Water-Data Report 2008

01401400 HEATHCOTE BROOK AT KINGSTON, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°22′10″, long 74°36′58″ referenced to North American Datum of 1983, South Brunswick Township, Middlesex County, NJ, 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.--9.00 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1971-72, 1979-84, 1989, 1991-92, 1998 to current year. Occasional low-flow measurements, water years 1979-84.

GAGE.--Reference point only.

DISCHARGE MEASUREMENTS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Date	Discharge, in ft^3/s
Nov 29, 2007	3.51
Feb 4, 2008	16.5
Jun 2, 2008	3.96
Jun 11, 2008	0.29
Aug 20, 2008	1.68

WATER-QUALITY RECORDS

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

REMARKS.--Cooperative Network Site Descriptor: Mixed Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 10.

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. Analysis of the split and concurrent replicate samples was performed by the Laboratory Branch of the U.S. EPA, Region II, Division of Environmental Science and Assessment.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 1 of 4

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Time	Sample medium and type	Instantaneous discharge, ft3/s (00061)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)
Nov									
29...	0840	Surface water, replicate	3.5	3.1	.156	.122	762	10.2	83
29...	*0840*	*QC - Surface water, split replicate*	--	--	--	--	--	--	--
29...	*0841*	*QC - Surface water, concurrent replicate*	--	--	--	--	--	--	--
Feb									
04...	1115	Surface water, regular	16	11	.188	.146	768	12.7	95
Jun									
02...	1000	Surface water, replicate	4.0	3.1	.153	.117	759	8.0	82
02...	*1000*	*QC - Surface water, split replicate*	--	--	--	--	--	--	--
02...	*1001*	*QC - Surface water, concurrent replicate*	--	--	--	--	--	--	--
Aug									
20...	1100	Surface water, replicate	1.7	1.8	.060	.047	765	9.2	95
20...	*1100*	*QC - Surface water, split replicate*	--	--	--	--	--	--	--
20...	*1101*	*QC - Surface water, concurrent replicate*	--	--	--	--	--	--	--

01401400 HEATHCOTE BROOK AT KINGSTON, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 2 of 4
[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf µS/cm 25 degC (00095)	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, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L as SiO2 (00955)
Nov													
29...	6.6	299	6.5	6.2	79	18.4	7.98	3.18	23.1	34	49.8	<.12	13.5
29...	--	--	--	--	*75*	*17.0*	*7.90*	*3.20*	*23.0*	*34*	*52.0*	*.13*	--
29...	--	--	--	--	*71*	*16.0*	*7.50*	*3.20*	*22.0*	*34*	*52.0*	*.17*	--
Feb													
04...	6.7	258	5.0	3.3	57	13.5	5.72	1.96	24.6	21	43.5	<.12	11.2
Jun													
02...	6.7	325	25.0	16.6	86	20.6	8.31	2.67	24.0	40	51.5	.17	12.5
02...	*6.7*	--	--	--	*86*	*20.0*	*8.80*	*3.00*	*26.0*	*43*	*52.0*	*.09*	--
02...	*6.7*	--	--	--	*90*	*21.0*	*9.20*	*3.00*	*26.0*	*42*	*52.0*	*.10*	--
Aug													
20...	6.7	287	27.0	17.0	75	17.2	7.73	2.88	18.8	27	50.6	<.12	12.6
20...	*6.7*	--	--	--	*73*	*17.0*	*7.50*	*2.70*	*18.0*	*27*	*52.0*	*<.05*	--
20...	*6.7*	--	--	--	*73*	*17.0*	*7.30*	*2.70*	*19.0*	*27*	*52.0*	*<.05*	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 3 of 4
[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total non-filterable, 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)	Nitrate + nitrite water fltrd, mg/L as N (00631)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L as P (00666)
Nov													
29...	18.3	166	179	1	.28	--	.038	2.52	<.04	2.8	--	.012	.011
29...	*17.0*	*151*	*190*	*<10*	*E.44*	*E.83*	*<.050*	*2.40*	--	*E2.8*	*E3.2*	*.063*	*<.050*
29...	*17.0*	*150*	*190*	*<10*	*E.46*	*E.81*	*<.050*	*2.50*	--	*E3.0*	*E3.3*	*.062*	*<.050*
Feb													
04...	22.6	E140	154	3	.26	--	E.009	1.03	.06	1.3	1.3	E.008	.011
Jun													
02...	18.8	174	197	3	.41	--	.074	2.57	.06	3.0	3.0	.014	.024
02...	*17.0*	*164*	*160*	*<10*	*.91*	*E.99*	*.070*	*2.60*	--	*3.5*	*E3.6*	*<.050*	*<.050*
02...	*17.0*	*165*	*200*	*<10*	*.89*	*1.1*	*.069*	*2.60*	--	*3.5*	*3.7*	*<.050*	*<.050*
Aug													
20...	5.27	E154	202	1	.20	--	.027	5.21	E.03	5.4	E5.4	E.009	.011
20...	*5.3*	*142*	*200*	*<10*	*E.10*	*E.11*	*<.050*	*5.30*	--	*E5.4*	*E5.4*	*<.010*	*<.050*
20...	*5.4*	*143*	*220*	*<10*	*<.10*	*<.10*	*<.050*	*5.30*	--	--	--	*<.010*	*<.050*

01401400 HEATHCOTE BROOK AT KINGSTON, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
Part 4 of 4
[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Phos-phorus, water, unfltrd mg/L as P (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)	Boron, water, fltrd, µg/L (01020)
Nov						
29...	.024	.2	<.04	.2	4.1	33
29...	*<.050*	--	--	--	*4.4*	*30*
29...	*<.050*	--	--	--	*4.3*	*30*
Feb						
04...	.032	.5	<.04	.5	4.7	23
Jun						
02...	.051	.4	<.04	.4	3.9	30
02...	*<.050*	--	--	--	*4.1*	*30*
02...	*<.050*	--	--	--	*3.8*	*30*
Aug						
20...	.020	.2	<.04	.2	1.5	17
20...	*<.050*	--	--	--	*2.1*	*20*
20...	*<.050*	--	--	--	*2.1*	*20*