



Water-Data Report 2010

01409387 MULLICA RIVER AT OUTLET OF ATSION LAKE, AT ATSION, NJ

MULLICA RIVER BASIN

LOCATION.--Lat 39°44'25", long 74°43'36" referenced to North American Datum of 1983, Shamong Township, Burlington County, NJ, Hydrologic Unit 02040301, at bridge on U.S. Route 206 in Atsion, at outlet of Atsion Lake, and 0.2 mi upstream from Wesickaman Creek.

DRAINAGE AREA.--26.7 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1980 to current year.

GAGE.--Staff gage.

REMARKS.--Occasional regulation by Atsion Lake and small ponds upstream.

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

Date	Discharge, in ft³/s
Nov 30, 2009	33.5
Feb 1, 2010	55.2
May 17, 2010	44.9
Aug 2, 2010	12.2

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Cooperative Network Site Descriptor: Undeveloped Land Use Indicator, 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; 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; <, 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)				
11-30-2009	1215	750	11.0	.309	.239	34	11.5	100	4.1
02-01-2010	1030	767	4.0	.425	.328	55	13.2	94	3.7
05-17-2010	1100	761	13.5	.795	.625	45	8.7	94	4.8
08-02-2010	1100	760	23.0	1.08	.878	12	7.4	88	5.6

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 ₃ (00900)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)
02-01-2010	68	1.6	2.0	36	< 30	5.85	1	1.21	.689
05-17-2010	56	19.2	3.0	49	< 28	5.97	6	1.31	.653
08-02-2010	45	24.1	20	37	< 27	6.15	5	1.38	.654

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 3 of 5

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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 ₃ (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 ₂ (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)
11-30-2009	.94	4.74	< 1.7	1.37	8.83	< .08	< .06	4.9	3.89	.22
02-01-2010	.78	5.34	< 1.7	.29	10.3	E .04	< .06	3.4	6.53	.23
05-17-2010	.86	6.01	< 1.7	2.28	10.3	< .08	< .06	3.5	3.82	.31
08-02-2010	.88	4.64	< 1.7	4.11	7.61	< .08	< .06	5.7	4.18	.46

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)
11-30-2009	.021	.12	< .010	.09	< .008	E .007	.34	.43	1.37
02-01-2010	.029	.10	< .010	.04	E .005	.008	.33	.37	.29
05-17-2010	.022	.12	--	.15	< .008	.015	.43	.58	2.28
08-02-2010	.060	.09	--	.24	E .007	.032	.55	.79	4.11

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WATER YEAR OCTOBER
2009 TO SEPTEMBER
2010**

Part 5 of 5

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Date	Organic carbon, water, filtered, mg/L (00681)
11-30-2009	6.1
02-01-2010	8.0
05-17-2010	11.8
08-02-2010	11.3