

Water Resources Data New Jersey Water Year 2004

Volume 3. Water-Quality Data

Water-Data Report NJ-04-3



Prepared in cooperation with the New Jersey Department of Environmental Protection and with other agencies



U.S. Department of the Interior
U.S. Geological Survey

Calendar for Water Year 2004

2003

October							November							December						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4							1		1	2	3	4	5	6
5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13
12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20
19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27
26	27	28	29	30	31		23	24	25	26	27	28	29	28	29	30	31			
							30													

2004

January							February							March						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7		1	2	3	4	5	6
4	5	6	7	8	9	10	8	9	10	11	12	13	14	7	8	9	10	11	12	13
11	12	13	14	15	16	17	15	16	17	18	19	20	21	14	15	16	17	18	19	20
18	19	20	21	22	23	24	22	23	24	25	26	27	28	21	22	23	24	25	26	27
25	26	27	28	29	30	31	29							28	29	30	31			

April							May							June						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3							1			1	2	3	4	5
4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12
11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19
18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26
25	26	27	28	29	30		23	24	25	26	27	28	29	27	28	29	30			
							30	31												

July							August							September						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7				1	2	3	4
4	5	6	7	8	9	10	8	9	10	11	12	13	14	5	6	7	8	9	10	11
11	12	13	14	15	16	17	15	16	17	18	19	20	21	12	13	14	15	16	17	18
18	19	20	21	22	23	24	22	23	24	25	26	27	28	19	20	21	22	23	24	25
25	26	27	28	29	30	31	29	30	31					26	27	28	29	30		

Water Resources Data New Jersey Water Year 2004

Volume 3. Water-Quality Data

By Michael J. DeLuca, Heather A. Heckathorn, Jason M. Lewis, Bonnie J. Gray, Emma-Lynn Melvin, Melissa L. Riskin, and Nicholas A. Liu

Water-Data Report NJ-04-3



Prepared in cooperation with the New Jersey Department of Environmental Protection and with other agencies



U.S. Department of the Interior
U.S. Geological Survey

U.S. Department of the Interior

Gale A. Norton, Secretary

U.S. Geological Survey

Charles G. Groat, Director

2004

U.S. Geological Survey
Mountain View Office Park
810 Bear Tavern Road, Suite 206
West Trenton, NJ 08628-1099
(609) 771-3900

Information about the USGS, New Jersey District is available on the Internet at <http://nj.usgs.gov>

Information about all USGS reports and products is available by calling 1-888-ASK-USGS or on the Internet via the World Wide Web at <http://www.usgs.gov/>

Additional earth science information is available by accessing the USGS home page at <http://www.usgs.gov/>

The use of firm, trade, and brand names in this report is for identification purposes only and does not constitute endorsement by the U.S. Government.

PREFACE

This volume of the annual hydrologic data report of New Jersey is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of water quality provide the hydrologic information needed by state, local, and federal agencies, and the private sector for developing and managing our Nation's land and water resources.

Hydrologic data for New Jersey are contained in 3 volumes:

- Volume 1. Surface-Water Data
- Volume 2. Ground-Water Data
- Volume 3. Water-Quality Data

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to U.S. Geological Survey policy and established guidelines. The following individuals contributed significantly to the completion of the report.

J. Gibs

R.D. Schopp

Word processing of the report was done by H.A. Heckathorn and J.M. Lewis. W.H. Ellis, G.L. Simpson, and D.K. Sun drafted the illustrations.

The data were collected, computed, and processed by the following personnel:

G.L. Centinaro	H.L. Hoppe	T.J. Reed
J.F. Dudek	W.D. Jones	J.C. Shvanda
J.M. Fischer	T.M. Moffett	J.J. Trainor
K.L. Hibbs	B.S. Painter	A.F. Watson
R.E. Hickman	A.R. Protz	B.T. White

Some data were collected by the following N.J. Department of Environmental Protection personnel:

A. Altieri	J. Janda	R. Maruska
R. Fenton	C. Kunz	J. Specht

This report was prepared in cooperation with the State of New Jersey and with other agencies under the general supervision of Robert G. Reiser, Chief of the Hydrologic Data Assessment Program; under the general supervision of David A. Stedfast, Associate District Chief; Richard H. Kropp, District Chief, New Jersey; and Catherine L. Hill, Regional Hydrologist, Northeastern Region.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave Blank)		2. REPORT DATE May 2005	3. REPORT TYPE AND DATES COVERED Annual--Oct. 1, 2003 to Sept. 30, 2004	
4. TITLE AND SUBTITLE Water Resources Data-New Jersey, Water Year 2004, Volume 3			5. FUNDING NUMBERS	
6. AUTHOR(S) M.J.DeLuca, H.A.Heckathorn, J.M.Lewis, B.J.Gray, E.Melvin, M.L.Riskin, and N.A.Liu				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Geological Survey, Water Resources Division 810 Bear Tavern Road, Suite 206 West Trenton, NJ 08628			8. PERFORMING ORGANIZATION REPORT NUMBER USGS-WRD-NJ-04-3	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Geological Survey, Water Resources Division 810 Bear Tavern Road, Suite 206, West Trenton, NJ 08628			10. SPONSORING/MONITORING AGENCY REPORT NUMBER USGS-WRD-NJ-04-3	
11. SUPPLEMENTARY NOTES Prepared in cooperation with the New Jersey Department of Environmental Protection and with other agencies.				
12a. DISTRIBUTION/AVAILABILITY STATEMENT No restriction on distribution. This report can be purchased from the National Technical Information Services, Springfield, Virginia 22161			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) Water-resources data for the 2004 water year for New Jersey are presented in three volumes, and consists of records of stage, discharge, and water-quality of streams; stage and contents of lakes and reservoirs; and water levels and water-quality of ground water. Volume 3 contains a summary of surface- and ground-water hydrologic conditions for the 2004 water year, a listing of current water-resources projects in New Jersey, a bibliography of water-related reports, articles, and fact sheets for New Jersey completed by the Geological Survey in recent years, water-quality records of chemical analyses from 132 continuing-record surface-water stations, 52 ground-water sites, records of daily statistics of temperature and other physical measurements from 3 continuous-recording stations, and 8 special-study sites consisting of 70 surface-water sites, 1 spring site, and 65 ground-water sites. Locations of water-quality stations are shown in figures 23-27. Locations of special-study sites are shown in figures 36-43. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating federal, state, and local agencies in New Jersey.				
14. SUBJECT TERMS New Jersey, hydrologic conditions, hydrologic data, surface-water analysis, ground-water analysis, streambed-material analysis, suspended -sediment concentrations, continuing-record station, continuous-recording station, special-study site.			15. NUMBER OF PAGES 680	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT	

PREFACE	iii
WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER	viii
DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS	xii
INTRODUCTION	1
COOPERATION	2
SUMMARY OF HYDROLOGIC CONDITIONS	3
Yearly Trend of Precipitation, Stream Discharge, and Physical Water-Quality Characteristics Monitored at Several Index Stations	3
Ambient Stream Monitoring Network	3
Distribution and Concentration of Selected Constituents in Filtered and Unfiltered Surface Water from Stations in the ASMN	4
Distribution, Concentration, and Detection Frequency of Recoverable Trace Elements in Unfiltered Water and Bed Sediment, Nutrients and Organic Compounds in Bed Sediment, Volatile Organic Compounds in Unfiltered Water, and Pesticides in Filtered Water from Selected Stations in the ASMN	5
Ambient Stream Monitoring Network Reconnaissance Study	17
Ambient Ground-Water-Quality Network	17
Distribution, Concentration, and Detection Frequency of Physical Measurements, Ions, and Nutrients in Filtered and Unfiltered Water from 52 Sites in the AGWQN	17
Distribution, Concentration, and Detection Frequency of Trace Elements in Filtered Water from 52 Sites in the AGWQN	27
Concentration and Detection Frequency of Pesticides in Filtered Water and VOCs in Unfiltered Water from 52 Sites in the AGWQN	27
DOWNSTREAM ORDER AND STATION NUMBER	27
NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES	28
SPECIAL NETWORKS AND PROGRAMS	28
LOCAL NETWORKS AND PROGRAMS	29
EXPLANATION OF WATER-QUALITY RECORDS	31
Collection and Examination of Data	31
Water Analysis	31
Classification of Records	31
Accuracy of the Records	32
Arrangement of Records	32
On-Site Measurements and Sample Collection	32
Water Temperature	32
Sediment	33
Laboratory Measurements	33
Analyses of pesticides in surface-water and ground-water samples (schedule 2060)	33
Analyses of pesticides in surface-water and ground-water samples (schedule 2001)	34
Analyses of wastewater compounds in groundwater (schedule 1433)	35
Data Presentation	37
Remark Codes	38
Water-Quality Control Data	38
Blank samples	38
Reference samples	39
Replicate samples	39
Spike samples	40
ACCESS TO USGS WATER DATA	40
CURRENT WATER-RESOURCES PROJECTS IN NEW JERSEY	40
WATER-RELATED REPORTS FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS	41
WATER-RELATED ARTICLES FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS	44
WATER-RELATED FACT SHEETS FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS	45
DEFINITION OF TERMS	45

	Page
Surface-water-quality station records	74
Ground-water-quality station records	488
Water-quality at special-study sites.	542
Trace elements in samples collected during high flows in selected streams (303-d)	542
Pinelands Kirkwood-Cohansey study	551
Chloride distribution in major artesian aquifers of the New Jersey Coastal Plain.	552
Stillwater Township, Sussex County ground-water-quality assessment	556
Water quality in streams of the Delaware Water Gap National Recreation Area	559
Morristown National Historical Park	604
Radium sampling of water in selected aquifers, treated water, backwash brine from ion-exchange treatment systems and wastewater.	622
Wallkill River arsenic sources, Sussex County	649
Index	660

ILLUSTRATIONS

Figure 1. Monthly mean precipitation for water year 2004 and mean monthly precipitation for 1895-2002.	6
Figure 2. Monthly mean temperatures for water year 2004 and mean monthly temperatures for 1895-2002.	6
Figure 3. Monthly mean discharge at index gaging stations.	7
Figure 4. Monthly mean specific conductance at Delaware River at Trenton, New Jersey.	8
Figure 5. Monthly mean water temperature at Delaware River at Trenton, New Jersey.	8
Figure 6. Monthly medians of daily maximum and minimum dissolved oxygen concentrations at Delaware River at Trenton, New Jersey.	9
Figure 7. Distribution of physical characteristics of, and constituent concentrations in, samples from 112 stations in the Ambient Stream Monitoring Network.	10
Figure 8. Concentration and detection frequency of whole-water-recoverable trace elements detected in samples from 48 stations in the Ambient Stream Monitoring Network.	12
Figure 9. Concentration and detection frequency of nutrients detected in bed-sediment samples from 21 stations in the Ambient Stream Monitoring Network.	13
Figure 10. Concentration and detection frequency of trace elements detected in bed-sediment samples from 21 stations in the Ambient Stream Monitoring Network.	13
Figure 11. Concentration and detection frequency of selected polycyclic aromatic hydrocarbons detected in bed-sediment samples from 22 stations in the Ambient Stream Monitoring Network.	14
Figure 12. Concentration and detection frequency of selected volatile organic compounds detected in samples from 18 statewide status stations in the Ambient Stream Monitoring Network.	16
Figure 13. Trilinear diagram showing the distribution of major ions in filtered samples from four sites in undeveloped land-use areas in the Ambient Ground-Water-Quality Network.	19
Figure 14. Trilinear diagram showing the distribution of major ions in filtered samples from 25 sites in agricultural land-use areas in the Ambient Ground-Water-Quality Network.	20
Figure 15. Trilinear diagram showing the distribution of major ions in filtered samples from 23 sites in urban land-use areas in the Ambient Ground-Water-Quality Network.	21
Figure 16. Distribution of physical characteristics of, and constituent concentrations in, samples from 52 sites in the Ambient Ground-Water-Quality Network.	22
Figure 17. Concentration and detection frequency of selected constituents detected in filtered samples from 52 sites in the Ambient Ground-Water-Quality Network.	23
Figure 18. Concentration and detection frequency of trace elements detected in filtered samples from 52 sites in the Ambient Ground-Water-Quality Network.	23
Figure 19. Distribution and concentration of trace elements in filtered samples from 52 sites in the Ambient Ground-Water-Quality Network.	24
Figure 20. Concentration and detection frequency of selected pesticides detected in filtered samples from 52 sites in the Ambient Ground-Water-Quality Network.	25
Figure 21. Concentration and detection frequency of selected volatile organic compounds detected in unfiltered samples from 52 sites in the Ambient Ground-Water-Quality Network.	26
Figure 22. System for numbering wells and miscellaneous sites (latitude and longitude).	28

ILLUSTRATIONS--Continued

Figure 23. Locations and types of surface-water-quality stations.	67
Figure 24. Location of background surface-water-quality stations in the Ambient Stream Monitoring Network.	68
Figure 25. Location of sites in the Ambient Ground-Water-Quality Network.	69
Figure 26. Location of stations in the Long Island-New Jersey National Water-Quality Assessment Program, surface-water trends network.	70
Figure 27. Location of stations in the Delaware River National Water-Quality Assessment Program, surface-water trends network.	71
Figure 28. Counties in New Jersey.	72
Figure 29. Cataloging units and codes in New Jersey. (Modified from Seaber and others, 1987).	73
Figure 30. Daily mean water-quality-monitor values recorded at 01388000, Ramapo River at Pompton Lakes.	132
Figure 31. Daily mean water-quality monitor values, stage, and diversion recorded at 01389005, Passaic River below Pompton River, at Two Bridges.	163
Figure 32. Cross sectional water-quality measurements with recorded monitor values from 01389005, Passaic River below Pompton River, at Two Bridges, May 26, 2004.	171
Figure 33. Daily mean water-quality-monitor values recorded at 01463500 Delaware River at Trenton.	409
Figure 34. Cross sectional water-quality measurements with recorded monitor values, at Delaware River at Trenton, July 14, 2004.	411
Figure 35. Location of wells in the Ambient Ground-Water-Quality Network.	487
Figure 36. Location of sites sampled for trace elements during high flows in selected streams in New Jersey	542
Figure 37. Location of surface-water sites in the Pinelands Region associated with a study of the Kirkwood-Cohansey aquifer system in New Jersey.	551
Figure 38. Location of wells sampled for chloride and completed in major artesian aquifers of the New Jersey Coastal Plain.	552
Figure 39. Location of wells sampled for selected constituents for the Stillwater Township Ground-Water-Quality Assessment.	556
Figure 40. Location of surface-water sites sampled for selected constituents for the Delaware Water Gap National Recreation Area Study, water years 2002-04.	559
Figure 41. Location of surface-water and ground-water sampling sites, Jockey Hollow area, Morristown National Historical Park, New Jersey, water years 2003-04.	604
Figure 42. Location of wells, septic tanks, and ion exchange systems sampled for radium in raw and treated water from selected aquifers in New Jersey, wastewater, and backwash brine, respectively, water years 2003-04.	622
Figure 43. Location of surface-water sites sampled for selected constituents for the Wallkill River Arsenic Sources Study	649

TABLES

Table 1. Detection frequency of selected pesticides in filtered samples from 48 stations in the Ambient Stream Monitoring Network.	15
Table 2. Concentration of volatile organic compounds detected only once in samples from 18 statewide status stations in the Ambient Stream Monitoring Network.	16
Table 3. Hydrogeologic unit and land use at 52 wells sampled as part of U.S.Geological Survey-N.J. Department of Environmental Protection (cooperative) Ambient Ground-Water-Quality Network	18
Table 4. Concentration of pesticides detected only once in filtered samples from 52 sites in the Ambient Ground-Water-Quality Network.	25
Table 5. Concentration of volatile organic compounds detected only once in unfiltered samples from 52 sites in the Ambient Ground-Water-Quality Network	26

WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

	Station number	Page
[Letter after station name designates type of data: (c) general chemical, (m) microbiological, (s) suspended sediment, (t) continuous physical measurements, (w) whole-water-recoverable metals, (v) volatile organic compounds, (p) pesticide, (h) bed material, (WMA #) NJDEP watershed management area]		
(WMA 2 - WALLKILL RIVER & TRIBUTARIES)		74
<u>HUDSON RIVER BASIN</u>		
Rondout Creek:		
Wallkill River at Sparta (cms)	01367625	74
Wallkill River near Sussex (cmsh)	01367770	76
Papakating Creek at Pelletstown (cms)	01367800	79
Clove Brook:		
Clove Brook tributary at Rose Morrow Road, near Colesville (cmswp)	01367880	81
Wallkill River near Unionville, NY (cmsh)	01368000	84
Pochuck Creek:		
Wawayanda Creek:		
Double Kill at Wawayanda (cmswp)	01368820	87
<u>HACKENSACK RIVER BASIN</u>		
Hackensack River at Rivervale (cms)	01377000	90
Dwar's Kill:		
Dorotockeys Run at Harrington Park (cmswph)	01378475	92
Coles Brook at Hackensack (cms)	01378560	96
(WMA 6 - UPPER PASSAIC RIVER, WHIPPANY RIVER, ROCKAWAY RIVER)		98
<u>PASSAIC RIVER BASIN</u>		
Great Brook:		
Primrose Brook at Morristown National Historical Park (cmswph)	01378780	98
Passaic River:		
Dead River near Millington (cms)	01379200	102
Rockaway River:		
Mill Brook at Randolph (cmswp)	01379870	104
Beaver Brook at Rockaway (cms)	01380100	107
Whippany River at Ridgedale Avenue, at Morristown (cmswph)	01381498	109
Whippany River near Pine Brook (cms)	01381800	113
Passaic River at Two Bridges (cmsh)	01382000	115
(WMA 3 - UPPER TO MID-PASSAIC RIVER)		118
Pequanock River (head of Pompton River) at Macopin Intake Dam (cms)	01382500	118
Belcher Creek (head of Wanaque River):		
Green Brook near West Milford (cmswp)	01382960	120
Ramapo River near Mahwah (cms)	01387500	123
Ramapo River at Pompton Lakes (t)	01388000	125
Pompton River at Pompton Plains (cms)	01388500	134
Beaver Dam Brook at Ryerson Road, at Lincoln Park (cms)	01388720	136
(WMA 4 - MID-PASSAIC (SOUTH OF THE POMPTON), LOWER PASSAIC RIVER)		138
Passaic River below Pompton River, at Two Bridges (t)	01389005	138
Passaic River at Little Falls (cms)	01389500	172
Goffle Brook at Hawthorne (v)	01389850	174
Saddle River at Old Stone Church Road, at Upper Saddle River (cmswvp)	01390400	175
HohoKus Brook:		
Valentine Brook at Allendale (cmswvp)	01390800	179
Saddle River at Lodi (cms)	01391500	183
Saddle River at Garfield (v)	01391550	185
(WMA 7 - NEWARK BAY, ARTHUR KILL, KILL VAN KULL, RAHWAY RIVER, ELIZABETH RIVER, MORSES CREEK, UPPER NEW YORK HARBOR)		186
<u>RAHWAY RIVER BASIN</u>		
Rahway River at Morris Avenue, at Springfield (cmswp)	01394200	186
Rahway River near Springfield (cms)	01394500	189
Rahway River at Rahway (cms)	01395000	191
Robinsons Branch:		
Robinsons Branch tributary 2 at Westfield (cmswph)	01395700	193

WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME—CONTINUED

	Station number	Page
(WMA 8 - NORTH AND SOUTH BRANCHES OF THE RARITAN RIVER, LAMINGTON RIVER).		197
<u>RARITAN RIVER BASIN</u>		
South Branch Raritan River (head of Raritan River):		
Spruce Run at Newport (cmswp)	01396550	197
Spruce Run near Glen Gardner (cswvph)	01396588	200
Mulhockaway Creek at Van Syckel (cmswvph)	01396660	204
South Branch Raritan River at Stanton (csw)	01397000	209
Neshanic River at Reaville (cms)	01398000	211
Furmans Brook at Furmans Corner (cmswp)	01398060	213
Pleasant Run at Neshanic Station (cmswph)	01398090	216
South Branch Raritan River at South Branch (cmsh)	01398102	220
North Branch Raritan River:		
Lamington (Black) River near Ironia (cmswp)	01399200	223
Lamington River at Burnt Mills (cmsh)	01399780	226
North Branch Raritan River near Raritan (cms)	01400000	229
(WMA 10 - MILLSTONE RIVER, STONY BROOK)		231
Raritan River:		
Millstone River near Grovers Mill (cmsv)	01400640	231
Bear Brook at Cranbury Road, at Princeton Junction (cmswvp)	01400808	234
Stony Brook:		
Duck Pond Run at Clarksville (v)	01401200	238
Millstone River:		
Heathcote Brook at Kingston (cms)	01401400	239
Millstone River at Blackwells Mills (cms)	01402000	241
(WMA 9 - RARITAN RIVER MAINSTEM, MATCHAPONIX BROOK, SOUTH RIVER)		243
Raritan River at Queens Bridge, at Bound Brook (csvg)	01403300	243
Bound Brook at Route 28, at Middlesex (cms)	01403385	246
Bound Brook at Middlesex (csp)	01403900	248
Lawrence Brook at Riva Avenue, at Milltown (cmswvp)	01405003	250
South River:		
Matchaponix Brook (head of South River):		
McGellairds Brook at Englishtown (cmswvp)	01405180	255
Manalapan Brook at Federal Road, near Manalapan (cms)	01405340	259
(WMA 12 - RARITAN BAY & TRIBUTARIES)		261
<u>SHREWSBURY RIVER BASIN</u>		
Navesink River (head of Shrewsbury River):		
Swimming River (head of Shrewsbury River):		
Hop Brook at Willow Brook Road, near Holmdel (cmswvp)	01407210	261
<u>WHALE POND BROOK BASIN</u>		
Whale Pond Brook at Larchwood Avenue, at Oakhurst (v)	01407617	265
<u>SHARK RIVER BASIN</u>		
Shark River:		
Jumping Brook near Neptune City (cms)	01407760	266
<u>MANASQUAN RIVER BASIN</u>		
Manasquan River at West Farms (cmswvp)	01407900	268
Manasquan River at Squankum (cms)	01408000	272
Mingamahone Brook near Earle (cms)	01408009	274
(WMA 13 - ATLANTIC OCEAN & TRIBUTARIES - MANASQUAN RIVER, METEDECONK RIVER, TOMS RIVER, BARNEGAT BAY, FORKED RIVER)		276
<u>METEDECONK RIVER BASIN</u>		
North Branch Metedeconk River at Lakewood (cms)	01408100	276
Haystack Brook near Southard (cmswp)	01408110	278
<u>TOMS RIVER BASIN</u>		
Toms River:		
Union Branch:		
Manapaqua Branch at Lakehurst (cmswp)	01408460	281
Toms River near Toms River (cms)	01408500	284

WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME—CONTINUED

	Station number	Page
<u>CEDAR CREEK BASIN</u>		
Cedar Creek at Cedar Crest (cms)	01408830	286
<u>FORKED RIVER BASIN</u>		
North Branch Forked River:		
Long Branch near Wells Mills (cmswph)	01409030	288
(WMA 14 - ATLANTIC OCEAN & TRIBUTARIES - TUCKERTON CREEK, LITTLE EGG HARBOR)		292
<u>MULLICA RIVER BASIN</u>		
Mullica River at outlet of Atsion Lake, at Atsion (cms)	01409387	292
Nescochague Creek:		
Albertson Branch (head of Nescochague Creek):		
Great Swamp Branch:		
Blue Anchor Brook At Elm (cms)	0140940950	294
Cedar Brook at Columbia Road, at Hammonton (cmswvp)	0140941075	296
Hammonton Creek at Wescoatville (cms)	01409416	300
Batsto River at Batsto (cms)	01409500	302
Landing Creek at US Route 30, at Egg Harbor City (v)	01409570	304
Indian Cabin Creek at Fifth Avenue, near Elwood (cmswvph)	01409601	306
Wading River:		
West Branch Wading River at Maxwell (cms)	01409815	311
Bass River:		
East Branch Bass River near New Gretna (cms)	01410150	313
(WMA 15 - ATLANTIC OCEAN & TRIBUTARIES - GREAT EGG HARBOR RIVER)		315
<u>ABSECON CREEK BASIN</u>		
South Branch Absecon Creek near Pomona (cmswhp)	01410455	315
<u>GREAT EGG HARBOR RIVER BASIN</u>		
Great Egg Harbor River:		
Squankum Branch at Malaga Road, near Williamstown (cmswp)	01410865	319
Hospitality Branch at Blue Bell Road, near Cecil (cms)	01411035	322
Great Egg Harbor River at Weymouth (cmsh)	01411110	324
Babcock Creek near Mays Landing (cms)	01411196	327
(WMA 16 - DELAWARE BAY (PART OF ZONE 6) & TRIBUTARIES)		329
<u>FISHING CREEK BASIN</u>		
Fishing Creek at Rio Grande (cms)	01411400	329
<u>DENNIS CREEK BASIN</u>		
Old Robbins Branch near North Dennis (cmswp)	01411440	331
<u>WEST CREEK BASIN</u>		
West Creek near Leesburg (cmswp)	01411444	334
(WMA 17 - DELAWARE BAY (PART OF ZONE 6) & TRIBUTARIES)		337
<u>MAURICE RIVER BASIN</u>		
Maurice River:		
Still Run at Little Mill Road, near Clayton (v)	01411452	337
Scotland Run:		
Indian Branch near Malaga (cms)	01411466	338
Maurice River at Norma (cms)	01411500	340
Buckshutem Creek:		
Gravelly Run at Laurel Lake (cmswp)	01411955	342
Menantico Creek at Route 49, at Millville (cmswvp)	01412005	345
<u>COHANSEY RIVER BASIN</u>		
Cohansey River at Seeley (cms)	01412800	349
(WMA 1 - UPPER DELAWARE (ZONE 1C, ZONE 1D, AND THE UPPER PART OF ZONE 1E) & TRIBUTARIES)		351
<u>DELAWARE RIVER BASIN</u>		
Delaware River at Montague (cmsh)	01438500	351
Flat Brook near Flatbrookville (cms)	01440000	354
Dunnfield Creek at Dunnfield (cmswp)	01442760	356
Delaware River at Portland, PA (cms)	01443000	359
Paulins Kill at Blairstown (cms)	01443500	361

WATER-QUALITY STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME—CONTINUED

	Station number	Page
Pequest River:		
Bear Brook at Dark Moon Road, near Johnsonburg (cms)	01445160	363
Pequest River at Belvidere (cms)	01446400	365
Pohatcong Creek at Janes Chapel Road, at Mount Bethel (cmswp)	01455120	367
Musconetcong River at Riegelsville (cmswp)	01457400	370
(WMA 11 - UPPER DELAWARE & TRIBUTARIES - LOCKATONG, ALEXAUKEN CREEK, ASSUNPINK CREEK)		373
Delaware River at Riegelsville (cms)	01457500	373
Harihokake Creek at Hartpence Road, near Mount Pleasant (cmswp)	01458300	375
Nishisakawick Creek near Frenchtown (cms)	01458570	378
Copper Creek near Frenchtown (cmswp)	01458710	380
Lockatong Creek at Route 12, at Baptistown (cmswph)	01460860	383
Delaware River at Lumberville, PA (cms)	01461000	387
Delaware River at Trenton (cmstwp)	01463500	389
Assunpink Creek at Edinburg (cmswp)	01463610	412
Miry Run at Route 533, at Mercerville (cms)	01463850	415
Assunpink Creek at Peace Street, at Trenton (cms)	01464020	417
(WMA 20 - LOWER DELAWARE (UPPER PART OF ZONE 2) & TRIBUTARIES)		419
Crosswicks Creek:		
South Run near Cookstown (cmswp)	01464280	419
Crosswicks Creek at Groveville Road, at Groveville (cmsh)	01464504	422
Doctors Creek at Allentown (cms)	01464515	425
Blacks Creek at Chesterfield (cms)	01464527	427
Blacks Creek at Fieldsboro (cmswph)	01464532	429
Neshaminy Creek:		
Little Neshaminy Creek at Valley Road, near Neshaminy, PA (csp) [site not within WMA 20]	01464907	433
(WMA 19 - LOWER DELAWARE (LOWER ZONE 2 AND UPPER ZONE 3) & TRIBUTARIES)		435
RANCOCAS CREEK BASIN		
South Branch Rancocas Creek:		
Friendship Branch:		
Burrs Mill Brook:		
South Branch Burrs Mill Brook near Hedger House (cmswph)	01465808	435
South Branch Rancocas Creek at Retreat (cmswp)	01465835	439
Southwest Branch Rancocas Creek at Elmwood Road, at Pine Grove (cmswph)	01465857	442
Little Creek at Chairville (cms)	01465893	446
North Branch Rancocas Creek:		
Ong Run at Browns Mills (cmswp)	01465965	448
Greenwood Branch:		
McDonalds Branch (head of Bisphams Mill Creek) in Byrne State Forest (cmswph)	01466500	451
Greenwood Branch at New Lisbon (cms)	01466900	461
North Branch Rancocas Creek at Iron Works Park, at Mount Holly (cms)	01467005	463
Cooper River at Haddonfield (cms)	01467150	465
Newton Creek at West Collingswood (cmswph)	01467312	467
(WMA 18 - LOWER DELAWARE (LOWER PART OF ZONE 3, ZONE 4, ZONE 5, AND PART OF ZONE 6) & TRIBUTARIES)		471
Big Timber Creek:		
North Branch Big Timber Creek at Glendora (cms)	01467359	471
Schuylkill River:		
French Creek near Phoenixville, PA (csp) [site not within WMA 18]	01472157	473
Schuylkill River at Philadelphia, PA (csp) [site not within WMA 18]	01474500	475
Mantua Creek at Mantua Avenue, at Wenonah (cmswp)	01475042	477
Raccoon Creek near Swedesboro (cms)	01477120	480
Oldmans Creek at Jessups Mill (cmswp)	01477440	482
Salem River at Woodstown (cms)	01482500	485

DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS

The following stations have been discontinued as continuous water-quality stations. Daily records of temperature, specific conductance, pH, dissolved oxygen or sediment were collected and published for the period of record shown for each station.

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record (water years)
Passaic River at Millington, NJ	01379000	55.4	Temp	1997-98
Passaic River near Chatham, NJ	01379500	100	Sed	1964-68
			Temp	1967-68
Rockaway River at Longwood Valley, NJ	01379680	22.1	Temp	1997-98
Green Pond Brook at Picatinny Arsenal, NJ	01379773	7.65	Temp, SC, DO, pH	1984-86
Green Pond Brook at Wharton, NJ	01379790*	12.6	Temp, SC, DO, pH	1984-85
Passaic River at Two Bridges, NJ	01382000	361	Temp,	1963-74
			SC, DO, pH	1969-74
Wanaque River at Wanaque, NJ	01387000	90.4	Temp	1964-80
Ramapo River near Mahwah, NJ	01387500	120	Sed	1964-65
Pompton River near Two Bridges, NJ	01389000	372	Temp, SC, DO, pH	1969-74
Passaic River at Little Falls, NJ	01389500	762	Sed	1964-65
			Temp, SC	1981-86
Saddle River at Ridgewood, NJ	01390500	21.6	Temp	1997-98
Rahway River at Morris Avenue, at Springfield, NJ	01394200	25.5	Temp	1997-98
South Branch Raritan River near High Bridge, NJ	01396500	65.3	Temp	1961-79
			SC	1969-79
Mulhockaway Creek at Van Syckel, NJ	01396660	11.8	Temp	1997-98
Spruce Run at Clinton, NJ	01396800	41.3	Temp	1969, 1971-80
South Branch Raritan River at Stanton, NJ	01397000	147	Temp, SC	1969-79
			Sed	1960-63
Neshanic River at Reaville, NJ	01398000	25.7	Temp	1997-98
South Branch Rockaway Creek, at Whitehouse, NJ	01399690	13.2	Temp, SC	1977-78
			Sed	1977
Rockaway Creek at Whitehouse, NJ	01399700	37.0	Temp, SC	1977-78
Raritan River near Manville, NJ	01400510	497	Temp, SC, DO, pH	1968-74
Baldwins Creek at Baldwin Lake, near Pennington, NJ	01400932	2.52	Temp	1963-66
			Sed	1963-69
Stony Brook at Princeton, NJ	01401000	44.5	Temp	1957-70, 1997-98
			Sed	1960-70
Beden Brook near Rocky Hill, NJ	01401600	27.0	Temp	1997-98
Millstone River near Manville, NJ	01402900	287	Temp, SC, DO, pH	1968-74
Raritan River at Queens Bridge, at Bound Brook, NJ	01403300	804	Temp	1997-98
Bound Brook at Middlesex, NJ	01403900	48.4	Temp, SC	1996-98
Raritan River near South Bound Brook, NJ	01404100	874	Temp, SC, DO, pH	1969-77
Manasquan River at Squankum, NJ	01408000	44.0	Temp, SC, DO, pH	1969-74
Toms River near Toms River, NJ	01408500	123	Temp,	1964-66, 1975-81
			SC	1975-81
Oyster Creek near Brookville, NJ	01409095	7.00	Temp, DO	1975-76
			SC, pH	1975-77
West Branch Wading River near Jenkins, NJ	01409810	84.1	Temp, SC	1978-81
Great Egg Harbor River at Sicklerville, NJ	01410784	15.1	Temp, SC	1996-98
Great Egg Harbor River trib. at Sicklerville, NJ	01410787	1.64	Sed	1974-78
Fourmile Branch at New Brooklyn, NJ	01410810	7.74	Sed	1974-78
Great Egg Harbor River at Folsom, NJ	01411000	57.0	Temp	1961-75, 1977-80
			SC	1969-75, 1977-80
			Sed	1966-70, 1979
Delaware Bay at Ship John Shoal Lighthouse, NJ	01412350	--	Temp	1970-86
Maurice River at Norma, NJ	01411500	112	Temp	1967-68, 1980-87,
				1993-94
			SC	1980-87, 1993-94

DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record (water years)
			pH	1993-94
			Sed	1965-68
Delaware River at Port Jervis, NY	01434000	3,076	Temp	1957-60, 1973-94 1999-2001
Delaware River at Montague, NJ	01438500	3,480	Temp	1956-57
			SC, pH	1956-73
Delaware River at Dingmans Ferry, PA	01439000	3,542	Temp, SC, pH	1950-53
Delaware River near East Stroudsburg, PA	01440090	3,830	Temp, SC, DO	1966-78
			pH	1972-78
Delaware River at Dunnfield, NJ	01442750	4,150	Temp	1967-76
			Sed	1964-76
Delaware River near Richmond, PA	01444800	4,378	Temp	1944-47, 1962-63
			SC	1962-63
Delaware River at Easton, PA	01446700	4,636	Temp, SC, DO, pH	1967-77
Jordan Creek near Schnecksville, PA	01451800	53.0	Temp	1999, 2001
Delaware and Raritan Canal Feeder at Raven Rock, NJ	01460300	--	Temp, SC, Turb	1998-99
Delaware and Raritan Canal Feeder at Lower Ferry Road at Trenton, NJ	01460400	--	Temp, SC, Turb	1998-99
Delaware and Raritan Canal Feeder at Port Mercer, NJ	01460440	--	Temp, SC, Turb	1998-99
Delaware and Raritan Canal Feeder at Griggstown, NJ	01460530	--	Temp, SC, Turb	1998-99
Delaware and Raritan Canal Feeder at Ten Mile Lock near Manville, NJ	01460565	--	Temp, SC, Turb	1998-99
Delaware and Raritan Canal Feeder at New Brunswick, NJ	01460600	--	Temp, SC, Turb	1998-99
Delaware River at Trenton, NJ	01463500	6,780	Sed	1949-82
Delaware River at Marine Terminal, at Trenton, NJ	01464040	6,870	Temp, SC	1973-76
Crosswicks Creek near Extonville, NJ	01464500	81.5	Temp	1967-70
			Sed	1965-70
Delaware River at Bristol, PA	01464600	7,163	Temp	1954-75, 1979-80
			DO	1961-75, 1978-80
			SC, pH	1967-75, 1978-80
Little Neshaminy Creek at Valley Road, near Neshaminy, PA	01464907	26.8	Temp	1999, 2001
McDonalds Branch in Lebanon State Forest, NJ	01466500	2.35	Temp	1960-92
			SC	1968-92
			pH, DO	1984-92
Rancocas Creek at Willingboro, NJ	01467016	327	Temp, SC,	1969-74
			DO	1970-72
			pH	1970-74
Delaware River at Torresdale Intake, at Philadelphia, PA	01467030	7,781	Temp	1956-57, 1960-81
			DO	1961-81
			SC	1963-81
			pH	1968-81
Delaware River at Palmyra, NJ	01467060	7,850	Sed	1962-64
Delaware River at Lehigh Avenue, at Philadelphia, PA	01467100	7,935	Temp, SC, DO, pH	1949-68
Cooper River at Haddonfield, NJ	01467150	17.0	Temp	1968-69, 1999-2001
			Sed	1968-69
Delaware River at Wharton Street, at Philadelphia, PA	01467300	7998	Temp, SC, DO, pH	1949-68
Delaware River at League Island, at Philadelphia, PA	01467400	8059	Temp, SC, DO, pH	1949-68
French Creek near Phoenixville, PA	01472157	59.1	Temp	1999-2001
Schuylkill River at Philadelphia, PA	01474500	1893	SC	1999
			Temp	1999-2001
Delaware River at Eddystone, PA	01476200	10190	Temp, SC, DO, pH	1949-68
Raccoon Creek near Swedesboro, NJ	01477120	26.9	Temp	1966-73, 1999-2001
			Sed	1966-69
Delaware River at Marcus Hook, PA	01477200	10360	Temp, SC, DO, pH	1949-77

DISCONTINUED CONTINUOUS WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record (water years)
Delaware River at Delaware Memorial Bridge, at Wilmington, DE	01482100	11,030	Temp	1956-81
			SC	1963-81
			DO	1962-81
			pH	1968-81

* Unpublished records are available in the files of the District office.

Type of record: Temp (water temperature); SC (specific conductance); DO (dissolved oxygen); pH; Sed (sediment concentration); -- (not determined)

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey (USGS), in cooperation with Federal, State, and local agencies, collects a large amount of data pertaining to the water resources of New Jersey each water year. These data, accumulated over many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the USGS, the data are published annually in this report series, titled "Water Resources Data-New Jersey."

This report series includes records of stage, discharge, and water quality in streams; stage, contents, and water quality in lakes and reservoirs; and water levels and water quality in ground-water wells. This volume contains water-quality records, containing various chemical analyses from 123 continuing-record surface-water stations and 35 ground-water sites. Locations of these stations are shown in figures 21-25. Additional water-quality data were collected at 5 special-study sites that are not part of the systematic data collection program. The special-study sites include 2 surface-water sites, 1 spring site, and 240 ground-water sites. Locations of these sites are shown in figures 49-53. The data in this report represent that part of the National Water Information System (NWIS) data collected by the USGS and cooperating Federal, State, and local agencies in New Jersey.

This series of annual reports for New Jersey began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning in 1975, surface water, water-quality, and ground-water data were combined in one volume. Beginning with the 1977 water year, these data were published in two volumes based on drainage basins. Beginning with the 1990 water year, the format was changed to include all surface-water discharge and surface-water quality records in Volume 1 and all ground-water level and ground-water quality records in Volume 2. Beginning with the 1998 water year, the format has changed to include surface-water discharge records in Volume 1, ground-water level records in Volume 2, and surface- and ground-water-quality records in Volume 3.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for New Jersey were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Part 1B." For water years 1961 through 1970, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for water years 1941 through 1970 were published annually under the title "Quality of Surface Waters of the United States," and water levels for water years 1935 through 1974 were published under the title "Ground-Water Levels in the United States." The above-mentioned Water-Supply Papers can be consulted in the libraries of the principal cities of the United States and can be purchased from U.S. Geological Survey, Branch of Information Services, Box 25286, Denver, CO 80225-0286, (303) 202-4610.

Publications similar to this report are produced annually by the USGS for all States. These reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NJ-04-3." For archiving and general distribution purposes, the reports for water years 1971 through 1974 also are identified as water-data reports. Water-data reports are available for purchase in paper copy or in microfiche from the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports can be obtained from the Director, USGS New Jersey Water Science Center, at the address given on the back of the title page of this report or by telephone ((609) 771-3900).

COOPERATION

The U.S. Geological Survey and agencies of the State of New Jersey have had joint-funding agreements for the collection of water-resource records since 1921. Organizations that assisted in collecting the data in this report through joint-funding agreements with the USGS are--

New Jersey Department of Environmental Protection, Bradley M. Campbell, Commissioner

North Jersey District Water Supply Commission, Michael Barnes, General Manager

Passaic Valley Water Commission, Joseph A. Bella, Executive Director

Delaware River Basin Commission, Carol R. Collier, Executive Director

New Jersey Water Supply Authority, Henry Patterson, Executive Director

National Park Service, Department of the Interior, Gale A. Norton, Secretary

The New Jersey Department of Environmental Protection aided in collecting records.

Organizations that supplied data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Yearly Trend of Precipitation, Stream Discharge, and Physical Water-Quality Characteristics Monitored at Several Index Stations

New Jersey received a statewide average of 53.25 inches of precipitation during the 2004 water year (October 2003 to September 2004), making it the 15th wettest water year since 1895. Monthly precipitation was above long-term means for 7 months of the 2004 water year (fig. 1) (Statewide Monthly Precipitation 1895-2004, Climate Data, N.J. State Climatologist, Rutgers University; accessed at http://climate.rutgers.edu/stateclim_v1/data/index.html). January, February, March, May, and June had below-average precipitation; however, no deficit greater than 1.34 inches occurred. Overall, precipitation was 8.72 inches (20 percent) above average during the 2004 water year.

Water year 2004 was the 17th warmest year since 1895 with a statewide average ambient temperature of 53.3 °F (11.8°C), 1.2 °F above the long-term (1895-2003) mean for the State (Statewide Monthly Mean Temperatures 1895-2004, Climate Data). Monthly ambient air temperatures were above long-term means for 9 months of the 2004 water year (fig. 2).

Streamflow was near or above normal throughout much of the year. Monthly mean discharge values for June and September set new maximum monthly mean values for the period of record at index stations Folsom (01411000) and Trenton (01463500), respectively (fig. 3). All three index stations recorded above normal streamflow during the first and last quarters of the water year.

The precipitation and streamflow surpluses during six months of water year 2004 and their diluting effects on solute concentrations are evident in the plot of monthly mean values of specific conductance (SC) at the continuous water-quality monitoring station on the Delaware River at Trenton (fig. 4). Monthly mean SC values, an indicator of solute concentrations, were below long-term (1968-2003) monthly mean values during October to January and August and September. In contrast, monthly mean SC values were above long-term (1968-2003) monthly mean values during periods of lower-than-normal streamflow, February to June. February's monthly mean SC value of 252 µS/cm (microsiemens per centimeter) exceeded the previous highest February mean of 232 µS/cm and occurred during a month of below-average streamflow when runoff containing road salt was likely to be entering the river. August's monthly mean value of 155 µS/cm was lower than the previous lowest August mean of 168 µS/cm and occurred during a month of above-average streamflow.

Monthly mean water temperature values measured at the Delaware River at Trenton were above the long-term mean monthly values during March to June in water year 2004 (fig. 5). Mean ambient air temperatures were above normal during this same period. Monthly mean values for October and August were lower than the previous lowest monthly means by 0.2 and 0.3 °C, respectively.

Dissolved oxygen (DO) concentrations generally exhibit an inverse relation to water temperature. As water temperature decreases, oxygen concentration increases; as water temperature increases, oxygen concentration decreases. DO, therefore, varies seasonally; yearly maximums occur in winter, and yearly minimums occur in summer. As expected, the lowest monthly median of daily minimum DO concentrations, 7.2 mg/L (milligrams per liter), occurred in July when the monthly mean water temperature was at its highest, 25.7°C (fig. 6). The highest monthly median of daily maximum DO concentrations for the year, 16.2 mg/L, occurred in March. This is the highest median recorded in March for the period of record.

Ambient Stream Monitoring Network

The U. S. Geological Survey (USGS), in cooperation with the New Jersey Department of Environmental Protection (NJDEP), operates the cooperative Ambient Stream Monitoring Network (ASMN), which is designed to determine statewide water-quality status and trends, measure water quality near the downstream end of each NJDEP

Watershed Management Area (WMA), define background water quality in each of the four physiographic provinces of New Jersey, and measure nonpoint source contributions from major land-use areas and atmospheric deposition. The ASMN consists of 118 stations located throughout the 20 WMAs. Four stations are located on the Delaware River main stem. Six background stations are located on reaches of streams that remain relatively unaffected by human activity, in order to develop a baseline water-quality database. Twenty-three Watershed Integrator (WI) stations are located near the farthest downstream point, not affected by tide, in one of the large drainage basins in each WMA, except 5, 9, and 16. The WI stations provide information on large drainage areas that integrate the effects of different types of land use and point and nonpoint contributions to surface-water quality within each WMA. Land Use Indicator (LUI) stations are used to monitor the effects of the dominant land use in each WMA and provide data on nonpoint source loading of contaminants to streams. Of the 43 LUI stations, 15 are designated undeveloped, 9 agriculture, 13 urban, and 6 mixed. Forty-two statewide status (SS) stations are chosen randomly to obtain a statistical basis that can be used to estimate values of water-quality indicators statewide. In water year 2004, two of the SS stations were co-located at existing WI or LUI stations reducing the number of total stations sampled to 116. Analytical results from water-column samples collected at each station and bed-sediment samples collected at a subset of stations were tabulated by station number and are located in the Surface-Water-Quality Station Records section of this report. In addition to the regularly scheduled samples, a reconnaissance study was initiated in water year 2004 to assess concentrations of volatile organic compounds (VOCs) at 10 current and 8 additional stations. This is discussed further in “Ambient Stream Monitoring Network Reconnaissance Study” in this summary.

Distribution and Concentration of Selected Constituents in Filtered and Unfiltered Surface Water from Stations in the ASMN

Physical characteristics and concentrations of total and filtered nutrients, filtered common ions, filtered organic carbon, and biochemical oxygen demand were determined in samples from 116 stations in the ASMN. Samples were collected at each station four times a year during the periods November to December, February to March, May to June, and August to September. The analyzing laboratory used two different methods and reporting conventions for establishing the minimum concentration above which a quantitative measurement could be made. These reporting conventions were laboratory reporting level (LRL) and minimum reporting level (MRL). LRL was computed as twice the long-term method detection level (LT-MDL). Values reported less than the LRL or MRL were included in each distribution as a value equal to the LT-MDL or one-half the MRL, respectively. Values reported as “E”—estimated to be greater than the LT-MDL but less than the LRL—were included in the plots. Refer to the Definition of Terms section of this report for further explanation of these reporting conventions. Data from the stations on the Delaware river main stem - the border between New Jersey and Pennsylvania - are excluded from the plots.

The plots in figure 7 illustrate the relation between land use and water quality. Streams that drain urban and agricultural areas seem to have been negatively affected by wastewater discharges and overland runoff, respectively. They exhibited higher concentrations of most constituents. In contrast, streams that drained background and undeveloped areas exhibited lower concentrations of most constituents, except DOC. The highest median value of turbidity and the lowest median concentration of DO during the growing season occurred at urban-LUI stations. The highest median concentrations of total dissolved solids (TDS), ammonia plus organic nitrogen, ammonia, nitrite plus nitrate, and phosphorus were present in samples from agriculture-LUI or urban-LUI stations. The lowest median values of turbidity and the highest median concentration of DO during the growing season occurred at background or undeveloped-LUI stations. The lowest median concentrations of TDS, ammonia plus organic nitrogen, ammonia, nitrite plus nitrate, and phosphorus were present in samples from background or undeveloped-LUI stations. Dissolved organic carbon (DOC) is a heterogeneous mixture of many organic materials, mostly high molecular-weight organic acids that result from the oxidation of organic matter. Organic matter can originate from anthropogenic or natural sources. Streams in urban areas have been found to have high levels of organic carbon caused by nutrient enrichment. Streams in undeveloped areas have been found to have high levels caused by naturally occurring organic matter. The highest median concentrations of DOC were present in samples from undeveloped-LUI and urban-LUI stations.

Distribution, Concentration, and Detection Frequency of Recoverable Trace Elements in Unfiltered Water and Bed Sediment, Nutrients and Organic Compounds in Bed Sediment, Volatile Organic Compounds in Unfiltered Water, and Pesticides in Filtered Water from Selected Stations in the ASMN

Water samples for the analysis of trace elements, VOCs, and pesticides were collected when the constituents were most likely to have been detected. Samples for trace elements were collected during February to March and August to September; VOCs during February to March; and pesticides during May to June. Samples of bed sediment were collected in low-water conditions during August to September. For ease of discussion, only those constituents detected in one or more samples are shown in the figures or tables on pages 10 through 16. A detected constituent is one whose value is reported to be greater than or equal to the laboratory LRL or MRL. Values reported by the analyzing laboratory as “<”—less than the LRL or MRL—were considered to be not detected and were excluded from the plots. Values reported as “E”—estimated below the LRL or MRL—were included in the plots. Refer to the Definition of Terms section of this report for more information about MRLs and LRLs.

Samples for the analysis of whole-water-recoverable trace elements were collected at 6 background stations to develop a baseline with which to compare the water quality at other stations and at 42 SS stations to provide a general overview of water quality statewide and of the areal distribution of these compounds. Every trace element analyzed for was detected in one or more samples and, therefore, was included in figure 8. Barium, iron, manganese, and nickel were detected in 100 percent of the samples; boron, copper, and zinc were detected in all but a few. Chromium, arsenic, mercury, and silver had the lowest percentages of detection in samples from both background and SS stations—36, 32, 15, and 1 percent, respectively. Mercury and silver were not detected in any sample from background stations. In general, median detected concentrations were lower in samples from background stations, which are located on reaches of streams that remain relatively unaffected by human activity.

Bed-sediment samples for the analysis of nutrients, trace elements, polycyclic aromatic hydrocarbons (PAHs), and total polychlorinated biphenyls (PCBs) were collected at 2 background, 12 SS, 7 WI, and 1 Delaware River main stem stations. Two of the six background stations are sampled for bed sediment each year and are resampled every third year. In water year 2004, 12 of the 42 SS stations were selected for sampling on the basis of the availability of bed sediment at each station. Seven stations were chosen from among the 23 WI stations. Data from the single Delaware River station was not included in this discussion. Ammonia plus organic nitrogen, phosphorus, and total carbon were detected in all samples; the lowest median concentrations were present in samples from background stations (fig. 9). Cobalt, iron, lead, manganese, and nickel were detected in 100 percent of the samples (fig. 10). Selenium had the lowest percentage of detection. Analytical results for mercury in bed sediment were pending approval at the time of publication. Of the 30 PAHs in the laboratory schedule, only those compounds with surface-water-quality standards are shown in figure 11. Pyrene and fluoranthene were detected in all samples. Dibenz(a,h)anthracene and phenanthrene were the least frequently detected compounds at 43 and 29 percent, respectively. Six compounds were not detected in samples from either of the background stations.

Filtered samples from 6 background and 42 SS stations were analyzed for 66 pesticides by use of laboratory schedule 2060. Only compounds detected in one or more samples are included in table 1. Refer to “Laboratory Measurements” in the Explanation of Water-Quality Records section of this report for the complete list of compounds and the LRL for each compound. Twenty-nine pesticides were detected in low concentrations and were widely distributed throughout the State. All 29 compounds were detected in samples from one or more SS stations, but only two compounds, Atrazine and Imazethapyr, were detected in samples from background stations. Six of the detected compounds are insecticides—Caffeine, Carbaryl, Carbofuran, Imadacloprid, Methiocarb, and Oxamyl. The remaining compounds are herbicides or fungicides. Atrazine, 2,4-D, and Carbaryl were the most frequently detected pesticides at 52, 46, and 38 percent, respectively. The two compounds detected at background stations are commonly used herbicides.

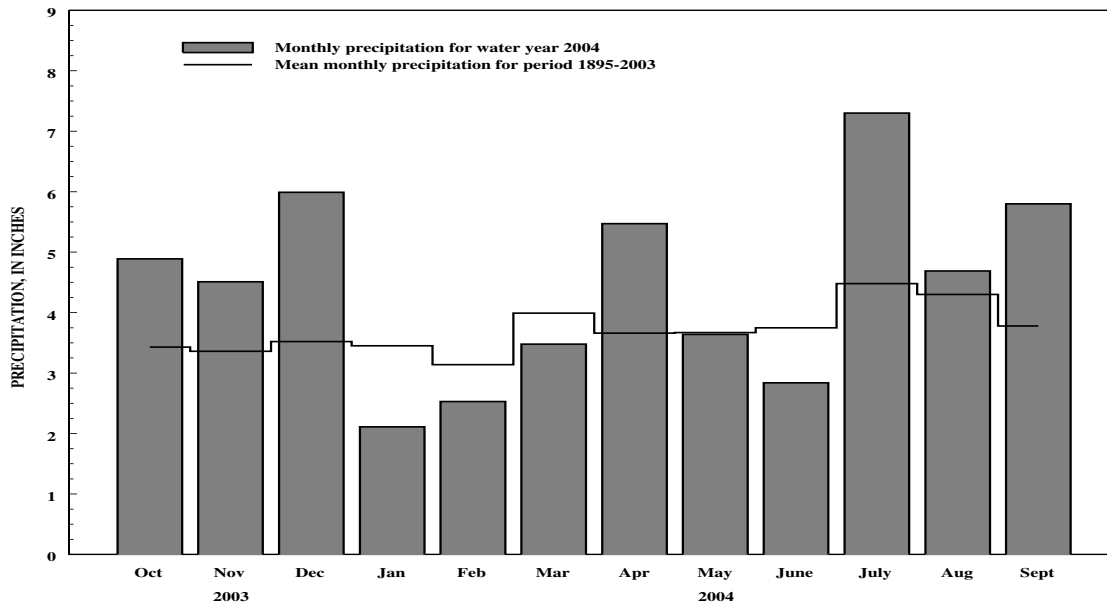


Figure 1. Monthly mean precipitation for water year 2004 and mean monthly precipitation for 1895-2002.
 [Monthly mean and mean monthly precipitation are spatially weighted averages of several dozen stations throughout the State.]

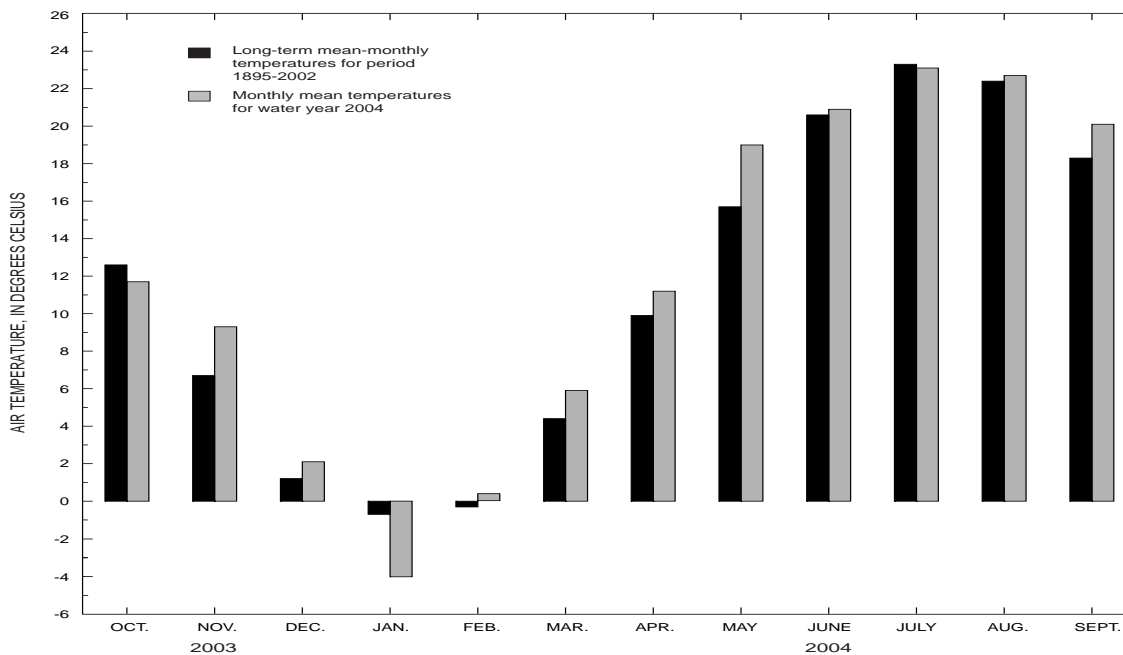
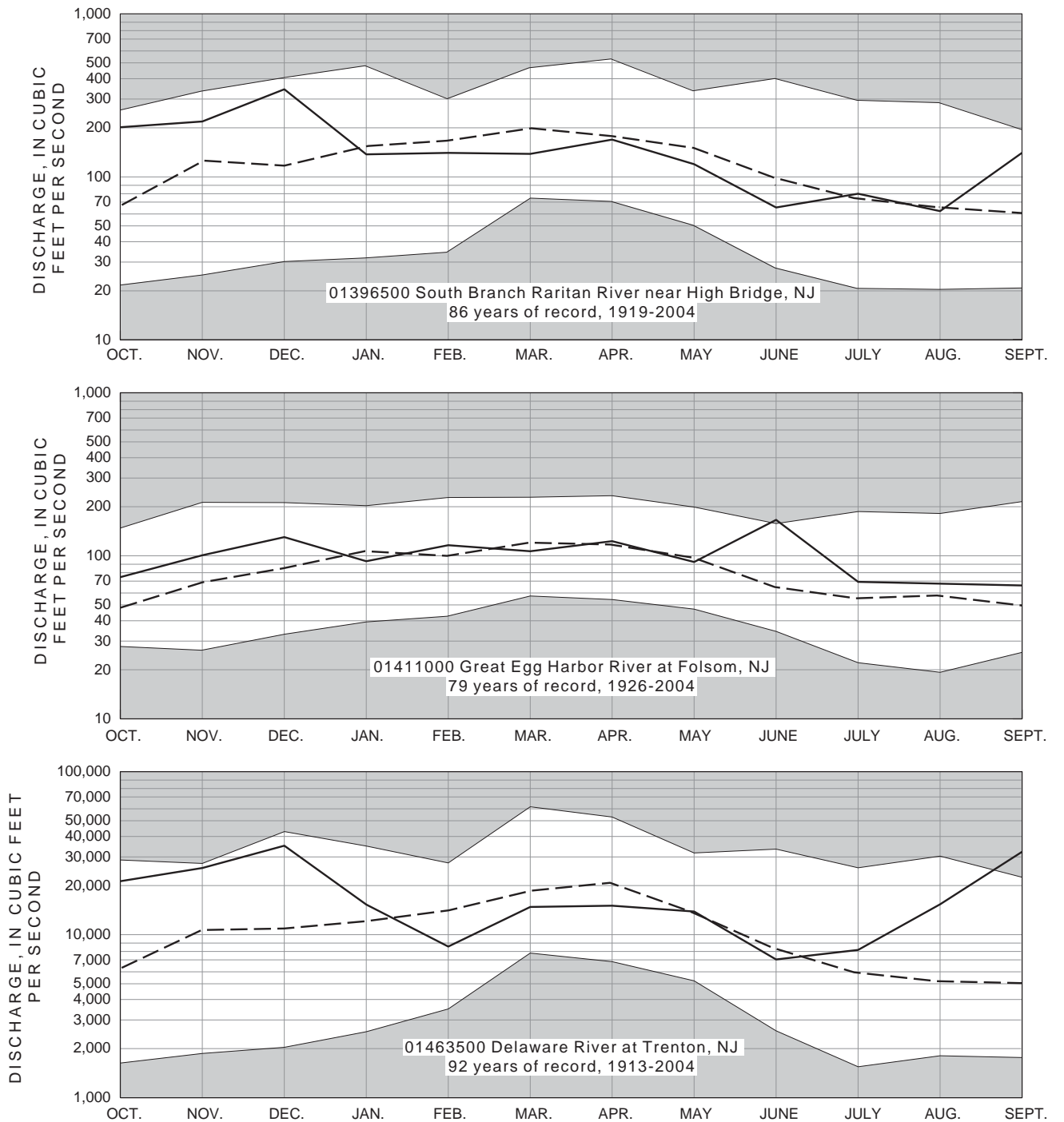


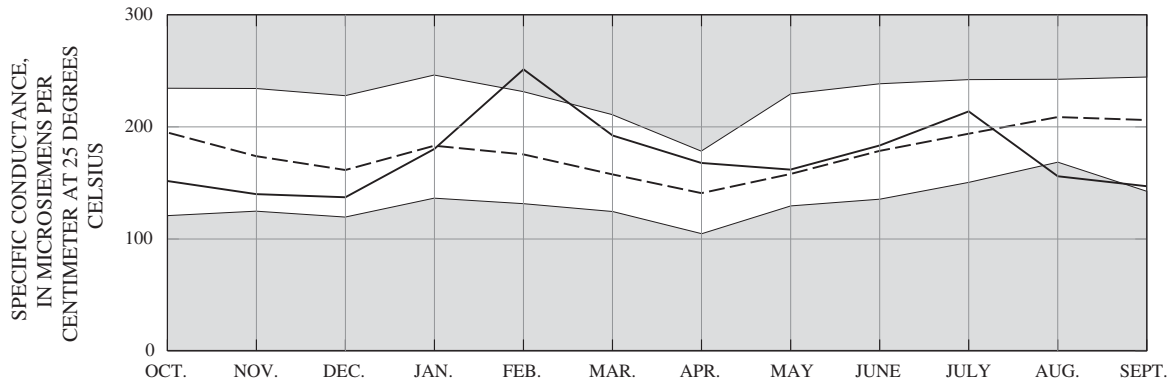
Figure 2. Monthly mean temperatures for water year 2004 and mean monthly temperatures for 1895-2002.
 [Monthly mean and mean monthly temperatures are spatially weighted averages of several dozen stations throughout the State.]



EXPLANATION

- UNSHADED AREA--Indicates range between highest and lowest mean discharge recorded for the month, prior to 2004 water year
- BROKEN LINE--Indicates normal discharge (median of the monthly means) for the standard reference period, 1971-2000
- SOLID LINE--Indicates observed monthly mean discharge for the 2004 water year

Figure 3. Monthly mean discharge at index gaging stations, water year 2004.



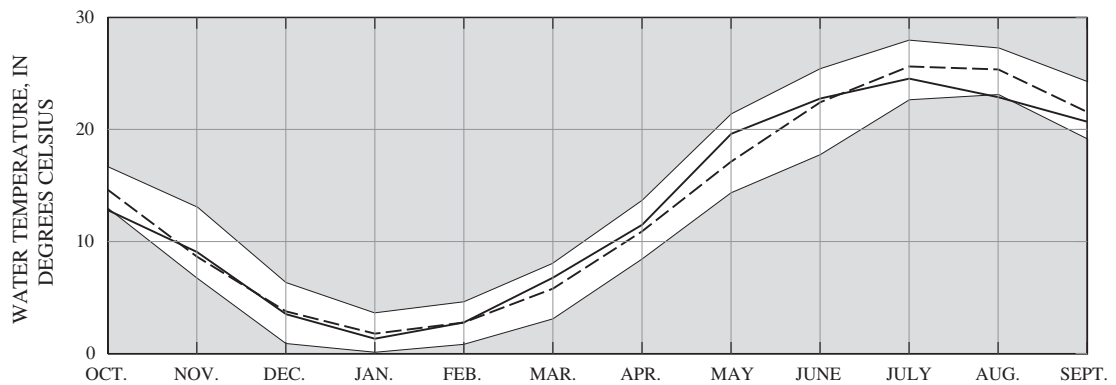
EXPLANATION

UNSHADED AREA--Indicates the range between the highest monthly mean values and the lowest monthly mean values, water years 1968-2003.

SOLID LINE--Indicates the monthly mean values for water year 2004.

BROKEN LINE--Indicates the mean monthly values for water years 1968-2003.

Figure 4. Monthly mean specific conductance at Delaware River at Trenton, New Jersey, water year 2004.



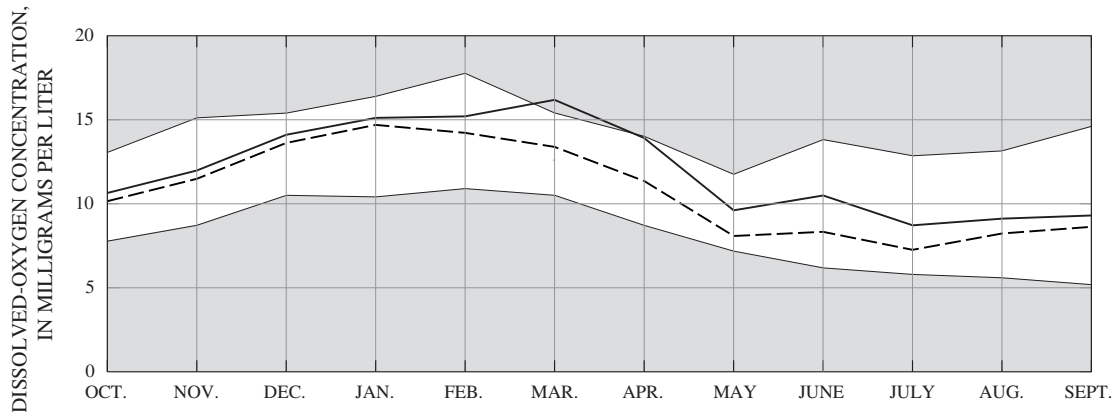
EXPLANATION

UNSHADED AREA--Indicates the range between the highest monthly mean values and the lowest monthly mean values, water years 1968-2003.

SOLID LINE--Indicates the monthly mean values for water year 2004.

BROKEN LINE--Indicates the mean monthly values for water years 1968-2003.

Figure 5. Monthly mean water temperature at Delaware River at Trenton, New Jersey, water year 2004.



EXPLANATION

UNSHADED AREA--Indicates the range between the highest monthly median of daily maximum values and the lowest monthly median of daily minimum values, water years 1968-2003.

SOLID LINE--Indicates the monthly median of daily maximum values for water year 2004.

BROKEN LINE--Indicates the monthly median of daily minimum values for water year 2004.

Figure 6. Monthly medians of daily maximum and minimum dissolved oxygen concentrations at Delaware River at Trenton, New Jersey, water year 2004.

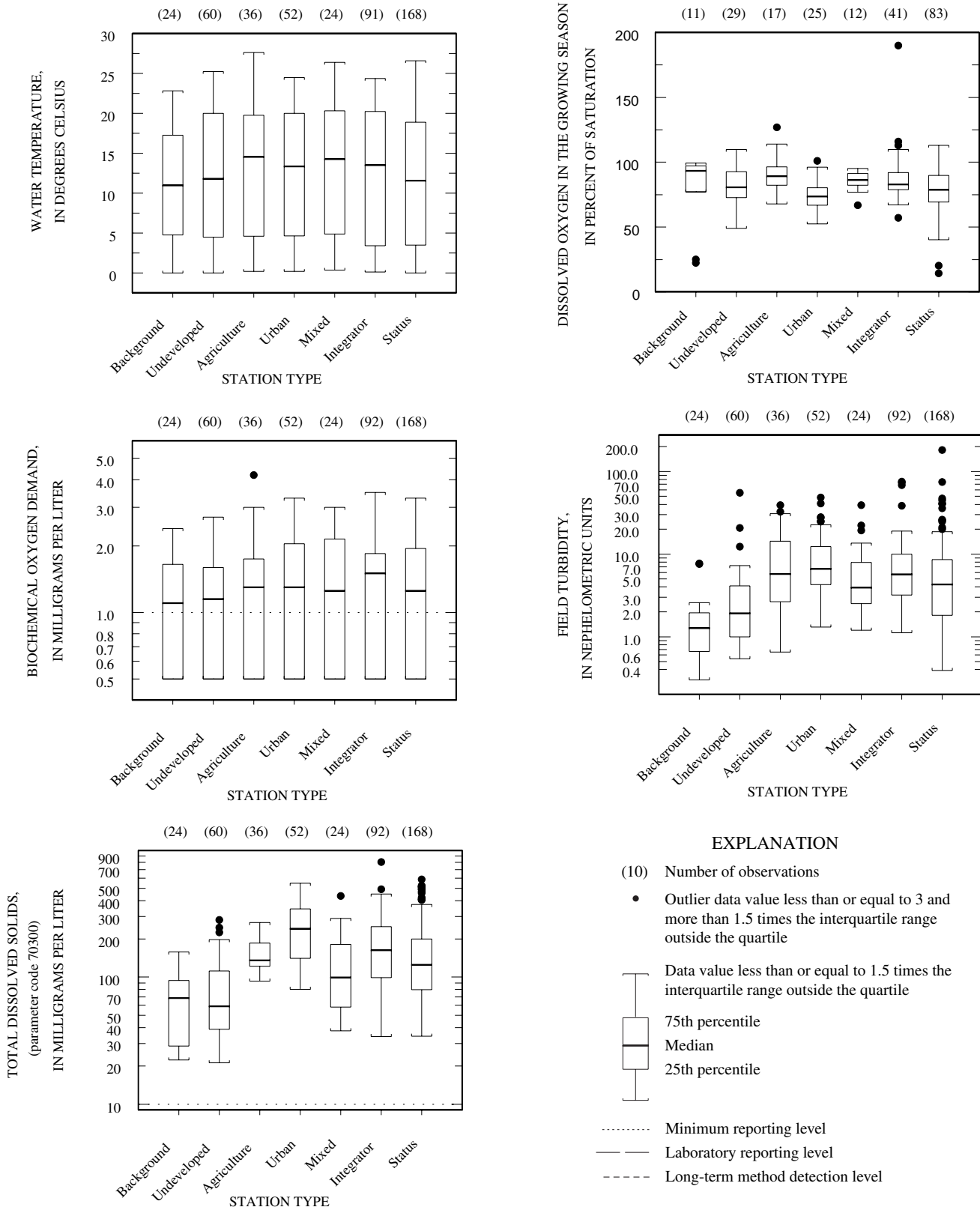


Figure 7. Distribution of physical characteristics of, and constituent concentrations in, samples from 112 stations in the Ambient Stream Monitoring Network, water year 2004.

[Two of the status stations are collocated at other station types; data are included in both distributions. “Less-than” values are shown as equal to the long-term method detection level or one-half the minimum reporting level; excludes data from Delaware River main stem stations 01438500, 01443000, 01457500, and 01461000]

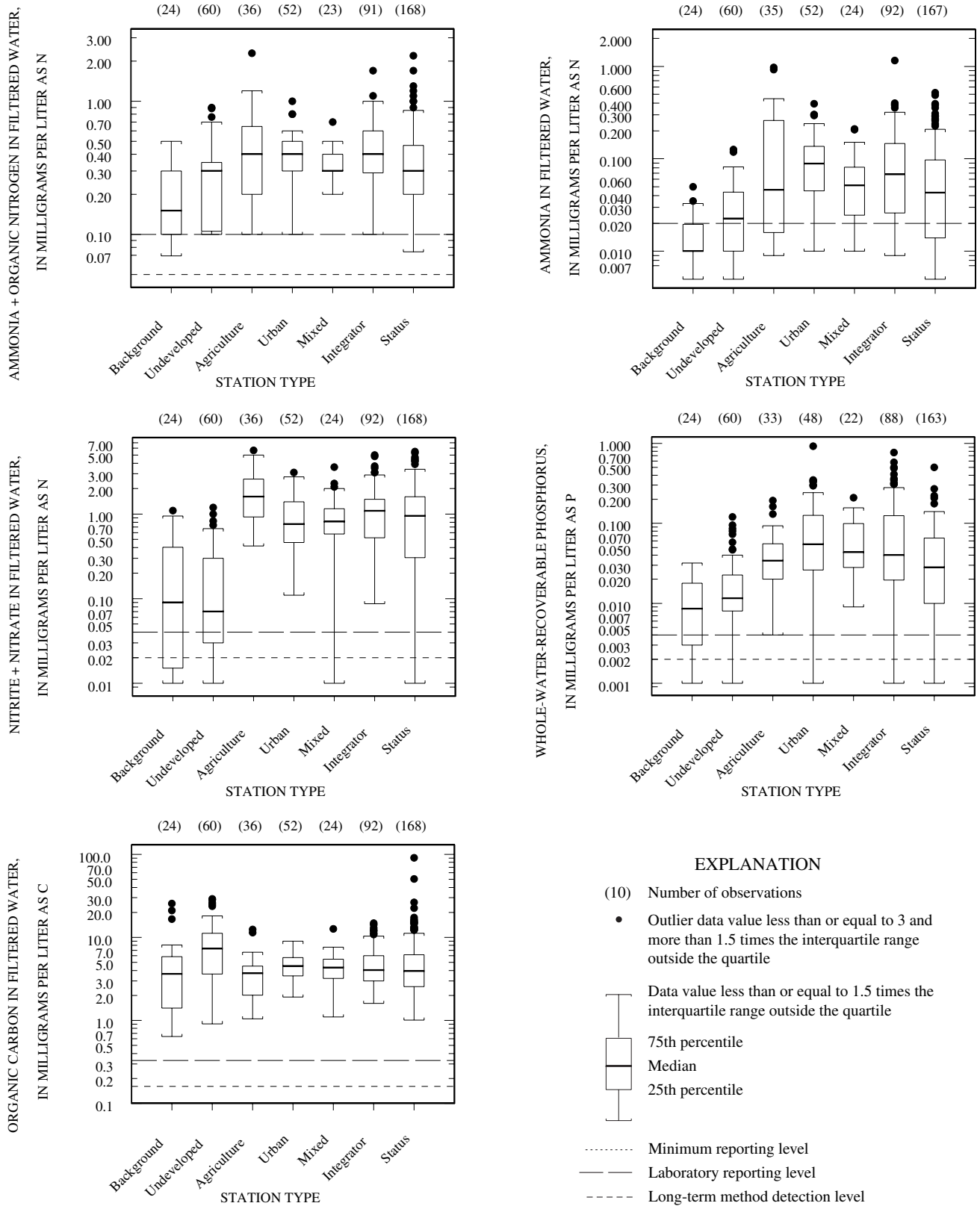


Figure 7. Distribution of physical characteristics of, and constituent concentrations in, samples from 112 stations in the Ambient Stream Monitoring Network, water year 2004--continued.

[Two of the status stations are collocated at other station types; data are included in both distributions. "Less-than" values are shown as equal to the long-term method detection level or one-half the minimum reporting level; excludes data from Delaware River main stem stations 01438500, 01443000, 01457500, and 01461000]

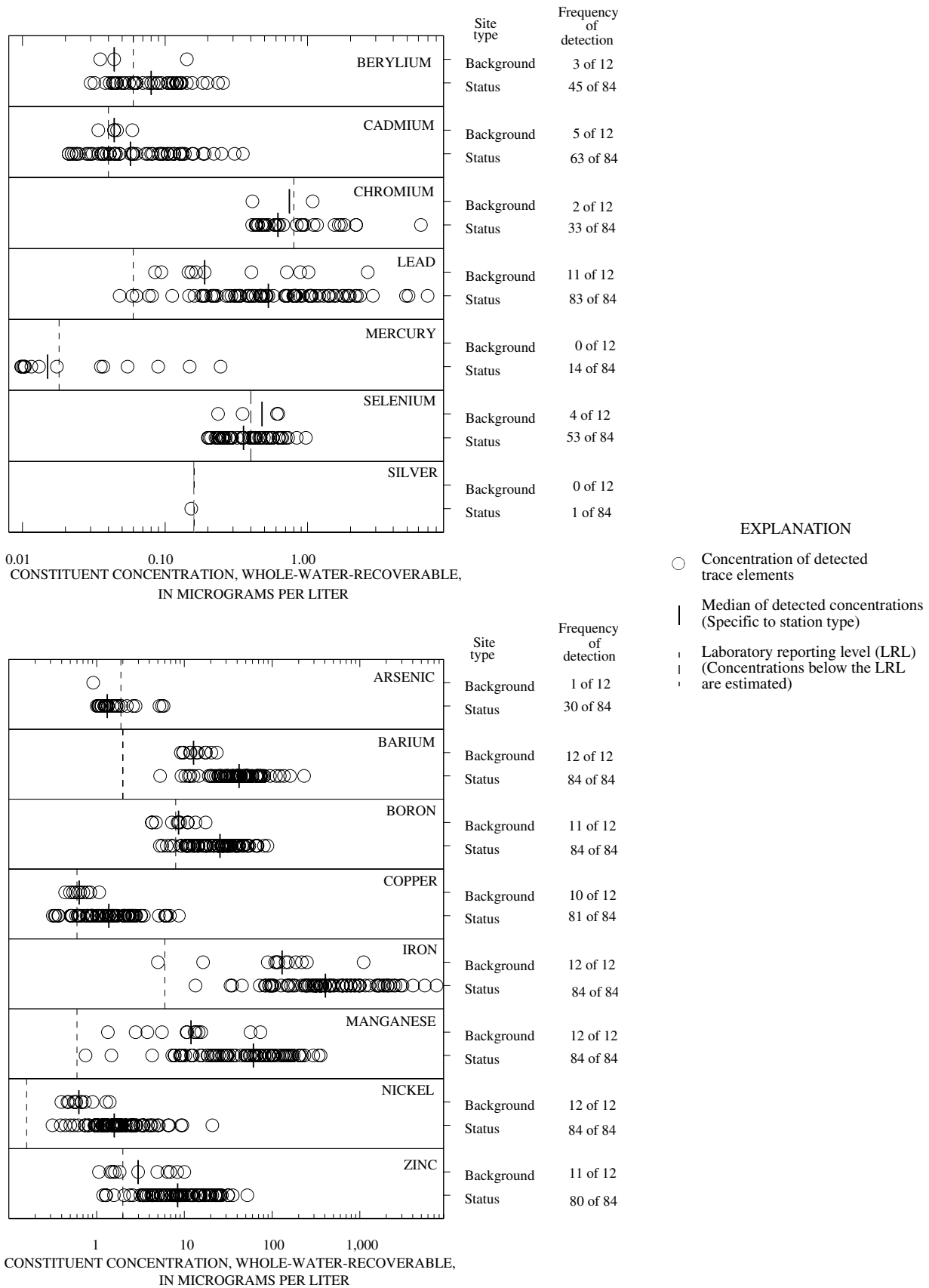


Figure 8. Concentration and detection frequency of whole-water-recoverable trace elements detected in samples from 48 stations in the Ambient Stream Monitoring Network, water year 2004.

[Constituents whose values were reported by the laboratory as less than the LRL are considered to be not detected]

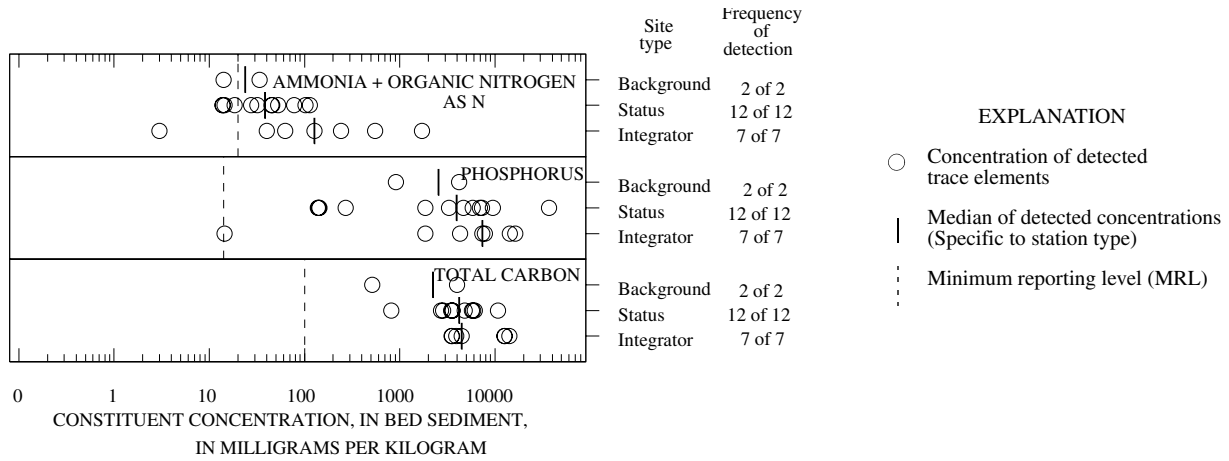


Figure 9. Concentration and detection frequency of nutrients detected in bed-sediment samples from 21 stations in the Ambient Stream Monitoring Network, water year 2004.

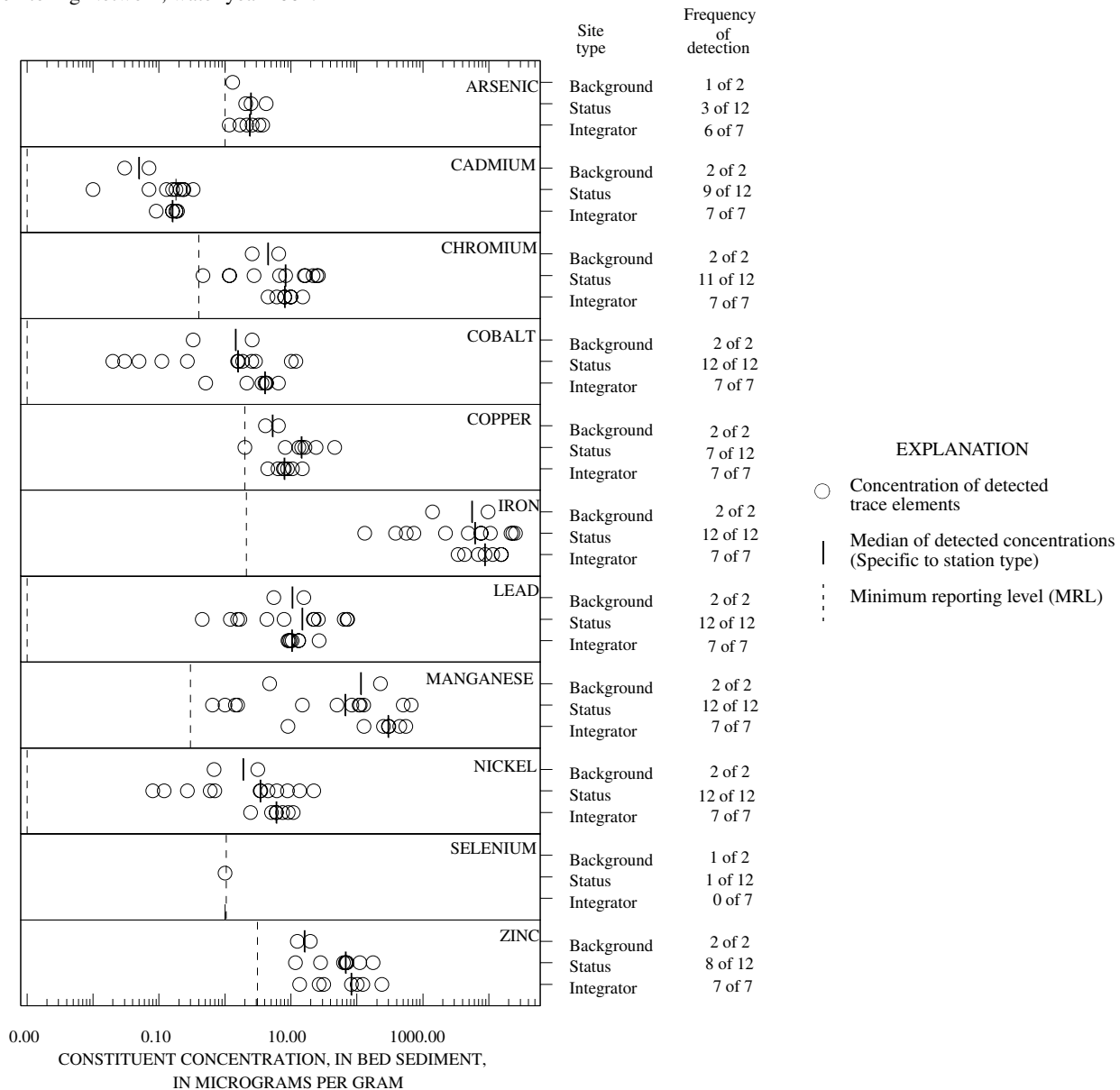


Figure 10. Concentration and detection frequency of trace elements detected in bed-sediment samples from 21 stations in the Ambient Stream Monitoring Network, water year 2004.

[Constituents whose values were reported by the laboratory as less than the MRL are considered to be not detected]

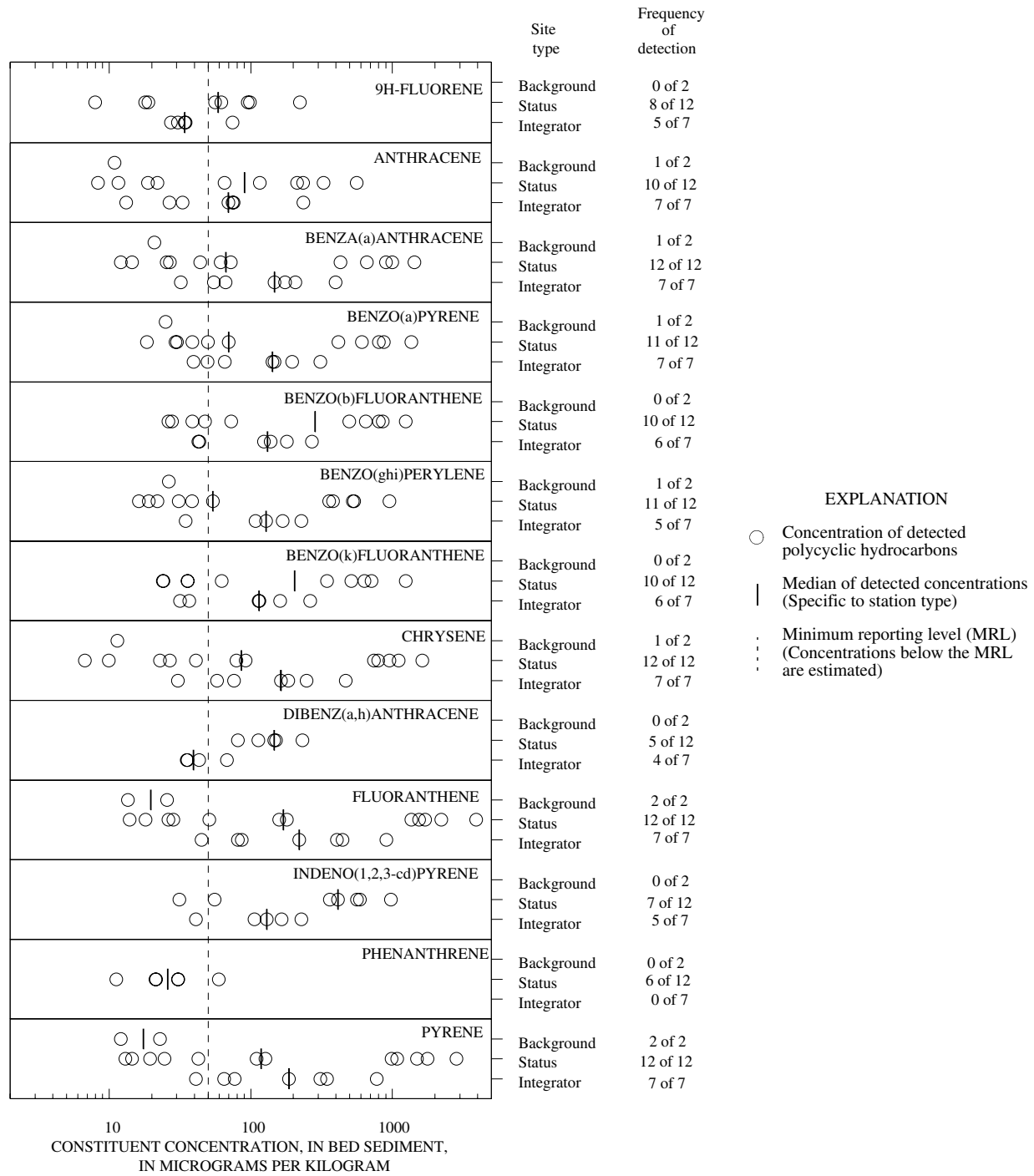


Figure 11. Concentration and detection frequency of selected polycyclic aromatic hydrocarbons detected in bed-sediment samples from 22 stations in the Ambient Stream Monitoring Network, water year 2004. [Constituents whose values were reported by the laboratory as less than the MRL are considered to be not detected]

Table 1. Detection frequency of selected pesticides in filtered samples from 48 stations in the Ambient Stream Monitoring Network, water year 2004

[* All values are estimated due to high variability within analysis method; 2,4-D, (2,4-Dichlorophenoxy)acetic acid; CEAT, 2-Chloro-6-ethylamino-4-amino-s-triazine; OIET, 2-Hydroxyatrazine; MCPA,(4-chloro-2-methylphenoxy)acetic acid]

CONSTITUENT	STATEWIDE STATUS	BACKGROUND
2,4-D METHYL ESTER	5 of 42	0 of 6
2,4-D	22 of 42	0 of 6
CEAT*	4 of 42	0 of 6
OIET*	16 of 42	0 of 6
ATRAZINE	24 of 42	1 of 6
BENOMYL	2 of 42	0 of 6
BROMACIL*	8 of 42	0 of 6
CAFFEINE	13 of 42	0 of 6
CARBARYL	18 of 42	0 of 6
CARBOFURAN	1 of 42	0 of 6
DICAMBA	4 of 42	0 of 6
DINOSEB	2 of 42	0 of 6
DIURON	11 of 42	0 of 6
FLUOMETURON	1 of 42	0 of 6
IMAZAQUIN*	2 of 42	0 of 6
IMAZETHAPYR*	1 of 42	1 of 6
IMADACLOPRID	6 of 42	0 of 6
MCPA	4 of 42	0 of 6
METALAXYL	6 of 42	0 of 6
METHIOCARB	1 of 42	0 of 6
NORFLURAZON*	6 of 42	0 of 6
ORYZALIN	1 of 42	0 of 6
OXAMYL	1 of 42	0 of 6
PROPICONAZOLE	2 of 42	0 of 6
SIDURON	15 of 42	0 of 6
SULFOMETURON	3 of 42	0 of 6
TEBUTHIURON*	3 of 42	0 of 6
TERBACIL	2 of 42	0 of 6
TRICLOPYR	2 of 42	0 of 6

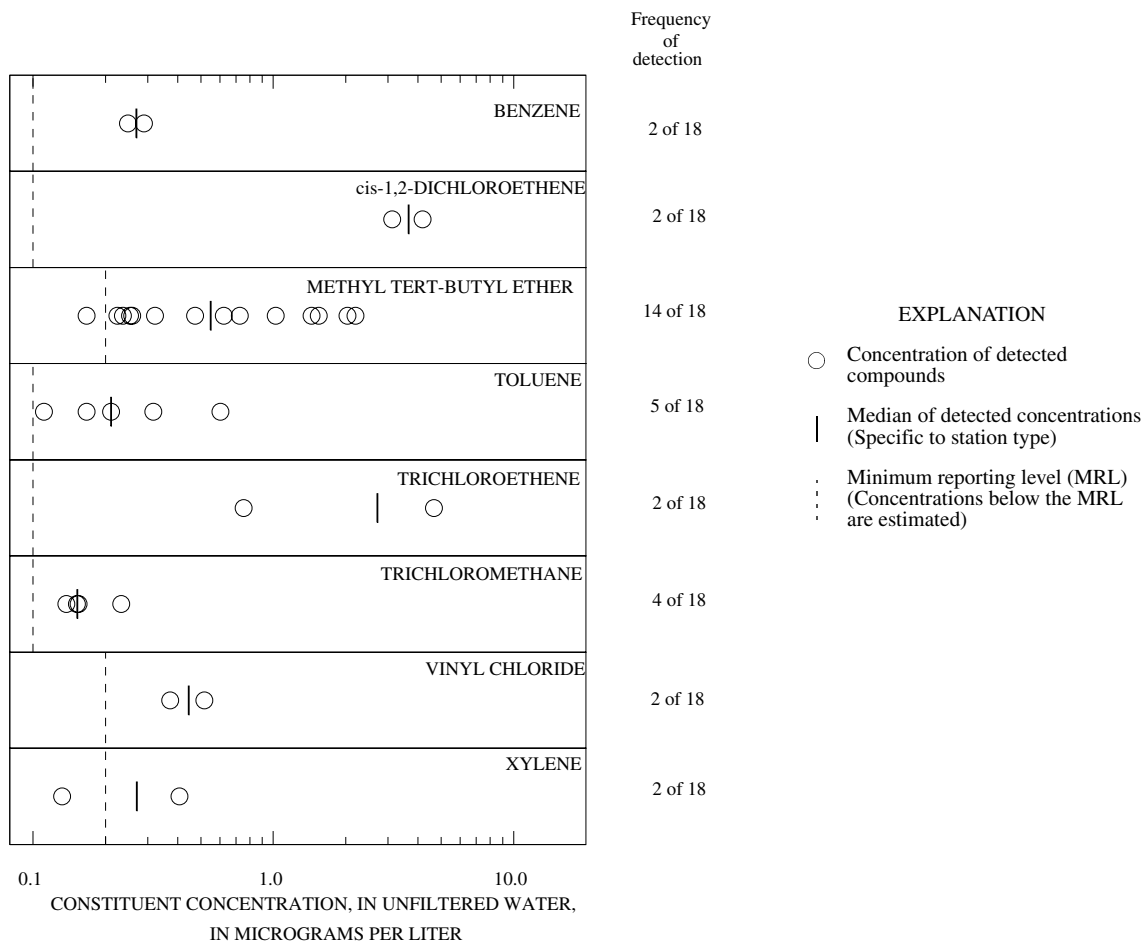


Figure 12. Concentration and detection frequency of selected volatile organic compounds detected in samples from 18 statewide status stations in the Ambient Stream Monitoring Network, water year 2004.

[Constituents whose values were reported by the laboratory as less than the MRL are considered to be not detected]

Table 2. Concentration of volatile organic compounds detected only once in samples from 18 statewide status stations in the Ambient Stream Monitoring Network, water year 2004

CONSTITUENT	CONCENTRATION, in unfiltered water (micrograms per liter)
1,2-DICHLOROPROPANE	0.1
CHLOROENZENE	0.4

Ambient Stream Monitoring Network Reconnaissance Study

The focus of the reconnaissance study during the 2004 water year was VOC sampling at 18 current or historic SS stations in the ASMN. Samples were collected at eight historic SS stations that had previous exceedances of in-stream VOC standards. Samples also were collected at 10 current-year SS stations within the same WMAs as the 8 sites with previous exceedances. Samples from previous years were analyzed for the presence of 34 compounds; samples from this year's targeted study were analyzed for the presence of 61 compounds. Only 8 of the 61 were detected in more than one sample (fig. 12), and 2 were detected only once (table 2). The most frequently detected VOC in 18 samples was Methyl tert-butyl ether (MTBE), at 78 percent.

Ambient Ground-Water-Quality Network

The USGS, in cooperation with the NJDEP, operates the cooperative Ambient Ground-Water-Quality Network (AGWQN), which is designed to assess the status of ground-water quality by examining the concentrations of various constituents that can be used as environmental indicators, assess long-term water-quality trends, determine the effects of land use on shallow ground-water quality, identify threats from nonpoint sources of contamination, and identify emerging or new environmental issues of concern to the public. The network consists of 150 shallow ground-water wells distributed throughout New Jersey within three land-use types. Sixty wells are located in agricultural areas, 60 in urban/suburban areas, and 30 in undeveloped areas within New Jersey's five watershed management regions (WMRs)—the Passaic, the Raritan, the Upper Delaware, the Lower Delaware, and the Atlantic Coastal. These five WMRs are further divided into 20 watershed-management areas (WMAs).

Fifty-two observation wells were sampled in water year 2004. Four wells are located in the Passaic WMR in WMAs 3-6. Four are located in the Raritan WMR in WMAs 7, 9, and 10. Four are located in the Upper Delaware WMR in WMAs 1, 2, and 11. Twenty-eight are located in the Lower Delaware WMR in WMAs 17-20. Two are located in the Atlantic Coastal WMR in WMAs 15 and 16. The wells have 2-inch polyvinyl chloride casings; range in depth from 7.6 to 97.1 feet; and represent 3 land-use types, 10 water-chemistry types, and 11 hydrogeologic units (table 3). Samples from the wells were analyzed for physical characteristics, major ions, nutrients, organic carbon, trace elements, VOCs, pesticides, and gross alpha and beta radioactivity. A summary of the water chemistry of the 52 wells is listed in table 3. Analytical records were tabulated by WMR and site number, and are located in the Ground-Water-Quality Site Records section of this report.

The analyzing laboratory used two different methods and reporting conventions for establishing the minimum concentration above which a quantitative measurement could be made. These reporting conventions were laboratory reporting level (LRL) and minimum reporting level (MRL). LRL was computed as twice the long-term method detection level (LT-MDL). Values reported less than the LRL or MRL were included in each box plot as a value equal to the LT-MDL or one-half the MRL, respectively, but were excluded from the scatter plots. Values reported as "E"—estimated to be greater than the LT-MDL but less than the LRL—were included in both types of plots. Refer to the Definition of Terms section of this report for further explanation of these reporting conventions.

Distribution, Concentration, and Detection Frequency of Physical Measurements, Ions, and Nutrients in Filtered and Unfiltered Water from 52 Sites in the AGWQN

The effect of land use on the proportions of the major ions in water samples from the wells can be observed in the data presented in the trilinear (Piper) diagrams (figs. 13-15). The diagrams depict major cations (calcium, sodium, magnesium, potassium) and anions (bicarbonate, chloride, sulfate, fluoride, nitrate) as percentages of milliequivalents in the two base triangles. The total cations and anions in milliequivalents are set to equal 100 percent. The individual points then are projected to the quadrilateral along parallel lines following the magnesium and sulfate axes. The relative proportions of major ions in an individual sample can be inferred by the position of the well symbol in the diagram. Similarity or dissimilarity between samples can be inferred from the clustering or scattering of symbols in the diagram.

Table 3. Hydrogeologic unit and land use at 52 wells sampled as part of U.S. Geological Survey-N.J. Department of Environmental Protection (cooperative) Ambient Ground-Water-Quality Network, water year 2004

NJ-WRD well number	WMA number	Hydrogeologic unit/aquifer code	Predominant land use ¹	Water type (dominant cation-anion)	Dissolved oxygen (mg/L)	NO ₂ +NO ₃ , as dissolved solids (mg/L)	Number of pesticides detected ²	Number of VOCs detected ²	Number of trace elements detected ²	Well depth (ft bls)
110925	17	121CKKD	Undeveloped	Iron-sulfate	---	<.06	0	0	9	26.0
51476	19	211EGLS	Undeveloped	Sodium-sulfate	7.9	E.05	0	0	12	14.0
51479	19	121CKKD	Undeveloped	Sodium-chloride	3.6	<.06	0	1	11	24.0
210633	11	227PSSC	Undeveloped	Calcium-bicarbonate	0.9	0.41	0	0	9	11.5
111128	16	121CKKD	Agricultural	Sodium-chloride	3.5	4.24	1	0	15	15.0
111130	17	121CKKD	Agricultural	Calcium-nitrate	10.3	34.00	3	0	16	29.2
110692	17	121CKKD	Agricultural	Calcium-sulfate	10.3	5.62	6	0	13	38.0
330818	17	121CKKD	Agricultural	Sodium-chloride	9.8	12.30	7	0	16	32.0
330820	17	121CKKD	Agricultural	Calcium-sulfate	9.0	11.10	3	0	15	19.0
330680	18	121CKKD	Agricultural	Calcium-sulfate	11.2	6.91	3	0	13	32.0
151208	18	121CKKD	Agricultural	Calcium-sulfate	9.1	4.01	7	4	12	33.0
51478	19	211EGLS	Agricultural	Sodium-chloride	9.2	14.20	5	0	15	22.5
350143	10	227PSSC	Agricultural	Sodium-chloride	0.8	<.06	3	0	8	21.0
250826	9	112SDFD	Agricultural	Calcium-bicarbonate	0.3	<.06	0	0	5	28.0
111129	17	121CKKD	Agricultural	Sodium-chloride	9.0	5.07	0	0	14	50.0
111127	17	121CKKD	Agricultural	Calcium-chloride	6.9	6.34	0	0	9	24.0
151481	15	121CKKD	Agricultural	Sodium-chloride	6.2	5.42	0	0	13	13.5
330930	18	121CKKD	Agricultural	Calcium-chloride	6.9	9.58	2	1	12	22.6
330927	18	125VNCN	Agricultural	Magnesium-sulfate	3.4	11.6	3	0	12	25.0
330928	18	121CKKD	Agricultural	Calcium-bicarbonate	0.4	0.17	6	0	12	28.2
330929	18	211MLRW	Agricultural	Calcium-sulfate	6.8	10.8	2	0	10	17.0
51480	19	124MNSQ	Agricultural	Calcium-bicarbonate	0.3	<.06	5	0	15	23.5
51402	19	121CKKD	Agricultural	Sodium-chloride	0.2	<.06	2	1	14	10.0
51403	19	125HRRS	Agricultural	Calcium-chloride	9.3	7.81	1	0	12	13.0
51481	20	211EGLS	Agricultural	Sodium-chloride	1.0	14.2	0	0	13	12.0
250785	20	125VNCN	Agricultural	Iron-bicarbonate	0.4	<.06	0	1	11	24.0
51477	20	211MRSL	Agricultural	Sodium-chloride	5.5	<.06	0	1	14	24.0
410568	1	112SDFD	Agricultural	Calcium-chloride	10.4	14	0	0	11	61.0
51486	19	125HRRS	Agricultural	Sodium-chloride	0.4	2.16	0	0	11	12.5
210630	10	231SCKN	Urban	Calcium-bicarbonate	2.5	3.19	0	1	12	97.1
272069	6	112SDFD	Urban	Calcium-chloride	6.4	0.44	0	1	10	35.0
370476	2	112SDFD	Urban	Calcium-chloride	1.4	0.69	0	1	12	27.5
170016	5	112SDFD	Urban	Calcium-bicarbonate	0.3	<.06	0	0	12	24.0
30726	5	112SDFD	Urban	Sodium-bicarbonate	1.1	<.06	1	2	12	24.0
110931	17	121CKKD	Urban	Sodium-chloride	6.7	4.83	1	3	13	51.0
330830	17	121CKKD	Urban	Sodium-bicarbonate	0.8	3.95	9	2	13	15.0
151210	18	121CKKD	Urban	Sodium-sulfate	9.6	5.22	3	2	14	19.5
151258	18	121CKKD	Urban	Sodium-chloride	1.3	<.06	2	1	13	7.6
70859	18	121CKKD	Urban	Sodium-chloride	9.0	1.65	3	1	15	19.0
30724	4	112SDFD	Urban	Sodium-chloride	2.6	1.42	0	0	8	36.0
30722	5	112SDFD	Urban	Calcium-bicarbonate	4.4	1.45	0	2	8	18.7
390506	7	227PSSC	Urban	Calcium-bicarbonate	3.3	4.34	1	2	10	25.0
310198	4	112SDFD	Urban	Calcium-chloride	1.4	E.04	0	1	12	22.0
390507	7	112SDFD	Urban	Calcium-bicarbonate	0.2	<.06	0	0	11	16.9
30723	4	112SDFD	Urban	Sodium-chloride	5.7	3.3	0	1	10	38.0
310200	3	112SDFD	Urban	Calcium-bicarbonate	1.9	0.73	0	2	11	24.0
310199	4	112SDFD	Urban	Calcium-bicarbonate	2.2	1.06	0	1	6	22.0
272107	6	112SDFD	Urban	Sodium-chloride	3.1	5.42	1	0	10	38.0
272106	1	400PCMB	Urban	Sodium-chloride	3.2	0.48	1	0	8	15.5
130192	4	112SDFD	Urban	Sodium-bicarbonate	1.6	<.06	1	0	11	20.0
170015	5	112SDFD	Urban	Sodium-chloride	4.8	6.77	1	3	12	21.6
130193	4	112SDFD	Urban	Calcium-bicarbonate	1.2	3.63	1	1	11	8.3

¹Land use based on New Jersey Geographic Information System (New Jersey Department of Environmental Protection, 1996).²Includes compounds with estimated concentrations, defined as positive detections of a compound, but measured as less than the laboratory reporting levels.

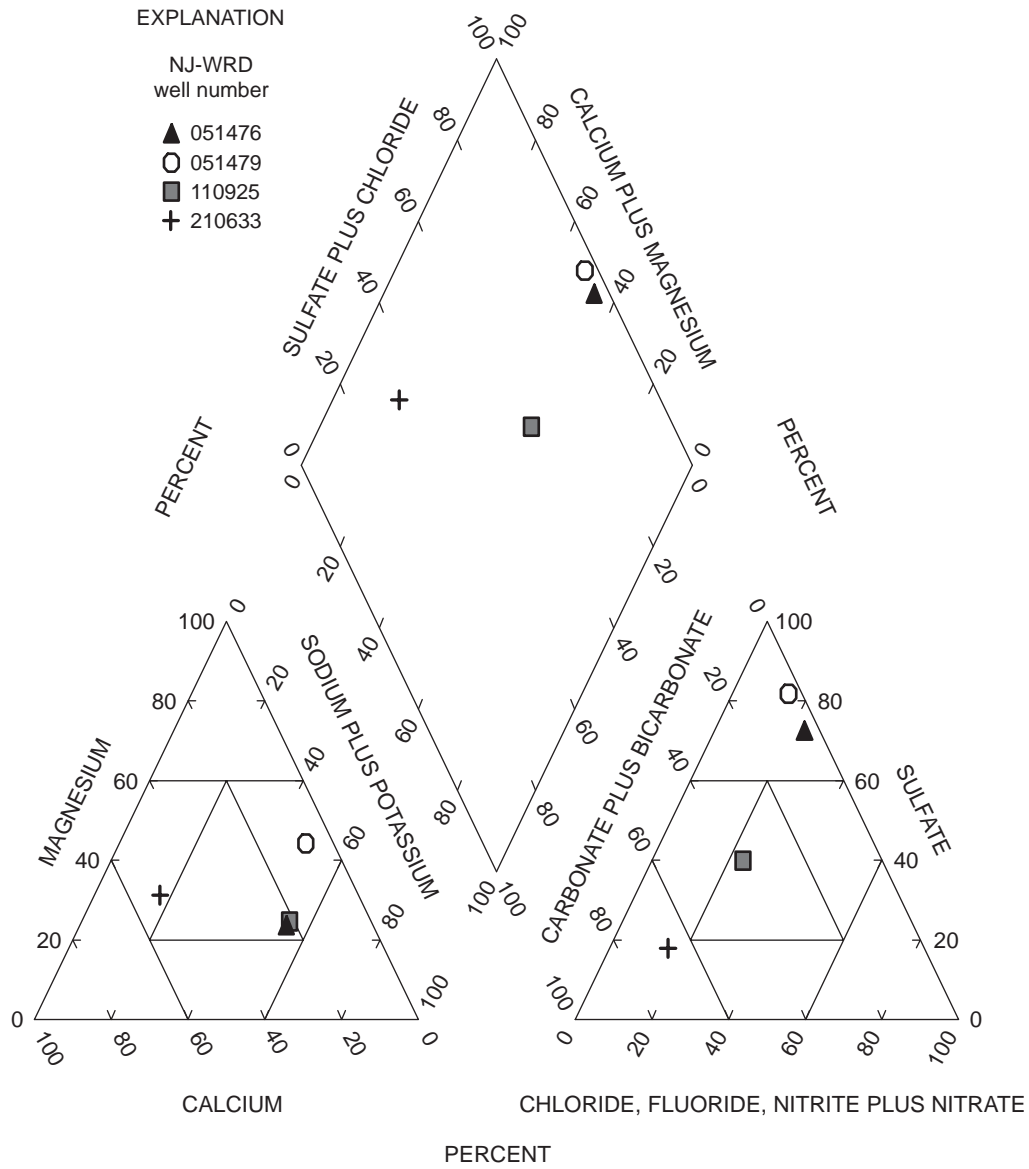


Figure 13. Trilinear diagram showing the distribution of major ions in filtered samples from four sites in undeveloped land-use areas in the Ambient Ground-Water-Quality Network, water year 2004.

EXPLANATION

NJ-WRD
well number

- 051402
- ▲ 051403
- ◇ 051477
- ◊ 051478
- 051480
- ⊠ 051481
- ⊞ 051486
- × 110692
- ◆ 111127
- 111128
- 111129
- 111130
- ⊞ 151208
- 151481
- 250785
- ⊕ 250826
- ⊞ 330680
- ⊞ 330818
- ⊕ 330820
- ⊞ 330927
- ⊞ 330928
- ⊞ 330929
- ▽ 330930
- × 350143
- ⊞ 410568

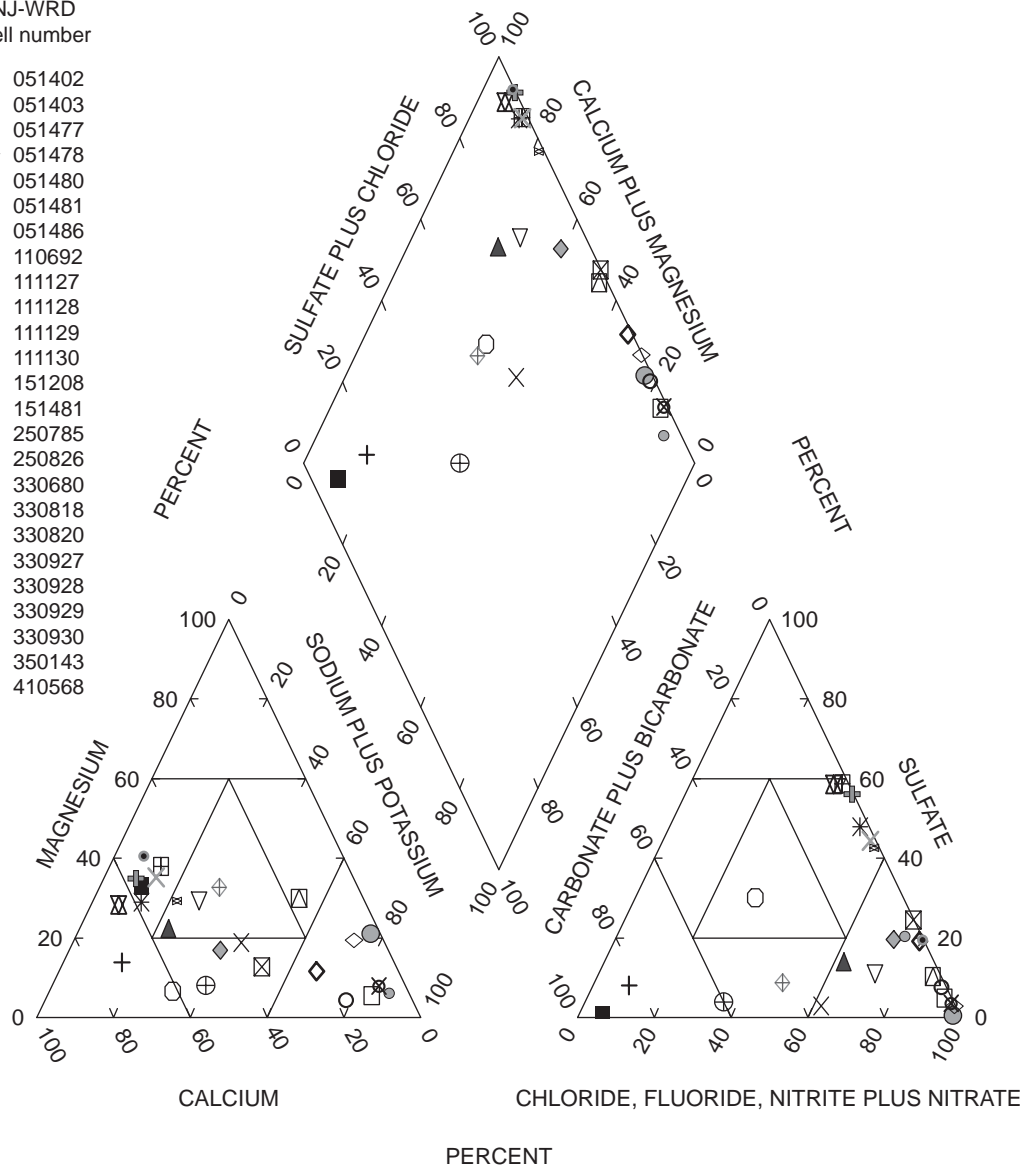


Figure 14. Trilinear diagram showing the distribution of major ions in filtered samples from 25 sites in agricultural land-use areas in the Ambient Ground-Water-Quality Network, water year 2004.

EXPLANATION

NJ-WRD
well number

- 030722
- 030723
- 030724
- ⊞ 030726
- × 070859
- 110931
- ⊞ 130192
- ⊞ 130193
- 151210
- ⊞ 151258
- * 170015
- ◇ 170016
- ◇ 210630
- × 272069
- ◆ 272106
- ⊞ 272107
- ◇ 310198
- ▲ 310199
- ⊞ 310200
- 330830
- ⊞ 370476
- ▽ 390506
- ⊞ 390507

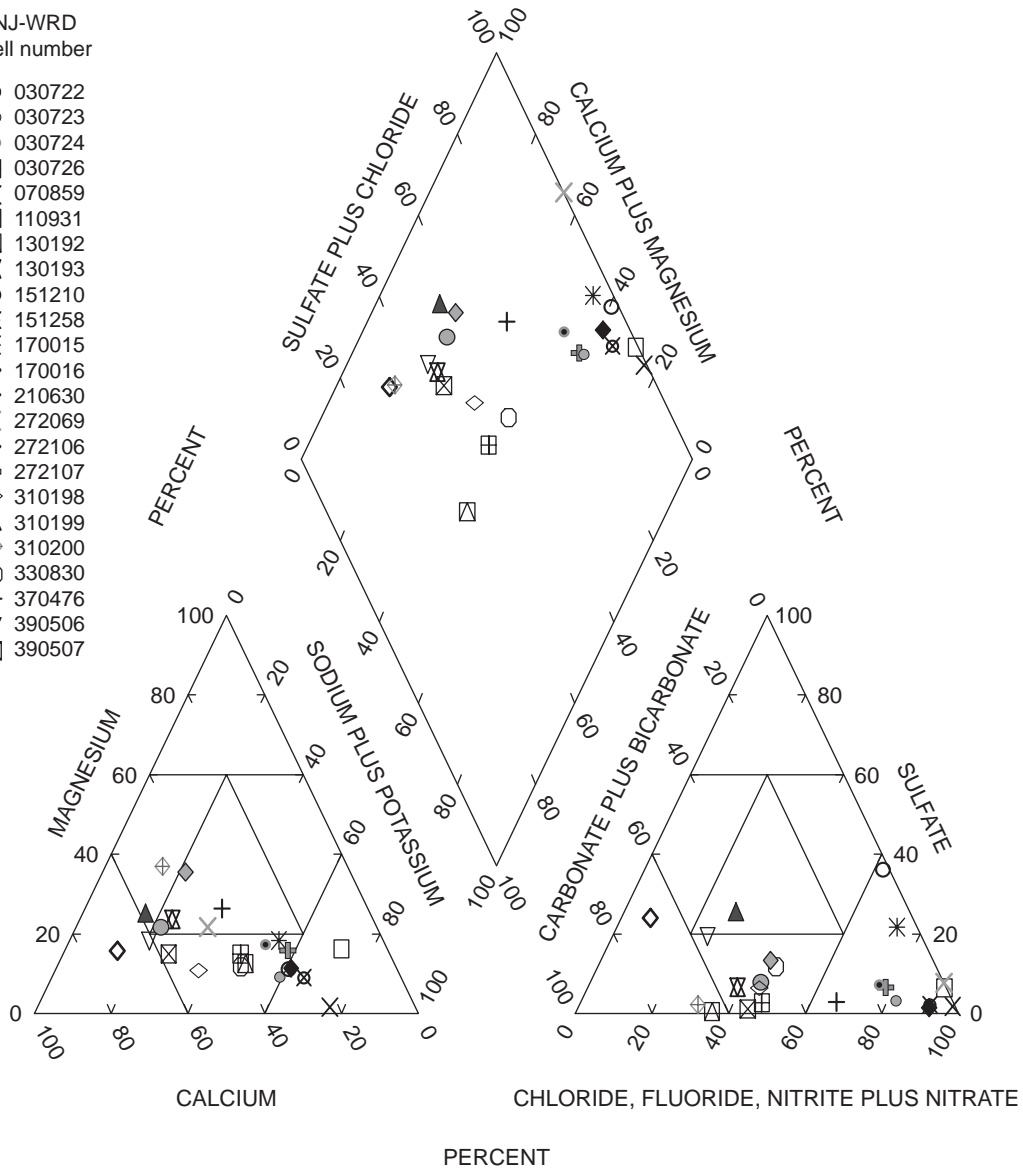


Figure 15. Trilinear diagram showing the distribution of major ions in filtered samples from 23 sites in urban land-use areas in the Ambient Ground-Water-Quality Network, water year 2004.

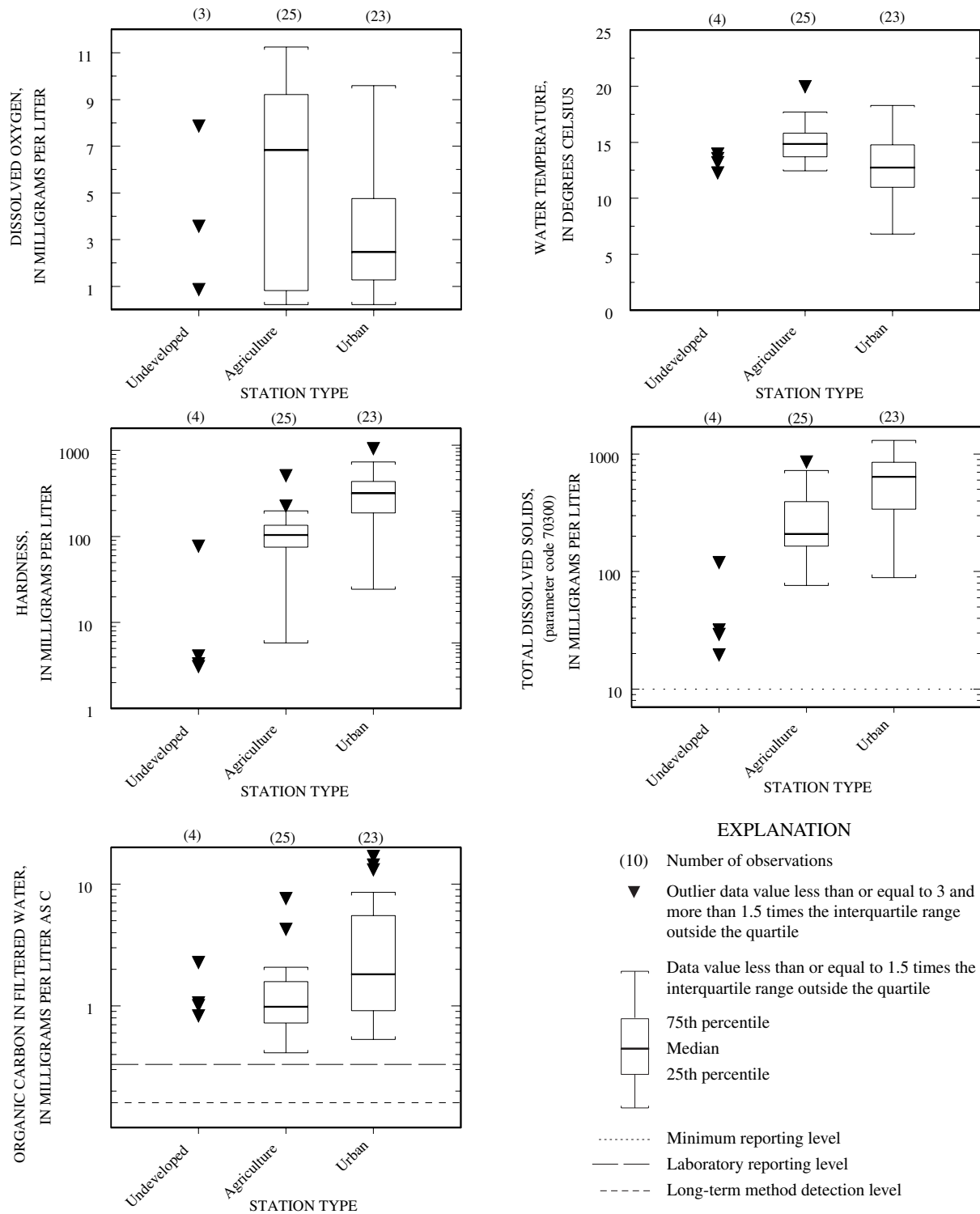


Figure 16. Distribution of physical characteristics of, and constituent concentrations in, samples from 52 sites in the Ambient Ground-Water-Quality Network, water year 2004.

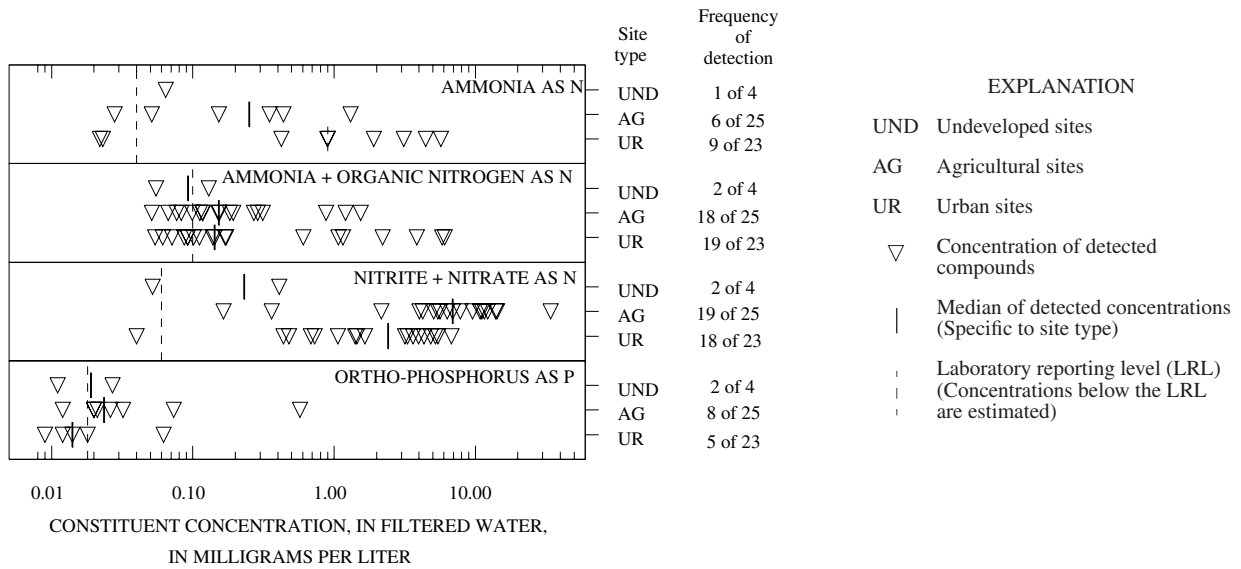


Figure 17. Concentration and detection frequency of selected constituents detected in filtered samples from 52 sites in the Ambient Ground-Water-Quality Network, water year 2004. [Constituents whose values were reported by the laboratory as less than the LRL are considered to be not detected]

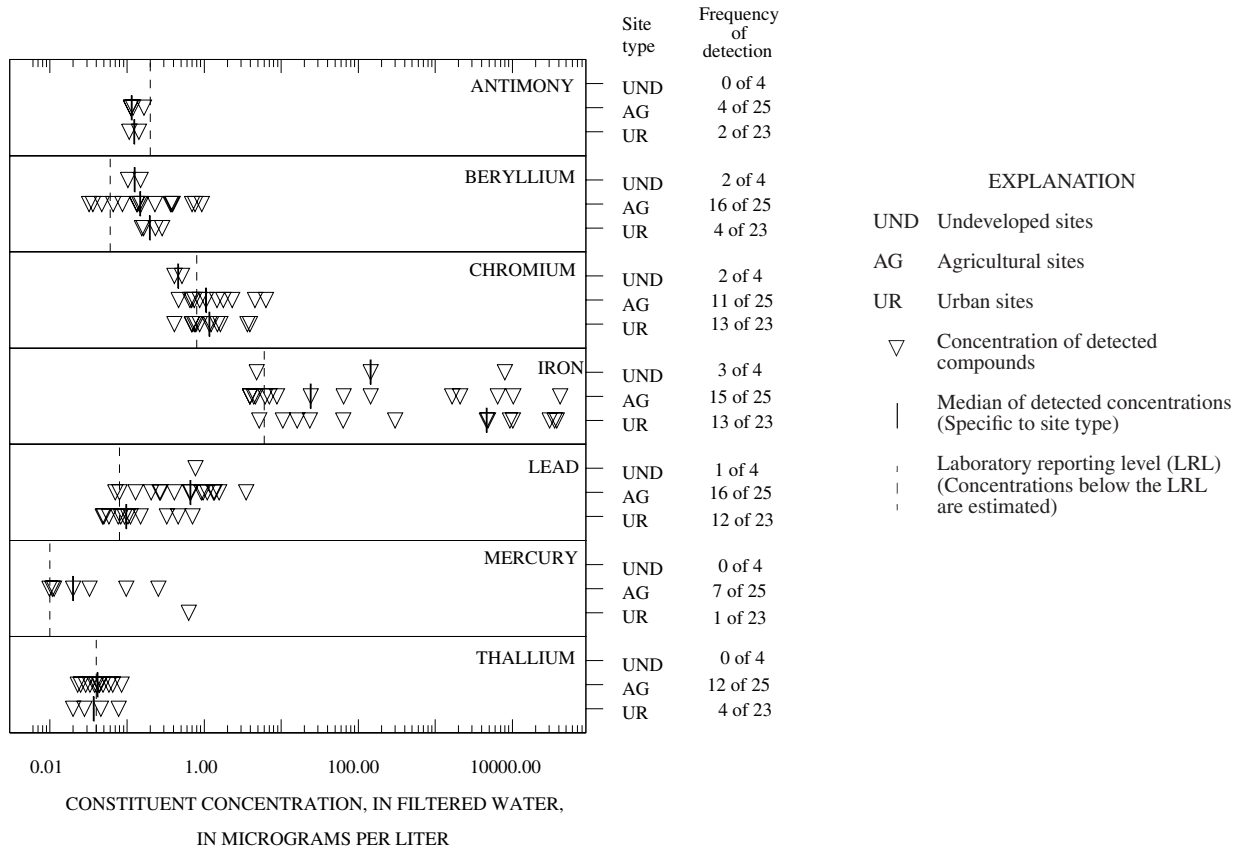


Figure 18. Concentration and detection frequency of trace elements detected in filtered samples from 52 sites in the Ambient Ground-Water-Quality Network, water year 2004. [Constituents whose values were reported by the laboratory as less than the LRL are considered to be not detected]

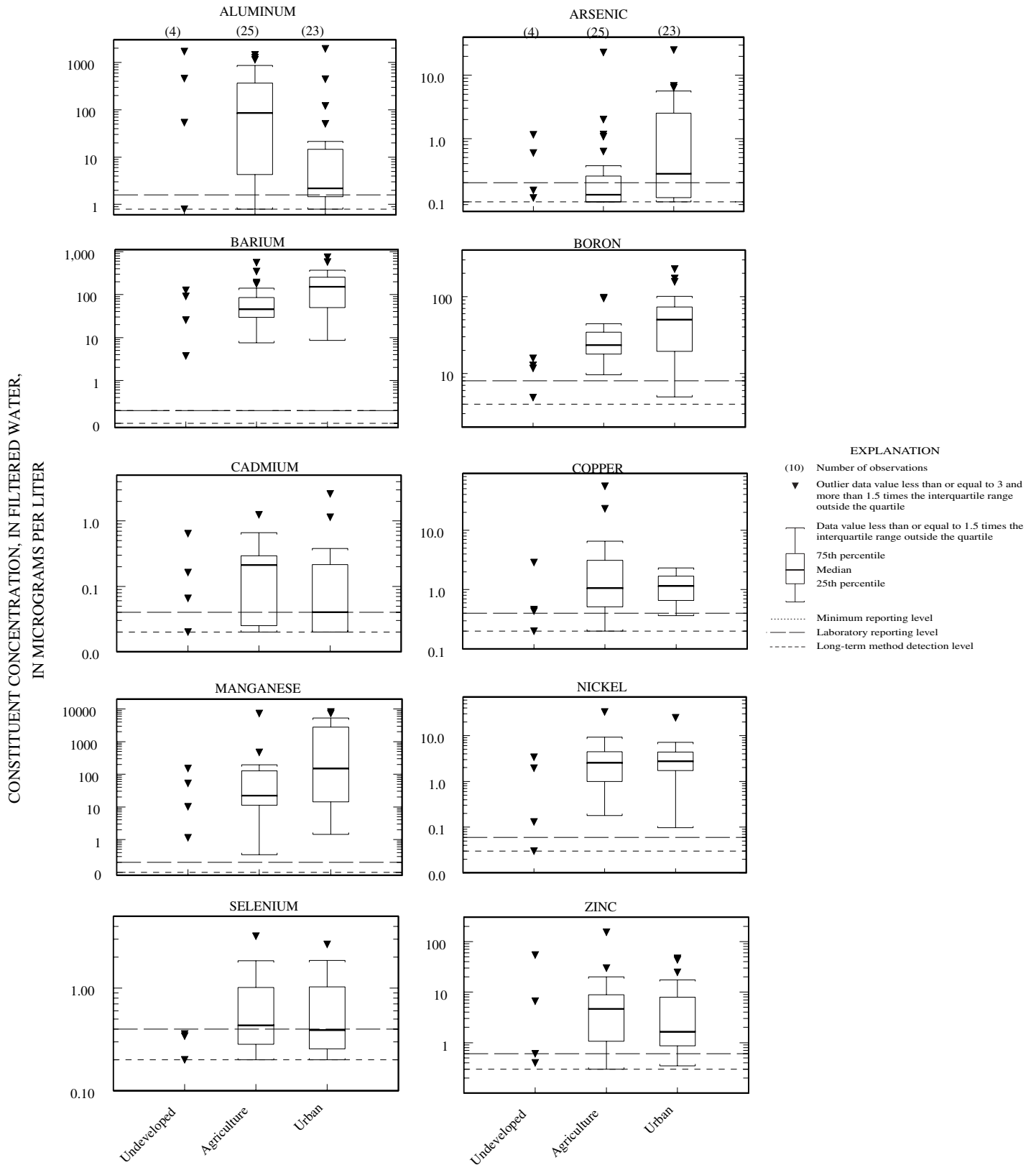


Figure 19. Distribution and concentration of trace elements in filtered samples from 52 sites in the Ambient Ground-Water-Quality Network, water year 2004.

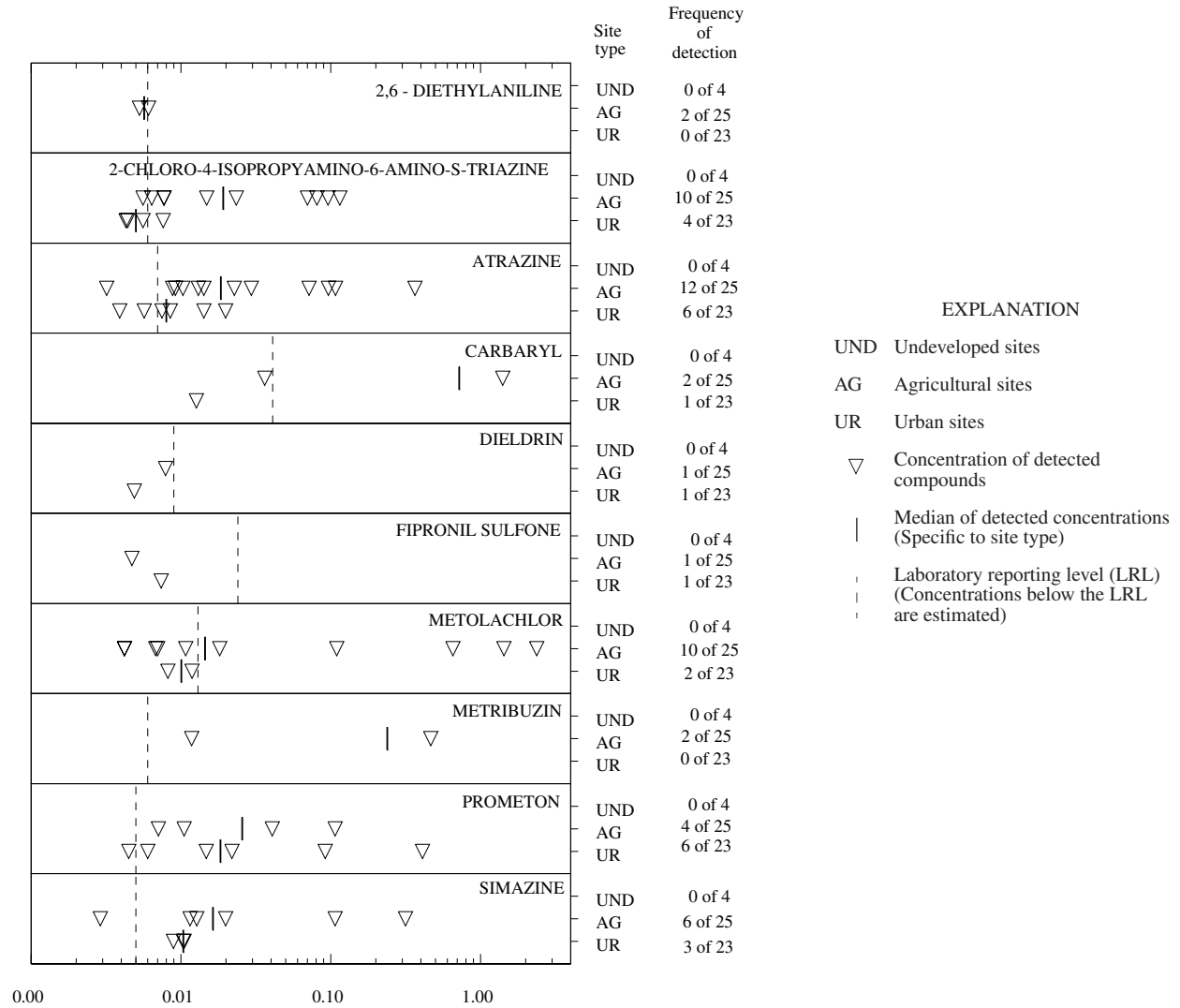
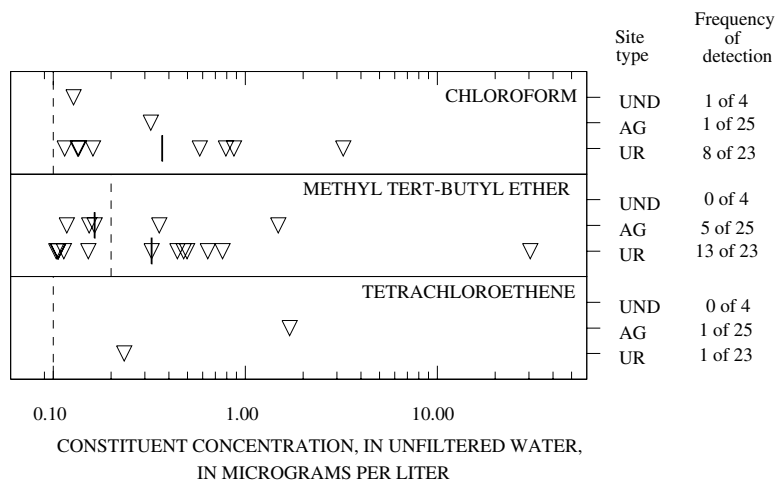


Figure 20. Concentration and detection frequency of selected pesticides detected in filtered samples from 52 sites in the Ambient Ground-Water-Quality Network, water year 2004. [Constituents whose values were reported by the laboratory as less than the LRL are considered to be not detected]

Table 4. Concentration of pesticides detected only once in filtered samples from 52 sites in the Ambient Ground-Water-Quality Network, water year 2004 [AG, agriculture; UR, urban; E, estimated]

CONSTITUENT	CONCENTRATION (micrograms per liter)	SITE TYPE
ACETOCHLOR	0.011	AG
CARBOFURAN	E 0.048	AG
DESULFINYL FIPRONIL	E 0.007	UR
DESULFINYL FIPRONIL AMIDE	E 0.004	AG
FIPRONIL SULFIDE	E 0.012	UR
FIPRONIL	E 0.244	UR
NAPROPAMIDE	0.058	AG
TEBUTHIURON	0.222	UR
TERBACIL	E 1.41	AG



EXPLANATION

- UND Undeveloped sites
- AG Agricultural sites
- UR Urban sites
- ▽ Concentration of detected compounds
- | Median of detected concentrations (Specific to site type)
- : Laboratory reporting level (LRL) (Concentrations below the LRL are estimated)

Figure 21. Concentration and detection frequency of selected volatile organic compounds detected in unfiltered samples from 52 sites in the Ambient Ground-Water-Quality Network, water year 2004.

[Constituents whose values were reported by the laboratory as less than the LRL are considered to be not detected]

Table 5. Concentration of volatile organic compounds detected only once in unfiltered samples from 52 sites in the Ambient Ground-Water-Quality Network, water year 2004
[UR, urban]

CONSTITUENT	CONCENTRATION (micrograms per liter)	SITE TYPE
cis-1,2-DICHLOROETHYLENE	0.7	UR
1,1,1-TRICHLOROETHANE	0.1	UR
tert-PENTYL METHYL ETHER	0.7	UR
TOLUENE	0.1	UR
TRICHLOROETHYLENE	5.2	UR

The median concentrations of hardness and TDS were lowest in samples from wells in undeveloped areas and highest in samples from wells in urban areas (fig. 16). The lowest concentrations of nutrients were found in samples from wells in undeveloped areas (fig. 17). The highest concentrations and median values of nitrite plus nitrate and orthophosphorus were found in samples from wells in agricultural areas.

Distribution, Concentration, and Detection Frequency of Trace Elements in Filtered Water from 52 Sites in the AGWQN

The least frequently detected trace elements in samples from wells in all land-use areas were mercury, detected in 15 percent of samples, and antimony, detected in 12 percent (fig. 18). Antimony, mercury, and thallium were not detected in any sample from wells in undeveloped areas. The trace elements shown in figure 19 were detected in all 52 samples. The highest median concentrations of aluminum and cadmium were present in samples from wells in agricultural areas. The highest median concentrations of barium, boron, and manganese were present in samples from wells in urban areas.

Concentration and Detection Frequency of Pesticides in Filtered Water and VOCs in Unfiltered Water from 52 Sites in the AGWQN

Filtered samples from 52 wells were analyzed for 52 pesticides by use of USGS National Water Quality Laboratory schedule 2001. Only pesticides detected in one or more samples are included in the figure or table. Refer to “Laboratory Measurements” in the Explanation of Water-Quality Records section of this report for the complete list of those pesticides and the LRL for each compound. Nineteen pesticide compounds were detected in samples from the 52 wells. Those compounds detected only once are listed in Table 4. In general, there were more detections in samples from wells in agricultural areas than other land-use areas; there were no detections in samples from wells in undeveloped areas (fig. 20). The most frequently detected herbicides in samples from wells in agricultural and urban areas were Atrazine, 2-Chloro-4-isopropylamino-6-amino-s-triazine (CIAT)—a degradation product of Atrazine—, and Metolachlor at 35, 27, and 23 percent, respectively. Insecticides Dieldrin, Fipronil, and Carbaryl were detected infrequently.

Samples from 52 wells were analyzed for 34 VOCs. Only VOCs detected in one or more samples are included in the figure or table. Those compounds detected only once are listed in table 5. Samples from wells in urban areas had the most detections; samples from wells in undeveloped areas had a single detection (fig. 21). The most frequently detected VOCs in samples from wells located in all land-use areas were MTBE, detected in 35 percent of samples, and Chloroform, detected in 19 percent.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, hydrologic-station records in USGS reports have been listed in order of downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary entering between two main-stream stations is listed between those stations. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is located with respect to the stream to which it is immediately tributary is indicated by an indentation in that list of stations in the front of this report. Each indentation represents one rank. This downstream order and system of indentation indicates which stations are on tributaries between any two stations and the rank of the tributary on which each station is located.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list composed of both types of stations. Gaps are

consecutive. The complete 8-digit (or 10-digit) number for each station such as 01396500, which appears just to the left of the station name, includes a 2-digit part number "01" plus the 6-digit (or 8-digit) downstream order number "396500." In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The USGS well and miscellaneous site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as "01," "02," and so forth, would be assigned as one would for wells (see fig. 20). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

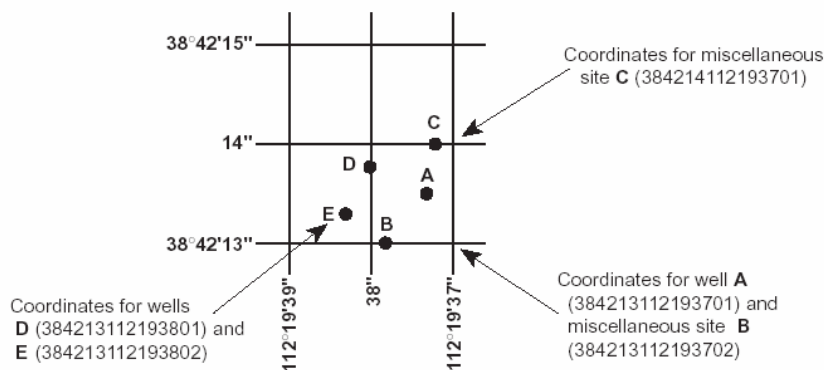


Figure 22. System for numbering wells and miscellaneous sites (latitude and longitude).

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program may be accessed from <http://water.usgs.gov/hbn/>.

National Stream-Quality Accounting Network (NASQAN) is a network of sites used to monitor the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment

(NAWQA) Program; (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program may be accessed from <http://water.usgs.gov/nasqan/>.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) is a network of monitoring sites that provide continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as data from the individual sites, may be accessed from <http://bqs.usgs.gov/acidrain/>.

The USGS National Water-Quality Assessment (NAWQA) Program is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents is measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for water-resources managers to use in making decisions and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and Federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key Federal, State, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. Additional information about the NAWQA Program may be accessed from <http://water.usgs.gov/nawqa/>.

The USGS National Streamflow Information Program (NSIP) is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from <http://water.usgs.gov/nsip/>.

LOCAL NETWORKS AND PROGRAMS

The Ambient Stream Monitoring Network (ASMN) and Ambient Ground Water Quality Network (AGWQN) are USGS/New Jersey Department of Environmental Protection (NJDEP) cooperative networks designed to meet the expanding need for surface- and ground-water-quality data in the State of New Jersey. The major objectives of the networks are to (1) support the National Environmental Performance Partnership System agreement (a program set up to control long-term environmental planning) and the watershed-management process; (2) to work synergistically with the NJDEP Ambient Biomonitoring Network, and atmospheric, ground-water, and coastal water-quality networks; (3) determine statewide water-quality status and trends; (4) measure water-quality near the downstream end of each Watershed Management Area (WMA); (5) define background water quality in each of the

four physiographic provinces of New Jersey; (6) measure nonpoint source contributions from major landuse areas, atmospheric deposition, and ground-water; (7) facilitate response of state and local water-management officials to emerging or watershed-specific water-quality issues.

The Ambient Stream Monitoring Network consists of 118 stations located in 20 WMA's (fig. 23). These stations are segregated into five distinct types that together are used to define the surface-water-quality in the State. Background stations are located on reaches of streams that have remained relatively unaffected by human activity, to develop a baseline water-quality data base (fig. 24). Data from these stations are used in the development of water-quality standards and initiatives. Watershed Integrator stations are located near the furthest downstream point possible in each WMA to provide information on the combined water-quality effects within each WMA. Land Use Indicator stations are used to monitor the effects of the dominant land use in each WMA and provide data on nonpoint-source loading of contaminants to streams. Statewide Status stations are chosen randomly each year within the 20 WMA's to obtain a statistical basis that can be used to estimate water-quality indicators statewide. Four stations are located on the Delaware Main Stem—the border between New Jersey and Pennsylvania. Watershed Reconnaissance stations are also selected annually on the basis of specific project needs, determined by a committee of USGS and NJDEP personnel.

The stream-monitoring network is sampled in four periods throughout the water year: November to December, February to March, May to June, and August to September. Samples for the analyses of nutrients, major ions, biochemical oxygen demand, and suspended solids are collected for the entire network each sampling period. Samples for the analysis of filtered organic pesticides during May to June and whole-water-recoverable trace elements during February to March and August to September are collected at all Statewide Status and Background stations. Samples for the analyses of trace elements and polyaromatic hydrocarbons in streambed sediments are also collected in August to September at 20 Statewide Status stations and 2 Background stations. Samples for the analyses of fecal coliform, *E. coli*, and enterococcus bacteria are collected synoptically—5 times in a 30-day period during the summer.

The Ambient Ground-Water-Quality Network is a long-term monitoring network with goals to assess the status of ground-water quality by examining the concentrations of various constituents that can be used as environmental indicators, assess water-quality trends by examining data collected on a 5-year cycle, determine the effects of land use on shallow ground-water quality, identify threats from nonpoint sources of contamination, and identify emerging or new environmental issues of concern to the public. The ground-water network consists of 150 wells distributed throughout the State of New Jersey within three land-use types. Sixty wells are located in agricultural areas, 60 in urban/suburban areas, and 30 in undeveloped areas. These areas are located throughout New Jersey's five Watershed Management Regions (WMR), which are further divided into 20 watershed-management areas (WMA) (fig. 25). The Passaic Region encompasses WMAs 3-6; the Lower Delaware Region, WMAs 17-20; the Raritan Region, WMAs 7-10; the Upper Delaware Region, WMAs 1, 2, and 11; and, the Atlantic Coastal Region, WMAs 12-16.

The Long Island-New Jersey Coastal Plain (LINJ) and The Delaware River Basin (DELR) are two NAWQA study units currently operating in the New Jersey District. The LINJ study unit conducted intensive sampling from 1996 through 1998 and the DELR study unit from 1999 through 2001. Both study units are currently in low-intensity phases. The LINJ study unit is slated to resume intensive sampling starting in 2006 and the DELR study unit in 2010. LINJ-NAWQA fixed stations published in this report are: Raritan River at Queens Bridge, at Bound Brook, NJ (01403300) and Bound Brook at Middlesex, NJ (01403900) (fig. 26). DELR-NAWQA fixed stations published in this report are: Delaware River at Trenton, NJ (01463500); Little Neshaminy Creek at Valley Rd. near Neshaminy, PA (01464907); French Creek near Phoenixville, PA (01472157); and Schuylkill River at Philadelphia, PA (01474500) (fig. 27).

One **Hydrological Benchmark Network** station is currently operating in New Jersey—McDonald's Branch in Lebanon State Forest, 01466500. In addition to the sampling requirements of the ASMN, the station is sampled several times a year during periods of changing stage for analysis of physical parameters, major cations and anions, nutrients, and aluminum.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data is useful in the interpretation of surface-water quality. Records of surface-water quality in this report involve a variety of types of data and measurement frequencies.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, water temperature, sediment discharge, and so forth); extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, sampling date, or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRIs, which may be accessed from <http://water.usgs.gov/pubs/twri/>.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross-section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled at several verticals to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values (and sometimes mean or median values) for each constituent measured, and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A *continuous-record station* is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A *partial-record station* is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A *miscellaneous sampling site* is a location other than a continuous- or partial-record station, where samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figures X and X.

Accuracy of the Records

Continuous-record water-quality data for periods for which the difference between the sensor's response and a known value did not exceed recalibration criteria were considered to be reliable and were not adjusted. Differences between sensor responses documented during cleaning or verification of sensor calibration that exceeded the recalibration criteria indicated the need for sensor recalibration and adjustment of the recorded data for the period between inspections. Continuous-record water-quality data for periods for which the differences between the sensor's response and a known value exceeded the maximum allowable limits were considered to be unreliable and were not published.

Measured physical property	Recalibration criteria	Maximum allowable limits
Water temperature	± 0.2 °C	± 1.5 °C
Specific conductance	the greater of ± 5 uS/cm or 3% of the measured value	$\pm 25\%$
Dissolved oxygen	the greater of ± 0.3 mg/L or 5% of the measured value	the greater of ± 1.5 mg/L or 25% of the measured value
pH	± 0.3 units	± 1.5 units
Turbidity	the greater of ± 2 NTU or 5% of the measured value	$\pm 25\%$

Arrangement of Records

Water-quality records from continuing-record and continuous-recording stations are listed in downstream order immediately after the "Introduction." Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the continuing-record stations.

On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1-A9. These TWRIs can be accessed from <http://water.usgs.gov/pubs/twri/>. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS District office (see address that is shown on the back of title page in this report).

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may be collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples are collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Surface-water samples for biochemical oxygen demand (BOD), indicator bacteria, hexavalent chromium, total suspended solids, and selected nutrients, and bed-sediment samples for total ammonia plus organic nitrogen and total phosphorus, are analyzed locally. Surface-water samples for dissolved ammonia plus organic nitrogen, dissolved nitrite plus nitrate, dissolved phosphorus, and total phosphorus collected for the Ambient Stream Monitoring Network from Nov. 2003 to June 2004 were analyzed in the USGS laboratory in Ocala, Florida. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Names of cooperating laboratories are listed in the station records. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. The TWRI publications may be accessed from <http://water.usgs.gov/pubs/twri/>. These methods are consistent with ASTM standards and generally follow ISO standards.

Analyses of pesticides in surface-water and ground-water samples (schedule 2060)

Selected water samples from ASMN were analyzed for pesticides by use of NWQL schedule 2060. This table lists the pesticides on the schedule, the unit of measure (micrograms per liter, ug/L), the USGS National Water Information System parameter code, and the reporting level. Only pesticides measured at or above the minimum reporting level for one or more samples are listed in the water-quality tables.

SCHEDULE DESCRIPTION.--Pesticides in filtered water extracted on C-18 Solid Phase Extraction (SPE) cartridge and analyzed by Gas Chromatography/Mass Spectrometry (GC/MS).

SAMPLE REQUIREMENTS.--1 liter of water filtered through 0.7-micron glass-fiber depth filter, chilled at 4°C (packed in ice).

CONTAINER REQUIREMENTS.--1 liter baked amber glass bottle (GCC) from NWQL.

PCODE.--The USGS/EPA parameter code.

COMMON NAME.--Common or trade name(s) for constituent.

LRL.--Laboratory reporting level.

PCode	Common Name	LRL (ug/L)	PCode	Common Name	LRL (ug/L)
39732	2,4-D	0.218	49301	Dinoseb	0.012
50470	2,4-D methyl ester	0.0086	04033	Diphenamid	0.0264
38746	2,4-DB	0.016	49300	Diuron	0.015
04040	2-Chloro-4-isopropylamino-6-amino-s-triazine	0.028	49297	Fenuron	0.0316
04038	2-Chloro-6-ethylamino-s-triazine	0.01	61694	Flumetsulam	0.011
50355	2-Hydroxy-4-isopropylamino-6-ethylamino-s-triazine	0.008	38811	Fluometuron	0.031
61692	3(4-Chlorophenyl)-1-methyl urea	0.0242	50356	Imazaquin	0.016
49308	3-Hydroxycarbofuran	0.0058	50407	Imazethapyr	0.017
50295	3-Ketocarbofuran	0.014	61695	Imidacloprid	0.0068
49315	Acifluorfen	0.0066	38478	Linuron	0.0144
49312	Aldicarb	0.04	38482	MCPA	0.0162
49313	Aldicarb sulfone	0.02	38487	MCPB	0.015
49314	Aldicarb sulfoxide	0.0082	50359	Metalaxyl	0.02
39632	Atrazine	0.009	38501	Methiocarb	0.008
90640	Barban		49296	Methomyl	0.0044
50299	Bendiocarb	0.0252	61696	Methomyl oxime	0.011
50300	Benomyl	0.0038	61697	Metsulfuron methyl	0.025
61693	Bensulfuron-methyl	0.0158	49294	Neburon	0.012
38711	Bentazon	0.011	50364	Nicosulfuron	0.013
04029	Bromacil	0.033	49293	Norflurazon	0.016
49311	Bromoxynil	0.017	49292	Oryzalin	0.0176
50305	Caffeine	0.0096	38866	Oxamyl	0.0122
49310	Carbaryl	0.0284	50410	Oxamil oxime	0.013
49309	Carbofuran	0.0056	49291	Picloram	0.0198
61188	Chloramben, methyl ester	0.018	49236	Propham	0.0096
04039	Chlordiamino-s-triazine	0.04	50471	Propiconazole	0.021
50306	Chlorimuron-ethyl	0.0096	38538	Propoxur	0.008
49306	Chlorothalonil	0.035	38548	Siduron	0.0168
49305	Clopyralid	0.0138	50337	Sulfometuron-methyl	0.0088
04031	Cycloate	0.013	82670	Tebuthiuron	0.0062
49304	Dacthal monoacid	0.0116	04032	Terbacil	0.0098
38442	Dicamba	0.0128	61159	Tribenuron-methyl	0.0044
49302	Dichlorprop	0.0138	49235	Triclopyr	0.0224

Analyses of pesticides in surface-water and ground-water samples (schedule 2001)

Selected water samples from AGWQN and NAWQA study sites were analyzed for pesticides by use of NWQL schedule 2001. This table lists the pesticides on the schedule, the unit of measure (micrograms per liter, ug/L), the USGS National Water Information System parameter code, and the reporting level. Only pesticides measured at or above the minimum reporting level for one or more samples are listed in the water-quality tables.

SCHEDULE DESCRIPTION.--Pesticides in filtered water extracted on C-18 Solid Phase Extraction (SPE) cartridge and analyzed by Gas Chromatography/Mass Spectrometry (GC/MS).

SAMPLE REQUIREMENTS.--1 liter of water filtered through 0.7-micron glass-fiber depth filter, chilled at 4°C (packed in ice).

CONTAINER REQUIREMENTS.--1 liter baked amber glass bottle (GCC) from NWQL.

PCODE.--The USGS/EPA parameter code.

COMMON NAME.--Common or trade name(s) for constituent.

LRL.--Laboratory reporting level.

PCode	Common Name	LRL (ug/L)	PCode	Common Name	LRL (ug/L)
82660	2,6-Diethylaniline	0.006	82666	Linuron	0.035
04040	2-Chloro-4-isopropylamino-6-amino- s-triazine	0.006	39532	Malathion	0.027
49260	Acetochlor	0.006	39415	Metolachlor	0.013
46342	Alachlor	0.005	82630	Metribuzin	0.006
39632	Atrazine	0.007	82671	Molinate	0.003
82686	Azinphos-methyl	0.05	82684	Napropamide	0.007
82673	Benfluralin	0.010	39542	Parathion	0.010
04028	Butylate	0.004	82667	Parathion-methyl	0.015
82680	Carbaryl	0.041	82669	Pebulate	0.004
82674	Carbofuran	0.02	82683	Pendimethalin	0.022
38933	Chlorpyrifos	0.005	82664	Phorate	0.011
04041	Cyanazine	0.018	04037	Prometon	0.005
82682	Dacthal	0.003	04024	Propachlor	0.025
62170	Desulfinylfipronil	0.012	82679	Propanil	0.011
62169	Desulfinylfipronil amide	0.029	82685	Propargite	0.023
39572	Diazinon	0.005	82676	Propyzamide	0.004
39381	Dieldrin	0.009	04035	Simazine	0.005
82677	Disulfoton	0.021	82670	Tebuthiuron	0.016
82668	EPTC	0.004	82665	Terbacil	0.034
82663	Ethalfuralin	0.009	82675	Terbufos	0.017
82672	Ethoprophos	0.005	82681	Thiobencarb	0.010
62166	Fipronil	0.016	82678	Tri-allate	0.002
62167	Fipronil sulfide	0.013	82661	Trifluralin	0.009
62168	Fipronil sulfone	0.024	34253	alpha-HCH	0.005
04095	Fonofos	0.003	82687	cis-Permethrin	0.006
39341	Lindane	0.004	34653	p,p'-DDE	0.003

Analyses of wastewater compounds in groundwater (schedule 1433)

Selected water samples from Radium Sampling of Water From The Kirkwood-Cohansey Aquifer System and of Backwash brine From Ion-Exchange Treatment Systems, and Morristown National Historical Park study sites were analyzed for waste water compounds by use of schedule 1433. This table lists the waste water compounds on the schedule, the unit of measure (micrograms per liter, ug/L), the U.S. Geological Survey National Water Information System parameter code, and the reporting level. Only waste water compounds that routinely cannot be detected in sampling equipment blanks are listed in the water-quality table.

SCHEDULE DESCRIPTION.--Wastewater compounds after filtration through glass fiber filter (0.7-micron nominal pore size), extracted on solid-phase extraction (SPE) cartridge with polystyrene-divinylbenzene resin extractant within polypropylene housing, eluted with a 4:1 mixture of dichloromethane and diethyl ether, and analyzed by Gas Chromatography/Mass Spectrometry (GC/MS).

SAMPLE REQUIREMENTS.--1 liter of water collected. Chill sample and maintain at 4° C, ship immediately.

CONTAINER REQUIREMENTS.--1 L Glass bottle, amber bottle baked at 450° C by laboratory.

PCODE.--The USGS/EPA parameter code.

COMMON NAME.--Common or trade name(s) for constituent.

LRL.--Laboratory reporting level.

PCode	Common Name	LRL (ug/L)	PCode	Common Name	LRL (ug/L)
62005	Cotinine	1.0	62077	Isoborneol	0.5
62052	Ethynyl estradiol	5.0	34409	Isophorone	0.5
62063	5-Methyl-1H-benzotriazole	2.0	62079	Isoquinoline	0.5
62066	Anthraquinone	0.5	62073	d-Limonene	0.5
62064	Acetophenone	0.5	62080	Menthol	0.5
62065	Acetyl hexamethyl tetrahydronaphthalene (AHTN)	0.5	50359	Metalaxyl	0.5
34221	Anthracene	0.5	39415	Metolachlor	0.5
34572	1,4-Dichlorobenzene	0.5	34443	Naphthalene	0.5
34248	Benzo[a]pyrene	0.5	62054	1-Methylnaphthalene	0.5
62067	Benzophenone	0.5	62055	2,6-Dimethylnaphthalene	0.5
04029	Bromacil	0.5	62056	2-Methylnaphthalene	0.5
34288	Bromoform	0.5	62083	Nonylphenol, diethoxy- (total)	5.0
62059	3-tert-Butyl-4-hydroxy anisole (BHA)	5.0	61705	Octylphenol, diethoxy-	1.0
50305	Caffeine	0.5	61706	Octylphenol, monoethoxy-	1.0
62070	Camphor	0.5	62084	p-Cresol	1.0
82680	Carbaryl	1.0	62060	4-Cumylphenol	1.0
62071	Carbazole	0.5	62085	para-Nonylphenol (total)	5.0
38933	Chlorpyrifos	0.5	62061	4-n-Octylphenol	1.0
62072	Cholesterol	2.0	62062	4-tert-Octylphenol	1.0
62057	3-beta-Coprostanol	2.0	34462	Phenanthrene	0.5
62078	Isopropylbenzene	0.5	34466	Phenol	0.5
99585	Decafluorobiphenyl	0.1	34459	Pentachlorophenol	2.0
62082	N,N-diethyl-meta-toluamide (DEET)	0.5	62089	Tributyl phosphate	0.5
39572	Diazinon	0.5	62092	Triphenyl phosphate	0.5
38775	Dichlorvos	1.0	62093	Tri(2-butoxyethyl)phosphate	0.5
62069	Bisphenol A	1.0	62087	Tri(2-chloroethyl)phosphate	0.5
62074	Equilenin	5.0	04037	Prometon	0.5
62053	17-beta-Estradiol	5.0	34470	Pyrene	0.5
62484	Estrone	5.0	62081	Methyl salicylate	0.5
62091	Triethyl citrate (ethyl citrate)	0.5	62058	3-Methyl-1(H)-indole (Skatole)	1.0
34476	Tetrachloroethylene	0.5	62068	beta-Sitosterol	2.0
34377	Fluoranthene	0.5	62086	beta-Stigmastanol	2.0

PCode	Common Name	LRL (ug/L)	PCode	Common Name	LRL (ug/L)
62075	Hexahydrohexamethylcyclopenta- benzopyran (HHCB)	0.5	62090	Triclosan	1.0
62076	Indole	0.5	62077	Isoborneol	0.5
			62088	Tris(dichlorisopropyl)phosphate	0.5

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of “daily values” of specific conductance, pH, water temperature, and dissolved oxygen then follow in sequence.

The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—Location information is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in “River Mileage Measurement,” Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.—Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.—This indicates the time periods for which published water-quality records for the station are available. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.—Information on instrumentation is given only if a water-quality monitor, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.—Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES.—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based National data system, NWISWeb (<http://waterdata.usgs.gov/nwis>). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the tables of ground-water-quality records. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this section:

Printed Output	Remark
E or e	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
M	Presence of material verified, but not quantified.
N	Presumptive evidence of presence of material.
U	Material specifically analyzed for, but not detected.
A	Value is an average.
V	Analyte was detected in both the environmental sample and the associated blanks.
S	Most probable value.

Water-Quality Control Data

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDLs) and laboratory reporting levels (LRLs). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. Falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a non-detection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as less than LRL for samples in which the analyte was either not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E." These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this District office are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

Blank samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated in the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. Many types of blank samples are possible; each is designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this district are:

Ambient blank—A blank solution that is put in the same type of bottle used for an environmental sample, kept with the set of sample bottles before sample collection, and opened at the site and exposed to the ambient conditions.

Field blank—A blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank—A blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank—A blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

Sampler blank—A blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Filter blank—A blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank—A blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank—A blank solution that is treated with the sampler preservatives used for an environmental sample.

Reference samples

Reference material is a solution or material prepared by a laboratory. The reference material composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. Many types of replicate samples are possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are:

Concurrent samples—A type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating the collection of samples into two or more compositing containers.

Sequential samples—A type of replicate sample in which the samples are collected one after the other, typically over a short time.

Split sample—A type of replicate sample in which a sample is split into subsamples, each subsample contemporaneous in time and space.

Spike samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed from <http://water.usgs.gov>.

Water-quality data and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each Water Discipline District Office (See address that is shown on the back of the title page of this report.)

CURRENT WATER-RESOURCES PROJECTS IN NEW JERSEY

The Geological Survey is currently involved in a number of hydrologic investigations in the State of New Jersey. The following is a list of these investigations. Results are published at the conclusion of short-term projects or periodically in the case of long-term projects. Hydrologic data from these projects are entered into the NWIS data base.

An application to integrate GIS and database processing steps for conducting public supply susceptibility assessments
 Delaware River Basin National Water Quality Assessment
 Determination of the hydrologic and ecological effects of ground-water diversions from the Kirkwood-Cohansey aquifer system in the Pinelands Area
 Determining Impacts on Special Protection Waters in the Delaware Water Gap National recreation Area
 Distribution of MTBE and Related Volatile Organic Compounds in Lakes in Northern NJ and Investigation of Lake-Well Interactions
 Distribution of Radium and Related Radionuclides in Coastal-Plain Aquifers
 Effects of Land Use, Septic Systems, and Sewering on the Distribution of Nitrate in Shallow Ground Water
 EPA Technical Assistance Program
 Evaluation of changes in hydrology and ground- and surface-water quality in an urban wetland as part of a wetlands restoration effort
 Flood Characteristics of New Jersey Streams
 Flow Characteristics and Basis for Development of Ecological Goals for New Jersey Streams
 Geohydrology of the Naval Air Warfare Center, West Trenton, New Jersey
 Ground-Water Data Collection Network
 Ground-Water Levels and Chloride Concentrations in Major Aquifers of the Coastal Plain
 Ground-Water Supply Availability in Southern Ocean County
 Head of Tide Sampling Program for the New Jersey Harbor Toxic Contaminant Assessment Reduction Program
 Hydrogeologic Investigation to Ensure Sustainable Water Supply for Cape May County
 Hydrologic data for Neldon's Brook and Indian Brook in the Swartswood Lake Basin
 Identification of sources of arsenic to the Wallkill River Watershed

Investigation of Hydrogeology and Volatile Organic Compound Contamination in Fair Lawn, New Jersey
Investigation of Hydrogeology and Volatile Organic Compound Contamination in the Pohatcong Valley, New Jersey
Investigation of Potential Threats to Water Supply from the Potomac-Raritan-Magothy Aquifer in Salem and Western Gloucester Counties, New Jersey
Lower Delaware Non-Point Source
Low Flow Characteristics of New Jersey Streams
Modeling and Experimental Investigation of Hydrocarbon Transport and Biodegradation in the Unsaturated Zone
Movement of Chromium in the Ground Water of Pennsauken Township, Camden County
New Jersey Drought Monitoring System
New Jersey-Long Island National Water Quality Assessment
New Jersey Tide Telemetry System
Occurrence and Distribution of Trace Level Organics in Waste Water and Streams
Pascack Brook Flood Warning System
Passaic Flood Warning System
Passaic River Basin Flow Model
Program to Maintain and Update Ground-Water Models to Evaluate Continued Water-Supply Development
Quality of Water Data Collection Network
Quantification of Radium Mass Loading and Radioactivity in the Shallow Aquifer from the Water-Softening-Treatment Backwash Waste Stream that is Discharged to Septic Systems
Radionuclides in Public Water Supply Systems
Rahway Flood Warning System
Refinement of a Data Model for Watershed Water Transfer Analysis, Phase 2
Small Watershed Flood Data Collection
Somerset County Flood-Information System
Surface Water Data Collection Network
Validation of Membrane Diffusion Sampler for soluble inorganic and all organic (volatile/nonvolatile) contaminants in ground water
Water Budget Analysis of Confined Aquifers for Water-Supply Planning and Regulation
Water Budgets and Ground-water Availability in the Delaware River Basin
Water-Quality Characteristics of Upper-Delaware Watershed

WATER-RELATED REPORTS FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS

- Baehr, A.L., Kauffman, L.J., Perkins, K., Nolan, B.T., 2003, Estimating spatial variability of recharge in southern New Jersey from unsaturated-zone measurements: U.S. Geological Survey Water-Resources Investigations Report 02-4288, 31 p.
- Baehr, A.L., and Reilly, T.J., 2001, Water quality and occurrence of Methyl tert-butyl ether (MTBE) and other fuel-related compounds in lakes and ground water at lakeside communities in Sussex and Morris Counties, New Jersey, 1998-1999: U.S. Geological Survey Water-Resources Investigations Report 01-4149, 86 p.
- Barringer, J.L., Barringer, T.H., Lacombe, P.J., and Holmes, C.W., 2001, Arsenic in soils and sediments adjacent to Birch Swamp Brook in the vicinity of Texas Road (downstream from the Imperial Oil Company Superfund site), Monmouth County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 00-4185, 111 p.

- Barringer, J.L., and MacLeod, C.L., 2001, Relation of mercury to other chemical constituents in ground water in the Kirkwood-Cohansey aquifer system, New Jersey Coastal Plain, and mechanisms for mobilization of mercury from sediments to ground water: U.S. Geological Survey: Water-Resources Investigations Report 00-4230, 162 p.
- Barringer, T.H., Reiser, R.G., and Price, C.V., 2000, Use of low-flow trend and transfer-function models to determine relation of low flows to regional urbanization and precipitation, Rahway River Basin, New Jersey, 1940-91: U.S. Geological Survey Open-File Report 99-257, 24 p.
- Brown, G.A., Pustay, E.A., Gibs, Jacob, 2003, Methods for quality assurance review of water-quality data in New Jersey: U.S. Geological Survey Open-File Report 02-383, variously paged.
- Chang, M., Tasker, G., and Nieswand, S., 2001, Model simulation of the Manasquan water-supply system in Monmouth County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 01-4172, 51 p.
- Charles, E.G., Storck, D.A., and Clawges, R.M., 2001, Hydrology of the unconfined aquifer system, Maurice River area: Maurice and Cohansey River basins, New Jersey, 1994-95: U.S. Geological Survey Water-Resources Investigations Report 01-4229, 5 sheets.
- DeLuca, M.J., Hoppe, H.L., Heckathorn, H.A., Gray, B.J., Riskin, M.L., 2003, Water resources data for New Jersey - water year 2002, volume 3. Water-quality data: U.S. Geological Survey Water-Data Report NJ-02-3, 462 p.
- Deluca, M.J., Hoppe, H.L., Doyle, H.A., and Gray, B.J., 2002, Water resources data for New Jersey-water year 2001, Volume 3. Water-quality data: U.S. Geological Survey Water-Data Report NJ-01-3, 580 p.
- DeLuca, M.J., Mattes, G.L., Burns, H.L., Thomas, A.M., Gray, B.J., and Doyle, H.A., 2001, Water-resources data for New Jersey - water year 2000, Volume 3, Water-quality data: U.S. Geological Survey Water-Data Report NJ-00-3, 618 p.
- Focazio, J.J., Szabo, Z., Kraemer, T.F., Mullin, A.H., Barringer, T.H., and dePaul, V.T., 2001, Occurrence of selected radionuclides in ground water used for drinking water in the United States: A reconnaissance survey, 1998: U.S. Geological Survey Water-Resources Investigations Report 00-4273, 39 p.
- Gibs, J., Gray, B.J., Rice, D.E., Tessler, S., and Barringer, T.H., 2001, Water quality of the Delaware and Raritan Canal, New Jersey, 1998-99: U.S. Geological Survey Water Resources Investigations Report 01-4072, 67 p.
- Gordon, A.D., 2003, Simulation of the ground-water flow system in 1992, and simulated effects of projected ground-water withdrawals in 2020 in the New Jersey Coastal Plain: U.S. Geological Survey Water-Resources Investigations Report 03-4000, 61 p.
- Gordon, A.D., 2002, Simulation of transient ground-water flow in the valley-fill aquifers of the upper Rockaway River Basin, Morris County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 01-4174, 41 p.
- Hunchak-Kariouk, K., 2002, Comparisons of water quality during various streamflow conditions in five streams in northern New Jersey, 1982-97: U.S. Geological Survey Water-Resources Investigations Report 01-4249, 50 p.
- Jones, W.D., and Esralew, R.A., 2003, Water resources data for New Jersey - water year 2002, volume 2. Ground-water data: U.S. Geological Survey Water-Data Report NJ-02-2, 226 p.
- Jones, W.D., and Edwards, R.W., 2002, Water resources data for New Jersey-water year 2001, Volume 2. Ground-water data: U.S. Geological Survey Water-Data Report NJ-01-2, 232 p.
- Jones, W.D., 2001, Water resources data for New Jersey-water year 2000, Volume 2. Ground-water data: U.S. Geological Survey Water-Data Report NJ-00-2, 233 p.
- Kauffman, L.J., Baehr, A.L., Ayers, M.A., and Stackelberg, P.E., 2001, Effects of land use and travel time on the distribution of nitrate in the Kirkwood-Cohansey aquifer system in southern New Jersey: U.S. Geological Survey Water-Resources Investigations Report 01-4117, 58 p.

- Kennen, J.G., and Ayers, M.A., 2002, Relation of environmental characteristics to the composition of aquatic assemblages along a gradient of urban land use in New Jersey, 1996-98: U.S. Geological Survey Water-Resources Investigations Report 02-4069, 77 p.
- Lacombe, P.J., 2002, Ground-water levels and potentiometric surfaces, Naval Air Warfare Center, West Trenton, New Jersey, 2000: U.S. Geological Survey Water-Resources Investigations Report 01-4197, 48 p.
- Lacombe, P.J., and Carleton, G.B., 2002, Hydrogeologic framework, availability of water supplies, and saltwater intrusion, Cape May County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 01-4246, 165 p.
- Lacombe, P.J., and Rosman, R., 2001, Water levels in, extent of freshwater in, and water withdrawals from ten confined aquifers, New Jersey and Delaware Coastal Plain, 1998: U.S. Geological Survey Water-Resources Investigations Report 00-4143, 10 sheets.
- Lewis-Brown, J.C., and Rice, D.E., 2002, Simulated ground-water flow, Naval Air Warfare Center, West Trenton, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 02-4019, 44 p.
- Lewis-Brown, J.C., dePaul, V., 2000, Ground-water flow and distribution of volatile organic compounds, Rutgers University Busch Campus and vicinity, Piscataway Township, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 99-4256, 72 p.
- Long, G.R., Chang, M., Kennen, J.G., 2000, Trace elements and organochlorine compounds in bed sediment and fish tissue at selected sites in New Jersey streams--Sources and effects: U.S. Geological Survey Water-Resources Investigations Report 99-4235, 29 p.
- McAuley, S.D., Barringer, J.L., Paulachok, G.N., Clark, J.S., Zapecza, O.S., 2001, Ground-water flow and quality in the Atlantic City 800-foot sand, New Jersey: New Jersey Department of Environmental Protection Geological Survey Report GSR 41, 86 p.
- Nicholson, R.S., Hunchak-Kariouk, Kathryn, and Cauller, S.J., 2003, Review of selected references and data sets on ambient ground- and surface-water quality in the Metedeconk River, Toms River, and Kettle Creek Basins, New Jersey, 1980-2001: U.S. Geological Survey Water-Resources Investigations Report 03-4259, 37 p.
- Reed, T.J., White, B.T., Centinaro, G.L., Dudek, J.F., Spehar, A.B., Protz, A.R., Shvanda, J.C., Watson, A.F., and Holzer, G.K., 2003, Water resources data for New Jersey - water year 2002, volume 1. Surface-water data: U.S. Geological Survey Water-Data Report NJ-02-1, 364 p.
- Reed, T.J., White, B.T., Centinaro, G.L., Dudek, J.F., Corcino, V., Spehar, A.B., and Protz, A.R., 2002, Water resources data for New Jersey-water year 2001, Volume 1. Surface-water data: U.S. Geological Survey Water-Data Report NJ-01-1, 297 p.
- Reed, T.J., Centinaro, G.L., Dudek, J.F., Corcino, V., and Steckrodt, G.C., 2001, Water resources data for New Jersey-water year 2000, Volume 1. Surface-water data: U.S. Geological Survey Water-Data Report NJ-00-1, 233 p.
- Reiser, R.G., 2004, Evaluation of water quality, permitted and nonpermitted loads and yields, and streamflow in the Raritan River Basin, New Jersey, water years 1991-98: U.S. Geological Survey Water-Resources Investigations Report 03-4207, 224 p.
- Reiser, R.G., and Schopp, R.D., 2002, Sparta, New Jersey, flood of August 11-14, 2000: U.S. Geological Survey Water-Resources Investigations Report 02-4099, 95 p.
- Spitz, F.J., 2001, Method and computer programs to improve pathline resolution near weak sinks representing wells in MODFLOW and MODPATH ground-water-flow simulations: U.S. Geological Survey Open-File Report 00-392, 51 p.
- Spitz, F.J., Nicholson, R.S., and Pope, D.A., 2001, A nested rediscrretization method to improve pathline resolution by eliminating weak sinks representing wells: Ground Water vol. 39, no. 5, p. 778-785. Geological Survey Open-File Report 01-406, 74 p.

- Spitz, F.J., and Nicholson, R.S., 2001, Simulated effects of alternative pumping strategies on ground-water-flow patterns and areas contributing recharge to selected wells near Kenil, Morris County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 01-4180, 32 p.
- Storck, D.A., and Nawyn, J.P., 2001, Reconstruction of streamflow records in the Passaic and Hackensack River Basins, New Jersey and New York, water years 1993-96: U.S. Geological Survey Water-Resources Investigations Report 01-4078, 95 p.
- Tessler, Steven, 2003, Data model and relational database design for the New Jersey Water-Transfer Data system: U.S. Geological Survey Open-File Report 03-197, CD-ROM (Available on the New Jersey District web site).
- Walker, R.L., 2001, Effects of pumping on ground-water flow near water-supply wells in the Lower Potomac-Raritan-Magothy aquifer, Pennsauken Township, Camden County, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 00-4012, 12 p.
- Watt, M.K., Kane, A.C., Charles, E.G., Storck, D.A., 2003, Hydrology of the unconfined aquifer system, Rancocas Creek area: Rancocas, Crosswicks, Assunpink, Assiscunk, Blacks, and Crafts Creek Basins, New Jersey: U.S. Geological Survey Water-Resources Investigations Report 02-4280, 5 sheets.
- Watt, M.K., 2001, A hydrologic primer for New Jersey watershed management: U.S. Geological Survey Water-Resources Investigations Report 00-4140, 116 p.

WATER-RELATED ARTICLES FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS

- Imbrigiotta, T.E., 2002, Comparison of dialysis membrane diffusion samplers and two purging methods in bedrock wells, in Gavaskar, A.R., and Chen, A.S.C., eds., Remediation of chlorinated and recalcitrant compounds: Proceedings of the Third International Conference on Remediation of Chlorinated and Recalcitrant Compounds, Monterey, Calif.
- Ivahnenko, T., Szabo, Z., and Gibs, J., 2001, Changes in sample collection and analytical techniques and effects on retrospective comparability of low-level concentrations of trace elements in ground water: *Water Resources*, v. 35, no. 15, p. 3611-3624.
- Long, G.R., Ayers, M.A., Callender, E., VanMetre, P.C., 2003, Trends in chemical concentration in sediment cores from three lakes in New Jersey and one lake on Long Island, New York: U.S. Geological Survey Water-Resources Investigations Report 02-4272, 32 p. (Published on the New Jersey District web site only.)
- Spitz, F.J., Nicholson, R.S., and Pope, D.A., 2001, A nested rediscritization method to improve pathline resolution by eliminating weak sinks representing wells: *Ground Water* vol. 39, no. 5, p. 778-785.
- Szabo, Z., Oden, J.H., Gibs, J., Rice, D.E., and Ding, Y., 2002, Variation in aluminum, iron, and particle concentrations in oxic ground-water samples by use of tangential-flow ultrafiltration with low-flow sampling, in Jensen, J.L., and Burggraf, L.W., eds., Chemical and biological early warning monitoring for water, food, and ground: Proceedings of SPIE, November 1-2, 2001, v. 4575, p. 42-61.
- Szabo, Zoltan, Focazio, M.J., Landmeyer, J.E., Senior, L.A., Ayotte, J.D., dePaul, V.T., Oden, T.D., and Kozar, M.D., 2001, Naturally occurring radionuclides in ground water in the Appalachian Physiographic Province: Initial results of targeted reconnaissance surveys and application to regional assessment, in Adams, D.B., Burke, Katrina, Hemingway, Bruce, Keay, Jeff, and Yurewicz, Michael, comp., U.S. Geological Survey Appalachian region integrated science workshop proceedings, Gatlinburg, Tennessee, October 22-26, 2001: U.S. Geological Survey Open-File Report 01-406, 74 p.
- Szabo, Zoltan, Rice, D.E., Plummer, L.N., Busenburgh, Eurybades, Drenkard, Stefan, and Schlosser, Peter, 1996, Age dating of shallow groundwater with chlorofluorocarbons, tritium/helium-3, and flow path analysis, southern New Jersey coastal plain: *Water Resources Research*, v. 32, no. 4, p. 1023-1038.

WATER-RELATED FACT SHEETS FOR NEW JERSEY COMPLETED BY THE GEOLOGICAL SURVEY IN RECENT YEARS

Jones, W.D., Navoy, A.S., Pope, D.A., 2002, Real-time ground-water-level monitoring in New Jersey, 2001: U.S. Geological Survey Fact Sheet FS-011-02, unpaginated.

Reiser, R.G., and Schopp, R.D., 2001, Sparta, New Jersey, flood of August 11-14, 2000: U.S. Geological Survey Fact Sheet FS-104-01, unpaginated.

Reiser, R.G., 2002, Quality of water in tributaries to the upper Delaware River, New Jersey, water years 1985-2001: U.S. Geological Survey Fact Sheet FS-090-02, unpaginated.

Reiser, R.G., Watson, K.M., Chang, M., Nieswand, S.P., 2002, Surface-water data and statistics from U.S. Geological Survey data-collection networks in New Jersey on the World Wide Web: U.S. Geological Survey Fact Sheet FS-109-02, unpaginated.

Schopp, R.D., Stedfast, D.A., and Navoy, A.S., 2003, Real-time surface-water monitoring in New Jersey, 2003: U.S. Geological Survey Fact Sheet, FS-048-03, unpaginated.

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from <http://water.usgs.gov/glossaries.html>.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an “unfiltered” sample (formerly reported as alkalinity).

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also “Annual runoff”)

Adenosine triphosphate (ATP) is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes ATP an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

Adjusted discharge is discharge data that have been mathematically adjusted (for example, to remove the effects of a daily tide cycle or reservoir storage).

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample. (See also “Biomass” and “Dry weight”)

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a “filtered” sample.

Annual runoff is the total quantity of water that is discharged (“runs off”) from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1-March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day, 10-year low-flow statistic.)

Aroclor is the registered trademark for a group of poly-chlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

Artificial substrate is a device that purposely is placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection. (See also “Substrate”)

Ash mass is the mass or amount of residue present after the residue from a dry-mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2). (See also “Biomass” and “Dry mass”)

Aspect is the direction toward which a slope faces with respect to the compass.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also “Peak flow”)

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bed material is the sediment mixture of which a stream-bed, lake, pond, reservoir, or estuary bottom is composed. (See also “Bedload” and “Sediment”)

Bedload is material in transport that primarily is supported by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to the top of the bedload sampler nozzle (an elevation ranging from 0.25 to 0.5 foot). These particles are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by

summing the bedload discharge and the suspended-sediment discharge. (See also “Bedload,” “Dry weight,” “Sediment,” and “Suspended-sediment discharge”)

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as mass per unit area or volume of habitat.

Biomass pigment ratio is an indicator of the total proportion of periphyton that are autotrophic (plants). This also is called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton and periphyton organisms with a blue pigment in addition to a green pigment called chlorophyll. Blue-green algae can cause nuisance water-quality conditions in lakes and slow-flowing rivers; however, they are found commonly in streams throughout the year. The abundance of blue-green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Bottom material (See “Bed material”)

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved-solids content of the pore water, and the lithology and porosity of the rock.

Canadian Geodetic Vertical Datum 1928 is a geodetic datum derived from a general adjustment of Canada’s first order level network in 1928.

Cell volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are used frequently in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } \frac{4}{3} \pi r^3 \quad \text{cone } \frac{1}{3} \pi r^2 h \quad \text{cylinder } \pi r^2 h.$$

pi (π) is the ratio of the circumference to the diameter of a circle; $\pi = 3.14159\dots$

From cell volume, total algal biomass expressed as biovolume ($\mu\text{m}^3/\text{mL}$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

Cells/volume refers to the number of cells of any organism that is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample volume, and generally are reported as cells or units per milliliter (mL) or liter (L).

Cfs-day (See “Cubic foot per second-day”)

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also “Biochemical oxygen demand (BOD)”]

***Clostridium perfringens* (*C. perfringens*)** is a spore-forming bacterium that is common in the feces of human and other warmblooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and the presence of microorganisms that are resistant to disinfection and environmental stresses. (See also “Bacteria”)

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure, as used in this report, is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (CFS, ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term “second-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, [(ft³/s)/d]) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables numerically are equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, (ft³/s)/mi²] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (See also “Annual runoff”)

Daily mean suspended-sediment concentration is the time-weighted mean concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also “Sediment” and “Suspended-sediment concentration”)

Daily record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to data collection on a daily or near-daily basis.

Data collection platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data usually are downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or Universal Transverse Mercator (UTM) coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

Diatoms (*Bacillariophyta*) are unicellular or colonial algae with a siliceous cell wall. The abundance of diatoms in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of diatoms in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or flow, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, and so forth, within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of “dissolved” constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the “residue-on-evaporation” method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4917 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L CaCO₃) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index (H) (Shannon index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n},$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth's surface that contains a drainage system with a common outlet for its surface runoff. (See "Drainage area")

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass. (See also "Ash mass," "Biomass," and "Wet mass")

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also "Wet weight")

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also "Substrate embeddedness class")

Enterococcus bacteria commonly are found in the feces of humans and other warmblooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus faecalis*, *Streptococcus faecium*, *Streptococcus avium*, and their variants. (See also "Bacteria")

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that generally are considered pollution sensitive; the index usually decreases with pollution.

Escherichia coli (*E. coli*) are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

Estimated (E) value of a concentration is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an E code will be reported with the value. If the analyte is identified qualitatively as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an E code even though the measured value is greater than the MDL. A value reported with an E code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<). For bacteriological data, concentrations are reported as estimated when results are based on non-ideal colony counts.

Euglenoids (*Euglenophyta*) are a group of algae that usually are free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also "Phytoplankton")

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediment.

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Fecal streptococcal bacteria are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Filtered pertains to constituents in a water sample passed through a filter of specified pore diameter, most commonly 0.45 micrometer or less for inorganic analytes and 0.7 micrometer for organic analytes.

Filtered, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that has passed through a filter has been extracted. Complete recovery is not achieved by the extraction procedure and thus the analytical determination represents something less than 95 percent of the total constituent concentration in the sample. To achieve comparability of analytical data, equivalent extraction procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

Fire algae (*Pyrrophyta*) are free-swimming unicells characterized by a red pigment spot. (See also “Phytoplankton”)

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum is not an actual physical object, the datum is usually defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term “stage,” although gage height is more appropriate when used in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

Gaging station is a site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained.

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

Green algae (*Chlorophyta*) are unicellular or colonial algae with chlorophyll pigments similar to those in terrestrial green plants. Some forms of green algae produce mats or floating “moss” in lakes. The abundance of green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat typically are made over a wider geographic scale than are measurements of species distribution.

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

Hardness of water is a physical-chemical characteristic that commonly is recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate (CaCO₃).

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. See NOAA Web site: <http://www.co-ops.nos.noaa.gov/tideglos.html>

Hilsenhoff’s Biotic Index (HBI) is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = \text{sum} \frac{(n)(a)}{N},$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See “Datum”)

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the USGS. Each hydrologic unit is identified by an 8-digit number.

Inch (IN., in.), in reference to streamflow, as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were distributed uniformly on it. (See also “Annual runoff”)

Instantaneous discharge is the discharge at a particular instant of time. (See also “Discharge”)

International Boundary Commission Survey Datum refers to a geodetic datum established at numerous monuments along the United States-Canada boundary by the International Boundary Commission.

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year, on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) generally is equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a “less than” (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. The LRL replaces the term ‘non-detection value’ (NDV).

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_o e^{-\lambda L} \quad ,$$

where I_o is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_o} \quad .$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

Long-term method detection level (LT-MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike-sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. *See NOAA Web site:*
<http://www.co-ops.nos.noaa.gov/tideglos.html>

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also “Daily mean suspended-sediment concentration” and “Suspended-sediment concentration”)

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period. (See also “Discharge”)

Mean high or low tide is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also “Datum”)

Measuring point (MP) is an arbitrary permanent reference point from which the distance to water surface in a well is measured to obtain water level.

Megahertz is a unit of frequency. One megahertz equals one million cycles per second.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Method code is a one-character code that identifies the analytical or field method used to determine a value stored in the National Water Information System (NWIS).

Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

Method of Cubatures is a method of computing discharge in tidal estuaries based on the conservation of mass equation.

Methylene blue active substances (MBAS) indicate the presence of detergents (anionic surfactants). The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (UG/G, $\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per kilogram (UG/KG, $\mu\text{g/kg}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

Microsiemens per centimeter (US/CM, $\mu\text{S/cm}$) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of dry sediment per liter of water-sediment mixture.

Minimum reporting level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD 29) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It formerly was called “Sea Level Datum of 1929” or “mean sea level.” Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. *See NOAA Web site: <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88>* (See “North American Vertical Datum of 1988”)

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also “Substrate”)

Nekton are the consumers in the aquatic environment and consist of large, free-swimming organisms that are capable of sustained, directed mobility.

Nonfilterable refers to the portion of the total residue retained by a filter.

North American Datum of 1927 (NAD 27) is the horizontal control datum for the United States that was defined by a location and azimuth on the Clarke spheroid of 1866.

North American Datum of 1983 (NAD 83) is the horizontal control datum for the United States, Canada, Mexico, and Central America that is based on the adjustment of 250,000 points including 600 satellite Doppler stations that constrain the system to a geocentric origin. NAD 83 has been officially adopted as the legal horizontal datum for the United States by the Federal government.

North American Vertical Datum of 1988 (NAVD 88) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States first-order terrestrial leveling networks.

Open or screened interval is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or **volatile mass** of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also “Ash mass,” “Biomass,” and “Dry mass”)

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m²), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method uses the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification, as used in this report, agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	>0.00024 - 0.004	Sedimentation
Silt	>0.004 - 0.062	Sedimentation
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or

rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

Percent composition or **percent of total** is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, mass, or volume.

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. Although primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed “acidic,” and solutions with a pH greater than 7.0 are termed “basic.” Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

Phytoplankton is the plant part of the plankton. They usually are microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and commonly are known as algae. (See also “Plankton”)

Picocurie (PC, pCi) is one-trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photo-synthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary pro-

duction is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [$\text{mg C}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg C}/(\text{m}^3/\text{time})$] for phytoplankton. The carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light- and dark-bottle method and is preferred for use with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [$\text{mg O}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg O}/(\text{m}^3/\text{time})$] for phytoplankton. The oxygen method defines production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light- and dark-bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable is the amount of a given constituent that is in solution after a representative water sample has been extracted or digested. Complete recovery is not achieved by the extraction or digestion and thus the determination represents something less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also “Bed material”)

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms “return period” and “recurrence interval” do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period (See “Recurrence interval”)

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged (“runs off”) from a drainage basin during a given time period. Run-off data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also “Annual runoff”)

Salinity is the total quantity of dissolved salts, measured by weight in parts per thousand. Values in this report are calculated from specific conductance and temperature. Seawater has an average salinity of about 35 parts per thousand (for additional information, refer to: Miller, R.L., Bradford, W.L., and Peters, N.E., 1988, Specific conductance: theoretical considerations and application to analytical quality control: U.S. Geological Survey Water-Supply Paper 2311, 16 p.)

Sea level, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as “fluvial sediment.” Sediment includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also “Annual 7-day minimum” and “Recurrence interval”)

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

Specific electrical conductance (conductivity) is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stable isotope ratio (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage (See “Gage height”)

Stage-discharge relation is the relation between the water-surface elevation, termed stage (gage height), and the volume of water flowing in a channel per unit time.

Streamflow is the discharge that occurs in a natural channel. Although the term “discharge” can be applied to the flow of a canal, the word “streamflow” uniquely describes the discharge in a surface stream course. The term “streamflow” is more general than “runoff” as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Substrate embeddedness class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2 mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0	no gravel or larger substrate	3	26-50 percent
1	> 75 percent	4	5-25 percent
2	51-75 percent	5	< 5 percent

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

Surficial bed material is the upper surface (0.1 to 0.2 foot) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Surrogate is an analyte that behaves similarly to a target analyte, but that is highly unlikely to occur in a sample. A surrogate is added to a sample in known amounts before extraction and is measured with the same laboratory procedures used to measure the target analyte. Its purpose is to monitor method performance for an individual sample.

Suspended is the amount (concentration) of undissolved material in a water-sediment mixture. Most commonly refers to that material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer filter has been extracted or digested. Complete recovery is not achieved by the extraction or digestion procedures and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also “Suspended”)

Suspended sediment is sediment carried in suspension by the turbulent components of the fluid or by the Brownian movement (a law of physics). (See also “Sediment”)

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also “Sediment” and “Suspended sediment”)

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft³/s) x 0.0027. (See also “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also “Sediment”)

Suspended solids, total residue at 105 °C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as “suspended, total.” Determinations of “suspended, total” constituents are made either by directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also “Suspended”)

Synoptic studies are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom:	Animal
Phylum:	Arthropoda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	<i>Hexagenia</i>
Species:	<i>Hexagenia limbata</i>

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term “temperature recorder” is used in the table descriptions and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric ton per day.

Total is the amount of a given constituent in a representative whole-water (unfiltered) sample, regardless of the constituent’s physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as “total.” (Note that the word “total” does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined at least 95 percent of the constituent in the sample.)

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also “Bacteria”)

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as “total sediment discharge,” “total chloride discharge,” and so on.

Total in bottom material is the amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as “total in bottom material.”

Total length (fish) is the straight-line distance from the anterior point of a fish specimen’s snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also “Organism count/volume”)

Total recoverable is the amount of a given constituent in a whole-water sample after a sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the “total” amount (that is, less than 95 percent) of the constituent present in the

dissolved and suspended phases of the sample. To achieve comparability of analytical data for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also “Bedload,” “Bedload discharge,” “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Total sediment load or **total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also “Sediment,” “Suspended-sediment load,” and “Total load”)

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is an expression of the optical properties of a liquid that causes light rays to be scattered and absorbed rather than transmitted in straight lines through water. Turbidity, which can make water appear cloudy or muddy, is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms, organic acids, and dyes (ASTM International, 2003, D1889–00 Standard test method for turbidity of water, *in* ASTM International, Annual Book of ASTM Standards, Water and Environmental Technology, v. 11.01: West Conshohocken, Pennsylvania, 6 p.). The color of water, whether resulting from dissolved compounds or suspended particles, can affect a turbidity measurement. To ensure that USGS turbidity data can be understood and interpreted properly within the context of the instrument used and site conditions encountered, data from each instrument type are stored and reported in the National Water Information System (NWIS) using parameter codes and measurement reporting units that are specific to the instrument type, with specific instruments designated by the method code. The respective measurement units, many of which also are in use internationally, fall into two categories: (1) the designations NTU, NTRU, BU, AU, and NTMU signify the use of a broad spectrum incident light in the wavelength range of 400–680 nanometers (nm), but having different light detection configurations; (2) The designations FNU, FNRU, FBU, FAU, and FNMU generally signify an incident light in the range between 780–900 nm, also with varying light detection configurations. These reporting units are equivalent when measuring a calibration solution (for example, formazin or polymer beads), but their respective instruments may not produce equivalent results for environmental samples. Specific reporting units are as follows:

NTU (Nephelometric Turbidity Units): white or broadband [400–680 nm] light source, 90 degree detection angle, one detector.

NTRU (Nephelometric Turbidity Ratio Units): white or broadband [400–680 nm] light source, 90 degree detection angle, multiple detectors with ratio compensation.

BU (Backscatter Units): white or broadband [400–680 nm] light source, 30 ± 15 degree detection angle (backscatter).

AU (Attenuation Units): white or broadband [400–680 nm] light source, 180 degree detection angle (attenuation).

NTMU (Nephelometric Turbidity Multibeam Units): white or broadband [400–680 nm] light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

FNU (Formazin Nephelometric Units): near infrared [780–900 nm] or monochrome light source, 90 degree detection angle, one detector.

FNRU (Formazin Nephelometric Ratio Units): near infrared [780–900 nm] or monochrome light source, 90 degree detection angle, multiple detectors, ratio compensation.

FBU (Formazin Backscatter Units): near infrared [780-900 nm] or monochrome light source, 30 ± 15 degree detection angle.

FAU (Formazin Attenuation Units): near infrared [780-900 nm] light source, 180 degree detection angle.

FNMU (Formazin Nephelometric Multibeam Units): near infrared [780-900 nm] or monochrome light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

For more information please see http://water.usgs.gov/owq/FieldManual/Chapter6/6.7_contents.html.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of path length of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See “Water-table aquifer”)

Unfiltered pertains to the constituents in an unfiltered, representative water-suspended sediment sample.

Unfiltered, recoverable is the amount of a given constituent in a representative water-suspended sediment sample that has been extracted or digested. Complete recovery is not achieved by the extraction or digestion treatment and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

Vertical datum (See “Datum”)

Volatile organic compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and, subsequently, analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They often are components of fuels, solvents, hydraulic fluids, paint thinners, and dry-cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human-health concern because many are toxic and are known or suspected human carcinogens.

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which the water table is found.

Water year in USGS reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2002, is called the “2002 water year.”

Watershed (See “Drainage basin”)

WDR is used as an abbreviation for “Water-Data Report” in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for “Water-Resources Data” in reports published prior to 1976.)

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

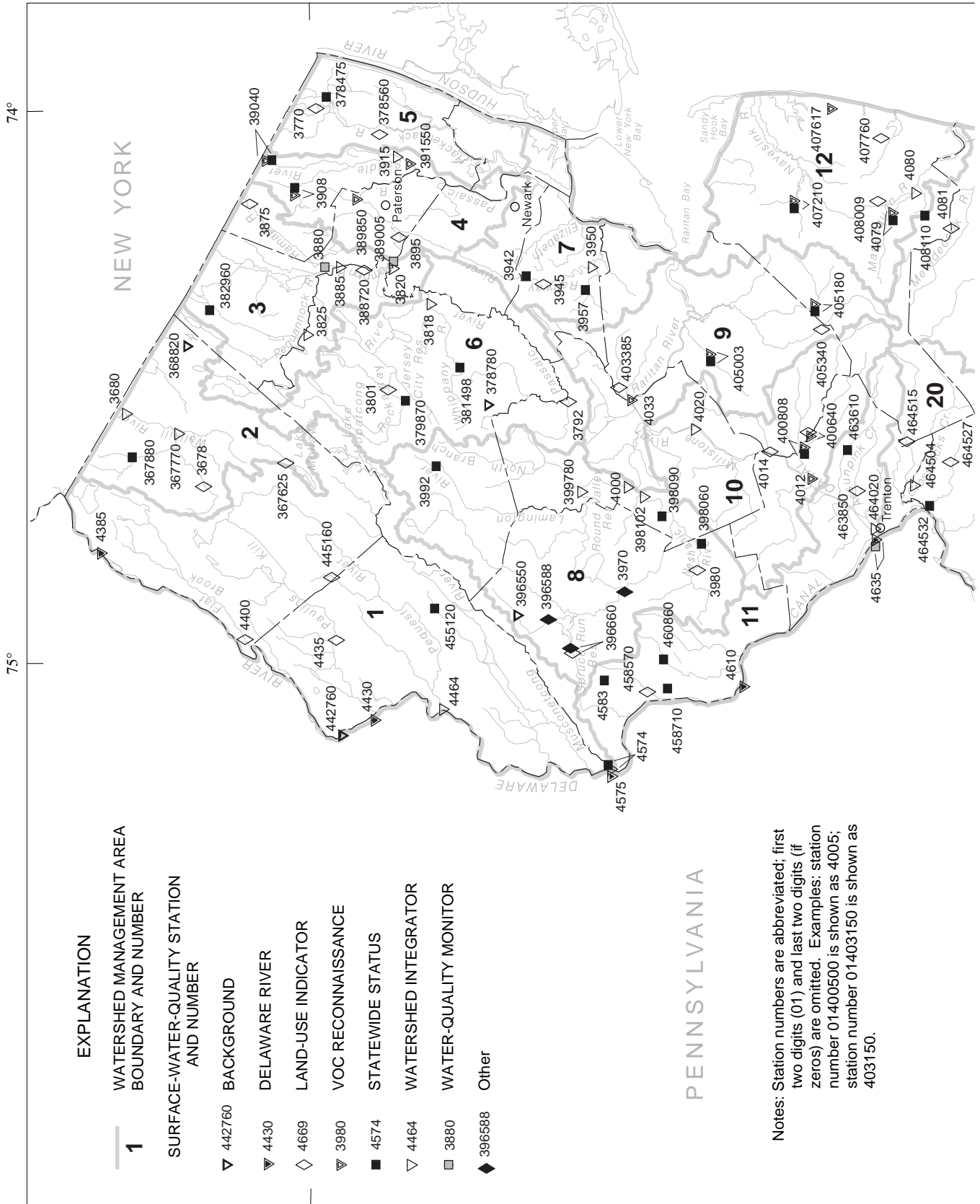
Wet mass is the mass of living matter plus contained water. (See also “Biomass” and “Dry mass”)

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also “Dry weight”)

WSP is used as an acronym for “Water-Supply Paper” in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers. (See also “Plankton”) Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from <http://water.usgs.gov/glossaries.html>.

WATER RESOURCES DATA-NEW JERSEY, 2004



EXPLANATION

1 WATERSHED MANAGEMENT AREA BOUNDARY AND NUMBER

2 SURFACE-WATER-QUALITY STATION AND NUMBER

3 442760 BACKGROUND

4 4430 DELAWARE RIVER

5 4669 LAND-USE INDICATOR

6 3980 VOC RECONNAISSANCE

7 4574 STATEWIDE STATUS

8 4464 WATERSHED INTEGRATOR

9 3880 WATER-QUALITY MONITOR

10 396588 Other

PENNSYLVANIA

Notes: Station numbers are abbreviated; first two digits (01) and last two digits (if zeros) are omitted. Examples: station number 01400500 is shown as 4005; station number 01403150 is shown as 403150.

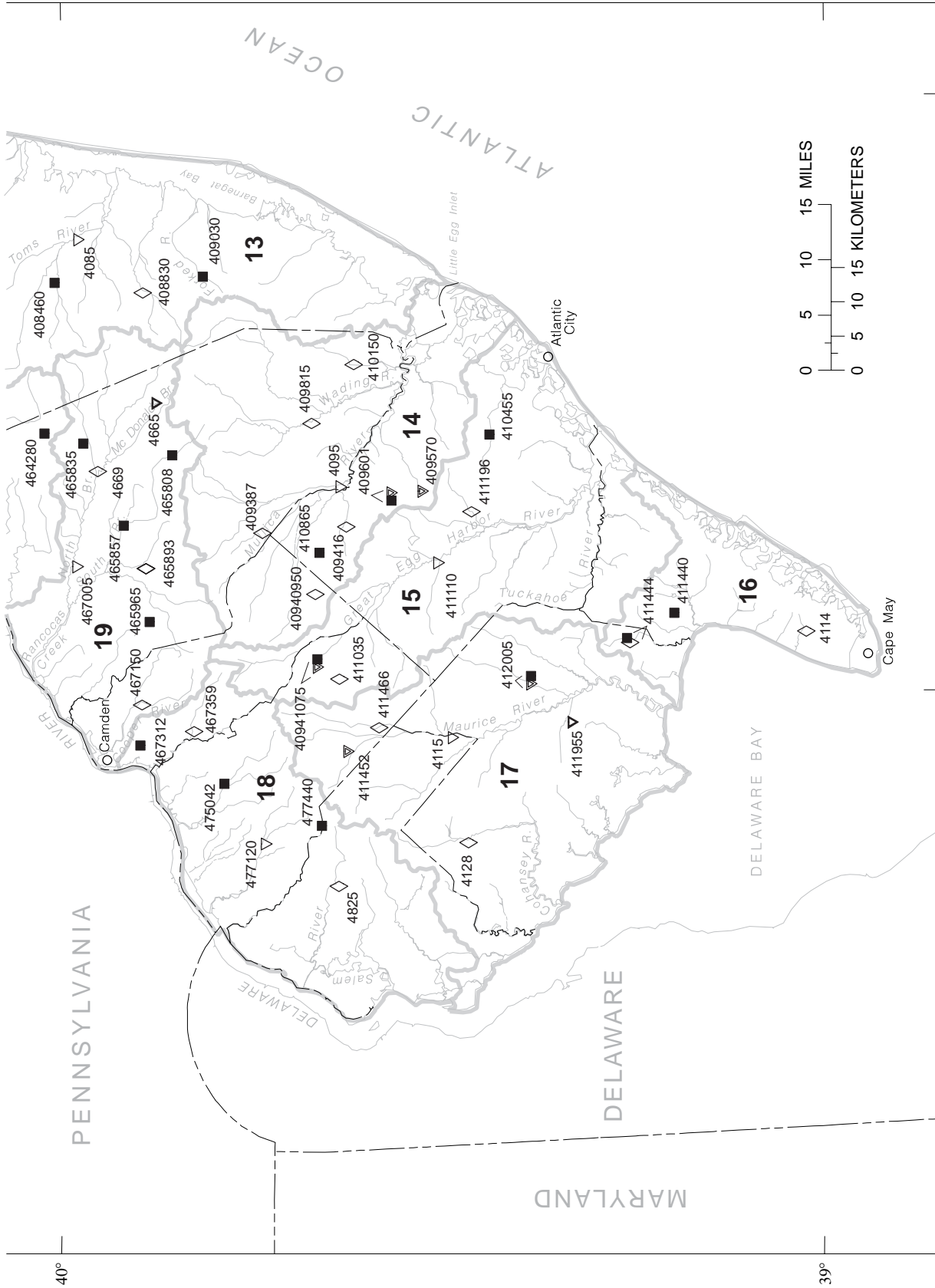
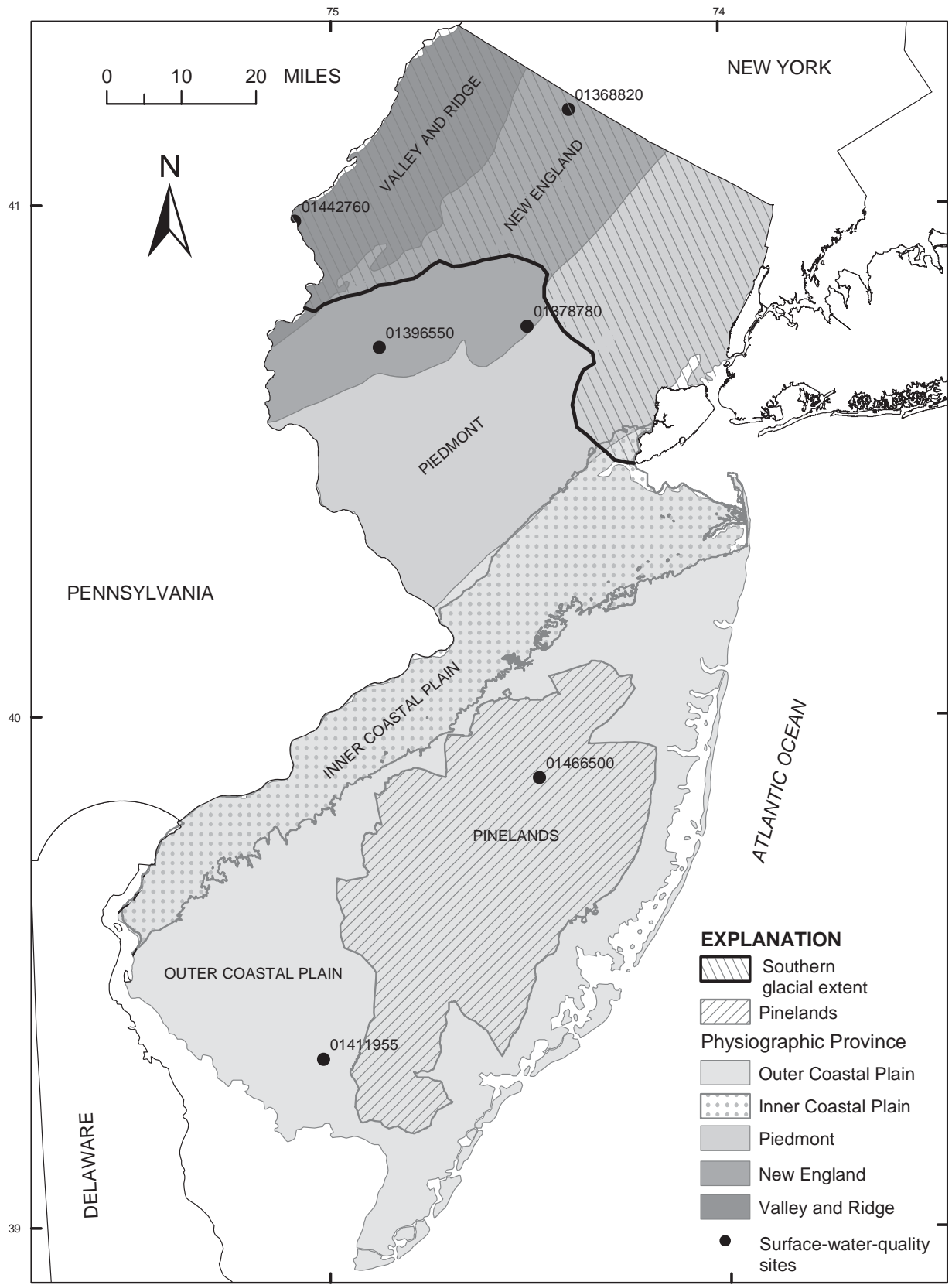


Figure 23. Locations and types of surface-water-quality stations, water year 2004.



Base from U.S. Geological Survey digital line graph files, 1:24,000

Figure 24. Location of background surface-water-quality stations in the Ambient Stream Monitoring Network, water year 2004.

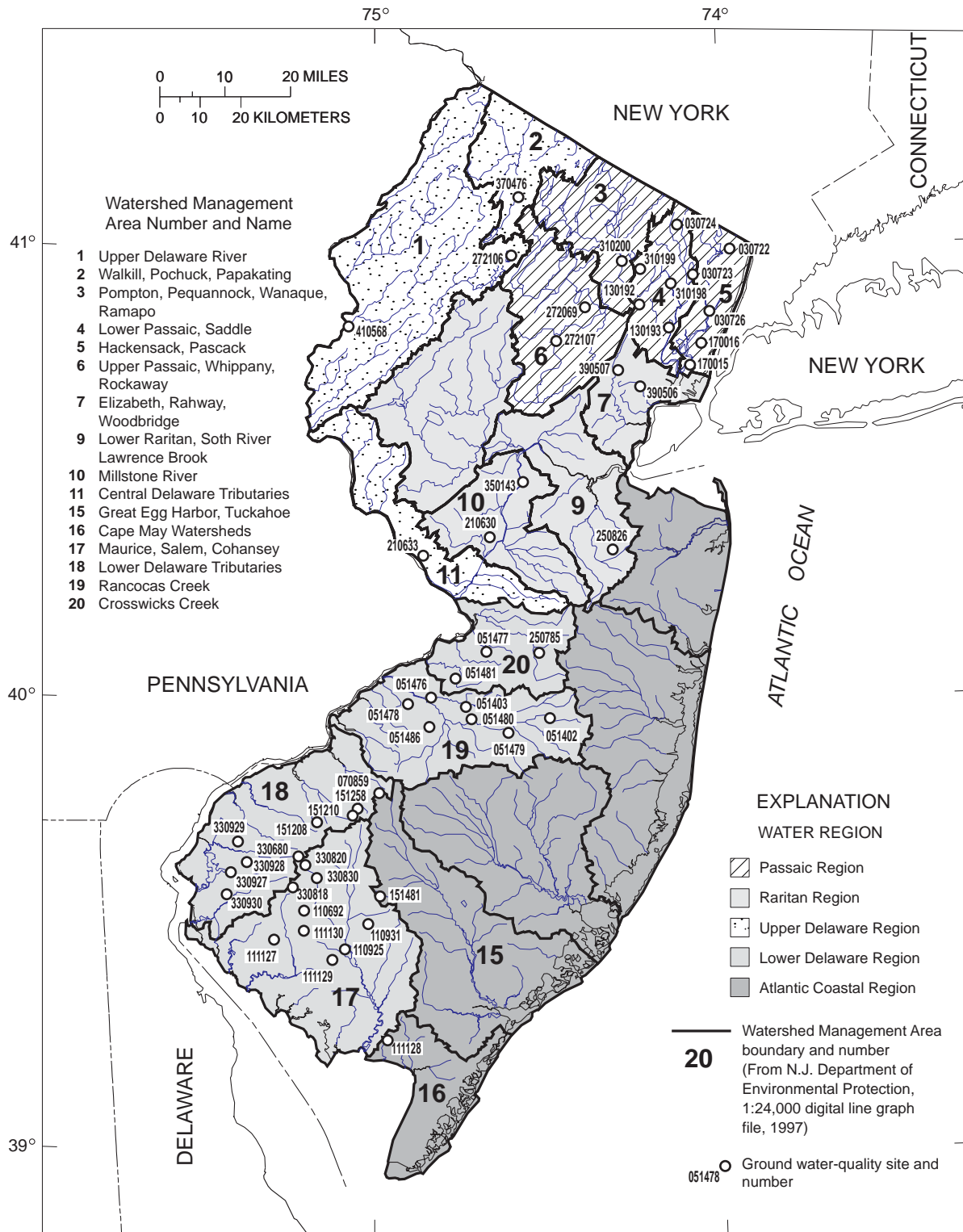


Figure 25. Location of sites in the Ambient Ground-Water-Quality Network, water year 2004.

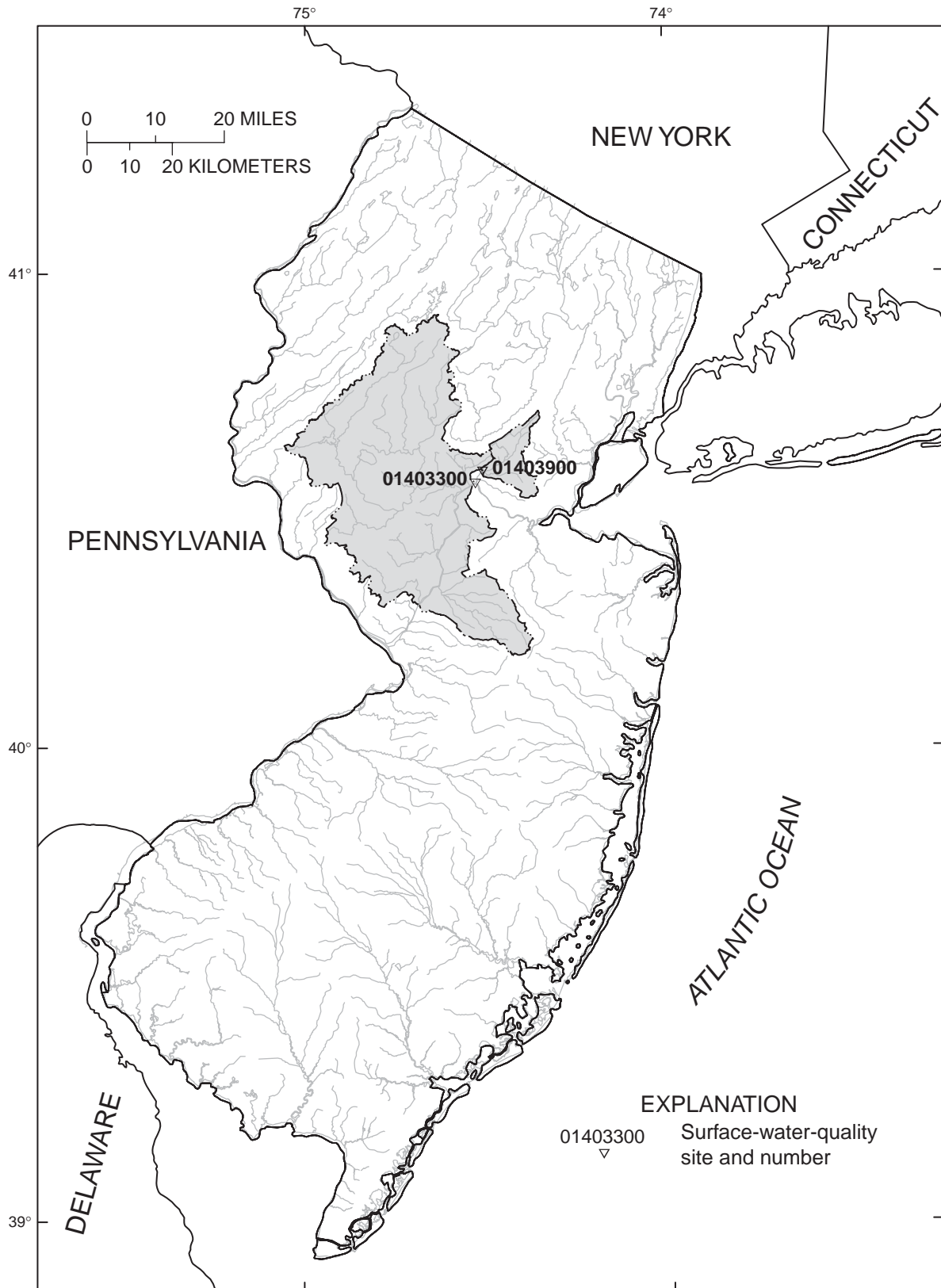


Figure 26. Location of stations in the Long Island-New Jersey National Water-Quality Assessment Program, surface-water trends network, water year 2004.



Figure 27. Location of stations in the Delaware River National Water-Quality Assessment Program, surface-water trends network, water year 2004.

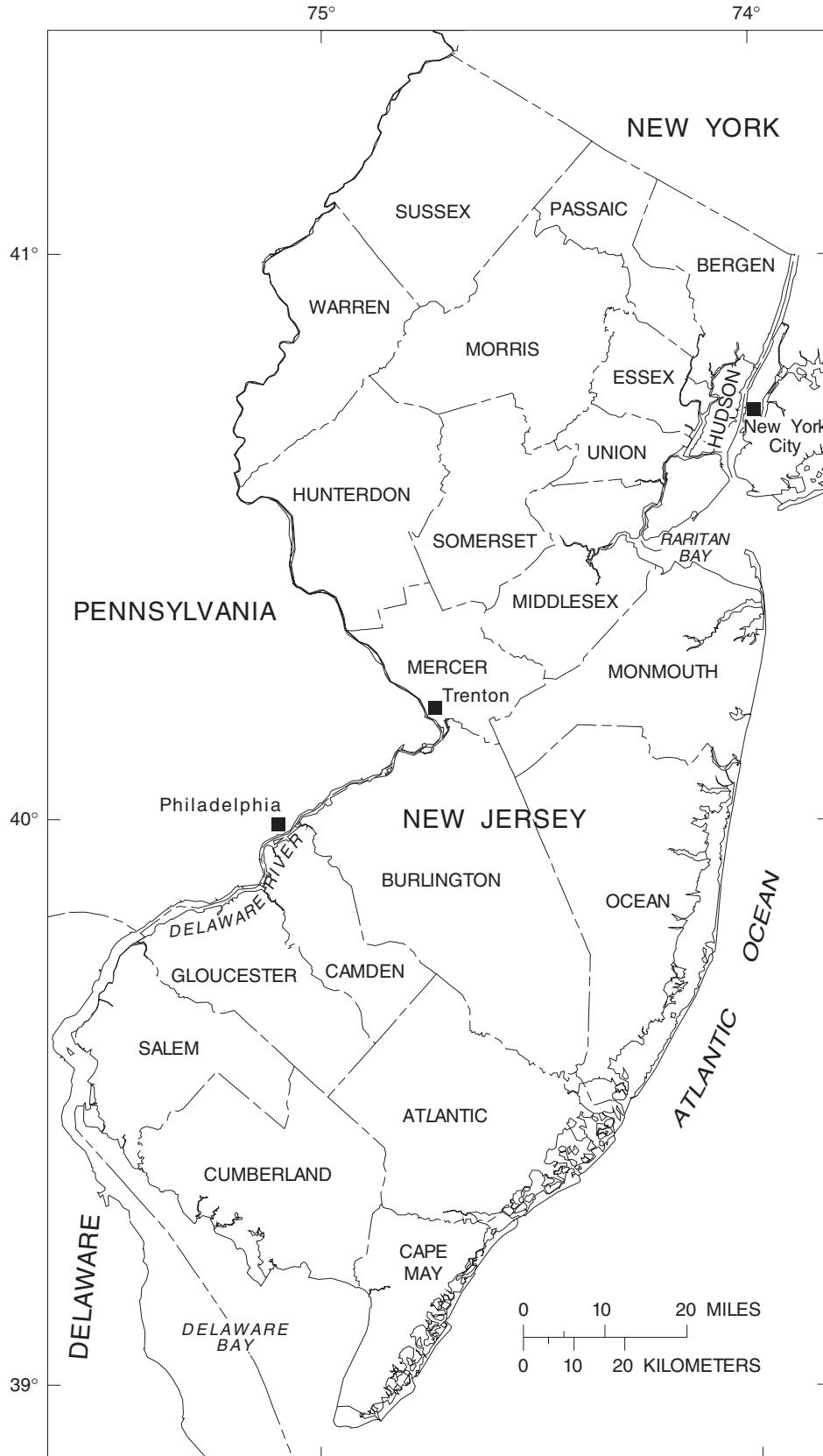


Figure 28. Counties in New Jersey.

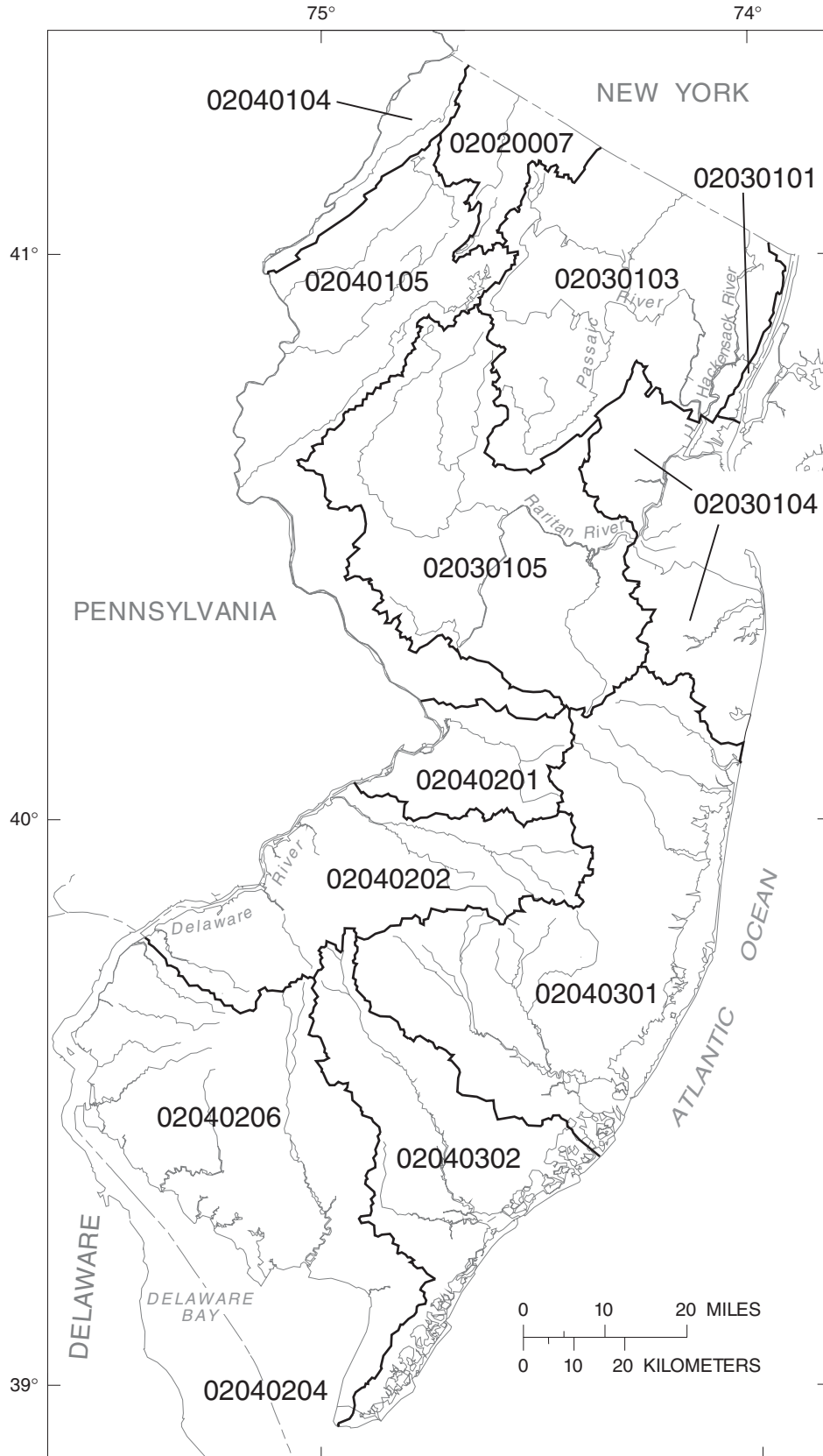


Figure 29. Cataloging units and codes in New Jersey. (Modified from Seaber and others, 1987)

01367625 WALLKILL RIVER AT SPARTA, NJ

LOCATION.--Lat 41°02'25", long 74°37'47", Sussex County, Hydrologic Unit 02020007, 0.4 mi northeast of Sparta, 1.2 mi downstream of outlet of Lake Mohawk, and 1.8 mi east of Fox Hollow Lake.

DRAINAGE AREA.--5.88 mi².

PERIOD OF RECORD.--Water years 1998 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	
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 unf 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 18...	1250	13	6.2	.075	.055	749	11.6	101	8.1	642	10.0	8.3	190	
FEB 18...	1130	14	4.0	.050	.036	750	13.5	105	8.2	716	8.5	4.1	210	
MAY 04...	1020	24	2.5	.069	.051	744	10.2	101	8.0	662	--	13.9	160	
AUG 09...	1150	3.9	2.8	.062	.045	749	8.6	96	8.0	767	24.0	19.8	210	
NOV 18...	45.4	17.4	1.63	56.4	129	112	<.2	5.2	14.9	332	337	6	.30	
FEB 18...	50.5	19.2	1.64	67.4	139	126	<.2	3.3	18.5	373	382	5	.30	
MAY 04...	40.3	15.3	1.45	65.7	117	123	<.2	3.3	15.0	336	362	6	.20	
AUG 09...	49.5	21.5	1.94	66.4	165	132	<.2	7.0	14.7	396	407	13	.30	
NOV 18...	.090	.090	.42	.010	.23	<.020	.010	.028	.72	.95	1.7	<.1	1.7	
FEB 18...	.021	--	.64	.006	.12	<.020	.012	.027	.94	1.1	1.2	<.1	1.2	
MAY 04...	.046	--	.28	.019	.13	.022	.019	.028	.48	.61	1.1	<.1	1.1	
AUG 09...	.034	--	.98	.020	.07	.066	.064	.086	1.3	1.4	1.0	<.1	1.0	

01367625 WALLKILL RIVER AT SPARTA, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 18...	3.4	E2.0	22
FEB 18...	2.8	E1.2	21
MAY 04...	3.1	<1.0	21
AUG 09...	2.8	E1.6	23

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 2003 TO SEPTEMBER 2004

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 05...	1210	<10	<100	80
12...	1205	180	<100	110
19...	1210	590	200	700
26...	1205	2,400	1,000	700
JUN 02...	1200	130	100	800

Remark codes used in this table:

< -- Less than

01367770 WALLKILL RIVER NEAR SUSSEX, NJ

LOCATION.--Lat 41°11'38", long 74°34'31", Sussex County, Hydrologic Unit 02020007, at bridge on Glenwood Road, 0.6 mi upstream from Papakating Creek, 1.7 mi southwest of Independence Corner, and 2.0 mi southeast of Sussex.

DRAINAGE AREA.--60.8 mi².

PERIOD OF RECORD.--Water years 1976 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). Additional trace-element data for this and other stations are presented in "Wallkill River Arsenic Sources, Sussex County" in the Water Quality at Special-Study Sites section of this report.

COOPERATION.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, total ammonia + organic nitrogen in bed sediment, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
DEC 01...	1240	E251	2.4	.122	.093	745	11.6	92	7.8	387	4.5	5.3	140
FEB 18...	1020	77	4.7	.063	.047	755	13.8	99	7.7	632	.5	1.2	230
JUN 02...	1430	164	9.3	.151	.115	745	8.5	92	7.5	505	27.0	17.9	170
AUG 04...	0950	46	5.0	.177	.134	746	6.9	83	7.7	592	25.5	23.1	200
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 01...	32.7	13.5	1.34	22.5	123	40.6	<.2	8.1	12.5	207	210	<1	.20
FEB 18...	54.7	22.8	1.88	45.5	181	83.8	<.2	7.5	18.5	349	360	7	.30
JUN 02...	42.6	16.4	1.31	35.8	146	63.6	<.2	7.6	9.7	268	271	17	.30
AUG 04...	45.4	19.9	2.08	37.0	176	70.9	<.2	10.3	12.5	310	327	10	.39
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
DEC 01...	<.020	<.020	.53	.003	.03	<.020	.008	.010	.73	.76	.3	<.1	.3
FEB 18...	.058	--	1.30	.096	.05	<.020	.011	.031	1.6	1.6	.9	<.1	.9
JUN 02...	.026	--	.65	.007	.15	.019	.026	.028	.95	1.1	1.8	<.1	1.8
AUG 04...	.032	--	1.29	.010	.06	.029	.033	.063	1.7	1.7	.6	<.1	.6

01367770 WALLKILL RIVER NEAR SUSSEX, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 01...	3.4	E1.9	12
FEB 18...	2.4	<1.0	18
JUN 02...	4.2	2.1	20
AUG 04...	4.4	<1.0	27

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	pH bed sedimnt std units (70310)	Ammonia + org-N, bed sed total, mg/kg (00626)	Phosphorus, bed sedimnt total, mg/kg (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inorganic carbon, bed sedimnt total, ug/g (00686)	Arsenic bed sedimnt total, ug/g (01003)	Cadmium bed sedimnt recover -able, ug/g (01028)	Chromium, 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 04...	0950	7.60	60	4,300	4.5	1.3	3	.160	6.1	2.1	4	6,800	9.0	
Date	Time	Manganese, bed sedimnt recover -able, ug/g (01053)	Nickel, bed sedimnt recover -able, ug/g (01068)	Selenium, bed sedimnt total, ug/g (01148)	Zinc, bed sedimnt recover -able, ug/g (01093)	1,2-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sed <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sed <2 mm, ug/kg (49410)	1-Methylpyrene, bed sed <2 mm, wsv nat ug/kg (49388)	236Trimethylnaphthalene, bed sed <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49406)	2-Ethyl-naphthalene, bed sed <2 mm, wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)
AUG 04...	550	5.1	<1	240	<50	<50	<50	E4	E16	<50	E5	<50	E12	
Date	Time	45Methylene-phenanthrene, bed sed <2 mm, ug/kg (49411)	9H-Flour-ene, 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)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)	Dibenzo-[a,h]-anthra-cene, bed sed <2 mm, wsv nat field, ug/kg (49461)	Fluor-anthene, bed sed <2 mm, wsv nat field, ug/kg (49466)
AUG 04...	E4	<50	<50	E19	E13	E32	E39	E43	E35	E32	E31	<50	E45	

HUDSON RIVER BASIN

01367770 WALLKILL RIVER NEAR SUSSEX, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi- ment, dry svd sve dia percent <.063mm (80164)	Bed sedi- ment, falldia dst wat percent <.004mm (80157)
AUG 04...	E41	<50	<50	12	<50	E13	<50	E41	10	3

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 2003 TO SEPTEMBER 2004

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				
05...	1125	60	200	80
12...	1115	120	100	500
19...	1130	80	<100	80
26...	1125	250	300	130
JUN				
02...	1120	440	500	800

Remark codes used in this table:

< -- Less than

01367800 PAPAKATING CREEK AT PELLETTOWN, NJ

LOCATION.--Lat 41°09'45", long 74°40'30", Sussex County, Hydrologic Unit 02020007, at bridge on County Route 565 in Pellettown, 1.5 mi southeast of Wykertown, and 4.8 mi upstream of confluence with West Branch.

DRAINAGE AREA.--15.8 mi².

PERIOD OF RECORD.--Water years 1959-63, 1999 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Agricultural Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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 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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 01...	1000	60	3.2	.141	.108	745	12.3	96	7.1	235	8.0	4.8	69	
FEB 18...	1210	14	3.3	.065	.050	753	14.3	101	7.7	374	4.0	.7	130	
JUN 02...	0940	21	4.4	.193	.148	745	8.8	89	7.5	322	22.0	14.7	110	
AUG 04...	1140	5.4	8.1	.166	.126	745	8.1	94	7.7	412	28.0	21.5	140	
DEC 01...		21.9	3.39	1.47	15.3	52	28.1	<.2	8.6	15.7	129	133	2	.20
FEB 18...		43.3	5.94	1.56	24.6	81	47.8	<.2	8.5	23.9	212	226	3	.20
JUN 02...		35.6	4.62	1.15	21.9	81	40.3	<.2	8.9	12.1	176	187	7	.70
AUG 04...		45.2	5.72	1.82	22.5	114	45.0	<.2	10.6	19.0	223	235	10	.34
DEC 01...		--	.020	.68	<.003	<.02	<.020	.014	.038	.88	--	.4	<.1	.4
FEB 18...		.021	--	1.60	.007	<.02	<.020	.008	.013	1.8	--	.4	<.1	.4
JUN 02...		.034	--	.48	.007	.03	.025	.027	--	1.2	1.2	.2	<.1	.2
AUG 04...		.027	--	1.09	.008	.06	.026	.028	.055	1.4	1.5	.5	<.1	.5

HUDSON RIVER BASIN

01367800 PAPA KATING CREEK AT PELLETOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 01...	3.6	E1.5	9.4
FEB 18...	1.9	<1.0	9.7
JUN 02...	4.8	<1.0	13
AUG 04...	4.0	<1.0	15

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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 05...	1145	25	30	600	80
12...	1140	67	150	200	800
19...	1145	31	160	300	1,100
26...	1140	18	610	2,000	94
JUN 02...	1135	21	300	200	500

01367880 CLOVE BROOK TRIBUTARY AT ROSE MORROW ROAD, NEAR COLESVILLE, NJ

LOCATION.--Lat 41°15'41", long 74°37'26", Sussex County, Hydrologic Unit 02020007, on bridge at Rose Morrow Road, 0.2 mi upstream of Clove Brook, 1.6 mi southeast of Colesville, and 2.2 mi northeast of Libertyville.

DRAINAGE AREA.--4.46 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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 (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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
DEC 03...	1030	7.0	.078	.060	761	12.4	89	7.3	191	-4.0	1.5	58	18.5	
MAR 03...	1030	14	.108	.085	755	11.6	84	7.4	183	8.6	1.8	55	17.2	
MAY 06...	1030	4.9	.137	.105	752	11.3	102	7.6	218	13.5	10.3	71	23.1	
AUG 24...	1030	8.0	.214	.165	753	6.0	65	7.4	270	16.0	18.6	90	29.2	
DEC 03...	2.97	1.74	9.66	41	17.3	<.2	8.4	15.2	106	109	8	<.20	.030	
MAR 03...	2.88	2.74	11.5	31	22.3	<.2	5.7	10.9	98	112	17	.70	.394	
MAY 06...	3.22	1.55	13.4	48	26.5	<.2	5.6	11.6	117	135	4	.20	.016	
AUG 24...	4.16	4.50	14.1	62	29.1	<.2	9.0	15.2	149	165	3	.65	.111	
DEC 03...	.020	1.80	E.003	.03	.027	.020	.074	--	--	.4	<.1	.3	2.5	
MAR 03...	--	1.10	.012	.21	.051	.050	--	1.8	2.0	1.8	<.1	1.8	4.0	
MAY 06...	--	.74	.009	.07	.044	.045	.064	.94	1.0	.5	<.1	.5	3.1	
AUG 24...	--	1.36	.032	.12	.114	.119	.21	2.0	2.1	1.2	<.1	1.2	5.5	

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 03...	<1.0	14
MAR 03...	2.7	9.2
MAY 06...	2.0	15
AUG 24...	<1.0	32

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
MAR 03...	1030	<2	9.3	<.06	13	E.02	<.8	1.6	650	.70	133	<.02	1.20
AUG 24...	1030	E1	12.8	<.06	34	<.04	E.5	1.7	790	.48	152	<.02	1.71

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
MAR 03...	<.4	<.16	4
AUG 24...	.7	<.16	2

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atra- zine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben- tazon, water, fltrd 0.7u GF ug/L (38711)	Broma- cil, water, fltrd, ug/L (04029)	Caf- feine, water, fltrd, ug/L (50305)	Car- baryl, water, fltrd 0.7u GF ug/L (49310)	Carbo- furan, water, fltrd 0.7u GF ug/L (49309)
MAY 06...	1030	<.009	.06	<.03	<.01	E.010	E.003	<.004	<.01	<.03	<.0096	<.03	<.006

01367880 CLOVE BROOK TRIBUTARY AT ROSE MORROW ROAD, NEAR COLESVILLE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Clopyr- alid, water, fltrd 0.7u GF ug/L (49305)	Dicamba water fltrd 0.7u GF ug/L (38442)	Di- chlor- prop, water, fltrd 0.7u GF ug/L (49302)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diuron, water, fltrd 0.7u GF ug/L (49300)	Fluo- meturon water fltrd 0.7u GF ug/L (38811)	Imaza- quin, water, fltrd, ug/L (50356)	Imaze- thapyr, water, fltrd, ug/L (50407)	Imida- clopid water, fltrd, ug/L (61695)	MCPA, water, fltrd 0.7u GF ug/L (38482)	Meta- laxyl, water, fltrd, ug/L (50359)	Methio- carb, water, fltrd 0.7u GF ug/L (38501)	Norflur azon, water, fltrd 0.7u GF ug/L (49293)
MAY 06...	<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Ory- zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Propi- cona- zole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- thiuron water, fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd, ug/L (04032)	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)
MAY 06...	<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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				
05...	1105	110	400	500
12...	1100	370	2,100	3,000
19...	1105	170	9,000	5,000
26...	1105	3,200	6,100	9,000
JUN				
02...	1100	22,000	160,000	>16,000

Remark codes used in this table:
 > -- Greater than

01368000 WALLKILL RIVER NEAR UNIONVILLE, NY

LOCATION.--Lat 41°15'36", long 74°32'56", Sussex County, New Jersey, Hydrologic Unit 02020007, at bridge on Quarryville-Milton Road, 2.0 mi south of New York-New Jersey State line, 3.0 mi south of Unionville.

DRAINAGE AREA.--140 mi².

PERIOD OF RECORD.--Water years 1963-78, 1991-97, and 2001 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). Additional trace-element data for this and other stations are presented in "Wallkill River Arsenic Sources, Sussex County" in the Water Quality at Special-Study Sites section of this report.

COOPERATION.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, total ammonia + organic nitrogen in bed sediment, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 09...	1040	328	4.8	.126	.096	755	13.4	94	7.4	385	-1.0	.5	130
MAR 01...	1220	239	13	.104	.080	759	13.7	103	7.4	437	18.5	3.3	140
JUN 02...	1200	351	18	.207	.158	745	7.8	83	7.4	372	24.0	16.9	120
AUG 26...	1140	215	12	.344	.261	761	6.9	76	7.2	395	23.0	19.9	140
DEC 09...	34.6	11.5	1.45	26.4	106	48.6	<.2	8.0	16.5	215	226	7	.20
MAR 01...	37.8	11.9	1.92	30.5	103	58.1	<.2	6.2	17.1	230	237	16	.30
JUN 02...	33.0	8.51	1.37	25.8	96	49.5	<.2	6.1	10.6	195	204	27	.40
AUG 26...	37.4	11.5	1.77	26.1	109	43.5	<.2	10.2	16.1	215	233	13	.60
DEC 09...	.040	.030	.84	<.003	<.02	<.020	.014	.020	1.0	--	.5	<.1	.5
MAR 01...	.079	--	.98	.027	.11	<.020	.013	.006	1.3	1.4	.9	.2	.7
JUN 02...	.040	--	.55	.011	.13	.013	.021	.018	.95	1.1	1.1	<.1	1.0
AUG 26...	.045	--	.57	.008	.14	.035	.042	.080	1.2	1.3	1.1	<.1	1.1

01368000 WALLKILL RIVER NEAR UNIONVILLE, NY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 09...	3.3	2.3	12
MAR 01...	3.2	E1.3	11
JUN 02...	5.1	<1.0	16
AUG 26...	7.4	E1.6	28

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	pH bed sedimnt std units (70310)	Ammonia + org-N, bed sed total, mg/kg (00626)	Phosphorus, bed sedimnt total, mg/kg (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inorganic carbon, bed sedimnt total, g/kg (00686)	Arsenic bed sedimnt total, ug/g (01003)	Cadmium bed sedimnt recover -able, ug/g (01028)	Chromium, 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 26...	1140	7.18	1,700	7,800	13	5.2	3	.180	9.8	4.2	11	15,000	9.8	
Date	Time	Manganese, bed sedimnt recover -able, ug/g (01053)	Nickel, bed sedimnt recover -able, ug/g (01068)	Selenium, bed sedimnt total, ug/g (01148)	Zinc, bed sedimnt recover -able, ug/g (01093)	1,2-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sed <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sed <2 mm, ug/kg (49410)	1-Methylpyrene, bed sed <2 mm, wsv nat ug/kg (49388)	236Trimethylnaphthalene, bed sed <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49406)	2-Ethyl-naphthalene, bed sed <2 mm, wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)
AUG 26...	450	9.1	<1	120	<50	<50	<50	<50	<50	<50	57	<50	<50	
Date	Time	45Methylene-phenanthrene, bed sed <2 mm, ug/kg (49411)	9H-Flour-ene, 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)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)	Dibenzo-[a,h]-anthra-cene, bed sed <2 mm, wsv nat field, ug/kg (49461)	Fluor-anthene, bed sed <2 mm, wsv nat field, ug/kg (49466)
AUG 26...	E10	<50	<50	E40	E27	66	66	<50	<50	<50	76	<50	87	

HUDSON RIVER BASIN

01368000 WALLKILL RIVER NEAR UNIONVILLE, NY—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi- ment, dry svd sve dia percent <.063mm (80164)	Bed sedi- ment, falldia dst wat percent <.004mm (80157)
AUG 26...	<50	<50	<50	27	<50	E43	<50	77	42	15

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 2003 TO SEPTEMBER 2004

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				
05...	1050	20	90	1,100
12...	1045	400	1,900	3,000
19...	1050	80	<100	110
26...	1050	110	100	110
JUN				
02...	1045	5,100	300	5,000

Remark codes used in this table:

< -- Less than

01368820 DOUBLE KILL AT WAWAYANDA, NJ

LOCATION.--Lat 41°11'13", long 74°25'12", Sussex County, Hydrologic Unit 02020007, 1,500 ft east of Wawayanda, 0.4 mi downstream of Wawayanda Lake, 3.5 mi east of Vernon, and 4.6 mi upstream of Wawayanda Creek.

DRAINAGE AREA.--6.46 mi².

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

REMARKS.--For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Background, New Jersey Department of Environmental Protection Watershed Management Area 2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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 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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 18...	1020	7.4	.8	.161	.120	738	11.6	95	7.2	297	6.0	5.7	73	
MAR 02...	1250	6.0	1.5	.154	.116	734	12.3	100	7.2	208	15.5	4.9	57	
JUN 02...	1130	21	1.9	.143	.105	726	8.2	93	6.6	266	21.0	18.9	64	
AUG 19...	1050	4.1	1.6	.146	.108	732	7.3	88	7.3	280	23.0	22.8	67	
NOV 18...	18.9	6.20	1.21	26.8	53	52.0	<.2	4.6	7.8	149	158	1	.30	
MAR 02...	14.7	4.87	.97	18.7	39	33.2	<.2	4.1	8.2	109	124	<1	.30	
JUN 02...	17.1	5.21	.69	24.3	47	47.0	<.2	1.6	6.6	131	143	3	.30	
AUG 19...	17.5	5.55	.82	25.5	50	49.3	<.2	3.6	6.1	138	154	3	.35	
NOV 18...	<.020	<.020	.02	<.003	.06	<.020	.004	.011	.32	.38	.4	<.1	.4	
MAR 02...	.033	--	.09	<.002	.03	<.020	.010	.015	.39	.42	.2	<.1	.2	
JUN 02...	.019	--	<.02	E.002	.06	<.010	.020	.023	--	--	.5	<.1	.5	
AUG 19...	.011	--	<.06	<.002	.02	E.009	.011	.018	--	--	.3	<.1	.3	

HUDSON RIVER BASIN

01368820 DOUBLE KILL AT WAWAYANDA, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 18...	5.1	E2.3	14
MAR 02...	4.7	E1.1	9.5
JUN 02...	4.4	<1.0	14
AUG 19...	5.0	<1.0	16

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryllium, water, unfltrd recover -able, ug/L (01012)	Boron, water, unfltrd recover -able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover -able, ug/L (01034)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover -able, ug/L (01042)
MAR 02...	1250	Environmental	--	<2	9.1	<.06	13	<.04	<.8	--	.8
AUG 19...	1048	Sampler Blank	--	--	--	--	--	--	--	--	--
19...	1049	Field Blank	<.2	--	--	--	--	--	--	<.4	--
19...	1050	Environmental	--	<2	9.7	<.06	18	<.04	<.8	--	.6

Date	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover -able, ug/L (01051)	Manganese, water, unfltrd recover -able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover -able, ug/L (01092)
MAR 02...	110	--	.19	73.7	--	<.02	--	.68	E.2	<.16	--	E2
AUG 19...	--	--	--	--	--	--	--	--	--	--	<.6	--
19...	--	<.08	--	--	<.02	--	<.06	--	--	--	E.5	--
19...	120	--	.09	56.7	--	<.02	--	.74	<.4	<.16	--	E1

Remark codes used in this table:

< -- Less than

E -- Estimated value

01368820 DOUBLE KILL AT WAWAYANDA, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
JUN 02...	1130	<.009	<.02	<.03	<.01	<.008	E.005	<.004	<.01	<.03	<.0096	<.03	<.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
JUN 02...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
JUN 02...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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 05...	1010	10	<100	20
12...	1005	40	100	20
19...	1010	330	<100	<20
26...	1005	300	<100	130
JUN 02...	1005	230	<100	110

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

01377000 HACKENSACK RIVER AT RIVERVALE, NJ

LOCATION.--Lat 40°59'57", long 73°59'21", Bergen County, Hydrologic Unit 02030103, at bridge on Westwood Avenue in Rivervale, 1.5 mi upstream from Pasack Brook, 4.6 mi upstream from Oradell Dam, and 27.2 mi upstream from mouth.

DRAINAGE AREA.--58.0 mi².

PERIOD OF RECORD.--Water years 1962, 1964 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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
NOV 06...	1000	65	4.7	.193	.148	767	7.1	68	7.8	401	11.2	13.7	110	
FEB 02...	0800	55	3.1	.120	.089	777	12.5	--	8.1	--	-5.1	1.2	130	
MAY 13...	0900	86	5.7	.113	.083	767	6.6	72	7.8	611	19.2	19.4	130	
AUG 23...	1000	202	14	.139	.101	763	7.7	89	7.9	393	24.6	22.8	98	
NOV 06...	35.5	6.25	2.29	32.9	--	61.7	<.2	3.0	12.6	--	217	4	.50	
FEB 02...	40.8	7.21	2.13	49.9	89	94.0	<.2	3.5	15.6	270	286	1	.50	
MAY 13...	41.2	6.86	1.93	66.1	88	120	<.2	1.6	14.5	307	342	11	.40	
AUG 23...	30.9	4.99	1.93	35.0	73	70.5	<.2	4.8	11.9	204	230	12	.38	
NOV 06...	.046	.047	.33	.013	.16	<.020	.022	.035	.83	.99	1.0	<.1	1.0	
FEB 02...	.087	--	.80	--	.11	<.020	.010	.018	1.3	1.4	.7	<.1	.7	
MAY 13...	.080	--	.33	.013	.15	.016	.023	.041	.73	.88	1.2	<.1	1.2	
AUG 23...	.031	--	.11	.006	.51	.013	.012	.065	.49	1.0	3.2	<.1	3.2	

01377000 HACKENSACK RIVER AT RIVERVALE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 06...	6.3	2.1	50
FEB 02...	4.7	E1.4	48
MAY 13...	4.5	<1.0	48
AUG 23...	5.0	2.3	51

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
JUL 06...	1043	76	150	200	170
12...	1039	180	120	100	230
19...	1110	61	510	200	230
26...	1109	137	250	100	500
AUG 02...	1111	140	150	300	130

01378475 DOROTOCKEYS RUN AT HARRINGTON PARK, NJ

LOCATION.--Lat 40°59'14", long 73°58'29", Bergen County, Hydrologic Unit 02030103, at bridge on Tappan Road, 0.3 mi east of Harrington Park, 0.4 mi upstream of Oradell Reservoir, and 1.3 mi southwest of Cloister.

DRAINAGE AREA.--4.10 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
DEC 03...	1030	5.0	.101	.075	772	13.1	93	8.0	645	7.0	1.5	250	74.4	
FEB 23...	1030	4.2	.109	.080	765	12.2	91	7.9	646	8.5	3.1	210	65.0	
MAY 11...	1030	20	.331	.257	759	7.5	77	7.6	331	26.0	16.5	110	34.4	
AUG 10...	1030	9.9	.076	.056	752	7.6	82	8.0	675	26.0	18.0	260	77.1	
DEC 03...	14.6	1.94	29.1	190	73.2	<.2	18.5	25.1	360	373	1	.30	.050	
FEB 23...	12.6	1.93	49.2	144	101	<.2	11.8	22.1	357	404	5	.50	.069	
MAY 11...	6.02	2.12	21.1	87	40.1	<.2	8.6	11.5	181	203	20	.70	.187	
AUG 10...	15.3	2.03	36.0	190	87.5	<.2	17.4	25.7	385	409	10	.20	<.010	
DEC 03...	.050	2.10	.014	.06	.029	.023	.065	2.4	2.5	.6	<.1	.5	3.8	
FEB 23...	--	1.60	.010	.05	<.020	.010	.027	2.1	2.1	.5	<.1	.5	3.9	
MAY 11...	--	.99	.044	.25	.054	.045	.046	1.7	1.9	1.9	<.1	1.9	8.0	
AUG 10...	--	2.11	.013	.17	<.010	.005	.076	2.3	2.5	1.2	<.1	1.2	2.5	

01378475 DOROTOCKEYS RUN AT HARRINGTON PARK, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 03...	E1.0	48
FEB 23...	2.7	44
MAY 11...	2.1	40
AUG 10...	E1.7	67

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

WATER-COLUMN AND BED SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)
FEB 23...	1030	--	--	--	--	--	<2	160	<.06	41	<.04	<.8	2.2
AUG 10...	1030	--	--	--	--	--	<2	231	<.06	67	E.02	.9	2.2
10...	1030	7.11	30	4,700	3.6	<.2	--	--	--	--	--	--	--

Date	Time	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 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)
FEB 23...	350	.47	148	<.02	2.81	.4	<.16	3	--	--	--	--	--	--
AUG 10...	410	1.06	102	<.02	2.43	.5	<.16	4	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	<1	.070	8.3	1.8	8	

Date	Time	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover- able, ug/g (01052)	Mangan- ese, bed sedimnt recover- able, ug/g (01053)	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- 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, wsv nat 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)
FEB 23...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	4,900	26	50	3.4	<1	28	E6	E13	E19	77	75	E11	E15	

01378475 DOROTOCKEYS RUN AT HARRINGTON PARK, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2-Ethyl naphthalene bed sed <2 mm wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)	45Methylphenanthrene, bed sed <2 mm, ug/kg (49411)	9H-Flour-ene, 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]-perylene, bed sed <2 mm, ug/kg (49408)	Benzo-[k]-fluor-anthene, bed sed <2 mm, ug/kg (49397)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)
FEB 23...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	E5	58	150	99	120	64	230	1,000	870	860	540	710	1,100

Date	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 field, 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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi-ment, dry svd svs dia percent (80164)	Bed sedi-ment, falldia dst wat percent (80157)
FEB 23...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	150	2,200	590	<50	E15	12	<50	950	E31	1,800	3	1

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atra-zine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd, 0.7u GF ug/L (49310)	Carbo-furan, water, fltrd, 0.7u GF ug/L (49309)
MAY 11...	1030	.100	.57	E.04	<.01	<.008	.026	<.004	<.01	<.03	<.0096	.11	<.006

Date	Clopyr-alid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluo-meturon water, fltrd, 0.7u GF ug/L (38811)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd, 0.7u GF ug/L (38501)	Norflur-azon, water, fltrd, 0.7u GF ug/L (49293)
MAY 11...	<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	.103	<.02	<.02	E.030	<.02

01378475 DOROTOCKEYS RUN AT HARRINGTON PARK, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ory- zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Propi- cona- zole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd, ug/L (04032)	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)
MAY 11...	<.02	<.01	<.02	.24	<.009	<.006	<.010	.45

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 2003 TO SEPTEMBER 2004

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)
JUL				
06...	1053	440	1,000	500
12...	1051	500	400	500
19...	1119	2,400	1,400	1,300
AUG				
02...	1121	520	1,300	5,000

01378560 COLES BROOK AT HACKENSACK, NJ

LOCATION.--Lat 40°54'40", long 74°02'25", Bergen County, Hydrologic Unit 02030103, at bridge on Main Street in Hackensack, 0.8 mi above mouth, and 1.9 mi northwest of Teaneck.

DRAINAGE AREA.--7.0 mi².

PERIOD OF RECORD.--Water years 1962, 1965, 1967, 1998 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	
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 unf 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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 17...	1100	3.1	1.3	.130	.101	766	8.8	72	7.5	703	9.5	7.3	260	
FEB 23...	1140	5.7	4.0	.095	.069	769	15.6	117	7.5	791	8.0	3.8	220	
MAY 12...	1040	4.8	5.0	.193	.147	765	7.0	76	6.8	523	27.0	19.5	150	
AUG 03...	1220	4.4	4.1	.120	.088	759	6.4	76	7.5	690	28.0	23.7	210	
NOV 17...	79.2	16.3	3.35	48.1	166	119	<.2	17.0	25.0	413	413	5	.30	
FEB 23...	68.5	12.9	2.32	72.5	131	144	<.2	10.3	25.3	421	467	5	.40	
MAY 12...	46.9	8.51	2.78	37.4	107	81.0	<.2	9.8	17.4	272	301	9	.60	
AUG 03...	62.1	12.4	2.71	46.5	140	109	<.2	15.2	23.6	363	402	6	.41	
NOV 17...	.050	.040	1.10	.021	.04	.021	.022	.018	1.4	1.4	.3	<.1	.3	
FEB 23...	.044	--	1.60	.018	.07	<.020	--	--	2.0	2.1	.6	<.1	.6	
MAY 12...	.145	--	.96	.057	.12	.020	.022	.025	1.6	1.7	.9	<.1	.9	
AUG 03...	.109	--	1.58	.065	.08	.045	.049	.088	2.0	2.1	.7	<.1	.7	

01378560 COLES BROOK AT HACKENSACK, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 17...	4.3	E1.3	42
FEB 23...	3.4	2.1	32
MAY 12...	5.3	2.1	37
AUG 03...	3.5	<1.0	44

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 2003 TO SEPTEMBER 2004

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)
JUL 06...	1018	2,000	1,700	5,000
12...	1013	610	1,300	2,800
19...	1045	3,500	2,900	2,200
26...	1045	410	1,900	1,300
AUG 02...	1048	2,300	4,000	3,000

01378780 PRIMROSE BROOK AT MORRISTOWN NATIONAL HISTORICAL PARK, NJ

LOCATION.--Lat 40°45'54", long 74°31'47", Morris County, Hydrologic Unit 02030103, at bridge on Camp Trail Road in Morristown National Historical Park, 20 ft downstream of unnamed tributary, 500 ft west of Mount Kemble, and 2.4 mi northeast of Bernardsville.

DRAINAGE AREA.--1.07 mi².

PERIOD OF RECORD.--Water years 1998 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.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, total ammonia + organic nitrogen in bed sediment, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Background, New Jersey Department of Environmental Protection Watershed Management Area 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)	
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 CaCO ₃ (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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, 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)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
DEC 16...	1100	3.6	1.0	.039	.030	751	13.4	104	7.1	95	5.5	4.6	34	
FEB 24...	1020	2.0	1.3	.024	.018	750	12.8	99	6.9	108	1.5	3.8	40	
MAY 25...	1010	1.9	7.7	.056	.044	747	9.6	96	6.3	117	20.5	14.5	44	
AUG 10...	1340	.79	2.4	.046	.036	759	9.2	97	7.5	123	25.5	17.5	46	
DEC 16...	8.43	3.18	.72	4.26	--	4.78	<.2	20.8	13.6	--	81	1	<.20	
FEB 24...	9.92	3.64	.67	5.44	28	5.39	<.2	22.2	14.3	80	85	3	<.20	
MAY 25...	11.3	3.76	.70	6.12	32	5.48	<.2	24.3	13.2	86	88	13	<.20	
AUG 10...	11.9	3.87	.73	5.96	37	5.89	<.2	25.6	14.1	92	102	4	E.07	
DEC 16...	<.020	<.020	.41	<.003	<.02	<.020	.004	.006	.2	<.1	.2	1.3	1.6	
FEB 24...	<.020	--	.44	<.002	<.02	<.020	.007	.007	.2	<.1	.2	1.0	E1.5	
MAY 25...	<.010	--	.36	<.002	.11	.015	.011	.024	2.1	<.1	2.0	1.5	<1.0	
AUG 10...	.010	--	.37	<.002	<.02	.020	.014	.021	.5	<.1	.5	1.5	E1.5	

01378780 PRIMROSE BROOK AT MORRISTOWN NATIONAL HISTORICAL PARK, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2-Ethyl naphthalene bed sed <2 mm wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)	45Methylenephentrene, bed sed <2 mm, ug/kg (49411)	9H-Flour-ene, 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]-perylene, bed sed <2 mm, ug/kg (49408)	Benzo-[k]-fluor-anthene, bed sed <2 mm, ug/kg (49397)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	<50	<50	<50	<50	<50	E16	E11	E21	E25	<50	E26	<50	E11

Date	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 field, 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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi-ment, dry svd percent <.063mm (80164)	Bed sedi-ment, falldia dst wat percent <.004mm (80157)
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	<50	E26	<50	<50	<50	<5	<50	E5	<50	E23	2	<1

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atra-zine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd, 0.7u GF ug/L (49310)	Carbo-furan, water, fltrd, 0.7u GF ug/L (49309)
MAY 25...	1010	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyr-alid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluo-meturon water, fltrd, 0.7u GF ug/L (38811)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd, 0.7u GF ug/L (38501)	Norflur-azon, water, fltrd, 0.7u GF ug/L (49293)
MAY 25...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

01378780 PRIMROSE BROOK AT MORRISTOWN NATIONAL HISTORICAL PARK, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ory-zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Propi- cona- zole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd, ug/L (04032)	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)
MAY 25...	<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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				
05...	1112	30	200	80
12...	1110	10	<100	20
19...	1110	270	<100	170
26...	1055	570	500	500
JUN				
02...	1040	140	<100	80

Remark codes used in this table:

< -- Less than

01379200 DEAD RIVER NEAR MILLINGTON, NJ

LOCATION.--Lat 40°38'56", long 74°31'25", Morris County, Hydrologic Unit 02030103, at bridge on King George Road (Spur County Route 527), 100 ft upstream from mouth, 2.0 mi south of Millington, and 4.2 mi south of Basking Ridge.

DRAINAGE AREA.--20.8 mi².

PERIOD OF RECORD.--Water years 1962, 1963-65, 1967, 1998 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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

COOPERATION.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)
DEC 02...	1240	32	5.5	.139	.107	762	10.2	81	7.2	348	1.5	5.2	99
FEB 18...	1040	26	8.7	.063	.049	758	9.8	71	7.0	706	4.5	1.6	160
MAY 24...	0930	25	48	.174	.135	752	4.6	52	6.8	461	25.0	21.3	120
AUG 30...	1030	12	9.1	.095	.072	756	6.6	78	7.4	608	28.5	23.0	170
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 CaCO ₃ (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 02...	24.3	9.30	2.12	25.5	66	49.7	<.2	17.7	20.4	195	200	4	.20
FEB 18...	40.5	14.7	2.81	67.8	60	142	<.2	16.2	25.5	361	416	7	.30
MAY 24...	30.3	11.1	2.76	37.1	67	79.5	<.2	16.2	19.7	245	277	53	.80
AUG 30...	42.0	14.7	4.42	49.3	91	99.2	<.2	16.8	31.8	328	341	7	.42
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 02...	.030	.020	1.40	.007	.04	E.225	.19	.21	1.6	1.6	.3	<.1	.3
FEB 18...	.034	--	3.10	.006	.07	.277	.26	.30	3.4	3.5	.8	<.1	.8
MAY 24...	.162	--	1.50	.036	.29	.251	.22	.35	2.3	2.6	2.1	<.1	2.1
AUG 30...	.048	--	2.76	.015	.08	.840	.87	.92	3.2	3.3	.6	<.1	.6

01379200 DEAD RIVER NEAR MILLINGTON, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 02...	3.8	E1.3	106
FEB 18...	2.2	E1.1	119
MAY 24...	5.3	3.3	133
AUG 30...	3.3	E1.5	204

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 2003 TO SEPTEMBER 2004

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 05...	0900	210	100	500
12...	0912	100	400	5,000
19...	1121	470	500	800
26...	0854	520	800	800
JUN 02...	0838	10,400	15,000	>16,000

Remark codes used in this table:

- > -- Greater than

01379870 MILL BROOK AT RANDOLPH, NJ

LOCATION.--Lat 40°52'43", long 74°31'31", Morris County, Hydrologic Unit 02030103, at bridge on Palmer Road, 0.1 mi upstream of mouth, 0.4 mi east of Randolph, and 1.9 mi east of Dover.

DRAINAGE AREA.--4.84 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
DEC 08...	1130	1.6	.070	.057	751	13.1	91	7.3	614	3.5	.6	97	22.8
FEB 18...	1030	1.1	.040	.032	754	13.7	98	7.3	446	3.5	1.1	100	24.0
MAY 04...	1000	3.7	.147	.114	748	10.6	95	7.3	346	14.5	9.6	75	18.1
AUG 11...	1015	3.7	.069	.055	746	7.7	86	7.3	413	30.5	19.7	110	25.5
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 (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)
DEC 08...	9.71	1.61	76.4	32	156	<.2	15.3	12.6	318	335	3	<.20	.030
FEB 18...	10.6	1.56	44.3	32	100	<.2	15.2	11.0	235	282	<1	<.20	.027
MAY 04...	7.33	1.42	34.6	31	74.3	<.2	12.9	9.0	177	230	6	<.20	.037
AUG 11...	11.2	1.61	31.8	42	92.0	<.2	16.5	9.6	221	255	<1	.14	.027
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	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)
DEC 08...	.030	.97	.006	<.02	<.020	<.020	<.020	--	.2	<.1	.2	1.6	E1.1
FEB 18...	--	2.10	.003	<.02	<.020	.002	.002	--	.1	<.1	.1	1.3	E1.1
MAY 04...	--	.04	.005	<.02	.012	.008	.010	--	.3	<.1	.3	3.7	<1.0
AUG 11...	--	1.61	.008	<.02	<.010	E.003	.013	1.7	.2	<.1	.2	1.5	<1.0

01379870 MILL BROOK AT RANDOLPH, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Boron, water, fltrd, ug/L (01020)
DEC 08...	13
FEB 18...	12
MAY 04...	14
AUG 11...	13

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 18...	1030	<2	35.7	<.06	12	<.04	<.8	.9	320	.11	73.2	<.02	1.17
AUG 11...	1015	<2	37.4	<.06	14	<.04	<.8	1.1	510	.47	92.7	<.02	1.29

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 18...	E.3	<.16	4
AUG 11...	.4	<.16	4

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 04...	1000	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	.0126	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chloroprop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 04...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 04...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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 05...	1020	10	<100	500
MAY 12...	1005	210	100	800
MAY 19...	1030	210	100	500
MAY 26...	1015	4,100	16,000	>16,000
JUN 02...	1005	250	100	110

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

01380100 BEAVER BROOK AT ROCKAWAY, NJ

LOCATION.--Lat 40°54'08", long 74°30'05", Morris County, Hydrologic Unit 02030103, at bridge on Gill Road in Rockaway, and 0.2 mi above mouth.

DRAINAGE AREA.--22.7 mi².

PERIOD OF RECORD.--Water years 1998 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.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 19...	1120	47	5.7	.133	.102	745	13.0	113	6.8	236	14.5	8.2	64
FEB 09...	1150	68	2.7	.100	.077	758	10.4	71	6.1	200	3.0	.0	36
MAY 13...	1100	56	5.8	.180	.139	751	7.5	81	6.5	144	31.5	18.4	33
SEP 01...	0850	6.2	3.6	.149	.116	754	7.4	84	7.3	221	21.0	21.2	60
NOV 19...	17.1	5.09	1.75	19.0	42	34.1	<.2	7.6	14.0	125	129	4	.30
FEB 09...	8.93	3.43	.78	22.1	17	38.3	<.2	7.9	9.0	102	116	1	<.20
MAY 13...	8.73	2.84	.81	12.7	22	22.6	<.2	7.3	8.4	77	86	8	.30
SEP 01...	15.9	5.03	1.14	16.8	45	33.5	<.2	7.6	7.8	115	127	3	.23
NOV 19...	.030	.030	.16	.003	.13	<.020	.011	.037	.46	.59	1.2	<.1	1.2
FEB 09...	.053	--	.29	.003	.04	<.020	.006	.011	--	--	.4	<.1	.4
MAY 13...	.048	--	.16	.004	.09	.011	.011	.023	.46	.55	.9	<.1	.9
SEP 01...	.020	--	.16	.003	<.02	.019	.011	.036	.39	--	.3	<.1	.3

PASSAIC RIVER BASIN

01380100 BEAVER BROOK AT ROCKAWAY, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 19...	4.7	E1.2	16
FEB 09...	2.8	<1.0	8.6
MAY 13...	4.8	<1.0	11
SEP 01...	3.5	E1.3	17

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 2003 TO SEPTEMBER 2004

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 05...	1000	30	<100	300
12...	0955	490	900	1,300
19...	1020	210	100	170
26...	1000	3,700	1,400	1,300
JUN 02...	0955	270	<100	700

Remark codes used in this table:

< -- Less than

01381498 WHIPPANY RIVER AT RIDGEDALE AVENUE, AT MORRISTOWN, NJ

LOCATION.--Lat 40°48'04", long 74°27'57", Morris County, Hydrologic Unit 02030103, at bridge on Ridgedale Avenue, 0.8 mi northeast of Morristown, 1.3 mi downstream of Lake Pocahontas, and 1.8 mi southeast of Morris Plains.

DRAINAGE AREA.--27.7 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 24...	1030	2.8	.092	.072	756	11.8	103	7.5	358	14.5	8.9	100	25.5	
FEB 05...	1100	5.0	.075	.059	771	14.8	104	7.5	751	4.5	1.3	120	30.4	
MAY 05...	0945	9.4	.095	.074	755	10.3	98	7.6	412	19.5	12.4	110	28.8	
AUG 10...	1015	4.6	.070	.056	756	8.8	97	7.8	549	30.0	20.0	150	38.6	
NOV 24...	8.94	2.30	26.1	52	67.4	<.2	16.8	12.8	198	204	3	.20	.040	
FEB 05...	10.2	2.80	93.3	41	183	<.2	14.7	15.8	382	423	12	.90	.357	
MAY 05...	9.68	2.35	36.6	51	80.6	<.2	15.3	14.1	224	261	17	.30	.049	
AUG 10...	13.5	2.97	44.2	74	112	<.2	15.9	19.7	299	342	4	.23	.012	
NOV 24...	.040	1.40	.004	.04	.051	.048	.069	1.6	1.6	.3	<.1	.3	2.5	
FEB 05...	--	1.50	.037	.14	.082	.084	.068	2.4	2.5	1.3	<.1	1.3	3.2	
MAY 05...	--	1.30	.016	.07	.027	.021	.012	1.6	1.7	.9	<.1	.9	2.5	
AUG 10...	--	1.83	.015	.04	.065	.077	.121	2.1	2.1	.4	<.1	.4	2.3	

01381498 WHIPPANY RIVER AT RIDGEDALE AVENUE, AT MORRISTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 24...	<1.0	39
FEB 05...	3.2	31
MAY 05...	E1.2	36
AUG 10...	<1.0	64

Remark codes used in this table:

< -- Less than
E -- Estimated value

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)	
FEB 05...	1100	--	--	--	--	--	<2	48.5	<.06	33	.04	E.4	3.2	
AUG 10...	1015	--	--	--	--	--	<2	40.9	<.06	65	E.04	<.8	2.5	
10...	1015	7.11	10	7,000	12	1.5	--	--	--	--	--	--	--	
Date	Time	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 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)
FEB 05...	400	.51	120	<.02	1.33	<.4	<.16	9	--	--	--	--	--	--
AUG 10...	450	1.02	63.5	<.02	1.18	E.3	<.16	8	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	<1	.210	16	2.5	24	
Date	Time	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover- able, ug/g (01052)	Mangan- ese, bed sedimnt recover- able, ug/g (01053)	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- 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, wsv nat 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)
FEB 05...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	11,000	64	130	8.8	<1	63	E6	E11	E22	70	65	E13	E15	

01381498 WHIPPANY RIVER AT RIDGEDALE AVENUE, AT MORRISTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2-Ethyl naphthalene bed sed <2 mm wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)	45Methylphenanthrene, bed sed <2 mm, ug/kg (49411)	9H-Flour-ene, 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)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)
FEB 05...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
10...	E5	59	120	62	E40	99	210	660	610	650	380	510	800

Date	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 field, 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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi-ment, dry svd svs dia percent (80164)	Bed sedi-ment, falldia dst wat percent (80157)
FEB 05...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	--	--	--	--	--	--	--	--	--	--	--	--
10...	110	1,400	410	<50	E10	30	<50	740	E21	1,100	2	<1

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atra-zine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd, 0.7u GF ug/L (49310)	Carbo-furan, water, fltrd, 0.7u GF ug/L (49309)
MAY 05...	0945	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	E.0405	<.03	<.006

Date	Time	Clopyr-alid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluo-meturon water, fltrd, 0.7u GF ug/L (38811)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd, 0.7u GF ug/L (38501)	Norflur-azon, water, fltrd, 0.7u GF ug/L (49293)
MAY 05...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

PASSAIC RIVER BASIN

01381498 WHIPPANY RIVER AT RIDGEDALE AVENUE, AT MORRISTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ory- zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Propi- cona- zole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd, ug/L (04032)	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)
MAY 05...	<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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				
05...	1050	530	300	700
12...	1050	730	700	1,300
19...	1050	2,100	700	3,000
26...	1035	5,400	9,000	16,000
JUN				
02...	1025	4,900	1,000	1,100

01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ

LOCATION.--Lat 40°50'42", long 74°20'50", Morris County, Hydrologic Unit 02030103, at site of former bridge on Edwards Road, 200 ft downstream from bridge on Interstate 280, 0.4 mi upstream from Rockaway River, and 1.2 mi southwest of Pine Brook. Water-quality samples collected 450 ft upstream at bridge on Ridgedale Avenue.

DRAINAGE AREA.--68.5 mi².

PERIOD OF RECORD.--Water years 1963 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 06...	1030	E210	5.5	.360	.278	761	5.0	48	7.2	437	15.5	13.5	120	
FEB 18...	1030	E130	13	.092	.069	762	12.0	88	7.6	653	2.0	2.3	160	
MAY 05...	1100	E215	5.8	.281	.213	757	7.6	73	7.5	506	19.5	12.9	130	
AUG 11...	1100	39	6.4	.131	.099	756	6.9	80	7.5	650	28.0	22.4	170	
NOV 06...	30.2	10.1	3.51	35.2	74	73.4	<.2	14.4	17.2	234	268	3	.60	
FEB 18...	41.5	14.0	2.78	67.9	74	140	<.2	13.8	22.7	356	397	15	.60	
MAY 05...	33.0	10.5	2.47	57.0	69	103	<.2	9.4	14.0	276	310	5	.70	
AUG 11...	43.4	14.8	3.63	53.8	90	125	<.2	12.7	26.2	347	385	5	.45	
NOV 06...	.084	.077	1.30	.015	.07	.080	.09	.14	1.9	2.0	.6	<.1	.6	
FEB 18...	.180	--	1.90	.089	.19	.044	.03	.11	2.5	2.7	1.7	<.1	1.6	
MAY 05...	.169	--	1.00	.055	.17	.059	.06	.09	1.7	1.9	.6	<.1	.6	
AUG 11...	.117	--	2.74	.015	.09	.150	.14	.22	3.2	3.3	.8	<.1	.7	

PASSAIC RIVER BASIN

01381800 WHIPPANY RIVER NEAR PINE BROOK, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 06...	8.1	<1.0	53
FEB 18...	3.1	E1.3	50
MAY 05...	6.8	1.6	49
AUG 11...	3.5	<1.0	89

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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 05...	0925	E215	140	300	300
12...	0925	E380	3,800	30,000	>16,000
19...	1000	E190	120	200	210
26...	0940	88	320	200	300
JUN 02...	0935	207	3,000	500	2,400

Remark codes used in this table:

> -- Greater than

E -- Estimated value

01382000 PASSAIC RIVER AT TWO BRIDGES, NJ

LOCATION.--Lat 40°53'50", long 74°16'22", Passaic County, Hydrologic Unit 02030103, at bridge on Two Bridges Road in Two Bridges, and 50 ft upstream from Pompton River.

DRAINAGE AREA.--361 mi².

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1969 to September 1974.

pH: June 1969 to September 1974.

WATER TEMPERATURE: October 1962 to May 1969 (once daily), June 1969 to September 1974.

DISSOLVED OXYGEN: June 1969 to September 1974.

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.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, total ammonia + organic nitrogen in bed sediment, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
Date	Time	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 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)
Date	Time	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 19...	1000	410	5.0	.212	.162	748	9.5	84	7.2	447	14.5	9.3	120	
FEB 02...	1030	283	3.3	.076	.057	769	13.2	90	7.1	702	10.0	.1	160	
MAY 06...	1020	923	12	.221	.168	760	7.9	78	7.0	448	15.5	14.5	100	
AUG 10...	1100	218	13	.283	.214	759	5.8	67	7.2	542	29.5	22.6	140	
NOV 19...	30.2	11.1	3.54	38.8	70	74.9	<.2	15.3	22.0	250	250	4	.60	
FEB 02...	39.3	13.9	4.18	68.9	76	131	<.2	16.5	32.4	370	376	<1	.50	
MAY 06...	26.5	8.31	2.27	43.0	60	83.3	<.2	8.2	17.7	232	261	20	.50	
AUG 10...	35.7	12.1	3.96	50.7	91	93.1	<.2	14.5	26.4	303	322	15	.68	
NOV 19...	.170	.170	2.30	.028	.05	.379	.33	.41	2.9	3.0	.4	<.1	.4	
FEB 02...	.199	--	3.70	.055	.05	.413	.40	.50	4.2	4.2	.3	<.1	.3	
MAY 06...	.114	--	1.30	.031	.16	.193	.183	--	1.8	2.0	1.4	<.1	1.4	
AUG 10...	E.138	--	2.44	.053	.12	.349	.33	.49	3.1	3.2	1.1	<.1	1.1	

01382000 PASSAIC RIVER AT TWO BRIDGES, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 19...	5.6	E1.6	83
FEB 02...	3.2	E1.3	92
MAY 06...	5.4	E2.0	57
AUG 10...	7.0	<1.0	123

Remark codes used in this table:

< -- Less than

E -- Estimated value

BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	pH bed sedimnt std units (70310)	Ammonia + org-N, bed sed total, mg/kg (00626)	Phosphorus, bed sedimnt total, mg/kg (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inorganic carbon, bed sedimnt total, ug/g (00686)	Arsenic bed sedimnt total, ug/g (01003)	Cadmium bed sedimnt recover-able, ug/g (01028)	Chromium, 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 10...	1100	6.60	40	14,000	3.6	<2	1	.160	7.9	4.2	15	11,000	13	
Date	Time	Manganese, bed sedimnt recover-able, ug/g (01053)	Nickel, bed sedimnt recover-able, ug/g (01068)	Selenium, bed sedimnt total, ug/g (01148)	Zinc, bed sedimnt recover-able, ug/g (01093)	1,2-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sed <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sed <2 mm, ug/kg (49410)	1-Methylpyrene, bed sed <2 mm, wsv nat ug/kg (49388)	236Trimethylnaphthalene, bed sed <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49406)	2-Ethyl-naphthalene, bed sed <2 mm, wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, wsv nat ug/kg (49435)
AUG 10...	300	7.4	<1	83	<50	<50	<50	E17	E31	<50	E34	<50	E20	
Date	Time	45Methylenephenthrene, bed sed <2 mm, ug/kg (49411)	9H-Flourene, 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)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)	Dibenzo-[a,h]-anthracene, bed sed <2 mm, wsv nat field, ug/kg (49461)	Fluor-anthene, bed sed <2 mm, wsv nat field, ug/kg (49466)
AUG 10...	E38	E31	E28	E40	76	210	200	180	170	160	250	E43	450	

01382000 PASSAIC RIVER AT TWO BRIDGES, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi- ment, dry svd sve dia percent <.063mm (80164)	Bed sedi- ment, falldia dst wat percent <.004mm (80157)
AUG 10...	160	<50	<50	25	<50	200	<50	350	11	5

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 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	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					
05...	0800	945	200	<100	500
12...	0816	1,055	4,100	4,200	3,000
19...	1038	971	40	<100	40
26...	0800	394	60	100	170
JUN					
02...	0732	507	410	100	800

Remark codes used in this table:

< -- Less than

01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ

LOCATION.--Lat 41°01'05", long 74°24'06", Passaic County, Hydrologic Unit 02030103, at culvert on crossover between northbound and southbound lanes on State Route 23, 1,000 ft downstream from Macopin Intake Dam, 0.6 mi downstream from Macopin River, and 2.8 mi northwest of Butler.

DRAINAGE AREA.--63.7 mi².

PERIOD OF RECORD.--Water years 1924, 1962-69, 1973-79, 1991 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 3.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
DEC 10...	1000	83	1.5	.155	.118	748	13.3	100	7.6	137	4.5	2.8	36
FEB 24...	1000	7.0	1.2	.147	.109	747	13.7	102	7.8	259	6.5	2.2	56
JUN 03...	1000	95	2.7	.133	.100	739	8.1	90	7.5	152	22.0	18.9	34
AUG 19...	1000	6.4	4.2	.217	.162	738	7.1	83	7.5	187	22.0	21.2	44
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 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)
DEC 10...	8.78	3.39	.79	12.2	23	20.6	<.2	6.6	7.5	74	81	<.1	.20
FEB 24...	13.9	5.26	.91	27.2	27	50.7	<.2	7.4	9.8	134	163	2	.60
JUN 03...	8.37	3.30	.55	13.2	24	23.7	<.2	4.2	6.7	75	85	2	.30
AUG 19...	11.4	3.74	.86	16.0	27	31.6	<.2	3.1	9.1	93	112	2	.35
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 10...	<.020	<.020	.16	.005	.06	<.020	.002	<.002	.36	.42	.4	<.1	.4
FEB 24...	<.020	--	.52	.004	.06	<.020	.009	.017	1.1	1.2	.5	<.1	.5
JUN 03...	.022	--	.10	.004	.09	<.010	.008	.018	.40	.49	.7	<.1	.6
AUG 19...	.011	--	.09	.003	.16	.025	.006	.032	.44	.60	1.5	<.1	1.5

01382500 PEQUANNOCK RIVER AT MACOPIN INTAKE DAM, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 10...	4.3	2.0	7.7
FEB 24...	4.1	E1.8	10
JUN 03...	3.6	<1.0	7.4
AUG 19...	5.8	E1.3	12

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
AUG 02...	0950	4.9	90	<100	20
09...	0935	.72	10	<100	40
16...	0950	12	3,400	900	1,300
23...	0948	27	40	<100	110
30...	0949	6.4	100	<100	40

Remark codes used in this table:

- < -- Less than

01382960 GREEN BROOK NEAR WEST MILFORD, NJ

LOCATION.--Lat 41°09'09", long 74°21'33", Passaic County, Hydrologic Unit 02030103, at bridge on Union Valley Road (County Route 513), 847 ft upstream of confluence with Cooley Brook, 1.7 mi northeast of West Milford, and 1.7 mi east of Moe.

DRAINAGE AREA.--2.03 mi².

PERIOD OF RECORD.--Water year 2003 to September 2004.

REMARKS.--For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. Total nitrogen (00600) equals the sum of dissolved ammonia plus organic nitrogen (00623), dissolved nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570). Diversions from Upper Greenwood Lake (Hudson River Basin) included in flow.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 3.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, mg/L (00915)
DEC 10...	1000	.7	.051	.038	750	12.8	98	7.7	77	11.6	3.4	16	3.84
MAR 02...	1000	.9	.099	.075	744	12.6	96	7.9	154	12.0	3.0	27	6.97
JUN 03...	1030	2.5	.157	.119	744	9.3	92	8.1	86	21.3	13.7	18	4.50
SEP 08...	1100	1.2	.167	.124	748	8.7	93	8.2	167	21.6	18.1	37	9.84
Date	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)	Ammonia water, fltrd, mg/L as N (00608)
DEC 10...	1.45	.31	7.93	8	11.2	<.2	4.5	7.8	42	46	<1	<.20	<.020
MAR 02...	2.45	.63	16.8	14	28.1	<.2	3.9	8.4	77	91	2	<.20	<.020
JUN 03...	1.53	.32	9.85	11	15.8	<.2	2.9	5.9	47	61	1	<.20	E.006
SEP 08...	3.09	.56	18.0	29	31.5	<.2	3.8	4.2	89	89	<1	.23	E.006
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
DEC 10...	<.020	.11	<.003	<.02	<.020	.003	<.002	--	--	.2	<.1	.2	1.8
MAR 02...	--	.22	.003	.03	<.020	.004	.010	--	--	.1	<.1	.1	2.9
JUN 03...	--	.07	.003	.16	.010	.007	.012	--	--	1.1	<.1	1.1	4.1
SEP 08...	--	.07	E.002	.04	E.009	.006	.009	.31	.34	.3	<.1	.3	4.6

01382960 GREEN BROOK NEAR WEST MILFORD, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 10...	<1.0	E4.5
MAR 02...	<1.0	E5.7
JUN 03...	2.2	7.5
SEP 08...	<1.0	12

Remark codes used in this table:

< -- Less than
E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Arsenic water, fltrd, ug/L (01000)	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, fltrd, ug/L (01040)	Copper, water, unfltrd recover -able, ug/L (01042)
MAR 02...	1000	Environmental	--	<2	10.2	E.04	9	E.02	<.8	--	.8
SEP 08...	1059	Field Blank	<.2	--	--	--	--	--	--	<.4	--
SEP 08...	1100	Environmental	--	<2	11.7	E.03	12	E.03	<.8	--	1.3

Date	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover -able, ug/L (01051)	Mangan- ese, water, unfltrd recover -able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover -able, ug/L (01092)
MAR 02...	70	--	.23	27.9	--	<.02	--	.82	<.4	<.16	--	4
SEP 08...	--	<.08	--	--	<.02	--	<.06	--	--	--	<.6	--
SEP 08...	100	--	.39	61.5	--	<.02	--	.95	.4	<.16	--	12

Remark codes used in this table:

< -- Less than
E -- Estimated value

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)
JUN 03...	1030	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	<.03	<.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Clopyralid, water, fltrd, 0.7u GF (49305)	Dicamba water, fltrd, 0.7u GF (38442)	Di-chloroprop, water, fltrd, 0.7u GF (49302)	Dinoseb water, fltrd, 0.7u GF (49301)	Diuron, water, fltrd, 0.7u GF (49300)	Fluometuron, water, fltrd, 0.7u GF (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF (38501)	Norflurazon, water, fltrd, 0.7u GF (49293)
JUN 03...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF (49292)	Oxamyl, water, fltrd, 0.7u GF (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF (49235)
JUN 03...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

Date	Time	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth MPN/ 100 mL (31615)
AUG 02...	1023	230	<100	130
09...	0958	80	<100	40
16...	1012	150	100	130
23...	1017	130	<100	20
30...	1010	100	100	20

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

01387500 RAMAPO RIVER NEAR MAHWAH, NJ

LOCATION.--Lat 41°05'53", long 74°09'46", Bergen County, Hydrologic Unit 02030103, 350 ft downstream from bridge on State Highway 17, 0.6 mi downstream from Mahwah River, and 1.0 mi west of Mahwah. Water-quality samples collected at bridge, 350 ft upstream from gage, at high flows.

DRAINAGE AREA.--120 mi².

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

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: February 1964 to June 1965.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Mixed Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 3.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)	
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 fixed end pt, lab, mg/L as CaCO ₃ (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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 09...	1030	237	1.4	.082	.063	760	14.2	102	7.7	401	6.0	1.5	84	
MAR 01...	1030	129	1.2	.059	.045	760	15.0	116	7.8	516	16.0	4.2	120	
MAY 18...	1030	193	4.1	.115	.089	755	7.0	77	7.6	351	21.0	19.1	80	
AUG 04...	1000	52	3.1	.095	.072	742	6.8	83	7.7	470	29.0	24.2	110	
DEC 09...	23.4	6.18	1.11	41.9	53	76.9	<.2	8.2	13.0	206	210	3	.50	
MAR 01...	32.9	8.69	1.74	58.5	67	106	<.2	4.7	15.4	273	290	4	.40	
MAY 18...	22.6	5.60	1.37	35.6	53	65.4	<.2	6.6	10.7	183	201	4	.40	
AUG 04...	31.0	7.79	2.14	46.1	75	87.2	<.2	6.7	14.5	246	258	3	.28	
DEC 09...	.080	.080	.81	.011	<.02	.053	.05	.06	1.3	--	.2	<.1	.2	
MAR 01...	<.020	--	1.20	.014	.11	.052	.05	.08	1.6	1.7	.7	<.1	.6	
MAY 18...	.094	--	.72	.027	.07	.075	.07	.11	1.1	1.2	.5	<.1	.4	
AUG 04...	.021	--	1.12	.011	.09	.120	.12	.15	1.4	1.5	.6	<.1	.6	

PASSAIC RIVER BASIN

01387500 RAMAPO RIVER NEAR MAHWAH, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 09...	2.5	<1.0	22
MAR 01...	2.6	E1.3	29
MAY 18...	3.4	2.2	26
AUG 04...	2.9	<1.0	42

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
JUL 06...	0844	43	460	500	2,200
12...	0849	31	1,110	600	2,200
19...	0926	48	2,600	4,200	2,400
26...	0921	110	360	300	300
AUG 02...	0922	72	190	400	110

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ

LOCATION.--Lat 40°59'31", long 74°16'48", Passaic County, Hydrologic Unit 02030103, in Pompton Lakes, at bridge on Paterson-Hamburg Turnpike, 2.0 mi upstream from mouth, and 450 ft downstream from dam.

DRAINAGE AREA.--160 mi².

PERIOD OF RECORD.--Water years 1923, 1962-67, 1982, 1987 to current year.

NUTRIENT AND INORGANIC CHEMICAL DATA: Water years 1923, 1962-67, 1982, 1987-96.

PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: April 1989 to current year.

DISSOLVED OXYGEN PERCENT SATURATION: October 2001 to current year.

SPECIFIC CONDUCTANCE: April 1989 to current year.

WATER TEMPERATURE: April 1989 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1989, pumping system, data recorded hourly.

REMARKS.--Stage is measured on right end of dam at pumping station, 450 ft upstream from bridge. Nutrient and inorganic chemical data from 1987-96 was collected at the same location (above dam); data from earlier years was probably collected at bridge, 450 ft below dam. Beginning in Aug. 2004, the dam at Pompton Lake underwent construction that may have affected the water quality downstream of dam. A temporary stream-side monitor was installed approximately 50 ft upstream of the gage house from Aug. 18 to Sept. 30 during construction of the new weir, 15 ft downstream of the gage house.

Interruptions in the daily record were due to instrument or pumping system malfunction. The calibration of water-quality sensors is verified by regular inspections. Cleaning or recalibration is needed occasionally as a result of sensor fouling or drift. When a sensor is recalibrated, the continuous-record water-quality data for the period between inspections are adjusted to account for the difference between the sensor's response and a known value. The adjustment may be constant over the period or may be prorated. Continuous-record water-quality data for periods for which the difference between the sensor's response and a known value does not exceed recalibration criteria are considered to be reliable and are not adjusted. Recalibration criteria are listed in "Accuracy of the Records" in the Explanation of Water-Quality Records section of this report. Data from the following periods were adjusted:

DISSOLVED OXYGEN: Oct. 1 to Nov. 18, Feb. 12 to Mar. 3, Mar. 17 to Mar. 30, May 26 to June 10, June 14 to June 30.

SPECIFIC CONDUCTANCE: Nov. 18 to Jan. 20.

EXTREMES FOR PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: Maximum, 15.6 mg/L, Jan. 22, 23, 30, 2003; minimum, 4.5 mg/L, Aug. 4, 1999.

DISSOLVED OXYGEN PERCENT OF SATURATION: Maximum, 126 %, Feb. 24, 25, 2002; minimum, 66 %, Oct. 1, 2001.

SPECIFIC CONDUCTANCE: Maximum, 1100 microsiemens/cm, Feb. 8, 2004; minimum, 88 microsiemens/cm, Sept. 7, 1999.

WATER TEMPERATURE: Maximum, 31.5°C, July 5, 1999; minimum, 0.0°C, on several days during winters.

EXTREMES FOR CURRENT YEAR.--

DISSOLVED OXYGEN: Maximum, 15.3 mg/L, Jan. 10, Feb. 4; minimum, 5.9 mg/L, Sept. 1, 2.

DISSOLVED OXYGEN PERCENT OF SATURATION: Maximum, 110 %, Feb. 28, Mar. 1, June 18, 19, July 20; minimum, 70 %, Sept. 1, 2.

SPECIFIC CONDUCTANCE: Maximum, 1,100 microsiemens/cm, Feb. 8; minimum, 138 microsiemens/cm, Sept. 19.

WATER TEMPERATURE: Maximum, 28.2°C, Aug. 4; minimum, 0.3°C, Dec. 8.

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.9	9.7	9.8	11.1	10.9	11.0	12.9	12.6	12.7	14.3	14.0	14.1
2	9.9	9.7	9.8	10.9	10.7	10.8	13.5	12.9	13.1	14.1	14.0	14.1
3	10.2	9.9	10.1	10.7	10.4	10.6	14.1	13.5	13.9	14.0	13.6	13.8
4	10.2	10.1	10.2	10.6	10.4	10.5	14.3	14.1	14.2	13.6	13.5	13.6
5	10.5	10.2	10.4	10.6	10.5	10.6	14.4	14.3	14.4	13.5	13.4	13.4
6	10.6	10.4	10.5	10.6	10.5	10.6	15.0	14.4	14.7	14.0	13.4	13.7
7	10.8	10.5	10.6	10.8	10.6	10.7	15.1	15.0	15.0	14.6	14.0	14.3
8	10.8	10.5	10.7	11.4	10.8	11.1	15.2	15.1	15.1	14.9	14.6	14.8
9	10.7	10.3	10.5	11.8	11.4	11.6	15.1	14.9	15.0	15.1	14.9	15.0
10	10.5	10.3	10.3	12.0	11.8	11.9	14.9	14.5	14.8	15.3	15.1	15.2
11	10.5	10.1	10.3	12.1	11.9	12.0	14.5	13.5	13.9	15.2	15.0	15.1
12	10.4	10.0	10.1	12.1	11.9	12.0	14.4	13.5	14.0	15.2	15.0	15.1
13	10.3	9.8	10.0	12.1	11.9	11.9	14.7	14.4	14.6	---	---	---
14	10.2	9.7	10	12.5	12.1	12.4	14.8	14.6	14.7	---	---	---
15	10.1	9.7	10	12.6	12.5	12.5	14.8	14.7	14.7	---	---	---
16	10.4	10.0	10.3	12.8	12.6	12.7	14.8	14.5	14.7	---	---	---
17	---	---	---	12.6	12.4	12.5	14.5	14.2	14.3	---	---	---
18	---	---	---	12.5	12.3	12.4	14.5	14.2	14.3	---	---	---
19	---	---	---	12.3	11.7	12.0	14.7	14.5	14.6	---	---	---
20	---	---	---	11.8	11.5	11.6	14.8	14.6	14.6	---	---	---
21	---	---	---	11.8	11.6	11.7	14.9	14.7	14.8	14.9	14.7	14.8
22	10.5	10.3	10.4	11.9	11.8	11.8	14.9	14.6	14.7	14.8	14.7	14.7
23	10.9	10.5	10.7	12.0	11.9	11.9	14.6	14.3	14.5	15.0	14.7	14.8
24	11.3	10.9	11.2	12.0	11.8	11.9	14.3	13.7	14.1	15.0	14.8	14.9
25	11.6	11.3	11.5	12.2	11.9	12.1	14.0	13.6	13.8	15.2	14.9	15.0
26	11.4	11.1	11.3	12.4	12.2	12.4	14.3	14.0	14.2	15.2	15.0	15.1
27	11.1	10.8	11.0	12.6	12.4	12.5	14.4	14.3	14.3	15.1	14.8	14.9
28	10.9	10.7	10.8	12.4	12.0	12.3	14.5	14.3	14.3	14.9	14.7	14.8
29	11.0	10.7	10.8	12.3	12.0	12.2	14.3	14.1	14.2	14.9	14.8	14.8
30	11.3	11.0	11.2	12.6	12.3	12.5	14.1	14.0	14.1	14.9	14.7	14.8
31	11.4	11.1	11.2	---	---	---	14.2	14.0	14.1	15.0	14.7	14.8
MONTH	11.6	9.7	10.5	12.8	10.4	11.8	15.2	12.6	14.3	---	---	---

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	101	95	100	102	101	101	104	103	104	109	107	108
2	100	98	99	102	101	102	105	104	104	108	107	108
3	100	99	100	102	101	101	106	105	106	108	107	107
4	100	98	99	102	100	101	106	106	106	108	107	107
5	100	98	99	102	100	101	106	105	106	108	107	107
6	101	99	100	101	100	101	105	104	105	108	107	108
7	101	99	100	102	100	101	105	104	104	108	106	107
8	102	99	101	103	101	102	106	105	106	107	106	107
9	104	99	101	103	102	102	107	105	106	108	107	107
10	104	101	102	103	102	103	107	105	106	108	107	108
11	103	100	101	102	100	101	107	104	106	108	107	108
12	103	99	100	101	99	100	108	106	107	108	107	108
13	102	98	100	101	99	100	109	108	108	---	---	---
14	102	96	99	101	99	100	109	105	107	---	---	---
15	101	96	99	102	101	101	107	105	106	---	---	---
16	101	98	100	103	101	102	107	106	107	---	---	---
17	---	---	---	102	101	101	107	105	106	---	---	---
18	---	---	---	102	101	102	107	105	106	---	---	---
19	---	---	---	101	99	100	107	106	106	---	---	---
20	---	---	---	102	99	101	108	106	106	---	---	---
21	---	---	---	103	101	102	108	107	107	104	102	103
22	99	97	98	103	102	102	108	106	107	103	102	103
23	98	97	98	103	102	103	108	107	107	105	102	103
24	101	98	99	103	102	102	109	107	107	105	103	104
25	102	100	101	104	102	103	109	108	108	106	104	105
26	101	99	100	104	103	103	109	108	108	106	105	105
27	100	99	100	104	103	103	109	108	108	106	103	104
28	101	100	100	103	101	102	109	108	108	104	102	103
29	102	99	100	104	101	103	108	107	108	104	103	103
30	103	101	102	104	103	103	108	107	107	104	102	103
31	103	101	102	---	---	---	108	107	108	105	102	103
MONTH	104	95	100	104	99	102	109	103	106	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	106	103	105	110	106	108	99	98	99	105	103	104
2	106	104	105	109	107	107	99	98	98	103	101	102
3	104	102	104	---	---	---	99	98	98	103	101	102
4	108	103	105	---	---	---	99	98	98	103	101	102
5	106	105	105	---	---	---	100	98	99	103	101	102
6	105	103	104	---	---	---	101	99	100	104	102	103
7	104	102	103	---	---	---	101	99	100	105	102	104
8	105	103	104	---	---	---	102	99	100	106	103	104
9	105	103	104	---	---	---	102	100	101	105	103	104
10	104	103	103	---	---	---	103	100	102	105	103	104
11	104	103	103	---	---	---	104	101	102	106	103	105
12	106	103	104	---	---	---	104	101	102	105	103	104
13	104	103	104	---	---	---	102	101	102	104	103	104
14	105	103	104	---	---	---	102	100	101	104	103	104
15	106	103	105	---	---	---	103	100	101	104	102	103
16	108	105	106	---	---	---	104	103	103	106	104	105
17	109	106	107	---	---	---	105	102	103	105	104	104
18	108	104	106	---	---	---	105	102	103	104	102	104
19	---	---	---	---	---	---	104	101	103	105	103	104
20	---	---	---	---	---	---	104	101	102	106	104	105
21	107	104	105	---	---	---	104	101	102	106	103	104
22	109	105	107	---	---	---	103	101	102	106	103	104
23	109	106	107	---	---	---	102	101	101	107	103	105
24	109	106	107	---	---	---	103	100	102	108	103	105
25	108	105	107	---	---	---	103	101	102	109	104	106
26	109	105	107	---	---	---	102	100	101	105	103	104
27	109	106	107	---	---	---	102	100	101	107	103	105
28	110	106	107	---	---	---	104	101	103	104	102	103
29	109	106	107	---	---	---	105	103	104	106	103	105
30	---	---	---	---	---	---	105	103	104	105	103	105
31	---	---	---	100	98	99	---	---	---	105	103	104
MONTH	110	102	105	---	---	---	105	98	101	109	101	104

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	228	220	223	202	181	194	203	190	196	320	309	315
2	240	226	232	228	202	214	217	202	210	329	320	324
3	257	240	249	241	224	233	232	217	226	337	329	333
4	272	255	263	257	241	250	252	232	243	343	337	340
5	289	272	281	274	256	266	272	252	263	349	343	346
6	309	289	298	289	273	282	293	270	282	350	335	342
7	327	309	318	296	289	293	308	293	301	337	331	335
8	347	327	336	296	293	295	322	307	313	337	333	335
9	353	341	346	297	294	295	336	322	330	349	335	341
10	372	344	357	305	297	301	357	336	347	364	349	357
11	380	370	373	316	303	311	415	321	374	381	364	371
12	389	380	385	326	316	320	321	200	234	403	381	392
13	401	389	394	336	326	332	228	202	215	---	---	---
14	404	399	401	342	335	338	247	227	235	---	---	---
15	417	400	410	345	340	343	379	247	294	---	---	---
16	412	379	397	349	344	346	454	379	425	---	---	---
17	---	---	---	354	348	351	456	445	450	---	---	---
18	---	---	---	360	353	356	476	393	438	---	---	---
19	---	---	---	366	360	363	395	344	365	---	---	---
20	---	---	---	368	259	333	344	326	334	---	---	---
21	---	---	---	259	196	216	337	326	329	553	530	543
22	360	355	357	206	195	198	338	334	336	568	553	561
23	370	359	364	217	205	209	342	338	340	572	568	570
24	378	370	375	229	217	221	344	314	340	576	572	574
25	381	378	380	243	229	237	314	189	226	580	575	578
26	387	381	383	257	243	251	213	189	201	580	577	579
27	396	386	389	265	256	261	236	213	226	581	579	581
28	396	236	312	276	264	271	260	236	249	580	577	579
29	236	166	198	280	220	260	278	260	269	578	573	575
30	166	150	155	220	186	198	292	278	286	574	571	573
31	182	156	169	---	---	---	309	290	301	578	571	573
MONTH	417	150	321	368	181	278	476	189	296	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	581	578	580	532	527	529	462	455	458	362	356	359
2	580	577	579	528	516	523	456	445	450	365	361	363
3	578	575	576	516	506	510	447	432	439	372	365	368
4	600	577	583	506	483	496	436	431	434	376	372	374
5	677	600	633	483	457	470	431	424	428	375	371	373
6	790	677	727	457	419	441	427	420	423	372	368	370
7	1,090	790	913	419	391	406	425	419	421	371	368	369
8	1,100	985	1,060	394	370	384	424	420	421	370	365	367
9	985	896	935	390	371	381	429	423	425	371	366	368
10	896	824	863	396	389	393	429	428	428	379	370	374
11	824	732	780	414	396	406	432	429	430	379	368	375
12	732	680	708	417	412	414	435	431	433	368	347	361
13	680	642	663	418	411	414	438	432	435	347	331	338
14	642	613	625	411	404	408	435	383	415	333	318	325
15	613	595	602	407	401	404	383	340	356	325	315	319
16	595	584	588	407	402	405	340	322	328	327	319	322
17	585	578	580	415	406	410	326	318	322	346	327	335
18	578	569	574	435	411	422	328	321	324	353	344	349
19	---	---	---	491	435	455	340	325	332	357	349	353
20	---	---	---	555	491	521	344	336	339	370	357	364
21	558	553	556	687	555	622	355	344	350	381	369	375
22	555	549	552	712	687	703	370	355	363	393	380	387
23	550	539	543	699	644	672	377	365	371	402	388	397
24	539	533	535	649	614	640	384	375	379	410	394	402
25	533	527	529	614	564	582	389	383	386	423	402	410
26	527	521	523	564	538	550	389	386	389	432	422	428
27	532	525	528	538	505	519	389	369	382	430	408	422
28	532	525	528	505	488	499	369	351	359	408	378	386
29	533	528	530	490	473	479	353	349	351	381	359	368
30	---	---	---	473	465	468	357	351	354	364	358	360
31	---	---	---	467	461	464	---	---	---	368	363	365
MONTH	1,100	521	644	712	370	484	462	318	391	432	315	369

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.2	16.3	16.7	12.0	11.2	11.6	6.8	6.2	6.5	4.1	3.8	3.9
2	16.3	15.2	15.8	12.9	12.0	12.4	6.2	4.6	5.5	4.2	3.9	4.0
3	15.2	14.1	14.4	14.0	12.9	13.3	4.6	3.3	3.8	5.0	4.2	4.6
4	14.3	13.5	13.9	13.9	13.4	13.6	3.3	2.8	3.1	5.6	5.0	5.4
5	13.5	13.0	13.2	13.4	13.1	13.2	2.8	2.1	2.5	5.7	5.5	5.7
6	13.2	12.6	12.9	13.1	12.8	13.0	2.1	0.5	1.3	5.6	4.3	5.1
7	12.6	12.2	12.4	12.8	12.5	12.6	0.6	0.4	0.5	4.3	2.2	3.1
8	13.2	12.4	12.6	12.5	10.5	11.6	0.9	0.3	0.6	2.2	1.5	1.7
9	14.4	13.2	13.7	10.5	9.2	9.8	1.4	0.9	1.1	1.5	1.3	1.4
10	14.7	14.2	14.5	9.2	8.3	8.8	2.0	1.4	1.6	1.3	1.1	1.2
11	15.3	13.8	14.4	8.3	7.5	7.8	5.3	2.0	3.7	1.7	1.2	1.4
12	15.3	14.4	14.7	7.5	7.4	7.5	5.2	3.2	4.0	1.6	1.3	1.4
13	15.8	14.5	15.1	7.6	7.2	7.5	3.2	2.7	2.9	---	---	---
14	15.4	14.8	15.1	7.2	6.0	6.3	2.7	1.5	2.1	---	---	---
15	15.2	14.6	15.0	6.3	5.9	6.1	1.9	1.5	1.7	---	---	---
16	14.6	13.8	14.0	6.2	5.9	6.0	2.5	1.7	2.1	---	---	---
17	---	---	---	6.5	6.2	6.4	3.0	2.5	2.7	---	---	---
18	---	---	---	6.8	6.5	6.6	3.0	2.4	2.8	---	---	---
19	---	---	---	8.1	6.8	7.3	2.4	2.0	2.1	---	---	---
20	---	---	---	9.9	8.1	9.2	2.3	2.0	2.1	---	---	---
21	---	---	---	9.5	8.8	9.1	2.1	1.8	1.9	0.6	0.5	0.6
22	12.9	12.0	12.5	9.1	8.6	8.9	2.4	1.9	2.1	0.7	0.6	0.6
23	12.0	10.5	11.2	8.9	8.5	8.7	3.2	2.4	2.8	0.6	0.5	0.6
24	10.5	9.7	10	8.8	8.4	8.6	5.3	3.2	4.0	0.7	0.6	0.6
25	9.7	9.3	9.5	8.7	7.9	8.2	5.4	4.4	5.0	0.7	0.6	0.6
26	10.5	9.7	10.1	7.9	7.2	7.5	4.4	3.6	3.9	0.7	0.7	0.7
27	11.5	10.4	10.9	7.2	6.8	7.0	3.8	3.3	3.6	0.7	0.6	0.7
28	12.4	11.4	12.0	7.8	7.1	7.3	3.8	3.3	3.6	0.7	0.6	0.7
29	12.2	11.7	12.0	8.1	7.7	7.9	3.8	3.4	3.6	0.7	0.6	0.7
30	11.7	11.1	11.4	7.7	6.8	7.2	4.0	3.7	3.8	0.7	0.6	0.6
31	11.4	10.7	11.1	---	---	---	4.1	3.7	3.9	0.7	0.6	0.6
MONTH	17.2	9.3	13.0	14.0	5.9	9.0	6.8	0.3	2.9	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.7	0.5	0.6	4.6	4.0	4.3	9.9	9.1	9.4	17.3	15.9	16.3
2	0.8	0.6	0.7	4.9	4.4	4.6	9.1	8.5	8.7	17.7	17.2	17.4
3	0.9	0.6	0.7	5.1	4.6	4.8	8.6	8.2	8.4	17.7	16.6	17.4
4	0.9	0.9	0.9	5.9	4.9	5.3	8.9	8.4	8.7	16.6	15.4	15.8
5	1.1	0.8	0.9	6.3	5.9	6.2	8.4	7.2	7.6	15.7	14.8	15.2
6	1.3	1.0	1.2	6.7	6.3	6.4	7.4	6.4	7.0	15.2	14.5	14.8
7	1.0	0.6	0.7	7.0	6.1	6.5	9.4	7.4	8.1	18.1	15.0	16.2
8	0.8	0.5	0.6	6.9	6.4	6.6	9.2	8.2	8.7	17.3	15.8	16.3
9	0.9	0.7	0.8	6.4	5.9	6.1	9.9	9.2	9.6	16.9	15.9	16.3
10	1.2	0.9	1.0	6.0	5.6	5.8	11.1	9.5	10.1	17.8	16.2	16.6
11	1.7	1.2	1.4	6.2	5.2	5.7	10.8	10.2	10.4	19.8	17.2	18.2
12	2.1	1.7	1.9	6.6	6.1	6.3	10.7	10.0	10.3	19.7	18.8	19.2
13	2.4	2.1	2.2	6.2	5.3	5.7	10.3	9.8	10.0	20.2	19.3	19.6
14	2.7	2.4	2.6	5.6	5.4	5.5	9.8	9.4	9.6	20.3	19.7	20.0
15	3.0	2.6	2.8	6.5	5.5	5.9	10.5	9.2	9.8	21.2	19.7	20.0
16	3.2	2.8	3.0	6.3	5.0	5.9	11.4	10.0	10.6	23.0	21.1	21.9
17	3.2	2.9	3.1	5.0	4.0	4.4	12.5	10.9	11.4	21.9	20.9	21.2
18	3.2	2.8	3.0	4.3	3.9	4.1	14.0	12.4	13.0	21.1	20.5	20.8
19	---	---	---	4.7	4.1	4.4	15.5	13.8	14.3	21.8	20.9	21.3
20	---	---	---	5.3	4.2	4.7	17.0	15.4	16.1	20.9	20.2	20.5
21	3.3	2.9	3.1	6.2	5.3	5.7	16.5	15.9	16.2	21.1	20.1	20.5
22	3.6	3.1	3.4	5.8	4.7	5.2	17.7	15.9	16.4	22.6	20.2	20.8
23	3.9	3.4	3.7	5.5	4.8	5.2	17.7	16.0	16.8	22.9	21.0	21.6
24	4.1	3.8	4.0	6.2	5.3	5.7	16.6	15.7	16.1	23.3	22.2	22.8
25	3.9	3.4	3.7	6.5	6.1	6.3	16.1	14.9	15.5	24.2	21.6	22.9
26	3.6	3.3	3.4	8.1	6.5	7.0	14.9	13.8	14.3	21.7	20.7	21.2
27	3.5	3.2	3.3	9.4	8.1	8.8	14.0	13.0	13.5	20.7	19.5	20.1
28	3.8	3.2	3.5	10.9	9.4	10.1	13.7	12.7	13.2	20.8	19.3	19.8
29	4.3	3.6	3.9	11.3	10.4	10.8	14.9	13.4	14.0	20.2	18.6	19.1
30	---	---	---	11.0	10.5	10.8	16.0	14.7	15.1	19.8	18.3	19.0
31	---	---	---	10.5	9.9	10.2	---	---	---	19.4	18.5	19.0
MONTH	4.3	0.5	2.2	11.3	3.9	6.3	17.7	6.4	11.8	24.2	14.5	19.1

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.5	18.0	18.2	23.3	22.6	22.9	24.5	23.0	23.7	24.9	23.6	24.2
2	18.7	17.0	17.7	26.6	23.0	24.5	26.2	24.5	25.3	24.2	23.2	23.7
3	19.3	17.1	18.1	26.7	24.6	25.7	26.4	25.2	25.6	23.4	22.9	23.1
4	19.2	17.8	18.4	26.0	24.5	25.1	28.2	25.4	26.6	24.8	22.7	23.6
5	18.8	18.2	18.6	25.2	24.4	24.6	27.0	26.1	26.7	24.1	23.0	23.7
6	18.2	17.3	17.7	26.8	25.2	26.0	26.1	24.6	25.2	23.0	22.0	22.5
7	18.8	17.1	17.5	26.2	25.1	25.6	24.6	23.6	24.0	22.6	22.0	22.3
8	19.6	17.8	18.3	26.2	24.7	25.4	23.9	23.0	23.4	22.5	22.1	22.4
9	22.2	19.6	20.7	26.4	25.6	26.0	24.8	22.6	23.6	22.1	20.8	21.1
10	---	---	---	26.7	25.3	26.1	---	---	---	22.0	20.8	21.3
11	---	---	---	27.3	25.6	26.4	---	---	---	21.7	21.0	21.2
12	---	---	---	26.1	24.2	25.1	---	---	---	21.1	20.7	20.8
13	---	---	---	24.2	23.1	23.6	---	---	---	22.2	20.7	21.2
14	---	---	---	23.1	21.9	22.5	---	---	---	21.4	20.7	21.1
15	22.2	20.6	21.2	21.9	21.5	21.7	---	---	---	20.9	20.4	20.7
16	25.3	22.2	23.6	22.2	21.7	21.9	---	---	---	20.6	20.1	20.4
17	25.1	23.1	24.1	23.5	22.1	22.7	---	---	---	20.4	20.2	20.3
18	24.7	22.8	23.8	24.2	23.3	23.9	---	---	---	20.8	17.9	19.7
19	26.0	23.9	24.9	23.7	22.6	23.2	22.1	21.6	21.7	17.9	17.0	17.3
20	25.1	23.3	24.0	26.5	22.5	24.1	23.3	22.1	22.4	17.1	16.2	16.7
21	23.7	22.4	22.8	26.7	23.8	25.3	23.9	22.8	23.3	17.4	16.3	16.8
22	22.7	22.4	22.5	26.0	24.3	25.0	22.8	21.0	21.5	18.3	16.8	17.4
23	24.7	22.4	23.3	25.1	22.6	24.3	21.6	20.3	20.9	19.0	17.5	18.1
24	23.6	22.8	23.1	24.2	23.0	23.4	21.7	20.9	21.3	18.7	18.4	18.5
25	24.5	23.0	23.6	23.1	22.6	22.9	21.4	21.3	21.3	18.9	18.5	18.6
26	25.2	23.0	23.9	23.5	22.6	22.9	21.4	21.1	21.3	20.2	18.8	19.4
27	23.5	22.4	22.9	22.9	22.6	22.8	21.4	21.1	21.2	19.5	19.0	19.3
28	24.2	22.7	23.3	22.9	21.8	22.4	22.2	21.3	21.7	19.6	19.0	19.3
29	24.6	22.4	23.4	22.5	21.7	22.1	23.2	21.9	22.2	19.0	17.5	18.0
30	23.4	22.2	22.7	22.4	22.0	22.2	24.1	23.2	23.6	17.5	16.9	17.2
31	---	---	---	23.7	22.1	22.5	25.7	24.1	24.7	---	---	---
MONTH	26.0	17.0	21.5	27.3	21.5	24.0	---	---	---	24.9	16.2	20.3
YEAR	28.2	0.3	12.9									

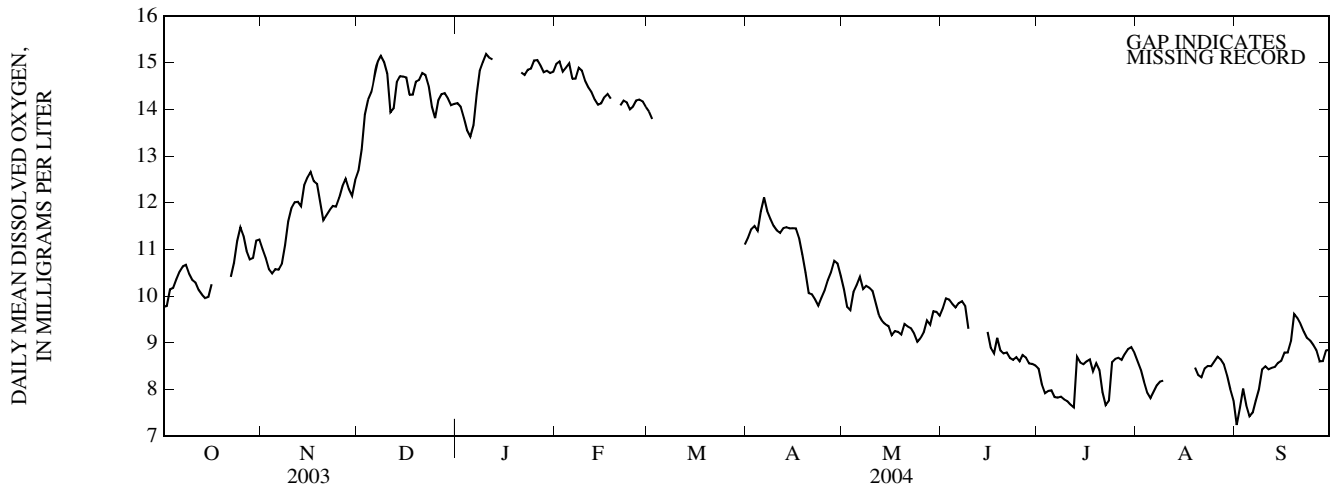


Figure 30. Daily mean water-quality-monitor values recorded at 01388000, Ramapo River at Pompton Lakes, water year 2004.

01388000 RAMAPO RIVER AT POMPTON LAKES, NJ—Continued

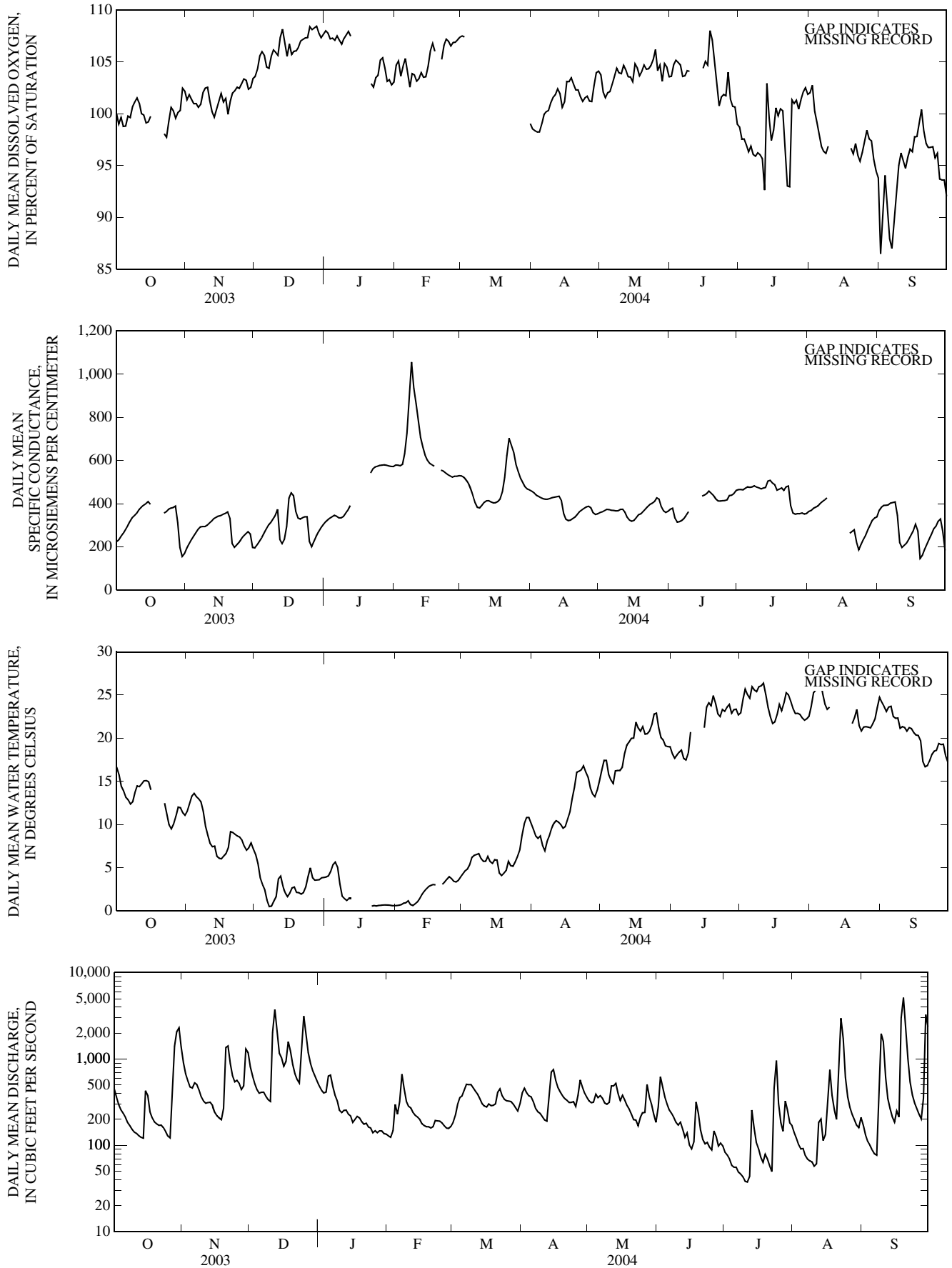


Figure 30. Daily mean water-quality-monitor values recorded at 01388000, Ramapo River at Pompton Lakes, water year 2004--continued.

01388500 POMPTON RIVER AT POMPTON PLAINS, NJ

LOCATION.--Lat 40°58'09", long 74°16'55", Passaic County, Hydrologic Unit 02030103, at Passaic Valley Water Commission pumping station, 100 ft upstream from bridge on Jackson Avenue (Pompton Plains Cross Road), 800 ft below confluence of Pequannock and Ramapo Rivers, and 0.7 mi east of Pompton Plains.

DRAINAGE AREA.--355 mi².

PERIOD OF RECORD.--Water years 1962-69, 1971-75, 1979-80, 1992, 1994, 1998 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 3.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
NOV 25...	0930	1,210	2.9	.122	.093	758	11.5	98	7.5	215	7.5	8.2	50
FEB 17...	1000	248	1.7	.061	.046	772	13.4	96	8.0	510	5.0	2.1	110
MAY 27...	1000	1,230	9.9	.098	.075	746	8.7	96	7.7	382	22.0	19.0	91
AUG 25...	1000	648	4.4	.150	.114	756	7.8	88	7.4	233	23.0	21.1	54
NOV 25...	13.4	4.04	1.02	17.9	35	33.6	<.2	7.1	9.3	109	124	2	.40
FEB 17...	30.2	7.64	2.18	59.9	53	107	<.2	7.1	16.2	268	268	4	1.1
MAY 27...	25.7	6.63	1.63	36.9	54	71.1	<.2	5.2	13.3	197	226	7	1.0
AUG 25...	15.5	3.76	1.18	20.7	36	37.1	<.2	6.7	10.1	119	127	2	.52
NOV 25...	.030	.030	.46	.004	.08	<.020	.020	.030	.86	.94	.7	<.1	.7
FEB 17...	.098	--	1.10	.013	.06	<.020	.015	.014	2.2	2.3	.6	<.1	.6
MAY 27...	.075	--	.88	.029	.22	.026	.032	.019	1.9	2.1	1.4	<.1	1.4
AUG 25...	.044	--	.45	.010	.10	.035	.036	.062	.97	1.1	.7	<.1	.6

01388500 POMPTON RIVER AT POMPTON PLAINS, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 25...	3.5	E2.0	17
FEB 17...	2.2	<1.0	32
MAY 27...	3.3	E1.7	38
AUG 25...	4.1	E1.4	22

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
AUG 02...	0931	202	130	500	220
09...	0918	104	70	100	230
16...	0930	355	190	200	800
23...	0935	1,810	450	200	1,100
30...	0935	218	100	200	1,700

01388720 BEAVER DAM BROOK AT RYERSON ROAD, AT LINCOLN PARK, NJ

LOCATION.--Lat 40°55'35", long 74°17'34", Morris County, Hydrologic Unit 02030103, at bridge on Ryerson Road in Lincoln Park, 700 ft north of intersection of Ryerson Road and Park Avenue, and 0.3 mi upstream of mouth.

DRAINAGE AREA.-- 13.1 mi².

PERIOD OF RECORD.--Water year 2001 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 3.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	
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 unf 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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 19...	1210	19	22	.238	.181	748	8.5	79	7.1	341	17.0	11.1	120	
FEB 02...	1300	7.3	6.0	.152	.117	768	12.9	89	7.0	445	3.5	.6	130	
MAY 06...	1200	19	5.0	.247	.188	760	10.1	94	7.0	391	18.5	12.2	110	
AUG 25...	1200	9.5	8.8	.313	.239	765	7.5	80	7.1	414	25.5	18.5	120	
NOV 19...	32.4	8.34	1.89	23.9	71	45.8	<.2	13.3	24.5	195	200	25	.50	
FEB 02...	36.6	9.72	1.49	32.2	79	65.1	<.2	13.8	26.6	236	247	1	.30	
MAY 06...	31.4	7.53	1.52	29.4	68	61.4	<.2	11.3	21.1	206	231	3	.40	
AUG 25...	35.0	8.06	1.89	28.7	83	58.1	<.2	14.0	23.2	221	241	1	.49	
NOV 19...	.100	.170	.45	.012	.20	<.020	.005	.080	.95	1.1	2.8	<.1	2.8	
FEB 02...	.148	--	.70	.005	.03	<.020	<.002	<.002	1.0	1.0	.2	<.1	.2	
MAY 06...	.079	--	.47	.014	<.02	.034	<.020	.020	.87	--	.3	<.1	.3	
AUG 25...	.076	--	.52	.022	.04	.019	.017	.045	1.0	1.1	.6	<.1	.6	

01388720 BEAVER DAM BROOK AT RYERSON ROAD, AT LINCOLN PARK, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 19...	6.0	<1.0	46
FEB 02...	3.5	<1.0	42
MAY 06...	5.1	E1.6	43
AUG 25...	6.5	2.0	58

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 2003 TO SEPTEMBER 2004

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				
05...	0900	250	500	300
12...	0900	2,000	600	700
19...	0930	310	600	1,100
26...	0900	660	400	1,100
JUN				
02...	0910	2,000	400	800

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ

LOCATION.--Lat 40°53'47", long 74°16'09", Passaic County, Hydrologic Unit 02030103, 400 ft downstream from the Pompton River in Two Bridges, and 1.4 mi northwest of Little Falls.

DRAINAGE AREA.--734 mi².

PERIOD OF RECORD.--Water years 1987 to current year.
NUTRIENT AND INORGANIC CHEMICAL DATA: Water years 1987-96.

PERIOD OF DAILY RECORD.--
DISSOLVED OXYGEN: August 1989 to current year. Unpublished fragmentary water-quality records for the period March to July 1989 are available at the U.S. Geological Survey office in West Trenton, N.J.
DISSOLVED OXYGEN PERCENT SATURATION: October 2001 to current year.
SPECIFIC CONDUCTANCE: August 1989 to current year.
WATER TEMPERATURE: August 1989 to current year.

INSTRUMENTATION.--Water-quality monitor(s) since March 1989, pumping system, data recorded hourly. Multiple-point monitoring is necessary at this site because of poor mixing below the confluence with the Pompton River. Three intakes, left, middle, and right, are positioned at 70, 160, and 220 ft, respectively, from the edge of the monitor house on the left bank (looking downstream). Three monitors, water pumped continuously: water years 1989-99. One monitor, water pumped sequentially: water years 2000 to current year.

REMARKS.--The station is 400 ft downstream from the confluence of the Pompton River with the left bank of the Passaic River. One water-quality sensor (monitor) measures the characteristics of water pumped sequentially from three separate intakes. The station may be impacted by occasional diversion of water from the Pompton River 750 ft upstream from its junction with the left bank of the Passaic River, which is 400 ft upstream from the station. There was no diversion during the 2004 water year. Interruptions in the daily record were due to instrument or pumping-system malfunction. The calibration of water-quality sensors is verified by regular inspections. Cleaning or recalibration is needed occasionally as a result of sensor fouling or drift. When a sensor is recalibrated, the continuous-record water-quality data for the period between inspections are adjusted to account for the difference between the sensor's response and a known value. The adjustment may be constant over the period or may be prorated. Continuous-record water-quality data for periods for which the difference between the sensor's response and a known value does not exceed recalibration criteria are considered to be reliable and are not adjusted. Recalibration criteria are listed in "Accuracy of the Records" in the Explanation of Water-Quality Records section of this report. Data from the following periods were adjusted:
DISSOLVED OXYGEN: Nov. 18 to Dec. 22, Jan. 12 to Jan. 20, Mar. 3 to Mar. 17, June 10 to July 15, Aug. 3 to Aug. 16, Aug. 25 to Sept. 30.
SPECIFIC CONDUCTANCE: Feb. 17 to Mar. 3, Aug. 16 to Aug. 25.

EXTREMES FOR PERIOD OF DAILY RECORD.--
DISSOLVED OXYGEN: Maximum, 20.0 mg/L (measuring limit of instrument) from left and right intakes, on many days during July- September, 1999, from right and middle intakes, July 25, 2001; minimum, 1.1 mg/L from left and middle intakes, Apr. 20, 2002.
DISSOLVED OXYGEN PERCENT OF SATURATION: Maximum, 253% from right intake, Aug. 19, 2002; minimum, 12% from left and middle intakes, Apr. 20, 2002.
SPECIFIC CONDUCTANCE: Maximum, 2,910 microsiemens/cm from middle intake, Jan. 16, 1999; minimum, 101 microsiemens/cm from right intake, Sept. 19, 20, 1999.
WATER TEMPERATURE: Maximum, 31.5°C from left intake, July 7, 1999; minimum, 0.0°C from all intakes, on many days during winters.

EXTREMES FOR CURRENT YEAR.--
DISSOLVED OXYGEN: Maximum, 17.4 mg/L from left intake, Feb. 29, Mar. 1; minimum 3.7 mg/L from middle and right intakes, Nov. 4, 5.
DISSOLVED OXYGEN PERCENT OF SATURATION: Maximum, 149% from right intake, July 8; minimum, 36% from middle and right intakes, Nov. 4, 5.
SPECIFIC CONDUCTANCE: Maximum, 1460 microsiemens/cm from right intake, Mar. 20; minimum, 152 microsiemens/cm from left and middle intakes, Sept. 19.
WATER TEMPERATURE: Maximum, 27.3°C from right intake, July 8; minimum, 0.3°C, from all intakes, on many days during Jan. and Feb.

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, FROM LEFT INTAKE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.4	9.0	9.2	10.5	10.1	10.3	12.0	11.8	11.9	13.4	13.1	13.2
2	9.5	9.0	9.3	10.3	10.0	10.1	12.5	11.9	12.2	13.3	13.0	13.2
3	9.8	9.3	9.6	10.1	9.8	9.9	12.9	12.5	12.7	13.0	12.6	12.8
4	9.8	9.5	9.6	9.8	9.5	9.6	13.1	12.7	12.9	12.6	12.2	12.3
5	10.0	9.5	9.8	9.9	9.5	9.7	13.0	12.8	12.9	12.4	12.2	12.3
6	10.3	9.7	10.0	10.0	9.8	9.9	13.8	13.0	13.4	12.7	12.3	12.5
7	10.6	9.9	10.2	10.3	9.9	10.1	13.9	13.6	13.7	---	---	---
8	10.7	9.9	10.3	10.7	10.1	10.4	14.1	13.8	14.0	---	---	---
9	10.5	9.8	10.2	11.4	10.7	11.1	14.1	13.9	14.0	---	---	---
10	10.2	9.6	9.9	11.7	11.3	11.5	13.9	13.4	13.7	---	---	---
11	11.4	9.4	10.2	11.7	11.5	11.6	13.4	12.4	12.7	---	---	---
12	11.4	9.8	10.5	11.6	11.3	11.5	13.1	12.4	12.8	---	---	---
13	11.2	9.6	10.2	11.3	11.1	11.2	13.5	13.1	13.3	13.7	13.5	13.6
14	11.0	9.6	10.3	12.1	11.2	11.7	13.6	13.2	13.4	14.0	13.5	13.8
15	10.2	8.6	9.4	12.2	12.1	12.2	13.7	13.4	13.5	14.0	13.8	13.9
16	10.7	9.3	10	12.2	12.0	12.1	13.8	13.5	13.7	13.9	13.7	13.8
17	10.1	9.5	9.8	12.2	11.8	11.9	13.6	13.4	13.5	13.9	13.6	13.7
18	9.9	9.4	9.7	11.8	11.5	11.6	13.9	13.5	13.7	13.6	13.3	13.5
19	9.9	9.4	9.6	11.6	10.7	11.3	14.1	13.8	14.0	13.4	13.3	13.3
20	10.3	9.5	9.9	11.5	10.4	11.0	14.1	13.8	13.9	---	---	---
21	10.2	9.7	9.9	11.9	11.5	11.7	14.3	14.0	14.2	---	---	---
22	9.8	9.2	9.4	11.6	11.4	11.6	14.3	14.0	14.2	---	---	---
23	10.1	9.4	9.8	11.7	11.4	11.5	14.0	13.8	14.0	---	---	---
24	11.1	10.0	10.5	11.6	11.4	11.5	13.8	13.2	13.5	---	---	---
25	11.5	10.6	11.0	11.8	11.2	11.5	13.5	13.3	13.3	---	---	---
26	11.3	10.2	10.7	12.1	11.7	11.9	13.8	13.5	13.6	---	---	---
27	10.3	9.1	9.6	12.0	11.7	11.9	13.7	13.5	13.6	---	---	---
28	10.5	9.4	10.2	11.8	11.1	11.4	13.7	13.4	13.6	---	---	---
29	10.4	10.3	10.3	11.8	10.9	11.3	13.5	13.2	13.4	---	---	---
30	10.9	10.4	10.7	12.0	11.7	11.9	13.2	13.1	13.2	---	---	---
31	10.7	10.3	10.6	---	---	---	13.4	13.1	13.2	---	---	---
MONTH	11.5	8.6	10.0	12.2	9.5	11.2	14.3	11.8	13.4	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	17.4	13.9	15.7	11.5	10.1	10.8	11.9	9.0	10.5
2	---	---	---	17.1	13.1	15.1	12.5	10.6	11.5	10.7	8.3	9.2
3	---	---	---	17.0	12.5	15.0	13.5	11.0	12.1	9.4	8.0	8.6
4	---	---	---	15.6	12.3	13.6	13.7	10.8	12.2	10.8	8.6	9.7
5	---	---	---	13.7	12.4	13.0	15.1	10.9	12.9	10.5	9.2	9.9
6	---	---	---	13.1	12.0	12.5	15.6	11.6	13.6	10.8	9.3	10.0
7	---	---	---	14.7	11.9	13.2	15.2	11.4	13.5	10.3	9.1	9.7
8	---	---	---	13.5	11.8	12.6	14.7	11.0	13.1	10.3	8.4	9.4
9	---	---	---	14.3	12.1	13.1	15.1	10.5	12.9	10.3	9.1	9.7
10	---	---	---	14.6	12.2	13.3	15.2	10.8	13.3	10.3	8.8	9.5
11	---	---	---	14.7	12.2	13.4	14.8	10.6	12.5	9.5	8.0	8.6
12	---	---	---	14.3	11.7	13.0	14.3	11.0	12.9	9.0	8.1	8.6
13	---	---	---	14.9	11.8	13.3	14.3	10.4	11.4	8.9	8.0	8.5
14	---	---	---	15.4	12.1	13.8	11.4	10.5	10.9	8.9	8.2	8.5
15	---	---	---	15.1	12.1	13.7	12.2	10.9	11.4	8.7	8.2	8.5
16	---	---	---	14.0	11.3	12.4	13.0	10.9	11.8	8.5	7.7	8.1
17	---	---	---	14.9	11.7	13.3	13.2	10.7	11.8	8.4	7.6	8.0
18	14.9	13.5	14.1	15.7	12.4	14.0	13.3	10.1	11.6	8.3	7.8	8.1
19	14.7	13.1	13.9	15.2	12.3	13.8	13.2	9.8	11.4	8.2	7.6	7.9
20	15.3	13.4	14.3	15.7	12.3	14.0	13.0	9.1	11.1	8.5	7.9	8.2
21	15.4	13.3	14.2	14.6	11.5	13.1	12.5	8.6	10.7	8.4	7.6	7.9
22	15.4	12.7	14.1	15.3	11.7	13.4	12.4	8.8	10.7	8.1	7.3	7.7
23	16.1	13.1	14.6	15.6	12.2	13.9	11.2	8.3	8.9	8.2	7.0	7.6
24	16.1	13.2	14.4	15.6	12.2	13.9	11.7	8.6	10.1	8.3	6.8	7.6
25	16.5	13.2	14.8	14.2	11.5	12.7	11.0	8.7	9.9	9.0	6.6	7.8
26	17.0	13.9	15.4	15.1	11.4	13.3	10.2	9.2	9.6	8.2	6.5	7.3
27	17.0	14.4	15.7	13.8	10.7	12.3	11.3	9.6	10.3	8.9	7.1	8.0
28	17.0	14.3	15.7	14.6	10.2	12.4	12.0	9.6	10.7	8.4	8.0	8.1
29	17.4	14.2	15.8	14.5	10.1	12.4	12.3	9.9	11.0	8.8	7.9	8.4
30	---	---	---	13.7	10.1	12.0	12.0	9.3	10.7	8.8	8.2	8.5
31	---	---	---	13.3	10.3	11.6	---	---	---	8.5	7.8	8.0
MONTH	---	---	---	17.4	10.1	13.3	15.6	8.3	11.5	11.9	6.5	8.6

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, FROM MIDDLE INTAKE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.7	6.9	7.2	7.6	5.7	6.5	11.6	11.1	11.4	12.7	12.1	12.3
2	7.1	6.9	7.0	6.0	5.0	5.3	11.4	10.8	11.1	12.5	12.1	12.3
3	7.5	7.0	7.3	5.1	4.3	4.7	11.5	11.2	11.4	12.4	11.9	12.1
4	8.3	7.5	7.9	4.3	3.7	3.9	11.7	11.4	11.5	12.1	11.5	11.7
5	9.3	8.3	8.9	4.4	3.7	3.9	11.9	11.6	11.7	12.3	11.7	12.1
6	9.8	9.2	9.5	5.5	4.3	4.9	13.4	11.9	12.6	12.6	12.2	12.4
7	10.1	9.5	9.9	6.3	5.4	5.9	13.4	13.1	13.3	---	---	---
8	10.4	9.7	10.0	6.7	6.0	6.3	13.4	13.1	13.3	---	---	---
9	10.2	9.6	9.9	7.3	6.6	6.9	13.2	12.9	13.0	---	---	---
10	9.9	9.4	9.6	8.1	7.2	7.6	13.2	12.9	13.0	---	---	---
11	10.8	9.2	9.9	8.9	8.1	8.5	12.9	12.4	12.6	---	---	---
12	10.7	9.4	10.0	9.9	8.8	9.4	13.2	12.4	12.9	---	---	---
13	10.5	9.3	9.8	10.7	9.6	10.1	13.3	12.7	13.0	13.6	13.2	13.3
14	10.5	9.3	9.9	11.2	10.2	10.7	12.8	12.4	12.7	13.5	13.1	13.3
15	10.3	8.6	9.4	11.3	10.9	11.1	12.8	12.5	12.7	13.6	13.4	13.5
16	10.0	8.9	9.5	11.1	10.9	11.0	12.8	12.4	12.6	13.6	13.2	13.3
17	8.9	7.7	8.1	11.1	10.8	10.9	12.8	12.3	12.5	13.3	13.1	13.2
18	8.0	7.4	7.7	10.9	10.6	10.8	13.7	12.8	13.4	13.2	12.7	12.9
19	8.5	7.6	8.0	11.1	10.7	10.9	13.7	13.3	13.5	12.9	12.5	12.6
20	9.4	8.5	9.0	11.4	10.4	11.0	13.3	13.2	13.2	---	---	---
21	9.7	9.1	9.3	11.8	11.4	11.6	13.5	13.2	13.3	---	---	---
22	9.3	8.7	9.0	11.5	9.6	10.9	13.5	13.3	13.4	---	---	---
23	9.7	9.0	9.4	9.6	7.7	8.5	13.3	12.8	13.1	---	---	---
24	10.6	9.7	10.2	7.8	7.4	7.6	13.3	12.6	13.0	---	---	---
25	11.0	10.4	10.7	8.3	7.4	7.8	13.4	13.2	13.3	---	---	---
26	10.8	10.0	10.4	8.9	8.2	8.6	13.6	13.0	13.4	---	---	---
27	10.1	9.0	9.5	8.9	8.7	8.8	13.2	12.5	12.9	---	---	---
28	10.4	9.4	10.1	10.6	8.7	9.1	12.6	12.3	12.4	---	---	---
29	10.4	10.2	10.3	11.7	10.6	11.2	12.4	12.1	12.3	---	---	---
30	10.7	10.1	10.5	11.9	11.5	11.7	12.3	11.9	12.1	---	---	---
31	10.4	7.4	9.2	---	---	---	12.5	11.9	12.2	---	---	---
MONTH	11.0	6.9	9.3	11.9	3.7	8.5	13.7	10.8	12.7	---	---	---
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	15.8	14.0	15.1	11.1	9.9	10.6	9.3	8.5	8.9
2	---	---	---	15.6	13.6	14.8	11.8	10.3	11.0	8.8	7.3	8.2
3	---	---	---	16.1	12.9	14.6	11.7	10.5	11.1	7.3	6.8	7.0
4	---	---	---	15.1	12.5	13.7	11.9	10.4	11.1	8.8	6.8	7.9
5	---	---	---	13.6	12.3	12.8	13.1	10.5	11.7	8.6	7.8	8.2
6	---	---	---	12.9	11.8	12.3	13.4	11.5	12.5	8.8	7.7	8.3
7	---	---	---	14.3	11.8	13.0	13.4	11.8	12.7	8.8	7.8	8.3
8	---	---	---	13.3	11.7	12.5	13.0	11.3	12.3	8.2	7.5	7.9
9	---	---	---	13.5	12.0	12.7	12.8	10.3	11.8	8.5	7.3	7.9
10	---	---	---	13.1	11.8	12.4	13.0	10.1	11.9	8.8	7.6	8.2
11	---	---	---	13.1	11.8	12.4	12.7	10.1	11.5	9.3	7.9	8.5
12	---	---	---	12.7	11.7	12.2	12.9	10.1	11.5	8.7	7.8	8.2
13	---	---	---	13.1	11.7	12.4	12.9	10.3	11.2	8.0	6.9	7.7
14	---	---	---	13.8	12.3	13.0	11.2	10.5	10.8	6.9	5.5	6.0
15	---	---	---	14.2	12.5	13.3	11.8	10.7	11.1	5.5	5.0	5.3
16	---	---	---	13.2	12.1	12.7	10.8	9.0	9.9	6.7	5.4	6.1
17	---	---	---	13.6	11.4	12.6	9.0	8.0	8.5	6.2	5.3	5.8
18	13.2	12.6	12.9	14.3	12.0	13.2	9.1	7.3	8.1	5.3	5.0	5.2
19	13.3	12.6	13.0	14.5	12.3	13.4	9.9	7.2	8.4	5.5	4.9	5.2
20	13.3	12.5	13.0	14.5	12.2	13.4	10.4	7.4	8.8	5.9	5.2	5.5
21	13.3	12.4	13.0	13.7	12.1	12.9	10.2	8.1	9.1	5.5	5.0	5.3
22	13.3	12.2	12.9	13.7	11.6	12.6	9.8	8.6	9.2	5.8	5.1	5.4
23	13.7	12.4	13.2	13.9	12.3	13.1	9.3	7.6	8.6	6.1	5.1	5.6
24	13.8	12.8	13.4	14.0	12.6	13.3	9.0	7.3	8.1	7.2	5.1	6.2
25	14.2	12.8	13.6	13.3	12.0	12.8	9.5	8.0	8.8	7.6	5.8	6.7
26	14.8	13.4	14.2	13.1	11.6	12.3	9.7	8.2	9.0	7.2	6.0	6.6
27	15.3	13.8	14.6	12.4	11.3	11.8	10.9	9.4	10.0	8.9	6.7	8.0
28	15.5	14.0	14.9	12.2	10.3	11.3	9.9	9.0	9.4	8.3	8.0	8.1
29	15.5	14.1	14.9	12.0	10.0	11.1	9.0	8.8	8.9	8.3	7.6	8.0
30	---	---	---	11.5	9.9	10.8	9.0	8.6	8.7	7.9	7.3	7.6
31	---	---	---	11.7	9.9	10.8	---	---	---	7.4	6.8	7.2
MONTH	---	---	---	16.1	9.9	12.8	13.4	7.2	10.2	9.3	4.9	7.1

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER, FROM RIGHT INTAKE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.6	6.4	6.5	5.7	5.5	5.6	9.1	8.8	8.9	12.7	12.0	12.3
2	6.9	6.6	6.7	5.5	4.9	5.2	10.0	9.0	9.4	12.6	12.1	12.4
3	7.2	6.8	7.0	4.9	4.3	4.7	10.8	10.0	10.4	12.5	11.9	12.1
4	7.6	7.2	7.4	4.3	3.7	3.9	11.4	10.8	11.1	12.1	11.2	11.6
5	8.1	7.6	7.9	4.1	3.7	3.8	11.4	11.3	11.4	11.2	11.0	11.1
6	8.5	8.1	8.3	4.5	4.1	4.2	11.9	11.4	11.6	11.7	11.0	11.2
7	---	---	---	5.2	4.5	4.8	11.8	11.6	11.8	---	---	---
8	---	---	---	6.0	5.2	5.5	11.7	11.5	11.6	---	---	---
9	---	---	---	6.9	6.0	6.5	11.9	11.5	11.7	---	---	---
10	8.3	7.8	8.0	7.7	6.9	7.3	12.1	11.8	11.9	---	---	---
11	8.0	7.6	7.8	8.2	7.7	8.0	12.4	11.8	12.2	---	---	---
12	8.0	7.6	7.7	8.5	8.2	8.4	13.2	12.4	12.9	---	---	---
13	8.0	7.4	7.7	9.0	8.4	8.7	13.2	10.4	11.6	13.6	13.0	13.2
14	7.9	7.3	7.5	9.8	8.9	9.4	12.0	10.9	11.6	13.3	12.9	13.1
15	9.4	6.9	7.6	10.2	9.8	10.0	12.2	12.0	12.1	13.5	13.2	13.3
16	7.2	6.0	6.6	10.3	10.2	10.3	12.4	12.2	12.3	14.6	13.2	13.4
17	7.3	7.0	7.1	10.3	10.1	10.2	12.4	12.2	12.3	14.2	13.0	13.2
18	7.1	6.8	6.9	10.1	9.7	9.9	12.4	12.1	12.2	13.1	12.4	12.7
19	7.3	6.8	7.0	9.8	9.5	9.6	12.7	12.4	12.5	12.7	12.2	12.4
20	7.9	7.3	7.6	10.0	9.4	9.6	13.1	12.7	12.9	---	---	---
21	8.2	7.8	8.0	10.0	8.6	9.3	13.4	13.1	13.2	---	---	---
22	8.0	7.7	7.8	8.6	7.6	8.0	13.5	13.3	13.4	---	---	---
23	8.0	7.7	7.8	7.6	7.5	7.6	13.4	12.9	13.1	---	---	---
24	8.6	7.9	8.3	7.5	7.3	7.4	12.9	12.4	12.6	---	---	---
25	9.3	8.6	8.9	7.7	7.2	7.4	12.9	12.4	12.7	---	---	---
26	9.5	8.9	9.1	8.4	7.7	8.0	12.7	11.3	11.8	---	---	---
27	8.9	7.7	8.4	8.6	8.3	8.5	12.0	11.5	11.9	---	---	---
28	7.7	6.1	6.8	8.7	8.6	8.6	12.1	11.9	12.0	---	---	---
29	9.0	6.8	8.3	9.3	8.6	8.8	12.3	12.0	12.1	---	---	---
30	8.9	4.9	7.2	9.4	8.9	9.0	12.2	11.9	12.1	---	---	---
31	5.9	4.9	5.3	---	---	---	12.5	11.8	12.1	---	---	---
MONTH	9.5	4.9	7.5	10.3	3.7	7.6	13.5	8.8	11.9	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	15.8	14.0	15.1	10.7	9.6	10.2	9.3	8.5	8.9
2	---	---	---	15.6	13.6	14.8	10.2	9.7	10	8.8	7.3	8.1
3	---	---	---	15.7	13.0	14.5	10.8	10.0	10.4	7.3	6.5	6.9
4	---	---	---	14.6	12.9	13.8	11.2	10.2	10.7	7.4	6.3	6.8
5	---	---	---	13.3	11.8	12.5	11.9	10.3	11.2	8.3	7.3	7.9
6	---	---	---	12.3	11.1	11.7	13.0	11.4	12.2	8.2	7.5	7.8
7	---	---	---	12.8	10.9	11.9	13.2	11.9	12.5	8.1	7.4	7.8
8	---	---	---	12.5	11.4	12.0	12.5	11.3	12.1	7.5	6.9	7.2
9	---	---	---	12.5	11.2	11.8	12.2	10.2	11.4	7.7	6.8	7.3
10	---	---	---	12.6	11.5	12.0	12.4	9.8	11.3	7.5	6.9	7.2
11	---	---	---	12.8	11.7	12.2	12.0	9.9	11.2	7.1	5.2	6.5
12	---	---	---	12.6	11.8	12.2	12.2	9.7	11.0	5.6	5.1	5.4
13	---	---	---	13.1	11.7	12.4	12.1	10.0	10.8	5.5	4.9	5.3
14	---	---	---	13.8	12.3	13.0	10.0	9.3	9.6	4.9	4.6	4.7
15	---	---	---	14.2	12.5	13.3	9.3	9.1	9.2	5.1	4.6	4.8
16	---	---	---	13.3	12.0	12.7	9.2	8.5	8.8	5.1	4.8	5.0
17	---	---	---	13.2	11.4	12.3	8.9	8.0	8.4	5.0	4.6	4.8
18	13.3	12.7	13.0	14.2	11.9	13.0	9.2	7.3	8.1	4.9	4.5	4.7
19	13.4	12.7	13.1	14.4	12.3	13.3	9.9	7.2	8.4	4.9	4.7	4.8
20	13.4	12.6	13.0	14.4	12.2	13.3	10.4	7.4	8.8	5.0	4.7	4.8
21	13.4	12.5	13.0	13.7	11.8	12.8	10.1	8.1	9.1	5.2	4.8	5.0
22	13.4	12.2	12.9	13.1	11.5	12.3	9.8	8.6	9.2	5.2	4.9	5.0
23	13.8	12.4	13.2	13.7	12.2	13.0	9.3	7.5	8.6	4.9	4.6	4.7
24	13.8	12.8	13.4	14.0	12.6	13.3	8.6	7.2	7.9	4.7	4.3	4.5
25	14.3	12.8	13.6	13.3	11.9	12.8	9.3	7.9	8.6	5.0	4.3	4.6
26	14.9	13.4	14.2	12.9	11.6	12.2	8.9	7.9	8.4	4.8	4.4	4.6
27	15.3	13.9	14.7	12.3	10.9	11.8	8.3	7.9	8.2	5.4	4.7	5.2
28	15.5	14.1	14.9	11.6	10.3	10.9	8.7	8.3	8.5	5.8	5.3	5.5
29	15.5	14.1	15.0	11.6	9.9	10.8	8.8	8.5	8.8	6.0	5.4	5.7
30	---	---	---	11.2	9.8	10.5	8.9	8.6	8.7	6.5	5.8	6.2
31	---	---	---	11.0	9.6	10.3	---	---	---	6.4	6.1	6.3
MONTH	---	---	---	15.8	9.6	12.5	13.2	7.2	9.7	9.3	4.3	5.9

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, FROM LEFT INTAKE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	96	92	94	98	95	96	100	98	98	103	100	102
2	96	91	94	98	94	96	100	97	98	102	100	101
3	96	90	93	98	93	95	99	98	99	101	99	101
4	96	91	92	95	92	93	100	97	99	100	98	99
5	96	90	93	94	91	92	100	98	98	98	97	98
6	98	90	94	96	93	94	100	97	98	99	97	98
7	101	92	96	98	94	95	101	99	100	---	---	---
8	103	93	98	97	93	95	103	99	101	---	---	---
9	103	94	99	99	95	97	104	101	102	---	---	---
10	100	94	97	100	96	98	103	101	102	---	---	---
11	115	92	102	99	96	98	102	99	100	---	---	---
12	115	97	105	99	97	98	101	98	100	---	---	---
13	114	95	102	98	95	96	103	100	102	100	97	99
14	110	95	102	100	94	97	102	100	101	98	96	97
15	102	86	93	100	98	99	103	100	101	97	96	96
16	104	90	97	100	97	99	104	102	102	97	95	96
17	98	91	95	100	98	99	103	101	102	97	95	96
18	95	89	93	99	97	98	105	102	104	95	93	94
19	94	88	90	99	95	98	105	103	104	94	92	93
20	96	87	92	100	93	97	106	102	104	---	---	---
21	96	90	93	104	100	102	106	103	105	---	---	---
22	93	87	89	101	99	100	107	103	105	---	---	---
23	92	85	89	101	98	100	107	105	106	---	---	---
24	99	88	93	101	98	99	106	104	105	---	---	---
25	102	92	97	101	96	99	105	104	104	---	---	---
26	103	94	97	101	98	99	106	104	104	---	---	---
27	96	86	90	101	98	100	105	103	104	---	---	---
28	98	89	95	100	96	98	105	103	103	---	---	---
29	97	96	96	99	95	97	104	102	102	---	---	---
30	100	96	99	101	98	100	103	101	102	---	---	---
31	99	95	98	---	---	---	103	101	102	---	---	---
MONTH	115	85	95	104	91	97	107	97	102	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	139	108	125	100	88	94	124	91	108
2	---	---	---	139	105	123	108	91	99	112	86	96
3	---	---	---	141	101	123	116	94	104	98	83	89
4	---	---	---	129	100	111	119	92	105	109	85	96
5	---	---	---	110	100	104	127	91	108	104	90	97
6	---	---	---	108	97	102	132	94	113	109	90	99
7	---	---	---	121	97	108	134	95	116	106	90	98
8	---	---	---	109	96	102	130	95	115	106	86	96
9	---	---	---	115	96	105	136	92	115	105	90	97
10	---	---	---	118	97	107	139	95	120	109	89	99
11	---	---	---	120	96	108	135	95	112	100	83	91
12	---	---	---	117	95	106	128	97	115	98	88	92
13	---	---	---	120	94	107	128	91	100	98	87	92
14	---	---	---	123	95	109	101	93	96	96	88	92
15	---	---	---	125	96	111	110	95	101	96	87	92
16	---	---	---	116	92	100	118	97	106	95	83	89
17	---	---	---	114	90	102	123	97	109	93	84	89
18	111	99	105	123	94	108	129	95	111	91	84	88
19	112	98	105	119	95	107	131	94	112	90	82	86
20	117	100	108	126	95	111	133	90	112	93	84	88
21	117	101	110	120	92	107	126	87	108	91	81	86
22	119	98	110	122	92	107	128	88	108	92	80	86
23	125	99	112	125	94	109	116	85	91	94	78	86
24	125	101	111	129	96	112	119	85	101	96	77	87
25	126	99	112	118	94	105	109	86	98	105	75	90
26	130	104	117	129	94	112	99	88	92	95	73	82
27	131	109	120	122	92	107	111	91	99	99	77	88
28	133	108	121	134	90	112	116	92	103	93	87	89
29	137	109	123	132	90	112	123	94	107	96	85	91
30	---	---	---	121	90	106	122	92	107	95	86	91
31	---	---	---	117	90	101	---	---	---	92	83	85
MONTH	---	---	---	141	90	109	139	85	106	124	73	91

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, FROM MIDDLE INTAKE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	80	70	74	71	54	61	97	92	95	96	90	93
2	72	70	71	57	48	51	93	86	89	96	91	93
3	74	70	72	49	42	45	90	85	87	96	92	94
4	80	72	76	42	36	38	88	85	86	96	93	94
5	89	79	85	42	36	37	89	87	88	98	94	96
6	93	86	90	53	41	47	97	88	92	98	96	97
7	96	89	93	60	51	56	98	95	97	---	---	---
8	100	91	96	61	56	58	98	95	97	---	---	---
9	100	92	97	63	58	61	98	94	96	---	---	---
10	98	93	95	68	62	65	100	97	98	---	---	---
11	109	90	98	75	68	71	100	99	99	---	---	---
12	108	94	101	85	74	80	102	99	100	---	---	---
13	107	93	99	93	83	88	102	96	99	97	95	96
14	105	92	99	93	87	91	97	91	94	95	93	94
15	103	86	94	94	90	92	94	91	92	95	93	94
16	98	87	92	92	89	91	93	89	91	95	92	93
17	87	75	79	93	90	91	96	89	92	93	91	92
18	77	71	74	93	91	92	103	96	100	92	88	90
19	80	72	76	97	92	95	102	97	100	90	87	88
20	88	79	84	100	94	97	98	95	96	---	---	---
21	92	84	88	103	100	101	97	94	95	---	---	---
22	89	83	85	100	84	95	98	94	96	---	---	---
23	89	83	86	84	67	74	98	94	96	---	---	---
24	95	86	90	67	64	65	105	94	100	---	---	---
25	98	91	94	71	64	67	105	103	104	---	---	---
26	98	92	94	74	69	71	104	99	102	---	---	---
27	94	86	89	74	71	73	100	95	97	---	---	---
28	98	90	95	92	73	77	95	92	93	---	---	---
29	97	95	96	99	92	96	94	90	92	---	---	---
30	99	93	97	100	96	98	94	90	92	---	---	---
31	96	69	84	---	---	---	95	90	92	---	---	---
MONTH	109	69	88	103	36	74	105	85	95	---	---	---
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	129	109	120	96	86	92	99	88	93
2	---	---	---	130	109	121	102	89	95	94	78	87
3	---	---	---	136	105	122	101	89	95	78	72	74
4	---	---	---	127	103	113	104	89	96	89	70	80
5	---	---	---	111	100	105	112	89	100	86	77	81
6	---	---	---	106	96	101	114	94	104	89	76	82
7	---	---	---	119	96	107	118	98	109	92	78	85
8	---	---	---	108	96	102	118	98	109	86	77	82
9	---	---	---	110	96	102	117	91	107	87	74	80
10	---	---	---	107	95	100	121	90	108	93	77	85
11	---	---	---	107	94	100	118	91	104	98	82	90
12	---	---	---	105	95	100	116	90	104	94	84	88
13	---	---	---	107	94	101	116	91	99	88	77	84
14	---	---	---	111	97	104	99	93	96	77	61	67
15	---	---	---	118	100	109	106	95	99	62	55	59
16	---	---	---	109	96	104	98	83	90	76	61	68
17	---	---	---	105	89	98	89	73	80	70	60	65
18	97	90	94	112	91	102	95	71	81	60	56	58
19	99	91	96	115	95	105	105	71	86	62	55	58
20	100	92	97	117	94	106	112	77	92	66	58	61
21	102	92	98	114	97	105	107	84	95	61	55	58
22	104	93	99	111	93	102	103	88	96	66	56	61
23	106	94	101	111	96	103	98	78	89	71	58	64
24	106	97	102	115	99	107	93	74	83	83	59	71
25	108	95	102	112	101	107	96	80	88	89	67	78
26	113	99	107	113	97	105	92	79	86	84	68	75
27	118	102	111	112	98	105	107	89	97	99	74	87
28	121	105	114	114	92	103	96	88	92	92	87	89
29	123	107	116	112	90	102	90	85	88	91	82	87
30	---	---	---	103	88	97	94	86	89	86	77	82
31	---	---	---	103	87	95	---	---	---	80	73	77
MONTH	---	---	---	136	87	105	121	71	95	99	55	76

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION, FROM RIGHT INTAKE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	68	66	67	54	52	52	75	72	73	96	89	92
2	69	67	68	52	47	50	76	72	74	96	91	93
3	71	67	69	47	42	45	80	76	78	96	92	94
4	73	69	71	42	36	38	85	80	82	96	90	92
5	78	72	75	39	36	37	85	84	85	90	87	89
6	81	76	79	43	39	40	85	84	84	89	86	87
7	---	---	---	49	43	46	85	84	84	---	---	---
8	---	---	---	54	49	51	85	83	84	---	---	---
9	---	---	---	60	54	57	89	84	86	---	---	---
10	83	78	80	65	59	62	92	88	90	---	---	---
11	81	77	78	69	64	67	99	90	95	---	---	---
12	82	77	78	73	69	71	102	99	101	---	---	---
13	82	75	78	79	72	76	102	78	88	96	93	95
14	81	74	76	83	77	80	86	81	84	94	91	92
15	94	69	77	85	82	83	88	86	87	94	92	93
16	71	60	65	86	84	85	90	87	88	102	92	93
17	71	68	69	86	85	85	90	89	90	99	90	92
18	68	65	66	86	84	85	90	87	89	91	86	88
19	69	64	66	86	84	84	91	89	90	88	85	86
20	74	68	70	90	85	86	94	91	92	---	---	---
21	77	73	75	89	75	82	95	92	93	---	---	---
22	76	73	74	75	67	70	97	94	95	---	---	---
23	75	72	73	67	64	66	97	94	95	---	---	---
24	76	72	74	65	63	64	99	93	95	---	---	---
25	82	75	78	65	62	64	101	97	99	---	---	---
26	85	78	81	69	64	66	98	85	90	---	---	---
27	81	74	78	72	68	70	90	87	89	---	---	---
28	74	59	65	75	72	73	91	89	90	---	---	---
29	84	65	78	79	74	76	93	89	91	---	---	---
30	83	45	66	78	73	75	93	89	91	---	---	---
31	54	45	49	---	---	---	95	89	92	---	---	---
MONTH	94	45	72	90	36	66	102	72	89	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	129	109	120	93	83	88	99	88	93
2	---	---	---	131	109	121	88	83	86	94	78	87
3	---	---	---	134	107	122	93	85	89	78	68	73
4	---	---	---	124	108	116	98	87	92	75	64	70
5	---	---	---	112	98	104	102	88	95	83	73	78
6	---	---	---	103	92	98	111	93	102	83	73	78
7	---	---	---	109	90	100	116	99	108	85	75	80
8	---	---	---	104	95	100	114	98	107	79	72	75
9	---	---	---	102	91	96	111	91	103	79	70	74
10	---	---	---	102	92	97	115	88	104	79	70	75
11	---	---	---	104	93	99	112	89	102	75	57	69
12	---	---	---	104	96	100	110	87	100	62	55	60
13	---	---	---	107	94	100	109	88	96	61	56	59
14	---	---	---	111	97	104	88	83	85	56	52	53
15	---	---	---	118	100	109	84	81	82	58	51	54
16	---	---	---	110	96	104	88	76	81	59	55	57
17	---	---	---	103	89	96	88	73	80	57	52	55
18	98	91	94	111	90	101	96	71	81	55	50	53
19	100	92	96	114	95	104	105	72	86	55	52	54
20	101	92	97	116	94	105	112	77	93	56	52	54
21	103	93	99	113	96	104	106	84	95	58	53	56
22	105	92	100	107	93	100	103	88	96	59	54	56
23	107	94	101	110	95	103	98	77	89	57	52	55
24	106	97	102	115	99	107	89	73	81	56	50	53
25	108	95	103	112	100	107	94	79	87	60	50	55
26	113	99	107	112	98	105	86	77	82	57	51	53
27	118	103	111	111	98	105	82	75	79	60	53	58
28	121	105	114	108	93	100	85	81	83	65	58	61
29	123	107	116	108	90	99	89	83	86	67	60	63
30	---	---	---	101	88	94	93	87	89	72	63	68
31	---	---	---	97	84	91	---	---	---	69	65	67
MONTH	---	---	---	134	84	104	116	71	91	99	50	64

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS,
FROM LEFT INTAKE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	244	237	241	206	189	198	206	198	202	272	262	268
2	256	241	248	220	205	212	215	206	211	284	271	279
3	272	252	263	236	220	229	226	214	220	293	283	289
4	286	270	279	246	233	240	240	226	233	298	292	296
5	299	285	293	255	243	248	253	239	245	296	289	292
6	314	296	306	258	248	253	272	250	261	292	286	289
7	328	310	320	268	257	263	299	250	273	---	---	---
8	343	326	334	273	264	269	306	290	296	---	---	---
9	356	339	347	279	269	274	327	306	316	---	---	---
10	365	347	358	288	277	282	395	325	334	---	---	---
11	378	354	367	295	284	290	526	284	391	---	---	---
12	387	370	379	297	291	295	284	194	225	---	---	---
13	397	381	389	301	290	297	209	193	198	377	348	363
14	399	388	393	307	297	303	234	209	217	389	371	383
15	395	296	337	316	297	306	334	234	305	421	378	394
16	350	334	342	332	314	324	323	291	301	454	421	435
17	336	326	332	342	329	336	386	323	345	431	407	417
18	339	326	334	349	337	345	355	307	330	444	400	417
19	347	333	341	347	311	340	307	278	291	498	444	483
20	351	341	346	311	240	264	278	268	273	484	458	468
21	357	341	351	249	200	216	271	266	268	459	449	455
22	363	347	357	209	200	204	277	271	274	471	454	464
23	370	358	364	219	207	214	281	276	278	483	468	477
24	374	360	368	229	219	224	302	256	278	492	483	487
25	385	368	376	229	226	228	256	184	216	492	483	487
26	393	375	385	241	227	234	201	184	190	493	478	485
27	388	264	345	250	241	246	218	201	211	490	482	486
28	291	240	272	256	242	252	231	218	224	506	482	489
29	240	176	200	242	222	232	243	231	237	506	486	494
30	176	163	167	224	198	205	251	243	248	488	472	478
31	189	168	178	---	---	---	263	251	257	482	468	475
MONTH	399	163	320	349	189	261	526	184	263	506	262	414
	FEBRUARY			MARCH			APRIL			MAY		
1	484	472	478	479	473	476	434	401	421	352	342	347
2	491	477	485	481	472	478	420	388	400	357	345	353
3	593	483	510	480	455	471	389	384	387	357	346	354
4	---	---	---	455	416	434	388	383	385	346	327	335
5	---	---	---	421	382	397	390	379	385	348	332	341
6	---	---	---	382	369	376	387	378	382	349	344	346
7	---	---	---	370	348	356	400	386	392	345	337	341
8	---	---	---	477	344	389	410	399	406	338	327	333
9	---	---	---	472	353	375	417	404	410	343	327	336
10	---	---	---	367	355	361	416	409	412	354	342	348
11	---	---	---	365	357	361	413	407	411	351	296	315
12	---	---	---	373	365	369	423	409	415	300	270	285
13	---	---	---	375	368	371	416	378	396	288	270	284
14	---	---	---	376	371	374	378	346	358	286	282	283
15	---	---	---	375	371	372	346	313	323	---	---	---
16	---	---	---	388	371	375	315	301	307	296	278	285
17	---	---	---	535	388	478	306	301	303	301	286	292
18	509	501	506	500	444	461	316	300	310	315	298	308
19	506	501	503	619	467	532	328	313	319	---	---	---
20	502	495	500	660	495	556	332	320	328	332	314	323
21	495	490	493	529	502	513	342	329	336	366	326	347
22	492	485	489	573	529	556	355	341	348	---	---	---
23	492	483	489	573	553	565	358	349	355	---	---	---
24	484	480	482	553	532	539	358	351	354	---	---	---
25	490	479	485	540	502	524	363	353	358	---	---	---
26	485	476	482	502	469	484	367	336	353	418	399	410
27	482	473	477	471	452	464	344	334	338	---	---	---
28	483	474	479	454	431	441	334	323	330	363	304	327
29	480	474	476	434	425	429	336	321	329	314	303	309
30	---	---	---	432	426	429	344	334	339	325	304	314
31	---	---	---	434	425	429	---	---	---	349	324	336
MONTH	---	---	---	660	344	443	434	300	363	---	---	---

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS,
FROM MIDDLE INTAKE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	318	279	299	233	218	227	225	203	214	330	316	323
2	338	316	327	236	231	234	246	219	237	340	328	334
3	356	337	347	243	235	240	271	238	259	351	340	346
4	361	349	356	253	242	248	293	270	284	352	338	349
5	359	345	350	268	253	260	301	290	296	340	298	310
6	355	341	347	284	267	275	301	269	291	305	295	300
7	363	348	356	299	280	290	322	269	296	---	---	---
8	371	355	363	314	295	304	359	321	333	---	---	---
9	381	362	371	333	308	322	405	358	389	---	---	---
10	394	374	384	348	332	340	453	397	420	---	---	---
11	406	387	397	355	343	350	524	283	401	---	---	---
12	418	402	412	355	340	347	283	190	223	---	---	---
13	430	413	423	354	330	342	273	190	220	441	426	434
14	431	411	422	353	332	344	314	246	284	455	435	447
15	411	303	346	375	343	360	344	298	335	475	443	459
16	361	348	354	396	372	384	402	341	368	517	475	504
17	351	332	340	404	384	396	441	400	423	557	516	540
18	387	348	367	407	392	400	413	334	368	538	504	528
19	389	379	384	398	320	369	401	330	357	553	529	537
20	388	377	383	320	243	267	420	360	394	689	553	637
21	398	381	390	250	202	218	438	403	423	764	670	732
22	400	387	395	228	202	214	438	416	430	780	703	737
23	401	388	395	243	227	237	431	407	423	745	660	719
24	399	387	394	248	242	245	422	257	343	708	660	693
25	416	392	407	254	247	250	257	185	217	726	695	704
26	429	413	423	269	254	261	255	185	209	700	661	678
27	422	271	362	283	269	276	287	227	258	665	649	659
28	294	241	275	292	258	284	304	273	291	654	628	641
29	241	176	201	258	226	237	305	291	300	645	615	629
30	176	164	169	226	202	209	307	297	303	---	---	---
31	220	173	193	---	---	---	319	306	312	691	673	681
MONTH	431	164	353	407	202	291	524	185	319	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	699	672	682	565	554	559	539	453	488	417	402	411
2	679	661	668	555	530	542	484	444	461	433	417	426
3	675	589	646	532	501	516	519	472	500	443	424	437
4	---	---	---	501	443	467	533	512	521	424	393	407
5	---	---	---	448	421	432	534	507	520	432	397	419
6	---	---	---	434	391	411	549	510	536	437	429	432
7	---	---	---	394	374	381	564	542	555	434	421	427
8	---	---	---	488	376	418	571	540	560	442	419	431
9	---	---	---	550	407	475	570	544	559	449	433	441
10	634	604	623	580	510	551	577	562	568	442	416	434
11	604	573	588	587	555	573	576	558	568	416	309	332
12	---	---	---	582	556	567	574	529	562	310	285	299
13	---	---	---	559	547	551	530	395	455	315	285	304
14	---	---	---	556	549	553	395	352	368	358	315	336
15	---	---	---	557	552	554	352	328	333	391	358	377
16	---	---	---	554	532	545	358	327	344	385	353	367
17	---	---	---	578	526	550	364	357	360	393	363	380
18	588	576	581	882	577	731	372	363	367	402	385	393
19	590	576	582	1,000	844	900	388	371	379	---	---	---
20	595	583	590	1,350	1,000	1,190	402	388	395	437	400	415
21	595	579	588	1,270	880	1,030	423	402	413	466	431	447
22	581	568	575	891	801	840	443	423	434	---	---	---
23	572	554	566	829	760	795	462	442	454	---	---	---
24	554	531	539	760	716	731	477	458	468	---	---	---
25	534	521	528	716	694	704	479	467	472	---	---	---
26	552	532	543	698	676	686	477	363	425	462	437	449
27	564	551	556	682	644	658	373	348	354	462	353	390
28	568	554	561	646	601	624	367	351	361	375	317	336
29	574	549	562	629	609	618	391	367	382	345	313	331
30	---	---	---	620	591	604	402	391	397	399	342	370
31	---	---	---	600	528	562	---	---	---	408	390	398
MONTH	---	---	---	1,350	374	623	577	327	452	466	285	392

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS,
FROM RIGHT INTAKE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	328	309	319	237	232	235	274	271	272	336	325	331
2	346	328	337	237	232	235	286	273	279	347	336	342
3	367	346	357	245	237	241	293	285	289	358	347	353
4	393	362	378	256	244	250	306	291	300	367	358	363
5	426	390	405	268	255	261	318	306	313	372	362	366
6	441	422	430	288	268	278	339	318	328	365	353	359
7	---	---	---	306	288	298	389	339	363	---	---	---
8	---	---	---	319	305	313	462	389	416	---	---	---
9	---	---	---	337	318	327	528	462	501	---	---	---
10	546	509	522	356	335	345	598	528	568	---	---	---
11	556	524	535	367	351	359	613	296	463	---	---	---
12	571	549	558	387	363	372	296	194	226	---	---	---
13	585	556	575	402	381	393	451	198	350	475	457	468
14	600	559	581	406	387	394	405	356	374	487	468	475
15	588	443	549	428	397	412	364	354	357	511	479	494
16	538	354	393	442	421	429	413	364	387	564	510	524
17	357	335	343	452	436	443	470	413	445	583	533	561
18	407	355	379	466	445	456	485	470	481	589	569	579
19	423	397	412	475	445	463	486	472	481	573	540	557
20	458	423	436	445	273	358	472	461	465	736	573	675
21	489	452	470	273	250	257	461	457	460	806	712	769
22	519	477	493	259	244	251	457	451	455	824	762	790
23	544	502	517	244	242	243	451	441	446	763	727	749
24	552	535	544	248	244	246	441	327	407	727	704	717
25	584	545	573	258	247	252	331	214	278	716	702	707
26	612	572	596	271	258	265	358	242	317	705	668	683
27	618	479	569	286	271	279	349	319	331	668	655	663
28	497	264	358	296	286	292	319	314	316	655	631	642
29	272	204	232	292	270	285	315	313	314	642	617	630
30	230	197	211	272	262	268	317	313	314	711	619	663
31	238	223	234	---	---	---	325	317	321	694	676	684
MONTH	618	197	440	475	232	317	613	194	375	824	325	566
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	701	675	688	571	561	565	643	630	638	425	402	411
2	687	669	675	563	543	552	632	572	599	436	418	428
3	683	656	665	547	528	535	607	573	590	450	435	443
4	---	---	---	534	504	513	591	570	580	459	425	446
5	---	---	---	556	502	525	590	582	586	444	423	437
6	---	---	---	550	528	535	589	582	586	461	441	452
7	---	---	---	546	528	535	608	582	593	463	452	458
8	---	---	---	532	521	526	614	602	608	478	459	470
9	---	---	---	763	519	640	629	609	620	485	462	474
10	636	605	625	670	620	655	631	620	626	501	476	488
11	605	575	591	620	603	616	622	610	617	496	339	438
12	---	---	---	603	568	584	620	610	615	354	312	338
13	---	---	---	569	556	560	613	535	592	356	340	344
14	---	---	---	561	555	558	535	388	456	379	353	364
15	---	---	---	565	559	562	388	372	381	---	---	---
16	---	---	---	566	560	563	372	364	366	425	380	407
17	---	---	---	609	563	575	365	361	363	424	407	417
18	588	573	580	992	609	824	370	362	367	411	400	405
19	592	578	583	1,110	961	1,010	387	370	378	---	---	---
20	596	585	591	1,460	1,110	1,290	403	387	395	449	419	435
21	598	578	590	1,360	1,070	1,180	423	403	414	473	445	457
22	583	572	578	1,070	901	979	443	423	435	---	---	---
23	576	557	569	901	773	830	465	443	456	---	---	---
24	557	529	540	773	726	743	489	464	479	---	---	---
25	536	520	529	726	710	718	496	482	489	---	---	---
26	554	532	544	716	702	710	494	478	487	555	527	544
27	565	552	557	713	691	699	478	391	421	550	510	541
28	573	554	563	698	679	685	392	377	385	510	441	456
29	580	553	566	686	666	675	392	378	386	451	422	438
30	---	---	---	666	638	650	402	391	398	458	422	443
31	---	---	---	648	633	639	---	---	---	476	451	461
MONTH	---	---	---	1,460	502	685	643	361	497	555	312	440

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, FROM LEFT INTAKE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.2	16.3	16.6	12.5	11.6	12.0	7.4	6.9	7.2	4.3	3.9	4.1
2	16.3	15.1	15.7	13.1	12.5	12.8	6.9	5.3	6.1	4.7	4.1	4.3
3	15.1	13.9	14.3	13.9	13.1	13.4	5.3	4.3	4.5	5.6	4.7	5.2
4	14.3	13.2	13.4	13.9	13.5	13.8	4.3	3.7	4.0	6.0	5.6	5.9
5	13.5	12.7	13.1	13.5	13.0	13.2	4.2	3.3	3.8	6.0	5.3	5.6
6	13.0	12.0	12.6	13.3	13.0	13.2	3.3	1.8	2.4	5.3	4.2	4.9
7	13.0	11.8	12.5	13.0	12.4	12.7	2.4	1.9	2.2	---	---	---
8	13.6	12.3	13.0	12.4	10.3	11.5	2.2	1.5	1.9	---	---	---
9	14.4	13.3	13.9	10.3	8.8	9.3	2.7	2.0	2.3	2.0	0.9	1.5
10	14.7	14.3	14.5	8.8	8.0	8.3	3.9	2.6	3.1	0.9	0.4	0.6
11	15.7	14.2	14.9	8.1	7.6	7.8	5.6	3.9	4.9	0.8	0.3	0.6
12	15.6	15.0	15.3	9.0	8.0	8.4	5.5	4.2	4.8	1.8	0.8	1.2
13	16.0	14.9	15.3	9.2	8.3	8.9	4.2	3.7	3.9	2.5	1.8	2.1
14	15.3	14.7	15.0	8.3	6.6	7.3	3.8	2.8	3.3	1.8	0.7	0.9
15	15.2	14.4	15.0	6.8	6.1	6.5	3.4	2.9	3.2	0.9	0.4	0.6
16	14.4	13.5	13.9	6.8	6.1	6.4	3.5	2.9	3.2	1.0	0.3	0.6
17	13.7	13.4	13.5	7.8	6.7	7.2	3.8	3.3	3.6	0.9	0.4	0.6
18	13.4	12.8	13.0	8.4	7.7	8.0	3.7	3.3	3.4	0.7	0.5	0.6
19	13.0	12.1	12.4	10.1	8.4	9.1	3.3	2.9	3.1	0.8	0.4	0.6
20	12.2	11.3	11.8	10.6	9.3	9.8	3.2	2.8	3.0	1.0	0.3	0.6
21	12.9	11.7	12.3	9.3	8.7	9.1	3.0	2.5	2.8	1.1	0.5	0.8
22	13.1	12.0	12.6	9.3	8.8	9.1	3.5	2.7	3.0	1.1	0.6	0.8
23	12.0	10.3	11.0	9.1	8.6	8.8	4.1	3.3	3.7	1.1	0.5	0.8
24	10.3	9.4	9.8	9.3	8.5	8.9	5.2	4.0	4.6	1.1	0.5	0.8
25	9.8	8.8	9.4	9.3	8.0	8.7	5.1	4.4	4.9	1.1	0.5	0.8
26	11.7	9.7	10.8	8.0	7.4	7.6	4.4	3.8	4.0	0.9	0.5	0.7
27	13.2	11.7	12.6	8.0	7.4	7.7	4.2	3.6	3.9	0.9	0.5	0.7
28	13.0	11.7	12.2	9.1	8.0	8.4	4.1	3.6	3.9	0.8	0.5	0.7
29	12.3	12.0	12.1	9.3	7.8	8.5	4.3	3.6	3.9	0.9	0.4	0.7
30	12.0	11.3	11.6	7.8	7.4	7.5	4.6	4.0	4.3	1.0	0.4	0.7
31	11.8	11.1	11.4	---	---	---	4.5	4.0	4.2	1.0	0.4	0.7
MONTH	17.2	8.8	13.1	13.9	6.1	9.5	7.4	1.5	3.8	6.0	0.3	1.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1.1	0.4	0.7	6.3	4.6	5.5	9.3	8.9	9.2	17.6	15.6	16.6
2	1.3	0.5	0.8	6.8	5.8	6.4	8.9	8.5	8.7	17.6	16.9	17.3
3	0.9	0.6	0.8	7.2	6.1	6.7	8.8	8.1	8.5	17.4	15.6	16.7
4	---	---	---	7.0	6.0	6.3	9.1	8.4	8.7	15.6	14.2	15.0
5	---	---	---	6.2	5.9	6.1	8.5	7.2	7.7	15.0	14.2	14.6
6	---	---	---	6.8	6.2	6.5	8.0	6.1	7.1	16.0	13.9	14.9
7	---	---	---	7.1	6.2	6.7	9.6	7.5	8.5	16.8	15.0	15.9
8	---	---	---	7.0	5.8	6.3	10.0	8.7	9.5	16.7	15.9	16.5
9	---	---	---	6.0	5.5	5.8	10.7	9.4	10.1	16.0	14.9	15.5
10	---	---	---	6.3	5.6	6.0	11.3	9.7	10.6	18.0	15.6	16.7
11	---	---	---	6.7	5.3	6.0	11.3	10.2	10.5	19.0	17.2	18.1
12	---	---	---	6.7	6.3	6.5	10.4	9.8	10.2	19.3	18.1	18.8
13	---	---	---	6.3	5.4	5.9	10.3	9.4	9.6	19.8	18.5	19.1
14	---	---	---	5.8	4.9	5.4	9.8	9.6	9.7	19.6	18.5	18.9
15	---	---	---	7.3	5.5	6.4	10.9	9.1	9.9	20.0	18.3	19.1
16	---	---	---	7.1	4.6	5.9	11.5	9.4	10.4	20.6	19.1	19.9
17	---	---	---	4.6	4.0	4.2	12.8	10.6	11.5	20.5	19.8	20.1
18	3.8	2.6	3.2	4.9	3.7	4.3	14.3	12.6	13.3	19.8	19.0	19.4
19	3.9	3.1	3.6	5.0	4.2	4.6	15.3	13.4	14.3	19.6	18.7	19.2
20	3.9	3.2	3.6	6.2	4.3	5.2	16.6	14.9	15.7	19.4	18.2	18.8
21	4.8	3.7	4.3	6.8	5.9	6.3	16.4	15.6	15.9	19.9	18.4	19.1
22	5.0	4.1	4.5	6.2	4.9	5.4	17.2	15.1	16.0	21.4	19.6	20.5
23	4.6	3.6	4.2	5.8	4.1	5.0	17.1	15.5	16.3	22.5	20.5	21.4
24	4.6	3.8	4.2	7.2	5.0	6.0	16.2	14.5	15.4	22.6	21.4	22.1
25	4.1	3.1	3.6	7.2	6.8	7.0	16.0	13.9	14.9	22.8	21.5	22.2
26	4.2	3.2	3.8	8.7	6.9	7.7	13.9	12.8	13.2	22.6	19.5	20.8
27	4.5	3.4	4.0	10.0	8.6	9.3	14.5	13.0	13.7	20.5	18.5	19.5
28	4.9	3.5	4.3	11.3	9.7	10.5	14.1	13.0	13.6	20.1	19.5	19.8
29	5.1	4.1	4.8	11.3	10.2	10.8	15.4	13.0	14.0	19.7	18.7	19.2
30	---	---	---	10.9	9.6	10	16.4	14.7	15.5	19.3	17.7	18.5
31	---	---	---	9.6	9.2	9.3	---	---	---	19.2	17.8	18.4
MONTH	---	---	---	11.3	3.7	6.6	17.2	6.1	11.7	22.8	13.9	18.5

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, FROM MIDDLE INTAKE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.2	16.2	16.6	13.0	11.8	12.3	7.5	6.9	7.3	3.7	3.1	3.4
2	16.2	15.1	15.7	13.7	13.0	13.3	6.9	4.9	5.9	4.1	3.3	3.6
3	15.1	14.0	14.4	14.6	13.5	14.0	4.9	3.4	3.9	5.4	4.1	4.6
4	14.0	13.3	13.5	14.5	13.8	14.1	3.4	2.9	3.2	6.1	5.4	5.8
5	13.6	12.8	13.2	13.8	13.2	13.4	3.4	3.0	3.3	6.0	5.5	5.7
6	13.3	12.4	12.9	13.4	13.1	13.3	3.1	2.0	2.4	5.5	4.3	5.0
7	13.1	12.2	12.8	13.3	12.8	13.0	2.6	2.1	2.4	---	---	---
8	13.7	12.6	13.2	12.8	10.6	11.8	2.6	1.9	2.2	---	---	---
9	14.5	13.5	14.1	10.6	8.6	9.5	3.0	2.2	2.6	1.2	0.7	1.1
10	14.9	14.5	14.7	8.6	7.7	8.1	4.2	3.0	3.5	0.7	0.4	0.4
11	15.8	14.5	15.1	7.8	7.3	7.6	5.7	4.2	5.1	0.7	0.4	0.4
12	15.7	15.2	15.4	9.0	7.7	8.2	5.5	4.3	4.8	1.4	0.5	0.9
13	16.1	15.2	15.6	9.5	8.8	9.2	4.3	3.6	3.9	2.2	1.4	1.8
14	15.4	15.0	15.2	8.8	7.4	8.0	3.7	2.0	2.8	1.6	0.7	1.0
15	15.3	14.6	15.1	7.4	6.7	7.1	2.5	2.0	2.2	0.8	0.4	0.5
16	14.6	13.8	14.1	7.2	6.6	6.9	2.3	1.8	2.1	0.6	0.3	0.4
17	14.1	13.8	14.0	8.1	7.2	7.5	3.4	2.1	2.5	0.6	0.3	0.5
18	13.8	13.1	13.4	8.8	8.1	8.4	3.4	2.9	3.2	0.6	0.5	0.5
19	13.2	12.5	12.7	10.2	8.8	9.4	3.1	2.2	2.6	0.7	0.4	0.5
20	12.5	11.7	12.1	10.7	9.4	9.9	2.5	1.8	2.1	0.6	0.4	0.5
21	13.0	11.9	12.4	9.4	8.8	9.2	1.8	1.1	1.4	0.6	0.3	0.4
22	13.1	12.3	12.8	9.5	8.9	9.2	2.0	1.2	1.5	0.6	0.4	0.5
23	12.3	10.7	11.4	9.4	8.7	9.0	3.1	1.9	2.4	0.6	0.4	0.4
24	10.7	9.7	10.1	9.5	8.5	8.9	5.3	3.0	4.2	0.6	0.3	0.4
25	10.0	9.2	9.7	9.5	7.9	8.7	5.2	4.4	4.9	0.5	0.3	0.4
26	11.7	9.9	10.8	7.9	7.0	7.2	4.4	3.7	4.0	0.4	0.3	0.3
27	13.3	11.7	12.6	7.5	6.7	7.0	3.8	3.4	3.7	0.4	0.3	0.3
28	13.1	11.8	12.2	9.1	7.5	8.0	3.6	3.1	3.4	0.4	0.3	0.3
29	12.4	12.0	12.2	9.3	8.0	8.6	3.6	2.8	3.2	0.5	0.3	0.4
30	12.0	11.4	11.7	8.0	7.5	7.7	4.0	3.2	3.6	---	---	---
31	12.0	11.1	11.5	---	---	---	3.9	3.4	3.7	0.5	0.3	0.3
MONTH	17.2	9.2	13.3	14.6	6.6	9.6	7.5	1.1	3.4	6.1	0.3	1.4
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.6	0.3	0.4	6.5	4.6	5.5	9.5	9.0	9.2	18.3	16.8	17.5
2	0.6	0.3	0.4	7.5	5.8	6.6	9.0	8.6	8.8	18.6	18.0	18.3
3	0.8	0.4	0.5	7.9	6.5	7.3	8.8	8.2	8.5	18.4	16.7	18.0
4	---	---	---	7.7	6.6	6.9	9.2	8.3	8.8	16.7	15.1	15.7
5	---	---	---	6.7	6.3	6.5	8.7	7.7	8.1	15.3	14.3	14.8
6	---	---	---	7.0	6.6	6.8	8.3	6.5	7.5	16.1	14.2	15.1
7	---	---	---	7.4	6.4	6.9	9.9	7.4	8.6	17.4	15.3	16.4
8	---	---	---	7.3	6.1	6.6	10.8	9.0	9.9	17.5	16.6	17.0
9	---	---	---	6.3	5.7	6.0	11.2	9.8	10.6	16.9	15.6	16.1
10	0.8	0.3	0.5	6.4	5.8	6.1	11.9	10.1	11.1	18.0	15.7	16.8
11	0.8	0.4	0.5	6.6	5.6	6.1	11.9	10.5	11.0	18.8	17.2	18.0
12	---	---	---	7.0	6.4	6.7	11.1	10.4	10.7	19.4	18.3	18.9
13	---	---	---	6.6	5.7	6.2	10.5	9.6	9.8	20.4	18.7	19.5
14	---	---	---	6.1	5.3	5.7	9.9	9.7	9.8	20.4	19.9	20.2
15	---	---	---	7.4	5.6	6.5	11.1	9.2	10.0	21.4	19.8	20.5
16	---	---	---	7.1	5.5	6.6	13.0	9.9	11.1	21.7	20.5	21.1
17	---	---	---	5.5	4.1	4.7	15.0	11.4	12.8	21.5	20.8	21.2
18	2.6	1.5	2.0	5.1	3.8	4.5	17.1	13.9	15.3	21.0	20.5	20.8
19	3.1	2.0	2.6	5.5	4.2	4.9	18.1	14.9	16.3	20.8	20.1	20.6
20	3.5	2.4	2.9	6.2	4.5	5.4	18.8	16.9	17.7	20.6	19.6	20.1
21	4.2	3.0	3.7	7.2	5.7	6.5	18.4	16.9	17.4	20.6	19.5	20.1
22	4.9	3.7	4.3	6.5	5.3	6.0	17.8	16.3	17.0	21.9	20.0	20.9
23	4.6	3.5	4.1	5.8	4.6	5.3	17.8	16.7	17.4	23.0	21.2	22.0
24	4.2	3.5	3.9	7.0	5.0	6.1	16.7	15.8	16.3	23.0	21.9	22.5
25	3.7	2.9	3.4	7.9	6.8	7.4	16.1	14.6	15.4	23.0	22.0	22.6
26	3.8	2.6	3.3	9.2	7.7	8.4	14.6	13.1	13.5	22.7	20.0	21.1
27	4.2	2.9	3.6	10.8	9.0	9.9	14.4	13.0	13.6	20.3	18.4	19.4
28	4.7	3.1	4.0	12.3	10.4	11.3	14.6	13.5	14.0	20.1	19.4	19.7
29	5.5	3.7	4.6	12.0	10.7	11.4	15.6	13.7	14.5	19.7	19.0	19.3
30	---	---	---	11.4	10.1	10.5	17.2	15.5	16.3	19.6	18.1	18.9
31	---	---	---	10.1	9.4	9.6	---	---	---	19.5	18.1	18.6
MONTH	---	---	---	12.3	3.8	6.9	18.8	6.5	12.4	23.0	14.2	19.1

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

TEMPERATURE, WATER, DEGREES CELSIUS, FROM RIGHT INTAKE
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.2	16.2	16.6	13.1	11.9	12.3	6.7	6.3	6.6	3.6	2.9	3.3
2	16.2	15.1	15.7	13.8	13.0	13.3	6.3	4.0	5.2	3.9	3.1	3.4
3	15.1	13.9	14.4	14.7	13.5	14.0	4.0	2.8	3.1	5.3	3.9	4.5
4	13.9	13.2	13.4	14.6	13.8	14.1	3.0	2.5	2.7	6.0	5.3	5.7
5	13.4	12.6	13.1	13.8	13.2	13.4	3.1	2.6	2.9	6.0	5.4	5.7
6	13.3	12.5	13.0	13.4	13.1	13.3	2.6	1.4	2.0	5.4	4.0	4.8
7	---	---	---	13.3	12.8	13.1	2.0	1.3	1.6	---	---	---
8	---	---	---	12.8	10.6	11.8	2.4	1.7	2.0	---	---	---
9	---	---	---	10.6	8.5	9.4	3.0	2.2	2.6	1.1	0.6	1.0
10	15.5	14.9	15.3	8.5	7.6	8.0	4.0	2.9	3.4	0.6	0.3	0.4
11	16.1	15.4	15.8	7.7	7.1	7.4	5.6	4.0	4.9	0.5	0.4	0.4
12	16.4	15.9	16.1	8.7	7.5	8.0	5.5	4.4	4.9	1.2	0.4	0.8
13	16.6	15.9	16.3	9.3	8.7	9.1	4.4	2.9	3.8	1.8	1.2	1.5
14	16.4	15.8	16.1	9.2	7.8	8.4	2.9	1.4	2.1	1.4	0.6	0.9
15	16.0	15.4	15.6	7.8	6.9	7.2	1.7	1.2	1.4	0.6	0.3	0.4
16	15.4	14.5	14.9	7.4	6.7	7.0	2.0	1.4	1.7	0.5	0.4	0.4
17	14.5	13.9	14.1	8.2	7.2	7.5	2.5	2.0	2.2	0.5	0.4	0.4
18	13.9	13.2	13.4	9.0	8.2	8.5	2.5	1.9	2.1	0.4	0.4	0.4
19	13.3	12.5	12.8	10.5	9.0	9.7	1.9	1.5	1.7	0.4	0.4	0.4
20	12.7	11.8	12.2	10.8	10.4	10.6	1.6	1.3	1.5	0.4	0.3	0.4
21	13.0	12.0	12.3	10.5	9.3	9.7	1.5	0.7	1.1	0.5	0.3	0.4
22	13.2	12.8	13.0	9.7	9.1	9.3	1.7	0.9	1.3	0.5	0.4	0.4
23	12.8	11.2	12.0	9.5	8.6	9.0	2.9	1.7	2.2	0.4	0.3	0.4
24	11.2	9.5	10.4	9.5	8.4	8.9	5.0	2.8	3.7	0.4	0.3	0.3
25	9.7	9.3	9.5	9.5	7.8	8.6	5.0	4.5	4.9	0.4	0.3	0.4
26	10.9	9.3	10.3	7.8	6.8	7.1	4.5	3.4	3.9	0.4	0.3	0.3
27	13.6	10.9	12.3	7.4	6.6	6.9	3.4	3.0	3.2	0.4	0.3	0.3
28	13.9	13.5	13.7	8.5	7.4	7.8	3.3	3.0	3.2	0.4	0.3	0.3
29	13.5	12.3	12.6	8.7	8.0	8.4	3.4	2.7	3.1	0.4	0.3	0.3
30	12.3	11.5	11.8	8.0	6.7	7.2	3.9	3.1	3.5	0.4	0.3	0.3
31	12.0	11.0	11.4	---	---	---	3.8	3.3	3.5	0.4	0.3	0.3
MONTH	17.2	9.3	13.5	14.7	6.6	9.6	6.7	0.7	3.0	6.0	0.3	1.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.5	0.3	0.3	6.6	4.5	5.5	9.5	9.0	9.1	18.4	16.8	17.5
2	0.5	0.3	0.4	7.7	5.8	6.7	9.0	8.5	8.7	18.7	18.1	18.3
3	0.5	0.3	0.4	8.4	6.7	7.5	8.8	8.2	8.5	18.4	17.1	18.1
4	---	---	---	8.2	7.4	7.8	9.3	8.3	8.8	17.1	15.2	16.1
5	---	---	---	7.7	7.2	7.4	8.7	7.8	8.3	15.4	14.3	14.9
6	---	---	---	7.7	7.2	7.5	8.4	6.6	7.5	16.2	14.2	15.2
7	---	---	---	8.4	7.2	7.8	10.1	7.3	8.6	17.7	15.4	16.5
8	---	---	---	8.0	6.9	7.4	11.2	9.1	10.1	18.0	16.7	17.3
9	---	---	---	6.9	6.1	6.4	11.5	9.9	10.7	17.2	15.8	16.4
10	0.8	0.3	0.5	6.4	5.9	6.1	12.3	10.3	11.3	18.3	15.8	16.9
11	0.8	0.4	0.6	6.5	5.7	6.1	12.2	10.6	11.2	19.8	17.5	18.6
12	---	---	---	7.1	6.3	6.7	11.4	10.5	10.8	20.9	19.2	20.0
13	---	---	---	6.6	5.7	6.2	10.7	9.7	10.2	21.6	20.1	20.7
14	---	---	---	6.1	5.3	5.7	10.1	9.4	9.7	21.5	20.8	21.0
15	---	---	---	7.4	5.6	6.5	11.7	9.9	10.5	21.6	20.0	20.8
16	---	---	---	7.1	5.7	6.7	13.2	10.1	11.4	22.7	21.3	21.9
17	---	---	---	5.7	4.1	4.8	15.0	11.4	12.9	22.2	21.4	21.8
18	2.6	1.5	2.0	5.0	3.8	4.4	17.2	13.9	15.3	21.4	20.7	21.0
19	3.1	2.0	2.6	5.6	4.2	4.9	18.1	14.9	16.3	21.1	20.6	20.9
20	3.5	2.4	2.9	6.3	4.5	5.4	18.9	16.9	17.7	21.0	20.0	20.5
21	4.2	3.0	3.6	7.4	5.6	6.5	18.5	17.0	17.4	20.8	19.6	20.2
22	4.9	3.6	4.3	6.6	5.4	6.2	17.9	16.3	17.0	22.2	20.1	21.1
23	4.6	3.5	4.1	5.8	4.7	5.3	17.8	16.7	17.4	23.5	21.5	22.4
24	4.2	3.5	3.9	6.9	5.0	6.0	16.8	16.0	16.4	23.7	22.4	23.1
25	3.8	2.9	3.4	8.0	6.8	7.5	16.1	14.8	15.5	24.0	23.0	23.6
26	3.9	2.5	3.3	9.2	7.8	8.4	14.8	13.3	13.8	23.7	21.4	22.2
27	4.2	2.8	3.6	11.1	9.1	10.1	14.6	12.8	13.6	21.4	20.1	20.6
28	4.8	3.1	4.0	12.6	10.6	11.6	14.9	14.1	14.4	21.0	19.3	20.1
29	5.5	3.7	4.6	12.2	10.9	11.6	15.7	13.8	14.6	20.9	19.8	20.4
30	---	---	---	11.5	10.2	10.6	17.2	15.6	16.3	20.2	18.6	19.5
31	---	---	---	10.2	9.5	9.7	---	---	---	19.8	18.4	18.8
MONTH	---	---	---	12.6	3.8	7.1	18.9	6.6	12.5	24.0	14.2	19.6

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

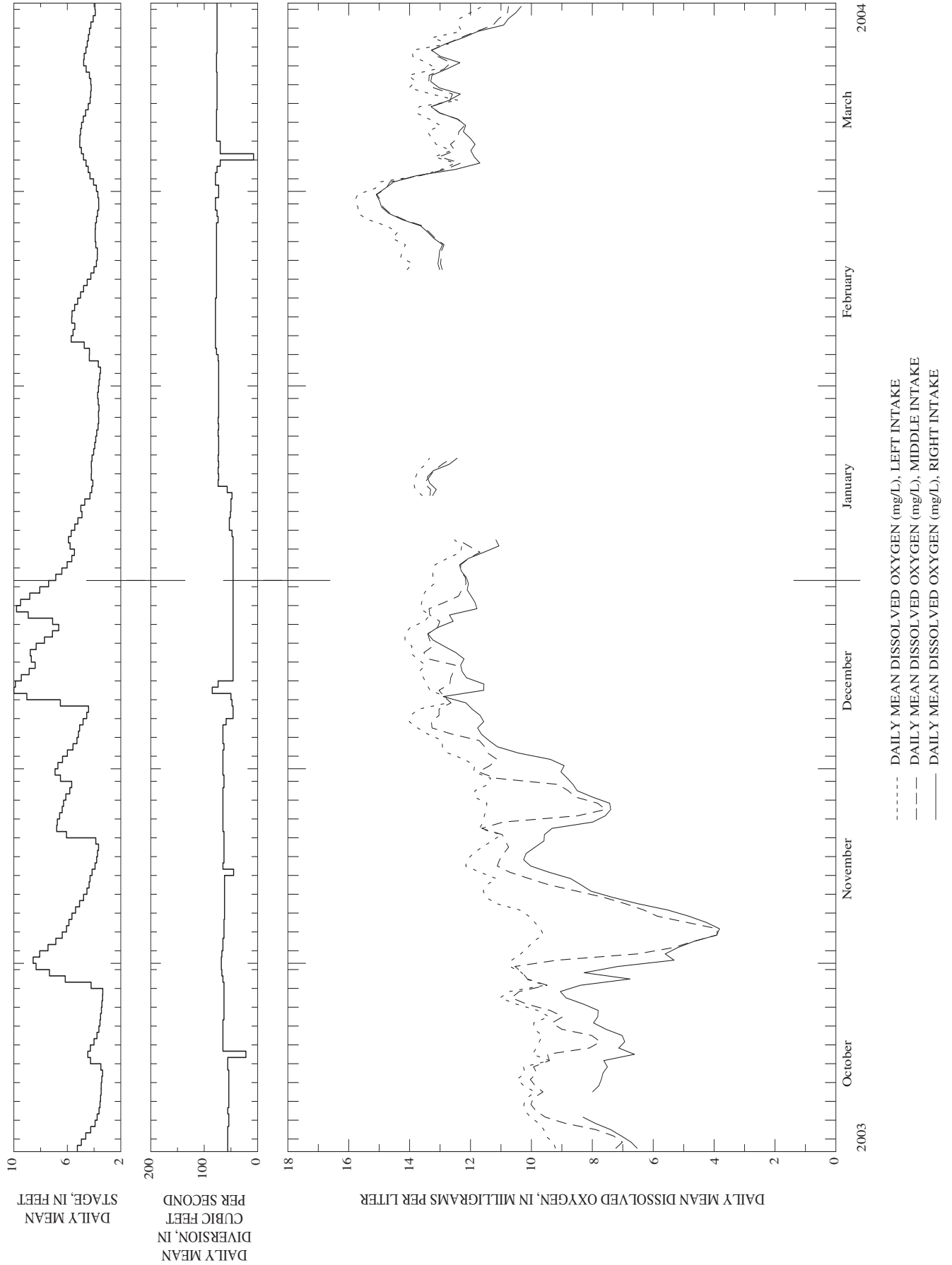


Figure 31. Daily mean water-quality monitor values, stage, and diversion recorded at 01389005, Passaic River below Pompton River, at Two Bridges, water year 2004.

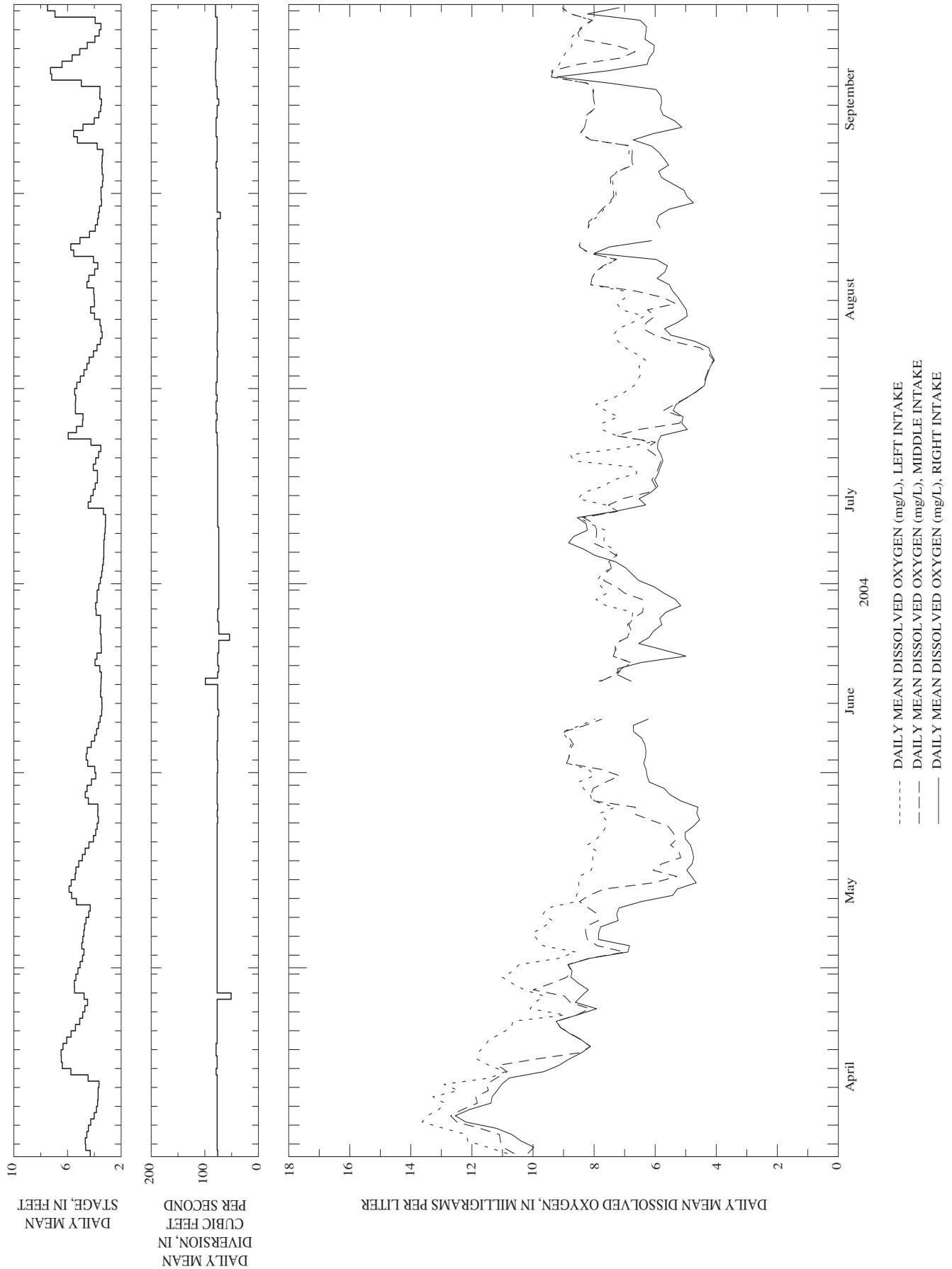


Figure 31. Daily mean water-quality monitor values, stage, and diversion recorded at 01389005, Passaic River below Pompton River, at Two Bridges, water year 2004--continued.

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

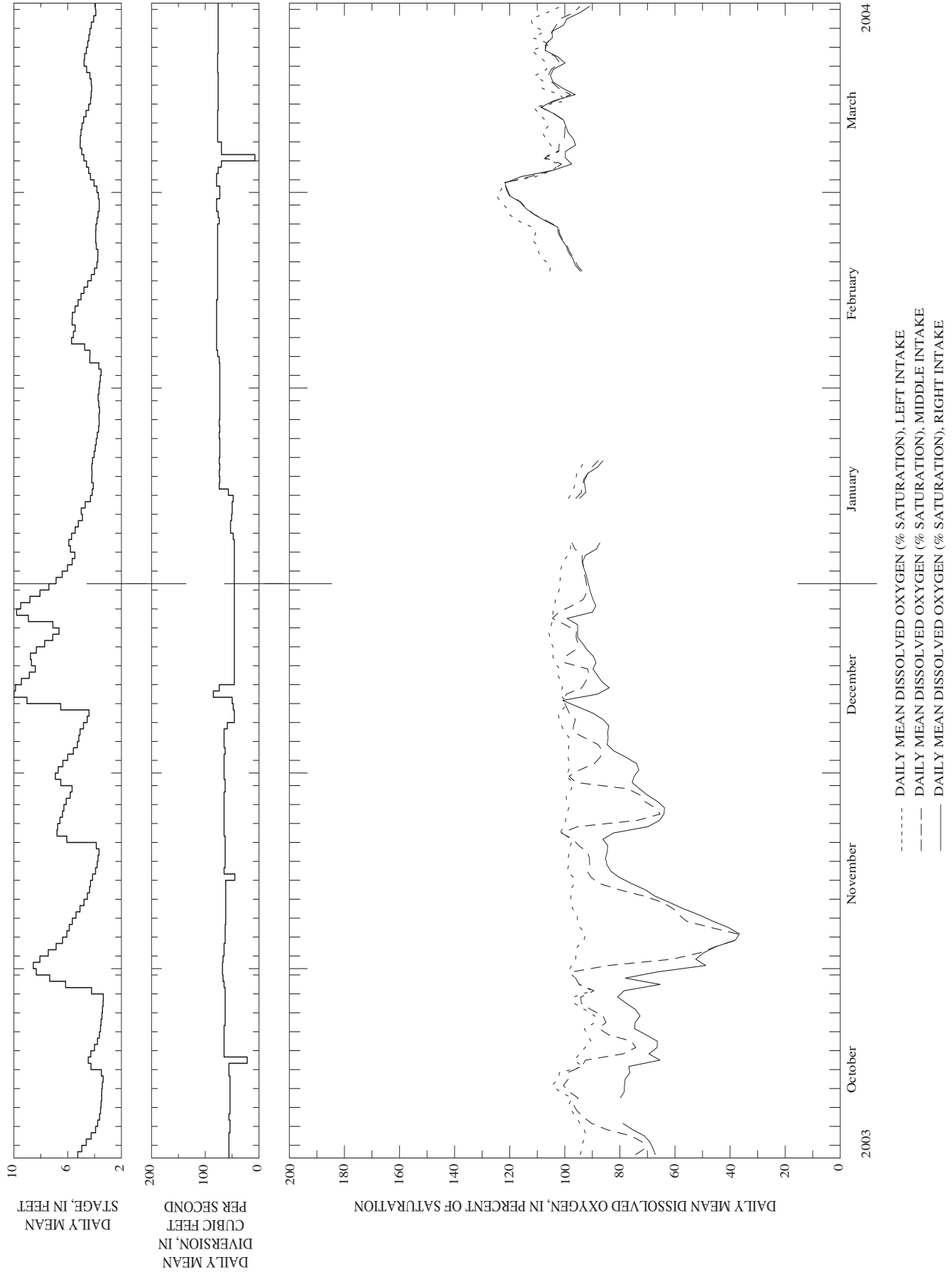


Figure 31. Daily mean water-quality monitor values, stage, and diversion recorded at 01389005, Passaic River below Pompton River, at Two Bridges, water year 2004—continued.

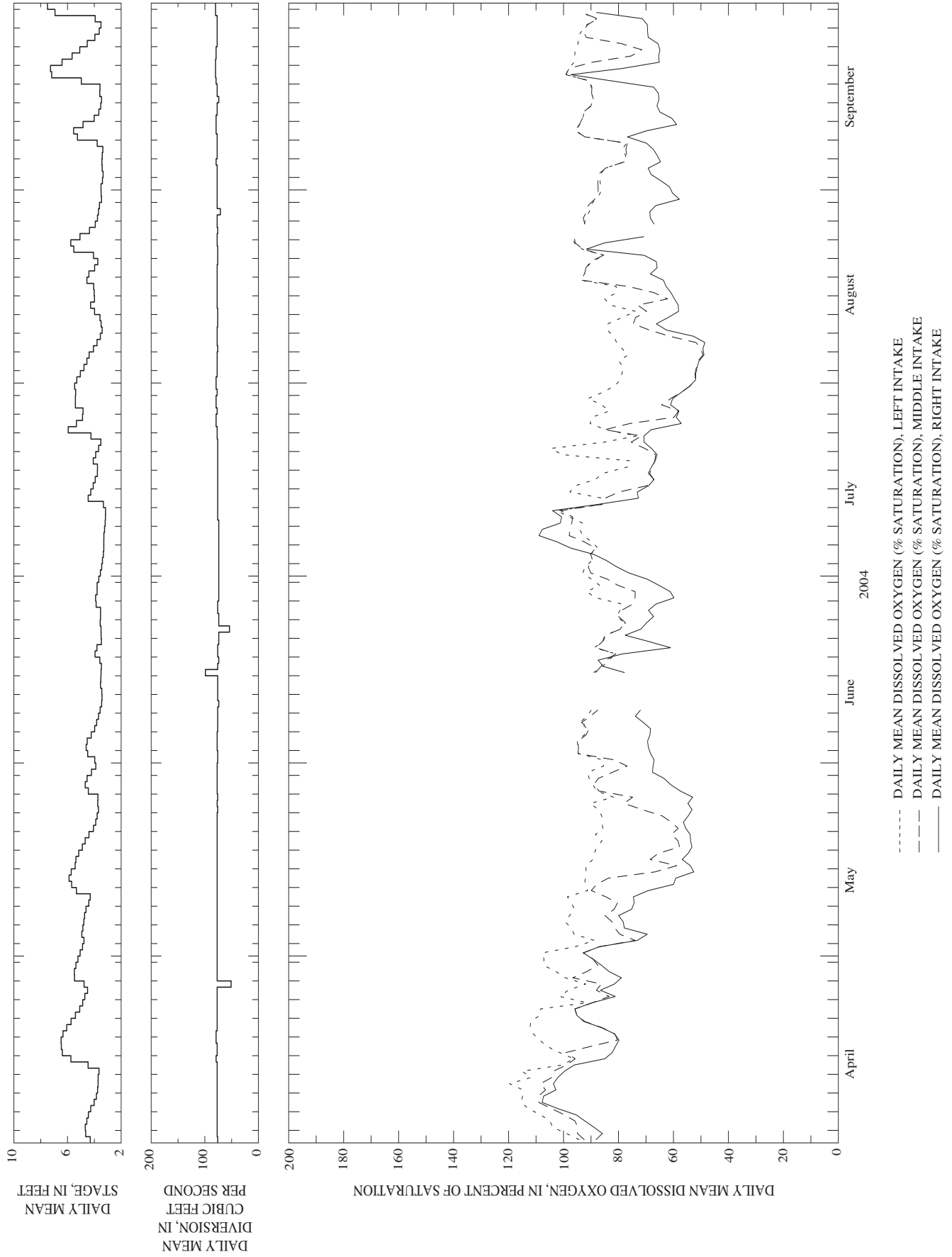


Figure 31. Daily mean water-quality monitor values, stage, and diversion recorded at 01389005, Passaic River below Pompton River, at Two Bridges, water year 2004--continued.

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

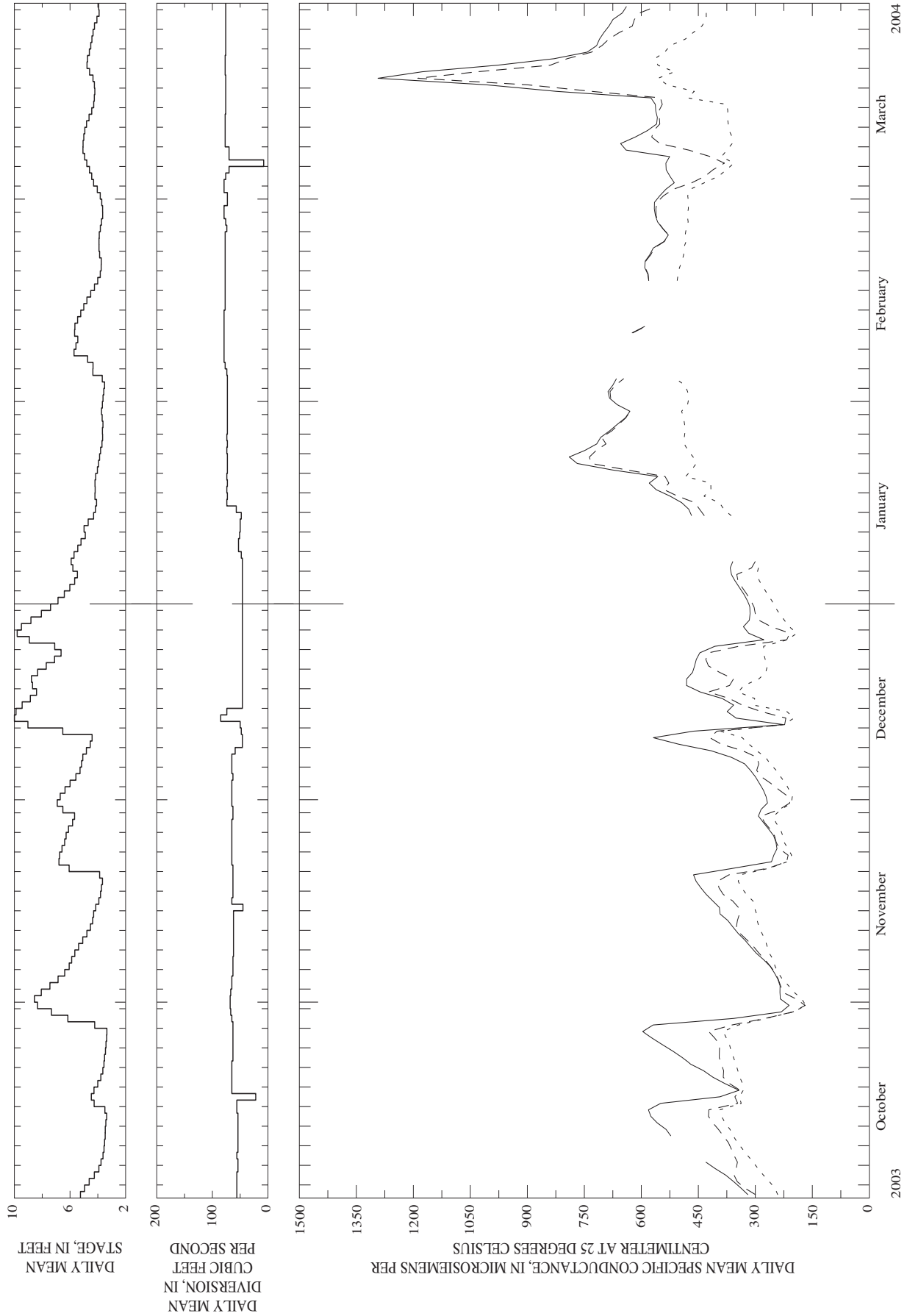


Figure 31. Daily mean water-quality monitor values, stage, and diversion recorded at 01389005, Passaic River below Pompton River, at Two Bridges, water year 2004--continued.

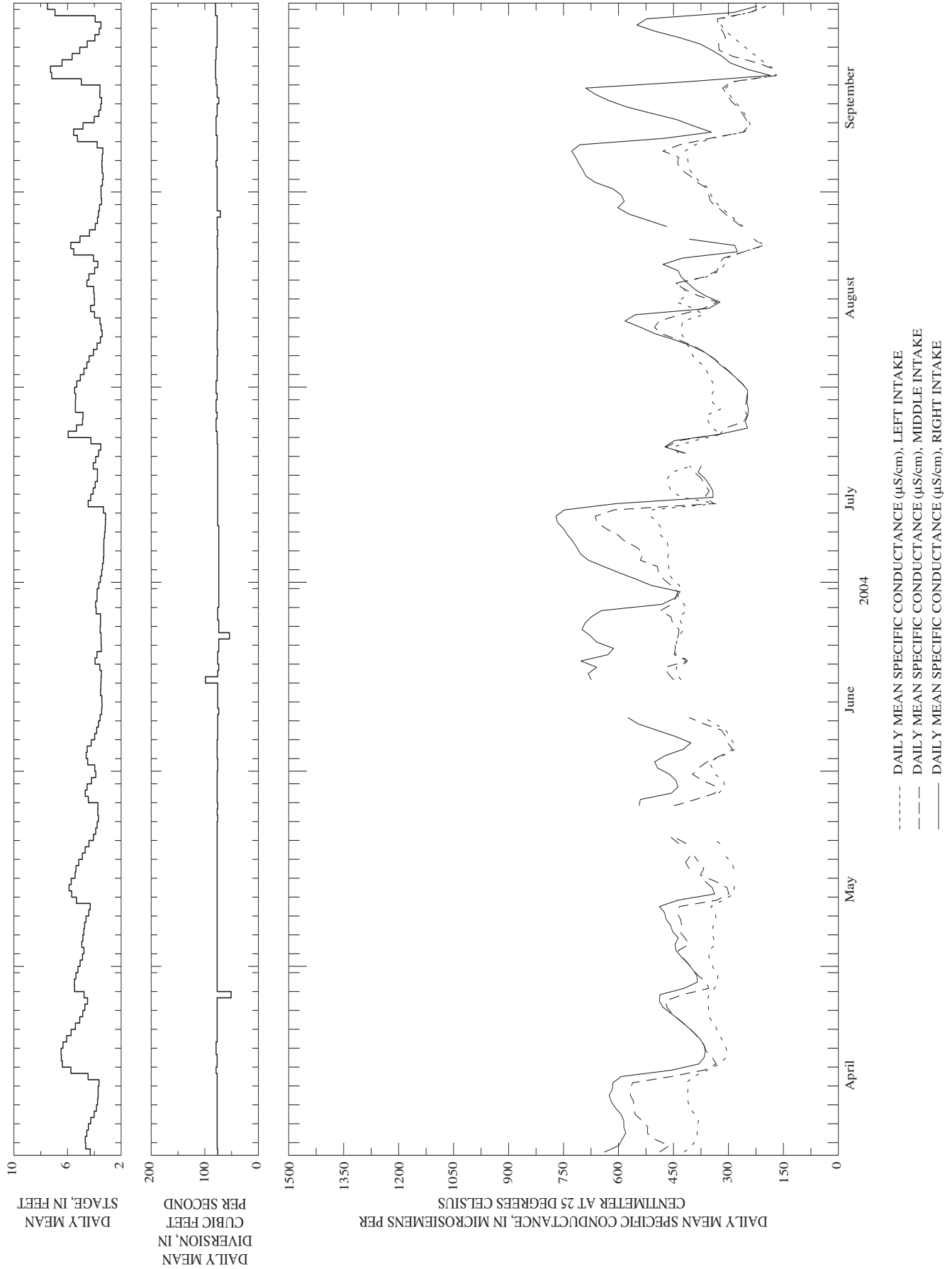


Figure 31. Daily mean water-quality monitor values, stage, and diversion recorded at 01389005, Passaic River below Pompton River, at Two Bridges, water year 2004--continued.

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

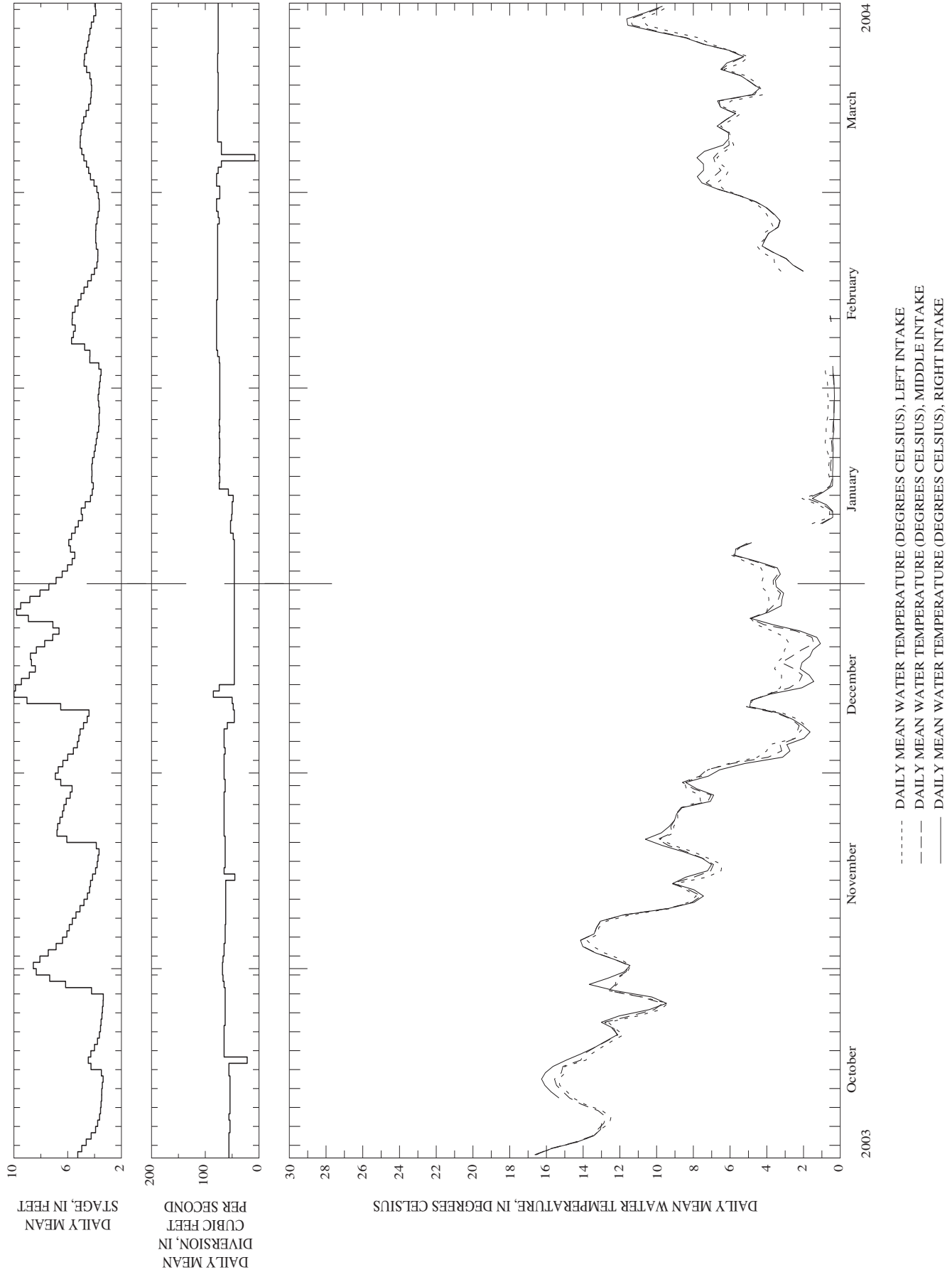


Figure 31. Daily mean water-quality monitor values, stage, and diversion recorded at 01389005, Passaic River below Pompton River, at Two Bridges, water year 2004--continued.

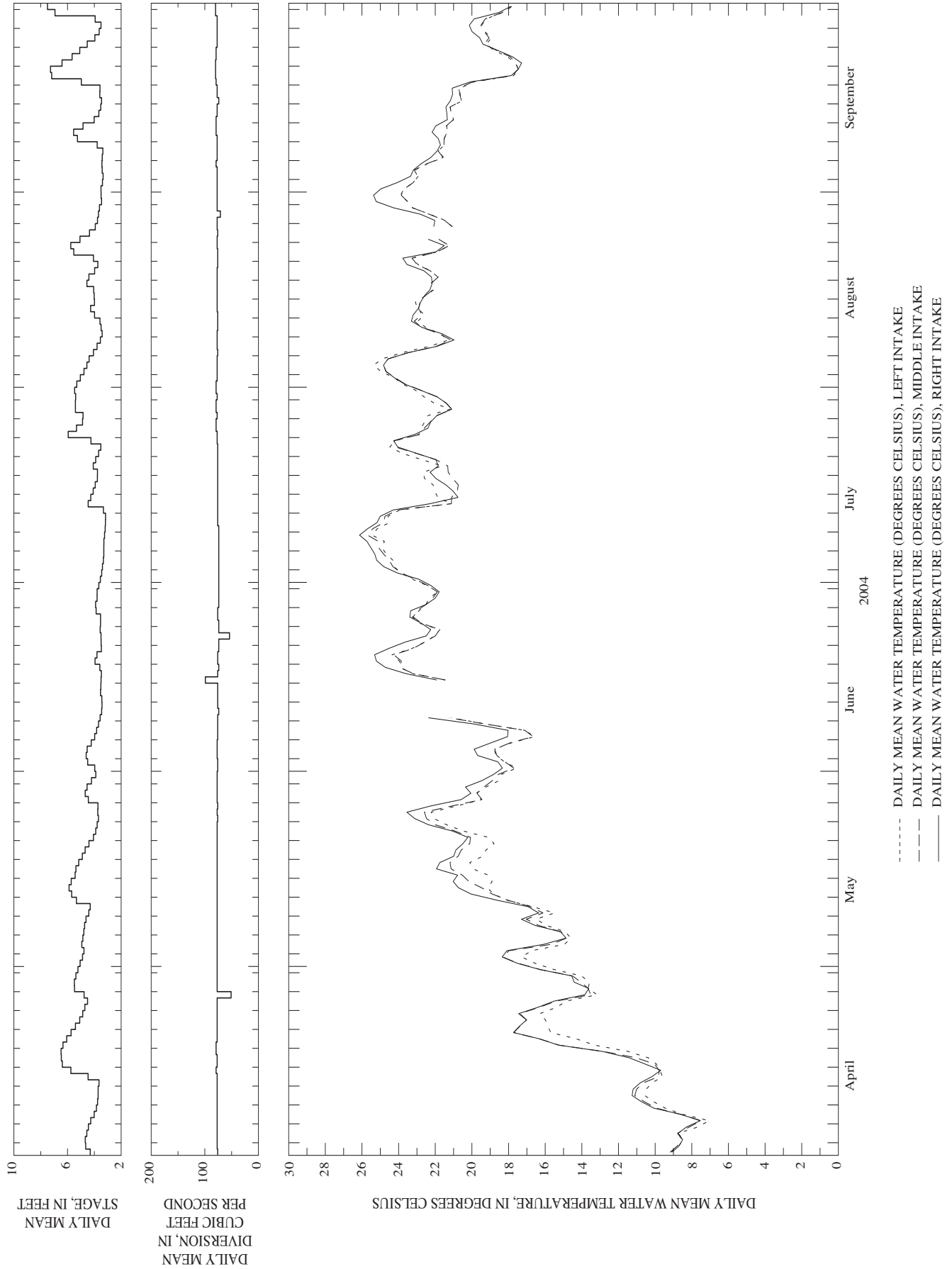


Figure 31. Daily mean water-quality monitor values, stage, and diversion recorded at 01389005, Passaic River below Pompton River, at Two Bridges, water year 2004—continued.

01389005 PASSAIC RIVER BELOW POMPTON RIVER, AT TWO BRIDGES, NJ—Continued

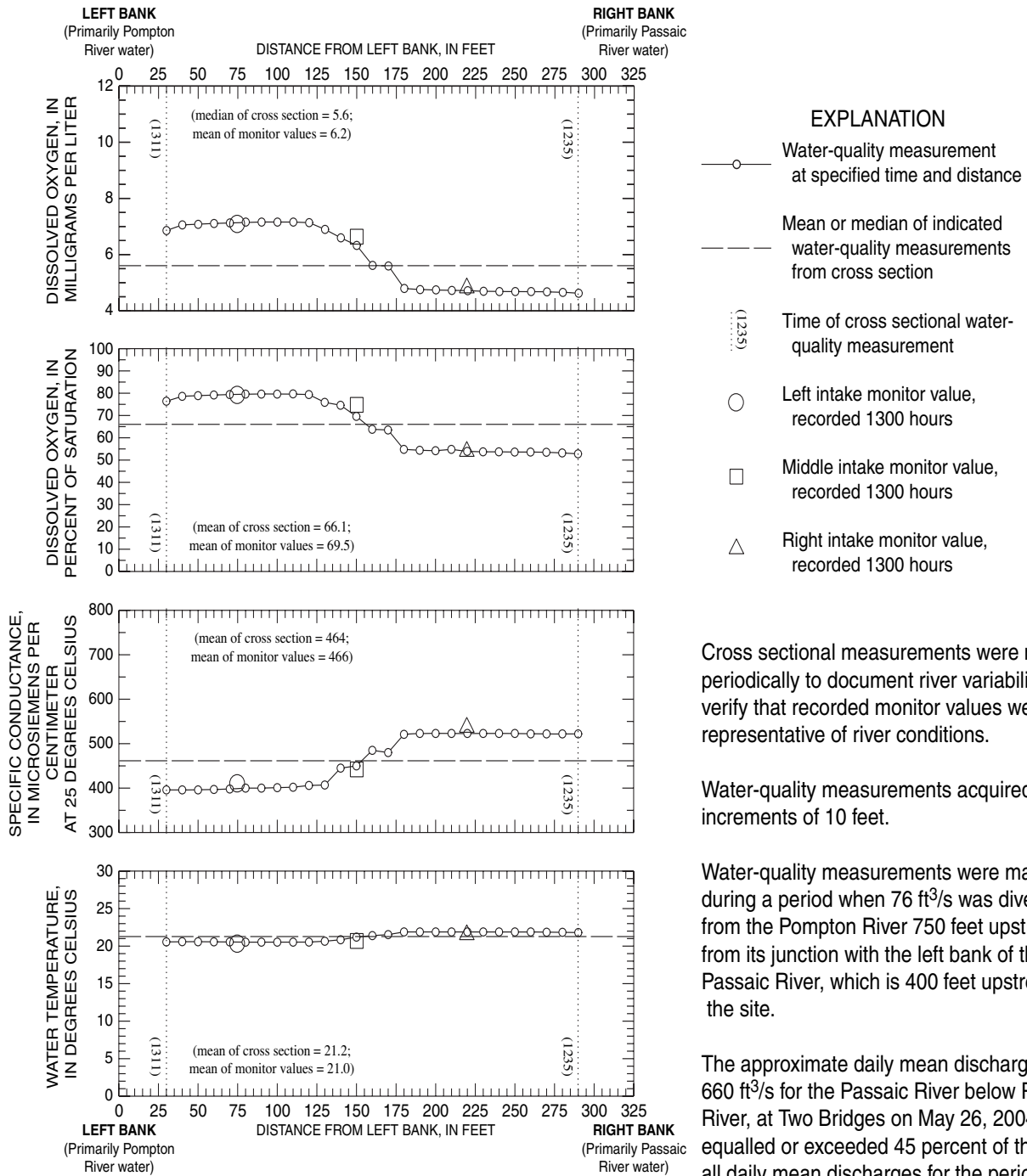


Figure 32. Cross sectional water-quality measurements with recorded monitor values from 01389005, Passaic River below Pompton River, at Two Bridges, May 26, 2004.

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ

LOCATION.--Lat 40°53'05", long 74°13'34", Passaic County, Hydrologic Unit 02030103, 0.6 mi downstream from Beatties Dam in Little Falls, and 1.0 mi upstream from Peckman River.

DRAINAGE AREA.--762 mi².

PERIOD OF RECORD.--Water years 1963-96, 1998 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to November 1986.

WATER TEMPERATURE: Water years 1963 to 1980 (once daily), September 1980 to November 1986.

DISSOLVED OXYGEN: October 1970 to September 1980 (once daily).

SUSPENDED-SEDIMENT DISCHARGE: August 1963 to July 1965.

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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 4.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
Date	Time	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)
Date	Time	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 24...	0900	2,860	6.7	.230	.179	763	10.5	90	7.3	246	6.2	8.6	58	
FEB 19...	0830	919	2.8	.114	.087	757	12.9	95	7.6	575	3.1	2.3	130	
MAY 25...	0700	743	10	.147	.110	755	6.1	71	7.5	482	18.5	22.3	120	
AUG 19...	0800	960	16	.199	.151	758	6.4	74	7.5	393	25.0	22.2	98	
NOV 24...	14.8	5.01	1.88	19.5	40	37.5	<.2	9.2	10.0	125	133	8	.30	
FEB 19...	33.4	10.6	2.72	68.0	57	124	<.2	9.6	20.4	311	345	1	.60	
MAY 25...	32.5	10.6	2.91	48.8	67	85.8	<.2	9.8	19.7	258	271	20	1.0	
AUG 19...	26.7	7.50	2.75	35.0	63	66.6	<.2	10.3	17.6	212	218	21	.52	
NOV 24...	.040	.030	.62	.009	.11	.076	.07	.06	.92	1.0	.8	<.1	.8	
FEB 19...	.084	--	1.70	.025	.10	.133	.12	.15	2.3	2.4	.6	<.1	.6	
MAY 25...	.107	--	1.70	E.057	.18	.208	.20	.33	2.7	2.9	1.4	<.1	1.4	
AUG 19...	.054	--	1.57	.022	.14	.186	.197	.30	2.1	2.2	1.5	<.1	1.5	

01389500 PASSAIC RIVER AT LITTLE FALLS, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 24...	5.8	E1.2	33
FEB 19...	3.6	<1.0	62
MAY 25...	4.8	E1.9	87
AUG 19...	4.9	<1.0	74

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
AUG 02...	1107	1,660	270	400	300
09...	1045	428	130	200	220
16...	1100	899	310	1,200	1,300
23...	1100	2,300	270	900	1,700
30...	1050	465	150	400	700

01389850 GOFFLE BROOK AT HAWTHORNE, NJ

LOCATION.--Lat 40°56'20", long 74°09'47", Passaic County, Hydrologic Unit 02030103, at bridge on Wagaraw Road in Hawthorne, 0.2 mi upstream from mouth and Passaic River, and 1.2 mi east of Haledon.

DRAINAGE AREA.--8.77 mi².

PERIOD OF RECORD.--Water years 1998, 2002, February 2004.

COOPERATION.--Field data and samples for laboratory analyses were provided by the New Jersey Department of Environmental Protection.

COOPERATIVE NETWORK SITE DESCRIPTOR.--VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 4.

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2-Tetra-chloro-ethane, water, unfltrd ug/L (77562)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	1,1,2,2-Tetra-chloro-ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2-Tri-chloro-ethane, water, unfltrd ug/L (34511)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34496)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34501)	1,1-Di-chloro-propene water unfltrd ug/L (77168)	1,2,3-Tri-chloro-benzene water unfltrd ug/L (77613)	1,2,3-Tri-chloro-propane water unfltrd ug/L (77443)	1,2,4-Tri-chloro-benzene water unfltrd ug/L (34551)	
FEB 10...	1120	.4	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2	
Date	Time	1,2,4-Tri-methyl-benzene water unfltrd ug/L (77222)	Dibromo-chloro-propane water unfltrd ug/L (82625)	1,2-Di-bromo-ethane, water, unfltrd ug/L (77651)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	2,2-Di-chloro-propane water unfltrd ug/L (77170)	2-Chloro-toluene water unfltrd ug/L (77275)	4-Chloro-toluene water unfltrd ug/L (77277)
FEB 10...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2
Date	Time	4-Iso-propyl-toluene water unfltrd ug/L (77356)	Acrylo-nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo-benzene water unfltrd ug/L (81555)	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-methane water unfltrd ug/L (34413)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)
FEB 10...		<.2	<.25	.3	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2
Date	Time	Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane water unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Iso-propyl-benzene water unfltrd ug/L (77223)	Naphth-alene, water, unfltrd ug/L (34696)	n-Butyl benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
FEB 10...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	.7	<.2
Date	Time		Tetra-chloro-ethane, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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)		
FEB 10...			<.1	<.2	.2	<.1	<.2	<.2	<.1	<.2	<.1	<.2		

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

01390400 SADDLE RIVER AT OLD STONE CHURCH ROAD, AT UPPER SADDLE RIVER, NJ

LOCATION.--Lat 41°04'16", long 74°05'18", Bergen County, Hydrologic Unit 02030103, at bridge on Old Stone Church Road, 0.6 mi downstream of Penners Lake, 1.0 mi north of Upper Saddle River, and 3.7 mi southeast of Mahwah.

DRAINAGE AREA.-- 6.32 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status and VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 4.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, mg/L (00915)	
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 17...	0800	.5	.070	.053	763	10.8	92	7.9	615	9.7	8.4	200	60.6	
FEB 09...	0800	1.4	.069	.052	768	13.4	92	8.0	931	-7.9	.3	180	54.1	
MAY 11...	0800	17	.225	.174	760	8.4	85	7.9	474	15.2	15.6	95	29.5	
AUG 10...	0800	.5	.053	.040	758	9.7	100	7.7	638	26.0	16.2	190	56.7	
NOV 17...	12.0	1.77	45.6	134	99.4	<.2	10.7	17.1	335	332	4	<.20	<.020	
FEB 09...	10.3	2.08	122	100	214	<.2	8.6	17.1	496	516	4	.30	.041	
MAY 11...	5.10	1.67	43.1	72	76.5	<.2	5.2	9.8	219	241	15	.40	.097	
AUG 10...	11.6	1.49	43.9	127	99.1	<.2	9.3	18.1	326	354	<1	.13	E.009	
NOV 17...	<.020	1.70	.009	.07	<.020	.015	.020	--	--	.3	<.1	.3	2.6	
FEB 09...	--	1.80	.008	.04	<.020	.011	.019	2.1	2.1	.4	<.1	.4	2.3	
MAY 11...	--	.92	.026	.28	.031	.039	.075	1.3	1.6	2.6	<.1	2.6	6.1	
AUG 10...	--	2.00	.003	.03	.157	--	--	2.1	2.2	.3	<.1	.3	2.0	

01390400 SADDLE RIVER AT OLD STONE CHURCH ROAD, AT UPPER SADDLE RIVER, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 17...	<1.0	37
FEB 09...	2.7	33
MAY 11...	E1.7	35
AUG 10...	<1.0	43

Remark codes used in this table:

< -- Less than
E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 09...	0800	<2	59.6	<.06	31	E.03	<.8	8.6	180	.34	99.4	<.02	1.51
AUG 10...	0800	<2	67.5	<.06	42	<.04	<.8	.9	50	.08	7.8	<.02	1.29

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 09...	<.4	<.16	7
AUG 10...	<.4	<.16	E1

Remark codes used in this table:

< -- Less than
E -- Estimated value

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2- Tetra- chloro- ethane, water, unfltrd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	1,1,2,2- Tetra- chloro- ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethane, water, unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,1-Di- chloro- propene water unfltrd ug/L (77168)	1,2,3- Tri- chloro- benzene water unfltrd ug/L (77613)	1,2,3- Tri- chloro- propane water unfltrd ug/L (77443)	1,2,4- Tri- chloro- benzene water unfltrd ug/L (34551)
FEB 09...	0800	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2

01390400 SADDLE RIVER AT OLD STONE CHURCH ROAD, AT UPPER SADDLE RIVER, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	1,2,4-Tri-methyl-benzene water unfltrd ug/L (77222)	Dibromo-chloro-propane water unfltrd ug/L (82625)	1,2-Di-bromo-ethane, water, unfltrd ug/L (77651)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	2,2-Di-chloro-propane water unfltrd ug/L (77170)	2-Chloro-toluene water unfltrd ug/L (77275)	4-Chloro-toluene water unfltrd ug/L (77277)
FEB 09...	<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2

Date	4-Iso-propyl-toluene water unfltrd ug/L (77356)	Acrylo-nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo-benzene water unfltrd ug/L (81555)	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-methane water unfltrd ug/L (34413)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)
FEB 09...	<.2	<2.5	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2

Date	Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Iso-propyl-benzene water unfltrd ug/L (77223)	Naphth-alene, water, unfltrd ug/L (34696)	n-Butyl-benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl-t-butyl-ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
FEB 09...	<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	<.2	<.2

Date	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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 chlor-ide, water, unfltrd ug/L (39175)
FEB 09...	<.1	<.2	<.1	<.1	<.2	<.2	<.1	<.2	<.1	<.2

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

01390400 SADDLE RIVER AT OLD STONE CHURCH ROAD, AT UPPER SADDLE RIVER, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)	
MAY 11...	0800	.159	1.11	<.03	<.01	<.008	.021	<.004	<.01	<.03	<.0096	.03	<.006	
Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 11...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	.07	<.02	<.008	<.02
Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)					
MAY 11...		<.02	<.01	<.02	.06	<.009	<.006	<.010	<.02					

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 2003 TO SEPTEMBER 2004

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)
JUL 06...	0904	280	<100	210
12...	0909	250	<100	110
19...	0944	1,310	1,700	1,400
26...	0935	300	100	800
AUG 02...	0941	330	<100	220

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

01390800 VALENTINE BROOK AT ALLENDALE, NJ

LOCATION.--Lat 41°01'53", long 74°09'09", Bergen County, Hydrologic Unit 02030103, at bridge on Forest Road, 0.5 mi upstream of mouth, 1.4 mi southwest of Allendale, and 2.3 mi northwest of Waldwick.

DRAINAGE AREA.--2.48 mi².

PERIOD OF RECORD.--Water years 1963, 1965, 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status and VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 4.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)	Dis-solved 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, mg/L as CaCO3 (00900)	Calcium water, mg/L (00915)	
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	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 sediment total, mg/L (00694)	Inorganic carbon, suspnd sediment total, mg/L (00688)	Organic carbon, suspnd sediment total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
DEC 22...	1045	1.6	.119	.089	756	11.8	93	7.8	900	10.0	5.0	230	65.5	
FEB 10...	1030	2.5	.112	.085	755	--	--	7.7	937	9.5	4.8	220	61.6	
MAY 06...	1015	1.5	.159	.120	757	11.7	110	7.8	870	18.0	12.1	210	60.6	
AUG 25...	1030	1.2	.103	.077	763	8.3	87	7.8	895	24.5	17.5	250	71.5	
DEC 22...	16.3	2.48	93.3	128	189	<.2	14.7	23.7	490	490	<.1	.30	.060	
FEB 10...	15.1	2.77	105	116	205	<.2	12.9	21.7	500	527	4	.20	.047	
MAY 06...	15.0	2.30	85.5	122	186	<.2	11.4	18.3	458	511	2	.20	.018	
AUG 25...	17.5	2.42	83.3	143	177	<.2	15.6	20.7	480	514	2	.25	.026	
DEC 22...	.060	1.70	.008	.03	<.020	.013	.015	2.0	2.0	.3	<.1	.3	3.3	
FEB 10...	--	1.50	.012	.04	<.020	.012	.013	1.7	1.7	.6	<.1	.6	3.2	
MAY 06...	--	1.20	.018	.04	.025	.017	.019	1.4	1.4	.3	<.1	.3	3.9	
AUG 25...	--	1.38	.010	.03	.031	.025	.042	1.6	1.7	.3	<.1	.3	2.9	

PASSAIC RIVER BASIN

01390800 VALENTINE BROOK AT ALLENDALE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 22...	<1.0	35
FEB 10...	E1.8	34
MAY 06...	2.2	35
AUG 25...	<1.0	45

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 10...	1030	E1	68.6	<.06	32	E.04	<.8	1.5	350	.81	234	<.02	4.53
AUG 25...	1030	5	77.5	<.06	40	<.04	<.8	1.5	220	.22	100	<.02	1.95

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 10...	E.3	<.16	10
AUG 25...	E.3	<.16	4

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

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2 -Tetra- chloro- ethane, water, unfltrd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	1,1,2,2 -Tetra- chloro- ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethane, water, unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,1-Di- chloro- propene water unfltrd ug/L (77168)	1,2,3- Tri- chloro- benzene water unfltrd ug/L (77613)	1,2,3- Tri- chloro- propane water unfltrd ug/L (77443)	1,2,4- Tri- chloro- benzene water unfltrd ug/L (34551)
FEB 10...	1030	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2

01390800 VALENTINE BROOK AT ALLENDALE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	1,2,4-Tri-methyl-benzene water unfltrd ug/L (77222)	Dibromo-chloro-propane water unfltrd ug/L (82625)	1,2-Di-bromo-ethane, water, unfltrd ug/L (77651)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	2,2-Di-chloro-propane water unfltrd ug/L (77170)	2-Chloro-toluene water unfltrd ug/L (77275)	4-Chloro-toluene water unfltrd ug/L (77277)
FEB 10...	<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2

Date	4-Iso-propyl-toluene water unfltrd ug/L (77356)	Acrylo-nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo-benzene water unfltrd ug/L (81555)	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-methane water unfltrd ug/L (34413)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)
FEB 10...	<.2	<2.5	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2

Date	Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Iso-propyl-benzene water unfltrd ug/L (77223)	Naphth-alene, water, unfltrd ug/L (34696)	n-Butyl-benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl-t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
FEB 10...	<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	.5	<.2

Date	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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 chlor-ide, water, unfltrd ug/L (39175)
FEB 10...	<.1	<.2	<.1	<.1	<.2	<.2	<.1	<.2	<.1	<.2

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

01390800 VALENTINE BROOK AT ALLENDALE, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)
MAY 06...	1015	<.009	.05	<.03	<.01	<.008	<.009	<.004	<.01	<.03	.0356	<.03	<.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Clopyralid, water, fltrd, 0.7u GF (49305)	Dicamba water, fltrd, 0.7u GF (38442)	Di-chloroprop, water, fltrd, 0.7u GF (49302)	Dinoseb water, fltrd, 0.7u GF (49301)	Diuron, water, fltrd, 0.7u GF (49300)	Fluometuron, water, fltrd, 0.7u GF (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF (38501)	Norflurazon, water, fltrd, 0.7u GF (49293)
MAY 06...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF (49292)	Oxamyl, water, fltrd, 0.7u GF (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF (49235)
MAY 06...		<.02	<.01	<.02	E.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
JUL 06...	0924	2,300	1,100	>16,000
12...	0927	1,700	600	1,300
19...	1000	2,500	1,200	3,000
26...	0958	450	900	1,400
AUG 02...	1000	580	200	500

Remark codes used in this table:

> -- Greater than

01391500 SADDLE RIVER AT LODI, NJ

LOCATION.--Lat 40°53'25", long 74°04'50", Bergen County, Hydrologic Unit 02030103, 560 ft upstream from bridge on Outwater Lane in Lodi and 3.2 mi upstream from mouth. Water-quality samples collected at bridge on Outwater Lane at high flows.

DRAINAGE AREA.--54.6 mi².

PERIOD OF RECORD.--Water years 1962 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 4.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 sediment total, mg/L (00694)	Inorganic carbon, suspnd sediment total, mg/L (00688)	Organic carbon, suspnd sediment total, mg/L (00689)
DEC 15...	0900	381	14	.125	.097	750	11.5	86	7.6	1,150	5.5	3.0	150	
FEB 26...	0900	77	3.0	.081	.061	770	10.6	79	7.7	726	6.3	3.2	230	
MAY 27...	0930	526	73	.205	.162	754	8.0	83	7.7	295	19.3	16.1	91	
AUG 26...	1100	61	2.2	.108	.082	770	7.8	--	7.8	--	25.5	19.1	210	
DEC 15...	45.2	9.51	3.31	249	73	408	<.2	8.4	18.1	802	806	23	.80	
FEB 26...	64.6	16.2	3.91	75.7	121	167	<.2	10.3	26.9	--	490	7	1.7	
MAY 27...	26.5	6.07	2.52	29.8	57	55.9	<.2	6.0	10.3	178	199	54	.60	
AUG 26...	58.0	15.3	4.49	67.5	129	132	<.2	12.9	23.8	415	438	<1	.58	
DEC 15...	.380	.470	3.50	.025	.67	.156	.16	.28	4.3	5.0	5.4	.1	5.2	
FEB 26...	1.16	--	4.80	.171	.15	--	.55	.58	6.5	6.7	.9	<.1	.9	
MAY 27...	.161	--	1.40	.037	.68	.164	.16	.32	2.0	2.7	4.6	<.1	4.6	
AUG 26...	.146	--	4.99	.090	.18	.728	.75	.77	5.6	5.8	1.0	<.1	.9	

PASSAIC RIVER BASIN

01391500 SADDLE RIVER AT LODI, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 15...	3.7	3.5	45
FEB 26...	3.4	E1.9	78
MAY 27...	6.2	E1.5	36
AUG 26...	3.8	2.7	92

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 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	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)
JUL 06...	1004	45	750	1,000	1,100
12...	0958	32	520	1,000	1,300
19...	1029	102	3,200	3,800	2,400
26...	1029	102	400	800	5,000
AUG 02...	1035	96	440	800	5,000

01391550 SADDLE RIVER AT GARFIELD, NJ

LOCATION.--Lat 41°51'50", long 74°06'59", Bergen County, Hydrologic Unit 02030103, at bridge on Marcellus Place just north of intersection with Saddle River Avenue, 0.3 mi southeast of Garfield, and 0.3 mi upstream of mouth.

DRAINAGE AREA.--60.4 mi².

PERIOD OF RECORD.--Water years 2001-02, March 2004.

COOPERATION.--Field data and samples for laboratory analyses were provided by the New Jersey Department of Environmental Protection.

COOPERATIVE NETWORK SITE DESCRIPTOR.--VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 4.

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2-Tetra-chloro-ethane, water, unfltrd ug/L (77562)	1,1,1-Chloro-ethane, water, unfltrd ug/L (34506)	1,1,2,2-Tetra-chloro-ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2-Tri-chloro-ethane, water, unfltrd ug/L (34511)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,1-Di-chloro-propene water unfltrd ug/L (77168)	1,2,3-Tri-chloro-benzene water unfltrd ug/L (77613)	1,2,3-Tri-chloro-propane water unfltrd ug/L (77443)	1,2,4-Tri-chloro-benzene water unfltrd ug/L (34551)	
MAR 04...	1000	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2	
Date	Time	1,2,4-Tri-methyl-benzene water unfltrd ug/L (77222)	Dibromo-chloro-propane water unfltrd ug/L (82625)	1,2-Di-bromo-ethane, water, unfltrd ug/L (77651)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	2,2-Di-chloro-propane water unfltrd ug/L (77170)	2-Chloro-toluene water unfltrd ug/L (77275)	4-Chloro-toluene water unfltrd ug/L (77277)
MAR 04...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2
Date	Time	4-Iso-propyl-toluene water unfltrd ug/L (77356)	Acrylo-nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo-benzene water unfltrd ug/L (81555)	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-methane water unfltrd ug/L (34413)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)
MAR 04...		<.2	<.2.5	<.1	<.2	<.2	<.1	<.3	.4	<.2	<.2	3.1	<.2	<.2
Date	Time	Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane water unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Iso-propyl-benzene water unfltrd ug/L (77223)	Naphth-alene, water, unfltrd ug/L (34696)	n-Butyl benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
MAR 04...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	1.4	<.2
Date	Time		Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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 chlor-ide, water, unfltrd ug/L (39175)		
MAR 04...			.6	<.2	.2	<.1	<.2	<.2	.8	<.2	.2	.5		

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

01394200 RAHWAY RIVER AT MORRIS AVENUE, AT SPRINGFIELD, NJ

LOCATION.--Lat 40°42'28", long 74°18'07", Union County, Hydrologic Unit 02030104, at bridge on Morris Avenue (State Route 82), 0.7 mi east of Springfield, 1.2 mi south of Millburn, and 4.2 mi upstream from Nomahegan Brook.

DRAINAGE AREA.--25.5 mi².

PERIOD OF RECORD.--Water year 2003 to September 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 7.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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 (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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
DEC 03...	0900	2.2	.089	.068	772	10.8	78	7.9	547	9.1	2.3	180	52.2	
FEB 18...	1030	3.3	.056	.043	764	E11.2	--	7.5	688	3.1	3.7	210	61.2	
MAY 20...	1030	4.6	.117	.085	768	6.4	64	7.4	607	20.3	15.7	190	55.0	
SEP 02...	0900	4.0	.060	.045	768	5.9	63	7.6	641	22.3	18.6	220	67.1	
DEC 03...	11.2	2.14	45.1	97	112	<.2	17.2	27.8	333	351	4	.20	.090	
FEB 18...	12.8	2.20	78.2	95	163	<.2	15.1	29.9	427	494	3	<.20	.068	
MAY 20...	12.0	2.54	71.2	88	150	<.2	13.9	25.2	388	459	4	.40	.100	
SEP 02...	13.8	2.45	54.9	119	145	<.2	15.5	31.2	407	411	5	.28	.062	
DEC 03...	.080	1.50	.012	.13	.024	.027	.062	1.7	1.8	.6	<.1	.6	2.9	
FEB 18...	--	1.60	.009	.10	<.020	.007	.012	--	--	.6	<.1	.6	2.0	
MAY 20...	--	1.30	.025	.09	.035	.030	.030	1.7	1.9	.8	<.1	1.0	3.3	
SEP 02...	--	1.38	.018	.06	.026	.025	.072	1.7	1.8	.5	<.1	.6	1.9	

01394200 RAHWAY RIVER AT MORRIS AVENUE, AT SPRINGFIELD, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 03...	E1.0	51
FEB 18...	<1.1	55
MAY 20...	E1.6	58
SEP 02...	<1.0	73

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 18...	1030	<2	123	<.06	53	.07	E.4	2.7	460	1.98	295	E.01	2.58
SEP 02...	0900	E1	137	<.06	68	E.04	2.2	3.5	400	1.80	203	E.01	3.46

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 18...	.6	<.16	20
SEP 02...	.5	<.16	15

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

01394200 RAHWAY RIVER AT MORRIS AVENUE, AT SPRINGFIELD, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)	
MAY 20...	1030	<.041	.46	<.03	<.01	<.008	<.009	<.004	<.01	<.03	.3037	E.01	<.006	
Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 20...		<.01	.24	<.01	<.01	E.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02
Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)					
MAY 20...		<.02	<.01	<.02	.03	.128	<.006	<.010	.09					

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 2003 TO SEPTEMBER 2004

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)
JUN 16...	1030	650	1,400	2,800
23...	1000	3,900	3,900	16,000
30...	1015	3,600	2,200	5,000
JUL 07...	1045	2,000	3,300	9,000
14...	1015	330	2,000	9,000

01394500 RAHWAY RIVER NEAR SPRINGFIELD

LOCATION.--Lat 40°41'15", long 74°18'42", Union County, Hydrologic Unit 02030104, downstream from bridge on eastbound U.S. Highway 22, 100 ft downstream from Pope Brook, and 1.5 mi south of Springfield.

DRAINAGE AREA.--25.5 mi².

PERIOD OF RECORD.--Water years 1978 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 7.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 20...	1045	390	25	.319	.255	753	8.3	77	7.3	204	10.5	11.0	56	
FEB 25...	1015	18	3.4	.067	.048	764	12.2	90	7.7	794	.0	2.9	200	
MAY 20...	1030	21	4.4	.118	.084	766	5.7	58	7.5	701	20.0	16.2	190	
AUG 05...	1030	21	6.7	.117	.086	755	5.7	66	7.5	613	19.0	21.6	190	
NOV 20...	15.4	4.17	2.76	16.8	35	30.0	<.2	7.0	9.8	111	123	23	.50	
FEB 25...	60.4	12.0	2.14	69.4	100	162	<.2	12.6	29.3	414	466	7	<.20	
MAY 20...	57.6	12.2	2.56	63.7	100	136	<.2	15.2	26.0	380	444	3	.60	
AUG 05...	56.6	11.2	2.59	47.2	103	105	<.2	15.4	28.3	335	369	22	.37	
NOV 20...	.030	.080	.74	.016	.22	.105	.103	.102	1.2	1.5	2.1	<.1	2.1	
FEB 25...	<.020	--	1.40	.012	.04	.032	--	.020	--	--	.6	<.1	.6	
MAY 20...	.097	--	1.40	.033	.09	.037	.037	.077	2.0	2.1	1.0	<.1	1.0	
AUG 05...	.065	--	1.45	.017	.10	.042	.088	.091	1.8	1.9	1.2	<.1	1.2	

RAHWAY RIVER BASIN

01394500 RAHWAY RIVER NEAR SPRINGFIELD—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 20...	9.0	3.2	34
FEB 25...	2.7	<1.0	58
MAY 20...	3.6	E1.1	70
AUG 05...	3.6	<1.0	75

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
JUN 16...	1005	17	590	1,100	1,100
23...	0925	11	3,600	14,000	>16,000
30...	0945	10	2,700	1,800	5,000
JUL 07...	1025	9.5	3,100	3,500	16,000
14...	0955	21	340	1,900	3,000

Remark codes used in this table:

> -- Greater than

01395000 RAHWAY RIVER AT RAHWAY, NJ

LOCATION.--Lat 40°37'08", long 74°17'00", Union County, Hydrologic Unit 02030104, at St. Georges Avenue bridge in Rahway and 0.9 mi upstream from Robyns Branch.

DRAINAGE AREA.--40.9 mi².

PERIOD OF RECORD.--Water years 1923-24, 1952, 1962, 1967-70, 1979 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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 7.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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)
Date		Ammonia water, fltrd, mg/L as N (00608)	Ammonia water, unfltrd as N (00610)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
DEC 17...	1030	116	7.7	.144	.110	754	12.4	95	7.5	797	8.5	4.0	140	
FEB 10...	1030	56	7.6	.100	.076	764	13.0	95	7.7	803	5.9	2.6	160	
MAY 27...	1030	273	19	.112	.080	756	8.5	90	7.8	611	19.5	17.9	200	
AUG 31...	1030	19	2.7	.088	.066	760	6.9	81	7.9	636	21.5	23.4	220	
DEC 17...		41.8	7.62	2.36	99.3	69	182	<.2	12.1	25.0	418	442	7	.40
FEB 10...		49.0	9.31	2.44	101	76	177	<.2	12.5	26.7	430	451	7	.40
MAY 27...		60.1	11.2	2.43	45.9	105	105	<.2	14.2	28.1	335	394	30	.60
AUG 31...		69.3	12.2	2.25	38.5	127	95.3	<.2	12.9	39.0	351	376	4	.25
DEC 17...		.140	.140	1.40	.008	.09	.040	.069	.147	1.8	1.9	.8	<.1	.8
FEB 10...		.147	--	1.40	.013	.07	<.020	.022	.018	1.8	1.9	.5	<.1	.5
MAY 27...		.198	--	1.20	.056	.24	.064	.066	--	1.8	2.0	2.5	<.1	2.5
AUG 31...		.036	--	1.10	.013	.17	.050	.049	.073	1.4	1.5	1.2	<.1	1.2

RAHWAY RIVER BASIN

01395000 RAHWAY RIVER AT RAHWAY, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 17...	4.0	1.1	50
FEB 10...	3.0	E1.5	48
MAY 27...	3.9	E1.7	72
AUG 31...	3.0	2.7	86

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
JUN 16...	0945	14	70	<100	700
23...	0855	25	880	1,000	5,000
30...	0920	16	250	300	1,700
JUL 07...	0955	13	260	200	300
14...	0930	44	420	1,000	3,000

Remark codes used in this table:

< -- Less than

01395700 ROBINSONS BRANCH TRIBUTARY 2 AT WESTFIELD, NJ

LOCATION.--Lat 40°37'30", long 74°19'40", Union County, Hydrologic Unit 02030104, at bridge on County Route 606 (Lamberts Mill Road), 550 upstream of mouth and Middlesex Reservoir, 2.3 mi southeast of Westfield, and 2.8 mi northwest of Rahway.

DRAINAGE AREA.-- 1.93 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

REMARKS.--For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. 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, total phosphorus in bed sediment, 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. Analysis of the split and concurrent replicate samples was performed by the Laboratory Branch of the U.S. Environmental Protection Agency, Region II, Division of Environmental Science and Assessment.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 7.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	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 unf 25 degC (00095)	Temperature, air, deg C (00020)
NOV											
05...	0930	Environmental	2.0	.154	.122	765	5.8	55	7.5	518	14.5
05...	0930	Split Replicate	--	--	--	--	--	--	--	--	--
05...	0931	Concurrent Replicate	--	--	--	--	--	--	--	--	--
FEB											
04...	0830	Environmental	5.2	.137	.106	764	12.2	86	7.4	857	8.2
04...	0830	Split Replicate	--	--	--	--	--	--	--	--	--
04...	0831	Concurrent Replicate	--	--	--	--	--	--	--	--	--
JUN											
08...	0900	Environmental	1.8	.088	.065	768	6.3	67	7.7	428	22.2
08...	0900	Split Replicate	--	--	--	--	--	--	--	--	--
08...	0901	Concurrent Replicate	--	--	--	--	--	--	--	--	--
AUG											
17...	0930	Environmental	3.6	.131	.097	765	7.0	75	7.5	245	24.0
17...	0930	Split Replicate	--	--	--	--	--	--	--	--	--
17...	0931	Concurrent Replicate	--	--	--	--	--	--	--	--	--

Date	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	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 unf 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)
NOV													
05...	13.2	180	57.0	8.84	4.14	29.4	121	63.1	<.2	16.1	34.4	--	293
05...	--	180	56.0	9.20	4.40	30.0	120	54.0	.12	--	37.0	268	330
05...	--	180	56.0	9.10	4.30	30.0	120	54.0	.11	--	37.0	268	330
FEB													
04...	.9	130	41.5	6.63	5.72	139	37	261	<.2	7.2	21.1	512	586
04...	--	130	39.0	6.80	6.10	140	43	250	.17	--	22.0	497	560
04...	--	120	38.0	6.80	6.10	130	42	240	.17	--	22.0	475	530
JUN													
08...	19.1	170	54.2	7.79	3.02	30.6	101	63.4	<.2	12.9	28.9	269	291
08...	--	150	48.0	7.50	3.00	28.0	100	62.0	<.10	--	32.0	248	330
08...	--	150	48.0	7.40	3.00	27.0	91	60.0	<.10	--	32.0	240	310
AUG													
17...	19.2	91	29.7	4.03	2.44	17.8	64	31.3	<.2	8.6	17.6	156	157
17...	--	81	26.0	3.90	2.60	17.0	64	32.0	<.10	--	17.0	143	180
17...	--	81	26.0	3.90	2.60	17.0	64	32.0	<.10	--	17.0	143	170

01395700 ROBINSONS BRANCH TRIBUTARY 2 AT WESTFIELD, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	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)	Particulate nitrogen, susp, water, mg/L (49570)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	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)
NOV													
05...	3	.30	--	.022	.024	1.20	.020	.03	--	.055	.057	1.5	1.5
05...	<10	.40	.40	<.050	<.050	1.20	<.050	--	<.050	.051	.058	1.6	1.6
05...	<10	.38	.45	<.050	<.050	1.30	<.050	--	<.050	.052	.059	1.7	1.8
FEB													
04...	2	1.2	--	.488	--	1.50	.021	.08	.078	.081	.078	2.7	2.8
04...	<10	1.6	1.7	.460	.450	1.40	<2.50	--	<.050	.081	.092	3.0	3.1
04...	<10	1.6	1.6	.430	.460	1.40	<2.50	--	<.050	.080	.098	3.0	3.0
JUN													
08...	3	.30	--	.055	--	1.50	.026	.06	.059	.065	.068	1.8	1.9
08...	<10	.27	.43	.055	<.100	1.70	.027	--	.054	.100	.110	2.0	2.1
08...	<10	.35	.43	.051	<.100	1.70	.027	--	.056	.110	.110	2.0	2.1
AUG													
17...	1	.30	--	.034	--	1.25	.012	.05	.067	.068	.091	1.6	1.6
17...	<10	.42	.15	<.050	<.050	1.40	<.050	--	.063	.064	.075	1.8	1.5
17...	<10	.35	.16	<.050	.050	1.30	<.050	--	.063	.063	.080	1.6	1.5

Date	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)	Boron, water, fltrd, ug/L (01020)
NOV						
05...	.5	<.1	.5	5.5	E1.7	58
05...	--	--	--	6.7	--	70
05...	--	--	--	5.6	--	70
FEB						
04...	.7	<.1	.7	5.1	2.5	30
04...	--	--	--	5.7	--	30
04...	--	--	--	5.5	--	30
JUN						
08...	.5	<.1	.5	3.2	<1.0	59
08...	--	--	--	3.3	--	--
08...	--	--	--	M	--	--
AUG						
17...	.8	<.1	.8	3.9	E1.6	57
17...	--	--	--	5.3	--	50
17...	--	--	--	5.3	--	50

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	pH bed sedimnt std units (70310)	Ammonia + org-N, bed sed total, mg/kg as N (00626)	Phosphorus, bed sedimnt total, mg/kg (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inorganic carbon, bed sedimnt total, g/kg (00686)	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover-able, ug/L (01007)	Beryllium, water, unfltrd recover-able, ug/L (01012)	Boron, water, unfltrd recover-able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Copper, water, unfltrd recover-able, ug/L (01042)
FEB													
04...	0830	--	--	--	--	--	<2	69.2	<.06	33	.13	E.4	6.3
AUG													
17...	0930	--	--	--	--	--	<2	47.0	<.06	47	E.03	E.7	5.1
17...	0930	6.46	50	5,800	2.7	<.2	--	--	--	--	--	--	--

01395700 ROBINSONS BRANCH TRIBUTARY 2 AT WESTFIELD, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)	Mercury, water, unfltrd recover-able, ug/L (71900)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd recover-able, 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)	Chromium, bed sedimnt recover-able, ug/g (01029)	Cobalt, bed sedimnt recover-able, ug/g (01038)	Copper, bed sedimnt recover-able, ug/g (01043)
FEB 04...	260	1.43	102	<.02	2.34	E.4	<.16	52	--	--	--	--	--
AUG 17...	240	1.52	66.1	<.02	1.31	.5	<.16	12	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	<1	.130	6.7	2.9	13
Date	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover-able, ug/g (01052)	Manganese, bed sedimnt recover-able, ug/g (01053)	Nickel, bed sedimnt recover-able, ug/g (01068)	Selenium, bed sedimnt total, ug/g (01148)	Zinc, bed sedimnt recover-able, ug/g (01093)	1,2-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sed <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sed <2 mm, ug/kg (49410)	1-Methylpyrene, bed sed <2 mm, wsv nat ug/kg (49388)	236Tri-methylnaphthalene, bed sed <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49406)
FEB 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	7,600	22	110	6.1	<1	70	E18	<50	E30	120	86	E22	E27
Date	2-Ethyl-naphthalene, bed sed <2 mm, wsv nat ug/kg (49948)	2-Methyl-anthracene, bed sed <2 mm, ug/kg (49435)	45Methylenephenthrene, bed sed <2 mm, ug/kg (49411)	9H-Flour-ene, 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)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)
FEB 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	<50	69	300	220	160	91	560	1,400	1,400	1,200	950	1,200	1,600
Date	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-thrine, bed sed <2 mm, wsv nat ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sediment, dry svd percent <.063mm (80164)	Bed sediment, falldia dst wat percent <.004mm (80157)	
FEB 04...	--	--	--	--	--	--	--	--	--	--	--	--	
AUG 17...	--	--	--	--	--	--	--	--	--	--	--	--	
17...	230	3,900	970	<50	E26	14	<50	2,700	60	2,800	1	<1	

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

01395700 ROBINSONS BRANCH TRIBUTARY 2 AT WESTFIELD, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)	
JUN 08...	0900	<.009	.06	<.03	<.01	<.008	.011	<.004	<.01	<.03	.0195	<.03	<.006	
Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
JUN 08...		<.01	<.01	<.01	<.01	E.01	<.03	<.02	<.02	.163	<.02	<.02	<.008	<.02
Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)					
JUN 08...		<.02	<.01	<.02	E.01	<.009	<.006	<.010	<.02					

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 2003 TO SEPTEMBER 2004

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)
JUN 16...	0927	3,300	1,500	5,000
JUN 23...	0831	6,600	3,600	3,000
JUN 30...	0900	2,900	1,600	9,000
JUL 07...	0930	3,800	1,800	16,000
JUL 14...	0907	380	1,100	1,300

01396550 SPRUCE RUN AT NEWPORT, NJ

LOCATION.--Lat 40°43'29", long 74°54'33", Hunterdon County, Hydrologic Unit 02030105, at bridge on Newport Road, 1.2 mi northwest of Woodglen, and 6.4 mi upstream from Spruce Run Reservoir.

DRAINAGE AREA.--5.67 mi².

PERIOD OF RECORD.--Water years 1998 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Background, New Jersey Department of Environmental Protection Watershed Management Area 8.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
Date		Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
NOV 12...	0950													
FEB 09...	0950													
MAY 05...	0920													
AUG 09...	0930													
NOV 12...	9.94	4.28	1.36	6.80	29	11.2	<.2	14.1	10.3	78	84	10	.20	
FEB 09...	8.31	3.76	1.03	8.71	19	15.3	<.2	12.8	10.5	76	85	<1	<.20	
MAY 05...	8.79	3.79	.82	8.04	26	12.4	<.2	13.1	10.1	75	86	2	<.20	
AUG 09...	13.2	5.11	.98	7.80	41	12.8	<.2	14.1	12.2	93	100	4	.15	
NOV 12...	.020	.020	.56	.004	.07	<.020	.005	.015	.76	.83	.7	<.1	.7	
FEB 09...	.035	--	.95	.004	<.02	<.020	.006	.010	--	--	.2	<.1	.2	
MAY 05...	E.006	--	.49	.003	.03	.013	<.002	.003	--	--	.3	<.1	.3	
AUG 09...	.010	--	.40	.003	<.02	.011	.008	.018	.54	--	.2	<.1	.2	

RARITAN RIVER BASIN

01396550 SPRUCE RUN AT NEWPORT, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 12...	4.6	E1.1	E6.4
FEB 09...	1.9	E1.7	E6.1
MAY 05...	2.6	2.1	E6.6
AUG 09...	1.9	<1.0	11

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover-able, ug/L (01007)	Beryllium, water, unfltrd recover-able, ug/L (01012)	Boron, water, unfltrd recover-able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)	Mercury water, unfltrd recover-able, ug/L (71900)	Nickel, water, unfltrd recover-able, ug/L (01067)
FEB 09...	0950	M	17.7	<.06	E5	<.04	<.8	.7	150	.15	13.1	<.02	.40
AUG 09...	0930	<2	20.3	<.06	E4	<.04	<.8	1.1	220	.17	15.6	<.02	.57

Date	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
FEB 09...	<.4	<.16	3
AUG 09...	.6	<.16	E1

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

01396550 SPRUCE RUN AT NEWPORT, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 05...	0920	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 05...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 05...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
JUL 07...	0948	2,100	200	140
14...	1015	2,000	<100	230
21...	0930	170	200	500
28...	1100	7,300	4,600	16,000
AUG 04...	0935	480	600	1,100

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

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ

LOCATION.--Lat 40°40'41", long 74°55'06". Hunterdon County, Hydrologic Unit 02030105, at site 800 ft downstream from Rocky Run, 0.3 mi above Van Syckel Road bridge, 1.5 mi northwest of High Bridge, and 1.6 mi southeast of Glen Gardner.

DRAINAGE AREA.--15.3 mi².

PERIOD OF RECORD.--Water years 1979-97, 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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

COOPERATION.--Samples collected with cooperation from The New Jersey Water Supply Authority. Determination of 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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
NOV 12...	1140	49	3.1	.083	.064	739	11.7	103	7.5	170	11.5	8.7	54
FEB 09...	1140	39	3.0	.040	.030	759	14.5	104	7.2	226	5.0	1.6	60
MAY 05...	1050	22	1.7	.066	.051	744	10.9	101	7.2	187	17.5	10.9	58
AUG 09...	1140	6.3	.8	.044	.035	749	10.2	110	7.9	237	26.0	18.3	76
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)
NOV 12...	12.5	5.46	1.49	10.0	36	18.1	<.2	16.3	13.7	104	106	2	<.20
FEB 09...	14.2	5.86	1.41	16.7	28	34.0	<.2	14.7	14.3	125	128	5	<.20
MAY 05...	14.2	5.37	1.25	13.4	33	24.7	<.2	15.0	14.4	113	121	3	<.20
AUG 09...	19.4	6.78	1.46	15.0	47	30.6	<.2	17.1	18.0	143	160	<10	.11
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	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 12...	.030	.02	1.20	<.010	.02	<.01	.009	.009	--	.4	<.1	.4	2.5
FEB 09...	.030	--	1.60	<.001	<.02	E.004	.012	.013	--	.3	<.1	.3	1.4
MAY 05...	.010	.01	1.20	<.010	.03	<.01	.009	.013	--	.3	<.1	.3	1.9
AUG 09...	<.040	--	1.42	<.008	<.02	<.02	.012	.012	1.5	.2	<.1	.2	1.3

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Boron, water, fltrd, ug/L (01020)
NOV 12...	8.7
FEB 09...	12
MAY 05...	9.0
AUG 09...	12

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

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Ammonia + org-N, bed sed total, mg/kg as N (00626)	Phosphorus, bed sedimnt total, mg/kg (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inorganic carbon, bed sedimnt total, g/kg (00686)	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryllium, water, unfltrd recover -able, ug/L (01012)	Boron, water, unfltrd recover -able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover -able, ug/L (01034)	Copper, water, unfltrd recover -able, ug/L (01042)	Iron, water, unfltrd recover -able, ug/L (01045)
FEB 09...	1140	--	--	--	--	<2	24.2	<.06	9	<.04	<.8	1.0	150
AUG 09...	1140	--	--	--	--	<2	27.8	<.06	11	<.04	<.8	1.1	80
09...	1140	30	3,000	1.8	<.2	--	--	--	--	--	--	--	--

Date	Time	Lead, water, unfltrd recover -able, ug/L (01051)	Manganese, water, unfltrd recover -able, ug/L (01055)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selenium, water, unfltrd 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)	Chromium, 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)
FEB 09...	.16	11.0	<.02	.55	<.4	<.16	2	--	--	--	--	--	--	--
AUG 09...	.07	12.5	<.02	.64	E.2	<.16	2	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	<1	.080	10	2.9	11	8,700	

Date	Time	Lead, bed sedimnt recover -able, ug/g (01052)	Manganese, bed sedimnt recover -able, ug/g (01053)	Nickel, bed sedimnt recover -able, ug/g (01068)	Selenium, bed sedimnt total, ug/g (01148)	Zinc, bed sedimnt recover -able, ug/g (01093)	1,2-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sed <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sed <2 mm, ug/kg (49410)	1-Methylpyrene, bed sed <2 mm, wsv nat ug/kg (49388)	236Tri-methylnaphthalene, bed sed <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49406)	2-Ethyl naphthalene bed sed <2 mm wsv nat ug/kg (49948)
FEB 09...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 09...	7.9	330	3.3	<1	26	<50	<50	<50	E10	E19	<50	E5	<50	

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2-Methyl-anthracene, bed sed <2 mm, ug/kg (49435)	45Meth-ylene-phenanthrene, bed sed <2 mm, ug/kg (49411)	9H-Flour-ene, 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-[a]-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)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)	Dibenzo-[a,h]-anthra-cene, bed sed <2 mm, ug/kg (49461)
FEB 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	E16	E9	E9	E5	E18	E24	66	63	59	E48	53	58	E31

Date	Fluor-anthene 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)	Naphth-alene, bed sed <2 mm wsv nat field, 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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi-ment, dry svd sve dia percent <.063mm (80164)	Bed sedi-ment, falldia dst wat percent <.004mm (80157)
FEB 09...	--	--	--	--	--	--	--	--	--	--	--
AUG 09...	--	--	--	--	--	--	--	--	--	--	--
09...	120	53	<50	<50	<5	<50	E42	<50	94	2	<1

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

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	1,1,1-Trichloro-ethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Chloro-benzene water unfltrd ug/L (34301)
FEB 09...	1140	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1	<.1

Date	Time	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unf ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene 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)
FEB 09...		<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1	<.1	<.1	E.1

01396588 SPRUCE RUN NEAR GLEN GARDNER, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-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)
FEB 09...	<.1	<.2	<.1	<.1	<.2	<.1	<.2	<.1	<.2

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atra-zine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd, 0.7u GF ug/L (49310)	Carbo-furan, water, fltrd, 0.7u GF ug/L (49309)
MAY 05...	1050	<.009	<.02	E.01	<.01	E.007	.017	<.004	<.01	<.03	.1687	<.03	<.006

Date	Time	Clopyr-alid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluo-meturon water, fltrd, 0.7u GF ug/L (38811)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd, 0.7u GF ug/L (38501)	Norflur-azon, water, fltrd, 0.7u GF ug/L (49293)
MAY 05...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Ory-zalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propi-cona-zole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfo-met-ruron, water, fltrd, ug/L (50337)	Tebu-thiuron water, fltrd, 0.7u GF ug/L (82670)	Terba-cil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 05...	<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ

LOCATION.--Lat 40°38'51", Long 74°58'08", Hunterdon County, Hydrologic Unit 02030105, at bridge on Jutland Road, 0.2 mi south of Van Syckel, and 0.3 mi upstream from Spruce Run Reservoir, 0.8 mi north of Perryville.

DRAINAGE AREA.--11.8 mi².

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: April 1997 to August 1998.

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 with support from The New Jersey Water Supply Authority. Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, total ammonia + organic nitrogen in bed sediment, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 8.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)
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 CaCO ₃ (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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 05...	1030	23	1.0	.074	.057	758	9.8	93	7.7	217	13.5	12.5	72
FEB 02...	1015	16	1.4	.023	.018	767	14.2	100	7.8	237	-2.0	1.3	78
MAY 04...	1030	30	3.9	.099	.076	756	11.3	104	7.8	234	11.0	11.2	68
AUG 04...	1100	11	1.4	.062	.047	750	9.2	104	7.8	244	26.5	20.2	85
NOV 05...	18.3	6.45	1.79	10.9	54	22.2	<.2	15.3	13.8	124	132	1	<.20
FEB 02...	20.1	6.82	1.19	13.3	49	28.4	<.2	15.4	15.0	135	137	2	<.20
MAY 04...	18.0	5.58	1.21	18.9	46	32.4	<.2	11.9	11.9	130	151	1	<.20
AUG 04...	22.2	7.06	1.47	13.4	66	27.4	<.2	15.3	12.8	143	139	<1	.12
NOV 05...	<.020	<.020	.74	<.003	<.02	<.020	.005	.020	--	--	<.1	<.1	<.1
FEB 02...	.040	.036	1.20	.003	<.02	<.020	.009	.012	--	--	.1	<.1	.1
MAY 04...	.026	--	.64	.004	.02	.018	.012	.011	--	--	.4	<.1	.4
AUG 04...	E.005	--	.83	.003	.04	.024	.015	.019	.95	.99	.3	<.1	.3

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 05...	2.4	<1.0	11
FEB 02...	.9	<1.0	8.0
MAY 04...	2.7	E1.3	11
AUG 04...	1.9	E1.7	13

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	pH bed sedimnt std units (70310)	Ammonia + org-N, bed sed total, mg/kg as N (00626)	Phosphorus, bed sedimnt total, mg/kg (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inorganic carbon, bed sedimnt total, g/kg (00686)	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryllium, water, unfltrd recover -able, ug/L (01012)	Boron, water, unfltrd recover -able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover -able, ug/L (01034)	Copper, water, unfltrd recover -able, ug/L (01042)
FEB 02...	1015	--	--	--	--	--	<2	38.2	<.06	10	<.04	<.8	<.6
AUG 04...	1100	--	--	--	--	--	<2	42.2	<.06	10	<.04	<.8	.9
AUG 04...	1100	7.34	70	4,500	3.0	<.2	--	--	--	--	--	--	--

Date	Time	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, unfltrd recover -able, ug/L (01051)	Manganese, water, unfltrd recover -able, ug/L (01055)	Mercury, water, unfltrd recover -able, ug/L (71900)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selenium, water, unfltrd 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)	Chromium, bed sedimnt recover -able, ug/g (01029)	Cobalt bed sedimnt recover -able, ug/g (01038)	Copper, bed sedimnt recover -able, ug/g (01043)
FEB 02...	90	.07	20.9	<.02	.46	E.3	<.16	<2	--	--	--	--	--	--
AUG 04...	60	<.06	13.7	<.02	.95	.6	<.16	E1	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--	<1	.070	3.5	2.0	3	

Date	Time	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover -able, ug/g (01052)	Manganese, bed sedimnt recover -able, ug/g (01053)	Nickel, bed sedimnt recover -able, ug/g (01068)	Selenium, bed sedimnt total, ug/g (01148)	Zinc, bed sedimnt recover -able, ug/g (01093)	1,2-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sed <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sed <2 mm, ug/kg (49410)	1-Methylpyrene, bed sed <2 mm, wsv nat ug/kg (49388)	236Tri-methylnaphthalene, bed sed <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49406)
FEB 02...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 04...	5,300	7.1	190	2.7	<1	18	<50	E11	E16	E42	E41	E8	E8	

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2-Ethyl naphthalene bed sed <2 mm wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)	45Methylenephenanthrene, bed sed <2 mm, ug/kg (49411)	9H-Flour-ene, 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-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)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)
FEB 02...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	E4	E33	E49	E43	E26	E33	93	220	180	160	110	170	220

Date	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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi-ment, dry svd percent <.063mm (80164)	Bed sedi-ment, falldia dst wat percent <.004mm (80157)
FEB 02...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	53	460	120	<50	<50	E3	<50	350	<50	360	4	2

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

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	1,1,1-Trichloro-ethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene, water, unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane, water, unfltrd ug/L (34541)	1,3-Di-chloro-benzene, water, unfltrd ug/L (34566)	1,4-Di-chloro-benzene, water, unfltrd ug/L (34571)	Benzene, water, unfltrd ug/L (34030)	Bromo-di-chloro-methane, water, unfltrd ug/L (32101)	Chloro-benzene, water, unfltrd ug/L (34301)
FEB 02...	1015	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1	<.1

Date	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane, water, unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane, wat unf ug/L (34668)	Di-chloro-methane, water, unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene, 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 ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)
FEB 02...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-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)
FEB 02...	<.1	<.2	<.1	<.1	<.2	<.1	<.2	<.1	<.2

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atra-zine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd, 0.7u GF ug/L (49310)	Carbo-furan, water, fltrd, 0.7u GF ug/L (49309)
MAY 04...	1030	<.009	<.02	E.01	<.01	<.008	E.005	<.004	<.01	<.03	.0104	<.03	<.006

Date	Time	Clopyr-alid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluo-meturon water, fltrd, 0.7u GF ug/L (38811)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd, 0.7u GF ug/L (38501)	Norflur-azon, water, fltrd, 0.7u GF ug/L (49293)
MAY 04...	.04	<.01	.07	<.01	<.01	<.03	<.02	<.02	<.02	<.007	E.26	<.02	<.008	<.02

Date	Ory-zalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propi-cona-zole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfo-met-ruron, water, fltrd, ug/L (50337)	Tebu-thiuron water, fltrd, 0.7u GF ug/L (82670)	Terba-cil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 04...	<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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

RARITAN RIVER BASIN

01396660 MULHOCKAWAY CREEK AT VAN SYCKEL, NJ—Continued

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
JUL					
07...	1020	7.6	1,600	1,200	1,300
14...	1040	15	450	900	3,000
21...	1000	11	100	100	170
28...	1000	58	4,000	1,200	3,000
AUG					
04...	1015	11	220	400	800

01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ

LOCATION.--Lat 40°34'19", long 74°52'04", Hunterdon County, Hydrologic Unit 02030105, on right bank at downstream side of bridge on Stanton Road at Stanton Station, 0.4 mi upstream from Prescott Brook, and 1.4 mi west of Stanton.

DRAINAGE AREA.--147 mi².

PERIOD OF RECORD.--Water years 1924-25, 1959-81, 1983-84, 1992-97, August 2004.

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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

COOPERATION.--Samples collected with cooperation from The New Jersey Water Supply Authority. Determination of dissolved 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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)	
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 fixed end pt, lab, mg/L as CaCO ₃ (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)
Date		Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	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)
Date								Boron, water, fltrd, ug/L (01020)						
AUG 23...	1310	316	5.8	.093	.070	760	9.5	110	8.1	223	25.0	22.6	68	
AUG 23...	17.0	6.22	1.57	13.2	50	28.6	<.2	6.5	13.0	118	129	7	.28	
AUG 23...	.026	.46	.008	.09	.01	.015	.045	.74	.8	<.1	.8	3.0	2.0	
AUG 23...	15													

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

01397000 SOUTH BRANCH RARITAN RIVER AT STANTON, NJ—Continued

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	pH bed sediment std units (70310)	Ammonia + org-N, bed sed total, mg/kg as N (00626)	Phosphorus, bed sediment total, mg/kg (00668)	Total carbon, bed sediment total, g/kg (00693)	Inorganic carbon, bed sediment total, g/kg (00686)	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover-able, ug/L (01007)	Beryllium, water, unfltrd recover-able, ug/L (01012)	Boron, water, unfltrd recover-able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Copper, water, unfltrd recover-able, ug/L (01042)
AUG 23... 23...	1310 1310	-- 6.66	-- 610	-- 460	-- 15	-- <.2	<2 --	29.6 --	<.06 --	14 --	<.04 --	E.6 --	1.4 --
Date	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)	Mercury, water, unfltrd recover-able, ug/L (71900)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd recover-able, ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)	Arsenic bed sediment total, ug/g (01003)	Cadmium bed sediment recover-able, ug/g (01028)	Chromium, bed sediment recover-able, ug/g (01029)	Cobalt bed sediment recover-able, ug/g (01038)	Copper, bed sediment recover-able, ug/g (01043)
AUG 23... 23...	310 --	.58 --	70.6 --	<.02 --	.79 --	.5 --	<.16 --	3 --	-- 2	-- .330	-- 5.3	-- 5.7	-- 8
Date	Iron, bed sediment total, ug/g (01170)	Lead, bed sediment recover-able, ug/g (01052)	Manganese, bed sediment recover-able, ug/g (01053)	Nickel, bed sediment recover-able, ug/g (01068)	Selenium, bed sediment total, ug/g (01148)	Zinc, bed sediment recover-able, ug/g (01093)	1,2-Dimethylnaphthalene, bed sediment <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sediment <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sediment <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sediment <2 mm, ug/kg (49410)	1-Methylpyrene, bed sediment <2 mm, wsv nat ug/kg (49388)	236Tri-methylnaphthalene, bed sediment <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sediment <2 mm, ug/kg (49406)
AUG 23... 23...	-- 4,600	-- 35	-- 350	-- 8.7	-- <1	-- 33	-- <50	-- <50	-- E21	-- E15	-- <50	-- <50	-- E25
Date	2-Ethyl-naphthalene bed sediment <2 mm, wsv nat ug/kg (49948)	2-Methyl-anthracene, bed sediment <2 mm, ug/kg (49435)	45Methylenephenthrene, bed sediment <2 mm, ug/kg (49411)	9H-Flourene, bed sediment <2 mm, wsv nat ug/kg (49399)	Ace-naphthene, bed sediment <2 mm, wsv nat ug/kg (49429)	Ace-naphthylene, bed sediment <2 mm, wsv nat ug/kg (49428)	Anthra-cene, bed sediment <2 mm, wsv nat field, ug/kg (49434)	Benzo-[a]-anthra-cene, bed sediment <2 mm, ug/kg (49436)	Benzo-[a]-pyrene, bed sediment <2 mm, wsv nat ug/kg (49389)	Benzo-[b]-fluor-anthene, bed sediment <2 mm, ug/kg (49458)	Benzo-[ghi]-perylene, bed sediment <2 mm, ug/kg (49408)	Benzo-[k]-fluor-anthene, bed sediment <2 mm, ug/kg (49397)	Chry-sene, bed sediment <2 mm, wsv nat field, ug/kg (49450)
AUG 23... 23...	-- <50	-- E18	-- E27	-- E27	-- E23	-- 51	-- 68	-- 140	-- 120	-- 120	-- 100	-- 110	-- 170
Date	Dibenzo-[a,h]-anthra-cene, bed sediment <2 mm, ug/kg (49461)	Fluor-anthene bed sediment <2 mm, wsv nat field, ug/kg (49466)	Indeno-[1,2,3-cd]-pyrene, bed sediment <2 mm, ug/kg (49390)	Iso-phorone bed sediment <2 mm, wsv nat field, ug/kg (49400)	Naphth-alene, bed sediment <2 mm, wsv nat ug/kg (49402)	PCBs, bed sediment ug/kg (39519)	p-Cresol, bed sediment <2 mm, wsv nat field, ug/kg (49451)	Phenan-threne, bed sediment <2 mm, wsv nat field, ug/kg (49409)	Phenan-thri-dine, bed sediment <2 mm, wsv nat ug/kg (49393)	Pyrene, bed sediment <2 mm, wsv nat field, ug/kg (49387)	Bed sedi-ment, dry svd percent <.063mm (80164)	Bed sedi-ment, falldia dst wat percent <.004mm (80157)	
AUG 23... 23...	-- E33	-- 290	-- 100	-- <50	-- <50	-- 15	-- <50	-- 160	-- <50	-- 230	-- 17	-- 6	

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

01398000 NESHANIC RIVER AT REAVILLE, NJ

LOCATION.--Lat 40°28'18", long 74°49'41", Hunterdon County, Hydrologic Unit 02030105, at bridge on Everitts Road, 0.6 mi southwest of Reaville, 1.5 mi downstream from Third Neshanic River, and 2.2 mi upstream from Back Brook.

DRAINAGE AREA.--25.7 mi².

PERIOD OF RECORD.--Water years 1957, 1962, 1979 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1997 to August 1998.

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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Agricultural Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 8.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
Date	Time	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)
Date	Time	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 10...	1000	22	3.0	.049	.037	765	11.6	83	8.2	412	.6	2.0	110	
FEB 25...	1000	15	4.3	.053	.041	764	15.1	105	7.8	405	-3.5	.6	100	
MAY 19...	0900	12	5.5	.094	.073	762	6.3	68	7.6	317	20.2	19.1	100	
AUG 09...	0820	15	1.8	.072	.055	763	8.0	84	8.0	283	25.1	17.8	94	
DEC 10...	27.5	9.46	2.00	37.2	58	73.6	<.2	10.6	27.6	230	226	<1	<.20	
FEB 25...	26.3	8.88	1.74	32.3	49	72.6	<.2	10.2	25.0	213	224	7	.20	
MAY 19...	27.0	8.57	2.26	22.3	69	36.0	<.2	6.7	25.3	174	185	2	.40	
AUG 09...	24.7	7.82	1.80	16.9	67	26.6	<.2	8.5	26.1	158	157	2	.21	
DEC 10...	<.020	<.020	1.60	.005	.07	<.020	<.02	.02	--	--	.4	<.1	.3	
FEB 25...	<.020	--	1.50	.006	.10	.021	<.02	.03	1.7	1.8	.6	<.1	.6	
MAY 19...	E.035	--	.97	.026	.07	.031	<.02	.04	1.4	1.4	.5	<.1	.5	
AUG 09...	.015	--	1.17	.005	.06	.021	E.02	E.03	1.4	1.4	.4	<.1	.4	

RARITAN RIVER BASIN

01398000 NESHANIC RIVER AT REAVILLE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 10...	1.8	E1.5	26
FEB 25...	2.1	E1.4	23
MAY 19...	4.0	<1.0	37
AUG 09...	2.4	E1.1	37

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
JUL 07...	1055	1.5	470	100	110
14...	0935	16	430	300	300
21...	1030	13	180	100	500
28...	0950	283	6,000	3,900	9,000
AUG 04...	1100	45	260	100	270

01398060 FURMANS BROOK AT FURMANS CORNER, NJ

LOCATION.--Lat 40°27'50", long 74°47'09", Hunterdon County, Hydrologic Unit 02030105, at bridge on Welisewitz Road, 0.3 mi north of Furmans Corner, 0.3 mi upstream of mouth, and 1.9 mi southeast of Reaville.

DRAINAGE AREA.-- 5.00 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

REMARKS.--For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 8.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, mg/L (00915)	
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	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)
NOV 13...	1000	4.48	1.83	6.71	34	8.26	<.2	11.4	14.7	84	80	2	<.20	<.020
MAR 04...	1115	3.82	1.37	10.4	23	16.7	<.2	9.5	14.7	85	92	3	<.20	<.020
MAY 26...	1015	5.45	1.79	9.52	47	12.1	<.2	9.0	15.7	100	110	<1	<.20	E.008
AUG 24...	1120	6.44	2.55	10.8	64	12.9	<.2	7.9	16.2	117	115	<1	.19	E.007
NOV 13...		<.020	1.10	E.003	<.02	<.020	.022	.027	--	<.1	<.1	<.1	2.8	E1.4
MAR 04...		--	.83	.002	.03	<.020	.010	.018	--	.3	<.1	.3	2.3	<1.0
MAY 26...		--	.67	.005	.04	.027	.027	.032	--	.2	<.1	.2	2.0	<1.0
AUG 24...		--	.58	E.002	<.02	.046	.030	.036	.77	.1	<.1	.1	2.2	<1.0

RARITAN RIVER BASIN

01398060 FURMANS BROOK AT FURMANS CORNER, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Boron, water, fltrd, ug/L (01020)
NOV 13...	15
MAR 04...	8.8
MAY 26...	19
AUG 24...	25

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Arsenic water, fltrd, ug/L (01000)	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, fltrd, ug/L (01040)	Copper, water, unfltrd recover -able, ug/L (01042)
MAR 04...	1115	Environmental	--	<2	24.2	<.06	11	<.04	<.8	--	1.1
AUG 24...	1119	Field blank	<.2	--	--	--	--	--	--	<.4	--
AUG 24...	1120	Environmental	--	<2	43.4	<.06	27	<.04	<.8	--	1.4

Date	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover -able, ug/L (01051)	Mangan- ese, water, unfltrd recover -able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover -able, ug/L (01092)
MAR 04...	150	--	.18	10.2	--	<.02	--	.62	E.2	<.16	--	3
AUG 24...	--	<.08	--	--	<.02	--	6.35	--	--	--	<.6	--
AUG 24...	30	--	E.06	4.3	--	<.02	--	.99	.5	<.16	--	<2

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

01398060 FURMANS BROOK AT FURMANS CORNER, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)
MAY 26...	1015	<.009	<.02	E.07	E.01	E.033	E.075	<.004	<.01	<.03	<.0096	<.03	<.006

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Time	Clopyralid, water, fltrd, 0.7u GF (49305)	Dicamba water, fltrd, 0.7u GF (38442)	Di-chlor-prop, water, fltrd, 0.7u GF (49302)	Dinoseb water, fltrd, 0.7u GF (49301)	Diuron, water, fltrd, 0.7u GF (49300)	Fluometuron, water, fltrd, 0.7u GF (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF (38501)	Norflurazon, water, fltrd, 0.7u GF (49293)
MAY 26...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oxamyl, water, fltrd, 0.7u GF (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF (49235)
MAY 26...		<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
JUL 07...	1115	420	100	90
14...	0900	440	200	700
21...	1100	270	500	300
28...	0900	4,400	1,400	1,700
AUG 04...	1130	390	<100	20

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

01398090 PLEASANT RUN AT NESHANIC STATION, NJ

LOCATION.--Lat 40°31'11", long 74°44'07", Somerset County, Hydrologic Unit 02030105, at bridge on South Branch Road, 0.6 mi upstream of mouth, 0.8 mi north of Neshanic Station, and 2.6 mi west of Flagtown.

DRAINAGE AREA.-- 10.8 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

REMARKS.--For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. 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, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 8.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 sediment total, mg/L (00694)	Inorganic carbon, suspnd sediment total, mg/L (00688)	Organic carbon, suspnd sediment total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
DEC 02...	0900													
FEB 18...	0900													
MAY 12...	0900													
AUG 09...	0900													
DEC 02...	0900	5.61	1.40	11.3	45	13.7	<.2	13.4	21.7	119	115	3	.20	<.020
FEB 18...	0900	6.52	1.49	16.7	36	28.1	<.2	11.8	23.2	136	144	13	.20	<.020
MAY 12...	0900	6.13	1.50	15.4	49	25.0	<.2	8.0	23.7	132	144	1	.30	.031
AUG 09...	0900	6.11	2.13	15.0	55	21.8	<.2	6.5	24.5	132	142	1	.35	.011
DEC 02...	0900	<.020	2.00	<.003	.03	.051	.043	.040	2.2	2.2	.3	<.1	.2	2.0
FEB 18...	0900	--	1.80	.021	.03	.038	.033	.046	2.0	2.0	.4	<.1	.4	1.2
MAY 12...	0900	--	.85	.023	.06	.032	.036	.044	1.1	1.2	.4	<.1	.4	2.2
AUG 09...	0900	--	.60	.005	.07	.022	.024	.044	.95	1.0	.5	<.1	.5	2.6

01398090 PLEASANT RUN AT NESHANIC STATION, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 02...	E1.1	30
FEB 18...	<1.0	28
MAY 12...	E1.1	41
AUG 09...	E2.0	49

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	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, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover- able, ug/L (01007)	Beryll- ium, water, unfltrd recover- able, ug/L (01012)
FEB 18...	0900	Environmental	--	--	--	--	--	--	<2	50.5	<.06
AUG 09...	0859	Field Blank	--	--	--	--	--	<.2	--	--	--
09...	0900	Environmental	--	--	--	--	--	--	<2	55.6	<.06
09...	0900	Bed material	7.20	20	7,300	5.7	<.2	--	--	--	--

Date	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, fltrd, ug/L (01040)	Copper, water, unfltrd recover- able, ug/L (01042)	Iron, water, unfltrd recover- able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover- able, ug/L (01051)	Mangan- ese, water, unfltrd recover- able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover- able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover- able, ug/L (01067)
FEB 18...	29	<.04	<.8	--	6.9	300	--	.41	36.4	--	<.02	--	1.02
AUG 09...	--	--	--	<.4	--	--	<.08	--	--	<.02	--	<.06	--
09...	48	<.04	<.8	--	1.5	150	--	.15	358	--	<.02	--	.95
09...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover- able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	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)	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover- able, ug/g (01052)	Mangan- ese, bed sedimnt recover- able, ug/g (01053)
FEB 18...	<.4	<.16	--	E1	--	--	--	--	--	--	--	--
AUG 09...	--	--	<.6	--	--	--	--	--	--	--	--	--
09...	E.3	<.16	--	3	--	--	--	--	--	--	--	--
09...	--	--	--	--	2	.160	22	10	46	23,000	72	660

01398090 PLEASANT RUN AT NESHANIC STATION, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Nickel, bed sediment recoverable, ug/g (01068)	Selenium, bed sediment total, ug/g (01148)	Zinc, bed sediment recoverable, ug/g (01093)	1,2-Dimethylnaphthalene, bed sediment <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sediment <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sediment <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sediment <2 mm, ug/kg (49410)	1-Methylpyrene, bed sediment <2 mm, wsv nat ug/kg (49388)	236Tri-methylnaphthalene, bed sediment <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sediment <2 mm, ug/kg (49406)	2-Ethyl-naphthalene, bed sediment <2 mm, wsv nat ug/kg (49948)	2-Methyl-anthracene, bed sediment <2 mm, ug/kg (49435)	45Methylenephenthrene, bed sediment <2 mm, ug/kg (49411)
FEB 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	22	<1	180	E7	E16	E24	99	80	E15	E16	E5	83	160
Date	9H-Flour-ene, bed sediment <2 mm, wsv nat ug/kg (49399)	Ace-naphth-ene, bed sediment <2 mm, wsv nat ug/kg (49429)	Ace-naphth-ylene, bed sediment <2 mm, wsv nat ug/kg (49428)	Anthra-cene, bed sediment <2 mm, wsv nat field, ug/kg (49434)	Benzo-[a]-anthra-cene, bed sediment <2 mm, ug/kg (49436)	Benzo-[a]-pyrene, bed sediment <2 mm, wsv nat ug/kg (49389)	Benzo-[b]-fluor-anthene, bed sediment <2 mm, ug/kg (49458)	Benzo-[ghi]-peryl-ene, bed sediment <2 mm, ug/kg (49408)	Benzo-[k]-fluor-anthene, bed sediment <2 mm, ug/kg (49397)	Chry-sene, bed sediment <2 mm, wsv nat field, ug/kg (49450)	Dibenzo-[a,h]-anthra-cene, bed sediment <2 mm, ug/kg (49461)	Fluor-anthene, bed sediment <2 mm, wsv nat field, ug/kg (49466)	Indeno-[1,2,3-cd]-pyrene, bed sediment <2 mm, ug/kg (49390)
FEB 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	95	77	87	330	900	800	800	530	640	950	150	1,700	560
Date	Iso-phorone, bed sediment <2 mm, wsv nat field, ug/kg (49400)	Naphth-alene, bed sediment <2 mm, wsv nat field, ug/kg (49402)	PCBs, bed sediment ug/kg (39519)	p-Cresol, bed sediment <2 mm, wsv nat field, ug/kg (49451)	Phenan-threne, bed sediment <2 mm, wsv nat field, ug/kg (49409)	Phenan-thri-dine, bed sediment <2 mm, wsv nat field, ug/kg (49393)	Pyrene, bed sediment <2 mm, wsv nat field, ug/kg (49387)	Bed sedi-ment, dry svd percent <.063mm (80164)	Bed sedi-ment, falldia dst wat percent <.004mm (80157)				
FEB 18...	--	--	--	--	--	--	--	--	--				
AUG 09...	--	--	--	--	--	--	--	--	--				
09...	--	--	--	--	--	--	--	--	--				
09...	<50	E12	<5	<50	1,200	E31	1,500	3	<1				

Remark codes used in this table:

< -- Less than

E -- Estimated value

01398090 PLEASANT RUN AT NESHANIC STATION, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 12...	0900	<.009	<.02	E.02	<.01	E.014	.018	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 12...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 12...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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 05...	1044	70	<100	110
MAY 12...	1032	190	300	300
MAY 19...	1251	5,500	2,300	1,700
MAY 26...	1100	2,100	2,500	5,000
JUN 02...	1009	190	100	230

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

01398102 SOUTH BRANCH RARITAN RIVER AT SOUTH BRANCH, NJ

LOCATION.--Lat 40°32'48", long 74°41'47", Somerset County, Hydrologic Unit 02030105, at bridge on Studdiford Drive at South Branch, 0.8 mi upstream from mouth, and 2.7 mi southeast of Readington.

DRAINAGE AREA.--265 mi².

PERIOD OF RECORD.--Water years 1976-83, 1998 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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

COOPERATION.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, total ammonia + organic nitrogen in bed sediment, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.-- Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 8.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
NOV 12...	1250	575	4.4	.069	.052	759	12.4	105	7.6	261	12.5	8.0	87
FEB 23...	1020	383	3.9	.051	.038	771	E12.8	--	7.4	274	11.0	3.4	89
JUN 01...	1210	335	14	.093	.070	753	9.8	104	7.5	302	19.0	17.5	94
AUG 23...	0930	432	6.3	.090	.068	763	8.1	89	7.5	247	--	20.2	76
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)
NOV 12...	20.9	8.53	1.99	15.2	61	27.8	<.2	12.1	16.9	148	142	11	<.20
FEB 23...	21.2	8.74	1.74	19.4	54	39.3	<.2	9.3	16.7	156	181	6	<.20
JUN 01...	23.7	8.36	1.95	20.4	64	38.4	<.2	8.0	16.6	162	158	14	.30
AUG 23...	18.7	7.13	1.86	14.7	55	30.8	<.2	7.7	15.5	133	146	4	.28
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
NOV 12...	.020	.020	1.70	.006	.04	.030	.032	.031	--	--	.4	<.1	.4
FEB 23...	<.020	--	1.50	.007	.04	<.020	.014	.022	--	--	.3	<.1	.3
JUN 01...	.032	--	1.40	.016	.08	.046	.045	.069	1.7	1.8	.5	<.1	.5
AUG 23...	.021	--	.84	.008	.05	.035	.041	.067	1.1	1.2	.4	<.1	.4

01398102 SOUTH BRANCH RARITAN RIVER AT SOUTH BRANCH, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 12...	2.5	E1.9	22
FEB 23...	2.1	<1.0	18
JUN 01...	3.0	E1.6	30
AUG 23...	3.2	E1.6	23

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	pH bed sedimnt std units (70310)	Ammonia + org-N, bed sed total, mg/kg (00626)	Phosphorus, bed sedimnt total, mg/kg (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inorganic carbon, bed sedimnt total, g/kg (00686)	Arsenic bed sedimnt total, ug/g (01003)	Cadmium bed sedimnt recover-able, ug/g (01028)	Chromium, 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 23...	0930	6.86	M	10	14	<2	2	.180	4.5	6.5	8	4,200	27	
Date	Time	Manganese, bed sedimnt recover-able, ug/g (01053)	Nickel, bed sedimnt recover-able, ug/g (01068)	Selenium, bed sedimnt total, ug/g (01148)	Zinc, bed sedimnt recover-able, ug/g (01093)	1,2-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sed <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sed <2 mm, ug/kg (49410)	1-Methylpyrene, bed sed <2 mm, wsv nat ug/kg (49388)	236Trimethylnaphthalene, bed sed <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49406)	2-Ethyl-naphthalene, bed sed <2 mm, wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)
AUG 23...	250	11	<1	27	E26	E33	E39	80	66	E29	E39	<50	56	
Date	Time	45Methylenephenthrene, bed sed <2 mm, ug/kg (49411)	9H-Flourene, 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 field, ug/kg (49397)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)	Dibenzo-[a,h]-anthracene, bed sed <2 mm, wsv nat field, ug/kg (49461)	Fluor-anthene, bed sed <2 mm, wsv nat field, ug/kg (49466)
AUG 23...	100	74	56	130	240	400	310	270	230	260	470	68	910	

RARITAN RIVER BASIN

01398102 SOUTH BRANCH RARITAN RIVER AT SOUTH BRANCH, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi- ment, dry svd sve dia percent <.063mm (80164)	Bed sedi- ment, falldia dst wat percent <.004mm (80157)
AUG 23...	230	<50	<50	E4	<50	740	<50	780	68	26

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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				
05...	1018	50	200	170
12...	1018	80	<100	800
19...	1237	680	300	2,400
26...	1035	140	500	1,100
JUN				
02...	0953	50	<100	270

Remark codes used in this table:

< -- Less than

01399200 LAMINGTON (BLACK) RIVER NEAR IRONIA, NJ

LOCATION.--Lat 40°50'07", long 74°38'39", Morris County, Hydrologic Unit 02030105, at bridge on Ironia Road, 1.2 mi downstream of Succasunna Brook, 1.3 mi northwest of Ironia, and 4.5 mi northeast of Chester.

DRAINAGE AREA.--10.9 mi².

PERIOD OF RECORD.--Water years 1964,1965,1967,1968, 1970, 1976-1991, 2001, 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.-- Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 8.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
DEC 09...	1115	9.4	.113	.089	750	10.8	79	7.6	470	5.0	2.6	120	29.3	
FEB 19...	1030	3.4	.080	.062	740	11.2	87	7.5	534	8.5	3.6	120	30.1	
MAY 11...	1045	11	.345	.268	746	6.7	73	7.1	306	32.5	18.6	69	17.6	
AUG 03...	1000	2.5	.130	.100	743	5.8	69	7.4	521	32.0	22.6	120	28.9	
DEC 09...	11.5	2.73	46.0	67	92.4	<.2	11.1	13.8	247	262	17	.60	.170	
FEB 19...	11.7	3.14	57.2	72	102	<.2	11.8	16.4	287	297	4	.50	.203	
MAY 11...	5.98	1.91	29.7	44	56.0	<.2	6.1	9.3	158	193	18	.70	.102	
AUG 03...	12.2	3.21	49.7	78	101	<.2	8.1	16.3	275	297	2	.31	.019	
DEC 09...	.180	.06	.026	.29	<.020	.014	.016	.66	.95	3.6	<.1	3.5	3.2	
FEB 19...	--	2.50	.052	.11	.036	.038	.078	3.0	3.1	1.0	<.1	1.0	3.0	
MAY 11...	--	1.10	.033	.41	.021	.029	.020	1.8	2.2	4.6	<.1	4.5	7.7	
AUG 03...	--	1.86	.018	.04	.036	.039	.072	2.2	2.2	.5	<.1	.5	3.5	

RARITAN RIVER BASIN

01399200 LAMINGTON (BLACK) RIVER NEAR IRONIA, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 09...	E1.4	43
FEB 19...	E1.8	55
MAY 11...	E1.2	29
AUG 03...	<1.0	57

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 19...	1030	<2	26.2	<.06	55	E.02	<.8	2.4	320	.81	163	<.02	1.26
AUG 03...	1000	<2	24.6	<.06	53	E.02	.9	2.4	360	.52	85.5	<.02	1.66

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 19...	E.3	E.15	8
AUG 03...	.7	<.16	5

Remark codes used in this table:

< -- Less than

E -- Estimated value

01399200 LAMINGTON (BLACK) RIVER NEAR IRONIA, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 11...	1045	<.018	.28	E.04	<.01	<.008	.023	<.004	<.01	<.03	<.0096	E.01	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 11...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 11...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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 05...	1150	10	<100	220
12...	1145	60	200	300
19...	1140	230	100	500
26...	1120	710	3,500	3,000
JUN 02...	1110	270	<100	500

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

01399780 LAMINGTON RIVER AT BURNT MILLS, NJ

LOCATION.--Lat 40°38'04", long 74°41'12", Somerset County, Hydrologic Unit 02030105, at bridge on Burnt Mills Road in Burnt Mills, 1,400 ft upstream from mouth, and 2.4 mi southwest of Greater Cross Roads.

DRAINAGE AREA.--100 mi².

PERIOD OF RECORD.--Water years 1964, 1976 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.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, total ammonia + organic nitrogen in bed sediment, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 8.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)	Specif. conductance, wat unfltrd 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)	
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 CaCO ₃ (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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	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 18...	1020	141	1.4	.100	.077	770	14.2	118	7.5	258	12.0	7.9	85	
FEB 18...	1320	162	3.6	.050	.038	758	14.2	106	8.1	293	7.0	3.0	84	
MAY 10...	1230	176	5.8	.124	.095	764	10.5	113	8.2	262	30.5	18.9	77	
AUG 10...	1300	77	1.6	.091	.070	761	16.5	190	9.3	281	28.5	22.0	90	
NOV 18...	20.7	8.12	1.94	16.1	57	31.6	<.2	13.5	14.8	146	152	<1	<.20	
FEB 18...	20.5	7.95	1.54	20.7	50	40.4	<.2	12.6	15.6	156	163	4	<.20	
MAY 10...	19.4	6.91	1.38	17.9	55	35.0	<.2	10.6	12.1	140	145	3	<.20	
AUG 10...	22.9	7.85	1.67	17.4	70	32.7	<.2	10.0	15.9	155	163	1	.19	
NOV 18...	<.020	<.020	1.20	.003	<.02	.020	.019	.024	--	.2	<.1	.2	2.7	
FEB 18...	<.020	--	1.50	.006	<.02	.022	.015	.021	--	.3	<.1	.3	1.7	
MAY 10...	.016	--	.80	.007	.05	.022	.026	.042	--	.4	<.1	.4	3.1	
AUG 10...	.011	--	.93	.007	<.02	.044	.044	.052	1.1	.3	<.1	.3	2.9	

01399780 LAMINGTON RIVER AT BURNT MILLS, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 18...	E1.9	25
FEB 18...	<1.0	20
MAY 10...	E1.4	26
AUG 10...	2.1	34

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 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)	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover- able, ug/g (01052)	
AUG 10...	1300	7.20	130	7,400	3.5	<2	<1	.090	8.1	4.0	6	8,700	9.3	
Date	Time	Mangan- ese, bed sedimnt recover- able, ug/g (01053)	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- 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, wsv nat 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)	2- Methyl- anthra- cene, bed sed <2 mm, ug/kg (49435)
AUG 10...	300	6.0	<1	31	<50	<50	E18	E18	E25	<50	<50	<50	E18	
Date	Time	45Meth- ylene- phenan- threne, bed sed <2 mm, ug/kg (49411)	9H- Flour- ene, 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)	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)
AUG 10...	E37	E35	E30	E33	74	180	140	120	110	120	180	E36	400	

RARITAN RIVER BASIN

01399780 LAMINGTON RIVER AT BURNT MILLS, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi- ment, dry svd sve dia percent <.063mm (80164)	Bed sedi- ment, falldia dst wat percent <.004mm (80157)
AUG 10...	110	<50	<50	50	<50	250	<50	310	12	5

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 2003 TO SEPTEMBER 2004

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				
05...	0916	90	300	300
12...	0940	30	100	300
19...	1150	170	300	220
26...	0925	710	1,100	1,700
JUN				
02...	0853	7,100	3,800	9,000

01400000 NORTH BRANCH RARITAN RIVER NEAR RARITAN, NJ

LOCATION.--Lat 40°34'14", long 74°40'45", Somerset County, Hydrologic Unit 02030105, 400 ft upstream from U.S. Highway 202, 1.4 mi upstream from confluence with South Branch, and 2.7 mi west of Raritan.

DRAINAGE AREA.--190 mi².

PERIOD OF RECORD.--Water years 1923-25, 1960-76, 1978-80, 1997 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 8.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 04...	0900													
FEB 24...	1015													
MAY 19...	1000													
AUG 16...	0945													
DEC 04...		18.2	7.22	1.68	14.9	52	32.1	<.2	13.7	16.1	141	143	2	<.20
FEB 24...		23.0	8.72	1.74	24.2	49	47.3	<.2	11.1	15.8	167	174	2	<.20
MAY 19...		24.4	8.32	1.86	22.5	61	43.9	<.2	12.1	14.3	169	197	6	.40
AUG 16...		23.1	7.22	2.15	16.9	61	34.6	<.2	11.2	14.9	151	163	8	.29
DEC 04...		<.020	<.020	1.30	<.003	.03	.024	.017	.016	--	--	.3	<.1	.3
FEB 24...		<.020	--	1.20	.006	.02	<.020	.011	.016	--	--	.3	<.1	.3
MAY 19...		.024	--	1.10	.014	.06	.042	.037	.057	1.5	1.6	.7	<.1	.7
AUG 16...		E.009	--	.85	.007	.05	.053	.040	.065	1.1	1.2	.8	<.1	.8

RARITAN RIVER BASIN

01400000 NORTH BRANCH RARITAN RIVER NEAR RARITAN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 04...	2.5	E1.2	26
FEB 24...	1.9	<1.0	31
MAY 19...	3.0	E1.5	43
AUG 16...	3.8	<1.0	52

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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 05...	0956	320	20	200	500
12...	1005	245	90	<100	1,100
19...	1218	256	5,400	1,400	2,400
26...	1027	157	300	700	800
JUN 02...	0927	333	6,000	9,200	593

Remark codes used in this table:

< -- Less than

01400640 MILLSTONE RIVER NEAR GROVERS MILL, NJ

LOCATION.--Lat 40°18'48", long 74°35'21", Mercer County, Hydrologic Unit 02030105, at bridge on Cranbury Road near Grovers Mill, 1.4 mi southeast of Plainsboro and 2.0 mi upstream from Cranbury Brook.

DRAINAGE AREA.--43.4 mi².

PERIOD OF RECORD.--Water years 1999 to current year. Station location was 01400650 during water years 1976-95, 1997-98.

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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Agricultural Land Use Indicator and VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 10.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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 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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 24...	1020	119	15	.162	.129	763	10.6	93	6.1	207	11.5	9.7	48	
FEB 23...	1240	53	8.3	.048	.037	768	10.0	79	6.8	268	8.0	5.8	63	
MAY 25...	1340	31	4.5	.166	.129	755	6.9	85	6.3	278	30.5	24.9	62	
AUG 30...	1340	21	1.9	.109	.084	756	10.5	127	7.1	305	27.5	24.6	81	
NOV 24...	10.5	5.32	4.23	13.8	16	28.3	<.2	9.4	20.7	110	123	8	.40	
FEB 23...	12.1	7.88	3.57	23.0	13	44.1	.2	9.1	26.4	149	163	9	1.2	
MAY 25...	13.2	7.02	3.94	21.3	18	42.7	.2	9.1	21.9	--	166	3	.70	
AUG 30...	14.4	11.0	5.22	22.2	34	39.9	.2	6.3	26.9	166	166	1	.38	
NOV 24...	.100	.120	1.90	.035	.08	<.020	.020	.085	2.3	2.4	.8	<.1	.8	
FEB 23...	.972	--	3.10	.018	.08	<.020	.012	.014	4.3	4.4	.7	<.1	.7	
MAY 25...	.202	--	4.30	.056	.07	--	.054	.093	5.0	5.1	.6	<.1	.6	
AUG 30...	.020	--	4.32	.010	.03	.022	.030	.041	4.7	4.7	.3	<.1	.3	

01400640 MILLSTONE RIVER NEAR GROVERS MILL, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 24...	4.0	<1.0	36
FEB 23...	2.0	E1.3	34
MAY 25...	4.2	E1.7	51
AUG 30...	3.4	2.3	70

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2-Tetra-chloro-ethane, water, unfltrd ug/L (77562)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	1,1,2,2-Tetra-chloro-ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2-Tri-chloro-ethane, water, unfltrd ug/L (34511)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,1-Di-chloro-propene water unfltrd ug/L (77168)	1,2,3-Tri-chloro-benzene water unfltrd ug/L (77613)	1,2,3-Tri-chloro-propane water unfltrd ug/L (77443)	1,2,4-Tri-chloro-benzene water unfltrd ug/L (34551)	
FEB 23...	1240	<2	<2	<1	<2	<1	<2	<1	<1	<2	<2	<2	<2	
Date	Time	1,2,4-Tri-methyl-benzene water unfltrd ug/L (77222)	Dibromo-chloro-propane water unfltrd ug/L (82625)	1,2-Di-bromo-ethane, water, unfltrd ug/L (77651)	1,2-Di-chloro-benzene water, unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	2,2-Di-chloro-propane water unfltrd ug/L (77170)	2-Chloro-toluene water unfltrd ug/L (77275)	4-Chloro-toluene water unfltrd ug/L (77277)
FEB 23...		<2	<5	<2	<1	<2	<1	<2	<1	<2	<1	<2	<2	<2
Date	Time	4-Iso-propyl-toluene water unfltrd ug/L (77356)	Acrylo-nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo-benzene water unfltrd ug/L (81555)	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-methane water unfltrd ug/L (34413)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)
FEB 23...		<2	<2.5	<1	<2	<2	<1	<3	<1	<2	<2	<1	<2	<2
Date	Time	Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane water unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Iso-propyl-benzene water unfltrd ug/L (77223)	Naphth-alene, water, unfltrd ug/L (34696)	n-Butyl-benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
FEB 23...		<2	<2	<2	<1	<2	<2	<5	<2	<2	<2	<1	.3	<2

01400640 MILLSTONE RIVER NEAR GROVERS MILL, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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 chlor-ide, water, unfltrd ug/L (39175)
FEB 23...	<.1	<.2	<.1	<.1	<.2	<.2	<.1	<.2	<.1	<.2

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 2003 TO SEPTEMBER 2004

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)
AUG				
11...	0955	20	1,100	700
18...	1000	310	<100	130
25...	0935	<10	<100	40
SEP				
01...	1005	100	200	80
08...	0945	220	200	800

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

01400808 BEAR BROOK AT CRANBURY ROAD, AT PRINCETON JUNCTION, NJ

LOCATION.--Lat 40°19'05", long 74°36'44", Mercer County, Hydrologic Unit 02030105, at bridge on Cranbury Road, 0.4 mi east of Princeton Junction, 0.7 mi upstream of Millstone River, and 3.2 mi southeast of Princeton.

DRAINAGE AREA.-- 12.03 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

REMARKS.--For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status and VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 10.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		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)	Ammonia water, fltrd, mg/L as N (00608)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 13...	0930	5.5	.254	.203	748	8.5	76	6.7	165	10.5	9.4	39	8.91	
FEB 10...	1100	12	.171	.134	760	11.7	86	6.5	255	12.0	2.4	32	7.69	
MAY 10...	0900	3.6	.201	.154	764	7.9	85	7.0	219	20.0	18.9	42	9.72	
AUG 02...	1000	2.3	.285	.221	760	6.1	74	6.6	141	27.0	25.0	31	7.39	
NOV 13...	4.10	4.39	12.6	19	24.2	<.2	7.0	10.3	88	87	5	.80	.520	
FEB 10...	3.19	3.14	33.0	9	55.2	<.2	5.4	9.6	130	143	9	.40	.148	
MAY 10...	4.19	2.68	21.4	19	39.1	<.2	2.5	10.5	110	131	2	.30	.066	
AUG 02...	3.12	3.20	11.3	19	20.5	<.2	3.0	8.8	73	83	<1	.64	.129	
NOV 13...	.520	1.00	.032	.07	.032	--	.016	1.8	1.9	.6	<.1	.6	5.4	
FEB 10...	--	1.60	.009	.11	<.020	.024	.017	2.0	2.1	.9	<.1	.8	4.1	
MAY 10...	--	2.00	.027	.10	<.010	.009	.025	2.3	2.4	.6	<.1	.6	4.6	
AUG 02...	--	.75	.032	.04	.032	.049	.075	1.4	1.4	.5	<.1	.5	6.3	

01400808 BEAR BROOK AT CRANBURY ROAD, AT PRINCETON JUNCTION, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 13...	2.6	21
FEB 10...	2.5	14
MAY 10...	E1.9	20
AUG 02...	E2.0	21

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Arsenic water, fltrd, ug/L (01000)	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, fltrd, ug/L (01040)	Copper, water, unfltrd recover -able, ug/L (01042)
FEB 10...	1100	Environmental	--	E2	74.2	.13	13	.12	<.8	--	2.1
AUG 02...	0958	Sampler Blank	--	--	--	--	--	--	--	--	--
02...	0959	Field Blank	<.2	--	--	--	--	--	--	<.4	--
02...	1000	Environmental	--	E1	81.5	<.06	20	<.04	<.8	--	6.1

Date	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover -able, ug/L (01051)	Mangan- ese, water, unfltrd recover -able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 10...	490	--	1.90	139	--	<.02	--	1.59	E.3	<.16	--	23
AUG 02...	--	--	--	--	--	--	<.06	--	--	--	--	--
02...	--	<.08	--	--	<.02	--	E.04	--	--	--	<.6	--
02...	780	--	.73	71.8	--	<.02	--	1.24	.7	<.16	--	3

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

01400808 BEAR BROOK AT CRANBURY ROAD, AT PRINCETON JUNCTION, NJ—Continued

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2- Tetra- chloro- ethane, water, unfltrd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	1,1,2,2- Tetra- chloro- ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethane, water, unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,1-Di- chloro- propene water unfltrd ug/L (77168)	1,2,3- Tri- chloro- benzene water unfltrd ug/L (77613)	1,2,3- Tri- chloro- propane water unfltrd ug/L (77443)	1,2,4- Tri- chloro- benzene water unfltrd ug/L (34551)		
FEB 10...	1100	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2		
Date	Time	1,2,4- Tri- methyl- benzene water unfltrd ug/L (77222)	Dibromo- chloro- propane water unfltrd ug/L (82625)	1,2-Di- bromo- ethane, water, unfltrd ug/L (77651)	1,2-Di- chloro- benzene water, unfltrd ug/L (34536)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	1,2-Di- chloro- propane water unfltrd ug/L (34541)	1,3,5- Tri- methyl- benzene water unfltrd ug/L (77226)	1,3-Di- chloro- benzene water unfltrd ug/L (34566)	1,3-Di- chloro- propane water unfltrd ug/L (77173)	1,4-Di- chloro- benzene water unfltrd ug/L (34571)	2,2-Di- chloro- propane water unfltrd ug/L (77170)	2- Chloro- toluene water unfltrd ug/L (77275)	4- Chloro- toluene water unfltrd ug/L (77277)	
FEB 10...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2	
Date	Time	4-Iso- propyl- toluene water unfltrd ug/L (77356)	Acrylo- nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo- benzene water unfltrd ug/L (81555)	Bromo- chloro- methane water unfltrd ug/L (77297)	Bromo- di- chloro- methane water unfltrd ug/L (32101)	Bromo- methane water unfltrd ug/L (34413)	Chloro- benzene water unfltrd ug/L (34301)	Chloro- ethane, water, unfltrd ug/L (34311)	Chloro- methane water unfltrd ug/L (34418)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	cis- 1,3-Di- chloro- propane water unfltrd ug/L (34704)	Di- bromo- chloro- methane water unfltrd ug/L (32105)	
FEB 10...		<.2	<.25	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2	
Date	Time	Di- bromo- methane water unfltrd ug/L (30217)	Di- chloro- di- fluoro- methane water unfltrd ug/L (34668)	Di- chloro- methane water unfltrd ug/L (34423)	Ethyl- benzene water unfltrd ug/L (34371)	Hexa- chloro- buta- diene, water, unfltrd ug/L (39702)	Iso- propyl- benzene water unfltrd ug/L (77223)	Naphth- alene, water, unfltrd ug/L (34696)	n-Butyl benzene water, unfltrd ug/L (77342)	n- propyl- benzene water unfltrd ug/L (77224)	sec- Butyl- benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert- Butyl- benzene water unfltrd ug/L (77353)	
FEB 10...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	.3	<.2	
Date	Time		Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)	trans- 1,3-Di- chloro- propene water unfltrd ug/L (34699)	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 chlor- ide, water, unfltrd ug/L (39175)			
FEB 10...			<.1	.3	<.1	<.1	<.2	<.2	<.1	<.2	<.1	<.2			

Remark codes used in this table:

< -- Less than

01400808 BEAR BROOK AT CRANBURY ROAD, AT PRINCETON JUNCTION, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 10...	0900	.095	.84	<.03	<.01	E.029	.027	.036	<.01	E.02	<.0096	E.01	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 10...		<.01	<.01	<.01	M	<.01	<.03	<.02	<.02	<.007	.03	<.02	<.008	M

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 10...		<.02	<.01	<.02	.06	<.009	<.006	<.010	<.02

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 05...	0810	20	<100	130
12...	0830	90	100	110
19...	0847	160	100	70
26...	0925	1,400	2,200	2,200
JUN 02...	0915	220	<100	70

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

01401200 DUCK POND RUN AT CLARKSVILLE, NJ

LOCATION.--Lat 40°18'24", long 74°40'05", Mercer County, Hydrologic Unit 02030105, at bridge on US Route 1, 0.5 mi upstream from Delaware and Raritan Canal, and 0.9 mi northeast of Clarksville.

DRAINAGE AREA.--3.74 mi².

PERIOD OF RECORD.--Water years 1999-2000, February 2004.

COOPERATION.--Field data and samples for laboratory analyses were provided by the New Jersey Department of Environmental Protection.

COOPERATIVE NETWORK SITE DESCRIPTOR.--VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 10.

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2-Tetra-chloro-ethane, water, unfltrd ug/L (77562)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	1,1,2,2-Tetra-chloro-ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2-Tri-chloro-ethane, water, unfltrd ug/L (34511)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34496)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34501)	1,1-Di-chloro-propene water unfltrd ug/L (77168)	1,2,3-Tri-chloro-benzene water unfltrd ug/L (77613)	1,2,3-Tri-chloro-propane water unfltrd ug/L (77443)	1,2,4-Tri-chloro-benzene water unfltrd ug/L (34551)	
FEB 09...	0830	E.1	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2	
Date	Time	1,2,4-Tri-methyl-benzene water unfltrd ug/L (77222)	Dibromo-chloro-propane water unfltrd ug/L (82625)	1,2-Di-bromo-ethane, water, unfltrd ug/L (77651)	1,2-Di-chloro-benzene water, unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	2,2-Di-chloro-propane water unfltrd ug/L (77170)	2-Chloro-toluene water unfltrd ug/L (77275)	4-Chloro-toluene water unfltrd ug/L (77277)
FEB 09...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2
Date	Time	4-Iso-propyl-toluene water unfltrd ug/L (77356)	Acrylo-nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo-benzene water unfltrd ug/L (81555)	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-methane water unfltrd ug/L (34413)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)
FEB 09...		<.2	<.25	.2	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2
Date	Time	Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane water unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Iso-propyl-benzene water unfltrd ug/L (77223)	Naphth-alene, water, unfltrd ug/L (34696)	n-Butyl-benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
FEB 09...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	<.2	<.2
Date	Time		Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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)		
FEB 09...			<.1	<.2	.3	<.1	<.2	<.2	<.1	<.2	<.1	<.2		

Remark codes used in this table:

< -- Less than

E -- Estimated value

01401400 HEATHCOTE BROOK AT KINGSTON, NJ

LOCATION.--Lat 40°22'10", long 74°36'58", Middlesex County, Hydrologic Unit 02030105, at bridge on Mapleton Road, at abandoned railroad bridge, 0.3 mi south of Kingston, and 0.4 mi upstream from mouth.

DRAINAGE AREA.--9.0 mi².

PERIOD OF RECORD.--Water years 1976-82, 1998 to current year.

REMARKS.--For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. 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.--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. Analysis of the split and concurrent replicate samples was performed by the Laboratory Branch of the U.S. Environmental Protection Agency, Region II, Division of Environmental Science and Assessment.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Mixed Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 10.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	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 unf uS/cm 25 degC (00095)
NOV											
05...	0950	Environmental	5.9	2.6	.236	.184	763	8.2	80	6.7	281
05...	0950	Split Replicate	--	2.6	--	--	--	--	--	--	--
05...	0951	Concurrent Replicate	--	2.9	--	--	--	--	--	--	--
FEB											
04...	0930	Environmental	50	13	.137	.106	765	13.9	96	6.2	812
04...	0930	Split Replicate	--	13	--	--	--	--	--	--	--
04...	0931	Concurrent Replicate	--	13	--	--	--	--	--	--	--
JUN											
08...	0910	Environmental	3.5	3.4	.140	.108	767	8.7	87	6.8	311
08...	0910	Split Replicate	--	22	--	--	--	--	--	--	--
08...	0911	Concurrent Replicate	--	22	--	--	--	--	--	--	--
AUG											
17...	0920	Environmental	30	22	.187	.142	764	7.7	84	6.8	178
17...	0920	Split Replicate	--	22	--	--	--	--	--	--	--
17...	0921	Concurrent Replicate	--	22	--	--	--	--	--	--	--

Date	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	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 unf 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)
NOV													
05...	15.0	13.9	72	16.2	7.63	3.33	20.8	37	39.3	<.2	15.9	24.4	159
05...	--	--	76	17.0	8.10	3.70	22.0	37	41.0	.14	--	26.0	150
05...	--	--	76	17.0	8.10	3.70	22.0	38	41.0	.19	--	26.0	151
FEB													
04...	7.5	.4	74	18.7	6.72	5.05	116	12	213	<.2	7.2	19.1	397
04...	--	--	73	18.0	6.80	5.20	110	13	190	.19	--	20.0	362
04...	--	--	73	18.0	6.80	5.30	110	13	200	.18	--	20.0	372
JUN													
08...	23.5	15.8	73	17.4	7.20	2.71	27.2	35	52.5	<.2	12.5	13.6	170
08...	--	--	69	16.0	7.10	2.80	25.0	35	54.0	<.10	--	15.0	158
08...	--	--	69	16.0	7.10	2.80	26.0	34	55.0	<.10	--	16.0	160
AUG													
17...	28.5	19.6	41	10.7	3.55	2.34	13.9	23	26.2	<.2	2.2	14.0	89
17...	--	--	38	9.40	3.60	2.60	14.0	26	25.0	<.10	--	16.0	89
17...	--	--	39	9.50	3.60	2.60	14.0	22	25.0	<.10	--	16.0	87

01401400 HEATHCOTE BROOK AT KINGSTON, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	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)	Particulate nitrogen, susp, water, mg/L (49570)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)
NOV													
05...	170	4	.30	--	<.020	<.020	2.10	.011	.04	<.020	.002	.032	2.4
05...	180	<10	.44	.47	<.050	<.050	2.20	<.050	--	<.050	<.050	<.050	2.6
05...	190	<10	.42	.46	<.050	<.050	2.20	<.050	--	<.050	<.050	<.050	2.6
FEB													
04...	435	12	--	--	.207	--	.95	.005	.12	<.020	.019	--	--
04...	420	15	1.2	1.3	.190	.190	.860	<2.50	--	<.050	<.050	<.050	2.1
04...	420	16	1.1	1.2	.190	.210	.860	<2.50	--	<.050	<.050	.094	2.0
JUN													
08...	192	5	.30	--	.033	--	3.60	.020	.02	E.009	.014	.028	3.9
08...	200	<10	.36	.76	<.050	<.100	3.80	.019	--	.025	.063	.061	4.2
08...	210	<10	.37	.86	<.050	<.100	3.70	.019	--	.024	.072	.059	4.1
AUG													
17...	100	11	.40	--	.040	--	.57	.011	.11	.027	.012	.043	.97
17...	120	<10	.58	.65	<.050	<.050	.690	<.050	--	.036	<.050	.066	1.3
17...	130	<10	.44	.46	<.050	<.050	.700	<.050	--	.035	<.050	.074	1.1

Date	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)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV							
05...	2.4	.3	<.1	.3	6.3	E1.2	30
05...	2.7	--	--	--	7.1	--	40
05...	2.7	--	--	--	6.8	--	30
FEB							
04...	--	1.1	<.1	1.1	4.5	2.2	16
04...	2.2	--	--	--	4.9	--	<20
04...	2.1	--	--	--	5.4	--	<20
JUN							
08...	3.9	.2	<.1	.1	3.6	<1.0	30
08...	4.6	--	--	--	3.4	--	--
08...	4.6	--	--	--	3.6	--	--
AUG							
17...	1.1	.8	<.1	.8	5.3	E1.6	32
17...	1.3	--	--	--	8.9	--	40
17...	1.2	--	--	--	11.0	--	40

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 2003 TO SEPTEMBER 2004

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)
AUG				
11...	0915	310	500	1,300
18...	0920	330	700	9,000
25...	0905	180	100	170
SEP				
01...	0915	400	700	800
08...	0915	2,700	1,900	2,800

01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ

LOCATION.--Lat 40°28'30", long 74°34'33", Somerset County, Hydrologic Unit 02030105, at highway bridge at Blackwells Mills, and 0.3 mi downstream from Six Mile Run.

DRAINAGE AREA.--258 mi².

PERIOD OF RECORD.--Water years 1962-69, 1973, 1976-80, 1991 to current year.

REMARKS.--For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. 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. Analysis of the split and concurrent replicate samples was performed by the Laboratory Branch of the U.S. Environmental Protection Agency, Region II, Division of Environmental Science and Assessment.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 10.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	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 25 degC (00095)
NOV 05...	0900	Environmental	241	5.7	.211	.166	766	7.2	70	7.3	254
NOV 05...	0900	<i>Split Replicate</i>	--	--	--	--	--	--	--	--	--
NOV 05...	0901	<i>Concurrent Replicate</i>	--	--	--	--	--	--	--	--	--
MAR 01...	0930	Environmental	223	4.0	.065	.050	771	11.7	92	7.5	330
MAY 20...	0900	Environmental	197	10	.149	.113	770	5.2	57	7.2	307
AUG 18...	0900	Environmental	256	9.0	.191	.146	763	5.8	67	7.4	249

Date	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)	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 CaCO ₃ (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)
NOV 05...	15.0	14.5	66	14.2	7.43	4.52	18.0	38	28.3	.2	11.9	23.9	142
NOV 05...	--	--	68	15.0	7.40	4.50	18.0	40	32.0	.24	--	25.0	137
NOV 05...	--	--	68	15.0	7.40	4.50	17.0	39	32.0	.26	--	25.0	135
MAR 01...	8.5	5.6	83	18.1	9.09	3.31	30.7	32	54.8	<.2	9.1	25.7	184
MAY 20...	19.5	20.1	78	17.4	8.49	3.88	26.7	38	44.8	.2	6.3	19.4	162
AUG 18...	25.0	22.4	63	14.0	6.75	3.37	19.6	35	32.9	<.2	7.1	21.4	135

Date	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 + org-N, water, unfltrd, mg/L as N (00625)	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)
NOV 05...	149	3	.40	--	.060	.051	2.20	.011	.04	.226	.19	.22	2.6
NOV 05...	170	<10	.55	.59	.054	.058	2.40	<.050	--	<.050	.180	.210	3.0
NOV 05...	160	<10	.54	.68	.063	.140	2.40	<.050	--	<.050	.180	.200	2.9
MAR 01...	190	4	.80	--	.208	--	2.90	.024	.12	.180	.17	.21	3.7
MAY 20...	184	9	.80	--	.097	--	2.50	.036	.07	.209	.20	.24	3.3
AUG 18...	135	8	.47	--	.086	--	1.81	.024	.12	.228	.20	.24	2.3

RARITAN RIVER BASIN

01402000 MILLSTONE RIVER AT BLACKWELLS MILLS, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV							
05...	2.6	.4	<.1	.4	5.9	E1.3	53
05...	3.0	--	--	--	5.5	--	60
05...	3.1	--	--	--	4.8	--	60
MAR							
01...	3.8	.7	<.1	.6	2.4	E1.8	43
MAY							
20...	3.4	.6	<.1	.6	4.7	<1.0	60
AUG							
18...	2.4	.9	<.1	.9	5.0	<1.0	56

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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					
05...	1130	427	50	100	230
12...	1055	206	30	<100	80
19...	1339	168	180	400	220
26...	1148	134	250	200	500
JUN					
02...	1107	223	140	<100	90

Remark codes used in this table:

< -- Less than

01403300 RARITAN RIVER AT QUEENS BRIDGE, AT BOUND BROOK, NJ

LOCATION.--Lat 40°33'34", long 74°31'40", Somerset County, Hydrologic Unit 02030105, at Queens Bridge on Main street in Bound Brook, 1.7 mi upstream from Fieldsville Dam.

DRAINAGE AREA.--804 mi².

PERIOD OF RECORD.--Water years 1964-69, 1971-73, 1978, 1981 to current year. Published as "at Bound Brook" (station 01403000) 1964-66, and as "below Calco Dam at Bound Brook" (station 01403060) 1967-69.

REMARKS.--Discrete chemical records collected as part of the Long Island-New Jersey National Water-Quality Assessment Program (LINJ NAWQA). VOC sample collected on March 24 is part of the Ambient Stream Monitoring Network. Instantaneous discharges are determined at Raritan River below Calco Dam at Bound Brook (station 01403060). For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report.

COOPERATIVE NETWORK SITE DESCRIPTOR.--VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 9.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	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 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)
NOV 04...	0940	Environmental	1,320	6.8	765	9.9	97	7.5	242	15.5	14.8
DEC 09...	1020	Environmental	912	6.3	770	14.7	104	7.6	405	3.0	1.4
JAN 13...	0930	Environmental	E955	6.1	760	14.9	103	7.3	298	4.0	.3
MAR 24...	0950	Environmental	1,330	4.5	774	13.9	111	7.5	401	15.0	6.0
APR 20...	0940	Environmental	1,340	6.8	756	10.0	104	7.3	270	--	16.9
MAY 25...	0920	Environmental	676	17	758	6.8	80	7.1	307	24.0	23.8
MAY 25...	0921	Split Replicate	--	--	--	--	--	--	--	--	--
JUN 22...	1029	Field Blank	--	--	--	--	--	--	--	--	--
JUN 22...	1030	Environmental	136	4.1	757	7.7	90	7.3	492	23.5	22.8
JUL 09...	0910	Environmental	125	4.4	761	7.2	87	7.2	442	--	25.0
SEP 10...	0920	Environmental	491	8.4	756	7.8	91	7.4	294	23.5	22.7

Date	Alkalinity, wat fltr inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat fltr incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Sulfate, water, fltrd, mg/L (00945)	Ammonia, water, fltrd, mg/L as N (00608)	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)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV 04...	48	58	28.9	20.1	<.04	1.45	.012	.074	.132	2.13	5	18
DEC 09...	46	55	78.4	24.0	.07	2.07	E.007	.086	.144	2.52	4	9.8
JAN 13...	46	55	37.1	21.7	<.04	2.30	.012	.062	.110	2.54	4	--
MAR 24...	32	39	80.5	21.7	.12	1.69	.012	.045	.086	2.10	4	14
APR 20...	44	53	41.2	18.1	E.02	1.25	.010	.031	.102	1.85	6	22
MAY 25...	47	57	45.2	25.1	.11	1.99	.040	.180	.26	2.50	22	40
MAY 25...	48	58	45.3	25.3	.12	2.00	.040	.186	.26	2.40	16	--
JUN 22...	--	--	<.20	<.2	<.04	<.06	<.008	E.003	<.004	<.03	<1	--
JUN 22...	68	83	60.3	48.1	.92	4.12	.130	.561	.67	5.32	3	1.1
JUL 09...	48	58	62.4	46.7	.04	4.06	.022	.542	.60	5.00	4	1.4
SEP 10...	52	63	37.0	28.6	E.04	1.99	.010	.259	.30	2.50	11	15

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

01403300 RARITAN RIVER AT QUEENS BRIDGE, AT BOUND BROOK, NJ—Continued

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2-Tetra-chloro-ethane, water, unfltrd ug/L (77562)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	1,1,2,2-Tetra-chloro-ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2-Tri-chloro-ethane, water, unfltrd ug/L (34511)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,1-Di-chloro-propene water unfltrd ug/L (77168)	1,2,3-Tri-chloro-benzene water unfltrd ug/L (77613)	1,2,3-Tri-chloro-propene water unfltrd ug/L (77443)	1,2,4-Tri-chloro-benzene water unfltrd ug/L (34551)	
MAR 24...	0950	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2	
Date		1,2,4-Tri-methyl-benzene water unfltrd ug/L (77222)	Dibromo-chloro-propane water unfltrd ug/L (82625)	1,2-Di-bromo-ethane, water, unfltrd ug/L (77651)	1,2-Di-chloro-benzene, water, unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	2,2-Di-chloro-propane water unfltrd ug/L (77170)	2-Chloro-toluene water unfltrd ug/L (77275)	4-Chloro-toluene water unfltrd ug/L (77277)
MAR 24...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2
Date		4-Iso-propyl-toluene water unfltrd ug/L (77356)	Acrylo-nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo-benzene water unfltrd ug/L (81555)	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-methane water unfltrd ug/L (34413)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)
MAR 24...		<.2	<.25	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2
Date		Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane wat unf ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Iso-propyl-benzene water unfltrd ug/L (77223)	Naphth-alene, water, unfltrd ug/L (34696)	n-Butyl benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
MAR 24...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	<.2	<.2
Date			Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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 chlor-ide, water, unfltrd ug/L (39175)		
MAR 24...			<.1	<.2	<.1	<.1	<.2	<.2	<.1	<.2	.1	<.2		

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

01403300 RARITAN RIVER AT QUEENS BRIDGE, AT BOUND BROOK, NJ—Continued

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 Surface-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 2003 TO SEPTEMBER 2004

Date	Time	Sample type	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)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor- pyrifos water, fltrd, ug/L (38933)	DCPA, water fltrd 0.7u GF ug/L (82682)
NOV 04...	0940	Environmental	E.018	<.006	<.005	<.005	.016	<.010	E.007	<.005	<.003
JAN 13...	0930	Environmental	E.017	<.006	<.005	.016	.016	<.010	<.041	<.005	<.003
MAR 24...	0950	Environmental	E.015	<.006	<.005	<.005	.017	<.010	<.041	<.005	<.003
APR 20...	0940	Environmental	E.015	<.006	<.005	<.005	.019	<.010	<.041	<.005	<.003
MAY 25...	0920	Environmental	E.026	.021	.015	<.005	.130	<.010	E.043	<.005	<.003
MAY 25...	0921	Split Replicate	E.026	.022	.015	<.005	.134	<.010	E.046	<.005	<.003
JUN 22...	1029	Field Blank	<.006	<.006	<.005	<.005	<.007	<.010	<.041	<.005	<.003
JUN 22...	1030	Environmental	E.017	<.007	<.015	<.005	.052	<.010	E.014	<.005	<.003
JUL 09...	0910	Environmental	E.013	<.006	<.005	<.005	.036	<.010	E.010	<.005	<.003
SEP 10...	0920	Environmental	E.016	<.006	<.005	<.005	.020	<.010	E.043	<.005	<.003

Date	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	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)	Lindane water, fltrd, ug/L (39341)	Metola- chlor, water, fltrd, ug/L (39415)	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)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
NOV 04...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	E.011	<.022	.01	<.010	<.02	<.009
JAN 13...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	.016	<.022	<.01	.006	<.02	<.009
MAR 24...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	.016	<.022	.01	<.005	<.02	<.009
APR 20...	<.012	<.005	<.029	<.013	<.024	E.006	<.004	E.013	<.022	.01	.022	<.02	<.009
MAY 25...	E.004	E.005	<.029	<.013	<.024	E.009	<.004	.109	<.022	.01	.014	<.02	<.009
MAY 25...	E.004	<.010	<.029	<.013	<.024	E.011	<.004	.114	<.022	.01	.014	<.02	<.009
JUN 22...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	<.013	<.022	<.01	<.005	<.02	<.009
JUN 22...	E.004	.012	E.002	<.013	<.024	E.029	<.004	.025	<.022	.02	.010	<.02	<.009
JUL 09...	E.003	<.005	<.029	<.013	<.024	<.016	<.004	.025	<.022	.03	.009	<.02	E.005
SEP 10...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	.017	<.022	.02	.013	<.02	<.009

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

01403385 BOUND BROOK AT ROUTE 28, AT MIDDLESEX, NJ

LOCATION.--Lat 40°34'51", long 74°29'57", Middlesex County, Hydrologic Unit 02030105, at bridge on State Route 28, 0.3 mi upstream from Green Brook, 0.9 mi northeast of Middlesex, and 2.4 mi west of the intersection of State Route 28 and Washington Avenue in Dunellen.

DRAINAGE AREA.--23.9 mi².

PERIOD OF RECORD.--Water years 1998 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.--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.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 9.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)
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 fixed end pt, lab, mg/L as CaCO ₃ (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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 12...	0950	20	7.1	.202	.155	759	9.9	84	7.2	457	11.5	8.1	170
FEB 02...	1110	12	3.7	.081	.061	777	6.7	45	7.4	1,010	4.0	.2	240
MAY 10...	0950	14	3.8	.181	.134	765	6.6	69	6.8	509	22.0	17.6	150
AUG 10...	1000	11	3.9	.141	.101	764	6.3	72	7.4	535	25.0	21.7	180
NOV 12...	50.7	10.6	2.86	24.2	110	44.1	<.2	15.7	45.5	265	282	4	.50
FEB 02...	70.9	15.6	2.89	96.5	134	184	<.2	15.5	54.2	527	549	1	.50
MAY 10...	47.1	9.04	2.34	33.6	80	65.1	<.2	11.4	40.5	261	294	2	.60
AUG 10...	51.6	11.6	2.66	32.3	121	65.1	<.2	13.8	40.9	295	305	1	.46
NOV 12...	.240	.240	1.00	.028	.05	.044	.032	.018	1.5	1.6	.6	<.1	.6
FEB 02...	.295	--	1.50	.021	<.02	<.020	<.002	.022	2.0	--	<.1	<.1	<.1
MAY 10...	.299	--	.85	.077	.06	.029	.034	.059	1.4	1.5	.6	<.1	.6
AUG 10...	.125	--	.95	.028	<.02	.051	.046	.080	1.4	--	.2	<.1	.2

01403385 BOUND BROOK AT ROUTE 28, AT MIDDLESEX, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 12...	6.2	2.3	124
FEB 02...	2.7	<1.0	118
MAY 10...	4.8	E1.4	133
AUG 10...	4.5	<1.0	160

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 2003 TO SEPTEMBER 2004

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)
AUG 11...	0915	180	500	300
18...	0925	90	300	1,700
25...	0915	130	200	270
SEP 01...	0915	240	200	130
08...	0925	3,300	14,000	3,500

01403900 BOUND BROOK AT MIDDLESEX, NJ

LOCATION.--Lat 40°35'06", long 74°30'29", Somerset County, Hydrologic Unit 02030105, at bridge on Sebring Mill Road, 0.4 mi downstream from mouth of Green Brook, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--48.4 mi².

PERIOD OF RECORD.--Water years 1996-98, 2001 to current year.

REMARKS.--Data collected as part of the Long Island-New Jersey National Water-Quality Assessment Program (LINJ NAWQA). For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	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)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
NOV 04...	1120	24	2.2	765	8.3	82	7.3	456	16.5	15.1	95	116	54.9
DEC 09...	1140	33	4.3	770	13.3	96	7.4	1,250	2.5	2.2	90	109	297
JAN 13...	1040	40	4.9	760	13.6	98	7.3	563	6.0	1.9	87	105	82.5
MAR 24...	1250	55	3.5	770	16.5	137	8.2	771	17.5	7.8	56	67	170
APR 20...	1200	56	4.2	756	13.0	136	8.0	555	19.5	17.2	82	99	95.6
MAY 25...	1050	29	6.2	758	5.2	58	6.9	484	25.0	20.5	82	99	71.5
JUN 22...	1320	121	7.1	757	7.3	81	7.1	419	23.5	20.1	70	85	56.5
JUL 09...	1130	13	3.7	761	8.1	95	7.4	485	27.0	23.2	104	127	61.9
SEP 10...	0940	54	4.8	760	6.0	68	7.0	320	23.5	21.5	56	68	39.1

Date	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	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)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV 04...	42.0	E.03	1.10	.016	.019	.064	1.52	2	.13
DEC 09...	39.6	.16	1.29	.010	.006	.049	1.76	4	.35
JAN 13...	41.1	.08	1.62	.009	E.005	.036	1.83	4	.43
MAR 24...	36.3	<.04	1.17	.011	<.006	.034	1.46	4	.59
APR 20...	34.5	<.04	.78	.015	<.006	.040	1.14	4	.60
MAY 25...	32.9	.06	1.09	.064	.018	.098	1.61	7	.55
JUN 22...	36.8	.13	1.05	.030	.031	.27	2.09	135	44
JUL 09...	46.6	E.02	.76	.015	.038	.096	1.09	5	.18
SEP 10...	28.7	.08	.71	.020	.053	.113	1.16	9	1.3

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

01403900 BOUND BROOK AT MIDDLESEX, NJ—Continued

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 2003 TO SEPTEMBER 2004

Date	Time	Sample type	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)	Ben- flur- alin, water, fltrd, 0.7u GF ug/L (82673)	Car- baryl, water, fltrd, 0.7u GF ug/L (82680)	Chlor- pyrifos water, fltrd, ug/L (38933)	DCPA, water fltrd 0.7u GF ug/L (82682)
NOV 04...	1120	Environmental	E.004	<.006	<.005	<.005	.009	<.010	E.008	<.005	<.003
JAN 13...	1040	Environmental	<.006	<.006	<.005	<.005	.007	<.010	<.041	<.005	<.003
MAR 24...	1250	Environmental	E.006	<.006	<.005	<.005	.007	<.010	<.041	<.005	<.003
APR 20...	1200	Environmental	E.007	<.006	<.005	<.005	.009	<.010	<.041	<.005	<.003
MAY 25...	1050	Environmental	E.022	<.006	<.005	<.005	.062	<.010	E.238	<.005	<.003
25...	1051	Split Replicate	E.022	<.015	<.005	<.005	.062	<.010	E.251	<.005	<.003
JUN 22...	1319	Field Blank	<.006	<.006	<.005	<.005	<.007	<.010	<.041	<.005	<.003
22...	1320	Environmental	E.008	<.006	<.005	<.005	.022	<.010	E.063	E.011	<.003
JUL 09...	1130	Environmental	<.006	<.006	<.005	<.005	.022	<.010	E.017	<.005	<.003
SEP 10...	0940	Environmental	E.005	<.006	<.005	<.005	.013	<.010	E.119	<.005	<.003

Date	Desulf- inyl fipron- il, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	Desulf- inyl- fipron- il amide, wat flt ug/L (62169)	Fipron- il sulfide water, fltrd, ug/L (62167)	Fipron- il sulfone water, fltrd, ug/L (62168)	Fipron- il, water, fltrd, ug/L (62166)	Lindane water, fltrd, ug/L (39341)	Metola- chlor, water, fltrd, ug/L (39415)	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)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
NOV 04...	<.012	<.005	<.029	E.004	E.005	E.009	<.004	E.005	<.022	.02	E.004	E.01	<.009
JAN 13...	<.012	.033	<.029	<.013	<.024	<.016	<.004	<.013	<.022	.01	<.005	<.02	<.009
MAR 24...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	<.013	<.022	E.02	<.005	<.02	<.009
APR 20...	E.005	E.004	<.029	<.013	<.024	E.032	<.004	<.013	E.011	.02	.007	E.01	<.009
MAY 25...	E.004	.020	<.029	<.013	<.024	E.015	<.004	.023	<.022	.04	.011	<.02	<.009
25...	E.004	.020	<.029	<.013	<.024	E.017	<.004	.025	<.022	.04	.010	<.02	<.009
JUN 22...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	<.013	<.022	<.01	<.005	<.02	<.009
22...	E.005	.022	<.029	<.013	<.024	E.018	<.004	.013	<.022	.04	E.005	<.02	<.009
JUL 09...	E.003	.009	<.029	<.013	<.024	<.016	<.004	.014	<.022	.05	E.005	E.01	E.005
SEP 10...	<.012	.014	<.029	<.013	<.024	E.009	<.004	E.011	<.022	.16	.020	<.02	<.009

01405003 LAWRENCE BROOK AT RIVA AVENUE, AT MILLTOWN, NJ

LOCATION.--Lat 40°26'55", long 74°26'46", Middlesex County, Hydrologic Unit 02030105, at bridge on Riva Avenue, 0.5 mi downstream of Farrington Lake, 0.5 mi west of Milltown, and 3.3 mi south of New Brunswick.

DRAINAGE AREA.--36.1 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

REMARKS.--For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. 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. Analysis of the split and concurrent replicate samples was performed by the Laboratory Branch of the U.S. Environmental Protection Agency, Region II, Division of Environmental Science and Assessment.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status and VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 9.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	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 unf 25 degC (00095)	Temperature, air, deg C (00020)
DEC 03...	0900	Environmental	13	.429	.339	775	11.7	92	7.5	154	1.9
FEB 04...	0900	Environmental	6.4	.194	.152	765	12.8	94	7.1	353	5.0
04...	0900	Split Replicate	--	--	--	--	--	--	--	--	--
04...	0901	Concurrent Replicate	--	--	--	--	--	--	--	--	--
JUN 08...	0900	Environmental	6.6	.269	.208	767	6.6	75	7.5	281	26.0
08...	0900	Split Replicate	--	--	--	--	--	--	--	--	--
08...	0901	Concurrent Replicate	--	--	--	--	--	--	--	--	--
AUG 17...	0900	Environmental	8.4	.271	.209	765	7.3	84	7.1	186	26.1
17...	0900	Split Replicate	--	--	--	--	--	--	--	--	--
17...	0901	Concurrent Replicate	--	--	--	--	--	--	--	--	--

Date	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	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 unf 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)
DEC 03...	6.0	30	7.00	2.93	2.55	13.8	15	26.6	<.2	8.5	9.9	82	92
FEB 04...	2.7	44	10.5	4.33	2.50	44.3	14	78.9	<.2	9.2	14.7	178	193
04...	--	43	10.0	4.30	2.70	48.0	14	79.0	.05	--	16.0	173	200
04...	--	46	11.0	4.50	2.80	50.0	15	79.0	.05	--	15.0	176	200
JUN 08...	21.6	47	11.6	4.49	2.44	32.0	21	58.5	<.2	3.0	11.3	138	162
08...	--	43	10.0	4.30	2.60	29.0	22	55.0	<.10	--	13.0	129	170
08...	--	42	10.0	4.20	2.60	30.0	22	56.0	<.10	--	13.0	131	170
AUG 17...	22.3	33	8.31	2.97	2.39	20.2	19	34.7	<.2	5.5	9.1	95	108
17...	--	31	7.60	2.80	2.50	18.0	21	35.0	.10	--	8.1	88	110
17...	--	31	7.60	2.80	2.50	19.0	22	35.0	<.10	--	8.1	89	110

01405003 LAWRENCE BROOK AT RIVA AVENUE, AT MILLTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	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)	Particulate nitrogen, susp, water, mg/L (49570)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	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)
DEC 03...	2	.50	--	.130	.160	.50	.007	.11	<.020	.013	.021	1.0	1.1
FEB 04...	1	.40	--	.109	--	.98	.006	.07	<.020	.005	.016	1.4	1.4
04...	<10	.85	.83	.100	.110	.950	<.050	--	<.050	<.050	<.050	1.8	1.8
04...	<10	.90	.99	.087	.093	.960	<.050	--	<.050	<.050	<.050	1.9	1.9
JUN 08...	11	1.0	--	.041	--	.50	.020	.41	<.010	--	<.002	1.5	1.9
08...	<10	.36	1.1	<.050	<.100	.490	.019	--	.023	.066	.067	.85	1.6
08...	<10	.45	1.2	<.050	<.100	.510	.021	--	.021	.063	.067	.96	1.7
AUG 17...	7	.46	--	.088	--	.16	.009	.28	E.009	.014	.047	.62	.90
17...	<10	.32	.77	.091	.093	.180	<.050	--	.027	<.050	<.050	.50	.95
17...	<10	.23	.43	.093	.100	.170	<.050	--	.028	<.050	.051	.40	.60

Date	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)	Boron, water, fltrd, ug/L (01020)
DEC 03...	1.0	<.1	1.0	9.0	E1.7	26
FEB 04...	.6	<.1	.6	4.5	E1.4	24
04...	--	--	--	5.0	--	20
04...	--	--	--	4.6	--	30
JUN 08...	2.8	<.1	2.8	6.5	E1.7	35
08...	--	--	--	6.9	--	--
08...	--	--	--	6.2	--	--
AUG 17...	1.7	<.1	1.7	6.1	2.5	37
17...	--	--	--	7.8	--	30
17...	--	--	--	7.2	--	30

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

01405003 LAWRENCE BROOK AT RIVA AVENUE, AT MILLTOWN, NJ—Continued

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 04...	0900	<2	72.2	.14	28	.10	<.8	2.3	710	1.14	143	<.02	3.37
AUG 17...	0900	E1	50.6	E.04	32	E.03	2.2	2.6	960	1.03	119	<.02	2.20

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 04...	<.4	<.16	23
AUG 17...	E.3	<.16	7

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

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2- Tetra- chloro- ethane, water, unfltrd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	1,1,2,2- Tetra- chloro- ethane, water, unfltrd ug/L (34516)	CFC-113 water, unfltrd ug/L (77652)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethane, water, unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,1-Di- chloro- propene water, unfltrd ug/L (77168)	1,2,3- Tri- chloro- benzene water, unfltrd ug/L (77613)	1,2,3- Tri- chloro- propane water, unfltrd ug/L (77443)	1,2,4- Tri- chloro- benzene water, unfltrd ug/L (34551)	
FEB 04...	0900	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2	
Date	Time	1,2,4- Tri- methyl- benzene water, unfltrd ug/L (77222)	Dibromo- chloro- propane water, unfltrd ug/L (82625)	1,2-Di- bromo- ethane, water, unfltrd ug/L (77651)	1,2-Di- chloro- benzene water, unfltrd ug/L (34536)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	1,2-Di- chloro- propane water, unfltrd ug/L (34541)	1,3,5- Tri- methyl- benzene water, unfltrd ug/L (77226)	1,3-Di- chloro- benzene water, unfltrd ug/L (34566)	1,3-Di- chloro- propane water, unfltrd ug/L (77173)	1,4-Di- chloro- benzene water, unfltrd ug/L (34571)	2,2-Di- chloro- propane water, unfltrd ug/L (77170)	2- Chloro- toluene water, unfltrd ug/L (77275)	4- Chloro- toluene water, unfltrd ug/L (77277)
FEB 04...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2
Date	Time	4-Iso- propyl- toluene water, unfltrd ug/L (77356)	Acrylo- nitrile water, unfltrd ug/L (34215)	Benzene water, unfltrd ug/L (34030)	Bromo- benzene water, unfltrd ug/L (81555)	Bromo- chloro- methane water, unfltrd ug/L (77297)	Bromo- di- chloro- methane water, unfltrd ug/L (32101)	Bromo- methane water, unfltrd ug/L (34413)	Chloro- benzene water, unfltrd ug/L (34301)	Chloro- ethane, water, unfltrd ug/L (34311)	Chloro- methane water, unfltrd ug/L (34418)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	cis- 1,3-Di- chloro- propene water, unfltrd ug/L (34704)	Di- bromo- chloro- methane water, unfltrd ug/L (32105)
FEB 04...		<.2	<.25	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2

01405003 LAWRENCE BROOK AT RIVA AVENUE, AT MILLTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Iso-propyl-benzene water unfltrd ug/L (77223)	Naphth-alene, water, unfltrd ug/L (34696)	n-Butyl benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
FEB 04...	<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	1.0	<.2
Date	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	Toluene -d8, Surrog, Sch2090 wat unfltrd percent recovery (99833)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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 chlor-ide, water, unfltrd ug/L (39175)		
FEB 04...	<.1	<.2	<.1	97.2	<.1	<.2	<.2	<.1	<.2	<.1	<.2		

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atra-zine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd, 0.7u GF ug/L (49310)	Carbo-furan, water, fltrd, 0.7u GF ug/L (49309)	
JUN 08...	0900	<.009	.44	E.02	E.02	<.008	.064	<.004	<.01	<.03	.0663	.07	<.006	
Date		Clopyr-alid, water, fltrd 0.7u GF ug/L (49305)	Dicamba water fltrd 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd 0.7u GF ug/L (49302)	Dinoseb water, fltrd 0.7u GF ug/L (49301)	Diuron, water, fltrd 0.7u GF ug/L (49300)	Fluo-meturon water fltrd 0.7u GF ug/L (38811)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-clopidr water, fltrd, ug/L (61695)	MCPA, water, fltrd 0.7u GF ug/L (38482)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd 0.7u GF ug/L (38501)	Norflur-azon, water, fltrd 0.7u GF ug/L (49293)
JUN 08...		<.01	<.06	<.02	<.01	.28	<.03	<.02	<.02	.053	.02	<.02	<.008	<.02
Date			Ory-zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Propi-cona-zole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfo-met-ruron, water, fltrd, ug/L (50337)	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd 0.7u GF ug/L (49235)				
JUN 08...			<.02	<.01	<.02	.03	.017	<.006	<.010	<.15				

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

RARITAN RIVER BASIN

01405003 LAWRENCE BROOK AT RIVA AVENUE, AT MILLTOWN, NJ—Continued

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Enterococci, 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)
AUG				
11...	0940	190	100	170
18...	0842	100	200	170
25...	0930	130	100	170
SEP				
01...	0945	300	<100	40
08...	0940	4,100	3,300	1,880

Remark codes used in this table:

< -- Less than

01405180 MCGELLAIRDS BROOK AT ENGLISHTOWN, NJ

LOCATION.--Lat 40°18'06", long 74°21'25", Monmouth County, Hydrologic Unit 02030105, at bridge on Main Street (County Route 527), 0.3 mi north of Englishtown, 0.5 mi upstream from mouth, and 1.9 mi northwest of Tennent.

DRAINAGE AREA.--14.9 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status and VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 9.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, mg/L (00915)	
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 25...	1100	12	.064	.049	766	10.0	85	6.8	250	--	8.4	63	18.2	
FEB 03...	1100	4.0	.045	.040	766	12.9	88	6.7	480	6.0	.2	73	20.9	
MAY 12...	1000	6.6	.077	.060	764	8.2	87	6.8	280	--	18.5	62	17.9	
AUG 05...	1100	21	.166	.127	757	6.4	74	6.9	211	23.5	22.0	50	14.9	
NOV 25...	4.16	3.38	15.9	13	35.8	.2	11.7	35.7	136	150	3	.40	.160	
FEB 03...	5.02	3.62	54.6	7	103	<.2	12.2	37.8	247	260	3	.40	.267	
MAY 12...	4.20	3.09	23.0	14	48.4	.2	10.1	33.6	153	177	4	.30	.120	
AUG 05...	3.04	3.33	16.2	16	32.9	.2	9.4	23.3	117	146	13	.44	.122	
NOV 25...	.200	.72	.005	.08	.029	--	.050	1.1	1.2	.9	<.1	.9	3.0	
FEB 03...	--	1.20	.013	.03	<.020	<.020	.020	1.6	1.6	.3	<.1	.3	1.3	
MAY 12...	--	.76	.016	.08	<.010	.004	.040	1.1	1.1	.7	<.1	.7	2.3	
AUG 05...	--	.82	.030	.12	.012	.009	.128	1.3	1.4	1.3	<.1	1.2	4.4	

RARITAN RIVER BASIN

01405180 MCGELLAIRDS BROOK AT ENGLISHTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 25...	E1.4	38
FEB 03...	<1.0	38
MAY 12...	<1.0	44
AUG 05...	3.2	44

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 03...	1100	<2	46.9	.12	38	.09	<.8	.9	1,840	.08	340	<.02	9.22
AUG 05...	1100	E1	28.3	E.04	45	E.04	E.5	2.0	3,060	.82	132	<.02	3.86

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 03...	<.4	<.16	24
AUG 05...	.5	<.16	8

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

01405180 MCGELLAIRDS BROOK AT ENGLISHTOWN, NJ—Continued

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2-Tetra-chloro-ethane, water, unfltrd ug/L (77562)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	1,1,2,2-Tetra-chloro-ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2-Tri-chloro-ethane, water, unfltrd ug/L (34511)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,1-Di-chloro-propene water unfltrd ug/L (77168)	1,2,3-Tri-chloro-benzene water unfltrd ug/L (77613)	1,2,3-Tri-chloro-propene water unfltrd ug/L (77443)	1,2,4-Tri-chloro-benzene water unfltrd ug/L (34551)	
FEB 03...	1100	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2	
Date		1,2,4-Tri-methyl-benzene water unfltrd ug/L (77222)	Dibromo-chloro-propane water unfltrd ug/L (82625)	1,2-Di-bromo-ethane, water, unfltrd ug/L (77651)	1,2-Di-chloro-benzene, water, unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	2,2-Di-chloro-propane water unfltrd ug/L (77170)	2-Chloro-toluene water unfltrd ug/L (77275)	4-Chloro-toluene water unfltrd ug/L (77277)
FEB 03...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2
Date		4-Iso-propyl-toluene water unfltrd ug/L (77356)	Acrylo-nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo-benzene water unfltrd ug/L (81555)	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-methane water unfltrd ug/L (34413)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)
FEB 03...		<.2	<.2.5	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2
Date		Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane wat unf ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Iso-propyl-benzene water unfltrd ug/L (77223)	Naphth-alene, water, unfltrd ug/L (34696)	n-Butyl benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
FEB 03...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	2.2	<.2
Date			Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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 chlor-ide, water, unfltrd ug/L (39175)		
FEB 03...			<.1	<.2	.1	<.1	<.2	<.2	<.1	<.2	<.1	<.2		

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

01405180 MCGELLAIRDS BROOK AT ENGLISHTOWN, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)
MAY 12...	1000	<.010	.09	<.03	<.01	E.037	E.005	<.004	<.01	<.03	<.0096	.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF (49305)	Dicamba water, fltrd, 0.7u GF (38442)	Di-chlor-prop, water, fltrd, 0.7u GF (49302)	Dinoseb water, fltrd, 0.7u GF (49301)	Diuron, water, fltrd, 0.7u GF (49300)	Fluometuron, water, fltrd, 0.7u GF (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF (38501)	Norflurazon, water, fltrd, 0.7u GF (49293)
MAY 12...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	.017	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF (49292)	Oxamyl, water, fltrd, 0.7u GF (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF (49235)
MAY 12...		<.02	<.01	<.02	E.01	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
JUL 01...	1046	620	300	1,700
08...	1043	570	300	5,000
15...	1215	870	600	2,400
22...	1042	670	200	800
29...	1116	780	900	2,400

01405340 MANALAPAN BROOK AT FEDERAL ROAD, NEAR MANALAPAN, NJ

LOCATION.--Lat 40°17'46", long 74°23'52", Middlesex County, Hydrologic Unit 02030105, at bridge on Federal Road, 2.6 mi north of Manalapan, 3.1 mi southwest of Matchaponix, 3.3 mi downstream from Still House Brook, and 4.1 mi northeast of Applegarth.

DRAINAGE AREA.--20.9 mi².

PERIOD OF RECORD.--Water years 1976 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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

COOPERATION.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Mixed Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 9.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 06...	0940	66	19	.218	.172	763	8.1	79	5.9	183	17.5	14.6	36	
FEB 19...	0840	28	8.2	.027	.022	755	13.3	95	5.6	224	4.0	1.4	41	
MAY 05...	1140	38	7.7	.126	.099	760	9.8	95	6.0	199	--	13.9	36	
AUG 18...	1150	19	14	.164	.131	761	8.2	92	6.5	228	28.5	20.8	40	
NOV 06...	8.60	3.54	4.83	14.3	6	29.4	<.2	10.5	20.9	99	116	13	.30	
FEB 19...	9.45	4.14	2.74	21.4	<2	40.9	<.2	9.9	23.7	--	127	8	.30	
MAY 05...	8.48	3.69	2.59	19.1	6	35.1	<.2	8.0	19.7	105	121	5	.30	
AUG 18...	9.87	3.82	3.60	21.0	11	44.0	.2	10.3	17.2	119	134	8	.29	
NOV 06...	.059	.058	.59	E.007	.18	<.020	.010	.120	.89	1.1	2.0	<.1	2.0	
FEB 19...	.211	--	1.40	.009	.10	<.020	<.002	.009	1.7	1.8	1.2	<.1	1.2	
MAY 05...	.069	--	.92	.006	.08	.011	--	--	1.2	1.3	.9	<.1	.9	
AUG 18...	.075	--	.60	.007	.07	.015	.010	.100	.89	.96	.9	<.1	.9	

RARITAN RIVER BASIN

01405340 MANALAPAN BROOK AT FEDERAL ROAD, NEAR MANALAPAN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 06...	5.6	2.8	23
FEB 19...	1.1	E1.2	15
MAY 05...	3.1	<1.0	21
AUG 18...	3.6	<1.0	28

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 2003 TO SEPTEMBER 2004

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)
AUG				
11...	0915	320	500	800
18...	1005	440	300	1,100
25...	0955	240	200	500
SEP				
01...	0915	700	700	1,100
08...	0915	2,700	18,000	>16,000

Remark codes used in this table:

> -- Greater than

01407210 HOP BROOK AT WILLOW BROOK ROAD, NEAR HOLMDEL, NJ

LOCATION.--Lat 40°19'47", long 74°10'20", Monmouth County, Hydrologic Unit 02030104, at bridge on Willow Brook Road, 0.3 mi upstream from mouth and Swimming River Reservoir, 1.2 mi southeast of Holmdel, and 2.7 mi west of Lincroft.

DRAINAGE AREA.-- 6.37 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status and VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 12.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, mg/L (00915)	
Date		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)	Ammonia water, fltrd, mg/L as N (00608)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 12...	0900													
FEB 10...	0930													
MAY 06...	0800													
AUG 31...	0900													
NOV 12...	3:36													
FEB 10...	4:39													
MAY 06...	3:30													
AUG 31...	1:28													
NOV 12...														
FEB 10...														
MAY 06...														
AUG 31...														

SHREWSBURY RIVER BASIN

01407210 HOP BROOK AT WILLOW BROOK ROAD, NEAR HOLMDEL, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 12...	2.6	34
FEB 10...	E2.0	33
MAY 06...	2.6	32
AUG 31...	3.3	34

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 10...	0930	E1	29.2	<.06	31	.04	<.8	.9	1,000	.46	168	<.02	4.24
AUG 31...	0900	6	31.2	.23	35	.13	6.3	6.1	10,100	6.97	218	E.02	6.55

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 10...	<.4	<.16	9
AUG 31...	.7	<.16	22

Remark codes used in this table:

< -- Less than

E -- Estimated value

01407210 HOP BROOK AT WILLOW BROOK ROAD, NEAR HOLMDEL, NJ—Continued

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2- Tetra- chloro- ethane, water, unfltrd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	1,1,2,2- Tetra- chloro- ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethane, water, unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,1-Di- chloro- propene water unfltrd ug/L (77168)	1,2,3- Tri- chloro- benzene water unfltrd ug/L (77613)	1,2,3- Tri- chloro- propane water unfltrd ug/L (77443)	1,2,4- Tri- chloro- benzene water unfltrd ug/L (34551)		
FEB 10...	0930	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2		
Date		1,2,4- Tri- methyl- benzene water unfltrd ug/L (77222)	Dibromo- chloro- propane water unfltrd ug/L (82625)	1,2-Di- bromo- ethane, water, unfltrd ug/L (77651)	1,2-Di- chloro- benzene water, unfltrd ug/L (34536)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	1,2-Di- chloro- propane water unfltrd ug/L (34541)	1,3,5- Tri- methyl- benzene water unfltrd ug/L (77226)	1,3-Di- chloro- benzene water unfltrd ug/L (34566)	1,3-Di- chloro- propane water unfltrd ug/L (77173)	1,4-Di- chloro- benzene water unfltrd ug/L (34571)	2,2-Di- chloro- propane water unfltrd ug/L (77170)	2- Chloro- toluene water unfltrd ug/L (77275)	4- Chloro- toluene water unfltrd ug/L (77277)	
FEB 10...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2	
Date		4-Iso- propyl- toluene water unfltrd ug/L (77356)	Acrylo- nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo- benzene water unfltrd ug/L (81555)	Bromo- chloro- methane water unfltrd ug/L (77297)	Bromo- di- chloro- methane water unfltrd ug/L (32101)	Bromo- methane water unfltrd ug/L (34413)	Chloro- benzene water unfltrd ug/L (34301)	Chloro- ethane, water, unfltrd ug/L (34311)	Chloro- methane water unfltrd ug/L (34418)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	cis- 1,3-Di- chloro- propane water unfltrd ug/L (34704)	Di- bromo- chloro- methane water unfltrd ug/L (32105)	
FEB 10...		<.2	<.25	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2	
Date		Di- bromo- methane water unfltrd ug/L (30217)	Di- chloro- di- fluoro- methane water unfltrd ug/L (34668)	Di- chloro- methane water unfltrd ug/L (34423)	Ethyl- benzene water unfltrd ug/L (34371)	Hexa- chloro- buta- diene, water, unfltrd ug/L (39702)	Iso- propyl- benzene water unfltrd ug/L (77223)	Naphth- alene, water, unfltrd ug/L (34696)	n-Butyl benzene water, unfltrd ug/L (77342)	n- propyl- benzene water unfltrd ug/L (77224)	sec- Butyl- benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert- Butyl- benzene water unfltrd ug/L (77353)	
FEB 10...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	.2	<.2	
Date			Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)	trans- 1,3-Di- chloro- propene water unfltrd ug/L (34699)	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 chlor- ide, water, unfltrd ug/L (39175)			
FEB 10...			<.1	<.2	<.1	<.1	<.2	<.2	<.1	<.2	<.1	<.2	<.2		

Remark codes used in this table:

< -- Less than

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)
MAY 06...	0800	.010	.12	<.03	<.01	E.015	.012	<.004	<.01	<.03	<.0096	M	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 06...		<.01	.08	<.01	<.01	<.01	<.03	<.02	<.02	<.007	.03	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 06...		<.02	<.01	<.02	M	<.009	<.006	<.010	<.02

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)
JUL 01...	1025	210	400	500
08...	1007	1,800	800	3,000
15...	1005	800	600	1,300
22...	0915	250	100	500
29...	1012	980	300	800

01407617 WHALE POND BROOK AT LARCHWOOD AVENUE, AT OAKHURST, NJ

LOCATION.--Lat 40°16'31", long 74°00'35", Monmouth County, Hydrologic Unit 02030104, at bridge on Larchwood Avenue at Oakhurst, 0.6 mi upstream of Lake Takanassee, and 1.1 mi south of West Long Branch.

DRAINAGE AREA.--5.25 mi².

PERIOD OF RECORD.--Water years 2001-02, March 2004.

COOPERATION.--Field data and samples for laboratory analyses were provided by the New Jersey Department of Environmental Protection.

COOPERATIVE NETWORK SITE DESCRIPTOR.--VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 12.

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2-Tetra-chloro-ethane, water, unfltrd ug/L (77562)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	1,1,2,2-Tetra-chloro-ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2-Tri-chloro-ethane, water, unfltrd ug/L (34511)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,1-Di-chloro-propene water unfltrd ug/L (77168)	1,2,3-Tri-chloro-benzene water unfltrd ug/L (77613)	1,2,3-Tri-chloro-propane water unfltrd ug/L (77443)	1,2,4-Tri-chloro-benzene water unfltrd ug/L (34551)	
MAR 01...	1100	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2	
Date	Time	1,2,4-Tri-methyl-benzene water unfltrd ug/L (77222)	Dibromo-chloro-propane water unfltrd ug/L (82625)	1,2-Di-bromo-ethane, water, unfltrd ug/L (77651)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	2,2-Di-chloro-propane water unfltrd ug/L (77170)	2-Chloro-toluene water unfltrd ug/L (77275)	4-Chloro-toluene water unfltrd ug/L (77277)
MAR 01...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2
Date	Time	4-Iso-propyl-toluene water unfltrd ug/L (77356)	Acrylo-nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo-benzene water unfltrd ug/L (81555)	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-methane water unfltrd ug/L (34413)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)
MAR 01...		<.2	<.25	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	4.2	<.2	<.2
Date	Time	Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane water unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Iso-propyl-benzene water unfltrd ug/L (77223)	Naphth-alene, water, unfltrd ug/L (34696)	n-Butyl benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
MAR 01...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	2.0	<.2
Date	Time		Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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 chlor-ide, water, unfltrd ug/L (39175)		
MAR 01...			<.1	<.2	<.1	<.1	<.2	<.2	4.7	<.2	.2	.4		

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

01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ

LOCATION.--Lat 40°12'13", long 74°03'56", Monmouth County, Hydrologic Unit 02030104, 60 ft downstream from dam on Jumping Brook Reservoir, 0.8 mi upstream from mouth, and 1.4 mi west of Neptune City.

DRAINAGE AREA.--6.46 mi².

PERIOD OF RECORD.--Water year 2001 to August 2002.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 12.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)
DEC 17...	1015	9.5	8.8	.179	.140	754	11.4	93	6.6	338	14.5	6.6	38
FEB 26...	1100	4.7	4.6	.057	.045	772	12.8	94	6.7	427	11.0	3.1	45
MAY 13...	1015	6.7	7.8	.217	.163	766	8.3	87	6.7	272	34.0	17.9	40
AUG 17...	1015	13	5.5	.372	.288	767	7.5	83	6.7	170	26.5	20.2	30
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 CaCO ₃ (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 17...	10.9	2.60	2.89	45.4	7	80.9	<.2	6.5	20.8	177	191	6	.50
FEB 26...	13.1	2.94	2.93	52.3	7	102	<.2	7.8	25.8	214	239	7	.30
MAY 13...	12.2	2.38	3.08	33.3	14	55.2	<.2	5.9	19.8	143	162	5	.40
AUG 17...	9.03	1.82	2.75	18.9	12	29.2	<.2	5.4	17.1	93	111	1	.51
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 17...	.130	.130	.55	.003	.10	<.020	<.020	.020	1.1	1.1	1.1	<.1	1.1
FEB 26...	.226	--	.59	.004	.06	<.020	<.020	<.020	.89	.95	.7	<.1	.7
MAY 13...	.123	--	.57	.014	.17	<.010	<.020	.030	.97	1.1	1.5	<.1	1.5
AUG 17...	.066	--	.30	.006	.07	.012	.018	.044	.81	.88	.9	<.1	.9

01407760 JUMPING BROOK NEAR NEPTUNE CITY, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 17...	4.0	1.2	24
FEB 26...	1.9	<1.0	20
MAY 13...	5.9	E1.1	27
AUG 17...	7.7	E1.6	33

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
JUL 01...	0946	1.7	100	<100	170
08...	0935	2.0	70	300	600
15...	1040	15	910	500	1,300
22...	1000	2.4	560	500	1,700
29...	1043	3.1	270	200	300

Remark codes used in this table:

< -- Less than

01407900 MANASQUAN RIVER AT WEST FARMS, NJ

LOCATION.--Lat 40°11'34", long 74°11'43", Monmouth County, Hydrologic Unit 02030104, at bridge on West Farms Road, 0.4 mi east of West Farms, 1.5 mi downstream from Yellow Brook, and 1.5 mi west of Farmingdale.

DRAINAGE AREA.--33.5 mi².

PERIOD OF RECORD.--Water years 1959-1964, 1967, 1973, 1974, 2003 to September 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status and VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 12.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, mg/L (00915)
NOV 13...	0900	16	.086	.070	749	8.9	83	7.0	214	13.2	11.1	66	21.0
FEB 24...	0900	10	.032	.028	765	10.4	82	6.8	260	1.9	5.6	77	24.1
MAY 05...	0900	11	.087	.074	763	8.9	83	6.8	255	14.3	12.1	66	20.3
SEP 08...	0900	26	.060	.049	762	7.4	77	7.2	256	22.8	17.7	90	30.8
Date	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)	Ammonia water, fltrd, mg/L as N (00608)
NOV 13...	3.39	3.85	10.9	23	23.1	<.2	14.9	31.8	125	127	15	.30	.020
FEB 24...	4.10	3.06	17.3	21	34.4	<.2	14.8	36.2	150	172	13	.70	.084
MAY 05...	3.66	2.87	17.4	20	34.5	<.2	13.5	32.4	139	155	9	<.20	.031
SEP 08...	3.27	3.05	11.1	44	27.0	.2	15.6	32.0	151	146	6	.24	.018
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 13...	<.030	.42	.005	.10	<.020	.019	.050	.72	.82	1.4	<.1	1.4	2.5
FEB 24...	--	.62	--	.07	<.020	--	.030	1.3	1.4	.5	<.1	.5	1.1
MAY 05...	--	.59	.005	.10	<.010	<.020	.040	--	--	1.0	<.1	1.0	1.7
SEP 08...	--	.29	.004	.07	<.010	.005	.070	.53	.60	1.0	<.1	1.0	1.5

01407900 MANASQUAN RIVER AT WEST FARMS, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 13...	<1.0	29
FEB 24...	E2.0	22
MAY 05...	<1.0	29
SEP 08...	<1.0	28

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 24...	0900	<2	40.5	.15	25	.22	.9	1.1	2,910	.32	107	<.02	9.51
SEP 08...	0900	<2	39.2	.06	28	.10	E.6	1.0	4,020	.49	65.5	<.02	4.94

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 24...	<.4	<.16	32
SEP 08...	E.4	<.16	11

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

01407900 MANASQUAN RIVER AT WEST FARMS, NJ—Continued

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2-Tetra-chloro-ethane, water, unfltrd ug/L (77562)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	1,1,2,2-Tetra-chloro-ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2-Tri-chloro-ethane, water, unfltrd ug/L (34511)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,1-Di-chloro-propene water unfltrd ug/L (77168)	1,2,3-Tri-chloro-benzene water unfltrd ug/L (77613)	1,2,3-Tri-chloro-propene water unfltrd ug/L (77443)	1,2,4-Tri-chloro-benzene water unfltrd ug/L (34551)	
FEB 24...	0900	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2	
Date		1,2,4-Tri-methyl-benzene water unfltrd ug/L (77222)	Dibromo-chloro-propane water unfltrd ug/L (82625)	1,2-Di-bromo-ethane, water, unfltrd ug/L (77651)	1,2-Di-chloro-benzene, water, unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	2,2-Di-chloro-propane water unfltrd ug/L (77170)	2-Chloro-toluene water unfltrd ug/L (77275)	4-Chloro-toluene water unfltrd ug/L (77277)
FEB 24...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2
Date		4-Iso-propyl-toluene water unfltrd ug/L (77356)	Acrylo-nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo-benzene water unfltrd ug/L (81555)	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-methane water unfltrd ug/L (34413)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)
FEB 24...		<.2	<.2.5	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2
Date		Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane wat unf ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Iso-propyl-benzene water unfltrd ug/L (77223)	Naphth-alene, water, unfltrd ug/L (34696)	n-Butyl benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
FEB 24...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	.6	<.2
Date			Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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 chlor-ide, water, unfltrd ug/L (39175)		
FEB 24...			<.1	<.2	<.1	<.1	<.2	<.2	<.1	<.2	<.1	<.2		

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

01407900 MANASQUAN RIVER AT WEST FARMS, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 05...	0900	<.009	.05	<.03	<.01	E.009	E.006	<.004	<.01	E.01	.0621	M	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 05...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 05...		<.02	<.01	<.02	E.01	<.009	<.006	<.010	<.02

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)
JUL 01...	0918	220	200	300
08...	1120	300	200	300
15...	0958	3,600	1,700	16,000
22...	1045	260	<100	130
29...	1125	250	<100	300

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

01408000 MANASQUAN RIVER AT SQUANKUM, NJ

LOCATION.--Lat 40°09'41", Long 74°09'17", Monmouth County, Hydrologic Unit 02030104, 50 ft upstream from northbound bridge on County Highway 547 (Squankum Park Road) in Squankum, and 0.4 mi downstream from Marsh Bog Brook.

DRAINAGE AREA.--44.0 mi².

PERIOD OF RECORD.--Water years 1963-81, 1991 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1969 to September 1974.

pH: July 1969 to September 1974.

WATER TEMPERATURE: July 1969 to September 1974.

DISSOLVED OXYGEN: August 1969 to September 1974.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 12.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)	
Date	Time	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 fixed end pt, lab, mg/L as CaCO ₃ (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)
Date	Time	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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, total, mg/L (00694)	Inorganic carbon, suspnd, total, mg/L (00688)	Organic carbon, suspnd, total, mg/L (00689)
DEC 17...	1000	107	9.4	.095	.077	756	10.4	85	7.0	251	12.5	6.5	62	
FEB 05...	0900	134	38	.124	.103	778	12.3	85	6.8	458	-2.3	1.2	46	
MAY 27...	0900	41	14	.136	.118	757	8.2	82	7.3	255	16.8	15.1	84	
SEP 07...	0900	27	13	.059	.047	765	7.4	77	7.2	256	23.5	17.5	89	
DEC 17...	18.6	3.72	3.95	23.4	13	41.2	<.2	13.2	31.0	147	152	10	.40	
FEB 05...	14.1	2.65	4.12	66.4	10	109	<.2	8.2	21.5	235	253	26	.60	
MAY 27...	27.3	3.73	5.01	14.3	33	32.8	<.2	14.4	31.8	151	181	8	.20	
SEP 07...	30.5	3.22	3.04	11.0	45	25.8	.2	14.7	30.6	148	145	1	.16	
DEC 17...	.060	.070	.86	<.003	.09	<.020	<.020	.040	1.3	1.4	1.0	<.1	1.0	
FEB 05...	.248	--	.70	.011	.26	<.020	<.002	.023	1.3	1.6	2.9	<.1	2.9	
MAY 27...	.044	--	.51	.005	.08	<.010	.009	.040	.71	.79	.8	<.1	.8	
SEP 07...	.018	--	.27	E.001	.08	.012	.006	.044	.43	.51	.8	<.1	.8	

01408000 MANASQUAN RIVER AT SQUANKUM, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 17...	2.5	2.4	28
FEB 05...	4.1	3.2	19
MAY 27...	2.3	E1.2	30
SEP 07...	1.8	2.3	27

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
JUL 01...	0925	21	210	400	1,100
08...	0923	23	270	<100	500
15...	0933	92	5,300	1,500	9,000
22...	0923	33	360	300	300
29...	1001	38	270	400	230

Remark codes used in this table:

- < -- Less than

01408009 MINGAMAHONE BROOK NEAR EARLE, NJ

LOCATION.--Lat 40°12'45", long 74°10'06", Monmouth County, Hydrologic Unit 02030104, at bridge on Cranberry Bog Road, 0.6 mi upstream from Branch Mingamahone Brook, and 1.7 mi west of Earle.

DRAINAGE AREA.--3.32 mi².

PERIOD OF RECORD.--Water years 1971-74, 1998 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 12.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)	
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 fixed end pt, lab, mg/L as CaCO ₃ (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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 13...	1130	5.7	21	.421	.348	745	8.6	78	6.2	104	10.5	10.1	24	
FEB 17...	1100	6.2	4.2	.064	.051	778	11.4	81	6.1	123	3.5	2.0	28	
MAY 05...	0920	9.4	7.3	.354	.285	760	8.7	80	5.7	105	18.0	11.6	22	
AUG 18...	0910	2.6	55	.270	.225	762	8.0	83	6.4	132	23.5	17.2	39	
NOV 13...	7.25	1.38	1.86	6.48	7	12.7	<.2	12.5	13.4	64	74	22	<.20	
FEB 17...	8.59	1.64	1.79	7.59	7	14.1	<.2	12.5	19.7	70	82	9	<.20	
MAY 05...	6.66	1.29	1.44	6.54	5	11.6	<.2	10.6	15.2	57	80	11	.30	
AUG 18...	13.3	1.44	1.98	6.33	19	12.0	<.2	16.7	16.7	80	88	17	.20	
NOV 13...	.030	<.030	<.02	<.003	.13	<.020	.010	.040	--	--	2.7	<.1	2.7	
FEB 17...	.059	--	.09	.005	.04	<.020	<.020	<.020	--	--	.9	<.1	.9	
MAY 05...	.051	--	.03	.002	.07	.012	<.020	.020	.33	.40	1.2	<.1	1.2	
AUG 18...	.082	--	<.06	.003	.05	.014	.006	.073	--	--	1.9	<.1	1.9	

01408009 MINGAMAHONE BROOK NEAR EARLE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 13...	4.9	2.0	E19
FEB 17...	1.6	2.2	15
MAY 05...	4.8	<1.0	27
AUG 18...	3.4	<1.0	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 2003 TO SEPTEMBER 2004

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)
JUL 01...	0909	80	100	230
08...	0905	80	200	230
15...	0914	290	300	1,100
22...	0908	90	<100	140
29...	0947	120	100	130

Remark codes used in this table:

- < -- Less than

01408100 NORTH BRANCH METEDECONK RIVER AT LAKEWOOD, NJ

LOCATION.--Lat 40°06'35", long 74°13'09", Ocean County, Hydrologic Unit 02040301, at highway bridge on U.S. Route 9, 0.3 mi north of County Line Road in Lakewood, and 3.6 mi upstream from Muddy Ford Brook.

DRAINAGE AREA.--19.4 mi².

PERIOD OF RECORD.--Water years 1959-63, 1998 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 13.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	
Date	Time	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 unf 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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
Date	Time	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 13...	0930	35	6.8	.325	.257	745	8.7	79	6.3	142	11.5	10.3	28	
FEB 17...	0930	27	6.4	.155	.119	780	13.6	91	6.2	182	2.5	.3	28	
MAY 17...	1000	22	8.1	.396	.309	772	7.3	78	6.4	197	17.0	19.0	34	
AUG 16...	1130	44	11	.362	.284	763	6.8	75	6.4	128	19.5	20.2	25	
NOV 13...	8.38	1.65	2.59	13.9	11	26.4	<.2	8.0	11.1	81	88	8	.20	
FEB 17...	8.51	1.74	2.20	20.1	6	33.9	<.2	7.0	14.5	96	106	5	.30	
MAY 17...	10.6	1.82	2.70	21.1	14	38.6	<.2	6.4	11.8	106	128	8	.60	
AUG 16...	7.90	1.27	1.96	11.9	12	21.3	<.2	6.4	10.9	70	88	7	.42	
NOV 13...	.040	.030	.44	.005	.06	<.020	.016	.040	.64	.70	.8	<.1	.8	
FEB 17...	.129	--	.91	.005	.06	<.020	.003	.002	1.2	1.3	.9	<.1	.9	
MAY 17...	.106	--	.84	.008	.12	.010	<.020	.050	1.4	1.6	1.6	<.1	1.6	
AUG 16...	.038	--	.34	.006	.10	.024	.030	.070	.76	.86	1.4	<.1	1.3	

01408100 NORTH BRANCH METEDECONK RIVER AT LAKEWOOD, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 13...	6.8	2.6	23
FEB 17...	3.9	E1.4	17
MAY 17...	8.0	E1.2	27
AUG 16...	7.9	<1.0	22

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 2003 TO SEPTEMBER 2004

Date	Time	Enterococci, 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 05...	1130	100	300	20
12...	1115	180	<100	40
19...	1130	220	100	130
26...	1115	440	1,100	2,200
JUN 02...	1130	1,900	700	9,000

Remark codes used in this table:

- < -- Less than

01408110 HAYSTACK BROOK NEAR SOUTHARD, NJ

LOCATION.--Lat 40°08'47", long 74°11'58", Monmouth County, Hydrologic Unit 02040301, at bridge on Maxim-Southard Road, 1.2 mi east of Candlewood, 1.5 mi northeast of Southard, and 3.0 mi upstream of Dicks Brook.

DRAINAGE AREA.--1.77 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 13.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
NOV 20...	1030	7.5	.707	.560	750	7.1	66	5.9	80	11.8	11.5	16	4.39
FEB 10...	1000	4.5	.212	.168	760	11.2	84	6.7	270	4.0	3.1	37	10.8
MAY 05...	0800	7.0	.299	.231	760	9.0	82	7.0	239	12.4	10.9	36	10.9
AUG 19...	0900	9.4	.244	.190	760	6.7	74	6.7	204	20.7	19.9	32	9.67
Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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 (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...	1.23	2.04	6.71	6	10.3	<.2	4.3	6.6	41	70	10	.50	.030
FEB 10...	2.42	2.37	41.1	7	69.9	<.2	6.5	13.4	156	176	1	.30	.140
MAY 05...	2.18	2.54	32.3	11	51.8	<.2	5.8	12.4	129	151	3	.40	.092
AUG 19...	1.95	2.61	23.6	12	42.9	<.2	8.0	11.5	112	128	2	.40	.113
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
NOV 20...	.030	.54	.008	.14	.026	.031	.070	1.0	1.2	1.2	<.1	1.2	15.0
FEB 10...	--	1.20	.004	.06	<.020	<.002	<.002	1.5	1.6	.4	<.1	.4	4.8
MAY 05...	--	1.00	.006	.06	.018	<.020	.020	1.4	1.5	.6	<.1	.6	6.4
AUG 19...	--	1.02	.007	.10	.028	.013	.038	1.4	1.5	.8	<.1	.8	5.2

01408110 HAYSTACK BROOK NEAR SOUTHARD, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 20...	E1.5	25
FEB 10...	E2.0	28
MAY 05...	<1.0	34
AUG 19...	E1.7	42

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Medium code	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)	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, unfltrd recover -able, ug/L (01051)
FEB 10...	1000	9	9	<2	51.6	.11	28	.25	E.5	1.1	880	.33
AUG 19...	0900	9	9	<2	51.2	.06	45	.14	1.1	<2.4	1,290	.43

Date	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 ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 10...	61.5	<.02	1.49	E.3	<.16	19
AUG 19...	32.6	<.02	1.79	.5	<.16	14

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)
MAY 05...	0800	<.009	.06	<.03	<.01	<.008	<.009	<.004	<.01	<.03	.0191	E.01	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF (49305)	Dicamba water, fltrd, 0.7u GF (38442)	Di-chlor-prop, water, fltrd, 0.7u GF (49302)	Dinoseb water, fltrd, 0.7u GF (49301)	Diuron, water, fltrd, 0.7u GF (49300)	Fluometuron, water, fltrd, 0.7u GF (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF (38501)	Norflurazon, water, fltrd, 0.7u GF (49293)
MAY 05...		<.01	<.03	<.01	<.01	<.01	<.03	<.02	<.02	.073	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF (49292)	Oxamyl, water, fltrd, 0.7u GF (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF (49235)
MAY 05...		<.02	<.01	<.02	.04	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
JUL 01...	0903	350	100	170
08...	1109	530	100	230
15...	1017	900	400	1,300
22...	1026	2,000	1,900	16,000
29...	1105	530	100	220

01408460 MANAPQUA 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 September 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 13.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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 (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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
DEC 09...	0900													
MAR 04...	0830													
MAY 12...	0800													
SEP 02...	0900													
DEC 09...		.713	.85	6.05	2	9.61	<.2	3.8	5.4	30	38	18	.40	.110
MAR 04...		.631	.66	5.29	2	7.66	<.2	2.7	4.4	26	41	5	.30	.089
MAY 12...		.643	.81	5.59	3	8.16	<.2	2.5	4.6	27	40	5	.70	.077
SEP 02...		.615	.81	4.82	3	7.15	<.2	3.0	3.7	25	34	15	.36	.059
DEC 09...		.150	.13	<.003	.19	<.020	<.020	.040	.53	.72	3.1	<.1	3.1	5.2
MAR 04...		--	.18	.002	.12	<.020	<.002	.002	.48	.60	1.6	<.1	1.6	4.8
MAY 12...		--	.14	.003	.21	<.010	<.002	<.002	.84	1.1	3.7	<.1	3.7	6.8
SEP 02...		--	.09	.003	.27	<.010	.013	.133	.44	.72	4.8	<.1	4.8	5.9

TOMS RIVER BASIN

01408460 MANAPQUA BRANCH AT LAKEHURST, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 09...	<1.0	17
MAR 04...	E1.2	11
MAY 12...	<1.0	14
SEP 02...	<1.0	16

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
MAR 04...	0830	<2	11.2	<.06	13	.06	<.8	1.3	2,080	.69	38.3	.04	.73
SEP 02...	0900	3	14.6	E.04	16	.10	1.5	2.8	17,800	4.91	36.3	.04	1.09

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
MAR 04...	E.2	<.16	15
SEP 02...	E.2	<.16	14

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

01408460 MANAPAQUA BRANCH AT LAKEHURST, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)	
MAY 12...	0800	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	<.03	<.006	
Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 12...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02
Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)					
MAY 12...		<.02	<.01	<.02	<.02	<.009	.107	<.010	<.02					

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 2003 TO SEPTEMBER 2004

Date	Time	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth MPN/ 100 mL (31615)
MAY 05...	1100	20	<100	20
12...	1040	30	<100	40
19...	1050	150	<100	20
26...	1040	200	100	110
JUN 02...	1045	50	100	70

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 13.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
Date	Time	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)
Date	Time	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 20...	0900	275	3.4	.379	.300	756	8.7	82	5.5	86	10.4	12.1	12	
FEB 03...	0900	159	2.4	.158	.125	769	12.2	87	6.2	106	-2.1	2.0	14	
MAY 26...	0900	148	4.7	.608	.486	758	7.4	--	5.8	103	--	20.0	13	
AUG 26...	0800	167	3.2	.624	.495	770	7.5	81	5.4	90	23.4	19.3	12	
NOV 20...	2.78	1.22	1.61	9.68	2	14.2	<2	5.2	7.7	46	61	4	.60	
FEB 03...	3.19	1.42	1.61	11.4	<2	17.2	<2	5.7	10.3	--	58	2	.90	
MAY 26...	2.96	1.38	1.57	11.6	2	17.8	<2	4.5	8.3	53	78	7	.80	
AUG 26...	2.79	1.19	1.28	9.91	<2	15.2	<2	5.4	7.0	--	69	<1	.57	
NOV 20...	.200	.190	.50	.008	.11	<.020	.006	.011	1.1	1.2	1.7	<.1	1.7	
FEB 03...	.356	--	.72	<.003	.07	<.020	<.002	.003	1.6	1.7	.8	<.1	.8	
MAY 26...	.318	--	.66	.011	.21	<.010	<.020	.030	1.5	1.7	3.4	<.1	3.4	
AUG 26...	.192	--	.52	.009	.09	.013	.010	.024	1.1	1.2	1.2	<.1	1.2	

01408500 TOMS RIVER NEAR TOMS RIVER, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 20...	8.3	<1.0	17
FEB 03...	3.6	E1.3	15
MAY 26...	11.2	E1.2	19
AUG 26...	10.4	E1.7	19

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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 05...	1030	277	10	<100	40
12...	1015	212	40	<100	20
19...	1030	174	180	<100	40
26...	1015	146	180	<100	130
JUN 02...	1015	191	760	800	1,300

Remark codes used in this table:

< -- Less than

01408830 CEDAR CREEK AT CEDAR CREST, NJ

LOCATION.--Lat 39°53'50", long 74°18'59", Ocean County, Hydrologic Unit 02040301, at bridge on Whiting-Lacey Road in Cedar Crest, 0.2 mi downstream from outlet of Bamber Lake, and 3.7 mi southeast of Keswick Grove.

DRAINAGE AREA.--20.1 mi².

PERIOD OF RECORD.--Water years 1977-78, 1998 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 13.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
NOV 25...	1050	30	.6	.450	.352	761	10.7	91	4.2	41	7.0	8.3	5
FEB 23...	0950	39	.6	.153	.120	765	12.4	95	4.5	30	8.0	4.6	3
MAY 10...	0920	39	.7	.223	.177	766	9.0	95	4.2	29	17.5	18.2	3
AUG 02...	1110	41	.6	.415	.330	756	8.4	100	4.4	32	32.0	23.6	3
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 unf 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 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 25...	.86	.633	.36	2.59	<2	4.78	<2	5.0	5.9	32	2	.30	<.020
FEB 23...	.67	.418	.37	2.52	<2	4.37	<2	4.5	3.1	25	2	<.20	<.020
MAY 10...	.56	.376	.28	2.41	<2	4.50	<2	2.5	3.1	24	<1	<.20	.013
AUG 02...	.63	.396	.39	2.55	<2	4.43	<2	4.1	1.9	30	<1	.22	.022
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, 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)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 25...	<.020	<.02	<.003	<.02	<.020	<.020	<.020	.1	<.1	.1	10.1	2.0	7.4
FEB 23...	--	<.02	<.002	<.02	<.020	.004	.005	.4	<.1	.4	3.4	2.2	E6.1
MAY 10...	--	<.02	E.002	<.02	<.010	<.002	.002	.2	<.1	.2	4.2	2.3	E6.8
AUG 02...	--	<.06	.004	<.02	<.010	.006	.006	.4	<.1	.4	7.8	<1.0	8.1

Remark codes used in this table:

< -- Less than

E -- Estimated value

01408830 CEDAR CREEK AT CEDAR CREST, NJ—Continued

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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				
05...	0945	10	100	<20
12...	0930	<10	<100	<20
19...	0945	10	<100	<20
26...	0930	20	<100	20
JUN				
02...	0930	10	<100	<20

Remark codes used in this table:

< -- Less than

01409030 LONG BRANCH NEAR WELLS MILLS, NJ

LOCATION.--Lat 39°49'02", long 74°17'35", Ocean County, Hydrologic Unit 02040301, at bridge on Bryant Road, 0.7 mi upstream of mouth, 1.8 mi northwest of Wells Mills, and 2.6 mi north of Brookville.

DRAINAGE AREA.-- 1.69 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 13.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
DEC 10...	1030	.9	.353	.270	765	10.8	79	4.3	83	2.5	2.8	9	1.49
FEB 17...	1200	.7	.278	.229	775	9.9	68	4.4	83	5.5	.4	9	1.60
MAY 25...	0900	.7	.454	.353	758	3.6	40	4.2	80	24.5	20.0	8	1.47
AUG 04...	1015	.8	.604	.463	755	4.4	50	4.2	80	30.5	21.2	8	1.49
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 (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 unfltrd mg/L as N (00610)	Nitrite + nitrate water fltrd, mg/L as N (00631)
DEC 10...	1.25	.90	6.71	8.57	<.2	5.5	21.0	51	<1	.30	.079	.070	.12
FEB 17...	1.30	.98	6.41	8.24	<.2	4.9	16.5	44	<1	.30	.145	--	.22
MAY 25...	.985	1.14	5.86	8.66	<.2	4.3	20.4	45	3	.40	.043	--	.04
AUG 04...	1.01	.89	5.75	8.23	<.2	6.0	23.5	59	1	.35	--	.024	<.06
Date	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 10...	<.003	<.02	<.020	<.002	<.020	.42	--	<.1	<.1	<.1	8.7	2.6	90
FEB 17...	<.002	<.02	<.020	<.002	.002	.52	--	.1	<.1	.1	5.6	<1.0	77
MAY 25...	.003	.04	.031	<.020	<.020	.44	.48	.3	<.1	.3	10.2	<1.0	99
AUG 04...	--	<.02	--	E.003	.006	--	--	.2	<.1	.2	13.3	<1.0	91

Remark codes used in this table:

< -- Less than

E -- Estimated value

01409030 LONG BRANCH NEAR WELLS MILLS, NJ—Continued

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	pH bed sediment std units (70310)	Ammonia + org-N, bed sediment total, mg/kg as N (00626)	Phosphorus, bed sediment total, mg/kg (00668)	Total carbon, bed sediment total, g/kg (00693)	Inorganic carbon, bed sediment total, g/kg (00686)	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryllium, water, unfltrd recover -able, ug/L (01012)	Boron, water, unfltrd recover -able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover -able, ug/L (01034)	Copper, water, unfltrd recover -able, ug/L (01042)
FEB 17...	1200	--	--	--	--	--	E1	26.9	.13	81	.04	<.8	<.6
AUG 04...	1015	--	--	--	--	--	<2	31.7	.08	89	.06	<.8	.6
04...	1015	4.70	10	140	.8	<.2	--	--	--	--	--	--	--
Date	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, unfltrd recover -able, ug/L (01051)	Manganese, water, unfltrd recover -able, ug/L (01055)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)	Arsenic bed sediment total, ug/g (01003)	Cadmium bed sediment recover -able, ug/g (01028)	Chromium, bed sediment recover -able, ug/g (01029)	Cobalt bed sediment recover -able, ug/g (01038)	Copper, bed sediment recover -able, ug/g (01043)
FEB 17...	80	.39	16.0	<.02	1.16	<.4	<.16	6	--	--	--	--	--
AUG 04...	450	.92	11.9	<.02	1.49	.4	<.16	8	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	<1	<.001	.5	.030	<2
Date	Iron, bed sediment total, ug/g (01170)	Lead, bed sediment recover -able, ug/g (01052)	Manganese, bed sediment recover -able, ug/g (01053)	Nickel, bed sediment recover -able, ug/g (01068)	Selenium, bed sediment total, ug/g (01148)	Zinc, bed sediment recover -able, ug/g (01093)	1,2-Dimethylnaphthalene, bed sediment <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sediment <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sediment <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sediment <2 mm, ug/kg (49410)	1-Methylpyrene, bed sediment <2 mm, vsw nat ug/kg (49388)	236Tri-methylnaphthalene, bed sediment <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sediment <2 mm, ug/kg (49406)
FEB 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	390	.450	1.0	.120	<1	<3.1	<50	<50	<50	<50	<50	<50	<50
Date	2-Ethyl naphthalene bed sediment <2 mm, vsw nat ug/kg (49948)	2-Methylanthracene, bed sediment <2 mm, ug/kg (49435)	45Methylenephenthrene, bed sediment <2 mm, ug/kg (49411)	9H-Flour-ene, bed sediment <2 mm, vsw nat ug/kg (49399)	Ace-naphth-ene, bed sediment <2 mm, vsw nat ug/kg (49429)	Ace-naphth-ylene, bed sediment <2 mm, vsw nat ug/kg (49428)	Anthra-cene, bed sediment <2 mm, vsw nat field, ug/kg (49434)	Benzo-[a]-anthra-cene, bed sediment <2 mm, ug/kg (49436)	Benzo-[a]-pyrene, bed sediment <2 mm, vsw nat ug/kg (49389)	Benzo-[b]-fluor-anthene bed sediment <2 mm, ug/kg (49458)	Benzo-[ghi]-perylene, bed sediment <2 mm, ug/kg (49408)	Benzo-[k]-fluor-anthene bed sediment <2 mm, ug/kg (49397)	Chry-sene, bed sediment <2 mm, vsw nat field, ug/kg (49450)
FEB 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	<50	<50	<50	<50	<50	E11	<50	E14	E18	<50	E19	<50	E10

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Dibenzo-[a,h]-anthracene, 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)	Naphthalene, 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)	Phenanthrene, bed sed <2 mm, wsv nat field, ug/kg (49409)	Phenanthridine, bed sed <2 mm, wsv nat field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sediment, dry svs dia percent <.063mm (80164)	Bed sediment, falldia dst wat percent <.004mm (80157)
FEB 17...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	<50	E14	<50	<50	<50	<5	<50	<50	<50	E13	1	<1

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 25...	0900	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 25...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 25...	<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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

01409030 LONG BRANCH NEAR WELLS MILLS, NJ—Continued

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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				
05...	0830	<10	<100	<20
12...	0830	10	<100	<20
19...	0845	10	<100	140
26...	0830	10	100	40
JUN				
02...	0830	40	<100	40

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

01409387 MULLICA RIVER AT OUTLET OF ATSION LAKE, AT ATSION, NJ

LOCATION.--Lat 39°44'25", long 74°43'36", Burlington County, Hydrologic Unit 02040301, at bridge on U.S. Route 206 in Atsion, at outlet of Atsion Lake, and 0.2 mi upstream from Wesickaman Creek.

DRAINAGE AREA.--26.7 mi².

PERIOD OF RECORD.--Water years 1976 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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

COOPERATION.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
NOV 24...	0930	102	1.4	.571	.440	761	9.8	86	3.8	54	11.0	9.3	5
FEB 17...	1220	70	1.2	.263	.202	774	12.7	93	4.1	71	6.2	3.0	7
MAY 12...	0930	43	2.1	.581	.449	767	8.1	93	4.0	53	30.0	22.4	5
SEP 08...	1120	38	6.3	1.20	.939	763	7.5	84	4.3	49	26.0	20.8	4

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 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 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 24...	.96	.529	.97	3.67	--	7.13	<.2	4.1	6.7	45	2	.40	.020
FEB 17...	1.46	.755	1.03	5.84	--	10.1	<.2	3.7	7.8	40	3	.20	.036
MAY 12...	1.10	.533	.90	4.76	<.2	8.15	<.2	2.2	6.2	38	2	.30	E.008
SEP 08...	1.01	.462	.81	3.87	<.2	6.67	<.2	5.9	2.8	59	6	.52	.048

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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 24...	<.020	.03	<.003	.03	<.020	.008	.008	.43	.46	.5	<.1	.5	11.6
FEB 17...	--	.18	<.002	<.02	<.020	<.002	<.002	.38	--	.2	<.1	.1	5.6
MAY 12...	--	.07	.002	.11	<.010	<.002	<.020	.37	.48	1.8	<.1	1.8	11.0
SEP 08...	--	E.03	.007	.32	<.010	.004	.021	--	E.87	7.9	<.1	7.9	18.2

01409387 MULLICA RIVER AT OUTLET OF ATSION LAKE, AT ATSION, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 24...	E1.8	15
FEB 17...	E1.4	13
MAY 12...	<1.0	14
SEP 08...	<1.0	12

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 2003 TO SEPTEMBER 2004

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)
JUL				
12...	1325	3,800	1,200	3,000
20...	1045	<10	<100	<20
26...	1025	360	<100	20
AUG				
02...	0950	10	<100	20
09...	1005	80	<100	40
16...	1005	80	<100	80

Remark codes used in this table:

< -- Less than

0140940950 BLUE ANCHOR BROOK AT ELM, NJ

LOCATION.--Lat 39°41'17", long 74°50'05", Camden County, Hydrologic Unit 02040301, at bridge on U.S. Route 30 at Elm, at outlet of Winslow Lake, and 1.4 mi upstream from confluence with Pump Branch.

DRAINAGE AREA.--4.86 mi².

PERIOD OF RECORD.--Water years 1991 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Mixed Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
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 unf 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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 20...	0920	11	39	.298	.239	750	9.4	89	6.4	68	9.5	12.0	12
FEB 17...	1000	4.5	4.0	.158	.126	772	14.5	110	6.0	97	7.0	4.3	15
MAY 17...	0950	4.4	2.3	.344	.275	769	7.1	87	6.1	98	24.5	26.4	16
SEP 08...	0900	3.3	1.3	.211	.166	760	7.5	92	6.6	70	23.0	25.5	11
NOV 20...	2.67	1.27	2.35	7.43	9	9.27	<.2	2.0	4.5	36	47	26	.30
FEB 17...	3.35	1.55	1.93	11.5	7	16.8	<.2	1.4	6.0	50	55	3	.30
MAY 17...	3.69	1.73	2.11	9.74	15	15.7	<.2	2.0	4.6	49	61	1	.50
SEP 08...	2.22	1.40	1.46	7.17	9	10.7	<.2	.8	3.3	33	38	1	.32
NOV 20...	<.020	.100	.18	.004	.61	<.020	.030	.044	.48	1.1	3.9	<.1	3.9
FEB 17...	.092	--	.66	.005	.08	<.020	<.002	.010	.96	1.0	.7	<.1	.7
MAY 17...	.032	--	<.02	.003	.13	E.008	<.020	.030	--	--	.9	<.1	.9
SEP 08...	.028	--	<.06	.003	.11	.011	.013	.035	--	--	.8	<.1	.8

0140940950 BLUE ANCHOR BROOK AT ELM, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 20...	6.1	3.0	15
FEB 17...	3.3	E1.8	12
MAY 17...	6.5	2.7	17
SEP 08...	4.3	E1.1	16

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 2003 TO SEPTEMBER 2004

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 29...	1100	20	<100	<20
JUL 06...	1100	20	<100	<20
20...	1130	<10	<100	<20
22...	1055	50	<100	20
27...	1120	<10	<100	<20

Remark codes used in this table:

< -- Less than

0140941075 CEDAR BROOK AT COLUMBIA ROAD, AT HAMMONTON, NJ

LOCATION.--Lat 39°39'53", long 74°45'56", Atlantic County, Hydrologic Unit 02040301, on bridge at Columbia Road, 2.3 mi upstream of mouth, 2.7 mi northeast of Hammonton, and 3.0 mi northwest of Wescoatville.

DRAINAGE AREA.-- 3.57 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status and VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, mg/L (00915)
NOV 25...	1030	3.9	.150	.113	765	8.0	70	6.6	201	7.5	9.7	49	11.9
FEB 24...	1030	2.9	.060	.043	762	9.5	78	6.5	259	8.0	7.1	57	15.0
MAY 06...	1030	1.4	.111	.083	765	9.8	95	6.5	204	18.0	14.3	54	13.5
AUG 10...	1030	3.6	.075	.057	762	6.3	70	6.8	204	28.0	20.1	45	11.4
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 25...	4.73	4.66	11.8	17	26.5	<.2	6.1	17.9	107	121	2	.30	.060
FEB 24...	4.85	4.91	22.6	12	41.4	<.2	5.2	23.2	142	167	1	<.20	.051
MAY 06...	4.84	4.86	14.8	14	27.7	<.2	4.7	21.2	114	126	<1	<.20	.015
AUG 10...	4.09	4.74	14.4	14	31.5	<.2	4.5	18.3	108	119	2	.17	.016
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 25...	.060	2.90	.009	.05	<.020	.007	.020	3.2	3.2	.6	<.1	.6	4.1
FEB 24...	--	3.90	.007	.04	<.020	.005	.008	--	--	.4	<.1	.4	2.2
MAY 06...	--	3.20	.006	.03	.012	.010	.009	--	--	.3	<.1	.3	3.2
AUG 10...	--	2.36	.004	.06	<.010	.007	.028	2.5	2.6	.7	<.1	.7	2.1

0140941075 CEDAR BROOK AT COLUMBIA ROAD, AT HAMMONTON, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 25...	<1.0	23
FEB 24...	<1.0	28
MAY 06...	E1.7	22
AUG 10...	<1.0	27

Remark codes used in this table:

< -- Less than
E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 24...	1030	<2	65.8	E.05	27	.16	<.8	1.7	270	1.58	44.4	<.02	1.83
AUG 10...	1030	<2	58.6	<.06	29	.04	<.8	1.7	280	1.94	23.4	<.02	.97

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 24...	E.3	<.16	25
AUG 10...	<.4	<.16	8

Remark codes used in this table:

< -- Less than
E -- Estimated value

0140941075 CEDAR BROOK AT COLUMBIA ROAD, AT HAMMONTON, NJ—Continued

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2- Tetra- chloro- ethane, water, unfltrd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	1,1,2,2- Tetra- chloro- ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethane, water, unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,1-Di- chloro- propene water unfltrd ug/L (77168)	1,2,3- Tri- chloro- benzene water unfltrd ug/L (77613)	1,2,3- Tri- chloro- propene water unfltrd ug/L (77443)	1,2,4- Tri- chloro- benzene water unfltrd ug/L (34551)		
FEB 24...	1030	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2		
Date		1,2,4- Tri- methyl- benzene water unfltrd ug/L (77222)	Dibromo- chloro- propane water unfltrd ug/L (82625)	1,2-Di- bromo- ethane, water, unfltrd ug/L (77651)	1,2-Di- chloro- benzene water, unfltrd ug/L (34536)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	1,2-Di- chloro- propane water unfltrd ug/L (34541)	1,3,5- Tri- methyl- benzene water unfltrd ug/L (77226)	1,3-Di- chloro- benzene water unfltrd ug/L (34566)	1,3-Di- chloro- propane water unfltrd ug/L (77173)	1,4-Di- chloro- benzene water unfltrd ug/L (34571)	2,2-Di- chloro- propane water unfltrd ug/L (77170)	2- Chloro- toluene water unfltrd ug/L (77275)	4- Chloro- toluene water unfltrd ug/L (77277)	
FEB 24...		<.2	<.5	<.2	<.1	<.2	.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2	
Date		4-Iso- propyl- toluene water unfltrd ug/L (77356)	Acrylo- nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo- benzene water unfltrd ug/L (81555)	Bromo- chloro- methane water unfltrd ug/L (77297)	Bromo- di- chloro- methane water unfltrd ug/L (32101)	Bromo- methane water unfltrd ug/L (34413)	Chloro- benzene water unfltrd ug/L (34301)	Chloro- ethane, water, unfltrd ug/L (34311)	Chloro- methane water unfltrd ug/L (34418)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	cis- 1,3-Di- chloro- propene water unfltrd ug/L (34704)	Di- bromo- chloro- methane water unfltrd ug/L (32105)	
FEB 24...		<.2	<.25	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2	
Date		Di- bromo- methane water unfltrd ug/L (30217)	Di- chloro- di- fluoro- methane water unfltrd ug/L (34668)	Di- chloro- methane water unfltrd ug/L (34423)	Ethyl- benzene water unfltrd ug/L (34371)	Hexa- chloro- buta- diene, water, unfltrd ug/L (39702)	Iso- propyl- benzene water unfltrd ug/L (77223)	Naphth- alene, water, unfltrd ug/L (34696)	n-Butyl benzene water, unfltrd ug/L (77342)	n- propyl- benzene water unfltrd ug/L (77224)	sec- Butyl- benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert- Butyl- benzene water unfltrd ug/L (77353)	
FEB 24...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	1.5	<.2	
Date			Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)	trans- 1,3-Di- chloro- propene water unfltrd ug/L (34699)	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 chlor- ide, water, unfltrd ug/L (39175)			
FEB 24...			<.1	<.2	<.1	<.1	<.2	<.2	<.1	<.2	<.1	<.2			

Remark codes used in this table:

< -- Less than

0140941075 CEDAR BROOK AT COLUMBIA ROAD, AT HAMMONTON, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 06...	1030	<.009	<.03	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	E.02	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 06...		<.01	<.01	<.01	<.01	.04	<.03	<.02	<.02	<.007	<.02	.02	<.008	E.20

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 06...		.04	<.01	<.02	<.02	<.009	<.006	E.166	<.02

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 2003 TO SEPTEMBER 2004

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)
JUN 10...	1154	110	74	113
JUN 17...	1115	490	460	460
JUN 24...	1125	270	260	300
JUL 01...	1130	520	320	500
JUL 08...	1050	420	350	380

01409416 HAMMONTON CREEK AT WESCOATVILLE, NJ

LOCATION.--Lat 39°38'02", long 74°43'04", Atlantic County, Hydrologic Unit 02040301, at bridge on Chestnut Road in Wescoatville, 1.1 mi southwest of Nesco, 1.7 mi upstream from Norton Branch, and 3.8 mi southwest of Batsto.

DRAINAGE AREA.--9.57 mi².

PERIOD OF RECORD.--Water years 1974 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.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, and total suspended solids 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.

REVISIONS.--WDR NJ-83-1: Drainage area.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Mixed Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)	
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 CaCO ₃ (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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 25...	1230	22	2.4	.183	.143	760	9.3	80	5.8	127	8.0	8.9	28	
FEB 23...	1210	15	2.1	.090	.069	765	--	--	7.1	141	8.0	5.5	26	
MAY 17...	1150	12	3.8	.243	.194	770	8.3	91	5.8	136	27.5	20.1	21	
AUG 24...	1240	13	3.4	.142	.113	765	7.8	86	6.6	137	28.0	20.5	23	
NOV 25...	6.40	2.82	4.44	9.51	9	14.9	<.2	6.2	13.9	73	75	2	.30	
FEB 23...	6.36	2.43	3.72	13.5	7	21.1	<.2	6.0	12.4	80	97	7	.20	
MAY 17...	5.21	2.06	3.76	13.4	14	20.4	<.2	5.8	10.7	74	79	3	.40	
AUG 24...	5.40	2.22	4.00	13.7	15	21.1	<.2	6.2	10.2	75	87	3	.26	
NOV 25...	.070	.050	2.00	.007	.05	.038	.03	.05	2.3	2.4	.7	<.1	.7	
FEB 23...	.044	--	2.30	.006	.04	<.020	<.02	.06	2.5	2.5	.4	<.1	.4	
MAY 17...	.060	--	.99	.006	.07	.130	.13	.21	1.4	1.5	.9	<.1	.9	
AUG 24...	.015	--	.82	.002	.06	.076	.08	.16	1.1	1.1	1.0	<.1	1.0	

01409416 HAMMONTON CREEK AT WESCOATVILLE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 25...	4.4	2.3	36
FEB 23...	2.9	E1.7	36
MAY 17...	5.2	<1.0	44
AUG 24...	3.5	<1.0	49

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 2003 TO SEPTEMBER 2004

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)
JUN 10...	1208	800	140	180
17...	1045	260	550	510
24...	1125	317	370	530
JUL 01...	1100	167	140	200
08...	1040	197	190	173

01409500 BATSTO RIVER AT BATSTO, NJ

LOCATION.--Lat 39°38'30", long 74°39'01", Burlington County, Hydrologic Unit 02040301, at bridge on County Highway 542 at Batsto, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--67.8 mi².

PERIOD OF RECORD.--Water years 1925, 1956, 1962-63, 1976 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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
Date	Time	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)
Date	Time	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
DEC 02...	1030	146	2.4	.285	.220	767	10.8	86	4.9	53	5.5	5.8	9	
FEB 26...	1000	125	1.2	.145	.112	771	11.8	90	5.0	52	6.0	4.3	9	
MAY 20...	1030	107	6.3	.551	.432	768	7.1	76	5.7	47	21.5	19.4	9	
AUG 12...	1100	82	15	.669	.525	762	7.2	83	5.5	45	29.5	22.3	9	
DEC 02...	1.80	1.02	1.14	3.41	<2	7.25	<2	4.8	7.1	--	36	2	<.20	
FEB 26...	1.95	1.05	1.00	3.98	<2	6.61	<2	3.8	6.5	--	34	3	<.20	
MAY 20...	1.92	1.04	1.08	4.05	3	7.20	<2	4.2	3.1	25	46	6	.60	
AUG 12...	1.95	1.01	1.10	3.90	3	6.99	<2	6.5	3.9	28	51	8	.40	
DEC 02...		<.020	<.020	.16	<.003	.03	<.020	.022	.009	--	--	.4	<.1	.4
FEB 26...		.021	--	.33	<.002	.04	<.020	<.002	<.002	--	--	.3	<.1	.3
MAY 20...		.076	--	.11	.009	.19	<.010	<.020	.020	.71	.90	3.6	<.1	3.6
AUG 12...		.050	--	.13	.005	.21	.011	.005	.026	.53	.74	4.4	<.1	4.4

01409500 BATSTO RIVER AT BATSTO, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 02...	6.1	E1.2	11
FEB 26...	3.5	<1.0	7.1
MAY 20...	10.2	<1.0	8.9
AUG 12...	11.9	<1.0	8.7

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
JUL 12...	1225	52	90	<100	40
20...	1110	168	100	<100	40
26...	1110	113	80	100	40
AUG 02...	1025	130	470	<100	40
09...	1045	80	40	<100	130
16...	1035	166	740	200	40

Remark codes used in this table:

< -- Less than

01409570 LANDING CREEK AT US ROUTE 30, AT EGG HARBOR CITY, NJ

LOCATION.--Lat 39°32'08", long 74°39'27", Atlantic County, Hydrologic Unit 02040301, at bridge on US Route 30, 0.7 mi northwest of Egg Harbor City, 1.5 mi downstream of Big Goose Pond, and 2.4 mi upstream of mouth Union Creek.

DRAINAGE AREA.--3.57 mi².

PERIOD OF RECORD.--Water year 2000, February 2004.

COOPERATION.--Field data and sample for laboratory analyses were provided by the New Jersey Department of Environmental Protection.

COOPERATIVE NETWORK SITE DESCRIPTOR.--VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 14.

REVISIONS.--Water quality data from water year 2000 were published as data collected at 01409600 Landing Creek near Egg Harbor City, NJ. The data were collected at 01409570 Landing Creek at US Rt 30 at Egg Harbor City, NJ, not at site 01409600. The National Water Information System (NWIS) database has been updated.

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2- Tetra- chloro- ethane, water, unfltrd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	1,1,2,2- Tetra- chloro- ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethane, water, unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,1-Di- chloro- propene water unfltrd ug/L (77168)	1,2,3- Tri- chloro- benzene water unfltrd ug/L (77613)	1,2,3- Tri- chloro- propane water unfltrd ug/L (77443)	1,2,4- Tri- chloro- benzene water unfltrd ug/L (34551)	
FEB 19...	1100	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2	
Date		1,2,4- Tri- methyl- benzene water unfltrd ug/L (77222)	Dibromo- chloro- propane water unfltrd ug/L (82625)	1,2-Di- bromo- ethane, water, unfltrd ug/L (77651)	1,2-Di- chloro- benzene water, unfltrd ug/L (34536)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	1,2-Di- chloro- propane water unfltrd ug/L (34541)	1,3,5- Tri- methyl- benzene water unfltrd ug/L (77226)	1,3-Di- chloro- benzene water unfltrd ug/L (34566)	1,3-Di- chloro- propane water unfltrd ug/L (77173)	1,4-Di- chloro- benzene water unfltrd ug/L (34571)	2,2-Di- chloro- propane water unfltrd ug/L (77170)	2- Chloro- toluene water unfltrd ug/L (77275)	4- Chloro- toluene water unfltrd ug/L (77277)
FEB 19...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2
Date		4-Iso- propyl- toluene water unfltrd ug/L (77356)	Acrylo- nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo- benzene water unfltrd ug/L (81555)	Bromo- chloro- methane water, unfltrd ug/L (77297)	Bromo- di- chloro- methane water unfltrd ug/L (32101)	Bromo- methane water unfltrd ug/L (34413)	Chloro- benzene water unfltrd ug/L (34301)	Chloro- ethane, water, unfltrd ug/L (34311)	Chloro- methane water unfltrd ug/L (34418)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	cis- 1,3-Di- chloro- propene water unfltrd ug/L (34704)	Di- bromo- chloro- methane water unfltrd ug/L (32105)
FEB 19...		<.2	<.25	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2
Date		Di- bromo- methane water unfltrd ug/L (30217)	Di- chloro- di- fluoro- methane water unfltrd ug/L (34668)	Di- chloro- methane water unfltrd ug/L (34423)	Ethyl- benzene water unfltrd ug/L (34371)	Hexa- chloro- buta- diene, water, unfltrd ug/L (39702)	Iso- propyl- benzene water unfltrd ug/L (77223)	Naphth- alene, water, unfltrd ug/L (34696)	n-Butyl benzene water unfltrd ug/L (77342)	n- propyl- benzene water unfltrd ug/L (77224)	sec- Butyl- benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert- Butyl- benzene water unfltrd ug/L (77353)
FEB 19...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	.3	<.2

01409570 LANDING CREEK AT US ROUTE 30, AT EGG HARBOR CITY, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans- 1,2-Di- chloro- ethene, water, unfltrd ug/L (34546)	trans- 1,3-Di- chloro- propene water unfltrd ug/L (34699)	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 chlor- ide, water, unfltrd ug/L (39175)
FEB 19...	<.1	<.2	.6	<.1	<.2	<.2	<.1	<.2	<.1	<.2

Remark codes used in this table:

< -- Less than

01409601 INDIAN CABIN CREEK AT FIFTH AVENUE, NEAR ELWOOD, NJ

LOCATION.--Lat 39°34'15", long 74°39'51". Atlantic County, Hydrologic Unit 02040301, at bridge on Fifth Avenue, 2.8 mi east of Elwood, 3.1 mi north of Egg Harbor City, and 3.7 mi upstream of Egg Harbor City Lake .

DRAINAGE AREA.-- 1.89 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status and VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
NOV 12...	0915	.8	.489	.375	761	5.5	48	3.9	71	12.5	9.5	3	.43
FEB 25...	1000	.5	.341	.260	766	8.8	62	4.2	69	2.5	1.6	3	.42
MAY 18...	0915	.5	.609	.472	767	1.9	20	4.0	56	25.0	17.6	2	.28
AUG 18...	0930	.4	.525	.395	764	1.3	14	3.9	76	29.5	19.1	3	.37
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)
NOV 12...	.560	.36	2.59	4.86	<.2	6.2	13.2	41	3	.30	<.020	<.020	.02
FEB 25...	.518	.28	2.14	3.83	<.2	4.7	9.4	35	6	.20	<.020	--	.04
MAY 18...	.316	.25	2.07	4.43	<.2	3.0	12.3	52	<1	.30	E.006	--	<.02
AUG 18...	.547	.21	2.47	5.32	<.2	6.4	7.8	42	<1	.29	.011	--	<.06
Date	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	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)	Boron, water, fltrd, ug/L (01020)	
NOV 12...	.004	<.02	<.020	<.002	.006	.32	.3	<.1	.2	12.4	<1.0	9.9	
FEB 25...	.002	<.02	<.020	.004	.004	.24	.2	<.1	.2	8.2	E1.2	7.9	
MAY 18...	.004	<.02	<.010	<.002	<.002	--	<.1	<.1	<.1	12.2	<1.0	11	
AUG 18...	.003	<.02	.010	E.002	E.003	--	<.1	<.1	<.1	13.1	<1.0	13	

Remark codes used in this table:

< -- Less than

E -- Estimated value

01409601 INDIAN CABIN CREEK AT FIFTH AVENUE, NEAR ELWOOD, NJ—Continued

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	pH bed sediment std units (70310)	Ammonia + org-N, bed sediment total, mg/kg as N (00626)	Phosphorus, bed sediment total, mg/kg (00668)	Total carbon, bed sediment total, g/kg (00693)	Inorganic carbon, bed sediment total, g/kg (00686)	Arsenic water unfiltered ug/L (01002)	Barium, water, unfiltered recover -able, ug/L (01007)	Beryllium, water, unfiltered recover -able, ug/L (01012)	Boron, water, unfiltered recover -able, ug/L (01022)	Cadmium water, unfiltered ug/L (01027)	Chromium, water, unfiltered recover -able, ug/L (01034)	Copper, water, unfiltered recover -able, ug/L (01042)	
Date		Iron, water, unfiltered recover -able, ug/L (01045)	Lead, water, unfiltered recover -able, ug/L (01051)	Manganese, water, unfiltered recover -able, ug/L (01055)	Mercury water, unfiltered recover -able, ug/L (71900)	Nickel, water, unfiltered recover -able, ug/L (01067)	Selenium, water, unfiltered ug/L (01147)	Silver, water, unfiltered recover -able, ug/L (01077)	Zinc, water, unfiltered recover -able, ug/L (01092)	Arsenic bed sediment total, ug/g (01003)	Cadmium bed sediment recover -able, ug/g (01028)	Chromium, bed sediment recover -able, ug/g (01029)	Cobalt bed sediment recover -able, ug/g (01038)	Copper, bed sediment recover -able, ug/g (01043)
FEB 25...	1000	--	--	--	--	--	E1	21.6	.13	9	.04	<.8	E.3	
AUG 18...	0930	--	--	--	--	--	<2	33.4	.12	11	.08	<.8	E.3	
18...	0930	4.10	110	270	6.1	<.2	--	--	--	--	--	--	--	
FEB 25...	90	.82	8.9	<.02	20.8	<.4	<.16	8	--	--	--	--	--	
AUG 18...	310	1.05	7.2	<.02	1.53	E.3	<.16	9	--	--	--	--	--	
18...	--	--	--	--	--	--	--	--	<1	.010	1.2	.110	<2	
FEB 25...	--	--	--	--	--	--	--	--	--	--	--	--	--	
AUG 18...	--	--	--	--	--	--	--	--	--	--	--	--	--	
18...	730	1.6	1.6	.600	<1	<3.1	<50	<50	<50	<50	E18	<50	<50	
FEB 25...	--	--	--	--	--	--	--	--	--	--	--	--	--	
AUG 18...	--	--	--	--	--	--	--	--	--	--	--	--	--	
18...	<50	E17	E11	<50	E19	E46	65	61	E39	E48	E38	E36	80	

01409601 INDIAN CABIN CREEK AT FIFTH AVENUE, NEAR ELWOOD, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi- ment, dry svd sve dia percent <.063mm (80164)	Bed sedi- ment, falldia dst wat percent <.004mm (80157)
FEB 25...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	<50	160	<50	<50	<50	8	<50	51	<50	110	<1	<1

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

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2- Tetra- chloro- ethane, water, unfltrd ug/L (77562)	1,1,1- Tri- chloro- ethane, water, unfltrd ug/L (34506)	1,1,2,2- Tetra- chloro- ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2- Tri- chloro- ethane, water, unfltrd ug/L (34511)	1,1-Di- chloro- ethane, water, unfltrd ug/L (34496)	1,1-Di- chloro- ethene, water, unfltrd ug/L (34501)	1,1-Di- chloro- propene water unfltrd ug/L (77168)	1,2,3- Tri- chloro- benzene water unfltrd ug/L (77613)	1,2,3- Tri- chloro- propane water unfltrd ug/L (77443)	1,2,4- Tri- chloro- benzene water unfltrd ug/L (34551)	
FEB 25...	1000	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2	
Date		1,2,4- Tri- methyl- benzene water unfltrd ug/L (77222)	Dibromo- chloro- propane water unfltrd ug/L (82625)	1,2-Di- bromo- ethane, water, unfltrd ug/L (77651)	1,2-Di- chloro- benzene water, unfltrd ug/L (34536)	1,2-Di- chloro- ethane, water, unfltrd ug/L (32103)	1,2-Di- chloro- propane water unfltrd ug/L (34541)	1,3,5- Tri- methyl- benzene water unfltrd ug/L (77226)	1,3-Di- chloro- benzene water unfltrd ug/L (34566)	1,3-Di- chloro- propane water unfltrd ug/L (77173)	1,4-Di- chloro- benzene water unfltrd ug/L (34571)	2,2-Di- chloro- propane water unfltrd ug/L (77170)	2- Chloro- toluene water unfltrd ug/L (77275)	4- Chloro- toluene water unfltrd ug/L (77277)
FEB 25...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2
Date		4-Iso- propyl- toluene water unfltrd ug/L (77356)	Acrylo- nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo- benzene water unfltrd ug/L (81555)	Bromo- chloro- methane water unfltrd ug/L (77297)	Bromo- di- chloro- methane water unfltrd ug/L (32101)	Bromo- methane water unfltrd ug/L (34413)	Chloro- benzene water unfltrd ug/L (34301)	Chloro- ethane, water, unfltrd ug/L (34311)	Chloro- methane water unfltrd ug/L (34418)	cis- 1,2-Di- chloro- ethene, water, unfltrd ug/L (77093)	cis- 1,3-Di- chloro- propene water unfltrd ug/L (34704)	Di- bromo- chloro- methane water unfltrd ug/L (32105)
FEB 25...		<.2	<.25	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2
Date		Di- bromo- methane water unfltrd ug/L (30217)	Di- chloro- di- fluoro- methane wat unf ug/L (34668)	Di- chloro- methane water unfltrd ug/L (34423)	Ethyl- benzene water unfltrd ug/L (34371)	Hexa- chloro- buta- diene, water, unfltrd ug/L (39702)	Iso- propyl- benzene water unfltrd ug/L (77223)	Naphth- alene, water, unfltrd ug/L (34696)	n-Butyl benzene water unfltrd ug/L (77342)	n- propyl- benzene water unfltrd ug/L (77224)	sec- Butyl- benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert- Butyl- benzene water unfltrd ug/L (77353)
FEB 25...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	<.2	<.2

01409601 INDIAN CABIN CREEK AT FIFTH AVENUE, NEAR ELWOOD, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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 chlor-ide, water, unfltrd ug/L (39175)
FEB 25...	<.1	<.2	<.1	<.1	<.2	<.2	<.1	<.2	.2	<.2

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atra-zine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd, 0.7u GF ug/L (49310)	Carbo-furan, water, fltrd, 0.7u GF ug/L (49309)
MAY 18...	0915	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyr-alid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluo-meturon water, fltrd, 0.7u GF ug/L (38811)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd, 0.7u GF ug/L (38501)	Norflur-azon, water, fltrd, 0.7u GF ug/L (49293)
MAY 18...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Ory-zalin, water, fltrd, 0.7u GF (49292)	Oxamyl, water, fltrd, 0.7u GF (38866)	Propi-cona-zole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfo-met-ruron, water, fltrd, ug/L (50337)	Tebu-thiuron water, fltrd, 0.7u GF (82670)	Terba-cil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF (49235)
MAY 18...	<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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

MULLICA RIVER BASIN

01409601 INDIAN CABIN CREEK AT FIFTH AVENUE, NEAR ELWOOD, NJ—Continued

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Enterococci, 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				
10...	1229	5	8	2
17...	1138	67	20	20
24...	1141	15	18	18
JUL				
01...	1154	3	5	3
08...	1026	18	<3	10

Remark codes used in this table:

< -- Less than

01409815 WEST BRANCH WADING RIVER AT MAXWELL, NJ

LOCATION.--Lat 39°40'30", long 74°32'27", Burlington County, Hydrologic Unit 02040301, at bridge on County Highway 563 in Maxwell, 1.6 mi southeast of Washington, 1.8 mi southwest of Jenkins, and 2.2 mi upstream from confluence with Oswego River.

DRAINAGE AREA.--85.9 mi².

PERIOD OF RECORD.--Water years 1976-93, 1998 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	
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 unf 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 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, 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 total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 25...	0940	.60	.412	.79	2.35	--	4.73	<.2	4.9	8.2	27	2	.20	.020
FEB 23...	1010	.22	.600	.55	2.66	<2	4.54	<.2	4.3	4.2	30	2	<.20	<.020
MAY 24...	1120	.59	.349	.93	2.49	--	4.63	<.2	5.4	5.2	28	20	.30	.058
AUG 24...	1030	.58	.351	.90	2.62	--	4.63	<.2	5.3	4.4	28	5	.20	.024
NOV 25...		.020	<.02	<.003	.04	<.020	.012	.012	1.0	<.1	.9	8.4	E1.1	9.7
FEB 23...		--	<.02	<.002	.02	<.020	<.002	.006	.4	<.1	.4	5.2	E1.3	E6.7
MAY 24...		--	<.02	.002	.39	.016	--	.120	10.0	<.1	10.0	8.8	E1.0	E6.6
AUG 24...		--	<.06	E.001	.24	.023	.006	.086	6.2	<.1	6.2	6.5	<1.0	7.7

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

MULLICA RIVER BASIN

01409815 WEST BRANCH WADING RIVER AT MAXWELL, NJ—Continued

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Enterococci, 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)
JUL				
12...	1135	50	<100	20
20...	1155	40	<100	40
26...	1205	240	<100	<20
AUG				
02...	1115	900	<100	40
09...	1154	70	<100	20
16...	1025	160	100	80

Remark codes used in this table:

< -- Less than

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ

LOCATION.--Lat 39°37'23", long 74°26'29", Burlington County, Hydrologic Unit 02040301, at bridge on Stage Road, 0.7 mi west of Lake Absegami, 2.2 mi north of New Gretna, and 5.3 mi upstream from mouth.

DRAINAGE AREA.--8.11 mi².

PERIOD OF RECORD.--Water years 1976 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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator, New Jersey Department of Environmental Protection Management Area 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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)	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)
Date		Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt mg/L (00694)	Inorganic carbon, suspnd sedimnt 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)	Boron, water, fltrd, ug/L (01020)	
DEC 03...	1030	.49	.532	.46	3.24	6.02	<.2	7.5	4.3	36	1	.20	<.020	<.020
MAR 09...	1000	.56	.575	.58	3.94	6.17	<.2	5.2	5.7	39	4	<.20	.023	--
MAY 25...	1030	.39	.401	.53	3.45	6.11	<.2	6.2	5.4	21	3	<.20	.014	--
AUG 31...	1000	.37	.389	.51	2.72	4.92	<.2	8.4	3.2	28	3	.11	.017	--
DEC 03...		<.02	<.003	<.02	<.020	<.002	<.002	.2	<.1	.2	3.9	E1.6	9.6	
MAR 09...		<.02	.002	.03	<.020	<.002	<.002	.3	<.1	.3	7.1	<1.2	8.6	
MAY 25...		<.02	.002	<.02	.012	.004	.007	.3	<.1	.3	4.5	<1.0	9.9	
AUG 31...		<.06	E.002	<.02	E.008	<.004	E.003	.4	<.1	.4	3.7	E1.0	9.5	

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

MULLICA RIVER BASIN

01410150 EAST BRANCH BASS RIVER NEAR NEW GRETNA, NJ—Continued

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
JUL					
12...	1200	8.8	380	<100	<20
20...	1130	9.6	<10	<100	<20
26...	1140	9.3	<10	<100	20
AUG					
02...	1050	17	70	<100	800
09...	1105	9.5	20	<100	<20
16...	1100	23	100	100	130

Remark codes used in this table:

< -- Less than

01410455 SOUTH BRANCH ABSECON CREEK NEAR POMONA, NJ

LOCATION.--Lat 39°26'23", long 74°33'58", Atlantic County, Hydrologic Unit 02040302, at bridge on Atlantic Avenue, 0.2 mi upstream from Atlantic City Reservoirs, 2.7 mi south of Pomona, and 3.8 mi west of Absecon.

DRAINAGE AREA.--5.73 mi².

PERIOD OF RECORD.--Water year 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 15.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
DEC 09...	1000	.7	.151	.115	768	9.5	78	4.6	62	7.4	7.2	9	1.22
FEB 19...	0930	.4	.099	.076	758	9.5	78	4.7	64	4.5	6.7	8	1.04
JUN 09...	0900	.8	.126	.099	762	8.0	78	4.7	55	25.4	14.8	7	.95
AUG 25...	1000	.4	.055	.043	770	7.8	77	5.0	65	21.8	15.2	8	1.00

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 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)
DEC 09...	1.41	.83	6.73	<2	11.8	<2	6.9	5.0	38	<1	<.20	<.020	<.020
FEB 19...	1.33	.80	7.04	<2	11.7	<2	6.1	4.8	38	1	<.20	<.020	--
JUN 09...	1.15	.76	6.63	<2	11.3	<2	6.3	3.5	46	2	<.20	.018	--
AUG 25...	1.27	.86	6.66	<2	11.9	<2	7.2	3.6	36	<1	E.07	.023	--

Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd mg/L (00600)	Total carbon, suspnd sediment total, mg/L (00694)	Inorganic carbon, suspnd sediment total, mg/L (00688)	Organic carbon, suspnd sediment total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 09...	.83	<.003	.09	<.020	<.020	<.020	--	.3	<.1	.3	4.1	E1.6	10
FEB 19...	.31	.002	.11	.020	--	--	--	.4	<.1	.4	2.6	<1.0	10
JUN 09...	.29	E.002	.05	.011	.004	.005	--	.3	<.1	.3	2.9	<1.0	12
AUG 25...	.38	E.002	.05	E.009	.004	.039	E.50	.2	<.1	.2	1.6	E1.7	12

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

01410455 SOUTH BRANCH ABSECON CREEK NEAR POMONA, NJ—Continued

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)	
FEB 19...	0930	--	--	--	--	--	<2	48.3	.11	13	.06	<.8	E.5	
AUG 25...	1000	--	--	--	--	--	E1	53.5	.09	10	.04	<.8	1.4	
25...	1000	5.44	30	140	5.9	<.2	--	--	--	--	--	--	--	
Date	Time	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 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)
FEB 19...	80	.37	12.3	.09	1.52	<.4	<.16	5	--	--	--	--	--	--
AUG 25...	100	.31	12.5	.15	1.58	<.4	<.16	4	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	<1	<.001	1.2	.050	<.2	--
Date	Time	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover -able, ug/g (01052)	Mangan- ese, bed sedimnt recover -able, ug/g (01053)	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- 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, wsv nat 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)
FEB 19...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	560	1.7	1.4	.270	<1	<3.1	<50	<50	<50	<50	<50	<50	<50	<50
Date	Time	2-Ethyl naphth- alene bed sed <2 mm wsv nat ug/kg (49948)	2- Methyl- anthra- cene, bed sed <2 mm, ug/kg (49435)	45Meth- ylene- phenan- threne, bed sed <2 mm, ug/kg (49411)	9H- Flour- ene, 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)	Chry- sene, bed sed <2 mm, wsv nat field, ug/kg (49450)
FEB 19...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25...	<50	<50	<50	<50	<50	<50	E8	E26	E29	E26	E16	E24	E23	

01410455 SOUTH BRANCH ABSECON CREEK NEAR POMONA, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Dibenzo-[a,h]-anthracene, bed sed <2 mm, ug/kg (49461)	Fluoranthene 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)	Naphthalene, 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)	Phenanthrene, bed sed <2 mm wsv nat field, ug/kg (49409)	Phenanthrene, bed sed <2 mm wsv nat field, ug/kg (49393)	Pyrene, bed sed <2 mm wsv nat field, ug/kg (49387)	Bed sediment, dry svs dia percent <.063mm (80164)	Bed sediment, falldia dst wat percent <.004mm (80157)
FEB 19...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	<50	E26	<50	<50	<50	<5	<50	E10	<50	E20	2	1

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
JUN 09...	0900	<.009	<.02	<.03	<.01	<.008	E.009	<.004	<.01	E.03	<.0096	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
JUN 09...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
JUN 09...	<.02	<.01	<.02	<.02	<.009	.011	<.010	<.02

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

ABSECON CREEK BASIN

01410455 SOUTH BRANCH ABSECON CREEK NEAR POMONA, NJ—Continued

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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				
10...	0945	74	21	5
17...	0916	80	150	204
24...	1125	28	15	28
JUL				
01...	1000	40	110	120
08...	0945	55	38	33

01410865 SQUANKUM BRANCH AT MALAGA ROAD, NEAR WILLIAMSTOWN, NJ

LOCATION.--Lat 39°40'04", long 74°57'38", Gloucester County, Hydrologic Unit 02040302, at bridge on Malaga Road, 1.2 mi upstream from Hedges Branch, 2.0 mi southeast of Williamstown, and 2.1 mi southwest of New Brooklyn.

DRAINAGE AREA.--3.02 mi².

PERIOD OF RECORD.--Water years 1974-1978, 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 15.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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...	0900	5.9	.695	.534	750	6.2	60	6.1	85	13.0	13.0	23	6.07	
FEB 02...	0930	.9	.146	.110	768	9.6	71	6.8	240	-3.0	3.0	33	8.22	
MAY 06...	0930	1.0	.306	.233	758	6.5	60	6.2	156	19.0	12.2	32	8.05	
AUG 31...	0930	36	.409	.317	748	5.3	63	6.2	49	24.5	22.9	11	2.98	
NOV 20...	1.88	1.60	6.11	10	6.97	<.2	3.6	6.2	48	71	3	.70	<.020	
FEB 02...	2.95	2.18	28.7	13	47.3	<.2	6.2	12.7	124	131	4	<.20	.026	
MAY 06...	2.87	2.28	16.6	15	22.8	<.2	4.9	11.4	85	100	1	.30	.034	
AUG 31...	.797	1.61	4.06	8	3.21	<.2	2.0	3.8	27	38	50	.48	.030	
NOV 20...	<.020	2.10	.005	.09	.038	--	.071	2.8	2.9	.9	<.1	.9	14.5	
FEB 02...	--	1.90	<.003	.03	<.020	<.002	.006	--	--	.2	<.1	.2	3.7	
MAY 06...	--	1.50	.005	<.02	.014	.014	.019	1.8	--	.3	<.1	.3	6.2	
AUG 31...	--	.69	.008	.73	.050	.066	.22	1.2	1.9	11.4	<.1	11.3	7.7	

GREAT EGG HARBOR RIVER BASIN

01410865 SQUANKUM BRANCH AT MALAGA ROAD, NEAR WILLIAMSTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 20...	<1.0	20
FEB 02...	1.7	22
MAY 06...	1.6	27
AUG 31...	2.4	15

Remark codes used in this table:

< -- Less than

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 02...	0930	<2	74.7	E.05	26	.13	<.8	.8	100	.57	31.2	.05	1.55
AUG 31...	0930	2	42.3	.10	14	.19	1.8	6.2	1,610	17.3	81.9	.25	2.51

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 02...	E.2	<.16	24
AUG 31...	.4	<.16	27

Remark codes used in this table:

< -- Less than

E -- Estimated value

01410865 SQUANKUM BRANCH AT MALAGA ROAD, NEAR WILLIAMSTOWN, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)	
MAY 06...	0930	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	E.01	<.006	
Date	Time	Clopyralid, water, fltrd, 0.7u GF (49305)	Dicamba water, fltrd, 0.7u GF (38442)	Di-chlor-prop, water, fltrd, 0.7u GF (49302)	Dinoseb water, fltrd, 0.7u GF (49301)	Diuron, water, fltrd, 0.7u GF (49300)	Fluometuron, water, fltrd, 0.7u GF (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF (38501)	Norflurazon, water, fltrd, 0.7u GF (49293)
MAY 06...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02
Date	Time	Oryzalin, water, fltrd, 0.7u GF (49292)	Oxamyl, water, fltrd, 0.7u GF (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF (49235)					
MAY 06...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02					

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 2003 TO SEPTEMBER 2004

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)
JUN 02...	1105	540	400	300
09...	1100	190	200	40
16...	1125	310	<100	500
23...	1125	380	900	300
30...	1115	180	200	20

Remark codes used in this table:

< -- Less than

01411035 HOSPITALITY BRANCH AT BLUE BELL ROAD, NEAR CECIL, NJ

LOCATION.--Lat 39°38'36", long 74°58'39", Gloucester County, Hydrologic Unit 02040302, at bridge on Blue Bell Road, 1.2 mi upstream of Timber Lakes and 2.0 mi west of Cecil.

DRAINAGE AREA.--4.51 mi².

PERIOD OF RECORD.--Water years 1998 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Mixed Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 15.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 24...	0940	6.9	2.9	.412	.326	760	7.9	69	5.5	59	16.5	9.0	12	
FEB 09...	1040	12	6.6	.248	.195	773	11.5	81	5.2	72	5.0	1.6	11	
MAY 19...	1230	6.1	7.2	.747	.600	763	6.2	67	5.8	71	22.5	19.0	18	
SEP 09...	1120	2.4	5.2	.260	.210	756	7.3	82	6.1	60	--	20.8	14	
NOV 24...	2.59	1.44	1.83	3.79	5	7.30	<.2	6.2	6.2	35	41	1	.30	
FEB 09...	2.42	1.28	1.85	6.10	3	10.6	<.2	4.2	6.7	38	55	<1	.40	
MAY 19...	3.84	1.93	1.94	4.96	11	8.18	<.2	5.6	3.4	39	65	5	.70	
SEP 09...	3.18	1.58	1.58	4.01	8	6.95	<.2	7.6	3.2	37	53	1	.24	
NOV 24...	.040	.040	.54	<.003	<.02	<.020	.008	.012	.84	--	.4	<.1	.4	
FEB 09...	.082	--	.77	.004	.05	<.020	.011	.024	1.2	1.2	.4	<.1	.4	
MAY 19...	.151	--	.54	.012	.13	<.010	.020	.030	1.2	1.4	2.1	<.1	2.1	
SEP 09...	.018	--	.85	.004	.06	<.010	.008	.020	1.1	1.1	1.1	<.1	1.1	

01411035 HOSPITALITY BRANCH AT BLUE BELL ROAD, NEAR CECIL, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 24...	7.6	<1.0	13
FEB 09...	5.1	E2.1	14
MAY 19...	12.6	E1.4	10
SEP 09...	4.3	<1.0	11

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 2003 TO SEPTEMBER 2004

Date	Time	Enterococci, 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 02...	1055	90	200	<20
09...	1050	120	100	40
16...	1115	160	100	80
23...	1115	320	100	1,100
30...	1105	640	100	500

Remark codes used in this table:

< -- Less than

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ

LOCATION.--Lat 39°30'50", long 74°46'46", Atlantic County, Hydrologic Unit 02040302, at bridge on U.S. Route 322 in Weymouth, 0.5 mi upstream from Deep Run, and 20.9 mi upstream from mouth.

DRAINAGE AREA.--154 mi².

PERIOD OF RECORD.--Water years 1975 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 15.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
Date	Time	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)
Date	Time	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
NOV 19...	1040	232	1.9	.540	.423	760	10.0	91	5.1	56	17.0	11.1	10	
FEB 10...	1325	810	3.2	.380	.292	761	12.6	90	4.2	118	10.0	1.6	13	
MAY 18...	1140	174	5.4	.597	.473	767	7.3	82	5.8	63	28.5	21.1	11	
AUG 19...	1210	184	3.9	.413	.326	762	E7.9	--	5.9	66	23.0	21.0	11	
NOV 19...	2.05	1.15	1.35	5.53	2	9.71	<.2	7.1	4.9	35	50	<1	.30	
FEB 10...	2.57	1.49	1.50	11.5	--	21.5	<.2	4.0	9.3	--	68	1	.30	
MAY 18...	2.24	1.23	1.42	6.56	4	10.3	<.2	4.9	3.9	35	54	4	.60	
AUG 19...	2.44	1.25	1.43	6.23	4	11.0	<.2	7.1	5.5	39	56	5	.32	
NOV 19...	.050	.060	.32	<.003	.06	<.020	<.020	<.020	.62	.68	.9	<.1	.9	
FEB 10...	.077	--	.44	.002	.06	<.020	<.002	<.002	.74	.80	.7	<.1	.7	
MAY 18...	.095	--	.44	.008	.19	<.010	<.020	.040	1.0	1.2	2.9	<.1	2.9	
AUG 19...	.037	--	.40	.005	.08	.014	.011	.033	.73	.80	1.6	<.1	1.6	

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 19...	10.8	E1.8	29
FEB 10...	8.7	<1.0	17
MAY 18...	10.3	E1.8	33
AUG 19...	7.7	<1.0	36

Remark codes used in this table:

< -- Less than

E -- Estimated value

BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	pH bed sedimnt std units (70310)	Ammonia + org-N, bed sed total, mg/kg (00626)	Phosphorus, bed sedimnt total, mg/kg (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inorganic carbon, bed sedimnt total, g/kg (00686)	Arsenic bed sedimnt total, ug/g (01003)	Cadmium bed sedimnt recover -able, ug/g (01028)	Chromium, 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 19...	1210	5.54	240	1,900	3.9	<2	2	.090	10	.510	9	3,400	13	
Date	Time	Manganese, bed sedimnt recover -able, ug/g (01053)	Nickel, bed sedimnt recover -able, ug/g (01068)	Selenium, bed sedimnt total, ug/g (01148)	Zinc, bed sedimnt recover -able, ug/g (01093)	1,2-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sed <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sed <2 mm, ug/kg (49410)	1-Methylpyrene, bed sed <2 mm, wsv nat ug/kg (49388)	236Trimethylnaphthalene, bed sed <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49406)	2-Ethyl-naphthalene, bed sed <2 mm, wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)
AUG 19...	8.9	2.5	<1	14	<50	<50	<50	E8	<50	<50	E26	<50	E12	
Date	Time	45Methylenephenthrene, bed sed <2 mm, ug/kg (49411)	9H-Flourene, 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)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)	Dibenzo-[a,h]-anthracene, bed sed <2 mm, wsv nat field, ug/kg (49461)	Fluor-anthene, bed sed <2 mm, wsv nat field, ug/kg (49466)
AUG 19...	E12	E27	<50	E35	E33	55	E50	E43	<50	E37	58	<50	81	

GREAT EGG HARBOR RIVER BASIN

01411110 GREAT EGG HARBOR RIVER AT WEYMOUTH, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi- ment, dry svd sve dia percent <.063mm (80164)	Bed sedi- ment, falldia dst wat percent <.004mm (80157)
AUG 19...	<50	<50	<50	<5	<50	65	<50	65	2	<1

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 2003 TO SEPTEMBER 2004

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				
10...	1125	210	210	210
17...	1016	185	200	205
24...	1053	97	93	117
JUL				
01...	1040	93	50	55
08...	1012	170	83	70

01411196 BABCOCK CREEK NEAR MAYS LANDING, NJ

LOCATION.--Lat 39°28'08", long 74°41'33", Atlantic County, Hydrologic Unit 02040302, at bridge on U.S. Route 322, 1.1 mi east from intersection of U.S. Route 50, 2.2 mi northeast of Mays Landing, and 2.8 mi upstream from Watering Race Branch.

DRAINAGE AREA.--16.3 mi².

PERIOD OF RECORD.--Water years 1965, 1998 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.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, and total suspended solids 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 15.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
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 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 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 19...	0950	13	1.0	.497	.384	760	8.3	78	4.1	69	17.0	12.5	8
FEB 10...	1010	44	1.5	.450	.343	761	10.7	79	4.0	124	7.5	2.8	9
MAY 18...	0940	12	.8	.435	.342	768	7.3	74	4.1	67	27.5	16.3	7
AUG 19...	1040	9.8	1.1	.378	.292	762	E7.3	--	4.9	62	22.1	18.2	10
NOV 19...	1.56	1.07	.73	5.33	--	9.99	<2	8.3	6.9	53	1	.30	<.020
FEB 10...	1.77	1.16	.91	11.3	--	19.2	<2	5.8	11.6	66	2	.30	.055
MAY 18...	1.33	.938	.96	6.41	<2	12.0	<2	5.9	8.3	51	<1	.30	.021
AUG 19...	2.02	1.24	.88	5.47	<2	10.2	<2	8.2	5.0	48	<1	.32	.039
NOV 19...	<.020	.45	<.003	.02	<.020	.019	.018	.75	.77	.2	<.1	.2	11.3
FEB 10...	--	.39	.003	<.02	<.020	.004	.006	.69	--	.4	<.1	.4	10.7
MAY 18...	--	.52	.004	<.02	<.010	.012	.012	.82	--	.2	<.1	.2	7.6
AUG 19...	--	.53	.004	.02	.011	.013	.018	.85	.87	.3	<.1	.3	7.8

GREAT EGG HARBOR RIVER BASIN

01411196 BABCOCK CREEK NEAR MAYS LANDING, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 19...	<1.0	12
FEB 10...	2.3	12
MAY 18...	E1.2	11
AUG 19...	<1.0	13

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 2003 TO SEPTEMBER 2004

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				
10...	1050	42	37	51
17...	1000	45	20	43
24...	1040	23	35	30
JUL				
01...	1020	23	23	23
08...	0915	80	35	43

01411400 FISHING CREEK AT RIO GRANDE, NJ

LOCATION.--Lat 39°01'39", long 74°53'47", Cape May County, Hydrologic Unit 02040206, at bridge on State Route 47 at Wildwood Pumping Station, and 1.4 mi northwest of Rio Grande.

DRAINAGE AREA.--2.29 mi².

PERIOD OF RECORD.--Water year 1965, 1998 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.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, and total suspended solids 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)
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 fixed end pt, lab, mg/L as CaCO ₃ (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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 25...	1040	3.1	1.1	1.42	1.11	769	8.0	69	6.0	105	9.0	9.6	26
FEB 10...	1020	5.1	1.0	.635	.497	762	9.7	72	5.5	93	6.0	2.9	21
MAY 26...	1040	1.4	4.1	1.00	.785	757	4.0	49	6.2	154	22.0	25.2	39
AUG 24...	0950	.80	2.9	1.28	1.00	766	4.2	49	6.3	125	27.0	24.2	37
NOV 25...	6.86	2.23	1.58	9.66	11	16.7	<.2	9.5	6.4	60	125	2	.70
FEB 10...	5.15	1.89	1.16	9.45	8	14.2	<.2	7.4	8.8	54	81	1	.40
MAY 26...	10.7	3.09	2.16	12.7	22	22.6	<.2	6.0	9.4	81	122	12	.90
AUG 24...	10.1	2.76	1.58	10.2	21	16.5	<.2	11.0	8.0	73	124	2	.89
NOV 25...	.040	.040	.06	.006	.03	<.020	.008	.011	.76	.79	.3	<.1	.3
FEB 10...	<.020	--	.15	.007	<.02	<.020	<.002	<.002	.55	--	.3	<.1	.3
MAY 26...	.118	--	.07	.020	.14	<.010	<.020	.030	.97	1.1	1.1	<.1	1.1
AUG 24...	.028	--	<.06	.011	.25	<.010	.019	.058	--	--	1.7	<.1	1.7

FISHING CREEK BASIN

01411400 FISHING CREEK AT RIO GRANDE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 25...	29.2	E1.4	23
FEB 10...	13.5	E1.6	18
MAY 26...	17.9	E1.4	31
AUG 24...	24.8	2.7	30

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 2003 TO SEPTEMBER 2004

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				
10...	0820	67	58	47
17...	0810	18	8	5
24...	0745	103	73	80
JUL				
01...	0800	127	63	77
08...	0945	97	120	120

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 Robbins Trail) in Belleplain State Forest, 0.8 mi west of North Dennis, 2.2 mi mi upstream of mouth, and 4.2 mi southwest of Woodbine.

DRAINAGE AREA.--2.96 mi².

PERIOD OF RECORD.--Water years 1998, 2003 to August 2004.

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, and total suspended solids 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.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)	Calcium water, mg/L (00915)
DEC 11...	1040	1.0	.399	.302	745	8.2	68	4.3	74	12.0	6.1	7	1.24
MAR 02...	1000	.8	.260	.194	765	9.2	70	4.4	81	7.5	3.8	9	1.47
MAY 20...	1045	1.9	.709	.547	770	4.6	49	4.3	84	24.5	19.4	6	.97
AUG 16...	1115	1.6	.767	.590	768	4.0	44	4.3	93	24.5	20.1	8	1.46
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 11...	1.00	.87	5.86	10.3	<.2	7.1	8.2	41	<1	.20	<.020	<.020	.03
MAR 02...	1.18	.96	6.98	11.5	<.2	8.5	9.6	52	2	.30	.049	--	.08
MAY 20...	.854	1.05	8.25	16.7	<.2	8.7	10.0	77	2	.40	.014	--	<.02
AUG 16...	1.15	1.02	8.47	15.7	<.2	10.2	16.6	77	2	.37	.013	--	<.06
Date	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 sediment total, mg/L (00694)	Inorganic carbon, suspnd sediment total, mg/L (00688)	Organic carbon, suspnd sediment total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 11...	<.003	.04	<.020	<.020	<.020	.23	.27	.4	<.1	.3	9.9	<1.0	15
MAR 02...	<.002	.02	<.020	.002	<.002	.38	.40	.4	<.1	.4	7.1	<1.0	12
MAY 20...	.005	.10	<.010	<.020	<.020	--	--	1.5	<.1	1.5	12.5	<1.0	17
AUG 16...	.005	.06	<.010	E.004	.007	--	--	.8	<.1	.8	15.8	<1.0	27

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover-able, ug/L (01007)	Beryllium, water, unfltrd recover-able, ug/L (01012)	Boron, water, unfltrd recover-able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)	Mercury water, unfltrd recover-able, ug/L (71900)	Nickel, water, unfltrd recover-able, ug/L (01067)
MAR 02...	1000	<2	31.3	.12	17	E.04	<.8	E.5	320	.53	29.5	<.02	1.04
AUG 16...	1115	<2	36.3	.09	24	.04	<.8	.6	870	1.21	20.0	<.02	2.61

Date	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
MAR 02...	<.4	<.16	6
AUG 16...	E.3	<.16	7

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbo-furan, water, fltrd, 0.7u GF ug/L (49309)
MAY 20...	1045	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Dichloroprop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 20...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

01411440 OLD ROBBINS BRANCH NEAR NORTH DENNIS, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ory- zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Propi- cona- zole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd, ug/L (04032)	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)
MAY 20...	<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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				
10...	0710	7	26	44
17...	0635	70	28	20
24...	0615	20	20	38
JUL				
01...	0605	93	130	200
08...	0900	50	110	190

01411444 WEST CREEK NEAR LEESBURG, NJ

LOCATION.--Lat 39°15'36", long 74°54'41", Cumberland County, Hydrologic Unit 02040206, at bridge on County Route 550, 1.5 mi upstream of Hands Millpond, 2.4 mi south of Halberton, and 4.0 mi east of Leesburg.

DRAINAGE AREA.--6.64 mi².

PERIOD OF RECORD.--Water years 1999 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator and Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
NOV 25...	1240	13	.7	.693	.527	769	8.6	73	4.0	61	9.5	8.4	4
FEB 10...	1220	11	1.1	.465	.354	762	11.1	79	3.9	60	--	1.2	4
MAY 26...	1340	12	3.5	.980	.772	756	6.0	72	3.6	42	28.0	23.5	3
AUG 24...	1210	.47	.9	.498	.382	766	6.7	80	4.1	50	27.5	24.2	3
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)	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)
NOV 25...	.55	.597	.69	2.65	5.62	<.2	8.2	6.8	49	<1	.40	<.020	<.020
FEB 10...	.64	.691	.75	3.04	5.02	<.2	6.1	7.6	34	1	.30	<.020	--
MAY 26...	.42	.386	1.08	2.39	5.43	<.2	7.4	<.2	46	10	.50	.019	--
AUG 24...	.38	.517	.61	2.80	5.40	<.2	11.2	4.5	44	<1	.36	E.006	--
Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	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)	Boron, water, fltrd, ug/L (01020)
NOV 25...	<.02	<.003	<.02	<.020	<.020	<.020	--	.2	<.1	.2	15.3	<1.0	14
FEB 10...	.14	.003	<.02	<.020	<.002	<.002	.44	.3	<.1	.3	10.8	E2.0	12
MAY 26...	<.02	.010	.06	<.010	<.020	<.020	--	.7	<.1	.7	17.4	E1.4	12
AUG 24...	<.06	.003	.04	<.010	E.003	.005	--	.5	<.1	.5	11.2	<1.0	15

Remark codes used in this table:

< -- Less than

E -- Estimated value

01411444 WEST CREEK NEAR LEESBURG, NJ—Continued

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover-able, ug/L (01007)	Beryllium, water, unfltrd recover-able, ug/L (01012)	Boron, water, unfltrd recover-able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)	Mercury water, unfltrd recover-able, ug/L (71900)	Nickel, water, unfltrd recover-able, ug/L (01067)
FEB 10...	1220	<2	25.7	.11	11	E.04	<.8	<.6	360	.80	21.0	<.02	.81
AUG 24...	1210	<2	22.9	.08	17	E.04	<.8	E.4	580	.88	9.6	<.02	1.23

Date	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
FEB 10...	<.4	<.16	6
AUG 24...	.4	<.16	5

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 26...	1340	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Dichloroprop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 26...		<.01	<.01	<.01	<.01	<.01	E.01	<.02	<.02	<.007	<.02	<.02	<.008	<.02

WEST CREEK BASIN

01411444 WEST CREEK NEAR LEESBURG, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ory- zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Propi- cona- zole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd, ug/L (04032)	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)
MAY 26...	<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
AUG				
03...	1020	110	<100	<20
10...	1037	10	<100	<20
17...	1028	10	<100	<20
24...	1057	<10	<100	<20
31...	1025	10	100	40

Remark codes used in this table:

< -- Less than

01411452 STILL RUN AT LITTLE MILL ROAD, NEAR CLAYTON, NJ

LOCATION.--Lat 39°38'08", long 75°05'58", Gloucester County, Hydrologic Unit 02040206, at bridge on Little Mill Road, 1.3 mi downstream of Silver Lake, and 1.5 mi south of Clayton.

DRAINAGE AREA.--10.6 mi².

PERIOD OF RECORD.--Water years 2001-02, February 2004.

COOPERATION.--Field data and sample for laboratory analyses were provided by the New Jersey Department of Environmental Protection.

COOPERATIVE NETWORK SITE DESCRIPTOR.--VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 17.

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2-Tetra-chloro-ethane, water, unfltrd ug/L (77562)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	1,1,2,2-Tetra-chloro-ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2-Tri-chloro-ethane, water, unfltrd ug/L (34511)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34501)	1,1-Di-chloro-propene water unfltrd ug/L (77168)	1,2,3-Tri-chloro-benzene water unfltrd ug/L (77613)	1,2,3-Tri-chloro-propane water unfltrd ug/L (77443)	1,2,4-Tri-chloro-benzene water unfltrd ug/L (34551)	
FEB 09...	1130	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2	
Date		1,2,4-Tri-methyl-benzene water unfltrd ug/L (77222)	Dibromo-chloro-propane water unfltrd ug/L (82625)	1,2-Di-bromo-ethane, water, unfltrd ug/L (77651)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	2,2-Di-chloro-propane water unfltrd ug/L (77170)	2-Chloro-toluene water unfltrd ug/L (77275)	4-Chloro-toluene water unfltrd ug/L (77277)
FEB 09...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2
Date		4-Iso-propyl-toluene water unfltrd ug/L (77356)	Acrylo-nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo-benzene water unfltrd ug/L (81555)	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-methane water unfltrd ug/L (34413)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)
FEB 09...		<.2	<.25	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2
Date		Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane water unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Iso-propyl-benzene water unfltrd ug/L (77223)	Naphth-alene, water, unfltrd ug/L (34696)	n-Butyl benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
FEB 09...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	.2	<.2
Date			Tetra-chloro-ethane, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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 chlor-ide, water, unfltrd ug/L (39175)		
FEB 09...			<.1	<.2	<.1	<.1	<.2	<.2	<.1	<.2	<.1	<.2		

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

01411466 INDIAN BRANCH NEAR MALAGA, NJ

LOCATION.--Lat 39°35'27", long 75°03'35", Gloucester County, Hydrologic Unit 02040206, at bridge on U.S. Route 47 (Delsea Drive), 0.4 mi upstream of Malaga Lake, and 1.4 mi north of Malaga.

DRAINAGE AREA.--6.50 mi².

PERIOD OF RECORD.--Water years 1998 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 17.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)	
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 CaCO ₃ (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 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 24...	1050	13	.5	.876	.686	760	6.4	56	4.1	62	18.0	8.9	7	
FEB 09...	1330	23	.9	.493	.384	773	11.2	78	3.9	68	7.0	1.3	7	
MAY 19...	1030	8.8	.8	.860	.689	763	5.3	55	4.0	55	25.5	17.5	7	
SEP 09...	1020	5.2	.6	.505	.403	757	5.7	62	4.2	47	26.0	18.8	6	
NOV 24...	1.18	.898	.86	2.96	--	7.30	<2	7.0	6.3	52	1	.40	.040	
FEB 09...	1.30	1.01	.99	3.69	--	7.06	<2	5.1	7.4	41	1	.30	.042	
MAY 19...	1.26	.902	1.20	4.01	<2	7.65	<2	6.1	7.3	58	<1	.50	.044	
SEP 09...	1.12	.843	.96	3.75	<2	6.71	<2	8.6	3.1	50	<1	.34	.034	
NOV 24...	.030	.31	<.003	<.02	<.020	<.002	.008	.71	--	.2	<.1	.2	16.8	
FEB 09...	--	.55	.004	.05	--	.003	.005	.85	.90	.4	<.1	.4	10.1	
MAY 19...	--	.49	.010	.03	.010	<.020	<.020	.99	1.0	.2	<.1	.2	15.6	
SEP 09...	--	.48	.006	<.02	<.010	.009	.010	.82	--	.2	<.1	.2	8.4	

01411466 INDIAN BRANCH NEAR MALAGA, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 24...	E1.5	12
FEB 09...	2.2	12
MAY 19...	<1.0	9.6
SEP 09...	<1.0	8.5

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 2003 TO SEPTEMBER 2004

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 02...	1040	50	100	130
09...	1035	10	<100	60
16...	1055	130	400	170
23...	1100	60	200	130
30...	1050	20	100	40

Remark codes used in this table:

< -- Less than

01411500 MAURICE RIVER AT NORMA, NJ

LOCATION.--Lat 39°29'44", long 75°04'37", Salem County, Hydrologic Unit 02040206, at bridge on Almond Road (County Route 540) in Norma, 0.8 mi downstream from Blackwater Branch, and 2.9 mi west of Vineland.

DRAINAGE AREA.--112.0 mi².

PERIOD OF RECORD.--Water years 1953, 1962-63, 1965 to September 1997, December 1998 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 17.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 sediment total, mg/L (00694)	Inorganic carbon, suspnd sediment total, mg/L (00688)	Organic carbon, suspnd sediment total, mg/L (00689)
NOV 25...	0900	294	1.5	.628	.490	766	8.5	--	5.2	--	5.2	8.8	17	
FEB 26...	0930	224	1.1	.176	.136	771	12.1	90	6.3	108	2.2	3.3	21	
MAY 18...	0900	172	3.5	.761	.604	768	6.0	69	6.2	109	23.1	22.3	21	
AUG 16...	0900	127	2.9	.429	.339	767	6.2	69	6.2	94	21.5	20.7	19	
NOV 25...	3.59	2.01	2.14	6.50	5	10.7	<.2	6.4	6.3	44	67	<.1	.50	
FEB 26...	4.57	2.43	2.13	7.49	5	13.5	<.2	3.6	8.9	54	61	3	.20	
MAY 18...	4.43	2.45	2.51	8.57	10	13.2	<.2	4.4	6.1	53	83	2	.80	
AUG 16...	4.06	2.15	2.16	7.47	9	12.0	<.2	5.9	6.6	52	66	4	.39	
NOV 25...	.020	.020	.81	<.003	.04	<.020	.021	.028	1.3	1.4	.4	<.1	.4	
FEB 26...	.032	--	1.90	.003	.08	<.020	.005	.008	2.1	2.2	.6	<.1	.6	
MAY 18...	.090	--	1.30	.011	.08	<.010	.020	.030	2.1	2.2	1.1	<.1	1.1	
AUG 16...	.030	--	1.45	.007	.08	.010	.014	.026	1.8	1.9	1.1	<.1	1.1	

01411500 MAURICE RIVER AT NORMA, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 25...	12.3	E1.6	26
FEB 26...	4.4	E1.6	26
MAY 18...	13.0	E1.5	33
AUG 16...	8.0	<1.0	40

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
AUG 03...	0926	175	110	100	<20
10...	0950	112	80	<100	110
17...	0944	133	190	300	270
24...	1000	102	50	<100	110
31...	0937	133	4,000	5,400	5,000

Remark codes used in this table:

< -- Less than

01411955 GRAVELLY RUN AT LAUREL LAKE, NJ

LOCATION.--Lat 39°20'14", long 75°03'03", Cumberland County, Hydrologic Unit 02040206, at culvert on Battle Lane, 0.3 mi upstream from mouth and Buckshutem Creek, 1.1 mi west of community of Laurel Lake, and 2.5 mi southeast of Millville Municipal Airport.

DRAINAGE AREA.--3.19 mi².

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

REMARKS.--For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Background, New Jersey Department of Environmental Protection Watershed Management Area 17.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	
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 unf 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 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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...	1040	.99	.898	.82	2.79	--	6.51	<.2	5.8	7.9	56	4	.40	<.020
FEB 10...	1130	.65	.680	.41	3.08	--	5.50	<.2	5.7	7.3	40	2	<.20	<.020
MAY 19...	1110	.43	.432	.41	2.30	<.2	4.57	<.2	5.5	4.2	25	4	.20	<.010
AUG 12...	1030	.44	.443	.51	2.42	<.2	4.36	<.2	7.1	1.4	28	1	.16	.023
NOV 20...		<.020	<.02	<.003	.05	<.020	<.002	.032	--	--	.9	<.1	.9	21.1
FEB 10...		--	.09	.002	.02	<.020	.002	.003	--	--	.3	<.1	.3	6.7
MAY 19...		--	.07	.003	.03	.010	<.002	<.002	.27	.30	.3	<.1	.3	5.4
AUG 12...		--	.13	.004	.03	.016	E.004	.011	.29	.32	.6	<.1	.6	2.8

01411955 GRAVELLY RUN AT LAUREL LAKE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 20...	<1.0	17
FEB 10...	2.3	11
MAY 19...	2.4	9.9
AUG 12...	<1.0	8.4

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Arsenic water, fltrd, ug/L (01000)	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, fltrd, ug/L (01040)	Copper, water, unfltrd recover -able, ug/L (01042)
FEB 10...	1130	Environmental	--	<2	23.4	.14	11	.04	<.8	--	E.5
AUG 12...	1028	Sampler Blank	--	--	--	--	--	--	--	--	--
12...	1029	Field Blank	<.2	--	--	--	--	--	--	<.4	--
12...	1030	Environmental	--	<2	13.7	E.04	9	<.04	<.8	--	E.4

Date	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover -able, ug/L (01051)	Mangan- ese, water, unfltrd recover -able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 10...	110	--	1.02	10.8	--	<.02	--	.67	<.4	<.16	--	5
AUG 12...	--	--	--	--	--	--	--	--	--	--	<.6	--
12...	--	<.08	--	--	<.02	--	<.06	--	--	--	1.2	--
12...	190	--	.89	2.8	--	<.02	--	.55	<.4	<.16	--	E2

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

01411955 GRAVELLY RUN AT LAUREL LAKE, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 19...	1110	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 19...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 19...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
AUG 03...	1052	570	200	80
10...	1109	60	<100	20
17...	1101	70	100	20
24...	1117	50	<100	<20
31...	1045	2,170	8,400	>16,000

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

01412005 MENANTICO CREEK AT ROUTE 49, AT MILLVILLE, NJ

LOCATION.--Lat 39°23'11", long 74°59'21", Cumberland County, Hydrologic Unit 02040206, at bridge on State Route 49, 1.1 mi upstream of Menantico Ponds, 2.8 mi east of Millville, and 4.5 mi west of Cumberland.

DRAINAGE AREA.-- 26.32 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status and VOC Reconnaissance, New Jersey Department of Environmental Protection Watershed Management Area 17.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, mg/L (00915)	
Date		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)	Ammonia water, fltrd, mg/L as N (00608)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
DEC 01...	0900	4.1	.233	.181	758	10.0	85	7.6	140	14.5	9.3	41	9.52	
FEB 09...	0900	14	.308	.240	772	13.1	89	5.8	126	6.1	.3	29	6.33	
MAY 06...	1000	3.3	.263	.205	764	8.3	78	6.2	140	16.7	13.0	41	9.41	
AUG 24...	1000	3.0	.065	.052	764	8.3	86	6.4	125	23.8	17.1	35	8.39	
DEC 01...	4.28	4.71	5.50	7	13.6	<.2	9.1	14.8	86	87	3	.30	.031	
FEB 09...	3.21	4.59	7.41	2	15.4	<.2	5.1	11.8	71	82	10	.70	.272	
MAY 06...	4.26	4.68	6.59	8	13.8	<.2	6.7	14.4	83	98	3	.30	.017	
AUG 24...	3.52	3.71	4.89	6	11.6	<.2	10.4	12.2	79	77	4	.15	.011	
DEC 01...	.031	4.70	<.003	.09	<.020	.026	.039	5.0	5.1	.7	<.1	.6	5.2	
FEB 09...	--	3.40	.006	.09	.082	.076	.140	4.1	4.2	.7	<.1	.7	7.0	
MAY 06...	--	4.20	.005	.05	.016	.010	.038	4.5	4.5	.6	<.1	.6	5.0	
AUG 24...	--	4.52	E.001	.14	.014	.008	.031	4.7	4.8	.8	<.1	.8	1.8	

MAURICE RIVER BASIN

01412005 MENANTICO CREEK AT ROUTE 49, AT MILLVILLE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 01...	E1.1	19
FEB 09...	E1.7	21
MAY 06...	E1.9	19
AUG 24...	<1.0	16

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 09...	0900	E2	42.7	E.04	22	.08	E.6	2.1	370	1.30	49.2	E.01	1.40
AUG 24...	1000	<2	80.6	E.05	14	.05	<.8	E.6	350	.28	18.6	<.02	1.61

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 09...	<.4	<.16	12
AUG 24...	.4	<.16	6

Remark codes used in this table:

< -- Less than

E -- Estimated value

01412005 MENANTICO CREEK AT ROUTE 49, AT MILLVILLE, NJ—Continued

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Xylenes water unfltrd ug/L (81551)	1,1,1,2-Tetra-chloro-ethane, water, unfltrd ug/L (77562)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	1,1,2,2-Tetra-chloro-ethane, water, unfltrd ug/L (34516)	CFC-113 water unfltrd ug/L (77652)	1,1,2-Tri-chloro-ethane, water, unfltrd ug/L (34511)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,1-Di-chloro-propene water unfltrd ug/L (77168)	1,2,3-Tri-chloro-benzene water unfltrd ug/L (77613)	1,2,3-Tri-chloro-propene water unfltrd ug/L (77443)	1,2,4-Tri-chloro-benzene water unfltrd ug/L (34551)
FEB 09...	0900	<.2	<.2	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.2	<.2	<.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date		1,2,4-Tri-methyl-benzene water unfltrd ug/L (77222)	Dibromo-chloro-propane water unfltrd ug/L (82625)	1,2-Di-bromo-ethane, water, unfltrd ug/L (77651)	1,2-Di-chloro-benzene, water, unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3,5-Tri-methyl-benzene water unfltrd ug/L (77226)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,3-Di-chloro-propane water unfltrd ug/L (77173)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	2,2-Di-chloro-propane water unfltrd ug/L (77170)	2-Chloro-toluene water unfltrd ug/L (77275)	4-Chloro-toluene water unfltrd ug/L (77277)
FEB 09...		<.2	<.5	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.1	<.2	<.2	<.2

Date		4-Iso-propyl-toluene water unfltrd ug/L (77356)	Acrylo-nitrile water unfltrd ug/L (34215)	Benzene water unfltrd ug/L (34030)	Bromo-benzene water unfltrd ug/L (81555)	Bromo-chloro-methane water unfltrd ug/L (77297)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Bromo-methane water unfltrd ug/L (34413)	Chloro-benzene water unfltrd ug/L (34301)	Chloro-ethane, water, unfltrd ug/L (34311)	Chloro-methane water unfltrd ug/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	cis-1,3-Di-chloro-propene water unfltrd ug/L (34704)	Di-bromo-chloro-methane water unfltrd ug/L (32105)
FEB 09...		<.2	<.25	<.1	<.2	<.2	<.1	<.3	<.1	<.2	<.2	<.1	<.2	<.2

Date		Di-bromo-methane water unfltrd ug/L (30217)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Ethyl-benzene water unfltrd ug/L (34371)	Hexa-chloro-buta-diene, water, unfltrd ug/L (39702)	Iso-propyl-benzene water unfltrd ug/L (77223)	Naphth-alene, water, unfltrd ug/L (34696)	n-Butyl benzene water unfltrd ug/L (77342)	n-propyl-benzene water unfltrd ug/L (77224)	sec-Butyl-benzene water unfltrd ug/L (77350)	Styrene water unfltrd ug/L (77128)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	tert-Butyl-benzene water unfltrd ug/L (77353)
FEB 09...		<.2	<.2	<.2	<.1	<.2	<.2	<.5	<.2	<.2	<.2	<.1	E.2	<.2

Date		Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	Toluene -d8, surrog, Sch2090 wat unfltrd percent recovry (99833)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	trans-1,3-Di-chloro-propene water unfltrd ug/L (34699)	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 chlor-ide, water, unfltrd ug/L (39175)
FEB 09...		<.1	<.2	<.1	96.1	<.1	<.2	<.2	<.1	<.2	<.1	<.2

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

01412005 MENANTICO CREEK AT ROUTE 49, AT MILLVILLE, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)
MAY 06...	1000	<.009	.04	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF (49305)	Dicamba water, fltrd, 0.7u GF (38442)	Di-chlor-prop, water, fltrd, 0.7u GF (49302)	Dinoseb water, fltrd, 0.7u GF (49301)	Diuron, water, fltrd, 0.7u GF (49300)	Fluometuron, water, fltrd, 0.7u GF (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF (38482)	Metaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF (38501)	Norflurazon, water, fltrd, 0.7u GF (49293)
MAY 06...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	.08	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF (49292)	Oxamyl, water, fltrd, 0.7u GF (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF (49235)
MAY 06...		<.02	.02	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
AUG 03...	0955	480	100	500
10...	1015	330	100	170
17...	1007	220	400	170
24...	1025	170	<100	70
31...	1000	3,400	3,100	16,000

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

01412800 COHANSEY RIVER AT SEELEY, NJ

LOCATION.--Lat 39°28'21", long 75°15'20", Cumberland County, Hydrologic Unit 02040206, at bridge on Silver Lake Road, 0.6 mi south of Seeley, 2.6 mi east of Shiloh, 4.1 mi north of Bridgeton, and 22.5 mi upstream from mouth.

DRAINAGE AREA.--28.0 mi².

PERIOD OF RECORD.--Water years 1975 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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

COOPERATION.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Agricultural Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 17.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 17...	1010	28	5.9	.150	.116	769	10.1	89	6.5	220	14.0	10.2	64
FEB 05...	0930	148	39	.264	.213	776	14.1	95	6.8	163	3.0	.4	33
MAY 04...	1020	49	12	.172	.134	758	9.0	89	6.7	206	11.0	14.5	64
AUG 30...	1000	20	5.2	.074	.058	762	7.1	82	6.5	228	26.5	22.3	64
NOV 17...	12.4	8.06	6.86	11.0	19	24.1	<.2	9.3	20.7	126	124	4	.50
FEB 05...	6.51	3.98	6.53	10.2	7	21.3	<.2	4.1	14.2	83	93	23	1.1
MAY 04...	13.2	7.52	5.05	9.41	18	20.7	<.2	5.3	22.3	115	126	9	.50
AUG 30...	13.2	7.60	7.08	10.9	18	25.5	<.2	7.4	23.3	131	136	3	.26
NOV 17...	.070	.070	5.00	.021	.05	<.020	.008	.034	5.5	5.5	.4	<.1	.4
FEB 05...	.446	--	2.50	.021	.25	.069	.080	--	3.6	3.9	1.9	<.1	1.9
MAY 04...	.067	--	4.70	.019	.12	.012	.012	.040	5.2	5.3	1.1	<.1	1.1
AUG 30...	.046	--	5.68	.028	.04	.017	.018	.045	5.9	6.0	.3	<.1	.3

COHANSEY RIVER BASIN

01412800 COHANSEY RIVER AT SEELEY, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 17...	3.8	E2.1	17
FEB 05...	11.4	3.0	14
MAY 04...	4.1	<1.0	17
AUG 30...	2.1	E1.8	20

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
AUG 03...	0900	26	80	<100	80
10...	0925	21	140	<100	20
17...	0917	25	110	300	170
24...	0937	20	140	<100	90
31...	0914	232	8,400	4,300	>16,000

Remark codes used in this table:

< -- Less than
> -- Greater than

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'43", Pike County, PA, Hydrologic Unit 02040104, at tollbridge (on U.S. Route 206) between Montague, NJ and Milford, PA, 1.1 mi downstream from Sawkill Creek, and at river mile 246.0.

DRAINAGE AREA.--3,480 mi².

PERIOD OF RECORD.--Water years 1956-73, 1976-78, July 1991 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, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.-- Delaware River Main Stem, New Jersey Department of Environmental Protection Watershed Management Area 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
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 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 06...	1045	13,100	2.3	.114	.087	755	9.9	92	7.2	71	13.5	11.6	19
MAR 03...	1200	4,390	3.2	.060	.046	759	14.3	103	7.2	110	6.0	1.9	26
MAY 27...	1145	4,710	2.5	.076	.058	745	8.7	99	7.5	90	23.5	20.4	22
AUG 26...	1115	5,240	2.0	.101	.077	759	7.6	83	7.2	81	22.5	19.8	23
NOV 06...	5.59	1.17	.82	5.13	13	7.70	<.2	3.3	6.3	39	46	2	<.20
MAR 03...	7.73	1.59	.79	10.3	14	17.6	<.2	2.8	7.0	58	70	8	<.20
MAY 27...	6.78	1.34	.73	7.43	14	11.3	<.2	1.9	6.3	46	52	5	<.20
AUG 26...	7.04	1.27	.81	5.82	16	9.06	<.2	2.5	6.2	43	49	<13	.21
NOV 06...	.024	.020	.19	.005	<.02	<.020	.010	.019	--	--	.3	<.1	.3
MAR 03...	<.020	--	.28	.004	.06	<.020	.009	.034	--	--	.4	<.1	.4
MAY 27...	E.007	--	.28	.004	.07	E.008	.006	.022	--	--	.5	<.1	.5
AUG 26...	E.006	--	.16	.003	.02	.012	.011	.018	.37	.39	.3	<.1	.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 06...	3.2	<1.0	E6.5
MAR 03...	2.0	E1.8	E6.5
MAY 27...	2.2	2.2	E6.9
AUG 26...	2.8	E1.9	E6.8

Remark codes used in this table:

< -- Less than
E -- Estimated value

BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	pH bed sedimnt std units (70310)	Ammonia + org-N, bed sed total, mg/kg (00626)	Phosphorus, bed sedimnt total, mg/kg (00668)	Total carbon, bed sedimnt total, g/kg (00693)	Inorganic carbon, bed sedimnt total, g/kg (00686)	Arsenic bed sedimnt total, ug/g (01003)	Cadmium bed sedimnt recover-able, ug/g (01028)	Chromium, 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 26...	1115	7.20	450	6,000	7.9	<2	<1	.150	5.5	3.1	7	9,100	9.1	
Date	Time	Manganese, bed sedimnt recover-able, ug/g (01053)	Nickel, bed sedimnt recover-able, ug/g (01068)	Selenium, bed sedimnt total, ug/g (01148)	Zinc, bed sedimnt recover-able, ug/g (01093)	1,2-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49403)	1,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49404)	1Methyl-9H-fluorene, bed sed <2 mm, ug/kg (49398)	1-Methylphenanthrene, bed sed <2 mm, ug/kg (49410)	1-Methylpyrene, bed sed <2 mm, wsv nat ug/kg (49388)	236Trimethylnaphthalene, bed sed <2 mm, ug/kg (49405)	2,6-Dimethylnaphthalene, bed sed <2 mm, ug/kg (49406)	2-Ethyl-naphthalene, bed sed <2 mm, wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)
AUG 26...	310	7.0	<1	52	<50	<50	<50	<50	E17	<50	<50	<50	E9	
Date	Time	45Methylenephenthrene, bed sed <2 mm, ug/kg (49411)	9H-Flourene, 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, ug/kg (49436)	Benzo-[a]-pyrene, bed sed <2 mm, wsv nat ug/kg (49389)	Benzo-[b]-fluoranthene, bed sed <2 mm, ug/kg (49458)	Benzo-[ghi]-perylene, bed sed <2 mm, ug/kg (49408)	Benzo-[k]-fluoranthene, bed sed <2 mm, ug/kg (49397)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)	Dibenzo-[a,h]-anthracene, bed sed <2 mm, ug/kg (49461)	Fluor-anthene, bed sed <2 mm, wsv nat field, ug/kg (49466)
AUG 26...	E8	<50	E15	E32	E25	61	52	E43	E31	E42	55	<50	85	

01438500 DELAWARE RIVER AT MONTAGUE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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)	Bed sedi- ment, falldia dst wat percent <.004mm (80157)
AUG 26...	<50	<50	<50	<5	<50	E43	<50	68	8	2

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 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	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 11...	0735	7,360	230	100	20
AUG 19...	0750	10,800	210	<100	20
26...	0900	5,880	330	<100	<20
31...	0910	8,870	1,900	1,000	1,300
SEP 09...	0900	5,610	2,800	4,900	300

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

01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ

LOCATION.--Lat 41°06'24", long 74°57'08", Sussex County, Hydrologic Unit 02040104, 1.0 mi upstream from Flatbrookville, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--64.0 mi².

PERIOD OF RECORD.--Water years 1923-24, 1956-57, 1959-80, 1993, 1995, 1997 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator , New Jersey Department of Environmental Protection Watershed Management Area 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
NOV 12...	1030	128	1.1	.081	.062	750	11.9	99	7.8	184	13.5	6.4	68
MAR 02...	1030	123	4.3	.062	.048	752	12.5	97	8.0	189	9.7	4.3	68
MAY 04...	1030	199	6.6	.125	.096	753	10.3	95	7.8	158	11.0	11.0	55
AUG 10...	1030	20	.6	.056	.043	752	10.1	110	8.2	269	25.5	18.7	100
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)
NOV 12...	20.4	4.22	.73	8.73	58	13.6	<.2	5.7	10.9	99	108	2	<.20
MAR 02...	20.1	4.22	.68	10.8	53	18.2	<.2	4.8	10.5	102	107	3	<.20
MAY 04...	16.6	3.17	.53	9.38	45	14.4	<.2	3.9	8.6	84	89	12	<.20
AUG 10...	30.2	6.60	.48	12.2	91	19.9	<.2	2.1	16.1	142	151	<1	.12
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, 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)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
NOV 12...	<.020	<.020	.14	<.003	<.02	<.020	.003	.007	<.1	<.1	<.1	2.4	E1.9
MAR 02...	<.020	--	.21	<.002	.07	<.020	.011	.012	.8	<.1	.8	2.0	<1.0
MAY 04...	E.008	--	.09	.003	.10	.011	.014	.006	1.0	<.1	1.0	3.2	<1.0
AUG 10...	<.010	--	<.06	<.002	<.02	.014	.005	.007	.5	<.1	.5	1.7	2.2

01440000 FLAT BROOK NEAR FLATBROOKVILLE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Boron, water, fltrd, ug/L (01020)
NOV 12...	E5.7
MAR 02...	E3.7
MAY 04...	7.1
AUG 10...	E4.7

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 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	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 05...	0820	148	130	<100	40
AUG 19...	0835	41	80	100	110
26...	0940	86	70	100	300
31...	0955	120	160	300	300
SEP 09...	1000	309	1,900	900	1,300

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

01442760 DUNNFIELD CREEK AT DUNNFIELD, NJ

LOCATION.--Lat 40°58'14", long 75°07'34", Warren County, Hydrologic Unit 02040104, at footbridge in Delaware Water Gap National Recreation Area 300 ft upstream from mouth and Delaware River, 0.6 mi northwest of Arrow Island, and 0.6 mi southeast of Delaware Water Gap Toll Bridge on Interstate 80.

DRAINAGE AREA.--3.56 mi².

PERIOD OF RECORD.--Water years 1998 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Background, New Jersey Department of Environmental Protection Watershed Management Area 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
Date	Time	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, 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)
Date	Time	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
NOV 12...	1100	11	.4	.025	.019	751	E11.6	--	6.1	31	11.5	8.5	12	
FEB 19...	1110	6.3	.3	.011	.008	751	13.2	97	6.4	33	7.5	2.1	11	
MAY 03...	1000	26	1.2	.034	.026	753	E10.4	--	5.9	31	10.5	11.5	11	
AUG 03...	1030	1.8	.7	.027	.021	750	9.0	97	6.5	37	32.5	18.2	13	
NOV 12...	3.00	1.03	.51	.86	5	1.14	<.2	4.8	7.9	22	22	6	<.20	
FEB 19...	2.53	1.06	.54	.85	4	1.09	<.2	4.2	8.5	22	30	1	<.20	
MAY 03...	2.75	.933	.46	.72	4	1.02	<.2	3.8	7.6	25	23	6	.20	
AUG 03...	3.41	1.07	.47	.87	7	1.34	<.2	4.9	7.2	24	29	2	E.08	
NOV 12...		<.020	.020	<.02	.011	<.02	<.020	<.002	<.002	--	--	.2	<.1	.2
FEB 19...		<.020	--	.04	.007	<.02	<.020	.004	.004	--	--	<.1	<.1	<.1
MAY 03...		.010	--	1.10	E.001	.02	<.010	<.020	.020	1.3	1.3	.5	<.1	.5
AUG 03...		.016	--	.13	<.002	<.02	<.010	.005	.006	--	--	.4	<.1	.4

01442760 DUNNFIELD CREEK AT DUNNFIELD, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 12...	.9	E1.3	E5.6
FEB 19...	.6	<1.0	E5.2
MAY 03...	1.1	1.0	E5.5
AUG 03...	1.0	<1.0	E5.2

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover-able, ug/L (01007)	Beryllium, water, unfltrd recover-able, ug/L (01012)	Boron, water, unfltrd recover-able, ug/L (01022)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, unfltrd recover-able, ug/L (01034)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)	Mercury water, unfltrd recover-able, ug/L (71900)	Nickel, water, unfltrd recover-able, ug/L (01067)
FEB 19...	1110	<2	14.2	<.06	<8	E.03	<.8	<.6	M	<.06	1.3	<.02	1.42
AUG 03...	1030	<2	17.1	<.06	E4	.04	<.8	E.5	20	.09	3.8	<.02	1.28

Date	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
FEB 19...	<.4	<.16	7
AUG 03...	E.3	<.16	6

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)
MAY 03...	1000	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF (49305)	Dicamba water, fltrd, 0.7u GF (38442)	Di-chlor-prop, water, fltrd, 0.7u GF (49302)	Dinoseb water, fltrd, 0.7u GF (49301)	Diuron, water, fltrd, 0.7u GF (49300)	Fluometuron, water, fltrd, 0.7u GF (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF (38501)	Norflurazon, water, fltrd, 0.7u GF (49293)
MAY 03...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	E.01	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF (49292)	Oxamyl, water, fltrd, 0.7u GF (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF (49235)
MAY 03...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
AUG 12...	0915	40	<100	<20
19...	0910	120	<100	<20
26...	0910	110	<100	<20
31...	1030	130	<100	<20
SEP 09...	0910	240	<100	20

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

01443000 DELAWARE RIVER AT PORTLAND, PA

LOCATION.--Lat 40°55'26", long 75°05'46", Northampton County, Hydrologic Unit 02040105, at footbridge connecting Portland, PA and Columbia, NJ, 0.5 mi upstream from Paulins Kill, and at river mile 207.5.

DRAINAGE AREA.--4,165 mi².

PERIOD OF RECORD.--Water years 1976 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Delaware River Main Stem, New Jersey Department of Environmental Protection Watershed Management Area 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	
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 unf 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 09...	1450	9,370	1.3	.086	.067	758	14.3	102	7.3	80	2.0	1.3	24	
FEB 05...	1220	4,140	.9	.056	.042	768	14.3	97	7.0	119	3.0	.1	32	
MAY 03...	1210	9,460	2.5	.068	.052	753	9.2	94	6.8	92	9.5	15.8	24	
AUG 04...	1210	5,880	2.8	.098	.074	747	8.3	103	7.5	90	--	25.1	24	
DEC 09...	7.43	1.44	.70	5.77	16	8.71	<.2	3.8	7.7	47	47	4	<.20	
FEB 05...	9.75	1.76	.67	8.83	20	14.1	<.2	4.4	9.8	63	75	6	<.20	
MAY 03...	7.39	1.41	.58	6.77	16	11.3	<.2	1.9	7.2	47	50	9	<.20	
AUG 04...	7.36	1.33	.68	6.49	18	11.1	<.2	2.6	7.1	48	63	6	.17	
DEC 09...	<.020	<.020	.31	<.003	<.02	.023	.014	.017	--	--	.2	<.1	.2	
FEB 05...	.036	--	.46	.003	<.02	<.020	.014	.025	--	--	.2	<.1	.2	
MAY 03...	.016	--	.26	.004	.09	E.009	.015	.024	--	--	.8	<.1	.8	
AUG 04...	.014	--	.19	.003	.07	.012	.039	.035	.36	.43	.6	<.1	.6	

DELAWARE RIVER BASIN

01443000 DELAWARE RIVER AT PORTLAND, PA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 09...	2.4	E1.7	E5.5
FEB 05...	1.7	E1.6	E6.6
MAY 03...	2.0	<1.0	E6.3
AUG 04...	2.8	<1.0	8.2

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
AUG 12...	0940	3,520	50	<100	20
19...	0940	12,400	110	100	40
26...	0930	8,330	100	<100	70
31...	1015	10,200	1,900	200	800
SEP 09...	0935	11,400	3,100	1,800	3,000

Remark codes used in this table:

< -- Less than

01443500 PAULINS KILL AT BLAIRSTOWN, NJ

LOCATION.--Lat 40°58'51", long 74°57'13", Warren County, Hydrologic Unit 02040105, 1,200 ft upstream from bridge on State Highway 94 in Blairstown, 1,400 ft upstream from Blairs Creek, and 10 mi upstream from mouth. Water-quality samples collected at bridge, 1,200 ft downstream from gage, at high flows.

DRAINAGE AREA.--126 mi².

PERIOD OF RECORD.--Water years 1921, 1925, 1957-60, 1962-63, 1976 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
DEC 10...	1045	340	2.3	.112	.084	758	13.3	99	8.0	375	4.0	2.8	140
FEB 17...	1030	128	1.8	.107	.083	768	14.6	101	8.2	519	-3.1	.6	190
MAY 25...	1030	149	5.1	.140	.105	750	8.5	96	8.1	403	23.5	20.5	160
AUG 18...	1045	78	4.5	.185	.138	755	8.0	91	8.1	445	19.5	21.2	160
DEC 10...	34.3	12.8	1.31	22.3	117	37.8	<.2	5.7	14.7	202	197	2	.30
FEB 17...	46.6	16.9	1.56	33.6	146	64.1	<.2	4.9	18.7	278	281	2	.30
MAY 25...	39.6	14.6	1.13	26.1	128	42.8	<.2	4.7	11.9	220	225	8	.30
AUG 18...	41.3	14.8	1.56	28.2	137	50.9	<.2	2.7	14.6	237	245	5	.44
DEC 10...	.020	.020	.67	.005	.06	<.020	.005	.013	.97	1.0	.5	<.1	.5
FEB 17...	.048	--	1.00	.014	.03	<.020	.004	.013	1.3	1.3	.4	<.1	.4
MAY 25...	E.009	--	.45	.009	.10	.023	.021	.024	.75	.85	1.0	<.1	1.0
AUG 18...	.016	--	.21	.007	.08	.025	.031	.047	.65	.73	.8	<.1	.8

DELAWARE RIVER BASIN

01443500 PAULINS KILL AT BLAIRSTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 10...	3.4	<1.0	10
FEB 17...	2.9	E1.6	E13
MAY 25...	4.0	<1.0	16
AUG 18...	5.0	<1.0	19

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
AUG 12...	0850	53	290	100	170
19...	0845	73	250	100	300
26...	0840	232	160	<100	140
31...	1100	144	200	300	230
SEP 09...	0845	242	3,700	2,600	9,000

Remark codes used in this table:

< -- Less than

01445160 BEAR BROOK AT DARK MOON ROAD, NEAR JOHNSONBURG, NJ

LOCATION.--Lat 40°58'30", long 74°50'56", Warren County, Hydrologic Unit 02040105, at bridge on Dark Moon Road, 1.3 mi northeast of Johnsonburg, 0.4 mi northeast of CONRAIL railroad tunnel, and 0.5 mi northwest of Francis Lake.

DRAINAGE AREA.--5.10 mi².

PERIOD OF RECORD.--Water years 2001 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Agricultural Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	
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 unf 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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 06...	1030	13	1.8	.153	.117	752	E8.7	--	7.2	349	16.0	12.1	140	
FEB 05...	0950	3.7	2.9	.041	.031	762	11.4	88	7.4	455	3.0	4.4	200	
MAY 04...	1220	22	1.8	.109	.083	747	E10.4	--	7.5	351	15.0	13.5	140	
AUG 05...	1120	1.6	.7	.030	.023	744	11.4	114	7.9	478	28.0	14.6	230	
NOV 06...		35.6	12.1	1.95	15.0	126	26.7	<.2	7.7	12.4	189	204	1	.30
FEB 05...		49.8	18.9	1.50	12.1	187	20.1	<.2	7.6	16.9	244	248	10	<.20
MAY 04...		34.4	12.7	1.16	16.5	118	28.6	<.2	4.4	13.5	184	190	3	.30
AUG 05...		55.2	21.6	1.45	15.1	191	27.8	<.2	7.0	17.5	265	269	<1	.10
NOV 06...		.034	.030	.51	.005	.07	<.020	.016	.027	.81	.88	.6	<.1	.6
FEB 05...		.042	--	1.10	.009	.05	<.020	.014	.016	--	--	.5	<.1	.5
MAY 04...		.016	--	.43	.005	.05	.024	.023	.030	.73	.78	.5	<.1	.5
AUG 05...		.012	--	1.03	.005	<.02	.019	.006	.009	1.1	--	.2	<.1	.2

DELAWARE RIVER BASIN

01445160 BEAR BROOK AT DARK MOON ROAD, NEAR JOHNSONBURG, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 06...	4.3	<1.0	11
FEB 05...	1.6	<1.0	10
MAY 04...	3.5	2.2	12
AUG 05...	1.2	<1.0	12

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 2003 TO SEPTEMBER 2004

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)
AUG 12...	0830	4,700	2,300	1,700
19...	0820	160	100	70
26...	0820	360	100	110
31...	1110	360	200	140
SEP 09...	0825	2,300	400	500

01446400 PEQUEST RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'45", long 75°04'43", Warren County, Hydrologic Unit 02040105, at bridge on County Route 619 in Belvidere, and 0.3 mi upstream from mouth.

DRAINAGE AREA.--157 mi².

PERIOD OF RECORD.--Water years 1957, 1962, 1976-82, 1998 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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

COOPERATION.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
NOV 20...	1020	1,150	75	.323	.253	749	10.6	99	7.8	300	10.5	11.2	120
FEB 19...	1310	216	2.6	.064	.047	754	16.1	127	8.7	513	7.0	5.0	230
MAY 20...	1050	254	14	.142	.108	763	9.6	98	7.8	492	27.0	16.1	220
AUG 31...	1020	122	2.6	.129	.099	753	9.7	116	8.3	511	24.5	24.0	230

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)
NOV 20...	29.6	12.4	3.32	11.1	102	19.3	<.2	5.8	12.4	160	168	97	.60
FEB 19...	54.1	23.7	1.61	19.4	193	37.1	<.2	6.0	21.1	285	309	6	.20
MAY 20...	50.9	22.9	1.40	19.8	186	36.8	<.2	7.7	12.4	268	285	24	.40
AUG 31...	52.9	23.3	1.62	18.9	196	36.1	<.2	9.4	18.5	283	263	6	.28

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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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, total, mg/L (00694)	Inorganic carbon, suspnd, total, mg/L (00688)	Organic carbon, suspnd, total, mg/L (00689)
NOV 20...	.080	.170	.90	.016	.59	.160	--	.310	1.5	2.1	6.7	2.4	4.2
FEB 19...	.039	--	1.40	.011	.11	<.020	.012	.031	1.6	1.7	.8	<.1	.8
MAY 20...	.026	--	1.00	.018	.12	.039	.038	.056	1.4	1.5	1.4	<.1	1.4
AUG 31...	.013	--	1.12	.014	.05	.058	.056	.067	1.4	1.4	.7	<.1	.7

DELAWARE RIVER BASIN

01446400 PEQUEST RIVER AT BELVIDERE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 20...	8.1	E1.7	15
FEB 19...	2.3	E1.3	12
MAY 20...	3.7	E1.8	14
AUG 31...	3.4	E1.1	19

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 2003 TO SEPTEMBER 2004

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)
AUG 12...	1005	360	400	300
19...	0955	330	300	220
26...	1000	360	100	700
31...	1000	210	<100	170
SEP 09...	1015	8,200	4,300	9,000

Remark codes used in this table:

< -- Less than

01455120 POHATCONG CREEK AT JANES CHAPEL ROAD, AT MOUNT BETHEL, NJ

LOCATION.--Lat 40°50'19", long 74°54'00", Warren County, Hydrologic Unit 02040105, at bridge on Janes Chapel Road, 0.8 mi north of Mount Bethel, 3.9 mi west of Hackettstown, and 5.7 mi upstream of Willever Lake.

DRAINAGE AREA.-- 1.80 mi².

PERIOD OF RECORD.--Water year 2003 to September 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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 (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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	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)
DEC 09...	1030	1.3	.048	.037	748	13.1	94	7.5	137	-1.0	1.8	42	9.46	
FEB 19...	1030	1.2	.031	.023	738	13.1	96	7.4	157	5.0	1.5	47	10.5	
MAY 11...	1015	3.3	.104	.080	744	9.3	94	7.4	126	22.0	14.9	35	8.21	
AUG 19...	1015	2.2	.056	.044	740	8.1	90	7.6	161	19.5	19.0	51	12.3	
DEC 09...	4.56	1.03	7.63	19	19.7	<.2	13.1	9.7	80	90	1	<.20	<.020	
FEB 19...	4.93	1.19	10.8	20	24.0	<.2	13.9	9.7	93	105	<1	<.20	<.020	
MAY 11...	3.63	.98	7.88	20	17.8	<.2	12.3	7.8	73	87	5	<.20	<.010	
AUG 19...	4.99	1.34	8.65	37	18.7	<.2	16.9	7.0	96	101	<1	.10	<.010	
DEC 09...	<.020	.79	<.003	<.02	<.020	<.002	.005	--	.1	<.1	.1	1.3	E2.0	
FEB 19...	--	1.30	.002	<.02	<.020	.003	.004	--	.2	<.1	.2	1.0	<1.0	
MAY 11...	--	.56	.006	.04	<.010	.007	.014	--	.5	<.1	.5	2.7	E1.6	
AUG 19...	--	.98	.002	<.02	<.010	.007	.012	1.1	.5	<.1	.4	1.5	<1.0	

DELAWARE RIVER BASIN

01455120 POHATCONG CREEK AT JANES CHAPEL ROAD, AT MOUNT BETHEL, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

	Boron, water, fltrd, ug/L (01020)
Date	
DEC 09...	E4.4
FEB 19...	<7.0
MAY 11...	E5.8
AUG 19...	E5.7

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 19...	1030	<2	19.1	<.06	E6	<.04	<.8	E.5	90	E.05	9.1	<.02	.39
AUG 19...	1015	<2	20.3	E.06	E6	<.04	E.6	.9	330	.29	22.7	<.02	.55

	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
Date			
FEB 19...	E.2	<.16	<2
AUG 19...	<.4	<.16	8

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

01455120 POHATCONG CREEK AT JANES CHAPEL ROAD, AT MOUNT BETHEL, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)	
MAY 11...	1015	<.009	<.02	E.02	<.01	<.008	E.009	<.004	<.01	E.03	<.0096	<.03	<.006	
Date	Time	Clopyralid, water, fltrd, 0.7u GF (49305)	Dicamba water, fltrd, 0.7u GF (38442)	Di-chlor-prop, water, fltrd, 0.7u GF (49302)	Dinoseb water, fltrd, 0.7u GF (49301)	Diuron, water, fltrd, 0.7u GF (49300)	Fluometuron, water, fltrd, 0.7u GF (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF (38501)	Norflurazon, water, fltrd, 0.7u GF (49293)
MAY 11...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02
Date	Time	Oryzalin, water, fltrd, 0.7u GF (49292)	Oxamyl, water, fltrd, 0.7u GF (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF (49235)					
MAY 11...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02					

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 2003 TO SEPTEMBER 2004

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)
AUG 12...	1050	310	600	2,200
19...	1015	300	400	800
26...	1025	200	200	500
31...	1140	370	1,200	9,000
SEP 09...	1035	2,900	900	2,400

01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ

LOCATION.--Lat 40°35'32", long 75°11'19", revised, Warren County, Hydrologic Unit 02040105, at bridge on Riegelsville-Milford Road (County Route 627) in Riegelsville, 0.2 mi north of Mount Joy, and 0.2 mi upstream from mouth.

DRAINAGE AREA.--156 mi².

PERIOD OF RECORD.--Water years 1962, 1976 to current year.

REMARKS.--Water-quality samples do not include Riegelsville Paper Company bypass flow. 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator and Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
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 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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 13...	0940	426	4.9	.073	.055	747	11.7	104	7.9	376	12.0	9.2	120
FEB 18...	1100	265	3.0	.035	.027	766	14.4	107	8.2	438	1.0	3.3	160
MAY 11...	1210	313	6.7	.061	.047	760	10.3	110	8.0	406	28.0	18.5	140
AUG 31...	1310	140	4.3	.062	.047	759	9.5	109	8.1	466	26.5	21.9	160
NOV 13...	27.1	12.1	1.70	27.9	83	54.2	<.2	8.6	14.2	202	200	6	<.20
FEB 18...	36.2	17.3	1.70	26.9	113	51.6	<.2	8.7	17.8	239	239	2	.40
MAY 11...	31.7	15.5	1.55	23.2	108	46.9	<.2	8.3	15.7	217	236	10	.20
AUG 31...	35.4	18.4	2.21	26.6	122	54.5	<.2	9.7	16.2	247	248	6	.85
NOV 13...	.030	.030	1.50	.007	.05	<.020	.015	.014	--	--	.7	<.1	.7
FEB 18...	<.020	--	2.50	.010	.04	<.020	.010	.018	2.9	2.9	.4	<.1	.3
MAY 11...	E.032	--	2.00	.018	.10	.022	.027	.043	2.2	2.3	.9	<.1	.8
AUG 31...	.100	--	2.43	.041	.09	.048	.053	.066	3.3	3.4	1.1	<.1	1.1

01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 13...	2.5	2.1	16
FEB 18...	1.6	<1.0	13
MAY 11...	2.0	2.1	17
AUG 31...	2.5	2.8	23

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 18...	1100	<2	20.3	<.06	15	<.04	<.8	.9	130	.19	18.4	<.02	1.09
AUG 31...	1310	E1	22.8	<.06	24	<.04	E.4	1.6	150	.34	21.7	<.02	1.65

Date	Selen-ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, unfltrd recover-able, ug/L (01092)
FEB 18...	E.3	<.16	<2
AUG 31...	E.2	<.16	2

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

01457400 MUSCONETCONG RIVER AT RIEGELSVILLE, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)
MAY 11...	1210	<.009	<.02	E.05	<.01	E.007	.029	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF (49305)	Dicamba water, fltrd, 0.7u GF (38442)	Di-chlor-prop, water, fltrd, 0.7u GF (49302)	Dinoseb water, fltrd, 0.7u GF (49301)	Diuron, water, fltrd, 0.7u GF (49300)	Fluometuron, water, fltrd, 0.7u GF (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF (38501)	Norflurazon, water, fltrd, 0.7u GF (49293)
MAY 11...		<.01	<.01	<.01	<.01	.03	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF (49292)	Oxamyl, water, fltrd, 0.7u GF (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF (49235)
MAY 11...		<.02	<.01	<.02	<.02	.019	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
AUG 12...	0930	300	1,200	1,700
19...	0920	210	100	170
26...	0920	140	300	700
31...	0920	220	100	110
SEP 09...	0930	2,900	1,700	5,000

01457500 DELAWARE RIVER AT RIEGELSVILLE, NJ

LOCATION.--Lat 40°35'40", long 75°11'24", Warren County, Hydrologic Unit 02040105, at suspension bridge at Riegelsville, 600 ft upstream from Musconetcong River, and at river mile 174.8. Water-quality samples are collected from the bridge and are not affected by the flow of the Musconetcong River.

DRAINAGE AREA.--6,328 mi².

PERIOD OF RECORD.--Water years 1934, 1943, 1950, 1960-79, 1991 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). The flow of the Musconetcong River is included in the instantaneous discharge, cfs (00061).

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Delaware River Main Stem, New Jersey Department of Environmental Protection Watershed Management Area 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
NOV 17...	1030	12,200	1.3	.084	.064	764	11.2	91	7.7	163	10.5	6.6	56	
FEB 18...	1030	6,630	1.6	.052	.041	764	13.1	95	8.0	258	1.3	2.3	95	
MAY 05...	1030	19,800	7.8	.097	.075	756	9.4	91	7.6	133	17.0	13.7	41	
AUG 11...	1030	5,020	1.6	.075	.057	754	7.7	91	8.0	214	23.0	23.1	70	
NOV 17...	14.5	4.81	1.22	8.36	40	13.1	<.2	4.7	13.7	88	92	3	<.20	
FEB 18...	24.4	8.21	1.66	14.7	62	24.5	<.2	5.0	22.0	145	160	1	.30	
MAY 05...	11.2	3.22	.98	9.48	26	14.9	<.2	3.0	10.1	71	78	13	<.20	
AUG 11...	18.5	5.73	1.43	12.0	52	18.4	<.2	3.1	18.6	113	120	2	.20	
NOV 17...		<.020	<.020	.84	.008	.03	.027	.023	.029	--	--	.2	<.1	.2
FEB 18...		.062	--	1.60	.016	<.02	.046	.043	.053	1.9	--	.3	<.1	.3
MAY 05...		.020	--	.60	.008	.17	.025	.025	--	--	--	1.6	<.1	1.6
AUG 11...		.010	--	1.01	.013	.04	.057	.065	.073	1.2	1.2	.6	<.1	.5

DELAWARE RIVER BASIN

01457500 DELAWARE RIVER AT RIEGELSVILLE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 17...	2.5	E1.8	11
FEB 18...	1.7	<1.1	14
MAY 05...	3.0	E1.1	10
AUG 11...	2.7	<1.0	15

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
AUG 12...	0915	5,340	290	<100	300
19...	0910	18,000	240	100	260
26...	0915	12,600	170	<100	<20
31...	0915	11,700	1,400	700	2,200
SEP 09...	0920	17,200	1,190	<100	9,000

Remark codes used in this table:

< -- Less than

01458300 HARIHOKAKE CREEK AT HARTPENCE ROAD, NEAR MOUNT PLEASANT, NJ

LOCATION.--Lat 40°36'01", long 75°01'51", Hunterdon County, Hydrologic Unit 02040105, at bridge on Hartpence Road, 1.7 mi northeast of Mount Pleasant, 4.0 mi northeast of Milford, and 6.8 mi upstream from mouth.

DRAINAGE AREA.-- 0.98 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
NOV 06...	0930	1.6	.094	.073	753	9.9	96	7.4	88	15.0	13.3	31	9.64	
FEB 05...	0945	1.8	.038	.030	765	13.3	91	7.4	87	-2.5	.1	30	9.17	
MAY 26...	0945	45	.097	.077	745	9.1	94	7.5	85	17.5	16.1	32	10.3	
AUG 04...	0930	2.4	.093	.072	743	8.0	93	7.3	94	22.0	21.4	34	10.9	
NOV 06...		1.73	1.39	3.21	24	6.70	<.2	9.4	6.9	54	59	<1	<.20	<.020
FEB 05...		1.68	.81	4.16	18	7.69	<.2	8.8	7.7	53	63	8	<.20	.033
MAY 26...		1.56	.84	3.09	23	6.13	<.2	9.0	5.1	51	55	59	<.20	.025
AUG 04...		1.67	1.01	3.22	27	7.09	<.2	10.3	5.8	58	61	3	.13	<.010
NOV 06...		<.020	.20	.003	<.02	<.020	.010	.013	--	--	<.1	<.1	<.1	2.9
FEB 05...		--	.59	<.003	<.02	<.020	.011	.013	--	--	.2	<.1	.2	1.2
MAY 26...		--	.38	.005	.37	.017	.022	.014	--	--	5.7	<.1	5.6	2.7
AUG 04...		--	.30	.002	.04	.025	.041	E.029	.43	.47	.5	<.1	.4	2.4

DELAWARE RIVER BASIN

01458300 HARIHOKAKE CREEK AT HARTPENCE ROAD, NEAR MOUNT PLEASANT, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 06...	<1.0	7.3
FEB 05...	E1.0	E5.9
MAY 26...	E1.0	E6.6
AUG 04...	E1.5	E6.2

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 05...	0945	<2	41.9	<.06	E5	<.04	<.8	E.4	110	.16	26.7	<.02	.75
AUG 04...	0930	<2	44.6	<.06	E7	<.04	<.8	.6	240	.18	50.9	<.02	1.34

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 05...	<.4	<.16	3
AUG 04...	<.4	<.16	E2

Remark codes used in this table:

< -- Less than

E -- Estimated value

01458300 HARIHOKAKE CREEK AT HARTPENCE ROAD, NEAR MOUNT PLEASANT, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)	
MAY 26...	0945	<.009	<.02	E.01	<.01	E.010	.011	<.004	<.01	E.01	<.0096	<.03	<.006	
Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 26...		<.01	<.01	<.01	<.01	E.04	<.03	E.01	<.02	<.007	<.02	<.02	<.008	<.02
Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)					
MAY 26...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02					

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 2003 TO SEPTEMBER 2004

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)
JUL 07...	0900	2,500	100	1,300
14...	1115	2,600	300	500
21...	0900	240	100	110
28...	1135	5,500	1,800	5,000
AUG 04...	0900	470	300	230

01458570 NISHISAKAWICK CREEK NEAR FRENCHTOWN, NJ

LOCATION.--Lat 40°32'32", long 75°02'48", Hunterdon County, Hydrologic Unit 02040105, 1.3 mi north of Frenchtown, 2.1 mi upstream from Delaware River, and 3.1 mi southeast of Milford.

DRAINAGE AREA.--10.1 mi².

PERIOD OF RECORD.--Water years 1998 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Agricultural Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)	
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 CaCO ₃ (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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)	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 13...	1230	13	1.7	.070	.053	746	12.2	108	7.8	168	9.0	9.1	58	
FEB 18...	1250	11	1.1	.029	.022	762	14.1	98	7.5	178	7.5	.5	55	
MAY 11...	0940	15	2.4	.048	.036	760	9.8	102	7.5	185	25.0	16.9	59	
AUG 02...	1040	20	1.9	.088	.066	757	8.7	97	6.8	171	25.0	20.4	59	
NOV 13...	14.6	5.22	1.92	8.82	39	13.3	<.2	11.7	13.6	101	100	<1	<.20	
FEB 18...	14.2	4.82	1.46	11.6	31	18.9	<.2	11.0	13.0	103	107	<1	<.20	
MAY 11...	15.2	5.00	1.48	10.7	39	16.6	<.2	8.7	14.3	105	112	2	<.20	
AUG 02...	15.5	4.88	1.98	9.71	40	14.7	<.2	12.9	14.1	107	121	<1	.20	
NOV 13...	<.020	<.020	1.90	.003	<.02	.026	.026	.030	--	.2	<.1	.1	2.3	
FEB 18...	<.020	--	2.20	.032	<.02	.025	.019	.020	--	.1	<.1	.1	1.0	
MAY 11...	E.009	--	2.00	.012	<.02	.032	.019	.029	--	.2	<.1	.2	1.6	
AUG 02...	.013	--	1.93	E.002	<.02	.042	.049	.056	2.1	.2	<.1	.2	2.6	

01458570 NISHISAKAWICK CREEK NEAR FRENCHTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 13...	E1.7	26
FEB 18...	E1.1	17
MAY 11...	E1.4	23
AUG 02...	<1.0	30

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 2003 TO SEPTEMBER 2004

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)
JUL 07...	0930	420	100	170
14...	0918	1,700	500	2,400
21...	0932	180	100	140
28...	0954	4,300	2,700	3,000
AUG 04...	0950	400	<100	130

Remark codes used in this table:

< -- Less than

01458710 COPPER CREEK NEAR FRENCHTOWN, NJ

LOCATION.--Lat 40°30'39", long 75°02'42", Hunterdon County, Hydrologic Unit 02040105, at bridge on Horseshoe Bend Road, 1.4 mi upstream from the mouth, 1.4 mi southeast of Frenchtown, and 2.2 mi west of Baptistown.

DRAINAGE AREA.--2.52 mi².

PERIOD OF RECORD.--Water years 2000, 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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 (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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
NOV 13...	0945	3.9	.122	.094	746	11.5	102	7.8	198	9.5	9.2	72	17.1	
FEB 09...	1015	1.8	.049	.037	768	14.1	96	7.6	173	1.5	.2	48	11.0	
MAY 12...	0930	1.3	.051	.038	761	9.8	101	7.7	196	26.0	16.5	63	15.6	
AUG 12...	0930	.8	.058	.043	755	8.8	95	7.6	200	20.0	18.9	69	17.5	
NOV 13...	7.09	2.91	8.84	46	11.7	<.2	10.1	19.9	116	117	5	.30	<.020	
FEB 09...	4.95	1.91	12.2	22	21.6	<.2	9.7	14.0	97	99	6	<.20	.062	
MAY 12...	5.75	2.23	11.3	41	14.1	<.2	10.7	19.5	114	123	1	<.20	E.006	
AUG 12...	6.15	2.57	9.56	44	13.6	<.2	10.7	20.7	118	124	<1	.18	<.010	
NOV 13...	<.020	2.30	.003	.03	--	.118	.126	2.6	2.6	.3	<.1	.3	3.9	
FEB 09...	--	1.90	.002	.03	.066	.064	.066	--	--	.2	<.1	.2	1.9	
MAY 12...	--	2.30	.002	.04	.095	.091	.093	--	--	.4	<.1	.4	1.9	
AUG 12...	--	2.33	<.002	<.02	.106	.104	.109	2.5	--	.4	<.1	.3	2.0	

01458710 COPPER CREEK NEAR FRENCHTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 13...	E1.6	38
FEB 09...	E1.9	18
MAY 12...	E2.4	34
AUG 12...	<1.0	39

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 09...	1015	E1	30.6	<.06	18	<.04	<.8	.9	30	.06	1.5	<.02	.31
AUG 12...	0930	<2	44.6	<.06	39	<.04	<.8	1.4	10	<.06	E.7	<.02	.50

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 09...	<.4	<.16	<2
AUG 12...	<.4	<.16	E1

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 12...	0930	<.009	<.02	E.02	<.01	E.029	.092	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 12...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 12...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
JUL 07...	0948	510	500	330
14...	1021	460	5,300	>16,000
21...	1024	170	200	800
28...	1041	2,600	1,900	2,800
AUG 04...	1009	230	100	230

Remark codes used in this table:
 > -- Greater than

01460860 LOCKATONG CREEK AT ROUTE 12, AT BAPTISTOWN, NJ

LOCATION.--Lat 40°31'01", long 74°59'30", Hunterdon County, Hydrologic Unit 02040105, at bridge on State Route 12, 0.8 mi east of Baptistown, 1.7 mi northwest of Point Breeze, and 4.5 mi upstream of Muddy Run.

DRAINAGE AREA.--8.46 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 25...	1000	7.0	.155	.121	752	11.3	91	7.9	160	7.7	5.7	51	11.0	
FEB 05...	1000	8.2	.224	.179	764	12.2	84	7.7	326	1.1	.1	48	11.6	
MAY 19...	1000	7.3	.180	.140	750	7.1	77	7.8	173	19.0	18.6	61	14.3	
AUG 12...	0900	3.4	.094	.072	746	6.7	75	7.5	185	22.2	20.3	62	14.9	
NOV 25...	5.62	1.89	8.10	32	11.8	<.2	12.2	14.9	95	98	3	.20	.020	
FEB 05...	4.73	2.99	40.1	18	72.4	<.2	6.2	11.5	166	190	6	.60	.172	
MAY 19...	6.16	1.99	10.6	37	13.2	<.2	8.3	17.1	105	129	4	.60	.071	
AUG 12...	6.13	2.03	10.9	38	14.0	<.2	8.9	19.6	113	125	1	.25	.016	
NOV 25...	.020	2.30	.006	.06	.020	.016	.046	2.5	2.6	.3	<.1	.3	3.8	
FEB 05...	--	1.10	.006	.08	.066	.069	--	1.7	1.8	.6	<.1	.6	7.8	
MAY 19...	--	2.50	.044	.09	.024	.019	.039	3.1	3.2	.8	<.1	.7	5.2	
AUG 12...	--	3.08	.009	.08	.020	.014	.025	3.3	3.4	.3	<.1	.3	3.2	

01460860 LOCKATONG CREEK AT ROUTE 12, AT BAPTISTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2-Ethyl naphthalene bed sed <2 mm wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)	45Methylphenanthrene, bed sed <2 mm, ug/kg (49411)	9H-Flour-ene, 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)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)
FEB 05...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--	--	--	--
12...	<50	<50	<50	E19	E16	E23	E22	E44	E50	E39	E31	E36	E41

Date	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 field, 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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi-ment, dry svd svs dia percent (80164)	Bed sedi-ment, falldia dst wat percent (80157)
FEB 05...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--	--	--
12...	<50	51	E31	<50	<50	E3	<50	E40	<50	E43	10	4

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atra-zine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd, 0.7u GF ug/L (49310)	Carbo-furan, water, fltrd, 0.7u GF ug/L (49309)
MAY 19...	1000	<.009	E.02	E.04	<.03	E.165	1.28	.186	<.01	<.03	.0890	<.03	<.006

Date	Time	Clopyr-alid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluo-meturon water, fltrd, 0.7u GF ug/L (38811)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd, 0.7u GF ug/L (38501)	Norflur-azon, water, fltrd, 0.7u GF ug/L (49293)
MAY 19...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	E.02	<.008	<.02

DELAWARE RIVER BASIN

01460860 LOCKATONG CREEK AT ROUTE 12, AT BAPTISTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ory- zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Propi- cona- zole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd, ug/L (04032)	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)
MAY 19...	<.02	<.01	E.01	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
JUL				
07...	1104	200	<100	500
14...	1044	460	1,200	1,700
21...	1051	180	300	300
28...	1053	4,500	5,300	16,000
AUG				
04...	1104	420	200	270

Remark codes used in this table:

< -- Less than

01461000 DELAWARE RIVER AT LUMBERVILLE, PA

LOCATION.--Lat 40°24'27", long 75°02'16", Bucks County, Hydrologic Unit 02040105, at pedestrian bridge at Lumberville, 1.4 mi upstream from Lockatong Creek, and at river mile 155.4.

DRAINAGE AREA.--6,598 mi².

PERIOD OF RECORD.--Water years 1976 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Delaware River Main Stem, New Jersey Department of Environmental Protection Watershed Management Area 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
DEC 04...	0800	23,300	2.4	.090	.069	762	12.8	96	7.9	131	5.3	3.1	41
FEB 03...	0900	43,300	1.1	.052	.040	766	13.3	93	8.2	247	2.2	1.1	86
MAY 12...	1100	17,300	7.1	.088	.068	766	8.3	88	7.8	160	22.8	18.5	52
AUG 11...	1000	5,540	1.4	.076	.058	758	6.9	80	8.2	203	23.0	22.7	73

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 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)
DEC 04...	10.5	3.52	1.00	6.66	31	11.3	<.2	5.0	11.5	72	72	3	<.20
FEB 03...	21.6	7.71	1.55	12.7	60	20.8	<.2	5.8	19.2	132	133	<1	<.20
MAY 12...	13.7	4.20	1.06	9.96	36	17.3	<.2	3.0	11.4	86	94	7	<.20
AUG 11...	19.0	6.26	1.40	11.9	55	18.8	<.2	3.2	18.1	116	123	<1	.18

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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 04...	.020	.020	.82	<.003	.06	<.020	.017	.019	--	--	.3	<.1	.3
FEB 03...	.050	--	1.40	.011	.04	.037	.039	.044	--	--	.3	<.1	.3
MAY 12...	.032	--	.71	.008	.12	.029	.031	.033	--	--	.9	<.1	.9
AUG 11...	.018	--	.97	.005	.18	.038	.049	.052	1.2	1.3	.7	<.1	.7

DELAWARE RIVER BASIN

01461000 DELAWARE RIVER AT LUMBERVILLE, PA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 04...	2.5	<1.0	7.3
FEB 03...	1.9	2.1	14
MAY 12...	2.8	<1.0	14
AUG 11...	2.6	2.2	15

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 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	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)
JUL					
07...	1020	3,500	80	<100	20
14...	0950	12,900	310	800	5,000
21...	0958	7,620	90	100	500
28...	1020	20,300	3,600	3,100	16,000
AUG					
04...	1039	10,100	60	<100	110

Remark codes used in this table:

< -- Less than

01463500 DELAWARE RIVER AT TRENTON, NJ

LOCATION.--Lat 40°13'18", long 74°46'41", Mercer County, Hydrologic Unit 02040105, at Calhoun Street Bridge at Trenton, 0.5 mi upstream from Assunpink Creek, and at river mile 134.5.

DRAINAGE AREA.--6,780 mi².

PERIOD OF RECORD.--Water years 1945 to current year.

PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: October 1962 to current year. Recorded as once daily during 1979.

DISSOLVED OXYGEN PERCENT SATURATION: October 2001 to current year.

pH: June 1968 to current year. Recorded as once daily during 1979.

SPECIFIC CONDUCTANCE: October 1963 to current year. Recorded as once daily during years 1964 to 1968, 1979.

SUSPENDED SEDIMENT DISCHARGE: September 1949 to September 1981.

WATER TEMPERATURE: October 1944 to current year. Recorded as once daily during years 1945 to 1953, 1962, 1964, 1979.

TURBIDITY: November 2000 to current year.

INSTRUMENTATION.--

TEMPERATURE MONITOR (in-situ system, max-min recorded): October 1953 to September 1961.

TEMPERATURE / DISSOLVED-OXYGEN MONITOR (in-situ system):

October 1962 to September 1965: max-min recorded (only dissolved-oxygen concentration recorded during water year 1964).

October 1965 to May 1968: measurements recorded hourly.

WATER-QUALITY MONITOR (continuous pumping system, measurements recorded hourly):

June 1968 to August 1975: water withdrawn from raw-water intake within Trenton Water Filtration Plant, Trenton, NJ.

November 1975 to November 1978: water withdrawn from river outside Trenton Water Filtration Plant, Trenton, NJ.

December 1979 to September 1986: water withdrawn from raw-water intake within Trenton Water Filtration Plant, Trenton, NJ.

WATER-QUALITY MONITOR (in-situ system, measurements recorded hourly):

October 1986 to September 1995: probes located inside raw-water intake of Trenton Water Filtration Plant, Trenton, NJ.

October 1995 to current year: monitor located inside raw-water intake of Morrisville Water Filtration Plant, Morrisville, PA, 1600 feet upstream from the gage house. YSI turbidimeter 6026, November 2000 to May 2004; YSI turbidimeter 6136, June to September 2004.

REMARKS.--Additional nutrient samples on Dec. 4 at 0931, Mar. 16 at 0931, June 21 at 1001, and Sept. 1 at 1051 were collected to fulfill the requirements of the Ambient Stream Monitoring Network. For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. Unpublished records of suspended-sediment discharge for the period Oct. 1, 1981, to Mar. 31, 1982, are available at the U.S. Geological Survey Office in West Trenton, NJ. Beginning October, 1999, pH daily value tables reported maximum, minimum and median values. Continuous turbidity-record values less than 2 were below the instrument detection level. Missing continuous water-quality records are the result of instrument malfunction or interruption of flow through the filtration plant. The calibration of water-quality sensors is verified by regular inspections. Cleaning or recalibration is needed occasionally as a result of sensor fouling or drift. When a sensor is recalibrated, the continuous-record water-quality data for the period between inspections are adjusted to account for the difference between the sensor's response and a known value. The adjustment may be constant over the period or may be prorated. Continuous-record water-quality data for periods for which the difference between the sensor's response and a known value does not exceed recalibration criteria are considered to be reliable and are not adjusted. Recalibration criteria are listed in "Accuracy of the Records" in the Explanation of Water-Quality Records section of this report. Data from the following periods were adjusted:

DISSOLVED OXYGEN: Oct. 1 to Dec. 15, Jan. 5 to Feb. 17, Apr. 6 to Apr. 13, Apr. 29 to May 6, May 14 to June 1, June 15 to July 6, Aug. 4 to Aug. 16.

pH: Nov. 3 to Dec. 15, Apr. 13 to Apr. 26.

TURBIDITY: Apr. 13 to Apr. 26.

COOPERATION.--Samples were collected as part of the Delaware River Basin National Water-Quality Assessment Program (NAWQA) with cooperation from the Delaware River Basin Commission. Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, and dissolved hexavalent chromium on Dec. 4 at 0932, Mar. 16 at 0932, June 21 at 1002, and Sept. 1 at 1052; and fecal coliform, E. coli, and enterococcus bacteria collected synoptically during the summer months was performed by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Delaware River Main Stem, New Jersey Department of Environmental Protection Watershed Management Area 11.

EXTREMES FOR PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: Maximum, 20.0 mg/L, Feb. 11, 1989; minimum, 4.0 mg/L, Nov. 9, 1972, Sept. 9, 1995.

DISSOLVED OXYGEN PERCENT SATURATION: Maximum, 153, July 2, 2004; minimum, 64, Sept. 3, 2003, May 2, 2004.

pH: Maximum, 10.3 units, Aug. 9, 10, 1983; minimum, 5.3 units, June 22, 1972.

SPECIFIC CONDUCTANCE: Maximum, 468 microsiemens/cm, Jan. 11, 1999; minimum, 63 microsiemens/cm, July 7, 1984.

WATER TEMPERATURE: Maximum, 34.0°C, June 18, 1957; minimum, -0.6°C, on many days during winter months in water years 1954-57.

TURBIDITY: Maximum, 760 FNU, Sept. 18, 2004; minimum, <2.0 FNU, on many days in water years 2000-04.

EXTREMES FOR CURRENT YEAR.--

DISSOLVED OXYGEN: Maximum, 18.8 mg/L, Feb. 28; minimum, 5.9 mg/L, July 5.

DISSOLVED OXYGEN PERCENT OF SATURATION: Maximum, 153, July 2; minimum, 64, May 2.

pH: Maximum, 9.5 standard units, Feb. 27, 28, 29, Mar. 1; minimum, 6.6 standard units, Oct. 29, 30, 31, Nov. 1.

SPECIFIC CONDUCTANCE: Maximum, 311 microsiemens/cm, Feb. 5, 6; minimum, 71 microsiemens/cm, Sept. 19, 20.

WATER TEMPERATURE: Maximum, 28.9°C, July 8; minimum, 0.0°C, on many days during January and February.

TURBIDITY: Maximum, 760 FNU, Sept. 18; minimum, <2.0 FNU, on many days.

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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. at 180degC wat flt mg/L (70300)	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)	Nitrite water, fltrd, mg/L as N (00613)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)
NOV 06...	--	11.8	--	--	--	<.04	--	.72	<.008	--	.015	--	.045
DEC 04...	4.9	11.6	--	72	--	E.03	--	.81	<.008	<.02	.012	--	.028
04...	--	--	--	--	<.20	--	--	.82	--	--	--	.017	--
04...	--	--	--	--	--	.026	.024	--	<.003	--	.022	--	--
JAN 06...	--	11.8	--	--	--	<.04	--	.77	E.005	--	.013	--	.043
MAR 16...	3.2	13.2	85	101	--	<.04	--	.86	.012	.06	E.005	--	.024
16...	--	--	--	--	<.20	--	--	.88	--	--	--	.014	--
16...	--	--	--	--	--	<.020	<.020	--	.009	--	<.020	--	--
APR 19...	--	11.8	--	--	--	<.04	--	.72	.010	--	.006	--	.035
MAY 17...	--	11.2	--	--	--	<.04	--	.77	.012	--	.019	--	.073
17...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 21...	--	<.2	--	--	--	<.04	--	<.06	<.008	--	<.006	--	<.004
21...	2.8	17.2	111	114	--	<.04	--	.86	.008	.11	.029	--	.063
21...	--	--	--	--	.20	--	--	.86	--	--	--	.057	--
21...	--	--	--	--	--	<.010	E.009	--	.008	--	.035	--	--
JUL 16...	--	19.1	--	--	--	<.04	--	1.33	.009	--	.054	--	.103
SEP 01...	4.2	14.7	--	97	--	<.04	--	.92	E.006	.10	.047	--	.087
01...	--	--	--	--	.27	--	--	--	--	--	--	.060	--
01...	--	--	--	--	--	.020	E.033	--	.008	--	.054	--	--

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Total nitrogen, water unfiltered by analysis, mg/L (62855)	Total nitrogen, water, filtered, mg/L (00602)	Total carbon, suspended sediment total, mg/L (00694)	Inorganic carbon, suspended sediment total, mg/L (00688)	Organic carbon, suspended sediment total, mg/L (00689)	Organic carbon, water, filtered, mg/L (00681)	BOD, water, unfiltered 5 day, 20 degC, mg/L (00310)	COD, high level, water, unfiltered, mg/L (00340)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV 06...	1.00	--	--	--	--	--	--	--	8	538
DEC 04...	1.00	--	.2	<.1	.2	2.4	--	10	3	202
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	E1.7	--	--	--
JAN 06...	.97	--	--	--	--	--	--	--	12	1,160
MAR 16...	1.04	--	.3	<.1	.3	2.1	--	<10	3	107
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	<1.0	--	--	--
APR 19...	1.08	--	--	--	--	--	--	--	7	301
MAY 17...	1.12	--	--	--	--	--	--	--	18	773
17...	--	--	--	--	--	--	--	--	17	--
JUN 21...	<.03	--	--	--	--	--	--	--	<1	--
21...	1.20	--	.9	<.1	.9	2.4	--	<10	4	62
21...	--	1.1	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	E1.7	--	--	--
JUL 16...	1.77	--	--	--	--	--	--	--	19	418
SEP 01...	1.12	--	1.3	<.1	1.3	2.8	--	<10	12	483
01...	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	<1.0	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Arsenic water unfiltered, ug/L (01002)	Barium, water, unfiltered recoverable, ug/L (01007)	Beryllium, water, unfiltered recoverable, ug/L (01012)	Boron, water, filtered, ug/L (01020)	Boron, water, unfiltered recoverable, ug/L (01022)	Cadmium water, unfiltered, ug/L (01027)	Chromium(VI) water, filtered, ug/L (01032)	Chromium, water, filtered, ug/L (01030)	Chromium, water, unfiltered recoverable, ug/L (01034)	Copper, water, filtered, ug/L (01040)	Copper, water, unfiltered recoverable, ug/L (01042)	Iron, water, unfiltered recoverable, ug/L (01045)
DEC 04...	0930	<2	23.6	<.06	7.9	10	.05	--	<.8	E.4	1.1	.9	140
04...	0932	--	--	--	--	--	--	<5	--	--	--	--	--
MAR 16...	0930	<2	25.5	<.06	10	10	.05	--	<.8	<.8	1.3	1.4	90
16...	0932	--	--	--	--	--	--	<5	--	--	--	--	--
JUN 21...	1000	<2	29.6	<.06	17	19	.04	--	<.8	<.8	1.5	1.7	110
21...	1002	--	--	--	--	--	--	<5	--	--	--	--	--
SEP 01...	1050	<2	26.7	E.04	18	17	.09	--	<.8	E.4	1.6	2.4	380
01...	1052	--	--	--	--	--	--	<5	--	--	--	--	--

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover-able, ug/L (01051)	Manganese, water, unfltrd recover-able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover-able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover-able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover-able, ug/L (01092)
DEC 04...	E.06	.29	19.5	<.02	<.02	.89	1.11	E.2	<.16	9.2	11
DEC 04...	--	--	--	--	--	--	--	--	--	--	--
MAR 16...	E.07	.19	22.1	<.02	<.02	.87	.95	<.4	<.16	6.7	14
MAR 16...	--	--	--	--	--	--	--	--	--	--	--
JUN 21...	E.08	.39	35.4	<.02	<.02	.88	.97	E.2	<.16	3.0	7
JUN 21...	--	--	--	--	--	--	--	--	--	--	--
SEP 01...	.14	1.26	42.5	<.02	<.02	1.02	1.71	E.3	<.16	8.9	18
SEP 01...	--	--	--	--	--	--	--	--	--	--	--

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

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Chloro-benzene water unfltrd ug/L (34301)
DEC 04...	0930	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1	<.1
MAR 16...	0930	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1	<.1
JUN 21...	1000	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1	<.1
SEP 01...	1050	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1	<.1

Date	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene 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)
DEC 04...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2
MAR 16...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1	<.1	<.1	E.1
JUN 21...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1	<.1	<.1	1.1
SEP 01...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1	<.1	<.1	E.1

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Tetra- chloro- ethene, water, unfltrd ug/L (34475)	Tetra- chloro- methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans- 1,2-Di- chloro- 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 chlor- ide, water, unfltrd ug/L (39175)
DEC 04...	<.1	<.2	<.1	<.1	<.2	<.1	<.2	<.1	<.2
MAR 16...	<.1	<.2	<.1	<.1	<.2	<.1	<.2	<.1	<.2
JUN 21...	<.1	<.2	<.1	<.1	<.2	<.1	<.2	<.1	<.2
SEP 01...	<.1	<.2	<.1	<.1	<.2	<.1	<.2	<.1	<.2

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN PESTICIDE ANALYSES

Pesticides in filtered water 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 schedule-2001 compounds detected in one or more surface-water samples are listed in the following table. Pesticides in unfiltered water were determined using laboratory schedule 1608. All schedule-1608 compounds are included in the following table.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	CIAT, water, fltrd, ug/L (04040)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	Aldrin, water, unfltrd ug/L (39330)	alpha- Endo- sulfan, water, unfltrd ug/L (34361)	alpha- HCH, water, fltrd, ug/L (34253)	alpha- HCH, water, unfltrd ug/L (39337)	Aroclor 1016 + 1242, water, unfltrd ug/L (81648)	Aroclor 1221, water, unfltrd ug/L (39488)
NOV 06...	0920	Environmental	E.013	<.006	<.005	--	--	<.005	--	--	--
DEC 04...	0930	Environmental	--	--	--	<.10	<.2	--	<.07	<.2	<.2
JAN 06...	0930	Environmental	E.010	<.006	<.005	--	--	<.005	--	--	--
MAR 16...	0930	Environmental	E.012	<.006	<.005	<.04	<.1	<.005	<.03	<.1	<.1
APR 19...	0900	Environmental	E.013	<.006	<.005	--	--	<.005	--	--	--
MAY 17...	0940	Environmental	E.022	.017	<.005	--	--	<.005	--	--	--
MAY 17...	0941	<i>Split Replicate</i>	E.020	.014	<.005	--	--	<.005	--	--	--
JUN 21...	1000	Environmental	E.029	<.006	<.005	<.04	<.1	<.005	<.03	<.1	<.1
JUL 16...	0940	Environmental	E.022	<.006	<.005	--	--	<.005	--	--	--
SEP 01...	1050	Environmental	E.016	<.006	<.005	<.04	<.1	<.005	<.03	<.1	<.1

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Aroclor 1232, water, unfltrd ug/L (39492)	Aroclor 1248, water, unfltrd ug/L (39500)	Aroclor 1254, water, unfltrd ug/L (39504)	Aroclor 1260, water, unfltrd ug/L (39508)	Atrazine, water, fltrd, ug/L (39632)	Benfluralin, water, fltrd 0.7u GF ug/L (82673)	beta-Endosulfan, water, unfltrd ug/L (34356)	beta-HCH, water, unfltrd ug/L (39338)	Carbaryl, water, fltrd 0.7u GF ug/L (82680)	Chlordane, technical, water, unfltrd ug/L (39350)	Chlorpyrifos, water, fltrd, ug/L (38933)	cis-Chlordane, water, unfltrd ug/L (39062)	DCPA, water fltrd 0.7u GF ug/L (82682)
Date	delta-HCH, water, unfltrd ug/L (34259)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, unfltrd ug/L (39380)	Endosulfan sulfate, water unfltrd ug/L (34351)	Endrin aldehyde, water, unfltrd ug/L (34366)	Endrin, water, unfltrd ug/L (39390)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide, water, fltrd, ug/L (62167)	Fipronil sulfone, water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Heptachlor epoxide, water unfltrd ug/L (39420)	Heptachlor, water, unfltrd ug/L (39410)
NOV 06...	--	--	--	--	.012	<.010	--	--	<.041	--	<.005	--	<.003
DEC 04...	<.2	<.2	<.2	<.2	--	--	<.10	<.07	--	<.2	--	<.2	--
JAN 06...	--	--	--	--	.011	<.010	--	--	<.041	--	<.005	--	<.003
MAR 16...	<.1	<.1	<.1	<.1	.015	<.010	<.04	<.03	<.041	<.1	<.005	<.1	<.003
APR 19...	--	--	--	--	.013	<.010	--	--	<.041	--	<.005	--	<.003
MAY 17...	--	--	--	--	.135	<.010	--	--	E.024	--	<.005	--	<.003
JUN 17...	--	--	--	--	.122	<.010	--	--	<.041	--	<.005	--	<.003
JUN 21...	<.1	<.1	<.1	<.1	.103	<.010	<.04	<.03	<.041	<.1	<.005	<.1	<.003
JUL 16...	--	--	--	--	.076	<.010	--	--	<.041	--	<.005	--	E.002
SEP 01...	<.1	<.1	<.1	<.1	.022	<.010	<.04	<.03	E.030	<.1	<.005	<.1	<.003
NOV 06...	--	<.012	<.005	--	--	--	--	<.029	<.013	<.024	<.016	--	--
DEC 04...	<.23	--	--	<.05	<1.5	<.5	<.15	--	--	--	--	<2.0	<.07
JAN 06...	--	<.012	<.005	--	--	--	--	<.029	<.013	<.024	<.016	--	--
MAR 16...	<.09	<.012	<.005	<.02	<.6	<.2	<.06	<.029	<.013	<.024	<.016	<.8	<.03
APR 19...	--	<.012	<.005	--	--	--	--	<.029	<.013	<.024	<.016	--	--
MAY 17...	--	<.012	<.005	--	--	--	--	<.029	<.013	<.024	<.016	--	--
JUN 17...	--	<.012	<.005	--	--	--	--	<.029	<.013	<.024	<.016	--	--
JUN 21...	<.09	E.003	<.005	<.02	<.6	<.2	<.06	<.029	<.013	<.024	<.016	<.8	<.03
JUL 16...	--	<.012	<.005	--	--	--	--	<.029	<.013	<.024	<.016	--	--
SEP 01...	<.09	<.012	<.005	<.02	<.6	<.2	<.06	<.029	<.013	<.024	<.016	<.8	<.03

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Lindane water, fltrd, ug/L (39341)	Lindane water, unfltrd ug/L (39340)	Metola- chlor, water, fltrd, ug/L (39415)	p,p-' DDD, water, unfltrd ug/L (39310)	p,p-' DDE, water, unfltrd ug/L (39320)	p,p-' DDT, water, unfltrd ug/L (39300)	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)	Toxa- phene, water, unfltrd ug/L (39400)	trans- Chlor- dane, water, unfltrd ug/L (39065)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
NOV 06...	<.004	--	E.008	--	--	--	<.022	<.01	.006	<.02	--	--	<.009
DEC 04...	--	<.07	--	<.2	<.10	<.2	--	--	--	--	<5	<.2	--
JAN 06...	<.004	--	E.008	--	--	--	<.022	<.01	<.005	<.02	--	--	<.009
MAR 16...	<.004	<.03	E.007	<.1	<.04	<.1	<.022	<.01	<.005	<.02	<2	<.1	<.009
APR 19...	<.004	--	E.008	--	--	--	<.022	.01	.006	<.02	--	--	<.009
MAY 17...	<.004	--	.048	--	--	--	<.022	.02	.017	<.02	--	--	<.009
MAY 17...	<.004	--	.044	--	--	--	E.008	.01	.015	<.02	--	--	<.009
JUN 21...	<.004	<.03	.032	<.1	<.04	<.1	<.022	.03	.016	<.02	<2	<.1	E.004
JUL 16...	<.004	--	.047	--	--	--	<.022	.02	.009	<.02	--	--	<.009
SEP 01...	<.004	<.03	E.012	<.1	<.04	<.1	<.022	.02	<.015	<.02	<2	<.1	<.009

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	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 05...	1130	21,500	20	<100	20
MAY 12...	1035	17,800	30	<100	20
MAY 19...	1055	13,600	60	<100	90
MAY 26...	1115	8,980	60	200	80
JUN 02...	1130	10,600	<10	100	40

Remark codes used in this table:

< -- Less than

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	6.9	6.7	6.9	6.8	6.6	6.7	7.6	7.0	7.2	7.6	7.5	7.6
2	7.1	6.9	7.0	6.7	6.7	6.7	7.1	7.0	7.0	7.6	7.5	7.6
3	7.2	7.1	7.2	---	---	---	7.2	7.1	7.2	7.6	7.6	7.6
4	7.2	7.1	7.2	7.1	6.9	7.1	7.3	7.2	7.2	7.6	7.5	7.5
5	7.3	7.2	7.2	7.3	7.1	7.1	7.3	7.2	7.3	7.7	7.6	7.6
6	7.3	7.2	7.3	7.4	7.2	7.3	7.4	7.3	7.3	7.6	7.5	7.6
7	7.3	7.2	7.3	7.4	7.3	7.3	7.5	7.4	7.4	7.6	7.5	7.5
8	7.3	7.2	7.3	7.4	7.3	7.4	7.5	7.4	7.5	7.6	7.5	7.6
9	7.4	7.2	7.3	7.7	7.4	7.5	7.5	7.4	7.4	7.6	7.6	7.6
10	7.4	7.2	7.3	7.7	7.6	7.7	7.7	7.4	7.6	7.7	7.6	7.6
11	7.4	7.3	7.3	7.7	7.6	7.6	7.7	7.2	7.6	7.7	7.6	7.6
12	7.5	7.2	7.4	7.7	7.6	7.6	7.6	7.2	7.2	7.8	7.7	7.7
13	7.7	7.3	7.4	7.7	7.6	7.6	7.3	7.2	7.2	7.8	7.7	7.8
14	7.7	7.2	7.5	7.7	7.7	7.7	7.4	7.3	7.3	7.7	7.7	7.7
15	7.5	7.2	7.3	7.8	7.7	7.8	7.5	7.4	7.4	7.8	7.6	7.7
16	7.3	7.1	7.2	7.8	7.7	7.8	7.5	7.4	7.5	---	---	---
17	7.1	7.0	7.0	7.9	7.7	7.8	7.5	7.5	7.5	7.9	7.8	7.8
18	7.1	6.9	7.0	7.9	7.9	7.9	7.6	7.5	7.6	7.9	7.8	7.9
19	7.2	7.0	7.1	7.9	7.8	7.9	7.6	7.6	7.6	7.9	7.9	7.9
20	7.3	7.1	7.2	7.8	7.6	7.7	7.6	7.6	7.6	7.9	7.8	7.9
21	7.5	7.2	7.3	7.8	7.3	7.7	7.6	7.6	7.6	7.9	7.9	7.9
22	7.5	7.3	7.4	7.4	7.3	7.3	7.6	7.6	7.6	7.9	7.8	7.9
23	7.6	7.4	7.5	7.5	7.3	7.4	7.6	7.6	7.6	7.9	7.8	7.9
24	7.7	7.4	7.6	7.6	7.4	7.5	7.7	7.5	7.6	7.9	7.9	7.9
25	7.8	7.4	7.6	7.6	7.5	7.6	7.7	7.4	7.5	8.0	7.9	7.9
26	7.7	7.4	7.6	7.7	7.6	7.6	7.4	7.4	7.4	8.0	7.9	8.0
27	---	---	---	7.6	7.5	7.6	7.4	7.4	7.4	8.0	7.9	7.9
28	7.1	7.0	7.1	7.6	7.5	7.6	7.5	7.4	7.5	8.0	7.9	7.9
29	7.0	6.6	6.7	7.8	7.6	7.8	7.5	7.4	7.5	8.0	8.0	8.0
30	6.7	6.6	6.7	7.6	7.5	7.6	7.5	7.5	7.5	8.0	7.9	8.0
31	6.7	6.6	6.6	---	---	---	7.5	7.5	7.5	8.0	8.0	8.0
MAX	7.8	7.4	7.6	7.9	7.9	7.9	7.7	7.6	7.6	8.0	8.0	8.0
MIN	6.7	6.6	6.6	6.7	6.6	6.7	7.1	7.0	7.0	7.6	7.5	7.5
	FEBRUARY			MARCH			APRIL			MAY		
1	8.0	8.0	8.0	9.5	9.2	9.4	---	---	---	7.7	7.2	7.4
2	8.0	8.0	8.0	9.4	9.2	9.3	---	---	---	7.6	6.9	7.2
3	8.0	8.0	8.0	9.4	9.1	9.2	---	---	---	7.5	7.0	7.2
4	8.0	7.9	8.0	9.2	8.5	8.9	---	---	---	7.4	7.0	7.3
5	8.0	7.9	8.0	---	---	---	---	---	---	7.3	6.9	7.1
6	8.0	7.7	7.9	---	---	---	---	---	---	7.6	6.8	7.4
7	7.8	7.7	7.7	---	---	---	9.0	8.0	8.7	7.6	7.3	7.4
8	7.8	7.7	7.8	---	---	---	8.8	8.0	8.6	7.6	7.2	7.4
9	8.0	7.8	7.8	---	---	---	9.0	7.6	8.5	7.6	7.2	7.3
10	8.0	7.8	7.9	---	---	---	9.0	8.1	8.7	7.8	7.3	7.6
11	8.0	7.8	8.0	---	---	---	8.8	7.8	8.0	7.8	7.4	7.6
12	8.1	7.9	8.0	---	---	---	8.6	7.6	8.1	7.6	7.4	7.5
13	8.2	8.0	8.1	8.5	7.6	8.0	8.1	7.4	7.7	7.6	7.3	7.4
14	8.4	8.0	8.1	8.8	7.7	8.2	7.5	7.2	7.3	7.6	7.3	7.4
15	8.5	8.2	8.3	9.0	7.8	8.6	7.6	7.3	7.4	7.6	7.2	7.5
16	8.5	8.3	8.4	8.8	7.8	8.1	7.5	7.2	7.3	7.6	7.2	7.3
17	8.7	8.3	8.6	8.9	7.8	8.4	8.0	7.3	7.5	7.6	7.3	7.5
18	8.8	8.6	8.7	9.2	8.0	8.8	8.1	7.2	7.6	7.6	7.3	7.4
19	8.9	8.6	8.8	9.2	8.3	8.9	---	---	---	7.7	7.4	7.6
20	9.0	8.7	8.8	9.2	8.3	8.9	8.5	7.6	8.3	7.8	7.4	7.6
21	9.0	8.8	8.9	9.0	8.0	8.7	8.6	7.5	8.3	7.8	7.6	7.6
22	9.1	8.8	9.0	9.2	7.9	8.8	8.7	7.5	8.4	8.0	7.4	7.6
23	9.2	8.9	9.0	9.2	8.3	8.9	8.4	7.5	7.9	8.2	7.7	7.8
24	9.1	8.9	9.0	9.1	7.7	8.9	8.6	7.3	8.0	8.4	7.6	7.9
25	9.3	8.8	9.1	9.1	7.9	8.4	8.6	7.6	7.8	8.6	7.9	8.2
26	9.4	9.0	9.2	9.1	7.6	8.4	7.7	7.2	7.4	8.3	7.8	8.0
27	9.5	9.2	9.3	---	---	---	7.3	7.0	7.2	8.2	7.8	7.9
28	9.5	9.2	9.3	---	---	---	7.3	7.0	7.1	8.0	7.7	7.8
29	9.5	9.2	9.4	---	---	---	7.8	7.0	7.5	7.8	7.6	7.7
30	---	---	---	---	---	---	8.0	7.2	7.6	7.9	7.6	7.7
31	---	---	---	---	---	---	---	---	---	7.7	7.6	7.6
MAX	9.5	9.2	9.4	---	---	---	---	---	---	8.6	7.9	8.2
MIN	7.8	7.7	7.7	---	---	---	---	---	---	7.3	6.8	7.1

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	7.9	7.6	7.8	8.8	7.9	8.5	7.6	7.4	7.5	8.0	7.7	7.8
2	8.1	7.8	7.9	8.9	7.7	8.6	7.8	7.5	7.7	7.8	7.5	7.7
3	8.1	7.8	7.9	8.7	7.5	8.5	7.9	7.6	7.8	7.7	7.4	7.5
4	8.2	7.7	7.9	8.8	7.3	8.4	8.0	7.7	7.8	8.1	7.6	7.8
5	8.0	7.8	7.8	8.6	7.6	8.1	7.9	7.6	7.7	7.9	7.7	7.8
6	7.9	7.6	7.7	9.1	8.1	8.7	8.1	7.7	7.8	8.4	7.7	8.0
7	8.0	7.7	7.9	9.0	8.3	8.7	8.1	7.7	7.9	8.5	7.9	8.2
8	8.2	7.7	8.0	8.8	8.0	8.5	8.3	7.7	7.9	8.5	8.1	8.2
9	8.5	7.9	8.1	8.8	7.5	8.2	8.5	7.8	8.1	8.1	7.7	7.8
10	8.4	7.8	8.0	8.7	7.7	8.2	8.6	7.8	8.3	7.7	7.6	7.6
11	8.2	7.7	8.0	8.9	7.8	8.3	8.7	7.9	8.3	7.6	7.4	7.5
12	8.6	7.6	8.1	8.6	7.6	7.8	8.7	7.9	8.2	7.5	7.4	7.4
13	8.7	7.9	8.3	7.7	7.5	7.6	8.6	7.7	8.2	7.6	7.4	7.5
14	8.7	8.0	8.3	7.6	7.5	7.5	7.7	7.0	7.1	7.8	7.5	7.6
15	---	---	---	7.6	7.4	7.5	7.2	7.0	7.1	7.8	7.6	7.6
16	---	---	---	7.8	7.6	7.7	7.3	7.1	7.2	7.9	7.6	7.7
17	---	---	---	8.0	7.6	7.8	7.4	7.3	7.4	7.9	7.6	7.7
18	---	---	---	7.8	7.7	7.7	7.4	7.3	7.4	7.9	7.4	7.7
19	8.8	8.2	8.6	7.9	7.7	7.8	7.4	7.3	7.4	7.7	7.0	7.1
20	8.8	8.1	8.5	8.1	7.8	7.9	7.6	7.3	7.4	7.2	7.0	7.1
21	8.9	8.1	8.6	8.1	7.8	7.9	7.6	7.5	7.5	7.3	7.2	7.2
22	9.0	8.2	8.6	8.2	7.8	8.0	7.6	7.5	7.5	7.3	7.3	7.3
23	9.1	7.9	8.8	8.0	7.8	7.8	7.5	7.5	7.5	7.4	7.3	7.3
24	9.0	8.0	8.6	7.8	7.6	7.7	7.6	7.5	7.6	---	---	---
25	9.0	7.8	8.5	8.0	7.7	7.8	7.7	7.5	7.6	---	---	---
26	8.8	7.9	8.2	8.2	7.8	7.9	7.8	7.6	7.7	---	---	---
27	8.6	7.5	8.2	7.9	7.6	7.8	7.8	7.6	7.7	---	---	---
28	8.7	7.3	8.1	7.7	7.3	7.5	8.0	7.6	7.8	---	---	---
29	8.8	7.5	8.4	7.7	7.6	7.6	8.1	7.7	7.8	---	---	---
30	8.9	8.0	8.5	7.6	7.3	7.4	8.0	7.7	7.8	---	---	---
31	---	---	---	7.5	7.4	7.4	8.1	7.7	7.8	---	---	---
MAX	9.1	8.2	8.8	9.1	8.3	8.7	8.7	7.9	8.3	---	---	---
MIN	7.9	7.3	7.7	7.5	7.3	7.4	7.2	7.0	7.1	---	---	---
YEAR	MAX			MAXIMUM 9.5	MINIMUM 6.7							
	MIN			MAXIMUM 9.2	MINIMUM 6.6							
	MEDIAN			MAXIMUM 9.4	MINIMUM 6.6							

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	124	115	118	107	94	102	119	114	116	141	133	137
2	131	118	125	116	105	110	119	114	116	144	140	142
3	140	131	136	---	---	---	125	119	121	148	144	146
4	146	140	144	132	125	128	130	124	126	154	148	151
5	158	146	150	137	129	133	136	130	133	154	149	152
6	158	155	156	146	137	141	146	136	141	149	124	138
7	156	146	150	145	137	141	151	146	149	129	122	123
8	155	147	150	143	138	140	156	151	153	133	124	128
9	158	154	156	150	142	145	158	156	157	139	133	136
10	167	156	162	155	147	150	167	157	163	150	139	145
11	174	166	170	158	153	155	179	120	156	162	150	156
12	182	172	176	164	155	159	183	111	147	180	162	173
13	182	178	181	163	160	162	111	98	102	183	168	177
14	189	181	185	163	152	159	111	99	102	168	162	164
15	189	181	185	154	151	153	136	109	123	167	162	164
16	197	172	186	161	153	157	139	132	136	---	---	---
17	172	141	153	168	159	165	141	136	138	200	182	191
18	147	136	140	172	166	169	161	140	156	205	196	200
19	153	143	145	178	168	173	159	148	153	202	196	198
20	153	144	149	170	145	157	149	147	148	197	188	194
21	156	150	153	161	104	135	154	149	152	203	193	197
22	157	147	153	105	95	98	154	152	153	205	194	200
23	157	135	152	110	98	103	159	154	156	208	195	203
24	166	153	160	117	109	112	164	147	156	209	205	207
25	177	163	169	128	116	122	163	122	147	224	207	214
26	173	162	167	132	128	130	122	102	108	227	219	223
27	---	---	---	134	130	132	112	102	106	227	220	224
28	159	140	152	139	134	136	123	112	117	230	224	227
29	140	104	114	151	139	144	136	122	127	232	226	229
30	110	93	100	139	116	123	138	130	133	238	231	235
31	98	89	92	---	---	---	133	129	130	238	230	235
MONTH	197	89	151	178	94	139	183	98	136	238	122	180
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	233	228	231	261	250	255	162	156	159	155	151	153
2	234	227	230	253	244	249	166	161	164	162	154	159
3	231	227	229	250	241	245	168	160	165	166	161	164
4	264	231	240	243	224	237	163	155	159	170	154	163
5	311	264	284	---	---	---	163	157	161	154	137	143
6	311	223	276	---	---	---	168	162	164	148	137	142
7	299	196	240	---	---	---	164	157	161	147	145	146
8	285	257	263	---	---	---	170	158	165	152	147	149
9	264	246	254	---	---	---	176	167	171	153	148	150
10	259	249	256	---	---	---	179	175	178	157	150	155
11	262	252	256	---	---	---	180	177	178	159	156	157
12	255	246	251	---	---	---	184	178	180	158	149	155
13	249	243	245	150	145	147	187	180	183	157	149	153
14	251	245	248	153	149	150	192	178	184	149	139	143
15	253	248	250	160	153	157	192	166	176	142	138	139
16	252	248	250	166	160	163	170	157	162	148	140	143
17	256	248	252	168	163	166	161	156	159	155	146	152
18	264	255	259	179	168	176	166	160	162	156	155	156
19	269	259	264	192	179	188	---	---	---	160	156	157
20	263	251	257	211	191	202	---	---	---	165	160	163
21	258	252	254	217	203	210	---	---	---	166	164	165
22	257	249	253	211	205	208	---	---	---	173	166	169
23	253	246	250	209	194	203	---	---	---	179	173	176
24	250	242	247	197	190	194	---	---	---	187	179	182
25	250	247	248	195	190	193	---	---	---	193	186	189
26	255	249	252	196	192	194	181	170	175	197	192	195
27	256	250	253	199	186	194	183	170	176	192	186	189
28	258	252	256	190	182	187	183	150	169	205	184	191
29	260	254	257	184	170	179	151	148	150	186	163	176
30	---	---	---	171	157	162	154	149	150	170	159	162
31	---	---	---	160	154	157	---	---	---	161	156	159
MONTH	311	196	252	---	---	---	---	---	---	205	137	161

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	16.4	15.6	15.8	11.3	10.6	10.9	6.8	6.2	6.6	4.0	3.5	3.8
2	15.6	14.5	15.0	12.2	11.3	11.8	6.2	5.0	5.8	4.1	3.6	3.9
3	14.5	13.4	13.9	---	---	---	5.0	4.0	4.4	4.9	4.1	4.5
4	13.8	12.6	13.0	13.4	12.8	13.1	4.0	3.3	3.5	5.6	4.9	5.3
5	12.8	11.9	12.4	13.3	13.1	13.2	3.3	2.4	2.8	5.6	5.4	5.6
6	12.7	11.5	12.1	13.1	12.9	13.1	2.4	1.5	1.9	5.4	4.1	4.9
7	12.7	11.4	12.2	13.0	12.5	12.8	1.9	1.5	1.7	4.1	2.2	3.1
8	13.0	12.0	12.5	12.5	10.8	11.6	2.2	1.4	1.8	2.2	1.2	1.6
9	13.9	12.5	13.2	10.8	9.3	9.9	2.3	1.8	2.1	1.2	0.4	0.9
10	14.2	13.5	13.9	9.3	7.9	8.3	3.4	2.2	2.7	0.4	0.0	0.0
11	15.3	14.0	14.6	8.0	7.0	7.3	6.4	3.4	4.8	0.2	0.0	0.0
12	16.0	14.9	15.3	7.8	7.2	7.4	6.2	5.0	5.8	0.8	0.0	0.2
13	16.3	15.2	15.7	8.0	7.4	7.8	5.0	3.9	4.4	1.4	0.8	1.0
14	15.8	15.4	15.7	7.4	6.7	7.0	3.9	3.1	3.4	0.9	0.1	0.3
15	15.8	14.8	15.5	7.4	6.8	7.1	3.1	2.3	2.6	0.2	0.0	0.0
16	14.8	13.8	14.3	7.1	6.6	6.9	2.5	2.1	2.3	---	---	---
17	14.3	13.0	13.6	7.5	6.9	7.2	2.9	2.3	2.6	0.2	0.0	0.1
18	13.0	12.2	12.6	7.9	7.2	7.5	3.3	2.9	3.0	0.4	0.0	0.2
19	12.6	11.9	12.2	9.9	7.9	8.8	3.1	2.9	3.0	0.7	0.0	0.3
20	12.1	11.2	11.7	10.6	9.9	10.4	3.1	2.8	2.9	0.6	0.0	0.3
21	12.0	11.2	11.7	10.1	9.1	9.5	2.8	2.4	2.6	0.3	0.0	0.1
22	12.2	11.5	11.9	9.1	8.3	8.7	2.5	2.1	2.4	0.3	0.0	0.1
23	11.5	10.1	10.8	8.4	8.0	8.2	3.5	2.4	2.9	0.2	0.0	0.0
24	10.3	9.5	9.9	8.7	8.0	8.3	5.2	3.5	4.3	0.1	0.0	0.0
25	10.0	9.1	9.7	8.6	8.1	8.3	5.1	4.1	4.8	0.1	0.0	0.0
26	10.7	9.8	10.3	8.1	7.4	7.7	4.1	3.4	3.7	0.0	0.0	0.0
27	---	---	---	7.4	7.0	7.2	3.7	3.3	3.5	0.0	0.0	0.0
28	12.6	11.9	12.4	7.7	7.0	7.2	3.8	3.4	3.6	0.0	0.0	0.0
29	11.9	11.2	11.4	7.9	7.5	7.7	3.8	3.3	3.5	0.0	0.0	0.0
30	11.2	10.5	10.8	7.6	6.8	7.2	4.0	3.4	3.7	0.0	0.0	0.0
31	10.6	10.2	10.4	---	---	---	4.0	3.5	3.8	0.1	0.0	0.0
MONTH	16.4	9.1	12.8	13.4	6.6	9.0	6.8	1.4	3.4	5.6	0.0	1.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	0.1	0.0	0.0	6.6	5.2	5.9	9.6	9.0	9.3	17.2	15.0	16.0
2	0.0	0.0	0.0	7.1	5.9	6.5	9.5	8.7	9.0	17.8	16.8	17.3
3	0.0	0.0	0.0	7.7	6.5	7.1	8.7	8.4	8.6	17.8	16.4	17.3
4	1.0	0.0	0.3	7.5	6.6	7.1	8.7	7.9	8.5	16.4	15.4	15.8
5	2.2	0.9	1.6	---	---	---	7.9	6.7	7.3	15.5	14.2	14.7
6	2.2	1.0	1.9	---	---	---	8.1	6.4	7.3	15.4	13.7	14.7
7	2.2	0.9	1.6	---	---	---	9.2	7.7	8.4	15.9	14.2	15.1
8	2.2	1.1	1.5	---	---	---	9.1	8.4	8.9	16.3	14.8	15.6
9	1.6	0.7	1.2	---	---	---	10.6	8.8	9.6	16.9	15.0	15.9
10	3.0	1.6	2.3	---	---	---	11.3	9.6	10.5	18.0	16.3	17.2
11	3.6	2.7	3.0	---	---	---	10.8	9.8	10.3	19.7	17.5	18.5
12	3.0	2.6	2.9	---	---	---	10.2	9.6	9.9	20.5	18.8	19.7
13	3.4	2.3	2.8	5.8	4.6	5.2	9.6	9.0	9.2	21.4	19.6	20.5
14	3.7	2.7	3.1	5.5	4.5	5.0	9.5	9.2	9.4	21.1	19.7	20.4
15	3.2	2.1	2.8	6.3	4.8	5.6	10.3	8.9	9.6	21.7	19.7	20.8
16	2.3	1.4	1.8	6.2	4.3	5.1	10.8	9.2	10.0	22.1	20.5	21.4
17	2.2	1.3	1.7	4.3	4.0	4.2	12.4	10.1	11.1	22.0	20.7	21.3
18	3.4	1.9	2.5	5.0	3.8	4.4	13.8	11.7	12.7	21.4	20.4	21.0
19	4.0	2.5	3.2	5.4	4.2	4.9	---	---	---	21.4	20.4	20.9
20	4.1	3.2	3.6	6.2	4.7	5.5	16.4	14.9	15.7	21.5	20.0	20.7
21	5.0	3.8	4.4	6.6	5.9	6.2	16.3	15.3	15.9	20.8	20.1	20.5
22	5.2	4.2	4.6	6.2	5.2	5.8	17.1	15.4	16.3	22.8	20.4	21.4
23	5.2	4.1	4.6	6.2	4.8	5.6	17.2	16.4	16.9	23.9	22.0	22.9
24	4.9	4.0	4.6	6.7	5.1	6.0	16.9	15.4	16.1	25.2	23.3	24.1
25	4.3	3.1	3.7	6.8	6.4	6.6	16.3	14.3	15.2	25.6	23.8	24.6
26	4.1	3.0	3.5	8.5	6.8	7.5	14.3	13.4	13.8	24.5	22.2	23.3
27	4.5	3.4	3.9	9.4	8.3	8.8	13.9	12.8	13.4	23.0	21.7	22.3
28	5.3	3.5	4.3	10.7	9.3	9.9	13.9	12.4	13.1	22.8	22.0	22.5
29	6.1	4.3	5.1	11.1	9.9	10.6	14.2	12.2	13.2	22.1	20.5	21.1
30	---	---	---	10.8	9.8	10.1	15.7	13.4	14.5	21.2	19.5	20.5
31	---	---	---	9.8	9.2	9.4	---	---	---	20.9	19.1	19.9
MONTH	6.1	0.0	2.6	---	---	---	17.2	6.4	11.5	25.6	13.7	19.6

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/- 2.5 DEGREES, FNU,
YSI TURBIDIMETER 6026
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20	5.7	12	29	8.1	16	10	3.9	6.5	6.4	2.9	4.4
2	7.8	2.9	5.7	16	7.6	11	8.7	2.9	5.6	5.1	2.7	3.8
3	7.8	3.5	6.1	---	---	---	5.0	2.5	3.6	5.3	3.0	4.3
4	8.9	3.0	4.7	---	---	---	3.4	<2.0	2.4	4.8	3.0	3.9
5	4.9	2.5	3.4	6.9	<2.0	2.9	2.9	<2.0	2.0	10	3.1	4.9
6	3.7	<2.0	2.7	13	<2.0	4.8	3.2	<2.0	<2.0	10	5.6	8.0
7	4.0	<2.0	2.3	4.4	<2.0	2.9	2.5	<2.0	<2.0	11	4.5	8.8
8	3.5	<2.0	2.3	4.6	<2.0	2.6	3.3	<2.0	<2.0	8.3	4.8	6.1
9	4.0	<2.0	2.7	3.6	<2.0	2.3	3.1	<2.0	<2.0	5.4	<2.0	3.7
10	3.7	<2.0	2.6	3.0	<2.0	2.0	2.9	<2.0	<2.0	4.5	2.3	3.1
11	3.7	<2.0	2.6	2.6	<2.0	<2.0	250	<2.0	84	3.6	<2.0	2.8
12	5.8	<2.0	3.0	2.6	<2.0	<2.0	120	14	46	4.6	2.4	3.2
13	4.1	<2.0	2.5	2.4	<2.0	<2.0	41	15	27	3.9	<2.0	3.0
14	3.0	<2.0	<2.0	2.6	<2.0	<2.0	26	5.5	14	3.9	<2.0	3.0
15	16	<2.0	7.0	2.3	<2.0	<2.0	16	6.3	9.8	3.5	<2.0	2.7
16	21	6.0	10	2.2	<2.0	<2.0	9.0	4.0	6.7	---	---	---
17	11	4.1	6.9	2.9	<2.0	<2.0	28	4.2	11	3.8	<2.0	2.3
18	8.6	4.5	6.1	2.7	<2.0	<2.0	21	6.7	13	3.4	<2.0	2.2
19	6.6	3.6	4.9	30	<2.0	3.4	8.2	3.0	5.9	3.5	<2.0	2.3
20	4.9	<2.0	3.1	81	11	41	5.4	2.1	3.9	2.9	<2.0	<2.0
21	3.2	<2.0	<2.0	23	5.2	11	4.2	<2.0	3.1	2.2	<2.0	<2.0
22	3.3	<2.0	<2.0	30	8.6	15	4.3	2.2	3.1	3.3	<2.0	<2.0
23	2.2	<2.0	<2.0	11	2.6	6.0	3.9	<2.0	2.7	4.4	<2.0	<2.0
24	2.5	<2.0	<2.0	6.0	2.2	4.1	59	<2.0	20	<2.0	<2.0	<2.0
25	3.2	<2.0	<2.0	5.0	<2.0	3.2	42	11	24	<2.0	<2.0	<2.0
26	<2.0	<2.0	<2.0	4.3	<2.0	2.8	50	14	26	<2.0	<2.0	<2.0
27	---	---	---	3.6	<2.0	2.1	31	6.1	14	<2.0	<2.0	<2.0
28	110	9.8	41	2.8	<2.0	<2.0	13	5.3	8.9	<2.0	<2.0	<2.0
29	37	9.0	22	21	2.6	9.7	9.0	4.1	6.1	<2.0	<2.0	<2.0
30	65	15	27	25	3.2	9.3	6.7	3.5	5.3	<2.0	<2.0	<2.0
31	43	15	29	---	---	---	6.7	3.8	5.4	<2.0	<2.0	<2.0
MONTH	110	<2.0	---	81	<2.0	---	250	<2.0	---	11	<2.0	---
	FEBRUARY			MARCH			APRIL			MAY		
1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	4.3	<2.0	<2.0	---	---	---
2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.8	<2.0	<2.0	---	---	---
3	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.2	<2.0	<2.0	---	---	---
4	7.5	<2.0	2.8	2.1	<2.0	<2.0	<2.0	<2.0	<2.0	---	---	---
5	8.3	3.0	5.2	---	---	---	2.1	<2.0	<2.0	---	---	---
6	51	2.1	16	---	---	---	<2.0	<2.0	<2.0	---	---	---
7	44	21	30	---	---	---	<2.0	<2.0	<2.0	4.4	<2.0	<2.0
8	28	11	21	---	---	---	<2.0	<2.0	<2.0	3.8	<2.0	<2.0
9	15	5.1	9.5	---	---	---	<2.0	<2.0	<2.0	3.1	<2.0	<2.0
10	7.8	2.3	4.7	---	---	---	<2.0	<2.0	<2.0	3.1	<2.0	<2.0
11	5.5	2.3	3.7	---	---	---	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
12	3.2	<2.0	2.4	---	---	---	<2.0	<2.0	<2.0	4.0	<2.0	<2.0
13	3.0	<2.0	2.1	3.9	<2.0	<2.0	33	<2.0	9.4	2.8	<2.0	<2.0
14	2.4	<2.0	<2.0	<2.0	<2.0	<2.0	89	7.3	30	6.5	<2.0	2.1
15	2.2	<2.0	<2.0	<2.0	<2.0	<2.0	18	4.6	11	7.1	<2.0	3.0
16	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	7.2	<2.0	2.9	8.6	<2.0	3.3
17	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	5.5	<2.0	2.5	9.5	<2.0	5.2
18	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	4.1	<2.0	2.2	3.1	<2.0	<2.0
19	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	---	---	---	5.7	<2.0	3.3
20	<2.0	<2.0	<2.0	2.1	<2.0	<2.0	2.6	<2.0	<2.0	5.1	2.0	3.0
21	<2.0	<2.0	<2.0	5.9	<2.0	3.2	3.1	<2.0	<2.0	5.3	<2.0	3.2
22	<2.0	<2.0	<2.0	3.0	<2.0	<2.0	2.9	<2.0	<2.0	5.4	<2.0	3.1
23	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.2	<2.0	<2.0	7.3	2.2	5.0
24	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.5	<2.0	<2.0	3.5	<2.0	2.2
25	2.6	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	<2.0	<2.0	5.8	<2.0	2.3
26	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	3.0	<2.0	<2.0	4.4	<2.0	2.3
27	<2.0	<2.0	<2.0	2.1	<2.0	<2.0	13	<2.0	6.4	3.6	<2.0	<2.0
28	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	4.5	<2.0	2.9	5.7	<2.0	2.8
29	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	8.1	2.1	4.2	7.7	<2.0	3.8
30	---	---	---	<2.0	<2.0	<2.0	---	---	---	4.8	<2.0	2.7
31	---	---	---	3.7	<2.0	<2.0	---	---	---	---	---	---
MONTH	51	<2.0	---	---	<2.0	---	89	<2.0	---	9.5	<2.0	---

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

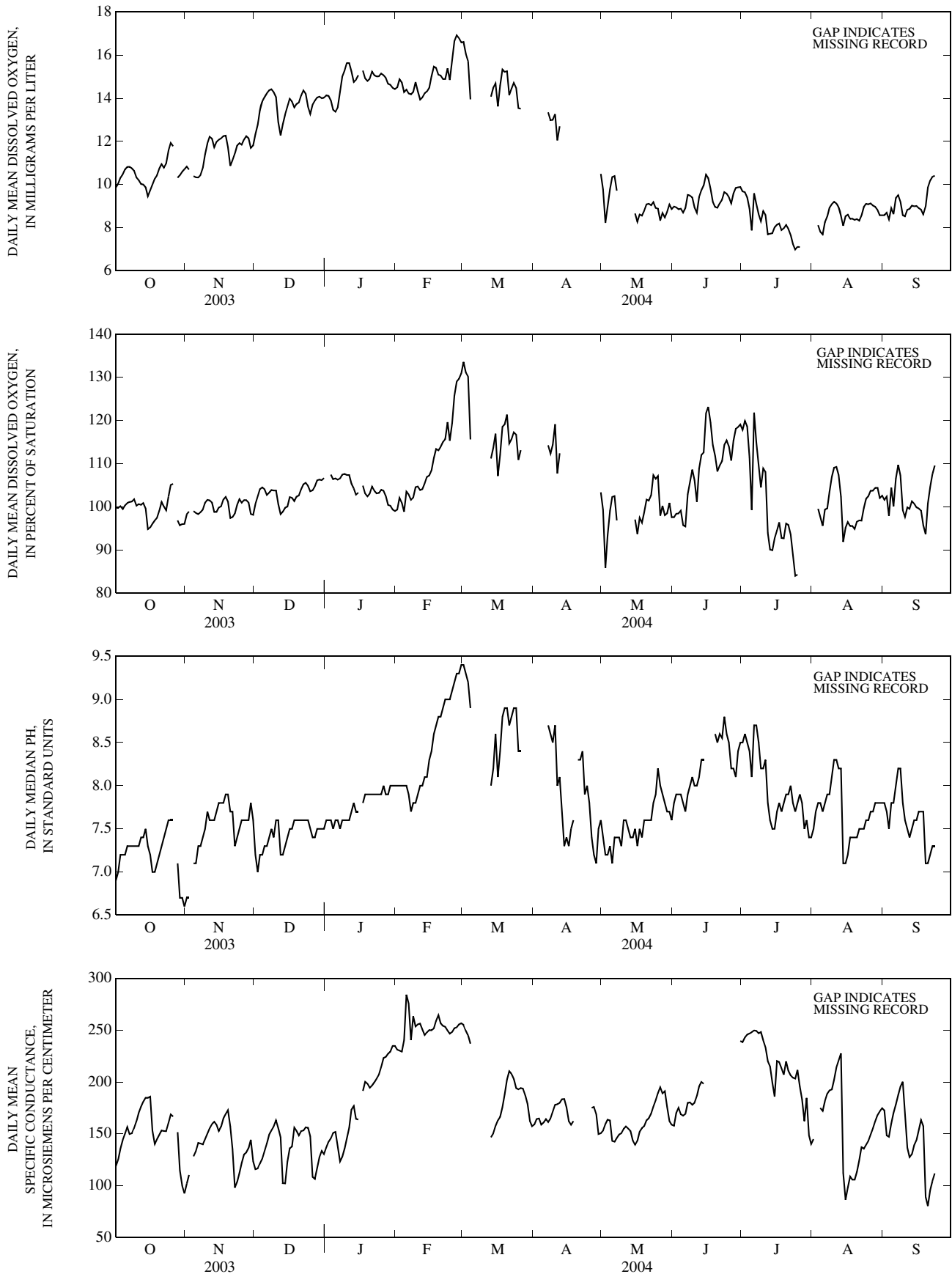


Figure 33. Daily mean water-quality-monitor values recorded at 01463500 Delaware River at Trenton, water year 2004.

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued

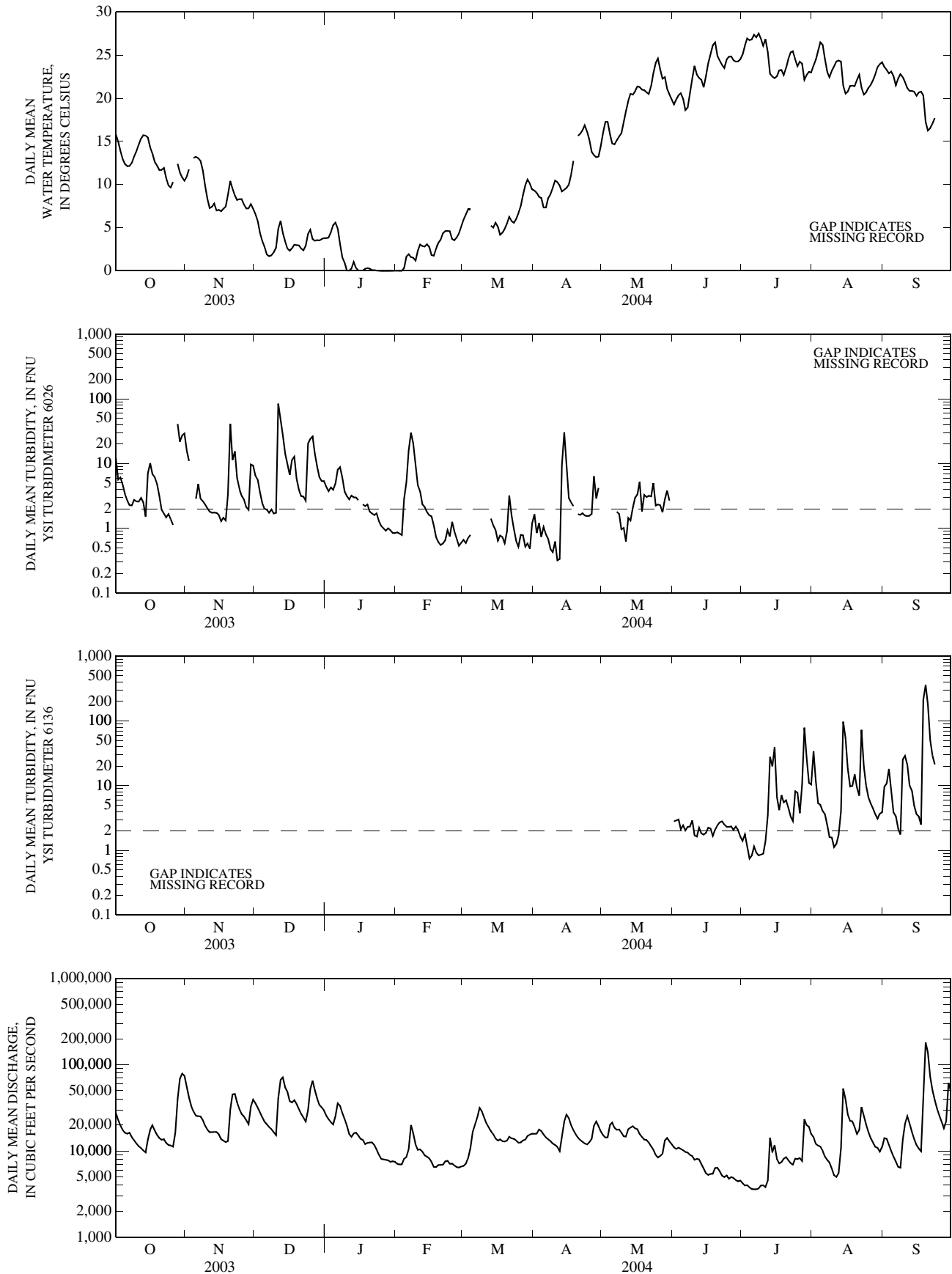
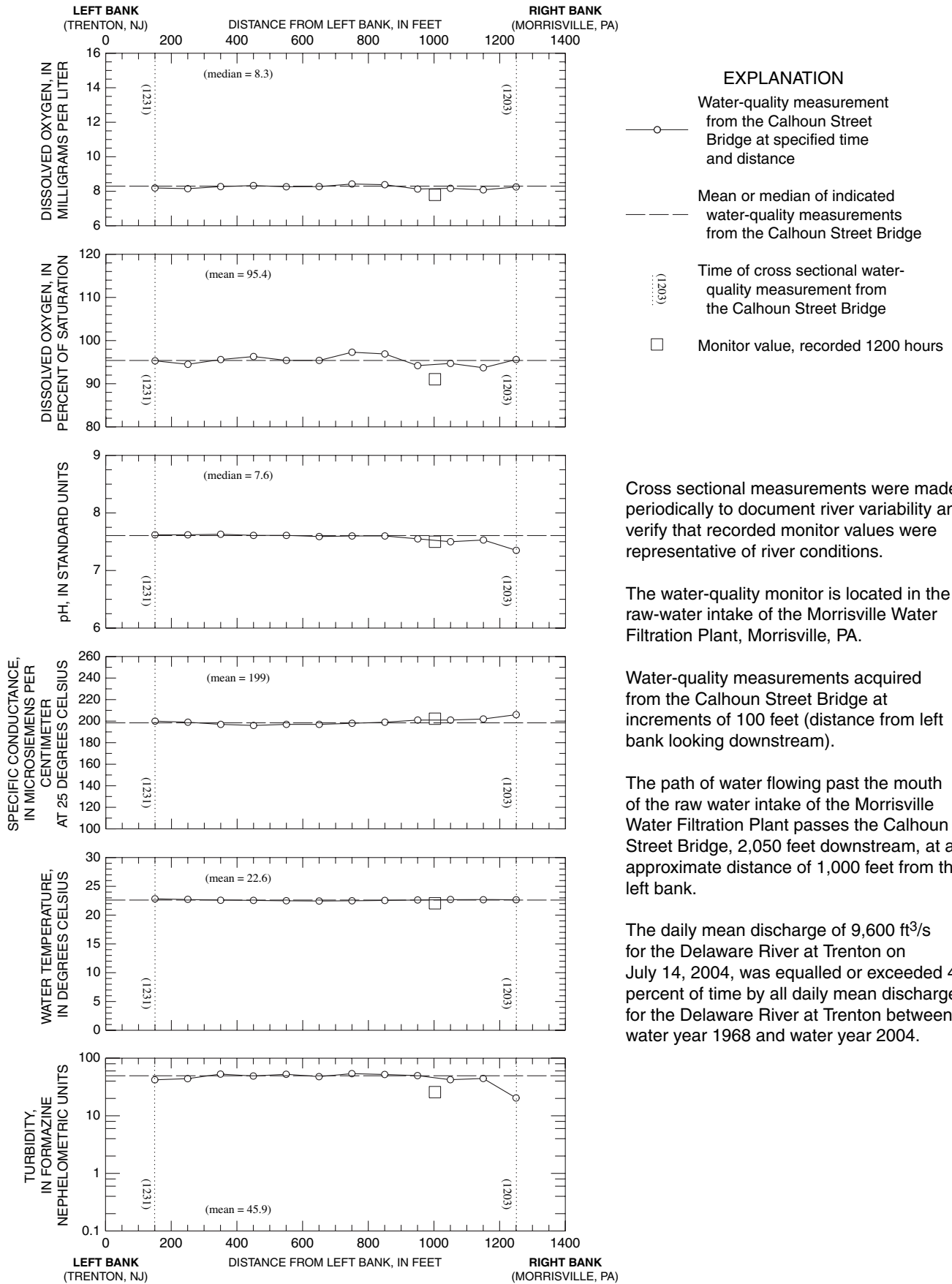


Figure 33. Daily mean water-quality-monitor values recorded at 01463500 Delaware River at Trenton, water year 2004--continued. [--- turbidimeter instrument detection level; values less than 2.0 FNU are approximate]

01463500 DELAWARE RIVER AT TRENTON, NJ—Continued



Cross sectional measurements were made periodically to document river variability and verify that recorded monitor values were representative of river conditions.

The water-quality monitor is located in the raw-water intake of the Morrisville Water Filtration Plant, Morrisville, PA.

Water-quality measurements acquired from the Calhoun Street Bridge at increments of 100 feet (distance from left bank looking downstream).

The path of water flowing past the mouth of the raw water intake of the Morrisville Water Filtration Plant passes the Calhoun Street Bridge, 2,050 feet downstream, at an approximate distance of 1,000 feet from the left bank.

The daily mean discharge of 9,600 ft³/s for the Delaware River at Trenton on July 14, 2004, was equalled or exceeded 44 percent of time by all daily mean discharges for the Delaware River at Trenton between water year 1968 and water year 2004.

Figure 34. Cross sectional water-quality measurements with recorded monitor values, at Delaware River at Trenton, July 14, 2004.

01463610 ASSUNPINK CREEK AT EDINBURG, NJ

LOCATION.--Lat 40°15'28", long 74°37'04", Mercer County, Hydrologic Unit 02040105, 0.1 mi west of Edinburg, 0.7 mi upstream of Bridgeroom Run, and 1.7 miles south of Dutch Neck.

DRAINAGE AREA.--25.0 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	Calcium water, mg/L (00915)
DEC 04...	0830	6.1	.113	.088	772	12.9	92	6.7	154	-2.5	1.6	37	8.05
MAR 08...	0930	41	.133	.103	755	10.2	85	6.7	188	1.5	7.1	44	10.4
MAY 11...	0900	7.3	.219	.170	764	7.2	79	6.8	155	20.5	20.1	38	8.58
AUG 24...	1000	6.2	.219	.175	766	6.5	72	6.7	154	25.0	20.7	42	9.47
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)
DEC 04...	4.13	3.18	8.74	8	20.5	<.2	7.0	20.9	83	88	2	.20	.070
MAR 08...	4.40	2.77	15.7	10	29.6	<.2	5.2	20.9	101	107	36	.50	.204
MAY 11...	4.03	2.24	10.3	15	21.2	<.2	3.4	15.4	79	96	4	.30	.084
AUG 24...	4.36	2.39	9.57	22	20.7	<.2	4.6	12.2	79	87	<1	.38	.043
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
DEC 04...	.070	1.30	.009	.04	<.020	.014	.040	1.5	1.5	.5	<.1	.5	2.9
MAR 08...	--	1.40	.023	.19	<.020	.011	.018	1.9	2.1	1.6	<.1	1.6	4.0
MAY 11...	--	1.00	.025	.12	<.010	.006	.060	1.3	1.4	.8	<.1	.8	5.0
AUG 24...	--	.52	.009	.04	.023	.011	.047	.90	.94	.4	<.1	.4	5.2

01463610 ASSUNPINK CREEK AT EDINBURG, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 04...	<1.0	15
MAR 08...	2.3	14
MAY 11...	E1.7	16
AUG 24...	<1.0	18

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
MAR 08...	0930	<2	20.0	.18	19	.06	1.2	2.4	2,070	2.87	176	E.01	3.44
AUG 24...	1000	<2	43.7	E.05	20	<.04	<.8	E.5	1,540	.21	158	<.02	2.11

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
MAR 08...	<.4	<.16	15
AUG 24...	.6	<.16	3

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 11...	0900	.058	.64	<.03	<.01	E.155	.324	<.004	<.01	<.03	<.0096	.13	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 11...		<.01	.07	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 11...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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 05...	0845	20	<100	20
12...	0900	20	100	70
19...	0910	300	100	170
26...	0945	2,000	800	800
JUN 02...	0945	60	<100	300

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

01463850 MIRY RUN AT ROUTE 533, AT MERCERVILLE, NJ

LOCATION.--Lat 40°14'50", long 74°41'13", Mercer County, Hydrologic Unit 02040105, at bridge on County Route 533 (Quaker Bridge Road), 0.7 mi north of Mercerville, 2.1 mi upstream of Assunpink Creek, and 3.8 mi northwest of Robbinsville.

DRAINAGE AREA.--10.7 mi².

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

REMARKS.--For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. 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.--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. Analysis of the split and concurrent replicate samples was performed by the Laboratory Branch of the U.S. Environmental Protection Agency, Region II, Division of Environmental Science and Assessment.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	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)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd, uS/cm 25 degC (00095)
NOV											
05...	0910	Environmental	3.4	2.8	.315	.252	765	4.7	47	6.2	165
05...	0910	Split Replicate	--	--	--	--	--	--	--	--	--
05...	0911	Concurrent Replicate	--	2.9	--	--	--	--	--	--	--
FEB											
04...	1010	Environmental	49	28	.126	.099	762	12.9	--	6.5	--
04...	1010	Split Replicate	--	--	--	--	--	--	--	--	--
04...	1011	Concurrent Replicate	--	28	--	--	--	--	--	--	--
JUN											
08...	0900	Environmental	2.6	4.5	.205	.159	767	5.6	59	6.1	229
08...	0900	Split Replicate	--	--	--	--	--	--	--	--	--
08...	0901	Concurrent Replicate	--	5.3	--	--	--	--	--	--	--
AUG											
17...	0920	Environmental	4.3	5.3	.366	.284	766	6.0	67	6.7	183
17...	0920	Split Replicate	--	--	--	--	--	--	--	--	--
17...	0921	Concurrent Replicate	--	5.3	--	--	--	--	--	--	--

Date	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	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 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)
NOV													
05...	18.0	15.0	40	9.66	3.85	4.11	11.9	23	22.7	<.2	5.2	13.4	88
05...	--	--	41	9.70	4.00	4.50	12.0	23	25.0	.17	--	14.0	87
05...	--	--	41	9.70	4.00	4.50	12.0	24	25.0	.15	--	14.0	87
FEB													
04...	6.0	1.1	62	15.6	5.60	4.72	71.5	16	128	<.2	5.6	18.0	266
04...	--	--	61	15.0	5.60	5.00	78.0	19	130	<.05	--	19.0	272
04...	--	--	61	15.0	5.60	5.00	79.0	19	130	.18	--	20.0	274
JUN													
08...	24.5	18.0	50	12.3	4.76	2.90	19.0	24	38.4	<.2	4.5	13.8	115
08...	--	--	47	11.0	4.70	3.10	18.0	25	41.0	.11	--	16.0	114
08...	--	--	47	11.0	4.70	3.10	18.0	25	40.0	.11	--	16.0	113
AUG													
17...	22.0	21.3	43	10.9	3.78	2.54	15.6	25	24.2	<.2	8.8	16.5	100
17...	--	--	38	9.50	3.50	2.60	13.0	24	27.0	<.10	--	13.0	86
17...	--	--	38	9.50	3.50	2.60	13.0	24	27.0	<.10	--	13.0	86

01463850 MIRY RUN AT ROUTE 533, AT MERCERVILLE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	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)	Particulate nitrogen, susp, water, mg/L (49570)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, water, fltrd, mg/L (00602)
NOV													
05...	102	4	.40	--	<.020	.027	.78	.013	.07	<.020	--	--	1.2
05...	120	<10	.53	.64	<.050	<.050	.830	<.050	--	<.050	<.050	<.050	1.4
05...	120	<10	.50	.60	<.050	<.050	.830	<.050	--	<.050	<.050	<.050	1.3
FEB													
04...	285	26	.80	--	.394	--	1.60	.015	.31	<.020	--	--	2.4
04...	290	31	1.4	1.8	.380	.400	1.60	<.050	--	<.050	<.050	.100	3.0
04...	290	32	1.4	1.9	.400	.410	1.60	<.050	--	<.050	<.050	.100	3.0
JUN													
08...	137	7	.40	--	.104	--	1.10	.027	.05	<.010	--	--	1.5
08...	150	<10	.64	.92	.110	.110	1.20	.026	--	.021	<.050	.066	1.8
08...	140	<10	.55	.98	.110	.110	1.20	.027	--	.020	<.050	.069	1.8
AUG													
17...	116	3	.53	--	.064	--	.64	.008	.14	.029	.038	.086	1.2
17...	130	<10	.24	.55	.059	.066	.600	<.050	--	.027	<.050	<.050	.84
17...	120	<10	.27	.45	.061	.059	.610	<.050	--	.027	<.050	<.050	.88

Date	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)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV							
05...	1.2	.6	<.1	.6	7.7	2.2	26
05...	1.5	--	--	--	7.6	--	30
05...	1.4	--	--	--	7.4	--	30
FEB							
04...	2.7	3.7	<.1	3.7	4.4	2.9	17
04...	3.4	--	--	--	4.8	--	<20
04...	3.5	--	--	--	5.1	--	<20
JUN							
08...	1.6	.4	<.1	.4	5.3	<1.0	27
08...	2.1	--	--	--	4.6	--	--
08...	2.2	--	--	--	4.8	--	--
AUG							
17...	1.3	1.6	<.1	1.5	7.9	E1.1	42
17...	1.1	--	--	--	6.0	--	30
17...	1.1	--	--	--	6.1	--	30

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 2003 TO SEPTEMBER 2004

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				
05...	0910	150	400	330
12...	0922	290	<100	1,100
19...	0922	3,000	2,600	5,000
26...	1005	8,800	12,000	9,000
JUN				
02...	1015	1,200	500	1,300

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

01464020 ASSUNPINK CREEK AT PEACE STREET, AT TRENTON, NJ

LOCATION.--Lat 40°13'02", long 74°46'07", Mercer County, Hydrologic Unit 02040105, at bridge on Peace Street in Trenton, 0.3 mi northwest of Trent House, and 0.7 mi southeast of Trenton Filtration Plant.

DRAINAGE AREA.--91.4 mi².

PERIOD OF RECORD.--Water years 1963, 1976-78, 1998 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	
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 unf 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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 24...	1330	234	11	.221	.173	760	10.5	96	6.9	222	--	11.0	59	
FEB 19...	1120	122	7.3	.093	.072	755	12.9	100	7.0	333	9.0	4.5	86	
MAY 18...	1420	91	5.9	.196	.150	762	8.1	90	6.6	313	27.0	20.5	80	
AUG 03...	1420	152	16	.220	.168	750	7.2	88	7.0	251	--	24.4	63	
NOV 24...	14.0	5.81	3.20	14.4	35	28.2	<.2	8.2	16.2	118	124	7	.40	
FEB 19...	20.1	8.64	3.42	27.5	37	51.8	<.2	8.3	24.5	181	200	5	.40	
MAY 18...	20.6	6.83	3.67	25.5	36	47.0	.2	6.0	21.9	168	194	5	.60	
AUG 03...	16.1	5.50	3.49	17.9	36	32.6	.2	7.0	20.2	133	145	15	.53	
NOV 24...	.070	.150	1.40	.006	.16	.139	--	.18	1.8	2.0	1.1	<.1	1.1	
FEB 19...	.120	--	3.10	.013	.15	.208	--	.26	3.5	3.6	2.3	<.1	2.3	
MAY 18...	.105	--	3.10	.039	.12	.286	.27	.36	3.7	3.8	.9	<.1	.9	
AUG 03...	.128	--	1.79	.018	.18	.188	.20	.31	2.3	2.5	1.6	<.1	1.6	

DELAWARE RIVER BASIN

01464020 ASSUNPINK CREEK AT PEACE STREET, AT TRENTON, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 24...	5.4	E1.6	39
FEB 19...	2.9	E1.2	39
MAY 18...	4.6	2.1	56
AUG 03...	5.4	<1.0	49

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 2003 TO SEPTEMBER 2004

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 05...	1040	190	500	300
12...	1055	3,400	11,000	>16,000
19...	1120	6,700	15,000	>16,000
26...	1135	7,600	76,000	>16,000
JUN 02...	1200	4,900	22,000	>16,000

Remark codes used in this table:

> -- Greater than

01464280 SOUTH RUN NEAR COOKSTOWN, NJ

LOCATION.--Lat 40°01'38", long 74°33'36", Burlington County, Hydrologic Unit 02040201, at bridge on Browns Mills-Cookstown Road, 1.5 mi south of Cookstown, 2.3 mi upstream from mouth, and 3.1 mi east of Wrightstown.

DRAINAGE AREA.--6.06 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 20.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 18...	0900													
FEB 09...	0900													
MAY 13...	0900													
AUG 26...	0900													
NOV 18...	4.32													
FEB 09...	3.21													
MAY 13...	4.52													
AUG 26...	4.49													
NOV 18...		.310	.48	.014	.03	<.020	<.002	<.002	1.1	1.1	.4	<.1	.4	3.5
FEB 09...		--	.36	.016	.09	<.020	<.002	<.002	.76	.85	1.0	<.1	1.0	7.5
MAY 13...		--	.43	.021	.10	<.010	<.020	.020	2.1	2.2	.8	<.1	.8	4.5
AUG 26...		--	.48	.025	.06	.010	<.004	.020	.85	.91	.4	<.1	.4	4.8

JUMPING BROOK BASIN

01464280 SOUTH RUN NEAR COOKSTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 18...	E2.2	36
FEB 09...	2.1	28
MAY 13...	<1.0	38
AUG 26...	3.3	45

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 09...	0900	<2	35.0	.20	25	.31	E.5	2.0	2,220	1.40	103	E.01	1.83
AUG 26...	0900	E2	52.4	.12	41	.13	<.8	.8	990	.22	57.5	<.02	1.87

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 09...	E.2	<.16	36
AUG 26...	.6	<.16	13

Remark codes used in this table:

< -- Less than

E -- Estimated value

01464280 SOUTH RUN NEAR COOKSTOWN, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)
MAY 13...	0900	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	E.04	<.0123	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF (49305)	Dicamba water, fltrd, 0.7u GF (38442)	Di-chlor-prop, water, fltrd, 0.7u GF (49302)	Dinoseb water, fltrd, 0.7u GF (49301)	Diuron, water, fltrd, 0.7u GF (49300)	Fluometuron, water, fltrd, 0.7u GF (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF (38501)	Norflurazon, water, fltrd, 0.7u GF (49293)
MAY 13...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF (49292)	Oxamyl, water, fltrd, 0.7u GF (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF (49235)
MAY 13...		<.02	<.01	<.02	<.02	<.009	.045	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
JUL 12...	1145	18,000	16,000	>16,000
20...	1105	210	<100	170
26...	1055	170	<100	500
AUG 02...	1055	420	2,100	1,300
09...	1135	190	500	300
19...	1045	2,400	1,900	5,000

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

01464504 CROSSWICKS CREEK AT GROVEVILLE ROAD, AT GROVEVILLE, NJ

LOCATION.--Lat 40°10'02", long 74°40'39", Mercer County, Hydrologic Unit 02040201, at bridge on Groveville Road (Main Street) in Groveville, 1.2 mi upstream of Doctors Creek, and 2.2 mi northeast of Bordentown.

DRAINAGE AREA.--98.0 mi².

PERIOD OF RECORD.--Water year 1998 to current year.

REMARKS.--Site is at head of tide, infrequently affected, but sampled at low tide. 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.--Determination of dissolved ammonia, total ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, total ammonia + organic nitrogen in bed sediment, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 20.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
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 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 10...	1220	164	11	.166	.131	765	12.7	92	6.8	249	9.5	2.5	52
FEB 24...	1420	119	8.3	.093	.073	765	E12.3	--	6.8	177	2.0	4.5	51
MAY 18...	1110	89	12	.309	.245	765	8.4	92	6.6	197	28.0	20.0	60
SEP 01...	1310	392	68	.292	.232	754	6.7	79	6.8	112	28.0	22.7	33
DEC 10...	15.0	3.56	2.78	22.9	20	43.5	<.2	9.6	23.2	136	136	4	.40
FEB 24...	14.7	3.41	2.81	9.42	17	20.5	<.2	9.4	25.3	100	116	7	.30
MAY 18...	18.0	3.62	2.97	11.1	26	22.2	<.2	9.1	21.7	109	135	10	.60
SEP 01...	10.2	1.78	2.85	5.72	17	10.6	<.2	6.0	12.5	62	78	77	.36
DEC 10...	.130	.140	.76	.009	.04	<.020	<.020	.060	1.2	1.2	.6	<.1	.6
FEB 24...	.155	--	.93	.014	.08	<.020	.012	.011	1.2	1.3	.6	<.1	.6
MAY 18...	.109	--	.96	.019	.11	.028	.028	.110	1.6	1.7	1.0	<.1	1.0
SEP 01...	.048	--	.37	.011	.39	.042	.041	.35	.74	1.1	4.6	<.1	4.6

01464504 CROSSWICKS CREEK AT GROVEVILLE ROAD, AT GROVEVILLE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 10...	14.9	2.6	19
FEB 24...	2.5	<1.0	18
MAY 18...	4.9	2.3	26
SEP 01...	5.8	E1.5	24

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

BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)	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, wsv nat 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)
SEP 08...	1130	6.83	550	16,000	13	4.5	<50	<50	<50	<50	E26	<50	E21

Date	Time	2-Ethyl-naphth-alene bed sed <2 mm, wsv nat ug/kg (49948)	2-Methyl-anthra-cene, bed sed <2 mm, ug/kg (49435)	45Meth-ylene-phenan-threne, bed sed <2 mm, ug/kg (49411)	9H-Flour-ene, 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)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)
SEP 08...	<50	E14	E17	E34	E31	80	70	150	150	140	130	110	160	

Date	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 percent (80164)	Bed sedi-ment, falldia dst wat percent (80157)
SEP 08...	E35	220	130	<50	<50	5	<50	160	<50	190	6	3

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

DELAWARE RIVER BASIN

01464504 CROSSWICKS CREEK AT GROVEVILLE ROAD, AT GROVEVILLE, NJ—Continued

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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				
05...	0947	70	<100	230
12...	1000	100	200	130
19...	1010	180	300	230
26...	1035	560	1,400	3,000
JUN				
02...	1100	3,000	1,000	1,100

Remark codes used in this table:

< -- Less than

01464515 DOCTORS CREEK AT ALLENTOWN, NJ

LOCATION.--Lat 40°10'37", long 74°35'56", Monmouth County, Hydrologic Unit 02040201, at bridge on Breza Road in Allentown, and 0.8 mi downstream from Conines Millpond dam.

DRAINAGE AREA.--17.4 mi².

PERIOD OF RECORD.--Water years 1976 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Agricultural Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 20.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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 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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 06...	1140	28	14	.166	.132	764	8.4	83	6.8	197	17.0	15.2	52	
FEB 02...	1050	14	8.0	.033	.026	773	14.3	98	6.8	232	.5	.5	59	
MAY 10...	1030	23	8.1	.134	.106	765	9.0	96	6.8	181	26.0	19.0	48	
AUG 05...	1210	13	7.0	.195	.155	755	6.0	70	6.8	182	22.5	24.4	49	
NOV 06...	12.3	5.15	5.04	10.7	27	26.2	.2	9.2	17.5	105	127	6	.60	
FEB 02...	14.0	5.81	3.12	16.4	16	36.4	<.2	11.0	24.6	129	134	3	.60	
MAY 10...	11.7	4.54	2.74	12.4	20	26.4	.2	5.4	16.8	97	110	6	.50	
AUG 05...	12.2	4.44	3.81	10.9	24	25.2	.2	8.4	15.3	98	112	3	.69	
NOV 06...	.316	.304	.42	.010	.09	<.020	.008	.008	1.0	1.1	.9	<.1	.9	
FEB 02...	.445	--	1.80	.017	.07	<.020	.003	.004	2.4	2.5	.6	<.1	.6	
MAY 10...	.260	--	.88	.018	.16	<.010	.012	.060	1.4	1.5	.9	<.1	.9	
AUG 05...	.324	--	.55	.024	.10	.024	.021	.057	1.2	1.3	.6	<.1	.6	

DELAWARE RIVER BASIN

01464515 DOCTORS CREEK AT ALLENTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 06...	4.3	E1.3	24
FEB 02...	1.4	<1.0	19
MAY 10...	3.2	E1.8	22
AUG 05...	4.4	<1.0	29

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 2003 TO SEPTEMBER 2004

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)
JUL 01...	1005	360	100	80
08...	1003	320	300	230
15...	1250	810	500	1,300
22...	1000	190	<100	90
29...	1036	3,000	600	2,800

Remark codes used in this table:

< -- Less than

01464527 BLACKS CREEK AT CHESTERFIELD, NJ

LOCATION.--Lat 40°06'34", long 74°38'30", Burlington County, Hydrologic Unit 02040201, at bridge on Chesterfield-Georgetown Road, 0.4 mi south of Chesterfield, 2.2 mi north of Georgetown, and 2.4 mi upstream of Bacons Run.

DRAINAGE AREA.--8.91 mi².

PERIOD OF RECORD.--Water years 2001 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Agricultural Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 20.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 05...	1020	9.6	16	.213	.173	764	8.1	80	6.5	199	15.0	14.9	60
FEB 02...	0920	7.5	14	.076	.066	773	14.1	96	6.8	222	-3.0	.2	70
MAY 13...	1120	8.1	14	.193	.154	767	6.9	80	6.6	180	31.0	22.9	57
AUG 05...	0950	12	17	.306	.246	755	6.8	82	6.9	147	21.5	24.6	46
NOV 05...	15.6	4.99	6.28	7.63	37	21.1	.3	12.5	16.1	112	122	5	.30
FEB 02...	18.7	5.56	4.33	9.80	25	25.1	.3	14.2	26.8	131	134	9	.50
MAY 13...	15.3	4.56	3.96	7.91	32	18.0	.3	8.8	17.8	100	116	9	.50
AUG 05...	12.7	3.51	4.64	5.38	29	13.0	.3	9.9	12.9	84	104	7	.43
NOV 05...	.046	.062	1.10	.023	.10	<.020	.004	.090	1.4	1.5	.9	<.1	.9
FEB 02...	.333	--	2.30	.011	.09	<.020	<.002	.005	2.8	2.9	.8	<.1	.8
MAY 13...	.123	--	1.00	.034	.10	.024	.020	.010	1.5	1.6	.7	<.1	.7
AUG 05...	.069	--	.84	.013	.24	.020	.031	.163	1.3	1.5	1.6	<.1	1.5

DELAWARE RIVER BASIN

01464527 BLACKS CREEK AT CHESTERFIELD, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 05...	4.7	E1.1	30
FEB 02...	1.6	<1.0	27
MAY 13...	4.5	<1.0	30
AUG 05...	5.5	E1.3	33

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 2003 TO SEPTEMBER 2004

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)
JUL 20...	1040	220	300	230
26...	1015	220	300	330
AUG 02...	1015	1,800	600	700
09...	1035	260	100	40
16...	1015	1,800	300	800

01464532 BLACKS CREEK AT FIELDSBORO, NJ

LOCATION.--Lat 40°08'31", long 74°43'01", Burlington County, Hydrologic Unit 02040201, at bridge on West Burlington Street, 0.5 mi southwest of Bordertown, 0.7 mi upstream of the mouth, and 0.7 mi northeast of Fieldsboro.

DRAINAGE AREA.-- 23.05 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 20.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 24...	1000	25	.137	.111	762	10.3	88	6.8	199	13.0	8.5	53	12.7	
FEB 05...	0915	41	.155	.128	776	12.9	88	7.2	275	3.0	.5	45	11.2	
MAY 25...	1030	12	.149	.122	753	6.9	78	7.3	225	23.5	20.9	66	17.3	
AUG 16...	1115	14	.198	.158	758	7.3	82	7.3	193	22.0	21.0	57	15.5	
NOV 24...	5.22	4.51	8.78	14	22.3	.2	12.4	26.0	108	112	8	.30	.090	
FEB 05...	4.03	5.23	31.5	10	51.8	<.2	7.1	19.9	--	156	43	1.0	.381	
MAY 25...	5.64	3.78	12.6	23	27.8	.3	12.3	27.9	126	142	7	.40	.051	
AUG 16...	4.37	4.80	10.7	29	23.9	.3	10.1	19.5	109	113	9	.34	.085	
NOV 24...	.110	1.70	.011	.12	<.020	.018	.100	2.0	2.1	1.1	<.1	1.1	2.8	
FEB 05...	--	1.90	.016	.23	--	.021	.072	2.9	3.1	2.1	<.1	2.1	5.3	
MAY 25...	--	.98	.015	.06	.010	.012	.060	1.4	1.4	.4	<.1	.4	3.4	
AUG 16...	--	.55	.008	.11	.010	.013	.107	.89	1.0	1.0	<.1	1.0	4.6	

01464532 BLACKS CREEK AT FIELDSBORO, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 24...	2.6	27
FEB 05...	E1.9	23
MAY 25...	<1.0	36
AUG 16...	E1.3	35

Remark codes used in this table:

< -- Less than
E -- Estimated value

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)	
FEB 05...	0915	--	--	--	--	--	3	29.9	.11	24	.08	1.7	2.8	
AUG 16...	1115	--	--	--	--	--	E1	25.5	<.06	30	E.02	.8	1.2	
AUG 16...	1115	7.02	80	1,900	3.5	<.2	--	--	--	--	--	--	--	
Date	Time	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 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)
FEB 05...	5,480	1.75	208	<.02	5.11	<.4	<.16	21	--	--	--	--	--	--
AUG 16...	2,560	.51	81.3	<.02	3.39	E.3	<.16	5	--	--	--	--	--	--
AUG 16...	--	--	--	--	--	--	--	--	<1	.230	2.8	.270	2	
Date	Time	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover -able, ug/g (01052)	Mangan- ese, bed sedimnt recover -able, ug/g (01053)	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- 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, wsv nat 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)
FEB 05...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 16...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 16...	2,200	4.3	15	.700	1	12	<50	<50	<50	<50	E14	<50	<50	

01464532 BLACKS CREEK AT FIELDSBORO, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2-Ethyl naphthalene bed sed <2 mm wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)	45Methylphenanthrene, bed sed <2 mm, ug/kg (49411)	9H-Flour-ene, 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)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)
FEB 05...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	<50	<50	<50	<50	<50	E18	E12	E27	E30	E28	E22	E24	E27

Date	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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi-ment, dry svd svs dia percent <.063mm (80164)	Bed sedi-ment, falldia dst wat percent <.004mm (80157)
FEB 05...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	<50	E28	<50	<50	<50	10	<50	E12	<50	E25	2	<1

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atra-zine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd, 0.7u GF ug/L (49310)	Carbo-furan, water, fltrd, 0.7u GF ug/L (49309)
MAY 25...	1030	<.009	.04	<.03	<.01	E.134	.016	<.004	<.01	<.03	E.0645	E.02	<.006

Date	Time	Clopyr-alid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluo-meturon water, fltrd, 0.7u GF ug/L (38811)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd, 0.7u GF ug/L (38501)	Norflur-azon, water, fltrd, 0.7u GF ug/L (49293)
MAY 25...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	M	<.008	<.02

DELAWARE RIVER BASIN

01464532 BLACKS CREEK AT FIELDSBORO, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ory- zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Propi- cona- zole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd, ug/L (04032)	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)
MAY 25...	<.02	<.01	E.01	E.01	<.009	<.006	<.010	<.02

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)
JUL				
20...	1025	350	400	800
26...	0945	180	200	300
AUG				
02...	0945	5,300	2,200	9,000
09...	1000	40	100	130
16...	0945	3,000	1,600	1,300

01464907 LITTLE NESHAMINY CREEK AT VALLEY ROAD, NEAR NESHAMINY, PA

LOCATION.--Lat 40°13'45", long 75°07'12", Bucks County, Hydrologic Unit 02040201, at bridge on Valley Road, 1.1 mi east of Neshaminy, PA, 2.0 mi downstream from Park Creek, 3.0 mi downstream from Bradford Dam, and 6.8 mi upstream from confluence with Neshaminy Creek.

DRAINAGE AREA.--26.8 mi².

PERIOD OF RECORD.--November 1998 to current year.

REMARKS.--Data collected as part of the Delaware River Basin National Water-Quality Assessment Program (DELN NAWQA). For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	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)
NOV 06...	1200	Environmental	170	56	758	9.1	91	7.3	205	16.5	15.2
DEC 11...	1100	Environmental	3,260	240	734	11.4	100	7.0	146	12.0	8.1
JAN 06...	1110	Environmental	58	31	760	13.4	106	7.4	338	4.0	5.2
MAR 15...	0840	Environmental	19	4.0	760	13.6	109	8.1	674	11.5	5.7
APR 19...	1200	Environmental	42	3.7	758	17.2	179	8.9	490	28.0	16.9
MAY 17...	1230	Environmental	18	5.7	765	9.6	110	7.7	513	23.1	22.3
MAY 17...	1231	Split Replicate	--	--	--	--	--	--	--	--	--
JUN 21...	1050	Environmental	5.3	4.0	759	8.7	97	7.7	676	25.0	20.4
JUL 16...	1240	Environmental	25	12	754	9.0	104	7.6	341	26.5	21.6
SEP 01...	1510	Environmental	13	12	759	11.8	137	8.6	401	29.0	22.5

Date	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	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)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV 06...	52	63	15.9	16.1	<.04	.62	<.008	.077	.22	1.54	33	15
DEC 11...	16	19	25.8	5.9	.05	.38	E.007	.059	.42	1.48	281	2,470
JAN 06...	62	75	43.2	25.0	.05	1.20	.019	.014	.097	1.76	24	3.8
MAR 15...	99	119	116	38.7	<.04	1.28	.018	E.005	.047	1.64	7	.36
APR 19...	95	107	69.3	30.6	<.04	.90	.018	.012	.051	1.30	4	.45
MAY 17...	92	111	65.8	31.7	.06	1.40	.062	.046	.117	2.17	6	.29
MAY 17...	--	--	66.1	31.7	.06	1.42	.063	.047	.116	2.11	6	--
JUN 21...	144	174	94.0	44.5	E.03	1.05	.014	.081	.124	1.72	6	.09
JUL 16...	76	91	36.1	30.4	<.04	1.08	.008	.088	.141	1.55	12	.81
SEP 01...	83	100	49.5	29.8	<.04	.92	E.005	.095	.179	1.70	24	.84

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

01464907 LITTLE NESHAMINY CREEK AT VALLEY ROAD, NEAR NESHAMINY, PA—Continued

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 Surface-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 2003 TO SEPTEMBER 2004

Date	Time	Sample type	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)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor- pyrifos water, fltrd, ug/L (38933)	DCPA, water fltrd 0.7u GF ug/L (82682)
NOV 06...	1200	Environmental	E.006	<.006	<.005	<.005	.009	<.010	E.048	<.005	<.003
JAN 06...	1110	Environmental	E.010	<.006	<.005	<.005	.011	<.010	E.010	<.005	<.003
MAR 15...	0840	Environmental	E.018	<.006	<.005	<.005	.016	<.010	<.041	<.005	<.003
APR 19...	1200	Environmental	E.014	.007	<.005	<.005	.020	E.006	E.027	<.005	<.003
MAY 17...	1230	Environmental	E.055	.030	<.005	<.005	.566	E.006	E.160	<.005	<.003
MAY 17...	1231	<i>Split Replicate</i>	E.058	.031	<.005	<.005	.588	E.005	E.165	<.005	<.003
JUN 21...	1049	<i>Field Blank</i>	<.006	<.006	<.005	<.005	<.007	<.010	<.041	<.005	<.003
JUN 21...	1050	Environmental	E.020	<.006	<.005	<.005	.039	<.010	<.041	<.005	<.003
JUL 16...	1240	Environmental	E.012	<.006	<.005	<.005	.053	<.010	E.497	<.005	E.002
SEP 01...	1510	Environmental	E.012	<.006	<.005	<.005	.019	<.010	E.036	<.005	<.003

Date	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	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)	Lindane water, fltrd, ug/L (39341)	Metola- chlor, water, fltrd, ug/L (39415)	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)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
NOV 06...	<.012	E.008	<.029	<.013	<.024	E.007	<.004	.022	<.022	.01	<.005	<.02	<.009
JAN 06...	<.012	.008	<.029	<.013	<.024	E.012	.005	.014	<.022	.01	.014	<.02	<.009
MAR 15...	<.012	<.005	<.029	<.013	<.024	E.015	<.004	E.008	<.022	.01	<.008	E.02	<.009
APR 19...	E.004	<.005	<.029	<.013	<.024	E.012	<.004	E.009	E.015	.01	.011	E.01	E.007
MAY 17...	E.005	<.005	<.029	<.013	<.024	E.019	<.004	.671	<.022	.02	.017	.03	E.007
MAY 17...	E.005	<.005	<.029	<.013	<.024	E.025	<.004	.685	<.022	.02	.021	.03	E.005
JUN 21...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	<.013	<.022	<.01	<.005	<.02	<.009
JUN 21...	E.009	<.005	<.029	E.005	E.007	E.025	<.004	.018	<.022	.02	.006	<.02	<.009
JUL 16...	<.012	.010	<.029	<.013	<.024	E.013	<.004	.105	<.022	.03	<.010	<.02	<.009
SEP 01...	<.012	<.005	<.029	<.013	<.024	E.032	<.004	.021	<.022	.04	<.005	<.02	<.009

01465808 SOUTH BRANCH BURRS MILL BROOK NEAR HEDGER HOUSE, NJ

LOCATION.--Lat 39°51'34", long 74°35'55", Burlington County, Hydrologic Unit 02040202, at bridge on Sooy Place Road, 0.5 mi upstream of Slab Causeway Branch, 2.7 mi west of Hedger House, and 4.4 mi northwest of Chatsworth.

DRAINAGE AREA.--7.09 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
NOV 18...	1030	3.9	1.26	.976	767	7.8	68	3.9	75	14.5	9.6	2	.44
FEB 19...	1015	2.4	.599	.460	758	8.9	65	4.0	71	8.5	1.8	2	.40
MAY 19...	1030	3.7	2.79	2.19	762	4.0	47	3.9	63	27.0	23.4	2	.42
AUG 03...	1030	1.8	5.84	4.66	759	3.5	41	3.7	87	28.0	23.8	4	.83

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)
NOV 18...	.298	.49	1.76	5.41	<.2	5.7	5.8	62	9	.60	.050	.040	<.02
FEB 19...	.288	.52	1.86	4.24	<.2	4.1	9.7	49	<1	.40	.097	--	<.02
MAY 19...	.325	.78	1.93	4.00	<.2	4.1	6.4	109	4	1.3	.076	--	<.02
AUG 03...	.459	1.13	1.91	3.40	<.2	4.8	1.8	199	6	2.2	.183	--	<.06

Date	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, 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)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 18...	.005	.08	<.020	<.020	<.020	1.1	<.1	1.1	26.5	E2.0	9.7
FEB 19...	.006	.05	<.020	.003	.004	.7	<.1	.7	12.9	<1.0	E7.0
MAY 19...	.030	.07	<.010	<.020	<.020	1.0	<.1	1.0	50.6	E1.6	E5.6
AUG 03...	E.050	.10	E.008	.017	.03	.9	<.1	.9	90.8	<1.0	E6.8

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

01465808 SOUTH BRANCH BURRS MILL BROOK NEAR HEDGER HOUSE, NJ—Continued

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)	
Date	Time	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 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)
FEB 19...	1015	--	--	--	--	--	<2	5.3	E.03	11	E.04	<.8	E.3	
AUG 03...	1030	--	--	--	--	--	6	20.1	<.06	E8	.11	1.7	.8	
03...	1030	5.24	40	140	2.9	<.2	--	--	--	--	--	--	--	
FEB 19...	700	.71	9.3	<.02	.44	<.4	<.16	10	--	--	--	--	--	
AUG 03...	7,500	5.10	15.0	E.01	2.84	1.0	<.16	31	--	--	--	--	--	
03...	--	--	--	--	--	--	--	--	<1	<.001	<.4	.020	<2	
FEB 19...	--	--	--	--	--	--	--	--	--	--	--	--	--	
AUG 03...	--	--	--	--	--	--	--	--	--	--	--	--	--	
03...	130	1.2	.6	.080	<1	<3.1	<50	<50	<50	<50	<50	<50	<50	
FEB 19...	--	--	--	--	--	--	--	--	--	--	--	--	--	
AUG 03...	--	--	--	--	--	--	--	--	--	--	--	--	--	
03...	<50	<50	<50	E8	E7	<50	<50	E12	<50	<50	<50	<50	E7	

01465808 SOUTH BRANCH BURRS MILL BROOK NEAR HEDGER HOUSE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Dibenzo-[a,h]-anthracene, bed sed <2 mm, ug/kg (49461)	Fluoranthene 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)	Naphthalene, 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)	Phenanthrene, bed sed <2 mm, wsv nat field, ug/kg (49409)	Phenanthrene, bed sed <2 mm, wsv nat field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sediment, dry svs dia percent <.063mm (80164)	Bed sediment, falldia dst wat percent <.004mm (80157)
FEB 19...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	<50	E18	<50	<50	E4	<5	<50	E7	<50	E14	2	2

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 19...	1030	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 19...		<.01	<.01	<.01	<.01	E.04	<.03	<.02	<.02	<.007	<.02	<.02	<.008	E.17

Date	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 19...	<.02	<.01	<.02	<.02	<.009	<.006	E.052	<.02

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

DELAWARE RIVER BASIN

01465808 SOUTH BRANCH BURRS MILL BROOK NEAR HEDGER HOUSE, NJ—Continued

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Enterococci, 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)
JUL				
12...	1105	2,500	200	130
20...	1220	80	<100	80
26...	1230	<10	<100	20
AUG				
02...	1140	80	<100	80
09...	1215	<10	100	<20
16...	1150	10	200	210

Remark codes used in this table:

< -- Less than

01465835 SOUTH BRANCH RANCOCAS CREEK AT RETREAT, NJ

LOCATION.--Lat 39°55'23", long 74°43'04", Burlington County, Hydrologic Unit 02040202, at bridge on Ridge Road, 0.3 mi downstream of Friendship Creek, 0.5 mi north of Retreat, and 1.4 mi southwest of Buddtown.

DRAINAGE AREA.--44.1 mi².

PERIOD OF RECORD.--Water years 1975-1982, 2001 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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 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)
Date		Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
NOV 12...	0900													
FEB 10...	0900													
MAY 20...	0900													
AUG 18...	0930													
NOV 12...	1.30													
FEB 10...	1.03													
MAY 20...	1.15													
AUG 18...	1.10													
NOV 12...	.19													
FEB 10...	.24													
MAY 20...	.24													
AUG 18...	.21													

DELAWARE RIVER BASIN

01465835 SOUTH BRANCH RANOCAS CREEK AT RETREAT, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Boron, water, fltrd, ug/L (01020)
NOV 12...	17
FEB 10...	12
MAY 20...	11
AUG 18...	13

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 10...	0900	E2	24.7	.08	10	.09	<.8	.7	490	.79	30.1	<.02	.95
AUG 18...	0930	E1	40.1	.08	11	.10	.9	1.2	2,430	2.17	24.9	<.02	1.81

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 10...	<.4	<.16	15
AUG 18...	<.4	<.16	17

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

01465835 SOUTH BRANCH RANOCAS CREEK AT RETREAT, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)
MAY 20...	0900	<.009	.03	<.03	<.01	<.008	<.009	<.004	<.01	<.03	.0133	M	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 20...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	E.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
MAY 20...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)
JUL 12...	1235	7,400	100	70
20...	1140	180	100	40
26...	1130	90	<100	130
AUG 02...	1100	320	400	1,300
09...	1110	110	<100	110
16...	1210	2,700	1,900	2,400

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

01465857 SOUTHWEST BRANCH RANOCAS CREEK AT ELMWOOD ROAD, AT PINE GROVE, NJ

LOCATION.--Lat 39°53'23", long 74°53'00", Burlington County, Hydrologic Unit 02040201, at bridge on Elmwood Road, 0.5 mi north of Pine Grove, 1.1 mi east of Heritage Village, and 2.7 mi upstream of Barton Run.

DRAINAGE AREA.--3.58 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 24...	1130	4.8	.101	.076	760	9.2	84	7.4	403	17.5	10.8	160	55.6	
FEB 05...	1020	9.3	.161	.127	776	12.3	88	7.4	789	.5	1.9	140	47.3	
MAY 12...	1100	5.6	.092	.068	766	8.4	90	7.6	442	29.0	18.6	180	59.9	
AUG 05...	1100	7.6	.212	.151	757	6.1	69	7.3	344	23.0	21.1	130	45.9	
NOV 24...	5.74	6.40	10.2	83	29.6	.4	28.8	64.6	254	267	4	.30	.050	
FEB 05...	5.66	6.92	94.7	44	173	.3	16.5	47.8	422	473	9	.60	.289	
MAY 12...	6.21	7.64	17.7	92	43.5	.5	29.0	59.5	281	311	<1	.30	.057	
AUG 05...	4.94	7.21	13.6	76	30.0	.4	23.5	44.6	219	248	6	.47	.094	
NOV 24...	.050	.50	.003	.03	.027	.020	.100	.80	.83	.3	<.1	.3	3.2	
FEB 05...	--	.61	.010	.10	.030	.015	.030	1.2	1.3	.7	<.1	.7	4.1	
MAY 12...	--	.35	.020	.05	.037	.035	.090	.65	.70	.3	<.1	.3	3.1	
AUG 05...	--	.54	.030	.08	.066	.065	.176	1.0	1.1	.7	<.1	.6	6.1	

01465857 SOUTHWEST BRANCH RANOCAS CREEK AT ELMWOOD ROAD, AT PINE GROVE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 24...	<1.0	39
FEB 05...	E1.3	26
MAY 12...	E1.7	158
AUG 05...	E1.2	51

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

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)
FEB 05...	1020	--	--	--	--	--	E1	68.5	.07	26	.09	E.4	2.6
AUG 05...	1100	--	--	--	--	--	E1	67.8	E.04	52	E.02	E.5	2.1
05...	1100	6.61	10	37,000	4.8	.3	--	--	--	--	--	--	--

Date	Time	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 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)
FEB 05...	1,150	.46	93.5	<.02	2.65	<.4	<.16	14	--	--	--	--	--	--
AUG 05...	960	.22	49.2	<.02	3.19	.5	<.16	4	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	4	.330	26	1.6	<2	

Date	Time	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover- able, ug/g (01052)	Mangan- ese, bed sedimnt recover- able, ug/g (01053)	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- 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, wsv nat 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)
FEB 05...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 05...	21,000	7.9	110	3.5	<1	67	<50	<50	<50	E4	<50	<50	<50	

01465857 SOUTHWEST BRANCH RANOCAS CREEK AT ELMWOOD ROAD, AT PINE GROVE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2-Ethyl naphthalene bed sed <2 mm wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)	45Methylenephenthrene, bed sed <2 mm, ug/kg (49411)	9H-Flour-ene, 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)	Chry-sene, bed sed <2 mm, wsv nat field, ug/kg (49450)
FEB 05...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	--	--
05...	<50	<50	E13	E18	E14	<50	E19	72	70	73	54	62	92

Date	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 field, ug/kg (49393)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49387)	Bed sedi-ment, dry svd svs dia percent (80164)	Bed sedi-ment, falldia dst wat percent (80157)
FEB 05...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	<50	180	56	<50	<50	<5	<50	82	E11	130	<1	1

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atra-zine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Broma-cil, water, fltrd, ug/L (04029)	Caf-feine, water, fltrd, ug/L (50305)	Car-baryl, water, fltrd, 0.7u GF ug/L (49310)	Carbo-furan, water, fltrd, 0.7u GF ug/L (49309)
MAY 12...	1100	<.009	.05	<.03	<.01	<.008	<.009	<.010	<.01	<.03	<.0096	E.02	<.006

Date	Time	Clopyr-alid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluo-meturon water, fltrd, 0.7u GF ug/L (38811)	Imaza-quin, water, fltrd, ug/L (50356)	Imaze-thapyr, water, fltrd, ug/L (50407)	Imida-cloprid water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Meta-laxyl, water, fltrd, ug/L (50359)	Methio-carb, water, fltrd, 0.7u GF ug/L (38501)	Norflur-azon, water, fltrd, 0.7u GF ug/L (49293)
MAY 12...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.031	<.02	<.02	<.008	<.02

01465857 SOUTHWEST BRANCH RANOCAS CREEK AT ELMWOOD ROAD, AT PINE GROVE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Oryzalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Propiconazole, water, fltrd ug/L (50471)	Siduron, water, fltrd ug/L (38548)	Sulfometuron, water, fltrd ug/L (50337)	Tebu-thiuron, water, fltrd 0.7u GF ug/L (82670)	Terbacil, water, fltrd ug/L (04032)	Triclopyr, water, fltrd 0.7u GF ug/L (49235)
MAY 12...	<.02	<.01	<.02	E.01	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

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)
JUL				
12...	1305	12,000	7,000	5,000
20...	1155	3,600	1,600	5,000
26...	1215	370	800	500
AUG				
02...	1250	5,000	3,300	5,000
09...	1250	380	500	800
16...	1150	8,100	6,000	16,000

01465893 LITTLE CREEK AT CHAIRVILLE, NJ

LOCATION.--Lat 39°53'53", long 74°47'18", Burlington County, Hydrologic Unit 02040202, at bridge on State Route 70 in Chairville, 250 feet east of Skeet Road, and 4.7 mi upstream of Southwest Branch Rancocas Creek.

DRAINAGE AREA.--6.32 mi².

PERIOD OF RECORD.--Water year 1998 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO ₃ (00900)	
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 fixed end pt, lab, mg/L as CaCO ₃ (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 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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...	1200	57	2.2	1.28	.985	754	7.3	69	4.0	73	13.5	12.0	8	
FEB 03...	1200	6.2	1.2	.385	.294	765	11.3	77	4.3	100	7.5	.1	10	
MAY 12...	1100	9.0	3.2	1.36	1.07	767	6.5	73	4.3	81	32.0	20.9	8	
AUG 23...	1200	8.0	2.3	1.55	1.21	762	7.3	80	4.2	87	27.0	19.7	9	
NOV 20...		1.74	.781	1.68	4.33	--	7.36	<2	5.9	9.1	72	2	.60	<.020
FEB 03...		2.04	1.25	1.37	9.97	<2	16.2	<2	7.5	8.0	66	<1	.30	.041
MAY 12...		1.72	.856	1.34	9.10	<2	15.2	<2	3.0	8.7	76	8	.70	.126
AUG 23...		1.72	1.03	1.28	9.07	<2	16.3	<2	7.0	11.6	68	<1	.76	.049
NOV 20...		<.020	.03	.004	.06	<.020	.014	.017	.63	.69	.8	<.1	.7	28.4
FEB 03...		--	.29	<.003	.03	<.020	<.002	.011	.59	.62	.3	<.1	.2	9.2
MAY 12...		--	.05	.008	.15	E.009	.030	.080	.75	.90	2.7	<.1	2.7	23.9
AUG 23...		--	E.05	.011	.05	<.010	.026	.095	--	E.86	.8	<.1	.8	26.3

01465893 LITTLE CREEK AT CHAIRVILLE, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 20...	<1.0	20
FEB 03...	<1.0	16
MAY 12...	E1.3	15
AUG 23...	E1.3	16

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 2003 TO SEPTEMBER 2004

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)
JUL				
12...	1010	380	100	90
20...	1200	110	<100	60
26...	1200	20	<100	80
AUG				
02...	1120	200	200	90
09...	1130	70	<100	<20
16...	1140	350	500	1,100

Remark codes used in this table:

< -- Less than

01465965 ONG RUN AT BROWNS MILLS, NJ

LOCATION.--Lat 39°58'35", long 74°34'36", Burlington County, Hydrologic Unit 02040202, at bridge on County Route 667, 0.1 mi upstream of mouth, 0.4 mi northeast of Browns Mills, and 2.3 mi southeast of Pointville.

DRAINAGE AREA.--1.87 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
NOV 13...	0830	4.6	.446	.356	746	10.1	91	6.5	119	11.0	9.5	28	5.91	
FEB 03...	0830	3.8	.155	.122	763	12.5	89	6.9	139	7.0	1.6	31	6.42	
MAY 26...	0900	75	.485	.387	751	6.6	--	6.5	--	20.5	18.3	28	5.97	
AUG 24...	0930	4.4	.393	.312	754	7.5	82	6.7	125	24.5	19.0	27	6.05	
NOV 13...	3.21	2.17	9.92	15	16.1	<.2	6.7	9.6	64	76	7	.50	.030	
FEB 03...	3.58	1.85	12.2	12	18.9	<.2	6.8	15.9	75	80	1	.70	.099	
MAY 26...	3.14	1.96	10.5	14	17.3	<.2	4.3	9.7	63	80	276	.60	.154	
AUG 24...	3.00	1.82	10.8	24	19.0	<.2	5.7	8.5	71	81	4	.39	.063	
NOV 13...	.030	.24	.003	.08	<.020	.006	.030	.74	.82	1.2	<.1	1.2	8.5	
FEB 03...	--	.41	<.003	.08	<.020	<.002	.003	1.1	1.2	1.0	<.1	1.0	3.6	
MAY 26...	--	.32	.009	.35	E.008	<.020	.270	.92	1.3	4.3	<.1	4.3	10.2	
AUG 24...	--	.29	.006	.07	<.010	.013	.039	.67	.75	1.0	<.1	1.0	7.0	

01465965 ONG RUN AT BROWNS MILLS, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 13...	E1.0	22
FEB 03...	E1.1	17
MAY 26...	E1.6	20
AUG 24...	<1.0	21

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 03...	0830	<2	47.6	.06	21	.15	<.8	.6	990	.83	72.0	<.02	1.28
AUG 24...	0930	<2	49.8	.09	22	.12	E.6	1.0	1,920	1.40	52.1	<.02	1.69

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 03...	<.4	<.16	17
AUG 24...	.6	<.16	13

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)	
MAY 26...	0900	<.009	.39	E.01	E.01	<.008	E.007	<.004	<.01	<.03	<.0096	<.03	<.006	
Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 26...		<.01	.12	<.01	<.01	.02	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02
Date	Time			Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)				
MAY 26...				<.01	<.02	<.02	<.009	<.006	<.010	<.02				

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 2003 TO SEPTEMBER 2004

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)
JUL 12...	1205	8,800	200	2,200
20...	1035	70	<100	20
26...	1025	20	100	70
AUG 02...	0955	30	100	130
16...	0940	40	<100	40

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

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ

LOCATION.--Lat 39°53'06", long 74°30'19", Burlington County, Hydrologic Unit 02040202, 25 ft upstream from Butterworth Road Bridge in Byrne State Forest, 3.4 mi upstream from confluence with Cooper Branch, and 7.0 mi southeast of Browns Mills.

DRAINAGE AREA.--2.35 mi².

PERIOD OF RECORD.--Water years 1963-96, 1998 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1968 to September 1992.

pH: October 1984 to September 1992.

WATER TEMPERATURE: October 1960 to September 1992.

DISSOLVED OXYGEN: October 1984 to September 1992.

REMARKS.--Samples on Dec. 11, Feb. 2, June 3, and Aug. 2 were collected as part of the Ambient Stream Monitoring Network; samples on Jan. 6, Feb. 23, March 29, April 2,5,15,22,26,29, July 12,13,19,28, Aug. 12, and Sept. 21 were collected as part of the U.S. Geological Survey Hydrologic Benchmark Network. Chemical analyses are from samples collected as water flows over the weir at the gaging station. All discharge record represents flow at a point 785 ft downstream of the gaging station. Discharges at the weir may be about 1 ft³/s less than published in Water-Data Report NJ-04-1. For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. 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 on Dec. 11, Feb. 2, June 3, and Aug. 2 were provided by the New Jersey Department of Environmental Protection. Determination of dissolved ammonia, dissolved nitrite, dissolved orthophosphate, biochemical oxygen demand, total suspended solids, total ammonia + organic nitrogen in bed sediment, total phosphorus in bed sediment, 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. The samples collected as part of the Hydrologic Benchmark Network were analyzed by the USGS New York Water Science Center in Troy, New York.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Background, New Jersey Department of Environmental Protection Watershed Management Area 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
DEC													
11...	1030	5.1	1.8	.640	.481	--	7.9	--	4.0	68	14.0	6.1	4
JAN													
06...	1100	2.6	--	--	--	--	--	--	--	--	--	6.5	3
FEB													
02...	1030	1.8	.3	.239	.178	773	9.4	70	4.1	48	-1.0	3.4	3
23...	1130	2.3	--	--	--	--	--	--	--	--	--	3.2	3
MAR													
29...	1515	2.4	--	--	--	--	--	--	--	--	--	7.8	3
APR													
02...	2035	3.3	--	--	--	--	--	--	--	--	--	7.0	3
05...	0330	4.3	--	--	--	--	--	--	--	--	--	5.7	3
15...	1335	6.2	--	--	--	--	--	--	--	--	--	9.2	3
22...	1325	3.0	--	--	--	--	--	--	--	--	--	--	3
26...	1930	3.4	--	--	--	--	--	--	--	--	--	11.6	3
26...	2330	4.3	--	--	--	--	--	--	--	--	--	11.7	3
29...	0025	3.5	--	--	--	--	--	--	--	--	--	10.6	3
JUN													
03...	1030	1.8	.3	.405	.308	759	2.6	25	4.2	38	21.0	14.1	2
JUL													
12...	1125	1.6	--	--	--	--	--	--	--	--	--	15.4	2
12...	1815	3.2	--	--	--	--	--	--	--	--	--	16.1	3
12...	2015	6.0	--	--	--	--	--	--	--	--	--	17.4	3
12...	2140	12	--	--	--	--	--	--	--	--	--	18.7	3
12...	2200	18	--	--	--	--	--	--	--	--	--	19.3	4
12...	2230	31	--	--	--	--	--	--	--	--	--	20.1	3
13...	0010	37	--	--	--	--	--	--	--	--	--	20.1	5
13...	0130	27	--	--	--	--	--	--	--	--	--	20.0	3
19...	1430	3.0	--	--	--	--	--	--	--	--	--	18.3	3
28...	0115	6.2	--	--	--	--	--	--	--	--	--	19.3	2
AUG													
02...	1000	3.2	.6	1.23	.943	757	2.0	22	4.1	52	26.0	19.8	2
12...	0630	2.0	--	--	--	--	--	--	--	--	--	16.4	3
SEP													
21...	0900	1.4	--	--	--	--	--	--	--	--	--	13.5	2

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

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, water, unfltrd Gran titr., ueq/L (00409)	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, sus- pended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)
DEC 11...	.68	.501	.26	1.83	--	3.93	<.2	3.1	9.6	44	1	.50	<.020
JAN 06...	.53	.38	.11	2.10	-104	3.8	--	1.72	5.4	--	--	--	--
FEB 02...	.53	.476	.22	2.03	--	3.66	<.2	4.4	7.7	26	<1	<.20	<.020
23...	.52	.41	.17	1.90	-63	3.5	--	1.70	4.9	--	--	--	--
MAR 29...	.50	.36	.14	1.89	-75	3.2	--	1.25	4.8	--	--	--	--
APR 02...	.57	.39	--	--	-65	3.4	--	1.21	5.5	--	--	--	--
05...	.62	.40	--	--	-73	3.2	--	.951	6.0	--	--	--	--
15...	.70	.34	--	--	-53	2.7	--	.788	4.9	--	--	--	--
22...	.54	.31	--	--	-96	3.1	--	1.03	4.4	--	--	--	--
26...	.55	.32	--	--	-72	3.0	--	1.06	4.2	--	--	--	--
26...	.59	.33	--	--	-93	2.9	--	1.03	4.3	--	--	--	--
29...	.58	.32	--	--	-91	2.9	--	1.03	4.4	--	--	--	--
JUN 03...	.40	.301	E.14	1.67	--	3.61	<.2	3.6	8.7	28	<1	.20	<.010
JUL 12...	.48	.31	--	--	-39	3.2	--	1.79	2.5	--	--	--	--
12...	.63	.46	--	--	-71	3.1	--	1.67	3.5	--	--	--	--
12...	.58	.37	--	--	-96	2.6	--	1.14	3.6	--	--	--	--
12...	.72	.29	--	--	-113	2.2	--	.832	3.7	--	--	--	--
12...	1.16	.31	--	--	-93	2.1	--	.701	3.8	--	--	--	--
12...	1.01	.23	--	--	-102	2.0	--	.621	3.4	--	--	--	--
13...	1.43	.25	--	--	-61	1.9	--	.788	3.6	--	--	--	--
13...	.87	.24	--	--	-95	2.0	--	.759	3.7	--	--	--	--
19...	.71	.35	--	--	-57	.9	--	1.49	6.6	--	--	--	--
28...	.53	.26	--	--	-101	2.7	--	1.32	2.0	--	--	--	--
AUG 02...	.50	.274	.20	1.65	--	3.22	<.2	3.6	1.3	52	<1	.47	.027
12...	.70	.29	--	--	-39	3.6	--	1.93	1.8	--	--	--	--
SEP 21...	.34	.31	--	--	--	--	--	2.12	--	--	--	--	--

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic 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)	Boron, water, fltrd, ug/L (01020)
DEC 11...	<.020	--	<.02	<.003	.07	<.020	<.020	<.020	1.2	<.1	1.2	16.6	1.3	9.7
JAN 06...	<.028	<.03	--	--	--	--	--	--	--	--	--	12.7	--	--
FEB 02...	--	--	<.02	E.003	<.02	<.020	<.002	<.002	<.1	<.1	<.1	6.3	<1.0	7.6
23...	<.028	<.03	--	--	--	--	--	--	--	--	--	9.0	--	--
MAR 29...	<.028	<.03	--	--	--	--	--	--	--	--	--	11.3	--	--
APR 02...	.309	<.03	--	--	--	--	--	--	--	--	--	14.1	--	--
05...	.191	<.03	--	--	--	--	--	--	--	--	--	14.7	--	--
15...	.267	<.03	--	--	--	--	--	--	--	--	--	19.2	--	--
22...	<.028	<.03	--	--	--	--	--	--	--	--	--	14.5	--	--
26...	.057	<.03	--	--	--	--	--	--	--	--	--	18.5	--	--
26...	.087	<.03	--	--	--	--	--	--	--	--	--	21.2	--	--
29...	.140	<.03	--	--	--	--	--	--	--	--	--	20.3	--	--
JUN 03...	--	--	<.02	.004	<.02	E.008	<.002	<.002	.3	<.1	.2	8.1	2.2	8.2
JUL 12...	.049	.03	--	--	--	--	--	--	--	--	--	6.1	--	--
12...	.052	.04	--	--	--	--	--	--	--	--	--	15.8	--	--
12...	.057	.03	--	--	--	--	--	--	--	--	--	21.5	--	--
12...	.058	.05	--	--	--	--	--	--	--	--	--	23.9	--	--
12...	.034	.04	--	--	--	--	--	--	--	--	--	23.2	--	--
12...	.067	.04	--	--	--	--	--	--	--	--	--	23.4	--	--
13...	.058	<.03	--	--	--	--	--	--	--	--	--	22.5	--	--
13...	.062	<.03	--	--	--	--	--	--	--	--	--	22.0	--	--
19...	<.028	.21	--	--	--	--	--	--	--	--	--	19.1	--	--
28...	--	<.03	--	--	--	--	--	--	--	--	--	--	--	--
AUG 02...	--	--	<.06	.007	<.02	<.010	E.003	.005	.5	.1	.4	25.5	<1.0	9.6
12...	--	<.03	--	--	--	--	--	--	--	--	--	13.2	--	--
SEP 21...	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	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)	Alum- inum, water, fltrd, ug/L (01106)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover- able, ug/L (01007)
DEC											
11...	1030	Environmental	--	--	--	--	--	--	--	--	--
JAN											
06...	1100	Environmental	--	--	--	--	--	321	--	--	--
FEB											
02...	1030	Environmental	--	--	--	--	--	--	--	<2	11.8
23...	1130	Environmental	--	--	--	--	--	294	--	--	--
MAR											
29...	1515	Environmental	--	--	--	--	--	304	--	--	--
APR											
02...	2035	Environmental	--	--	--	--	--	354	--	--	--
05...	0330	Environmental	--	--	--	--	--	421	--	--	--
15...	1335	Environmental	--	--	--	--	--	478	--	--	--
22...	1325	Environmental	--	--	--	--	--	375	--	--	--
26...	1930	Environmental	--	--	--	--	--	348	--	--	--
26...	2330	Environmental	--	--	--	--	--	376	--	--	--
29...	0025	Environmental	--	--	--	--	--	429	--	--	--
JUN											
03...	1030	Environmental	--	--	--	--	--	--	--	--	--
JUL											
12...	1125	Environmental	--	--	--	--	--	101	--	--	--
12...	1815	Environmental	--	--	--	--	--	267	--	--	--
12...	2015	Environmental	--	--	--	--	--	267	--	--	--
12...	2140	Environmental	--	--	--	--	--	278	--	--	--
12...	2200	Environmental	--	--	--	--	--	369	--	--	--
12...	2230	Environmental	--	--	--	--	--	295	--	--	--
13...	0010	Environmental	--	--	--	--	--	428	--	--	--
13...	0130	Environmental	--	--	--	--	--	423	--	--	--
19...	1430	Environmental	--	--	--	--	--	422	--	--	--
28...	0115	Environmental	--	--	--	--	--	399	--	--	--
AUG											
02...	0959	<i>Field Blank</i>	--	--	--	--	--	--	<.2	--	--
02...	1000	Environmental	--	--	--	--	--	--	--	<2	11.7
02...	1000	Bed material	5.63	30	910	.5	<.2	--	--	--	--
12...	0630	Environmental	--	--	--	--	--	420	--	--	--
SEP											
21...	0900	Environmental	--	--	--	--	--	122	--	--	--

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	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)	Bed sedi- ment, falldia dst wat percent <.004mm (80157)
DEC										
11...	--	--	--	--	--	--	--	--	--	--
JAN										
06...	--	--	--	--	--	--	--	--	--	--
FEB										
02...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
MAR										
29...	--	--	--	--	--	--	--	--	--	--
APR										
02...	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
JUN										
03...	--	--	--	--	--	--	--	--	--	--
JUL										
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--
02...	<50	<50	<50	<5	<50	E3	<50	E12	2	1
12...	--	--	--	--	--	--	--	--	--	--
SEP										
21...	--	--	--	--	--	--	--	--	--	--

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
JUN 03...	1030	<.009	<.02	<.03	<.01	<.008	<.009	<.004	<.01	<.03	<.0096	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
JUN 03...		<.01	<.01	<.01	<.01	<.01	<.03	<.02	<.02	<.007	<.02	<.02	<.008	<.02

Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)
JUN 03...		<.02	<.01	<.02	<.02	<.009	<.006	<.010	<.02

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
JUL 12...	1045	1.3	130	<100	<20
20...	1105	2.7	<10	<100	<20
26...	1055	2.2	<10	<100	<20
AUG 02...	1025	3.2	10	<100	<20
09...	1035	2.0	<10	100	<20
19...	1025	2.3	80	100	<20

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

01466900 GREENWOOD BRANCH AT NEW LISBON, NJ

LOCATION.--Lat 39°57'22", long 74°37'40", Burlington County, Hydrologic Unit 02040202, at bridge on Four Mile Road (County Route 646), 0.1 mi south of New Lisbon, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--77.9 mi².

PERIOD OF RECORD.--Water year 2001 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Undeveloped Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	
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)	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)
Date		Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
DEC 01...	1030	108	2.9	.429	.335	757	10.3	85	4.5	56	12.5	7.2	5	
FEB 03...	0930	E82	3.2	.306	.240	765	10.7	77	4.4	60	4.0	1.8	6	
MAY 13...	1000	99	4.5	.767	.604	766	6.7	74	4.4	54	28.0	20.3	4	
SEP 09...	0900	61	5.4	.586	.463	758	6.8	77	4.3	53	26.5	21.3	5	
DEC 01...	1.05	.570	.75	3.62	6.66	<.2	5.5	9.6	29	2	.20	.020	.020	
FEB 03...	1.17	.657	.89	4.66	7.78	<.2	5.7	14.4	39	<1	<.20	.063	--	
MAY 13...	.89	.470	.74	4.12	7.27	<.2	3.5	10.3	45	5	.30	.046	--	
SEP 09...	.96	.522	.80	4.57	7.39	<.2	5.9	4.9	40	5	.29	.043	--	
DEC 01...	.06	E.003	.04	<.020	.012	.020	.26	.30	.7	<.1	.7	8.4	<1.0	
FEB 03...	.10	<.003	.06	<.020	.011	.022	--	--	.8	<.1	.8	6.4	2.0	
MAY 13...	.04	.004	.14	E.009	<.020	.040	.34	.48	2.4	<.1	2.4	13.0	<1.0	
SEP 09...	.06	.005	.17	<.010	.012	.048	.35	.52	3.6	<.1	3.6	10.7	<1.0	

DELAWARE RIVER BASIN

01466900 GREENWOOD BRANCH AT NEW LISBON, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Boron, water, fltrd, ug/L (01020)
DEC 01...	11
FEB 03...	11
MAY 13...	8.6
SEP 09...	9.3

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 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	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)
JUL					
12...	1215	37	590	<100	<20
20...	1015	195	20	100	<20
26...	1000	146	30	<100	20
AUG					
02...	0940	182	130	<100	40
09...	0950	92	50	<100	20
16...	1105	117	260	<100	130

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

01467005 NORTH BRANCH RANOCAS CREEK AT IRON WORKS PARK, AT MOUNT HOLLY, NJ

LOCATION.--Lat 39°59'31", long 74°46'57", Burlington County, Hydrologic Unit 02040202, at Iron Works Park footbridge, 0.3 mi north of Saint Andrews Cemetery in Mount Holly, and 0.1 mi downstream from Mill Dam.

DRAINAGE AREA.--140 mi².

PERIOD OF RECORD.--Water years 1998 to current year. Published as "at Pine Street" (station 01467006) 1998-99.

REMARKS.--Site is at head of tide; all samples collected at low tide. Total nitrogen (00600) equals the sum of dissolved ammonia plus organic nitrogen (00623), dissolved nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

COOPERATION.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
Date	Time	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, 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)
Date	Time	Ammonia water, fltrd, mg/L as N (00608)	Ammonia water, unfltrd as N (00610)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00694)	Inorganic carbon, suspnd total, mg/L (00688)	Organic carbon, suspnd total, mg/L (00689)
NOV 24...	1220	264	6.0	.475	.373	761	10.6	94	5.5	85	18.0	9.7	18	
FEB 03...	0920	128	5.7	.262	.207	766	14.1	98	6.2	142	5.0	.7	24	
MAY 13...	0810	E170	7.7	.554	.438	767	7.8	88	5.8	116	24.3	21.1	21	
AUG 23...	0910	218	11	.853	.677	762	8.4	94	5.8	90	22.5	21.0	17	
NOV 24...	5.12	1.36	1.65	6.78	4	11.5	<.2	6.6	12.1	49	69	4	.50	
FEB 03...	7.12	1.57	1.74	13.5	4	15.0	<.2	7.1	24.8	75	87	2	.60	
MAY 13...	6.23	1.28	1.63	12.0	4	13.1	<.2	4.5	20.1	63	81	8	.60	
AUG 23...	5.03	1.12	1.61	8.53	4	12.8	<.2	6.2	13.6	52	75	9	.67	
NOV 24...	.200	.210	.23	<.003	.10	.036	.035	.107	.73	.83	1.3	<.1	1.2	
FEB 03...	.387	--	.25	<.003	.07	.048	--	--	.85	.92	.9	<.1	.9	
MAY 13...	.293	--	.22	.008	.20	.042	--	--	.82	1.0	2.8	<.1	2.7	
AUG 23...	.220	--	.17	.009	.31	.044	.054	.183	.83	1.1	5.8	<.1	5.8	

DELAWARE RIVER BASIN

01467005 NORTH BRANCH RANOCAS CREEK AT IRON WORKS PARK, AT MOUNT HOLLY, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 24...	9.2	E1.0	19
FEB 03...	5.5	<1.0	21
MAY 13...	9.6	E1.0	20
AUG 23...	14.2	2.0	20

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 2003 TO SEPTEMBER 2004

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)
JUL				
12...	1330	4,100	1,500	2,400
20...	1135	200	<100	500
26...	1130	210	100	170
AUG				
02...	1145	2,300	1,600	2,400
09...	1215	250	600	500
16...	1120	420	600	2,400

Remark codes used in this table:

< -- Less than

01467150 COOPER RIVER AT HADDONFIELD, NJ

LOCATION.--Lat 39°54'11", long 75°01'17", Camden County, Hydrologic Unit 02040202, at Wallworth Lake in Pennypacker Park, 200 ft upstream from bridge on State Highway 41 (Kings Highway) in Haddonfield, 0.6 mi upstream from North Branch Cooper River, and 7.7 mi upstream from mouth.

DRAINAGE AREA.--17.0 mi².

PERIOD OF RECORD.--Water years 1968-79, 1991 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: March 1968 to September 1969.

WATER TEMPERATURE: March 1968 to August 1969, recorded once daily; October 1998 to September 2001, recorded hourly.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 18...	1000	13	23	.115	.090	770	7.6	66	7.3	213	11.5	9.5	63	
FEB 17...	0900	18	13	.138	.119	760	10.5	75	7.6	328	4.0	1.6	68	
MAY 04...	0900	47	28	.257	.199	762	7.6	72	7.3	244	7.8	13.0	55	
AUG 04...	0900	22	41	.268	.211	754	5.2	--	7.2	--	24.8	22.8	57	
NOV 18...	17.3	4.79	4.53	15.8	30	32.8	<.2	13.7	23.8	132	144	9	.40	
FEB 17...	18.9	4.96	3.66	38.1	24	68.5	<.2	11.5	28.8	191	205	10	.40	
MAY 04...	15.9	3.83	3.37	26.8	31	41.1	<.2	6.6	17.7	135	149	19	.40	
AUG 04...	16.0	4.12	3.88	17.6	31	34.3	<.2	11.1	20.7	129	152	20	.59	
NOV 18...	.240	.230	.23	.008	.18	<.020	.020	.200	.63	.81	1.8	<.1	1.8	
FEB 17...	.302	--	.47	.009	.12	<.020	<.002	.018	.87	.99	1.2	<.1	1.2	
MAY 04...	.142	--	.31	.016	.32	.024	.020	.230	.71	1.0	2.7	<.1	2.7	
AUG 04...	.240	--	.36	.015	.37	.045	.054	.34	.96	1.3	3.3	<.1	3.3	

DELAWARE RIVER BASIN

01467150 COOPER RIVER AT HADDONFIELD, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 18...	3.6	E1.5	40
FEB 17...	2.5	<1.0	34
MAY 04...	5.2	2.4	32
AUG 04...	5.7	E1.4	40

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
JUN 29...	1015	30	5,300	3,600	3,000
JUL 06...	1000	16	4,600	3,700	9,000
20...	1015	32	430	1,200	2,200
22...	0955	19	370	500	500
27...	1015	14	420	300	1,100

01467312 NEWTON CREEK AT WEST COLLINGSWOOD, NJ

LOCATION.--Lat 39°54'05", long 75°05'41", Camden County, Hydrologic Unit 02040202, at bridge on State Route 168 (Mount Ephraim Avenue/Black Horse Pike), 0.4 mi southwest of West Collingswood, 1.5 mi east of Gloucester City, 1.9 mi west of Collingswood, and 2.6 mi upstream of Newton Creek.

DRAINAGE AREA.--4.51 mi².

PERIOD OF RECORD.--Water years 1964, 1965, 1967, 2003 to August 2004.

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, total phosphorus in bed sediment, 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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 18.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date		Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
DEC 08...	1000	5.7	.112	.093	764	9.7	71	7.6	286	6.6	2.1	67	15.4	
FEB 24...	0945	8.7	.074	.056	762	11.8	92	7.7	350	6.0	4.9	75	19.8	
MAY 26...	1100	8.5	.100	.075	758	8.7	106	7.8	234	19.5	25.0	64	15.7	
AUG 30...	1000	9.8	.126	.095	762	7.2	90	7.8	171	24.5	26.6	51	13.7	
DEC 08...	6.91	3.40	29.4	35	54.2	<.2	7.9	16.5	161	161	12	.60	.260	
FEB 24...	6.14	3.00	46.1	36	78.1	<.2	3.5	19.1	202	221	11	.50	.238	
MAY 26...	6.13	2.89	17.5	38	35.1	<.2	5.4	13.9	123	131	9	.30	E.008	
AUG 30...	4.10	2.32	11.7	30	20.4	<.2	1.8	15.0	88	101	11	.36	E.009	
DEC 08...	.260	1.40	.034	.19	<.020	<.020	.060	2.0	2.4	1.1	<.1	1.1	2.9	
FEB 24...	--	.98	.023	.37	<.020	.008	.020	1.5	1.9	2.5	<.1	2.5	2.6	
MAY 26...	--	.77	.032	.20	<.010	<.002	.003	1.1	--	1.2	<.1	1.2	4.1	
AUG 30...	--	.22	.008	.49	.018	.022	.118	.57	1.1	2.6	<.1	2.6	4.2	

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 08...	E1.5	24
FEB 24...	2.8	26
MAY 26...	3.2	27
AUG 30...	2.8	30

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

WATER-COLUMN AND BED-SEDIMENT TRACE-ELEMENT ANALYSES

Mercury in bed sediment was not determined by the time of publication; it is available in the files of the USGS New Jersey Water Science Center (previously called the District Office).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)
FEB 24...	0945	--	--	--	--	--	<2	35.2	<.06	28	E.03	<.8	2.5
AUG 30...	1000	--	--	--	--	--	2	40.8	<.06	28	E.02	E.5	2.1
AUG 30...	1000	7.24	100	3,300	11	2.9	--	--	--	--	--	--	--

Date	Time	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 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)
FEB 24...	630	2.22	82.4	<.02	2.13	E.2	<.16	17	--	--	--	--	--	--
AUG 30...	630	2.33	90.6	<.02	1.96	E.3	<.16	5	--	--	--	--	--	--
AUG 30...	--	--	--	--	--	--	--	--	<1	.240	17	1.6	16	

Date	Time	Iron, bed sedimnt total, ug/g (01170)	Lead, bed sedimnt recover- able, ug/g (01052)	Mangan- ese, bed sedimnt recover- able, ug/g (01053)	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- 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, wsv nat 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)
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 30...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 30...	7,700	70	84	4.5	<1	69	<50	<50	E25	E38	E43	E24	E20	

01467312 NEWTON CREEK AT WEST COLLINGSWOOD, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	2-Ethyl naphthalene bed sed <2 mm wsv nat ug/kg (49948)	2-Methylanthracene, bed sed <2 mm, ug/kg (49435)	45Methyleneanthrene, bed sed <2 mm, ug/kg (49411)	9H-Flourene, 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, ug/kg (49436)	Benzo-[a]-pyrene, bed sed <2 mm, wsv nat ug/kg (49389)	Benzo-[b]-fluoranthene, bed sed <2 mm, ug/kg (49458)	Benzo-[ghi]-perylene, bed sed <2 mm, ug/kg (49408)	Benzo-[k]-fluoranthene, bed sed <2 mm, ug/kg (49397)	Chrysene, bed sed <2 mm, wsv nat field, ug/kg (49450)
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 30...	--	--	--	--	--	--	--	--	--	--	--	--	--
30...	<50	E22	79	56	E40	E35	120	430	420	500	360	350	740

Date	Dibenzo-[a,h]-anthracene, bed sed <2 mm, ug/kg (49461)	Fluoranthene 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)	Naphthalene, bed sed <2 mm wsv nat field, 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)	Phenanthridine, 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, falldia dst wat percent <.004mm (80157)
FEB 24...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 30...	--	--	--	--	--	--	--	--	--	--	--	--
30...	81	1,500	360	<50	<50	25	E23	620	E21	990	<1	1

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF ug/L (49310)	Carbofuran, water, fltrd, 0.7u GF ug/L (49309)
MAY 26...	1100	<.078	.38	<.03	<.01	E.016	E.025	<.004	<.01	<.03	E.1468	<.03	<.006

Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 26...		<.01	<.01	<.01	<.01	E.05	<.03	<.02	<.02	E.062	<.02	<.02	<.008	<.02

DELAWARE RIVER BASIN

01467312 NEWTON CREEK AT WEST COLLINGSWOOD, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Ory- zalin, water, fltrd 0.7u GF ug/L (49292)	Oxamyl, water, fltrd 0.7u GF ug/L (38866)	Propi- cona- zole, water, fltrd, ug/L (50471)	Siduron water, fltrd, ug/L (38548)	Sulfo- met- ruron, water, fltrd, ug/L (50337)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd, ug/L (04032)	Tri- clopyr, water, fltrd 0.7u GF ug/L (49235)
MAY 26...	<.02	<.01	<.02	E.04	<.009	<.009	<.010	<.02

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 2003 TO SEPTEMBER 2004

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 26...	1100	60	100	170
JUN 29...	0920	120	900	800
JUL 06...	0920	120	100	230
20...	0930	90	100	500
22...	0910	160	500	500
27...	0940	110	400	800

01467359 NORTH BRANCH BIG TIMBER CREEK AT GLENDORA, NJ

LOCATION.--Lat 39°50'04", long 75°04'01", Camden County, Hydrologic Unit 02040206, at bridge on Chews Landing-Clementon Road (County Route 683), 0.7 mi south of Glendora, 1.8 mi upstream of South Branch Big Timber Creek, and 2.5 mi north of Blackwood.

DRAINAGE AREA.--18.8 mi².

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

REMARKS.--Site is tide-affected; all samples collected at low tide. 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Urban Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 18.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	
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 unf 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 (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 08...	0900	30	15	.155	.130	763	13.2	92	6.7	721	1.0	.7	72	
FEB 24...	1240	35	12	.085	.068	762	11.9	94	6.8	204	5.5	5.6	56	
JUN 03...	1000	112	22	.222	.178	762	5.8	63	6.5	191	22.0	19.6	52	
AUG 31...	1150	190	25	.213	.168	755	5.0	60	6.5	131	28.5	24.5	35	
DEC 08...	22.4	3.96	3.26	103	25	197	<.2	9.1	22.9	380	406	24	.40	
FEB 24...	16.7	3.46	2.90	18.3	24	30.3	<.2	9.3	24.2	124	137	17	.20	
JUN 03...	15.8	2.94	2.81	13.4	28	24.2	<.2	8.2	16.1	103	109	20	.40	
AUG 31...	10.8	2.01	2.99	8.39	20	13.8	<.2	5.2	12.1	69	80	15	.31	
DEC 08...	.150	.160	.70	.014	.14	<.020	<.020	.160	1.1	1.2	2.0	<.1	2.0	
FEB 24...	.117	--	.90	.010	.12	<.020	<.002	.028	1.1	1.2	1.7	<.1	1.7	
JUN 03...	.126	--	.66	.035	.18	.016	.019	.034	1.1	1.2	2.0	<.1	2.0	
AUG 31...	.039	--	.33	.011	.14	.038	.043	.24	.64	.78	1.4	<.1	1.4	

DELAWARE RIVER BASIN

01467359 NORTH BRANCH BIG TIMBER CREEK AT GLENDORA, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
DEC 08...	2.4	<1.0	163
FEB 24...	1.9	2.8	208
JUN 03...	4.0	E1.3	155
AUG 31...	4.6	2.5	83

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 2003 TO SEPTEMBER 2004

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 29...	0850	3,800	3,500	3,000
JUL 06...	0850	260	300	800
20...	0900	580	500	220
22...	0840	140	100	500
27...	0900	300	200	500

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA

LOCATION.--Lat 40°09'05", long 75°36'06", Chester County, PA, Hydrologic Unit 02040203, on right bank 70 ft downstream from two-span county bridge on French Creek Road, 4.5 mi northwest of Phoenixville, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--59.1 mi².

PERIOD OF RECORD.--October 1968 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: November 1998 to April 1999, June 1999 to August 1999, June 2000 to September 2001.

REMARKS.--Data collected as part of the Delaware River Basin National Water-Quality Assessment Program (DELNAWQA). For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	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)	Alkalinity, wat fltr inc tit field, mg/L as CaCO3 (39086)
NOV 13...	0910	Environmental	138	744	10.9	96	7.4	150	12.5	9.9	35
13...	0911	Split Replicate	--	--	--	--	--	--	--	--	--
DEC 08...	1050	Environmental	108	756	14.6	102	7.3	166	.0	.7	30
JAN 20...	1200	Environmental	115	761	14.9	102	7.2	174	-2.5	.1	29
MAR 16...	0900	Environmental	70	756	13.0	101	7.1	158	1.0	4.9	25
APR 12...	0950	Environmental	98	751	12.2	104	7.2	153	11.5	8.4	28
MAY 20...	1140	Environmental	124	764	10.1	106	7.8	150	21.5	17.8	32
JUN 16...	1040	Environmental	155	760	8.9	98	7.5	144	27.0	20.0	33
JUL 07...	0930	Environmental	32	754	8.9	100	7.8	165	25.0	20.9	43
SEP 01...	1030	Environmental	109	763	9.0	98	7.4	148	25.5	19.6	33

Date	Chloride, water, fltrd, mg/L (00940)	Sulfate, water, fltrd, mg/L (00945)	Ammonia, water, fltrd, mg/L as N (00608)	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)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV 13...	12.1	11.8	<.04	1.41	<.008	.009	.037	1.67	3	1.1
13...	12.0	11.8	<.04	1.40	<.008	.009	.028	1.62	3	--
DEC 08...	16.8	12.8	<.04	1.72	<.008	E.004	.015	1.83	1	.29
JAN 20...	22.9	13.1	<.04	1.92	<.008	.007	.017	2.10	3	.93
MAR 16...	14.7	11.3	<.04	1.57	E.004	<.006	.016	1.74	2	.38
APR 12...	14.2	10.8	<.04	1.51	<.008	E.003	.020	1.67	4	1.1
MAY 20...	13.1	8.0	<.04	1.08	.008	.018	.066	1.49	--	--
JUN 16...	12.7	9.4	<.04	1.16	.009	.024	.167	1.48	60	25
JUL 07...	13.0	11.9	<.04	1.14	<.008	.010	.028	1.28	3	.26
SEP 01...	11.3	17.1	E.02	.93	E.004	.052	.106	1.34	10	2.9

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

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA—Continued

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 2003 TO SEPTEMBER 2004

Date	Time	Sample type	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)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor- pyrifos water, fltrd, ug/L (38933)	DCPA, water fltrd 0.7u GF ug/L (82682)
NOV 13...	0910	Environmental	E.008	<.006	<.005	<.005	.013	<.010	<.041	<.005	<.003
JAN 20...	1200	Environmental	E.025	<.006	<.005	<.005	.010	<.010	<.041	<.005	<.003
MAR 16...	0900	Environmental	E.019	<.006	<.005	<.005	.010	<.010	<.041	<.005	<.003
APR 12...	0950	Environmental	E.021	<.006	<.005	<.005	.011	<.010	E.008	<.005	<.003
MAY 20...	1140	Environmental	E.035	.009	<.005	<.005	.228	<.010	<.041	<.005	<.003
JUN 16...	1039	Field Blank	<.006	<.006	<.005	<.005	<.007	<.010	<.041	<.005	<.003
JUN 16...	1040	Environmental	E.031	.026	<.005	<.005	.223	<.010	E.026	.017	<.003
JUL 07...	0930	Environmental	E.035	<.006	<.005	<.005	.028	<.010	<.041	<.005	<.003
SEP 01...	1030	Environmental	E.019	<.006	<.005	<.005	.023	<.010	<.041	<.005	<.003

Date	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	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)	Lindane water, fltrd, ug/L (39341)	Metola- chlor, water, fltrd, ug/L (39415)	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)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
NOV 13...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	E.009	<.022	M	.008	<.02	<.009
JAN 20...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	E.009	<.022	<.01	.007	<.02	<.009
MAR 16...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	E.009	<.022	<.01	.008	<.02	<.009
APR 12...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	E.008	<.022	<.01	.013	<.02	<.009
MAY 20...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	.108	<.022	.01	.182	<.02	<.009
JUN 16...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	<.013	<.022	<.01	<.005	<.02	<.009
JUN 16...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	.139	<.022	.01	.284	<.02	<.009
JUL 07...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	E.011	<.022	<.01	.035	<.02	<.009
SEP 01...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	.035	<.022	.01	.019	<.02	<.009

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA

LOCATION.--Lat 39°58'04", long 75°11'20", Philadelphia County, PA, Hydrologic Unit 02040203, upstream from Fairmount Dam, 1,500 ft upstream from bridge on Spring Garden Street in Philadelphia, and 8.7 mi upstream from mouth.

DRAINAGE AREA.--1,893 mi².

PERIOD OF RECORD.--October 1998, revised, to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 214, 261, 301, and 381, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1936(M). WSP 1432: 1945. See also PERIOD OF RECORD.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: September 1998 to April 1999, July 1999 to September 1999.

WATER TEMPERATURE: September 1998 to September 2001.

REMARKS.--Data collected as part of the Delaware River Basin National Water-Quality Assessment Program (DELN-NAWQA). For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	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)	Alkalinity, wat fltr inc tit field, mg/L as CaCO3 (39086)
NOV 19...	1050	Environmental	2,600	756	11.6	102	7.8	367	19.0	10.0	78
DEC 10...	0930	Environmental	3,240	762	15.6	117	7.6	381	8.0	3.2	67
FEB 12...	1039	Field Blank	--	--	--	--	--	--	--	--	--
DEC 12...	1040	Environmental	4,960	766	14.6	109	7.5	385	5.0	3.2	59
MAR 17...	1130	Environmental	2,860	758	13.3	107	8.6	403	2.0	6.2	65
APR 13...	1100	Environmental	7,180	751	12.6	111	7.5	381	11.0	10.0	63
MAY 11...	1130	Environmental	3,020	763	8.9	98	7.6	350	30.5	20.0	56
JUN 15...	1140	Environmental	1,850	761	8.3	94	7.6	391	26.5	21.7	65
JUL 06...	1050	Environmental	1,090	759	7.9	100	7.7	469	32.0	27.0	80
SEP 02...	0900	Environmental	2,810	768	7.9	93	7.5	285	22.0	23.4	60

Date	Chloride, water, fltrd, mg/L (00940)	Sulfate, water, fltrd, mg/L (00945)	Ammonia, water, fltrd, mg/L as N (00608)	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)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV 19...	29.1	43.5	.07	3.13	.023	.124	.166	3.64	7	49
DEC 10...	39.3	41.4	.09	3.26	.020	.103	.107	3.31	1	8.7
FEB 12...	<.20	<.2	<.04	<.06	<.008	<.006	<.004	<.03	<1	--
DEC 12...	51.7	28.6	.18	3.32	.040	.087	.141	3.90	8	107
MAR 17...	49.9	35.8	.09	2.96	.043	.093	.169	3.37	3	23
APR 13...	44.5	33.5	.18	2.70	.080	.175	.27	3.22	24	465
MAY 11...	34.3	37.7	.08	2.54	.049	.129	.180	2.94	8	65
JUN 15...	40.6	42.0	.08	3.29	.047	.206	.23	3.51	5	25
JUL 06...	45.4	60.5	E.04	3.09	.031	.283	.32	3.39	5	15
SEP 02...	23.2	27.9	.09	2.00	.030	.160	.18	2.59	16	121

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA—Continued

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 2003 TO SEPTEMBER 2004

Date	Time	Sample type	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)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor- pyrifos water, fltrd, ug/L (38933)	DCPA, water fltrd 0.7u GF ug/L (82682)
NOV 19...	1050	Environmental	E.009	<.006	<.005	<.005	.030	<.010	<.041	<.005	<.003
FEB 12...	1040	Environmental	E.033	<.006	<.005	<.005	.036	<.010	E.005	<.005	<.003
MAR 17...	1130	Environmental	E.024	<.006	<.005	<.005	.029	<.010	<.041	<.005	<.003
APR 13...	1100	Environmental	E.021	<.006	<.005	<.005	.024	<.010	E.016	<.005	<.003
MAY 11...	1130	Environmental	E.035	.008	<.005	<.005	.068	<.010	<.041	<.005	<.003
MAY 11...	1131	<i>Split Replicate</i>	E.026	.007	<.005	<.005	.063	<.010	E.008	<.005	<.003
JUN 15...	1139	<i>Field Blank</i>	<.006	<.006	<.005	<.005	<.007	<.010	<.041	<.005	<.003
JUN 15...	1140	Environmental	E.041	.008	<.005	<.005	.141	<.010	E.009	<.005	<.003
JUL 06...	1050	Environmental	E.034	<.006	<.005	<.005	.088	<.010	<.041	<.005	<.003
SEP 02...	0900	Environmental	E.022	<.006	<.005	<.005	.041	<.010	E.058	<.005	<.003

Date	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	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)	Lindane water, fltrd, ug/L (39341)	Metola- chlor, water, fltrd, ug/L (39415)	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)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
NOV 19...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	E.013	<.022	.01	.009	E.01	<.009
FEB 12...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	.022	<.022	.01	.020	<.02	<.009
MAR 17...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	.014	<.022	.01	.011	<.02	<.009
APR 13...	E.004	.006	<.029	<.013	<.024	E.010	<.004	E.012	E.012	.01	.016	E.02	<.009
MAY 11...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	.029	<.022	.01	.028	<.02	<.009
MAY 11...	<.012	<.005	<.029	<.013	<.024	E.004	<.004	.029	<.022	.01	.025	<.02	<.009
JUN 15...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	<.013	<.022	<.01	<.005	<.02	<.009
JUN 15...	E.004	.007	<.029	<.013	E.003	E.011	<.004	.063	<.022	.03	.022	E.01	<.009
JUL 06...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	.031	<.022	.03	.017	<.02	<.009
SEP 02...	<.012	<.010	<.029	<.013	<.024	<.016	<.004	.021	<.022	.05	.018	<.02	<.009

Remark codes used in this table:

< -- Less than

E -- Estimated value

01475042 MANTUA CREEK AT MANTUA AVENUE, AT WENONAH, NJ

LOCATION.--Lat 39°47'27", long 75°09'37", Gloucester County, Hydrologic Unit 02040202, at bridge on Mantua Avenue, 0.1 mi downstream of Chestnut Branch, 0.5 mi west of Wenonah, and 0.5 mi east of Mantua

DRAINAGE AREA.-- 29.2 mi².

PERIOD OF RECORD.--Water year 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 18.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
NOV 24...	0900	8.8	.206	.164	760	9.9	87	7.9	185	15.2	9.4	56	15.8
FEB 02...	1000	9.9	.087	.072	764	9.9	68	7.8	331	-1.2	.0	67	18.9
MAY 11...	1100	7.5	.189	.148	766	8.0	87	7.5	216	26.7	20.2	58	16.9
AUG 18...	0800	9.0	.168	.132	760	6.4	72	7.1	218	21.9	21.1	59	17.1
Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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 24...	3.91	3.40	10.9	34	19.1	<.2	9.4	21.8	108	120	8	.30	.070
FEB 02...	4.77	3.66	37.4	25	61.5	<.2	10.3	30.4	190	210	6	.40	.169
MAY 11...	3.93	3.10	16.8	33	24.2	<.2	11.4	27.5	128	139	4	.20	.055
AUG 18...	3.92	3.49	16.2	38	22.3	.2	13.5	26.3	129	131	5	.24	.031
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
NOV 24...	.070	.79	.006	.11	.022	.020	.090	1.1	1.2	1.1	<.1	1.1	4.7
FEB 02...	--	1.70	.019	.08	<.020	<.002	.008	2.1	2.2	.6	<.1	.6	2.0
MAY 11...	--	.97	.022	.18	.016	.016	.080	1.2	1.3	1.7	<.1	.6	4.1
AUG 18...	--	.74	.009	.09	.033	.032	.113	.97	1.1	.7	<.1	.7	4.0

DELAWARE RIVER BASIN

01475042 MANTUA CREEK AT MANTUA AVENUE, AT WENONAH, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 24...	E1.8	34
FEB 02...	<1.0	32
MAY 11...	2.5	38
AUG 18...	<1.0	41

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 02...	1000	<2	71.8	.26	37	.35	E.6	1.5	1,700	1.06	104	E.01	6.71
AUG 18...	0800	E2	52.6	.06	39	.18	E.5	2.4	1,640	1.07	81.2	<.02	4.12

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 02...	E.2	<.16	26
AUG 18...	E.4	<.16	10

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

01475042 MANTUA CREEK AT MANTUA AVENUE, AT WENONAH, NJ—Continued

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF ug/L (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)	
MAY 11...	1100	<.009	.17	<.03	<.01	E.010	.013	<.004	<.01	E.01	.0391	E.02	<.006	
Date	Time	Clopyralid, water, fltrd, 0.7u GF ug/L (49305)	Dicamba water, fltrd, 0.7u GF ug/L (38442)	Di-chlor-prop, water, fltrd, 0.7u GF ug/L (49302)	Dinoseb water, fltrd, 0.7u GF ug/L (49301)	Diuron, water, fltrd, 0.7u GF ug/L (49300)	Fluometuron, water, fltrd, 0.7u GF ug/L (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF ug/L (38482)	Metaxalyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF ug/L (38501)	Norflurazon, water, fltrd, 0.7u GF ug/L (49293)
MAY 11...		<.01	<.01	<.01	<.01	E.01	<.03	<.02	<.02	<.007	<.02	E.01	<.008	E.01
Date	Time	Oryzalin, water, fltrd, 0.7u GF ug/L (49292)	Oxamyl, water, fltrd, 0.7u GF ug/L (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF ug/L (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF ug/L (49235)					
MAY 11...		<.02	<.01	<.02	E.01	<.009	<.006	<.010	<.02					

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 2003 TO SEPTEMBER 2004

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)
JUN 02...	0935	4,900	1,000	500
09...	0935	290	200	300
16...	1000	640	400	800
23...	1000	600	100	40
30...	0955	200	500	170

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ

LOCATION.--Lat 39°44'26", long 75°15'33", Gloucester County, Hydrologic Unit 02040202, at bridge on County Route 607 on Gibbstown-Harrisonville Road (Tomlin Station Road), 1.8 mi west of Mullica Hill, and 2.8 mi east of Swedesboro.

DRAINAGE AREA.--26.9 mi².

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: June 1966 to September 1969.

WATER TEMPERATURE: May 1966 to September 1973, daily maximum-minimum; October 1998 to October 2001, recorded hourly.

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). Additional trace-element data for this and other stations are presented in "Trace-Elements Collected During High-Flows in Selected Streams in New Jersey (303d)" in the Water-Quality at Special-Study Sites section of this report.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Watershed Integrator, New Jersey Department of Environmental Protection Watershed Management Area 18.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)
NOV 06...	0930	40	6.3	.184	.142	761	7.3	75	7.1	223	17.5	16.4	65
FEB 19...	1000	39	4.9	.087	.068	756	12.1	91	7.2	207	12.0	3.3	65
MAY 05...	1000	50	6.5	.191	.150	757	9.7	--	7.0	--	18.0	13.1	60
AUG 05...	0900	26	9.9	.263	.208	747	6.8	79	7.1	195	23.0	22.4	67
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)
NOV 06...	19.5	4.07	5.02	10.5	36	22.0	<.2	10.6	24.6	123	138	6	.80
FEB 19...	19.7	3.88	3.55	11.1	22	20.6	<.2	9.2	28.8	118	138	4	.90
MAY 05...	17.4	4.07	3.86	10.3	24	19.7	<.2	8.0	24.1	110	127	5	.50
AUG 05...	20.3	3.87	4.42	8.70	34	18.9	.2	10.3	22.7	115	136	22	.38
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 06...	.310	.310	1.10	.031	.10	.038	.030	.029	1.9	2.0	.9	<.1	.9
FEB 19...	.400	--	1.80	.024	.08	.026	--	.018	2.7	2.8	.7	<.1	.7
MAY 05...	.227	--	1.60	.032	.10	.028	.026	.090	2.1	2.2	.9	<.1	.9
AUG 05...	.066	--	1.07	.014	.08	.043	.044	.175	1.4	1.5	.8	<.1	.7

01477120 RACCOON CREEK NEAR SWEDESBORO, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 06...	5.3	E1.6	37
FEB 19...	2.3	<1.0	29
MAY 05...	4.3	E1.5	35
AUG 05...	5.0	E1.1	35

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 2003 TO SEPTEMBER 2004

Date	Time	Instantaneous discharge, cfs (00061)	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)
JUN 02...	1000	37	380	100	130
09...	0955	32	120	300	500
16...	1020	56	2,000	1,700	3,000
23...	1020	27	540	300	230
30...	1015	22	360	500	1,400

01477440 OLDMANS CREEK AT JESSUPS MILL, NJ

LOCATION.--Lat 39°39'44", long 75°13'52", Salem County, Hydrologic Unit 02040202, at bridge on Monroeville Road, 0.1 mi north of Jessups Mill, 0.2 mi upstream of Algokin Lake, 0.7 mi downstream of Kettle Run, and 0.7 mi southeast of Lincoln.

DRAINAGE AREA.--4.15 mi².

PERIOD OF RECORD.--Water years 2000, 2003 to August 2004.

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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Statewide Status, New Jersey Department of Environmental Protection Watershed Management Area 17.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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 unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	
Date	Time	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf 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 (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)
Date	Time	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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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 12...	1000	26	.390	.304	758	8.7	78	6.3	151	12.0	10.4	45	9.80	
FEB 25...	1030	2.3	.090	.066	763	11.7	84	6.5	204	1.5	1.9	64	14.9	
MAY 26...	1030	19	.403	.315	756	7.6	81	6.8	195	20.5	18.0	65	14.7	
AUG 25...	1100	2.6	.178	.138	767	8.3	88	6.8	227	25.5	18.5	77	17.9	
NOV 12...	5.00	4.89	5.73	9	16.7	<.2	7.9	18.6	85	102	44	.30	.020	
FEB 25...	6.50	3.60	7.02	6	20.6	<.2	6.3	28.7	115	122	6	.40	.030	
MAY 26...	6.94	3.61	7.12	14	20.9	<.2	7.1	23.7	111	143	30	.50	.079	
AUG 25...	7.72	4.06	7.94	16	23.8	<.2	7.7	27.0	130	143	<1	.34	.010	
NOV 12...	<.030	2.60	.006	.53	<.020	.002	.016	2.9	3.4	7.8	<.1	7.8	9.6	
FEB 25...	--	5.30	.003	.05	.030	--	--	5.7	5.8	.5	<.1	.5	3.0	
MAY 26...	--	4.30	.011	.29	.010	<.020	.050	4.8	5.1	4.0	<.1	4.0	8.8	
AUG 25...	--	5.46	.006	.06	E.009	.007	.017	5.8	5.9	.4	<.1	.4	4.0	

01477440 OLDMANS CREEK AT JESSUPS MILL, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 12...	E1.7	19
FEB 25...	E1.3	16
MAY 26...	<1.0	18
AUG 25...	E1.0	20

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

WATER-COLUMN TRACE-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	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)	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)
FEB 25...	1030	<2	95.0	.06	16	.06	<.8	.7	160	.31	60.7	<.02	1.74
AUG 25...	1100	E2	111	E.04	18	E.03	<.8	.8	250	.27	30.8	<.02	1.70

Date	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, unfltrd recover -able, ug/L (01092)
FEB 25...	.6	<.16	8
AUG 25...	.8	<.16	4

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

WATER-COLUMN PESTICIDE ANALYSES

The following were determined using laboratory schedule 2060 (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 2003 TO SEPTEMBER 2004

Date	Time	2,4-D methyl ester, water, fltrd, ug/L (50470)	2,4-D water, fltrd, ug/L (39732)	CIAT, water, fltrd, ug/L (04040)	CEAT, water, fltrd, ug/L (04038)	OIET, water, fltrd, ug/L (50355)	Atrazine, water, fltrd, ug/L (39632)	Benomyl, water, fltrd, ug/L (50300)	Ben-tazon, water, fltrd, 0.7u GF (38711)	Bromacil, water, fltrd, ug/L (04029)	Caffeine, water, fltrd, ug/L (50305)	Carbaryl, water, fltrd, 0.7u GF (49310)	Carbofuran, water, fltrd, 0.7u GF (49309)	
MAY 26...	1030	<.009	<.02	E.05	E.04	E.050	E.151	<.004	E.41	<.03	<.0096	M	E.005	
Date	Time	Clopyralid, water, fltrd, 0.7u GF (49305)	Dicamba water, fltrd, 0.7u GF (38442)	Di-chlor-prop, water, fltrd, 0.7u GF (49302)	Dinoseb water, fltrd, 0.7u GF (49301)	Diuron, water, fltrd, 0.7u GF (49300)	Fluometuron, water, fltrd, 0.7u GF (38811)	Imazaquin, water, fltrd, ug/L (50356)	Imazethapyr, water, fltrd, ug/L (50407)	Imidacloprid, water, fltrd, ug/L (61695)	MCPA, water, fltrd, 0.7u GF (38482)	Metaxyl, water, fltrd, ug/L (50359)	Methiocarb, water, fltrd, 0.7u GF (38501)	Norflurazon, water, fltrd, 0.7u GF (49293)
MAY 26...		<.01	<.01	<.01	E.01	E.01	<.03	E.02	<.02	<.007	<.02	<.02	<.008	E.09
Date	Time			Oxamyl, water, fltrd, 0.7u GF (38866)	Propiconazole, water, fltrd, ug/L (50471)	Siduron, water, fltrd, ug/L (38548)	Sulfometuron, water, fltrd, ug/L (50337)	Tebu-thiuron, water, fltrd, 0.7u GF (82670)	Terbacil, water, fltrd, ug/L (04032)	Tri-clopyr, water, fltrd, 0.7u GF (49235)				
MAY 26...				<.01	<.02	<.02	<.009	<.006	<.010	<.02				

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M -- Presence verified, not quantified

WATER-COLUMN BACTERIA ANALYSES

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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)
JUN 02...	1015	300	500	300
09...	1015	350	300	500
16...	1035	320	<100	1,300
23...	1035	440	1,100	1,300
30...	1030	330	800	500

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

01482500 SALEM RIVER AT WOODSTOWN, NJ

LOCATION.--Lat 39°38'36", long 75°19'51", Salem County, Hydrologic Unit 02040206, downstream from Memorial Lake Dam at Woodstown, 0.2 mi upstream from small brook, and 0.3 mi downstream from Pennsylvania-Reading Seashore Lines bridge.

DRAINAGE AREA.--14.6 mi².

PERIOD OF RECORD.--Water years 1973 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.--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.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Agricultural Land Use Indicator, New Jersey Department of Environmental Protection Watershed Management Area 18.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

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, mg/L as CaCO3 (00900)	
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)
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)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	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)
NOV 17...	1140	12	25	.231	.178	769	11.2	97	7.1	259	17.0	9.1	88	
FEB 05...	1110	34	31	.350	.282	776	15.8	107	6.7	218	4	3	57	
MAY 04...	1240	39	32	.274	.213	758	9.3	94	7.0	244	14.5	15.5	85	
AUG 30...	1210	3.2	21	.198	.150	762	7.2	92	8.8	270	27.0	27.6	99	
NOV 17...	19.6	9.51	7.29	8.69	31	24.5	<.2	10.3	33.6	147	157	24	.70	
FEB 05...	12.2	6.48	8.28	10.0	--	22.9	<.2	5.9	23.3	--	134	30	2.3	
MAY 04...	19.6	8.77	6.26	9.53	33	21.7	<.2	6.1	30.1	134	158	32	.90	
AUG 30...	23.0	10.2	6.69	9.68	51	27.4	<.2	5.3	29.1	144	159	25	.76	
NOV 17...	.260	.290	3.30	.052	.23	.026	.023	.130	4.0	4.2	1.8	<.1	1.7	
FEB 05...	.924	--	2.70	.034	.38	.214	.198	--	5.0	5.4	2.6	<.1	2.6	
MAY 04...	.254	--	2.70	.076	.36	.024	.028	.035	3.6	4.0	2.7	<.1	2.7	
AUG 30...	.073	--	.52	.048	.55	.033	.046	.194	1.3	1.8	2.9	<.1	2.9	

DELAWARE RIVER BASIN

01482500 SALEM RIVER AT WOODSTOWN, NJ—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004—CONTINUED

Date	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)
NOV 17...	6.6	E1.3	24
FEB 05...	12.5	3.0	18
MAY 04...	6.4	2.0	23
AUG 30...	6.2	4.2	28

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 2003 TO SEPTEMBER 2004

Date	Time	Instan- taneous dis- charge, cfs (00061)	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)
AUG					
03...	0930	12	80	2,300	500
10...	0945	5.0	110	<100	20
17...	0852	8.6	40	<100	130
24...	0900	5.0	130	700	700
31...	0935	5.0	130	<100	300

Remark codes used in this table:

< -- Less than

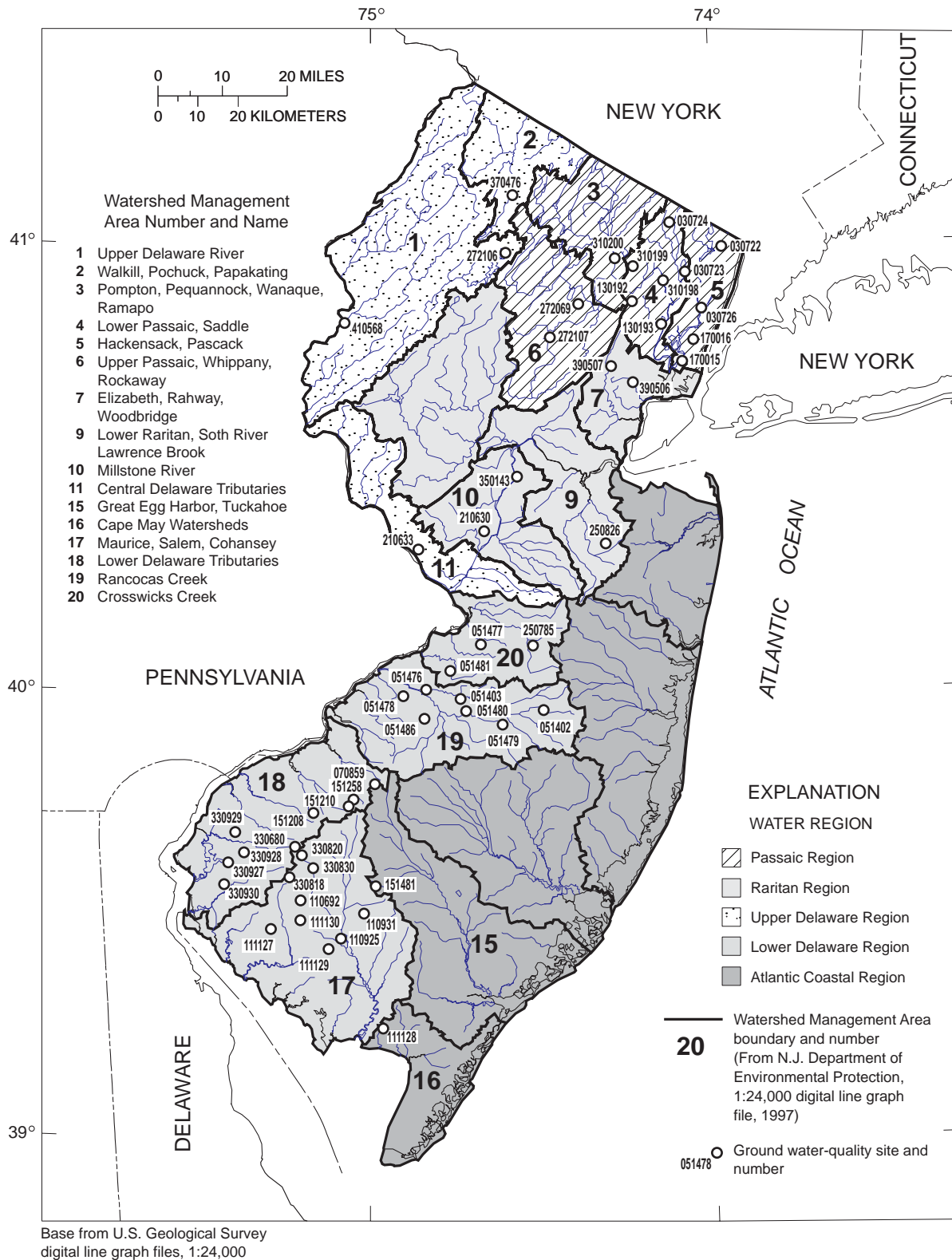


Figure 35. Location of wells in the Ambient Ground-Water-Quality Network, water year 2004.

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 1

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
410568	404900075043601	NJDEP MW95	404900	750435	315	61	51 - 61	112SFDF
272106	*405827074360801	NJDEP MW115	405827	743608	959	15	5 - 15	400PCMB

* Field data and samples for laboratory analysis were provided by the New Jersey Department of Environmental Protection.

AQUIFER UNITS.--112SFDF, Stratified Drift of Pleistocene age; 400PCMB, Precambrian Erathem.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	
NJDEP MW95	404900075043601	06-23-04	1220	.60	40	2.8	753	10.4	101	7.3	
NJDEP MW115	405827074360801	03-31-04	1030	.50	45	.6	730	3.2	28	6.4	
Local identifier	Date	Specif. conductance, wat unfltrd, uS/cm (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
NJDEP MW95	06-23-04	1,400	13.3	510	107	58.5	2.11	105	301	366	211
NJDEP MW115	03-31-04	3,080	6.8	540	152	38.1	2.04	388	103	125	948
Local identifier	Date	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)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	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)
NJDEP MW95	06-23-04	<.2	11.8	59.1	796	727	<.10	<.04	14.0	<.008	<.02
NJDEP MW115	03-31-04	<.2	8.7	21.1	1,620	1,950	E.09	<.04	.48	<.008	<.02
Local identifier	Date	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)
NJDEP MW95	06-23-04	.4	E1	<.20	.4	42	<.06	20	<.04	1.8	.9
NJDEP MW115	03-31-04	2.2	E2	<.40	<.4	258	<.12	E9	.11	<.8	1.3
Local identifier	Date	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Thallium, water, fltrd, ug/L (01057)	Zinc, water, fltrd, ug/L (01090)	1,1,1-Trichloroethane, water, unfltrd ug/L (34506)
NJDEP MW95	06-23-04	7	<.08	.3	<.02	2.44	1.0	<.2	<.04	.8	<.1
NJDEP MW115	03-31-04	<19	<.16	683	<.02	7.09	<.8	<.4	<.08	3.1	<.1

WATERSHED MANAGEMENT AREA 1—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)
NJDEP MW95	06-23-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
NJDEP MW115	03-31-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1

Local identifier	Date	Chloro-benzene water unfltrd ug/L (34301)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta-+ para-Xylene, water, unfltrd ug/L (85795)
NJDEP MW95	06-23-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2
NJDEP MW115	03-31-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2

Local identifier	Date	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)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)
NJDEP MW95	06-23-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1
NJDEP MW115	03-31-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1

Local identifier	Date	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)	Alpha radio-activty 2-sigma wat flt Th-230, pCi/L (75987)	Alpha radio-activity 30 day, wat flt Th-230, pCi/L (62639)	Alpha radio-activity 72 hr, wat flt Th-230, pCi/L (62636)	Alpha radio-activty water, fltrd, Th-230, pCi/L (04126)	Beta radio-activty 2-sigma wat flt CS-137, pCi/L (75989)	Beta radio-activity 30 day, wat flt Cs-137, pCi/L (62645)	Beta radio-activity 72 hr, wat flt Cs-137, pCi/L (62642)
NJDEP MW95	06-23-04	<.2	<.1	<.2	--	1	M	--	--	2	M
NJDEP MW115	03-31-04	<.2	<.1	<.2	8.9	--	--	1	7.7	--	--

Local identifier	Date	Gross beta radio-activity water, fltrd, Cs-137, pCi/L (03515)
NJDEP MW95	06-23-04	--
NJDEP MW115	03-31-04	5

Remark codes used in this table:

- < -- Less than
- E -- Estimated value
- M-- Presence verified, not quantified

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 1—Continued

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)
NJDEP MW95	404900075043601	06-23-04	1220	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP MW115	405827074360801	03-31-04	1030	<.006	<.006	<.006	<.007	<.041	<.020	<.012

Local identifier	Date	Diel-drin, water, fltrd, ug/L (39381)	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)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water fltrd 0.7u GF ug/L (82684)	Prome-ton, water, fltrd, ug/L (04037)	Sima-zine, water, fltrd, ug/L (04035)
NJDEP MW95	06-23-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP MW115	03-31-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	M	<.005

Local identifier	Date	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)
NJDEP MW95	06-23-04	<.02	<.034
NJDEP MW115	03-31-04	<.02	<.034

Remark codes used in this table:
 < -- Less than
 M-- Presence verified, not quantified

WATERSHED MANAGEMENT AREA 2

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
370476	410610074344801	NJDEP MW130	410610	743448	573	27	17 - 27	112SFDF

AQUIFER UNITS.--112SFDF, Stratified Drift of Pleistocene age.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)		
NJDEP MW130	410610074344801	06-17-04	1150	.21	45	7.1	745	1.4	13	7.5	
Local identifier	Date	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
NJDEP MW130	06-17-04	1,180	12.7	360	85.8	36.2	2.04	91.3	167	202	255
Local identifier	Date	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)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)
NJDEP MW130	06-17-04	<.2	12.8	14.9	600	624	<.10	<.04	.69	.035	<.02
Local identifier	Date	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)
NJDEP MW130	06-17-04	.8	4	<.20	.7	49	<.06	10	<.04	E.7	E.4
Local identifier	Date	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Thallium, water, fltrd, ug/L (01057)	Zinc, water, fltrd, ug/L (01090)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)
NJDEP MW130	06-17-04	64	E.08	97.2	<.02	2.10	E.4	<.2	<.04	1.3	<.1
Local identifier	Date	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)
NJDEP MW130	06-17-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 2—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	Chloro-benzene water unfltrd ug/L (34301)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta-+ para-Xylene, water, unfltrd ug/L (85795)
NJDEP MW130	06-17-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2

Local identifier	Date	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)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)
NJDEP MW130	06-17-04	<.1	<.1	<.1	E.2	<.1	<.2	<.1	<.1	<.2	<.1

Local identifier	Date	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)	Alpha radio-activity 30 day, Th-230, pCi/L (62639)	Alpha radio-activity 72 hr, Th-230, pCi/L (62636)	Beta radio-activity 30 day, Cs-137, pCi/L (62645)	Beta radio-activity 72 hr, Cs-137, pCi/L (62642)
NJDEP MW130	06-17-04	<.2	<.1	<.2	M	1	3	M

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

WATERSHED MANAGEMENT AREA 2—Continued

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	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)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF (82680)	Carbo-furan, water, fltrd 0.7u GF (82674)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)
NJDEP MW130	410610074344801	06-17-04	1150	<.006	<.006	<.006	<.007	<.041	<.020	<.012

Local identifier	Date	Diel- drin, water, fltrd, ug/L (39381)	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)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Naprop- amide, water fltrd 0.7u GF (82684)	Prome- ton, water, fltrd, ug/L (04037)	Sima- zine, water, fltrd, ug/L (04035)
NJDEP MW130	06-17-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005

Local identifier	Date	Tebu- thiuron water fltrd 0.7u GF (82670)	Terba- cil, water, fltrd 0.7u GF (82665)
NJDEP MW130	06-17-04	<.02	<.034

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

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 3

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
310200	*405739074164201	NJDEP MW137	405739	741642	192	24	14 - 24	112SFDF

* Field data and samples for laboratory analysis were provided by the New Jersey Department of Environmental Protection.

AQUIFER UNITS.--112SFDF, Stratified Drift of Pleistocene age.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Sample type	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)		
NJDEP MW137	405739074164201	03-24-04 03-24-04	1000 1030	Ambient Blank Environmental	-- .50	-- 45	-- .2	-- 767	-- E1.9		
Local identifier	Date	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)
NJDEP MW137	03-24-04 03-24-04	-- 6.7	-- 1,510	-- 12.0	-- 600	-- 137	-- 63.5	-- 1.14	-- 47.5	-- 507	-- 618
Local identifier	Date	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)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
NJDEP MW137	03-24-04 03-24-04	-- 164	-- .3	-- 22.8	-- 15.8	-- 805	-- 800	-- 2.2	-- 1.91	-- .73	-- <.008
Local identifier	Date	Orthophosphate, water, fltrd, mg/L as P (00671)	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic, water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium, water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)
NJDEP MW137	03-24-04 03-24-04	-- <.02	-- 8.6	-- E1	-- <.20	-- 4.8	-- 255	-- <.06	-- 19	-- E.02	-- <.8
Local identifier	Date	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury, water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Thallium, water, fltrd, ug/L (01057)	Zinc, water, fltrd, ug/L (01090)
NJDEP MW137	03-24-04 03-24-04	-- .7	-- 35,200	-- <.08	-- 8,160	-- <.02	-- 2.62	-- E.4	-- <.2	-- <.04	-- 1.6

WATERSHED MANAGEMENT AREA 3—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	Benzene water unfltrd ug/L (34030)
NJDEP MW137	03-24-04	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1
	03-24-04	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1

Local identifier	Date	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Chloro-benzene water unfltrd ug/L (34301)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)
NJDEP MW137	03-24-04	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2
	03-24-04	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2

Local identifier	Date	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)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	Tri-bromo-methane water unfltrd ug/L (32104)
NJDEP MW137	03-24-04	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2
	03-24-04	<.2	<.1	<.1	<.1	.6	<.1	<.2	<.1	<.1	<.2

Local identifier	Date	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)	Alpha radio-activty 2-sigma wat flt Th-230, pCi/L (75987)	Alpha radio-activty water, fltrd, Th-230, pCi/L (04126)	Beta radio-activty 2-sigma wat flt CS-137, pCi/L (75989)	Gross beta radio-activty water, fltrd, Cs-137, pCi/L (03515)
NJDEP MW137	03-24-04	<.1	<.2	<.1	<.2	--	--	--	--
	03-24-04	<.1	<.2	.1	<.2	6.6	5	3.2	3

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

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 3—Continued

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)
NJDEP MW137	405739074164201	03-24-04	1030	<.006	<.006	<.006	<.007	<.041	<.020	<.012

Local identifier	Date	Diel- drin, water, fltrd, ug/L (39381)	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)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Naprop- amide, water fltrd 0.7u GF ug/L (82684)	Prome- ton, water, fltrd, ug/L (04037)	Sima- zine, water, fltrd, ug/L (04035)
NJDEP MW137	03-24-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005

Local identifier	Date	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)
NJDEP MW137	03-24-04	<.02	<.034

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

WATERSHED MANAGEMENT AREA 4

Well Permit Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
130193	*404844074082501	NJDEP MW144	404844	740824	12	8	3 - 8	112SFDF
130192	*405148074133601	NJDEP MW141	405148	741336	206	20	15 - 20	112SFDF
310198	*405435074080201	NJDEP MW145	405435	740802	30	22	17 - 22	112SFDF
030723	*405543074040901	NJDEP MW149	405543	740409	72	38	18 - 38	112SFDF
310199	*405632074131801	NJDEP MW142	405632	741318	233	22	12 - 22	112SFDF
030724	*410218074065001	NJDEP MW146	410218	740650	299	36	16 - 36	112SFDF

* Field data and samples for laboratory analysis were provided by the New Jersey Department of Environmental Protection.

AQUIFER UNITS.--112SFDF, Stratified Drift of Pleistocene age.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Sample type	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)
NJDEP MW144	404844074082501	04-28-04	0945	Environmental	.50	60	.9	758	1.2
NJDEP MW141	405148074133601	04-27-04	1045	Environmental	.50	30	1.3	745	1.6
NJDEP MW145	405435074080201	03-17-04	1100	Environmental	.50	45	1.9	758	1.4
NJDEP MW149	405543074040901	03-23-04	1029	Ambient Blank	--	--	--	--	--
		03-23-04	1030	Environmental	.50	45	1.5	768	5.7
NJDEP MW142	405632074131801	03-25-04	1030	Environmental	.50	45	.4	766	2.2
NJDEP MW146	410218074065001	03-09-04	1100	Environmental	1.0	35	.3	754	2.6

Local identifier	Date	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)
NJDEP MW144	04-28-04	11	7.2	813	11.0	310	86.3	23.6	6.21	42.0	216
NJDEP MW141	04-27-04	15	6.8	1,400	11.1	350	106	20.8	8.87	148	470
NJDEP MW145	03-17-04	13	6.7	1,100	11.2	320	105	13.3	2.59	85.2	264
NJDEP MW149	03-23-04	--	--	--	--	--	--	--	--	--	--
	03-23-04	55	7.2	3,500	12.9	680	210	37.4	2.42	454	243
NJDEP MW142	03-25-04	19	6.7	341	8.7	150	40.6	10.6	.75	12.6	74
NJDEP MW146	03-09-04	23	6.2	1,100	9.0	250	64.2	22.4	1.78	121	86

Local identifier	Date	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	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)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NJDEP MW144	04-28-04	263	99.9	<.2	14.9	25.3	445	476	.17	E.02	3.63
NJDEP MW141	04-27-04	573	184	.2	35.0	3.6	831	854	5.8	4.45	<.06
NJDEP MW145	03-17-04	321	171	<.2	11.1	33.5	595	637	1.2	.90	E.04
NJDEP MW149	03-23-04	--	--	--	--	--	--	--	--	--	--
	03-23-04	294	944	<.2	24.9	49.4	1,880	2,200	E.09	<.04	3.30
NJDEP MW142	03-25-04	90	30.5	<.2	26.6	39.8	211	232	<.10	<.04	1.06
NJDEP MW146	03-09-04	104	269	<.2	24.7	37.9	599	640	.10	<.04	1.42

WATERSHED MANAGEMENT AREA 4—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	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 ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)
NJDEP MW144	04-28-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	.1	<.1
NJDEP MW141	04-27-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
NJDEP MW145	03-17-04	<.2	<.2	<.1	<.1	<.1	E.1	<.1	<.2	<.1	<.1
NJDEP MW149	03-23-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
	03-23-04	<.2	<.2	<.1	<.1	<.1	.8	<.1	<.2	<.1	<.1
NJDEP MW142	03-25-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
NJDEP MW146	03-09-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1

Local identifier	Date	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)	Alpha radio-activty 2-sigma wat flt Th-230, pCi/L (75987)	Alpha radio-activty 30 day, wat flt Th-230, pCi/L (62639)	Alpha radio-activty 72 hr, wat flt Th-230, pCi/L (62636)	Alpha radio-activty water, fltrd, Th-230, pCi/L (04126)	Beta radio-activty 2-sigma wat flt CS-137, pCi/L (75989)
NJDEP MW144	04-28-04	<.2	<.1	<.2	<.1	<.2	--	2	2	--	--
NJDEP MW141	04-27-04	<.2	<.1	<.2	<.1	<.2	--	M	M	--	--
NJDEP MW145	03-17-04	<.2	<.1	<.2	<.1	<.2	3.6	--	--	2	3.0
NJDEP MW149	03-23-04	<.2	<.1	<.2	<.1	<.2	--	--	--	--	--
	03-23-04	<.2	<.1	<.2	<.1	<.2	8.3	<.1	--	M	6.3
NJDEP MW142	03-25-04	<.2	<.1	<.2	<.1	<.2	1.2	--	--	M	1.7
NJDEP MW146	03-09-04	<.2	<.1	<.2	<.1	<.2	3.1	--	--	M	3.0

Local identifier	Date	Beta radioac 30 day, wat flt Cs-137, pCi/L (62645)	Beta radioac 72 hr, wat flt Cs-137, pCi/L (62642)	Gross beta radio activity water, fltrd, Cs-137, pCi/L (03515)
NJDEP MW144	04-28-04	7	7	--
NJDEP MW141	04-27-04	11	12	--
NJDEP MW145	03-17-04	--	--	7
NJDEP MW149	03-23-04	--	--	--
	03-23-04	--	--	3
NJDEP MW142	03-25-04	--	--	2
NJDEP MW146	03-09-04	--	--	3

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 4—Continued

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 ground-water samples are listed in the following table

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)
NJDEP MW144	404844074082501	04-28-04	0945	<.006	E.006	<.006	<.007	<.041	<.020	<.012
NJDEP MW141	405148074133601	04-27-04	1045	<.006	<.006	<.006	<.007	E.013	<.020	<.012
NJDEP MW145	405435074080201	03-17-04	1100	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP MW149	405543074040901	03-23-04	1030	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP MW142	405632074131801	03-25-04	1030	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP MW146	410218074065001	03-09-04	1100	<.006	<.006	<.006	<.007	<.041	<.020	<.012

Local identifier	Date	Diel-drin, water, fltrd, ug/L (39381)	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)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water fltrd 0.7u GF ug/L (82684)	Prome-ton, water, fltrd, ug/L (04037)	Sima-zine, water, fltrd, ug/L (04035)
NJDEP MW144	04-28-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	.01	<.009
NJDEP MW141	04-27-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP MW145	03-17-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP MW149	03-23-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP MW142	03-25-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	.01	<.005
NJDEP MW146	03-09-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005

Local identifier	Date	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)
NJDEP MW144	04-28-04	<.02	<.034
NJDEP MW141	04-27-04	<.02	<.034
NJDEP MW145	03-17-04	<.02	<.034
NJDEP MW149	03-23-04	<.02	<.034
NJDEP MW142	03-25-04	<.02	<.034
NJDEP MW146	03-09-04	<.02	<.034

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

WATERSHED MANAGEMENT AREA 5

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
170015	*404339074045401	NJDEP MW143	404339	740453	25	21	11 - 21	112SFDF
170016	404636074024701	NJDEP MW147	404636	740247	19	24	14 - 24	112SFDF
030726	405050074011401	NJDEP MW148	405050	740114	10	24	14 - 24	112SFDF
030722	*405909073574101	NJDEP MW150	405909	735741	36	18	13 - 18	112SFDF

* Field data and samples for laboratory analysis were provided by the New Jersey Department of Environmental Protection.

AQUIFER UNITS.--112SFDF, Stratified Drift of Pleistocene age.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Sample type	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)
NJDEP MW143	404339074045401	05-04-04	0900	Ambient Blank	--	--	--	--	--
		05-04-04	0930	Environmental	.50	45	.5	759	4.8
NJDEP MW147	404636074024701	06-23-04	1215	Environmental	.18	45	1.7	760	.3
NJDEP MW148	405050074011401	06-22-04	1240	Environmental	--	85	35	757	1.1
NJDEP MW150	405909073574101	03-10-04	1100	Environmental	.50	30	3.5	769	4.4

Local identifier	Date	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alka-linity, wat flt inc tit mg/L as CaCO3 (39086)
NJDEP MW143	05-04-04	--	--	--	--	--	--	--	--	--	--
	05-04-04	45	6.0	1,300	12.2	260	62.2	25.6	2.55	142	29
NJDEP MW147	06-23-04	3	6.7	2,040	13.3	1,000	342	46.5	11.4	69.4	808
NJDEP MW148	06-22-04	12	7.1	1,260	18.3	360	105	24.4	2.79	142	344
NJDEP MW150	03-10-04	39	7.8	665	10.6	250	73.4	17.2	1.20	32.5	155

Local identifier	Date	Bicar-bonate, wat flt incrm. titr., field, mg/L (00453)	Chlor-ide, water, fltrd, mg/L (00940)	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. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)
NJDEP MW143	05-04-04	--	--	--	--	--	--	--	--	--	--
	05-04-04	35	268	<.2	22.2	115	689	776	.14	E.02	6.77
NJDEP MW147	06-23-04	984	62.9	.5	20.5	271	1,330	1,310	6.1	5.72	<.06
NJDEP MW148	06-22-04	418	228	.2	16.1	17.8	750	779	1.1	.90	<.06
NJDEP MW150	03-10-04	186	96.6	<.2	17.1	24.2	360	405	<.10	<.04	1.45

Local identifier	Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Organic carbon, water, fltrd, mg/L (00681)	Alum-inum, water, fltrd, ug/L (01106)	Anti-mony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryll-ium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)
NJDEP MW143	05-04-04	--	--	--	--	--	--	--	--	--	--
	05-04-04	<.008	<.02	1.4	22	<.20	E.1	32	.16	69	1.15
NJDEP MW147	06-23-04	<.008	<.02	13.2	3	E.11	6.3	351	<.06	228	<.04
NJDEP MW148	06-22-04	E.004	.02	3.5	<2	<.20	6.8	162	<.06	100	.04
NJDEP MW150	03-10-04	<.008	<.02	.5	2	<.20	.2	152	<.06	34	<.04

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 5—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	Chromium, water, ftrd, ug/L (01030)	Copper, water, ftrd, ug/L (01040)	Iron, water, ftrd, ug/L (01046)	Lead, water, ftrd, ug/L (01049)	Manganese, water, ftrd, ug/L (01056)	Mercury, water, ftrd, ug/L (71890)	Nickel, water, ftrd, ug/L (01065)	Selenium, water, ftrd, ug/L (01145)	Silver, water, ftrd, ug/L (01075)	Thallium, water, ftrd, ug/L (01057)
NJDEP MW143	05-04-04	--	--	--	--	--	--	--	--	--	--
	05-04-04	<.8	1.7	<.6	E.06	2,780	<.02	24.5	1.3	<.2	<.04
NJDEP MW147	06-23-04	1.2	2.3	10,200	<.08	4,900	<.02	1.71	E.4	<.2	<.04
NJDEP MW148	06-22-04	E.7	.6	4,820	E.05	2,070	<.02	4.92	E.3	<.2	<.04
NJDEP MW150	03-10-04	E.8	.5	<.6	<.08	7.2	<.02	.93	<.4	<.2	<.04

Local identifier	Date	Zinc, water, ftrd, ug/L (01090)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)
NJDEP MW143	05-04-04	--	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
	05-04-04	43.5	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
NJDEP MW147	06-23-04	1.2	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
NJDEP MW148	06-22-04	5.0	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
NJDEP MW150	03-10-04	.6	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1

Local identifier	Date	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Chloro-benzene water unfltrd ug/L (34301)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)
NJDEP MW143	05-04-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
	05-04-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
NJDEP MW147	06-23-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
NJDEP MW148	06-22-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
NJDEP MW150	03-10-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1

Local identifier	Date	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)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)
NJDEP MW143	05-04-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
	05-04-04	<.2	<.2	<.1	<.1	<.1	.5	.2	<.2	<.1	<.1
NJDEP MW147	06-23-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
NJDEP MW148	06-22-04	<.2	<.2	<.1	<.1	<.1	E.1	<.1	<.2	<.1	<.1
NJDEP MW150	03-10-04	<.2	<.2	<.1	<.1	<.1	E.1	<.1	<.2	<.1	<.1

Local identifier	Date	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)	Alpha radio-activity 2-sigma wat flt Th-230, pCi/L (75987)	Alpha radio-activity 30 day, wat flt Th-230, pCi/L (62639)	Alpha radio-activity 72 hr, wat flt Th-230, pCi/L (62636)	Alpha radio-activity water, ftrd, Th-230, pCi/L (04126)	Beta radio-activity 2-sigma wat flt CS-137, pCi/L (75989)
NJDEP MW143	05-04-04	<.2	<.1	<.2	<.1	<.2	--	--	--	--	--
	05-04-04	<.2	<.1	<.2	.6	<.2	--	M	2	--	--
NJDEP MW147	06-23-04	<.2	<.1	<.2	<.1	<.2	--	M	15	--	--
NJDEP MW148	06-22-04	<.2	<.1	<.2	.1	<.2	--	1	3	--	--
NJDEP MW150	03-10-04	<.2	<.1	<.2	.9	<.2	2.2	--	--	M	1.9

WATERSHED MANAGEMENT AREA 5—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	Beta radio-activity 30 day, wat flt Cs-137, pCi/L (62645)	Beta radio-activity 72 hr, wat flt Cs-137, pCi/L (62642)	Gross beta radio-activity water, fltrd, Cs-137, pCi/L (03515)
NJDEP MW143	05-04-04	--	--	--
	05-04-04	2	3	--
NJDEP MW147	06-23-04	12	15	--
NJDEP MW148	06-22-04	4	2	--
NJDEP MW150	03-10-04	--	--	2

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	2,6-Di-ethyl-aniline water fltrd 0.7u GF (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF (82680)	Carbo-furan, water, fltrd 0.7u GF (82674)	Desulf-nyl fipro-nil, water, fltrd, ug/L (62170)
NJDEP MW143	404339074045401	05-04-04	0930	<.006	<.006	<.006	.020	<.041	<.020	<.012
NJDEP MW147	404636074024701	06-23-04	1215	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP MW148	405050074011401	06-22-04	1240	<.006	<.006	<.006	E.004	<.041	<.020	<.012
NJDEP MW150	405909073574101	03-10-04	1100	<.006	<.006	<.006	<.007	<.041	<.020	<.012

Local identifier	Date	Diel-drin, water, fltrd, ug/L (39381)	Desulf-nyl-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)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water fltrd 0.7u GF (82684)	Prome-ton, water, fltrd, ug/L (04037)	Sima-zine, water, fltrd, ug/L (04035)
NJDEP MW143	05-04-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP MW147	06-23-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP MW148	06-22-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP MW150	03-10-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005

Local identifier	Date	Tebu-thiuron water fltrd 0.7u GF (82670)	Terba-cil, water, fltrd 0.7u GF (82665)
NJDEP MW143	05-04-04	<.02	<.034
NJDEP MW147	06-23-04	<.02	<.034
NJDEP MW148	06-22-04	<.02	<.034
NJDEP MW150	03-10-04	<.02	<.034

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

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 6

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
272107	*404704074281301	NJDEP MW125	404704	742813	347	38	28 - 38	112SFDF
272069	405128074231401	NJDEP MW138	405128	742313	200	35	15 - 35	112SFDF

* Field data and samples for laboratory analysis were provided by the New Jersey Department of Environmental Protection.

AQUIFER UNITS.--112SFDF, Stratified Drift of Pleistocene age.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)
NJDEP MW125	404704074281301	03-30-04	1030	.50	45	1.0	758	3.1	29	7.5
NJDEP MW138	405128074231401	10-09-03	1240	.42	120	4.0	760	6.4	63	7.1

Local identifier	Date	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00910)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
NJDEP MW125	03-30-04	3,570	11.2	730	183	67.2	5.95	463	281	341	960
NJDEP MW138	10-09-03	1,380	14.8	430	117	34.7	2.22	103	--	--	342

Local identifier	Date	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)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	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)
NJDEP MW125	03-30-04	<.2	26.4	113	2,010	2,060	.17	<.04	5.42	<.008	<.02
NJDEP MW138	10-09-03	<.2	27.2	39.1	757	795	E.05	<.04	.44	E.007	<.02

Local identifier	Date	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)
NJDEP MW125	03-30-04	2.3	E2	<.40	<.4	157	<.12	100	.08	3.9	2.3
NJDEP MW138	10-09-03	.7	E1	<.20	E.1	115	<.06	31	.06	1.5	1.5

Local identifier	Date	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Thallium, water, fltrd, ug/L (01057)	Zinc, water, fltrd, ug/L (01090)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)
NJDEP MW125	03-30-04	<19	<.16	3.6	<.02	4.39	1.0	<.4	<.08	7.9	<.1
NJDEP MW138	10-09-03	<6	<.08	212	<.02	2.46	<.4	<.2	<.04	E.5	<.1

WATERSHED MANAGEMENT AREA 6—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	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)	Bromo-dichloromethane water unfltrd ug/L (32101)
NJDEP MW125	03-30-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
NJDEP MW138	10-09-03	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1

Local identifier	Date	Chlorobenzene water unfltrd ug/L (34301)	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 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)
NJDEP MW125	03-30-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2
NJDEP MW138	10-09-03	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2

Local identifier	Date	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)	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)
NJDEP MW125	03-30-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1
NJDEP MW138	10-09-03	<.1	<.1	<.1	.5	<.1	<.2	<.1	<.1	<.2	<.1

Local identifier	Date	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)	Alpha radio-activty 2-sigma wat flt Th-230, pCi/L (75987)	Alpha radio-activty water, fltrd, Th-230, pCi/L (04126)	Beta radio-activty 2-sigma wat flt CS-137, pCi/L (75989)	Gross beta radio-activty water, fltrd, Cs-137, pCi/L (03515)
NJDEP MW125	03-30-04	<.2	<.1	<.2	9.1	6	10	8
NJDEP MW138	10-09-03	<.2	<.1	<.2	4.9	3	4.7	3

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

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 6—Continued

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)
NJDEP MW125	404704074281301	03-30-04	1030	<.006	<.006	<.006	E.006	<.041	<.020	<.012
NJDEP MW138	405128074231401	10-09-03	1240	<.006	<.006	<.006	<.007	<.041	<.020	<.004

Local identifier	Date	Diel-drin, water, fltrd, ug/L (39381)	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)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Naprop- amide, water fltrd 0.7u GF ug/L (82684)	Prome- ton, water, fltrd, ug/L (04037)	Sima- zine, water, fltrd, ug/L (04035)
NJDEP MW125	03-30-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	.009
NJDEP MW138	10-09-03	<.005	<.009	<.005	<.005	<.007	<.013	<.006	<.007	<.01	<.005

Local identifier	Date	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)
NJDEP MW125	03-30-04	<.02	<.034
NJDEP MW138	10-09-03	<.02	<.034

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

WATERSHED MANAGEMENT AREA 7

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
390506	*404055074132901	NJDEP MW139	404055	741329	45	5	15 - 25	227PSSC
390507	*404303074173101	NJDEP MW132	404303	741731	96	16	6 - 16	112SFDF

* Field data and samples for laboratory analysis were provided by the New Jersey Department of Environmental Protection.

AQUIFER UNITS.--112SFDF, Stratified Drift of Pleistocene age; 227PSSC, Passaic Formation.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)
NJDEP MW139	404055074132901	03-11-04	1015	.50	30	1.0	760	3.3	32	7.0
NJDEP MW132	404303074173101	03-18-04	1100	.25	45	4.4	763	.2	2	6.7

Local identifier	Date	Specif. conductance, wat unfltrd, 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat fltrd, mg/L as CaCO3 (39086)	Bicarbonate, wat fltrd, titr., mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
NJDEP MW139	03-11-04	498	13.4	200	63.2	11.4	.90	24.1	137	167	31.9
NJDEP MW132	03-18-04	1,310	11.0	390	123	19.3	3.34	65.1	323	392	185

Local identifier	Date	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 fltrd mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	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)
NJDEP MW139	03-11-04	<.2	26.3	45.2	305	306	<.10	<.04	4.34	<.008	.06
NJDEP MW132	03-18-04	.2	27.5	6.1	668	735	3.9	3.11	<.06	<.008	<.02

Local identifier	Date	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)
NJDEP MW139	03-11-04	.9	2	<.20	.4	74	<.06	38	<.04	E.7	.7
NJDEP MW132	03-18-04	14.4	2	<.20	25.2	570	<.06	155	<.04	.9	.7

Local identifier	Date	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Thallium, water, fltrd, ug/L (01057)	Zinc, water, fltrd, ug/L (01090)	1,1,1-Trichloroethane, water, unfltrd (34506)
NJDEP MW139	03-11-04	<6	<.08	1.4	<.02	1.06	E.3	<.2	<.04	E.6	<.1
NJDEP MW132	03-18-04	37,900	<.08	3,130	<.02	3.14	.5	<.2	<.04	1.2	<.1

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 7—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)
NJDEP MW139	03-11-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
NJDEP MW132	03-18-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1

Local identifier	Date	Chloro-benzene water unfltrd ug/L (34301)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta+ para-Xylene, water, unfltrd ug/L (85795)
NJDEP MW139	03-11-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2
NJDEP MW132	03-18-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2

Local identifier	Date	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)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)
NJDEP MW139	03-11-04	<.1	<.1	<.1	E.1	<.1	<.2	<.1	<.1	<.2	<.1
NJDEP MW132	03-18-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1

Local identifier	Date	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chlor-ide, water, unfltrd ug/L (39175)	Alpha radio-activty 2-sigma wat flt Th-230, pCi/L (75987)	Alpha radio-activty water, fltrd, Th-230, pCi/L (04126)	Beta radio-activty 2-sigma wat flt CS-137, pCi/L (75989)	Gross beta radio-activty water, fltrd, Cs-137, pCi/L (03515)
NJDEP MW139	03-11-04	<.2	.8	<.2	1.4	M	1.5	1
NJDEP MW132	03-18-04	<.2	<.1	<.2	4.5	2	3.5	1

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

WATERSHED MANAGEMENT AREA 7—Continued

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	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)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF (82680)	Carbo-furan, water, fltrd 0.7u GF (82674)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)
NJDEP MW139	404055074132901	03-11-04	1015	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP MW132	404303074173101	03-18-04	1100	<.006	<.006	<.006	<.007	<.041	<.020	<.012

Local identifier	Date	Diel-drin, water, fltrd, ug/L (39381)	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)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water fltrd 0.7u GF (82684)	Prome-ton, water, fltrd, ug/L (04037)	Sima-zine, water, fltrd, ug/L (04035)
NJDEP MW139	03-11-04	E.005	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP MW132	03-18-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005

Local identifier	Date	Tebu-thiuron water fltrd 0.7u GF (82670)	Terba-cil, water, fltrd 0.7u GF (82665)
NJDEP MW139	03-11-04	<.02	<.034
NJDEP MW132	03-18-04	<.02	<.034

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

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 9

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
250826	*401917074183801	NJDEP MW116	401917	741838	93	28	18 - 28	112SFDF

* Field data and samples for laboratory analysis were provided by the New Jersey Department of Environmental Protection.

AQUIFER UNITS.--112SFDF, Stratified Drift of Pleistocene age.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)
NJDEP MW116	401917074183801	03-16-04	0900	.50	45	4.9	760	.3	3	6.7

Local identifier	Date	Specif. conductance, wat unfiltered uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, water fltrd inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, water fltrd incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
NJDEP MW116	03-16-04	116	12.9	33	11.2	1.32	2.01	1.57	47	58	3.06

Local identifier	Date	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 fltrd mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	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)
NJDEP MW116	03-16-04	.3	21.3	4.4	86	81	<.10	<.04	<.06	<.008	.57

Local identifier	Date	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)
NJDEP MW116	03-16-04	.6	<2	<.20	<.2	32	<.06	14	<.04	<.8	<.4

Local identifier	Date	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Thallium, water, fltrd, ug/L (01057)	Zinc, water, fltrd, ug/L (01090)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)
NJDEP MW116	03-16-04	10,300	<.08	179	<.02	.18	<.4	<.2	<.04	<.6	<.1

WATERSHED MANAGEMENT AREA 9—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	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)	Bromo-dichloromethane water unfltrd ug/L (32101)
NJDEP MW116	03-16-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1

Local identifier	Date	Chlorobenzene water unfltrd ug/L (34301)	cis-1,2-Dichloroethene, water unfltrd ug/L (77093)	Di-bromochloromethane water unfltrd ug/L (32105)	Di-chloro-difluoromethane 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)
NJDEP MW116	03-16-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2

Local identifier	Date	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)	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)
NJDEP MW116	03-16-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1

Local identifier	Date	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water unfltrd ug/L (39175)	Alpha radio-activity 2-sigma wat flt Th-230, pCi/L (75987)	Alpha radio-activity water, fltrd, Th-230, pCi/L (04126)	Beta radio-activity 2-sigma wat flt CS-137, pCi/L (75989)	Gross beta radio-activity water, fltrd, Cs-137, pCi/L (03515)
NJDEP MW116	03-16-04	<.2	<.1	<.2	.58	M	.77	3

Remark codes used in this table:
 < -- Less than
 M-- Presence verified, not quantified

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 9—Continued

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)
NJDEP MW116	401917074183801	03-16-04	0900	<.006	<.006	<.006	<.007	<.041	<.020	<.012

Local identifier	Date	Diel- drin, water, fltrd, ug/L (39381)	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)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Naprop- amide, water fltrd 0.7u GF ug/L (82684)	Prome- ton, water, fltrd, ug/L (04037)	Sima- zine, water, fltrd, ug/L (04035)
NJDEP MW116	03-16-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005

Local identifier	Date	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)
NJDEP MW116	03-16-04	<.02	<.034

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

WATERSHED MANAGEMENT AREA 10

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
210630	402051074400001	NJDEP MW122	402051	743959	200	97	72 - 97	231SCKN
350143	*402820074341501	NJDEP MW114	402819	743415	60	21	17 - 21	227PSSC

* Field data and samples for laboratory analysis were provided by the New Jersey Department of Environmental Protection.

AQUIFER UNITS.--227PSSC, Passaic Formation; 231SCKN, Stockton Formation.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)
NJDEP MW122	402051074400001	06-16-04	1130	.34	60	3.7	758	2.5	24	6.2
NJDEP MW114	402820074341501	10-14-03	0945	.50	30	1.5	762	.8	6	6.8

Local identifier	Date	Specif. conductance, wat unfltrd, uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat fltrd, mg/L as CaCO3 (39086)	Bicarbonate, wat fltrd, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
NJDEP MW122	06-16-04	492	14.1	190	41.0	20.6	4.44	21.0	98	119	63.7
NJDEP MW114	10-14-03	567	15.8	130	34.5	10.5	2.91	44.7	86	104	107

Local identifier	Date	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 fltrd, mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	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)
NJDEP MW122	06-16-04	<.2	25.0	29.5	337	291	E.09	<.04	3.19	.037	<.02
NJDEP MW114	10-14-03	<.2	16.0	6.9	289	293	1.5	1.31	<.06	<.008	<.02

Local identifier	Date	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)
NJDEP MW122	06-16-04	.6	2	<.20	E.2	20	<.06	E5	.28	<.8	.6
NJDEP MW114	10-14-03	2.1	E1	<.20	23.0	193	<.06	44	<.04	<.8	<.4

Local identifier	Date	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Thallium, water, fltrd, ug/L (01057)	Zinc, water, fltrd, ug/L (01090)	1,1,1-Trichloroethane, water, unfltrd (34506)
NJDEP MW122	06-16-04	10	.09	146	<.02	4.56	1.9	<.2	<.04	46.6	<.1
NJDEP MW114	10-14-03	6,410	<.08	7,370	<.02	.70	<.4	<.2	<.04	.7	<.1

AMBIENT GROUND-WATER-QUALITY NETWORK
WATERSHED MANAGEMENT AREA 10—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)
NJDEP MW122	06-16-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
NJDEP MW114	10-14-03	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1

Local identifier	Date	Chloro-benzene water unfltrd ug/L (34301)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta-+ para-Xylene, water, unfltrd ug/L (85795)
NJDEP MW122	06-16-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2
NJDEP MW114	10-14-03	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2

Local identifier	Date	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)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)
NJDEP MW122	06-16-04	<.1	<.1	<.1	E.1	<.1	<.2	<.1	<.1	<.2	<.1
NJDEP MW114	10-14-03	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1

Local identifier	Date	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)	Alpha radio-activity 2-sigma wat flt Th-230, pCi/L (75987)	Alpha radio-activity 30 day, wat flt Th-230, pCi/L (62639)	Alpha radio-activity 72 hr, wat flt Th-230, pCi/L (62636)	Alpha radio-activity water, fltrd, Th-230, pCi/L (04126)	Beta radio-activity 2-sigma wat flt CS-137, pCi/L (75989)	Beta radio-activity 30 day, wat flt Cs-137, pCi/L (62645)	Beta radio-activity 72 hr, wat flt Cs-137, pCi/L (62642)
NJDEP MW122	06-16-04	<.2	<.1	<.2	--	M	2	--	--	2	4
NJDEP MW114	10-14-03	<.2	<.1	<.2	2.6	--	--	3	2.1	--	--

Local identifier	Date	Gross beta radio-activity water, fltrd, Cs-137, pCi/L (03515)
NJDEP MW122	06-16-04	--
NJDEP MW114	10-14-03	5

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

WATERSHED MANAGEMENT AREA 10—Continued

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)
NJDEP MW122	402051074400001	06-16-04	1130	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP MW114	402820074341501	10-14-03	0945	<.006	E.023	<.006	.013	<.041	<.020	<.004

Local identifier	Date	Diel-drin, water, fltrd, ug/L (39381)	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)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water fltrd 0.7u GF ug/L (82684)	Prome-ton, water, fltrd, ug/L (04037)	Sima-zine, water, fltrd, ug/L (04035)
NJDEP MW122	06-16-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP MW114	10-14-03	<.005	<.009	<.005	<.005	<.007	<.013	<.006	<.007	E.01	<.005

Local identifier	Date	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)
NJDEP MW122	06-16-04	<.02	<.034
NJDEP MW114	10-14-03	<.02	<.034

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

WATERSHED MANAGEMENT AREA 11

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
210633	401829074513301	NJDEP MW80	401829	745133	119	11	6 - 11	227PSSC

AQUIFER UNITS.--227PSSC, Passaic Formation.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	
NJDEP MW80	401829074513301	06-17-04	1030	.14	105	2.3	760	.9	8	6.3	
Local identifier	Date	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat fltr inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat fltr incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
NJDEP MW80	06-17-04	177	13.9	77	19.3	7.06	.63	6.89	57	70	7.86
Local identifier	Date	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 fltr mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	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)
NJDEP MW80	06-17-04	<.2	21.7	14.6	114	119	E.06	<.04	.41	<.008	E.01
Local identifier	Date	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)
NJDEP MW80	06-17-04	.8	<2	<.20	1.1	125	<.06	13	.07	<.8	.5
Local identifier	Date	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Thallium, water, fltrd, ug/L (01057)	Zinc, water, fltrd, ug/L (01090)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)
NJDEP MW80	06-17-04	E5	<.08	1.1	<.02	<.06	E.4	<.2	<.04	.6	<.1

WATERSHED MANAGEMENT AREA 11—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	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)	Bromo-dichloromethane water unfltrd ug/L (32101)
NJDEP MW80	06-17-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1

S

Local identifier	Date	Chlorobenzene water unfltrd ug/L (34301)	cis-1,2-Dichloroethene, water unfltrd ug/L (77093)	Di-bromochloromethane water unfltrd ug/L (32105)	Di-chloro-difluoromethane 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)
NJDEP MW80	06-17-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2

Local identifier	Date	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)	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)
NJDEP MW80	06-17-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1

Local identifier	Date	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water unfltrd ug/L (39175)	Alpha radio-activity 30 day, wat flt Th-230, pCi/L (62639)	Alpha radio-activity 72 hr, wat flt Th-230, pCi/L (62636)	Beta radio-activity 30 day, wat flt Cs-137, pCi/L (62645)	Beta radio-activity 72 hr, wat flt Cs-137, pCi/L (62642)
NJDEP MW80	06-17-04	<.2	<.1	<.2	M	M	1	M

Remark codes used in this table:

- < -- Less than
- E -- Estimated value
- M-- Presence verified, not quantified

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 11—Continued

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	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)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF (82680)	Carbo-furan, water, fltrd 0.7u GF (82674)	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)
NJDEP MW80	401829074513301	06-17-04	1030	<.006	<.006	<.006	<.007	<.041	<.020	<.012

Local identifier	Date	Diel- drin, water, fltrd, ug/L (39381)	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)	Metola- chlor, water, fltrd, ug/L (39415)	Metri- buzin, water, fltrd, ug/L (82630)	Naprop- amide, water fltrd 0.7u GF (82684)	Prome- ton, water, fltrd, ug/L (04037)	Sima- zine, water, fltrd, ug/L (04035)
NJDEP MW80	06-17-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005

Local identifier	Date	Tebu- thiuron water fltrd 0.7u GF (82670)	Terba- cil, water, fltrd 0.7u GF (82665)
NJDEP MW80	06-17-04	<.02	<.034

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

WATERSHED MANAGEMENT AREA 15

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
151481	*393301074591601	NJDEP BLUE BELL PW5	393301	745915	116	13	8 - 13	121CKKD

* Field data and samples for laboratory analysis were provided by the New Jersey Department of Environmental Protection.

AQUIFER UNITS.--121CKKD, Cohansey Sand-Kirkwood Formation.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)
NJDEP BLUE BELL PW5	393301074591601	06-24-04	0930	.50	30	.7	760	6.2	66	5.1

Local identifier	Date	Specif. conductance, wat unfluS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
NJDEP BLUE BELL PW5	06-24-04	1,500	17.7	130	41.6	6.24	2.84	215	8	10	398

Local identifier	Date	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)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	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)
NJDEP BLUE BELL PW5	06-24-04	<.2	3.7	46.5	744	855	E.10	<.04	5.42	<.008	<.02

Local identifier	Date	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)
NJDEP BLUE BELL PW5	06-24-04	1.4	870	<.20	<.2	85	.37	18	.29	<.8	5.0

Local identifier	Date	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Thallium, water, fltrd, ug/L (01057)	Zinc, water, fltrd, ug/L (01090)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)
NJDEP BLUE BELL PW5	06-24-04	<6	3.50	157	E.01	2.65	1.0	<.2	E.03	3.4	<.1

AMBIENT GROUND-WATER-QUALITY NETWORK
 WATERSHED MANAGEMENT AREA 15—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)
NJDEP BLUE BELL PW5	06-24-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1

Local identifier	Date	Chloro-benzene water unfltrd ug/L (34301)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta+ para-Xylene, water, unfltrd ug/L (85795)
NJDEP BLUE BELL PW	06-24-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2

Local identifier	Date	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)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)
NJDEP BLUE BELL PW5	06-24-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1

S

Local identifier	Date	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chlor-ide, water, unfltrd ug/L (39175)	Alpha radio-activity 30 day, wat flt Th-230, pCi/L (62639)	Alpha radio-activity 72 hr, wat flt Th-230, pCi/L (62636)	Beta radio-activity 30 day, wat flt Cs-137, pCi/L (62645)	Beta radio-activity 72 hr, wat flt Cs-137, pCi/L (62642)
NJDEP BLUE BELL PW5	06-24-04	<.2	<.1	<.2	1	4	6	5

Remark codes used in this table:

- < -- Less than
- E -- Estimated value

WATERSHED MANAGEMENT AREA 15—Continued

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	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)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF (82680)	Carbo-furan, water, fltrd 0.7u GF (82674)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)
NJDEP BLUE BELL PW5	393301074591601	06-24-04	0930	<.006	<.006	<.006	<.007	<.041	<.020	<.012

Local identifier	Date	Diel-drin, water, fltrd, ug/L (39381)	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)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water fltrd 0.7u GF (82684)	Prome-ton, water, fltrd, ug/L (04037)	Simazine, water, fltrd, ug/L (04035)
NJDEP BLUE BELL PW5	06-24-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005

Local identifier	Date	Tebu-thiuron water fltrd 0.7u GF (82670)	Terba-cil, water, fltrd 0.7u GF (82665)
NJDEP BLUE BELL PW5	06-24-04	<.02	<.034

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

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 16

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
111128	391357074575501	NJDEP LEESBURG MW38	391357	745754	13	15	10 - 15	121CKKD

AQUIFER UNITS.--121CKKD, Cohansey Sand-Kirkwood Formation.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Sample type	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)
NJDEP LEESBURG MW38	391357074575501	07-27-04	1125	Stand Pipe Blank	--	--	--	--	--
		07-27-04	1126	Pump Blank	--	--	--	--	--
		07-27-04	1127	Field Blank	--	--	--	--	--
		07-27-04	1220	Environmental	.53	40	1.3	764	3.5

Local identifier	Date	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)
NJDEP LEESBURG MW38	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	.10	<.008	--	.10	--
	07-27-04	38	4.9	1,190	19.9	76	19.4	6.51	4.49	187	9

Local identifier	Date	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	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, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NJDEP LEESBURG MW38	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	.07	--	--	--	--	--	--
	07-27-04	12	327	<.2	6.2	23.5	599	627	.27	<.04	4.24

Local identifier	Date	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic, water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)
NJDEP LEESBURG MW38	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	<2	<.20	<.2	M	<.06	<8	<.04
	07-27-04	<.008	<.02	4.3	319	E.11	E.1	142	.39	34	.21

WATERSHED MANAGEMENT AREA 16—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury, water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Thallium, water, fltrd, ug/L (01057)
NJDEP LEESBURG MW38	07-27-04	--	<.4	--	<.08	--	--	--	--	--	--
	07-27-04	--	E.4	--	1.13	--	--	--	--	--	--
	07-27-04	<.8	.6	E3	.18	<.2	<.02	E.04	<.4	<.2	<.04
	07-27-04	<.8	6.5	<6	1.35	21.9	E.01	2.55	.8	<.2	.05

Local identifier	Date	Zinc, water, fltrd, ug/L (01090)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)
NJDEP LEESBURG MW38	07-27-04	E.4	--	--	--	--	--	--	--	--	--
	07-27-04	1.0	--	--	--	--	--	--	--	--	--
	07-27-04	3.2	--	--	--	--	--	--	--	--	--
	07-27-04	E3.8	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1

Local identifier	Date	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Chloro-benzene water unfltrd ug/L (34301)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)
NJDEP LEESBURG MW38	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1

Local identifier	Date	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)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)
NJDEP LEESBURG MW38	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1

AMBIENT GROUND-WATER-QUALITY NETWORK
 WATERSHED MANAGEMENT AREA 16—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	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)	Alpha radio-activty 30 day, Th-230, pCi/L (62639)	Alpha radioac 72 hr, wat flt pCi/L (62636)	Beta radioac 30 day, wat flt pCi/L (62645)	Beta radio-activty 72 hr, wat flt pCi/L (62642)
NJDEP LEESBURG MW38	07-27-04	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--
	07-27-04	<.2	<.1	<.2	<.1	<.2	2	9	6	8

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	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)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Desulf-nyl fipro-nil, water, fltrd, ug/L (62170)
NJDEP LEESBURG MW38	391357074575501	07-27-04	1220	<.006	<.006	<.006	<.007	<.041	<.020	<.012

Local identifier	Date	Desulf-nyl-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)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water fltrd 0.7u GF ug/L (82684)	Prome-ton, water, fltrd, ug/L (04037)	Simazine, water, fltrd, ug/L (04035)
NJDEP LEESBURG MW38	07-27-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.01	.013

Local identifier	Date	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)
NJDEP LEESBURG MW38	07-27-04	<.02	<.034

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

WATERSHED MANAGEMENT AREA 17

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
111129	*392435075072801	NJDEP MILLVILLE MW42	392435	750727	100	50	45 - 50	121CKKD
110925	392558075051901	USGS UND02	392544	750507	50	26	24 - 26	121CKKD
111127	*392715075173101	NJDEP SHILOH PW9	392715	751730	95	24	19 - 24	121CKKD
111130	392820075122601	NJDEP CARLLS CORNER MW39	392820	751225	111	42	37 - 42	121CKKD
110931	392920075011901	USGS OU02	392919	750116	114	51	49 - 51	121CKKD
110692	393104075122201	USGS AG06 RUTGERS 1S OBS	393058	751219	119	38	33 - 38	121CKKD
330818	393413075141901	USGS AG10	393413	751416	140	32	30 - 32	121CKKD
330830	393532075101201	USGS OU01	393532	751011	108	15	13 - 15	121CKKD
330820	393712075121201	USGS AG09	393710	751209	125	19	17 - 19	121CKKD

* Field data and samples for laboratory analysis were provided by the New Jersey Department of Environmental Protection.

AQUIFER UNITS.--121CKKD, Cohansy Sand-Kirkwood Formation.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Sample type	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)
NJDEP MILLVILLE MW42	392435075072801	06-22-04	1015	Environmental	3.0	45	1.1	749	9.0
USGS UND02	392558075051901	07-20-04	1040	Environmental	.73	40	.2	760	--
NJDEP SHILOH PW9	392715075173101	07-15-04	1000	Environmental	.50	35	.2	744	6.9
NJDEP CARLLS CORNER MW39	392820075122601	07-27-04	0900	Stand Pipe Blank	--	--	--	--	--
		07-27-04	0901	Pump Blank	--	--	--	--	--
		07-27-04	0902	Field Blank	--	--	--	--	--
		07-27-04	1015	Environmental	--	30	1.8	757	10.3
USGS OU02	392920075011901	07-26-04	1010	Ambient Blank	--	--	--	--	--
		07-26-04	1100	Environmental	.45	60	.3	765	6.7
USGS AG06 RUTGERS 1S OBS	393104075122201	07-26-04	1025	Environmental	.50	30	.6	760	10.3
USGS AG10	393413075141901	07-21-04	1000	Environmental	.20	45	.5	756	9.8
USGS OU01	393532075101201	07-08-04	1200	Environmental	.50	45	.7	757	.8
USGS AG09	393712075121201	07-08-04	1120	Environmental	.53	60	.5	756	9.0

Local identifier	Date	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)
NJDEP MILLVILLE MW42	06-22-04	90	4.6	221	15.0	19	.80	4.19	3.54	26.7	.0
USGS UND02	07-20-04		5.7	52	12.3	4	.76	.532	.39	1.99	8
NJDEP SHILOH PW9	07-15-04	74	5.6	300	17.3	78	22.4	5.24	2.20	21.9	10
NJDEP CARLLS CORNER MW39	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	.03	<.008	--	<.10	--
	07-27-04	101	4.0	429	14.4	150	33.9	16.0	4.55	3.05	<1
USGS OU02	07-26-04	--	--	--	--	--	--	--	--	--	--
	07-26-04	67	4.3	345	15.9	35	5.86	4.83	2.77	38.8	<1
USGS AG06 RUTGERS 1S OBS	07-26-04	99	4.3	133	13.3	45	10.6	4.41	1.77	2.17	<1
USGS AG10	07-21-04	96	4.5	885	13.9	170	49.8	11.0	8.84	80.0	<1
USGS OU01	07-08-04	9	5.7	606	16.0	150	46.7	8.22	6.18	59.9	119
USGS AG09	07-08-04	90	4.1	562	14.8	230	56.2	20.9	2.67	8.05	<1

AMBIENT GROUND-WATER-QUALITY NETWORK
WATERSHED MANAGEMENT AREA 17—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	Bicar-	Chlor-	Fluor-	Silica,	Sulfate	Residue	Residue	Ammonia		Nitrite
		bonate, wat flt incrm. titr., field, mg/L (00453)	ide, water, fltrd, mg/L (00940)	ide, water, fltrd, mg/L (00950)	water, fltrd, mg/L (00955)	water, fltrd, mg/L (00945)	water, fltrd, mg/L (00945)	water, fltrd, sum of consti- tuents mg/L (70301)	on evap. at 180degC wat flt mg/L (70300)	+ org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)
NJDEP MILLVILLE MW42	06-22-04	2	46.0	<.2	7.1	.3	113	128	E.05	<.04	5.07
USGS UND02	07-20-04	10	3.53	<.2	5.3	9.1	35	29	.13	.06	<.06
NJDEP SHILOH PW9	07-15-04	12	47.4	<.2	5.2	23.2	161	191	<.10	<.04	6.34
NJDEP CARLLS CORNER MW39	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	E.02	--	--	--	--	--	--
	07-27-04	<1	26.2	.4	8.4	37.0	--	264	.11	<.04	34.0
USGS OU02	07-26-04	--	--	--	--	--	--	--	--	--	--
	07-26-04	<1	76.5	<.2	7.2	8.4	--	174	E.06	<.04	4.83
USGS AG06 RUTGERS 1S OBS	07-26-04	<1	5.84	.3	7.2	23.0	--	76	<.10	<.04	5.62
USGS AG10	07-21-04	<1	173	.3	8.1	90.3	478	553	.12	<.04	12.3
USGS OU01	07-08-04	145	83.3	<.2	3.4	32.2	329	340	.14	<.04	3.95
USGS AG09	07-08-04	<1	57.1	.4	10.4	150	--	326	.15	<.04	11.1
Local identifier	Date	Nitrite	Ortho-	Organic	Alum-	Anti-	Arsenic	Barium,	Beryll-	Boron,	Cadmium
		water, fltrd, mg/L as N (00613)	phos- phate, water, fltrd, mg/L as P (00671)	carbon, water, fltrd, mg/L (00681)	inum, water, fltrd, ug/L (01106)	mony, water, fltrd, ug/L (01095)	water, fltrd, ug/L (01000)	water, fltrd, ug/L (01005)	water, fltrd, ug/L (01010)	water, fltrd, ug/L (01020)	water, fltrd, ug/L (01025)
NJDEP MILLVILLE MW42	06-22-04	<.008	<.02	.9	141	<.20	<.2	176	.38	18	.23
USGS UND02	07-20-04	<.008	.03	2.3	54	<.20	.6	4	<.06	16	<.04
NJDEP SHILOH PW9	07-15-04	<.008	<.02	.6	4	<.20	<.2	45	<.06	35	E.03
NJDEP CARLLS CORNER MW39	07-27-04	--	--	--	--	--	--	--	--	--	<.04
	07-27-04	--	--	--	--	--	--	--	--	--	.22
	07-27-04	--	--	--	<.2	<.20	<.2	M	<.06	<.8	.10
	07-27-04	<.008	<.02	1.1	1,450	<.20	E.2	344	.77	30	.35
USGS OU02	07-26-04	--	--	--	--	--	--	--	--	--	--
	07-26-04	<.008	<.02	1.0	446	<.20	<.2	372	.23	29	.31
USGS AG06 RUTGERS 1S OBS	07-26-04	<.008	<.02	.5	105	<.20	E.1	113	.15	21	.14
USGS AG10	07-21-04	<.008	<.02	1.3	444	<.20	.3	52	.23	21	.66
USGS OU01	07-08-04	.103	<.02	2.6	E1	<.20	E.2	49	<.06	62	.05
USGS AG09	07-08-04	<.008	<.02	1.6	1,150	<.20	<.2	16	.70	19	.53
Local identifier	Date	Chrom-	Copper,	Iron,	Lead,	Mangan-	Mercury	Nickel,	Selen-	Silver,	Thall-
		ium, water, fltrd, ug/L (01030)	water, fltrd, ug/L (01040)	water, fltrd, ug/L (01046)	water, fltrd, ug/L (01049)	ese, water, fltrd, ug/L (01056)	water, fltrd, ug/L (71890)	water, fltrd, ug/L (01065)	ium, water, fltrd, ug/L (01145)	water, fltrd, ug/L (01075)	ium, water, fltrd, ug/L (01057)
NJDEP MILLVILLE MW42	06-22-04	<.8	55.3	E4	.97	19.4	E.02	3.00	E.3	<.2	.04
USGS UND02	07-20-04	E.5	<.4	8,020	<.08	53.1	<.02	.13	<.4	<.2	<.04
NJDEP SHILOH PW9	07-15-04	<.8	E.3	<.6	<.08	5.0	<.02	.73	.6	<.2	<.04
NJDEP CARLLS CORNER MW39	07-27-04	--	<.4	--	<.08	--	--	<.06	--	--	--
	07-27-04	--	4.8	--	6.46	--	--	.87	--	--	--
	07-27-04	<.8	1.4	<.6	2.15	E.2	<.02	.28	<.4	<.2	<.04
	07-27-04	1.5	E3.9	9	E.92	110	.10	9.26	1.9	<.2	.06
USGS OU02	07-26-04	--	--	--	--	--	--	--	--	--	--
	07-26-04	<.8	1.3	<.6	.46	47.1	.63	5.43	1.3	<.2	.05
USGS AG06 RUTGERS 1S OBS	07-26-04	<.8	1.1	<.6	.27	23.3	<.02	1.49	1.5	<.2	E.03
USGS AG10	07-21-04	1.1	3.1	E4	1.10	170	.26	6.36	3.2	<.2	.07
USGS OU01	07-08-04	<.8	.8	E5	.15	52.3	<.02	.66	.7	<.2	E.03
USGS AG09	07-08-04	6.3	1.1	E4	.26	196	E.01	7.28	1.1	<.2	E.04

WATERSHED MANAGEMENT AREA 17—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	Zinc, water, fltrd, ug/L (01090)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)
NJDEP MILLVILLE MW42	06-22-04	6.8	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
USGS UND02	07-20-04	E.4	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
NJDEP SHILOH PW9	07-15-04	.7	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
NJDEP CARLLS CORNER MW39	07-27-04	<.6	--	--	--	--	--	--	--	--	--
	07-27-04	2.5	--	--	--	--	--	--	--	--	--
	07-27-04	1.2	--	--	--	--	--	--	--	--	--
	07-27-04	6.6	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
USGS OU02	07-26-04	--	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
	07-26-04	9.3	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
USGS AG06 RUTGERS 1S OBS	07-26-04	.7	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
USGS AG10	07-21-04	5.4	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
USGS OU01	07-08-04	E.3	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
USGS AG09	07-08-04	20.0	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1

Local identifier	Date	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Chloro-benzene water unfltrd ug/L (34301)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)
NJDEP MILLVILLE MW42	06-22-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
USGS UND02	07-20-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
NJDEP SHILOH PW9	07-15-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
NJDEP CARLLS CORNER MW39	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
USGS OU02	07-26-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
	07-26-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
USGS AG06 RUTGERS 1S OBS	07-26-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
USGS AG10	07-21-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
USGS OU01	07-08-04	<.1	<.1	<.1	.7	<.2	<.2	<.2	<.2	<.2	<.1
USGS AG09	07-08-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1

Local identifier	Date	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)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)
NJDEP MILLVILLE MW42	06-22-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
USGS UND02	07-20-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
NJDEP SHILOH PW9	07-15-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
NJDEP CARLLS CORNER MW39	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--
	07-27-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
USGS OU02	07-26-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
	07-26-04	.7	<.2	<.1	<.1	<.1	30.5	<.1	<.2	<.1	<.1
USGS AG06 RUTGERS 1S OBS	07-26-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
USGS AG10	07-21-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
USGS OU01	07-08-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
USGS AG09	07-08-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1

AMBIENT GROUND-WATER-QUALITY NETWORK
WATERSHED MANAGEMENT AREA 17—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	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)	Alpha radio-activity 30 day, wat flt pCi/L (62639)	Alpha radio-activity 72 hr, wat flt pCi/L (62636)	Beta radio-activity 30 day, wat flt pCi/L (62645)	Beta radio-activity 72 hr, wat flt pCi/L (62642)
NJDEP MILLVILLE MW42	06-22-04	<.2	<.1	<.2	<.1	<.2	14	23	10	11
USGS UND02	07-20-04	<.2	<.1	<.2	<.1	<.2	M	M	M	M
NJDEP SHILOH PW9	07-15-04	<.2	<.1	<.2	<.1	<.2	M	2	3	3
NJDEP CARLLS CORNER MW39	07-27-04	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--
	07-27-04	<.2	<.1	<.2	<.1	<.2	7	59	16	21
USGS OU02	07-26-04	<.2	<.1	<.2	<.1	<.2	--	--	--	--
	07-26-04	<.2	<.1	<.2	.1	<.2	7	49	17	26
USGS AG06 RUTGERS 1S OBS	07-26-04	<.2	<.1	<.2	<.1	<.2	2	22	6	8
USGS AG10	07-21-04	<.2	<.1	<.2	<.1	<.2	3	2	12	12
USGS OU01	07-08-04	<.2	5.2	<.2	<.1	<.2	M	1	7	7
USGS AG09	07-08-04	<.2	<.1	<.2	<.1	<.2	8	7	8	5

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	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)	Atra-zine, water, fltrd, ug/L (39632)	Carbo-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Desulf-nyl fipro-nil, water, fltrd, ug/L (62170)
NJDEP MILLVILLE MW42	392435075072801	06-22-04	1015	<.006	<.006	<.006	<.007	<.041	<.020	<.012
USGS UND02	392558075051901	07-20-04	1040	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP SHILOH PW9	392715075173101	07-15-04	1000	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP CARLLS CORNER MW39	392820075122601	07-27-04	1015	<.006	E.015	<.006	.010	<.041	<.020	<.012
USGS OU02	392920075011901	07-26-04	1100	<.006	<.006	<.006	<.007	<.041	<.020	<.012
USGS AG06 RUTGERS 1S OBS	393104075122201	07-26-04	1025	<.006	E.006	<.006	.023	<.041	<.020	<.012
USGS AG10	393413075141901	07-21-04	1000	.006	<.006	<.006	E.003	<.041	<.020	<.012
USGS OU01	393532075101201	07-08-04	1200	<.006	E.008	<.006	.014	<.041	<.020	E.007
USGS AG09	393712075121201	07-08-04	1120	<.006	E.008	<.006	.009	<.041	<.020	<.012

Local identifier	Date	Diel-drin, water, fltrd, ug/L (39381)	Desulf-nyl-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)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water fltrd 0.7u GF ug/L (82684)	Prome-ton, water, fltrd, ug/L (04037)	Sima-zine, water, fltrd, ug/L (04035)
NJDEP MILLVILLE MW42	06-22-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
USGS UND02	07-20-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP SHILOH PW9	07-15-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.014
NJDEP CARLLS CORNER MW39	07-27-04	<.009	<.029	<.013	<.024	<.016	.110	<.006	<.007	<.01	<.005
USGS OU02	07-26-04	<.009	<.029	<.013	<.024	<.016	E.012	<.006	<.007	<.01	<.005
USGS AG06 RUTGERS 1S OBS	07-26-04	<.009	<.029	<.013	<.024	<.016	2.38	.465	<.007	.01	.316
USGS AG10	07-21-04	<.009	E.004	<.013	E.005	<.016	.018	.012	<.007	.11	.020
USGS OU01	07-08-04	<.009	<.029	E.012	E.007	E.244	<.013	<.006	<.007	.41	.011
USGS AG09	07-08-04	<.009	<.029	<.013	<.024	<.016	E.007	<.006	<.007	<.01	<.005

AMBIENT GROUND-WATER-QUALITY NETWORK
 WATERSHED MANAGEMENT AREA 17—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)
NJDEP MILLVILLE MW42	06-22-04	<.02	<.050
USGS UND02	07-20-04	<.02	<.034
NJDEP SHILOH PW9	07-15-04	<.02	<.034
NJDEP CARLLS CORNER MW39	07-27-04	<.02	<.034
USGS OU02	07-26-04	<.02	<.034
USGS AG06 RUTGERS 1S OBS	07-26-04	<.02	<.034
USGS AG10	07-21-04	<.02	<.034
USGS OU01	07-08-04	.22	<.034
USGS AG09	07-08-04	<.02	<.034

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATERSHED MANAGEMENT AREA 18

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
330930	*393313075254101	NJDEP QUINTON MW33	393313	752540	21	22	17 - 22	121CKKD
330927	*393610075250001	NJDEP WELCHVILL MW31	393610	752459	29	25	20 - 25	125VNCN
330928	*393738075221401	NJDEP MANNINGTON PW15	393738	752213	57	28	23 - 28	121CKKD
330680	393818075132401	USGS COLES FARM 1 OBS	393848	751323	144	32	27 - 32	121CKKD
330929	*394024075234701	NJDEP PILESGROVE PW13	394024	752346	42	17	12 - 17	211MLRW
151208	394256075101001	USGS AG02	394302	751012	140	33	31 - 33	121CKKD
151210	394342075040301	USGS NU02	394342	750400	142	19	17 - 19	121CKKD
151258	394446075031001	USGS NU29	394442	750307	120	19	17 - 19	121CKKD
070859	394647074592701	USGS OU14	394645	745919	155	19	17 - 19	121CKKD

* Field data and samples for laboratory analysis were provided by the New Jersey Department of Environmental Protection.

AQUIFER UNITS.--121CKKD, Cohansy Sand-Kirkwood Formation; 125VNCN, Vincentown Formation; 211MLRW, Mount Laurel Sand-Wenonah Formation.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Sample type	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)
NJDEP QUINTON MW33	393313075254101	06-30-04	0930	Ambient Blank	--	--	--	--	--
		06-30-04	1000	Environmental	.50	30	.1	768	6.9
NJDEP WELCHVILL MW31	393610075250001	07-21-04	1000	Environmental	.25	45	.2	750	3.4
		07-20-04	1000	Environmental	.25	50	1.9	752	.4
NJDEP MANNINGTON PW15	393738075221401	07-20-04	1000	Environmental	.25	50	1.9	752	.4
		07-20-04	1140	Environmental	.26	60	.9	760	11.2
USGS COLES FARM 1 OBS	393818075132401	07-20-04	1140	Environmental	.26	60	.9	760	11.2
		07-14-04	0930	Environmental	.50	35	.5	746	6.8
NJDEP PILESGROVE PW13	394024075234701	07-07-04	1015	Ambient Blank	--	--	--	--	--
		07-07-04	1100	Environmental	.53	50	.6	756	9.1
USGS AG02	394256075101001	07-07-04	1100	Environmental	.53	50	.6	756	9.1
		06-29-04	1220	Ambient Blank	--	--	--	--	--
USGS NU02	394342075040301	06-29-04	1230	Environmental	.34	25	.2	762	9.6
		06-29-04	1230	Environmental	.34	25	.2	762	9.6
USGS NU29	394446075031001	07-07-04	1145	Ambient Blank	--	--	--	--	--
		07-07-04	1200	Environmental	.09	132	9.5	757	1.3
USGS OU14	394647074592701	07-07-04	1200	Environmental	.09	132	9.5	757	1.3
		06-30-04	1140	Environmental	--	60	2.3	764	9.0

Local identifier	Date	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)
NJDEP QUINTON MW33	06-30-04	--	--	--	--	--	--	--	--	--	--
	06-30-04	67	6.0	352	14.6	110	27.2	11.2	1.93	18.9	26
NJDEP WELCHVILL MW31	07-21-04	35	5.0	260	15.7	96	25.8	7.76	1.21	5.76	2
	07-20-04	4	7.6	678	15.5	200	68.9	6.52	3.22	59.0	202
NJDEP MANNINGTON PW15	07-20-04	106	4.8	268	12.4	100	28.9	7.68	1.15	2.97	4
	07-20-04	106	4.8	268	12.4	100	28.9	7.68	1.15	2.97	4
USGS COLES FARM 1 OBS	07-14-04	69	5.2	303	14.5	110	25.4	12.0	8.95	2.72	2
	07-07-04	--	--	--	--	--	--	--	--	--	--
NJDEP PILESGROVE PW13	07-07-04	87	4.3	163	13.5	51	12.8	4.64	2.25	5.24	<1
	07-07-04	--	--	--	--	--	--	--	--	--	--
USGS AG02	06-29-04	--	--	--	--	--	--	--	--	--	--
	06-29-04	93	4.4	157	14.2	24	6.86	1.74	2.49	15.5	<1
USGS NU02	06-29-04	93	4.4	157	14.2	24	6.86	1.74	2.49	15.5	<1
	06-29-04	93	4.4	157	14.2	24	6.86	1.74	2.49	15.5	<1
USGS NU29	07-07-04	--	--	--	--	--	--	--	--	--	--
	07-07-04	13	5.7	854	15.0	130	38.1	8.30	4.70	111	25
USGS OU14	07-07-04	13	5.7	854	15.0	130	38.1	8.30	4.70	111	25
	06-30-04	91	5.2	4,100	15.2	380	141	6.38	6.15	550	14

WATERSHED MANAGEMENT AREA 18—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	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)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NJDEP QUINTON MW33	06-30-04	--	--	--	--	--	--	--	--	--	--
	06-30-04	31	52.5	<.2	4.8	15.9	190	208	.29	<.04	9.58
NJDEP WELCHVILL MW31	07-21-04	3	8.43	<.2	5.5	49.5	157	172	.12	<.04	11.6
NJDEP MANNINGTON PW15	07-20-04	245	85.1	<.2	11.7	12.5	371	394	.88	.44	.17
USGS COLES FARM 1 OBS	07-20-04	6	13.5	<.2	9.5	66.2	163	165	E.08	<.04	6.91
NJDEP PILESGROVE PW13	07-14-04	3	8.87	<.2	10.4	73.2	191	188	<.10	<.04	10.8
USGS AG02	07-07-04	--	--	--	--	--	--	--	--	--	--
	07-07-04	<1	12.6	<.2	7.6	23.8	89	104	.31	.05	4.01
USGS NU02	06-29-04	--	--	--	--	--	--	--	--	--	--
	06-29-04	<1	13.0	<.2	3.6	21.3	--	89	E.07	<.04	5.22
USGS NU29	07-07-04	--	--	--	--	--	--	--	--	--	--
	07-07-04	30	247	<.2	2.3	8.4	441	526	.61	.42	<.06
USGS OU14	06-30-04	17	1,210	<.2	.9	30.3	1,970	2,310	.11	<.04	1.65

Local identifier	Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)
NJDEP QUINTON MW33	06-30-04	--	--	--	--	--	--	--	--	--	--
	06-30-04	<.008	<.02	.6	29	<.20	<.2	59	E.03	12	E.03
NJDEP WELCHVILL MW31	07-21-04	<.008	<.02	1.2	86	<.20	.2	30	E.05	94	E.04
NJDEP MANNINGTON PW15	07-20-04	E.007	.07	7.6	2	E.12	2.0	17	<.06	24	E.03
USGS COLES FARM 1 OBS	07-20-04	<.008	<.02	.7	15	<.20	E.1	59	.07	16	.30
NJDEP PILESGROVE PW13	07-14-04	<.008	.03	.7	12	<.20	<.2	41	<.06	23	.26
USGS AG02	07-07-04	--	--	--	--	--	--	--	--	--	--
	07-07-04	<.008	E.01	.9	111	<.20	<.2	557	.09	23	.29
USGS NU02	06-29-04	--	--	--	--	--	--	--	--	--	--
	06-29-04	<.008	<.02	.9	121	<.20	<.2	55	.16	46	2.61
USGS NU29	07-07-04	--	--	--	--	--	--	--	--	--	--
	07-07-04	<.008	E.01	5.5	51	E.14	1.4	747	<.06	64	E.03
USGS OU14	06-30-04	<.008	<.02	1.8	1,940	<.20	.3	47	.28	19	.15

Local identifier	Date	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury, water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Thallium, water, fltrd, ug/L (01057)
NJDEP QUINTON MW33	06-30-04	--	--	--	--	--	--	--	--	--	--
	06-30-04	E.7	.4	<.6	.08	3.0	<.02	2.54	1.1	<.2	<.04
NJDEP WELCHVILL MW31	07-21-04	E.7	.8	<.6	<.08	14.1	--	2.04	.7	<.2	<.04
NJDEP MANNINGTON PW15	07-20-04	<.8	.5	1,650	<.08	469	<.02	4.42	E.3	<.2	<.04
USGS COLES FARM 1 OBS	07-20-04	E.7	1.0	<.6	.21	11.4	<.02	2.65	.7	<.2	<.04
NJDEP PILESGROVE PW13	07-14-04	.9	.6	<.6	<.08	10.5	<.02	4.91	<.4	<.2	.09
USGS AG02	07-07-04	--	--	--	--	--	--	--	--	--	--
	07-07-04	<.8	.6	<.6	.41	48.5	<.02	1.92	1.1	<.2	.04
USGS NU02	06-29-04	--	--	--	--	--	--	--	--	--	--
	06-29-04	1.6	2.0	16	.71	14.3	<.02	2.75	E.4	<.2	E.02
USGS NU29	07-07-04	--	--	--	--	--	--	--	--	--	--
	07-07-04	1.6	1.6	4,670	E.05	102	<.02	.10	.4	<.2	<.04
USGS OU14	06-30-04	E.4	2.2	24	.33	2.0	<.02	3.09	2.7	<.2	.08

AMBIENT GROUND-WATER-QUALITY NETWORK
WATERSHED MANAGEMENT AREA 18—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	Zinc, water, fltrd, ug/L (01090)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethane, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)
NJDEP QUINTON MW33	06-30-04	--	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
	06-30-04	2.7	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
NJDEP WELCHVILL MW31	07-21-04	4.6	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
NJDEP MANNINGTON PW15	07-20-04	.6	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
USGS COLES FARM 1 OBS	07-20-04	5.8	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
NJDEP PILESGROVE PW13	07-14-04	11.5	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
USGS AG02	07-07-04	--	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
	07-07-04	1.9	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
USGS NU02	06-29-04	--	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
	06-29-04	1.1	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
USGS NU29	07-07-04	--	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
	07-07-04	1.7	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1
USGS OU14	06-30-04	17.5	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1

Local identifier	Date	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Chloro-benzene water unfltrd ug/L (34301)	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)
NJDEP QUINTON MW33	06-30-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
	06-30-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
NJDEP WELCHVILL MW31	07-21-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
NJDEP MANNINGTON PW15	07-20-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
USGS COLES FARM 1 OBS	07-20-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
NJDEP PILESGROVE PW13	07-14-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
USGS AG02	07-07-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
	07-07-04	<.1	<.1	<.1	<.1	<.2	E.1	<.2	<.2	<.2	<.1
USGS NU02	06-29-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
	06-29-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
USGS NU29	07-07-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
	07-07-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1
USGS OU14	06-30-04	<.1	<.1	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1

Local identifier	Date	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, unfltrd ug/L (78032)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)
NJDEP QUINTON MW33	06-30-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
	06-30-04	<.2	<.2	<.1	<.1	<.1	.4	<.1	<.2	<.1	<.1
NJDEP WELCHVILL MW31	07-21-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
NJDEP MANNINGTON PW15	07-20-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
USGS COLES FARM 1 OBS	07-20-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
NJDEP PILESGROVE PW13	07-14-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
USGS AG02	07-07-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
	07-07-04	<.2	<.2	<.1	<.1	<.1	1.5	1.7	<.2	<.1	<.1
USGS NU02	06-29-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
	06-29-04	<.2	<.2	<.1	<.1	<.1	.4	<.1	<.2	<.1	<.1
USGS NU29	07-07-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1
	07-07-04	<.2	<.2	<.1	<.1	<.1	.3	<.1	<.2	<.1	<.1
USGS OU14	06-30-04	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1

WATERSHED MANAGEMENT AREA 18—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	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)	Alpha radio-activity 30 day, wat flt Th-230, pCi/L (62639)	Alpha radio-activity 72 hr, wat flt Th-230, pCi/L (62636)	Beta radio-activity 30 day, wat flt Cs-137, pCi/L (62645)	Beta radio-activity 72 hr, wat flt Cs-137, pCi/L (62642)
NJDEP QUINTON MW33	06-30-04	<.2	<.1	<.2	<.1	<.2	--	--	--	--
	06-30-04	<.2	<.1	<.2	<.1	<.2	4	2	3	2
NJDEP WELCHVILL MW31	07-21-04	<.2	<.1	<.2	<.1	<.2	M	M	M	-3
NJDEP MANNINGTON PW15	07-20-04	<.2	<.1	<.2	<.1	<.2	1	2	8	4
USGS COLES FARM 1 OBS	07-20-04	<.2	<.1	<.2	<.1	<.2	M	M	2	M
NJDEP PILESGROVE PW13	07-14-04	<.2	<.1	<.2	<.1	<.2	M	M	10	9
USGS AG02	07-07-04	<.2	<.1	<.2	<.1	<.2	--	--	--	--
	07-07-04	<.2	<.1	<.2	.3	<.2	3	3	4	4
USGS NU02	06-29-04	<.2	<.1	<.2	<.1	<.2	--	--	--	--
	06-29-04	<.2	<.1	<.2	.2	<.2	M	1	3	3
USGS NU29	07-07-04	<.2	<.1	<.2	<.1	<.2	--	--	--	--
	07-07-04	<.2	<.1	<.2	<.1	<.2	M	6	7	8
USGS OU14	06-30-04	<.2	<.1	<.2	3.2	<.2	6	42	18	12

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	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)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Desulf-inyl fipronil, water, fltrd, ug/L (62170)
NJDEP QUINTON MW33	393313075254101	06-30-04	1000	<.006	E.006	<.006	.009	<.041	<.020	<.012
NJDEP WELCHVILL MW31	393610075250001	07-21-04	1000	<.006	E.096	<.006	.097	<.041	<.020	<.012
NJDEP MANNINGTON PW15	393738075221401	07-20-04	1000	<.006	E.070	.011	.365	E.036	<.020	<.012
USGS COLES FARM 1 OBS	393818075132401	07-20-04	1140	<.006	E.081	<.006	.072	<.041	<.020	<.012
NJDEP PILESGROVE PW13	394024075234701	07-14-04	0930	E.005	<.006	<.006	.014	<.041	<.020	<.012
USGS AG02	394256075101001	07-07-04	1100	<.006	E.008	<.006	.029	<.041	E.048	<.012
USGS NU02	394342075040301	06-29-04	1230	<.006	E.004	<.006	.009	<.041	<.020	<.012
USGS NU29	394446075031001	07-07-04	1200	<.006	<.006	<.006	<.007	<.041	<.020	<.012
USGS OU14	394647074592701	06-30-04	1140	<.006	E.004	<.006	.007	<.041	<.020	<.012

Local identifier	Date	Diel-drin, water, fltrd, ug/L (39381)	Desulf-inyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water fltrd 0.7u GF (82684)	Prome-ton, water, fltrd, ug/L (04037)	Simazine, water, fltrd, ug/L (04035)
NJDEP QUINTON MW33	06-30-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP WELCHVILL MW31	07-21-04	<.009	<.029	<.013	<.024	<.016	E.004	<.006	<.007	<.01	<.005
NJDEP MANNINGTON PW15	07-20-04	<.009	<.029	<.013	<.024	<.016	.654	<.006	<.007	<.01	.011
USGS COLES FARM 1 OBS	07-20-04	<.009	<.029	<.013	<.024	<.016	E.011	<.006	<.007	<.01	<.005
NJDEP PILESGROVE PW13	07-14-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
USGS AG02	07-07-04	E.008	<.029	<.013	<.024	<.016	1.43	<.006	<.007	<.01	.107
USGS NU02	06-29-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	.010
USGS NU29	07-07-04	<.009	<.029	<.013	<.024	<.016	E.008	<.006	<.007	.02	<.005
USGS OU14	06-30-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	.09	<.005

AMBIENT GROUND-WATER-QUALITY NETWORK
WATERSHED MANAGEMENT AREA 18—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Terba- cil, water, fltrd 0.7u GF ug/L (82665)
NJDEP QUINTON MW33	06-30-04	<.02	<.034
NJDEP WELCHVILL MW31	07-21-04	<.02	<.034
NJDEP MANNINGTON PW15	07-20-04	<.02	<.034
USGS COLES FARM 1 OBS	07-20-04	<.02	<.034
NJDEP PILESGROVE PW13	07-14-04	<.02	<.034
USGS AG02	07-07-04	<.02	E1.41
USGS NU02	06-29-04	<.02	<.034
USGS NU29	07-07-04	<.02	<.034
USGS OU14	06-30-04	<.02	<.034

Remark codes used in this table:

< -- Less than
E -- Estimated value

WATERSHED MANAGEMENT AREA 19

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
051479	*395448074370701	NJDEP LEBANON SF MW16	395448	743706	95	24	19 - 24	121CKKD
051486	*395532074504701	NJDEP MEDFORD MW-13	395532	745046	65	12	7 - 12	125HRRS
051480	*395638074432501	NJDEP SOUTHAMPTON MW12	395638	744324	38	23	18 - 23	124MNSQ
051402	*395643074295201	NJDOT PESTICIDE MW-2	395643	742951	100	10	5 - 10	121CKKD
051403	*395815074442101	NJDOT PESTICIDE MW-1	395815	744420	60	13	8 - 13	125HRRS
051478	395836074542701	NJDEP/MOORESTOWN MW7	395836	745426	80	22	17 - 22	211EGLS
051476	395928074502701	NJDEP/RANCOCAS ST PK MW3	395928	745026	17	14	9 - 14	211EGLS

* Field data and samples for laboratory analysis were provided by the New Jersey Department of Environmental Protection.

AQUIFER UNITS.--121CKKD, Cohansey Sand-Kirkwood Formation; 124MNSQ, Manasquan Formation; 125HRRS, Hornerstown Sand; 211EGLS, Englishtown Formation.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)
NJDEP LEBANON SF MW16	395448074370701	06-15-04	0930	.50	45	3.2	753	3.6	35	4.4
NJDEP MEDFORD MW-13	395532074504701	09-01-04	0900	.50	50	.3	755	.4	4	4.8
NJDEP SOUTHAMPTON MW12	395638074432501	07-07-04	0930	.50	30	1.8	759	.3	3	7.9
NJDOT PESTICIDE MW-2	395643074295201	06-17-04	1000	.50	30	2.3	760	.2	2	4.8
NJDOT PESTICIDE MW-1	395815074442101	06-16-04	1000	.50	30	2.2	760	9.3	91	6.0
NJDEP/MOORESTOWN MW7	395836074542701	06-24-04	1130	--	60	.2	761	9.2	93	5.0
NJDEP/RANCOCAS ST PK MW3	395928074502701	06-24-04	1230	.26	60	.7	763	7.9	76	4.3

Local identifier	Date	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, ftrld, mg/L (00915)	Magnesium, water, ftrld, mg/L (00925)	Potassium, water, ftrld, mg/L (00935)	Sodium, water, ftrld, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, ftrld, mg/L (00940)
NJDEP LEBANON SF MW16	06-15-04	41	13.2	3	.17	.637	.16	1.23	<1	<1	1.99
NJDEP MEDFORD MW-13	09-01-04	418	15.5	75	10.8	11.7	2.23	38.2	3	5	98.6
NJDEP SOUTHAMPTON MW12	07-07-04	284	15.9	130	34.0	12.1	8.86	2.22	134	162	5.65
NJDOT PESTICIDE MW-2	06-17-04	144	17.5	6	1.05	.773	.74	20.7	2	3	32.9
NJDOT PESTICIDE MW-1	06-16-04	225	14.3	75	21.4	5.31	1.57	9.47	23	28	23.5
NJDEP/MOORESTOWN MW7	06-24-04	967	15.5	130	35.0	11.5	4.05	124	5	7	203
NJDEP/RANCOCAS ST PK MW3	06-24-04	53	13.6	3	.63	.403	.69	1.33	<1	<1	2.80

Local identifier	Date	Fluoride, water, ftrld, mg/L (00950)	Silica, water, ftrld, mg/L (00955)	Sulfate water, ftrld, mg/L (00945)	Residue water, ftrld, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, ftrld, mg/L as N (00623)	Ammonia water, ftrld, mg/L as N (00608)	Nitrite + nitrate water ftrld, mg/L as N (00631)	Nitrite water, ftrld, mg/L as N (00613)	Orthophosphate, water, ftrld, mg/L as P (00671)
NJDEP LEBANON SF MW16	06-15-04	<.2	3.9	--	--	20	<.10	<.04	<.06	<.008	<.02
NJDEP MEDFORD MW-13	09-01-04	<.2	8.9	16.7	199	205	E.07	<.04	2.16	<.008	.03
NJDEP SOUTHAMPTON MW12	07-07-04	.2	17.2	.8	161	167	.18	.15	<.06	<.008	<.02
NJDOT PESTICIDE MW-2	06-17-04	<.2	5.0	12.2	79	144	1.2	.35	<.06	.012	.02
NJDOT PESTICIDE MW-1	06-16-04	<.2	2.6	13.2	126	154	.19	<.04	7.81	<.008	.02
NJDEP/MOORESTOWN MW7	06-24-04	<.2	3.8	77.4	525	544	.15	<.04	14.2	<.008	<.02
NJDEP/RANCOCAS ST PK MW3	06-24-04	.3	6.3	14.4	--	32	<.10	<.04	E.05	<.008	<.02

AMBIENT GROUND-WATER-QUALITY NETWORK
WATERSHED MANAGEMENT AREA 19—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic, water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium, water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)
NJDEP LEBANON SF MW16	06-15-04	1.0	462	<.20	E.1	26	.10	E5	.16	<.8	.4
NJDEP MEDFORD MW-13	09-01-04	1.0	8	E.11	.6	23	<.06	27	<.04	<.8	1.3
NJDEP SOUTHAMPTON MW12	07-07-04	1.6	<.2	<.20	E.1	35	<.06	40	E.02	<.8	<.4
NJDOT PESTICIDE MW-2	06-17-04	32.7	1,280	E.17	1.2	8	<.06	17	.06	2.3	1.6
NJDOT PESTICIDE MW-1	06-16-04	1.6	12	<.20	.2	19	.14	10	.12	<.8	23.1
NJDEP/MOORESTOWN MW7	06-24-04	1.4	369	<.20	E.1	58	.13	97	1.24	E.5	4.4
NJDEP/RANCOCAS ST PK MW3	06-24-04	1.1	1,720	<.20	E.2	91	.15	12	.64	E.4	2.9

Local identifier	Date	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury, water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Thallium, water, fltrd, ug/L (01057)	Zinc, water, fltrd, ug/L (01090)	1,1,1-Trichloroethane, water, unfltrd ug/L (34506)
NJDEP LEBANON SF MW16	06-15-04	144	<.08	10.2	<.02	1.95	<.4	<.2	<.04	6.6	<.1
NJDEP MEDFORD MW-13	09-01-04	<6	E.07	11.8	<.02	.80	E.3	<.2	<.04	1.1	<.1
NJDEP SOUTHAMPTON MW12	07-07-04	145	<.08	11.9	<.02	.46	E.3	<.2	<.04	1.2	<.1
NJDOT PESTICIDE MW-2	06-17-04	2,110	.66	10.2	.03	.62	.4	<.2	<.04	12.2	<.1
NJDOT PESTICIDE MW-1	06-16-04	E5	.67	8.7	<.02	1.41	E.3	<.2	<.04	29.8	<.1
NJDEP/MOORESTOWN MW7	06-24-04	E6	.13	22.1	<.02	2.69	E.4	<.2	E.03	7.0	<.1
NJDEP/RANCOCAS ST PK MW3	06-24-04	<6	.78	151	<.02	3.37	E.3	<.2	<.04	53.9	<.1

Local identifier	Date	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)	Bromodichloromethane water unfltrd ug/L (32101)
NJDEP LEBANON SF MW16	06-15-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
NJDEP MEDFORD MW-13	09-01-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
NJDEP SOUTHAMPTON MW12	07-07-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
NJDOT PESTICIDE MW-2	06-17-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
NJDOT PESTICIDE MW-1	06-16-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
NJDEP/MOORESTOWN MW7	06-24-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
NJDEP/RANCOCAS ST PK MW3	06-24-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1

Local identifier	Date	Chlorobenzene water unfltrd ug/L (34301)	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 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)
NJDEP LEBANON SF MW16	06-15-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2
NJDEP MEDFORD MW-13	09-01-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2
NJDEP SOUTHAMPTON MW12	07-07-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2
NJDOT PESTICIDE MW-2	06-17-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2
NJDOT PESTICIDE MW-1	06-16-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2
NJDEP/MOORESTOWN MW7	06-24-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2
NJDEP/RANCOCAS ST PK MW3	06-24-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2

WATERSHED MANAGEMENT AREA 19—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	o-Xylene, water, unfltrd ug/L (77135)	Styrene water unfltrd ug/L (77128)	t-Butyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)
NJDEP LEBANON SF MW16	06-15-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1
NJDEP MEDFORD MW-13	09-01-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1
NJDEP SOUTHAMPTON MW12	07-07-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1
NJDOT PESTICIDE MW-2	06-17-04	<.1	<.1	<.1	E.1	<.1	<.2	<.1	<.1	<.2	<.1
NJDOT PESTICIDE MW-1	06-16-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1
NJDEP/MOORESTOWN MW7	06-24-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1
NJDEP/RANCOCAS ST PK MW3	06-24-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1

Local identifier	Date	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)	Alpha radio-activty 30 day, wat flt pCi/L (62639)	Alpha radio-activty 72 hr, wat flt pCi/L (62636)	Beta radio-activty 30 day, wat flt pCi/L (62645)	Beta radio-activty 72 hr, wat flt pCi/L (62642)
NJDEP LEBANON SF MW16	06-15-04	<.2	.1	<.2	4	14	1	2
NJDEP MEDFORD MW-13	09-01-04	<.2	<.1	<.2	1	M	3	3
NJDEP SOUTHAMPTON MW12	07-07-04	<.2	<.1	<.2	M	1	7	9
NJDOT PESTICIDE MW-2	06-17-04	<.2	<.1	<.2	3	3	1	2
NJDOT PESTICIDE MW-1	06-16-04	<.2	<.1	<.2	M	1	4	1
NJDEP/MOORESTOWN MW7	06-24-04	<.2	<.1	<.2	1	4	9	3
NJDEP/RANCOCAS ST PK MW3	06-24-04	<.2	<.1	<.2	7	2	6	1

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M -- Presence verified, not quantified

AMBIENT GROUND-WATER-QUALITY NETWORK

WATERSHED MANAGEMENT AREA 19—Continued

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	2,6-Diethyl-aniline water fltrd	CIAT, water, fltrd,	Aceto-chlor, water, fltrd,	Atra-zine, water, fltrd,	Car-baryl, water, fltrd	Carbo-furan, water, fltrd	Desulf-inyl fipro-nil, water, fltrd,
				0.7u GF ug/L (82660)	ug/L (04040)	ug/L (49260)	ug/L (39632)	0.7u GF ug/L (82680)	0.7u GF ug/L (82674)	ug/L (62170)
NJDEP LEBANON SF MW16	395448074370701	06-15-04	0930	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP MEDFORD MW-13	395532074504701	09-01-04	0900	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP SOUTHAMPTON MW12	395638074432501	07-07-04	0930	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDOT PESTICIDE MW-2	395643074295201	06-17-04	1000	<.006	<.006	<.006	<.007	E1.41	<.020	<.012
NJDOT PESTICIDE MW-1	395815074442101	06-16-04	1000	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP/MOORESTOWN MW7	395836074542701	06-24-04	1130	<.006	E.115	<.006	.108	<.041	<.020	<.012
NJDEP/RANCOCAS ST PK MW3	395928074502701	06-24-04	1230	<.006	<.006	<.006	<.007	<.041	<.020	<.012

Local identifier	Date	Desulf-inyl-fipro-nil amide, wat flt	Fipro-nil sulfide water, fltrd,	Fipro-nil sulfone water, fltrd,	Fipro-nil, water, fltrd,	Metola-chlor, water, fltrd,	Metri-buzin, water, fltrd,	Naprop-amide, water fltrd	Prome-ton, water, fltrd,	Sima-zine, water, fltrd,	
		ug/L (39381)	ug/L (62169)	ug/L (62167)	ug/L (62168)	ug/L (62166)	ug/L (39415)	ug/L (82630)	0.7u GF ug/L (82684)	ug/L (04037)	ug/L (04035)
NJDEP LEBANON SF MW16	06-15-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP MEDFORD MW-13	09-01-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP SOUTHAMPTON MW12	07-07-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDOT PESTICIDE MW-2	06-17-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	.058	<.01	<.005
NJDOT PESTICIDE MW-1	06-16-04	<.009	<.029	<.013	<.024	<.016	E.007	<.006	<.007	<.01	<.005
NJDEP/MOORESTOWN MW7	06-24-04	<.009	<.029	<.013	<.024	<.016	E.004	<.006	<.007	.04	E.003
NJDEP/RANCOCAS ST PK MW3	06-24-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005

Local identifier	Date	Tebu-thiuron water fltrd	Terba-cil, water, fltrd
		0.7u GF ug/L (82670)	0.7u GF ug/L (82665)
NJDEP LEBANON SF MW16	06-15-04	<.02	<.034
NJDEP MEDFORD MW-13	09-01-04	<.02	<.034
NJDEP SOUTHAMPTON MW12	07-07-04	<.02	<.034
NJDOT PESTICIDE MW-2	06-17-04	<.02	<.034
NJDOT PESTICIDE MW-1	06-16-04	<.02	<.034
NJDEP/MOORESTOWN MW7	06-24-04	<.02	<.034
NJDEP/RANCOCAS ST PK MW3	06-24-04	<.02	<.034

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATERSHED MANAGEMENT AREA 20

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
051481	*400202074461301	NJDEP SPRINGFIELD MW6	400202	744612	43	12	7 - 12	211EGLS
250785	*400525074314101	NJDEP UPPERFREEHOLD MW5	400525	743140	102	24	19 - 24	125VNCN
051477	*400533074405101	NJDEP/MANSFIELD MW4	400533	744050	90	24	19 - 24	211MRSL

* Field data and samples for laboratory analysis were provided by the New Jersey Department of Environmental Protection.

AQUIFER UNITS.--125VNCN, Vincentown Formation; 211EGLS, Englishtown Formation; 211MRSL, Marshalltown Formation.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)
NJDEP SPRINGFIELD MW6	400202074461301	06-23-04	0930	.50	35	.2	752	1.0	10	4.6
NJDEP UPPER FREEHOLD MW5	400525074314101	07-01-04	0930	.50	40	.9	758	.4	4	6.5
NJDEP/MANSFIELD MW4	400533074405101	07-13-04	1000	.25	55	2.4	747	5.5	56	3.9

Local identifier	Date	Specif. conductance, wat unf uS/cm (00095)	Temperature, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Chloride, water, fltrd, mg/L (00940)
NJDEP SPRINGFIELD MW6	06-23-04	642	13.3	39	7.29	4.96	5.75	99.0	1	3	179
NJDEP UPPER FREEHOLD MW5	07-01-04	402	13.7	78	28.1	1.83	3.32	14.9	71	87	40.3
NJDEP/MANSFIELD MW4	07-13-04	1,130	15.8	120	12.8	20.8	2.90	144	<1	<1	345

Local identifier	Date	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)	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	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)
NJDEP SPRINGFIELD MW6	06-23-04	<.2	4.3	9.1	313	323	<.10	<.04	.36	<.008	<.02
NJDEP UPPER FREEHOLD MW5	07-01-04	<.2	37.8	52.9	--	230	E.08	E.03	<.06	E.007	.02
NJDEP/MANSFIELD MW4	07-13-04	.2	11.9	15.7	--	566	<.10	<.04	<.06	<.008	<.02

Local identifier	Date	Organic carbon, water, fltrd, mg/L (00681)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenic water, fltrd, ug/L (01000)	Barium, water, fltrd, ug/L (01005)	Beryllium, water, fltrd, ug/L (01010)	Boron, water, fltrd, ug/L (01020)	Cadmium water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)
NJDEP SPRINGFIELD MW6	06-23-04	.5	226	<.20	E.1	30	.14	24	.24	<.8	2.0
NJDEP UPPER FREEHOLD MW5	07-01-04	.9	<2	<.20	1.1	33	E.04	37	.26	<.8	.4
NJDEP/MANSFIELD MW4	07-13-04	.8	3,730	<.20	<.2	73	.93	25	.56	4.6	1.2

AMBIENT GROUND-WATER-QUALITY NETWORK
WATERSHED MANAGEMENT AREA 20—Continued

MULTIPLE STATION ANALYSES

Local identifier	Date	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury, water, fltrd, ug/L (71890)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)	Silver, water, fltrd, ug/L (01075)	Thallium, water, fltrd, ug/L (01057)	Zinc, water, fltrd, ug/L (01090)	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)
NJDEP SPRINGFIELD MW6	06-23-04	24	1.33	64.2	<.02	4.62	<.4	<.2	E.02	19.2	<.1
NJDEP UPPER FREEHOLD MW5	07-01-04	41,800	<.08	116	<.02	1.00	E.4	<.2	<.04	8.8	<.1
NJDEP/MANSFIELD MW4	07-13-04	64	1.57	126	<.02	32.7	E.2	<.2	.04	152	<.1

Local identifier	Date	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)
NJDEP SPRINGFIELD MW6	06-23-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
NJDEP UPPER FREEHOLD MW5	07-01-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1
NJDEP/MANSFIELD MW4	07-13-04	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1

Local identifier	Date	Chloro-benzene water unfltrd ug/L (34301)	cis-1,2-Di-chloro-ethene, water unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unfltrd ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water unfltrd ug/L (81576)	Diiso-propyl ether, water unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)	Methyl tert-pentyl ether, water unfltrd ug/L (50005)	meta+ para-Xylene, water unfltrd ug/L (85795)
NJDEP SPRINGFIELD MW6	06-23-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2
NJDEP UPPER FREEHOLD MW5	07-01-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2
NJDEP/MANSFIELD MW4	07-13-04	<.1	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2

Local identifier	Date	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)	Tetra-chloro-ethene, water unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water unfltrd ug/L (34546)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water unfltrd ug/L (39180)
NJDEP SPRINGFIELD MW6	06-23-04	<.1	<.1	<.1	<.2	<.1	<.2	<.1	<.1	<.2	<.1
NJDEP UPPER FREEHOLD MW5	07-01-04	<.1	<.1	<.1	E.2	<.1	<.2	<.1	<.1	<.2	<.1
NJDEP/MANSFIELD MW4	07-13-04	<.1	<.1	<.1	E.2	<.1	<.2	<.1	<.1	<.2	<.1

Local identifier	Date	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chloride, water, unfltrd ug/L (39175)	Alpha radio-activity 30 day, wat flt pCi/L (62639)	Alpha radio-activity 72 hr, wat flt pCi/L (62636)	Beta radio-activity 30 day, wat flt pCi/L (62645)	Beta radio-activity 72 hr, wat flt pCi/L (62642)
NJDEP SPRINGFIELD MW6	06-23-04	<.2	<.1	<.2	2	24	13	17
NJDEP UPPER FREEHOLD MW5	07-01-04	<.2	<.1	<.2	M	M	3	3
NJDEP/MANSFIELD MW4	07-13-04	<.2	<.1	<.2	5	28	10	13

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M-- Presence verified, not quantified

WATERSHED MANAGEMENT AREA 20—Continued

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 ground-water samples are listed in the following table.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	2,6-Diethyl-aniline water fltrd 0.7u GF ug/L (82660)	CIAT, water, fltrd, ug/L (04040)	Aceto-chlor, water, fltrd, ug/L (49260)	Atra-zine, water, fltrd, ug/L (39632)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Carbo-furan, water, fltrd 0.7u GF ug/L (82674)	Desulf-inyl fipro-nil, water, fltrd, ug/L (62170)
NJDEP SPRINGFIELD MW6	400202074461301	06-23-04	0930	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP UPPER FREEHOLD MW5	400525074314101	07-01-04	0930	<.006	<.006	<.006	<.007	<.041	<.020	<.012
NJDEP/MANSFIELD MW4	400533074405101	07-13-04	1000	<.006	<.006	<.006	<.007	<.041	<.020	<.012

Local identifier	Date	Diel-drin, water, fltrd, ug/L (39381)	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)	Metola-chlor, water, fltrd, ug/L (39415)	Metri-buzin, water, fltrd, ug/L (82630)	Naprop-amide, water fltrd 0.7u GF ug/L (82684)	Prome-ton, water, fltrd, ug/L (04037)	Sima-zine, water, fltrd, ug/L (04035)
NJDEP SPRINGFIELD MW6	06-23-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP UPPER FREEHOLD MW5	07-01-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005
NJDEP/MANSFIELD MW4	07-13-04	<.009	<.029	<.013	<.024	<.016	<.013	<.006	<.007	<.01	<.005

Local identifier	Date	Tebu-thiuron water fltrd 0.7u GF ug/L (82670)	Terba-cil, water, fltrd 0.7u GF ug/L (82665)
NJDEP SPRINGFIELD MW6	06-23-04	<.02	<.034
NJDEP UPPER FREEHOLD MW5	07-01-04	<.02	<.034
NJDEP/MANSFIELD MW4	07-13-04	<.02	<.034

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

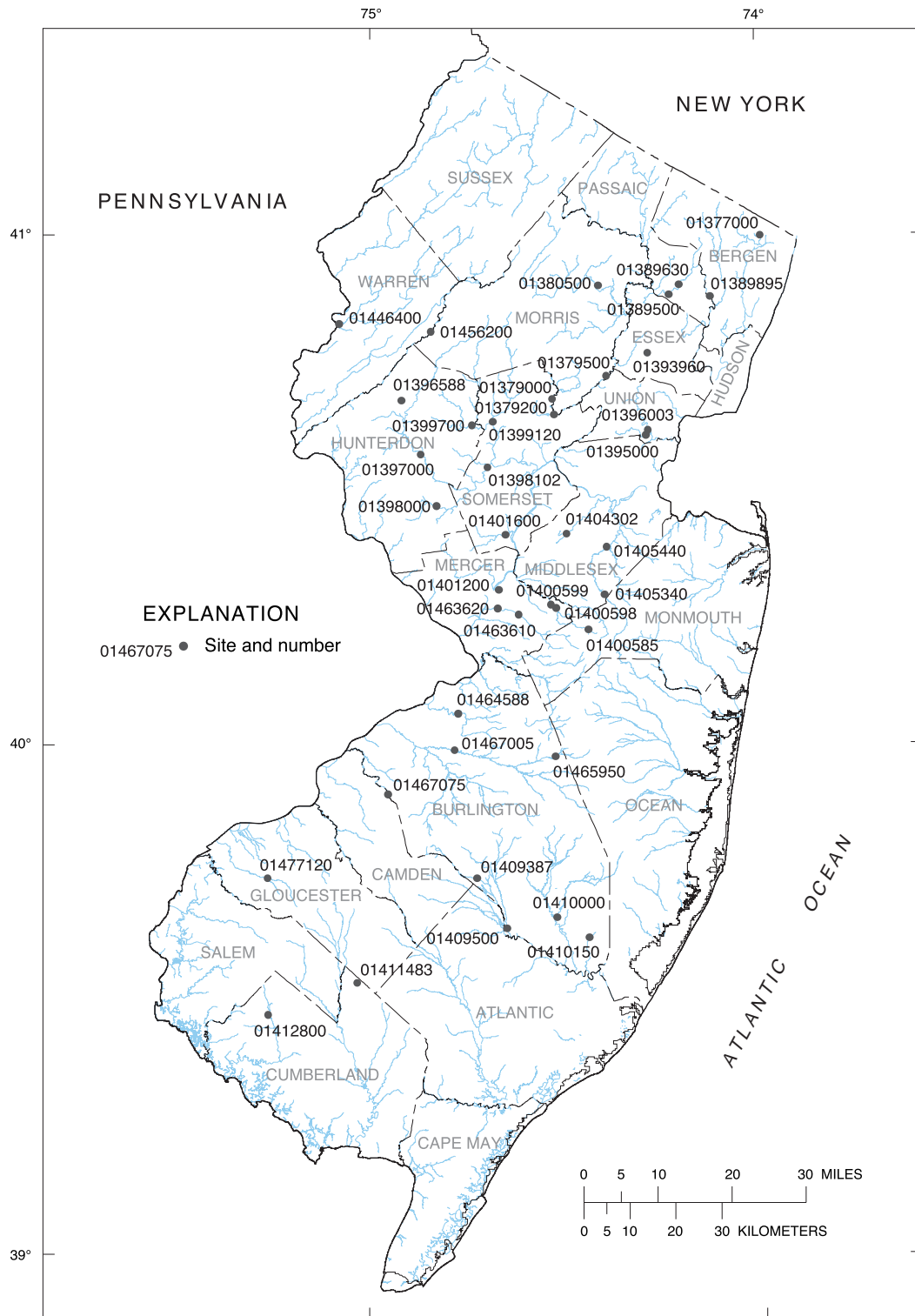


Figure 36. Location of sites sampled for trace elements during high flows in selected streams in New Jersey, water year 2004.

TRACE ELEMENTS IN SAMPLES COLLECTED DURING HIGH FLOWS IN SELECTED STREAMS (303-d)—Continued

The following tables contain water-quality data collected from a network of 40 surface water sites sampled for total recoverable and dissolved trace elements under elevated streamflow conditions in New Jersey. The sampling network was established by the New Jersey Department of Environmental Protection (NJDEP) to add to the limited, outdated, and non-representative historical trace element data at these 40 sites. Previous trace element data historically were collected in late summer, usually during base or low streamflow conditions. Concerns were that older data may not be representative of current conditions due to changes in land use in New Jersey and advances in equipment, cleaning procedures, collection procedures and analysis techniques that allow for more accurate data collection and reporting. Collection of trace elements data in ambient surface water under elevated streamflow will address changes in land use, fill in gaps in historic data, and reflect advancements in sampling and analysis protocols.

MULTIPLE STATION ANALYSES

Station number	Station name	Date	Time	Sample type	Instan- taneous dis- charge, cfs (00061)	Tur- bidity, water, unfltrd field, NTU (61028)
01377000	HACKENSACK RIVER AT RIVERVALE NJ	10-15-03	0958	Field Blank	--	--
		10-15-03	0959	Field Blank	--	--
		10-15-03	1000	Environmental	80	27
01379000	PASSAIC RIVER NEAR MILLINGTON NJ	10-08-03	0958	Field Blank	--	--
		10-08-03	0959	Field Blank	--	--
		10-08-03	1000	Environmental	33	5.6
01379200	DEAD RIVER NEAR MILLINGTON NJ	10-08-03	1200	Environmental	--	5.4
01379500	PASSAIC RIVER NEAR CHATHAM NJ	10-08-03	1215	Environmental	--	6.1
01380500	ROCKAWAY RIVER ABOVE RESERVOIR AT BOOTON NJ	10-08-03	1000	Field Blank	--	--
		10-08-03	1001	Field Blank	--	--
01389500	PASSAIC RIVER AT LITTLE FALLS NJ	10-08-03	1002	Environmental	145	3.0
		10-15-03	0858	Field Blank	--	--
		10-15-03	0859	Field Blank	--	--
01389630	PASSAIC R AT TOTOWA RD AT TOTOWA NJ	10-15-03	0900	Environmental	--	27
		10-15-03	1030	Environmental	--	23
01389895	PASSAIC R AT OUTWATER LANE AT GARFIELD NJ	11-19-03	0830	Field Blank	--	--
		11-19-03	1115	Field Blank	--	--
		11-19-03	1130	Environmental	--	5.6
01393960	WB RAHWAY RIVER AT NORTHFIELD AVE AT WEST ORANGE NJ	10-09-03	1028	Field Blank	--	--
		10-09-03	1029	Field Blank	--	--
01395000 01396003	RAHWAY RIVER AT RAHWAY NJ ROBINSONS BRANCH AT CENTRAL AVE AT RAHWAY NJ	10-09-03	1030	Environmental	--	1.4
		10-09-03	1200	Environmental	16	5.3
		10-09-03	0958	Field Blank	--	--
		10-09-03	0959	Field Blank	--	--
01396588 01397000	SPRUCE RUN NR GLEN GARDNER NJ SB RARITAN RIVER AT STANTON NJ	10-09-03	1230	Environmental	--	.7
		10-09-03	0958	Field Blank	--	--
		10-09-03	0959	Field Blank	--	--
01398000	NESHANIC RIVER AT REAVILLE NJ	10-09-03	1000	Environmental	230	4.7
		10-09-03	1100	Environmental	--	1.0
		10-09-03	0900	Field Blank	--	--
01398102	SB RARITAN R AT SOUTH BRANCH NJ	10-09-03	0901	Field Blank	--	--
		10-09-03	0902	Environmental	--	3.5
		10-09-03	0902	Field Blank	--	--
01399120	NB RARITAN R AT BURNT MILLS NJ	10-07-03	1124	Field Blank	--	--
		10-07-03	1125	Field Blank	--	--
		10-07-03	1145	Environmental	--	1.4
01399700	ROCKAWAY CREEK AT WHITEHOUSE NJ	10-07-03	0929	Field Blank	--	--
		10-07-03	0930	Field Blank	--	--
		10-07-03	0930	Field Blank	--	--
		10-07-03	1000	Environmental	--	2.0
01400585	ROCKY BROOK AT PERRINEVILLE NJ	10-28-03	0858	Field Blank	--	--
		10-28-03	0859	Field Blank	--	--
		10-28-03	0900	Environmental	--	5.9
01400598	ROCKY BK AT PEDDIE LK OUTLET AT HIGHTSTOWN NJ	10-29-03	0958	Field Blank	--	--
		10-29-03	0959	Field Blank	--	--
		10-29-03	1000	Environmental	--	7.9
01400599	ROCKY BK AT RT 130 AT HIGHTSTOWN NJ	10-29-03	1230	Environmental	--	11
01401200	DUCK POND RUN AT CLARKSVILLE NJ	10-28-03	1330	Environmental	--	17

TRACE ELEMENTS IN SAMPLES COLLECTED DURING HIGH FLOWS IN SELECTED STREAMS (303-d)—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unfl- trd uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)
01377000	10-15-03	--	--	--	--	--	--	--	--	--	--	<2
	10-15-03	--	--	--	--	--	--	<.01	<.008	<.2	--	--
	10-15-03	744	7.5	78	7.7	320	13.9	15.9	29.5	5.61	.9	M
01379000	10-08-03	--	--	--	--	--	--	--	--	--	--	<2
	10-08-03	--	--	--	--	--	--	E.01	<.008	<.2	--	--
	10-08-03	762	9.6	85	7.2	305	15.0	10.2	20.3	8.13	.5	<2
01379200	10-08-03	763	9.1	83	7.6	540	18.0	11.5	37.5	13.61	.6	<2
01379500	10-08-03	764	8.8	80	7.5	403	19.5	11.2	26.7	10.2	.6	<2
01380500	10-08-03	--	--	--	--	--	--	--	--	--	--	<2
	10-08-03	--	--	--	--	--	--	E.01	<.008	<.2	--	--
	10-08-03	759	11.0	100	7.6	293	18.0	10.9	19.7	7.55	.3	<2
01389500	10-15-03	--	--	--	--	--	--	--	--	--	--	<2
	10-15-03	--	--	--	--	--	--	<.01	<.008	<.2	--	--
	10-15-03	774	8.0	79	7.8	294	18.3	15.6	23.0	6.96	.6	<2
01389630	10-15-03	740	8.3	86	7.7	306	18.3	15.7	26.0	8.17	.7	<2
01389895	11-19-03	--	--	--	--	--	--	--	--	--	--	<2
	11-19-03	--	--	--	--	--	--	.01	<.008	<.2	--	--
	11-19-03	757	11.5	101	7.9	418	18.5	9.4	29.0	8.93	.3	<2
01393960	10-09-03	--	--	--	--	--	--	--	--	--	--	<2
	10-09-03	--	--	--	--	--	--	<.01	<.008	<.2	--	--
	10-09-03	758	9.4	91	8.0	752	17.6	13.3	72.5	26.8	.4	<2
01395000	10-09-03	767	9.3	90	7.9	613	20.5	13.8	65.2	12.2	.7	<2
01396003	10-09-03	--	--	--	--	--	--	--	--	--	--	<2
	10-09-03	--	--	--	--	--	--	<.01	<.008	<.2	--	--
	10-09-03	767	8.0	78	7.7	260	18.5	14.3	29.2	5.22	1.1	E2
01396588	10-09-03	760	11.0	103	7.7	202	25.5	12.4	15.8	6.57	<.2	<2
01397000	10-09-03	--	--	--	--	--	--	--	--	--	--	<2
	10-09-03	--	--	--	--	--	--	E.01	<.008	<.2	--	--
	10-09-03	764	10.4	100	7.9	264	18.0	13.6	21.5	9.17	.3	<2
01398000	10-09-03	766	13.5	127	8.3	332	22.5	12.8	31.9	11.2	.7	<2
01398102	10-09-03	--	--	--	--	--	--	--	--	--	--	<2
	10-09-03	--	--	--	--	--	--	<.01	<.008	<.2	--	--
	10-09-03	767	9.8	92	7.8	287	17.0	13.0	22.7	9.34	.4	<2
01399120	10-07-03	--	--	--	--	--	--	--	--	--	--	<2
	10-07-03	--	--	--	--	--	--	.01	<.008	<.2	--	--
	10-07-03	767	11.7	104	8.0	312	20.0	10.6	25.1	9.24	.3	<2
01399700	10-07-03	--	--	--	--	--	--	--	--	--	--	<2
	10-07-03	--	--	--	--	--	--	<.01	<.008	<.2	--	--
	10-07-03	764	10.6	91	8.4	238	14.5	8.8	22.3	8.59	.3	<2
01400585	10-28-03	--	--	--	--	--	--	--	--	--	--	<2
	10-28-03	--	--	--	--	--	--	<.01	<.008	<.2	--	--
	10-28-03	758	6.7	64	6.5	180	17.5	13.1	4.53	3.41	.4	E1
01400598	10-29-03	--	--	--	--	--	--	--	--	--	--	<2
	10-29-03	--	--	--	--	--	--	<.01	<.008	<.2	--	--
	10-29-03	750	9.7	93	7.3	212	14.5	12.5	9.01	4.99	.5	M
01400599	10-29-03	750	9.5	91	7.2	218	15.5	12.8	9.58	5.36	.5	E1
01401200	10-28-03	760	6.0	57	6.4	139	17.5	12.9	8.10	3.88	1.0	E1

TRACE ELEMENTS IN SAMPLES COLLECTED DURING HIGH FLOWS IN SELECTED STREAMS (303-d)—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Cadmium water, ftrd, ug/L (01025)	Cadmium water, unftrd ug/L (01027)	Chrom- ium, water, ftrd, ug/L (01030)	Chrom- ium, water, unftrd recover- able, ug/L (01034)	Copper, water, ftrd, ug/L (01040)	Copper, water, unftrd recover- able, ug/L (01042)	Lead, water, ftrd, ug/L (01049)	Lead, water, unftrd recover- able, ug/L (01051)	Mercury water, ftrd, ug/L (71890)	Mercury water, unftrd recover- able, ug/L (71900)	Nickel, water, ftrd, ug/L (01065)
01377000	10-15-03	--	<.04	--	E.4	--	<.6	--	<.06	--	<.02	--
	10-15-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
01379000	10-15-03	<.04	<.04	<.8	1.1	4.7	9.5	.16	3.64	<.02	E.01	.94
	10-08-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
	10-08-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
01379200	10-08-03	<.04	.04	<.8	E.4	.8	.7	E.07	.29	<.02	<.02	.87
01379500	10-08-03	E.03	E.03	<.8	<.8	3.2	3.7	<.08	.26	<.02	<.02	1.34
01380500	10-08-03	<.04	E.02	<.8	<.8	1.9	2.3	E.05	.53	<.02	<.02	1.20
	10-08-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
	10-08-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
01389500	10-08-03	E.02	.04	<.8	<.8	1.1	.9	.08	.64	<.02	<.02	.69
	10-15-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
	10-15-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
01389630	10-15-03	E.03	.05	<.8	1.9	2.7	4.7	.13	3.99	<.02	E.02	1.14
	10-15-03	E.04	.05	<.8	1.6	2.8	4.8	.12	4.13	<.02	E.02	1.20
01389895	11-19-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
	11-19-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
01393960	11-19-03	E.02	.05	<.8	E.6	2.0	3.6	.12	1.84	<.02	<.02	.94
	10-09-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
	10-09-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
01395000	10-09-03	<.04	E.02	E.6	<.8	1.6	1.9	E.05	.50	<.02	<.02	1.42
01396003	10-09-03	<.04	E.02	<.8	.9	1.4	2.4	.18	2.60	<.02	E.01	1.48
	10-09-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
	10-09-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
	10-09-03	<.04	<.04	<.8	<.8	1.9	2.2	.18	.65	<.02	<.02	1.09
01396588	10-09-03	<.04	<.04	<.8	<.8	.7	E.5	<.08	E.04	<.02	<.02	.40
01397000	10-09-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
	10-09-03	<.04	--	1.0	--	<.4	--	<.08	--	<.02	--	<.06
	10-09-03	<.04	<.04	<.8	<.8	.7	.7	.10	.30	<.02	<.02	.48
01398000	10-09-03	<.04	<.04	<.8	<.8	.9	.8	<.08	E.05	<.02	<.02	.66
01398102	10-09-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
	10-09-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
	10-09-03	<.04	<.04	<.8	<.8	.9	.9	E.05	.28	<.02	<.02	.60
01399120	10-07-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
	10-07-03	<.04	--	2.6	--	<.4	--	<.08	--	<.02	--	<.06
01399700	10-07-03	<.04	<.04	<.8	<.8	.9	1.1	.11	.15	<.02	<.02	.54
	10-07-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
	10-07-03	<.04	--	<.8	--	E.2	--	<.08	--	<.02	--	<.06
	10-07-03	<.04	<.04	<.8	<.8	1.1	1.2	.10	.12	<.02	<.02	.46
01400585	10-28-03	--	<.04	--	E.5	--	<.6	--	.16	--	<.02	--
	10-28-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
	10-28-03	<.04	E.03	<.8	E.5	E.3	.9	<.08	.73	<.02	<.02	2.13
01400598	10-29-03	--	<.04	--	<.8	--	<.6	--	<.10	--	<.02	--
	10-29-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
01400599	10-29-03	<.04	E.02	<.8	E.4	1.4	2.2	E.07	1.20	<.02	<.02	1.52
	10-29-03	E.02	E.04	E.5	E.5	1.8	2.9	E.08	2.18	<.02	E.02	1.61
01401200	10-28-03	.09	.10	E.6	.9	3.1	3.9	.73	1.95	<.02	E.01	2.69

WATER QUALITY AT SPECIAL-STUDY SITES

TRACE ELEMENTS IN SAMPLES COLLECTED DURING HIGH FLOWS IN SELECTED STREAMS (303-d)—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Nickel, water, unfltrd recover- able, ug/L (01067)	Selen- ium, water, fltrd, ug/L (01145)	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, fltrd, ug/L (01075)	Silver, water, unfltrd recover- able, ug/L (01077)	Thall- ium, water, fltrd, ug/L (01057)	Thall- ium, water, unfltrd ug/L (01059)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover- able, ug/L (01092)
01377000	10-15-03	<.16	--	<.4	--	--	--	--	--	<2
	10-15-03	--	<.4	--	--	--	--	--	<.6	--
01379000	10-15-03	1.53	<.4	<.4	--	--	--	--	2.0	7
	10-08-03	<.16	--	E.4	--	<.16	--	--	--	<2
01379200	10-08-03	--	<.4	--	<.2	--	--	--	<.6	--
	10-08-03	1.25	E.2	E.4	<.2	<.16	--	--	9.2	E1
01379500	10-08-03	2.11	<.4	.5	--	--	--	--	21.5	21
	10-08-03	1.93	E.2	.6	<.2	<.16	--	--	11.1	9
01380500	10-08-03	<.16	--	<.4	--	--	--	--	--	<2
	10-08-03	--	<.4	--	--	--	--	--	<.6	--
01389500	10-08-03	.98	<.4	.4	--	--	--	--	2.0	3
	10-15-03	<.16	--	<.4	--	<.16	--	<.2	--	<2
01389630	10-15-03	--	<.4	--	<.2	--	<.04	--	<.6	--
	10-15-03	1.79	<.4	<.4	<.2	<.16	<.04	<.2	7.8	13
01389895	10-15-03	1.95	E.3	<.4	<.2	<.16	<.04	<.2	9.1	14
	11-19-03	<.16	--	E.2	--	<.16	--	<.2	--	<2
01393960	11-19-03	--	<.4	--	<.2	--	<.04	--	<.6	--
	11-19-03	2.01	<.4	E.3	<.2	<.16	<.04	<.2	6.3	12
01395000	10-09-03	<.16	--	<.4	--	--	--	--	--	<2
	10-09-03	--	<.4	--	<.2	--	<.04	--	<.6	--
01396003	10-09-03	2.82	<.4	E.4	--	--	--	--	3.6	4
	10-09-03	2.79	E.3	.5	<.2	<.16	<.04	<.2	2.2	5
01396588	10-09-03	<.16	--	E.2	--	--	--	<.2	--	<2
	10-09-03	--	<.4	--	<.2	--	<.04	--	<.6	--
01397000	10-09-03	1.74	<.4	.5	<.2	<.16	<.04	<.2	1.0	2
	10-09-03	.77	<.4	E.4	--	--	--	--	.8	E1
01398000	10-09-03	<.16	--	E.3	--	--	--	--	--	<2
	10-09-03	--	<.4	--	--	--	--	--	<.6	--
01398102	10-09-03	.94	<.4	.5	--	--	--	--	.8	E2
	10-09-03	1.32	E.2	.4	--	--	--	--	1.3	E1
01399120	10-09-03	<.16	--	<.4	--	--	--	--	--	<2
	10-09-03	--	<.4	--	--	--	--	--	<.6	--
01399700	10-09-03	1.18	<.4	E.4	--	--	--	--	1.5	3
	10-07-03	<.16	--	<.4	--	--	--	--	--	<2
01400585	10-07-03	--	<.4	--	--	--	--	--	<.6	--
	10-07-03	1.05	<.4	<.4	--	--	--	--	3.0	4
01400598	10-07-03	<.16	--	<.4	--	--	--	--	--	<2
	10-07-03	--	<.4	--	--	--	--	--	<.6	--
01400599	10-07-03	1.00	<.4	.5	--	--	--	--	7.4	3
	10-28-03	<.16	--	<.4	--	--	--	<.2	--	<2
01401200	10-28-03	--	<.4	--	--	--	<.04	--	<.6	--
	10-28-03	2.62	<.4	.4	--	--	--	--	29.9	18
01400598	10-29-03	<.16	--	<.4	--	<.16	--	<.2	--	--
	10-29-03	--	<.4	--	<.2	--	<.04	--	E.3	--
01400599	10-29-03	1.82	<.4	E.2	<.2	<.16	<.04	<.2	5.1	7
	10-29-03	1.89	<.4	E.3	<.2	<.16	--	--	6.2	10
01401200	10-28-03	3.02	E.2	E.3	--	--	--	--	23.3	26

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

TRACE ELEMENTS IN SAMPLES COLLECTED DURING HIGH FLOWS IN SELECTED STREAMS (303-d)—Continued

MULTIPLE STATION ANALYSES - CONTINUED

Station number	Station name	Date	Time	Sample type	Instan- taneous dis- charge, cfs (00061)	Tur- bidity, water, unfltrd field, NTU (61028)
01401600	BEDEN BROOK NR ROCKY HILL NJ	10-15-03	0958	Field Blank	--	--
		10-15-03	0959	Field Blank	--	--
01404302	LAWRENCE BK AT DAVIDSONS MILL RD NR PATRICKS CORNER	10-15-03	1000	Environmental	--	53
		10-28-03	1130	Environmental	--	24
01405340	MANALAPAN BK AT FEDERAL RD NR MANALAPAN NJ	10-29-03	0858	Field Blank	--	--
		10-29-03	0859	Field Blank	--	--
		10-29-03	0900	Environmental	--	100
01405440	MANALAPAN BK AT BRIDGE ST AT SPOTSWOOD NJ	10-28-03	1100	Environmental	--	32
01409387	MULLICA R AT OUTLET OF ATSION LK AT ATIONS NJ	10-08-03	0958	Field Blank	--	--
		10-08-03	0959	Field Blank	--	--
01409500	BATSTO RIVER AT BATSTO NJ	10-08-03	1000	Environmental	--	3.1
		10-08-03	1001	Field Blank	--	--
01410000	OSWEGO RIVER AT HARRISVILLE NJ	10-08-03	1002	Field Blank	--	--
		10-08-03	1003	Environmental	70	2.6
		11-20-03	1043	Field Blank	--	--
		11-20-03	1044	Field Blank	--	--
01410150	EAST BRANCH BASS RIVER NEAR NEW GRETNA NJ	11-20-03	1045	Environmental	133	2.4
		10-07-03	0900	Field Blank	--	--
01411483	HUDSON BRANCH AT NEWFIELD NJ	10-07-03	0901	Field Blank	--	--
		10-07-03	0903	Environmental	--	.7
01412800	COHANSEY RIVER AT SEELEY NJ	10-08-03	1104	Field Blank	--	--
		10-08-03	1105	Field Blank	--	--
01412800	COHANSEY RIVER AT SEELEY NJ	10-08-03	1120	Environmental	--	1.7
		10-08-03	0859	Field Blank	--	--
		10-08-03	0900	Field Blank	--	--
01446400	PEQUEST R AT BELVIDERE NJ	10-08-03	1000	Environmental	24	6.4
		10-21-03	0958	Field Blank	--	--
01456200	MUSCONETCONG R AT BEATTYSTOWN NJ	10-21-03	0959	Field Blank	--	--
		10-21-03	1000	Environmental	--	1.7
		10-21-03	0958	Field Blank	--	--
		10-21-03	0959	Field Blank	--	--
01463610	ASSUNPINK CREEK AT EDINBURG NJ	10-21-03	1000	Environmental	--	1.2
		10-21-03	1000	Environmental	--	--
01463610	ASSUNPINK CREEK AT EDINBURG NJ	10-30-03	1230	Environmental	--	17
01463620	ASSUNPINK CREEK NEAR CLARKSVILLE NJ	10-30-03	1028	Field Blank	--	--
		10-30-03	1029	Field Blank	--	--
01464588	ASSISCUNK CREEK AT CEDAR LANE NEAR JACKSONVILLE NJ	10-30-03	1030	Environmental	115	6.5
		10-28-03	0858	Field Blank	--	--
01464590	NB RANCOCAS CREEK AT HANOVER FURNACE NJ	10-28-03	0859	Field Blank	--	--
		10-28-03	0900	Environmental	--	43
01465950	NB RANCOCAS CREEK AT HANOVER FURNACE NJ	10-28-03	0959	Field Blank	--	--
		10-28-03	1000	Environmental	--	1.6
01467005	NB RANCOCAS C AT IRON WORKS PK AT MOUNT HOLLY NJ	10-28-03	1000	Field Blank	--	--
		10-28-03	1230	Environmental	--	19
01467075	SB PENNSAUKEN CREEK AT SPRINGDALE NJ	10-28-03	0740	Field Blank	--	--
		10-28-03	0750	Field Blank	--	--
01477120	RACCOON CREEK NEAR SWEDESBORO NJ	10-28-03	0840	Environmental	--	30
		10-09-03	0958	Field Blank	--	--
		10-09-03	0959	Field Blank	--	--
		10-09-03	1000	Environmental	27	6.8

TRACE ELEMENTS IN SAMPLES COLLECTED DURING HIGH FLOWS IN SELECTED STREAMS (303-d)—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unfl- uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)
01401600	10-15-03	--	--	--	--	--	--	--	--	--	--	<2
	10-15-03	--	--	--	--	--	--	--	<.01	<.008	<.2	--
01404302	10-15-03	745	8.1	82	7.5	172	17.5	14.8	13.6	5.54	1.2	E1
	10-28-03	760	8.1	76	6.7	156	16.0	12.6	6.89	3.67	.6	E1
01405340	10-29-03	--	--	--	--	--	--	--	--	--	--	<2
	10-29-03	--	--	--	--	--	--	--	<.01	<.008	<.2	--
01405440	10-29-03	745	7.5	72	6.3	174	13.0	12.4	7.80	3.60	.5	5
	10-29-03	762	8.9	84	6.1	185	18.1	13.0	7.73	3.58	.4	E1
01409387	10-08-03	--	--	--	--	--	--	--	--	--	--	<2
	10-08-03	--	--	--	--	--	--	--	<.01	<.008	<.2	--
01409500	10-08-03	768	9.0	86	4.7	50	17.0	13.8	1.22	.641	.8	<2
	10-08-03	--	--	--	--	--	--	--	--	--	--	<2
01410000	10-08-03	--	--	--	--	--	--	--	<.01	<.008	<.2	--
	10-08-03	767	9.5	88	5.8	41	10.8	12.3	1.75	.953	.2	<2
	11-20-03	--	--	--	--	--	--	--	--	--	--	<2
	11-20-03	--	--	--	--	--	--	--	E.01	<.008	<.2	--
01410150	11-20-03	757	9.9	93	4.4	44	12.5	12.4	.58	.426	.3	<2
	10-07-03	--	--	--	--	--	--	--	--	--	--	<2
	10-07-03	--	--	--	--	--	--	--	E.01	<.008	<.2	--
	10-07-03	770	8.6	74	4.8	38	8.5	9.3	.39	.461	<.2	<2
01411483	10-08-03	--	--	--	--	--	--	--	--	--	--	<2
	10-08-03	--	--	--	--	--	--	--	<.01	<.008	<.2	--
01412800	10-08-03	766	8.4	83	8.0	660	23.5	14.9	4.96	3.88	.7	E1
	10-08-03	--	--	--	--	--	--	--	--	--	--	<2
	10-08-03	--	--	--	--	--	--	--	.02	<.008	<.2	--
01446400	10-08-03	766	8.6	82	7.4	235	14.4	13.6	12.7	8.23	.4	<2
	10-21-03	--	--	--	--	--	--	--	--	--	--	<2
01456200	10-21-03	--	--	--	--	--	--	--	<.01	<.008	<.2	--
	10-21-03	746	11.0	100	8.5	521	16.5	10.1	23.4	9.26	.5	<2
	10-21-03	--	--	--	--	--	--	--	--	--	--	<2
	10-21-03	--	--	--	--	--	--	--	E.01	<.008	<.2	--
01463610	10-21-03	740	9.6	90	7.9	409	17.0	11.3	54.8	24.1	.6	<2
	10-30-03	766	7.7	71	6.6	152	15.0	11.7	8.11	4.15	.6	E1
01463620	10-30-03	--	--	--	--	--	--	--	--	--	--	<2
	10-30-03	--	--	--	--	--	--	--	<.01	<.008	<.2	--
01464588	10-30-03	767	10.2	96	7.3	140	15.0	12.9	8.60	4.31	.8	E1
	10-28-03	--	--	--	--	--	--	--	--	--	--	<2
01465950	10-28-03	--	--	--	--	--	--	--	.02	E.005	<.2	--
	10-28-03	756	5.9	56	6.4	190	10.5	12.4	11.9	4.73	.5	E2
01467005	10-28-03	--	--	--	--	--	--	--	<.01	<.008	<.2	--
	10-28-03	762	9.5	89	4.9	27	14.0	12.7	.75	.416	.2	<2
01467075	10-28-03	--	--	--	--	--	--	--	--	--	--	<2
	10-28-03	762	9.2	88	6.5	145	15.0	13.2	8.30	1.94	.3	E1
01477120	10-28-03	--	--	--	--	--	--	--	--	--	--	<2
	10-28-03	--	--	--	--	--	--	--	<.01	<.008	<.2	--
	10-28-03	760	7.5	72	6.9	205	11.5	13.7	14.3	3.84	.8	E2
	10-09-03	--	--	--	--	--	--	--	--	--	--	<2
01477120	10-09-03	--	--	--	--	--	--	--	<.01	<.008	<.2	--
	10-09-03	768	8.3	80	7.4	226	13.5	14.1	20.8	4.40	.6	<2

TRACE ELEMENTS IN SAMPLES COLLECTED DURING HIGH FLOWS IN SELECTED STREAMS (303-d)—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Cadmium water, ftrd, ug/L (01025)	Cadmium water, unftrd ug/L (01027)	Chrom- ium, water, ftrd, ug/L (01030)	Chrom- ium, water, unftrd recover- able, ug/L (01034)	Copper, water, ftrd, ug/L (01040)	Copper, water, unftrd recover- able, ug/L (01042)	Lead, water, ftrd, ug/L (01049)	Lead, water, unftrd recover- able, ug/L (01051)	Mercury water, ftrd, ug/L (71890)	Mercury water, unftrd recover- able, ug/L (71900)	Nickel, water, ftrd, ug/L (01065)
01401600	10-15-03	--	<.04	--	3.8	--	<.6	--	<.06	--	<.02	--
	10-15-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
01404302	10-15-03	<.04	E.03	<.8	4.7	3.4	5.0	.13	2.27	<.02	E.01	.91
	10-28-03	.05	.08	1.1	E.8	1.6	3.0	.18	1.52	<.02	<.02	1.78
01405340	10-29-03	--	<.04	--	<.8	--	<.6	--	<.10	--	<.02	--
	10-29-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
01405440	10-29-03	E.03	.08	<.8	2.4	1.3	3.0	E.08	4.21	<.02	.02	3.24
	10-28-03	E.03	E.03	<.8	.9	1.0	1.8	E.05	1.40	<.02	<.02	2.67
01409387	10-08-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
	10-08-03	<.04	--	5.6	--	<.4	--	<.08	--	<.02	--	<.06
01409500	10-08-03	E.03	E.03	E.4	E.7	.7	<.6	.86	1.66	<.02	<.02	.90
	10-08-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
01410000	10-08-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
	10-08-03	E.03	E.03	<.8	<.8	E.2	<.6	<.08	.60	<.02	<.02	.55
01410150	11-20-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
	11-20-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
01411483	11-20-03	.04	E.03	<.8	<.8	.4	E.5	.34	.55	<.02	<.02	.86
	10-07-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
01412800	10-07-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
	10-07-03	E.02	E.03	<.8	<.8	<.4	<.6	.22	.28	<.02	<.02	.64
014146400	10-08-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
	10-08-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
01416200	10-08-03	.07	.09	6.5	14.0	1.2	3.1	E.06	.84	<.02	E.01	2.37
	10-08-03	--	<.04	--	<.8	--	5.2	--	.37	--	<.02	--
01416400	10-08-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
	10-08-03	E.04	.04	<.8	<.8	.6	E.5	<.08	.49	<.02	<.02	1.40
014166200	10-21-03	--	<.04	--	<.8	--	<.6	--	.11	--	<.02	--
	10-21-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
014166200	10-21-03	<.04	<.04	<.8	<.8	1.2	1.6	E.04	.33	<.02	<.02	1.25
	10-21-03	--	<.04	--	<.8	--	<.6	--	.12	--	<.02	--
014166200	10-21-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
	10-21-03	<.04	<.04	<.8	E.4	.8	1.2	<.08	.24	<.02	<.02	2.36
014163610	10-30-03	E.02	E.02	<.8	E.7	.9	1.4	.09	1.15	<.02	<.02	1.73
014163620	10-30-03	--	<.04	--	<.8	--	<.6	--	.14	--	<.02	--
	10-30-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
014164588	10-30-03	<.04	<.04	1.5	E.5	4.3	.7	.20	.58	<.02	<.02	1.39
	10-28-03	--	<.04	--	<.8	--	<.6	--	.22	--	<.02	--
014165950	10-28-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
	10-28-03	.04	.07	<.8	1.8	1.3	3.5	E.07	1.48	<.02	E.01	3.48
014167005	10-28-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
	10-28-03	.05	.05	<.8	E.5	4.2	4.0	7.41	9.21	<.02	<.02	.66
014167075	10-28-03	--	<.04	--	<.8	--	<.6	--	.14	--	<.02	--
	10-28-03	E.04	.09	E.4	1.0	1.0	2.1	.15	3.32	<.02	E.01	1.53
014177120	10-28-03	--	<.04	--	<.8	--	<.6	--	<.11	--	<.02	--
	10-28-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
014177120	10-28-03	.06	.10	<.8	1.5	2.7	4.3	.24	2.89	<.02	<.02	3.33
	10-09-03	--	<.04	--	<.8	--	<.6	--	<.06	--	<.02	--
014177120	10-09-03	<.04	--	<.8	--	<.4	--	<.08	--	<.02	--	<.06
	10-09-03	.05	.07	<.8	1.8	.5	.8	<.08	.20	<.02	<.02	2.92

WATER QUALITY AT SPECIAL-STUDY SITES

TRACE ELEMENTS IN SAMPLES COLLECTED DURING HIGH FLOWS IN SELECTED STREAMS (303-d)—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Nickel, water, unfltrd recover- able, ug/L (01067)	Selen- ium, water, fltrd, ug/L (01145)	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, fltrd, ug/L (01075)	Silver, water, unfltrd recover- able, ug/L (01077)	Thall- ium, water, fltrd, ug/L (01057)	Thall- ium, water, unfltrd ug/L (01059)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover- able, ug/L (01092)
01401600	10-15-03	<.16	--	<.4	--	--	--	--	--	<2
	10-15-03	--	<.4	--	--	--	--	--	<.6	--
01404302	10-15-03	1.99	<.4	<.4	--	--	--	--	1.7	7
	10-28-03	2.29	<.4	E.3	--	--	<.04	<.2	9.6	14
01405340	10-29-03	<.16	--	E.2	--	--	--	<.2	--	--
	10-29-03	--	<.4	--	--	--	<.04	--	<.6	--
01405440	10-29-03	4.75	<.4	.4	--	--	<.04	<.2	10.0	19
	10-28-03	E3.18	<.4	E.2	--	--	<.04	<.2	14.2	10
01409387	10-08-03	<.16	--	<.4	--	--	--	--	--	<2
	10-08-03	--	<.4	--	--	--	--	--	<.6	--
01409500	10-08-03	.99	<.4	<.4	--	--	--	--	8.3	8
	10-08-03	<.16	--	<.4	--	--	--	--	--	<2
01410000	10-08-03	--	<.4	--	--	--	--	--	<.6	--
	10-08-03	.56	<.4	.4	--	--	--	--	8.2	4
	11-20-03	<.16	--	<.4	--	--	--	--	--	<2
	11-20-03	--	<.4	--	--	--	--	--	<.6	--
01410150	11-20-03	.88	<.4	E.2	--	--	--	--	8.1	7
	10-07-03	<.16	--	<.4	--	--	--	--	--	<2
01411483	10-07-03	--	<.4	--	--	--	--	--	<.6	--
	10-07-03	.64	<.4	E.3	--	--	--	--	5.5	6
01412800	10-08-03	<.16	--	<.4	--	<.16	--	<.2	--	<2
	10-08-03	--	<.4	--	<.2	--	<.04	--	<.6	--
01446400	10-08-03	3.67	.9	1.1	<.2	<.16	E.03	<.2	1.3	3
	10-08-03	<.16	--	<.4	--	<.16	--	<.2	--	<2
	10-08-03	--	<.4	--	<.2	--	<.04	--	<.6	--
	10-08-03	1.75	.5	.5	<.2	<.16	.04	<.2	4.1	4
01456200	10-21-03	<.78	--	<.4	--	--	--	--	--	<2
	10-21-03	--	<.4	--	--	--	--	--	<.6	--
	10-21-03	E.89	<.4	<.4	--	--	--	--	1.5	E2
	10-21-03	<.78	--	<.4	--	--	--	--	--	<2
01463610	10-21-03	--	<.4	--	--	--	--	--	E.3	--
	10-21-03	E1.47	<.4	<.4	--	--	--	--	1.0	E1
01463620	10-30-03	E2.08	<.4	<.4	--	--	--	--	5.4	7
	10-30-03	<.78	--	E.2	--	--	--	--	--	<2
01464588	10-30-03	--	<.4	--	--	--	--	--	<.6	--
	10-30-03	E1.65	<.4	<.4	--	--	--	--	3.2	2
01465950	10-28-03	<.16	--	<.4	--	--	--	--	--	<2
	10-28-03	--	<.4	--	--	--	--	--	<.6	--
01467005	10-28-03	3.96	<.4	E.2	<.2	<.16	<.04	<.2	14.4	17
	10-28-03	--	<.4	--	--	--	--	--	<.6	--
01467075	10-28-03	.57	<.4	<.4	--	--	--	--	9.9	9
	10-28-03	<.16	--	<.4	--	--	--	--	--	E1
01477120	10-28-03	2.12	<.4	E.2	--	--	--	--	7.6	14
	10-28-03	<.16	--	<.4	--	--	--	<.2	--	--
01477120	10-28-03	--	<.4	--	--	--	<.04	--	<.6	--
	10-28-03	3.98	<.4	.4	--	--	--	--	22.1	28
01477120	10-09-03	<.16	--	<.4	--	<.16	--	--	--	<2
	10-09-03	--	<.4	--	<.2	--	--	--	<.6	--
	10-09-03	3.27	<.4	E.3	<.2	<.16	--	--	7.6	8

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

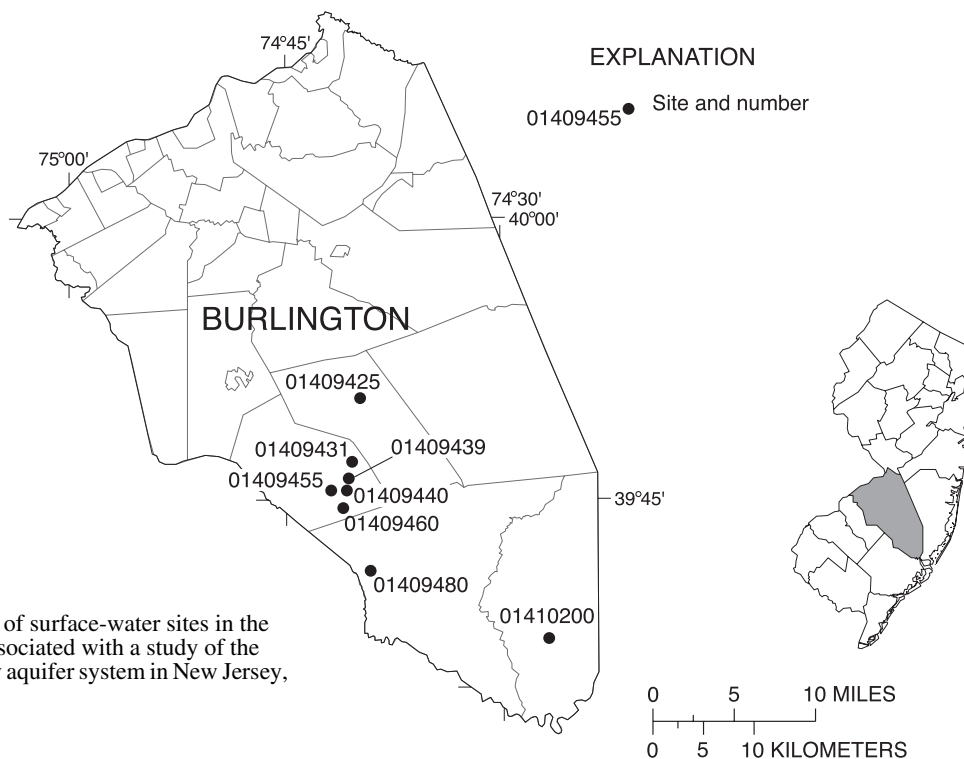


Figure 37. Location of surface-water sites in the Pinelands Region associated with a study of the Kirkwood-Cohansey aquifer system in New Jersey, water year 2004

The following tables contain site information and water-quality data from eight surface-water sites. These streams are associated with the Kirkwood-Cohansey aquifer system in east-central and south-central New Jersey, which underlies most of the New Jersey Pinelands. The sampling network was established and the study was conducted in cooperation with the U.S. Fish and Wildlife Service (USFWS), the New Jersey Department of Environmental Protection (NJDEP), and the New Jersey Pinelands Commission (fig. 37).

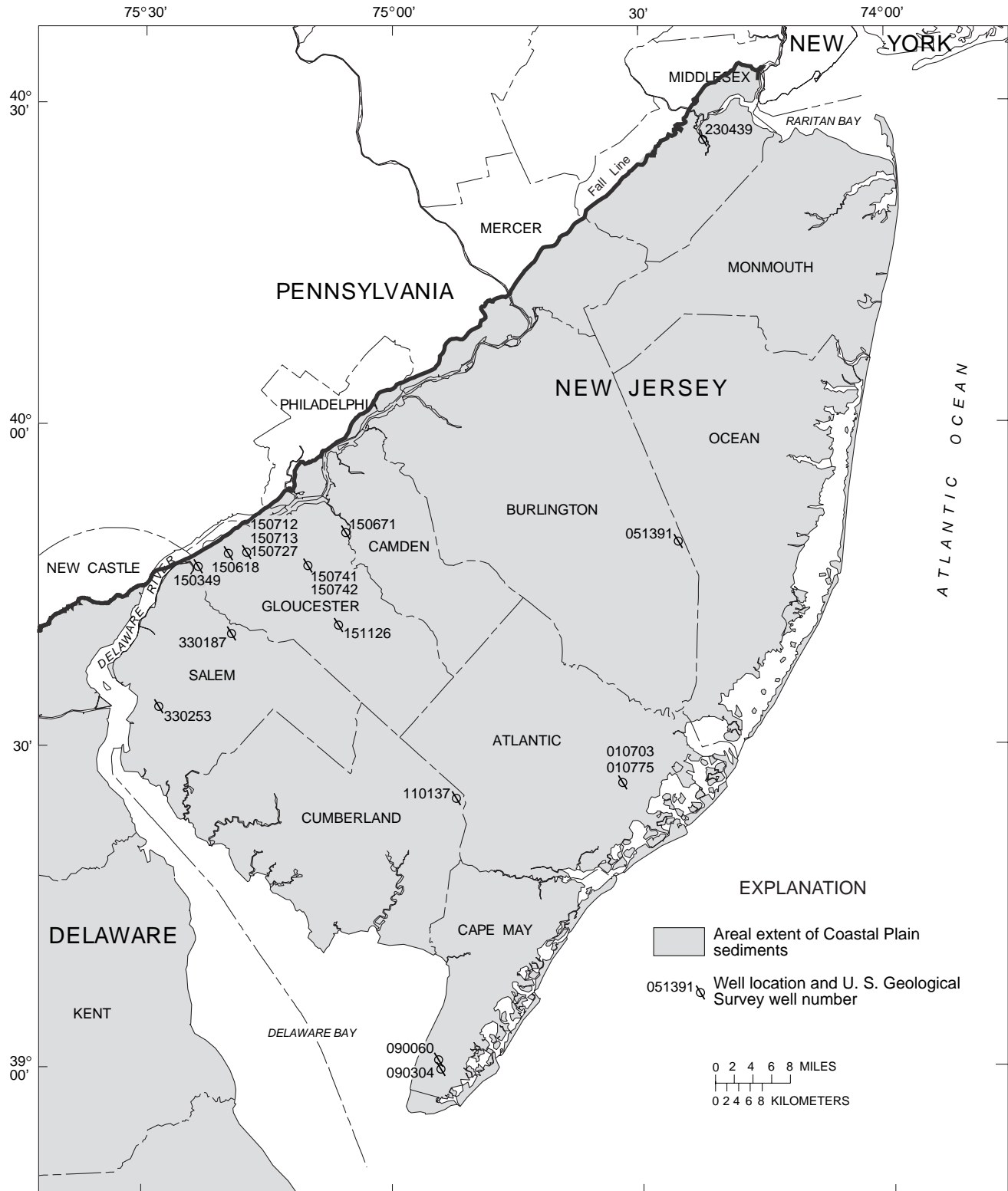
Demand for water from the Kirkwood-Cohansey aquifer system is increasing as development occurs within the Pinelands and in surrounding areas. The purpose of this study is to determine the probable effects of groundwater diversions from the Kirkwood-Cohansey aquifer system on streamflows and wetland water levels. Data from this biological sampling network will be used to address the question of how stream fish and macroinvertebrate assemblages in streams respond to variations in streamflow regimes and how site-specific habitat variables, such as temperature, dissolved oxygen concentration, bank cover, stream vegetation, sediments, and channel morphology, interact with stream discharge to affect fish and macroinvertebrate-assemblage composition.

The water-quality data collected will be used to monitor site-specific environmental factors.

MULTIPLE STATION ANALYSES

Station name	Station number	Date	Time	Gage height, feet (00065)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf 25 deg C (00095)	Temper-ature, air, deg C (00020)	Temper-ature, water, deg C (00010)
BATSTO RIVER NEAR TABERNACLE	01409425	06-08-04	1340	--	4.2	--	40	--	29.0
BATSTO RIVER NEAR HIGH CROSSING	01409431	06-09-04 06-15-04	1100 1330	2.80 3.19	8.6 8.2	5.2 4.3	52 44	27.5 --	17.0 28.0
SKIT BRANCH AT HAMPTON FURURNACE	01409439	06-15-04	1100	4.77	7.7	3.4	26	--	20.8
BATSTO RIVER NEAR HAMPTON FURNACE	01409440	07-01-04 07-06-04	1130 1020	1.13 1.12	8.8 8.1	4.9 4.6	31 31	-- --	18.0 19.7
SPRINGERS BROOK NEAR HAMPTON FURNACE	01409455	06-18-04 06-22-04	1040 1030	6.28 5.55	6.3 7.2	6.2 5.5	140 139	-- --	21.4 21.9
SPRINGERS BROOK NEAR ATSION	01409460	06-17-04	1020	--	6.8	5.2	131	35.0	22.6
PENN SWAMP BRANCH NEAR BATSTO	01409480	06-07-04	1200	--	--	3.7	42	--	16.5
WEST BRANCH BASS RIVER NEAR NEW GRETN	01410200	06-28-04	1030	.60	8.0	4.4	31	--	24.5

CHLORIDE DISTRIBUTION IN MAJOR ARTESIAN AQUIFERS OF THE NEW JERSEY COASTAL PLAIN



Base modified from U.S. Geological Survey digital data, 1:100,000, 1983, Universal Transverse Mercator projection, Zone 18

Figure 38. Location of wells sampled for chloride and completed in major artesian aquifers of the New Jersey Coastal Plain, water year 2004.

CHLORIDE DISTRIBUTION IN MAJOR ARTESIAN AQUIFERS OF THE NEW JERSEY COASTAL PLAIN—Continued

The following table contains site and water-quality data from wells sampled as part of New Jersey's saltwater-monitoring network. The network was established in the 1940's to document and assess saltwater movement into the freshwater aquifers of New Jersey's Coastal Plain. The USGS collects and analyzes water samples from USGS and NJDEP observation wells, as well as selected public, domestic, and agricultural supply wells. Additionally, chloride-concentration data reported to the NJDEP by owners of public and industrial supply wells are used to supplement these measurements. During the 2004 water year, the USGS sampled water from eighteen deep observation wells in the network, primarily from wells screened in the Potomac Raritan Magothy aquifer system in the southwestern part of the State. (fig. 38).

WATER-QUALITY CONTROL DATA

No water-quality control data was collected for these wells.

Personal protection and safety procedures needed at the sampling sites are described in a Site Specific Job Hazard analysis on file at the U.S. Geological Survey Water Science Center in West Trenton, NJ.

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Well Permit Number	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
90304	390002074541002	AIRPORT RIO GRANDE	390002	745409	24	37-03763-3	510	495 - 505	122KRKDU
90060	390058074542701	AIRPORT 7 OBS	390056	745425	11.79	--	257	242 - 257	121CNSY
110137	392512074521206	RAGOVIN 2100 OBS	392514	745216	83.8	--	2093	2083 - 2093	211MRPA
10703	393232074263901	FAA POMONA OBS	392639	743231	37	36-05092	575	560 - 570	122KRKDL
10775	393232074263902	FAA INTERMEDIATE OBS	392639	743231	36.8	--	182	132 - 182	121CKKD
330253	393348075275703	SALEM 3 OBS	393348	752754	2.07	--	340	335 - 340	211MRPAU
330187	394037075191501	POINT AIRY OBS	394037	751913	71.83	--	672	664 - 672	211MRPAL
151126	394119075062701	GLASSBORO ML-1 OBS	394119	750626	144.77	31-34033-4	338	328 - 338	211MLRW
150349	394650075231601	LANDTECT 2	394650	752315	5	--	220	170 - 220	211MRPAL
150741	394652075100401	MANTUA SHALLOW OBS	394652	751003	80.8	--	313	293 - 313	211MRPAU
150742	394652075100402	MANTUA DEEP OBS	394652	751003	82.8	31-25266-4	777	757 - 777	211MRPAL
150618	394804075193301	GAVENTA DEEP	394804	751932	5.8	30-03531-7	240	230 - 240	211MRPAL
150712	394808075172401	STEFKA 1 OBS	394808	751723	5.3	30-04347	295	275 - 290	211MRPAL
150713	394808075172402	STEFKA 2 OBS	394808	751723	4.47	30-04348	155	125 - 155	211MRPAM
150727	394808075172403	STEFKA 3 OBS	394808	751723	3.89	30-04548	216	206 - 216	211MRPAM
51391	394904074253601	COYLE 2 OBS (OW 96)	394904	742535	185.6	32-21805	1141	1416 - 1436	211MRPAU
150671	394957075053001	DEPTFORD DEEP OBS	394957	750529	33.83	--	670	650 - 670	211MRPAL
230439	402633074220001	SRWD 2 OBS	402633	742159	19.65	28-05987	126	121 -126	211FRNG

AQUIFER UNITS.--122KRKDU, Kirkwood Formation - Upper Sand; 121CNSY, Cohansey Sand; 121CKKD, Cohansey Sand - Kirkwood Formation; 122KRKDL, Kirkwood Formation - Lower Sand; 211MRPA, Magothy-Raritan-Potomac Aquifer System - Undifferentiated; 211MRPAU, Magothy-Raritan-Potomac Aquifer System - Upper Aquifer; 211MRPAL, Magothy-Raritan-Potomac Aquifer System - Lower Aquifer; 211MRPAM, Magothy-Raritan-Potomac Aquifer System - Middle Aquifer; 211MLRW, Mount Laurel Sand - Wenonah Formation; 211FRNG, Farrington Sand Member of Raritan Formation

CHLORIDE DISTRIBUTION IN MAJOR ARTESIAN AQUIFERS OF THE NEW JERSEY COASTAL PLAIN—Continued

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd uS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)
AIRPORT RIO GRANDE OBS	390002074541002	08-05-04	1245	--	--	8.1	615	17.5	13.9	2.94
AIRPORT 7 OBS	390058074542701	07-16-04	1400	--	--	7.8	166	16.0	20.4	3.85
RAGOVIN 2100 OBS	392512074521206	01-21-04	1700	--	--	7.3	30,600	16.7	745	202
FAA POMONA OBS	393232074263901	07-22-04	1300	--	--	8.7	118	16.0	13.7	1.32
FAA INTERMEDIATE OBS	393232074263902	07-22-04	1400	--	--	4.5	61	14.5	--	--
SALEM 3 OBS	393348075275703	08-12-04	1200	--	--	7.6	2,570	15.8	62.4	19.3
POINT AIRY OBS	394037075191501	07-13-04	1400	--	--	8.4	878	16.1	3.01	.832
GLASSBORO ML-1 OBS	394119075062701	07-30-04	1220	--	--	8.0	189	--	24.8	5.24
LANDTECT 2	394650075231601	07-01-04	1615	--	.8	6.1	659	15.6	15.2	8.43
MANTUA SHALLOW OBS	394652075100401	08-24-04	1330	--	--	8.2	416	16.0	7.75	2.19
MANTUA DEEP OBS	394652075100402	07-15-04	1240	--	--	8.1	763	16.7	7.65	1.82
GAVENTA DEEP	394804075193301	06-30-04	1210	7.3	--	6.9	987	13.8	12.0	3.68
STEFKA 1 OBS	394808075172401	05-13-04	1130	--	--	6.8	2,100	15.0	54.2	15.5
STEFKA 2 OBS	394808075172402	05-17-04	1300	--	--	6.5	208	14.8	10.3	3.89
STEFKA 3 OBS	394808075172403	06-07-04	1100	--	--	6.4	908	14.8	30.1	10.2
COYLE 2 OBS (OW 96)	394904074253601	02-12-04	1330	--	.1	8.9	267	15.8	3.98	1.03
DEPTFORD DEEP OBS	394957075053001	07-27-04	1100	--	--	7.9	200	17.0	7.70	1.71
SRWD 2 OBS	402633074220001	05-27-04	1200	--	--	5.1	208	14.5	7.52	2.71

Local identifier	Date	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd end pt, field, mg/L as CaCO3 (00410)	ANC, wat unfltrd end pt, lab, mg/L as CaCO3 (90410)	Bromide water, fltrd mg/L (71870)	Chlor-ide, water, fltrd, mg/L (00940)	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)
AIRPORT RIO GRANDE	08-05-04	7.79	109	--	181	.25	78.5	--	--	12.9	334
AIRPORT 7 OBS	07-16-04	2.65	6.62	--	69	--	8.93	--	--	1.8	86
RAGOVIN 2100 OBS	01-21-04	86.3	6,240	124	128	42.4	11,300	.4	10.3	<18.0	--
FAA POMONA OBS	07-22-04	2.46	9.20	--	46	--	2.59	--	--	8.6	66
FAA INTERMEDIATE O	07-22-04	--	3.26	--	--	--	5.88	--	--	--	--
SALEM 3 OBS	08-12-04	16.7	431	--	184	2.94	697	--	--	6.1	1,350
POINT AIRY OBS	07-13-04	4.21	183	--	198	.60	153	--	8.2	4.5	477
GLASSBORO ML-1 OBS	07-30-04	5.29	3.50	--	90	.02	1.36	--	--	6.0	101
LANDTECT 2	07-01-04	3.92	74.2	49	--	.49	143	--	--	38.3	337
MANTUA SHALLOW OBS	08-24-04	5.62	82.5	--	177	.09	23.9	--	--	3.4	232
MANTUA DEEP OBS	07-15-04	3.37	152	--	140	.56	147	--	--	8.6	406
GAVENTA DEEP	06-30-04	4.83	160	--	50	.99	253	--	--	6.0	479
STEFKA 1 OBS	05-13-04	12.7	302	--	80	2.24	580	--	8.9	13.0	1,060
STEFKA 2 OBS	05-17-04	4.15	11.4	--	30	.07	14.2	--	13.6	21.1	112
STEFKA 3 OBS	06-07-04	8.00	114	--	47	.94	213	--	--	18.2	442
COYLE 2 OBS (OW 96)	02-12-04	5.53	53.9	124	--	--	1.27	.2	10.7	4.8	--
DEPTFORD DEEP OBS	07-27-04	4.56	28.0	--	73	.07	11.8	--	--	7.5	106
SRWD 2 OBS	05-27-04	1.67	13.7	--	<2	--	34.4	--	10.6	23.9	--

CHLORIDE DISTRIBUTION IN MAJOR ARTESIAN AQUIFERS OF THE NEW JERSEY COASTAL PLAIN—Continued

Local identifier	Date	Arsenic water, fltrd, ug/L (01000)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Manganese, water, fltrd, ug/L (01056)	Strontium, water, fltrd, ug/L (01080)
AIRPORT RIO GRANDE	08-05-04	.2	480	15	--	--
AIRPORT 7 OBS	07-16-04	--	52	106	--	--
RAGOVIN 2100 OBS	01-21-04	<2.2	3,060	12,900	310	54,600
FAA POMONA OBS	07-22-04	<.2	45	115	16.6	782
FAA INTERMEDIATE O	07-22-04	--	--	--	--	--
SALEM 3 OBS	08-12-04	.5	577	625	10.8	1,400
POINT AIRY OBS	07-13-04	<.2	1,030	108	18.1	198
GLASSBORO ML-1 OBS	07-30-04	--	80	113	--	--
LANDTECT 2	07-01-04	--	75	23,400	--	--
MANTUA SHALLOW OBS	08-24-04	.2	598	46	--	--
MANTUA DEEP OBS	07-15-04	E.2	730	152	--	--
GAVENTA DEEP	06-30-04	1.4	494	7,200	69.5	681
STEFKA 1 OBS	05-13-04	.2	766	17,400	170	3,290
STEFKA 2 OBS	05-17-04	.6	74	15,000	160	424
STEFKA 3 OBS	06-07-04	E.2	300	17,400	146	1,630
COYLE 2 OBS (OW 96)	02-12-04	<2	157	38	5.5	186
DEPTFORD DEEP OBS	07-27-04	--	169	235	--	--
SRWD 2 OBS	05-27-04	<.2	8	13,900	221	97.4

Remark codes used in this table:

< -- Less than

E -- Estimated value

STILLWATER TOWNSHIP, SUSSEX COUNTY GROUND-WATER-QUALITY ASSESSMENT

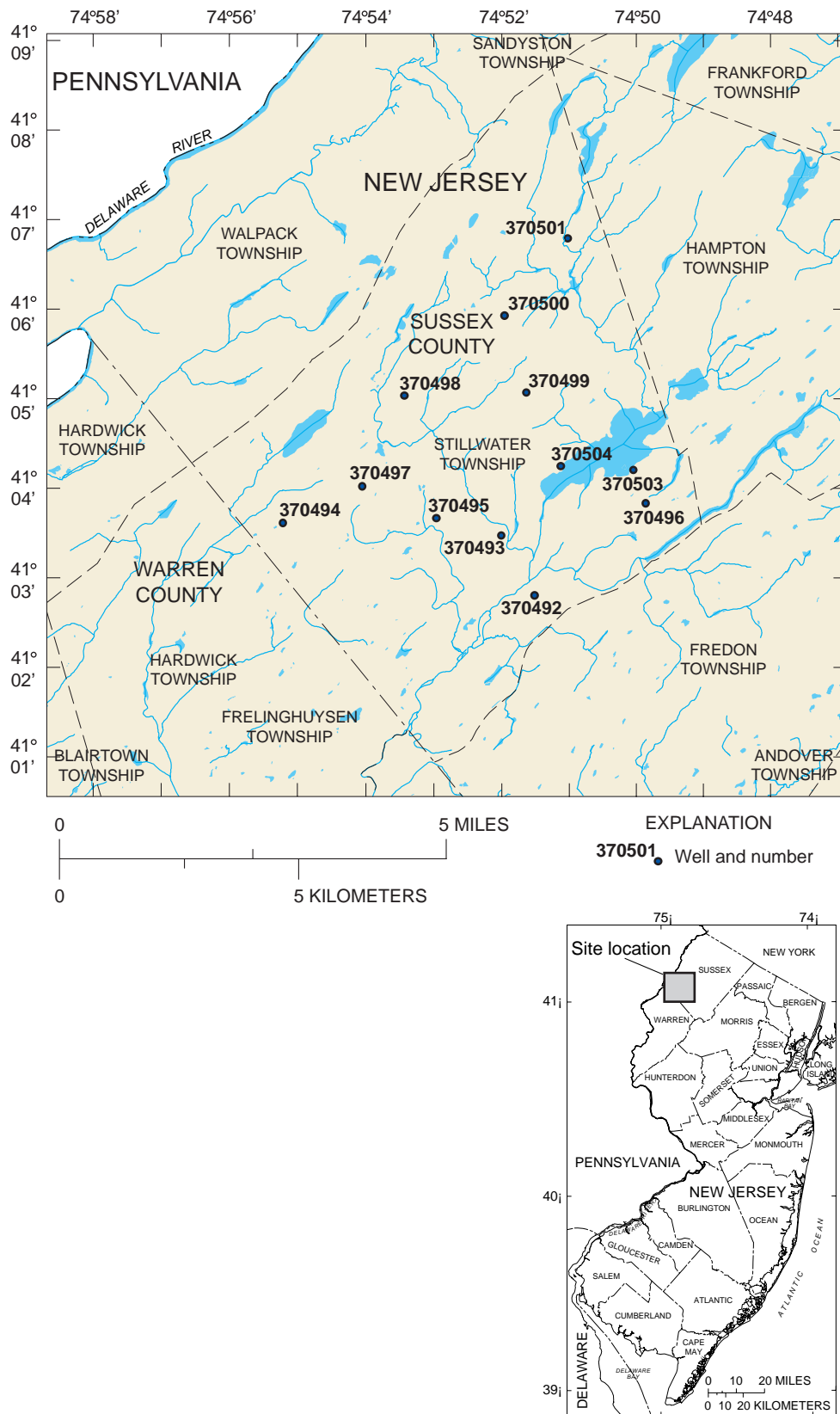


Figure 39. Location of wells sampled for selected constituents for the Stillwater Township Ground-Water-Quality Assessment, water year 2004.

STILLWATER TOWNSHIP, SUSSEX COUNTY GROUND-WATER-QUALITY ASSESSMENT—Continued

The following tables contain site-information and water-quality data from a network of 12 domestic wells sampled to generate water-quality information from the glacial and bedrock aquifers underlying Stillwater Township located in Sussex County, New Jersey. This network was established in cooperation with the Stillwater Township, Sussex County Environmental Commission to document the general ground-water water chemistry of the local aquifers, the occurrence and distribution of several potential contaminants, and determine the concentration of nutrients transmitted to Swartswood Lake and local streams from ground-water base flow. Understanding the general chemistry in a local aquifer can aid in the development of local treatment strategies as well as identify areas where further study may be necessary, and to serve as a baseline for future monitoring efforts. (fig. 39).

The geologic setting of Stillwater Township makes its ground-water supply vulnerable to contamination by naturally-occurring radionuclides. Radionuclides are human carcinogens and thus of concern. Radon-222 is a secondary decay product of uranium, is highly mobile in groundwater systems, and its presence in local water may indicate a local water and air quality issue. Although numerous species of radionuclides exist in nature measuring the full spectra is too costly. Sampling for uranium, radium-226, and radon-222 was conducted to address the most commonly occurring naturally-occurring radionuclides.

The large number of septic systems in Stillwater Township makes local wells susceptible to high levels of nitrate. Nitrate levels higher than 10mg/L have been associated with such maladies as methemoglobin ("blue baby syndrome") and birth defects. In addition to drinking water issues, nitrogen and phosphorus reaching lakes and streams from ground-water base flow contributes to eutrophication and the occurrence of algae blooms.

The sampled wells contained water with variable water quality. No exceedances of applicable primary maximum contaminant levels were measured. Secondary standards (mainly associated with aesthetics) were exceeded in some samples for iron, manganese and hardness. Elevated ammonia and total nitrates in two samples may be related to septic influence. Radon, radium-226 and uranium were commonly detected but concentrations were lower than those considered to pose substantial risk.

WATER-QUALITY CONTROL DATA

Quality assurance consisted of a blank sample and an environmental replicate sample. The blank sample did not show detections of any constituents analyzed indicating sample handling during collection and analysis did not result in random sample contamination. Results from the environmental replicate matched the initial sample results within expected analytical precision. The quality of the collected data is adequate and the data represents a quality baseline assessment for Stillwater Township ground water.

Personal protection and safety procedures needed at the sampling sites are described in a Site Specific Job Hazard analysis on file at the U.S. Geological Survey Water Science Center in West Trenton, NJ.

NJ-WRD Well Number	Station Number	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Well Permit Number	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
370504	410412074505301	410411.92	745052.86	509	--	78	50 - 78	364JKBG
370503	410409074494601	410409.1	744946.5	489	--	--	--	364JKBG
370501	410648074504601	410648	745046	849	--	130	--	361RMBG
370492	410243074511801	410243	745117	489	21-09196	150	55 - 150	371ALNN
370493	410324074514801	410324	745147	539	21-05041	225	61 - 225	364JKBG
370494	410333074550601	410333	745505	959	21-04754	125	51 - 125	361RMBG
370495	410336074524701	410336	745246	689	21-08923	208	54 - 208	361RMBG
370497	410358074535401	410358	745353	919	--	298	50 - 298	361RMBG
370496	410346074493701	410346	744936	559	21-09842	400	200 - 400	371ALNN
370498	410500074531601	410500	745315	899	21-08395	200	130 - 200	361RMBG
370500	410555074514501	410555	745144	959	21-07304	70	62 - 70	361RMBG
370499	410502074512501	410502	745124	799	21-09949	400	50 - 400	361BSKL

AQUIFER UNITS.--364JKBG, Jacksonburg Limestone; 361RMBG, Martinsburg Shale; 371ALNN, Allentown Dolomite; 361BSKL, Bushkill Member of Martinsburg Shale

Station number	Date	Time	Depth of well, feet below LSD (72008)	Altitude of land surface feet (72000)	Flow rate, instantaneous gal/min (00059)	Turbidity, water, unfltrd field, NTU (61028)	Carbon dioxide water, unfltrd mg/L (00405)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)
410412074505301	08-11-04	1320	78	510	4.0	18	22	1.3	7.2	1,010	12.0	390
410409074494601	08-10-04	1035	--	490	2.5	.1	71	1.5	7.0	1,250	12.1	430
410648074504601	09-15-04	1700	130	850	6.4	--	36	7.3	6.5	584	12.5	150
410243074511801	09-16-04	1000	150	490	--	.3	--	7.3	7.3	675	11.5	350
410324074514801	09-15-04	1000	225	540	7.5	7.7	--	.3	7.7	842	11.4	160
410333074550601	09-14-04	1000	125	960	6.7	190	17	6.7	7.0	245	11.0	110
410336074524701	09-16-04	1200	208	690	5.6	--	2.1	2.9	7.8	305	11.5	140
410358074535401	09-13-04	1200	298	920	4.9	--	1.8	3.0	8.0	231	12.5	110
410346074493701	09-14-04	1400	400	560	3.0	1.4	--	2.1	7.1	903	11.1	390
410500074531601	09-13-04	1600	200	900	6.0	1.9	4.4	.1	7.7	231	11.9	100
410555074514501	09-15-04	1400	70	960	6.1	.6	1.0	.5	8.2	183	11.2	83
410502074512501	09-16-04	1500	400	800	5.1	.5	--	.1	7.8	394	13.0	170

STILLWATER TOWNSHIP, SUSSEX COUNTY GROUND-WATER-QUALITY ASSESSMENT—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Noncarb hard- ness, wat flt field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Sodium adsorp- tion ratio (00931)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chlor- ide, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)
410412074505301	08-11-04	--	116	23.4	1	62.5	196	--	119	10.0	50.2	.14
410409074494601	08-10-04	--	97.2	45.7	2	94.8	368	--	165	6.5	17.4	1.06
410648074504601	09-15-04	82	48.1	6.52	2	47.8	64	65	121	11.0	18.7	<.04
410243074511801	09-16-04	56	75.4	38.9	.4	16.7	--	292	24.2	6.2	18.5	<.04
410324074514801	09-15-04	14	48.5	10.1	3	97.1	--	149	147	11.4	30.4	<.04
410333074550601	09-14-04	22	38.8	2.71	.3	6.29	88	86	9.60	7.6	16.4	<.04
410336074524701	09-16-04	52	47.9	5.98	.2	4.66	77	92	20.7	10.9	22.4	<.04
410358074535401	09-13-04	21	35.5	4.02	.1	3.15	83	84	2.41	9.4	24.4	<.04
410346074493701	09-14-04	30	83.4	43.7	.8	35.5	--	358	57.8	5.9	20.0	E.03
410500074531601	09-13-04	--	31.7	5.24	.4	9.10	106	102	.67	14.3	13.1	<.04
410555074514501	09-15-04	16	27.5	3.52	.2	4.27	73	67	.92	12.8	17.4	<.04
410502074512501	09-16-04	37	41.5	16.5	.6	18.4	--	135	26.3	14.0	24.4	<.04

Station number	Date	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal- ysis, mg/L (62855)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)	Ra-226, water, fltrd, method pCi/L (09511)	Rn-222 2-sigma water unfltrd pCi/L (76002)	Rn-222, water, unfltrd pCi/L (82303)
410412074505301	08-11-04	.14	<.008	E.003	.007	.38	30	56	145	.74	34	1,000
410409074494601	08-10-04	7.50	E.005	.013	.014	8.44	86	E4	7.5	.27	31	700
410648074504601	09-15-04	.17	<.008	E.004	.23	.35	E5	57	19.3	.26	29	680
410243074511801	09-16-04	3.42	<.008	<.006	<.004	3.34	16	<.6	<.8	.17	36	1,140
410324074514801	09-15-04	<.06	<.008	<.006	.010	.05	E6	52	102	.17	33	970
410333074550601	09-14-04	.11	<.008	E.003	.010	.15	10	1,540	37.9	.12	39	1,520
410336074524701	09-16-04	.36	<.008	<.006	E.002	.33	E6	<.6	<.8	.11	42	1,700
410358074535401	09-13-04	.50	<.008	.009	.012	.47	12	20	<.8	.13	38	1,380
410346074493701	09-14-04	1.12	<.008	<.006	E.004	1.24	17	7	.9	.20	31	800
410500074531601	09-13-04	<.06	<.008	.051	.065	<.03	17	162	36.9	.12	46	2,080
410555074514501	09-15-04	<.06	<.008	.036	.044	<.03	E8	10	128	.07	28	640
410502074512501	09-16-04	<.06	<.008	E.003	E.003	<.03	22	E5	24.4	.37	19	80

Station number	Date	Uranium natural water, fltrd, ug/L (22703)
410412074505301	08-11-04	2.63
410409074494601	08-10-04	.14
410648074504601	09-15-04	.26
410243074511801	09-16-04	.58
410324074514801	09-15-04	.33
410333074550601	09-14-04	.17
410336074524701	09-16-04	.41
410358074535401	09-13-04	.14
410346074493701	09-14-04	.18
410500074531601	09-13-04	.60
410555074514501	09-15-04	.85
410502074512501	09-16-04	1.07

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

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA

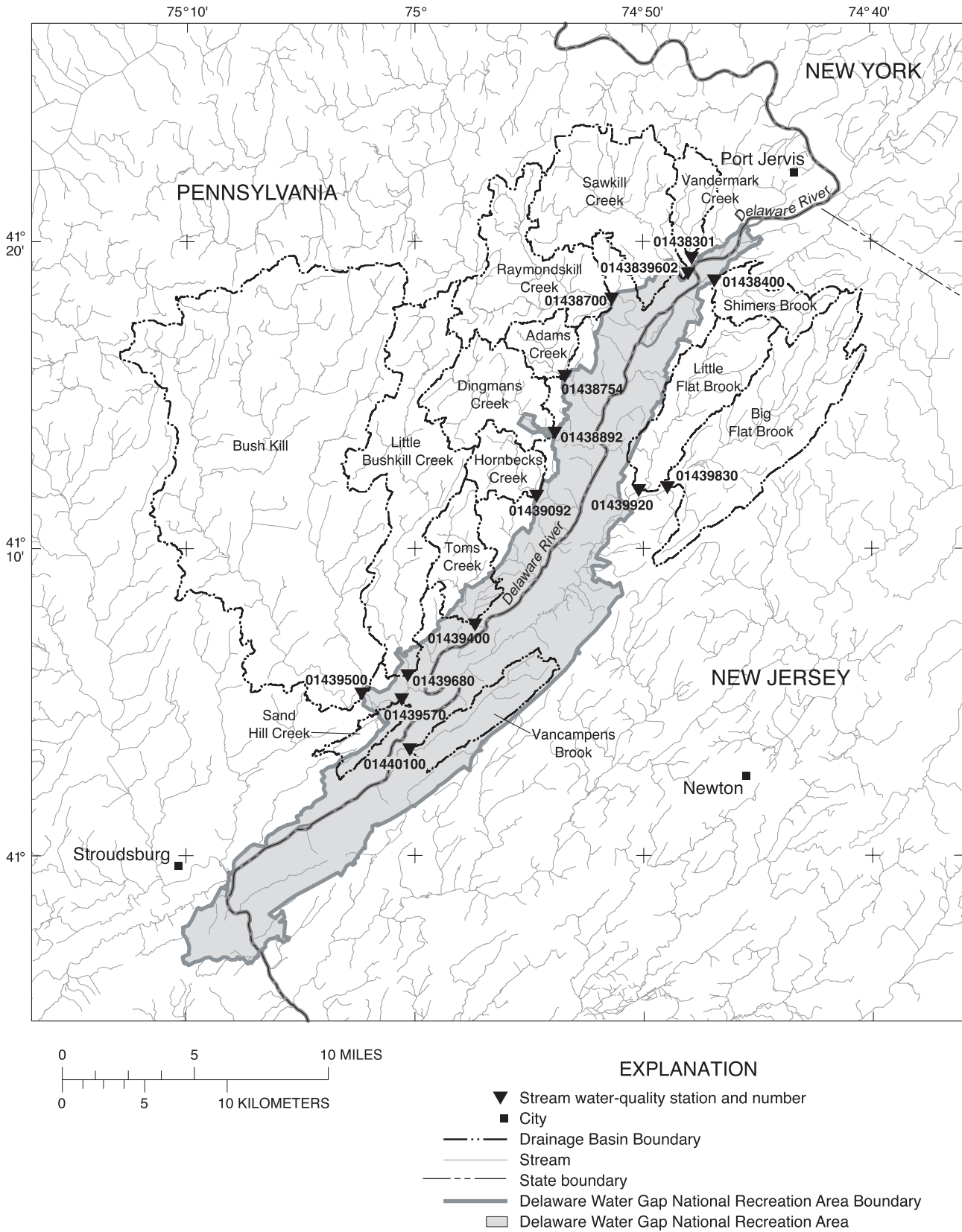


Figure 40. Location of surface-water sites sampled for selected constituents for the Delaware Water Gap National Recreation Area Study, water years 2002-04.

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

Water-quality data presented in this table were collected from 14 streams near where the streams cross the boundary of the Delaware Water Gap National Recreation Area in Pennsylvania and New Jersey. Nutrient data were collected on a monthly to biweekly basis, primarily from March to December during water years 2002-2004. Major-ion data were collected less frequently. Streams were sampled once for wastewater compounds using laboratory schedule 1433 in 2002. Data were collected as part of the Water Quality Assessment and Monitoring Program (a partnership between the USGS and the National Park Service), and will be used as a baseline from which to assess any future changes in the quality of streamwater entering the park.

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, uS/cm 25 degC (90095)	Specif. conductance, wat unf lab, uS/cm 25 degC (00095)
01438301	05-06-02	1550	Environmental	8.0	757	10.6	101	--	7.0	74	65
	05-20-02	1545	Environmental	64	753	11.5	101	7.1	--	--	63
	06-06-02	1025	Environmental	9.0	748	9.9	98	7.0	--	--	82
	06-20-02	0947	Environmental	9.0	763	10.2	97	6.5	7.3	74	71
	07-09-02	0958	Environmental	4.0	750	9.5	96	7.5	--	--	107
	07-15-02	1340	Environmental	5.0	750	9.4	98	7.6	--	--	109
	08-01-02	1015	Environmental	2.0	751	9.5	98	7.2	7.2	107	114
	08-01-02	1020	<i>Sequential Replicate</i>	--	--	--	--	--	7.3	114	--
	08-15-02	1000	Environmental	8.0	755	3.4	34	6.5	6.6	117	116
	08-29-02	1030	Environmental	13	756	9.9	98	6.8	7.8	113	110
	09-12-02	1030	Environmental	2.0	753	6.4	61	6.1	--	--	146
	09-26-02	1025	Environmental	4.0	757	6.7	64	6.5	6.8	150	139
	10-10-02	1020	Environmental	8.0	760	9.6	91	7.3	--	--	121
	10-31-02	1030	Environmental	5.0	754	11.8	98	7.2	--	--	93
	10-31-02	1035	<i>Sequential Replicate</i>	--	--	--	--	--	--	--	--
	11-13-02	1310	Environmental	9.0	749	11.8	104	7.4	7.9	88	86
	04-21-03	1630	Environmental	--	749	11.1	99	7.1	7.3	84	86
	05-08-03	0957	Environmental	7.0	749	11.2	103	7.1	--	--	88
	05-22-03	1035	Environmental	8.0	759	11.0	100	7.0	--	--	92
	06-03-03	1058	Environmental	8.0	744	11.0	102	6.2	6.4	64	65
	06-19-03	0938	Environmental	10	747	10.5	102	6.1	--	--	79
	06-19-03	0943	<i>Sequential Replicate</i>	--	--	--	--	--	--	--	--
	07-10-03	0943	Environmental	7.0	753	9.7	96	6.9	--	--	102
	07-24-03	0955	Environmental	8.0	751	9.4	97	6.7	7.7	90	90
	08-07-03	1025	<i>Field Blank</i>	--	--	--	--	--	--	--	--
	08-07-03	1030	Environmental	8.0	751	9.4	98	6.7	--	--	97
	08-21-03	0950	Environmental	6.0	755	9.0	91	7.5	--	--	111
	09-02-03	1150	Environmental	24	756	10.1	101	7.3	6.6	68	67
	09-25-03	1054	Environmental	11	754	10.0	98	6.3	--	--	58
	10-09-03	0943	Environmental	7.0	759	10.7	96	6.5	--	--	78
	10-23-03	0945	Environmental	7.0	745	11.8	99	6.4	7.0	72	71
	11-20-03	1023	Environmental	16	746	11.8	104	6.2	--	--	49
	12-17-03	1305	Environmental	8.0	739	13.1	103	6.7	7.5	114	123
	04-19-04	1440	Environmental	6.0	752	10.3	99	6.3	7.1	81	82
	05-05-04	1135	Environmental	6.0	751	11.3	99	7.8	--	--	77
	05-20-04	1102	Environmental	9.0	761	10.2	95	7.3	--	--	87
	06-01-04	1237	Environmental	8.0	745	10.8	102	7.4	7.7	80	79
	06-16-04	1435	Environmental	7.0	759	9.6	100	7.5	--	--	109
	06-28-04	1235	Environmental	4.0	757	9.8	92	7.5	--	--	124
	07-15-04	1035	Environmental	--	742	9.1	93	7.5	7.7	105	105
	07-29-04	1020	Environmental	6.0	753	9.1	91	7.4	--	--	112
	08-12-04	1052	Environmental	5.0	752	8.8	88	7.3	--	--	121
	08-26-04	1015	Environmental	7.0	760	9.0	88	7.1	7.5	100	89
	09-16-04	1050	Environmental	7.0	754	8.6	86	7.3	--	--	91

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Total nitro- gen, water, unfltrd mg/L (00600)	Alum- inum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Sus- pended sediment concentration mg/L (80154)
01438301	05-06-02	44	.14	<.015	.20	<.008	E.01	.020	--	.35	20	E5	--
	05-20-02	--	.14	<.015	.23	<.008	<.02	.034	--	.36	--	--	85
	06-06-02	--	.15	<.015	.40	<.008	E.01	.026	--	.56	--	--	--
	06-20-02	44	.15	<.015	.33	<.008	.02	.026	--	.48	20	7	--
	07-09-02	--	E.06	<.015	.51	<.008	.02	.021	--	--	--	--	--
	07-15-02	--	E.08	<.015	.54	<.008	E.02	.022	--	--	--	--	--
	08-01-02	73	<.10	<.015	.60	<.008	E.01	.018	--	--	<20	9	<1
	08-01-02	62	E.05	<.015	.58	<.008	E.01	.018	--	--	<20	10	--
	08-15-02	70	.28	E.010	<.05	<.008	<.02	.075	--	--	<20	9	--
	08-29-02	70	.29	E.009	.80	<.008	.03	.068	--	1.1	E10	9	8
	09-12-02	--	<.10	<.015	1.30	<.008	E.02	.020	--	--	--	--	--
	09-26-02	86	<.10	<.015	1.23	<.008	.02	.018	--	--	<20	12	--
	10-10-02	--	E.10	<.015	.65	<.008	E.01	.019	--	--	--	--	--
	10-31-02	--	E.07	<.015	.45	<.008	E.01	.014	--	--	--	--	--
	10-31-02	--	E.07	<.015	.45	<.008	<.02	.013	--	--	--	--	--
	11-13-02	55	.16	<.015	.31	<.008	E.02	.027	--	.47	20	E6	<1
	04-21-03	49	E.10	<.015	.32	<.008	<.02	.012	--	--	--	E5	<1
	05-08-03	--	E.09	<.015	.37	<.008	E.01	.019	--	--	--	--	--
	05-22-03	--	.13	<.015	.36	<.008	E.02	.023	--	.49	--	--	--
	06-03-03	50	.16	<.015	.22	<.008	E.01	.020	--	.37	--	E5	3
	06-19-03	--	.15	<.015	.33	<.008	E.01	.024	--	.48	--	--	--
	06-19-03	--	.17	<.015	.33	<.008	E.02	.025	--	.50	--	--	--
	07-10-03	--	E.07	<.015	.47	<.008	E.01	.022	--	--	--	--	--
	07-24-03	48	.14	<.015	.40	<.008	E.02	.032	--	.54	--	8	2
	08-07-03	--	<.10	<.015	<.06	<.008	<.02	<.004	--	--	--	--	--
	08-07-03	--	.14	<.015	.38	<.008	.02	.032	--	.52	--	--	--
	08-21-03	--	<.10	<.015	.44	<.008	E.02	.024	--	--	--	--	--
	09-02-03	56	.43	<.015	.48	<.008	.04	.084	--	.90	--	7	--
	09-25-03	--	.19	<.015	.24	<.008	E.01	.026	--	.43	--	--	--
	10-09-03	--	--	<.010	.34	<.008	.010	.017	.48	--	--	--	--
	10-23-03	38	--	<.010	.22	<.008	.009	.016	.32	--	--	E8	1
	11-20-03	--	--	<.010	.24	<.008	.014	.029	.31	--	--	--	--
	12-17-03	65	--	<.010	.31	<.008	.007	E.012	.36	--	--	E6	3
	04-19-04	44	--	<.010	.22	<.008	.008	.016	.32	--	--	E6	7
	05-05-04	--	--	<.010	.26	<.008	.009	.015	.34	--	--	--	--
	05-20-04	--	--	E.008	.37	<.008	.013	.029	.48	--	--	--	--
	06-01-04	67	--	<.010	.34	<.008	.014	.028	.52	--	--	E7	2
	06-16-04	--	--	E.006	.46	<.008	.014	.025	.53	--	--	--	--
	06-28-04	--	--	<.010	.48	<.008	.015	.025	.55	--	--	--	--
	07-15-04	75	--	<.010	.48	<.008	.016	.030	.59	--	--	8	1
	07-29-04	--	--	<.010	.44	<.008	.018	.029	.59	--	--	--	--
	08-12-04	--	--	<.010	.52	<.008	.016	.022	.63	--	--	--	--
	08-26-04	55	--	E.005	.46	<.008	.016	.023	.56	--	--	8	<1
	09-16-04	--	--	<.010	.36	<.008	.015	.024	.53	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specific conductance, wat unfl lab, uS/cm 25 degC (90095)	Specific conductance, wat unfl lab, uS/cm 25 degC (00095)
0143839602	05-06-02	1410	Environmental	66	8.0	758	10.4	103	6.7	6.5	122	114
	05-20-02	1235	Environmental	116	10	755	11.9	106	7.2	--	--	101
	06-06-02	0945	<i>Sequential Replicate</i>	--	--	--	--	--	--	--	--	--
	06-06-02	0940	Environmental	34	8.0	749	9.5	100	7.0	--	--	125
	06-20-02	0910	Environmental	39	10	765	9.9	103	7.4	7.4	113	113
	07-09-02	0923	Environmental	10	6.0	751	9.3	100	7.6	--	--	155
	07-15-02	1305	Environmental	8.0	2.0	751	9.2	102	7.6	--	--	158
	08-01-02	0930	<i>Field Blank</i>	--	--	--	--	--	--	7.5	3	--
	08-01-02	0935	Environmental	6.0	8.0	752	9.1	102	7.4	7.2	169	152
	08-15-02	0930	Environmental	3.0	5.0	756	8.2	92	7.4	7.6	189	186
	08-29-02	0950	Environmental	9.0	12	757	9.3	95	6.9	7.7	140	137
	09-12-02	0940	Environmental	2.0	4.0	753	9.9	99	6.9	--	--	197
	09-26-02	0945	<i>Field Blank</i>	--	--	--	--	--	--	7.1	E5	--
	09-26-02	0950	Environmental	4.0	5.0	760	10.1	99	7.4	7.9	195	183
	10-10-02	1000	Environmental	5.0	5.0	762	10.4	98	7.4	--	--	178
	10-10-02	1005	<i>Sequential Replicate</i>	--	--	--	--	--	--	--	--	--
	10-31-02	0945	<i>Field Blank</i>	--	--	--	--	--	--	--	--	--
	10-31-02	0950	Environmental	26	7.0	755	12.4	101	7.3	--	--	126
	11-13-02	1240	Environmental	68	12	753	11.8	103	7.6	8.0	108	106
	04-21-03	1400	Environmental	43	--	751	10.8	99	7.1	6.9	131	133
	05-08-03	0919	<i>Field Blank</i>	--	--	--	--	--	--	--	--	--
	05-08-03	0924	Environmental	43	6.0	752	10.6	102	7.1	--	--	140
	05-22-03	1010	Environmental	11	6.0	759	10.8	98	7.1	--	--	143
	06-03-03	1032	Environmental	126	11	755	10.8	101	6.3	6.5	111	115
	06-19-03	0913	Environmental	54	10	749	10.0	101	5.7	--	--	121
	07-10-03	0918	Environmental	19	6.0	754	9.6	98	6.8	--	--	148
	07-24-03	0925	Environmental	28	8.0	753	9.2	99	6.9	6.4	122	126
	08-07-03	0940	Environmental	47	13	752	9.1	100	6.5	--	--	125
	08-21-03	0920	Environmental	16	8.0	757	8.8	94	7.6	--	--	141
	09-04-03	1225	Environmental	64	15	751	9.2	98	6.7	7.2	106	98
	09-23-03	0955	Environmental	332	69	750	9.5	100	6.2	7.4	85	84
	10-09-03	0915	Environmental	40	8.0	760	10.7	96	6.5	--	--	102
	10-23-03	0920	Environmental	41	8.0	745	12.0	101	6.3	6.9	100	101
	11-20-03	0945	Environmental	340	16	747	11.8	103	6.9	--	--	57
	12-16-03	1215	Environmental	90	8.0	757	13.1	96	6.5	7.2	E74	81
	04-19-04	1353	<i>Field Blank</i>	--	--	--	--	--	--	5.8	4	--
	04-19-04	1358	Environmental	55	6.0	753	10.6	105	6.8	E7.4	115	121
	05-04-04	1153	Environmental	58	9.0	759	10.8	98	6.8	--	--	104
	05-20-04	1030	Environmental	26	4.0	761	10.3	100	7.5	--	--	119
	06-02-04	1232	Environmental	E59	8.0	750	9.8	99	7.7	7.7	118	120
	06-16-04	1405	Environmental	9.0	6.0	751	8.6	98	7.7	--	--	147
	06-28-04	1205	Environmental	7.0	6.0	758	10.2	102	7.7	--	--	164
	07-15-04	1000	Environmental	9.0	7.0	743	9.4	98	7.5	7.6	149	152
	07-29-04	0950	<i>Sequential Replicate</i>	--	--	--	--	--	--	--	--	--
	07-29-04	0945	Environmental	14	7.0	755	9.0	93	7.4	--	--	144
	08-12-04	1030	Environmental	12	6.0	759	8.5	88	7.5	--	--	140
	08-26-04	0942	Environmental	28	9.0	761	9.2	91	7.1	7.6	125	120
	09-16-04	1024	Environmental	75	7.0	755	8.6	90	7.4	--	--	131

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Total nitro- gen, water, unfltrd mg/L (00600)	Alum- inum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Sus- pended sedi- ment concen- tration mg/L (80154)
0143839602	05-06-02	75	.12	<.015	.07	<.008	<.02	.013	--	.19	20	E5	--
	05-20-02	--	.18	<.015	.09	<.008	<.02	.015	--	.27	--	--	3
	06-06-02	--	.16	<.015	.26	<.008	<.02	.018	--	.42	--	--	--
	06-06-02	--	.16	<.015	.26	<.008	<.02	.017	--	.42	--	--	--
	06-20-02	72	.18	<.015	.23	<.008	<.02	.018	--	.41	E10	7	--
	07-09-02	--	.11	E.008	.40	<.008	E.01	.017	--	.51	--	--	--
	07-15-02	--	E.08	<.015	.42	<.008	<.02	.017	--	--	--	--	--
	08-01-02	<.10	<.10	<.015	<.05	<.008	<.02	<.004	--	--	<.20	<.7	--
	08-01-02	99	E.06	<.015	.57	<.008	E.01	.019	--	--	<.20	9	2
	08-15-02	119	E.06	<.015	.75	<.008	E.01	.019	--	--	<.20	11	--
	08-29-02	89	.24	E.009	.51	<.008	.02	.051	--	.75	<.20	7	10
	09-12-02	--	E.08	<.015	.88	<.008	E.01	.016	--	--	--	--	--
	09-26-02	<.10	<.10	<.015	<.05	<.008	<.02	<.004	--	--	<.20	<.7	--
	09-26-02	95	E.07	<.015	.69	<.008	E.01	.013	--	--	<.20	10	--
	10-10-02	--	E.08	<.015	.60	<.008	<.02	.014	--	--	--	--	--
	10-10-02	--	E.09	<.015	.61	<.008	<.02	.014	--	--	--	--	--
	10-31-02	--	<.10	<.015	<.06	<.008	<.02	<.004	--	--	--	--	--
	10-31-02	--	.14	<.015	.28	E.004	E.01	.010	--	.42	--	--	--
	11-13-02	71	.22	<.015	.14	<.008	<.02	.018	--	.37	20	E5	2
	04-21-03	71	E.10	<.015	.14	<.008	<.02	.008	--	--	--	E5	2
	05-08-03	--	<.10	<.015	<.06	<.008	<.02	E.002	--	--	--	--	--
	05-08-03	--	.15	<.015	.23	.017	<.02	.012	--	.38	--	--	--
	05-22-03	--	.13	<.015	.29	<.008	<.02	.014	--	.42	--	--	--
	06-03-03	78	.22	<.015	.08	<.008	<.02	.016	--	.30	--	7	3
	06-19-03	--	.19	<.015	.20	<.008	<.02	.018	--	.39	--	--	--
	07-10-03	--	E.09	<.015	.38	<.008	<.02	.017	--	--	--	--	--
	07-24-03	84	.20	<.015	.26	<.008	E.01	.022	--	.46	--	7	2
	08-07-03	--	.25	<.015	.17	<.008	<.02	.025	--	.42	--	--	--
	08-21-03	--	.12	<.015	.34	<.008	E.01	.020	--	.46	--	--	--
	09-04-03	67	.60	<.015	.19	<.008	E.01	.025	--	.80	--	E6	--
	09-23-03	63	.85	<.015	.19	<.008	E.02	.189	--	1.0	--	9	114
	10-09-03	--	--	<.010	.24	<.008	E.004	.013	.34	--	--	--	--
	10-23-03	56	--	<.010	.15	<.008	E.004	.012	.28	--	--	E8	1
	11-20-03	--	--	<.010	.10	<.008	.006	.039	.43	--	--	--	--
	12-16-03	55	--	<.010	.18	<.008	E.003	.011	.29	--	--	E7	2
	04-19-04	<.10	--	<.010	<.06	<.008	<.006	<.004	<.03	--	--	<.8	--
	04-19-04	67	--	<.010	.13	<.008	E.003	.013	.24	--	--	E6	2
	05-04-04	--	--	<.010	.12	<.008	E.004	.013	.26	--	--	--	--
	05-20-04	--	--	--	--	--	--	--	--	--	--	--	--
	06-02-04	86	--	<.010	.27	<.008	.006	.020	.41	--	--	E8	3
	06-16-04	--	--	E.005	.43	<.008	.006	.015	.52	--	--	--	--
	06-28-04	--	--	<.010	.47	<.008	.006	.015	.62	--	--	--	--
	07-15-04	94	--	E.005	.55	<.008	.009	.018	.62	--	--	9	1
	07-29-04	--	--	<.010	.30	<.008	.009	.019	.47	--	--	--	--
	07-29-04	--	--	<.010	.30	<.008	.009	.019	.43	--	--	--	--
	08-12-04	--	--	E.006	.34	<.008	.007	.018	.46	--	--	--	--
	08-26-04	73	--	E.007	.33	<.008	.008	.017	.50	--	--	E7	1
	09-16-04	--	--	<.010	.29	<.008	.008	.017	.47	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specific conductance, wat unfl lab, uS/cm 25 degC (90095)	Specific conductance, wat unfl lab, uS/cm 25 degC (00095)
01438400	05-08-02	1610	Environmental	9.4	19	756	8.9	98	8.0	8.0	227	183
	05-22-02	1415	Environmental	17	16	758	9.7	99	7.8	--	--	203
	06-05-02	1319	Environmental	14	17	750	8.7	99	7.9	--	--	197
	06-19-02	1257	Environmental	18	10	760	8.6	97	--	8.0	200	193
	07-02-02	1145	Environmental	7.9	12	753	8.3	99	8.0	--	--	282
	07-18-02	1300	Environmental	1.9	9.0	747	8.3	99	8.2	--	--	372
	07-31-02	1300	Environmental	2.2	7.0	749	8.3	97	8.2	8.3	440	434
	08-14-02	1250	Environmental	1.7	7.0	755	8.4	99	8.2	8.2	444	420
	08-28-02	1300	Environmental	1.7	6.0	761	8.7	94	8.2	--	--	446
	09-11-02	1320	Environmental	2.0	7.0	741	9.1	100	7.9	--	--	450
	09-25-02	1300	Environmental	1.5	6.0	756	9.3	95	8.2	8.0	458	446
	10-09-02	1240	Environmental	1.5	6.0	760	10.2	95	8.2	--	--	511
	11-04-02	1250	Environmental	E5.0	3.0	751	12.0	98	7.8	--	--	331
	11-13-02	1210	Environmental	E8.0	11	751	11.4	100	8.2	7.9	338	342
	04-23-03	1310	Environmental	E11	--	746	11.0	101	8.1	7.9	271	274
	05-07-03	1215	Environmental	9.3	9.0	749	9.8	99	8.4	--	--	311
	05-21-03	1225	Environmental	4.1	10	757	9.6	98	8.2	--	--	375
	06-04-03	1252	Environmental	29	--	750	10.0	101	7.7	7.2	172	175
	06-18-03	1205	Environmental	14	17	752	9.4	101	7.9	--	--	232
	07-09-03	1116	Environmental	6.2	12	750	8.3	97	8.3	--	--	374
	07-23-03	1235	Environmental	8.5	12	749	8.4	98	8.2	E7.9	343	352
	08-06-03	1217	Environmental	8.2	14	750	8.5	99	8.4	--	--	330
	08-20-03	1245	Environmental	4.3	11	757	8.4	96	8.4	--	--	353
	09-03-03	1205	Environmental	6.0	13	756	9.3	96	8.6	E8.0	393	376
	09-23-03	1035	Environmental	E26	41	746	9.0	97	7.6	7.7	220	222
	10-08-03	1132	Environmental	E7.0	9.0	758	10.7	96	8.2	--	--	339
	10-22-03	1035	Environmental	7.9	13	740	10.8	100	8.2	7.9	282	274
	11-19-03	1155	Environmental	11	15	746	11.3	102	8.0	--	--	260
	12-17-03	1220	Environmental	31	14	741	13.6	103	7.8	E7.7	183	192
	04-21-04	1240	Environmental	E13	11	756	10.2	102	8.0	7.8	212	229
	05-05-04	1105	Environmental	15	15	751	10.4	102	8.3	--	--	197
	05-19-04	1150	Environmental	8.8	13	757	--	--	8.2	--	--	259
	06-02-04	1205	Environmental	7.8	12	748	9.3	98	8.2	7.9	283	297
	06-16-04	1237	Environmental	3.4	10	754	8.8	101	8.2	--	--	377
	06-30-04	1155	Environmental	5.4	7.0	758	9.0	96	8.2	--	--	336
	07-14-04	0935	Environmental	E5.0	11	747	8.2	90	8.2	8.1	418	397
	07-28-04	1240	Environmental	3.6	14	747	9.9	107	8.3	--	--	450
	08-11-04	1232	Environmental	2.4	8.0	750	8.2	90	8.2	--	--	409
	08-25-04	1255	Environmental	13	13	760	8.6	97	8.0	7.9	223	214
	08-25-04	1256	<i>Sequential Replicate</i>	--	--	--	--	--	--	7.8	233	--
	09-15-04	1205	Environmental	8.1	13	759	8.5	91	8.1	--	--	246

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Total nitro- gen, water, unfltrd mg/L (00600)	Alum- inum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Sus- pended sedi- ment concen- tration mg/L (80154)
01438400	05-08-02	135	.36	<.015	.11	<.008	<.02	.020	--	.47	M	8	4
	05-22-02	--	.38	E.008	.10	<.008	<.02	.019	--	.47	--	--	--
	06-05-02	--	.36	<.015	.14	<.008	<.02	.021	--	.50	--	--	--
	06-19-02	121	.43	E.008	.16	<.008	<.02	.023	--	.60	20	10	--
	07-02-02	--	.33	<.015	.23	<.008	<.02	.022	--	.56	--	--	--
	07-18-02	--	.21	<.015	.08	<.008	<.02	.024	--	.30	--	--	--
	07-31-02	254	.18	<.015	.22	<.008	E.01	.025	--	.40	30	11	6
	08-14-02	274	.20	<.015	.20	<.008	E.01	.029	--	.40	M	11	--
	08-28-02	--	.18	<.015	.20	<.008	E.01	.019	--	.38	--	--	--
	09-11-02	--	.14	<.015	.23	<.008	E.01	.022	--	.37	--	--	--
	09-25-02	250	.16	<.015	.13	<.008	E.01	.011	--	.29	<20	10	--
	10-09-02	--	.17	<.015	.12	<.008	<.02	.012	--	.28	--	--	--
	11-04-02	--	.25	<.015	.24	E.004	<.02	.010	--	.49	--	--	--
	11-13-02	200	.32	<.015	.28	<.008	<.02	.013	--	.60	<20	9	2
	04-23-03	150	.28	<.015	.21	<.008	<.02	.011	--	.49	--	7	4
	05-07-03	--	.27	<.015	.20	.029	<.02	.013	--	.47	--	--	--
	05-21-03	--	.34	<.015	.27	<.008	<.02	.024	--	.61	--	--	--
	06-04-03	114	.48	E.010	.10	<.008	<.02	.021	--	.57	--	E6	4
	06-18-03	--	.47	E.008	.21	<.008	<.02	.024	--	.68	--	--	--
	07-09-03	--	.28	<.015	.34	<.008	<.02	.021	--	.62	--	--	--
	07-23-03	201	.34	<.015	.26	<.008	<.02	.028	--	.61	--	10	6
	08-06-03	--	.43	<.015	.20	<.008	<.02	.024	--	.64	--	--	--
	08-20-03	--	.28	<.015	.18	<.008	<.02	.021	--	.46	--	--	--
	09-03-03	238	.41	<.015	.21	<.008	<.02	.022	--	.63	--	9	--
	09-23-03	144	.75	<.015	.12	<.008	.02	.102	--	.87	--	11	32
	10-08-03	--	--	E.005	.28	<.008	<.006	.009	.50	--	--	--	--
	10-22-03	173	--	<.010	.20	<.008	<.006	.013	.54	--	--	11	3
	11-19-03	--	--	.025	.30	E.004	<.006	.015	.58	--	--	--	--
	12-17-03	106	--	E.009	.22	<.008	E.004	.016	.45	--	--	E8	--
	04-21-04	126	--	<.010	.12	E.005	<.006	.015	.41	--	--	E7	5
	05-05-04	--	--	E.006	.11	<.008	<.006	.024	.45	--	--	--	--
	05-19-04	--	--	E.006	.20	<.008	E.003	.019	.51	--	--	--	--
	06-02-04	194	--	<.010	.22	<.008	E.003	.017	.51	--	--	10	7
	06-16-04	--	--	E.007	.26	<.008	.008	.023	.52	--	--	--	--
	06-30-04	--	--	<.010	.16	<.008	E.004	.012	.38	--	--	--	--
	07-14-04	248	--	<.010	.18	<.008	E.003	.029	.47	--	--	11	6
	07-28-04	--	--	<.010	.13	<.008	.007	.029	.54	--	--	--	--
	08-11-04	--	--	<.010	.13	<.008	.009	.018	.40	--	--	--	--
	08-25-04	136	--	.010	.11	<.008	E.004	.019	.44	--	--	9	4
	08-25-04	130	--	E.008	.11	<.008	<.006	.021	.48	--	--	8	--
	09-15-04	--	--	E.006	.15	<.008	E.003	.015	.47	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specific conductance, wat unfltrd lab, uS/cm 25 degC (90095)	Specific conductance, wat unfltrd lab, uS/cm 25 degC (00095)
01438700	05-09-02	1420	Environmental	40	16	743	10.7	106	6.6	6.9	114	104
	05-20-02	1430	Environmental	113	19	743	11.5	106	6.9	--	--	90
	06-04-02	1240	Environmental	29	17	744	9.2	99	6.7	--	--	90
	06-18-02	1248	Environmental	39	23	744	9.2	97	6.9	7.0	97	87
	07-08-02	1243	Environmental	5.5	14	745	7.6	90	7.2	--	--	105
	07-16-02	1130	Environmental	1.9	11	740	6.9	81	6.9	--	--	108
	07-24-02	1130	Environmental	E50	10	747	7.4	90	7.0	7.5	108	105
	07-30-02	1155	Environmental	3.6	8.0	737	7.2	89	6.7	7.1	112	109
	08-13-02	1200	Environmental	1.2	6.0	744	6.5	78	6.7	7.2	109	101
	08-27-02	1200	Environmental	1.4	5.0	745	7.3	83	6.4	--	--	100
	09-10-02	1150	Environmental	1.1	8.0	738	7.2	82	6.4	--	--	102
	09-24-02	1140	Environmental	10	10	748	8.0	86	6.7	7.7	112	105
	10-07-02	1230	Environmental	9.1	8.0	740	8.4	90	6.9	--	--	117
	10-29-02	1130	Environmental	27	17	750	12.0	100	6.1	--	--	94
	11-14-02	1120	Environmental	54	17	741	12.1	103	6.7	7.8	101	99
	04-21-03	1500	Environmental	30	--	739	11.1	105	6.9	7.1	120	122
	05-06-03	1140	Environmental	16	10	741	10.8	101	6.7	--	--	91
	05-20-03	1145	Environmental	10	10	747	9.9	101	6.8	--	--	124
	06-03-03	0939	Environmental	165	23	758	10.7	101	5.9	6.5	95	100
	06-17-03	1148	Environmental	39	--	748	9.5	102	6.1	--	--	105
	07-08-03	1110	Environmental	12	15	741	8.2	98	6.3	--	--	108
	07-22-03	1134	Environmental	49	10	739	8.8	102	6.6	7.6	111	112
	08-05-03	1132	Environmental	98	33	740	8.5	98	6.2	--	--	98
	08-18-03	1207	Environmental	17	--	745	8.1	92	6.2	--	--	103
	09-02-03	1120	Environmental	67	17	745	9.6	101	7.1	7.2	105	103
	09-24-03	1205	Environmental	206	29	745	9.5	98	5.9	--	--	84
	10-07-03	1105	Environmental	39	20	746	11.2	98	6.1	--	--	90
	10-21-03	1100	Environmental	39	18	730	11.0	101	6.3	6.6	89	86
	10-21-03	1105	<i>Sequential Replicate</i>	--	--	--	--	--	--	6.2	89	--
	11-18-03	1110	Environmental	28	13	750	11.7	95	6.3	--	--	85
	12-16-03	1140	Environmental	106	12	743	14.6	--	6.0	7.2	74	--
	04-20-04	1207	Environmental	32	12	744	10.2	101	6.6	7.1	112	116
	05-04-04	1117	Environmental	67	16	741	10.4	99	6.4	--	--	115
	05-20-04	0950	Environmental	30	16	750	9.2	95	7.1	--	--	100
	06-03-04	1147	Environmental	32	18	744	9.6	101	7.0	7.5	108	103
	06-17-04	1227	Environmental	7.6	10	746	7.7	88	6.9	--	--	115
	06-29-04	1125	Environmental	5.3	11	746	8.4	91	7.0	--	--	117
	07-13-04	1150	Environmental	E18	10	741	7.9	89	7.1	7.5	105	105
	07-27-04	1100	Environmental	3.4	7.0	747	7.5	84	7.1	--	--	103
	08-10-04	1135	Environmental	4.4	16	742	7.5	84	6.9	--	--	124
	08-24-04	1200	Environmental	61	32	746	8.2	90	6.4	6.5	82	79
	09-14-04	1135	Environmental	21	24	751	8.9	93	6.9	--	--	86

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Total nitro- gen, water, unfltrd mg/L (00600)	Alum- inum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Sus- pended sedi- ment concen- tration mg/L (80154)
01438700	05-09-02	69	.26	E.009	E.03	<.008	<.02	.018	--	--	40	E6	2
	05-20-02	--	.25	<.015	E.04	<.008	<.02	.012	--	--	--	--	--
	06-04-02	--	.27	<.015	E.03	<.008	<.04	.017	--	--	--	--	--
	06-18-02	70	.39	<.015	.07	<.008	<.02	.019	--	.45	70	E6	--
	07-08-02	--	.25	.021	E.04	<.008	<.02	.026	--	--	--	--	--
	07-16-02	--	.26	.019	.05	<.008	<.02	.026	--	.31	--	--	--
	07-24-02	62	.23	E.013	E.04	<.008	<.02	.020	--	--	M	E5	2
	07-30-02	68	.23	.022	.06	<.008	<.02	.020	--	.28	<20	E5	4
	08-13-02	68	.25	.015	.07	<.008	E.01	.024	--	.32	<20	E6	--
	08-27-02	--	.33	E.008	.06	<.008	E.01	.053	--	.40	--	--	--
	09-10-02	--	.17	E.011	.07	<.008	<.02	.018	--	.23	--	--	--
	09-24-02	62	.22	E.010	<.05	<.008	<.02	.026	--	--	40	E6	--
	10-07-02	--	.17	E.010	E.05	<.008	<.02	.014	--	--	--	--	--
	10-29-02	--	.23	<.015	E.05	<.008	<.02	.012	--	--	--	--	--
	11-14-02	73	.24	<.015	E.05	<.008	<.02	.012	--	--	80	E6	2
	04-21-03	66	.14	<.015	E.03	<.008	<.02	.009	--	--	--	E5	1
	05-06-03	--	.21	<.015	<.06	<.008	<.02	.010	--	--	--	--	--
	05-20-03	--	.19	E.008	<.06	<.008	<.02	.011	--	--	--	--	--
	06-03-03	72	.29	E.008	<.06	<.008	<.02	.015	--	--	--	E6	3
	06-17-03	--	.27	<.015	E.04	<.008	<.02	.015	--	--	--	--	--
	07-08-03	--	.27	E.009	<.06	<.008	<.02	.021	--	--	--	--	--
	07-22-03	65	.27	<.015	.06	<.008	<.02	.020	--	.33	--	E5	2
	08-05-03	--	.47	<.015	E.05	<.008	<.02	.030	--	--	--	--	--
	08-18-03	--	.43	<.015	E.05	<.008	<.02	.023	--	--	--	--	--
	09-02-03	66	.27	<.015	.09	<.008	<.02	.020	--	.35	--	E5	--
	09-24-03	--	.42	<.015	E.03	<.008	<.02	.025	--	--	--	--	--
	10-07-03	--	--	<.010	E.06	<.008	E.003	.013	.27	--	--	--	--
	10-21-03	54	--	<.010	<.06	<.008	<.006	.015	.27	--	--	E6	1
	10-21-03	51	--	<.010	<.06	<.008	<.006	.015	.32	--	--	E6	--
	11-18-03	--	--	<.010	.07	<.008	E.003	.011	.24	--	--	--	--
	12-16-03	50	--	<.010	.07	<.008	<.006	.008	.22	--	--	E7	--
	04-20-04	71	--	<.010	E.05	<.008	<.006	.012	.22	--	--	E6	4
	05-04-04	--	--	E.006	.06	<.008	<.006	.015	.27	--	--	--	--
	05-20-04	--	--	E.014	.08	<.008	<.007	.018	.34	--	--	--	--
	06-03-04	69	--	.010	E.04	<.008	E.004	.017	.33	--	--	E6	3
	06-17-04	--	--	.030	.07	<.008	<.006	.023	.28	--	--	--	--
	06-29-04	--	--	.013	<.06	<.008	<.006	.046	.38	--	--	--	--
	07-13-04	67	--	.014	<.06	<.008	E.003	.028	.31	--	--	E6	--
	07-27-04	--	--	.017	E.04	<.008	E.003	.021	.26	--	--	--	--
	08-10-04	--	--	.015	<.06	<.008	E.003	.018	.31	--	--	--	--
	08-24-04	73	--	E.008	E.04	<.008	<.006	.020	.39	--	--	8	--
	09-14-04	--	--	.012	E.04	<.008	E.004	.019	.37	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Total nitro- gen, water, unfltrd mg/L (00600)	Alum- inum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Sus- pended sediment concentration mg/L (80154)
01438754	05-09-02	40	.16	<.015	E.04	<.008	<.02	.008	--	--	50	E6	1
	05-09-02	39	.12	<.015	E.03	<.008	<.02	.007	--	--	E10	E5	1
	05-29-02	41	.20	<.015	E.04	<.008	<.02	.017	--	--	20	8	4
	06-04-02	--	.18	<.015	.06	<.020	<.04	.014	--	.24	--	--	--
	06-18-02	37	.23	<.015	.07	<.008	<.02	.018	--	.30	20	E6	--
	07-08-02	--	.18	<.015	.12	<.008	<.02	.017	--	.31	--	--	--
	07-16-02	--	.17	E.009	.15	<.008	<.02	.016	--	.32	--	--	--
	07-30-02	45	.17	E.008	.14	<.008	<.02	.016	--	.30	M	E6	2
	08-13-02	47	.31	E.010	.12	<.008	E.01	.048	--	.43	M	7	--
	08-27-02	--	.18	<.015	.14	<.008	E.01	.016	--	.31	--	--	--
	09-10-02	--	.36	<.015	.17	<.008	<.02	.073	--	.53	--	--	--
	09-24-02	52	.24	<.015	.06	<.008	<.02	.025	--	.29	M	9	--
	10-07-02	--	.12	<.015	.07	<.008	<.02	.009	--	.19	--	--	--
	10-29-02	--	.10	<.015	<.06	<.008	<.02	.007	--	--	--	--	--
	11-14-02	48	.13	<.015	<.06	<.008	<.02	.006	--	--	20	E6	<1
	04-21-03	44	.11	<.015	<.06	<.008	<.02	.007	--	--	--	E4	<1
	05-06-03	--	.14	<.015	E.05	<.008	<.02	.007	--	--	--	--	--
	05-20-03	--	.13	<.015	.12	<.008	<.02	.011	--	.25	--	--	--
	06-02-03	48	.23	<.015	<.06	<.008	<.02	.015	--	--	--	E5	4
	06-17-03	--	.17	<.015	.06	<.008	<.02	.013	--	.23	--	--	--
	07-08-03	--	<.10	<.015	<.06	<.008	<.02	<.004	--	--	--	--	--
	07-08-03	--	.13	<.015	.10	<.008	<.02	.014	--	.23	--	--	--
	07-22-03	40	.21	.030	.11	<.008	<.02	.018	--	.33	--	E5	3
	08-05-03	--	.26	<.015	E.05	<.008	<.02	.021	--	--	--	--	--
	08-18-03	--	.21	<.015	.06	<.008	<.02	.015	--	.27	--	--	--
	09-02-03	53	.26	<.015	.11	<.008	<.02	.023	--	.37	--	E7	--
	09-24-03	--	.28	<.015	<.06	<.008	<.02	.016	--	--	--	--	--
	10-07-03	--	--	<.010	E.03	<.008	<.006	.007	.12	--	--	--	--
	10-21-03	39	--	--	--	--	--	.008	.19	--	--	E6	1
	11-18-03	--	--	<.010	<.06	<.008	<.006	.006	.11	--	--	--	--
	12-16-03	39	--	<.010	.06	<.008	<.006	.005	.14	--	--	E7	2
	04-20-04	43	--	<.010	E.03	<.008	<.006	.029	.16	--	--	E6	4
	05-04-04	--	--	E.006	E.04	<.008	<.006	.010	.19	--	--	--	--
	05-18-04	--	--	.013	.10	<.008	E.003	.015	.29	--	--	--	--
	06-03-04	49	--	.010	.13	<.008	E.004	.012	.25	--	--	E6	6
	06-17-04	--	--	.024	.21	<.008	E.003	.015	.35	--	--	--	--
	06-29-04	--	--	.012	.20	<.008	E.003	.018	.38	--	--	--	--
	07-13-04	51	--	.015	.23	<.008	E.004	.018	.39	--	--	E7	2
	07-27-04	--	--	E.009	.12	<.008	E.004	.014	.27	--	--	--	--
	08-10-04	--	--	E.008	.09	<.008	E.004	.009	.23	--	--	--	--
	08-24-04	46	--	<.010	<.06	<.008	<.006	.014	.23	--	--	9	2
	09-14-04	--	--	E.007	E.04	<.008	E.003	.011	.21	--	--	--	--
	09-14-04	--	--	E.006	E.04	<.008	E.004	.009	.18	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specific conductance, wat unfl lab, uS/cm 25 degC (90095)	Specific conductance, wat unfl lab, uS/cm 25 degC (00095)
01438892	05-09-02	1110	Environmental	E21	13	752	10.5	103	6.6	7.0	86	78
	05-29-02	1350	Environmental	E51	18	749	9.3	100	6.7	7.1	69	64
	06-04-02	1100	Environmental	16	15	749	9.3	97	6.9	--	--	63
	06-18-02	1102	Environmental	E24	17	749	9.5	99	6.9	7.4	71	68
	07-08-02	1110	Environmental	E3.2	9.0	750	9.2	98	7.6	--	--	91
	07-16-02	1023	Environmental	E2.2	7.0	745	8.8	95	7.4	--	--	102
	07-30-02	1040	Environmental	E2.5	7.0	743	8.5	100	7.1	7.5	95	94
	08-13-02	1030	Environmental	E1.0	5.0	748	7.8	87	6.9	7.7	110	96
	08-27-02	1050	Environmental	E1.0	6.0	749	9.0	94	6.9	--	--	101
	09-10-02	1050	Environmental	E.80	5.0	743	8.7	90	6.7	--	--	110
	09-24-02	1040	Environmental	E.80	5.0	752	9.6	93	6.7	7.8	111	103
	10-07-02	1130	Environmental	E1.4	6.0	746	9.5	97	7.2	--	--	104
	10-29-02	1035	Environmental	E14	13	749	12.2	102	6.0	--	--	69
	11-14-02	1020	Environmental	E15	13	746	12.4	104	6.8	7.7	74	72
	04-24-03	1045	Environmental	E24	--	744	11.8	100	6.7	7.4	91	90
	05-06-03	1030	Environmental	E14	8.0	744	10.6	98	6.7	--	--	92
	05-20-03	1045	Environmental	E7.3	8.0	754	10.1	95	6.9	--	--	98
	06-02-03	1315	Environmental	E397	19	745	9.9	98	6.5	6.3	61	60
	06-17-03	1048	Environmental	E59	17	753	9.5	99	6.1	--	--	70
	07-08-03	1010	Environmental	E16	11	745	8.6	99	6.2	--	--	81
	07-22-03	1024	Environmental	24	11	742	9.0	103	6.3	7.2	75	75
	08-05-03	1027	Environmental	E50	16	745	8.6	103	6.3	--	--	68
	08-18-03	1022	Environmental	E15	16	748	8.4	93	6.7	--	--	76
	09-02-03	0935	Environmental	E22	24	749	9.4	100	7.4	6.5	80	76
	09-24-03	1058	Environmental	E202	20	749	9.6	100	6.3	--	--	63
	09-24-03	1103	<i>Sequential Replicate</i>	--	--	--	--	--	--	--	--	--
	10-07-03	1016	Environmental	E14	15	752	11.6	100	6.5	--	--	66
	10-21-03	0955	Environmental	E14	12	735	10.7	98	6.2	6.5	71	68
	11-18-03	1023	Environmental	E20	11	754	12.3	100	6.5	--	--	73
	12-16-03	1030	Environmental	E77	10	750	13.6	--	6.1	7.3	E48	--
	04-20-04	1105	Environmental	E40	10	750	10.4	100	6.5	6.2	85	87
	05-04-04	1023	Environmental	E58	11	746	11.0	104	6.5	--	--	82
	05-18-04	1100	Environmental	E32	13	751	9.0	96	7.1	--	--	75
	06-03-04	1035	Environmental	E25	12	747	9.3	96	7.3	7.0	82	77
	06-03-04	1036	<i>Sequential Replicate</i>	--	--	--	--	--	--	7.0	82	--
	06-17-04	1127	Environmental	E9.0	8.0	749	E7.8	--	7.1	--	--	90
	06-29-04	1037	Environmental	E4.9	6.0	750	9.4	95	6.9	--	--	101
	07-13-04	1035	Environmental	E10	10	747	9.0	97	7.3	7.3	90	89
	07-27-04	1008	Environmental	E3.3	2.0	747	8.5	92	7.4	--	--	83
	08-10-04	1037	Environmental	E2.0	7.0	752	8.0	83	7.2	--	--	103
	08-24-04	1047	Environmental	E36	19	752	8.4	92	6.9	7.3	61	59
	09-14-04	1042	Environmental	E11	13	756	8.9	95	7.1	--	--	70

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, wat unf by analysis, mg/L (62855)	Total nitrogen, water, unfltrd mg/L (00600)	Aluminum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Suspended sediment concentration mg/L (80154)
01438892	05-09-02	48	.24	<.015	.06	<.008	<.02	.017	--	.30	20	E6	2
	05-29-02	42	.32	.017	.10	<.008	<.02	.028	--	.42	50	9	5
	06-04-02	--	.25	<.015	.09	<.008	<.04	.020	--	.34	--	--	--
	06-18-02	41	.30	<.015	.11	<.008	<.02	.022	--	.41	40	E7	--
	07-08-02	--	.15	<.015	.18	<.008	<.02	.015	--	.32	--	--	--
	07-16-02	--	.11	<.015	.23	<.008	<.02	.014	--	.35	--	--	--
	07-30-02	62	.13	E.008	.21	<.008	E.02	.018	--	.34	<20	8	4
	08-13-02	77	E.10	<.015	.25	<.008	E.01	.016	--	--	<20	10	--
	08-27-02	--	.13	<.015	.15	<.008	E.01	.017	--	.28	--	--	--
	09-10-02	--	E.10	<.015	.21	<.008	<.02	.018	--	--	--	--	--
	09-24-02	65	.11	<.015	.07	<.008	<.02	.011	--	.18	<20	9	--
	10-07-02	--	.16	<.015	.07	<.008	<.02	.011	--	.23	--	--	--
	10-29-02	--	.19	<.015	.07	<.008	<.02	.011	--	.26	--	--	--
	11-14-02	53	.26	<.015	.08	<.008	<.02	.013	--	.34	40	E7	1
	04-24-03	46	.17	<.015	E.06	<.008	<.02	.008	--	--	--	8	1
	05-06-03	--	.45	<.015	.06	<.008	<.02	.010	--	.51	--	--	--
	05-20-03	--	.17	<.015	.14	<.008	<.02	.012	--	.30	--	--	--
	06-02-03	45	.31	<.015	E.04	<.008	<.02	.021	--	--	--	E5	4
	06-17-03	--	.28	<.015	E.06	<.008	<.02	.018	--	--	--	--	--
	07-08-03	--	.19	<.015	.14	<.008	<.02	.021	--	.33	--	--	--
	07-22-03	43	.29	<.015	.07	<.008	<.02	.028	--	.37	--	8	4
	08-05-03	--	.37	<.015	E.04	<.008	<.02	.031	--	--	--	--	--
	08-18-03	--	.29	<.015	.08	<.008	<.02	.018	--	.37	--	--	--
	09-02-03	51	.35	<.015	.09	<.008	<.02	.030	--	.44	--	E7	12
	09-24-03	--	.37	<.015	E.04	<.008	<.02	.027	--	--	--	--	--
	09-24-03	--	.40	<.015	E.04	<.008	<.02	.029	--	--	--	--	--
	10-07-03	--	--	<.010	.08	<.008	E.003	.013	.30	--	--	--	--
	10-21-03	44	--	<.010	<.06	<.008	<.006	.015	.31	--	--	E7	1
	11-18-03	--	--	<.010	E.06	<.008	E.003	.011	.23	--	--	--	--
	12-16-03	35	--	<.010	.09	<.008	<.006	.011	.24	--	--	8	1
	04-20-04	51	--	E.005	.06	<.008	<.006	.016	.21	--	--	E6	3
	05-04-04	--	--	E.006	E.05	<.008	<.006	.016	.26	--	--	--	--
	05-18-04	--	--	E.007	.10	<.008	E.004	.020	.33	--	--	--	--
	06-03-04	46	--	E.006	.12	<.008	.006	.018	.34	--	--	E7	4
	06-03-04	47	--	<.010	.13	<.008	E.005	.020	.33	--	--	E7	--
	06-17-04	--	--	.029	.32	<.008	.011	.028	.47	--	--	--	--
	06-29-04	--	--	<.010	.23	<.008	.007	.019	.44	--	--	--	--
	07-13-04	55	--	<.010	.17	<.008	.009	.025	.37	--	--	8	3
	07-27-04	--	--	E.006	.17	<.008	.006	.015	.33	--	--	--	--
	08-10-04	--	--	E.006	.17	<.008	.006	.012	.29	--	--	--	--
	08-24-04	50	--	E.006	<.06	<.008	<.006	.025	.34	--	--	E8	2
	09-14-04	--	--	E.005	E.05	<.008	E.004	.013	.27	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specific conductance, wat unfl lab, uS/cm 25 degC (90095)	Specific conductance, wat unfl lab, uS/cm 25 degC (00095)
01439092	05-09-02	1005	Field Blank	--	--	--	--	--	--	7.7	3	--
	05-09-02	1010	Environmental	13	9.0	749	9.7	95	6.1	7.1	119	110
	05-29-02	1210	Environmental	30	14	745	8.8	95	6.7	7.0	102	98
	06-04-02	1022	Environmental	5.1	11	746	8.9	94	6.7	--	--	104
	06-18-02	1005	Environmental	12	13	744	9.1	96	6.9	7.1	104	100
	07-08-02	1030	Environmental	E1.0	12	747	7.7	84	7.3	--	--	220
	07-08-02	1035	Sequential Replicate	--	--	--	--	--	--	--	--	--
	07-16-02	0945	Environmental	.10	12	740	6.3	74	6.9	--	--	252
	07-30-02	0955	Environmental	1.2	11	737	6.2	75	6.5	7.0	146	144
	08-13-02	0950	Environmental	.20	11	745	6.6	80	6.7	7.1	237	223
	08-27-02	1010	Environmental	.20	13	745	6.9	77	6.3	--	--	261
	09-10-02	1010	Environmental	.10	8.0	741	7.2	80	6.4	--	--	223
	09-24-02	1015	Environmental	.40	7.0	748	8.4	83	6.4	7.0	190	185
	10-07-02	1100	Environmental	1.4	8.0	740	8.9	91	6.8	--	--	157
	10-29-02	0955	Environmental	13	8.0	746	11.2	94	5.2	--	--	89
	11-14-02	0950	Environmental	13	9.0	742	11.6	98	6.7	7.4	E91	94
	04-24-03	1000	Environmental	6.4	--	740	12.2	104	6.3	7.4	136	135
	05-06-03	0955	Environmental	4.1	7.0	742	10.2	93	6.3	--	--	145
	05-20-03	1010	Environmental	1.8	8.0	750	10.3	95	6.3	--	--	174
	06-02-03	1222	Environmental	107	13	740	10.3	105	6.1	6.1	95	95
	06-02-03	1227	Sequential Replicate	--	--	--	--	--	--	6.4	96	--
	06-17-03	1005	Environmental	16	10	749	9.4	99	5.8	--	--	108
	07-08-03	0943	Environmental	2.4	9.0	742	7.8	89	5.7	--	--	147
	07-22-03	0950	Environmental	8.1	16	739	7.7	88	5.8	7.1	125	128
	08-05-03	0951	Environmental	21	14	742	8.0	95	6.0	--	--	108
	08-18-03	0939	Environmental	3.3	10	745	8.0	87	6.5	--	--	127
	09-02-03	0900	Environmental	17	16	745	7.4	78	6.7	6.3	110	109
	09-24-03	1015	Environmental	44	14	744	9.0	94	5.8	--	--	90
	10-07-03	0948	Environmental	8.5	8.0	747	10.8	94	6.2	--	--	103
	10-21-03	0920	Environmental	9.5	8.0	732	9.8	91	6.0	6.4	105	98
	11-18-03	0945	Environmental	7.5	9.0	750	11.3	93	6.3	--	--	94
	12-16-03	0955	Environmental	27	19	746	12.8	--	6.4	7.7	82	--
	04-20-04	1021	Environmental	14	8.0	746	10.2	102	6.3	7.1	119	124
	05-04-04	0952	Environmental	47	9.0	742	10.6	101	6.3	--	--	124
	05-18-04	1023	Environmental	11	9.0	751	9.0	97	6.4	--	--	125
	06-03-04	0947	Field Blank	--	--	--	--	--	--	E7.0	<3	--
	06-03-04	0952	Environmental	6.2	9.0	745	9.1	96	7.1	6.8	129	123
	06-17-04	1052	Environmental	1.1	9.0	743	6.6	73	6.7	--	--	178
	06-29-04	1005	Environmental	.60	8.0	748	7.9	83	6.5	--	--	173
	07-13-04	0955	Environmental	1.0	21	748	6.7	71	6.5	7.1	204	205
	07-27-04	0935	Environmental	.70	6.0	747	7.4	78	7.1	--	--	155
	08-10-04	1000	Environmental	.80	6.0	749	7.0	72	6.8	--	--	188
	08-10-04	1001	Sequential Replicate	--	--	--	--	--	--	--	--	--
	08-24-04	1005	Environmental	24	13	747	7.7	86	6.7	6.3	97	96
	09-14-04	1009	Environmental	5.6	8.0	751	8.0	85	6.8	--	--	109

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Total nitro- gen, water, unfltrd mg/L (00600)	Alum- inum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Sus- pended sedi- ment concen- tration mg/L (80154)
01439092	05-09-02	<10	<.10	<.015	<.05	<.008	<.02	<.004	--	--	<20	<7	--
	05-09-02	65	<.10	<.015	<.05	<.008	<.02	<.004	--	--	E10	9	7
	05-29-02	64	.29	.019	.11	<.008	<.02	.084	--	.40	20	10	16
	06-04-02	--	.25	.021	5.35	.023	<.04	.023	--	5.6	--	--	--
	06-18-02	58	.25	E.013	.15	<.008	<.02	.022	--	.40	E10	8	--
	07-08-02	--	.15	.036	.10	E.004	<.02	.026	--	.25	--	--	--
	07-08-02	--	.24	.034	.10	<.008	<.02	.025	--	.34	--	--	--
	07-16-02	--	.27	.044	.08	<.008	<.02	.032	--	.35	--	--	--
	07-30-02	79	.21	.019	.08	<.008	<.02	.020	--	.29	<20	9	3
	08-13-02	137	.40	E.010	E.02	<.008	<.02	.055	--	--	E10	10	--
	08-27-02	--	.25	E.013	E.04	<.008	<.02	.026	--	--	--	--	--
	09-10-02	--	.18	E.010	<.05	<.008	<.02	.015	--	--	--	--	--
	09-24-02	99	.16	<.015	<.05	<.008	<.02	.017	--	--	<20	9	--
	10-07-02	--	.16	<.015	.09	<.008	<.02	.013	--	.25	--	--	--
	10-29-02	--	.15	<.015	.07	<.008	<.02	.010	--	.22	--	--	--
	11-14-02	58	.22	<.015	E.06	<.008	<.02	.011	--	--	20	8	2
	04-24-03	77	.16	<.015	.09	<.008	<.02	.006	--	.25	--	E7	2
	05-06-03	--	.20	E.010	.08	<.008	<.02	.012	--	.27	--	--	--
	05-20-03	--	.13	E.012	.13	<.008	<.02	.009	--	.26	--	--	--
	06-02-03	56	.30	E.009	.06	<.008	<.02	.023	--	.36	--	E6	5
	06-02-03	67	.31	E.009	<.06	<.008	<.02	.021	--	--	--	E6	--
	06-17-03	--	.23	<.015	.10	<.008	<.02	.016	--	.33	--	--	--
	07-08-03	--	.23	.026	.11	<.008	<.02	.019	--	.34	--	--	--
	07-22-03	71	.41	<.015	.07	<.008	<.02	.039	--	.48	--	9	10
	08-05-03	--	.33	<.015	.06	<.008	<.02	.028	--	.40	--	--	--
	08-18-03	--	.23	<.015	.09	<.008	<.02	.016	--	.31	--	--	--
	09-02-03	65	.35	<.015	.11	<.008	<.02	.041	--	.47	--	8	10
	09-24-03	--	.34	<.015	E.04	<.008	<.02	.025	--	--	--	--	--
	10-07-03	--	--	<.010	.08	<.008	<.006	.010	.24	--	--	--	--
	10-21-03	52	--	<.010	<.06	<.008	<.006	.013	.23	--	--	8	2
	11-18-03	--	--	E.005	.09	<.008	<.006	.009	.22	--	--	--	--
	12-16-03	59	--	E.007	.15	<.008	<.006	.013	.32	--	--	9	6
	04-20-04	72	--	<.010	.07	<.008	<.006	.011	.20	--	--	E7	3
	05-04-04	--	--	E.006	.07	<.008	<.006	.014	.23	--	--	--	--
	05-18-04	--	--	<.010	.16	<.008	<.006	.011	.34	--	--	--	--
	06-03-04	<10	--	E.005	<.06	<.008	<.006	E.003	<.03	--	--	<8	--
	06-03-04	78	--	.011	.08	<.008	E.003	.018	.35	--	--	E7	3
	06-17-04	--	--	.030	.18	<.008	<.006	.019	.31	--	--	--	--
	06-29-04	--	--	.025	.12	<.008	<.006	.024	.32	--	--	--	--
	07-13-04	127	--	.064	.31	<.008	E.004	.044	.64	--	--	10	11
	07-27-04	--	--	.018	.14	<.008	<.006	.015	.27	--	--	--	--
	08-10-04	--	--	.016	.13	<.008	E.003	.009	.27	--	--	--	--
	08-10-04	--	--	.015	.13	<.008	E.003	.008	.26	--	--	--	--
	08-24-04	61	--	<.010	E.04	<.008	<.006	.022	.34	--	--	12	3
	09-14-04	--	--	E.007	.08	<.008	E.003	.013	.29	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specific conductance, wat unfl lab, uS/cm 25 degC (90095)	Specific conductance, wat unfl lab, uS/cm 25 degC (00095)
01439400	05-07-02	1010	Environmental	20	5.0	755	E11.3	--	6.7	6.8	92	93
	05-21-02	1315	Environmental	33	8.0	757	11.5	100	7.4	--	--	76
	06-03-02	1345	Environmental	13	4.0	755	10.4	101	7.1	--	--	73
	06-17-02	1257	Environmental	18	4.0	750	10.1	100	7.1	7.8	87	82
	07-01-02	1230	Environmental	4.9	4.0	757	9.2	96	6.5	--	--	91
	07-15-02	1215	Environmental	1.7	4.0	752	9.2	95	7.5	--	--	90
	07-24-02	1040	Environmental	8.5	9.0	758	9.2	98	7.4	7.8	92	89
	07-29-02	1203	Environmental	2.6	4.0	750	9.2	99	7.3	7.5	93	92
	08-12-02	1225	Environmental	1.4	3.0	755	8.7	94	7.1	7.5	92	79
	08-26-02	1140	Environmental	1.6	5.0	754	9.0	93	6.9	--	--	90
	09-09-02	1140	Environmental	.90	4.0	758	9.6	95	6.6	--	--	90
	09-23-02	1140	Environmental	1.1	3.0	757	9.1	94	6.7	7.9	97	90
	10-07-02	1020	Environmental	1.4	3.0	754	9.6	94	7.1	--	--	90
	10-28-02	1200	Environmental	16	4.0	756	11.8	103	7.1	--	--	76
	11-12-02	1200	Environmental	23	27	758	11.6	103	6.8	7.3	64	60
	04-22-03	1030	Environmental	13	--	746	11.2	99	6.5	6.6	95	96
	05-05-03	1320	Environmental	8.1	4.0	758	11.2	100	7.1	--	--	97
	05-19-03	1217	Environmental	5.4	5.0	762	10.6	96	7.3	--	--	96
	06-02-03	1130	Environmental	84	9.0	740	11.1	104	6.4	6.3	72	71
	06-16-03	0945	Environmental	42	6.0	760	E10.2	--	6.5	--	--	87
	07-07-03	1023	Environmental	11	5.0	754	9.2	96	6.3	--	--	98
	07-21-03	1243	Environmental	5.1	5.0	751	9.3	97	6.9	7.6	90	88
	08-04-03	1225	Environmental	14	7.0	754	9.6	105	6.9	--	--	90
	08-19-03	1201	Environmental	7.8	5.0	759	9.4	98	7.4	--	--	92
	08-19-03	1206	<i>Sequential Replicate</i>	--	--	--	--	--	--	--	--	--
	09-04-03	1140	Environmental	10	6.0	752	9.5	98	6.4	7.1	94	86
	09-22-03	1145	Environmental	4.9	7.0	760	10.0	99	6.7	--	--	94
	10-06-03	1150	Environmental	13	5.0	757	11.2	97	6.6	--	--	83
	10-20-03	1225	Environmental	12	6.0	758	11.3	98	6.4	7.0	87	80
	11-17-03	1130	Environmental	14	5.0	759	11.7	97	6.9	--	--	79
	12-15-03	1305	Environmental	52	5.0	748	13.0	--	6.7	7.0	70	--
	04-21-04	1005	Environmental	15	6.0	760	10.8	97	6.2	6.7	95	96
	05-03-04	1210	Environmental	20	6.0	753	10.6	101	7.6	8.0	85	89
	05-17-04	1220	Environmental	17	5.0	765	10.2	99	7.4	--	--	88
	06-01-04	1147	Environmental	10	6.0	753	10.1	95	7.4	7.5	91	90
	06-15-04	1147	Environmental	2.4	5.0	740	9.5	99	7.4	--	--	93
	06-28-04	1121	Environmental	3.2	5.0	759	9.7	92	7.5	--	--	100
	07-12-04	1120	Environmental	2.8	5.0	759	8.9	91	7.3	7.2	90	96
	07-26-04	1215	Environmental	2.8	4.0	748	9.1	92	7.5	--	--	94
	08-09-04	1155	Environmental	E1.0	3.0	761	8.1	80	7.4	--	--	97
	08-23-04	1245	Environmental	22	6.0	754	8.7	88	7.1	7.3	84	82
	09-13-04	1205	Environmental	9.6	--	760	8.2	82	7.4	--	--	96

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Total nitro- gen, water, unfltrd mg/L (00600)	Alum- inum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Sus- pended sedi- ment concen- tration mg/L (80154)
01439400	05-07-02	56	E.06	<.015	.11	<.008	<.02	.005	--	--	<20	8	--
	05-21-02	--	E.07	<.015	.13	<.008	<.02	.008	--	--	--	--	2
	06-03-02	--	E.05	<.015	.13	<.008	<.02	.007	--	--	--	--	--
	06-17-02	56	E.07	<.015	.15	<.008	<.02	.011	--	--	<20	9	--
	07-01-02	--	E.07	<.015	.19	<.008	<.02	.012	--	--	--	--	--
	07-15-02	--	<.10	<.015	.21	<.008	<.02	.013	--	--	--	--	--
	07-24-02	57	.15	<.015	.33	<.008	E.01	.018	--	.48	E10	10	2
	07-29-02	59	<.10	<.015	.22	<.008	E.01	.013	--	--	<20	E6	1
	08-12-02	54	E.05	<.015	.19	E.004	<.02	.016	--	--	<20	E7	--
	08-26-02	--	E.07	<.015	.27	<.008	E.01	.015	--	--	--	--	--
	09-09-02	--	<.10	<.015	.24	<.008	E.01	.013	--	--	--	--	--
	09-23-02	55	E.06	<.015	.15	<.008	E.01	.015	--	--	<20	E7	--
	10-07-02	--	E.07	<.015	.13	<.008	E.01	.013	--	--	--	--	--
	10-28-02	--	E.06	<.015	.10	<.008	<.02	.008	--	--	--	--	--
	11-12-02	32	.44	<.015	E.05	<.008	<.02	.069	--	--	30	8	35
	04-22-03	49	<.10	<.015	.12	<.008	<.02	E.003	--	--	--	9	1
	05-05-03	--	E.08	<.015	E.05	<.008	<.02	.006	--	--	--	--	--
	05-19-03	--	<.10	<.015	.13	<.008	<.02	.008	--	--	--	--	--
	06-02-03	51	.17	<.015	.08	<.008	<.02	.014	--	.25	--	E7	4
	06-16-03	--	.14	<.015	.09	<.008	<.02	.010	--	.23	--	--	--
	07-07-03	--	<.10	<.015	.14	<.008	<.02	.009	--	--	--	--	--
	07-21-03	49	E.06	<.015	.16	<.008	<.02	.010	--	--	--	16	<1
	08-04-03	--	.14	<.015	.13	<.008	<.02	.016	--	.27	--	--	--
	08-19-03	--	E.08	<.015	.12	<.008	<.02	.009	--	--	--	--	--
	08-19-03	--	E.09	<.015	.11	<.008	<.02	.009	--	--	--	--	--
	09-04-03	52	.11	<.015	.14	<.008	<.02	.012	--	.25	--	8	--
	09-22-03	--	E.07	<.015	.09	<.008	E.01	.009	--	--	--	--	--
	10-06-03	--	--	<.010	.13	<.008	E.004	.007	.18	--	--	--	--
	10-20-03	44	--	<.010	E.05	<.008	E.003	.008	--	--	--	E8	3
	11-17-03	--	--	<.010	.13	<.008	E.003	.007	.18	--	--	--	--
	12-15-03	38	--	<.010	.18	<.008	<.006	.006	.23	--	--	<8	1
	04-21-04	51	--	<.010	.15	<.008	<.006	.008	.23	--	--	E7	2
	05-03-04	69	--	<.010	.18	<.008	E.004	.011	.29	--	--	9	--
	05-17-04	--	--	<.010	.17	<.008	E.004	.012	.26	--	--	--	--
	06-01-04	57	--	<.04	.22	<.008	E.005	.013	.30	--	--	8	1
	06-15-04	--	--	E.005	.25	<.008	.006	.012	.27	--	--	--	--
	06-28-04	--	--	<.010	.22	<.008	.006	.012	.29	--	--	--	--
	07-12-04	64	--	<.010	.28	<.008	.010	.044	.46	--	--	E7	3
	07-26-04	--	--	<.010	.23	<.008	.007	.017	.26	--	--	--	--
	08-09-04	--	--	<.010	.23	<.008	.008	.010	.27	--	--	--	--
	08-23-04	57	--	<.010	.14	<.008	E.004	.012	.25	--	--	10	2
	09-13-04	--	--	E.005	.15	<.008	.007	.011	.21	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specific conductance, wat unfl lab, uS/cm 25 degC (90095)	Specific conductance, wat unfl lab, uS/cm 25 degC (00095)
01439500	05-29-02	1055	Field Blank	--	--	--	--	--	--	7.4	<3	--
	05-29-02	1100	Environmental	1,030	21	755	9.6	98	6.4	7.1	38	33
	06-03-02	1110	Environmental	364	16	753	9.7	99	6.7	--	--	36
	06-17-02	1010	Environmental	355	21	749	9.8	100	6.3	7.3	44	37
	07-01-02	1005	Field Blank	--	--	--	--	--	--	--	--	--
	07-01-02	1010	Environmental	115	15	757	8.8	99	6.5	--	--	41
	07-15-02	1010	Environmental	35	11	751	9.0	103	7.6	--	--	48
	07-29-02	1000	Environmental	45	11	748	8.8	104	7.4	7.2	56	44
	08-12-02	1015	Environmental	15	9.0	755	8.8	104	6.9	7.4	86	57
	08-26-02	1005	Field Blank	--	--	--	--	--	--	--	--	--
	08-26-02	1010	Environmental	18	8.0	755	9.2	101	6.6	--	--	63
	09-09-02	1030	Environmental	11	6.0	757	9.3	98	6.7	--	--	66
	09-23-02	1030	Environmental	26	6.0	756	9.0	99	6.9	7.8	70	49
	10-08-02	1120	Environmental	42	8.0	760	10.3	98	7.2	--	--	50
	10-28-02	1030	Environmental	314	16	757	11.6	101	6.7	--	--	39
	11-12-02	1030	Environmental	186	15	756	11.6	101	5.7	7.3	54	43
	04-22-03	1140	Environmental	216	--	744	10.4	97	6.7	6.8	53	44
	05-05-03	1140	Environmental	118	8.0	757	11.6	110	6.7	--	--	46
	05-05-03	1145	Sequential Replicate	--	--	--	--	--	--	--	--	--
	05-19-03	1050	Environmental	80	9.0	761	10.4	99	6.7	--	--	68
	06-01-03	1128	Environmental	895	21	738	10.0	100	6.1	6.4	50	46
	06-16-03	1135	Environmental	443	17	759	9.6	100	6.4	--	--	42
	07-07-03	1100	Environmental	130	13	752	8.8	102	6.5	--	--	44
	07-21-03	1120	Environmental	57	10	751	8.8	99	6.3	7.2	50	46
	08-04-03	1045	Environmental	438	20	754	8.8	101	6.1	--	--	41
	08-19-03	1018	Environmental	140	17	757	9.1	99	7.2	--	--	52
	09-04-03	1020	Environmental	269	18	750	9.6	101	5.3	7.3	46	39
	09-22-03	1005	Environmental	111	15	759	9.2	96	6.2	--	--	44
	10-06-03	1020	Environmental	296	17	767	11.6	97	5.8	--	--	38
	10-20-03	1030	Environmental	256	17	758	11.4	97	5.7	6.0	47	40
	11-17-03	1005	Environmental	221	12	759	12.1	96	6.2	--	--	39
	12-15-03	1055	Environmental	809	12	748	13.7	--	5.6	7.2	32	--
	04-22-04	1007	Environmental	256	10	756	10.8	106	5.8	6.9	46	42
	05-03-04	1040	Environmental	448	13	752	9.8	98	5.8	8.1	43	43
	05-17-04	1017	Environmental	453	14	764	9.7	100	6.0	--	--	38
	06-01-04	1017	Environmental	194	13	747	10.8	107	7.1	7.6	49	40
	06-15-04	1017	Environmental	80	10	761	9.3	98	7.5	--	--	43
	06-28-04	1002	Environmental	51	10	758	9.4	98	7.5	--	--	48
	06-28-04	1003	Sequential Replicate	--	--	--	--	--	--	--	--	--
	07-12-04	1000	Environmental	28	8.0	759	E8.3	--	7.3	7.6	62	55
	07-26-04	1100	Environmental	59	11	757	8.5	94	7.7	--	--	41
	08-09-04	1017	Environmental	80	14	761	8.4	87	7.2	--	--	42
	08-23-04	1045	Environmental	837	26	754	8.7	89	6.5	E7.4	33	30
	09-13-04	1047	Environmental	428	22	758	8.8	90	6.7	--	--	34

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Total nitro- gen, water, unfltrd mg/L (00600)	Alum- inum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Sus- pended sediment concentration mg/L (80154)
01439500	05-29-02	<.10	<.10	<.015	<.05	<.008	<.02	<.004	--	--	<20	<7	--
	05-29-02	.34	.34	<.015	<.05	<.008	<.02	.037	--	--	80	E7	9
	06-03-02	--	.19	<.015	<.05	<.008	<.02	.019	--	--	--	--	--
	06-17-02	.37	.31	<.015	E.03	<.008	<.02	.024	--	--	50	E6	--
	07-01-02	--	<.10	<.015	<.05	<.008	<.02	<.004	--	--	--	--	--
	07-01-02	--	.34	<.015	E.04	<.008	E.01	.041	--	--	--	--	--
	07-15-02	--	.17	E.008	.29	E.006	.06	.079	--	.46	--	--	--
	07-29-02	.37	.23	<.015	.14	<.008	.04	.057	--	.37	20	E5	2
	08-12-02	.64	.39	.151	.54	.021	.18	.21	--	.93	E10	14	--
	08-26-02	--	<.10	<.015	<.05	<.008	<.02	<.004	--	--	--	--	--
	08-26-02	--	.33	.102	.75	.021	.21	.21	--	1.1	--	--	--
	09-09-02	--	.18	<.015	1.00	<.008	.16	.177	--	1.2	--	--	--
	09-23-02	.42	.20	<.015	.52	<.008	.12	.133	--	.71	<20	9	--
	10-08-02	--	.18	<.015	.31	<.008	.06	.080	--	.49	--	--	--
	10-28-02	--	.16	<.015	<.06	<.008	<.02	.015	--	--	--	--	--
	11-12-02	.39	.20	<.015	.19	<.008	.04	.056	--	.39	50	8	1
	04-22-03	.31	.12	<.015	<.06	<.008	<.02	.011	--	--	--	E6	2
	05-05-03	--	.16	<.015	<.06	<.008	E.01	.024	--	--	--	--	--
	05-05-03	--	.17	<.015	<.06	<.008	E.01	.026	--	--	--	--	--
	05-19-03	--	.18	<.015	.38	.015	.07	.087	--	.56	--	--	--
	06-01-03	.43	.49	<.015	E.04	<.008	<.02	.062	--	--	--	9	24
	06-16-03	--	.24	<.015	<.06	<.008	<.02	.025	--	--	--	--	--
	07-07-03	--	.18	<.015	<.06	<.008	E.01	.024	--	--	--	--	--
	07-21-03	.31	.19	<.015	E.04	<.008	E.01	.026	--	--	--	E5	2
	08-04-03	--	.39	<.015	<.06	<.008	<.02	.043	--	--	--	--	--
	08-19-03	--	.26	<.015	E.04	<.008	E.01	.024	--	--	--	--	--
	09-04-03	.36	.25	<.015	E.04	<.008	<.02	.025	--	--	--	E5	--
	09-22-03	--	.24	<.015	<.06	<.008	E.01	.021	--	--	--	--	--
	10-06-03	--	--	<.010	<.06	<.008	.007	.016	.21	--	--	--	--
	10-20-03	.35	--	<.010	.10	<.008	.030	.050	.35	--	--	E6	2
	11-17-03	--	--	<.010	<.06	<.008	E.003	.012	.12	--	--	--	--
	12-15-03	.27	--	<.010	<.06	<.008	E.003	.013	.14	--	--	<8	3
	04-22-04	.33	--	E.005	.14	.009	.028	.048	.26	--	--	E8	2
	05-03-04	.32	--	<.010	E.05	<.008	<.006	.024	.25	--	--	E6	--
	05-17-04	--	--	<.010	E.05	<.008	.010	.030	.26	--	--	--	--
	06-01-04	.41	--	E.005	.07	<.008	.010	.027	.29	--	--	E6	4
	06-15-04	--	--	E.008	.13	<.008	.025	.044	.31	--	--	--	--
	06-28-04	--	--	E.005	.13	<.008	.035	--	.22	--	--	--	--
	06-28-04	--	--	<.010	.12	<.008	.031	.028	.23	--	--	--	--
	07-12-04	.36	--	E.009	.19	<.008	.050	.070	.35	--	--	8	1
	07-26-04	--	--	E.008	.07	<.008	.021	.038	.28	--	--	--	--
	08-09-04	--	--	E.006	E.03	<.008	.010	.024	.27	--	--	--	--
	08-23-04	.43	--	<.010	<.06	<.008	E.004	.026	.31	--	--	E7	3
	09-13-04	--	--	E.007	<.06	<.008	.009	.025	.29	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Instan- taneous dis- charge, cfs (00061)	Tur- bidity, water, unfltrd field, NTU (61028)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc- tance, wat unfl- lab, uS/cm 25 degC (90095)	Specif. conduc- tance, wat unfl- lab, uS/cm 25 degC (00095)
01439570	05-07-02	1400	4.4	13	753	10.6	117	8.6	8.5	288	287
	05-21-02	1035	1.1	14	758	10.7	98	8.0	--	--	229
	06-03-02	1205	.90	12	754	8.8	91	7.8	--	--	298
	06-17-02	1042	3.4	13	750	8.7	93	7.8	8.1	285	270
	07-01-02	1045	.50	11	757	8.0	90	7.5	--	--	310
	07-15-02	1052	E.20	5.0	752	6.5	--	7.3	--	--	--
	07-24-02	1004	.40	19	759	7.9	89	7.8	8.0	313	306
	07-29-02	1045	E.20	12	751	5.8	62	7.4	7.6	429	423
	08-12-02	1050	E.10	7.0	755	3.7	--	7.1	7.4	478	--
	08-26-02	1040	E.10	4.0	754	4.1	42	6.8	--	--	460
	10-28-02	1110	4.4	10	758	11.4	99	7.3	--	--	282
	11-12-02	1100	1.4	--	758	10.8	96	6.9	7.6	301	308
	04-22-03	1225	4.8	--	744	10.6	107	8.1	7.9	292	305
	05-05-03	1208	.80	8.0	758	10.2	97	7.7	--	--	328
	05-19-03	1123	.30	7.0	762	9.4	85	7.7	--	--	356
	06-01-03	1258	9.1	25	741	9.2	96	7.7	7.8	E270	279
	06-16-03	1020	10	14	760	9.4	98	7.6	--	--	242
	07-07-03	1125	1.0	10	753	8.1	92	7.6	--	--	318
	07-21-03	1150	.10	5.0	752	7.8	79	7.3	7.5	396	394
	08-04-03	1123	4.6	15	755	8.2	97	7.8	--	--	265
	08-19-03	1053	4.4	12	760	8.7	96	8.1	--	--	270
	09-22-03	1035	3.3	12	761	8.8	92	7.7	--	--	244
	10-06-03	1045	.90	10	756	11.0	96	7.6	--	--	266
	10-20-03	1118	4.0	12	759	11.5	99	7.8	7.7	272	260
	11-17-03	1043	2.2	8.0	759	12.2	98	8.2	--	--	288
	12-15-03	1125	15	13	749	13.6	--	7.7	7.7	E166	--
	04-22-04	1043	3.4	9.0	756	10.2	104	7.7	8.1	--	290
	05-03-04	1115	5.0	11	754	9.4	94	7.9	7.9	255	271
	05-17-04	1107	7.1	12	764	9.1	96	8.1	--	--	247
	06-01-04	1050	3.5	10	749	9.4	95	8.0	7.8	268	273
	06-15-04	1047	.70	8.0	741	8.4	91	7.9	--	--	264
	06-28-04	1027	.30	7.0	758	8.4	84	7.8	--	--	327
	07-26-04	1020	2.2	11	748	8.0	88	8.0	--	--	306
	08-09-04	1052	.50	4.0	762	8.0	80	7.9	--	--	324
	08-23-04	1120	6.5	13	755	8.0	84	7.9	7.6	237	231
	09-13-04	1115	2.6	11	760	7.8	83	8.0	--	--	299

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Total nitro- gen, water, unfltrd mg/L (00600)	Alum- inum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Sus- pended sedi- ment concen- tration mg/L (80154)
01439570	05-07-02	180	.35	<.015	.07	<.008	<.02	.020	--	.42	E10	9	4
	05-21-02	--	.39	E.012	.12	<.008	<.02	.035	--	.51	--	--	--
	06-03-02	--	.40	.023	.27	<.008	E.01	.043	--	.66	--	--	--
	06-17-02	177	.47	.017	.31	.010	E.01	.044	--	.78	<20	11	--
	07-01-02	--	.32	E.012	.30	<.008	.02	.040	--	.62	--	--	--
	07-15-02	--	.13	E.013	.44	<.008	E.02	.036	--	.57	--	--	--
	07-24-02	195	1.1	<.015	.11	<.008	.04	.168	--	1.2	<20	15	6
	07-29-02	249	.13	<.015	.35	<.008	.02	.040	--	.48	<20	8	8
	08-12-02	295	.19	E.011	.26	.010	<.02	.051	--	.45	<20	9	--
	08-26-02	--	.43	E.010	.33	<.008	.03	.092	--	.76	--	--	--
	10-28-02	--	.31	<.015	.21	E.004	<.02	.017	--	.52	--	--	--
	11-12-02	182	.31	<.015	.12	<.008	<.02	.016	--	.42	<20	11	1
	04-22-03	182	.25	<.015	.08	<.008	<.02	.014	--	.33	--	10	3
	05-05-03	--	.28	E.009	.09	<.008	<.02	.018	--	.37	--	--	--
	05-19-03	--	.24	E.012	.31	<.008	E.01	.023	--	.55	--	--	--
	06-01-03	169	.73	.047	.16	E.005	.04	.129	--	.90	--	13	38
	06-16-03	--	.40	.021	.15	<.008	E.01	.034	--	.55	--	--	--
	07-07-03	--	.24	<.015	.38	<.008	.02	.033	--	.63	--	--	--
	07-21-03	244	.23	<.015	.49	<.008	E.01	.035	--	.72	--	11	29
	08-04-03	--	.49	<.015	.15	<.008	.02	.060	--	.64	--	--	--
	08-19-03	--	.38	<.015	.12	<.008	E.01	.028	--	.49	--	--	--
	09-22-03	--	.35	<.015	.07	<.008	E.01	.024	--	.42	--	--	--
	10-06-03	--	--	<.010	.17	E.005	E.005	.019	.41	--	--	--	--
	10-20-03	155	--	E.005	.10	<.008	E.003	.017	.36	--	--	9	1
	11-17-03	--	--	<.010	.26	<.008	E.003	.011	.43	--	--	--	--
	12-15-03	116	--	<.010	.29	<.008	<.006	.014	.47	--	--	<8	--
	04-22-04	167	--	E.006	.18	E.006	.006	.024	.40	--	--	9	5
	05-03-04	167	--	<.010	.20	E.004	.006	.036	.56	--	--	10	--
	05-17-04	--	--	E.006	.22	E.004	.009	.035	.56	--	--	--	--
	06-01-04	185	--	.016	.36	E.005	.015	.041	.68	--	--	10	--
	06-15-04	--	--	--	--	--	--	.033	.56	--	--	--	--
	06-28-04	--	--	<.010	.33	<.008	.017	.039	.53	--	--	--	--
	07-26-04	--	--	E.006	.31	<.008	.015	.053	.68	--	--	--	--
	08-09-04	--	--	E.007	.34	<.008	.016	.033	.57	--	--	--	--
	08-23-04	155	--	E.009	.20	<.008	.010	.040	.63	--	--	12	8
	09-13-04	--	--	E.007	.28	<.008	.012	.030	.58	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfl lab, uS/cm 25 degC (90095)	Specif. conductance, wat unfl lab, uS/cm 25 degC (00095)
01439680	05-07-02	1130	Environmental	89	19	754	10.5	105	6.7	6.7	53	52
	05-21-02	1130	Environmental	181	29	759	10.8	98	6.7	--	--	41
	06-03-02	1235	Environmental	103	25	753	9.5	88	6.7	--	--	41
	06-17-02	1135	Environmental	135	31	750	9.4	98	6.9	7.6	44	40
	07-01-02	1115	Environmental	24	27	756	8.7	97	6.5	--	--	46
	07-15-02	1115	Environmental	3.0	10	751	9.2		7.3	--	--	--
	07-29-02	1115	Environmental	16	20	749	8.7	100	7.1	7.3	50	48
	08-12-02	1125	Environmental	4.6	7.0	744	8.9	97	6.8	7.3	63	55
	08-26-02	1110	Environmental	3.4	7.0	754	9.1	96	6.8	--	--	66
	09-09-02	1110	Environmental	2.7	7.0	758	9.8	98	6.5	--	--	58
	09-23-02	1110	Environmental	8.1	9.0	757	9.0	96	6.8	7.7	49	48
	10-08-02	1040	Environmental	8.7	9.0	762	10.2	94	7.1	--	--	48
	10-28-02	1130	Environmental	100	29	756	11.8	100	6.8	--	--	46
	11-12-02	1130	Environmental	56	27	756	11.4	99	6.6	7.3	51	48
	04-22-03	1300	Environmental	E55	--	744	10.6	102	7.0	7.7	51	50
	05-05-03	1248	Environmental	24	10	757	10.8	99	6.9	--	--	54
	05-19-03	1147	Environmental	16	10	762	10.6	96	7.1	--	--	56
	06-01-03	1223	Environmental	E577	23	741	10.2	104	6.3	6.3	48	48
	06-16-03	1055	Environmental	178	27	760	9.5	101	6.3	--	--	44
	07-07-03	1145	Environmental	24	20	753	8.7	98	6.5	--	--	55
	07-21-03	1215	Environmental	E18	14	752	9.0	98	6.7	7.6	55	53
	08-04-03	1153	Environmental	66	27	754	8.6	100	6.3	--	--	44
	08-19-03	1121	Environmental	33	27	759	9.0	97	6.8	--	--	56
	09-04-03	1100	Environmental	86	41	751	9.2	99	--	7.3	43	40
	09-22-03	1100	Environmental	37	29	760	9.4	96	6.2	--	--	47
	10-06-03	1117	Environmental	50	15	758	11.2	97	6.3	--	--	45
	10-06-03	1122	<i>Sequential Replicate</i>	--	--	--	--	--	--	--	--	--
	10-20-03	1150	Environmental	52	32	759	11.3	97	6.4	7.0	44	42
	11-17-03	1110	Environmental	32	25	760	11.9	96	6.4	--	--	43
	12-15-03	1225	Environmental	E172	19	748	13.4		6.3	E6.9	39	--
	04-22-04	1119	Environmental	44	15	757	10.4	102	6.7	6.8	44	48
	04-22-04	1126	<i>Sequential Replicate</i>	--	--	--	--	--	--	7.2	43	--
	05-03-04	1140	Environmental	73	17	754	9.9	98	7.4	7.9	45	48
	05-17-04	1137	Environmental	81	23	765	9.4	99	6.9	--	--	42
	06-01-04	1112	Environmental	25	21	746	9.8	98	7.1	7.5	49	47
	06-15-04	1115	Environmental	7.4	14	741	9.2	98	7.5	--	--	55
	06-28-04	1050	Environmental	8.1	11	759	9.6	93	7.5	--	--	61
	07-12-04	1052	Environmental	5.0	8.0	758	8.9	94	7.1	7.4	65	70
	07-12-04	1053	<i>Sequential Replicate</i>	--	--	--	--	--	--	7.4	66	--
	07-26-04	1140	Environmental	7.4	10	748	8.6	91	7.3	--	--	60
	08-09-04	1117	Environmental	10	10	763	8.4	85	7.2	--	--	52
	08-23-04	1155	Environmental	E126	45	755	8.4	91	6.5	6.4	38	37
	09-13-04	1138	Environmental	73	36	760	8.4	88	6.9	--	--	42

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Total nitro- gen, water, unfltrd mg/L (00600)	Alum- inum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Sus- pended sediment concentration mg/L (80154)
01439680	05-07-02	42	.24	<.015	E.03	<.008	<.02	.015	--	--	60	E5	3
	05-21-02	--	.31	<.015	<.05	<.008	<.02	.018	--	--	--	--	--
	06-03-02	--	.27	<.015	.06	<.008	<.02	.022	--	.33	--	--	--
	06-17-02	49	.42	E.010	.10	<.008	<.02	.028	--	.52	100	E7	--
	07-01-02	--	.35	<.015	.12	<.008	E.01	.031	--	.47	--	--	--
	07-15-02	--	.11	<.015	.20	<.008	E.01	.019	--	.31	--	--	--
	07-29-02	36	.30	E.008	.16	<.008	E.01	.028	--	.46	40	E5	2
	08-12-02	44	.13	<.015	.15	E.004	<.02	.019	--	.28	E10	E6	--
	08-26-02	--	.13	<.015	.15	<.008	E.01	.017	--	.28	--	--	--
	09-09-02	--	.12	E.008	.11	<.008	<.02	.014	--	.23	--	--	--
	09-23-02	39	.22	<.015	<.05	<.008	<.02	.017	--	--	E10	E6	--
	10-08-02	--	.18	<.015	<.06	<.008	<.02	.011	--	--	--	--	--
	10-28-02	--	.39	<.015	E.04	<.008	<.02	.014	--	--	--	--	--
	11-12-02	46	.28	<.015	E.05	E.004	<.02	.013	--	--	110	8	1
	04-22-03	35	.18	<.015	.05	<.008	<.02	.011	--	.23	--	E6	2
	05-05-03	--	.18	<.015	<.06	<.008	<.02	.012	--	--	--	--	--
	05-19-03	--	.41	E.008	.11	<.008	<.02	.012	--	.52	--	--	--
	06-01-03	43	.39	<.015	E.04	<.008	<.02	.040	--	--	--	9	16
	06-16-03	--	.32	<.015	E.04	<.008	<.02	.021	--	--	--	--	--
	07-07-03	--	.22	<.015	.13	<.008	E.01	.025	--	.35	--	--	--
	07-21-03	35	.18	<.015	.16	<.008	E.01	.020	--	.34	--	E6	2
	08-04-03	--	.43	<.015	E.05	<.008	<.02	.043	--	--	--	--	--
	08-19-03	--	.35	<.015	.12	<.008	E.01	.027	--	.48	--	--	--
	09-04-03	44	.53	.084	.07	<.008	<.02	.044	--	.61	--	8	--
	09-22-03	--	.38	<.015	E.05	<.008	<.02	.025	--	--	--	--	--
	10-06-03	--	--	E.005	.06	E.005	E.005	.020	.43	--	--	--	--
	10-06-03	--	--	E.005	.07	E.005	E.004	.019	.44	--	--	--	--
	10-20-03	40	--	E.005	<.06	E.004	E.004	.019	.35	--	--	E5	1
	11-17-03	--	--	<.010	.06	<.008	E.004	.017	.31	--	--	--	--
	12-15-03	31	--	<.010	E.05	<.008	<.006	.016	.25	--	--	<8	9
	04-22-04	29	--	<.010	E.06	<.008	E.004	.019	.21	--	--	E6	2
	04-22-04	37	--	<.010	E.06	<.008	E.004	.042	.21	--	--	E4	--
	05-03-04	36	--	<.010	.07	<.008	E.005	.026	.32	--	--	E7	--
	05-17-04	--	--	E.007	.06	<.008	.006	.025	.34	--	--	--	--
	06-01-04	38	--	<.010	.12	.010	E.005	.025	.42	--	--	E7	3
	06-15-04	--	--	E.006	.18	<.008	.008	.024	.36	--	--	--	--
	06-28-04	--	--	<.010	.18	<.008	.009	.029	.40	--	--	--	--
	07-12-04	44	--	E.005	.25	<.008	.013	.024	.42	--	--	E6	1
	07-12-04	44	--	E.005	.26	<.008	.012	.026	.37	--	--	E7	--
	07-26-04	--	--	E.006	.16	<.008	.012	.028	.36	--	--	--	--
	08-09-04	--	--	E.007	.13	<.008	.010	.021	.36	--	--	--	--
	08-23-04	50	--	E.007	<.06	<.008	<.006	.038	.60	--	--	E7	7
	09-13-04	--	--	E.008	.07	<.008	.009	.028	.47	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Instan- taneous dis- charge, cfs (00061)	Tur- bidity, water, unfltrd field, NTU (61028)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc- tance, wat unf lab, uS/cm 25 degC (90095)	Specif. conduc- tance, wat unf lab, uS/cm 25 degC (00095)
01439830	05-08-02	1150	Environmental	42	8.0	756	10.9	108	7.0	7.7	84	73
	05-22-02	1322	Environmental	78	9.0	757	10.8	101	7.6	--	--	72
	06-05-02	1220	Environmental	28	10	748	9.5	100	7.6	--	--	79
	06-19-02	1220	Environmental	30	10	759	9.5	98	7.6	7.7	82	82
	07-02-02	1059	Environmental	9.6	10	751	8.7	95	7.5	--	--	112
	07-18-02	1217	Environmental	3.9	6.0	747	9.1	101	7.8	--	--	116
	07-31-02	1218	Environmental	5.1	5.0	748	8.8	96	7.4	7.6	127	123
	08-14-02	1210	Environmental	2.4	6.0	754	8.8	97	7.4	7.4	140	126
	08-28-02	1200	Environmental	2.2	5.0	759	9.3	97	7.3	--	--	136
	09-11-02	1000	Environmental	4.2	5.0	738	8.9	95	7.0	--	--	144
	09-25-02	1400	Environmental	3.0	10	758	10.1	99	8.2	7.6	149	139
	10-09-02	1010	Environmental	4.8	6.0	760	10.2	91	7.4	--	--	147
	11-04-02	1210	Environmental	E14	4.0	750	11.9	95	7.6	--	--	98
	11-13-02	1130	Environmental	E27	8.0	751	11.4	100	7.6	7.9	87	86
	04-23-03	1220	Environmental	E43	--	745	11.9	105	7.6	7.2	91	89
	05-07-03	1140	Environmental	23	7.0	748	10.8	102	7.6	--	--	99
	05-21-03	1140	Environmental	26	10	756	10.2	96	7.6	--	--	114
	06-04-03	1200	Environmental	172	--	753	10.6	102	6.8	7.2	64	64
	06-18-03	1125	Environmental	87	14	750	9.7	98	7.1	--	--	88
	07-09-03	1103	Environmental	18	9.0	749	9.6	104	7.1	--	--	123
	07-23-03	1155	Environmental	37	12	749	9.0	99	6.9	7.7	94	94
	07-23-03	1200	<i>Sequential Replicate</i>	--	--	--	--	--	--	7.8	94	--
	08-06-03	1135	Environmental	50	13	749	9.0	102	7.2	--	--	85
	08-20-03	1200	Environmental	13	9.0	755	9.1	97	7.6	--	--	105
	09-03-03	1120	Environmental	34	11	754	9.4	96	7.2	7.0	94	87
	09-23-03	1145	Environmental	E140	66	745	9.2	98	6.2	7.4	53	53
	10-08-03	1100	Environmental	E22	7.0	756	11.2	98	7.0	--	--	88
	10-22-03	0955	Environmental	44	10	739	10.6	98	6.9	7.5	79	79
	11-19-03	1115	Environmental	44	8.0	744	11.0	99	7.0	--	--	84
	12-17-03	1140	Environmental	283	11	740	13.4	100	7.2	7.4	96	105
	04-21-04	1155	Environmental	E53	8.0	754	10.6	102	7.0	E6.5	86	88
	05-05-04	1020	Environmental	58	8.0	750	11.0	100	6.9	--	--	79
	05-19-04	1105	Environmental	42	8.0	760	9.0	94	7.5	--	--	91
	06-02-04	1130	Environmental	73	17	747	8.7	95	7.5	7.6	74	76
	06-16-04	1200	Environmental	11	10	756	9.8	104	7.6	--	--	122
	06-30-04	1110	Environmental	11	6.0	757	9.8	97	7.5	--	--	126
	07-14-04	1202	Environmental	E15	8.0	745	8.2	87	7.8	7.5	108	102
	07-28-04	1205	Environmental	E27	14	747	9.0	93	7.8	--	--	101
	08-11-04	1152	Environmental	5.2	4.0	749	8.5	90	7.9	--	--	113
	08-25-04	1202	Environmental	28	11	759	8.2	87	7.3	7.7	76	76
	09-15-04	1127	Environmental	20	9.0	759	8.3	84	7.5	--	--	85

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unfl by anal ysis, mg/L (62855)	Total nitro- gen, water, unfltrd mg/L (00600)	Alum- inum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Sus- pended sedi- ment concen- tration mg/L (80154)
01439830	05-08-02	54	.14	<.015	<.05	<.008	<.02	.010	--	--	E10	E5	1
	05-22-02	--	.15	<.015	<.05	<.008	<.02	.010	--	--	--	--	--
	06-05-02	--	.17	<.015	E.04	<.008	<.02	.011	--	--	--	--	--
	06-19-02	51	.23	<.015	.06	<.008	<.02	.015	--	.30	20	E7	--
	07-02-02	--	.14	<.015	.08	<.008	<.02	.014	--	.23	--	--	--
	07-18-02	--	E.09	.018	.25	<.008	<.02	.011	--	--	--	--	--
	07-31-02	70	E.07	<.015	.10	<.008	<.02	.011	--	--	--	E7	1
	08-14-02	82	E.07	<.015	<.05	<.008	<.02	.012	--	--	<20	E6	--
	08-28-02	--	E.07	<.015	.10	<.008	<.02	.011	--	--	--	--	--
	09-11-02	--	E.09	<.015	.13	<.008	<.02	.015	--	--	--	--	--
	09-25-02	74	E.09	<.015	.07	<.008	<.02	.007	--	--	<20	E6	--
	10-09-02	--	.15	<.015	E.05	<.008	<.02	.008	--	--	--	--	--
	11-04-02	--	.12	<.015	<.06	<.008	<.02	.007	--	--	--	--	--
	11-13-02	53	.19	<.015	<.06	<.008	<.02	.014	--	--	20	E4	2
	04-23-03	52	.17	<.015	<.06	<.008	<.02	.005	--	--	--	E5	2
	05-07-03	--	E.09	<.015	<.06	E.007	<.02	.008	--	--	--	--	--
	05-21-03	--	.21	<.015	.12	<.008	<.02	.018	--	.32	--	--	--
	06-04-03	47	.18	<.015	<.06	<.008	--	.013	--	--	--	E4	4
	06-18-03	--	.26	<.015	E.05	<.008	<.02	.025	--	--	--	--	--
	07-09-03	--	.14	<.015	.08	<.008	<.02	.013	--	.23	--	--	--
	07-23-03	54	.25	<.015	E.04	<.008	<.02	.021	--	--	--	7	2
	07-23-03	56	.22	<.015	E.04	<.008	<.02	.020	--	--	--	7	--
	08-06-03	--	.33	<.015	E.03	<.008	<.02	.024	--	--	--	--	--
	08-20-03	--	.15	<.015	.08	<.008	<.02	.012	--	.22	--	--	--
	09-03-03	63	.26	<.015	E.04	<.008	<.02	.018	--	--	--	E5	--
	09-23-03	51	.95	<.015	<.06	<.008	<.02	.182	--	--	--	9	120
	10-08-03	--	--	<.010	<.06	<.008	<.006	.006	.12	--	--	--	--
	10-22-03	45	--	<.010	<.06	<.008	<.006	.010	.15	--	--	E8	1
	11-19-03	--	--	<.010	E.04	<.008	<.006	.009	.16	--	--	--	--
	12-17-03	62	--	<.010	.08	<.008	<.006	.014	.23	--	--	E6	--
	04-21-04	47	--	<.010	<.06	<.008	<.006	.009	.14	--	--	E6	3
	05-05-04	--	--	<.010	<.06	<.008	<.006	.010	.17	--	--	--	--
	05-19-04	--	--	.010	.10	<.008	<.006	.011	.26	--	--	--	--
	06-02-04	61	--	<.010	.07	<.008	<.006	.030	.40	--	--	E7	12
	06-16-04	--	--	<.010	.08	<.008	<.006	.021	.29	--	--	--	--
	06-30-04	--	--	<.010	.08	<.008	<.006	.012	.24	--	--	--	--
	07-14-04	73	--	<.010	.10	<.008	<.006	.016	.27	--	--	E7	5
	07-28-04	--	--	<.010	.07	<.008	E.004	.025	.35	--	--	--	--
	08-11-04	--	--	E.005	.08	<.008	<.006	.009	.19	--	--	--	--
	08-25-04	49	--	E.006	E.04	<.008	E.004	.015	.27	--	--	E7	--
	09-15-04	--	--	<.010	<.06	<.008	E.003	.011	.21	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specific conductance, wat unfltrd lab, uS/cm 25 degC (90095)	Specific conductance, wat unfltrd lab, uS/cm 25 degC (00095)
01439920	05-08-02	1220	Environmental	16	13	757	10.4	110	7.8	8.0	278	243
	05-22-02	1205	Environmental	32	13	758	11.2	105	7.7	--	--	262
	06-05-02	1153	Environmental	16	18	750	8.8	95	7.8	--	--	267
	06-19-02	1117	Environmental	20	16	761	9.4	97	7.8	8.0	299	292
	07-02-02	1010	Environmental	9.7	16	752	7.8	89	7.5	--	--	348
	07-18-02	1125	Environmental	3.8	12	747	8.1	93	7.9	--	--	376
	07-31-02	1130	Environmental	4.2	9.0	750	8.2	93	7.8	8.0	391	381
	08-14-02	1110	Environmental	1.7	12	754	7.2	83	7.7	7.9	446	414
	08-28-02	1130	Environmental	1.5	7.0	761	7.3	78	7.5	--	--	440
	09-11-02	1030	Environmental	1.3	9.0	740	7.3	79	7.3	--	--	459
	09-25-02	1230	Environmental	1.2	9.0	762	7.8	77	7.6	7.7	464	451
	10-09-02	1040	Environmental	1.5	8.0	759	9.0	82	7.6	--	--	485
	11-04-02	1140	Environmental	E7.0	8.0	751	12.0	95	7.4	--	--	243
	11-13-02	1100	Environmental	E12	--	751	10.8	97	7.7	7.7	323	330
	04-23-03	1140	Environmental	E18	--	746	11.4	103	8.0	8.1	348	352
	05-07-03	1055	Environmental	14	8.0	749	10.4	99	8.0	--	--	388
	05-21-03	1055	Environmental	16	11	755	9.4	93	7.8	--	--	406
	06-04-03	1112	Field Blank	--	--	--	--	--	--	6.7	E3	--
	06-04-03	1117	Environmental	54	--	750	10.0	96	7.4	7.1	217	221
	06-18-03	1045	Environmental	29	16	756	9.4	94	7.6	--	--	334
	07-09-03	1033	Environmental	16	9.0	750	8.5	93	7.8	--	--	462
	07-23-03	1119	Environmental	21	13	750	8.6	96	7.8	7.8	360	367
	08-06-03	1100	Environmental	20	14	751	8.9	100	8.1	--	--	365
	08-20-03	1120	Environmental	7.7	9.0	757	10.0	110	8.4	--	--	429
	09-03-03	1050	Environmental	15	14	755	9.2	94	8.2	7.8	337	323
	09-23-03	1220	Environmental	E51	53	746	8.8	94	7.4	7.8	212	213
	10-08-03	1031	Environmental	E10	9.0	758	11.2	99	7.7	--	--	371
	10-22-03	0925	Environmental	13	12	740	9.9	91	7.5	7.7	338	340
	11-19-03	1049	Environmental	16	9.0	747	10.6	96	7.8	--	--	337
	12-17-03	1100	Environmental	E62	12	742	13.2	99	7.6	7.5	298	304
	04-21-04	1112	Environmental	E22	12	757	10.6		7.4	7.8	293	--
	05-05-04	0942	Environmental	27	10	752	10.8	100	7.4	--	--	270
	05-19-04	1020	Environmental	22	14	756	8.9	93	8.0	--	--	325
	06-02-04	1050	Environmental	26	14	748	9.9	102	8.1	E7.6	276	286
	06-16-04	1122	Environmental	E6.0	9.0	752	9.5	108	8.1	--	--	387
	06-30-04	1045	Environmental	6.2	8.0	760	10.2	107	8.2	--	--	399
	07-14-04	1240	Environmental	E7.3	13	746	8.5	92	8.1	8.0	368	348
	07-28-04	1115	Environmental	16	15	747	9.3	98	8.1	--	--	334
	08-11-04	1117	Environmental	3.9	7.0	751	11.6	127	8.6	--	--	401
	08-25-04	1122	Environmental	15	19	759	8.7	93	8.0	7.9	292	268
	09-15-04	1100	Environmental	9.0	15	759	9.4	98	8.3	--	--	332

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Total nitro- gen, water, unfltrd mg/L (00600)	Alum- inum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Sus- pended sediment concentration mg/L (80154)
01439920	05-08-02	160	.33	E.008	.07	<.008	<.02	.025	--	.40	<20	7	7
	05-22-02	--	.25	E.008	.12	<.008	<.02	.019	--	.37	--	--	--
	06-05-02	--	.33	.016	.19	E.004	E.01	.033	--	.52	--	--	--
	06-19-02	168	.34	.015	.22	<.008	E.01	.034	--	.56	E10	9	--
	07-02-02	--	.24	.024	.26	<.008	.02	.030	--	.51	--	--	--
	07-18-02	--	.23	<.015	.25	<.008	<.02	.025	--	.48	--	--	--
	07-31-02	222	.23	.019	.24	E.004	E.01	.028	--	.46	<20	9	5
	08-14-02	272	.22	E.010	.26	<.008	<.02	.024	--	.47	E10	10	--
	08-28-02	--	.25	.020	.24	<.008	<.02	.025	--	.49	--	--	--
	09-11-02	--	.23	.017	.38	<.008	<.02	.022	--	.61	--	--	--
	09-25-02	259	.21	E.014	.29	<.008	<.02	.022	--	.50	<20	8	--
	10-09-02	--	.26	.016	.28	<.008	<.02	.019	--	.54	--	--	--
	11-04-02	--	.16	<.015	.20	<.008	<.02	.008	--	.36	--	--	--
	11-13-02	190	.26	<.015	.17	<.008	.02	.014	--	.43	<20	7	2
	04-23-03	195	.24	E.008	.24	<.008	<.02	.013	--	.48	--	8	4
	05-07-03	--	.17	E.012	.30	.016	<.02	.012	--	.47	--	--	--
	05-21-03	--	.36	.021	.47	.008	<.02	.028	--	.83	--	--	--
	06-04-03	<.10	<.10	<.015	<.06	<.008	--	<.004	--	--	--	<7	--
	06-04-03	140	.39	.017	.17	E.004	<.02	.040	--	.55	--	8	7
	06-18-03	--	.35	E.011	.30	<.008	E.01	.037	--	.65	--	--	--
	07-09-03	--	.25	.017	.50	<.008	<.02	.021	--	.75	--	--	--
	07-23-03	216	.43	.018	.34	<.008	<.02	.040	--	.76	--	9	7
	08-06-03	--	.49	E.010	.31	<.008	E.02	.042	--	.80	--	--	--
	08-20-03	--	.21	<.015	.38	<.008	E.01	.024	--	.58	--	--	--
	09-03-03	210	.40	<.015	.28	<.008	E.01	.034	--	.68	--	8	--
	09-23-03	137	.87	<.015	.15	E.004	.04	.165	--	1.0	--	12	60
	10-08-03	--	--	<.010	.34	<.008	<.006	.011	.54	--	--	--	--
	10-22-03	191	--	<.010	.21	<.008	E.003	.015	.46	--	--	9	2
	11-19-03	--	--	<.010	.41	<.008	E.004	.014	.54	--	--	--	--
	12-17-03	168	--	.010	.38	<.008	E.004	.026	.58	--	--	E7	14
	04-21-04	181	--	E.007	.20	E.007	E.003	.022	.44	--	--	E7	7
	05-05-04	--	--	E.008	.20	<.008	E.005	.021	.44	--	--	--	--
	05-19-04	--	--	.023	.42	E.006	.012	.055	.73	--	--	--	--
	06-02-04	177	--	E.007	.26	E.006	.011	.031	.58	--	--	9	8
	06-16-04	--	--	.016	.48	<.008	.008	.028	.68	--	--	--	--
	06-30-04	--	--	.010	.45	E.004	.006	.021	.65	--	--	--	--
	07-14-04	225	--	.014	.46	<.008	.015	.176	.75	--	--	10	4
	07-28-04	--	--	E.007	.23	<.008	.019	.059	.65	--	--	--	--
	08-11-04	--	--	E.006	.37	<.008	E.005	.017	.57	--	--	--	--
	08-25-04	177	--	E.007	.28	<.008	.018	.035	.61	--	--	11	3
	09-15-04	--	--	E.007	.31	<.008	.015	.028	.65	--	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Instan- taneous dis- charge, cfs (00061)	Tur- bidity, water, unfltrd field, NTU (61028)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc- tance, wat unf lab, uS/cm 25 degC (90095)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)
01440100	05-08-02	1430	Environmental	17	7.0	760	10.6	103	7.5	7.7	62	51
	05-22-02	1040	Environmental	21	5.0	762	11.5	97	7.1	--	--	54
	06-05-02	1048	Environmental	7.0	5.0	754	9.7	96	7.4	--	--	64
	06-19-02	1017	Environmental	11	6.0	762	10.1	97	7.3	7.6	64	62
	07-02-02	0904	Environmental	3.9	6.0	755	8.6	93	7.0	--	--	80
	07-18-02	1027	Environmental	1.4	6.0	753	8.3	91	7.6	--	--	85
	07-31-02	1014	Environmental	1.3	6.0	754	8.9	98	7.4	7.5	101	99
	08-14-02	1010	Environmental	.84	4.0	757	8.6	93	7.4	7.8	109	94
	08-28-02	1020	Environmental	.71	3.0	763	8.5	88	7.2	--	--	108
	08-28-02	1025	<i>Sequential Replicate</i>	--	--	--	--	--	--	--	--	--
	09-11-02	1130	Environmental	.56	4.0	743	9.1	96	7.1	--	--	109
	09-25-02	1100	Environmental	.65	5.0	766	9.0	86	7.3	7.7	118	109
	10-09-02	1130	Environmental	.99	4.0	764	10.0	90	7.8	--	--	116
	11-04-02	1040	Environmental	E4.8	6.0	756	12.2	--	7.1	--	--	--
	11-13-02	1010	Environmental	E9.0	6.0	755	11.2	99	6.9	--	63	59
	04-23-03	1035	Environmental	E14	--	750	12.2	105	6.8	7.0	68	66
	05-07-03	1005	Environmental	6.1	7.0	753	10.8	99	7.1	--	--	74
	05-21-03	0955	Environmental	5.4	6.0	759	10.1	96	7.1	--	--	82
	05-21-03	1005	<i>Sequential Replicate</i>	--	--	--	--	--	--	--	--	--
	06-04-03	1021	Environmental	48	--	758	10.8	100	6.2	6.8	48	48
	06-18-03	0955	Environmental	29	9.0	755	10.2	98	6.1	--	--	56
	07-09-03	0953	Environmental	5.1	5.0	753	8.9	95	6.8	--	--	85
	07-23-03	1019	Environmental	6.9	6.0	752	9.0	95	6.6	7.6	70	69
	08-06-03	0959	Environmental	39	9.0	753	9.2	98	6.6	--	--	46
	08-20-03	1024	Environmental	16	6.0	759	9.8	100	7.4	--	--	64
	09-03-03	0955	Environmental	13	8.0	759	9.9	100	6.4	6.9	64	59
	09-25-03	1000	Environmental	E27	7.0	756	10.0	98	6.7	--	--	53
	10-08-03	0945	Environmental	E7.3	5.0	760	11.2	98	6.5	--	--	66
	11-19-03	1000	Environmental	16	7.0	751	10.9	98	6.7	--	--	63
	12-17-03	0955	Environmental	E58	9.0	746	13.1	102	6.6	--	48	46
	06-02-04	1008	Environmental	7.2	8.0	750	10.2	98	7.5	7.8	64	64
	06-16-04	1035	Environmental	6.1	8.0	758	9.4	100	7.5	--	--	69
	06-16-04	1036	<i>Sequential Replicate</i>	--	--	--	--	--	--	--	--	--
	06-30-04	1000	Environmental	3.0	5.0	761	9.5	94	7.5	--	--	85
	07-14-04	1330	Environmental	E5.1	7.0	747	8.5	90	7.9	7.1	82	76
	07-28-04	1025	Environmental	9.1	8.0	748	9.2	93	7.5	--	--	70
	08-11-04	1027	Environmental	1.6	4.0	752	8.0	85	7.5	--	--	94
	08-25-04	1015	Environmental	E12	6.0	763	8.9	91	7.1	7.6	56	51
	09-15-04	1011	Environmental	8.4	5.0	762	8.8	88	7.5	--	--	65

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Alum- inum, water, fltrd, ug/L (01106)	Boron, water, fltrd, ug/L (01020)	Sus- pended sedim- ent concen- tration mg/L (80154)
01440100	05-08-02	35	E.07	<.015	<.05	<.008	<.02	.007	--	<20	E5	<1
	05-22-02	--	E.05	<.015	<.05	<.008	<.02	.005	--	--	--	--
	06-05-02	--	E.07	<.015	.06	<.008	<.02	.008	--	--	--	--
	06-19-02	38	E.09	<.015	E.04	<.008	<.02	.008	--	<20	E5	--
	07-02-02	--	--	--	--	--	--	--	--	--	--	--
	07-18-02	--	E.06	<.015	.10	<.008	E.01	.011	--	--	--	--
	07-31-02	56	<.10	<.015	.08	<.008	<.02	.011	--	<20	E5	<1
	08-14-02	69	<.10	<.015	.13	<.008	<.02	.011	--	<20	E5	--
	08-28-02	--	E.05	<.015	.08	<.008	<.02	.012	--	--	--	--
	08-28-02	--	E.06	<.015	.08	<.008	<.02	.011	--	--	--	--
	09-11-02	--	E.06	<.015	.07	<.008	<.02	.012	--	--	--	--
	09-25-02	66	E.07	<.015	<.05	<.008	<.02	.007	--	<20	E5	--
	10-09-02	--	.11	<.015	<.06	<.008	<.02	.009	--	--	--	--
	11-04-02	--	E.06	<.015	<.06	<.008	<.02	.005	--	--	--	--
	11-13-02	41	E.09	<.015	<.06	<.008	<.02	.008	--	M	E5	<1
	04-23-03	34	E.07	<.015	<.06	<.008	<.02	E.003	--	--	E4	<1
	05-07-03	--	<.10	<.015	<.06	.013	<.02	.005	--	--	--	--
	05-21-03	--	E.09	<.015	E.06	<.008	<.02	.008	--	--	--	--
	05-21-03	--	E.10	<.015	E.05	<.008	<.02	.010	--	--	--	--
	06-04-03	35	.17	<.015	<.06	<.008	<.02	.016	--	--	<7	6
	06-18-03	--	.14	<.015	<.06	<.008	<.02	.013	--	--	--	--
	07-09-03	--	<.10	<.015	<.06	<.008	<.02	.007	--	--	--	--
	07-23-03	37	.10	<.015	E.03	<.008	<.02	.012	--	--	E6	2
	08-06-03	--	.13	<.015	<.06	<.008	<.02	.013	--	--	--	--
	08-20-03	--	E.10	<.015	<.06	<.008	<.02	.010	--	--	--	--
	09-03-03	41	1.4	<.015	<.06	<.008	<.02	.012	--	--	E5	--
	09-25-03	--	E.09	<.015	<.06	<.008	<.02	.008	--	--	--	--
	10-08-03	--	--	<.010	<.06	<.008	<.006	.005	.04	--	--	--
	11-19-03	--	--	<.010	<.06	<.008	E.003	.010	.08	--	--	--
	12-17-03	33	--	<.010	E.06	<.008	E.003	.013	.12	--	E5	--
	06-02-04	57	--	<.010	E.05	<.008	<.006	.008	.11	--	E7	2
	06-16-04	--	--	<.010	.10	<.008	<.006	.014	.18	--	--	--
	06-16-04	--	--	E.005	.10	<.008	<.006	.016	.20	--	--	--
	06-30-04	--	--	--	.08	<.008	<.006	.007	.12	--	--	--
	07-14-04	49	--	<.010	.07	<.008	E.003	.011	.14	--	E6	1
	07-28-04	--	--	<.010	.06	<.008	E.003	.014	.21	--	--	--
	08-11-04	--	--	<.010	.06	<.008	.007	.009	.13	--	--	--
	08-25-04	34	--	E.005	<.06	<.008	E.003	.008	.12	--	E7	2
	09-15-04	--	--	<.010	<.06	<.008	E.004	.007	.05	--	--	--

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	1,4-Di-	1-	2,6-Di-	2-	3-beta-	3-	3-tert-			
				chloro- benzene water, fltrd, ug/L (34572)	Methyl- naphth- alene, water, fltrd, ug/L (62054)	naphth- alene, water, fltrd, ug/L (62055)	Methyl- naphth- alene, water, fltrd, ug/L (62056)	Copros- tanol, water, fltrd, ug/L (62057)	Methyl- 1H- indole, water, fltrd, ug/L (62058)	Butyl- 4-hy- droxy- anisole wat flt ug/L (62059)			
01438301	08-15-02	1000	Environmental	<.5	<.5	<.5	<.5	<2	<1	<5			
0143839602	08-15-02	0930	Environmental	<.5	<.5	<.5	<.5	<2	<1	<5			
01438400	08-14-02	1250	Environmental	<.5	<.5	<.5	<.5	<2	<1	<5			
01438700	08-13-02	1200	Environmental	<.5	<.5	<.5	<.5	<2	<1	<5			
01438754	08-13-02	1120	Environmental	<.5	<.5	<.5	<.5	<2	<1	<5			
01438892	08-13-02	1030	Environmental	<.5	<.5	<.5	<.5	<2	<1	<5			
01439092	08-13-02	0945	Field Blank	<.5	<.5	<.5	<.5	<2	<1	<5			
	08-13-02	0950	Environmental	<.5	<.5	<.5	<.5	<2	<1	<5			
01439400	08-12-02	1225	Environmental	<.5	<.5	<.5	<.5	<2	<1	<5			
01439500	08-12-02	1015	Environmental	<.5	<.5	<.5	<.5	<2	<1	<5			
01439570	08-12-02	1050	Environmental	<.5	<.5	<.5	<.5	<2	<1	<5			
01439680	08-12-02	1125	Environmental	<.5	<.5	<.5	<.5	<2	<1	<5			
01439830	08-14-02	1210	Environmental	<.5	<.5	<.5	<.5	<2	<1	<5			
01439920	08-14-02	1110	Environmental	<.5	<.5	<.5	<.5	<2	<1	<5			
01440100	08-14-02	1010	Environmental	<.5	<.5	<.5	<.5	<2	M	<5			
Station number	Date	4-Cumyl- phenol, water, fltrd, ug/L (62060)	4-Octyl- phenol, water, fltrd, ug/L (62061)	4-Nonyl- phenol, water, fltrd, ug/L (62085)	4-tert- Octyl- phenol, water, fltrd, ug/L (62062)	5-Meth- yl-1H- benzo- tri- azole, wat flt ug/L (62063)	9,10- Anthra- quinone water, fltrd, ug/L (62066)	Aceto- phenone water, fltrd, ug/L (62064)	AHTN, water, fltrd, ug/L (62065)	Anthra- cene, water, fltrd, ug/L (34221)	Benzo- [a]- pyrene, water, fltrd, ug/L (34248)	Benzo- phenone water, fltrd, ug/L (62067)	beta- Sitos- terol, water, fltrd, ug/L (62068)
01438301	08-15-02	<1	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2
0143839602	08-15-02	<1	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2
01438400	08-14-02	<1	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2
01438700	08-13-02	<1	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2
01438754	08-13-02	<1	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2
01438892	08-13-02	<1	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2
01439092	08-13-02	<1	<1	<5	<1	<2	<.5	<.5	<.5	<.5	E.1	<.5	<2
	08-13-02	<1	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2
01439400	08-12-02	<1	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2
01439500	08-12-02	<1	<1	<5	<1	<2	<.5	<.5	M	<.5	<.5	M	<2
01439570	08-12-02	<1	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2
01439680	08-12-02	<1	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2
01439830	08-14-02	<1	<1	<5	<1	<2	<.5	<.5	M	<.5	<.5	M	<2
01439920	08-14-02	<1	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2
01440100	08-14-02	<1	<1	E11	<1	<2	<.5	<.5	<.5	<.5	<.5	M	<2
Station number	Date	beta- Stigma- stanol, water, fltrd, ug/L (62086)	Bisphen- ol A, water, fltrd, ug/L (62069)	Broma- cil, water, fltrd, ug/L (04029)	Caf- feine, water, fltrd, ug/L (50305)	Camphor water, fltrd, ug/L (62070)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Carba- zole, water, fltrd, ug/L (62071)	Chlor- pyrifos water, fltrd, ug/L (38933)	Choles- terol, water, fltrd, ug/L (62072)	Cot- inine, water, fltrd, ug/L (62005)	Diazi- non, water, fltrd, ug/L (39572)	Di- ethoxy- nonyl- phenol, water, fltrd, ug/L (62083)
01438301	08-15-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
0143839602	08-15-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
01438400	08-14-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
01438700	08-13-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
01438754	08-13-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
01438892	08-13-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
01439092	08-13-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
	08-13-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
01439400	08-12-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
01439500	08-12-02	<2	<1	<.5	E.2	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
01439570	08-12-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
01439680	08-12-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
01439830	08-14-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
01439920	08-14-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	<1.00	<.5	<5
01440100	08-14-02	<2	<1	<.5	<.5	<.5	<1	<.5	<.5	<2	E.1800	<.5	<5

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Di-ethoxy-phenol, water, fltrd, ug/L (61705)	D-Limonene, water, fltrd, ug/L (62073)	Ethoxy-phenol, water, fltrd, ug/L (61706)	Fluoranthene, water, fltrd, ug/L (34377)	HHCB, water, fltrd, ug/L (62075)	Indole, water, fltrd, ug/L (62076)	Isoborneol, water, fltrd, ug/L (62077)	Iso-phorone, water, fltrd, ug/L (34409)	Iso-propylbenzene, water, fltrd, ug/L (62078)	Iso-quinoline, water, fltrd, ug/L (62079)	Menthol, water, fltrd, ug/L (62080)
01438301	08-15-02	<1	<.5	<1	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
0143839602	08-15-02	<1	<.5	<1	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
01438400	08-14-02	<1	<.5	<1	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
01438700	08-13-02	<1	<.5	<1	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
01438754	08-13-02	<1	<.5	<1	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
01438892	08-13-02	<1	<.5	<1	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
01439092	08-13-02	<1	<.5	<1	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
01439400	08-12-02	<1	<.5	<1	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
01439500	08-12-02	<1	<.5	<1	<.5	M	<.5	<.5	<.5	<.5	<.5	<.5
01439570	08-12-02	<1	<.5	<1	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
01439680	08-12-02	<1	<.5	<1	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
01439830	08-14-02	<1	<.5	<1	<.5	M	<.5	<.5	<.5	<.5	<.5	<.5
01439920	08-14-02	<1	<.5	<1	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
01440100	08-14-02	<1	<.5	<1	<.5	<.5	E.1	<.5	<.5	<.5	<.5	<.5

Station number	Date	Meta-laxyl, water, fltrd, ug/L (50359)	Methyl salicylate, water, fltrd, ug/L (62081)	Metolachlor, water, fltrd, ug/L (39415)	Naphthalene, water, fltrd, ug/L (34443)	p-Cresol, water, fltrd, ug/L (62084)	Penta-chloro-phenol, water, fltrd, ug/L (34459)	Phenanthrene, water, fltrd, ug/L (34462)	Phenol ¹ , water, fltrd, ug/L (34466)	Prometon, water, fltrd, ug/L (04037)	Pyrene, water, fltrd, ug/L (34470)	Tetra-chloro-ethene, water, fltrd, ug/L (34476)
01438301	08-15-02	<.5	<.5	<.5	<.5	M	<2	<.5	<.5	<.5	<.5	<.5
0143839602	08-15-02	<.5	<.5	<.5	<.5	<1	<2	<.5	E.2	<.5	<.5	<.5
01438400	08-14-02	<.5	<.5	<.5	<.5	<1	<2	<.5	<.5	<.5	<.5	<.5
01438700	08-13-02	<.5	M	<.5	<.5	<1	<2	<.5	.7	<.5	<.5	<.5
01438754	08-13-02	<.5	M	<.5	<.5	M	<2	<.5	E.3	<.5	<.5	<.5
01438892	08-13-02	<.5	M	<.5	<.5	<1	<2	<.5	.9	<.5	<.5	<.5
01439092	08-13-02	<.5	<.5	<.5	<.5	<1	<2	<.5	E.3	<.5	<.5	<.5
01439400	08-12-02	<.5	M	<.5	<.5	<1	<2	<.5	<.5	<.5	<.5	<.5
01439500	08-12-02	<.5	M	<.5	<.5	<1	<2	<.5	E.3	<.5	<.5	<.5
01439570	08-12-02	<.5	<.5	<.5	<.5	<1	<2	<.5	.6	<.5	<.5	<.5
01439680	08-12-02	<.5	<.5	<.5	<.5	<1	<2	<.5	<.5	<.5	<.5	<.5
01439830	08-14-02	<.5	<.5	<.5	<.5	<1	<2	<.5	<.5	<.5	<.5	<.5
01439920	08-14-02	<.5	<.5	<.5	<.5	M	<2	<.5	.5	<.5	<.5	<.5
01440100	08-14-02	<.5	<.5	<.5	<.5	M	<2	<.5	<.5	<.5	<.5	<.5

Station number	Date	Tri-bromo-methane, water, fltrd, ug/L (34288)	Tri-butyl phosphate, water, fltrd, ug/L (62089)	Triclosan, water, fltrd, ug/L (62090)	Tri-ethyl citrate, water, fltrd, ug/L (62091)	Tri-phenyl phosphate, water, fltrd, ug/L (62092)	Tris(2-butoxyethyl) phosphate, water, fltrd, ug/L (62093)	Tris(2-chloroethyl) phosphate, water, fltrd, ug/L (62087)	Tris(di-chloro-i-Pr) phosphate, water, fltrd, ug/L (62088)	Di-chloro-vos, water, fltrd, ug/L (38775)
01438301	08-15-02	<.5	<.5	<1	<.5	M	<.5	<.5	<.5	<1.00
0143839602	08-15-02	<.5	<.5	<1	<.5	M	<.5	<.5	<.5	<1.00
01438400	08-14-02	<.5	<.5	<1	<.5	<.5	<.5	<.5	<.5	<1.00
01438700	08-13-02	<.5	<.5	<1	<.5	E.1	<.5	<.5	<.5	<1.00
01438754	08-13-02	<.5	<.5	<1	<.5	E.1	<.5	<.5	<.5	<1.00
01438892	08-13-02	<.5	<.5	<1	<.5	M	<.5	<.5	<.5	<1.00
01439092	08-13-02	<.5	<.5	<1	<.5	<.5	<.5	<.5	<.5	<1.00
01439400	08-12-02	<.5	<.5	<1	<.5	E.1	<.5	<.5	<.5	<1.00
01439500	08-12-02	<.5	E.1	<1	<.5	E.1	<.5	M	M	<1.00
01439570	08-12-02	<.5	<.5	<1	<.5	M	<.5	<.5	<.5	<1.00
01439680	08-12-02	<.5	<.5	<1	<.5	<.5	<.5	<.5	<.5	<1.00
01439830	08-14-02	<.5	E.1	<1	<.5	E.1	<.5	M	<.5	<1.00
01439920	08-14-02	<.5	<.5	<1	<.5	<.5	<.5	<.5	<.5	<1.00
01440100	08-14-02	<.5	E.1	<1	<.5	E.1	<.5	<.5	M	<1.00

Remark codes used in this table:
 < -- Less than
 E -- Estimated value
 M -- Presence verified, not quantified

¹Phenol is a common laboratory contaminant for organic compounds associated with wastewater analysis (USGS method 0-1433-01).

WATER QUALITY AT SPECIAL-STUDY SITES
 MORRISTOWN NATIONAL HISTORICAL PARK

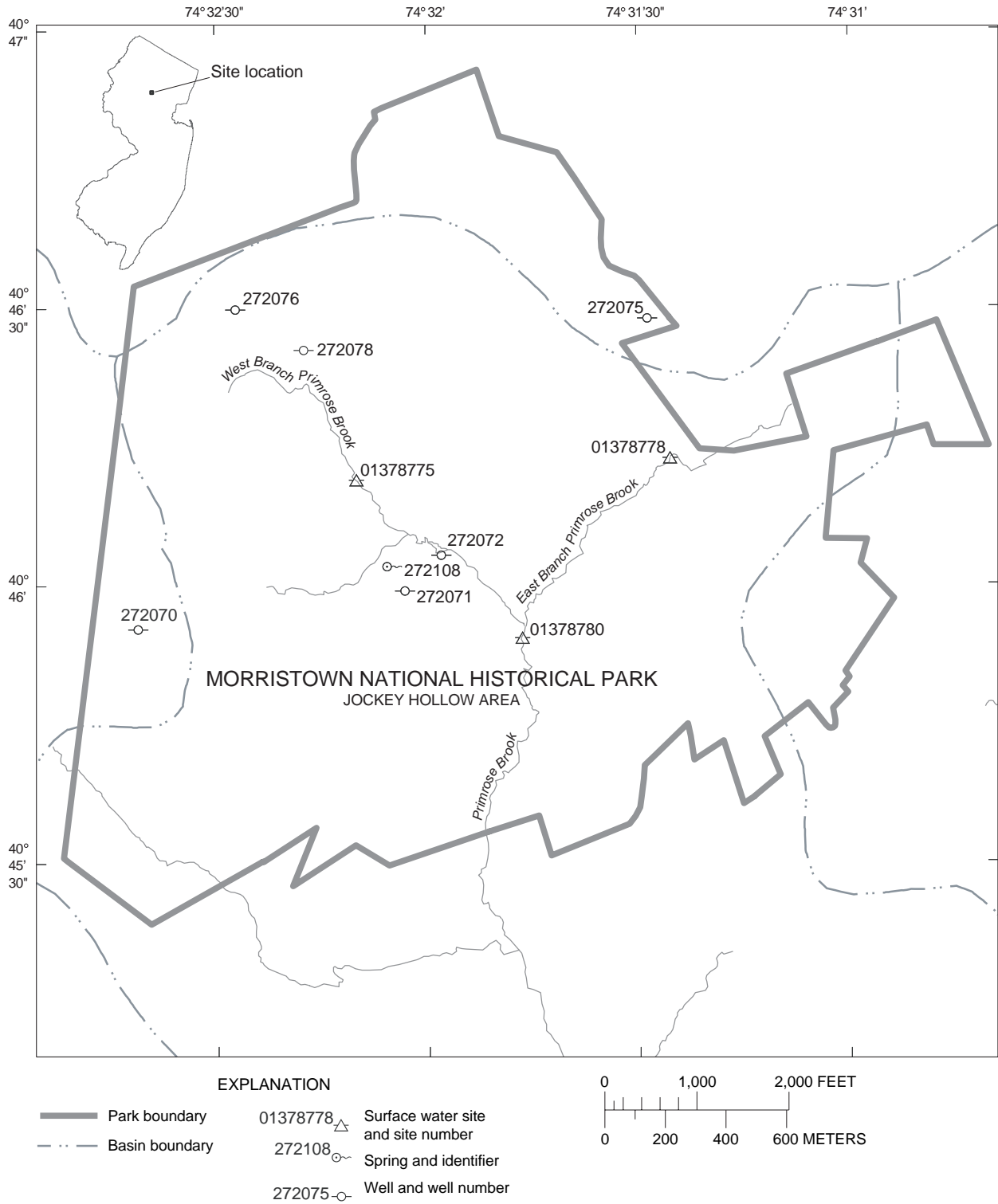


Figure 41. Location of surface-water and ground-water sampling sites, Jockey Hollow area, Morristown National Historical Park, New Jersey, water years 2003-04.

MORRISTOWN NATIONAL HISTORICAL PARK—Continued

The following tables contain site-information and water-quality data from a network of 8 wells, 1 spring, and 3 surface-water sites sampled bi-annually, with the exception of 1 surface-water site sampled quarterly. The sampled wells are completed in fractured gneiss bedrock of PreCambrian age in the Highlands Physiographic Province of northern New Jersey. The sampling network was established in cooperation with the National Park Service (NPS) in the Jockey Hollow Unit (JHU) of the Morristown National Historical Park (MNHP) (fig. 41).

The sampling network establishes baseline water quality against which potential future water quality degradation may be evaluated, and may also be used to determine the source, extent, and transport pathways of sanitary indicator bacteria in surface and shallow ground waters and of the MNHP.

The data collected were used to determine the presence and concentration of, or non-detection of, organic wastewater compounds, transient atmospheric tracers, fecal-indicator bacteria, and naturally occurring inorganic and radioactive constituents and stable isotopes in Primrose Brook and the ground water that flows into Primrose Brook, a Class-One Anti-Degradation headwater stream draining to the Passaic River. The ancillary standard water-quality samples collected for ground water are a subset of those routinely analyzed using standard techniques for physical characteristics, major ions, nutrients, volatile organic compounds (VOCs), pesticides, a selected suite of 16 minor and trace elements, dissolved and particulate organic carbon, total suspended solids, and indicator bacteria counts at surface water sites, including those at Primrose Brook.

Organic wastewater compounds were generally not detected, or if detected, concentrations were estimated because they were too low for reliable quantitation; only one compound besides DEET was detected at an estimated concentration greater than 1 ug/L. Three other compounds were detected at an estimated concentration of 0.1 microgram per liter. No compound was detected more than once. Since the compound DEET has frequently been used or stored in field and/or sampling vehicles, the possibility of low-level sample contamination cannot be ruled out. Transient atmospheric tracers, fecal-indicator bacteria, and radon were detected commonly and on occasion in high concentrations.

WATER-QUALITY CONTROL DATA

Determinations of wastewater compounds were made to the detection capability of the currently best available technology (polystyrene- divinylbenzene solid-phase extraction and capillary-column gas-chromatography/mass spectroscopy (GC-MS) with about 0.2 ug/L detection for many of the analytes, but up to 5 ug/L for some; the laboratory reporting limits for the target analytes are listed by Zaugg and others, 2002). Determinations of transient atmospheric tracer compounds were made to the detection capability of the currently best available technology (capillary-column gas-chromatography with electron-capture detector as described by Szabo and others, 1996). The field methods used are described in "Techniques of water resources investigations-Book 9 -Handbooks for Water Resource Investigations-National field manual of water-quality data-Chapter A3 Cleaning of equipment for water sampling", edited by F.D. Wilde and others, 1998, "Chapter A4 Collection of water samples" edited by F.D. Wilde and others, 1999, and "Chapter A5 Processing of water samples" edited by F.D. Wilde and others, 1999, and for transient atmospheric tracers by Szabo and others (1996).

Quality assurance consisted of selected sequential replicate samples and one blank sample for organic wastewater compounds that was collected as part of this sampling program in conjunction with another field program at a site nearby along the Passaic River but outside the boundaries of MNHP and thus not shown in fig. 41. As a consequence of the result indicating DEET was detected in the blank, a program is ongoing to evaluate field-collection procedures for environmental samples and blanks for the DEET compound.

Personal protection and safety procedures needed at the sampling sites are described in a Site Specific Job Hazard analysis on file at the U.S. Geological Survey office in West Trenton, NJ.

MULTIPLE STATION ANALYSES

Local identifier	Station number	Date	Time	Instantaneous discharge, cfs (00061)	Drainage area, mi ² (81024)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)
WB PRIMROSE BROOK IN MNHP	01378775	08-26-03	1100	.24	0.30	1.4	749	9.2	96	7.2
		08-28-03	1400	--	0.30	--	--	--	--	--
		12-16-03	1230	--	0.30	--	751	12.5	101	7.0
EB PRIMROSE BROOK IN MNHP	01378778	08-26-03	1000	.18	0.18	3.9	749	9.2	96	7.0
		12-16-03	1330	--	0.18	--	--	11.9	94	6.9
PRIMROSE BK AT MORRISTOWN	01378780	12-16-02	1110	1.4	1.07	.8	741	12.1	97	7.5
		03-04-03	1310	1.3	1.07	.7	737	12.9	97	7.5
		03-10-03	0910	--	1.07	--	--	--	--	--
		05-07-03	1205	--	1.07	--	--	--	--	--
		05-14-03	1155	--	1.07	--	--	--	--	--
		05-20-03	1310	1.3	1.07	2.5	756	10.0	95	7.2
		05-21-03	1152	--	1.07	--	--	--	--	--
		05-28-03	1150	--	1.07	--	--	--	--	--
		06-04-03	1147	--	1.07	--	--	--	--	--
		08-26-03	1030	.98	1.07	5.0	749	9.2	96	6.8
NPS - PRIMROSE TRAIL CTR 272108 - SPRING	404602074320501	12-16-03	1100	3.6	1.07	1.0	751	13.4	104	7.1
		08-28-03	1350	--	--	--	--	--	--	--

WATER QUALITY AT SPECIAL-STUDY SITES
MORRISTOWN NATIONAL HISTORICAL PARK—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Local identifier	Date	Phenol, water, fltrd, ug/L (34466)	Prometon, water, fltrd, ug/L (04037)	Pyrene, water, fltrd, ug/L (34470)	Tetra-chloro-ethene, water, fltrd, ug/L (34476)	Tri-bromo-methane, water, fltrd, ug/L (34288)	Tri-butyl phosphate, water, fltrd, ug/L (62089)	Triclo-san, water, fltrd, ug/L (62090)	Tri-ethyl citrate, water, fltrd, ug/L (62091)	Tri-phenyl phosphate, water, fltrd, ug/L (62092)	Tris(2-butoxy-ethyl) phosphate, wat flt ug/L (62093)
WB PRIMROSE BROOK IN MNHP	08-26-03	.8	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5
	08-28-03	--	--	--	--	--	--	--	--	--	--
	12-16-03	<.5	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5
EB PRIMROSE BROOK IN MNHP	08-26-03	.6	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5
	12-16-03	<.5	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5
PRIMROSE BK AT MORRISTOWN	12-16-02	<.5	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5
	03-04-03	--	--	--	--	--	--	--	--	--	--
	03-10-03	<.5	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5
	05-07-03	--	--	--	--	--	--	--	--	--	--
	05-14-03	--	--	--	--	--	--	--	--	--	--
	05-20-03	<.5	<.01	<.5	<.5	<.5	<.5	<1	<.5	<.5	E.1
	05-21-03	--	--	--	--	--	--	--	--	--	--
	05-28-03	--	--	--	--	--	--	--	--	--	--
	06-04-03	--	--	--	--	--	--	--	--	--	--
	08-26-03	<.5	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5
12-16-03	<.5	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5	
NPS - PRIMROSE TRAIL CTR 272108 - SPRING	08-28-03	--	--	--	--	--	--	--	--	--	--

Local identifier	Date	Tris(2-chloro-ethyl) phosphate, wat flt ug/L (62087)	Tris(di-chloro-i-Pr) phosphate, wat flt ug/L (62088)	Di-chloro- vos, water, fltrd, ug/L (38775)	Deu-terium/Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)
WB PRIMROSE BROOK IN MNHP	08-26-03	<.5	<.5	<1.00	-46.60	-7.80
	08-28-03	--	--	--	--	--
	12-16-03	<.5	<.5	<1.00	--	--
EB PRIMROSE BROOK IN MNHP	08-26-03	<.5	<.5	<1.00	-46.20	-7.68
	12-16-03	<.5	<.5	<1.00	--	--
PRIMROSE BK AT MORRISTOWN	12-16-02	<.5	<.5	<1.00	-52.00	-8.38
	03-04-03	--	--	--	--	--
	03-10-03	<.5	<.5	<1.00	-53.40	-8.58
	05-07-03	--	--	--	--	--
	05-14-03	--	--	--	--	--
	05-20-03	<.5	<.5	<1.00	-45.00	-7.69
	05-21-03	--	--	--	--	--
	05-28-03	--	--	--	--	--
06-04-03	--	--	--	--	--	
08-26-03	<.5	<.5	<1.00	-45.90	-7.64	
12-16-03	<.5	<.5	<1.00	--	--	
NPS - PRIMROSE TRAIL CTR 272108 - SPRING	08-28-03	--	--	--	--	--

Remark codes used in this table:
 < -- Less than
 > -- Greater than
 E -- Estimated value
 M-- Presence verified, not quantified

MORRISTOWN NATIONAL HISTORICAL PARK—Continued

NJ-WRD Well Number	Station Number	Local Identifier	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Well Permit Number	Depth of Well	Screen Interval (feet)	Aquifer Unit
272070	404555074324101	NPS- WICK FARM	404555.3	0743241.1	570	--	150	39-150	400PCMB
272071	404559074320301	NPS - QUARTERS 62	404559.4	0743203.2	500	--	97	--	400PCMB
272072	404603074315801	NPS - TRAIL 2 (G5)	404603.2	0743158.0	470	25-48237	10.5	5.5-10.5	112SFDF
272076	404630074322701	NPS - HAND PUMP	404629.8	0743227.1	550	--	95	50-95	400PCMB
272078	404625074321701	NPS - SOLDIER HUT TRAIL	404625.4	0743217.4	520	--	6	5.5-6	112SFDF
272075	404629074312901	NPS - GUERIN HOUSE	404628.7	0743128.6	600	--	255	12-255	400PCMB

AQUIFER UNITS.--400PCMB, Precambrian Erathem; 112SFDF, Stratified Drift

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Depth to water level, feet below LSD (72019)	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Oxidation reduction potential, mV (00090)	Sampling depth, feet (00003)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)
404555074324101	08-26-03	1310	Environmental	--	--	--	--	--	4.9	748	7.7
	08-26-03	1345	Environmental	--	--	--	--	--	.3	748	8.1
	12-16-03	1338	Environmental	--	--	--	--	--	--	--	--
404559074320301	12-17-03	1145	Environmental	--	--	--	--	--	.2	734	7.8
	08-27-03	1255	Environmental	--	--	--	--	--	--	--	--
	08-27-03	1320	Treated water	--	.40	20	--	--	--	--	--
404603074315801	10-09-03	1120	Environmental	--	--	--	--	--	.5	752	5.9
	10-09-03	1320	Environmental	--	.40	90	379	--	.5	752	3.3
	10-09-03	1420	Environmental	--	--	150	--	--	--	--	--
	12-16-03	1330	Environmental	--	--	--	--	--	--	--	--
	08-28-03	1300	Environmental	--	.08	92	429	--	1.8	754	--
404625074321701	12-16-03	1635	Environmental	1.74	.20	78	--	--	47	748	1.7
	12-17-03	1415	Environmental	--	--	15	--	--	39	--	--
	08-28-03	1418	Environmental	--	--	18	--	--	300	754	--
404629074312901	08-28-03	1420	Environmental	--	.01	20	--	--	58	754	6.1
	12-16-03	1400	Environmental	--	.02	45	--	--	64	748	--
	12-17-03	1300	Environmental	--	--	--	--	--	--	--	--
	08-26-03	1256	Treated water	--	--	--	--	--	--	--	--
	08-26-03	1323	Treated water	--	--	--	--	--	--	--	--
404630074322701	09-09-03	1142	Environmental	12.64	--	.0	--	25.0	53	755	.2
	09-09-03	1228	Environmental	12.64	.75	40	312	25.0	29	755	2.0
	09-09-03	1300	Environmental	12.64	--	118	438	25.0	8.4	755	4.3
	09-09-03	1350	Environmental	12.64	--	208	464	25.0	4.2	755	4.5
	09-09-03	1400	Environmental	12.64	.75	153	467	25.0	2.9	755	4.5
	09-09-03	1410	<i>Sequential Replicate</i>	12.64	--	163	--	25.0	2.9	755	4.5
	09-09-03	1700	Environmental	12.64	.65	45	--	15.2	2.9	755	4.5
	12-17-03	1300	Environmental	9.85	--	2	--	20.0	28	734	--
	12-17-03	1412	Environmental	9.85	--	114	--	20.0	11	734	3.5
	12-17-03	1600	Environmental	9.85	1.0	190	--	20.0	.6	734	3.9

WATER QUALITY AT SPECIAL-STUDY SITES
MORRISTOWN NATIONAL HISTORICAL PARK—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Dis- solved oxygen, percent of satu- ration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat un- f uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO ₃ (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat un- fixed end pt, lab, mg/L as CaCO ₃ (90410)
404555074324101	08-26-03	73	6.2	149	--	12.2	--	--	--	--	--	--
	08-26-03	76	6.2	149	27.1	12.0	50	13.2	4.17	.92	7.68	37
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	84	6.1	127	10.7	10.9	45	12.5	3.31	.84	7.11	33
404559074320301	08-27-03	--	--	--	--	--	--	--	--	--	--	--
	08-27-03	--	7.2	249	--	--	--	--	--	--	--	--
	10-09-03	56	7.2	247	--	12.3	--	--	--	--	--	--
	10-09-03	31	7.0	241	19.0	11.9	120	27.7	11.5	1.02	4.83	101
	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
404603074315801	08-28-03	--	6.2	142	25.9	22.9	67	17.0	6.05	--	4.50	54
	12-16-03	18	6.3	158	9.0	8.8	71	16.9	7.02	.33	4.02	59
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
404625074321701	08-28-03	--	--	--	--	--	--	--	--	--	--	--
	08-28-03	73	6.3	122	25.9	23.2	47	11.9	4.25	.82	5.60	39
	12-16-03	--	6.7	105	7.4	7.9	42	10.3	3.94	.61	4.45	37
404629074312901	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	08-26-03	--	--	--	--	--	--	--	--	--	--	--
404630074322701	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	2	8.8	70	--	13.0	--	--	--	--	--	--
	09-09-03	20	7.0	175	--	12.7	--	--	--	--	--	--
	09-09-03	41	6.7	179	--	12.7	--	--	--	--	--	--
	09-09-03	43	6.7	180	--	12.8	--	--	--	--	--	--
	09-09-03	43	6.7	180	19.8	12.7	79	20.3	6.87	1.84	4.91	64
	09-09-03	43	6.7	180	20.0	12.7	--	--	--	--	--	--
	09-09-03	43	6.7	180	20.0	12.7	--	--	--	--	--	--
	12-17-03	--	--	--	--	11.5	--	--	--	--	--	--
	12-17-03	39	6.8	190	--	11.4	--	--	--	--	--	--
	12-17-03	43	6.7	177	7.0	11.3	75	19.0	6.69	1.69	5.25	65

MORRISTOWN NATIONAL HISTORICAL PARK—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Alka- linity, wat flt inc tit field, mg/L as CaCO ₃ (39086)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd mg/L (00680)
404555074324101	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	08-26-03	--	8.25	<.8	25.4	12.8	<.04	1.82	<.008	.02	--	--
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	--	6.58	<.2	23.9	13.1	<.04	1.30	<.008	E.02	.4	--
404559074320301	08-27-03	--	--	--	--	--	--	--	--	--	--	--
	08-27-03	98	--	--	--	--	--	--	--	--	--	--
	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	10-09-03	95	2.79	<.2	43.9	20.7	<.04	.36	<.008	.02	--	--
	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
404603074315801	08-28-03	50	2.84	<.2	34.9	17.3	<.04	.11	<.008	<.02	--	--
	12-16-03	--	2.51	<.2	34.3	16.8	<.04	.08	<.008	<.02	.6	--
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
404625074321701	08-28-03	--	--	--	--	--	--	--	--	--	--	--
	08-28-03	--	3.96	<.2	30.9	10.2	<.04	.51	<.008	.02	--	--
	12-16-03	33	3.60	<.2	27.9	9.5	<.04	.58	<.008	E.01	E.3	--
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
404629074312901	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	08-26-03	--	--	--	--	--	--	--	--	--	--	--
404630074322701	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	.9
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	3.78	<.2	33.1	16.6	E.03	.81	<.008	<.02	.4	E.2
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	--	3.32	<.2	30.9	15.9	.06	.69	<.008	<.02	E.3	--

WATER QUALITY AT SPECIAL-STUDY SITES
MORRISTOWN NATIONAL HISTORICAL PARK—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, ECbroth water, MPN/ 100 mL (31615)	Fecal coli- form, M-FC MF water, col/ 100 mL (31613)	Total coli- form, BGLB, confirmd MPN/ 100 mL (31505)	Total coli- form, M-Endo, col/ 100 mL (31501)	Boron, water, fltrd, ug/L (01020)	Iron, water, fltrd, ug/L (01046)	Mangan- ese, water, fltrd, ug/L (01056)	CFC-113 water unfltrd undr N2 pg/kg (50283)	1,4-Di- chloro- benzene water, fltrd, ug/L (34572)	1- Methyl- naphth- alene, water, fltrd, ug/L (62054)
404555074324101	08-26-03	<10	--	<1.00	--	<1	--	--	--	--	--	--
	08-26-03	<10	--	<1.00	--	<1	19	E6	1.6	--	<.5	<.5
	12-16-03	<100	<1	--	<1	--	--	--	--	--	--	--
	12-17-03	100	<2	--	<2	--	8.5	E5	<.8	--	<.5	<.5
404559074320301	08-27-03	<10	<1	--	4	--	--	--	--	--	--	--
	08-27-03	--	--	--	--	--	--	--	--	--	--	--
	10-09-03	--	<1	--	5	--	--	--	--	--	--	--
	10-09-03	--	<1	--	4	--	14	12	1.5	79	<.5	<.5
	10-09-03	--	<1	--	4	--	--	--	--	--	--	--
	12-16-03	<100	<1	--	4	--	--	--	--	--	--	--
	12-16-03	<100	<1	--	4	--	--	--	--	--	--	--
404603074315801	08-28-03	<100	1	--	9	--	--	10	155	67	<.5	<.5
	12-16-03	--	--	--	--	--	8.2	119	76.2	--	<1.0	<1.0
	12-17-03	<100	2	--	50	--	--	--	--	--	--	--
404625074321701	08-28-03	<100	<1	--	4	--	--	--	--	--	--	--
	08-28-03	--	--	--	--	--	E6.1	<8	2.3	--	<.5	<.5
	12-16-03	<100	<2	--	<2	--	<7.0	<6	<.8	--	<1.0	<1.0
404629074312901	12-17-03	<100	<2	--	80	--	--	--	--	--	--	--
	08-26-03	<10	--	<1.00	--	<1	--	--	--	--	--	--
	08-26-03	10	--	<1.00	--	.0	--	--	--	--	--	--
404630074322701	09-09-03	<10	<1	--	>23	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	<10	<1	--	>23	--	--	--	--	--	--	--
	09-09-03	<10	<1	--	>23	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	E6.8	434	45.5	82	<.5	<.5
	09-09-03	--	--	--	--	--	--	--	--	--	<.5	<.5
	09-09-03	--	--	--	--	--	--	--	--	93	<.5	<.5
	12-17-03	<100	<2	--	80	--	--	--	--	--	--	--
	12-17-03	<100	<2	--	30	--	--	--	--	--	--	--
	12-17-03	--	--	--	--	--	E6.8	724	65.1	--	<.5	<.5

MORRISTOWN NATIONAL HISTORICAL PARK—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	2,6-Dimethyl-naphthalene, water, fltrd, ug/L (62055)	2-Methyl-naphthalene, water, fltrd, ug/L (62056)	3-beta-Coprostanol, water, fltrd, ug/L (62057)	3-Methyl-1H-indole, water, fltrd, ug/L (62058)	3-tert-Butyl-4-hydroxy-anisole, wat flt ug/L (62059)	4-Cumyl-phenol, water, fltrd, ug/L (62060)	4-Octyl-phenol, water, fltrd, ug/L (62061)	4-Nonyl-phenol, water, fltrd, ug/L (62085)	4-tert-Octyl-phenol, water, fltrd, ug/L (62062)	5-Methyl-1H-benzotriazole, wat flt ug/L (62063)	9,10-Anthraquinone, water, fltrd, ug/L (62066)
404555074324101	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	08-26-03	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	<.5
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	<.5
404559074320301	08-27-03	--	--	--	--	--	--	--	--	--	--	--
	08-27-03	--	--	--	--	--	--	--	--	--	--	--
	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	10-09-03	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	<.5
	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
404603074315801	08-28-03	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	<.5
	12-16-03	<1.0	<1.0	<4	<2	<10	<2	<2	<10	<2	<4	<1.0
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
404625074321701	08-28-03	--	--	--	--	--	--	--	--	--	--	--
	08-28-03	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	<.5
	12-16-03	<1.0	<1.0	<4	<2	<10	<2	<2	<10	<2	<4	<1.0
404629074312901	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	08-26-03	--	--	--	--	--	--	--	--	--	--	--
404630074322701	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	<.5
	09-09-03	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	<.5
	09-09-03	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	<.5
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	<.5	<.5	<2	<1	<5	<1	<1	<5	<1	<2	<.5

WATER QUALITY AT SPECIAL-STUDY SITES
MORRISTOWN NATIONAL HISTORICAL PARK—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Aceto-phenone water, fltrd, ug/L (62064)	AHTN, water, fltrd, ug/L (62065)	Anthra-cene, water, fltrd, ug/L (34221)	Benzo-[a]-pyrene, water, fltrd, ug/L (34248)	Benzo-phenone water, fltrd, ug/L (62067)	beta-Sitos-terol, water, fltrd, ug/L (62068)	beta-Stigma-sterol, water, fltrd, ug/L (62086)	Bisphe-nol A, water, fltrd, ug/L (62069)	Broma-cil, water, fltrd, ug/L (04029)	Caf-feine, water, fltrd, ug/L (50305)	Camphor water, fltrd, ug/L (62070)
404555074324101	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	08-26-03	<.5	<.5	<.5	<.5	<.5	<2	<2	<1	<.5	<.5	<.5
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	<.5	<.5	<.5	<.5	<.5	<2	<2	<1	<.5	<.5	<.5
404559074320301	08-27-03	--	--	--	--	--	--	--	--	--	--	--
	08-27-03	--	--	--	--	--	--	--	--	--	--	--
	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	10-09-03	<.5	<.5	<.5	<.5	<.5	<2	<2	<1	<.5	<.5	<.5
	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
404603074315801	08-28-03	<.5	<.5	<.5	<.5	M	<2	<2	<1	<.5	<.5	<.5
	12-16-03	<1.0	<1.0	<1.0	<1.0	<1.0	<4	<4	<2	<1.0	<1.0	<1.0
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
404625074321701	08-28-03	--	--	--	--	--	--	--	--	--	--	--
	08-28-03	<.5	<.5	<.5	<.5	E.1	<2	<2	M	<.5	<.5	<.5
404629074312901	12-16-03	<1.0	<1.0	<1.0	<1.0	<1.0	<4	<4	<2	<1.0	<1.0	<1.0
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	08-26-03	--	--	--	--	--	--	--	--	--	--	--
404630074322701	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	<.5	<.5	<.5	<.5	<.5	<2	<2	<1	<.5	<.5	<.5
	09-09-03	<.5	<.5	<.5	<.5	<.5	<2	<2	<1	<.50	<.500	<.5
	09-09-03	<.5	<.5	<.5	<.5	<.5	<2	<2	<1	<.5	<.5	<.5
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	<.5	<.5	<.5	<.5	<.5	<2	<2	<1	<.5	<.5	<.5

MORRISTOWN NATIONAL HISTORICAL PARK—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Carbaryl, water, fltrd 0.7u GF (82680)	Carbazole, water, fltrd, ug/L (62071)	Chlorpyrifos, water, fltrd, ug/L (38933)	Cholesterol, water, fltrd, ug/L (62072)	Cotinine, water, fltrd, ug/L (62005)	DEET, water, fltrd, ug/L (62082)	Diazinon, water, fltrd, ug/L (39572)	CFC-12, water, unfltrd undr N2 pg/kg (50282)	Diethoxynonylphenol, water, fltrd, ug/L (62083)	Diethoxyoctylphenol, water, fltrd, ug/L (61705)	D-Limonene, water, fltrd, ug/L (62073)
404555074324101	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	08-26-03	<1	<.5	<.5	<2	<1.00	<.5	<.5	--	<5	<1	<.5
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
404559074320301	12-17-03	<1	<.5	<.5	<2	<1.00	<.5	<.5	--	<5	<1	<.5
	08-27-03	--	--	--	--	--	--	--	--	--	--	--
	08-27-03	--	--	--	--	--	--	--	--	--	--	--
404603074315801	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	10-09-03	<1	<.5	<.5	<2	<1.00	<.5	<.5	470	<5	<1	<.5
	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
	08-28-03	<1	<.5	<.5	<2	<1.00	E.5	<.5	290	<5	<1	<.5
404625074321701	12-16-03	<2	<1.0	<1.0	<4	<2.00	<1.0	<1.0	--	<10	<2	<1.0
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	08-28-03	--	--	--	--	--	--	--	--	--	--	--
404629074312901	08-28-03	<1	<.5	<.5	<2	<1.00	3.5	<.5	--	<5	<1	<.5
	12-16-03	<2	<1.0	<1.0	<4	<2.00	E.2	<1.0	--	<10	<2	<1.0
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
404630074322701	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
404630074322701	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	<1	<.5	<.5	<2	<1.00	M	<.5	300	<5	<1	<.5
	09-09-03	<1.00	<2.0	<.50	--	<1	M	<.50	--	<5	<1	<.5
	09-09-03	<1	<.5	<.5	<2	<1.00	M	<.5	340	<5	<1	<.5
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	<1	<.5	<.5	<2	<1.00	<.5	<.5	--	<5	<1	<.5

MORRISTOWN NATIONAL HISTORICAL PARK—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Metola- chlor, water, fltrd, ug/L (39415)	Naphth- alene, water, fltrd, ug/L (34443)	p- Cresol, water, fltrd, ug/L (62084)	Penta- chloro- phenol, water, fltrd, ug/L (34459)	Phenan- threne, water, fltrd, ug/L (34462)	Phenol, water, fltrd, ug/L (34466)	Prome- ton, water, fltrd, ug/L (04037)	Pyrene, water, fltrd, ug/L (34470)	Sulfur hexa- fluor- ide, water, unfltrd fg/kg (63149)	Tetra- chloro- ethene, water, fltrd, ug/L (34476)	Tri- bromo- methane water, fltrd, ug/L (34288)
404555074324101	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	08-26-03	<.5	<.5	<1	<2	<.5	<.5	<.5	<.5	6,760	<.5	E2.1
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	<.5	<.5	<1	<2	<.5	<.5	<.5	<.5	7,140	E.1	<.5
404559074320301	08-27-03	--	--	--	--	--	--	--	--	--	--	--
	08-27-03	--	--	--	--	--	--	--	--	--	--	--
	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	10-09-03	<.5	<.5	<1	<2	<.5	1.3	<.5	<.5	279	<.5	<.5
	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
404603074315801	08-28-03	<.5	<.5	<1	<2	<.5	<.5	<.5	<.5	984	<.5	<.5
	12-16-03	<1.0	<1.0	<2	<4	<1.0	<1.0	<1.0	<1.0	229	<1.0	<1.0
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
404625074321701	08-28-03	--	--	--	--	--	--	--	--	--	--	--
	08-28-03	<.5	<.5	<1	<2	<.5	E.3	<.5	<.5	--	<.5	<.5
	12-16-03	<1.0	<1.0	<2	<4	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
404629074312901	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	08-26-03	--	--	--	--	--	--	--	--	--	--	--
404630074322701	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	<.5	<.5	M	<2	<.5	1.2	<.5	<.5	286	<.5	<.5
	09-09-03	<.50	<.5	M	<2	<.5	E.3	<.50	<.5	--	<.5	<.5
	09-09-03	<.5	<.5	M	<2	<.5	.8	<.5	<.5	210	<.5	<.5
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	<.5	<.5	<1	<2	<.5	<.5	<.5	<.5	353	<.5	<.5

WATER QUALITY AT SPECIAL-STUDY SITES
MORRISTOWN NATIONAL HISTORICAL PARK—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Tri- butyl phos- phate, water, fltrd, ug/L (62089)	Tri- chloro- fluoro- methane wat unfl- tr N2 pg/kg (50281)	Triclo- san, water, fltrd, ug/L (62090)	Tri- ethyl citrate water, fltrd, ug/L (62091)	Tri- phenyl phos- phate, water, fltrd, ug/L (62092)	Tris(2- butoxy- ethyl) phos- phate, wat flt ug/L (62093)	Tris(2- chloro- ethyl) phos- phate, wat flt ug/L (62087)	Tris(di- chloro- i-Pr) phos- phate, wat flt ug/L (62088)	Di- chloro- vos, water fltrd, ug/L (38775)	Deu- terium/ Protium ratio, water, unfltrd per mil (82082)	O-18 / O-16 ratio, water, unfltrd per mil (82085)
404555074324101	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	08-26-03	<.5	--	<1	<.5	<.5	<.5	<.5	<.5	<1.00	--	--
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
	12-17-03	<.5	--	<1	<.5	<.5	<.5	<.5	<.5	<1.00	--	--
404559074320301	08-27-03	--	--	--	--	--	--	--	--	--	--	--
	08-27-03	--	--	--	--	--	--	--	--	--	--	--
	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	10-09-03	<.5	2,200	<1	<.5	<.5	<.5	<.5	<.5	<1.00	--	--
	10-09-03	--	--	--	--	--	--	--	--	--	--	--
	12-16-03	--	--	--	--	--	--	--	--	--	--	--
404603074315801	08-28-03	<.5	680	<1	<.5	<.5	<.5	<.5	<.5	<1.00	-44.90	-7.54
	12-16-03	<1.0	--	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.00	--	--
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
404625074321701	08-28-03	--	--	--	--	--	--	--	--	--	--	--
	08-28-03	<.5	--	<1	<.5	<.5	<.5	<.5	<.5	<1.00	-45.20	-7.51
	12-16-03	<1.0	--	<2	<1.0	<.5	<1.0	<1.0	<1.0	<2.00	--	--
404629074312901	12-17-03	--	--	--	--	--	--	--	--	--	--	--
	08-26-03	--	--	--	--	--	--	--	--	--	--	--
404630074322701	08-26-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	--	--	--	--	--	--	--	--	--	--	--
	09-09-03	<.5	620	<1	<.5	<.5	<.5	<.5	<.5	<1.00	-47.50	-7.76
	09-09-03	<.5	--	<1	<.5	<.5	<.5	<.5	<.5	<1.00	--	--
	09-09-03	<.5	690	<1	<.5	<.5	<.5	<.5	<.5	<1.00	-45.30	-7.79
	12-17-03	--	--	--	--	--	--	--	--	--	--	--
12-17-03	--	--	--	--	--	--	--	--	--	--	--	
12-17-03	<.5	--	<1	<.5	<.5	<.5	<.5	<.5	<1.00	--	--	

MORRISTOWN NATIONAL HISTORICAL PARK—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Rn-222 2-sigma water unfltrd pCi/L (76002)	Rn-222, water, unfltrd pCi/L (82303)	Uranium natural water, fltrd, ug/L (22703)
404555074324101	08-26-03	--	--	--
	08-26-03	54	3,480	--
	12-16-03	--	--	--
	12-17-03	63	3,650	.23
404559074320301	08-27-03	--	--	--
	08-27-03	44	2,090	--
	10-09-03	--	--	--
	10-09-03	46	2,420	.58
	10-09-03	--	--	--
	12-16-03	--	--	--
	12-16-03	--	--	--
404603074315801	08-28-03	74	6,950	--
	12-16-03	83	6,970	--
	12-17-03	--	--	--
404625074321701	08-28-03	--	--	--
	08-28-03	--	--	--
404629074312901	12-16-03	39	1,310	--
	12-17-03	--	--	--
	12-17-03	--	--	--
404630074322701	08-26-03	--	--	--
	08-26-03	--	--	--
404630074322701	09-09-03	--	--	--
	09-09-03	--	--	--
	09-09-03	--	--	--
	09-09-03	--	--	--
	09-09-03	33	890	--
	09-09-03	--	--	--
	09-09-03	--	--	--
	09-09-03	--	--	--
	12-17-03	--	--	--
	12-17-03	35	900	.29

Remark codes used in this table:

- < -- Less than
- > -- Greater than
- E -- Estimated value
- M-- Presence verified, not quantified

RADIUM SAMPLING OF WATER IN SELECTED AQUIFERS, TREATED WATER, BACKWASH BRINE FROM ION-EXCHANGE TREATMENT SYSTEMS, AND WASTEWATER

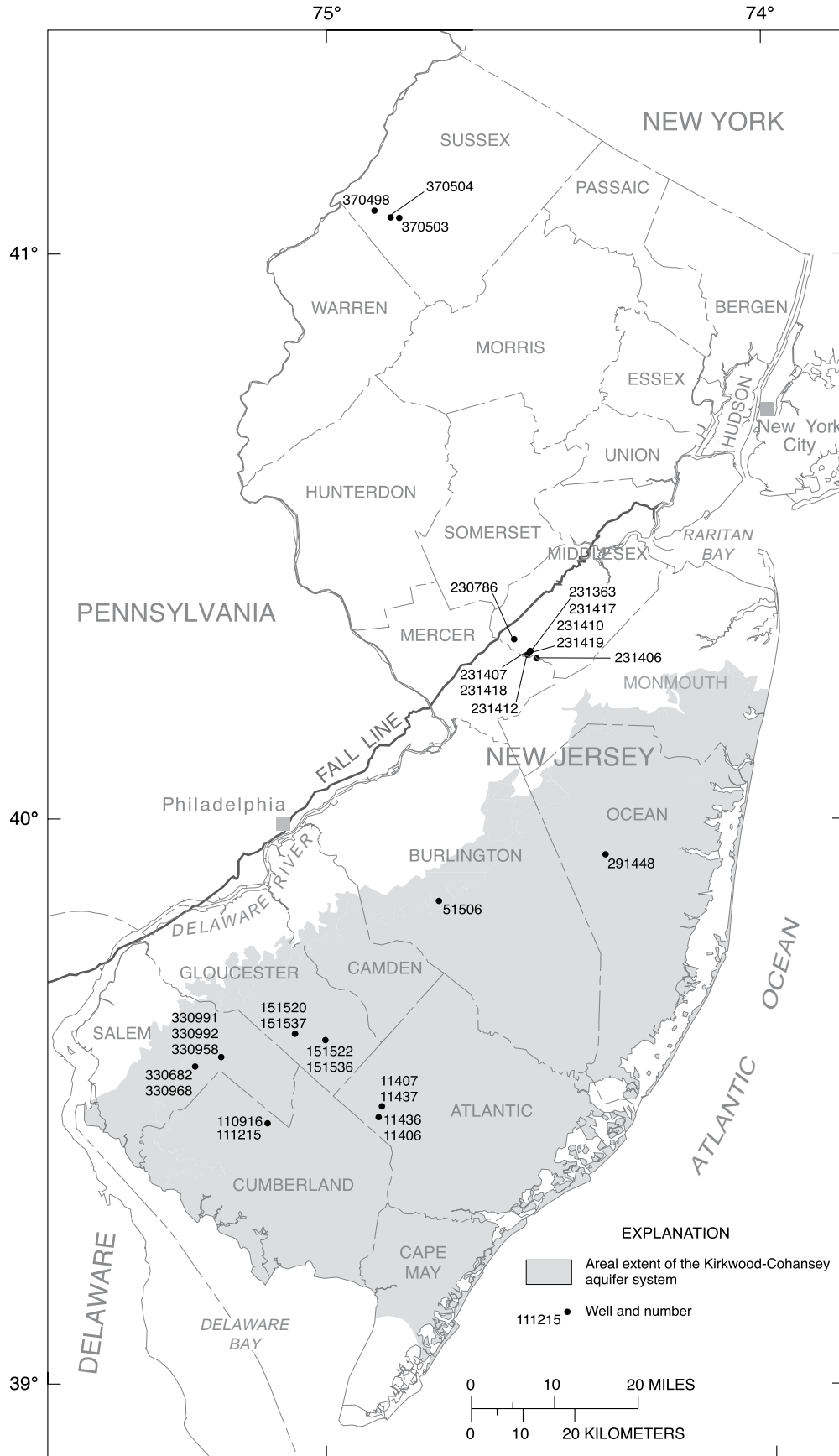


Figure 42. Location of wells, septic tanks, and ion exchange systems sampled for radium in raw and treated water from selected aquifers in New Jersey, wastewater, and backwash brine, respectively, water years 2003-04.

RADIUM SAMPLING OF WATER IN SELECTED AQUIFERS, TREATED WATER, BACKWASH BRINE FROM ION-EXCHANGE TREATMENT SYSTEMS, AND WASTEWATER—Continued

The following tables contain site-information and water-quality data from a network of 18 sites sampled for radium (Ra) and ancillary water-quality constituents. The sampled wells are completed in unconsolidated sand deposits of the Kirkwood-Cohansey aquifer system of southern New Jersey, unconsolidated sand deposits of the Potomac-Raritan-Magothy aquifer system of central New Jersey, all south of the Fall Line, and consolidated rocks of the Jacksonburg Limestone and Martinsburg Shale north of the Fall Line (fig. 42). The sampling network was established in cooperation with the New Jersey Department of Environmental Protection (NJDEP).

The sampling network was established to research and document the water quality at sites using ion-exchange treatment units to remediate (remove) elevated radium from private wells used for potable domestic supply from a variety of aquifer systems in New Jersey. The issue of concern involves the fate of naturally occurring radium from the well into the home, through the treatment system (cation-exchange resins), and the septic tank, and ultimate re-entry to the environment (whether to soil or shallow ground water). Disposal of backwash brine is often directed into the septic system or directly discharged into soil in the form of a dry well or a plain ditch. The treatment system, in other words, does not destroy the Ra, but may minimize ingestion via the drinking water. Water samples were collected from the following locations at each site: (1) water well, untreated; (2) water, treated, from the treatment system, at the kitchen tap; (3) backwash brine of the treatment system; (4) effluent and sludge, liquid and solid phases, respectively, from the septic tank after brine disposal (only liquid phase results are reported here); and (5) shallow ground water (0.5-2 feet below the water table) down gradient (10 to 65 feet) from the septic leach field.

The data collected were radioactivity and the concentrations of radium radionuclides at all the sampling points, and ancillary inorganic constituents and organic wastewater compounds at select points. The ancillary standard water-quality samples collected for the untreated ground water are a subset of those routinely analyzed using standard techniques for physical characteristics, major ions, nutrients, volatile organic compounds (VOCs), pesticides, a selected suite of minor and trace elements, and dissolved organic carbon. A smaller subset of these ancillary constituents was analyzed for the remaining types of samples collected from each site.

Radioactivity and radium radionuclides were detected commonly and on occasion in high concentrations, except in samples of treated drinking water. Organic wastewater compounds, except phenol, which is also detected in lab blanks, and the field blank, were not detected in filtered untreated ground water used for drinking water from the unconsolidated sand aquifers. Results for phenol and DEET are not shown based on quality control data. Total or fecal coliform bacteria, were not detected in unfiltered untreated ground water used for drinking water. Total and fecal coliform bacteria were detected in the wastewater and total coliform bacteria were also detected occasionally at the water table. The organic wastewater compounds were detected occasionally at low concentrations (about 0.2-0.5 ug/L) at the water table. Analytical results for the organic wastewater compounds are not complete for ground water used for drinking water in the consolidated rock aquifers and for samples of the wastewater.

WATER-QUALITY CONTROL DATA

Determinations of gross alpha-particle and beta-particle radioactivity were made within 48 to 72 hours after sample collection as recommended by Parsa (1998). Determinations of wastewater compounds were made to the detection capability of the currently best available technology (polystyrene-divinylbenzene solid-phase extraction and capillary-column gas-chromatography/mass spectroscopy (GC-MS) with about 0.2ug/L laboratory reporting level for many of the analytes; the laboratory reporting levels for the target analytes are listed by Zaugg and others, 2002). The field methods used are described in "Techniques of water resources investigations-Book 9 -Handbooks for Water Resource Investigations-National field manual of water-quality data-Chapter A3 Cleaning of equipment for water sampling", edited by F.D. Wilde and others, 1998, Chapter A3 Cleaning of equipment for water sampling, edited by F.D. Wilde and others, 1998, "Chapter A4 Collection of water samples" edited by F.D. Wilde and others, 1999, and "Chapter A5 Processing of water samples" edited by F.D. Wilde and others, 1999.

Quality assurance consisted of one selected sequential replicate sample at each site and four blank samples for subsets of the compounds analyzed. Sequential replicate samples closely reproduced results for the initial environmental samples. The concentration of radium-226 in the equipment blank samples was 0.03 and 0.02 pCi/L (picocuries per liter). Recovery for laboratory spikes for surrogate organic wastewater compounds ranged from 0 to 133 percent; no recovery was noted for only one surrogate compound (caffeine-13C) and that only in two samples. The blank sample for organic wastewater compounds indicated detection of phenol and DEET. Phenol has frequently been detected in sampling programs and the laboratory (James Kinsbury, USGS Tennessee Water Science Center, written commun.,2004), while DEET has been detected primarily in field blanks. A program is currently (2005) underway to evaluate field-collection blanks for phenol and DEET. The possibility of low-level sample contamination during sample handling cannot be ruled out at this time.

Personal protection and safety procedures needed at the sampling sites are described in a Project Specific Health and Safety Plan on file at the U.S. Geological Survey Water Science Center in West Trenton, New Jersey.

WATER QUALITY AT SPECIAL-STUDY SITES

RADIUM SAMPLING OF WATER IN SELECTED AQUIFERS, TREATED WATER, BACKWASH BRINE FROM ION-EXCHANGE TREATMENT SYSTEMS, AND WASTEWATER—Continued

NJ-WRD Well Number	Station Number	Latitude (NAD83)	Longitude (NAD83)	Altitude of Land Surface (NGVD29) (feet)	Well Permit Number	Depth of Well (feet)	Screen Interval (feet)	Aquifer Unit
110916	392806075074201	392806	750741	82	35-03390	62	55 - 62	121CKKD
111215	392806075074202	392806	750742	82	--	16	12 - 16	121CKKD
011406	392924074523701	392832	745245	94	35-23296	110	100 - 110	121CKKD
011436	392924074523702	392924	745237	94	--	17	15 - 17	121CKKD
011407	392944074522401	392944	745224	99	35-20629	80	70 - 80	121CKKD
011437	392944074522402	392944	745224	99	--	20	18 - 20	121CKKD
330682	393359075172801	393359	751727	139	34-03273	70	--	121CKKD
330968	393359075172802	393359	751728	139	--	36	34 - 36	121CKKD
330958	393457075135901	393457	751358	134	30-04646	54	50 - 54	121CKKD
330991	393457075135902	393457	751358	134	--	12	10 - 12	121CKKD
330992	393457075135903	393457	751358	134	--	12	10 - 12	121CKKD
151522	393646074595501	393646	745954	134	31-42091	95	90 - 95	121CKKD
151536	393646074595502	393646	745955	134	--	24	22 - 248	121CKKD
151520	393725075035901	393725	750359	104	31-54610	100	90 - 100	121CKKD
151537	393725075035902	393725	750359	104	--	14	12 - 14	121CKKD
051506	395135074443701	395135	744437	134	32-18064	85	75 - 85	121CKKD
291448	395624074220701	395624	742207	159	32-16823	146	136 - 146	121CKKD
231406	401719074311301	401719	743113	89	28-43733	100	90 - 100	211MRPAM
231412	401740074322201	401740	743222	89	28-17430	138	128 - 138	211MRPAM
231407	401742074321901	401742	743219	91	28-15480	110	102 - 110	211MRPAM
231418	401742074321902	401742	743219	91	--	20	17 - 20	211MRPAU
231410	401753074320901	401753	743209	104	28-11301	82	74 - 82	211MRPAU
231419	401753074320902	401753	743209	104	--	47	44 - 47	211MRPAU
231363	401755074320401	401755	743203	104	28-11300	105	97 - 105	211MRPAU
231417	401755074320402	401755	743203	104	--	42	40 - 42	211MRPAU
230786	401919074340301	401920	743411	99	28-11501	63	55 - 63	211MRPAM
370503	410409074494601	410409	744946	489	--	--	--	364JKBG
370504	410412074505301	410412	745053	509	--	78	50 - 78	364JKBG
370498	410500074531601	410500	745315	899	21-08395	200	130 - 200	361RMBG

AQUIFER UNITS.--121CKKD, Kirkwood-Cohansey aquifer system; 211MRPAM, Magothy-Raritan-Potomac Aquifer System, Middle Aquifer; 211MRPAU, Magothy-Raritan-Potomac Aquifer System, Upper Aquifer; 364JKBG, Jacksonburg Limestone; 361RMBG, Ramseyburg Member of Martinsburg Shale.

RADIUM SAMPLING OF WATER IN SELECTED AQUIFERS, TREATED WATER, BACKWASH BRINE FROM ION-EXCHANGE TREATMENT SYSTEMS, AND WASTEWATER—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface feet (72000)	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Oxidation-reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	UV absorbance, 254 nm, wat flt units /cm (50624)
392806075074201	07-25-03	1240	Environmental	62	--	83.00	--	--	--	.1	--
	07-25-03	1241	Sequential replicate	62	--	83.00	--	--	--	.1	--
	07-25-03	1045	Treated water	62	--	83.00	--	--	--	--	--
	07-25-03	1050	Treated water	62	--	83.00	--	--	--	--	--
	07-25-03	1510	Septic tank	62	--	83.00	--	--	--	--	--
392806075074202	10-28-03	1015	Treated water	62	--	83.00	--	--	--	--	--
	10-28-03	1020	Treated water	62	--	83.00	--	--	--	--	--
	10-29-03	1710	Leach field	16.10	--	83	--	--	--	--	--
	10-29-03	1620	Leach field	16.10	--	83	--	--	--	27	.019
392924074523701	09-05-03	1050	Environmental	110	--	95	--	30	--	.1	.011
	09-05-03	1020	Treated water	110	--	95	--	--	--	--	--
	09-05-03	1225	Sequential replicate	110	--	95	--	--	--	--	--
	09-05-03	1230	Ion-exchange backwash	110	--	95	--	--	--	--	--
392924074523702	09-05-03	1400	Septic tank	110	--	95	--	--	--	--	.705
	10-22-03	1125	Leach field	16.61	--	95	--	--	--	16	--
392944074522401	08-08-03	1115	Environmental	80	--	100	--	85	325	.2	.004
	08-08-03	1020	Treated water	80	--	100	--	--	--	--	--
	08-08-03	1030	Treated water	80	--	100	--	--	--	--	--
	08-08-03	1410	Ion-exchange backwash	80	--	100	--	--	--	--	--
	08-08-03	1240	Septic tank	80	--	100	--	--	--	--	--
392944074522402	08-08-03	1025	Field blank	80	--	100	--	--	--	--	--
	10-24-03	1435	Leach field	20	--	100	--	--	--	4.5	.032
	10-24-03	1435	Sequential replicate	20	--	100	--	--	--	--	--
	10-24-03	1450	Leach field	20	--	100	--	--	--	--	--
	10-24-03	1450	Field blank	20	--	100	--	--	--	--	--
393359075172801	10-24-03	1850	Ref. material	20	--	100	--	--	--	--	--
	10-24-03	1904	Source-solution blank	20	--	100	--	--	--	--	--
	09-10-03	1145	Environmental	70	--	140	--	--	--	.1	<.004
	09-10-03	1045	Treated water	70	--	140	--	--	--	--	--
	09-10-03	1315	Ion-exchange backwash	70	--	140	--	--	--	--	--
393359075172802	09-10-03	1500	Septic tank	70	--	140	--	--	--	--	.726
	09-10-03	1700	Septic tank	70	--	140	--	--	--	--	--
	10-23-03	1040	Leach field	35.55	32.30	140	.08	20	--	110	--
393457075135901	07-20-04	1105	Environmental	54	--	135	3.8	45	435	.1	--
	07-20-04	1135	Treated water	54	--	135	--	--	--	--	--
	07-20-04	1136	Sequential replicate	54	--	135	--	--	--	--	--
393646074595501	07-20-04	1455	Ion-exchange backwash	54	--	135	--	--	--	--	--
	07-20-04	1220	Septic tank	54	--	135	--	--	--	--	.317
	08-22-03	1050	Environmental	95	--	135	--	--	486	.1	<.004
	08-22-03	0950	Treated water	95	--	135	--	--	--	--	--
	08-22-03	1340	Ion-exchange backwash	95	--	135	--	--	--	--	--
393646074595502	08-22-03	1345	Sequential replicate	95	--	135	--	--	--	--	--
	08-22-03	1500	Septic tank	95	--	135	--	--	--	--	.477
	08-22-03	1505	Sequential replicate	95	--	135	--	--	--	--	--
	10-30-03	1440	Leach field	24.18	18.60	135	.08	108	--	3.0	.017
	10-30-03	1445	Sequential replicate	24.18	18.60	135	.08	108	--	3.0	.016
393725075035901	07-18-03	1400	Environmental	100	--	105	4.0	50	559	.1	--
	07-18-03	1445	Treated water	100	--	105	--	--	--	--	--
	07-18-03	1630	Ion-exchange backwash	100	--	105	--	--	--	--	--
	07-18-03	1210	Septic tank	100	--	105	--	--	--	--	--
	07-18-03	1900	Source-solution blank	100	--	105	--	--	--	--	--
393725075035902	10-27-03	1235	Leach field	13.77	12.01	105	.12	80	--	2.8	.188
395135074443701	08-05-03	1110	Environmental	85	--	135	7.5	80	357	.1	.009
	08-05-03	1111	Sequential replicate	85	--	135	7.5	81	--	.1	--
	08-05-03	0950	Treated water	85	--	135	--	--	--	--	--
	08-05-03	1240	Sequential replicate	85	--	135	--	--	--	--	--
	08-05-03	1250	Ion-exchange backwash	85	--	135	--	--	--	--	--
395624074220701	08-05-03	1500	Septic tank	85	--	135	--	--	--	--	.364
	07-22-03	1600	Environmental	146	--	160	--	--	--	.2	--
	07-22-03	1605	Sequential replicate	146	--	160	--	--	--	.2	--

RADIUM SAMPLING OF WATER IN SELECTED AQUIFERS, TREATED WATER, BACKWASH BRINE FROM ION-EXCHANGE TREATMENT SYSTEMS, AND WASTEWATER—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfl lab, uS/cm 25 degC (90095)	Specif. conductance, wat unfl lab, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
392806075074201	07-25-03	--	765	9.1	4.4	--	--	207	25.1	15.1	23	8.68
	07-25-03	--	765	9.1	4.4	--	--	207	25.1	15.1	--	--
	07-25-03	--	--	--	6.1	--	--	247	--	--	--	184
	07-25-03	--	--	--	6.8	--	--	304	--	--	--	33.8
	07-25-03	--	--	--	7.0	7.3	E1,310	1,200	--	--	160	43.2
392806075074202	10-28-03	--	--	--	--	--	--	275	--	--	--	--
	10-29-03	--	--	--	--	--	--	--	--	--	--	--
392924074523701	09-05-03	.015	747	--	5.1	5.2	224	236	11.8	15.9	55	11.0
	09-05-03	.009	762	4.9	4.4	--	--	284	21.0	14.3	--	9.44
392924074523702	09-05-03	--	--	--	4.9	--	--	200	21.0	--	--	E.01
	09-05-03	--	--	--	--	--	--	--	--	--	--	675
	09-05-03	--	762	--	2.3	--	--	92,000	--	--	--	613
	09-05-03	.574	--	--	6.2	--	--	2,600	--	--	--	6.57
392944074522401	10-22-03	--	750	2.8	5.9	6.1	525	574	12.8	14.3	4	.87
	08-08-03	<.004	756	4.4	4.9	--	--	59	24.0	13.4	8	1.07
	08-08-03	--	756	--	7.3	--	--	270	--	--	--	.69
	08-08-03	--	756	--	6.3	--	--	47	--	--	--	--
	08-08-03	--	--	--	6.9	--	--	52,000	--	--	--	1,050
392944074522402	08-08-03	--	--	--	--	--	--	--	--	--	--	--
	10-24-03	.024	763	--	5.2	4.8	1,020	1,060	5.5	15.8	89	13.7
	10-24-03	--	--	--	--	--	--	--	--	--	--	--
	10-24-03	--	--	--	--	--	--	--	--	--	--	--
	10-24-03	--	--	--	--	--	--	--	--	--	--	--
393359075172801	09-10-03	<.004	764	8.8	4.9	--	--	204	20.0	13.9	49	7.98
	09-10-03	--	--	--	7.0	--	--	405	--	--	--	.09
	09-10-03	--	--	--	5.4	--	--	52,000	--	15.5	--	1,300
	09-10-03	.395	--	--	6.8	--	--	3,000	--	--	230	69.4
393359075172802	10-23-03	--	757	--	5.9	6.2	178	188	7.6	11.6	25	7.24
	393457075135901	07-20-04	--	760	5.7	5.3	--	253	28.0	14.5	110	19.7
393646074595501	07-20-04	--	760	--	7.0	--	--	401	--	20.5	170	45.4
	07-20-04	--	--	--	--	--	--	--	--	--	--	--
	07-20-04	--	760	--	6.8	--	--	70,400	--	22.5	120	28.0
	07-20-04	.256	--	--	7.4	--	--	1,940	--	28.8	170	44.2
	08-22-03	<.004	762	8.1	4.9	4.9	20	21	27.0	13.9	2	.21
393646074595502	08-22-03	--	--	--	6.7	--	--	170	27.0	24.5	--	.02
	08-22-03	--	--	--	6.0	--	--	63,700	--	19.6	--	--
	08-22-03	--	--	--	--	--	--	--	--	--	--	--
	08-22-03	.368	762	--	7.0	--	--	1,900	--	--	87	32.0
	08-22-03	--	--	--	6.7	--	--	1,800	--	--	--	--
393725075035901	10-30-03	.013	757	--	4.8	4.8	1,440	1,470	15.5	14.8	49	14.5
	10-30-03	.011	757	--	4.8	--	--	1,470	15.5	14.8	--	--
393725075035902	07-18-03	--	760	3.1	4.4	--	--	111	29.7	14.6	96	25.1
	07-18-03	--	--	--	6.7	--	--	230	--	--	--	11.4
	07-18-03	--	--	--	4.0	--	--	49,200	--	--	--	179
	07-18-03	--	--	--	7.0	--	--	1,210	--	--	88	29.0
	07-18-03	--	--	--	--	--	--	--	--	--	--	--
395135074443701	10-27-03	.151	750	3.5	6.0	5.5	1,680	1,780	18.5	17.2	120	39.6
	08-05-03	.007	758	4.7	5.0	--	--	176	25.6	13.2	24	2.35
	08-05-03	--	758	4.7	5.0	--	--	--	25.6	13.2	24	2.37
	08-05-03	--	758	--	7.9	--	--	521	26.6	--	2	.45
	08-05-03	--	758	--	5.5	--	--	--	25.6	13.2	--	--
395624074220701	08-05-03	--	--	--	5.5	--	--	72,600	--	--	10,000	3,240
	08-05-03	.284	--	--	--	--	--	1,000	--	--	77	21.3
	07-22-03	--	752	2.3	5.0	--	--	26	31.9	12.8	--	12.1
	07-22-03	--	752	--	5.0	--	--	26	31.9	12.8	--	--

RADIUM SAMPLING OF WATER IN SELECTED AQUIFERS, TREATED WATER, BACKWASH BRINE FROM ION-EXCHANGE TREATMENT SYSTEMS, AND WASTEWATER—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as CaCO3 (00410)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
392806075074201	07-25-03	.251	.27	12.2	1	--	16.0	--	.3	109	<.04	15.9
	07-25-03	--	--	--	--	--	--	--	--	--	<.04	16.0
	07-25-03	--	--	702	23	--	--	--	--	--	--	--
	07-25-03	--	--	3.09	--	--	16.2	--	--	--	<.04	17.1
	07-25-03	13.3	--	37.4	--	--	64.6	--	--	--	123	<.06
392806075074202	10-28-03	--	--	--	--	--	--	--	--	--	--	--
	10-28-03	--	--	--	--	--	--	--	--	--	--	--
	10-29-03	--	--	--	--	--	--	--	--	--	--	--
392924074523701	10-29-03	6.75	10.1	10.3	--	2	17.7	9.70	18.6	149	E.03	14.2
	09-05-03	--	4.77	6.03	3	--	17.6	--	.3	--	<.41	22.6
392924074523702	09-05-03	--	--	49.2	.0	--	--	--	--	--	<.41	.44
	09-05-03	--	--	23,000	.0	--	--	--	--	--	<.41	25.5
	09-05-03	--	--	22,700	.0	--	--	--	--	--	<.41	24.0
	09-05-03	--	31.2	612	--	--	628	--	1.2	--	20.6	.07
	10-22-03	.427	3.06	110	--	38	68.4	6.14	79.3	319	.81	5.92
392944074522401	08-08-03	1.38	1.19	4.86	.0	--	7.53	--	.5	27	<.04	2.26
	08-08-03	--	--	47.5	76	--	--	--	--	--	--	--
	08-08-03	--	--	--	9	--	--	--	--	--	<.04	1.64
	08-08-03	--	--	11,400	--	--	21,300	--	--	--	--	--
	08-08-03	--	9.57	292	--	--	466	--	--	--	40.1	<.60
392944074522402	08-08-03	--	--	--	--	--	--	--	--	--	--	--
	10-24-03	13.2	7.88	160	--	<2	246	6.60	26.6	--	.07	25.1
	10-24-03	--	--	--	--	--	--	--	--	--	--	--
	10-24-03	--	--	--	--	--	--	--	--	--	--	--
	10-24-03	--	--	--	--	--	--	--	--	--	--	--
393359075172801	10-24-03	--	--	--	--	--	--	--	--	--	--	--
	09-10-03	6.97	--	14.1	2	--	37.6	--	.2	--	<.04	6.32
	09-10-03	--	--	88.3	115	--	39.0	--	.2	--	--	--
393359075172802	09-10-03	--	--	8,200	16	--	--	--	--	--	--	--
	09-10-03	14.8	17.5	408	--	--	736	--	3.9	--	27.8	<.06
393457075135901	09-10-03	--	--	--	--	--	--	--	--	--	--	--
	10-23-03	1.67	4.11	20.6	--	18	18.3	4.59	13.9	101	.12	3.95
393646074595501	07-20-04	13.7	1.55	4.44	--	--	20.9	10.1	49.8	--	<.04	7.24
	07-20-04	14.2	1.56	4.45	--	--	75.4	10.3	--	--	<.04	.16
	07-20-04	--	--	--	--	--	--	--	--	--	--	--
	07-20-04	12.2	13.0	18,600	--	--	27,200	9.4	5,400	--	--	--
	07-20-04	13.4	7.58	287	--	--	450	12.1	27.5	--	29.1	<.06
393646074595502	08-22-03	.335	.64	1.36	1	--	2.21	--	1.2	7	<.04	.19
	08-22-03	--	--	18.2	38	--	--	--	--	--	--	--
	08-22-03	--	--	--	25	--	--	--	--	--	--	--
	08-22-03	--	--	--	--	--	--	--	--	--	--	--
	08-22-03	1.63	10.3	274	--	--	400	--	13.3	--	35.0	<.06
393725075035901	08-22-03	--	--	--	--	--	--	--	--	--	--	--
	10-30-03	2.96	11.5	245	--	<2	406	6.19	23.8	--	<.04	5.60
	10-30-03	--	--	--	--	--	407	--	24.5	--	<.04	5.67
393725075035902	07-18-03	7.92	4.03	2.62	--	--	5.73	--	23.9	--	<.04	2.96
	07-18-03	--	--	3.13	--	--	--	--	--	--	<.04	3.10
	07-18-03	--	--	747	--	--	--	--	--	--	--	--
	07-18-03	3.83	--	401	--	--	594	--	--	--	43.4	<.06
	07-18-03	--	--	--	--	--	--	--	--	--	--	--
395135074443701	10-27-03	5.38	10.4	283	--	14	412	10.6	37.5	933	5.38	23.8
	08-05-03	4.27	--	20.1	2	--	32.7	--	--	--	E.04	4.71
	08-05-03	4.33	--	21.4	--	--	--	--	--	--	--	--
	08-05-03	.219	--	71.6	72	--	--	--	--	--	--	--
	08-05-03	--	--	--	--	--	--	--	--	--	--	--
395624074220701	08-05-03	528	--	14,200	18	--	--	--	--	--	--	--
	08-05-03	5.68	--	74.5	--	--	72.8	--	7.0	--	74.6	<.06
	07-22-03	--	--	--	.0	--	3.94	--	--	--	<.04	E.03
	07-22-03	--	--	--	.0	--	--	--	--	--	--	--

WATER QUALITY AT SPECIAL-STUDY SITES

RADIUM SAMPLING OF WATER IN SELECTED AQUIFERS, TREATED WATER, BACKWASH BRINE FROM ION-EXCHANGE TREATMENT SYSTEMS, AND WASTEWATER—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Ra-226		Ra-228		Uranium
		water, unfltrd pCi/L (09501)	water, fltrd, pCi/L (76000)	water, fltrd, pCi/L (81366)	water, unfltrd pCi/L (11501)	natural water, fltrd, ug/L (22703)
392806075074201	07-25-03	--	.70	10	--	--
	07-25-03	--	.72	11	--	--
	07-25-03	--	.58	7	--	--
	07-25-03	--	--	--	--	--
	07-25-03	1.69	.44	--	5	--
	10-28-03	--	2.0	6	--	--
	10-28-03	--	--	--	--	--
392806075074202	10-29-03	--	1.4	2	--	--
	10-29-03	--	1.4	2	--	--
392924074523701	09-05-03	--	1.2	20	--	--
	09-05-03	--	--	--	--	--
	09-05-03	--	36	688	--	--
	09-05-03	--	46	924	--	--
	09-05-03	3.16	.34	--	3	--
392924074523702	10-22-03	--	.90	<.05	--	--
392944074522401	08-08-03	--	.38	3	--	--
	08-08-03	--	--	--	--	--
	08-08-03	--	--	--	--	--
	08-08-03	--	3.0	57	--	--
	08-08-03	.85	.46	--	3	--
	08-08-03	--	.32	M	--	--
392944074522402	10-24-03	--	.41	E3	--	--
	10-24-03	--	--	--	--	--
	10-24-03	--	--	--	--	--
	10-24-03	--	--	--	--	--
	10-24-03	--	--	--	--	--
	10-24-03	--	.40	1	--	--
393359075172801	09-10-03	--	.30	2	--	--
	09-10-03	--	--	--	--	--
	09-10-03	--	3.8	73	--	--
	09-10-03	2.19	.34	--	3	--
	09-10-03	--	--	--	--	--
393359075172802	10-23-03	--	--	--	--	--
393457075135901	07-20-04	--	--	--	--	<.04
	07-20-04	--	--	--	--	--
	07-20-04	--	--	--	--	--
	07-20-04	--	--	--	--	--
393646074595501	08-22-03	--	.24	2	--	--
	08-22-03	--	--	--	--	--
	08-22-03	--	2.8	52	--	--
	08-22-03	--	--	--	--	--
	08-22-03	--	.24	1	--	--
	08-22-03	--	--	--	--	--
393646074595502	10-30-03	--	1.2	E18	--	--
	10-30-03	--	--	--	--	--
393725075035901	07-18-03	--	.42	3	--	--
	07-18-03	--	--	--	--	--
	07-18-03	--	10	194	--	--
	07-18-03	2.15	.64	--	3	--
	07-18-03	--	.22	M	--	--
393725075035902	10-27-03	--	.82	<.1	--	--
395135074443701	08-05-03	--	.34	3	--	--
	08-05-03	--	--	--	--	--
	08-05-03	--	--	--	--	--
	08-05-03	--	--	--	--	--
	08-05-03	--	--	--	--	--
	08-05-03	--	13	257	--	--
	08-05-03	.89	.42	--	2	--
395624074220701	07-22-03	--	.26	1	--	--
	07-22-03	--	--	--	--	--

RADIUM SAMPLING OF WATER IN SELECTED AQUIFERS, TREATED WATER, BACKWASH BRINE FROM ION-EXCHANGE TREATMENT SYSTEMS, AND WASTEWATER—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Time	Sample type	Depth of well, feet below LSD (72008)	Altitude of land surface feet (72000)	Flow rate, instantaneous gal/min (00059)	Pump or flow period prior to sampling, minutes (72004)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)
395624074220701	07-22-03	1630	Treated water	146	160	--	--	--	--	--	--
	07-22-03	1631	Sequential replicate	146	160	--	--	--	--	--	--
	07-22-03	1740	Ion-exchange backwash	146	160	--	--	--	--	--	--
	07-22-03	1745	Sequential replicate	146	160	--	--	--	--	--	--
	07-22-03	1904	Source-solution blank	146	160	--	--	--	--	--	--
401719074311301	07-08-04	1000	Environmental	100	90	10.5	43	243	.2	--	--
	07-08-04	1000	Sequential replicate	100	90	--	--	--	--	--	--
	07-08-04	1010	Treated water	100	90	--	--	--	--	--	--
	07-08-04	1045	Ion-exchange backwash	100	90	--	--	--	--	--	--
401740074322201	06-25-04	1115	Environmental	138	90	11.0	25	--	.1	.007	.006
	06-25-04	1125	Sequential replicate	138	90	--	--	--	--	--	--
	06-25-04	1235	Treated water	138	90	--	--	--	--	--	--
	06-25-04	1300	Ion-exchange backwash	138	90	--	--	--	--	--	--
	06-25-04	1305	Sequential replicate	138	90	--	--	--	--	--	--
	06-24-04	1315	Septic tank	138	90	--	--	--	--	.361	.291
401742074321901	06-24-04	1315	Sludge	138	90	--	--	--	--	--	--
	09-09-04	1040	Environmental	110	92	8.0	90	--	.1	.017	.016
	09-09-04	1015	Treated water	110	92	--	--	--	--	--	--
	09-09-04	1130	Ion-exchange backwash	110	92	--	--	--	--	--	--
	09-09-04	1130	Sequential replicate	110	92	--	--	--	--	--	--
	09-09-04	1131	Sequential replicate	110	92	--	--	--	--	--	--
401753074320901	08-19-04	1205	Septic tank	110	92	--	--	--	--	.216	.186
	08-19-04	1335	Sludge	110	92	--	--	--	--	--	--
	07-01-04	1045	Environmental	82	105	--	--	455	.1	--	--
	07-01-04	1035	Treated water	82	105	--	--	--	--	--	--
	07-01-04	1140	Ion-exchange backwash	82	105	--	--	--	--	--	--
401755074320401	06-29-04	1200	Septic tank	82	105	--	--	--	--	.557	.448
	07-24-00	1120	Environmental	105	105	--	--	--	.0	--	--
	07-19-04	0950	Environmental	105	105	--	--	439	.1	.007	.006
	07-19-04	0930	Treated water	105	105	--	--	--	--	--	--
405302074135103	07-22-04	1150	Ion-exchange backwash	105	105	--	--	--	--	--	--
	07-22-04	1100	Septic tank	105	105	--	--	--	--	.477	.361
401919074340301	11-24-03	1102	Equipment blank	--	160	--	--	--	--	--	--
	07-27-04	1110	Environmental	63.0	100.00	--	--	338	.1	--	--
	07-27-04	1115	Sequential replicate	63.0	100.00	--	--	--	.1	--	--
	07-27-04	1140	Treated water	63.0	100.00	--	--	--	--	--	--
	07-27-04	1145	Sequential replicate	63.0	100.00	--	--	--	--	--	--
410409074494601	07-27-04	1210	Ion-exchange backwash	63.0	100.00	--	--	--	--	--	--
	07-27-04	1211	Sequential replicate	63.0	100.00	--	--	--	--	--	--
	08-10-04	1035	Environmental	--	490	2.5	--	324	.1	.020	.014
	08-10-04	1025	Treated water	--	490	--	--	--	--	--	--
410412074505301	08-10-04	1210	Ion-exchange backwash	--	490	--	--	--	--	--	--
	08-10-04	1520	Septic tank	--	490	--	--	--	--	.495	.400
	08-11-04	1320	Environmental	78	510	4.0	13	124	18	.008	.006
	08-11-04	1520	Treated water	78	510	--	--	--	--	--	--
	08-11-04	1635	Ion-exchange backwash	78	510	--	--	--	--	--	--
	08-11-04	1640	Sequential replicate	78	510	--	--	--	--	--	--
410500074531601	08-11-04	1635	Sequential replicate	78	510	--	--	--	--	--	--
	08-11-04	1230	Septic tank	78	510	--	--	--	--	.111	.087
	08-11-04	1230	Septic tank	78	510	--	--	--	--	--	--
	09-13-04	1600	Environmental	200	900	6.0	--	--	1.9	--	--

RADIUM SAMPLING OF WATER IN SELECTED AQUIFERS, TREATED WATER, BACKWASH BRINE FROM ION-EXCHANGE TREATMENT SYSTEMS, AND WASTEWATER—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfl lab, uS/cm 25 degC (90095)	Specif. conductance, wat unfl lab, uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, mg/L fltrd, mg/L (00915)	Magnesium, water, mg/L fltrd, mg/L (00925)
395624074220701	07-22-03	--	--	6.7	--	--	96	--	--	--	<.01	--
	07-22-03	--	--	--	--	--	--	--	--	--	.55	--
	07-22-03	752	--	6.8	--	--	6,880	31.9	--	6,600	2,210	251
	07-22-03	--	--	6.8	--	--	6,880	--	--	--	--	--
	07-22-03	--	--	--	--	--	--	--	--	--	--	--
401719074311301	07-08-04	755	.1	5.8	--	--	53	23.0	13.0	5	.92	.624
	07-08-04	--	--	--	--	--	--	--	--	--	--	--
	07-08-04	755	--	6.8	--	--	104	23.0	13.0	5	1.25	.451
401740074322201	07-08-04	755	--	5.4	--	--	74,000	23.0	16.1	600	210	18.8
	06-25-04	760	6.5	4.8	--	--	161	19.1	12.8	45	9.23	5.15
	06-25-04	760	--	--	--	--	--	19.1	--	--	--	--
	06-25-04	760	--	6.3	--	--	244	19.1	22.0	52	16.9	2.31
	06-25-04	760	--	2.1	--	--	154,000	19.1	16.2	8,300	1,970	810
	06-25-04	760	--	--	--	--	--	19.1	16.2	--	1,980	--
	06-24-04	760	--	6.8	--	--	1,230	25.1	25.0	91	21.2	9.11
401742074321901	06-24-04	760	--	--	--	--	--	25.1	--	--	--	--
	09-09-04	755	.3	4.2	--	--	161	25.3	13.2	28	6.54	2.75
	09-09-04	755	--	6.1	--	--	200	25.3	--	1	.26	.118
	09-09-04	755	--	2.0	--	--	146,000	25.3	--	350	76.3	38.3
	09-09-04	--	--	--	--	--	--	--	--	--	--	--
	08-19-04	765	--	6.5	--	--	19,800	24.6	22.1	100	31.8	5.01
401753074320901	08-19-04	765	--	--	--	--	--	--	--	--	--	--
	07-01-04	--	9.1	5.2	--	--	247	25.1	13.1	89	11.2	14.6
	07-01-04	--	--	6.1	--	--	287	25.1	--	17	5.39	.779
401755074320401	07-01-04	--	--	6.2	--	--	25,000	25.1	--	--	>10.6	>1.33
	06-29-04	760	--	7.0	--	--	1,360	19.8	23.0	92	24.0	7.66
	07-24-00	--	4.5	5.1	5.2	283	281	--	13.2	77	12.5	11.1
	07-19-04	752	5.2	5.3	--	--	278	22.0	14.8	86	13.5	12.5
	07-19-04	752	--	5.9	--	--	285	22.0	--	--	--	--
405302074135103	07-22-04	--	--	3.6	--	--	676,000	--	--	1,300	329	122
	07-22-04	--	--	6.8	--	--	1,150	--	--	69	16.8	6.45
	11-24-03	--	--	--	--	--	--	--	--	--	--	--
401919074340301	07-27-04	758	7.1	5.0	--	--	235	22.3	13.6	24	5.59	2.46
	07-27-04	758	7.1	5.0	--	--	235	--	13.6	--	--	--
410409074494601	07-27-04	--	--	--	--	--	--	--	--	--	.05	.010
	07-27-04	--	--	--	--	--	--	--	--	--	--	--
	07-27-04	--	--	4.4	--	--	110,000	--	17.3	12,000	4,150	303
	07-27-04	--	--	--	--	--	--	--	--	--	--	--
	08-10-04	747	1.5	7.0	6.9	1,240	1,250	21.0	12.1	430	97.2	45.7
410412074505301	08-10-04	747	--	7.0	--	--	1,250	21.0	12.3	2	.32	.219
	08-10-04	747	--	6.2	--	--	111,000	21.0	13.3	25,000	5,850	2,600
	08-10-04	747	--	7.0	--	--	2,780	21.0	21.0	120	28.0	11.9
	08-11-04	747	1.3	7.2	7.4	972	1,010	21.0	12.0	390	116	23.4
	08-11-04	--	--	7.4	--	--	1,010	--	13.3	5	1.13	.490
410500074531601	08-11-04	--	--	6.4	--	--	80,300	--	14.6	7,800	2,410	421
	08-11-04	--	--	--	--	--	--	--	--	--	--	--
	08-11-04	--	--	--	--	--	--	--	--	--	--	--
	08-11-04	--	--	7.1	--	--	812	--	24.1	190	67.9	4.96
09-13-04	--	.1	7.7	7.7	222	231	29.3	11.9	100	31.7	5.24	

RADIUM SAMPLING OF WATER IN SELECTED AQUIFERS, TREATED WATER, BACKWASH BRINE FROM ION-EXCHANGE TREATMENT SYSTEMS, AND WASTEWATER—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as CaCO ₃ (00410)	ANC, wat unf fixed end pt, lab, mg/L as CaCO ₃ (90410)	Chlor- ide, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
395624074220701	07-22-03	--	40.5	40	--	--	--	--	--	<.04	E.05	<.008
	07-22-03	--	--	--	--	--	--	--	--	--	--	--
	07-22-03	145	22,500	94	--	--	--	--	--	--	--	--
	07-22-03	--	--	--	--	--	--	--	--	--	--	--
	07-22-03	--	--	--	--	--	--	--	--	--	--	--
401719074311301	07-08-04	.84	2.95	--	--	5.54	8.5	9.0	--	E.03	<.06	<.008
	07-08-04	--	--	--	--	--	--	--	--	--	--	--
	07-08-04	--	24.8	--	--	5.58	8.5	--	--	--	--	--
401740074322201	07-08-04	15.2	18,600	--	--	--	8.6	--	--	--	--	--
	06-25-04	2.42	5.31	--	--	13.7	9.5	6.5	--	<.04	8.98	<.008
	06-25-04	--	--	--	--	--	--	--	--	<.04	9.22	<.008
	06-25-04	.25	28.7	--	--	37.4	9.7	2.7	--	<.04	.69	<.008
	06-25-04	352	33,500	--	--	60,800	8.8	--	--	--	--	--
	06-25-04	357	--	--	--	--	--	--	--	--	--	--
	06-24-04	14.1	114	--	--	155	13.7	8.6	--	60.2	<.06	<.008
401742074321901	06-24-04	--	--	--	--	--	--	--	--	--	--	--
	09-09-04	2.14	6.53	--	--	19.2	8.1	28.0	--	.05	.46	<.008
	09-09-04	<.16	27.8	--	--	44.0	8.0	<.2	--	--	--	--
	09-09-04	--	30,100	--	--	50,700	7.7	--	--	--	--	--
	09-09-04	--	--	--	--	--	--	--	--	--	--	--
	09-09-04	--	--	--	--	--	--	--	--	--	--	--
401753074320901	08-19-04	15.0	3,990	--	--	6,330	9.5	33.2	--	16.2	<.06	E.005
	08-19-04	--	--	--	--	--	--	--	--	--	--	--
	07-01-04	2.04	9.05	--	--	29.6	12.3	26.8	--	<.04	8.81	<.008
	07-01-04	E.09	46.8	--	--	56.3	12.1	--	--	<.04	3.04	<.008
401755074320401	07-01-04	4.44	9,880	--	--	11,500	12.6	--	--	--	--	--
	06-29-04	14.7	150	--	--	331	14.7	12.6	--	52.2	<.06	.018
	07-24-00	2.76	16.4	--	5	37.0	13.9	30.7	162	<.02	7.69	<.010
	07-19-04	2.88	12.8	--	--	27.7	13.5	26.2	--	<.04	11.5	<.008
	07-19-04	2.97	11.8	--	--	28.6	13.7	--	--	--	--	--
405302074135103	07-22-04	53.1	16,000	--	--	26,300	12.7	--	--	--	--	--
	07-22-04	8.99	157	--	--	180	22.9	20.8	--	20.4	<.06	.013
	11-24-03	--	--	--	--	--	--	--	--	--	--	--
401919074340301	07-27-04	2.67	33.7	--	--	55.7	9.5	E.1	--	<.04	3.38	<.008
	07-27-04	2.76	--	--	--	--	--	--	--	--	--	--
410409074494601	07-27-04	89.6	2.50	--	--	55.6	9.5	--	--	E.02	3.29	<.008
	07-27-04	92.4	--	--	--	--	--	--	--	--	--	--
	07-27-04	28,600	2,810	--	--	--	9.7	--	--	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--	--
	08-10-04	4.17	94.8	--	368	165	6.5	17.4	686	1.06	7.50	E.005
410412074505301	08-10-04	--	294	--	--	164	6.5	--	--	--	--	--
	08-10-04	187	20,700	--	--	51,200	6.4	--	--	--	--	--
	08-10-04	19.4	474	--	--	519	8.3	7.0	--	44.6	<.06	.016
	08-11-04	4.98	62.5	--	196	119	10.0	50.2	505	.14	.14	<.008
	08-11-04	1.45	233	--	--	118	10.1	--	--	--	--	--
	08-11-04	110	17,800	--	--	32,500	8.9	--	--	--	--	--
410500074531601	08-11-04	--	--	--	--	--	--	--	--	--	--	--
	08-11-04	--	--	--	--	--	--	--	--	--	--	--
	08-11-04	10.3	97.4	--	--	72.8	11.6	64.6	--	1.71	2.79	.154
09-13-04	--	9.10	--	106	.67	14.3	13.1	--	<.04	<.06	<.008	

RADIUM SAMPLING OF WATER IN SELECTED AQUIFERS, TREATED WATER, BACKWASH BRINE FROM ION-EXCHANGE TREATMENT SYSTEMS, AND WASTEWATER—Continued

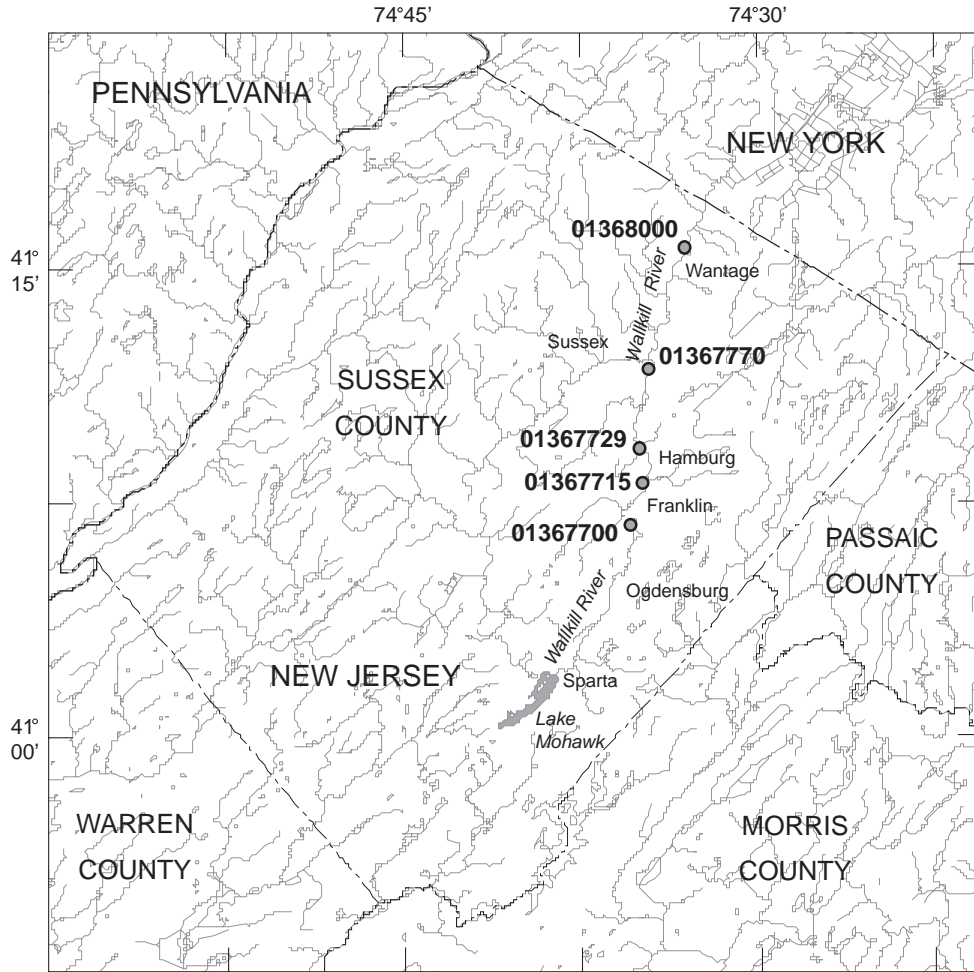
MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Boron, water, fltrd, ug/L (01020)	Cobalt water, fltrd, ug/L (01035)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Lithium water, fltrd, ug/L (01130)	Mangan- ese, water, fltrd, ug/L (01056)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover- -able, ug/L (71900)	Stront- ium, water, fltrd, ug/L (01080)	Zinc, water, fltrd, ug/L (01090)	1,4-Di- chloro- benzene water, fltrd, ug/L (34572)
395624074220701	07-22-03	--	--	<8	--	--	--	--	--	<.4	--	--
	07-22-03	--	--	--	--	<9	--	--	--	5.3	--	--
	07-22-03	<7	--	316	--	<9	--	--	--	3,600	--	--
	07-22-03	--	--	31	--	<9	--	--	--	--	--	--
	07-22-03	--	--	--	--	--	--	--	--	--	--	--
401719074311301	07-08-04	<8	--	5,760	<.08	--	95.7	--	--	8.3	--	--
	07-08-04	--	--	--	--	--	--	--	--	--	--	--
	07-08-04	--	--	25	--	--	.9	--	--	15.2	--	--
401740074322201	07-08-04	--	--	51,700	--	--	901	--	--	1,050	--	--
	06-25-04	E6	--	<6	1.77	--	18.6	--	--	170	--	E.1
	06-25-04	--	--	--	--	--	--	--	--	--	--	--
	06-25-04	--	--	<6	--	--	--	--	--	24.3	--	--
	06-25-04	--	--	E362	E821	--	--	--	--	33,700	--	--
	06-25-04	--	--	E363	--	--	--	--	--	33,900	--	--
	06-24-04	23	--	18	2.80	--	32.6	<.02	--	103	--	--
401742074321901	06-24-04	--	--	--	--	--	--	--	--	--	--	--
	09-09-04	<8	--	1,310	.19	9	23.3	--	<.02	70.0	--	--
	09-09-04	--	--	E6	E6.96	--	1.3	--	--	E.7	--	--
	09-09-04	<480	--	3,950	34.3	--	242	--	--	2,650	--	--
	09-09-04	--	--	--	--	--	--	--	--	--	--	--
	09-09-04	--	--	--	--	--	--	--	--	--	--	--
401753074320901	08-19-04	<80	--	403	<.80	--	51.8	M	--	590	--	--
	08-19-04	--	--	--	--	--	--	--	--	--	--	--
	07-01-04	19	--	<6	--	--	14.7	--	<.02	204	--	--
401755074320401	07-01-04	--	--	<6	--	--	<.6	--	--	4.8	--	--
	07-01-04	<88	--	1,000	--	--	--	--	--	140	--	--
	06-29-04	316	--	102	.52	--	27.4	<.02	.04	100	--	--
	07-24-00	30	<13	<10	--	--	26.6	--	--	257	<20	--
	07-19-04	21	--	<6	4.19	--	30.1	<.02	--	279	--	--
405302074135103	07-19-04	--	--	<6	--	--	--	--	--	--	--	--
	07-22-04	<240	--	E319	--	--	350	--	--	3,650	--	--
	07-22-04	306	--	60	.12	--	32.3	--	--	144	--	--
	11-24-03	--	--	--	--	--	--	--	--	--	--	<.5
401919074340301	07-27-04	<8	--	<6	2.40	--	12.0	--	--	75.3	--	--
	07-27-04	--	--	--	--	--	11.9	--	--	74.2	--	--
	07-27-04	--	--	E4	--	--	--	--	--	<1.4	--	--
	07-27-04	--	--	--	--	--	<.8	--	--	<1.4	--	--
	07-27-04	--	--	E321	--	--	3,250	--	--	25,900	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--	--
	08-10-04	86	--	E4	1.89	E3	7.5	--	--	124	--	--
410412074505301	08-10-04	--	--	<6	--	--	<.8	--	--	E1.1	--	--
	08-10-04	E232	--	<640	--	--	462	--	--	11,700	--	--
	08-10-04	205	--	38	--	--	21.0	.03	--	79.1	--	--
	08-11-04	30	--	56	--	5	145	<.02	--	560	--	--
	08-11-04	--	--	<6	--	--	2.5	--	--	5.9	--	--
410500074531601	08-11-04	--	--	<320	--	--	2,010	--	--	13,000	--	--
	08-11-04	--	--	--	--	--	--	--	--	--	--	--
	08-11-04	--	--	--	--	--	--	--	--	--	--	--
	08-11-04	124	--	131	E.05	--	114	<.02	--	462	--	--
09-13-04	17	--	162	--	--	36.9	--	--	--	--	--	

RADIUM SAMPLING OF WATER IN SELECTED AQUIFERS, TREATED WATER, BACKWASH BRINE FROM ION-EXCHANGE TREATMENT SYSTEMS, AND WASTEWATER—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Beta radio-activity 2-sigma wat flt CS-137, pCi/L (75989)	Beta radio-activity 30 day, wat flt Cs-137, pCi/L (62645)	Beta radio-activity 72 hr, wat flt Cs-137, pCi/L (62642)	Gross beta radio-activity water, fltrd, Cs-137, pCi/L (03515)	Ra-226 2-sigma water, fltrd, pCi/L (76001)	Ra-226, water, radon method pCi/L (09511)	Ra-228 2-sigma water, fltrd, pCi/L (76000)	Ra-228, water, fltrd, pCi/L (81366)	Rn-222 2-sigma water unfltrd pCi/L (76002)	Rn-222, water, unfltrd pCi/L (82303)	Uranium natural water, fltrd, ug/L (22703)
395624074220701	07-22-03	3.5	<7	M	M	.03	.05	--	--	--	--	--
	07-22-03	--	--	--	--	--	--	--	--	--	--	--
	07-22-03	15	17	11	11	.05	.62	.24	1	--	--	--
	07-22-03	--	--	--	--	.06	.70	.26	1	--	--	--
401719074311301	07-22-03	--	--	--	--	.01	.01	.22	M	--	--	--
	07-08-04	1.8	--	--	8	.36	--	.52	<.04	--	--	--
	07-08-04	1.8	--	--	9	--	--	--	--	--	--	--
	07-08-04	1.6	--	--	7	.36	--	.50	<.02	--	--	--
401740074322201	07-08-04	60	--	--	460	.96	--	3.0	4	--	--	--
	06-25-04	--	12	15	--	--	1.66	--	7	27	160	--
	06-25-04	--	--	--	--	--	--	--	--	--	--	--
	06-25-04	--	<.4685	2	2	--	.07	--	--	--	--	--
401742074321901	06-25-04	--	>1,600	--	--	--	155	--	1,600	--	--	--
	06-25-04	--	--	--	--	--	213	--	1,500	--	--	--
	06-24-04	--	14	--	14	--	--	--	M	--	--	--
	06-24-04	--	--	--	--	--	--	--	--	--	--	--
401742074321901	09-09-04	2.0	--	--	16.0	.60	--	1.0	3	18	50	E.02
	09-09-04	.80	--	--	5	.36	--	.54	M	--	--	--
	09-09-04	80	--	--	420	1.6	5.71	4.0	19	--	--	--
	09-09-04	--	--	--	--	--	--	4.0	16	--	--	--
401753074320901	09-09-04	--	--	--	--	--	--	4.0	17	--	--	--
	08-19-04	7.0	--	--	75	.50	--	1.7	4	--	--	--
	08-19-04	--	--	--	--	--	--	--	--	--	--	--
	07-01-04	1.2	--	--	9	.60	--	.80	2	--	--	--
401755074320401	07-01-04	1.0	--	--	5	.32	--	.58	<.55	--	--	--
	07-01-04	20	--	--	170	.82	.20	2.6	M	--	--	--
	06-29-04	--	--	--	13	--	.05	--	7	--	--	--
	07-24-00	4.3	--	9	9.1	.32	--	.70	2	24	130	--
405302074135103	07-19-04	2.0	--	--	10	.46	--	1.0	2	21	150	<.04
	07-19-04	2.0	--	--	12	.46	--	1.0	3	--	--	--
	07-22-04	80	--	--	220	2.0	9.93	6.0	24	--	--	--
	07-22-04	2.0	--	--	20	1.0	--	2.5	<.72	--	--	--
401919074340301	11-24-03	--	--	--	--	--	--	--	--	--	--	--
	07-27-04	1.0	--	--	5	.30	--	.68	<.35	--	--	--
	07-27-04	--	--	--	--	--	--	--	--	--	--	--
	07-27-04	4.0	--	--	72	.26	--	.62	<.03	--	--	--
410409074494601	07-27-04	4.0	--	--	79	--	--	--	--	--	--	--
	07-27-04	600	--	--	26,800	2.0	--	6.0	24	--	--	--
	07-27-04	600	--	--	28,300	--	--	--	24	--	--	--
	08-10-04	3.2	7	8	--	--	.27	--	--	31	700	.14
410412074505301	08-10-04	1.4	M	2	--	--	.08	--	--	--	--	--
	08-10-04	--	--	--	--	--	3.46	--	4	--	--	<2.00
	08-10-04	--	--	--	11	--	.51	.32	M	--	--	.07
	08-11-04	2.6	6	7	--	--	.74	.32	M	34	1,000	2.63
410500074531601	08-11-04	1.5	1	M	--	.05	.07	--	--	--	--	--
	08-11-04	60	--	390	--	2.0	--	8.0	12	--	--	9.31
	08-11-04	140	--	--	300	2.0	--	8.0	12	--	--	--
	08-11-04	80	--	--	420	--	--	--	--	--	--	--
410500074531601	08-11-04	60	--	--	9	2.0	.04	8.0	M	--	--	1.46
	09-13-04	--	--	--	--	.07	.12	--	--	46	2,080	.60

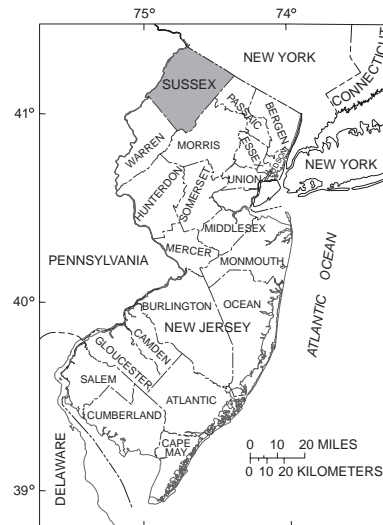


Base from U.S. Geological Survey digital line graph files, 1:24,000



EXPLANATION

01367700 Surface-water sampling site



Base from U.S. Geological Survey digital line graph files, 1:24,000

Figure 43. Location of surface-water sites sampled for selected constituents for the Walkkill River Arsenic Sources Study, water year 2004.

WALLKILL RIVER ARSENIC SOURCES, SUSSEX COUNTY—Continued

The following tables contain site-information and water-quality data from five surface-water sites on the Wallkill River in Sussex County (fig. 43). These sites are part of an 18-site network that includes the river and its tributaries from which water and sediment samples are being collected in order to determine sources of arsenic to the river. Previously collected water-quality data from the five sites has indicated that the New Jersey Surface-Water Quality Standard (SWQS) of 0.017 micrograms per liter for arsenic has been exceeded. The New Jersey Department of Environmental Protection (NJDEP) needed to establish a Total Maximum Daily Load for arsenic for the Wallkill River. To do this, the sources of arsenic need to be identified. The study of arsenic sources to the Wallkill River is undertaken in cooperation with the NJDEP.

The Wallkill Watershed includes fractured gneiss bedrock of PreCambrian age in the Highlands Physiographic Province to the east and Paleozoic sedimentary rocks of the Valley and Ridge Physiographic Province to the west. The main stem of the river follows Paleozoic dolomite rocks and the PreCambrian Franklin Marble, host to world-famous zinc ores.

Water-quality samples were collected at the five sites to determine concentrations of arsenic, as well as major ions, nutrients, trace elements, dissolved and total organic carbon, and total suspended solids in the segments of the river downstream from Franklin. Field measurements of temperature, pH, specific conductance, and dissolved oxygen were made at each site. Both filtered and unfiltered samples for analysis of arsenic and trace elements were collected. In addition, two sites were sampled bi-hourly during a 24-hour period in order to determine whether concentrations of arsenic and selected metals, such as iron, manganese, and zinc, varied diurnally.

Collection of water samples at the remainder of the 18 sites and sediment samples at all sites has been completed. Water samples from an abandoned mine shaft were collected to determine the chemistry of ground water in contact with local ore minerals. Data for these water and sediment samples will be published in the Water Resources Data, New Jersey, Water Year 2005, Volume 3, Water Quality Data.

WATER-QUALITY CONTROL DATA

The field methods used are described in Techniques of water resources investigations-Book 9-Handbooks for Water Resource Investigations-National field manual for the collection of water-quality data -Chapter A3 Cleaning of equipment for water sampling.

WALLKILL RIVER ARSENIC SOURCES, SUSSEX COUNTY—Continued

MULTIPLE STATION ANALYSES

Station number	Date	Time	Sample type	Altitude of land surface feet (72000)	Instantaneous discharge, cfs (00061)	Drainage area, mi ² (81024)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unfl lab, uS/cm 25 degC (90095)	Specif. conductance, wat unfl lab, uS/cm 25 degC (00095)	Hardness, water, mg/L as CaCO ₃ (00900)
01367700	08-26-04	1500	Environmental	--	--	29.40	7.8	7.7	340	367	110
01367715	09-01-04	1630	Environmental	--	--	40.6	8.0	7.9	531	569	190
	09-15-04	1400	Environmental	--	--	40.6	--	--	--	--	--
	09-15-04	1605	Environmental	--	--	40.6	--	--	--	--	--
	09-15-04	1754	Environmental	--	--	40.6	--	8.1	528	--	--
	09-15-04	1800	Environmental	--	--	40.6	--	--	--	--	--
	09-15-04	1954	Environmental	--	--	40.6	--	8.1	518	--	--
	09-15-04	2154	Environmental	--	--	40.6	--	8.0	538	--	--
	09-15-04	2354	Environmental	--	--	40.6	--	8.0	466	--	--
	09-16-04	0154	Environmental	--	--	40.6	--	8.0	508	--	--
	09-16-04	0354	Environmental	--	--	40.6	--	8.0	526	--	--
	09-16-04	0554	Environmental	--	--	40.6	--	7.9	510	--	--
	09-16-04	0754	Environmental	--	--	40.6	--	8.0	502	--	--
	09-16-04	0810	Environmental	--	--	40.6	--	--	--	--	--
	09-16-04	0954	Environmental	--	--	40.6	--	8.0	516	--	--
	09-16-04	1010	Environmental	--	--	40.6	--	--	--	--	--
	09-16-04	1011	<i>Split-Sequential Replicate</i>	--	--	40.6	--	--	--	--	--
	09-16-04	1154	Environmental	--	--	40.6	--	8.0	519	--	--
	09-16-04	1200	Environmental	--	--	40.6	--	--	--	--	--
	09-16-04	1354	Environmental	--	--	40.6	--	8.0	517	--	--
	09-16-04	1415	Environmental	--	--	40.6	--	--	--	--	--
	09-16-04	1554	Environmental	--	--	40.6	--	8.0	515	--	--
	09-16-04	1610	Environmental	--	--	40.6	--	--	--	--	--
01367729	08-26-04	1730	Environmental	410.	--	46.8	8.1	8.0	403	432	160
01367770	08-26-04	1400	Environmental	--	114	60.80	7.7	8.0	436	457	170
	09-15-04	1325	Environmental	--	--	60.80	--	--	--	--	--
	09-15-04	1359	Environmental	--	--	60.80	--	8.1	569	--	--
	09-15-04	1430	Environmental	--	--	60.80	--	--	--	--	--
	09-15-04	1559	Environmental	--	--	60.80	--	8.1	581	--	--
	09-15-04	1630	Environmental	--	--	60.80	--	--	--	--	--
	09-15-04	1759	Environmental	--	--	60.80	--	8.1	589	--	--
	09-15-04	1830	Environmental	--	--	60.80	--	--	--	--	--
	09-15-04	1959	Environmental	--	--	60.80	--	8.1	583	--	--
	09-15-04	2159	Environmental	--	--	60.80	--	8.2	572	--	--
	09-15-04	2359	Environmental	--	--	60.80	--	8.1	578	--	--
	09-16-04	0159	Environmental	--	--	60.80	--	8.0	579	--	--
	09-16-04	0359	Environmental	--	--	60.80	--	8.1	589	--	--
	09-16-04	0559	Environmental	--	--	60.80	--	8.0	592	--	--
	09-16-04	0715	Environmental	--	--	60.80	--	--	--	--	--
	09-16-04	0759	Environmental	--	--	60.80	--	8.0	581	--	--
	09-16-04	0935	<i>Split-Sequential Replicate</i>	--	--	60.80	--	--	--	--	--
	09-16-04	0959	Environmental	--	--	60.80	--	8.2	572	--	--
	09-16-04	1130	Environmental	--	--	60.80	--	--	--	--	--
	09-16-04	1159	Environmental	--	--	60.80	--	8.2	572	--	--
	09-16-04	1330	Environmental	--	--	60.80	--	--	--	--	--
01368000	09-16-04	1400	Environmental	--	--	60.80	--	8.1	562	--	--
	08-26-04	1140	Environmental	379.28	215	140.00	7.2	E7.1	384	395	140
	08-26-04	1600	Environmental	379.28	--	140.00	7.1	7.6	372	390	150

WATER QUALITY AT SPECIAL-STUDY SITES

WALLKILL RIVER ARSENIC SOURCES, SUSSEX COUNTY—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Ortho-phosphate, water, fltrd, mg/L (00660)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, water, unfltrd, mg/L (00600)	Organic carbon, water, fltrd, mg/L (00681)	Organic carbon, water, unfltrd, mg/L (00680)	Aluminum, water, fltrd, ug/L (01106)	Antimony, water, fltrd, ug/L (01095)	Arsenate, water, fltrd, ug/L as As (62453)	Arsenic water, fltrd, ug/L (01000)
01367700	08-26-04	--	<.02	<.04	E.03	.57	4.8	6.3	6	E.13	1.4	2.3
01367715	09-01-04	--	<.02	<.04	<.04	.76	4.1	6.3	4	E.12	1.4	2.5
	09-15-04	--	--	--	--	--	--	--	--	--	--	2.1
	09-15-04	--	--	--	--	--	--	--	--	--	--	1.9
	09-15-04	--	--	--	--	--	--	--	--	--	--	--
	09-15-04	--	--	--	--	--	--	--	--	--	--	1.9
	09-15-04	--	--	--	--	--	--	--	--	--	--	--
	09-15-04	--	--	--	--	--	--	--	--	--	--	--
	09-15-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	1.7
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	1.9
	09-16-04	--	--	--	--	--	--	--	--	--	--	1.8
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	1.7
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	1.9
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	1.8
01367729	08-26-04	--	<.02	<.04	E.04	.87	4.3	5.7	4	E.14	1.3	2.0
01367770	08-26-04	--	E.01	E.02	.04	1.2	4.6	5.6	4	E.14	1.3	1.9
	09-15-04	--	--	--	--	--	--	--	--	--	--	1.4
	09-15-04	--	--	--	--	--	--	--	--	--	--	--
	09-15-04	--	--	--	--	--	--	--	--	--	--	1.6
	09-15-04	--	--	--	--	--	--	--	--	--	--	--
	09-15-04	--	--	--	--	--	--	--	--	--	--	1.5
	09-15-04	--	--	--	--	--	--	--	--	--	--	--
	09-15-04	--	--	--	--	--	--	--	--	--	--	1.5
	09-15-04	--	--	--	--	--	--	--	--	--	--	--
	09-15-04	--	--	--	--	--	--	--	--	--	--	--
	09-15-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	1.4
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	1.4
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	1.3
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
	09-16-04	--	--	--	--	--	--	--	--	--	--	1.5
	09-16-04	--	--	--	--	--	--	--	--	--	--	--
01368000	08-26-04	.107	.035	.042	.080	1.3	7.4	--	--	--	--	--
	08-26-04	--	E.02	E.03	.06	1.2	7.2	10.2	26	E.13	E.7	1.5

WALLKILL RIVER ARSENIC SOURCES, SUSSEX COUNTY—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Arsenic water unfltrd ug/L (01002)	Arsenite, water, fltrd, ug/L as As (62452)	Barium, water, fltrd, ug/L (01005)	Barium, water, unfltrd recover-able, ug/L (01007)	Beryllium, water, fltrd, ug/L (01010)	Beryllium, water, unfltrd recover-able, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	Boron, water, unfltrd recover-able, ug/L (01022)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chromium, water, fltrd, ug/L (01030)
01367700	08-26-04	3	.7	20.6	21.2	<.4	<.06	16	15	<3	E.03	<4
01367715	09-01-04	3	<.6	39.2	39.4	<.4	<.06	23	23	<3	<.04	<4
	09-15-04	3	--	35	31	--	--	19	21	--	--	--
	09-15-04	4	--	35	32	--	--	20	22	--	--	--
	09-15-04	3	--	--	36	--	--	--	20	--	--	--
	09-15-04	3	--	35	32	--	--	19	21	--	--	--
	09-15-04	3	--	--	36	--	--	--	20	--	--	--
	09-15-04	3	--	--	37	--	--	--	21	--	--	--
	09-15-04	3	--	--	37	--	--	--	20	--	--	--
	09-16-04	3	--	--	35	--	--	--	19	--	--	--
	09-16-04	3	--	--	36	--	--	--	20	--	--	--
	09-16-04	3	--	--	37	--	--	--	20	--	--	--
	09-16-04	4	--	--	36	--	--	--	20	--	--	--
	09-16-04	3	--	34	32	--	--	18	19	--	--	--
	09-16-04	3	--	--	38	--	--	--	19	--	--	--
	09-16-04	3	--	36	33	--	--	19	22	--	--	--
	09-16-04	3	--	36	32	--	--	19	21	--	--	--
	09-16-04	3	--	--	36	--	--	--	20	--	--	--
	09-16-04	3	--	36	33	--	--	18	21	--	--	--
	09-16-04	3	--	--	38	--	--	--	20	--	--	--
	09-16-04	3	--	36	34	--	--	19	19	--	--	--
	09-16-04	3	--	--	37	--	--	--	19	--	--	--
	09-16-04	2	--	36	32	--	--	18	19	--	--	--
01367729	08-26-04	3	E.4	28.1	28.3	<.4	<.06	20	18	<3	E.03	<4
01367770	08-26-04	3	E.4	28.2	28.6	<.4	<.06	23	20	<3	E.03	<4
	09-15-04	2	--	29	26	--	--	25	28	--	--	--
	09-15-04	3	--	--	58	--	--	--	24	--	--	--
	09-15-04	2	--	29	30	--	--	26	26	--	--	--
	09-15-04	E2	--	--	36	--	--	--	25	--	--	--
	09-15-04	2	--	29	26	--	--	28	30	--	--	--
	09-15-04	2	--	--	29	--	--	--	28	--	--	--
	09-15-04	2	--	28	25	--	--	29	31	--	--	--
	09-15-04	2	--	--	29	--	--	--	27	--	--	--
	09-15-04	E2	--	--	29	--	--	--	27	--	--	--
	09-15-04	E1	--	--	30	--	--	--	27	--	--	--
	09-16-04	E1	--	--	30	--	--	--	28	--	--	--
	09-16-04	2	--	--	31	--	--	--	30	--	--	--
	09-16-04	E2	--	--	32	--	--	--	34	--	--	--
	09-16-04	2	--	28	27	--	--	34	36	--	--	--
	09-16-04	E2	--	--	30	--	--	--	30	--	--	--
	09-16-04	E2	--	29	27	--	--	28	31	--	--	--
	09-16-04	E2	--	--	30	--	--	--	27	--	--	--
	09-16-04	2	--	29	26	--	--	26	29	--	--	--
	09-16-04	3	--	--	30	--	--	--	26	--	--	--
	09-16-04	E2	--	29	26	--	--	26	28	--	--	--
01368000	09-16-04	2	--	--	29	--	--	--	27	--	--	--
	08-26-04	--	--	--	--	--	--	28	--	--	--	--
	08-26-04	2	E.5	21.7	22.8	<.4	E.03	20	18	<3	.04	<4

WATER QUALITY AT SPECIAL-STUDY SITES

WALLKILL RIVER ARSENIC SOURCES, SUSSEX COUNTY—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Chromium, water, unfltrd recover-able, ug/L (01034)	Cobalt water, fltrd, ug/L (01035)	Copper, water, fltrd, ug/L (01040)	Copper, water, unfltrd recover-able, ug/L (01042)	Iron, water, fltrd, ug/L (01046)	Iron, water, unfltrd recover-able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover-able, ug/L (01051)	Lithium water, fltrd, ug/L (01130)	Manganese, water, fltrd, ug/L (01056)	Manganese, water, unfltrd recover-able, ug/L (01055)
01367700	08-26-04	<.8	<3	<5	1.7	138	420	.16	.75	<3	102	140
01367715	09-01-04	<.8	<3	<5	1.8	87	300	.10	.37	<3	82.5	107
	09-15-04	--	--	1.0	1.1	81	270	--	--	--	63.9	68
	09-15-04	--	--	1.1	1.5	69	310	--	--	--	64.8	74
	09-15-04	--	--	--	1.3	--	330	--	--	--	--	97
	09-15-04	--	--	1.0	1.2	85	330	--	--	--	62.9	85
	09-15-04	--	--	--	1.3	--	300	--	--	--	--	98
	09-15-04	--	--	--	.7	--	330	--	--	--	--	97
	09-15-04	--	--	--	2.2	--	580	--	--	--	--	129
	09-16-04	--	--	--	2.7	--	640	--	--	--	--	145
	09-16-04	--	--	--	1.2	--	460	--	--	--	--	129
	09-16-04	--	--	--	1.1	--	430	--	--	--	--	136
	09-16-04	--	--	--	1.7	--	470	--	--	--	--	143
	09-16-04	--	--	1.1	1.6	54	460	--	--	--	71.2	127
	09-16-04	--	--	--	1.6	--	440	--	--	--	--	127
	09-16-04	--	--	1.1	1.3	67	370	--	--	--	76.9	97
	09-16-04	--	--	1.1	1.3	66	380	--	--	--	76.7	97
	09-16-04	--	--	--	1.9	--	370	--	--	--	--	118
	09-16-04	--	--	1.0	1.2	59	370	--	--	--	79.9	98
	09-16-04	--	--	--	.8	--	360	--	--	--	--	114
	09-16-04	--	--	1.1	1.5	45	360	--	--	--	79.2	100
	09-16-04	--	--	--	1.5	--	330	--	--	--	--	106
	09-16-04	--	--	1.0	1.2	50	350	--	--	--	75.6	92
01367729	08-26-04	<.8	<3	<5	1.8	66	380	E.07	.67	<3	41.3	91.8
01367770	08-26-04	E.6	<3	<5	2.1	106	480	.10	.74	<3	101	148
	09-15-04	--	--	1.4	1.7	56	330	--	--	--	123	142
	09-15-04	--	--	--	3.8	--	2,240	--	--	--	--	1,040
	09-15-04	--	--	1.6	1.3	72	360	--	--	--	127	136
	09-15-04	--	--	--	2.1	--	720	--	--	--	--	321
	09-15-04	--	--	1.5	1.7	41	300	--	--	--	113	126
	09-15-04	--	--	--	1.8	--	310	--	--	--	--	133
	09-15-04	--	--	1.5	1.7	38	290	--	--	--	106	117
	09-15-04	--	--	--	1.8	--	370	--	--	--	--	139
	09-15-04	--	--	--	1.9	--	420	--	--	--	--	156
	09-15-04	--	--	--	2.1	--	500	--	--	--	--	170
	09-16-04	--	--	--	2.1	--	580	--	--	--	--	184
	09-16-04	--	--	--	2.6	--	560	--	--	--	--	178
	09-16-04	--	--	--	2.8	--	670	--	--	--	--	203
	09-16-04	--	--	1.9	2.6	26	440	--	--	--	109	144
	09-16-04	--	--	--	2.5	--	500	--	--	--	--	172
	09-16-04	--	--	1.7	1.8	61	340	--	--	--	112	132
	09-16-04	--	--	--	2.3	--	400	--	--	--	--	155
	09-16-04	--	--	1.4	1.7	30	320	--	--	--	111	124
	09-16-04	--	--	--	2.2	--	340	--	--	--	--	140
	09-16-04	--	--	1.6	1.8	56	300	--	--	--	106	107
	09-16-04	--	--	--	1.8	--	310	--	--	--	--	134
01368000	08-26-04	--	--	--	--	--	--	--	--	--	--	--
	08-26-04	E.6	<3	<5	2.6	346	840	.23	.64	<3	168	191

WALLKILL RIVER ARSENIC SOURCES, SUSSEX COUNTY—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Molybdenum, water, fltrd, ug/L (01060)	Molybdenum, water, unfltrd recover-able, ug/L (01062)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover-able, ug/L (01067)	Selenium, water, fltrd, ug/L (01145)	Selenium, water, unfltrd ug/L (01147)	Silver, water, fltrd, ug/L (01075)	Silver, water, unfltrd recover-able, ug/L (01077)	Strontium, water, fltrd, ug/L (01080)	Strontium, water, unfltrd recover-able, ug/L (01082)	Vanadium, water, fltrd, ug/L (01085)
01367700	08-26-04	<4	.3	M	1.04	<4	E.4	<3	<.16	83.4	74.4	<5
01367715	09-01-04	<4	.5	M	2.19	<4	E.3	<3	<.16	117	106	<5
	09-15-04	.4	.5	--	--	--	--	--	--	--	--	--
	09-15-04	.4	.5	--	--	--	--	--	--	--	--	--
	09-15-04	--	.4	--	--	--	--	--	--	--	--	--
	09-15-04	E.4	.4	--	--	--	--	--	--	--	--	--
	09-15-04	--	.4	--	--	--	--	--	--	--	--	--
	09-15-04	--	.4	--	--	--	--	--	--	--	--	--
	09-15-04	--	.5	--	--	--	--	--	--	--	--	--
	09-16-04	--	.4	--	--	--	--	--	--	--	--	--
	09-16-04	--	.5	--	--	--	--	--	--	--	--	--
	09-16-04	--	.4	--	--	--	--	--	--	--	--	--
	09-16-04	--	.4	--	--	--	--	--	--	--	--	--
	09-16-04	.4	.4	--	--	--	--	--	--	--	--	--
	09-16-04	--	.4	--	--	--	--	--	--	--	--	--
	09-16-04	.4	.4	--	--	--	--	--	--	--	--	--
	09-16-04	--	.4	--	--	--	--	--	--	--	--	--
	09-16-04	.4	.4	--	--	--	--	--	--	--	--	--
	09-16-04	.4	.5	--	--	--	--	--	--	--	--	--
	09-16-04	--	.4	--	--	--	--	--	--	--	--	--
	09-16-04	.4	.4	--	--	--	--	--	--	--	--	--
	09-16-04	--	.4	--	--	--	--	--	--	--	--	--
	09-16-04	.4	.5	--	--	--	--	--	--	--	--	--
	09-16-04	--	.4	--	--	--	--	--	--	--	--	--
	09-16-04	.4	.4	--	--	--	--	--	--	--	--	--
01367729	08-26-04	<4	.5	M	1.34	E.3	.5	<3	<.16	95.0	82.2	<5
01367770	08-26-04	<4	.6	M	1.73	E.2	.4	<3	<.16	98.5	93.5	<5
	09-15-04	1.0	1.0	--	--	--	--	--	--	--	--	--
	09-15-04	--	.9	--	--	--	--	--	--	--	--	--
	09-15-04	.9	1.0	--	--	--	--	--	--	--	--	--
	09-15-04	--	.9	--	--	--	--	--	--	--	--	--
	09-15-04	1.0	1.0	--	--	--	--	--	--	--	--	--
	09-15-04	--	1.1	--	--	--	--	--	--	--	--	--
	09-15-04	1.1	1.1	--	--	--	--	--	--	--	--	--
	09-15-04	--	1.1	--	--	--	--	--	--	--	--	--
	09-15-04	--	1.0	--	--	--	--	--	--	--	--	--
	09-15-04	--	1.0	--	--	--	--	--	--	--	--	--
	09-16-04	--	1.0	--	--	--	--	--	--	--	--	--
	09-16-04	--	1.1	--	--	--	--	--	--	--	--	--
	09-16-04	--	1.4	--	--	--	--	--	--	--	--	--
	09-16-04	1.5	1.5	--	--	--	--	--	--	--	--	--
	09-16-04	--	1.3	--	--	--	--	--	--	--	--	--
	09-16-04	1.1	1.1	--	--	--	--	--	--	--	--	--
	09-16-04	--	1.1	--	--	--	--	--	--	--	--	--
	09-16-04	.9	1.0	--	--	--	--	--	--	--	--	--
	09-16-04	--	1.0	--	--	--	--	--	--	--	--	--
	09-16-04	.9	1.0	--	--	--	--	--	--	--	--	--
01368000	09-16-04	--	.9	--	--	--	--	--	--	--	--	--
	08-26-04	--	--	--	--	--	--	--	--	--	--	--
	08-26-04	<4	.6	M	2.39	E.3	.4	<3	<.16	116	108	<5

WATER QUALITY AT SPECIAL-STUDY SITES

WALLKILL RIVER ARSENIC SOURCES, SUSSEX COUNTY—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Vanadium, water, unfltrd ug/L (01087)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover- able, ug/L (01092)	Di- methyl- arsinate, wat flt ug/L as As (62455)	Mono- methyl- arsonate, wat flt ug/L as As (62454)	Uranium natural water, fltrd, ug/L (22703)	Uranium natural water unfltrd ug/L (28011)
01367700	08-26-04	M	6	22	<.6	<1.2	.37	.350
01367715	09-01-04	M	7	15	<.6	<1.2	.74	.665
	09-15-04	--	4.1	8	--	--	--	--
	09-15-04	--	3.8	11	--	--	--	--
	09-15-04	--	--	14	--	--	--	--
	09-15-04	--	3.6	13	--	--	--	--
	09-15-04	--	--	15	--	--	--	--
	09-15-04	--	--	15	--	--	--	--
	09-15-04	--	--	43	--	--	--	--
	09-16-04	--	--	50	--	--	--	--
	09-16-04	--	--	31	--	--	--	--
	09-16-04	--	--	32	--	--	--	--
	09-16-04	--	--	34	--	--	--	--
	09-16-04	--	4.0	26	--	--	--	--
	09-16-04	--	--	25	--	--	--	--
	09-16-04	--	3.9	17	--	--	--	--
	09-16-04	--	4.0	16	--	--	--	--
	09-16-04	--	--	19	--	--	--	--
	09-16-04	--	3.8	15	--	--	--	--
	09-16-04	--	--	16	--	--	--	--
	09-16-04	--	3.5	13	--	--	--	--
	09-16-04	--	--	12	--	--	--	--
	09-16-04	--	3.3	13	--	--	--	--
01367729	08-26-04	M	3	21	<.6	<1.2	.52	.502
01367770	08-26-04	M	E2	22	<.6	<1.2	.64	.598
	09-15-04	--	4.8	10	--	--	--	--
	09-15-04	--	--	116	--	--	--	--
	09-15-04	--	6.2	14	--	--	--	--
	09-15-04	--	--	56	--	--	--	--
	09-15-04	--	4.8	9	--	--	--	--
	09-15-04	--	--	13	--	--	--	--
	09-15-04	--	5.3	9	--	--	--	--
	09-15-04	--	--	16	--	--	--	--
	09-15-04	--	--	22	--	--	--	--
	09-15-04	--	--	27	--	--	--	--
	09-16-04	--	--	31	--	--	--	--
	09-16-04	--	--	33	--	--	--	--
	09-16-04	--	--	43	--	--	--	--
	09-16-04	--	6.2	19	--	--	--	--
	09-16-04	--	--	28	--	--	--	--
	09-16-04	--	5.4	12	--	--	--	--
	09-16-04	--	--	20	--	--	--	--
	09-16-04	--	4.8	10	--	--	--	--
	09-16-04	--	--	14	--	--	--	--
	09-16-04	--	5.3	9	--	--	--	--
	09-16-04	--	--	14	--	--	--	--
	09-16-04	--	--	14	--	--	--	--
01368000	08-26-04	M	8	12	<.6	<1.2	.57	.546

Remark codes used in this table:

< -- Less than

E -- Estimated value

M-- Presence verified, not quantified



USGS Station ID 01368000 Walkkill River near Unionville, New York
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)



USGS Station ID 01367770 Wallkill River near Sussex, NJ
(file photograph, U.S. Geological Survey, West Trenton, New Jersey)

A

Absecon Creek, South Branch, near Pomona	315
Acid neutralizing capacity, definition of	45
Acre-foot, definition of	45
Adenosine triphosphate, definition of	45
Adjusted discharge, definition of	45
Algae,	
Blue-green, definition of	47
Fire, definition of	51
Green, definition of	52
Algal growth potential, definition of	45
Alkalinity, definition of	45
Allendale, Valentine Brook at	179
Allentown, Doctors Creek at	425
Ambient Ground-Water-Quality Network Records	
Watershed Management Area 1.	488
Watershed Management Area 2.	491
Watershed Management Area 3.	494
Watershed Management Area 4.	497
Watershed Management Area 5.	501
Watershed Management Area 6.	504
Watershed Management Area 7.	507
Watershed Management Area 9.	510
Watershed Management Area 10.	513
Watershed Management Area 11.	516
Watershed Management Area 15.	519
Watershed Management Area 16.	522
Watershed Management Area 17.	525
Watershed Management Area 18.	530
Watershed Management Area 19.	535
Watershed Management Area 20.	539
Annual runoff, definition of	46
Annual 7-day minimum, definition of	46
Aquifer	
Confined, definition of	48
Unconfined, definition of	64
Water-table, definition of	64
Aroclor, definition of	46
Artificial substrate, definition of	46
Ash mass, definition of	46
Aspect, definition of	46
Assunpink Creek at Edinburg	412
Assunpink Creek at Peace Street, at Trenton	417
Atsion, Mullica River at outlet of Atsion Lake, at	292

B

Babcock Creek near Mays Landing	327
Bacteria, definition of	46
Enterococcus, definition of	50
Escherichia coli, definition of	50
Fecal coliform, definition of	51
Fecal streptococcal, definition of	51
Total coliform, definition of	62
Bankfull stage, definition of	46
Baptistown, Lockatong Creek at Route 12, at	383
Base discharge, definition of	46
Base flow, definition of	46

Bass River, East Branch, near New Gretna	313
Batsto River at Batsto	302
Bear Brook at Cranbury Road, at Princeton Junction	234
Bear Brook at Dark Moon Road, near Johnsonburg	363
Beaver Brook at Rockaway	107
Beaver Dam Brook at Ryerson Road, at Lincoln Park	136
Bed material, definition of	46
Bedload, definition of	46
Bedload discharge, definition of	46
Belvidere, Pequest River at	365
Benthic organisms, definition of	47
Big Timber Creek, North Branch, at Glendora	471
Biochemical oxygen demand, definition of	47
Biomass, definition of	47
Biomass pigment ratio, definition of	47
Blacks Creek at Chesterfield	427
Blacks Creek at Fieldsboro	429
Blackwells Mills, Millstone River at	241
Blairstown, Paulins Kill at	361
Blue Anchor Brook at Elm	294
Blue-green algae, definition of	47
Bottom material, definition of	47
Bound Brook at Middlesex	248
Bound Brook at Route 28, at Middlesex	246
Bound Brook, Raritan River at Queens Bridge, at	243
Browns Mills, Ong Run at	448
Bulk electrical conductivity, definition of	47
Burnt Mills, Lamington River at	226
Burrs Mill Brook, South Branch, near Hedger House	435
Byrne State Forest, McDonalds Branch in	451

C

Canadian Geodetic Vertical Datum 1928, definition of	47
Cecil, Hospitality Branch at Blue Bell Road, near	322
Cedar Brook at Columbia Road, at Hammonton	296
Cedar Creek at Cedar Crest	286
Cedar Crest, Cedar Creek at	286
Cell volume, definition of	47
Cells/volume, definition of	47
Cfs-day, definition of	47
Chairville, Little Creek at	446
Channel bars, definition of	48
Chemical oxygen demand, definition of	48
Chesterfield, Blacks Creek at	427
Chloride Distribution in Major Artesian Aquifers of the New Jersey Coastal Plain, Special-Study Sites	552
Clarksville, Duck Pond Run at	238
Clayton, Still Run at Little Mill Road, near	337
Clostridium perfringens, definition of	48
Clove Brook tributary at Rose Morrow Road, near Colesville	81
Cohansey River at Seeley	349
Coles Brook at Hackensack	96
Colesville, Clove Brook tributary at Rose Morrow Road, near	81
Coliphages, definition of	48
Color unit, definition of	48
Conductivity, definition of	60

- Confined aquifer, definition of 48
- Contents, definition of 48
- Continuous-record station, definition of 48
- Control, definition of 48
- Control structure, definition of 48
- Cookstown, South Run near 419
- Cooper River at Haddonfield 465
- Copper Creek near Frenchtown 380
- Crosswicks Creek at Groveville Road, at Groveville . . 422
- Cubic foot per second, definition of 48
- Cubic foot per second-day, definition of 48
- Cubic foot per second per square mile, definition of . . . 48
- D**
- Daily mean suspended-sediment concentration,
definition of 48
- Daily record station, definition of 49
- Data collection platform, definition of 49
- Data logger, definition of 49
- Datum, definition of 49
- Dead River near Millington 102
- Delaware River at Lumberville, PA 387
- Delaware River at Montague 351
- Delaware River at Portland, PA 359
- Delaware River at Riegelsville 373
- Delaware River at Trenton 389
- Diatoms, definition of 49
- Diel, definition of 49
- Discharge, definition of 49
- Dissolved, definition of 49
- Dissolved oxygen, definition of 49
- Dissolved solids concentration, definition of 49
- Diversity index, definition of 49
- Doctors Creek at Allentown 425
- Dorotockeys Run at Harrington Park 92
- Double Kill at Wawayanda 87
- Drainage area, definition of 50
- Drainage basin, definition of 50
- Dry mass, definition of 50
- Dry weight, definition of 50
- Duck Pond Run at Clarksville 238
- Dunnfield Creek at Dunnfield 356
- Dunnfield, Dunnfield Creek at 356
- E**
- Earle, Mingamahone Brook near 274
- East Branch Bass River near New Gretna 313
- Edinburg, Assunpink Creek at 412
- Egg Harbor City, Landing Creek, at US Route 30, at . . 304
- Elm, Blue Anchor Brook at 294
- Elwood, Indian Cabin Creek at Fifth Avenue, near . . . 306
- Embeddedness, definition of 50
- Englishtown, McGellairs Brook at 255
- Enterococcus bacteria, definition of 50
- EPT Index, definition of 50
- Escherichia coli (E. coli), definition of 50
- Estimated (E) value, definition of 50
- Euglenoids, definition of 50
- Extractable organic halides, definition of 51
- F**
- Fecal coliform bacteria, definition of 51
- Fecal streptococcal bacteria, definition of 51
- Fieldsboro, Blacks Creek at 429
- Filtered, definition of 51
- Filtered, recoverable, definition of 51
- Fire algae, definition of 51
- Fishing Creek at Rio Grande 329
- Flat Brook near Flatbrookville 354
- Flatbrookville, Flat Brook near 354
- Flow, definition of 49
- Flow-duration percentiles, definition of 51
- French Creek near Phoenixville, PA 473
- Frenchtown, Copper Creek near 380
- Frenchtown, Nishisakawick Creek near 378
- Furmans Brook at Furmans Corner 213
- Furmans Corner, Furmans Brook at 213
- G**
- Gage datum, definition of 51
- Gage height, definition of 51
- Gage values, definition of 51
- Gaging station, definition of 51
- Garfield, Saddle River at 185
- Gas chromatography/flame ionization detector,
definition of 52
- Geomorphic channel units, definition of 52
- Glen Gardner, Spruce Run near 200
- Glendora, North Branch Big Timber Creek at 471
- Goffle Brook at Hawthorne 174
- Gravelly Run at Laurel Lake 342
- Great Egg Harbor River at Weymouth 324
- Green algae, definition of 52
- Green Brook near West Milford 120
- Greenwood Branch at New Lisbon 461
- Grovers Mill, Millstone River near 231
- Groveville, Crosswicks Creek at Groveville Road, at . . 422
- H**
- Habitat, definition of 52
- Habitat quality index, definition of 52
- Hackensack River at Rivervale 90
- Hackensack, Coles Brook at 96
- Haddonfield, Cooper River at 465
- Hammonton Creek at Wescoatville 300
- Hammonton, Cedar Brook at Columbia Road, at 296
- Hardness, definition of 52
- Harihokake Creek at Hartpence Road, near Mount
Pleasant 375
- Harrington Park, Dorotockeys Run at 92
- Hawthorne, Goffle Brook at 174
- Haystack Brook near Southard 278
- Heathcote Brook at Kingston 239
- Hedger House, South Branch Burrs Mill Brook near . . 435
- High tide, definition of 52
- Hilsenhoff's Biotic Index, definition of 52
- Holmdel, Hop Brook at Willow Brook Road near 261

- Hop Brook at Willow Brook Road, near Holmdel 261
- Horizontal datum, definition of 52
- Hospitality Branch at Blue Bell Road, near Cecil 322
- Hydrologic index stations, definition of 52
- Hydrologic unit, definition of 52
- I**
- Inch, definition of 52
- Indian Branch near Malaga 338
- Indian Cabin Creek at Fifth Avenue, near Elwood 306
- Instantaneous discharge, definition of 52
- International Boundary Commission Survey Datum,
definition of 53
- Ironia, Lamington (Black) River near 223
- Island, definition of 53
- J**
- Jessups Mill, Oldmans Creek at 482
- Johnsonburg, Bear Brook at Dark Moon Road, near 363
- Jumping Brook near Neptune City 266
- K**
- Kingston, Heathcote Brook at 239
- L**
- Laboratory reporting level, definition of 53
- Lakehurst, Manapaqua Branch at 281
- Lakewood, North Branch Metedeconk River at 276
- Lamington (Black) River near Ironia 223
- Lamington River at Burnt Mills 226
- Landing Creek at US Route 30, at Egg Harbor City 304
- Land-surface datum, definition of 53
- Latent heat flux, definition of 53
- Laurel Lake, Gravelly Run at 342
- Lawrence Brook at Riva Avenue, at Milltown 250
- Leesburg, West Creek near 334
- Light-attenuation coefficient, definition of 53
- Lincoln Park, Beaver Dam Brook at Ryerson Road, at 136
- Lipid, definition of 53
- Little Creek at Chairville 446
- Little Falls, Passaic River at 172
- Little Neshaminy Creek at Valley Road, near
Neshaminy, PA 433
- Lokatong Creek at Route 12, at Baptistown 383
- Lodi, Saddle River at 183
- Long Branch near Wells Mills 288
- Long-term method detection level, definition of 53
- Low flow, 7-day, 10-year, definition of 59
- Low tide, definition of 53
- Lumberville, PA, Delaware River at 387
- M**
- Macopin Intake Dam, Pequannock River at 118
- Macrophytes, definition of 53
- Mahwah, Ramapo River near 123
- Malaga, Indian Branch near 338
- Manalapan Brook at Federal Road, near Manalapan 259
- Manalapan, Manalapan Brook at Federal Road, near 259
- Manapaqua Branch at Lakehurst 281
- Manasquan River at Squankum 272
- Manasquan River at West Farms 268
- Mantua Creek at Mantua Avenue, at Wenonah 477
- Maurice River at Norma 340
- Maxwell, West Branch Wading River at 311
- Mays Landing, Babcock Creek near 327
- McDonalds Branch in Byrne State Forest 451
- McGellairds Brook at Englishtown 255
- Mean concentration of suspended sediment, definition of 53
- Mean discharge, definition of 54
- Mean high tide, definition of 54
- Mean low tide, definition of 54
- Mean sea level, definition of 54
- Measuring point, definition of 54
- Megahertz, definition of 54
- Membrane filter, definition of 54
- Menantico Creek at Route 49, at Millville 345
- Mercerville, Miry Run at Route 533, at 415
- Metamorphic stage, definition of 54
- Metedeconk River, North Branch, at Lakewood 276
- Method code, definition of 54
- Method detection limit, definition of 54
- Method of Cubatures, definition of 54
- Methylene blue active substances, definition of 54
- Micrograms per gram, definition of 54
- Micrograms per kilogram, definition of 54
- Micrograms per liter, definition of 54
- Microsiemens per centimeter, definition of 54
- Middlesex, Bound Brook at 248
- Middlesex, Bound Brook at Route 28, at 246
- Mill Brook at Randolph 104
- Milligrams per liter, definition of 55
- Millington, Dead River near 102
- Millstone River at Blackwells Mills 241
- Millstone River near Grovers Mill 231
- Milltown, Lawrence Brook at Riva Avenue, at 250
- Millville, Menantico Creek at Route 49, at 345
- Mingamahone Brook near Earle 274
- Minimum reporting level, definition of 55
- Miry Run at Route 533, at Mercerville 415
- Miscellaneous site, definition of 55
- Montague, Delaware River at 351
- Morristown National Historical Park, Primrose Brook at 98
- Morristown National Historical Park,
Special-Study Site 604
- Morristown, Whippany River at Ridgedale Avenue, at 109
- Most probable number, definition of 55
- Mount Bethel, Pohatcong Creek at Janes Chapel Road,
at 367
- Mount Holly, North Branch Rancocas Creek at Iron
Works Park, at 463
- Mount Pleasant, Harihokake Creek at Hartpence Road,
near 375
- Mulhockaway Creek at Van Syckel 204
- Mullica River at outlet of Atsion Lake, at Atsion 292
- Multiple-plate samplers, definition of 55
- Musconetcong River at Riegelsville 370

N

Nanograms per liter, definition of	55
National Geodetic Vertical Datum of 1929, definition of	55
Natural substrate, definition of	55
Nekton, definition of	55
Neptune City, Jumping Brook near	266
Neshaminy, PA, Little Neshaminy Creek at Valley Road, near	433
Neshanic River at Reaville	211
Neshanic Station, Pleasant Run at	216
New Gretna, East Branch Bass River near	313
New Lisbon, Greenwood Branch at	461
Newport, Spruce Run at	197
Newton Creek at West Collingswood	467
Nishisakawick Creek near Frenchtown	378
Nonfilterable, definition of	55
Norma, Maurice River at	340
North American Datum of 1927, definition of	55
North American Datum of 1983, definition of	55
North American Vertical Datum of 1988, definition of	55
North Branch Big Timber Creek at Glendora	471
North Branch Metedeconk River at Lakewood	276
North Branch Rancocas Creek at Iron Works Park, at Mount Holly	463
North Branch Raritan River near Raritan	229
North Dennis, Old Robbins Branch near	331

O

Oakhurst, Whale Pond Brook at Larchwood Avenue, at	265
Old Robbins Branch near North Dennis	331
Oldmans Creek at Jessups Mill	482
Ong Run at Browns Mills	448
Open interval, definition of	55
Organic carbon, definition of	56
Organic mass, definition of	56
Organism count, Area, definition of	56
Total, definition of	62
Volume, definition of	56
Organochlorine compounds, definition of	56

P

Papakating Creek at Pellettown	79
Parameter code, definition of	56
Partial-record station, definition of	56
Particle size, definition of	56
Particle-size classification, definition of	56
Passaic River at Little Falls	172
Passaic River at Two Bridges	115
Passaic River below Pompton River, at Two Bridges	138
Paulins Kill at Blairstown	361
Peak flow, definition of	56
Peak stage, definition of	56
Pellettown, Papakating Creek at	79
Pequannock River at Macopin Intake Dam	118
Pequest River at Belvidere	365
Percent composition, definition of	57

Percent of total, definition of	57
Percent shading, definition of	57
Periodic-record station, definition of	57
Periphyton, definition of	57
Pesticides, definition of	57
pH, definition of	57
Philadelphia, PA, Schuylkill River at	475
Phoenixville, PA, French Creek near	473
Phytoplankton, definition of	57
Picocurie, definition of	57
Pine Brook, Whippany River near	113
Pine Grove, Southwest Branch Rancocas Creek at Elmwood Road, at	442
Pinelands Kirkwood-Cohansey Study, Special-Study Sites	551
Plankton, definition of	57
Pleasant Run at Neshanic Station	216
Pohatcong Creek at Janes Chapel Road, at Mount Bethel	367
Polychlorinated biphenyls, definition of	57
Polychlorinated naphthalenes, definition of	57
Pomona, South Branch Absecon Creek near	315
Pompton Lakes, Ramapo River at	125
Pompton Plains, Pompton River at	134
Pompton River at Pompton Plains	134
Pool, definition of	57
Portland, PA, Delaware River at	359
Primary productivity, definition of Carbon method, definition of	58
Oxygen method, definition of	58
Primrose Brook at Morristown National Historical Park	98
Princeton Junction, Bear Brook at Cranbury Road, at	234

R

Raccoon Creek near Swedesboro	480
Radioisotopes, definition of	58
Radium Sampling of Water in Selected Aquifers, Treated Water, Backwash Brine, and Wastewater, Special-Study Sites	622
Rahway River at Morris Avenue, at Springfield	186
Rahway River at Rahway	191
Rahway River near Springfield	189
Rahway, Rahway River at	191
Ramapo River at Pompton Lakes	125
Ramapo River near Mahwah	123
Rancocas Creek, North Branch, at Iron Works Park, at Mount Holly	436
Rancocas Creek, South Branch, at Retreat	439
Randolph, Mill Brook at	104
Raritan River at Queens Bridge, at Bound Brook	243
Raritan River, North Branch, near Raritan	229
Raritan River, South Branch, at South Branch	220
Raritan River, South Branch, at Stanton	209
Raritan, North Branch Raritan River near	229
Reach, definition of	58
Reaville, Neshanic River at	211
Recoverable, definition of	58
Recurrence interval, definition of	58

- Replicate samples, definition of 58
- Retreat, South Branch Rancocas Creek at 439
- Return period, definition of 59
- Riegelsville, Delaware River at 373
- Riegelsville, Musconetcong River at 370
- Riffle, definition of 59
- Rio Grande, Fishing Creek at 329
- River mileage, definition of 59
- Rivervale, Hackensack River at 90
- Robinsons Branch Tributary 2 at Westfield 193
- Rockaway, Beaver Brook at 107
- Run, definition of 59
- Runoff, definition of 59
- S**
- Saddle River at Garfield 185
- Saddle River at Lodi 183
- Saddle River at Old Stone Church Road, at Upper
Saddle River 175
- Salem River at Woodstown 485
- Salinity, definition of 59
- Schuylkill River at Philadelphia, PA 475
- Screened interval, definition of 55
- Sea level, definition of 59
- Sediment, definition of 59
- Seeley, Cohansey River at 349
- Sensible heat flux, definition of 59
- Seven-day, 10-year low flow, definition of 59
- Shelves, definition of 59
- Sodium adsorption ratio, definition of 59
- Soil heat flux, definition of 59
- Soil-water content, definition of 59
- South Branch Absecon Creek near Pomona 315
- South Branch Burrs Mill Brook near Hedger House 435
- South Branch Rancocas Creek at Retreat 439
- South Branch Raritan River at South Branch 220
- South Branch Raritan River at Stanton 209
- South Branch, South Branch Raritan River at 220
- South Run near Cookstown 419
- Southard, Haystack Brook near 278
- Southwest Branch Rancocas Creek at Elmwood Road,
at Pine Grove 442
- Sparta, Wallkill River at 74
- Special-Study Sites
- Chloride Distribution in Major Artesian Aquifers
of the New Jersey Coastal Plain 552
- Morristown National Historical Park 604
- Pinelands Kirkwood-Cohansey Study 551
- Radium Sampling of Water in Selected Aquifers,
Treated Water, Backwash Brine, and
Wastewater 622
- Stillwater Township Ground-Water-Quality
Assessment 556
- Trace Elements Collected During High Flows in
Selected Streams in New Jersey (303-d) 542
- Wallkill River Arsenic Sources 649
- Water Quality in Streams of the Delaware
Water Gap National Recreation Area 559
- Specific electrical conductance (conductivity),
definition of 60
- Springfield, Rahway River at Morris Avenue, at 186
- Springfield, Rahway River near 189
- Spruce Run at Newport 197
- Spruce Run near Glen Gardner 200
- Squankum Branch at Malaga Road, near Williamstown 319
- Squankum, Manasquan River at 272
- Stable isotope ratio, definition of 60
- Stage, definition of 60
- Stage-discharge relation, definition of 60
- Stanton, South Branch Raritan River at 209
- Still Run at Little Mill Road, near Clayton 337
- Stillwater Township Ground-Water-Quality
Assessment, Special-Study Sites 556
- Streamflow, definition of 60
- Substrate, definition of 60
- Artificial, definition of 46
- Natural, definition of 55
- Substrate embeddedness class, definition of 60
- Surface area of a lake, definition of 60
- Surficial bed material, definition of 60
- Surrogate, definition of 60
- Suspended, definition of 60
- Recoverable, definition of 60
- Total, definition of 61
- Suspended sediment, definition of 61
- Suspended-sediment concentration, definition of 61
- Suspended-sediment discharge, definition of 61
- Suspended-sediment load, definition of 61
- Suspended solids, total residue at 105 °C concentration,
definition of 61
- Sussex, Wallkill River near 76
- Swedesboro, Raccoon Creek near 480
- Synoptic studies, definition of 61
- T**
- Taxa (Species) richness, definition of 61
- Taxonomy, definition of 61
- Thalweg, definition of 61
- Thermograph, definition of 62
- Time-weighted average, definition of 62
- Toms River near Toms River 284
- Tons per acre-foot, definition of 62
- Tons per day, definition of 62
- Total, definition of 62
- Total coliform bacteria, definition of 62
- Total discharge, definition of 62
- Total in bottom material, definition of 62
- Total length, definition of 62
- Total load, definition of 62, 63
- Total organism count, definition of 62
- Total recoverable, definition of 62
- Total sediment discharge, definition of 63
- Total sediment load, definition of 63
- Trace Elements in Samples Collected During High

- Flows in Selected Streams in New Jersey (303-d),
Special-Study Sites 542
- Transect, definition of 63
- Trenton, Assunpink Creek at Peace Street, at 417
- Trenton, Delaware River at 389
- Turbidity, definition of 63
- Two Bridges, Passaic River at 115
- Two Bridges, Passaic River below Pompton River, at 138
- U**
- Ultraviolet (UV) absorbance (absorption), definition of 64
- Unconfined aquifer, definition of 64
- Unfiltered, definition of 64
- Unfiltered, recoverable, definition of 64
- Unionville, NY, Wallkill River near 84
- Upper Saddle River, Saddle River at Old Stone Church Road,
at 175
- V**
- Valentine Brook at Allendale 179
- Van Syckel, Mulhockaway Creek at 204
- Vertical datum, definition of 64
- Volatile mass, definition of 56
- Volatile organic compounds, definition of 64
- W**
- Wading River, West Branch, at Maxwell 311
- Wallkill River Arsenic Sources, Special-Study Sites 649
- Wallkill River at Sparta 74
- Wallkill River near Sussex 76
- Wallkill River near Unionville, NY 84
- Water Quality in Streams of the Delaware Water Gap
National Recreation Area, Special-Study Sites 559
- Water table, definition of 64
- Water-table aquifer, definition of 64
- Water year, definition of 64
- Watershed, definition of 64
- Wawayanda, Double Kill at 87
- WDR, definition of 64
- Weighted average, definition of 64
- Wells Mills, Long Branch near 288
- Wenonah, Mantua Creek at Mantua Avenue, at 477
- Wescoatville, Hammonton Creek at 300
- West Branch Wading River at Maxwell 311
- West Collingswood, Newton Creek at 467
- West Creek near Leesburg 334
- West Farms, Manasquan River at 268
- West Milford, Green Brook near 120
- Westfield, Robinsons Branch Tributary 2 at 193
- Wet mass, definition of 64
- Wet weight, definition of 65
- Weymouth, Great Egg Harbor River at 324
- Whale Pond Brook at Larchwood Avenue, at Oakhurst 265
- Whippany River at Ridgedale Avenue, at Morristown 109
- Whippany River near Pine Brook 113
- Williamstown, Squankum Branch at Malaga Road,
near 319
- Woodstown, Salem River at 485
- WSP, definition of 65
- Z**
- Zooplankton, definition of 65

Conversion Factors

Multiply	By	To obtain
Length		
inch (in.)	2.54×10^1	millimeter (mm)
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter (m)
mile (mi)	1.609×10^0	kilometer (km)
Area		
acre	4.047×10^3	square meter (m ²)
	4.047×10^{-1}	square hectometer (hm ²)
	4.047×10^{-3}	square kilometer (km ²)
square mile (mi ²)	2.590×10^0	square kilometer (km ²)
Volume		
gallon (gal)	3.785×10^0	liter (L)
	3.785×10^{-3}	cubic meter (m ³)
	3.785×10^0	cubic decimeter (dm ³)
million gallons (Mgal)	3.785×10^3	cubic meter (m ³)
	3.785×10^{-3}	cubic hectometer (hm ³)
cubic foot (ft ³)	2.832×10^{-2}	cubic meter (m ³)
	2.832×10^1	cubic decimeter (dm ³)
cubic-foot-per-second-per-day [(ft ³ /s/d)]	2.447×10^3	cubic meter (m ³)
	2.447×10^{-3}	cubic hectometer (hm ³)
acre-foot (acre-ft)	1.223×10^3	cubic meter (m ³)
	1.223×10^{-3}	cubic hectometer (hm ³)
	1.223×10^{-6}	cubic kilometer (km ³)
Flow rate		
cubic foot per second (ft ³ /s)	2.832×10^1	liter (L/s)
	2.832×10^{-2}	cubic meter per second (m ³ /s)
	2.832×10^1	cubic decimeter per second (dm ³ /s)
gallon per minute (gal/min)	6.309×10^{-2}	liter per second (L/s)
	6.309×10^{-5}	cubic meter per second (m ³ /s)
	6.309×10^{-2}	cubic decimeter per second (dm ³ /s)
million gallons per day (Mgal/d)	4.381×10^{-2}	cubic meter per second
	4.381×10^1	cubic decimeter per second (dm ³ /s)
Mass		
ton, short (2,000 lb)	9.072×10^{-1}	megagram (Mg) or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$$