



Water-Data Report 2010

01408100 NORTH BRANCH METEDECONK RIVER AT LAKEWOOD, NJ

METEDECONK RIVER BASIN

LOCATION.--Lat 40°06'35", long 74°13'09" referenced to North American Datum of 1983, Lakewood Township, Ocean County, NJ, Hydrologic Unit 02040301, at highway bridge on U.S. Route 9, 0.3 mi north of County Line Road in Lakewood, and 3.6 mi upstream from Muddy Ford Brook.

DRAINAGE AREA.--19.4 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1959-63, 1966. Miscellaneous measurements, water years 1998 to current year.

GAGE.--Staff gage.

DISCHARGE MEASUREMENTS WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Date	Discharge, in ft ³ /s
Nov 5, 2009	21.6
Feb 3, 2010	28.0
May 10, 2010	20.5
Aug 3, 2010	9.23

01408100 NORTH BRANCH METEDECONK RIVER AT LAKEWOOD, NJ—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1959-63, 1998 to current year.

PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: August 2009 and June-July 2010.

DISSOLVED OXYGEN, PERCENT OF SATURATION: August 2009 and June-July 2010.

PH: August 2009 and June-July 2010.

SPECIFIC CONDUCTANCE: August 2009 and June-July 2010.

WATER TEMPERATURE: August 2009 and June-July 2010.

REMARKS.--Cooperative Network Site Descriptor: Watershed Reconnaissance and Urban Land Use Indicator, NJ Department of Environmental Protection Watershed Management Area 13. The accuracy of continuous water-quality data is routinely verified through inspections for fouling and calibration drift. The New Jersey Water Science Center requires that either constant or prorated adjustments be made to the continuous water-quality record when the difference between a sensor's response and a known value exceeds the following criteria: Water Temperature, 0.2 degrees Celsius (+ or -); Specific Conductance, the greater of 5 microsiemens/cm (+ or -) or 3% of the measured value; Dissolved Oxygen, the greater of 0.3 mg/L (+ or -) or 5% of the measured value; pH, 0.3 units (+or-). If the difference between a sensor's response and a known value is within specified criteria, the data are considered to be reliable and are not adjusted. Data from the following periods were adjusted - DISSOLVED OXYGEN: Jun 29 to Jul 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. Determination of chlorophyll-a was performed by the New Jersey Department of Environmental Protection, Bureau of Freshwater and Biological Monitoring 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 (50624)		Absorbance, UV, organic constituents, 280 nm, 1 cm path length, water, filtered, units per centimeter (61726)		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)
11-05-2009	1115	765	15.0	.492	.390	22	10.4	92	6.5		
02-03-2010	1210	763	2.5	.165	.127	28	13.0	96	6.5		
05-10-2010	1100	762	16.0	.551	.437	21	9.6	90	6.9		
07-06-2010	0920	760	35.5	--	--	--	7.0	80	6.6		
08-03-2010	1100	759	28.0	.217	.172	9.2	7.6	86	6.9		

01408100 NORTH BRANCH METEDECONK RIVER AT LAKEWOOD, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 2 of 5

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Date	Specific conductivity, 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)
11-05-2009	170	9.9	8.9	114	E 93	30.2	7	9.20	1.76
02-03-2010	447	2.4	8.0	248	E 224	30.0	6	9.01	1.81
05-10-2010	232	12.3	11	146	123	35.6	7	10.9	2.02
07-06-2010	240	22.1	--	--	--	--	2	--	--
08-03-2010	224	21.7	9.3	127	118	39.2	3	11.9	2.27

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)
11-05-2009	2.45	17.8	15	1.04	30.0	E .07	< .06	9.0	10.9	.39
02-03-2010	2.33	64.2	10	1.16	113	< .08	< .06	7.0	15.4	.26
05-10-2010	2.83	26.9	16	2.13	47.0	.11	< .06	6.8	12.8	.45
07-06-2010	--	--	20	--	--	--	--	--	--	--
08-03-2010	2.90	24.1	21	.76	40.2	.09	< .06	7.2	12.8	.28

01408100 NORTH BRANCH METEDECONK RIVER AT LAKEWOOD, NJ—Continued

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)	Chlorophyll a, fluorometric method, uncorrected, micrograms per liter (32217)
11-05-2009	.061	.53	.018	.07	.028	.070	.92	.98	--
02-03-2010	.116	1.02	E .008	.08	.016	.040	1.3	1.4	--
05-10-2010	.093	.92	--	.16	.043	.101	1.4	1.5	--
07-06-2010	--	.78	--	--	--	.05	--	--	1.80
08-03-2010	.015	.76	--	.05	.033	.053	1.0	1.1	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO
SEPTEMBER 2010

Part 5 of 5

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Date	Organic carbon, suspended sediment, total, mg/L (00689)	Organic carbon, water, filtered, mg/L (00681)
11-05-2009	1.04	8.7
02-03-2010	1.15	3.9
05-10-2010	2.13	9.4
07-06-2010	--	4.3
08-03-2010	.76	3.9

01408100 NORTH BRANCH METEDECONK RIVER AT LAKEWOOD, NJ—Continued

HOURLY WATER-QUALITY-MONITOR VALUES AT 01408100, NORTH
BRANCH METEDECONK RIVER AT LAKEWOOD, NJ FROM
JUNE 29, 2010 TO JULY 06, 2010

