

**01443293 PAULINS KILL TRIBUTARY 1 AT MEADOWS ROAD, AT LAFAYETTE, NJ**

DELAWARE RIVER BASIN

LOCATION.--Lat 41°06'21", long 74°40'56" referenced to North American Datum of 1983, Lafayette Township, Sussex County, NJ, Hydrologic Unit 02040105, at bridge on County Route 659 (Lafayette Meadows Road), 0.3 mi upstream from mouth, 0.6 mi northeast of Lafayette, and 1.8 mi northwest of Ackerson.

DRAINAGE AREA.--3.80 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Miscellaneous measurements, water years 2011-12.

GAGE.--Reference point only.

**DISCHARGE MEASUREMENTS**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

<b>Date</b>	<b>Discharge, in ft<sup>3</sup>/s</b>
Jun 18, 2012	0.61
Sep 24, 2012	0.54

## 01443293 PAULINS KILL TRIBUTARY 1 AT MEADOWS ROAD, AT LAFAYETTE, NJ—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 2010 to current water year.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of the NJ Department of Environmental Protection. Determinations of dissolved ammonia 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.

REMARKS.--Cooperative Network Site Descriptor: HUC14, NJ Department of Environmental Protection Watershed Management Area 1.

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 1 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; cm, centimeter; ft<sup>3</sup>/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	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Absorbance, UV, 254 nm, 1 cm path length, water, filtered, units per cm (50624)	Absorbance, UV, organic constituents, 280 nm, 1 cm path length, water, filtered, units per cm (61726)	Discharge, instantaneous, ft <sup>3</sup> /s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)
11-16-2011	1145	742	18.4	0.497	0.372	--	7.9	71	8.0
03-20-2012	1115	755	22.5	.463	.347	--	8.3	79	7.9
06-18-2012	1050	753	18.3	.550	.409	.61	6.1	63	8.0
09-24-2012	1200	751	17.4	.527	.393	.54	6.7	64	7.7

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 2 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; cm, centimeter; ft<sup>3</sup>/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	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, mg/L (70301)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)	Suspended solids, water, unfiltered, mg/L (00530)	Calcium, water, filtered, mg/L (00915)
11-16-2011	1145	539	9.7	3.0	307	290	227	5.0	53.3
03-20-2012	1115	694	13.0	4.5	388	E 371	277	3.0	65.8
06-18-2012	1050	785	16.7	5.4	462	433	320	< 1.0	73.9
09-24-2012	1200	826	13.2	3.6	484	E 462	333	4.0	78.9

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**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 3 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; cm, centimeter; ft<sup>3</sup>/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	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	ANC, water, unfiltered, fixed endpoint titration, laboratory, mg/L as CaCO <sub>3</sub> (90410)	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 <sub>2</sub> (00955)
11-16-2011	1145	22.8	1.86	27.4	200	0.32	48.9	0.06	< .03	6.60
03-20-2012	1115	27.4	2.16	38.1	237	.32	77.6	.09	< .03	4.52
06-18-2012	1050	33.0	1.71	48.2	275	.44	90.5	.06	< .03	5.76
09-24-2012	1200	32.9	1.80	52.5	241	.43	103	.05	< .03	8.60

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 4 of 6

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Date	Sample start time	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	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)
11-16-2011	1145	7.93	0.77	0.035	0.307	0.040	0.009	0.016	1.1	1.1
03-20-2012	1115	11.1	.77	E .063	.561	.024	.012	.032	1.3	1.4
06-18-2012	1050	12.6	.79	< .010	.579	.045	.018	.031	1.4	1.4
09-24-2012	1200	37.5	.85	E .007	.482	.030	.020	.030	1.3	1.4

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**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 5 of 6

[%, percent; ANC, acid neutralizing capacity; CaCO<sub>3</sub>, calcium carbonate; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO<sub>2</sub>, silicon dioxide; cm, centimeter; ft<sup>3</sup>/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	Barium, water, unfiltered, recoverable, µg/L (01007)	Beryllium, water, unfiltered, recoverable, µg/L (01012)	Cadmium, water, unfiltered, µg/L (01027)	Chromium, water, unfiltered, recoverable, µg/L (01034)	Copper, water, unfiltered, recoverable, µg/L (01042)	Iron, water, unfiltered, recoverable, µg/L (01045)	Lead, water, unfiltered, recoverable, µg/L (01051)	Manganese, water, unfiltered, recoverable, µg/L (01055)	Mercury, water, unfiltered, recoverable, µg/L (71900)
11-16-2011	1145	--	--	--	--	--	--	--	--	--
03-20-2012	1115	15.5	< .02	.017	< .30	< .70	739	.14	89.8	< .005
06-18-2012	1050	--	--	--	--	--	--	--	--	--
09-24-2012	1200	17.6	< .02	< .016	< .30	< .70	534	.10	41.2	< .005

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**

Part 6 of 6

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Date	Sample start time	Nickel, water, unfiltered, recoverable, µg/L (01067)	Silver, water, unfiltered, recoverable, µg/L (01077)	Zinc, water, unfiltered, recoverable, µg/L (01092)	Arsenic, water, filtered, µg/L (01000)	Arsenic, water, unfiltered, µg/L (01002)	Boron, water, unfiltered, recoverable, micrograms per liter (01022)	Selenium, water, unfiltered, µg/L (01147)	Organic carbon, suspended sediment, total, mg/L (00689)	Organic carbon, water, filtered, mg/L (00681)
11-16-2011	1145	--	--	--	--	--	--	--	0.32	10.8
03-20-2012	1115	1.1	< .015	< 3.0	1.1	1.5	20	.162	.31	9.27
06-18-2012	1050	--	--	--	--	--	--	--	.44	13.0
09-24-2012	1200	1.0	< .015	< 3.0	1.4	2.0	23	.203	.41	12.6