

## Water-Data Report 2007

**0146708130 SOUTH BRANCH PENNSAUKEN CREEK AT MAIN STREET, AT MAPLE SHADE, NJ**

DELAWARE RIVER BASIN

LOCATION.--Lat 39°57'15", long 75°00'48" referenced to North American Datum of 1983, Burlington County, NJ, Hydrologic Unit 02040202, at bridge on Main Street (County Route 537), 200 ft east from Maryland Avenue, 0.8 mi west from Maple Shade, and 1.8 mi upstream from confluence with North Branch Pennsauken Creek.

DRAINAGE AREA.--12.4 mi<sup>2</sup>.

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--November 2006 to August 2007.

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: Statewide Status, NJ Department of Environmental Protection Watershed Management Area 18.

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, suspended residue, ammonia-plus-organic nitrogen in bed sediment, and phosphorus in bed sediment 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: &lt;, less than; E, estimated.]

Date	Time	Turbidity white light, det ang 90+/-30 corrctd	UV absorb- ance, 254 nm, wat flt units	UV absorb- ance, 280 nm, wat flt units	Baro- metric pres- sure, mm Hg	Dis- solved oxygen, mg/L (00025)	Dis- solved oxygen, percent of sat- uration (00300)	pH, water, unfltrd field, std units	Specif- ic conduc- tance, wat unf μS/cm (00400)	Temper- ature, air, deg C (00095)	Temper- ature, water, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)
Nov 29...	0900	9.0	.100	.079	774	9.2	83	7.3	435	12.4	11.1	110	29.3	
Feb 28...	1000	9.4	.093	.071	766	11.2	86	7.7	1,690	6.8	4.3	130	36.4	
May 17...	0945	17	.254	.194	764	5.6	61	7.0	347	18.3	18.9	61	16.8	
Aug 14...	0900	3.5	.121	.089	760	6.2	69	7.6	468	19.9	20.5	100	26.7	

0146708130 SOUTH BRANCH PENNSAUKEN CREEK AT MAIN STREET, AT MAPLE SHADE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 2 of 5

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

Date	ANC, wat unf fixed						Chlor- ide, lab, mg/L as CaCO <sub>3</sub>	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue on evap. 180degC wat flt mg/L (70300)	Residue total at non- filter- able, mg/L (00530)	Ammonia	
	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	CaCO <sub>3</sub> mg/L as (90410)	mg/L (00940)	mg/L (00950)						mg/L (00530)	org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	
Nov 29...	8.67	5.38	33.7	45	66.4	.14	13.4	36.6	231	239	5	.40	.102		
Feb 28...	9.57	5.49	255	31	475	.18	9.1	35.6	855	866	10	.56	.204		
May 17...	4.63	4.00	38.2	29	67.2	.14	5.4	18.5	176	192	14	.65	.131		
Aug 14...	8.69	7.62	39.8	47	74.0	.16	10.4	34.3	250	271	5	.58	.078		

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 3 of 5

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

Date	Nitrate + nitrite water fltrd, mg/L as N (00631)	Partic- ulate nitro- gen, water, fltrd, mg/L (49570)	Total nitro- gen, water, unfltrd mg/L (00602)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phosphate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L as P (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Total carbon, suspnd water, unfltrd mg/L (00694)	Inor- ganic carbon, suspnd water, unfltrd mg/L (00688)	Organic carbon, suspnd water, unfltrd mg/L (00689)	Organic carbon, sedimnt water, fltrd, mg/L (00681)	Arsenic water, fltrd, mg/L (01000)	Arsenic water, unfltrd mg/L (01002)	
Nov 29...	2.17	.09	2.6	2.7	E.006	.013	.103	.6	<.1	.6	3.3	--	--	
Feb 28...	2.18	.16	2.7	2.9	<.010	E.006	.121	1.4	<.1	1.4	3.4	.31	.68	
May 17...	.84	.41	1.5	1.9	.012	.029	.189	2.4	<.1	2.4	6.8	--	--	
Aug 14...	4.50	.07	5.1	5.2	.087	.109	.170	.5	<.1	.5	3.7	.86	.96	

0146708130 SOUTH BRANCH PENNSAUKEN CREEK AT MAIN STREET, AT MAPLE SHADE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 4 of 5

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

Date	Barium, water, unfltrd recover -able, µg/L (01007)	Beryll- ium, water, unfltrd recover -able, µg/L (01012)	Boron, water, unfltrd recover -able, µg/L (01020)	Boron, water, unfltrd recover -able, µg/L (01022)	Cadmium water, unfltrd recover -able, µg/L (01027)	Chrom- ium, water, unfltrd recover -able, µg/L (01034)	Copper, water, unfltrd recover -able, µg/L (01042)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Mercury water, unfltrd recover -able, µg/L (71900)	Nickel, water, unfltrd recover -able, µg/L (01067)	Selen- ium, water, unfltrd recover -able, µg/L (01147)
Nov 29...	--	--	53	--	--	--	--	--	--	--	--	--	--
Feb 28...	59.0	.06	39	38	.26	.66	3.3	1,920	1.19	189	E.010	6.26	.16
May 17...	--	--	31	--	--	--	--	--	--	--	--	--	--
Aug 14...	37.5	<.06	97	104	.03	<.60	2.6	496	.44	27.8	<.010	3.9	.14

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006**  
**TO SEPTEMBER 2007**

Part 5 of 5

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

Date	Silver, water, unfltrd recover -able, µg/L (01077)	Zinc, water, unfltrd recover -able, µg/L (01092)
Nov 29...	--	--
Feb 28...	.02	53
May 17...	--	--
Aug 14...	<.02	8.9

0146708130 SOUTH BRANCH PENNSAUKEN CREEK AT MAIN STREET, AT MAPLE SHADE, NJ—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 1 of 4

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

Date	Time	Ammonia			Inor-			Chrom-					
		pH bed sedimnt std	+ org-N, bed sed total, mg/kg (00626)	Phos- phorus, bed sedimnt total, mg/kg (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inor- ganic carbon, bed sedimnt total, g/kg (00686)	Arsenic bed sedimnt recover -able, ug/g (64847)	Cadmium bed sedimnt recover -able, ug/g (01028)	ium, bed sedimnt recover -able, ug/g (01029)	Cobalt bed sedimnt recover -able, ug/g (01038)	Copper, bed sedimnt recover -able, ug/g (01043)	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover -able, ug/g (01052)
Aug 14...	0900	6.98	140	840	6.1	2.0	2.5	.150	11	1.5	8	8,000	8.3

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 2 of 4

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

Date	Mangan- ese, bed sedimnt recover -able, ug/g (01053)			Sele- nium, bed sedimnt recover -able, ug/g (71921)			1,2-Di- methyl- naphth- alene, ug/g (01068)			1,6-Di- methyl- naphth- alene, ug/g (64848)			1Methyl -9H- fluor- ene, ug/g (01093)			1- Methyl- phenan- threne, ug/g (49403)			236Tri- Methyl- naphth- alene, ug/g (49404)			2,6-Di- methyl- naphth- alene, ug/g (49405)			2-Ethy- l naphth- alene, ug/g (49448)		
	Mercury bed sedimnt recover -able, ug/g (71921)	Nickel, bed sedimnt recover -able, ug/g (01068)	Zinc, bed sedimnt recover -able, ug/g (64848)	methyl- naphth- alene, ug/g (01093)	methyl- naphth- alene, ug/g (49403)	methyl- naphth- alene, ug/g (49404)	methyl- naphth- alene, ug/g (49398)	methyl- naphth- alene, ug/g (49410)	methyl- naphth- alene, ug/g (49388)	methyl- naphth- alene, ug/g (49405)	methyl- naphth- alene, ug/g (49406)	methyl- naphth- alene, ug/g (49406)															
Aug 14...	39	<.007	3.8	.1	65	<50	E20	<50	E37	E40	E23	E24	E17														

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 3 of 4

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

Date	2-Methyl- anthra- cene, bed sedimnt <2 mm, bs <2mm			4H-Cyc- lopenta- phenan- threne, <2 mm, bs <2mm			9H- Fluor- ene, <2 mm, bs <2mm			Ace- naphth- ene, <2 mm, bs <2mm			Ace- naphth- ene, <2 mm, bs <2mm			Anthra- cene, bed sedimnt field, ug/kg (49429)			Benz- [a]- anthra- cene, bed sedimnt field, ug/kg (49434)			Benz- [a]- pyrene, bed sed ug/kg (49436)			Benz- [b]- fluor- ene, <2 mm, bed sed ug/kg (49389)			Benz- [ghi]- anthene, <2 mm, bed sed ug/kg (49458)			Benz- [k]- anthene, <2 mm, bed sed ug/kg (49408)			Benz- [l]- anthene, <2 mm, bed sed ug/kg (49397)			Chry- sene, bed sedimnt field, ug/kg (49450)			Dibenzo- -[a,h]- anthra- cene, bed sedimnt field, ug/kg (49461)		
	2-Methyl- anthra- cene, bed sedimnt <2 mm, bs <2mm	4H-Cyc- lopenta- phenan- threne, <2 mm, bs <2mm	9H- Fluor- ene, <2 mm, bs <2mm	Ace- naphth- ene, <2 mm, bs <2mm	Ace- naphth- ene, <2 mm, bs <2mm	Anthra- cene, bed sedimnt field, ug/kg (49429)	Benz- [a]- anthra- cene, bed sedimnt field, ug/kg (49434)	Benz- [a]- pyrene, bed sed ug/kg (49436)	Benz- [b]- fluor- ene, <2 mm, bed sed ug/kg (49389)	Benz- [b]- anthene, bed sedimnt ug/kg (49458)	Benz- [ghi]- anthene, <2 mm, bed sed ug/kg (49408)	Benz- [k]- anthene, <2 mm, bed sed ug/kg (49397)	Benz- [l]- anthene, <2 mm, bed sed ug/kg (49450)	Chry- sene, bed sedimnt field, ug/kg (49461)																												
Aug 14...	E28	E50	E23	E30	E12	<57	200	260	440	E100	E170	260	<44																													

**0146708130 SOUTH BRANCH PENNSAUKEN CREEK AT MAIN STREET, AT MAPLE SHADE, NJ—Continued**

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 4 of 4

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

Date	Fluor-anthene bed sed <2 mm wsv nat field, ug/kg (49466)	Indeno-[1,2,- 3-cd]- bed sed <2 mm, bed sed wsv nat bed sed <2 mm ug/kg (49390)	Iso-phorone bed sed <2 mm, bed sed wsv nat wsv nat bed sedimnt ug/kg (49400)	Naphth-alene, bed sed <2 mm wsv nat wsv nat bed ug/kg (49402)	p-PCBs, bed sed wsv nat sediment ug/kg (39519)	Cresol, bed sed wsv nat field, ug/kg (49451)	Phenan-threne, bed sed wsv nat field, ug/kg (49409)	Phenan-threne, bed sed wsv nat wsv nat ug/kg (49393)	Pyrene, bed sed wsv nat field, ug/kg (49387)	Bed sediment, dry svd sve dia percent <.063mm (80164)	Bed sediment, falldia dst wat percent <.004mm (80157)
Aug 14...	550	<100	<50	<50	6.14	E27	240	E25	440	1	.0