

## Water-Data Report 2007

**01377499 MUSQUAPSINK BROOK AT RIVER VALE, NJ**

HACKENSACK RIVER BASIN

LOCATION.--Lat 40°59'32", long 74°01'23" referenced to North American Datum of 1983, Westwood Borough, Bergen County, NJ, Hydrologic Unit 02030103, at bridge on Harrington Avenue, 400 ft upstream from confluence with Pascack Brook in Westwood, 400 ft west from Sand Road, and 0.6 mi west from River Vale.

DRAINAGE AREA.--7.07 mi<sup>2</sup>.

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1999-2000, 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 5.

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, μS/cm (00400)	Temper- ature, wat unf 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 06...	1200	1.8	.184	.143	772	5.2	43	7.3	586	9.5	7.9	180	55.4	
Mar 13...	1030	4.7	.107	.081	766	13.9	114	7.9	787	10.0	6.9	180	54.8	
Jun 13...	1030	2.5	.086	.064	763	6.1	66	7.7	630	18.0	19.1	200	59.4	
Aug 02...	1000	1.7	.074	.056	762	5.3	63	7.7	602	26.0	22.2	180	51.2	

## 01377499 MUSQUAPSINK BROOK AT RIVER VALE, 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 constituents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total 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> (90410)	mg/L (00940)	mg/L (00950)							org-N, water, fltrd, mg/L (00623)	Ammonia water, fltrd, mg/L (00608)	
Nov 06...	10.7	2.08	40.7	139	82.9	E.09	11.8	17.3	310	331	5	.42	.093		
Mar 13...	10.5	2.07	78.9	127	149	E.07	9.0	21.7	409	445	4	.23	E.018		
Jun 13...	11.7	2.04	47.4	144	98.0	E.07	10.9	20.0	341	391	3	.75	.084		
Aug 02...	11.9	2.03	44.5	130	92.8	E.06	8.5	18.7	316	346	2	1.5	.040		

**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 (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Total carbon, suspnd water, sediment mg/L (00694)	Inor- ganic carbon, suspnd water, sediment mg/L (00688)	Organic carbon, suspnd water, sediment mg/L (00689)	Organic carbon, total, water, fltrd, mg/L (00681)	Arsenic water, fltrd, µg/L (01000)	Arsenic water, unfltrd µg/L (01002)
Nov 06...	1.23	.06	1.7	1.7	.015	.031	.065	.4	<.1	.4	4.0	--	--
Mar 13...	1.54	.24	1.8	2.0	E.006	E.008	.049	1.4	<.1	1.4	2.9	.47	.73
Jun 13...	1.06	.07	1.8	1.9	.035	.041	.065	.5	<.1	.5	3.0	--	--
Aug 02...	1.75	.05	3.2	3.3	.072	.086	.104	.3	<.1	.3	5.8	.99	1.1

## 01377499 MUSQUAPSINK BROOK AT RIVER VALE, 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 06...	--	--	32	--	--	--	--	--	--	--	--	--	
Mar 13...	109	<.06	27	29	.02	E.35	1.9	391	.92	156	E.009	.75	
Jun 13...	--	--	36	--	--	--	--	--	--	--	--	--	
Aug 02...	114	<.06	47	53	E.01	<.60	2.7	212	.81	55.1	<.010	.45	

**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 06...	--	--
Mar 13...	<.02	6
Jun 13...	--	--
Aug 02...	<.02	3.0

## 01377499 MUSQUAPSINK BROOK AT RIVER VALE, NJ—Continued

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

Part 1 of 7

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

Date	1-Naph-thol, water, 0.7u GF	2,6-Di-ethyl-aniline, water, 0.7u GF	2Chloro- -2',6'-diethyl acetanilide, water, fltrd	CIAT, water, 0.7u GF	2-Ethyl- -6-methyl-chloro-aniline, water, fltrd,	3,4-Di-chloro-aniline, water, fltrd,	3,5-Di-chloro-aniline, water, fltrd,	4-Chloro- 2methyl-phenol, water, fltrd,	Aceto-chlor, water, fltrd,	Ala-chlor, water, fltrd,	alpha-Endo-sulfan, water, fltrd,	Atra-zine, water, fltrd,	Azin-phos-methyl oxon, water, fltrd,
	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)
Jun 13...	<.09	<.006	<.006	E.006	<.010	<.004	<.012	<.005	<.006	<.005	<.011	E.008	<.04

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

Part 2 of 7

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

Date	Azin-phos-methyl, water, 0.7u GF	Ben-flur-alin, water, 0.7u GF	Car-baryl, water, 0.7u GF	Carbo-furan, water, 0.7u GF	Chlor-pyrifos, oxon, 0.7u GF	Chlor-pyrifos, water, 0.7u GF	Per-methrin, water, 0.7u GF	Propi-conazole, water, 0.7u GF	Cyana-zine, water, 0.7u GF	Cyflu-thrin, water, 0.7u GF	Lambda-Cyhalothrin, water, 0.7u GF	Cyper-methrin, water, 0.7u GF	DCPA, water, 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)
Jun 13...	<.080	<.010	E.008	<.020	<.06	E.004	<.010	<.013	<.018	<.053	<.014	<.046	<.003

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

Part 3 of 7

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

Date	Desulf-inyl-fipro-nil, water, fltrd,	Diazi-non, water, fltrd,	Dicrop-tophos, water, fltrd,	Diel-drin, water, fltrd,	Dimeth-oate, water, 0.7u GF	Disulf-ton, sulfone, 0.7u GF	Disul-foton, water, 0.7u GF	Endo-sulfan, sulfate, 0.7u GF	EPTC, water, 0.7u GF	Ethion, monoxon, 0.7u GF	Ethion, water, 0.7u GF	Etho-prop, water, 0.7u GF	Fenami-phos sulfone, water, 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)
Jun 13...	E.005	<.005	<.08	<.009	<.006	<.01	<.02	<.022	<.002	<.02	<.016	<.012	<.053

## 01377499 MUSQUAPSINK BROOK AT RIVER VALE, NJ—Continued

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

Part 4 of 7

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

Date	Fenami-phos sulf-oxide, water, fltrd, µg/L (61646)	Fenami-phos, water, fltrd, µg/L (61591)	Desulf-inyl-amide, wat flt µg/L (62169)	Fipro-nil sulfide µg/L (62167)	Fipro-nil sulfone µg/L (62168)	Fipro-nil water, fltrd, µg/L (62166)	Fonofos water, fltrd, µg/L (04095)	Hexa-zinone, water, fltrd, µg/L (04025)	Ipro-dione, water, fltrd, µg/L (61593)	Isofen-phos, water, fltrd, µg/L (61594)	Mala-oxon, water, fltrd, µg/L (61652)	Mala-thion, water, fltrd, µg/L (39532)	Meta-laxyl, water, fltrd, µg/L (61596)
Jun 13...	<.04	<.03	E.007	E.006	<.024	E.008	<.006	<.026	<.026	<.011	<.039	<.016	<.007

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

Part 5 of 7

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

Date	Methi-althion water, fltrd, µg/L (61598)	Methyl para-thion, water, fltrd, 0.7u GF µg/L (61664)	Methyl para-chlor, water, fltrd, 0.7u GF µg/L (82667)	Metola-chlor, water, fltrd, µg/L (39415)	Metribuzin, water, fltrd, µg/L (82630)	Moli-nate, water, fltrd, 0.7u GF µg/L (82671)	Myclo-butanol water, fltrd, µg/L (61599)	Oxy-fluor-fen, water, fltrd, 0.7u GF µg/L (61600)	Pendi-methalin, water, fltrd, 0.7u GF µg/L (82683)	Phorate oxon, water, fltrd, 0.7u GF µg/L (61666)	Phorate oxon, water, fltrd, 0.7u GF µg/L (82664)	Phosmet oxon, water, fltrd, µg/L (61668)	Phosmet oxon, water, fltrd, µg/L (61601)
Jun 13...	<.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: &lt;, less than; E, estimated.]

Date	Prome-ton, water, fltrd, µg/L (04037)	Prome-tryn, water, fltrd, 0.7u GF µg/L (04036)	Propy-zamide, water, fltrd, 0.7u GF µg/L (82676)	Propanil, water, fltrd, 0.7u GF µg/L (82679)	Propar-gite, water, fltrd, 0.7u GF µg/L (82685)	Tebu-simazine, water, fltrd, 0.7u GF µg/L (04035)	Tebu-thiuron, water, fltrd, 0.7u GF µg/L (82670)	Ter-bufos, Teflu-thrin, oxon sulfone water, water, fltrd, fltrd, µg/L µg/L (61606)	Terbu-fos, Terbu-thiazine, water, water, fltrd, fltrd, µg/L µg/L (61674) (82675)	Ter-butyl-azine, water, water, fltrd, fltrd, µg/L µg/L (04022) (04022)	Thio-bencarb, water, water, fltrd, fltrd, µg/L µg/L (82681) (79847)	trans-Propi-conazole, water, water, fltrd, fltrd, µg/L µg/L (E.01) (E.01)	
Jun 13...	E.01	<.006	<.004	<.011	<.02	<.007	<.02	<.003	<.04	<.01	<.01	<.010	E.01

## 01377499 MUSQUAPSINK BROOK AT RIVER VALE, NJ—Continued

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

Part 7 of 7

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

Date	Tri-flur-alin, phos, water, water, fltrd, fltrd, µg/L (61610)	Di-chlor- water, vos, water, fltrd, 0.7u GF µg/L (82661)	Di-chlor- water, vos, water, fltrd, fltrd, µg/L (38775)
Jun 13...	<.035	<.009	E.01

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

Part 1 of 4

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

Date	Time	pH bed sedimnt std units (70310)	Ammonia + 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)	Chrom- 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 02...	1000	6.97	720	3,000	13	<.2	3.5	.190	7.8	2.5	10	7,800	48

**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)	Mercury bed sedimnt recover -able, ug/g (71921)	Nickel, bed sedimnt recover -able, ug/g (01068)	Sele- nium, bed sedimnt recover -able, ug/g (64848)	Zinc, bed sedimnt recover -able, ug/g (01093)	1,2-Di- methyl- naphth- alene, ug/kg (49403)	1,6-Di- methyl- naphth- alene, ug/kg (49404)	1Methyl- -9H- fluor- ene, ug/kg (49398)	1- Methyl- phenan- threne, ug/kg (49410)	1- Methyl- pyrene, bed sed bed sed <2 mm, ug/kg (49388)	236Tri- methyl- naphth- alene, bed sed bed sed <2 mm, ug/kg (49405)	2,6-Di- methyl- naphth- alene, bed sed bed sed <2 mm, ug/kg (49406)	2-Ethy- l naphth- alene bed sed <2 mm, ug/kg (49948)
Aug 02...	170	.014	5.8	.2	61	E12	<58	E26	140	120	<58	E20	<58

## 01377499 MUSQUAPSINK BROOK AT RIVER VALE, NJ—Continued

**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 sed <2 mm, bs ug/kg (49435)	4H-Cyclo-lopenta-fluor-ene, phenan-threne, <2 mm, wsv nat ug/kg (49411)	9H-Fluor-ene, bed sed ug/kg (49399)	Ace-naphth-ylene, bed sed ug/kg (49429)	Ace-naphth-ylene, bed sed ug/kg (49428)	Anthra-cene, <2 mm, wsv nat field, <2 mm ug/kg (49434)	Benz-o-[a]-anthra-cene, bed sed ug/kg (49436)	Benz-o-[a]-pyrene, bed sed ug/kg (49438)	Benz-o-[b]-fluor-anthene, bed sed ug/kg (49458)	Benz-o-[b]-peryl-anthene, bed sed ug/kg (49408)	Benz-o-[k]-fluor-anthene, bed sed ug/kg (49397)	Chry-sene, bed sed ug/kg (49450)	Dibenzo-[a,h]-anthra-cene, bed sed ug/kg (49461)
Aug 02...	E72	240	110	78	66	280	1,100	1,200	1,600	E460	680	1,200	<160

**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, <2 mm ug/kg (49466)	Indeno-[1,2,3-cd]pyrene, bed sed bed sed wsv nat field, <2 mm ug/kg (49390)	Iso-phorone, bed sed <2 mm wsv nat field, <2 mm ug/kg (49400)	Naphth-alene, bed sed bed sed wsv nat wsv nat sedimnt ug/kg (49402)	p-PCBs, bed bed wsv nat wsv nat sedimnt ug/kg (39519)	Phenan-Cresol, bed sed <2 mm, wsv nat field, ug/kg (49451)	Phenan-threne, bed sed <2 mm, wsv nat field, ug/kg (49409)	Phenan-thri-dine, bed sed <2 mm, wsv nat field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sediment, dry svd bed sed wsv nat field, ug/kg (80164)	Bed sediment, svedia bed sed wsv nat field, ug/kg (80157)	
Aug 02...	2,800	<500	<58	E16	24.3	E20	1,400	<58	2,200	4	1	