

01411440 OLD ROBBINS BRANCH NEAR NORTH DENNIS, NJ

LOCATION.--Lat 39°11'50", long 74°52'09", Cape May County, Hydrologic Unit 02040206, at culvert on Beaver Causeway Road (Old Robins Trail) in Belleplain State Forest, 0.8 mi west of North Dennis, 2.2 mi upstream of mouth, and 4.2 mi southwest of Woodbine.

DRAINAGE AREA.--2.96 mi².

PERIOD OF RECORD.--Water years 1998, 2003 to current year.

REMARKS.--Total nitrogen (00600) equals the sum of dissolved ammonia plus organic nitrogen (00623), dissolved nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570).

COOPERATION.--Field data and samples for laboratory analyses were provided by the New Jersey Department of Environmental Protection. Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, total ammonia + organic nitrogen in bed sediment, and total phosphorus in bed sediment was performed by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services. Determination of fecal coliform, E. coli, and enterococcus bacteria was performed by the New Jersey Department of Environmental Protection, Bureau of Marine Water Monitoring Laboratory. Determination of chlorophyll a was performed by the New Jersey Department of Environmental Protection, Bureau of Freshwater and Biological Monitoring Laboratory.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide status, New Jersey Department of Environmental Protection Watershed Management Area 16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Turbidity, water, unfltrd field, NTU (61028)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
DEC 04...	0715	0.6	0.344	0.249	757	8.5	59	4.3	131	-7.0	0.4	15	2.17
MAR 11...	0900	0.5	0.403	0.296	771	8.0	55	4.4	80	-2.0	0.2	8	1.29
MAY 28...	0945	0.4	0.387	0.292	747	4.5	43	3.8	82	13.0	12.4	7	1.25
AUG 14...	1000	1.6	1.50	1.16	770	1.5	18	4.2	134	27.5	23.5	10	1.17

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	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 on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia water, unfltrd, mg/L as N (00610)	Nitrite + nitrate water, fltrd, mg/L as N (00631)
DEC 04...	2.27	1.00	9.87	16.8	<0.17	9.0	18.0	79	8	0.24	0.050	0.053	<0.05
MAR 11...	1.04	0.64	4.79	8.57	<0.17	6.1	11.5	51	1	0.25	<0.030	<0.030	<0.05
MAY 28...	0.951	0.41	6.39	12.0	<0.17	8.2	7.6	56	1	0.22	<0.030	<0.030	<0.05
AUG 14...	1.71	1.49	15.9	30.6	<0.17	12.0	3.6	123	5	0.73	0.136	0.131	<0.05

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	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)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Chlorophyll a fluorometric method, correctd ug/L (32209)	Boron, water, fltrd, ug/L (01020)
DEC 04...	<0.003	0.020	<0.02	E.003	E.002	0.2	<0.1	0.2	9.5	<1.0	--	20
MAR 11...	<0.003	<0.020	0.03	E.004	0.005	0.1	<0.1	0.1	10.2	<1.0	--	16
MAY 28...	<0.003	<0.020	<0.02	E.002	0.004	<0.1	<0.1	<0.1	9.1	<1.0	0.900	19
AUG 14...	0.003	<0.020	0.14	0.007	0.016	2.9	<0.1	2.9	26.6	<1.0	0.700	22

Remark codes used in this table:

< -- Less than

E -- Estimated value

01411440 OLD ROBBINS BRANCH NEAR NORTH DENNIS, NJ—Continued

WATER-COLUMN AND BED-MATERIAL TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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 water unfltrd ug/L (01002)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryll- ium, water, unfltrd recover -able, ug/L (01012)	Boron, water, unfltrd recover -able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chrom- ium, water, unfltrd recover -able, ug/L (01034)	Copper, water, unfltrd recover -able, ug/L (01042)
AUG 14...	1000	--	--	--	--	--	M	31.9	0.09	25	<0.04	E.6	0.8
14...	1000	4.10	20	170	1.8	<0.2	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, unfltrd recover -able, ug/L (01051)	Mangan- ese, water, unfltrd recover -able, ug/L (01055)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selen- ium, water, unfltrd total, ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)	Arsenic bed sedimnt total, ug/g (01003)	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)
AUG 14...	2,680	2.00	19.4	<0.02	2.55	0.8	<0.16	8	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	<1	0.002	<0.4	0.040	<2

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover -able, ug/g (01052)	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)	Selen- ium, bed sedimnt total, ug/g (01148)	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- fluore- ne, 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)
AUG 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	78	0.470	0.4	<0.01	0.153	<1	<3.1	<50	<50	<50	<50	<50	<50

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	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)	2- Methyl- anthra- cene, bed sed <2 mm, ug/kg (49435)	Cyclo- penta- phenan- threne, bed sed <2 mm, ug/kg (49411)	9H- Flou- rene, bed sed <2 mm, wsv nat ug/kg (49399)	Ace- naphth- ene, bed sed <2 mm, wsv nat ug/kg (49429)	Ace- naphth- ylene, bed sed <2 mm, wsv nat ug/kg (49428)	Anthra- cene, bed sed <2 mm, wsv nat field, ug/kg (49434)	Benzo- [a]- anthra- cene, bed sed <2 mm, ug/kg (49436)	Benzo- [a]- pyrene, bed sed <2 mm, wsv nat ug/kg (49389)	Benzo- [b]- fluor- anthene bed sed <2 mm, ug/kg (49458)	Benzo- [ghi]- peryl- ene, bed sed <2 mm, ug/kg (49408)	Benzo- [k]- fluor- anthene bed sed <2 mm, ug/kg (49397)
AUG 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Chry- sene, bed sed <2 mm, wsv nat field, ug/kg (49450)	Dibenzo- -[a,h]- anthra- cene, bed sed <2 mm, ug/kg (49461)	Fluor- anthene bed sed <2 mm, wsv nat field, ug/kg (49466)	Indeno- [1,2,- 3-cd]- pyrene, bed sed <2 mm, ug/kg (49390)	Iso- phorone bed sed <2 mm, wsv nat field, ug/kg (49400)	Naphth- alene, bed sed <2 mm, wsv nat ug/kg (49402)	PCBs, bed sedimnt ug/kg (39519)	p- 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 ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi- ment, dry svd sve dia percent <.063mm (80164)
AUG 14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	<50	<50	<50	<50	<50	<50	<5	E14	<50	<50	<50	0.1

Remark codes used in this table:

< -- Less than

E -- Estimated value

M -- Presence verified, not quantified

01411440 OLD ROBBINS BRANCH NEAR NORTH DENNIS, NJ—Continued

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	1,1,1-Trichloroethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Dichloroethane, water unfltrd ug/L (34496)	1,1-Dichloroethene, water, unfltrd ug/L (34501)	1,2-Dichlorobenzene, water, unfltrd ug/L (34536)	1,2-Dichloroethane, water, unfltrd ug/L (32103)	1,2-Dichloropropane, water, unfltrd ug/L (34541)	1,3-Dichlorobenzene, water, unfltrd ug/L (34566)	1,4-Dichlorobenzene, water, unfltrd ug/L (34571)	Benzene, water, unfltrd ug/L (34030)	Bromochloromethane, water, unfltrd ug/L (32101)	Chlorobenzene, water, unfltrd ug/L (34301)
MAR 11...	0900	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	cis-1,2-Dichloroethene, water, unfltrd ug/L (77093)	Di-bromochloromethane, water, unfltrd ug/L (32105)	Di-chlorodifluoromethane, water, unfltrd ug/L (34668)	Di-chloromethane, water, unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diisopropyl ether, water, unfltrd ug/L (81577)	Ethylbenzene, water, unfltrd ug/L (34371)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta+para-Xylene, water, unfltrd ug/L (85795)	o-Xylene, water, unfltrd ug/L (77135)	Styrene, water, unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)
MAR 11...	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.2	<0.1	<0.1	<0.1	<0.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Tetra-chloroethene, water, unfltrd ug/L (34475)	Tetra-chloromethane, water, unfltrd ug/L (32102)	Toluene, water, unfltrd ug/L (34010)	trans-1,2-Dichloroethene, water, unfltrd ug/L (34546)	Tri-bromomethane, water, unfltrd ug/L (32104)	Tri-chloroethene, water, unfltrd ug/L (39180)	Tri-chloro-fluoromethane, water, unfltrd ug/L (34488)	Tri-chloromethane, water, unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)
MAR 11...	<0.1	<0.2	<0.1	<0.1	<0.2	<0.1	<0.2	0.1	<0.2	<0.2

Remark codes used in this table:
< -- Less than

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2001 (listed in its entirety, with laboratory reporting levels, in "Laboratory Measurements" in the Explanation of Water-Quality Records section of this report). Only pesticides detected in one or more surface-water samples are listed in the following table.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	2,6-Diethyl-aniline, water, fltrd 0.7u GF (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	alpha-HCH, water, fltrd, ug/L (34253)	Atra-zine, water, fltrd, ug/L (39632)	Azin-phos-methyl, water, fltrd, 0.7u GF (82686)	Ben-flur-alin, water, fltrd, 0.7u GF (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd, 0.7u GF (82680)	Carbo-furan, water, fltrd, 0.7u GF (82674)	cis-Per-methrin, water, fltrd, 0.7u GF (82687)
MAY 28...	0945	<0.006	<0.006	<0.006	<0.004	<0.005	<0.007	<0.050	<0.010	<0.002	<0.041	<0.020	<0.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	DCPA, water, fltrd 0.7u GF (82682)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Diel-drin, water, fltrd, ug/L (39381)	EPTC, water, fltrd, 0.7u GF (82668)	Desulf-inyl fipronil amide, water, fltrd, ug/L (62169)	Fipronil sulfide, water, fltrd, ug/L (62167)	Fipronil sulfone, water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Mala-thion, water, fltrd, ug/L (39532)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water, fltrd, 0.7u GF (82684)
MAY 28...	<0.003	<0.004	<0.005	<0.005	<0.002	<0.009	<0.005	<0.005	<0.007	<0.027	<0.013	<0.006	<0.007	

01411440 OLD ROBBINS BRANCH NEAR NORTH DENNIS, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Prome- ton, water, fltrd, ug/L (04037)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
MAY 28...	<0.022	<0.01	<0.005	<0.02	<0.034	<0.009

Remark codes used in this table:

< -- Less than

WATER-COLUMN BACTERIA ANALYSES

Samples were collected synoptically over a 30-day period during the summer.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Entero- cocci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, ECbroth water, MPN/ 100 mL (31615)	Date	Time	Entero- cocci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, ECbroth water, MPN/ 100 mL (31615)
JUN					JUL				
12...	0800	310	460	570	07...	1205	3	87	260
19...	0745	117	340	167	10...	0820	609	45	100
26...	0655	97	25	97					