



Water-Data Report 2007

**01403190 MIDDLE BROOK AT ROUTE 28 AT BOUND BROOK, NJ**

RARITAN RIVER BASIN

LOCATION.--Lat 40°34'05", long 74°33'13" referenced to North American Datum of 1983, Bound Brook Borough, Somerset County, NJ, Hydrologic Unit 02030105, at bridge on West Union Avenue (State Route 28), 700 ft west from Tea Street, 0.8 mi west of Bound Brook, and 1.0 mi from Raritan River.

DRAINAGE AREA.--16.9 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 9.

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: <, less than; E, estimated.]

Date	Time	Turbidity white light, det ang 90+/-30 corrctd NTRU (63676)	UV absorb- ance, 254 nm, wat flt units /cm (50624)	UV absorb- ance, 280 nm, wat flt units /cm (61726)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, of sat- uration mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif- ic conduc- tance, wat unf µS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water, mg/L fltrd, mg/L (00915)
<b>Nov</b> <b>06...</b>	0810	29	.113	.086	775	11.7	92	8.1	346	4.5	5.9	100	26.4
<b>Feb</b> <b>07...</b>	0950	.9	.040	.030	763	13.7	95	8.5	631	-6.0	.3	190	49.5
<b>May</b> <b>10...</b>	0800	4.3	.070	.052	763	8.1	86	7.8	386	21.0	17.9	120	29.3
<b>Aug</b> <b>14...</b>	0800	35	.135	.100	762	8.0	88	8.1	346	25.0	20.3	100	25.9

## 01403190 MIDDLE BROOK AT ROUTE 28 AT BOUND BROOK, NJ—Continued

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

Part 2 of 5

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

Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, 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-filterable, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)
Nov 06...	8.96	1.50	25.8	78	42.3	E.08	16.2	24.1	196	210	11	.21	.036
Feb 07...	17.1	1.39	53.4	88	120	E.08	17.6	32.7	349	340	1	.13	E.011
May 10...	10.6	1.31	30.1	70	56.7	E.07	15.2	25.7	214	220	1	.23	E.006
Aug 14...	8.60	1.75	26.5	77	42.8	E.08	14.1	22.8	192	198	9	.26	.023

**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)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd, mg/L (00600)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Arsenic water, fltrd, µg/L (01000)	Arsenic water, unfltrd, µg/L (01002)
Nov 06...	.77	.05	.98	1.0	E.009	.014	.032	.4	<.1	.3	3.0	--	--
Feb 07...	.92	<.02	1.0	--	E.006	<.008	E.005	<.1	<.1	<.1	1.5	--	.38
May 10...	.68	<.02	.91	--	E.006	E.004	.010	.2	<.1	.2	2.2	--	--
Aug 14...	.72	.06	.98	1.0	.014	.016	.039	.5	<.1	.5	3.2	.52	.57

01403190 MIDDLE BROOK AT ROUTE 28 AT BOUND BROOK, NJ—Continued

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

Part 4 of 5

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

Date	Barium, water, unfltrd recover- able, µg/L (01007)	Beryll- ium, water, unfltrd recover- able, µg/L (01012)	Boron, water, fltrd, µg/L (01020)	Boron, water, recover- able, µg/L (01022)	Cadmium water, unfltrd 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 µg/L (01147)
Nov 06...	--	--	217	--	--	--	--	--	--	--	--	--	--
Feb 07...	56.6	<.06	158	163	<.02	<.60	1.3	73	E.05	6.3	<.010	.72	.17
May 10...	--	--	158	--	--	--	--	--	--	--	--	--	--
Aug 14...	37.6	<.06	212	238	E.01	2.0	7.1	1,750	.58	25.5	<.010	2.8	.35

**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...	--	--
Feb 07...	<.02	E1
May 10...	--	--
Aug 14...	<.02	2.8

## 01403190 MIDDLE BROOK AT ROUTE 28 AT BOUND BROOK, 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-Naphthol, water, fltrd 0.7u GF µg/L (49295)	2,6-Diethyl-aniline water, fltrd 0.7u GF µg/L (82660)	2Chloro-2',6'-diethyl acet-anilide wat flt µg/L (61618)	CIAT, water, fltrd, µg/L (04040)	2-Ethyl-6-methyl-aniline water, fltrd, µg/L (61620)	3,4-Di-chloro-aniline water, fltrd, µg/L (61625)	3,5-Di-chloro-aniline water, fltrd, µg/L (61627)	4-Chloro-2methyl phenol, water, fltrd, µg/L (61633)	Aceto-chlor, water, fltrd, µg/L (49260)	Ala-chlor, water, fltrd, µg/L (46342)	alpha-Endo-sulfan, water, fltrd, µg/L (34362)	Atra-zine, water, fltrd, µg/L (39632)	Azin-phos-methyl oxon, water, fltrd, µg/L (61635)
May 10...	<.09	<.006	<.006	E.013	<.010	<.004	<.012	E.007	<.006	<.005	<.011	.014	<.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, fltrd 0.7u GF µg/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF µg/L (82673)	Car-baryl, water, fltrd 0.7u GF µg/L (82680)	Carbo-furan, water, fltrd 0.7u GF µg/L (82674)	Chlor-pyrifos oxon, water, fltrd, µg/L (61636)	Chlor-pyrifos water, fltrd, µg/L (38933)	cis-Per-methrin water fltrd 0.7u GF µg/L (82687)	cis-Propi-cona-zole, water, fltrd, µg/L (79846)	Cyana-zine, water, fltrd, µg/L (04041)	Cyflu-thrin, water, fltrd, µg/L (61585)	lambda-Cyhalo-thrin, water, fltrd, µg/L (61595)	Cyper-methrin water, fltrd, µg/L (61586)	DCPA, water, fltrd 0.7u GF µg/L (82682)
May 10...	<.080	<.010	E.009	<.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: &lt;, less than; E, estimated.]

Date	Desulf-inyl-fipro-nil, water, fltrd µg/L (62170)	Diazi-non, water, fltrd, µg/L (39572)	Dicro-tophos, water, fltrd, µg/L (38454)	Diel-drin, water, fltrd, µg/L (39381)	Dimeth-oate, water, fltrd 0.7u GF µg/L (82662)	Disulf-oton sulfone water, fltrd, µg/L (61640)	Disul-foton water, fltrd 0.7u GF µg/L (82677)	Endo-sulfan sulfate water, fltrd, µg/L (61590)	EPTC, water, fltrd 0.7u GF µg/L (82668)	Ethion monooxon water, fltrd, µg/L (61644)	Ethion water, fltrd, µg/L (82346)	Etho-prop, water, fltrd 0.7u GF µg/L (82672)	Fenami-phos sulfone water, fltrd, µg/L (61645)
May 10...	E.006	<.005	<.08	<.009	<.006	<.01	<.02	<.022	<.002	<.02	<.016	<.012	<.053

## 01403190 MIDDLE BROOK AT ROUTE 28 AT BOUND BROOK, 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-oxide, water, fltrd, µg/L (61646)	Fenami-phos, water, fltrd, µg/L (61591)	Desulf-inyl-fipro-nil amide, wat flt µg/L (62169)	Fipro-nil sulfide, water, fltrd, µg/L (62167)	Fipro-nil sulfone, water, fltrd, 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)
May 10...	<.04	<.03	E.005	E.008	E.006	E.007	<.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-oxon, water, fltrd, µg/L (61664)	Methyl para-thion, water, fltrd, 0.7u GF µg/L (82667)	Metola-chlor, water, fltrd, µg/L (39415)	Metri-buzin, water, fltrd, µg/L (82630)	Moli-nate, water, fltrd, 0.7u GF µg/L (82671)	Myclo-butanil, water, fltrd, µg/L (61599)	Oxy-fluor-fen, water, fltrd, µg/L (61600)	Pendi-meth-alin, water, fltrd, 0.7u GF µg/L (82683)	Phorate oxon, water, fltrd, µg/L (61666)	Phorate water, fltrd, 0.7u GF µg/L (82664)	Phosmet oxon, water, fltrd, µg/L (61668)	Phosmet, water, fltrd, µg/L (61601)
May 10...	<.009	<.02	<.008	E.007	<.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, µg/L (04036)	Propy-zamide, water, fltrd, 0.7u GF µg/L (82676)	Pro-panil, water, fltrd, 0.7u GF µg/L (82679)	Propar-gite, water, fltrd, 0.7u GF µg/L (82685)	Sima-zine, water, fltrd, µg/L (04035)	Tebu-thiuron, water, fltrd, 0.7u GF µg/L (82670)	Teflu-thrin, water, fltrd, µg/L (61606)	Ter-bufos-oxon sulfone, water, fltrd, µg/L (61674)	Terbu-fos, water, fltrd, 0.7u GF µg/L (82675)	Ter-buthyl-azine, water, fltrd, µg/L (04022)	Thio-bencarb water, fltrd, 0.7u GF µg/L (82681)	trans-Propi-conazole, water, fltrd, µg/L (79847)
May 10...	E.01	<.006	<.004	<.011	<.02	E.005	<.02	<.003	<.04	<.01	<.01	<.010	<.03

01403190 MIDDLE BROOK AT ROUTE 28 AT BOUND BROOK, NJ—Continued

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

Part 7 of 7

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

Date	Tribu- phos, water, fltrd, µg/L (61610)	Tri- flur- alin, water, fltrd 0.7u GF µg/L (82661)	Di- chlor- vos, water, fltrd, µg/L (38775)
May 10...	<.035	<.009	<.01

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

Part 1 of 4

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

Date	Time	pH bed sedimnt std units (70310)	Ammonia + org-N, bed sed total, mg/kg as N (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 14...	0800	7.10	260	2,000	6.0	.4	5.2	.230	87	25.4	74	55,000	24

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

Part 2 of 4

[Remark codes: <, 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, bed sed <2 mm, ug/kg (49403)	1,6-Di- methyl- naphth- alene, bed sed <2 mm, ug/kg (49404)	1Methyl -9H- fluor- ene, bed sed <2 mm, ug/kg (49398)	1- Methyl- phenan- threne, bed sed <2 mm, ug/kg (49410)	1- Methyl- pyrene, bed sed <2 mm, ug/kg (49388)	236Tri- methyl- naphth- alene, bed sed <2 mm, ug/kg (49405)	2,6-Di- methyl- naphth- alene, bed sed <2 mm, ug/kg (49406)	2-Ethyl naphth- alene bed sed <2 mm wsv nat ug/kg (49948)
Aug 14...	920	<.007	36.4	.2	75	<54	E17	E6	E49	E50	E20	E21	<54

## 01403190 MIDDLE BROOK AT ROUTE 28 AT BOUND BROOK, 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-anthracene, bed sed <2 mm, ug/kg (49435)	4H-Cyclopenta-[def]-phenanthrene, bs <2mm ug/kg (49411)	9H-Fluorene, bed sed <2 mm, wsv nat ug/kg (49399)	Ace-naphthene, bed sed <2 mm, wsv nat ug/kg (49429)	Ace-naphthylene, bed sed <2 mm, wsv nat ug/kg (49428)	Anthracene, bed sed <2 mm, wsv nat field, ug/kg (49434)	Benzo-[a]-anthracene, bed sed <2 mm, wsv nat ug/kg (49436)	Benzo-[a]-pyrene, bed sed <2 mm, wsv nat ug/kg (49389)	Benzo-[b]-fluoranthene, bed sed <2 mm, wsv nat ug/kg (49458)	Benzo-[ghi]-perylene, bed sed <2 mm, wsv nat ug/kg (49408)	Benzo-[k]-fluoranthene, bed sed <2 mm, wsv nat ug/kg (49397)	Chrysene, bed sed <2 mm, wsv nat field, ug/kg (49450)	Dibenzo-[a,h]-anthracene, bed sed <2 mm, wsv nat field, ug/kg (49461)
Aug 14...	E36	76	E32	E29	E26	E110	340	370	610	E160	220	470	<62

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

Part 4 of 4

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

Date	Fluoranthene, bed sed <2 mm wsv nat field, ug/kg (49466)	Indeno-[1,2,3-cd]-pyrene, bed sed <2 mm wsv nat field, ug/kg (49390)	Iso-phorone, bed sed <2 mm wsv nat field, ug/kg (49400)	Naphthalene, bed sed <2 mm wsv nat sedimnt, ug/kg (49402)	PCBs, bed sedimnt ug/kg (39519)	p-Cresol, bed sed <2 mm, wsv nat field, ug/kg (49451)	Phenanthrene, bed sed <2 mm, wsv nat field, ug/kg (49409)	Phenanthrene, 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 percent <.063mm (80164)	Bed sediment, fall dia dst wat percent <.004mm (80157)
Aug 14...	960	<160	<54	<54	6.91	E24	380	E31	740	5	2