



Water-Data Report 2010

**01376273 SPARKILL BROOK AT PIERMONT ROAD, AT NORTHALE, NJ**

HUDSON RIVER BASIN

LOCATION.--Lat 40°59'23", long 73°56'07" referenced to North American Datum of 1983, Norwood Borough, Bergen County, NJ, Hydrologic Unit 02030101, at culvert on Piermont Road, 0.1 mi north of intersection with Broadway, 1.5 mi southeast of Northvale, 2.1 mi upstream from mouth, and 2.8 mi northeast from Oradell Reservoir.

DRAINAGE AREA.--0.50 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Miscellaneous measurements, water years 2005-10.

GAGE.--Reference point only.

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

Date	Discharge, in ft <sup>3</sup> /s
Dec 9, 2009	4.06

**01376273 SPARKILL BROOK AT PIERMONT ROAD, AT NORTHALE, NJ—Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 2007, 2009-2010.

REMARKS.--Cooperative Network Site Descriptor: Statewide Status, NJ Department of Environmental Protection Watershed Management Area 5.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, 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 6

[%; 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; µg/L, micrograms per liter; <, 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)	Dissolved oxygen, water, unfiltered, pH, water, field, standard units (00400)
12-09-2009	1115	746	10.0	.358	.281	4.1	11.1	88	7.3
02-02-2010	0930	768	-1.0	.051	.040	--	14.5	100	7.7
06-15-2010	0915	764	24.0	.072	.055	--	8.1	82	7.9
09-09-2010	0900	758	20.0	.073	.057	--	7.6	78	7.9

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

Part 2 of 6

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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, milligrams per liter (70300)	Dissolved solids, 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)
12-09-2009	103	5.6	77	72	64	37.8	125	10.2	3.02
02-02-2010	262	.4	.6	153	E 155	100	2	27.8	7.49
06-15-2010	334	16.3	.8	214	E 207	146	6	40.9	10.6
09-09-2010	365	16.8	1.0	224	E 215	151	3	42.3	11.0

**01376273 SPARKILL BROOK AT PIERMONT ROAD, AT NORTHALE, NJ—Continued**

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

Part 3 of 6

[%, 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; µg/L, micrograms per liter; <, 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>	Carbon (inorganic plus organic), suspended sediment, total, mg/L (90410)	Chloride, water, filtered, mg/L (00694)	Fluoride, water, filtered, mg/L (00940)	Inorganic carbon, suspended sediment, total, mg/L (00950)	Silica, water, filtered, mg/L as SiO <sub>2</sub> (00688)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)
<b>12-09-2009</b>	1.71	4.29	28	17.2	6.78	<.08	.15	10.0	9.34	.39
<b>02-02-2010</b>	.72	9.35	80	<.10	17.7	E .05	<.06	21.6	19.6	E .10
<b>06-15-2010</b>	1.17	13.3	112	E .08	26.9	E .05	<.06	25.0	19.6	.15
<b>09-09-2010</b>	1.33	14.2	120	.18	30.9	E .04	<.06	24.5	17.8	.20

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

Part 4 of 6

[%, 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; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Nitrate plus Ammonia, water, filtered, mg/L as N (00608)	Orthophos phate, water, filtered, mg/L as N (00631)	Particulate nitrogen, water, filtered, mg/L as P (00671)	Total Phosphorus, in water, mg/L (49570)	Total Phosphorus, water, filtered, mg/L as P (00666)	Total nitrogen, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, filtered, mg/L (00602)	Total nitrogen, water, unfiltered, mg/L (00600)	Barium, water, unfiltered, recover able, µg/L (01007)
<b>12-09-2009</b>	.024	.37	.035	1.22	.043	.263	.76	2.0	--
<b>02-02-2010</b>	.021	.51	E .007	<.03	E .005	E .008	E .61	<.64	22.8
<b>06-15-2010</b>	.014	.50	--	<.03	.030	.036	.65	<.68	--
<b>09-09-2010</b>	<.010	.20	--	<.03	.045	.051	.40	<.44	39.4

**01376273 SPARKILL BROOK AT PIERMONT ROAD, AT NORTHVALE, NJ—Continued**

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

Part 5 of 6

[%, 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; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Beryllium, water, unfiltered, recover able, µg/L (01012)	Chromium, water, unfiltered, recover able, µg/L (01027)	Copper, water, unfiltered, recover able, µg/L (01034)	Iron, water, unfiltered, recover able, µg/L (01042)	Lead, water, unfiltered, recover able, µg/L (01045)	Manga- nese, water, unfiltered, recover able, µg/L (01051)	Mercury, water, unfiltered, recover able, µg/L (71900)	Nickel, water, unfiltered, recover able, µg/L (01067)	Silver, water, unfiltered, recover able, µg/L (01077)
12-09-2009	--	--	--	--	--	--	--	--	--
02-02-2010	< .04	< .04	E .37	< 1.4	100	< .06	35.9	< .010	E .34
06-15-2010	--	--	--	--	--	--	--	--	--
09-09-2010	< .04	< .04	< .42	< 1.4	172	.07	17.0	< .010	E .29
									< .02

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

Part 6 of 6

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Date	Zinc, water, unfiltered, recover able, µg/L (01092)	Arsenic, water, filtered, µg/L (01000)	Arsenic, water, unfiltered, µg/L (01002)	Boron, water, unfiltered, recoverable, micrograms per liter (01022)	Selenium, water, unfiltered, µg/L (01147)	Organic carbon, suspended sediment, total, mg/L (00689)	Organic carbon, water, filtered, mg/L (00681)
12-09-2009	--	--	--	--	--	17.1	9.3
02-02-2010	< 2.0	.30	.33	69	E .05	< .12	1.7
06-15-2010	--	--	--	--	--	< .12	2.1
09-09-2010	< 2.0	.60	.73	74	E .05	.18	2.2