



Water-Data Report 2010

**01457120 MUSCONETCONG RIVER AT ROUTE 579, AT BLOOMSBURY, NJ**

DELAWARE RIVER BASIN

LOCATION.--Lat 40°39'20", long 75°05'20" referenced to North American Datum of 1983, Bloomsbury Borough, Hunterdon County, NJ, Hydrologic Unit 02040105, at bridge on Church Street (County Route 579) in Bloomsbury, 4.0 mi east of Alpha, and 8.3 mi upstream from mouth.

DRAINAGE AREA.--145 mi<sup>2</sup>.

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 2009-10.

REMARKS.--Cooperative Network Site Descriptor: Statewide Status, NJ Department of Environmental Protection Watershed Management Area 1.

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, 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; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; cm, centimeter; 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)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, μS/cm at 25 °C (00095)
11-24-2009	1100	760	14.4	.065	.051	10.9	95	8.2	462
03-09-2010	1015	758	8.9	.063	.049	12.2	101	7.6	444
05-26-2010	1030	754	23.1	.054	.041	8.9	94	8.0	459
08-16-2010	1100	754	25.7	.050	.039	8.3	90	8.2	498

## 01457120 MUSCONETCONG RIVER AT ROUTE 579, AT BLOOMSBURY, NJ—Continued

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

Part 2 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; 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	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 constit- uents, 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)	Magne- sium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)
11-24-2009	9.0	1.8	271	E 246	141	4	31.6	15.1	2.01
03-09-2010	5.9	3.9	231	E 228	122	6	27.5	13.0	1.60
05-26-2010	17.4	2.4	251	247	160	4	36.1	17.0	1.64
08-16-2010	18.0	1.8	290	E 274	185	2	38.5	21.6	2.25

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

Part 3 of 6

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Date	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 plus (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)	Ammonia, water, filtered, mg/L as N (00608)
11-24-2009	34.9	101	1.19	65.8	.10	< .06	7.1	18.7	.25	E .010
03-09-2010	32.7	88	.44	69.0	E .05	< .06	7.9	14.8	.21	E .008
05-26-2010	27.0	121	.43	56.2	.10	< .06	9.2	16.1	.23	< .010
08-16-2010	26.7	146	.64	57.0	E .06	< .06	8.6	18.3	.21	.028

## 01457120 MUSCONETCONG RIVER AT ROUTE 579, AT BLOOMSBURY, NJ—Continued

**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; 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 nitrite, water, filtered, mg/L as N (00631)	Orthophosphate, 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)	Barium, water, unfiltered, recoverable, μg/L (01007)	Beryllium, water, unfiltered, recoverable, μg/L (01012)
11-24-2009	2.18	.014	.12	.013	.028	2.4	2.6	--	--
03-09-2010	1.90	E .008	.05	.009	.024	2.1	2.2	19.7	< .04
05-26-2010	2.46	--	.06	.021	.035	2.7	2.7	--	--
08-16-2010	2.98	--	.04	.021	.029	3.2	3.2	21.1	< .04

**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; 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	Cadmium, water, unfiltered, μg/L (01027)	Chromium, water, unfiltered, recoverable, μg/L (01034)	Copper, water, unfiltered, recoverable, μg/L (01042)	Iron, water, unfiltered, recoverable, μg/L (01045)	Lead, water, unfiltered, recoverable, μg/L (01051)	Manganese, water, unfiltered, recoverable, μg/L (01055)	Mercury, water, unfiltered, recoverable, μg/L (71900)	Nickel, water, unfiltered, recoverable, μg/L (01067)	Silver, water, unfiltered, recoverable, μg/L (01077)	Zinc, water, unfiltered, recoverable, μg/L (01092)
11-24-2009	--	--	--	--	--	--	--	--	--	--
03-09-2010	< .04	E .32	E .86	187	.36	17.4	< .010	E .35	< .02	2.2
05-26-2010	--	--	--	--	--	--	--	--	--	--
08-16-2010	< .04	E .35	E 1.1	106	.28	15.1	< .010	.38	< .02	2.3

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

Part 6 of 6

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Date	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)
11-24-2009	--	--	--	--	1.19	2.4
03-09-2010	.24	.43	E 8	.18	.44	1.8
05-26-2010	--	--	--	--	.41	2.0
08-16-2010	.36	.97	23	.26	.64	1.8

## 01457120 MUSCONETCONG RIVER AT ROUTE 579, AT BLOOMSBURY, NJ—Continued

**WATER-QUALITY DATA**  
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[µg/L, micrograms per liter; &lt;, less than; E, estimated]

Date	Sample start time	1-Naphthol,	2,6-Diethyl-aniline,	2-Chloro-2',6'-diethyl-acetanilide,	2-Chloro-4-isopropyl-amino-6-triazine,	2-Ethyl-6-methyl-aniline,	3,4-Dichloro-aniline,	3,5-Di-chloro-aniline,	4-Chloro-2-methyl-phenol,	Acetochlor,
		water, filtered (0.7 micron glass fiber filter), recoverable, µg/L (49295)	water, filtered (0.7 micron glass fiber filter), recoverable, µg/L (82660)	water, filtered, recoverable, µg/L (61618)	water, filtered, recoverable, µg/L (04040)	water, filtered, recoverable, µg/L (61620)	water, filtered, recoverable, µg/L (61625)	water, filtered, recoverable, µg/L (61627)	water, filtered, recoverable, µg/L (61633)	water, filtered, recoverable, µg/L (49260)
05-26-2010	1030	< .04	< .006	< .010	E .073	< .010	E .006	< .003	< .003	< .010

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

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[µg/L, micrograms per liter; &lt;, less than; E, estimated]

Date	Alachlor, water, filtered, recoverable, µg/L (46342)	alpha-Endo-sulfan, water, filtered, recoverable, µg/L (34362)	Atrazine, water, filtered, recoverable, µg/L (39632)	Azinphos-methyl,	Benfluralin, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L (82673)	Carbaryl, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L (82680)	Carbofuran, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L (82674)	Chlorpyrifos oxygen analog, water, filtered, recoverable, µg/L (61636)	
				Azinphos-methyl oxygen analog, water, filtered, recoverable, µg/L (61635)					
05-26-2010	< .008	< .006	.026	< .04	< .120	< .014	< .060	< .060	< .05

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

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[µg/L, micrograms per liter; &lt;, less than; E, estimated]

Date	Chlorpyrifos, water, filtered, recoverable, µg/L (38933)	cis-Permethrin, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L (82687)	cis-Propiconazole, water, filtered, recoverable, µg/L (79846)	Cyanazine, water, filtered, recoverable, µg/L (04041)	Cyfluthrin, water, filtered, recoverable, µg/L (61585)	Cypermethrin, water, filtered, recoverable, µg/L (61586)	DCPA, water, filtered (0.7 micron glass fiber filter), recoverable, µg/L (82682)	Desulfinyl-fipronil amide, water, filtered, recoverable, µg/L (62169)	Desulfinyl-fipronil, water, filtered, recoverable, µg/L (62170)	Diazinon, water, filtered, recoverable, µg/L (39572)
		05-26-2010								

## 01457120 MUSCONETCONG RIVER AT ROUTE 579, AT BLOOMSBURY, NJ—Continued

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

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[µg/L, micrograms per liter; &lt;, less than; E, estimated]

Date	Dichlorvos , water, filtered, recover- able, µg/L (38775)	Dicro- tophos, water, filtered, recover- able, µg/L (38454)	Diieldrin, water, filtered, recover- able, µg/L (39381)	Dimetho- ate, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82662)	Disulfoton sulfone, water, filtered, recover- able, µg/L (61640)	Disulfoton, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82677)	Endosulfan sulfate, water, filtered, recover- able, µg/L (61590)	EPTC, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82668)	Ethion monoxon, water, filtered, recover- able, µg/L (61644)	Ethion, water, filtered, recover- able, µg/L (82346)
05-26-2010	< .02	< .08	< .009	< .006	< .01	< .04	< .014	< .002	< .02	< .008

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

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[µg/L, micrograms per liter; &lt;, less than; E, estimated]

Date	Ethoprop, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82672)	Fenami- phos sulfone, water, filtered, recover- able, µg/L (61645)	Fenami- phos sulfoxide, water, filtered, recover- able, µg/L (61646)	Fenami- phos, water, filtered, recover- able, µg/L (61591)	Fipronil sulfide, water, filtered, recover- able, µg/L (62167)	Fipronil sulfone, water, filtered, recover- able, µg/L (62168)	Fipronil, water, filtered, recover- able, µg/L (62166)	Fonofos, water, filtered, recover- able, µg/L (04095)	Hexa- zinone, water, filtered, recover- able, µg/L (04025)	Iprodione, water, filtered, recover- able, µg/L (61593)
05-26-2010	< .016	< .053	< .08	< .03	< .013	< .024	E .013	< .004	< .008	< .014

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

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[µg/L, micrograms per liter; &lt;, less than; E, estimated]

Date	Isofen- phos, water, filtered, recover- able, µg/L (61594)	lambda- Cyhalo- thrin, water, filtered, recover- able, µg/L (61595)	Malaoxon, water, filtered, recover- able, µg/L (61652)	Malathion, water, filtered, recover- able, µg/L (39532)	Metalaxyl, water, filtered, recover- able, µg/L (61596)	Methida- thion, water, filtered, recover- able, µg/L (61598)	Methyl paraoxon, water, filtered, recover- able, µg/L (61664)	Methyl parathion, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82667)	Metola- chlor, water, filtered, recover- able, µg/L (39415)	Metribuzin , water, filtered, recover- able, µg/L (82630)
05-26-2010	< .006	< .010	< .080	< .016	< .007	< .006	< .02	< .008	.017	< .012

## 01457120 MUSCONETCONG RIVER AT ROUTE 579, AT BLOOMSBURY, NJ—Continued

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

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[µg/L, micrograms per liter; &lt;, less than; E, estimated]

Date	Molinate, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82671)	Myclo- butanil, water, filtered, recover- able, µg/L (61599)	Oxy- fluorfen, water, filtered, recover- able, µg/L (61600)	Pendi- methalin, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82683)	Phorate oxygen analog, water, filtered, recover- able, µg/L (61666)	Phorate, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82664)	Phosmet oxygen analog, water, filtered, recover- able, µg/L (61668)	Phosmet, water, filtered, recover- able, µg/L (61601)	Prometon, water, filtered, recover- able, µg/L (04037)	Prometryn, water, filtered, recover- able, µg/L (04036)
05-26-2010	< .003	< .010	< .010	< .012	< .03	< .020	< .05	< .034	E .01	< .006

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

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[µg/L, micrograms per liter; &lt;, less than; E, estimated]

Date	Propanil, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82679)	Propargite, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82685)	Propyz- amide, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82676)	Simazine, water, filtered, recover- able, µg/L (04035)	Tebu- thiuron, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82670)	Tefluthrin, water, filtered, recover- able, µg/L (61606)	Terbufos oxygen analog sulfone, water, filtered, recover- able, µg/L (61674)	Terbufos, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82675)	Terbuthyl- azine, water, filtered, recover- able, µg/L (04022)	Thioben- carb, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82681)
05-26-2010	< .010	< .02	< .004	< .006	< .03	< .010	< .04	< .02	< .01	< .016

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

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[µg/L, micrograms per liter; &lt;, less than; E, estimated]

Date	trans- Propicon- azole, water, filtered, recover- able, µg/L (79847)	Tribuphos, water, filtered, recover- able, µg/L (61610)	Trifluralin, water, filtered (0.7 micron glass fiber filter), recover- able, µg/L (82661)
05-26-2010	< .02	< .018	< .018