

Water-Data Report 2010

**01409470 BATSTO RIVER AT QUAKER BRIDGE, NJ**

MULLICA RIVER BASIN

LOCATION.--Lat 39°42'34", long 74°39'59" referenced to North American Datum of 1983, Washington Township, Burlington County, NJ, Hydrologic Unit 02040301, at Quaker Bridge on unimproved road, 1.1 miles south of Lower Forge, 1.9 mi downstream of Springers Brook, and 4.6 miles north of Batsto.

DRAINAGE AREA.--55.7 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Miscellaneous measurements, water years 1996-98, 2003-04, 2008-10.

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 30, 2009	84.3
Mar 8, 2010	189
Jun 8, 2010	51.0
Aug 25, 2010	33.0

## 01409470 BATSTO RIVER AT QUAKER BRIDGE, NJ—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water Years 1975-78, 1995-98, 2008 to current year.

REMARKS.--Cooperative Network Site Descriptor: Watershed Integrator, NJ Department of Environmental Protection Watershed Management Area 14.

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; 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, per centimeter (50624)	Absorbance, UV, organic constituents, 280 nm, 1 cm path length, water, filtered, 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)
11-30-2009	1200	750	--	.236	.185	84	10.2	89	5.2
03-08-2010	1300	756	18.0	.297	.224	189	11.7	98	4.0
06-08-2010	1100	758	18.5	.749	.598	51	7.5	79	5.5
08-25-2010	0950	758	20.0	.119	.098	33	9.0	92	5.5

## WATER-QUALITY DATA

## WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 2 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; μg/L, micrograms per liter; <, less than; E, estimated]

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, water, filtered, dried at 180 °C, 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)
11-30-2009	59	9.3	2.5	39	E 35	11.7	2	2.52	1.32
03-08-2010	82	7.6	1.2	62	< 41	12.9	1	2.82	1.43
06-08-2010	51	17.8	16	46	27	10.0	9	2.13	1.14
08-25-2010	29	16.4	4.8	23	< 18	3.87	4	.77	.474

## 01409470 BATSTO RIVER AT QUAKER BRIDGE, 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; 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 <sub>2</sub> (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)
			titration, laboratory, mg/L as CaCO <sub>3</sub> (90410)							
11-30-2009	1.38	5.03	E 1.1	.39	9.84	< .08	< .06	5.8	6.16	.18
03-08-2010	1.25	6.54	< 1.7	.28	13.5	< .08	< .06	3.0	9.04	.24
06-08-2010	.93	4.21	1.9	3.07	7.77	< .08	< .06	5.6	3.57	.38
08-25-2010	.60	2.07	< 1.7	.98	3.61	< .08	< .06	5.8	2.44	E .09

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

Part 4 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; μg/L, micrograms per liter; <, less than; E, estimated]

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)	Aluminum, water, filtered, μg/L (01106)
		11-30-2009	.031	.41	< .010	< .03	E .005	.011	.58
03-08-2010	< .010	.59	< .010	E .03	E .005	E .008	.83	E .86	--
06-08-2010	.049	.21	--	.15	.010	.029	.59	.74	--
08-25-2010	.021	.24	--	E .03	< .008	.009	E .34	E .37	33.0

**01409470 BATSTO RIVER AT QUAKER BRIDGE, NJ—Continued**

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

Part 5 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; μg/L, micrograms per liter; <, less than; E, estimated]

<b>Date</b>	<b>Iron, water, filtered, μg/L (01046)</b>	<b>Organic carbon, suspended sediment, total, mg/L (00689)</b>	<b>Organic carbon, water, filtered, mg/L (00681)</b>
<b>11-30-2009</b>	--	.39	4.7
<b>03-08-2010</b>	--	.28	6.5
<b>06-08-2010</b>	--	3.07	10.7
<b>08-25-2010</b>	290	.97	1.7