main Street) in Groveville, 1.2 mi upstream from Doctors Creek, and 2.2 mi northeast of Bordentown.

DRAINAGE AREA.--98.0 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Miscellaneous measurements, water years 1966, 1998 to current year.

GAGE.--Staff gage.

**DISCHARGE MEASUREMENTS  
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

<b>Date</b>	<b>Discharge, in ft<sup>3</sup>/s</b>
Nov 19, 2009	109
Dec 3, 2009	367
Feb 17, 2010	181
Jun 22, 2010	42.4
Aug 10, 2010	26.4

## 01464504 CROSSWICKS CREEK AT GROVEVILLE ROAD, AT GROVEVILLE, NJ—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1998 to current year.

REMARKS.--Site is at head of tide, infrequently affected, but sampled at low tide. Cooperative Network Site Descriptor: Watershed Integrator, NJ Department of Environmental Protection Watershed Management Area 20.

COOPERATION.--Physical measurements and samples for laboratory analysis were collected in cooperation with the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, and suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

Part 1 of 5

[% , percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; cm, centimeter; ft<sup>3</sup>/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; μS/cm, microsiemens per centimeter; <, less than; E, estimated]

Date	Sample start time	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Absorbance, UV, 254 nm, 1 cm path length, water, filtered, units per centimeter (50624)	Absorbance, UV, organic constituents, 280 nm, 1 cm path length, water, filtered, units per centimeter (61726)	Discharge, instantaneous, ft <sup>3</sup> /s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)
11-19-2009	1200	770	15.0	.270	.215	109	11.1	99	7.0
02-17-2010	1305	751	7.0	.118	.094	181	13.7	99	6.4
06-22-2010	0810	764	26.0	.304	.245	42	7.2	83	7.2
08-10-2010	1100	755	32.5	.181	.142	26	7.8	95	7.7

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

Part 2 of 5

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Date	Specific conductance, water, unfiltered, μS/cm at 25 °C (00095)	Temperature, water, °C (00010)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	Dissolved solids dried at 180 °C, water, filtered, mg/L (70300)	Dissolved solids, water, filtered, sum of constituents, milligrams per liter (70301)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)
11-19-2009	175	10.6	10	104	103	52.8	6	15.8	3.26
02-17-2010	286	2.0	9.7	161	146	53.5	6	16.0	3.27
06-22-2010	223	22.7	11	135	125	67.6	3	20.5	3.99
08-10-2010	247	25.5	6.1	137	134	73.7	8	22.4	4.33

## 01464504 CROSSWICKS CREEK AT GROVEVILLE ROAD, AT GROVEVILLE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

Part 3 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; cm, centimeter; ft<sup>3</sup>/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; μS/cm, microsiemens per centimeter; <, less than; E, estimated]

Date	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	ANC, water, unfiltered, fixed endpoint (pH 4.5) titration, laboratory, mg/L as CaCO <sub>3</sub> (90410)	Carbon (inorganic plus organic), suspended sediment, total, mg/L (00694)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Inorganic carbon, suspended sediment, total, mg/L (00688)	Silica, water, filtered, mg/L as SiO <sub>2</sub> (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)
11-19-2009	3.23	9.44	26	.81	20.1	.14	< .06	10.3	22.4	.31
02-17-2010	2.44	24.0	21	.76	50.9	.08	E .03	9.0	24.4	.21
06-22-2010	3.34	12.9	35	.41	26.5	.18	< .06	10.7	23.3	.34
08-10-2010	3.78	13.7	42	.27	28.7	.21	< .06	9.4	23.9	.36

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

Part 4 of 5

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Date	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Orthophos- phate, water, filtered, mg/L as P (00671)	Particulate nitrogen, suspended in water, mg/L (49570)	Phosphorus, water, filtered, mg/L as P (00666)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, filtered, mg/L (00602)	Total nitrogen, water, unfiltered, mg/L (00600)	Organic carbon, suspended sediment, total, mg/L (00689)
11-19-2009	.038	.50	.026	.09	.030	.102	.81	.90	.81
02-17-2010	.096	.73	.012	.06	.022	.064	.94	.99	.73
06-22-2010	.032	.68	--	.04	.068	.129	1.0	1.1	.40
08-10-2010	.106	.56	--	E .02	.045	.083	.92	E .94	.27

**01464504 CROSSWICKS CREEK AT GROVEVILLE ROAD, AT GROVEVILLE, NJ—Continued****WATER-QUALITY DATA  
WATER YEAR OCTOBER  
2009 TO SEPTEMBER  
2010**

Part 5 of 5

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<b>Date</b>	<b>Organic carbon, water, filtered, mg/L (00681)</b>
<b>11-19-2009</b>	5.4
<b>02-17-2010</b>	7.8
<b>06-22-2010</b>	5.2
<b>08-10-2010</b>	3.5