

01405340 MANALAPAN BROOK AT FEDERAL ROAD, NEAR MANALAPAN, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°17'46", long 74°23'52" referenced to North American Datum of 1983, Monroe Township, Middlesex County, NJ, Hydrologic Unit 02030105, at bridge on Federal Road, 2.6 mi north of Manalapan, 3.1 mi southwest of Matchaponix, 3.3 mi downstream from Still House Brook, and 4.1 mi northeast of Applegarth.

DRAINAGE AREA.--20.9 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1969, 1971, 1979-80, 1986 to current year.

GAGE.--Staff gage.

DISCHARGE MEASUREMENTS
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Date	Discharge, in ft³/s
Nov 1, 2011	57.1
Feb 6, 2012	26.0
Jun 11, 2012	12.0
Aug 9, 2012	12.4

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Cooperative Network Site Descriptor: Mixed Land Use Indicator, and NJ Department of Environmental Protection Watershed Management Area 9.

COOPERATION.--

COOPERATION: Physical measurements and samples for laboratory analysis were collected in cooperation with the NJ Department of Environmental Protection. Determinations of concentrations of ammonia in filtered water and suspended solids in unfiltered water were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory (DHSS-ECL).

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

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]

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 cm (50624)	Absorbance, UV, organic constituents, 280 nm, 1 cm path length, water, filtered, units per cm (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)
11-01-2011	1200	764	13.0	0.202	0.162	57	10.7	91	6.2
02-06-2012	1050	760	4.5	.046	.038	26	12.9	96	6.5
06-11-2012	1100	765	25.0	.185	.153	12	8.8	99	7.0
08-09-2012	1030	559	33.0	.171	.136	12	7.9	93	6.9

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 5

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Date	Sample start time	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, mg/L (70301)	Hardness, water, mg/L as CaCO ₃ (00900)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, filtered, mg/L (00915)
11-01-2011	1200	204	8.2	11	125	111	37.0	8.0	8.90
02-06-2012	1050	266	3.1	7.6	141	137	43.2	6.0	10.0
06-11-2012	1100	251	21.1	13	138	131	44.3	7.0	10.5
08-09-2012	1030	224	23.5	19	153	121	43.8	9.0	10.8

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 3 of 5

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Date	Sample start time	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	ANC, water, unfiltered, fixed endpoint 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)
11-01-2011	1200	3.59	3.20	19.7	8.6	1.00	39.1	0.11	< .03	11.3
02-06-2012	1050	4.42	2.59	25.9	5.4	.58	53.5	.13	< .03	10.7
06-11-2012	1100	4.38	2.89	23.6	12.7	.65	51.2	.16	< .03	10.9
08-09-2012	1030	4.08	3.65	21.6	14.9	1.30	41.2	.15	--	10.1

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 4 of 5

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Date	Sample start time	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)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	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)
11-01-2011	1200	16.7	0.29	0.054	0.701	0.084	0.017	0.070	0.99	1.1
02-06-2012	1050	20.1	.18	.092	1.48	.054	< .004	.044	1.7	1.7
06-11-2012	1100	16.7	.30	.065	.548	.081	.025	.093	.84	.92
08-09-2012	1030	18.7	.35	.069	.317	.087	.032	.215	.66	.75

01405340 MANALAPAN BROOK AT FEDERAL ROAD, NEAR MANALAPAN, NJ—Continued**WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER
2012**

Part 5 of 5

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Date	Sample start time	Organic carbon, suspended sediment, total, mg/L (00689)	Organic carbon, water, filtered, mg/L (00681)
11-01-2011	1200	1.00	4.09
02-06-2012	1050	.58	1.08
06-11-2012	1100	.63	2.81
08-09-2012	1030	--	3.89