

Water-Data Report 2010

01408009 MINGAMAHONE BROOK NEAR EARLE, NJ

MANASQUAN RIVER BASIN

LOCATION.--Lat 40°12'45", long 74°10'06" referenced to North American Datum of 1983, Howell Township, Monmouth County, NJ, Hydrologic Unit 02040301, at bridge on Cranberry Bog Road, 0.6 mi upstream from East Branch Mingamahone Brook, and 1.7 mi west of Earle.

DRAINAGE AREA.--3.32 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 24, 2009	8.08
Feb 1, 2010	5.78
May 4, 2010	9.04
Aug 5, 2010	1.27

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971-74, 1998 to current year.

REMARKS.--Cooperative Network Site Descriptor: Undeveloped Land Use Indicator, NJ Department of Environmental Protection Watershed Management Area 12.

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; 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)	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)
11-24-2009	1130	762	15.5	.583	.485	8.1	10.3	92	6.0
02-01-2010	0900	764	1.0	.079	.063	5.8	11.6	81	5.5
05-04-2010	1050	755	27.0	.555	.445	9.0	7.2	74	6.1
08-05-2010	1145	747	25.0	.244	.206	1.3	7.2	81	6.7

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)
11-24-2009	122	10.2	20	96	E 73	25.3	17	7.79	1.42
02-01-2010	121	1.0	4.8	79	E 71	24.4	10	7.28	1.51
05-04-2010	110	17.0	25	95	E 60	22.5	16	6.94	1.27
08-05-2010	--	20.7	57	117	E 99	55.8	12	19.9	1.47

01408009 MINGAMAHONE BROOK NEAR EARLE, NJ—Continued

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)	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)							
11-24-2009	1.76	7.23	8	1.63	14.0	E .07	< .06	13.2	18.0	.18
02-01-2010	1.68	6.96	E 7	1.02	14.4	E .05	< .06	12.1	18.9	.10
05-04-2010	1.57	6.31	E 7	3.75	13.6	.09	< .06	10.9	14.8	.30
08-05-2010	2.13	4.68	37	1.91	11.4	.11	< .06	20.1	16.9	.19

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)	Iron, water, filtered, μg/L (01046)
		11-24-2009	.048	E .03	E .005	.07	.013	.040	E .22
02-01-2010	.060	.07	< .010	.04	< .008	.024	.17	.21	3,550
05-04-2010	.045	< .04	--	.18	.010	.042	< .34	< .51	--
08-05-2010	.051	E .04	--	.09	< .008	.062	E .23	E .32	--

01408009 MINGAMAHONE BROOK NEAR EARLE, NJ—Continued**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)
11-24-2009	1.62	5.5
02-01-2010	1.01	1.7
05-04-2010	3.74	8.0
08-05-2010	1.89	2.6