



Water-Data Report 2006

**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 Twp, 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<sup>2</sup>.

**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 2005 TO SEPTEMBER 2006**

<b>Date</b>	<b>Discharge, in ft<sup>3</sup>/s</b>
Nov 2, 2005	4.25
Feb 6, 2006	23.7
May 16, 2006	91.9
Jun 5, 2006	15.8
Aug 7, 2006	2.94

## 01401400 HEATHCOTE BROOK AT KINGSTON, NJ—Continued

## WATER-QUALITY RECORDS

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

REMARKS.--Total nitrogen (00600) equals the sum of filtered ammonia plus organic nitrogen (00623), filtered nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570). Bacteria samples were collected synoptically over a 30-day period during the summer.

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

COOPERATION.--Samples were collected in cooperation with the NJDEP. Bacteria samples were provided by the local county health department under the direction of the NJDEP through the County Environmental Health Act. Determinations of filtered ammonia, filtered orthophosphorus, BOD, total suspended residue, fecal coliform, E. coli, and enterococcus bacteria were performed by the NJ Department of Health and Senior Services. 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 2005 TO SEPTEMBER 2006**

Part 1 of 4

[Remark codes: <, less than; E, estimated.]

Date	Time	Sample type	Instan- taneous dis- charge, cfs (00061)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	UV absorb- ance, 254 nm, wat flt units /cm (50624)	UV absorb- ance, 280 nm, wat flt units /cm (61726)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf 25 degC uS/cm (00095)	Temper- ature, air, deg C (00020)
<b>Nov</b>												
02...	0930	Environmental	4.2	1.5	.123	.094	764	8.1	73	6.1	340	13.0
02...	0930	Split Replicate	--	--	--	--	--	--	--	--	--	--
02...	0931	Concurrent Replicate	--	--	--	--	--	--	--	--	--	--
<b>Feb</b>												
06...	1100	Environmental	24	9.2	.172	.131	757	12.2	94	6.8	278	2.5
<b>May</b>												
16...	1100	Environmental	92	68	.453	.361	752	8.9	87	6.3	171	14.5
<b>Aug</b>												
07...	1000	Environmental	2.9	2.9	.126	.097	757	8.0	88	6.1	304	--

## 01401400 HEATHCOTE BROOK AT KINGSTON, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 2 of 4

[Remark codes: &lt;, less than; E, estimated.]

Date	Temperature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue	Residue	
							fixed end pt, lab, mg/L as CaCO3 (90410)					water, fltrd, mg/L (70301)	on evap. at 180degC wat flt mg/L (70300)	
<b>Nov</b>														
02...	11.0	86	20.2	8.54	3.27	25.5	35	53.9	E.08	15.8	27.5	189	206	
02...	--	83	19.0	8.60	3.60	25.0	35	53.0	.12	--	26.0	170	230	
02...	--	90	21.0	9.00	3.80	26.0	35	53.0	.11	--	26.0	173	230	
<b>Feb</b>														
06...	4.3	54	12.6	5.59	1.77	25.2	23	48.9	E.09	11.2	22.8	146	153	
<b>May</b>														
16...	14.1	33	7.80	3.37	1.84	16.6	19	28.7	E.09	6.8	10.7	89	116	
<b>Aug</b>														
07...	20.0	80	19.0	7.87	3.28	23.0	37	54.0	E.06	12.6	8.79	168	193	

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 3 of 4

[Remark codes: &lt;, less than; E, estimated.]

Date	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia	Ammonia	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Partic- ulate nitro- gen, susp, water, fltrd, 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)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)	Phos- phorus, water, fltrd, mg/L (00666)		
		+ org-N, water, fltrd, mg/L as N (00623)	+ org-N, water, unfltrd mg/L as N (00625)										
<b>Nov</b>													
02...	2	.60	--	.078	--	2.92	--	<.02	3.5	--	.057	--	.074
02...	<10	.59	.74	.076	.078	3.00	<.050	--	3.6	3.7	.057	.05	.060
02...	<10	.80	.47	.077	.080	3.00	<.050	--	3.8	3.5	.057	.05	.062
<b>Feb</b>													
06...	2	.29	--	.022	--	1.00	--	.03	1.3	1.3	E.004	--	.008
<b>May</b>													
16...	58	.56	--	.082	--	.32	--	.35	.88	1.2	.018	--	.171
<b>Aug</b>													
07...	5	.30	--	.018	--	3.92	--	.02	4.2	4.2	.018	--	.013

## 01401400 HEATHCOTE BROOK AT KINGSTON, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 4 of 4

[Remark codes: &lt;, less than; E, estimated.]

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)
<b>Nov</b>							
02...	.094	.2	<.1	.2	6.6	E1.4	34
02...	.076	--	--	--	8.1	--	40
02...	.076	--	--	--	8.0	--	40
<b>Feb</b>							
06...	.026	.3	<.1	.3	4.0	<1.0	20
<b>May</b>							
16...	.160	3.4	<.1	3.4	9.1	E1.9	23
<b>Aug</b>							
07...	.035	.2	<.1	.1	2.7	<1.0	31

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

[Remark codes: &gt;, greater than.]

Date	Time	Temper- ature, water, deg C (00010)	Entero- cocci, 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)
<b>Jun</b>					
07...	0930	17.2	430	600	700
14...	0936	17.6	280	380	220
21...	0925	19.6	200	300	300
28...	0950	22.2	8,000	2,800	>16,000
<b>Jul</b>					
12...	0920	21.0	360	2,600	16,000