



Water-Data Report 2010

01367625 WALLKILL RIVER AT SPARTA, NJ

HUDSON RIVER BASIN

LOCATION.--Lat 41°02'25", long 74°37'47" referenced to North American Datum of 1983, Sparta Township, Sussex County, NJ, Hydrologic Unit 02020007, 0.4 mi northeast of Sparta, 1.2 mi downstream from outlet of Lake Mohawk, and 1.8 mi east of Fox Hollow Lake.

DRAINAGE AREA.--5.88 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 1998 to current year.

GAGE.--Staff gage.

**DISCHARGE MEASUREMENTS
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

Date	Discharge, in ft ³ /s
Nov 5, 2009	10.2
Feb 9, 2010	10.6
Jun 21, 2010	5.07
Aug 25, 2010	14.8

01367625 WALLKILL RIVER AT SPARTA, NJ—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1998 to current year.

REMARKS.--Cooperative Network Site Descriptor: Urban Land Use Indicator, 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. Analysis of the split and concurrent replicate samples was performed by the Laboratory Branch of the U.S. EPA, Region II, Division of Environmental Science and Assessment.

**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; µg/L, micrograms per liter; <, less than; E, estimated]

Date	Sample start time	Medium name	Sample type	Baro-metric pressure, mm Hg (00025)	Tempera-ture, air, °C (00020)	Absorbance, UV, organic constituents, 280 nm, 1 cm path length, water, filtered, units		Discharge, instantane-ous, ft ³ /s (00061)
						Absorbance, UV, 254 nm, 1 cm path length, water, filtered, units per centimeter (50624)	Absorbance, UV, 254 nm, 1 cm path length, water, filtered, units per centimeter (61726)	
11-05-2009	1000	Surface water	Regular	745	8.5	.070	.052	10
02-09-2010	1200	Surface water	Replicate Split	743	3.0	.048	.034	11
02-09-2010	1200	QC sample - Surface water	Replicate Concurrent	--	--	--	--	--
02-09-2010	1201	QC sample - Surface water	Replicate	--	--	--	--	--
06-21-2010	1220	Surface water	Regular	745	27.0	.053	.039	5.1
08-25-2010	1130	Surface water	Regular	737	19.5	.159	.122	15

01367625 WALLKILL RIVER AT SPARTA, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 2 of 5

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Date	Dissolved oxygen, water, unfiltered, %	Dissolved oxygen, water, unfiltered, saturation	pH, water, unfiltered, standard	Specific conductance, water, µS/cm at 25 °C	Temperature, water, °C	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	Dissolved solids, water, filtered, sum of constituents, milligrams per liter	Hardness, water, mg/L as CaCO ₃
	mg/L (00300)	(00301)	units (00400)	(00095)	(00010)	(63676)	(70300)	(70301)	(00900)
11-05-2009	11.6	103	8.0	651	10.0	3.4	368	E 341	189
02-09-2010	13.1	100	8.3	635	4.1	1.6	340	E 328	172
02-09-2010	--	--	--	--	--	--	350	322	171
02-09-2010	--	--	--	--	--	--	380	326	177
06-21-2010	7.8	93	8.1	697	23.9	4.8	372	364	201
08-25-2010	7.4	79	7.9	--	18.4	13	186	E 176	108

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 3 of 5

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Date	Suspended solids, water, unfiltered, %	Calcium, water, filtered, mg/L	Magnesium, water, filtered, mg/L	Potassium, water, filtered, mg/L	Sodium, water, filtered, mg/L	ANC, water, unfiltered, fixed endpoint (pH 4.5)	Carbon (inorganic plus organic), laboratory, mg/L as CaCO ₃	Chloride, water, filtered, mg/L	Fluoride, water, filtered, mg/L	Inorganic carbon, suspended sediment, total, mg/L
	mg/L (00530)	(00915)	(00925)	(00935)	(00930)	(90410)	(00694)	(00940)	(00950)	(00688)
11-05-2009	4	45.3	18.4	1.58	58.5	147	.64	108	E .07	< .06
02-09-2010	2	41.0	17.0	1.27	51.1	137	.45	109	E .06	< .06
02-09-2010	< 10	42.0	16.0	1.40	53.0	140	--	100	.08	--
02-09-2010	< 10	43.0	17.0	1.50	55.0	140	--	100	.07	--
06-21-2010	8	47.4	20.0	1.74	61.0	152	1.23	119	.10	< .06
08-25-2010	19	26.9	9.88	1.57	25.0	81	2.92	47.2	E .06	< .06

01367625 WALLKILL RIVER AT SPARTA, NJ—Continued

WATER-QUALITY DATA
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Part 4 of 5

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Date	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)	Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)	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)
11-05-2009	4.0	14.8	.33	--	.063	.41	.010	.09	.010
02-09-2010	3.2	20.8	.20	--	.030	.47	E .005	.07	E .007
02-09-2010	--	23.0	E .19	E .25	< .050	.510	.016	--	< .050
02-09-2010	--	23.0	E .18	E .22	< .050	.510	< .010	--	< .050
06-21-2010	4.7	16.0	.27	--	< .010	.68	--	.10	.030
08-25-2010	4.8	10.5	.28	--	.023	.32	--	.28	.043

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Part 5 of 5

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Date	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, filtered, mg/L (00602)	Total nitrogen, water, unfiltered, mg/L (00600)	Boron, water, filtered, µg/L (01020)	Organic carbon, suspended sediment, total, mg/L (00689)	Organic carbon, water, filtered, mg/L (00681)
11-05-2009	.030	.73	.82	--	.63	3.1
02-09-2010	.018	.68	.75	--	.45	2.3
02-09-2010	--	E .70	E .76	10	--	2.2
02-09-2010	--	E .69	E .73	10	--	2.3
06-21-2010	.061	.94	1.0	--	1.22	2.5
08-25-2010	.116	.60	.88	--	2.91	4.0