

01401400 HEATHCOTE BROOK AT KINGSTON, NJ

LOCATION.--Lat 40°22'10", long 74°36'58", Middlesex County, Hydrologic Unit 02030105, at bridge on Mapleton Road, at abandoned railroad bridge, 0.3 mi south of Kingston, and 0.4 mi upstream from mouth.

DRAINAGE AREA.--9.0 mi².

PERIOD OF RECORD.--Water years 1976-82, 1998 to current year.

REMARKS.--For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. Total nitrogen (00600) equals the sum of dissolved ammonia plus organic nitrogen (00623), dissolved nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570).

COOPERATION.--Concentrations of ammonia in samples collected during November to December and August to September; orthophosphate in every sampling period except February to March; and nitrite, biochemical oxygen demand, total suspended residue, fecal coliform, E. coli, and enterococcus bacteria were determined by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services. Analysis of the split and concurrent replicate samples was performed by the Laboratory Branch of the U.S. Environmental Protection Agency, Region II, Division of Environmental Science and Assessment.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Mixed Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 10.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity	UV	UV	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf uS/cm 25 degC (00095)		
				white light, det ang 90+/-30 correctd NTRU (63676)	absorbance, 254 nm, wat flt units /cm (50624)	absorbance, 280 nm, wat flt units /cm (61726)							
NOV													
16...	0940	Environmental	6.5	3.6	.256	.202	770	12.0	94	6.8	286		
16...	0940	Split Replicate	--	--	--	--	--	--	--	--	--		
16...	0941	Concurrent Replicate	--	--	--	--	--	--	--	--	--		
FEB													
09...	1000	Environmental	24	8.9	.156	.119	760	13.4	98	6.8	568		
09...	1000	Split Replicate	--	--	--	--	--	--	--	--	--		
09...	1001	Concurrent Replicate	--	--	--	--	--	--	--	--	--		
JUN													
02...	1130	Environmental	3.4	5.9	.108	.084	762	8.7	84	6.5	347		
AUG													
16...	0900	Environmental	3.1	3.0	.145	.111	765	7.6	84	6.7	285		
16...	0900	Split Replicate	--	--	--	--	--	--	--	--	--		
16...	0901	Concurrent Replicate	--	2.9	--	--	--	--	--	--	--		
Date	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC,	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)
								wat unf fixed end pt, lab, mg/L as CaCO3 (90410)					
NOV													
16...	9.5	5.7	71	16.4	7.26	2.89	22.3	32	41.4	E.1	13.4	26.7	157
16...	--	--	70	16.0	7.40	3.00	22.0	31	42.0	.08	--	27.0	136
16...	--	--	70	16.0	7.30	3.00	22.0	31	42.0	.08	--	27.0	136
FEB													
09...	4.5	2.4	82	20.0	7.81	2.27	67.4	23	131	E.1	11.6	24.3	282
09...	--	--	80	19.0	8.00	2.60	71.0	21	140	.08	--	24.0	281
09...	--	--	80	19.0	7.90	2.60	70.0	21	140	.08	--	25.0	281
JUN													
02...	13.5	13.6	84	19.0	8.92	2.82	29.5	35	62.2	E.1	13.6	14.9	190
AUG													
16...	23.5	20.4	68	16.4	6.48	3.07	23.6	32	48.4	.1	10.2	15.2	156
16...	--	--	70	16.0	7.40	3.50	24.0	31	48.0	.10	--	15.0	147
16...	--	--	68	15.0	7.50	3.70	25.0	32	48.0	.13	--	15.0	148

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia water, unfltrd mg/L as N (00610)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Total nitro- gen, water, fltrd, mg/L (00602)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)
NOV													
16...	168	1	.37	--	.015	--	1.71	.004	.05	2.1	2.1	.010	.020
16...	180	<10	.48	.33	<.050	<.050	E1.70	<.050	--	--	--	<.010	<.050
16...	190	<10	.48	.17	<.050	<.050	E1.70	<.050	--	--	--	<.010	<.050
FEB													
09...	303	--	.27	--	E.025	--	.83	--	.07	1.1	1.2	<.006	.008
09...	320	<10	.29	.35	<.050	<.050	.870	<.050	--	1.2	1.2	.024	<.050
09...	320	<10	.26	.34	<.050	<.050	.880	<.050	--	1.1	1.2	.025	<.050
JUN													
02...	210	--	.35	--	.083	--	4.08	--	.07	4.4	4.5	E.010	.012
AUG													
16...	166	3	.39	--	.052	--	2.94	--	.03	3.3	3.4	.016	.020
16...	200	<10	.43	.41	<.050	<.050	3.30	<.050	--	3.7	3.7	.018	<.050
16...	200	<10	.60	.41	<.050	<.050	3.30	<.050	--	3.9	3.7	.017	<.050

Date	Phos- phorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)	Sus- pended sediment concentration mg/L (80154)	Sus- pended sediment discharge, tons/d (80155)
NOV									
16...	.034	.3	<.1	.3	5.8	2.3	32	--	--
16...	<.050	--	--	--	7.0	--	30	--	--
16...	<.050	--	--	--	6.8	--	30	--	--
FEB									
09...	.025	.5	<.1	.5	3.6	--	22	9	.60
09...	<.050	--	--	--	4.0	--	20	--	--
09...	<.050	--	--	--	3.8	--	20	--	--
JUN									
02...	.040	1.0	<.1	.9	2.4	<1.0	24	8	.07
AUG									
16...	.037	.2	<.1	.2	3.6	E2.4	32	--	--
16...	<.050	--	--	--	4.0	--	40	--	--
16...	<.050	--	--	--	3.8	--	40	--	--

Remark codes used in this table:

< -- Less than.

E -- Estimated.

WATER-COLUMN BACTERIA ANALYSES

Samples were collected synoptically over a 30-day period during the summer.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, ECbroth water, MPN/ 100 mL (31615)
JUN				
08...	0930	190	300	270
15...	0940	560	800	800
22...	0930	690	700	220
29...	0930	580	1,600	1,300
JUL				
06...	0935	2,500	<100	>16,000

Remark codes used in this table:

< -- Less than.

> -- Greater than.