

HACKENSACK RIVER BASIN

01377000 HACKENSACK RIVER AT RIVERVALE, NJ

LOCATION.--Lat 40°59'57", long 73°59'21", Bergen County, Hydrologic Unit 02030103, at bridge on Westwood Avenue in Rivervale, 1.5 mi upstream from Pascack Brook, 4.6 mi upstream from Oradell Dam, and 27.2 mi upstream from mouth.

DRAINAGE AREA.--58.0 mi².

PERIOD OF RECORD.--Water years 1962, 1964 to current year.

REMARKS.--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.--Field data and samples for laboratory analyses were provided by the New Jersey Department of Environmental Protection. Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, fecal coliform, E. coli, and enterococcus bacteria was performed by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services. Determination of chlorophyll a was performed by the New Jersey Department of Environmental Protection, Bureau of Freshwater and Biological Monitoring Laboratory.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	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)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf field, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO ₃ (00900)
NOV 19...	0715	32	9.5	0.227	0.174	754	8.3	68	7.7	386	0.0	6.5	110
FEB 25...	0900	94	4.2	0.140	0.105	772	14.3	104	8.0	671	-2.6	2.6	130
MAY 14...	0715	45	4.7	0.114	0.084	744	6.7	66	7.5	617	8.0	13.5	130
AUG 27...	0900	63	6.3	0.139	0.100	759	5.3	64	7.7	457	24.2	24.3	120

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L as CaCO ₃ (90410)	ANC, wat unf fixed end pt, lab, mg/L as CaCO ₃ (90410)	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)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
NOV 19...	34.5	6.47	2.03	28.1	E78	49.9	<0.17	8.4	17.2	--	215	7	0.42
FEB 25...	41.3	7.08	2.06	77.7	E98	136	<0.17	4.7	16.4	--	357	5	0.47
MAY 14...	40.0	7.15	2.00	70.1	84	122	<0.17	3.3	15.1	312	345	7	0.51
AUG 27...	37.4	6.82	1.95	44.2	85	81.9	<0.17	7.4	10.9	243	271	11	0.56

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	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)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, water, susp, water, mg/L (49570)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sediment total, mg/L (00694)	Inorganic carbon, suspnd sediment total, mg/L (00688)	Organic carbon, suspnd sediment total, mg/L (00689)
NOV 19...	<0.030	<0.030	0.58	0.004	<0.020	0.44	0.016	0.077	1.0	1.4	2.2	<0.1	2.2
FEB 25...	0.125	0.140	0.61	0.009	0.026	0.09	0.014	0.033	1.1	1.2	0.7	<0.1	0.7
MAY 14...	0.133	0.165	0.46	0.015	<0.020	0.09	0.019	0.043	0.97	1.1	0.6	<0.1	0.6
AUG 27...	0.129	0.115	0.35	0.041	0.023	0.17	0.034	0.069	0.91	1.1	1.3	<0.1	1.2

01377000 HACKENSACK RIVER AT RIVERVALE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Chlorophyll a fluorometric method, corrcrd ug/L (32209)	Boron, water, fltrd, ug/L (01020)
NOV 19...	6.8	E1.6	--	54
FEB 25...	4.8	E1.9	--	50
MAY 14...	4.2	<1.1	11.7	41
AUG 27...	5.5	E1.3	11.1	57

Remark codes used in this table:

< -- Less than
 E -- Estimated value

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Enter-	Fecal			Date	Time	Enter-	Fecal		
		cocci, m-E	E coli, m-TEC	coliform, MF,	ECbroth			cocci, m-E	E coli, m-TEC	coliform, MF,	ECbroth
		100 mL (31649)	100 mL (31633)	100 mL (31615)				100 mL (31649)	100 mL (31633)	100 mL (31615)	
JUN 30...	1123	100	200	80		JUL 14...	1127	150	<100	220	
JUL 07...	1124	250	200	230		21...	1137	90	11,000	40	
						28...	1057	120	<100	300	

Remark codes used in this table:

< -- Less than

HACKENSACK RIVER BASIN

01378475 DOROTOCKEYS RUN AT HARRINGTON PARK, NJ

LOCATION.--Lat 40°59'14", long 73°58'29", Bergen County. Hydrologic Unit 02030103, at bridge on Tappan Road, 0.3 mi east of Harrington Park, 0.4 mi upstream of Oradell Reservoir, and 1.3 mi southwest of Cloister.

DRAINAGE AREA.--4.10 mi².

PERIOD OF RECORD.--December 2002 to September 2003.

REMARKS.--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.--Field data and samples for laboratory analyses were provided by the New Jersey Department of Environmental Protection. Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, fecal coliform, E. coli, and enterococcus bacteria was performed by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services. Determination of chlorophyll a was performed by the New Jersey Department of Environmental Protection, Bureau of Freshwater and Biological Monitoring Laboratory.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Tur-bidity, water, unfltrd field, NTU (61028)	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 (000300)	Disolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf uS/cm 25 degC (00095)	Temper-ature, air, deg C (00020)	Temper-ature, water, deg C (00010)	Hard-ness, water, unfltrd mg/L as CaCO ₃ (00900)	Calcium water, fltrd, mg/L (00915)
DEC 12...	1030	12	0.369	0.297	764	11.9	86	7.2	490	10.0	2.0	91	27.6
FEB 05...	1030	8.2	0.099	0.074	760	13.4	99	7.6	1,080	5.5	2.5	250	77.9
MAY 29...	1030	7.2	0.170	0.129	753	7.5	74	7.7	597	24.5	14.1	200	61.9
SEP 02...	1030	40	0.228	0.171	766	7.7	81	7.6	251	16.0	17.8	84	25.9

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Magnes-iumpotas-sium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L as CaCO ₃ (90410)	ANC, wat unf fixed end pt, lab, mg/L (00930)	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 water, fltrd, sum of constituents, mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)
DEC 12...	5.47	2.59	58.1	E51	104	<0.17	6.3	12.3	--	275	9	0.50	0.104
FEB 05...	14.5	2.03	111	157	218	<0.17	12.6	25.3	564	601	6	0.31	<0.030
MAY 29...	11.6	2.31	33.1	162	72.4	<0.17	16.5	21.7	325	368	2	0.67	0.217
SEP 02...	4.76	2.38	14.0	60	26.4	<0.17	6.8	12.7	134	150	56	0.95	0.141

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	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)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Partic-u-late nitro-geen, susp, water, fltrd, mg/L (49570)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-geen, water, fltrd, mg/L (00602)	Total nitro-geen, water, unfltrd mg/L (00600)	Total carbon, suspnd sediment total, mg/L (00694)	Total carbon, suspnd sediment total, mg/L (00688)	Inor-ganic carbon, suspnd sediment total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
DEC 12...	0.094	0.77	0.006	0.101	0.15	0.111	0.150	1.3	1.4	1.1	<0.1	1.1	9.9
FEB 05...	0.032	1.96	0.017	0.023	0.07	0.011	0.035	2.3	2.3	0.6	<0.1	0.6	3.5
MAY 29...	0.238	1.70	0.081	0.036	0.08	0.043	0.085	2.4	2.5	0.7	<0.1	0.7	5.0
SEP 02...	0.130	0.96	0.031	0.076	0.25	0.093	0.20	1.9	2.1	2.3	<0.1	2.3	6.8

01378475 DOROTOCKEYS RUN AT HARRINGTON PARK, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Chloro- phyll a fluoro- metric method, corrcrd ug/L (32209)	Boron, water, fltrd, ug/L (01020)
DEC 12...	2.4	--	27
FEB 05...	E1.4	--	50
MAY 29...	<1.0	6.90	63
SEP 02...	3.0	4.80	38

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryll- ium, water, unfltrd recover -able, ug/L (01007)	Boron, water, unfltrd recover -able, ug/L (01012)	Cadmium water, unfltrd ug/L (01022)	Chrom- ium, water, unfltrd recover -able, ug/L (01027)	Copper, water, unfltrd recover -able, ug/L (01034)	Iron, water, unfltrd recover -able, ug/L (01042)	Lead, water, unfltrd recover -able, ug/L (01051)	Mangan- ese, water, unfltrd recover -able, ug/L (01055)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, unfltrd recover -able, ug/L (01067)
SEP 02...	1030	E2	97.7	E.05	44	0.06	1.6	7.8	1,330	4.02	146	E.01	3.45

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Selenium, water, unfltrd (01147)	Silver, water, recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
SEP 02	0.6	<0.16	13

Remark codes used in this table:

<-- Less than

E -- Estimated value

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

HACKENSACK RIVER BASIN

01378475 DOROTOCKEYS RUN AT HARRINGTON PARK, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane water unf L ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta-+ para-Xylene, water, unfltrd ug/L (85795)	^o -Xylene, water, unfltrd ug/L (77135)	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)
FEB 05...	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.2	<0.1	<0.1	<0.1	0.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)
FEB 05...	0.3	<0.2	<0.1	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2

Remark codes used in this table:

< -- Less than

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2001 (listed in its entirety, with laboratory reporting levels, in "Laboratory Measurements" in the Explanation of Water-Quality Records section of this report). Only pesticides detected in one or more surface-water samples are listed in the following table.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	2,6-Di-ethyl-aniline water fltrd ug/L (82660)	CIAT, water, fltrd ug/L (04040)	Aceto-chlor, water, fltrd ug/L (49260)	Ala-chlor, water, fltrd ug/L (46342)	alpha-HCH, water, fltrd ug/L (34253)	Atra-zine, water, fltrd ug/L (39632)	Azin-phos-methyl, water, fltrd ug/L (82686)	Ben-flur-alin, water, fltrd ug/L (82673)	Butyl-ate, water, fltrd ug/L (04028)	Car-baryl, water, fltrd ug/L (82680)	Car-bo-furan, water, fltrd ug/L (82674)	cis-Per-methrin water fltrd ug/L (82687)
MAY 29...	1030	<0.006	E.003	<0.006	<0.004	<0.005	E.006	<0.050	E.005	<0.002	E.111	<0.020	<0.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	DCPA, water fltrd ug/L (82682)	Desulf-inyl fipronil, water, fltrd ug/L (62170)	Diazi-non, water, fltrd ug/L (39572)	Diel-drin, water, fltrd ug/L (39381)	EPTC, water, fltrd ug/L (82668)	Desulf-inyl fipronil, amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd ug/L (62167)	Fipro-nil sulfone water, fltrd ug/L (62168)	Fipro-nil water, fltrd ug/L (62166)	Fipro-nil water, fltrd ug/L (62166)	Malathion, water, fltrd ug/L (39532)	Metola-chlor, water, fltrd ug/L (39415)	Naprop-amide, water, fltrd ug/L (82630)
MAY 29...	<0.003	<0.004	0.009	<0.005	<0.002	<0.009	<0.005	<0.005	<0.007	E.006	E.001	<0.006	<0.007

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pendi-meth-alin, water, fltrd ug/L (82683)	Prome-ton, water, fltrd ug/L (04037)	Sima-zine, water, fltrd ug/L (04035)	Tebu-thiuron water fltrd ug/L (82670)	Terba-cil, water, fltrd ug/L (82665)	Tri-flur-alin, water, fltrd ug/L (82661)
MAY 29...	<0.022	E.01	0.006	<0.02	<0.034	E.003

Remark codes used in this table:

< -- Less than

E -- Estimated value

01378475 DOROTOCKEYS RUN AT HARRINGTON PARK, NJ—Continued

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

		Enter-	cocci,	E coli,	Fecal		Enter-	cocci,	E coli,	Fecal
Date	Time	m-E	m-TEC	MF,	form,	MF,	m-E	MF,	water,	coli-
		water,	water,	water,	ECbroth	water,	water,	water,	water,	MPN/
		col/	col/	col/	MPN/	col/	col/	col/	col/	
		100 mL	100 mL	100 mL			100 mL	100 mL	100 mL	
		(31649)	(31633)	(31615)			(31649)	(31633)	(31615)	
JUN						JUL				
30...	1130	1,260	700	700		14...	1134	880	<100	700
JUL						21...	1144	370	1,100	500
07...	1131	320	600	1,100		28...	1103	720	1,200	3,000

Remark codes used in this table:

< -- Less than

HACKENSACK RIVER BASIN

01378560 COLES BROOK AT HACKENSACK, NJ

LOCATION.--Lat 40°54'40", long 74°02'25", Bergen County, Hydrologic Unit 02030103, at bridge on Main Street in Hackensack, 0.8 mi above mouth, and 1.9 mi northwest of Teaneck.

DRAINAGE AREA--7.0 mi².

PERIOD OF RECORD.--Water years 1962, 1965, 1967, 1998 to current year.

REMARKS.--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.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, fecal coliform, E. coli, and enterococcus bacteria was performed by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services. Determination of chlorophyll a was performed by the New Jersey Department of Environmental Protection, Bureau of Freshwater and Biological Monitoring Laboratory.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Disolved oxygen, mg/L (00300)	Disolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf 25 degC uS/cm (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)
NOV 14...	1050	4.0	4.3	0.420	0.348	763	8.4	72	7.4	401	7.5	8.5	140
FEB 03...	1040	3.4	4.7	0.057	0.041	760	13.1	98	7.6	977	7.5	2.8	240
MAY 29...	1050	5.4	4.7	0.137	0.103	754	7.7	77	7.5	664	19.2	15.1	190
AUG 06...	1150	19	14	0.202	0.155	759	6.9	80	6.8	188	26.0	22.4	54

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	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 fixed end pt, lab, mg/L as CaCO3 (90410)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, at 180degC wat flt mg/L (70300)	Residue on evap. at 105 deg. C, sus-pended mg/L (00530)	Residue total at 105 deg. C, sus-pended mg/L as N (00623)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
NOV 14...	42.8	8.95	3.51	24.0	107	51.7	<0.17	10.6	17.5	225	259	7	0.49
FEB 03...	73.9	14.4	2.08	87.5	145	183	<0.17	12.7	27.7	498	520	<1	0.31
MAY 29...	58.9	11.1	2.47	43.5	136	104	<0.17	14.3	23.5	346	383	2	0.54
AUG 06	16.9	2.86	2.11	12.2	38	22.1	<0.17	5.4	10.9	100	112	10	0.58

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

			Nitrite + nitrate	Ortho- phosphate, water, fltrd, mg/L as P (00613)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd, mg/L (00665)	Total nitro- gen, water, fltrd, mg/L (00602)	Total nitro- gen, water, unfltrd, mg/L (00600)	Total carbon, susnd sedimnt total, mg/L (00694)	Inor- ganic carbon, susnd sediment total, mg/L (00688)	Organic carbon, susnd sediment total, mg/L (00689)	
Date	Ammonia water, fltrd, mg/L as N (00608)	Ammonia water, unfltrd mg/L as N (00610)	Nitrite water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phosphate, water, fltrd, mg/L as P (00671)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd, mg/L (00665)	Total nitro- gen, water, fltrd, mg/L (00602)	Total nitro- gen, water, unfltrd, mg/L (00600)	Total carbon, susnd sedimnt total, mg/L (00694)	Inor- ganic carbon, susnd sediment total, mg/L (00688)	Organic carbon, susnd sediment total, mg/L (00689)
NOV 14...	<0.030	<0.030	0.23	<0.003	0.074	0.15	0.100	0.156	0.72	0.88	0.8	<0.1	0.8
FEB 03...	0.101	0.108	2.16	0.025	0.022	0.05	0.007	0.028	2.5	2.5	0.4	<0.1	0.4
MAY 29...	0.215	0.193	1.42	0.068	0.020	0.77	0.026	0.069	2.0	2.7	5.5	<0.1	5.5
AUG 06...	0.195	0.202	0.92	0.028	0.077	0.11	0.072	0.130	1.5	1.6	1.0	<0.1	1.0

01378560 COLES BROOK AT HACKENSACK, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Chlorophyll a fluorometric method, corrtcd ug/L (32209)	Boron, water, fltrd, ug/L (01020)
NOV 14...	11.1	4.2	--	35
FEB 03...	2.2	E1.1	--	36
MAY 29...	4.1	<1.0	4.70	40
AUG 06...	6.0	E1.5	2.60	24

Remark codes used in this table:

< -- Less than
 E -- Estimated value

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Enter-	Fecal	Date	Time	Enter-	E coli,	Fecal
		cocci, m-E	E coli, m-TEC			cocci, m-E	m-TEC	coli- form, ECbroth
		MF, water, col/	MF, water, col/			MF, water, col/	m-TEC	coli- form, ECbroth
		water, col/	water, col/			water, col/	ECbroth	water, MPN/
Date	Time	100 mL (31649)	100 mL (31633)	100 mL (31615)			100 mL (31649)	100 mL (31633)
JUL 07...	1103	360	500	3,000		AUG 05...		
14...	1101	480	1,100	1,300		1215	5,300	11,000
21...	1116	5,000	11,000	>16000				>16000
28...	1036	1,200	500	5,000				

Remark codes used in this table:

> -- Greater than

PASSAIC RIVER BASIN

01378780 PRIMROSE BROOK AT MORRISTOWN NATIONAL HISTORICAL PARK, NJ

LOCATION.--Lat 40°45'54", long 74°31'47", Morris County, Hydrologic Unit 02030103, at bridge on Camp Trail Road in Morristown National Historical Park, 20 ft downstream of unnamed tributary, 500 ft west of Mount Kemble, and 2.4 mi northeast of Bernardsville.

DRAINAGE AREA.--1.07 mi².

PERIOD OF RECORD.--Water years 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 Surface-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). Additional data for this site are presented in "Morristown National Historical Park" in the Water-Quality at Special-Study Sites section of this report.

COOPERATION.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, fecal coliform, E. coli, and enterococcus bacteria was performed by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services. Determination of chlorophyll a was performed by the New Jersey Department of Environmental Protection, Bureau of Freshwater and Biological Monitoring Laboratory.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Background, New Jersey Department of Environmental Protection Watershed Management Area 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	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)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf field, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO ₃ (00900)
DEC 16...	1110	1.4	0.8	0.063	0.049	741	12.1	97	7.5	98	2.0	5.0	33
MAR 04...	1310	1.3	0.7	0.042	0.033	737	12.9	97	7.5	97	4.0	2.3	34
MAY 20...	1310	1.3	2.5	0.043	0.035	756	10.0	95	7.2	118	--	13.0	41
AUG 26...	1030	0.98	5.0	0.055	0.044	749	9.2	96	6.8	136	21.0	16.6	45

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Calcium water, fltrd, mg/L (00915)	Magnesium water, fltrd, mg/L (00925)	Potassium water, fltrd, mg/L (00935)	Sodium water, fltrd, mg/L as CaCO ₃ (90410)	ANC, wat unf fixed end pt, lab, mg/L as CaCO ₃ (90410)	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)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
DEC 16...	8.26	3.11	0.64	4.01	E26	3.44	<0.17	21.6	13.7	--	81	<1	E.10
MAR 04...	8.26	3.23	0.54	4.25	32	4.54	<0.17	20.5	14.1	76	77	<1	E.09
MAY 20...	10.2	3.72	0.71	5.54	30	5.89	<0.17	24.1	14.6	85	91	3	0.12
AUG 26...	11.0	4.32	0.72	6.04	37	7.86	<0.17	26.2	13.7	94	105	15	0.10

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	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)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, water, susp, mg/L (49570)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sediment total, mg/L (00694)	Inorganic carbon, suspnd sediment total, mg/L (00688)	Organic carbon, suspnd sediment total, mg/L (00689)
DEC 16...	<0.030	<0.030	0.15	<0.003	<0.020	<0.02	E.002	0.007	--	--	<0.1	<0.1	<0.1
MAR 04...	<0.030	<0.030	0.30	<0.003	<0.020	<0.02	E.003	0.005	--	--	<0.1	<0.1	<0.1
MAY 20...	<0.030	<0.030	0.36	<0.030	<0.020	0.05	0.009	0.016	0.49	0.54	0.6	<0.1	0.6
AUG 26...	<0.020	<0.020	0.37	<0.003	<0.020	0.05	0.013	0.025	0.47	0.52	1.0	<0.1	1.0

01378780 PRIMROSE BROOK AT MORRISTOWN NATIONAL HISTORICAL PARK, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Chlorophyll a fluorometric method, corrted ug/L (32209)	Boron, water, fltrd, ug/L (01020)
DEC 16...	1.9	E1.7	--	E8.7
MAR 04...	1.4	<1.0	--	<13
MAY 20...	1.2	2.1	2.70	E8.0
AUG 26...	1.6	E1.3	0.300	8.1

Remark codes used in this table:

< -- Less th

E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryll- ium, water, unfltrd recover -able, ug/L (01012)	Boron, water, unfltrd recover -able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, unfltrd recover -able, ug/L (01034)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover -able, ug/L (01042)	Iron, water, unfltrd recover -able, ug/L (01045)
AUG 26...	1028	Sampler Blank	--	--	--	--	--	--	--	--	--
26...	1029	Field Blank	--	--	--	--	--	<0.2	--	--	--
26...	1030	Environmental	<2	13.1	<0.06	E7	<0.04	<0.8	--	0.9	370

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

		Mangan-		Mercury		Nickel,		Selen-		Silver,		Zinc,
		Lead,	ese,	water,		water,		ium,	water,	water,		water,
Date	Lead, water, fltrd, ug/L (01049)	water, unfltrd recover -able, ug/L (01051)	water, unfltrd recover -able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	water, unfltrd recover -able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	water, unfltrd recover -able, ug/L (01067)	ug/L (01147)	water, unfltrd recover -able, ug/L (01077)	water, fltrd, ug/L (01090)	water, unfltrd recover -able, ug/L (01092)	water,
AUG												
26...	--	--	--	--	--	--	--	--	--	<1	--	--
26...	<0.08	--	--	<0.02	--	<0.06	--	--	--	M	--	--
26...	--	0.55	25.0	--	<0.02	--	1.05	0.7	<0.16	--	3	

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003