

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 mi².

PERIOD OF RECORD.--Water years 1963-78, 1991-97, and 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). Additional trace-element data for this and other stations are presented in "Wallkill River Arsenic Sources, Sussex County" in the Water-Quality at Special-Study Sites section of this report.

COOPERATION.--Concentrations of ammonia in samples collected during November to December and August to September; orthophosphate in every sampling period except February to March; and nitrite, biochemical oxygen demand, total suspended residue, fecal coliform, E. coli, and enterococcus bacteria were determined by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 2.

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

| Date | Time | Instantaneous discharge, cfs (00061) | Turbidity white light, det ang 90+/-30 correctd NTRU (63676) | UV absorbance, 254 nm, wat flt units /cm (50624) | UV absorbance, 280 nm, wat flt units /cm (61726) | Barometric pressure, mm Hg (00025) | Dissolved oxygen, mg/L (00300) | Dissolved oxygen, percent of saturation (00301) | 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, mg/L as CaCO3 (00900) |
|-----------|---|---|--|--|---|---|---|---|---|---|--|--|--|
| 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 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) |
| Date | Ammonia water, fltrd, mg/L as N (00608) | Nitrite + nitrate water, fltrd, mg/L as N (00631) | Nitrite water, fltrd, mg/L as N (00613) | Particulate nitrogen, susp, water, mg/L (49570) | Total nitrogen, water, fltrd, mg/L (00602) | Total nitrogen, water, unfltrd mg/L (00600) | Orthophosphate, water, fltrd, mg/L as P (00671) | Phosphorus, water, fltrd, mg/L (00666) | Phosphorus, water, unfltrd mg/L (00665) | 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) |
| DEC 08... | 1130 | 516 | 8.5 | .135 | .103 | 750 | 12.4 | 94 | 7.2 | 319 | 13.5 | 3.4 | 94 |
| FEB 14... | 0940 | 211 | 8.7 | .119 | .090 | 760 | 12.7 | 91 | 7.4 | 423 | .0 | 1.3 | -- |
| JUN 08... | 1000 | 93 | 11 | .147 | .111 | 751 | 6.2 | 73 | 7.3 | 513 | 28.5 | 22.7 | 180 |
| AUG 24... | 1000 | 15 | 16 | .124 | .093 | 753 | 6.3 | 75 | 7.7 | 654 | 24.0 | 23.1 | 220 |
| DEC 08... | 25.7 | 7.30 | 1.66 | 22.6 | 76 | 41.2 | E.1 | 8.0 | 14.4 | 170 | 167 | 11 | .28 |
| FEB 14... | E35.3 | E11.2 | 1.50 | 30.5 | 101 | 56.0 | E.1 | 7.5 | 16.8 | -- | 238 | -- | .28 |
| JUN 08... | 43.6 | 17.7 | 1.94 | 34.2 | 144 | 65.1 | E.1 | 7.1 | 14.0 | 273 | 286 | -- | .45 |
| AUG 24... | 53.5 | 21.8 | 3.30 | 41.5 | 182 | 80.4 | .1 | 8.7 | 21.1 | 347 | 369 | 20 | .48 |
| DEC 08... | .039 | .73 | .006 | .07 | 1.0 | 1.1 | .021 | .022 | .041 | .5 | <.1 | .5 | 3.5 |
| FEB 14... | .046 | .90 | -- | .06 | 1.2 | 1.2 | .006 | .015 | .036 | .7 | <.1 | .7 | 3.1 |
| JUN 08... | .043 | .71 | -- | .19 | 1.2 | 1.4 | .017 | .023 | .082 | 1.4 | <.1 | 1.4 | 3.8 |
| AUG 24... | .064 | 1.57 | -- | .11 | 2.0 | 2.2 | .031 | .047 | .093 | .7 | <.1 | .7 | 3.6 |

HUDSON RIVER BASIN

01368000 WALLKILL RIVER NEAR UNIONVILLE, NY—Continued

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

| Date | BOD, water, unfltrd 5 day, 20 degC mg/L (00310) | Alum- inum, water, fltrd, ug/L (01106) | Boron, water, fltrd, ug/L (01020) | Iron, water, fltrd, ug/L (01046) | Sus- pended sedi- ment concen- tration mg/L (80154) | Sus- pended sedi- ment dis- charge, tons/d (80155) |
|--------------|---|---|---|--|--|---|
| DEC 08... | <1.1 | -- | 13 | -- | -- | -- |
| FEB 14... | -- | 8 | 18 | 30 | 14 | 8.0 |
| JUN 08... | E1.8 | 13 | 21 | 114 | 15 | 3.8 |
| AUG 24... | E1.1 | 5 | 35 | 27 | -- | -- |

Remark codes used in this table:

< -- Less than.

E -- Estimated.

WATER-COLUMN BACTERIA ANALYSES

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

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

| Date | Time | Entero- cocci, m-E MF, water, col/ 100 mL (31649) | E coli, m-TEC MF, water, col/ 100 mL (31633) | Fecal coli- form, ECbroth water, MPN/ 100 mL (31615) |
|--------------|------|--|--|---|
| MAY 04... | 1105 | <10 | 100 | 40 |
| 11... | 1150 | 60 | <100 | 60 |
| 19... | 1130 | 10 | <100 | 130 |
| 25... | 1115 | 70 | <100 | 110 |
| JUN 01... | 1030 | 20 | <100 | 130 |

Remark codes used in this table:

< -- Less than.