



Water-Data Report 2010

01368000 WALKILL RIVER NEAR UNIONVILLE, NY

HUDSON RIVER 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 Bassetts 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.--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 2009 TO SEPTEMBER 2010**

Date	Discharge, in ft³/s
Nov 23, 2009	143
Jun 17, 2010	108
Aug 24, 2010	88.8

01368000 WALKILL RIVER NEAR UNIONVILLE, NY—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-78, 1988, 1991-97, 2001 to current year.

REMARKS.--Cooperative Network Site Descriptor: Watershed Integrator, NJ Department of Environmental Protection Watershed Management Area 2.

COOPERATION.--Physical measurements and samples for laboratory analysis were collected in cooperation with the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, and suspended residue were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory.

WATER-QUALITY DATA

WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 1 of 5

[%, percent; ANC, acid neutralizing capacity; CaCO₃, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; cm, centimeter; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; nm, nanometers; °C, degrees Celsius; μS/cm, microsiemens per centimeter; <, less than; E, estimated]

Date	Sample start time	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Absorbance, UV, 254 nm, 1 cm path length, water, filtered, per centimeter (50624)	Absorbance, UV, organic constituents, 280 nm, 1 cm path length, water, filtered, per centimeter (61726)	Discharge, instantaneous, ft ³ /s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)
11-23-2009	1100	760	10.5	.187	.142	143	13.0	107	7.2
03-02-2010	1030	750	7.5	.119	.091	E 250	13.1	99	7.5
06-17-2010	1020	747	20.5	.201	.153	108	6.3	70	7.7
08-24-2010	0950	751	19.0	.135	.103	89	6.8	74	7.9

WATER-QUALITY DATA

WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 2 of 5

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Date	Specific conductance, water, unfiltered, μS/cm at 25 °C (00095)	Temperature, water, °C (00010)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	Dissolved solids dried at 180 °C, water, filtered, mg/L (70300)	Dissolved solids, water, filtered, sum of constituents, milligrams per liter (70301)	Hardness, water, mg/L as CaCO ₃ (00900)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)
11-23-2009	420	6.9	8.0	235	219	136	7	35.7	11.3
03-02-2010	576	2.8	4.8	322	E 290	134	11	35.0	11.3
06-17-2010	482	20.4	19	266	258	169	22	42.2	15.5
08-24-2010	565	19.8	12	310	296	177	11	40.5	18.4

01368000 WALLKILL RIVER NEAR UNIONVILLE, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 3 of 5

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Date	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	ANC, water, unfiltered, fixed endpoint (pH 4.5)	Carbon (inorganic plus organic), suspended sediment, total, mg/L (00694)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Inorganic carbon, suspended sediment, total, mg/L (00688)	Silica, water, filtered, mg/L as SiO ₂ (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)
			titration, laboratory, mg/L as CaCO ₃ (90410)	titration, laboratory, mg/L as CaCO ₃ (90410)	titration, laboratory, mg/L as CaCO ₃ (90410)					
11-23-2009	2.01	28.8	110	.55	51.4	.10	< .06	7.0	14.1	.31
03-02-2010	1.84	50.7	105	.79	102	E .06	< .06	7.4	15.2	.28
06-17-2010	1.93	32.1	137	1.17	59.0	.09	< .06	7.7	13.7	.46
08-24-2010	2.83	37.7	147	1.55	74.5	.10	< .06	8.4	19.2	.43

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 4 of 5

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Date	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Orthophos- phate, water, filtered, mg/L as P (00671)	Particulate nitrogen, suspended in water, mg/L (49570)	Phosphorus, water, filtered, mg/L as P (00666)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, filtered, mg/L (00602)	Total nitrogen, water, unfiltered, mg/L (00600)	Organic carbon, suspended sediment, total, mg/L (00689)
		mg/L as N (00631)	mg/L as P (00671)	mg/L (49570)	mg/L (00666)	mg/L as P (00665)	mg/L (00602)	mg/L (00600)	mg/L (00689)
11-23-2009	.023	.56	.013	.05	.019	.044	.87	.92	.54
03-02-2010	.039	.80	.010	.07	.018	.045	1.1	1.1	.79
06-17-2010	.052	.85	--	.13	.037	.087	1.3	1.4	1.15
08-24-2010	.044	1.45	--	.21	.053	.100	1.9	2.1	1.54

01368000 WALKILL RIVER NEAR UNIONVILLE, NY—Continued

**WATER-QUALITY DATA
WATER YEAR OCTOBER
2009 TO SEPTEMBER
2010**

Part 5 of 5

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Date	Organic carbon, water, filtered, mg/L (00681)
11-23-2009	4.5
03-02-2010	3.2
06-17-2010	5.1
08-24-2010	3.8