



Water-Data Report 2006

**01367770 WALLKILL RIVER NEAR SUSSEX, NJ**

HUDSON RIVER BASIN

LOCATION.--Lat 41°11'38", long 74°34'31" referenced to North American Datum of 1983, Wantage Township, Sussex County, NJ, 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>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Miscellaneous measurements, water years 1978-82, 1985, and 1987 to current year.

GAGE.--Staff gage.

REMARKS.--Flow includes some sewage effluent.

**DISCHARGE MEASUREMENTS  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Date	Discharge, in ft <sup>3</sup> /s
Dec 7, 2005	126
Feb 2, 2006	178
Jun 1, 2006	54.3
Aug 3, 2006	35.9

**01367770 WALLKILL RIVER NEAR SUSSEX, NJ—Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1976 to current year.

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

COOPERATIVE NETWORK SITE DESCRIPTOR: Watershed Integrator and Trace Element Assessment (303d) special study site, New Jersey Department of Environmental Protection (NJDEP) Watershed Management Area 2. The sample on May 17 at 1000 was for the trace element assessment (303d).

COOPERATION.--Physical measurements and samples for laboratory analyses on May 17 at 1000 were provided by personnel of the NJDEP. Bacteria samples were provided by the local county health department under the direction of the NJDEP through the County Environmental Health Act. Determinations of filtered ammonia, filtered orthophosphorus, BOD, total suspended residue, fecal coliform, E. coli, and enterococcus bacteria were performed by the NJ Department of Health and Senior Services.

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

Part 1 of 5

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

Date	Time	Turbidity Instan- taneous dis- charge, cfs (00061)	UV white light, det ang 90+/-30 corrcrd	UV absorb- ance, 254 nm, wat flt	UV absorb- ance, 280 nm, wat flt	Baro- metric pres- sure, mm Hg	Dis- solved oxygen, mg/L	Dis- solved oxygen, percent of sat- uration	pH, water, unfiltrd field, std units	Specif. conduc- tance, uS/cm	Temper- ature, wat unf 25 degC	Temper- ature, air, deg C	Temper- ature, water, deg C	Hard- ness, water, mg/L as CaCO <sub>3</sub>
Dec 07...	1200	126	3.9	.098	.074	758	13.4	96	7.8	488	-.5	1.2	160	
Feb 02...	0930	178	1.9	.072	.054	755	12.1	92	--	476	8.0	3.5	170	
May 17...	1000	--	3.8	--	--	740	9.4	93	7.7	401	19.5	13.5	130	
Jun 01...	1310	54	5.4	.137	.103	752	8.7	103	7.7	538	34.5	22.9	190	
Aug 03...	1030	36	2.4	.183	.146	745	7.0	88	7.8	659	31.0	25.7	230	

## 01367770 WALLKILL RIVER NEAR SUSSEX, NJ—Continued

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

Part 2 of 5

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

Date	ANC, wat unf								Residue water, filtrd, sum of consti- tuents	Residue on evap. at 180degC	Residue total at 105 deg. C,	Ammonia + org-N, water, filtrd, mg/L as N (00623)	
	Calcium water, filtrd, mg/L (00915)	Magnes- ium, water, filtrd, mg/L (00925)	Potas- sium, water, filtrd, mg/L (00935)	Sodium, water, filtrd, mg/L (00930)	fixed end pt, lab, mg/L as CaCO <sub>3</sub> (90410)	Chlor- ide, water, filtrd, mg/L (00940)	Fluor- ide, water, filtrd, mg/L (00950)	Silica, water, filtrd, mg/L (00955)	Sulfate water, filtrd, mg/L (00945)	mg/L (70301)	mg/L (70300)	mg/L (00530)	
Dec 07...	38.0	16.8	1.44	32.3	139	55.7	.10	7.4	16.0	254	254	6	.25
Feb 02...	39.5	16.1	1.31	33.4	136	57.7	E.09	5.3	15.0	253	258	4	.20
May 17...	32.4	12.2	--	--	--	--	--	--	--	--	--	--	--
Jun 01...	44.0	19.3	1.49	32.9	168	60.5	.13	6.6	12.6	282	288	6	.39
Aug 03...	53.5	24.1	2.49	40.1	215	73.8	.12	9.7	13.2	354	362	2	.51

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

Part 3 of 5

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

Date	Nitrite + nitrate water, filtrd, mg/L as N (00608)	Partic- ulate nitro- gen, water, susp, mg/L (00631)	Total nitro- gen, water, mg/L (49570)	Total nitro- gen, water, mg/L (00602)	Ortho- phosphate, water, water, mg/L as P (00600)	Phos- phorus, water, filtrd, mg/L (00671)	Phos- phorus, water, water, unfiltrd mg/L (00666)	Total carbon, suspnd sedimnt mg/L (00665)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00694)	Organic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, water, filtrd, mg/L (00689)	BOD, unfiltrd 5 day, 20 degC mg/L (00310)	
Dec 07...	.015	.76	.06	1.0	1.1	E.008	.008	.022	.6	<.1	.6	2.8	<1.0
Feb 02...	.018	.65	.04	.85	.89	.011	.005	.011	.4	<.1	.4	2.3	<1.0
May 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
Jun 01...	.037	.82	.06	1.2	1.3	.022	.030	.051	.7	<.1	.7	4.1	E1.4
Aug 03...	.021	1.89	.04	2.4	2.4	.039	.042	.061	.3	<.1	.3	4.0	<1.0

## 01367770 WALLKILL RIVER NEAR SUSSEX, NJ—Continued

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

Part 4 of 5

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

Date	Arsenic water, filtrd, ug/L (01000)	Arsenic water unfiltrd ug/L (01002)	Boron, water, filtrd, ug/L (01020)	Cadmium water, filtrd, ug/L (01025)	Cadmium water, unfiltrd ug/L (01027)	Chrom- ium, water, recover -able, ug/L (01030)	Chrom- ium, unfiltrd recover -able, ug/L (01034)	Copper, water, filtrd, ug/L (01040)	Copper, water, unfiltrd recover -able, ug/L (01042)	Lead, water, filtrd, ug/L (01049)	Lead, water, unfiltrd recover -able, ug/L (01051)	Mercury water, filtrd, ug/L (71890)	Mercury water, unfiltrd recover -able, ug/L (71900)
Dec 07...	--	--	15	--	--	--	--	--	--	--	--	--	--
Feb 02...	--	--	16	--	--	--	--	--	--	--	--	--	--
May 17...	1.1	1.8	--	<.04	E.03	.17	.38	1.1	1.5	.26	.73	<.010	<.010
Jun 01...	--	--	22	--	--	--	--	--	--	--	--	--	--
Aug 03...	--	--	32	--	--	--	--	--	--	--	--	--	--

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

Part 5 of 5

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

Date	Nickel, water, filtrd, ug/L (01065)	Nickel, water, unfiltrd recover -able, ug/L (01067)	Selen- ium, water, filtrd, ug/L (01145)	Selen- ium, water, unfiltrd recover -able, ug/L (01147)	Zinc, water, filtrd, ug/L (01090)	Zinc, water, unfiltrd recover -able, ug/L (01092)
Dec 07...	--	--	--	--	--	--
Feb 02...	--	--	--	--	--	--
May 17...	0.77	.63	.11	.12	4.6	20
Jun 01...	--	--	--	--	--	--
Aug 03...	--	--	--	--	--	--

**01367770 WALLKILL RIVER NEAR SUSSEX, NJ—Continued**

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**  
[Remark codes: <, less than.]

Date	Time	Temper- ature, water, deg C (00010)	Enter- occi, m-E	E coli, m-TEC	Fecal coli- form, ECbroth
			MF, water, col/ 100 mL (31649)	MF, water, col/ 100 mL (31633)	MPN/ 100 mL (31615)
<b>May</b>					
03...	0815	13.3	20	60	40
10...	1000	14.9	20	290	<20
17...	0905	13.5	650	1,000	3,000
24...	0900	13.3	90	90	80
31...	0930	21.7	180	250	500