



Water-Data Report 2007

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 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Miscellaneous measurements, water years 2005-07.

GAGE.--Reference point only.

**DISCHARGE MEASUREMENTS
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Date	Discharge, in ft ³ /s
Nov 6, 2006	1.09
Feb 6, 2007	0.22
May 3, 2007	2.39
Aug 13, 2007	0.02

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). Cooperative Network Site Descriptor: Background and Low Level Mercury Assessment special study site, NJ Department of Environmental Protection Watershed Management Area 10. Samples on May 7 and Aug 13 at 0800 and 0815 were for the low level mercury assessment.

COOPERATION.--Physical measurements and samples for laboratory analysis were collected in cooperation with the NJ Department of Environmental Protection. Samples on May 7 and Aug 13 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 2006 TO SEPTEMBER 2007**

Part 1 of 5

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

Date	Time	Sample type	Turbidity	UV	UV	Baro-	Dis-	pH,	Specif-			
			white light, det ang 90+/-30 dis- charge, corrcrd cfs (00061)	absorb- ance, 254 nm, wat flt units	absorb- ance, 280 nm, wat flt units			water, unfltrd percent of sat- uration (00301)	conduc- tance, wat unf µS/cm (00095)	Temper- ature, air, deg C (00020)		
Nov 06...	1440	Environmental	1.1	2.5	.207	.158	768	10.5	85	6.9	114	12.0
Feb 06...	1012	Field Blank	--	--	--	--	--	--	--	--	--	--
06...	1140	Environmental	.20	2.4	.083	.063	754	13.4	93	6.7	181	-8.0
May 03...	1055	Environmental	2.4	3.7	.257	.196	758	10.9	105	6.9	105	17.5
07...	0840	Field Blank	--	--	--	--	--	--	--	--	--	--
07...	0900	Environmental	--	2.8	--	--	764	8.6	78	7.2	126	11.0
07...	0910	Environmental	--	--	--	--	--	--	--	--	--	--
Aug 13...	0800	Field Blank	--	--	--	--	--	--	--	--	--	--
13...	0815	Environmental	--	6.6	--	--	748	--	--	7.3	217	22.0
13...	1100	Splitter Blank	--	--	--	--	--	--	--	--	--	--
13...	1101	Field Blank	--	--	--	--	--	--	--	--	--	--
13...	1200	Environmental	.02	10	.197	.150	750	5.5	64	6.9	234	25.5

01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 5

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

Date	Temperature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO ₃ (00900)	Calcium water, mg/L (00915)	Magnes- ium, water, mg/L (00925)	Potas- sium, water, mg/L (00935)	Sodium, water, mg/L (00930)	ANC, wat unf			Chlor- ide pt, lab, mg/L as CaCO ₃ (90410)	Fluor- ide, water, mg/L (00950)	Silica, water, mg/L (00955)	Sulfate water, mg/L (00945)	Residue water, filtr, sum of consti- tuents mg/L (70301)	Residue on evap. at 180degC wat fit mg/L (70300)
							fixed	Chlor- ide, lab, mg/L as CaCO ₃ (90410)	Fluor- ide, water, mg/L (00950)						
Nov															
06...	6.7	42	9.14	4.67	.64	4.74	32	6.78	<.10	21.8	12.2	79	94		
Feb															
06...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
06...	.5	67	14.1	7.73	.51	7.34	49	12.6	E.06	30.9	19.5	122	131		
May															
03...	13.4	35	7.90	3.73	.54	5.79	28	7.33	E.06	13.8	9.80	66	96		
07...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
07...	10.8	--	--	--	--	--	--	--	--	--	--	--	--	--	
07...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Aug															
13...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
13...	20.0	--	--	--	--	--	--	--	--	--	--	--	--	--	
13...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
13...	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
13...	21.6	90	19.4	10.1	.90	8.21	69	19.5	E.06	34.6	13.9	149	169		

01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 5

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

Date	Ammonia		Nitrate		Partic-		Ortho-				Inor-		
	Residue total non- filter- able, mg/L (00530)	+ org-N, water, fltrd, mg/L (00623)	Ammonia water, fltrd, mg/L (00608)	+ nitrite water fltrd, mg/L (00631)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Total nitro- gen, water, fltrd, mg/L (00602)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phosphate, water, fltrd, mg/L (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)
Nov 06...	1	.24	.029	<.06	<.02	--	--	E.004	.009	.013	<.1	<.1	<.1
Feb 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
06...	<1	.12	.018	.09	<.02	.21	--	E.006	E.004	E.007	<.1	<.1	<.1
May 03...	3	.29	E.005	<.06	.03	--	--	E.004	E.008	.018	.3	<.1	.3
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--	--
Aug 13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--	--
13...	13	.31	.054	.18	.07	.49	.56	.011	.015	.044	.6	<.1	.6

01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 4 of 5

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

Date	Beryll-				Chrom-				Copper,		Iron,	Lead, µg/L (01049)
	Organic carbon, water, fltrd, mg/L (00681)	Arsenic water, fltrd, µg/L (01000)	Arsenic water, unfltrd, µg/L (01002)	Barium, water, unfltrd recover -able, µg/L (01007)	ium, water, unfltrd recover -able, µg/L (01012)	Boron, water, fltrd, recover -able, µg/L (01020)	Boron, water, unfltrd recover -able, µg/L (01022)	Cadmium water, unfltrd recover -able, µg/L (01027)	ium, water, unfltrd recover -able, µg/L (01034)	Copper, water, fltrd, recover -able, µg/L (01040)	Iron, water, unfltrd recover -able, µg/L (01042)	
Nov 06...	5.6	--	--	--	--	16	--	--	--	--	--	--
Feb 06...	--	<.1	--	--	--	--	--	--	E.21	--	--	<.12
06...	2.3	.18	.30	15.7	<.06	17	18	.03	E.50	--	1.7	239
May 03...	6.3	--	--	--	--	18	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
Aug 13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	<.40	--	--	--
13...	--	<.12	--	--	--	--	--	--	1.4	--	--	<.12
13...	4.5	.66	.82	22.6	<.06	32	32	.03	.77	--	--	1,050

01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 5 of 5

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

Date	Mangan-		Mercury		Nickel		Silver		Zinc,		Methyl-
	Lead, water, unfltrd recover -able, µg/L (01051)	ese, water, unfltrd recover -able, µg/L (01055)	Mercury water, unfltrd recover -able, µg/L (71890)	Mercury water, unfltrd recover -able, µg/L (50286)	water, unfltrd recover -able, µg/L (71900)	Nickel, water, unfltrd recover -able, µg/L (01065)	Selen- ium, water, unfltrd recover -able, µg/L (01147)	water, unfltrd recover -able, µg/L (01077)	Zinc, water, unfltrd recover -able, µg/L (01090)	water, unfltrd recover -able, µg/L (01092)	mercury water, unfltrd low level ng/L (50284)
Nov											
06...	--	--	--	--	--	--	--	--	--	--	--
Feb											
06...	--	--	E.008	--	--	<.06	--	--	--	<.6	--
06...	.16	27.2	--	--	<.010	--	.74	.14	<.02	--	6
May											
03...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	<.04	--	--	--	--	--	--	<.04
07...	--	--	--	3.70	--	--	--	--	--	--	<.04
07...	--	--	--	3.90	--	--	--	--	--	--	.07
Aug											
13...	--	--	--	<.04	--	--	--	--	--	--	<.04
13...	--	--	--	1.92	--	--	--	--	--	--	.31
13...	--	--	.010	--	--	--	--	--	--	1.2	--
13...	--	--	<.010	--	--	E.05	--	--	--	1.4	--
13...	.84	282	--	--	E.008	--	1.4	.19	<.02	--	E4.7

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 7

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

Date	2,6-Di-	2Chloro	2-Ethyl	4-	alpha-	Azin-						
	1-Naph- thol, water, filtrd 0.7u GF	ethyl- aniline water, filtrd 0.7u GF	-2',6'- diethyl acet- anilide wat flt	CIAT, water, filtrd, 04040	-6- methyl- chloro- aniline water, filtrd, 61620	3,4-Di- chloro- aniline water, filtrd, 61625	3,5-Di- chloro- aniline water, filtrd, 61627	2methyl- phenol, water, filtrd, 61633	Aceto- chlor, water, filtrd, 49260	Ala- chlor, water, filtrd, 46342	Endo- sulfan, water, filtrd, 34362	phos- methoxon, water, filtrd, 39632
May												
03...	<.09	<.006	<.006	E.011	<.010	<.004	<.012	<.005	E.006	<.005	<.011	.013
												<.04

01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 7

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

Date	Azin-phos-methyl, water, fltrd 0.7u GF	Ben-flur-alin, water, fltrd 0.7u GF	Car-baryl, water, fltrd 0.7u GF	Carbo-furan, water, fltrd 0.7u GF	Chlor-pyrifos oxon, water, fltrd, 0.7u GF	Chlor-pyrifos water, fltrd, 0.7u GF	cis-Per-methrin water 0.7u GF	cis-Propi-conazole, water, fltrd, 0.7u GF	Cyana-zine, water, fltrd, 0.7u GF	Cyflu-thrin, water, fltrd, 0.7u GF	lambda-Cyhalothrin, water, fltrd, 0.7u GF	Cyper-methrin water, fltrd 0.7u GF	DCPA, water, fltrd 0.7u 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 (61595)	µg/L (61586)	µg/L (82682)
May 03...	<.080	<.010	<.060	<.020	<.06	<.005	<.010	<.013	<.018	<.053	<.014	<.046	<.003

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 7

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

Date	Desulf-inyl-fipro-nil, water, fltrd, 0.7u GF	Diazi-non, water, fltrd, 0.7u GF	Dicro-tophos, water, fltrd, 0.7u GF	Diel-drin, water, fltrd, 0.7u GF	Dimeth-oate, water, fltrd 0.7u GF	Disulf-oton sulfone water, fltrd 0.7u GF	Disul-foton, water, fltrd 0.7u GF	Endo-sulfan sulfate water, fltrd 0.7u GF	EPTC, water, fltrd 0.7u GF	Ethion monoxon water, fltrd 0.7u GF	Ethion, water, fltrd 0.7u GF	Etho-prop, water, fltrd, 0.7u GF	Fenami-phos sulfone water, fltrd 0.7u GF
	µg/L (62170)	µg/L (39572)	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)	µg/L (61645)
May 03...	<.012	<.005	<.08	<.009	<.006	<.01	<.02	<.022	<.002	<.02	<.016	<.012	<.053

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 4 of 7

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

Date	Fenami-phos sulfide, water, fltrd, 0.7u GF	Desulf-inyl-fipro-nil, water, fltrd, 0.7u GF	Fipro-nil sulfide water, fltrd 0.7u GF	Fipro-nil sulfone water, fltrd 0.7u GF	Fipro-nil water, fltrd 0.7u GF	Fonofos water, fltrd 0.7u GF	Hexa-zinone, water, fltrd 0.7u GF	Ipro-dione, water, fltrd 0.7u GF	Isofen-phos, water, fltrd 0.7u GF	Mala-oxon, water, fltrd 0.7u GF	Mala-thion, water, fltrd 0.7u GF	Meta-laxyl, water, fltrd 0.7u GF	
	µg/L (61646)	µg/L (61591)	µg/L (62169)	µg/L (62167)	µg/L (62168)	µg/L (62166)	µg/L (04095)	µg/L (04025)	µg/L (61593)	µg/L (61594)	µg/L (61652)	µg/L (39532)	µg/L (61596)
May 03...	<.04	<.03	<.029	<.013	<.024	<.016	<.006	<.026	<.026	<.011	<.039	<.016	<.007

01400860 STONY BROOK TRIBUTARY 3 AT RILEYVILLE, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 5 of 7

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

Date	Methi-	Methyl	Methyl	para-	Metola-	Moli-	Oxy-	Pendi-	meth-	Phorate	Phorate	Phosmet
	althion	oxon,	water,	thion,	chlor,	buzin,	nate,	fluor-	alin,	oxon,	water,	oxon,
	water,	fen,	water,	water,	water,	water,						
	fltrd,	fltrd,	0.7u GF	fltrd,	fltrd,	0.7u GF	fltrd,	fltrd,	0.7u GF	fltrd,	0.7u GF	fltrd,
	fltrd,	fltrd,	(82667)	(39415)	(82630)	(82671)	(61599)	(61600)	(82683)	(61666)	(82664)	(61668)
	µg/L											
	(61598)	(61664)	(82667)	(39415)	(82630)	(82671)	(61599)	(61600)	(82683)	(61666)	(82664)	(61668)
May												
03...	<.009	<.02	<.008	.010	<.012	<.003	<.033	<.017	<.020	<.03	<.020	<.05
												<.008

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 6 of 7

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

Date	Prome-	Propy-	Pro-	Propar-	Tebu-	Ter-	trans-		
	ton,	amide,	panil,	gite,	simazine,	bufos	terbu-	Thio-	Propi-
	water,	water,	water,	water,	thiuron	oxon	fos,	bencarb	conazole,
	fltrd,	fltrd,	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF	0.7u GF
	fltrd,	fltrd,	(82676)	(82679)	(82685)	(04035)	(82670)	(61606)	(61674)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	(04037)	(04036)	(82676)	(82679)	(82685)	(04035)	(82670)	(61606)	(61674)
May									
03...	<.01	<.006	<.004	<.011	<.02	E.005	<.02	<.003	<.04
									<.01
									<.01
									<.010
									<.03

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO
SEPTEMBER 2007

Part 7 of 7

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

Date	Tri-	Di-	
	tribu-	alin,	chlor-
	phos,	water,	vos,
	water,	filtrd,	water,
	filtrd,	0.7u GF	filtrd,
	µg/L	µg/L	µg/L
	(61610)	(82661)	(38775)
May			
03...	<.035	<.009	<.01