

## 01367625 WALLKILL RIVER AT SPARTA, NJ

LOCATION.--Lat 41°02'25", long 74°37'47", Sussex County, Hydrologic Unit 02020007, 0.4 mi northeast of Sparta, 1.2 mi downstream of outlet of Lake Mohawk, and 1.8 mi east of Fox Hollow Lake.

DRAINAGE AREA.--5.88 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 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). Measurements made to verify calibration of continuous-record water-quality sensors met the recalibration criteria; therefore, the data were not adjusted. Recalibration criteria are listed in "Accuracy of Records" in the Explanation of Water-Quality Records 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.--Urban Land Use Indicator and Watershed Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 2.

## 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 unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)
NOV 05...	1100	4.6	2.8	0.080	0.059	747	12.7	107	7.4	700	7.0	7.0	200
MAR 03...	1220	20	3.8	0.073	0.054	752	12.8	96	7.9	784	-7.0	2.7	170
MAY 19...	1310	5.8	3.1	0.057	0.041	760	9.8	101	8.1	784	29.0	16.8	190
AUG 13...	0950	34	12	0.107	0.079	750	7.9	96	8.0	622	26.5	25.4	160

## 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 (00930)	ANC, wat unfltrd 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 (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
NOV 05...	47.3	20.0	1.54	64.8	137	127	<0.17	5.7	16.2	367	380	<1	0.33
MAR 03...	41.3	16.2	1.50	80.7	136	155	<0.17	4.6	15.8	399	412	<1	0.31
MAY 19...	46.2	18.8	1.69	73.4	132	151	<0.17	4.3	16.7	394	423	7	0.36
AUG 13...	38.7	15.5	1.68	59.3	116	114	<0.17	4.2	11.0	315	368	14	0.37

## 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, 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 sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)
NOV 05...	<0.030	0.032	0.47	0.012	<0.020	0.10	0.011	0.024	0.80	0.91	0.9	<0.1	0.8
MAR 03...	0.078	0.067	0.46	0.005	<0.020	0.08	0.007	0.024	0.77	0.85	0.6	<0.1	0.6
MAY 19...	<0.030	<0.030	0.58	0.017	0.023	0.10	0.023	0.046	0.94	1.0	0.8	<0.1	0.8
AUG 13...	0.060	0.062	0.16	0.007	0.020	0.48	0.016	0.063	0.54	1.0	3.9	<0.1	3.9

01367625 WALLKILL RIVER AT SPARTA, 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, corrcd ug/L (32209)	Boron, water, fltrd, ug/L (01020)
NOV 05...	3.6	E1.3	--	24
MAR 03...	3.3	<1.0	--	15
MAY 19...	2.4	E1.3	5.10	19
AUG 13...	4.4	2.5	49.8	28

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

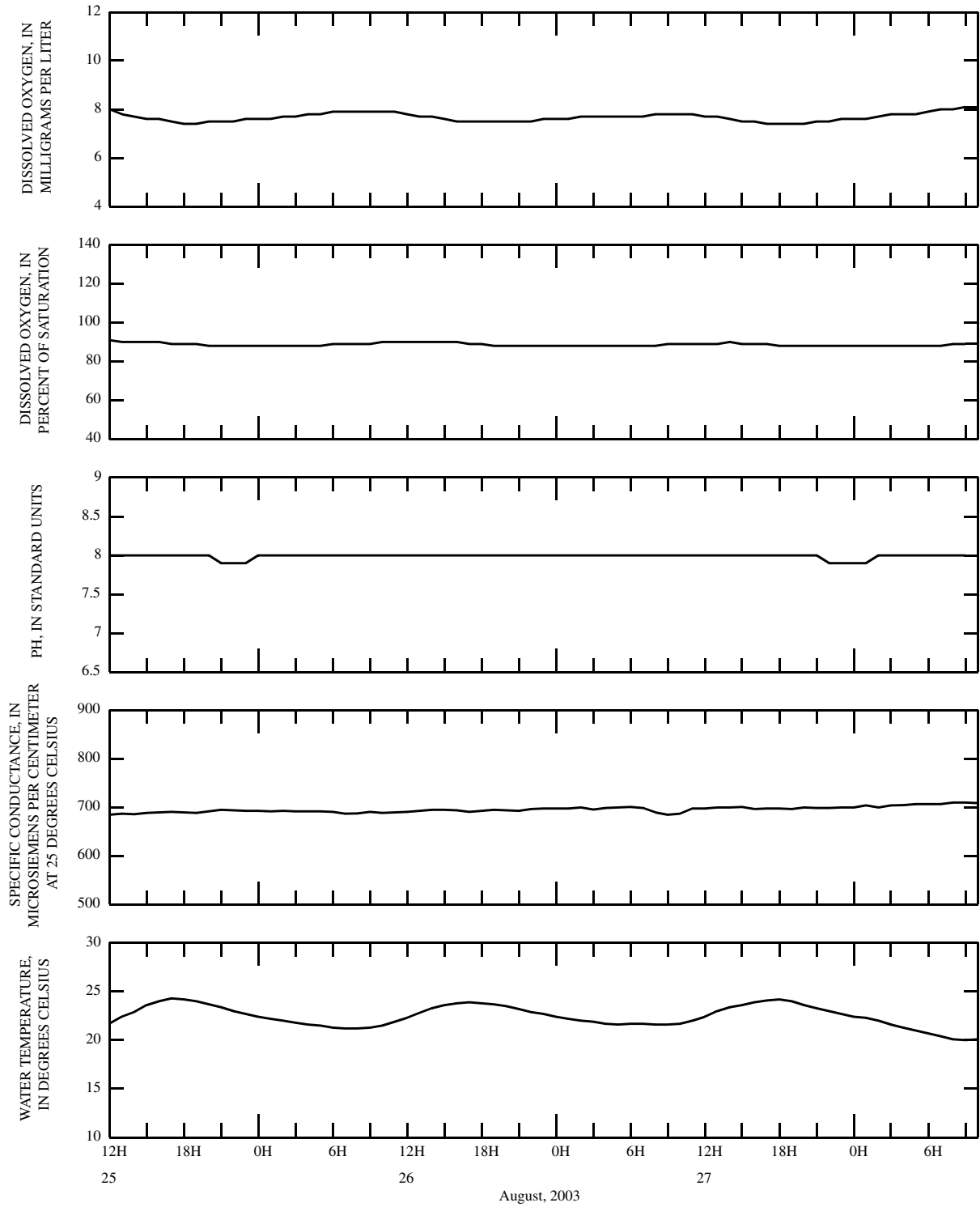
Date	Time	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)	Date	Time	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)
AUG 13...	1220	190	<100	70	SEP 03...	1145	650	400	1,300
20...	1130	140	800	300	10...	1230	60	100	230
27...	1235	140	700	800					

Remark codes used in this table:  
 < -- Less than

HUDSON RIVER BASIN

01367625 WALLKILL RIVER AT SPARTA, NJ—Continued

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



**Figure 28.** Reconnaissance Study--Physical characteristics and concentrations of constituents at 01367625 Wallkill River at Sparta, water year 2003.

## 01367770 WALLKILL RIVER NEAR SUSSEX, NJ

LOCATION.--Lat 41°11'38", long 74°34'31", Sussex County, Hydrologic Unit 02020007, at bridge on Glenwood Road, 0.6 mi upstream from Papakating Creek, 1.7 mi southwest of Independence Corner, and 2.0 mi southeast of Sussex.

DRAINAGE AREA.--60.8 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1976 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). Measurements made to verify calibration of continuous-record water-quality sensors met the recalibration criteria; therefore, the data were not adjusted. Recalibration criteria are listed in "Accuracy of Records" in the Explanation of Water-Quality Records 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.--Watershed Integrator and Watershed Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 2.

## 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 unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)
NOV 05...	1240	36	1.6	0.141	0.108	747	12.1	99	7.7	621	7.5	6.0	220
FEB 05...	1200	97	3.5	0.102	0.079	750	13.9	99	7.9	631	3.0	0.7	210
MAY 22...	1100	57	2.4	0.128	0.097	758	8.3	82	7.8	598	12.5	14.3	210
AUG 27...	1240	38	1.7	0.129	0.098	748	8.5	98	7.7	675	30.0	21.4	260

## 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 (00930)	ANC, wat unfltrd 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 (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
NOV 05...	51.9	21.3	2.35	42.6	163	80.1	<0.17	8.0	27.2	339	351	5	0.38
FEB 05...	49.0	20.4	1.81	42.9	157	84.7	<0.17	7.2	20.6	326	342	1	0.32
MAY 22...	49.8	20.8	1.67	42.2	168	79.3	<0.17	5.8	14.2	318	329	2	0.43
AUG 27...	58.4	26.7	2.58	44.0	215	80.1	<0.17	9.3	14.6	370	366	7	0.40

## 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, 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 sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)
NOV 05...	<0.030	<0.030	1.69	<0.003	<0.020	<0.02	0.018	0.030	2.1	--	0.6	<0.1	0.6
FEB 05...	0.051	0.032	1.06	0.069	<0.020	0.04	0.012	0.026	1.4	1.4	0.4	<0.1	0.4
MAY 22...	<0.030	<0.030	0.85	0.010	--	0.03	0.022	0.036	1.3	1.3	0.4	<0.1	0.4
AUG 27...	0.036	0.045	1.24	0.009	0.031	<0.02	0.041	0.050	1.6	--	0.2	<0.1	0.2

## HUDSON RIVER BASIN

01367770 WALLKILL RIVER NEAR SUSSEX, 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, corrcd ug/L (32209)	Boron, water, fltrd, ug/L (01020)
NOV 05...	5.0	E1.2	--	36
FEB 05...	3.3	E1.0	--	15
MAY 22...	3.7	E2.0	3.50	19
AUG 27...	3.6	<1.0	1.20	32

Remark codes used in this table:

&lt; -- 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

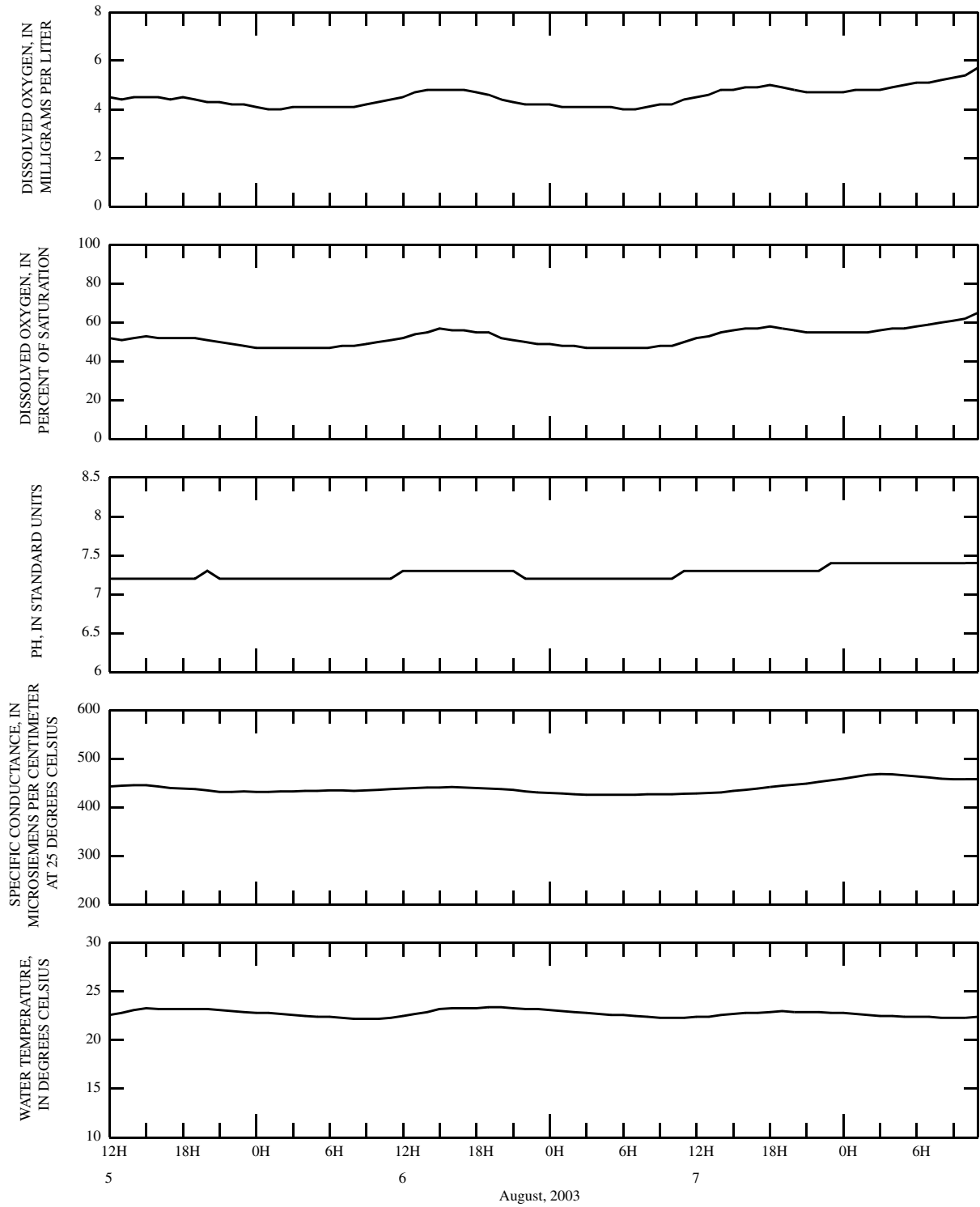
Date	Time	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)	Date	Time	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)
AUG 13...	1120	380	<100	170	SEP 03...	1055	740	100	400
20...	1107	270	<100	70	10...	1116	80	<100	230
27...	1145	40	300	300					

Remark codes used in this table:

&lt; -- Less than

01367770 WALLKILL RIVER NEAR SUSSEX, NJ—Continued

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



**Figure 29.** Reconnaissance Study--Physical characteristics and concentrations of constituents at 01367770 Wallkill River at Sussex, water year 2003.

## 01367800 PAPAKATING CREEK AT PELLETOWN, NJ

LOCATION.--Lat 41°09'45", long 74°40'30", Sussex County, Hydrologic Unit 02020007, at bridge on County Route 565 in Pelletown, 1.5 mi southeast of Wykertown, and 4.8 mi upstream of confluence with West Branch.

DRAINAGE AREA.--15.8 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1959-63, 1999 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.--Agricultural Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 2.

## 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 unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)
NOV 05...	1340	7.0	0.9	0.132	0.098	747	14.4	117	7.8	419	8.0	5.5	130
MAR 03...	1000	138	5.2	0.139	0.107	752	13.2	92	6.4	295	-7.0	0.0	71
MAY 19...	1040	6.8	2.2	0.143	0.107	760	11.1	102	7.7	405	21.0	11.7	140
AUG 27...	1330	6.6	2.1	0.157	0.119	730	9.4	109	7.9	436	28.5	20.3	170

## 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 (00930)	ANC, wat unfltrd 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 (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 05...	42.5	6.06	1.83	24.1	E65	53.9	<0.17	7.4	47.7	--	259	1	0.25
MAR 03...	22.5	3.59	1.74	22.8	42	47.1	<0.17	6.1	18.5	152	168	3	0.35
MAY 19...	45.2	6.08	1.24	25.1	95	49.0	<0.17	6.8	21.0	217	242	9	0.36
AUG 27...	56.0	7.58	1.74	23.8	121	46.4	<0.17	10.8	19.1	244	264	1	0.34

## 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, 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 sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)
NOV 05...	<0.030	<0.030	0.57	<0.003	<0.020	0.07	0.011	0.014	0.82	0.89	0.2	<0.1	0.2
MAR 03...	0.056	0.058	0.88	0.005	0.023	0.06	0.024	0.040	1.2	1.3	1.1	<0.1	1.1
MAY 19...	<0.030	<0.030	1.30	0.014	<0.020	0.03	0.018	0.027	1.7	1.7	0.2	<0.1	0.2
AUG 27...	0.024	0.028	1.46	0.006	<0.020	0.04	0.018	0.033	1.8	1.8	0.3	<0.1	0.3

01367800 PAPA KATING CREEK AT PELLETTOWN, 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, corrctd ug/L (32209)	Boron, water, fltrd, ug/L (01020)
NOV 05...	4.6	E1.1	--	E8.6
MAR 03...	3.9	<1.0	--	<13
MAY 19...	3.7	<1.1	2.70	13
AUG 27...	4.0	<1.0	1.30	15

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	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)	Date	Time	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)
AUG 13...	1145	260	200	230	SEP 03...	1115	1,380	1,100	800
20...	1126	330	<100	1,100	10...	1133	130	<100	700
27...	1210	240	500	260					

Remark codes used in this table:  
 < -- Less than



## 01367880 CLOVE BROOK TRIBUTARY AT ROSE MORROW ROAD, NEAR COLESVILLE, NJ

LOCATION.--Lat 41°15'41", long 74°37'26", Sussex County, Hydrologic Unit 02020007, on bridge at Rose Morrow Road, 0.2 mi upstream of Clove Brook, 1.6 mi southeast of Colesville, and 2.2 mi northeast of Libertyville.

DRAINAGE AREA.--4.46 mi<sup>2</sup>.

PERIOD OF RECORD.--November 2002 to August 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, total ammonia + organic nitrogen in bed sediment, total phosphorus in bed sediment, 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 2.

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

Date	Time	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 unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
NOV 14...	1100	7.0	0.140	0.107	751	10.1	82	7.3	280	8.0	6.0	94	30.4
MAR 11...	1100	5.0	0.066	0.050	755	12.8	89	7.1	247	0.0	0.3	68	21.4
MAY 07...	1100	5.5	0.118	0.091	747	11.3	108	7.4	251	19.0	12.4	79	25.4
AUG 14...	0930	11	0.233	0.178	756	6.6	71	7.2	280	25.0	18.7	100	29.5

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

Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd 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 (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)
NOV 14...	4.42	2.79	14.0	51	29.2	<0.17	7.9	28.8	154	158	11	0.34	0.040
MAR 11...	3.44	2.00	15.1	31	36.9	<0.17	6.9	16.5	129	149	7	0.27	0.067
MAY 07...	3.83	1.66	14.2	51	31.5	<0.17	5.5	15.8	133	141	7	0.29	<0.030
AUG 14...	4.57	4.52	15.3	67	29.1	<0.17	9.9	14.6	160	178	20	1.8	0.078

## 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)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, 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 sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
NOV 14...	0.041	1.33	0.007	0.053	0.07	0.062	0.098	1.7	1.7	0.5	<0.1	0.5	3.9
MAR 11...	0.073	1.88	0.006	0.033	0.08	0.028	0.050	2.1	2.2	0.5	<0.1	0.5	2.3
MAY 07...	<0.030	0.92	0.006	0.046	0.08	0.048	0.089	1.2	1.3	0.5	<0.1	0.5	2.9
AUG 14...	0.098	1.68	0.016	0.127	0.11	0.143	0.23	3.4	3.5	1.0	<0.1	1.0	7.2

01367880 CLOVE BROOK TRIBUTARY AT ROSE MORROW ROAD, NEAR COLESVILLE, NJ—Continued

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

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Chlorophyll a fluorometric method, corrctd ug/L (32209)	Boron, water, fltrd, ug/L (01020)
NOV 14...	2.0	--	17
MAR 11...	E1.3	--	<13
MAY 07...	<1.0	10.4	18
AUG 14...	E1.1	2.60	37

Remark codes used in this table:  
 < -- Less than  
 E -- Estimated value

WATER-COLUMN AND BED-MATERIAL TRACE-ELEMENT ANALYSES

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

Date	Time	pH bed sedimnt std units (70310)	Ammonia + org-N, bed sed total, mg/kg as N (00626)	Phosphorus, bed sedimnt total, mg/kg (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inorganic carbon, bed sedimnt total, g/kg (00686)	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryllium, water, unfltrd recover -able, ug/L (01012)	Boron, water, unfltrd recover -able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover -able, ug/L (01034)	Copper, water, unfltrd recover -able, ug/L (01042)
AUG 14...	0930	--	--	--	--	--	E1	12.9	<0.06	29	<0.04	E.5	2.3
14...	0930	6.86	4,600	51,000	36	2.1	--	--	--	--	--	--	--

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

Date	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, unfltrd recover -able, ug/L (01051)	Manganese, water, unfltrd recover -able, ug/L (01055)	Mercury, water, unfltrd recover -able, ug/L (71900)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)	Arsenic bed sedimnt total, ug/g (01003)	Cadmium bed sedimnt recover -able, ug/g (01028)	Chromium, bed sedimnt recover -able, ug/g (01029)	Cobalt bed sedimnt recover -able, ug/g (01038)	Copper, bed sedimnt recover -able, ug/g (01043)
AUG 14...	850	0.67	134	<0.02	2.60	E.4	<0.16	3	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	1	0.250	14	7.0	26

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

Date	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover -able, ug/g (01052)	Manganese, bed sedimnt recover -able, ug/g (01053)	Mercury, bed sedimnt recover -able, ug/g (71921)	Nickel, bed sedimnt recover -able, ug/g (01068)	Selenium, bed sedimnt total, ug/g (01148)	Zinc, bed sedimnt recover -able, ug/g (01093)	1,2-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sed <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sed <2 mm, ug/kg (49410)	1-Methylpyrene, bed sed <2 mm, wsv nat ug/kg (49388)	236Tri-methylnaphthalene, bed sed <2 mm, ug/kg (49405)
AUG 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	17,000	16	350	<0.01	16	<1	100	<75	E19	<75	E14	E27	E15

## 01367880 CLOVE BROOK TRIBUTARY AT ROSE MORROW ROAD, NEAR COLESVILLE, NJ—Continued

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

Date	2,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49406)	2-Ethyl naphthalene bed sed <2 mm, wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)	Cyclopentanthrene, bed sed <2 mm, ug/kg (49411)	9H-Flourene, bed sed <2 mm, wsv nat ug/kg (49399)	Ace-naphthene, bed sed <2 mm, wsv nat ug/kg (49429)	Ace-naphthylene, bed sed <2 mm, wsv nat ug/kg (49428)	Anthracene, bed sed <2 mm, wsv nat field, ug/kg (49434)	Benzo[a]anthracene, bed sed <2 mm, wsv nat ug/kg (49436)	Benzo[a]pyrene, bed sed <2 mm, wsv nat ug/kg (49389)	Benzo[b]fluoranthene, bed sed <2 mm, ug/kg (49458)	Benzo[ghi]perylene, bed sed <2 mm, ug/kg (49408)	Benzo[k]fluoranthene, bed sed <2 mm, ug/kg (49397)
AUG 14... 14...	-- E70	-- <75	-- E21	-- E26	-- E26	-- E16	-- E24	-- E44	-- 100	-- 92	-- 100	-- 83	-- 76

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

Date	Chrysene, bed sed <2 mm, wsv nat field, ug/kg (49450)	Dibenzo-[a,h]anthracene, bed sed <2 mm, wsv nat ug/kg (49461)	Fluoranthene, bed sed <2 mm, wsv nat field, ug/kg (49466)	Indeno[1,2,3-cd]pyrene, bed sed <2 mm, wsv nat ug/kg (49390)	Iso-phorone, bed sed <2 mm, wsv nat field, ug/kg (49400)	Naphthalene, bed sed <2 mm, wsv nat ug/kg (49402)	PCBs, bed sedimnt ug/kg (39519)	p-Cresol, bed sed <2 mm, wsv nat field, ug/kg (49451)	Phenanthrene, bed sed <2 mm, wsv nat field, ug/kg (49409)	Phenanthridine, bed sed <2 mm, wsv nat ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sediment, dry svd percent <.063mm (80164)	Bed sediment falldia dst wat percent <.002mm (80294)
AUG 14... 14...	-- 120	-- E65	-- 270	-- E62	-- <75	-- <75	-- E6	-- E180	-- 160	-- <75	-- 210	-- 55	-- 11

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

Date	Bed sediment, falldia dst wat percent <.004mm (80157)	Bed sediment, falldia dst wat percent <.008mm (80293)	Bed sediment, falldia dst wat percent <.016mm (80282)	Bed sediment, falldia dst wat percent <.031mm (80283)
AUG 14... 14...	-- 18	-- 22	-- 30	-- 41

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

Date	Time	1,1,1-Trichloroethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Dichloroethane, water unfltrd ug/L (34496)	1,1-Dichloroethane, water, unfltrd ug/L (34501)	1,2-Dichlorobenzene, water unfltrd ug/L (34536)	1,2-Dichloroethane, water, unfltrd ug/L (32103)	1,2-Dichloropropane, water unfltrd ug/L (34541)	1,3-Dichlorobenzene, water unfltrd ug/L (34566)	1,4-Dichlorobenzene, water unfltrd ug/L (34571)	Benzene, water unfltrd ug/L (34030)	Bromodichloromethane, water unfltrd ug/L (32101)	Chlorobenzene, water unfltrd ug/L (34301)
MAR 11... 11...	1100	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

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

Date	cis-1,2-Dichloroethene, water, unfltrd ug/L (77093)	Di-bromochloromethane, water, unfltrd ug/L (32105)	Di-chloro-di-fluoromethane, water unfltrd ug/L (34668)	Di-chloromethane, water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diisopropyl ether, water, unfltrd ug/L (81577)	Ethylbenzene, 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)
MAR 11... 11...	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2

01367880 CLOVE BROOK TRIBUTARY AT ROSE MORROW ROAD, NEAR COLESVILLE, NJ—Continued

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)
MAR 11...	<0.1	<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 0.7u GF (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 0.7u GF (82686)	Ben-flur-alin, water, fltrd 0.7u GF (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF (82680)	Carbo-furan, water, fltrd 0.7u GF (82674)	cis-Per-methrin water fltrd 0.7u GF (82687)
MAY 07...	1100	<0.006	E.007	<0.006	<0.004	<0.005	0.008	<0.050	<0.010	<0.002	<0.041	<0.020	<0.006

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

Date	DCPA, water fltrd 0.7u GF (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 0.7u GF (82668)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Malathion, water, fltrd, ug/L (39532)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water, fltrd 0.7u GF (82684)
MAY 07...	<0.003	<0.004	<0.005	<0.005	<0.002	<0.009	<0.005	<0.005	<0.007	<0.027	E.001	<0.006	<0.007

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

Date	Pendi-meth-alin, water, fltrd 0.7u GF (82683)	Prome-ton, water, fltrd, ug/L (04037)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water, fltrd 0.7u GF (82670)	Terba-cil, water, fltrd 0.7u GF (82665)	Tri-flur-alin, water, fltrd 0.7u GF (82661)
MAY 07...	<0.022	<0.01	<0.005	<0.02	<0.034	<0.009

Remark codes used in this table:  
 < -- Less than  
 E -- Estimated value

01367880 CLOVE BROOK TRIBUTARY AT ROSE MORROW ROAD, NEAR COLESVILLE, 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

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)	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)
AUG					SEP				
13...	1058	660	27	>16000	03...	1040	4,600	7,600	16,000
20...	1049	2,000	7,100	>16000	10...	1102	550	3,500	9,000
27...	1120	1,200	10,000	16,000					

Remark codes used in this table:

&gt; -- Greater than

## 01368000 WALLKILL RIVER NEAR UNIONVILLE, NY

LOCATION.--Lat 41°15'36", long 74°32'56", Sussex County, New Jersey, Hydrologic Unit 02020007, at bridge on Quarryville-Milton Road, 2.0 mi south of New York-New Jersey State line, 3.0 mi south of Unionville.

DRAINAGE AREA.--140 mi<sup>2</sup>.

PERIOD OF RECORD.--Water years 1963-78, 1991-97, 2001 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.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 2.

## 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 unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)
NOV 06...	0910	103	3.9	0.183	0.140	738	10.3	86	8.0	489	6.0	6.0	170
FEB 05...	0930	223	8.5	0.100	0.076	749	13.1	92	7.7	529	-2.0	0.1	160
MAY 19...	1320	97	11	0.165	0.125	738	9.2	96	7.6	506	28.0	15.8	160
AUG 27...	1040	59	11	0.193	0.146	748	7.2	83	7.2	582	28.0	21.6	190

## 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 (00930)	ANC, wat unfltrd 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 (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 06...	45.0	14.0	2.30	33.4	E106	62.2	<0.17	8.0	39.1	--	292	5	0.35
FEB 05...	41.1	13.0	1.88	39.5	105	76.5	<0.17	6.8	23.1	271	288	13	0.36
MAY 19...	41.5	14.2	1.54	33.2	136	67.4	<0.17	4.6	17.4	265	276	17	0.40
AUG 27...	48.0	17.7	2.42	35.4	168	71.2	<0.17	8.7	16.5	307	322	13	0.47

## 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, 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 sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)
NOV 06...	<0.030	<0.030	1.01	<0.003	E.025	0.04	0.023	0.038	1.4	1.4	0.4	<0.1	0.4
FEB 05...	0.055	0.041	1.29	0.026	0.023	0.06	0.019	0.040	1.7	1.7	0.4	<0.1	0.4
MAY 19...	<0.030	<0.030	0.74	0.009	<0.020	0.10	0.021	0.052	1.1	1.2	1.0	<0.1	1.0
AUG 27...	0.049	0.051	1.33	0.011	0.024	0.10	0.032	0.066	1.8	1.9	0.7	<0.1	0.7

HUDSON RIVER BASIN

01368000 WALLKILL RIVER NEAR UNIONVILLE, NY—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, corrctd ug/L (32209)	Boron, water, fltrd, ug/L (01020)
NOV 06...	7.2	E1.1	--	26
FEB 05...	3.1	E1.4	--	15
MAY 19...	4.3	E1.4	4.50	14
AUG 27...	4.9	<1.0	8.40	30

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	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)	Date	Time	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)
AUG 13...	1030	110	400	300	SEP 03...	1023	5,600	5,600	9,000
20...	1027	120	<100	300	10...	1034	20	<100	300
27...	1100	20	300	130					

Remark codes used in this table:  
 < -- Less than

01368820 DOUBLE KILL AT WAWAYANDA, NJ

LOCATION.--Lat 41°11'13", long 74°25'12", Sussex County, Hydrologic Unit 02020007, 1,500 ft east of Wawayanda, 0.4 mi downstream of Wawayanda Lake, 3.5 mi east of Vernon, and 4.6 mi upstream of Wawayanda Creek.

DRAINAGE AREA.--6.46 mi<sup>2</sup>.

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 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.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, total ammonia + organic nitrogen in bed sediment, total phosphorus in bed sediment, 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 2.

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 unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)
NOV 05...	1700	3.9	0.7	0.143	0.105	747	11.9	98	7.8	265	8.0	6.0	69
MAR 04...	1000	21	0.8	0.132	0.098	737	12.8	93	7.6	280	-0.5	1.0	72
MAY 19...	1130	3.3	1.0	0.131	0.096	738	9.6	101	7.4	305	23.0	16.6	72
AUG 27...	1110	0.23	0.9	0.164	0.122	730	7.2	84	7.4	277	25.0	20.5	71

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 (00930)	ANC, wat unfltrd 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 (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 05...	17.3	6.15	0.89	23.1	E47	46.1	<0.17	3.0	10.5	--	154	3	0.33
MAR 04...	18.4	6.29	0.93	24.6	60	47.3	<0.17	3.6	11.2	149	157	1	0.30
MAY 19...	18.3	6.38	0.84	28.5	50	53.8	<0.17	0.6	9.6	148	167	4	0.32
AUG 27...	18.6	6.03	0.57	23.9	57	45.2	<0.17	4.8	4.9	139	158	1	0.29

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, 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 total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
NOV 05...	<0.030	<0.030	<0.05	<0.003	<0.020	0.05	0.006	0.013	--	--	0.6	<0.1	0.6
MAR 04...	<0.030	<0.030	0.13	<0.003	<0.020	0.03	0.004	0.010	0.43	0.46	<0.1	<0.1	<0.1
MAY 19...	<0.030	<0.030	<0.05	<0.003	<0.020	0.04	0.008	0.015	--	--	0.3	<0.1	0.3
AUG 27...	<0.020	0.030	0.19	<0.003	<0.020	<0.02	0.016	0.022	0.48	--	0.2	<0.1	0.2



## HUDSON RIVER BASIN

01368820 DOUBLE KILL AT WAWAYANDA, 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, corrcrtd ug/L (32209)	Boron, water, fltrd, ug/L (01020)
NOV 05...	5.4	<1.0	--	15
MAR 04...	4.0	<1.0	--	E8.5
MAY 19...	4.4	<1.0	2.30	E11
AUG 27...	4.7	<1.0	0.500	13

Remark codes used in this table:

&lt; -- Less than

E -- Estimated value

## WATER-COLUMN AND BED-MATERIAL TRACE-ELEMENT ANALYSES

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

Date	Time	Sample type	pH bed sedimnt std units (70310)	Ammonia + org-N, bed sed total, mg/kg as N (00626)	Phosphorus, bed total, mg/kg (00668)	Total carbon, bed total, g/kg (00693)	Inorganic carbon, bed total, g/kg (00686)	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryllium, water, unfltrd recover -able, ug/L (01012)	Boron, water, unfltrd recover -able, ug/L (01022)
AUG 27...	1109	Field Blank	--	--	--	--	--	--	--	--	--
27...	1110	Environmental	--	--	--	--	--	<2	9.5	<0.06	13
27...	1110	Bed material	7.21	320	7,700	8.7	<0.2	--	--	--	--

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

Date	Cadmium water, unfltrd recover -able, ug/L (01027)	Chromium, 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)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover -able, ug/L (01051)	Manganese, water, unfltrd recover -able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selenium, water, unfltrd recover -able, ug/L (01147)
AUG 27...	--	--	<0.2	--	--	<0.08	--	--	<0.02	--	<0.06	--	--
27...	<0.04	<0.8	--	E.6	130	--	0.07	44.6	--	<0.02	--	1.25	0.7
27...	--	--	--	--	--	--	--	--	--	--	--	--	--

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

Date	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover -able, ug/L (01092)	Arsenic bed sedimnt total, ug/g (01003)	Cadmium bed sedimnt recover -able, ug/g (01028)	Chromium, bed sedimnt recover -able, ug/g (01029)	Cobalt bed sedimnt recover -able, ug/g (01038)	Copper, bed sedimnt recover -able, ug/g (01043)	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover -able, ug/g (01052)	Manganese, bed sedimnt recover -able, ug/g (01053)	Mercury bed sedimnt recover -able, ug/g (71921)	Nickel, bed sedimnt recover -able, ug/g (01068)
AUG 27...	--	M	--	--	--	--	--	--	--	--	--	--	--
27...	<0.16	--	E1	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	1	0.120	10	4.0	10	25,000	11	64	<0.01	8.7

01368820 DOUBLE KILL AT WAWAYANDA, NJ—Continued

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

Date	Selenium, bed sediment total, ug/g (01148)	Zinc, bed sediment recoverable, ug/g (01093)	1,2-Dimethylnaphthalene, bed sediment <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sediment <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sediment <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sediment <2 mm, ug/kg (49410)	1-Methylpyrene, bed sediment <2 mm, wsv nat ug/kg (49388)	236Tri-methylnaphthalene, bed sediment <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sediment <2 mm, ug/kg (49406)	2-Ethyl-naphthalene, bed sediment <2 mm, wsv nat ug/kg (49948)	2-Methyl-anthracene, bed sediment <2 mm, ug/kg (49435)	Cyclopenta-phenanthrene, bed sediment <2 mm, ug/kg (49411)	9H-Fluorene, bed sediment <2 mm, wsv nat ug/kg (49399)
AUG 27...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<1	56	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50

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

Date	Acenaphthene, bed sediment <2 mm, wsv nat ug/kg (49429)	Acenaphthylene, bed sediment <2 mm, wsv nat ug/kg (49428)	Anthracene, bed sediment <2 mm, wsv nat field, ug/kg (49434)	Benzo[a]-anthracene, bed sediment <2 mm, wsv nat ug/kg (49436)	Benzo[a]-pyrene, bed sediment <2 mm, wsv nat ug/kg (49389)	Benzo[b]-fluoranthene, bed sediment <2 mm, ug/kg (49458)	Benzo[ghi]-perylene, bed sediment <2 mm, ug/kg (49408)	Benzo[k]-fluoranthene, bed sediment <2 mm, ug/kg (49397)	Chrysene, bed sediment <2 mm, wsv nat field, ug/kg (49450)	Dibenzo-[a,h]-anthracene, bed sediment <2 mm, ug/kg (49461)	Fluoranthene, bed sediment <2 mm, wsv nat field, ug/kg (49466)	Indeno[1,2,3-cd]pyrene, bed sediment <2 mm, ug/kg (49390)	Iso-phorone, bed sediment <2 mm, wsv nat field, ug/kg (49400)
AUG 27...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
27...	<50	E14	E13	E17	E16	E36	<50	E16	E12	<50	E22	<50	<50

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

Date	Naphthalene, bed sediment <2 mm, wsv nat ug/kg (49402)	PCBs, bed sediment ug/kg (39519)	p-Cresol, bed sediment <2 mm, wsv nat field, ug/kg (49451)	Phenanthrene, bed sediment <2 mm, wsv nat field, ug/kg (49409)	Phenanthrene, bed sediment <2 mm, wsv nat field, ug/kg (49393)	Pyrene, bed sediment <2 mm, wsv nat field, ug/kg (49387)	Bed sediment, dry svediment, percent <.063mm (80164)	Bed sediment, falldia, percent <.002mm (80294)	Bed sediment, falldia, percent <.004mm (80157)	Bed sediment, falldia, percent <.008mm (80293)	Bed sediment, falldia, percent <.016mm (80282)	Bed sediment, falldia, percent <.031mm (80283)
AUG 27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	--
27...	E7	<5	<50	E14	<50	E18	8.8	1.6	2.4	3.4	4.9	6.7

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

Date	Time	1,1,1-Trichloroethane, water, unfltrd ug/L (34506)	CFC-113, water unfltrd ug/L (77652)	1,1-Dichloroethane, water unfltrd ug/L (34496)	1,1-Dichloroethene, water unfltrd ug/L (34501)	1,2-Dichlorobenzene, water unfltrd ug/L (34536)	1,2-Dichloroethane, water unfltrd ug/L (32103)	1,2-Dichloropropane, water unfltrd ug/L (34541)	1,3-Dichlorobenzene, water unfltrd ug/L (34566)	1,4-Dichlorobenzene, water unfltrd ug/L (34571)	Benzene, water unfltrd ug/L (34030)	Bromodichloromethane, water unfltrd ug/L (32101)	Chlorobenzene, water unfltrd ug/L (34301)
MAR 04...	1000	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

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

Date	cis-1,2-Dichloroethene, water, unfltrd ug/L (77093)	Di-bromochloromethane, water unfltrd ug/L (32105)	Di-chlorodifluoromethane, water unfltrd ug/L (34668)	Di-chloromethane, water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diisopropyl ether, water, unfltrd ug/L (81577)	Ethylbenzene, 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 ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)
MAR 04...	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2

01368820 DOUBLE KILL AT WAWAYANDA, NJ—Continued

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)
MAR 04...	<0.1	<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 0.7u GF (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 0.7u GF (82686)	Ben-flur-alin, water, fltrd 0.7u GF (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF (82680)	Carbo-furan, water, fltrd 0.7u GF (82674)	cis-Per-methrin water fltrd 0.7u GF (82687)
MAY 19...	1130	<0.006	E.004	<0.006	<0.004	<0.005	E.007	<0.050	<0.010	<0.002	<0.041	<0.020	<0.006

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

Date	DCPA, water fltrd 0.7u GF (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 0.7u GF (82668)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Malathion, water, fltrd, ug/L (39532)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water, fltrd 0.7u GF (82684)
MAY 19...	<0.003	<0.004	<0.005	<0.005	<0.002	<0.009	<0.005	<0.005	<0.007	<0.027	E.004	<0.006	<0.007

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

Date	Pendi-meth-alin, water, fltrd 0.7u GF (82683)	Prome-ton, water, fltrd, ug/L (04037)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water, fltrd 0.7u GF (82670)	Terba-cil, water, fltrd 0.7u GF (82665)	Tri-flur-alin, water, fltrd 0.7u GF (82661)
MAY 19...	<0.022	E.01	E.003	<0.02	<0.034	<0.009

Remark codes used in this table:  
 < -- Less than  
 E -- Estimated value

01368820 DOUBLE KILL AT WAWAYANDA, 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

Date	Time	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)	Date	Time	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)
AUG					SEP				
13...	0950	190	200	170	03...	0935	190	<100	230
20...	0940	40	<100	130	10...	1000	100	<100	60
27...	1030	200	<100	130					

Remark codes used in this table:

< -- Less than

## 01376304 HUDSON RIVER SOUTH OF HASTINGS-ON-HUDSON, NY

PERIOD OF RECORD.--May 1992 to current year.

CHEMICAL DATA: 1993 (c), 1994 (d), 1995 (b).

PESTICIDE DATA: 1994 (a).

ORGANIC DATA: OC--1993 (c), 1994 (d), 1995 (b).

NUTRIENT DATA: 1993 (c), 1994 (d), 1995 (b).

BIOLOGICAL DATA: Phytoplankton--1993 (a).

SEDIMENT DATA: 1993-94 (c), 1995 (b).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1992 to current year.

WATER TEMPERATURE: May 1992 to current year.

INSTRUMENTATION.--Water-quality monitor provides 15-minute-interval readings.

REMARKS.--Satellite and telephone temperature and specific conductance telemeter at station. Interruption of record was due to malfunction of recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum (water years 1992-97, 1999-2003), 31,100  $\mu\text{S}/\text{cm}$ , Dec. 11, 1992; minimum (water years 1992-97, 1999-2003), 76  $\mu\text{S}/\text{cm}$ , Jan. 30, 31, 1996.

WATER TEMPERATURE: Maximum, 29.5°C, Aug. 2, 4, 2002; minimum, 0.0°C on many days during winter periods, except 1998-99, 2002.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 30,400  $\mu\text{S}/\text{cm}$ , Feb. 17; minimum, 207  $\mu\text{S}/\text{cm}$ , Apr. 2, 3.

WATER TEMPERATURE: Maximum, 28.5°C, Aug. 22; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23,600	16,800	19,100	18,100	10,700	13,800	9,520	4,180	6,430	16,300	7,190	10,000
2	24,300	15,900	19,100	17,400	11,200	14,300	8,750	3,500	5,410	11,900	6,660	8,980
3	24,800	18,500	20,800	18,300	12,500	14,800	6,720	2,800	4,200	15,300	6,400	8,930
4	26,900	20,300	23,100	20,100	12,800	15,600	12,500	2,530	5,110	9,330	4,580	6,400
5	25,700	19,700	22,100	19,600	12,000	15,000	14,500	2,540	6,880	8,140	3,370	5,190
6	25,200	18,000	21,100	22,500	12,700	15,800	17,200	5,060	8,370	7,280	1,910	4,300
7	26,500	19,700	22,000	16,000	11,200	13,000	13,100	3,600	7,350	5,220	1,440	2,830
8	25,200	18,600	21,200	18,400	11,100	14,000	9,820	2,940	5,830	4,250	1,880	2,850
9	25,200	19,000	21,600	14,100	9,570	11,500	10,900	2,610	4,760	5,160	1,750	3,310
10	25,700	19,100	21,800	17,300	10,300	12,300	12,300	3,610	6,150	6,160	2,420	4,030
11	26,400	19,600	21,900	14,100	9,520	11,500	13,800	4,030	8,490	5,430	1,990	2,850
12	26,100	18,700	21,600	13,100	9,080	10,900	16,300	5,950	9,240	4,660	1,850	3,140
13	22,900	17,200	19,800	14,200	9,340	11,500	20,600	4,990	10,400	7,580	2,620	4,550
14	19,500	15,700	16,900	14,900	8,480	10,700	19,000	6,420	11,500	11,500	3,860	6,920
15	21,900	16,100	18,700	12,300	7,410	9,450	12,400	6,590	9,770	15,900	6,590	9,260
16	22,900	17,300	20,400	16,200	8,060	10,800	14,200	9,370	11,300	14,500	5,930	9,730
17	20,500	15,300	17,100	17,500	10,200	13,700	14,700	9,900	12,500	18,300	9,050	12,500
18	17,800	14,300	16,300	13,000	8,220	9,440	16,300	12,000	13,700	22,400	10,200	14,700
19	18,300	14,600	16,600	12,500	7,480	9,520	18,200	12,200	13,900	22,400	13,200	15,900
20	17,000	14,300	15,500	12,800	8,190	9,850	20,200	12,300	14,700	17,100	11,200	14,100
21	16,600	14,000	15,200	11,000	6,560	8,460	16,700	9,580	11,800	15,600	10,900	12,600
22	16,900	13,700	14,900	11,000	5,380	7,140	11,800	8,240	9,720	14,100	10,000	11,800
23	15,900	12,500	14,000	7,100	1,800	3,630	9,720	6,840	8,250	14,400	9,470	10,900
24	16,900	12,600	14,100	3,140	1,310	2,320	8,280	5,910	7,120	16,600	10,400	13,400
25	17,100	12,800	14,400	4,270	1,220	2,080	16,300	6,400	9,470	21,200	11,700	14,700
26	22,700	12,500	16,400	6,800	1,510	3,340	8,340	4,320	5,780	18,900	12,500	14,900
27	15,100	10,600	12,900	8,750	3,230	5,370	11,600	4,210	7,200	17,100	11,900	14,500
28	14,100	9,760	11,900	8,920	3,110	5,220	11,000	4,480	7,400	20,900	11,800	15,200
29	15,100	9,350	12,300	14,800	3,420	6,550	13,700	4,910	8,070	21,800	12,900	15,400
30	15,900	9,700	13,300	11,200	6,000	8,040	13,700	5,460	9,170	21,800	12,900	15,600
31	18,600	10,700	13,900	---	---	---	17,800	7,240	10,800	22,800	12,800	16,000
MONTH	26,900	9,350	17,700	22,500	1,220	9,990	20,600	2,530	8,730	22,800	1,440	9,850

## 01376304 HUDSON RIVER SOUTH OF HASTINGS-ON-HUDSON, NY—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23,800	12,500	16,300	19,500	10,400	13,900	295	213	229	15,800	8,630	10,300
2	19,900	11,200	14,200	20,100	11,700	14,700	2,570	207	330	14,000	8,000	9,500
3	17,100	10,600	13,100	15,900	8,420	11,000	2,260	207	899	10,100	6,110	7,680
4	23,400	11,200	14,900	15,600	9,010	11,200	4,380	658	2,120	12,000	5,050	7,430
5	14,200	8,440	10,900	15,800	8,170	10,900	6,300	1,550	3,140	9,120	3,910	6,250
6	14,100	8,680	10,900	13,300	8,590	10,600	3,550	810	1,870	9,350	3,470	6,090
7	14,600	7,630	11,100	13,600	8,190	10,600	5,720	1,490	2,930	9,400	3,310	5,660
8	14,100	7,640	9,520	14,800	6,600	9,700	7,990	2,520	4,520	8,740	3,500	5,730
9	11,400	6,280	8,260	14,600	5,890	8,680	7,760	2,500	4,560	11,400	3,680	6,070
10	15,100	6,270	9,470	10,600	5,520	7,440	9,230	3,800	5,990	10,200	3,930	6,170
11	10,600	5,840	7,690	12,000	5,650	7,210	15,300	4,070	8,770	15,300	5,220	8,160
12	17,600	6,190	9,240	9,600	5,620	7,220	13,700	6,270	9,860	16,900	5,820	10,200
13	14,200	6,490	9,640	15,000	5,210	8,480	14,100	7,990	10,400	13,100	6,930	9,300
14	15,600	8,470	11,900	16,000	7,220	11,200	15,800	9,240	11,300	11,400	7,310	9,390
15	21,200	11,700	15,200	15,600	7,670	10,600	14,100	11,000	12,500	10,800	6,110	8,110
16	22,100	13,900	17,000	20,900	8,940	13,200	13,800	9,890	11,400	13,800	5,660	7,530
17	30,400	17,200	21,900	22,400	11,100	15,800	17,700	10,100	11,600	13,700	4,430	6,820
18	26,800	17,700	21,200	19,200	13,000	15,000	17,700	8,470	10,900	11,000	3,550	5,480
19	22,900	17,800	19,700	15,600	11,300	13,000	11,800	6,670	8,490	9,790	2,860	4,680
20	21,800	15,500	18,300	12,900	7,810	10,300	9,850	5,690	7,310	8,560	2,850	4,510
21	20,600	15,300	17,600	10,300	4,150	7,220	10,300	5,180	6,770	10,200	3,070	4,830
22	21,200	15,400	18,000	6,200	773	3,160	11,500	4,050	6,340	7,510	3,200	5,440
23	25,600	13,100	18,100	1,460	387	698	8,070	2,640	4,940	12,300	4,290	7,490
24	16,400	12,100	13,800	461	324	382	5,530	2,410	3,860	16,400	4,810	10,100
25	15,900	11,100	13,000	359	316	335	8,680	3,150	5,680	15,200	5,060	8,850
26	18,400	11,200	13,400	358	303	323	16,500	4,690	8,610	16,000	6,880	10,900
27	16,600	11,100	13,600	645	301	365	11,700	5,090	7,980	14,800	6,410	9,760
28	20,700	11,600	14,700	1,110	285	502	11,600	4,120	7,370	16,800	7,440	10,000
29	---	---	---	2,220	272	962	11,000	5,230	7,840	14,800	8,450	10,200
30	---	---	---	1,250	247	466	14,700	6,710	9,150	15,200	8,620	10,900
31	---	---	---	428	230	247	---	---	---	14,800	9,640	11,300
MONTH	30,400	5,840	14,000	22,400	230	7,590	17,700	207	6,590	16,900	2,850	7,900
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15,600	8,280	11,100	17,900	11,300	13,600	23,000	15,200	18,000	23,100	16,400	18,900
2	10,300	6,730	8,410	19,200	11,500	14,200	22,100	15,300	17,300	23,700	15,900	18,800
3	12,400	5,560	7,260	21,500	12,900	15,400	19,100	14,100	16,400	22,800	15,300	18,300
4	8,940	4,990	6,480	19,100	12,500	14,900	18,500	13,300	15,500	20,800	13,900	17,100
5	8,760	3,810	6,040	17,600	12,100	14,200	19,200	11,800	14,500	18,200	11,500	15,400
6	7,550	3,740	5,150	17,300	11,600	14,000	18,000	10,300	13,300	19,600	11,600	14,600
7	7,520	3,730	5,440	18,500	11,700	14,500	16,500	9,860	12,100	19,600	10,900	15,000
8	11,500	4,450	7,000	19,400	11,400	14,600	17,700	9,260	11,600	22,200	11,500	15,200
9	12,200	4,500	7,360	18,400	12,300	14,800	18,500	9,160	12,100	23,600	12,900	16,500
10	---	---	---	24,400	13,400	16,500	17,600	9,260	12,100	20,600	12,800	16,300
11	---	---	---	22,900	14,100	17,300	14,600	8,110	10,700	19,100	13,100	15,600
12	---	---	---	22,000	14,000	16,600	14,600	5,950	8,490	21,500	14,600	17,600
13	---	---	---	21,700	14,000	16,100	10,800	4,040	6,190	21,500	11,500	16,500
14	---	---	---	20,200	14,000	15,900	7,390	2,980	4,330	20,300	12,700	16,000
15	---	---	---	20,300	14,000	15,900	7,630	2,830	4,300	19,800	12,600	15,700
16	---	---	---	21,000	14,300	16,100	9,280	3,470	5,290	20,500	11,400	14,800
17	9,800	2,310	4,310	17,300	13,300	15,000	10,200	3,880	6,100	19,400	9,550	15,100
18	8,670	2,240	4,080	17,800	13,400	15,000	13,400	4,220	7,800	20,900	12,400	17,200
19	8,450	2,750	4,600	18,100	13,200	15,200	13,300	3,690	7,710	26,500	11,200	20,500
20	8,510	3,180	5,560	18,900	12,200	15,200	12,500	3,730	6,530	20,700	12,100	16,500
21	10,600	3,710	6,820	20,100	12,800	15,300	16,500	4,540	8,100	19,200	11,500	14,300
22	12,400	4,430	7,600	19,100	12,300	15,300	16,000	4,320	8,140	22,400	9,850	14,700
23	11,200	3,860	6,820	17,100	11,200	14,000	16,000	6,320	9,890	22,700	13,300	17,400
24	11,600	4,390	7,100	16,800	10,300	13,200	17,900	7,960	12,100	18,900	11,700	14,700
25	13,600	5,380	7,980	17,500	10,900	12,800	21,700	9,330	13,700	17,700	11,200	13,900
26	15,800	6,000	9,510	17,200	10,100	12,700	25,400	12,000	15,600	16,500	9,900	12,400
27	15,700	7,520	10,800	21,900	10,700	13,600	25,000	13,900	17,600	17,800	10,200	12,700
28	18,300	8,290	11,000	22,700	12,100	14,400	22,100	15,600	18,000	16,700	8,810	11,800
29	18,500	8,880	11,700	23,400	13,400	16,300	22,600	16,500	18,800	11,200	7,140	8,880
30	19,000	10,400	12,800	23,400	14,100	16,700	22,900	15,900	18,500	8,220	5,460	6,620
31	---	---	---	22,600	15,700	17,600	22,100	15,300	18,400	---	---	---
MONTH	---	---	---	24,400	10,100	15,100	25,400	2,830	11,900	26,500	5,460	15,300

## HUDSON RIVER BASIN

01376304 HUDSON RIVER SOUTH OF HASTINGS-ON-HUDSON, NY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	22.0	21.0	21.5	13.0	12.0	12.5	6.5	5.5	6.0	3.5	2.5	3.0
2	23.0	21.5	22.0	12.5	12.0	12.5	6.0	5.0	5.5	3.0	2.5	3.0
3	22.5	22.0	22.0	12.5	11.5	12.0	5.5	4.0	4.5	3.0	2.5	2.5
4	22.0	21.5	21.5	12.5	11.5	12.0	5.5	3.5	4.5	2.5	2.0	2.0
5	22.5	21.5	22.0	12.0	11.5	11.5	5.5	3.5	4.0	2.5	1.5	2.0
6	22.0	21.5	21.5	12.0	11.0	11.5	5.0	3.5	4.0	2.0	1.5	2.0
7	22.0	21.0	21.5	11.0	10.5	11.0	4.5	2.5	3.5	2.0	1.0	1.5
8	21.5	20.5	21.0	11.0	10.0	10.5	4.0	3.0	3.5	1.5	1.0	1.5
9	21.0	20.0	20.5	11.0	10.5	10.5	4.0	2.5	3.0	1.5	1.0	1.5
10	20.5	20.0	20.0	11.0	10.5	10.5	3.5	2.0	2.5	2.0	1.5	1.5
11	20.0	19.5	20.0	11.5	11.0	11.0	3.5	2.5	3.0	1.5	1.0	1.0
12	19.5	19.0	19.5	11.5	11.0	11.5	4.0	3.0	3.5	1.0	0.5	1.0
13	19.0	18.5	19.0	11.5	11.0	11.0	5.0	3.5	4.0	1.0	0.5	0.5
14	19.0	18.5	19.0	11.5	11.0	11.0	5.0	4.0	4.5	1.5	0.0	0.5
15	18.5	17.5	18.5	11.5	11.0	11.0	4.5	4.0	4.5	1.5	0.0	0.5
16	18.5	17.0	18.0	11.5	11.0	11.0	4.5	4.0	4.5	1.0	0.0	0.5
17	18.0	17.0	17.5	11.0	10.0	10.5	4.0	3.5	3.5	1.5	0.0	0.5
18	18.0	17.0	17.5	10.5	9.5	10.0	4.0	3.0	3.5	2.0	0.0	0.5
19	17.5	16.5	17.0	10.5	9.5	10.0	4.0	3.0	3.5	1.5	0.0	0.5
20	17.0	16.5	17.0	10.0	9.5	10.0	4.5	3.5	4.0	0.5	0.0	0.0
21	17.0	16.5	16.5	10.0	9.5	9.5	4.0	3.5	3.5	0.0	0.0	0.0
22	16.5	16.0	16.0	10.0	9.5	9.5	3.5	3.5	3.5	0.0	0.0	0.0
23	16.0	15.5	16.0	9.5	8.0	9.0	3.5	3.5	3.5	0.0	0.0	0.0
24	15.5	15.0	15.5	8.5	7.5	8.0	3.5	3.0	3.5	0.0	0.0	0.0
25	15.5	14.5	15.0	8.5	7.5	8.0	3.5	2.5	3.0	0.0	0.0	0.0
26	15.5	14.5	15.0	8.5	7.5	7.5	2.5	2.0	2.5	0.0	0.0	0.0
27	15.0	14.5	14.5	8.0	7.0	7.5	3.0	2.0	2.5	0.0	0.0	0.0
28	14.5	14.0	14.5	7.5	6.0	6.5	2.5	2.0	2.5	0.0	0.0	0.0
29	14.5	13.5	14.0	7.5	5.5	6.0	3.0	2.0	2.5	0.0	0.0	0.0
30	14.0	13.0	13.5	7.0	6.0	6.5	3.0	2.0	2.5	0.0	0.0	0.0
31	13.5	12.0	13.0	---	---	---	3.5	2.5	3.0	0.0	0.0	0.0
MONTH	23.0	12.0	18.1	13.0	5.5	10.0	6.5	2.0	3.6	3.5	0.0	0.8
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.0	0.0	0.0	1.0	0.5	1.0	6.0	5.0	5.5	12.0	10.5	11.0
2	0.0	0.0	0.0	1.0	1.0	1.0	6.0	5.0	5.5	13.0	11.0	11.5
3	0.0	0.0	0.0	1.0	0.5	1.0	6.0	5.5	5.5	12.5	11.5	12.0
4	0.0	0.0	0.0	1.0	0.5	0.5	6.0	5.5	6.0	12.5	11.5	12.0
5	0.5	0.0	0.0	1.5	1.0	1.0	6.0	5.5	6.0	12.5	12.0	12.0
6	0.0	0.0	0.0	1.0	0.5	1.0	6.5	5.5	6.0	12.5	12.0	12.0
7	0.0	0.0	0.0	1.5	0.0	0.5	6.0	5.5	5.5	14.0	12.0	12.5
8	0.5	0.0	0.0	2.0	0.5	1.0	5.5	5.0	5.5	13.5	12.5	13.0
9	0.0	0.0	0.0	2.0	1.0	1.5	5.5	5.5	5.5	14.0	12.5	13.5
10	0.5	0.0	0.0	1.5	1.0	1.5	6.0	5.0	5.5	15.0	13.0	14.0
11	0.5	0.0	0.0	1.5	0.5	1.0	6.0	5.5	6.0	14.5	13.0	14.0
12	0.5	0.0	0.0	2.5	1.0	1.5	7.5	5.5	6.5	14.5	12.5	13.5
13	0.5	0.0	0.0	2.0	2.0	2.0	7.5	6.0	7.0	13.5	13.0	13.5
14	0.0	0.0	0.0	2.5	1.5	2.0	8.5	6.5	7.5	14.0	13.0	13.5
15	0.5	0.0	0.0	3.0	1.5	2.5	8.5	7.0	7.5	14.0	13.5	14.0
16	0.0	0.0	0.0	4.0	2.0	3.0	9.0	7.5	8.5	14.5	13.5	14.0
17	0.0	0.0	0.0	4.5	2.5	3.5	8.5	8.0	8.5	15.0	13.5	14.5
18	0.0	0.0	0.0	4.0	3.0	3.5	8.5	8.0	8.5	15.0	14.0	14.5
19	0.0	0.0	0.0	4.0	3.5	4.0	8.5	8.0	8.5	15.5	14.0	15.0
20	0.0	0.0	0.0	4.0	3.5	4.0	9.0	8.5	8.5	17.0	14.5	15.5
21	0.0	0.0	0.0	4.0	3.5	4.0	10.0	8.5	9.0	15.5	15.0	15.5
22	0.0	0.0	0.0	4.0	3.5	3.5	9.5	9.0	9.0	15.5	15.0	15.0
23	0.5	0.0	0.0	4.0	3.0	3.5	9.0	8.5	9.0	15.5	14.5	15.0
24	0.5	0.0	0.0	3.5	2.5	3.0	9.0	8.0	8.5	15.0	14.5	14.5
25	0.5	0.0	0.0	4.0	3.0	3.5	10.0	8.5	9.5	15.5	14.5	15.0
26	0.5	0.0	0.0	5.5	3.5	4.5	10.0	9.0	9.5	15.5	14.5	15.0
27	0.5	0.0	0.5	6.5	4.5	5.5	10.5	9.0	9.5	17.0	14.5	15.5
28	1.0	0.0	0.5	6.5	5.0	5.5	11.5	9.5	10.5	17.0	15.0	16.0
29	---	---	---	6.5	5.0	6.0	11.0	10.5	11.0	18.0	15.5	16.5
30	---	---	---	7.0	6.0	6.5	12.0	10.5	11.0	18.0	16.0	17.0
31	---	---	---	6.5	6.0	6.0	---	---	---	17.0	16.0	16.5
MONTH	1.0	0.0	0.0	7.0	0.0	2.9	12.0	5.0	7.7	18.0	10.5	14.1

