



Water-Data Report 2006

**01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ**

RARITAN RIVER BASIN

LOCATION.--Lat 40°25'06", long 74°47'14" referenced to North American Datum of 1983, Hopewell Township, Mercer County, NJ, Hydrologic Unit 02030105, at bridge on Rileyville Road, 0.5 mi southwest of Rileyville, 2.4 mi northeast of Hopewell, and 3.8 mi upstream of mouth.

DRAINAGE AREA.--1.28 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--Miscellaneous measurements, water years 2005-06.

GAGE.--Reference point only.

**DISCHARGE MEASUREMENTS  
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Date	Discharge, in ft <sup>3</sup> /s
Nov 15, 2005	0.47
Feb 7, 2006	1.85
May 4, 2006	0.48
Aug 23, 2006	0.10

**01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ—Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 2005 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: Background and Low-Level Mercury Assessment special study site, New Jersey Department of Environmental Protection (NJDEP) Watershed Management Area 10. Samples on Oct. 24 and Dec. 2 were for the low-level mercury assessment.

COOPERATION.--Physical measurements and samples for laboratory analyses on Oct. 24 and Dec. 2 were provided by personnel of 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	Turbidity	UV	UV	Baro-	Dis-	pH,	Specif.	
			Instan-	white	absorb-			solved	water,	
		stante-	light,	ance,	ance,	metric	oxy-	unfltrd	conduc-	
		dis-	det ang	254 nm,	280 nm,		dissolved	percent	field,	
		charge,	90+/-30	wat flt	wat flt	pressure,	oxygen,	of sat-	std	
			corrctd	units	units	mm Hg	mg/L	uration	units	
			cfs	NTRU	/cm	(61726)	(00025)	(00301)	(00400)	
			(00061)	(63676)	(50624)		(00300)			
<b>Oct</b>										
24...	0900	Field Blank	--	--	--	--	--	--	--	--
24...	0930	Environmental	--	3.0	--	--	748	8.4	76	6.9
<b>Nov</b>										
15...	1010	Environmental	.47	2.3	.239	.190	761	--	--	6.5
<b>Dec</b>										
02...	1230	Field Blank	--	--	--	--	--	--	--	--
02...	1245	Environmental	--	2.1	--	--	742	10.1	84	6.7
<b>Feb</b>										
07...	1131	Splitter Blank	--	--	--	--	--	--	--	--
07...	1132	Field Blank	--	--	--	--	--	--	--	--
07...	1210	Environmental	1.9	2.6	.144	.108	759	12.3	93	6.6
<b>May</b>										
04...	1120	Environmental	.48	3.9	.171	.131	762	9.2	91	6.5
<b>Aug</b>										
23...	1020	Environmental	E.10	20	.044	.035	753	5.5	60	7.2
										24.0

01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 2 of 5

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

Date	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO <sub>3</sub> (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 <sub>3</sub> (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. at 180degC wat flt mg/L (70300)
							fixed end pt,	Chlor- ide, mg/L as CaCO <sub>3</sub> (00940)	Fluor- ide, mg/L (00950)						
<b>Oct</b>															
24..	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
24..	9.8	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>Nov</b>															
15..	11.5	49	10.6	5.44	.91	5.66	32	8.36	<.10	26.4	18.2	95	116		
<b>Dec</b>															
02..	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
02..	6.3	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>Feb</b>															
07..	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
07..	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
07..	3.4	30	6.49	3.31	.45	5.88	18	8.33	<.10	16.4	12.7	64	74		
<b>May</b>															
04..	14.8	50	11.3	5.21	.55	7.03	37	9.90	E.10	23.5	12.8	93	106		
<b>Aug</b>															
23..	19.3	100	22.5	11.8	.88	8.32	77	26.2	E.05	35.3	12.2	--	172		

## 01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 3 of 5

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

Date	Residue total at 105 deg. C, sus- pended,	Ammonia + org-N, water, filtrd, mg/L (00530)	Ammonia water, filtrd, mg/L (00623)	Nitrite nitrate water mg/L (00608)	Partic- ulate nitro- gen, susp, water, mg/L (00631)	Total nitro- gen, water, unfiltrd mg/L (49570)	Ortho- phosphate, water, filtrd, mg/L (00600)	Phos- phorus, water, unfiltrd mg/L (00671)	Phos- phorus, water, filtrd, mg/L (00666)	Total carbon, suspnd mg/L (00665)	Inor- ganic carbon, suspnd mg/L (00694)	Organic carbon, suspnd mg/L (00688)	Organic carbon, sedimnt mg/L (00689)	Organic water, filtrd, mg/L (00681)
<b>Oct</b>														
24..	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24..	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Nov</b>														
15..	<1	.25	.035	<.06	.03	--	E.007	.011	.017	.3	<.1	.3	8.4	
<b>Dec</b>														
02..	--	--	--	--	--	--	--	--	--	--	--	--	--	--
02..	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Feb</b>														
07..	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07..	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07..	<1	.17	.013	E.06	<.02	--	E.006	.004	.009	.1	<.1	.1	3.6	
<b>May</b>														
04..	4	.20	.025	<.06	<.02	--	E.008	.006	.018	.3	<.1	.3	4.0	
<b>Aug</b>														
23..	25	.27	.028	E.04	.20	.51	--	.009	.028	1.8	<.1	1.8	3.8	

## 01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 4 of 5

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

Date	BOD, water, unfltrd 5 day, 20 degC	Arsenic water, fltrd	Arsenic water unfltrd	Barium, water, recover -able,	ium, water, recover -able,	Boron, water, unfltrd	Boron, water, filtrd, ug/L	Cadmium water, unfltrd	Chrom- ium, water, recover -able,	Copper, water, unfltrd	Iron, water, unfltrd	Lead, water, filtrd,
	BOD, mg/L (00310)	Arsenic ug/L (01000)	Arsenic ug/L (01002)	Barium, ug/L (01007)	ium, ug/L (01012)	Boron, ug/L (01020)	Boron, ug/L (01022)	Cadmium ug/L (01027)	Chrom- ium, ug/L (01034)	Copper, ug/L (01040)	Iron, ug/L (01042)	Lead, ug/L (01049)
<b>Oct</b>												
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
<b>Nov</b>												
15...	E1.9	--	--	--	--	24	--	--	--	--	--	--
<b>Dec</b>												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
<b>Feb</b>												
07...	--	<.12	--	--	--	--	--	--	E.3	--	--	<.08
07...	--	<.12	--	--	--	--	--	--	<.4	--	--	<.08
07...	<1.0	.16	.27	12.2	E.03	12	10	E.03	.57	--	2.5	187
<b>May</b>												
04...	<1.0	--	--	--	--	21	--	--	--	--	--	--
<b>Aug</b>												
23...	E1.9	.54	.80	28.3	E.04	32	30	.24	1.4	--	3.5	964

## 01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 5 of 5

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

Date	Mangan-									
	Lead, water, unfiltrd recover -able, ug/L (01051)	ese, water, unfiltrd recover -able, ug/L (01055)	Mercury water, unfiltrd recover -able, ug/L (71890)	Mercury water, filtrd, low level, ng/L (50287)	Mercury water, unfiltrd recover -able, ug/L (71900)	Nickel, water, filtrd, recover -able, ug/L (01065)	Nickel, water, unfiltrd recover -able, ug/L (01067)	Selenium, water, unfiltrd recover -able, ug/L (01147)	Silver, water, unfiltrd recover -able, ug/L (01077)	Zinc, water, unfiltrd recover -able, ug/L (01090)
Oct										
24...	--	--	--	.10	--	--	--	--	--	--
24...	--	--	--	3.53	--	--	--	--	--	--
Nov										
15...	--	--	--	--	--	--	--	--	--	--
Dec										
02...	--	--	--	<.04	--	--	--	--	--	--
02...	--	--	--	4.10	--	--	--	--	--	--
Feb										
07...	--	--	<.010	--	--	E.03	--	--	--	1.5
07...	--	--	<.010	--	--	<.06	--	--	--	.7
07...	.35	12.8	--	--	<.010	--	.87	.12	<.16	--
May										
04...	--	--	--	--	--	--	--	--	--	--
Aug										
23...	1.34	126	--	--	E.005	--	1.78	.16	<.16	--
										6

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 1 of 5

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

Date	Time	2,4-D				3-Hydroxy				Aldi-carb		Aldi-carb		Aldi-carb, water, fltrd, ug/L (39632)	Bendio- carb, water, fltrd, ug/L (50299)
		methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	2,4-DB water, fltrd, ug/L (38746)	CIAT, 0.7u GF water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	carbo- furan, wat flt 0.7u GF ug/L (49308)	sulfone water, fltrd, ug/L (49313)	sulfide, wat flt 0.7u GF ug/L (49314)	sulfide, wat flt 0.7u GF ug/L (49312)	sulfide, wat flt 0.7u GF ug/L (49312)	sulfide, wat flt 0.7u GF ug/L (49312)		
May															
04...	1120	<.016	<.04	<.02	<.03	<.08	<.032	<.008	<.02	<.022	<.04	<.008	<.02		

## 01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 2 of 5

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

Date	Benomyl water, fltrd, ug/L (50300)	Bensulfuron- methyl, water, fltrd, ug/L (61693)	Ben-tazon, water, fltrd, 0.7u GF (38711)	Bromo-cil, water, fltrd, 0.7u GF (04029)	Bromoxynil, water, fltrd, 0.7u GF (49311)	Caf-feine, water, fltrd, 0.7u GF (50305)	Car-baryl, water, fltrd, 0.7u GF (49310)	Carbo-furan, water, fltrd, 0.7u GF (49309)	Chlor-amben methyl ester, water, fltrd, ug/L (61188)	Chlori-muron, water, fltrd, ug/L (50306)	Chloro-di- amino-s-tri- azine, water, fltrd, 0.7u GF (04039)	Clopyr-alid, water, fltrd, ug/L (49305)	Cyclo- ate, water, fltrd, ug/L (04031)
May 04...	<.022	<.02	<.01	<.02	<.03	<.018	<.02	<.016	<.02	<.032	<.04	<.02	<.01

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 3 of 5

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

Date	Dacthal mono- acid, water, fltrd, 0.7u GF ug/L (49304)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor- prop, water, fltrd, 0.7u GF ug/L (49302)	Diphen- amid, water, fltrd, 0.7u GF ug/L (04033)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fenuron water, fltrd, 0.7u GF ug/L (49297)	Flumet- sulam, water, fltrd, 0.7u GF ug/L (61694)	Fluo- meturon water, fltrd, 0.7u GF ug/L (38811)	Imaza- quin, water, fltrd, 0.7u GF ug/L (50356)	Imaze- thapyr, water, fltrd, 0.7u GF ug/L (50407)	Imida- cloprid, water, fltrd, 0.7u GF ug/L (61695)	Linuron water, fltrd, 0.7u GF ug/L (38478)	MCPA, water, fltrd, 0.7u GF ug/L (38482)
May 04...	<.03	<.04	<.03	<.01	<.02	<.02	<.04	<.02	<.04	<.04	<.020	<.01	<.03

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 4 of 5

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

Date	MCPB, water, fltrd, 0.7u GF ug/L (38487)	Meta-laxyl, water, fltrd, 0.7u GF ug/L (50359)	Methio-carb, water, fltrd, 0.7u GF ug/L (38501)	Meth-omyl, water, fltrd, 0.7u GF ug/L (49296)	Metsul-furon, water, fltrd, 0.7u GF ug/L (61697)	Chloro-phenyl) -N'-methyl- urea, water, fltrd, 0.7u GF ug/L (61692)	Neburon water, fltrd, 0.7u GF ug/L (49294)	Nico-sul- furon, water, fltrd, 0.7u GF ug/L (50364)	Norflur- azone, water, fltrd, 0.7u GF ug/L (49293)	Ory-zalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Pic- loram, water, fltrd, 0.7u GF ug/L (49291)	Propham water, fltrd, 0.7u GF ug/L (49236)
May 04...	<.01	<.01	<.010	<.020	<.07	<.04	<.01	<.04	<.02	<.01	<.03	<.03	<.030

## 01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Part 5 of 5

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

Date	Propiconazole, water, water, fltrd, ug/L (50471)	Propoxur, water, water, fltrd, ug/L (38538)	Siduron water, water, fltrd, ug/L (38548)	Sulforuron water, water, fltrd, ug/L (50337)	Tebu-thiuron water, water, fltrd, ug/L (82670)	Terbam-cil, water, water, fltrd, ug/L (04032)	Triclopyr, water, fltrd, ug/L (49235)
May 04...	<.01	<.008	<.02	<.091	<.026	<.016	<.03

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006**

Date	Time	Enterococci, m-E Temper- ature, water, deg C (00010)	E coli, m-TEC MF, water, col/ 100 mL (31649)	Fecal coliform, ECbroth MF, water, col/ 100 mL (31633)	MPN/ 100 mL (31615)
<b>Jul</b>					
12...	1030	21.9	240	190	170
19...	1040	21.7	770	1,600	1,300
26...	1025	20.8	300	160	170
<b>Aug</b>					
02...	1020	24.3	710	150	1,300
09...	1040	20.3	890	190	170