



Water-Data Report 2010

01378780 PRIMROSE BROOK AT MORRISTOWN NATIONAL HISTORICAL PARK, NJ

PASSAIC RIVER BASIN

LOCATION.--Lat 40°45'54", long 74°31'47" referenced to North American Datum of 1983, Harding Township, Morris County, NJ, Hydrologic Unit 02030103, at bridge on Camp Trail Road in Morristown National Historical Park, 20 ft downstream of unnamed tributary, 500 ft west of Mount Kemble, and 2.4 mi northeast of Bernardsville.

DRAINAGE AREA.--1.07 mi².

SURFACE-WATER RECORDS

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

GAGE.--Staff gage.

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

Date	Discharge, in ft³/s
Nov 18, 2009	0.58
Mar 1, 2010	1.77
May 11, 2010	2.19
Aug 19, 2010	0.36

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WATER-QUALITY RECORDS

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

REMARKS.--Cooperative Network Site Descriptor: Background, NJ Department of Environmental Protection Watershed Management Area 6.

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 6

[% , percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft³/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		Discharge, instantaneous, ft ³ /s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)
				(50624)	(61726)				
11-18-2009	1300	759	11.5	.040	.032	.58	11.7	100	7.3
03-01-2010	1000	740	3.4	.033	.026	1.8	14.0	107	7.5
05-11-2010	1000	758	13.0	.033	.025	2.2	11.3	96	7.4
08-19-2010	1130	749	32.0	.039	.029	.36	9.0	95	7.7

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, mg/L (70300)	Dissolved solids, water, filtered, sum of constituents, milligrams per liter (70301)	Hardness, water, mg/L as CaCO ₃ (00900)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)
03-01-2010	106	4.2	1.1	84	E 76	35.9	5	8.98	3.27
05-11-2010	110	8.6	2.1	85	81	36.9	4	9.14	3.42
08-19-2010	138	17.9	2.5	108	98	50.6	5	13.0	4.43

01378780 PRIMROSE BROOK AT MORRISTOWN NATIONAL HISTORICAL PARK, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 3 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft³/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)	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 ₂ (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)
			titration, laboratory, mg/L as CaCO ₃ (90410)	titration, laboratory, mg/L as CaCO ₃ (90410)	titration, laboratory, mg/L as CaCO ₃ (90410)					
11-18-2009	.89	5.79	41	.39	5.28	.09	< .06	25.5	14.1	E .09
03-01-2010	.59	4.91	30	E .08	5.24	E .05	< .06	19.6	14.2	E .07
05-11-2010	.57	5.34	31	.47	5.39	.11	< .06	22.7	13.8	< .10
08-19-2010	.82	5.82	44	.68	6.04	.10	< .06	26.5	14.0	E .09

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 4 of 6

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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)	Phosphor- us, water, filtered, mg/L as P (00666)	Phosphor- us, 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)
		mg/L as N (00631)	mg/L as P (00671)	mg/L (49570)	mg/L as P (00666)	mg/L as P (00665)	mg/L (00602)	mg/L (00600)	
11-18-2009	< .010	.09	E .008	E .02	E .004	E .008	E .18	E .20	--
03-01-2010	< .010	.30	E .005	< .03	E .005	E .005	E .37	< .41	9.7
05-11-2010	< .010	.38	--	.04	E .007	.011	< .48	< .51	--
08-19-2010	< .010	.29	--	.05	.016	.025	E .38	E .42	11.2

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 5 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft³/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)	Cadmium, water, unfiltered, μg/L (01027)	Chromium, water, unfiltered, recover- able, μg/L (01034)	Copper, water, unfiltered, recover- able, μg/L (01042)	Iron, water, unfiltered, recover- able, μg/L (01045)	Lead, water, unfiltered, recover- able, μg/L (01051)	Manganese, water, unfiltered, recoverable, μg/L (01055)	Mercury, water, unfiltered, recover- able, μg/L (71900)	Nickel, water, unfiltered, recover- able, μg/L (01067)	Silver, water, unfiltered, recover- able, μg/L (01077)
11-18-2009	--	--	--	--	--	--	--	--	--	--
03-01-2010	< .04	E .02	< .42	< 1.4	49	.18	3.5	< .010	E .27	< .02
05-11-2010	--	--	--	--	--	--	--	--	--	--
08-19-2010	< .04	< .04	E .26	< 1.4	212	.28	14.1	< .010	.40	< .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)
11-18-2009	--	--	--	--	--	.39	1.4
03-01-2010	E 1.1	.19	E .18	E 7	.10	< .12	1.3
05-11-2010	--	--	--	--	--	.47	.9
08-19-2010	E 1.4	.35	.54	E 8	E .10	.68	1.2