

01408460 MANAPAQUA BRANCH AT LAKEHURST, NJ

LOCATION.--Lat 40°00'44", long 74°18'09", Ocean County, Hydrologic Unit 02040301, at bridge on State Route 70, 0.3 mi upstream of the mouth, 0.8 mi east of Lakehurst, and 1.7 mi southwest of Ridgeway.

DRAINAGE AREA.--6.32 mi².

PERIOD OF RECORD.--Water years 1960-1964, 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, fecal coliform, E. coli, and enterococcus bacteria was performed by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services. 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 13.

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)	Specif. 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)
NOV 20...	0900	5.5	0.293	0.231	769	8.2	68	5.4	55	7.1	7.5	8	1.85
MAR 05...	0900	4.4	0.301	0.238	756	10.4	82	5.7	52	6.2	4.9	7	1.83
MAY 15...	0900	7.6	0.228	0.179	766	7.5	69	5.8	57	13.5	12.1	8	1.94
AUG 26...	0800	18	0.162	0.127	761	5.8	63	5.9	62	23.9	19.1	8	2.01

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)	ANC, wat unfltrd fixed 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 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)
NOV 20...	0.702	0.91	4.73	<2	7.31	<0.17	4.1	6.2	--	36	9	0.32	0.101
MAR 05...	0.611	0.60	4.78	--	7.07	<0.17	3.0	5.0	--	37	2	0.26	0.055
MAY 15...	0.690	0.80	5.85	4	8.92	<0.17	2.9	4.7	29	35	8	0.34	0.069
AUG 26...	0.714	0.74	7.35	4	10.7	<0.17	4.5	4.3	33	43	20	0.28	0.137

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

Date	Ammonia water, unfltrd mg/L as N (00610)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	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 nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	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)
NOV 20...	0.109	0.17	<0.003	<0.020	0.08	0.009	0.027	0.49	0.57	1.1	<0.1	1.1	5.9
MAR 05...	0.072	0.13	0.003	<0.020	0.09	0.014	0.030	0.40	0.49	0.8	<0.1	0.8	5.3
MAY 15...	0.103	0.13	<0.003	<0.020	0.23	0.014	0.038	0.47	0.71	2.7	<0.1	2.7	4.6
AUG 26...	0.118	0.14	<0.003	<0.020	0.16	0.004	0.037	0.42	0.58	2.7	<0.1	2.7	3.8

01408460 MANAPQUA BRANCH AT LAKEHURST, NJ—Continued

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

Date	cis-1,2-Dichloroethene, water, unfltrd ug/L (77093)	Di-bromochloromethane water unfltrd ug/L (32105)	Di-chloro-di-fluoromethane wat unfltrd ug/L (34668)	Di-chloromethane 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 05...	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.2	<0.1	<0.1	<0.1	E.1

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

Date	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloromethane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Dichloro-ethene, water, unfltrd ug/L (34546)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)	
MAR 05...		0.3	<0.2	<0.1	<0.1	<0.2	<0.1	<0.2	<0.1	<0.2

Remark codes used in this table:
 < -- Less than
 E -- Estimated value

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 by the analyses 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-Di-ethyl-aniline water fltrd 0.7u GF ug/L (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 ug/L (82686)	Ben-flur-alin, water, fltrd 0.7u GF ug/L (82673)	Butyl-ate, water, fltrd, ug/L (04028)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	cis-Per-methrin water fltrd 0.7u GF ug/L (82687)
MAY 15...	0900	<0.006	<0.006	<0.006	<0.004	<0.005	E.003	<0.050	<0.010	<0.002	<0.041	<0.020	<0.006

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

Date	DCPA, water fltrd 0.7u GF ug/L (82682)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)	Diazi-non, water, fltrd, ug/L (39572)	Diel-drin, water, fltrd, ug/L (39381)	EPTC, water, fltrd 0.7u GF ug/L (82668)	Desulf-inyl fipro-nil amide, wat flt ug/L (62169)	Fipro-nil sulfide water, fltrd, ug/L (62167)	Fipro-nil sulfone water, fltrd, ug/L (62168)	Fipro-nil, water, fltrd, ug/L (62166)	Malathion, 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 ug/L (82684)
MAY 15...	<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

TOMS RIVER BASIN

01408460 MANAPQUA BRANCH AT LAKEHURST, NJ—Continued

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

Date	Pendi-methalin, water, fltrd 0.7u GF (82683)	Prome-ton, water, fltrd, ug/L (04037)	Sima-zine, water, fltrd, ug/L (04035)	Tebu-thiuron water fltrd 0.7u GF (82670)	Terba-cil, water, fltrd 0.7u GF (82665)	Tri-flur-alin, water, fltrd 0.7u GF (82661)
MAY 15...	<0.022	0.04	<0.005	0.35	<0.034	<0.009

Remark codes used in this table:
 < -- Less than
 E -- Estimated value

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)
MAY 07...	1015	10	<100	20	JUN 04...	1030	710	2,900	800
14...	1030	20	<100	40					
21...	1040	60	<100	80					
28...	1030	180	100	220					

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

01408500 TOMS RIVER NEAR TOMS RIVER, NJ

LOCATION.--Lat 39°59'11", long 74°13'24", Ocean County, Hydrologic Unit 02040301, at bridge on County Route 527 (Oak Ridge Parkway), 1.9 mi downstream from Union Branch, and 2.6 mi northwest of community of Toms River.

DRAINAGE AREA.--123 mi².

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1974 to September 1981.

WATER TEMPERATURE: November 1963 to May 1966, November 1974 to September 1981.

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, fecal coliform, E. coli, and enterococcus bacteria was performed by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services. 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.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 13.

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

Date	Time	Instantaneous discharge, cfs (00061)	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)
DEC 11...	0800	158	1.4	0.239	0.186	765	11.5	86	5.8	100	2.0	3.5	14
FEB 13...	0900	166	2.0	0.189	0.147	763	12.3	87	6.1	112	-7.5	1.2	14
MAY 29...	0900	409	2.4	0.631	0.493	755	8.1	80	4.7	80	19.2	14.0	10
AUG 21...	0800	121	5.8	0.482	0.384	765	7.6	84	6.0	105	23.5	20.5	16

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

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd 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 at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
DEC 11...	3.03	1.44	1.39	9.38	3	13.9	<0.17	5.7	11.4	51	64	4	0.46
FEB 13...	3.02	1.47	1.28	12.1	E2	19.1	<0.17	5.4	11.6	--	68	6	0.40
MAY 29...	2.35	0.967	0.87	7.83	<2	12.2	<0.17	4.0	8.7	--	67	3	0.46
AUG 21...	3.38	1.73	1.73	13.2	3	17.2	<0.17	6.1	9.1	58	75	7	0.65

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

Date	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)	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 nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)
DEC 11...	0.299	0.300	0.58	<0.003	0.022	<0.02	0.005	0.013	1.0	--	0.5	<0.1	0.5
FEB 13...	0.291	0.291	0.63	<0.003	<0.020	0.04	0.005	0.010	1.0	1.1	0.5	<0.1	0.5
MAY 29...	0.078	0.106	0.17	<0.003	<0.020	0.05	0.009	0.019	0.63	0.67	0.6	<0.1	0.6
AUG 21...	0.281	0.293	0.75	0.014	<0.020	0.11	0.021	0.043	1.4	1.5	1.8	0.2	1.7

TOMS RIVER BASIN

01408500 TOMS RIVER NEAR TOMS RIVER, NJ—Continued

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

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Chlorophyll a fluorometric method, corrctd ug/L (32209)	Boron, water, fltrd, ug/L (01020)
DEC 11...	5.8	<1.1	--	16
FEB 13...	3.9	E2.0	--	E11
MAY 29...	12.0	<1.0	1.20	18
AUG 21...	7.8	<1.0	1.30	25

Remark codes used in this table:

< -- Less than

E -- Estimated value

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	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)	Date	Time	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)
MAY 07...	0950	20	<100	20	JUN 04...	1005	490	1,600	1,100
14...	1015	60	<100	70					
21...	1020	90	<100	20					
28...	1015	280	1,200	1,300					

Remark codes used in this table:

< -- Less than