



## Water-Data Report 2009

**01400870 STONY BROOK TRIBUTARY 3 NEAR HOPEWELL, NJ**

## HUDSON RIVER BASIN

LOCATION.--Lat 40°24'12", long 74°48'06" referenced to North American Datum of 1983, Hopewell Township, Mercer County, NJ, Hydrologic Unit 02030105, at bridge on Van Dyke Road, 2.0 upstream from mouth, 2.4 mi northwest of Hopewell, and 4.0 mi southeast of Ringoes.

DRAINAGE AREA.--2.60 mi<sup>2</sup>.

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1970-71, 2009.

REMARKS.--Cooperative Network Site Descriptor: Statewide Status, NJ Department of Environmental Protection Watershed Management Area 10.

COOPERATION.--Physical measurements and samples for laboratory analyses were provided by personnel of 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 2008 TO SEPTEMBER 2009**

Part 1 of 5

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

Date	Time	Baro-metric pressure, mm Hg (00025)	Temper-ature, air, deg C (00020)	UV absorb-ance, 254 nm, wat flt units /cm (50624)	UV absorb-ance, 280 nm, wat flt units /cm (61726)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif-ic conduc-tance, µS/cm @ 25 degC (00095)	Turbdty white light, det ang 90+/>-30 corrcrd	Dis-solved solids dried @ 180degC wat flt (63676)	Dis-solved solids sum of constituents, mg/L (70301)
<b>Dec</b>												
10...	0930	749	15.0	.142	.110	11.7	89	7.3	150	3.8	2.0	106
<b>Feb</b>												
09...	0930	761	7.0	.206	.160	13.4	92	7.3	121	.2	4.6	84
<b>May</b>												
14...	0930	759	16.0	.245	.188	7.9	76	7.4	145	13.6	2.9	125
<b>Aug</b>												
17...	1000	755	27.5	.298	.228	6.6	75	7.2	143	21.6	4.2	98

## 01400870 STONY BROOK TRIBUTARY 3 NEAR HOPEWELL, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 2 of 5

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

Date	ANC, wat unf						Total			Inor- ganic			
	Hard- ness, water, mg/L as CaCO <sub>3</sub> (00900)	Sus- pended solids, water, unfiltrd mg/L (00530)	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, mg/L as CaCO <sub>3</sub> (90410)	suspnd lab, mg/L as CaCO <sub>3</sub> (00694)	carbon, sediment total, mg/L (00940)	Chlor- ide, water, filtrd, mg/L (00950)	Fluor- ide, water, filtrd, mg/L (00688)	carbnd, sediment total, mg/L (00955)	
Dec 10...	56	1	11.8	6.50	.66	6.95	39	E.1	11.3	E.06	<.04	25.1	16.5
Feb 09...	30	2	6.57	3.35	.57	10.2	15	.4	18.8	<.08	<.04	12.7	10.2
May 14...	51	3	11.2	5.49	.79	7.71	40	.3	12.3	<.08	<.04	24.0	10.7
Aug 17...	56	<1	12.9	5.78	1.09	6.34	45	.3	9.16	<.08	<.04	25.2	9.13

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 3 of 5

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

Date	Ammonia + org-N, water, filtrd, mg/L as N (00623)		Nitrate + Ammonia water, filtrd, mg/L as N (00608)	Ortho- phosphate, water, filtrd, mg/L as N (00631)	Partic- ulate nitro- gen, water, susps, mg/L as P (00671)	Phos- phorus, water, filtrd, mg/L as P (49570)	Phos- phorus, water, unfiltrd, mg/L as P (00666)	Total nitro- gen, water, unfiltrd, mg/L (00602)	Total nitro- gen, water, unfiltrd, mg/L (00600)	Barium, water, unfiltrd, recover -able, μg/L (01007)	Beryll- ium, water, unfiltrd, recover -able, μg/L (01012)	Chrom- ium, water, unfiltrd, recover -able, μg/L (01034)	
	Ammonia water, filtrd, mg/L as N (00623)	Ammonia water, filtrd, mg/L as N (00608)	Nitrate water, filtrd, mg/L as N (00631)	Ortho- phosphate, water, filtrd, mg/L as N (00671)	Partic- ulate nitro- gen, water, susps, mg/L as P (00666)	Phos- phorus, water, filtrd, mg/L as P (00665)	Phos- phorus, water, unfiltrd, mg/L as P (00602)	Total nitro- gen, water, unfiltrd, mg/L (00600)	Total nitro- gen, water, unfiltrd, mg/L (01007)	Barium, water, unfiltrd, recover -able, μg/L (01012)	Beryll- ium, water, unfiltrd, recover -able, μg/L (01027)	Chrom- ium, water, unfiltrd, recover -able, μg/L (01034)	
Dec 10...	.18	.012	.06	E.010	.03	.009	.015	.24	.27	--	--	--	--
Feb 09...	.28	E.009	.18	E.006	.04	.010	.022	.46	.50	13.3	.03	E.04	.58
May 14...	.34	.022	.09	.019	.03	.022	.028	.43	.46	--	--	--	--
Aug 17...	.36	.010	.20	.017	.03	.028	.041	.57	.59	15.2	.03	<.06	.73

## 01400870 STONY BROOK TRIBUTARY 3 NEAR HOPEWELL, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 4 of 5

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

Date	Mangan-												Organic carbon, susnd sedimt total, mg/L (00689)
	Copper, water, unfltrd recover -able, μg/L (01042)	Iron, water, unfltrd recover -able, μg/L (01045)	Lead, water, unfltrd recover -able, μg/L (01051)	ese, water, unfltrd recover -able, μg/L (01055)	Mercury water, unfltrd recover -able, μg/L (71900)	Nickel, water, unfltrd recover -able, μg/L (01067)	Silver, water, unfltrd recover -able, μg/L (01077)	Zinc, water, unfltrd recover -able, μg/L (01092)	Arsenic water, filtrd, unfltrd recover -able, μg/L (01000)	Arsenic water, unfltrd recover -able, μg/L (01002)	Boron, water, unfltrd recover -able, μg/L (01022)	Selen- ium, water, unfltrd recover -able, μg/L (01147)	
Dec 10...	--	--	--	--	--	--	--	--	--	--	--	--	<.12
Feb 09...	E2.8	248	1.09	35.1	E.009	.95	<.06	8.2	.19	.26	E8	E.11	.36
May 14...	--	--	--	--	--	--	--	--	--	--	--	--	.28
Aug 17...	E2.5	689	.63	31.2	E.007	1.1	<.06	2.5	.67	.95	24	.18	.29

**WATER-QUALITY  
DATA  
WATER YEAR  
OCTOBER 2008 TO  
SEPTEMBER 2009**

Part 5 of 5

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

Date	Organic carbon, water, filtrd, mg/L (00681)
Dec 10...	3.9
Feb 09...	4.7
May 14...	5.4
Aug 17...	6.9

## 01400870 STONY BROOK TRIBUTARY 3 NEAR HOPEWELL, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 1 of 7

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

Date	1-Naph-thol, water, 0.7µ GF	ethyl-aniline water, filtrd 0.7µ GF	2,6-Di-ethyl-aniline acetanilide water, fltrd 0.7µ GF	2-Chloro-diethyl water, filtrd 0.7µ GF	CIAT, water, filtrd, 0.7µ GF	2'-6'-diethyl water, filtrd 0.7µ GF	Ethyl-aniline water, filtrd, 0.7µ GF	3,4-Di-chloro-aniline water, filtrd, 0.7µ GF	3,5-Di-chloro-aniline water, filtrd, 0.7µ GF	4-Chloro-phenol, water, filtrd, 0.7µ GF	Aceto-chlor, water, filtrd, 0.7µ GF	Ala-chlor, water, filtrd, 0.7µ GF	alpha-chloran, water, filtrd, 0.7µ GF	Azin-phos-methyl oxon, water, filtrd, 0.7µ GF
	µg/L (49295)	µg/L (82660)	µg/L (61618)	µg/L (04040)	µg/L (61620)	µg/L (61625)	µg/L (61627)	µg/L (61633)	µg/L (49260)	µg/L (46342)	µg/L (34362)	µg/L (39632)	µg/L (61635)	
May 14...	<.04	<.006	<.010	E.005	<.010	<.004	<.004	<.005	<.010	<.008	<.006	E.005	<.04	

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 2 of 7

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

Date	Azin-phos-methyl, water, 0.7µ GF	Ben-flur-alin, water, filtrd 0.7µ GF	Car-baryl, water, filtrd 0.7µ GF	Carbo-furan, water, filtrd 0.7µ GF	Chlor-pyrifos oxon, water, filtrd 0.7µ GF	Chlor-pyrifos water, filtrd 0.7µ GF	Chlor-pyrifos water, filtrd 0.7µ GF	cis-Permethrin water, filtrd 0.7µ GF	cis-Propiconazole, water, filtrd 0.7µ GF	Cyana-zine, water, filtrd 0.7µ GF	Cyflu-thrin, water, filtrd 0.7µ GF	Cyper-methrin, water, filtrd 0.7µ GF	DCPA, water, filtrd 0.7µ GF	Desulf-inyl-fipro-nil, water, filtrd 0.7µ GF
	µg/L (82686)	µg/L (82673)	µg/L (82680)	µg/L (82674)	µg/L (61636)	µg/L (38933)	µg/L (82687)	µg/L (79846)	µg/L (04041)	µg/L (61585)	µg/L (61586)	µg/L (82682)	µg/L (62169)	
May 14...	<.120	<.014	<.200	<.060	<.05	<.010	<.014	<.006	<.040	<.016	<.020	<.006	<.029	

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 3 of 7

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

Date	Desulf-inyl-fipro-nil, water, filtrd 0.7µ GF	Diazi-non, water, filtrd 0.7µ GF	Di-chlor-vos, water, filtrd 0.7µ GF	Dicro-tophos, water, filtrd 0.7µ GF	Diethyl-drin, water, filtrd 0.7µ GF	Dimeth-oate, water, filtrd 0.7µ GF	Disulf-oton, water, filtrd 0.7µ GF	Disul-foton, water, filtrd 0.7µ GF	Endo-sulfan, water, filtrd 0.7µ GF	EPTC, water, filtrd 0.7µ GF	Ethion-monoxon, water, filtrd 0.7µ GF	Ethion, water, filtrd 0.7µ GF	Etho-prop, water, filtrd 0.7µ GF	
	µg/L (62170)	µg/L (39572)	µg/L (38775)	µg/L (38454)	µg/L (39381)	µg/L (82662)	µg/L (61640)	µg/L (82677)	µg/L (61590)	µg/L (82668)	µg/L (61644)	µg/L (82346)	µg/L (82672)	
May 14...	<.012	<.005	<.02	<.08	<.009	<.006	<.01	<.04	<.022	<.002	<.02	<.012	<.016	

## 01400870 STONY BROOK TRIBUTARY 3 NEAR HOPEWELL, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 4 of 7

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

Date	Fenami-													
	Fenami-phos	sulf-	Fenami-phos	Fipro-nil	Fipro-nil	Fipro-	Fonofos	Hexa-	Ipro-	Isofen-	lambda-	Cyhalo-	Mala-	Mala-
water,	oxide,	water,	water,	water,	water,	water,	water,	zinone,	dione,	phos,	water,	thrin,	oxon,	thion,
fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	fltrd,	fltrd,
µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	(62166)	(04095)	(04025)	(61593)	(61594)	(61595)	(61652)	(39532)
(61645)	(61646)	(61591)	(62167)	(62168)	(62166)	(62166)	(04095)	(04025)	(61593)	(61594)	(61595)	(61652)	(39532)	
May 14...	<.053	<.08	<.03	<.013	<.024	E.004	<.010	<.008	<.014	<.006	<.010	<.080	<.020	

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 5 of 7

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

Date	Methyl													
	Meta-laxyl,	Methid-athion,	Methyl-oxon,	Methyl-para-thion,	Metola-chlor,	Metri-buzin,	Moli-nate,	Myclo-butanol	Oxy-fluor-fen,	Pendi-meth-alin,	Phorate	Phorate	Phosmet	
water,	water,	water,	water,	water,	water,	water,	water,	water,	water,	water,	water,	water,	water,	
fltrd,	fltrd,	fltrd,	fltrd,	0.7µ GF	fltrd,	fltrd,	0.7µ GF	fltrd,	fltrd,	0.7µ GF	fltrd,	0.7µ GF	fltrd,	
µg/L	µg/L	µg/L	µg/L	µg/L	(82667)	(39415)	(82630)	(82671)	(61599)	(61600)	(82683)	(61666)	(82664)	(61668)
(61596)	(61598)	(61664)	(61664)	(82667)	(39415)	(82630)	(82671)	(61599)	(61600)	(82683)	(61666)	(82664)	(61668)	
May 14...	<.007	<.006	<.01	<.008	E.005	<.016	<.002	<.010	<.006	<.012	<.03	<.020	<.05	

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 6 of 7

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

Date	Ter-												
	Phosmet	Prome-ton,	Prome-tryn,	Propanil,	Propar-gite,	Propy-zamide,	Tebu-simazine,	Terbufos	Terbu-	Ter-	Thio-		
water,	water,	water,	water,	water,	water,	water,	water,	oxon	fos,	buthyl-	bencarb		
fltrd,	fltrd,	fltrd,	fltrd,	0.7µ GF	0.7µ GF	0.7µ GF	0.7µ GF	fltrd,	water,	water,	water,		
µg/L	µg/L	µg/L	µg/L	(82679)	(82685)	(82676)	(04035)	(82670)	(61606)	(61674)	(82675)	(04022)	(82681)
(61601)	(04037)	(04036)	(04036)	(82679)	(82685)	(82676)	(04035)	(82670)	(61606)	(61674)	(82675)	(04022)	(82681)
May 14...	<.200	<.01	<.006	<.014	<.02	<.004	<.010	<.02	<.010	<.04	<.02	<.01	<.016

## 01400870 STONY BROOK TRIBUTARY 3 NEAR HOPEWELL, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO**  
**SEPTEMBER 2009**

Part 7 of 7

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

Date	trans- Propri- con- azole, water, filtrd, µg/L (79847)	Tribu- phos, water, filtrd, filtrd, µg/L (61610)	Tri- flur- alin, water, filtrd 0.7µ GF µg/L (82661)
May 14...	<.02	<.035	<.012

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 1 of 4

[Remark codes: &lt;, less than; E, estimated; M, presence verified but not quantified.]

Mois- ture, bed sed	Inor- ganic	Phos- phorus,	Chrom-	Mangan-				
pH	Total carbon,	Cadmium	Cobalt	Copper,	Iron,	Lead,	ese,	Mercury
<2 mm, bed	bed	bed	bed	bed	bed	bed	bed	bed
wsv nat	sedimnt	sedimnt	sedimnt	sedimnt	sedimnt	sedimnt	sedimnt	sedimnt
fld dry	std	total, total,	mg/kg	recover	recover	recover	recover	recover
Date	percent	units	g/kg	as P	µg/g	µg/g	µg/g	µg/g
(49282)	(70310)	(00693)	(00686)	(00668)	(01028)	(01029)	(01038)	(01043)

  

Aug 17...	25	6.80	1.6	<.2	M	.210	48	11.8	17	19,000	14	410	.008
--------------	----	------	-----	-----	---	------	----	------	----	--------	----	-----	------

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 2 of 4

[Remark codes: &lt;, less than; E, estimated; M, presence verified but not quantified.]

Nickel, bed	Zinc, bed	Arsenic bed	Sele- nium, bed	p- Cresol, bed sed	1,2-Di- methyl- naphth-	1,6-Di- methyl- naphth-	1Methyl- -9H- fluor- ene,	1- Methyl- phenan- threne,	1- Methyl- pyrene,	236Tri- methyl- naphth-	2,6-Di- methyl- naphth-	
sedimnt	sedimnt	sedimnt	sedimnt	<2 mm, wsv nat	PCBs, bed	bed sed	bed sed	bed sed	bed sed	<2 mm, bed sed	<2 mm, bed sed	
recover -able,	recover -able,	recover -able,	recover -able,	field,	sedimnt	<2 mm,	<2 mm,	<2 mm,	<2 mm,	wsv nat	<2 mm,	
Date	µg/g	µg/g	µg/g	µg/g	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	
(01068)	(01093)	(64847)	(64848)	(49451)	(39519)	(49403)	(49404)	(49398)	(49410)	(49388)	(49405)	(49406)

  

Aug 17...	19.9	69	3.6	.2	<50	<5.00	<50	<50	<50	<50	<50	<50
--------------	------	----	-----	----	-----	-------	-----	-----	-----	-----	-----	-----

## 01400870 STONY BROOK TRIBUTARY 3 NEAR HOPEWELL, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 3 of 4

[Remark codes: &lt;, less than; E, estimated; M, presence verified but not quantified.]

Date	2-Ethyl naphth- alene <2 mm wsv nat	2-Methyl- anthra- cene, bed sed <2 mm, bs <2mm	4H-Cyc- lopenta phenan- threne, bed sed <2 mm,	9H- [def]- Fluor- bed sed	Ace- ne, <2 mm, wsv nat	Ace- naphth- ylene, bed sed	Anthra- cene, <2 mm, field,	Benzo- [a]- anthra- cene, <2 mm, wsv nat	Benzo- [a]- pyrene, bed sed	Benzo- [b]- fluor- anthene, <2 mm, wsv nat	Benzo- [ghi]- peryl- ene, <2 mm, bed sed	Benzo- [k]- fluor- anthene, <2 mm, bed sed	Chry- sene, bed sed wsv nat
	μg/kg (49948)	μg/kg (49435)	μg/kg (49411)	μg/kg (49399)	μg/kg (49429)	μg/kg (49428)	μg/kg (49434)	μg/kg (49436)	μg/kg (49389)	μg/kg (49458)	μg/kg (49408)	μg/kg (49397)	μg/kg (49450)
Aug 17...	<50	<50	<50	<50	<50	<50	<50	E21	E27	E14	E9	<50	

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

Part 4 of 4

[Remark codes: &lt;, less than; E, estimated; M, presence verified but not quantified.]

Date	Dibenzo- - [a,h]- anthra- cene, bed sed <2 mm, wsv nat	Fluor- anthene bed sed	Indeno- [1,2,- 3-cd]- pyrene, bed sed	Iso- phorone <2 mm, wsv nat	Naphth- alene, bed sed	Phenan- threne, <2 mm, wsv nat	Phenan- threne, bed sed	Pyrene, bed sed	Bed sediment dry svd
	μg/kg (49461)	μg/kg (49466)	μg/kg (49390)	μg/kg (49400)	μg/kg (49402)	μg/kg (49409)	μg/kg (49393)	μg/kg (49387)	mm (80164)
Aug 17...	<50	E30	<50	<50	<50	<50	<50	E25	4.0