



Water-Data Report 2006

01368000 WALLKILL RIVER NEAR UNIONVILLE, NY

HUDSON BASIN

LOCATION.--Lat 41°15'36", long 74°32'56" referenced to North American Datum of 1927, Wantage Township, Sussex County, NJ, Hydrologic Unit 02020007, at bridge on Bassett's Bridge Road, 0.6 mi upstream from unnamed tributary, 2.0 mi south of the New York-New Jersey State Line, and 3.0 mi south of Unionville.

DRAINAGE AREA.--140 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Operated as a continuous-record gaging station, water years 1937-81. Miscellaneous measurements, water years 2001 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 ³ /s
Dec 1, 2005	720
Feb 2, 2006	481
Jun 1, 2006	134
Aug 23, 2006	33.3

01368000 WALLKILL RIVER NEAR UNIONVILLE NY—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1963-78, 1988, 1991-97, 2001 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 samples on May 17 at 1100 and 1130 were for the trace element assessment (303d).

COOPERATION.--Physical measurements and samples for laboratory analyses on May 17 at 1100 and 1130 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	Sample type	Instan- taneous dis- charge, cfs (00061)	Turbdty white light, det ang 90+/-30 corctd	UV absorb- ance, 254 nm, wat flt units	UV absorb- ance, 280 nm, wat flt units	Baro- metric pres- sure, mm Hg (61726)	Dis- solved oxygen, mg/L (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfiltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm (00095)	Temper- ature, air, deg C (00020)
				NTRU (63676)	/cm (50624)	/cm (61726)	mm Hg (00025)	mg/L (00300)	percent of sat- uration (00301)	units (00400)	25 degC (00095)	deg C (00020)	
Dec 01...	1000	Environmental	720	17	.209	.165	749	8.5	74	7.2	268	4.5	
Feb 02...	0920	Environmental	481	3.9	.109	.080	751	12.1	92	7.4	364	2.5	
May 17...	1100	<i>Field Blank</i>	--	--	--	--	--	--	--	--	--	--	
May 17...	1130	Environmental	--	14	--	--	740	8.5	84	7.4	263	23.0	
Jun 01...	1100	Environmental	134	14	.201	.149	753	6.1	71	7.2	429	29.5	
Aug 23...	1140	Environmental	33	15	.164	.125	755	6.0	72	7.6	601	25.0	

01368000 WALLKILL RIVER NEAR UNIONVILLE NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 5

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

Date	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO ₃ (00900)	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)	ANC, wat unf			Chlor- ide, lab, mg/L as CaCO ₃ (90410)	Fluor- ide, water, filtrd, mg/L (00950)	Silica, water, filtrd, mg/L (00955)	Sulfate water, filtrd, mg/L (00945)	Residue water, filtrd, sum of consti- tuents mg/L (70301)	Residue on evap. 180degC wat flt mg/L (70300)
							fixed pt,	end pt, lab, mg/L as CaCO ₃ (90410)	Chlor- ide, water, filtrd, mg/L (00940)						
Dec 01...	8.5	80	21.4	6.45	2.27	18.8	62	32.5	E.06	6.5	14.5	142	143		
Feb 02...	3.2	110	28.2	8.92	1.44	26.9	82	48.4	E.08	5.3	15.5	187	198		
May 17...	--	--	<.02	<.008	--	--	--	--	--	--	--	--	--		
May 17...	13.5	78	22.1	5.63	--	--	--	--	--	--	--	--	--		
Jun 01...	22.6	140	36.2	12.1	1.53	28.1	116	51.9	.10	5.3	14.0	222	236		
Aug 23...	23.3	210	51.6	20.1	2.62	36.6	180	66.5	.11	8.2	17.7	317	335		

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 3 of 5

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

Date	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia + org-N, water, filtrd, mg/L (00623)		Nitrite + nitrate, water, filtrd, mg/L (00608)		Partic- ulate nitro- gen, water, susp, mg/L (00631)		Total nitro- gen, water, filtrd, mg/L (00602)	Total nitro- gen, water, unfiltrd mg/L (00600)	Ortho- phosphate, water, filtrd, mg/L (00671)	Phos- phorus, water, filtrd, mg/L (00666)	Phos- phorus, water, unfiltrd mg/L (00665)	Total carbon, suspnd sediment total, mg/L (00694)	Inor- ganic carbon, suspnd sediment total, mg/L (00688)	Organic carbon, suspnd sediment total, mg/L (00689)	
		mg/L (00530)	as N (00623)	mg/L (00608)	as N (00608)	mg/L (00631)	mg/L (49570)	mg/L (00631)	mg/L (49570)	mg/L (00602)	mg/L (00600)	mg/L (00671)	mg/L (00666)	mg/L (00665)	mg/L (00694)	mg/L (00688)
Dec 01...	21	.39	.025	.41	.18	.80	.98	.033	.043	.098	1.5	<.1	1.5			
Feb 02...	4	.27	.022	.65	<.02	.91	--	E.009	.010	.021	.4	<.1	.4			
May 17...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
May 17...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Jun 01...	16	.46	.046	.72	.14	1.2	1.3	.018	.029	.061	1.2	<.1	1.2			
Aug 23...	12	.50	.062	1.34	.11	1.8	1.9	.033	.032	.074	1.1	<.1	1.1			

01368000 WALLKILL RIVER NEAR UNIONVILLE NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 4 of 5

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

Date	Organic carbon, water, unfltrd 5 day, 20 degC mg/L (00681)	BOD, water, unfltrd mg/L (00310)	Arsenic water, fltrd, ug/L (01000)	Arsenic water, unfltrd ug/L (01002)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Cadmium water, fltrd, ug/L (01030)	Chrom- ium, water, unfltrd recover -able, ug/L (01034)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover -able, ug/L (01042)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd ug/L (01051)
Dec 01...	5.1	E1.2	--	--	14	--	--	--	--	--	--	--	--
Feb 02...	2.9	E1.5	--	--	12	--	--	--	--	--	--	--	--
May 17...	--	--	<.12	--	--	<.04	--	E.03	--	<.4	--	<.08	--
May 17...	--	--	.64	1.0	--	<.04	E.04	.16	.83	1.6	2.5	.10	1.30
Jun 01...	4.9	E2.2	--	--	21	--	--	--	--	--	--	--	--
Aug 23...	4.3	E1.1	--	--	29	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 5 of 5

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

Date	Mercury water, unfltrd recover -able, ug/L (71890)	Nickel, water, unfltrd fltrd, ug/L (71900)	Nickel, water, unfltrd recover -able, ug/L (01065)	Selen- ium, water, fltrd, ug/L (01067)	Selen- ium, water, unfltrd ug/L (01145)	Zinc, water, fltrd, ug/L (01147)	Zinc, water, unfltrd recover -able, ug/L (01090)	Zinc, water, unfltrd ug/L (01092)
Dec 01...	--	--	--	--	--	--	--	--
Feb 02...	--	--	--	--	--	--	--	--
May 17...	<.010	--	<.06	--	<.08	--	<.6	--
May 17...	<.010	<.010	1.39	1.33	.10	.16	2.7	16
Jun 01...	--	--	--	--	--	--	--	--
Aug 23...	--	--	--	--	--	--	--	--

01368000 WALLKILL RIVER NEAR UNIONVILLE NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

[Remark codes: >, greater than.]

Date	Time	Enter-		Fecal	
		cocci, m-E	MF, water, water, col/	E coli, m-TEC	coli- form, ECbroth MPN/
		100 mL (31649)	100 mL (31633)	100 mL (31615)	
May					
03...	0910	14.0	20	100	300
10...	0930	15.3	10	40	40
17...	0841	13.5	6,700	45,000	>16,000
24...	0831	14.0	40	10	110
31...	0850	22.6	30	10	300