



Water-Data Report 2010

01399545 LAMINGTON RIVER AT LAMINGTON, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°39'38", long 74°43'45" referenced to North American Datum of 1983, Bedminster Township, Somerset County, NJ, Hydrologic Unit 02030105, at bridge on County Route 523 in Lamington, 0.4 mi downstream from Cold Brook, and 3.8 mi south of Potterstown.

DRAINAGE AREA.--53.6 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-82, 2009, 2010.

REMARKS.--Cooperative Network Site Descriptor: Statewide Status, NJ Department of Environmental Protection Watershed Management Area 8.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of 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 7

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; 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	Sam ple start time	Medium name	Sample type	Barometric pressure, mm Hg (00025)	Tempera ture, 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)	Absorbance, UV, organic constituents, 280 nm, 1 cm path length, water, unfilter ed, mg/L (00300)
11-17-2009	0930	Surface water	Replicate	767	16.0	.117	.091	9.8
11-17-2009	0930	QC sample - Surface water	Split Replicate	--	--	--	--	--
11-17-2009	0931	QC sample - Surface water	Concurrent Replicate	--	--	--	--	--
02-09-2010	0900	Surface water	Replicate	761	-1.0	.058	.046	12.7
02-09-2010	0900	QC sample - Surface water	Split Replicate	--	--	--	--	--
02-09-2010	0901	QC sample - Surface water	Concurrent Replicate	--	--	--	--	--
06-03-2010	0900	Surface water	Replicate	753	25.0	.130	.102	8.8
06-03-2010	0900	QC sample - Surface water	Split Replicate	--	--	--	--	--
06-03-2010	0901	QC sample - Surface water	Concurrent Replicate	--	--	--	--	--
08-24-2010	0800	Surface water	Regular	760	20.5	.139	.108	7.8

01399545 LAMINGTON RIVER AT LAMINGTON, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 2 of 7

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; 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	Dissolved oxygen, unfiltered, % saturation	pH, water, unfiltered, field, standard units	Specific conductance, water, unfiltered, µS/cm at 25 °C	Temperature, water, °C	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, milligrams per liter	Dissolved solids, water, filtered, sum of constituents, milligrams per liter	Hardness, water, mg/L as CaCO ₃	Suspended solids, water, unfiltered, mg/L
	(00301)	(00400)	(00095)	(00010)	(63676)	(70300)	(70301)	(00900)	(00530)
11-17-2009	84	8.0	319	9.0	1.2	182	E 174	92.9	2
11-17-2009	--	8.0	319	--	1.2	190	164	87.0	< 10
11-17-2009	--	8.0	319	--	1.2	190	163	86.6	< 10
02-09-2010	89	7.7	337	.2	1.5	197	E 177	80.0	< 1
02-09-2010	--	7.7	337	--	1.5	200	163	83.7	E 10
02-09-2010	--	7.7	337	--	1.5	190	161	77.5	< 10
06-03-2010	97	8.0	316	20.0	3.0	191	175	93.5	1
06-03-2010	--	8.0	316	--	3.0	170	163	91.6	< 10
06-03-2010	--	8.0	316	--	3.0	180	163	91.6	< 10
08-24-2010	83	7.9	285	18.4	8.6	162	E 156	76.3	10

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 3 of 7

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; 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	Calcium, water, filtered, mg/L	Magnesium, water, filtered, mg/L	Potassium, water, filtered, mg/L	Sodium, water, filtered, mg/L	ANC, water, unfiltered, fixed endpoint titration, laboratory, mg/L as CaCO ₃	Carbon (inorganic plus organic), suspended sediment, total, mg/L	Chloride, water, filtered, mg/L	Fluoride, water, filtered, mg/L	Inorganic carbon, suspended sediment, total, mg/L	Silica, water, filtered, mg/L as SiO ₂
	(00915)	(00925)	(00935)	(00930)	(90410)	(00694)	(00940)	(00950)	(00688)	(00955)
11-17-2009	22.7	8.82	2.35	25.1	61	E .06	50.2	E .05	< .06	12.4
11-17-2009	21.0	8.40	2.20	24.0	62	--	55.0	.10	--	--
11-17-2009	21.0	8.30	2.20	24.0	62	--	54.0	.09	--	--
02-09-2010	19.3	7.71	1.66	27.2	51	E .07	56.4	E .05	< .06	13.2
02-09-2010	20.0	8.20	1.70	29.0	50	--	53.0	.07	--	--
02-09-2010	18.0	7.90	1.60	28.0	51	--	53.0	.08	--	--
06-03-2010	23.5	8.44	1.12	23.0	66	.40	50.0	.10	< .06	15.5
06-03-2010	22.0	8.90	1.20	24.0	67	--	53.0	.10	--	--
06-03-2010	22.0	8.90	1.20	24.0	66	--	53.0	.10	--	--
08-24-2010	17.9	7.67	2.08	21.3	57	.84	43.0	E .06	< .06	15.1

01399545 LAMINGTON RIVER AT LAMINGTON, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 4 of 7

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; 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	Sulfate, water, filtered,	Ammonia plus organic	Ammonia plus organic	Ammonia, water, filtered,	Nitrate plus nitrite, water, filtered,	Orthophos- phate, water, filtered,	Particulate nitrogen, suspended in water,	Phosphorus, water, filtered, mg/L	Phosphorus, water, unfiltered, mg/L as P
	mg/L (00945)	mg/L as N (00623)	mg/L as N (00625)	mg/L as N (00608)	mg/L as N (00631)	mg/L as P (00671)	mg/L (49570)	as P (00666)	mg/L as P (00665)
11-17-2009	12.8	.21	--	.012	.69	E .009	< .03	.010	.014
11-17-2009	13.0	.20	E .16	< .050	.720	.031	--	< .050	< .050
11-17-2009	13.0	E .17	.15	< .050	.710	.031	--	< .050	< .050
02-09-2010	13.7	E .09	--	.028	1.56	E .009	< .03	E .008	.014
02-09-2010	14.0	< .10	< .10	< .050	1.70	< .010	--	< .050	< .050
02-09-2010	14.0	E .11	< .10	< .050	1.70	< .010	--	< .050	< .050
06-03-2010	9.99	.24	--	< .010	.81	--	E .03	.026	.039
06-03-2010	10.0	< .10	E .19	< .050	.900	.017	--	< .050	.073
06-03-2010	10.0	E .10	E .18	< .050	.900	< .010	--	< .050	< .050
08-24-2010	11.9	.24	--	.018	.66	--	.07	.037	.071

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 5 of 7

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; 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	Total nitrogen, water, filtered,	Total nitrogen, water, unfiltered,	Barium, water, unfiltered,	Beryllium, water, unfiltered,	Cadmium, water, unfiltered,	Chromium, water, unfiltered,	Copper, water, unfiltered,	Iron, water, unfiltered,	Lead, water, unfiltered,	Manganese, water, unfiltered, µg/L
	mg/L (00602)	mg/L (00600)	µg/L (01007)	µg/L (01012)	µg/L (01027)	µg/L (01034)	µg/L (01042)	µg/L (01045)	µg/L (01051)	µg/L (01055)
11-17-2009	.89	< .93	--	--	--	--	--	--	--	--
11-17-2009	.92	E .88	--	--	--	--	--	--	--	--
11-17-2009	E .88	.86	--	--	--	--	--	--	--	--
02-09-2010	E 1.6	< 1.7	21.9	< .04	< .04	< .42	< 1.4	118	.10	13.5
02-09-2010	< 1.8	< 1.8	--	--	--	--	--	--	--	--
02-09-2010	E 1.8	< 1.8	--	--	--	--	--	--	--	--
06-03-2010	1.1	E 1.1	--	--	--	--	--	--	--	--
06-03-2010	< 1.0	E 1.1	--	--	--	--	--	--	--	--
06-03-2010	E 1.0	E 1.1	--	--	--	--	--	--	--	--
08-24-2010	.90	.97	26.2	< .04	E .03	E .39	E 1.1	583	.60	92.0

01399545 LAMINGTON RIVER AT LAMINGTON, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 6 of 7

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; 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	Mercury, water, unfiltered, recover- able, µg/L (71900)	Nickel, water, unfiltered, recover- able, µg/L (01067)	Silver, water, unfiltered, recover- able, µg/L (01077)	Zinc, water, unfiltered, recover- able, µg/L (01092)	Arsenic, water, filtered, µg/L (01000)	Arsenic, water, unfiltered, µg/L (01002)	Boron, water, filtered, µg/L (01020)	Boron, water, unfiltered, recoverable, micrograms per liter (01022)	Selenium, water, unfiltered, µg/L (01147)	Organic carbon, suspended sediment, total, mg/L (00689)
11-17-2009	--	--	--	--	--	--	--	--	--	< .12
11-17-2009	--	--	--	--	--	--	20	--	--	--
11-17-2009	--	--	--	--	--	--	20	--	--	--
02-09-2010	< .010	E .29	< .02	E 1.3	< .22	.26	--	15	.21	< .12
02-09-2010	--	--	--	--	--	--	10	--	--	--
02-09-2010	--	--	--	--	--	--	10	--	--	--
06-03-2010	--	--	--	--	--	--	--	--	--	.40
06-03-2010	--	--	--	--	--	--	20	--	--	--
06-03-2010	--	--	--	--	--	--	20	--	--	--
08-24-2010	< .010	.46	E .01	2.4	.33	.52	--	29	.19	.81

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO
SEPTEMBER 2010

Part 7 of 7

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; 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	Organic carbon, water, filtered, mg/L (00681)
11-17-2009	3.1
11-17-2009	3.8
11-17-2009	4.0
02-09-2010	1.5
02-09-2010	1.6
02-09-2010	1.7
06-03-2010	3.1
06-03-2010	3.4
06-03-2010	3.6
08-24-2010	3.3